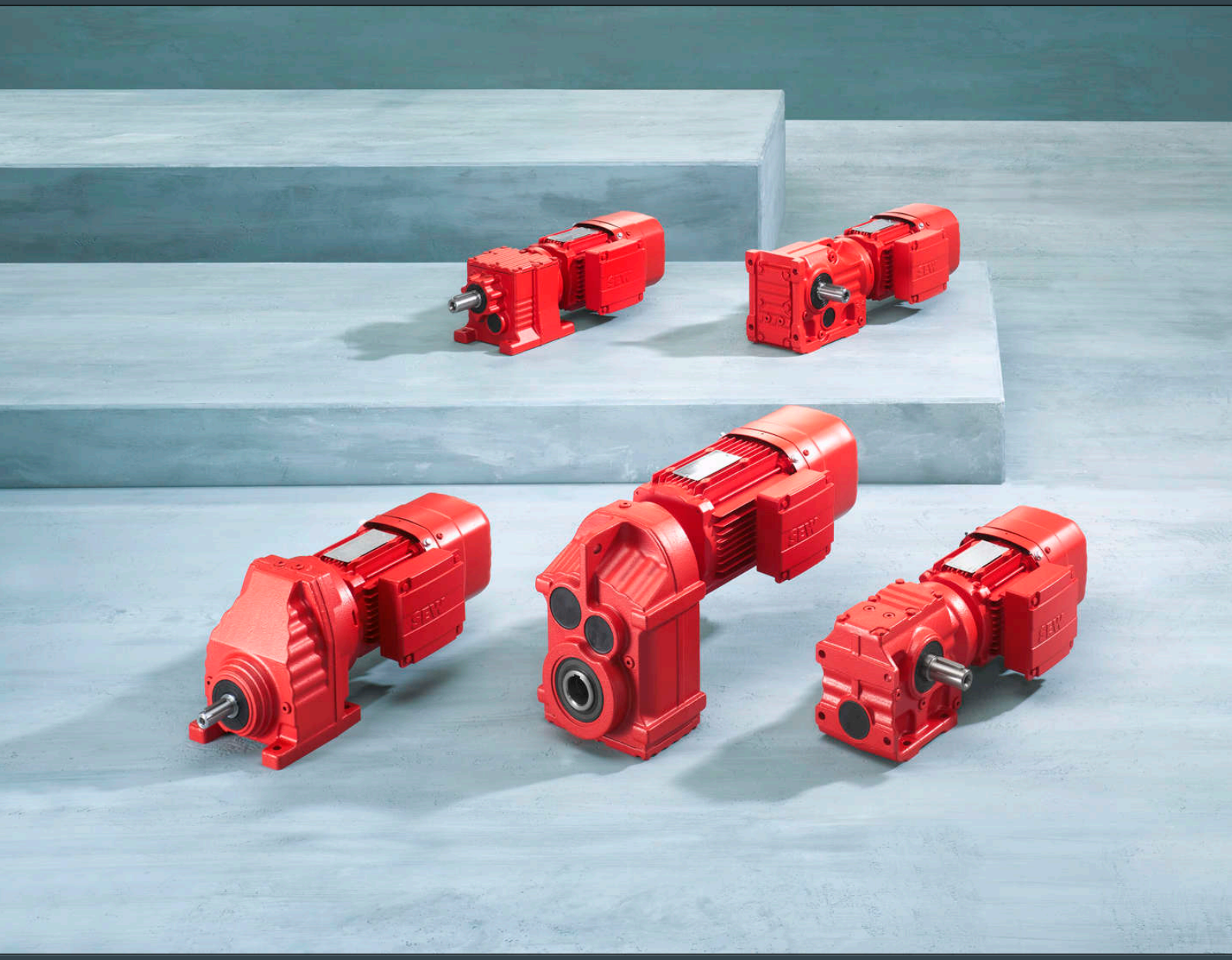
SEW EURODRIVE

# Catalog



## DRN.. Gearmotors (IE3)

Edition 03/2015

21284997/EN



# Table of contents


**1 Introduction ..... 6**
1.1 The SEW-EURODRIVE Group of Companies ..... 6
1.2 Products and systems from SEW-EURODRIVE ..... 7
1.3 Documentation ..... 9
1.4 Product names and trademarks ..... 10
1.5 Copyright ..... 10

**2 Product description ..... 11**
2.1 Product features ..... 11
2.2 Corrosion and surface protection ..... 15
2.3 Extended storage ..... 18
2.4 Condition monitoring: Oil aging sensor ..... 19
2.5 Oil expansion tank ..... 19

**3 Overview of types and type designations ..... 21**
3.1 Designs and gear unit options ..... 21
3.2 Designs and options for the DRN.. motor series ..... 24
3.3 Example type designation of a DRN.. gearmotor ..... 28
3.4 DRN.. gearmotor nameplate ..... 28
3.5 Gearmotor types ..... 29

**4 Project planning for drives ..... 37**
4.1 Additional publications ..... 37
4.2 Drive and gear unit selection data ..... 37
4.3 Project planning procedure – DR.. motors ..... 38
4.4 Project planning information – R, F, K, S, W gear units ..... 40
4.5 Service factor ..... 42
4.6 Overhung and axial loads ..... 45
4.7 Multi-stage gearmotors ..... 49
4.8 Project planning for RM gear units ..... 51

**5 Gear unit mounting positions and order information ..... 54**
5.1 General mounting position information – R, F, K, S, W gear units ..... 54
5.2 Order information ..... 55
5.3 Key to the mounting position sheets ..... 60
5.4 Mounting positions of helical gearmotors ..... 65
5.5 Mounting positions of parallel-shaft helical gearmotors ..... 70
5.6 Mounting positions of helical-bevel gearmotors ..... 73
5.7 Mounting positions of helical-worm gearmotors ..... 81
5.8 Mounting positions of SPIROPLAN® gearmotors ..... 87
5.9 Mounting positions of AC motors ..... 93

**6 Design and operating notes ..... 94**
6.1 Lubricants ..... 94
6.2 Gear unit venting ..... 102
6.3 Reduced backlash gear unit types ..... 103
6.4 Installation/removal of gear units with hollow shaft and key ..... 104
6.5 Gear units with hollow shaft ..... 109


21284997/EN – 03/2015

6.6 TorqLOC® mounting system for gear units with hollow shaft ..... 110
6.7 Shouldered hollow shaft option with shrink disk ..... 112
6.8 Adapters for mounting IEC motors ..... 119
6.9 Adapters for mounting NEMA motors ..... 122
6.10 Adapters for mounting servomotors ..... 124
6.11 Gear unit mounting ..... 127
6.12 Torque arms ..... 128
6.13 Flange contours of RF.. and R..F gear units ..... 129
6.14 Flange contours of FF.., KF.., SF.. and WF.. gear units ..... 131
6.15 Flange contours of FAF.., KAF.., SAF.. and WAF.. gear units ..... 133
6.16 Fixed covers ..... 134
6.17 Condition monitoring: Oil aging sensor ..... 136

**7 Important information on selection tables and dimension drawings ..... 139**
7.1 Possible geometrical combinations ..... 139
7.2 Selection tables for gearmotors ..... 140
7.3 Dimension sheet information ..... 142
7.4 Gearmotor dimensions ..... 145

**8 Helical gearmotors ..... 146**
8.1 R..DRN.. designs ..... 146
8.2 Possible geometrical combinations of R..DRN.. ..... 148
8.3 R..DRN.. selection tables in kW ..... 180
8.4 R..R..DRN.. selection tables for low output speeds in Nm ..... 241
8.5 R..DRN.. dimension sheets in mm ..... 252

**9 Parallel-shaft helical gearmotors ..... 303**
9.1 F..DRN.. designs ..... 303
9.2 Possible geometrical combinations of F..DRN.. ..... 306
9.3 F..DRN.. selection tables in kW ..... 331
9.4 F..R..DRN.. selection tables for low output speeds in Nm ..... 368
9.5 F..DRN.. dimension sheets in mm ..... 378

**10 Helical-bevel gearmotors ..... 433**
10.1 K..DRN.. designs ..... 433
10.2 K..DRN.. possible geometrical combinations ..... 436
10.3 K..DRN.. selection tables in kW ..... 457
10.4 K..R..DRN.. selection tables for low output speeds in Nm ..... 502
10.5 K..DRN.. dimension sheets in mm ..... 513

**11 Helical-worm gearmotors ..... 577**
11.1 S..DRN.. designs ..... 577
11.2 Possible geometrical combinations of S..DRN.. ..... 579
11.3 S..DRN.. selection tables in kW ..... 592
11.4 S..R..DRN.. selection tables for low output speeds in Nm ..... 613
11.5 S..DRN.. dimension sheets in mm ..... 619
11.6 Technical data S. SF. SA. SAF 37 ..... 654
11.7 Technical data S. SF. SA. SAF 47 ..... 658
11.8 Technical data S. SF. SA. SAF 57 ..... 662


21284997/EN – 03/2015



SEW EURODRIVE

11.9 Technical data S. SF. SA. SAF 67 ... 666
11.10 Technical data S. SF. SA. SAF 77 ... 670
11.11 Technical data S. SF. SA. SAF 87 ... 674
11.12 Technical data S. SF. SA. SAF 97 ... 678

**12 SPIROPLAN® gearmotors ... 682**
12.1 W..DRN.. designs ... 682
12.2 Possible geometrical combinations of W..DRN.. ... 684
12.3 W..DRN.. selection tables in kW ... 689
12.4 W..R..DRN.. selection tables for low output speeds in Nm ... 699
12.5 W..DRN.. dimension sheets in mm ... 701

**13 Technical data of the motors ... 721**
13.1 Key to the data tables ... 721
13.2 DT.., DR.., DRS.. motors, 50 Hz, 4-pole, S1 ... 722
13.3 DRN.. motors, 50 Hz, 4-pole, S1 ... 723

**14 Address directory SEW-EURODRIVE ... 725**

**Index ... 746**

**15 Order and inquiry form ... 750**

21284997/EN – 03/2015

# 1 Introduction

## 1.1 The SEW-EURODRIVE Group of Companies

### 1.1.1 Global presence

Driving the world – with innovative drive solutions for all industries and for every application. Products and systems from SEW-EURODRIVE are used in a multitude of applications – worldwide. Be it in the automotive, building materials, food and beverage or metal-processing industry: The decision to use drive technology "made by SEW-EURODRIVE" stands for reliability, both in terms of functionality and investment.

Not only are we represented in all the main industries of our time, but we are also found all over the world: with 15 manufacturing plants and 76 Drive Technology Centers worldwide as well as our customer support, which we consider an integrative service that continues our commitment to outstanding quality.

### 1.1.2 Always the right drive

The SEW-EURODRIVE modular concept offers millions of combinations. This wide selection enables you to choose the correct drive for all applications, each based on the required speed and torque range, available space, and ambient conditions. Gear units and gearmotors offering a unique and finely tuned performance range and the best economic prerequisites to meet your drive requirements.

The modular DR.. motor series includes the energy-efficient motor types IE1 to IE4 and was designed and constructed with all worldwide requirements for energy efficiency classes in mind. The DR.. motor easily met the requirements for approval and certification in all relevant countries. The energy-efficient drives achieve the highest efficiency in combination with SEW-EURODRIVE gear units.

The gearmotors are electronically enhanced by MOVITRAC® frequency inverters, MOVIDRIVE® drive inverters, and MOVIAXIS® multi-axis servo inverters – a combination that blends perfectly with the existing SEW-EURODRIVE program. As is the case with the mechanical systems, all development, production, and assembly is carried out entirely by SEW-EURODRIVE. In combination with our drive electronics, these drives provide the utmost in flexibility.

Products of the servo drive system, such as low backlash servo gear units, compact servomotors, or MOVIAXIS® multi-axis servo inverters ensure precision and dynamics. From single-axis or multi-axis applications to synchronized process sequences, servo drive systems from SEW-EURODRIVE enable flexible and customized implementation of your applications.

For economical, decentralized installations, SEW-EURODRIVE offers components from its decentralized drive system, such as MOVIMOT®, the gearmotor with integrated frequency inverter, or MOVI-SWITCH®, the gearmotor with integrated switching and protection function. SEW-EURODRIVE has developed hybrid cables to provide cost-effective functional solutions, irrespective of the system philosophy or scope. The latest developments from SEW-EURODRIVE: DRC.. electronic motor, MOVIGEAR® mechatronic drive system, MOVIFIT® decentralized drive controller, MOVIPRO® decentralized drive, positioning, and application controller, as well as MOVITRANS® system components for contactless energy transfer.

Power, quality, and robustness combined in a single standard product: with SEW-EURODRIVE, powerful movements are delivered by industrial gear units with high torques. The modular concept once again ensures optimum adaptation of industrial gear units to meet a wide range of different applications.

21284997/EN – 03/2015

## 1.2 Products and systems from SEW-EURODRIVE

The products and systems of SEW-EURODRIVE are divided into four product groups:

- Gearmotors and frequency inverters
- Servo drive systems
- Decentralized drive systems
- VARIOLUTION® and MAXOLUTION®
- Industrial gear units

Products and systems used in several group applications are listed in a separate group entitled "products and systems covering several product groups." Consult the following tables to locate the products and systems included in the respective product group:

| **Gearmotors and frequency inverters** | | |
|---|---|---|
| **Gear units / gearmotors** | **Motors** | **Frequency inverters** |
| • Helical gear units / helical gearmotors<br>• Parallel-shaft helical gear units / parallel-shaft helical gearmotors<br>• Helical-bevel gear units / helical-bevel gearmotors<br>• Helical-worm gear units / helical-worm gearmotors<br>• SPIROPLAN® right-angle gearmotors<br>• Drives for electrified monorail systems<br>• Geared torque motors<br>• Pole-changing gearmotors<br>• Variable speed gear units / variable speed gearmotors<br>• Aseptic gearmotors<br>• Explosion-proof gear units / gearmotors<br>• Explosion-proof variable-speed gear units / variable-speed gearmotors | • Asynchronous AC motors / AC brakemotors<br>• Pole-changing AC motors / AC brakemotors<br>• Energy efficient motors<br>• Explosion-proof AC motors / AC brakemotors<br>• Torque motors<br>• Single-phase motors / single-phase brakemotors<br>• Asynchronous linear motors | • MOVITRAC® frequency inverters<br>• MOVI4R-U® frequency inverters<br>• MOVIDRIVE® drive inverters<br>• Control, technology, and communication options for inverters |

21284997/EN – 03/2015

| Servo drive systems | | |
|---|---|---|
| **Servo gear units / servo gearmotors** | **Servomotors** | **Servo drive inverters / servo inverters** |
| • Low backlash planetary servo gear units / planetary gearmotors<br>• Low backlash helical-bevel gear units / helical-bevel gearmotors<br>• R, F, K, S, W gear units / gearmotors<br>• Explosion-proof servo gear units / servo gearmotors | • Asynchronous servomotors / servo brakemotors<br>• Synchronous servomotors / servo brake motors<br>• Explosion-proof servomotors / servo brakemotors<br>• Synchronous linear motors | • MOVIDRIVE® servo drive inverters<br>• MOVIAXIS® multi-axis servo inverters<br>• Control, technology, and communication options for servo drive inverters and servo inverters |

| Decentralized drive systems | | |
|---|---|---|
| **Decentralized drives** | **Communication and installation** | **Contactless energy transfer** |
| • DRC.. electronic motor / MOVIGEAR® mechatronic drive system<br>– DBC – Direct Binary Communication<br>– DAC – Direct AS-Interface Communication<br>– DSC – Direct SBus Communication<br>– SNI – Single Line Network Installation<br>• MOVIMOT® gearmotors with integrated frequency inverter<br>• MOVIMOT® motors / brakemotors with integrated frequency inverter<br>• MOVI-SWITCH® gearmotors with integrated switching and protection functions<br>• MOVI-SWITCH® motors / brakemotors with integrated switching and protection functions<br>• Explosion-proof MOVIMOT® and MOVI-SWITCH® gearmotors | • Fieldbus interfaces<br>• Field distributors for decentralized installation<br>• MOVIFIT® product range<br>– MOVIFIT® FDC for controlling MOVIGEAR® and DRC.. drive units<br>– MOVIFIT® MC for controlling MOVIMOT® drives<br>– MOVIFIT® SC with integrated electronic motor switch<br>– MOVIFIT® FC with integrated frequency inverter<br>• MOVIPRO® product range<br>– MOVIPRO® SDC decentralized drive and positioning control | • MOVITRANS® system<br>– Stationary components for energy supply<br>– Mobile components for energy absorption<br>– Line cables and installation material |

| VARIOLUTION® and MAXOLUTION® |
|---|
| • VARIOLUTION® packages for high technical solution expertise in plants and machines<br>• MAXOLUTION® systems for customer-specific system solutions and plants |

21284997/EN – 03/2015

| Industrial gear units |
|---|
| • Helical gear units<br>• Bevel-helical gear units<br>• Planetary gear units |

| Products and systems covering several product groups |
|---|
| • Operator panels<br>• MOVI-PLC® drive-based control system<br>• Components of the type "functional safety"<br>• Diagnostic units |

In addition to its products and systems, SEW-EURODRIVE offers a comprehensive range of services. These include:

- Technical consulting
- Application software
- Seminars and training
- Extensive technical documentation
- Worldwide customer service

Visit our home page:

→ **www.sew-eurodrive.com**

The website offers a great deal of information and services.

## 1.3 Documentation

### 1.3.1 Content of this publication

This "DRN.. gearmotors (IE3)" catalog describes the following product groups from SEW-EURODRIVE in detail:

- DRN.. helical gearmotors
- DRN.. parallel-shaft helical gearmotors
- DRN.. helical-bevel gearmotors
- DRN.. helical-worm gearmotors
- DRN.. SPIROPLAN® gearmotors

### 1.3.2 Additional documentation

In addition to this "DRN.. Gearmotors (IE3)" catalog, you can order or download other documents from the SEW-EURODRIVE homepage. The complete range of technical documentation is available in various languages for download from the web at **www.sew-eurodrive.com**.

**Catalogs**

- Gear units
- Servo gear units
- AC motors
- DRS.. gearmotors (IE1)

21284997/EN – 03/2015

- DRE.. gearmotors (IE2)
- Synchronous servomotors
- Synchronous servo gearmotors
- Asynchronous servo gearmotors
- DRC.. gearmotors
- Gearmotors with single-phase motor
- Variable-speed gearmotors
- Pole-changing gearmotors
- Geared torque motors
- Explosion-proof drives
- Explosion-proof AC motors

**Drive Engineering – Practical Implementation**

You find detailed documentation about the entire topic of electrical drive engineering in the publications of the "Drive Engineering - Practical Implementation" series:

- Project planning for drives
- EMC in Drive Engineering – Basic Theoretical Principles and EMC-Compliant Installation in Practice
- Efficient Plant Automation with Mechatronic Drive Solutions
- SEW encoder systems
- Servo technology
- Explosion-Proof Drives to EU Directive 94/9/EC

## 1.4 Product names and trademarks

All product names included in this documentation are trademarks or registered trademarks of the respective titleholders.

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21284997/EN – 03/2015

# 2 Product description



## 2.1 Product features

### 2.1.1 Operating temperatures

Gear units and gearmotors from SEW-EURODRIVE can be operated in a wide ambient temperature range.

Gear units

The following standard temperature ranges are permitted for filling the gear units according to the lubricant table:

| Gear unit | Filled with | Permitted standard temperature range |
|---|---|---|
| **K..19, K..29** | CLP(PG) VG460 | –20°C to +60°C |
| **K..37 – K..187**<br>**RX.57 – RX.107**<br>**R.07 – R.167**<br>**F..27 – F..157** | CLP(CC) VG220 | -15°C to +40°C |
| **S..37 – S..97** | CLP(CC) VG680 | 0°C to +40°C |
| **W..10 – W..30**<br>**W..37, W..47** | CLP(SEW-PG) VG460 | -20°C to +40°C |

The nominal data of the gear units and gearmotors specified in the catalog refers to an ambient temperature of +25°C.

SEW-EURODRIVE gear units can be operated outside the standard temperature range if project planning is adapted to ambient temperatures from as low as -40°C in the intensive cooling range and up to +60°C. Project planning must take special operating conditions into account and adapt the drive to the ambient conditions by selecting suitable lubricants and seals.

This kind of project planning is generally recommended for increased ambient temperatures as of size 97 and for helical-worm gear units with small gear ratios. SEW-EURODRIVE is happy to carry out this project planning for you.

Motors

The motors of the DR.. series are designed for use in a temperature range between -20°C and +40°C.

This expands the standardized temperature range required by IEC 60034.

Using the motors outside the above mentioned temperature range is possible with some special adjustments. Please consult with SEW-EURODRIVE to find out which options are available.

## INFORMATION

If the drive is to be operated on a frequency inverter, you must also consider the project planning notes of the inverter and take into account the thermal effects of inverter operation.

21284997/EN – 03/2015

### 2.1.2 Installation altitude

Due to the low air density at high installation altitudes, heat dissipation on the surface of motors and gear units decreases. The rated data listed in the catalog applies to an installation altitude of maximum 1000 m above sea level. Installation altitudes of more than 1000 m asl must be taken into account for project planning of gear units and gearmotors.

### 2.1.3 Power and torque

The power and torque ratings listed in the catalogs refer to mounting position M1 and similar mounting positions in which the input stage is not completely submerged in oil. In addition, the gearmotors are assumed to be standard versions with standard lubrication and under normal ambient conditions.

### 2.1.4 Speeds

The quoted output speeds of the gearmotors are recommended values. You can calculate the rated output speed based on the rated motor speed and the gear unit reduction ratio. Please note that the actual output speed depends on the motor load and the supply system conditions.

### 2.1.5 Noise

The noise levels of all SEW-EURODRIVE gear units, motors and gearmotors are well within the maximum permitted noise levels set forth in the VDI guideline 2159 for gear units and IEC/EN 60034 for motors.

### 2.1.6 Painting

The gear units, motors and gearmotors from SEW-EURODRIVE are coated as follows:

| Gear unit | Coating according to standard 1843 |
|---|---|
| R, F, K, S, W gear units | blue/gray RAL 7031 |

**Exception:** SPIROPLAN® W..10DT56 gearmotors have an aluminum housing and are supplied unpainted as standard.

Special coatings are available on request.

### 2.1.7 Surface and anti-corrosion protection

If required, all gear units, motors and gearmotors from SEW-EURODRIVE can also be supplied with surface protection for applications in extremely humid and chemically aggressive environments.

### 2.1.8 Heat dissipation and accessibility

When fitting gearmotors/geared brakemotors to the driven machine, ensure that there is enough space in axial and radial direction. This space is required for air circulation and heat dissipation as well as to maintain the brake and, if applicable, the MOVIMOT® inverter.

Please also refer to the notes in the motor dimension sheets contained in the "AC Motors" catalog.

21284997/EN – 03/2015

### 2.1.9 Weights

Please note that all weight specifications in the catalogs apply to gear units and gearmotors without lubricant. The weights vary according to gear unit design and gear unit size. The lubricant fill depends on the mounting position selected, which means that in this case no universally applicable information can be given. Guide values for lubricant fill quantities based on the mounting position are provided in the chapter "Lubricant fill quantities" (→ 🗎 97). The exact weight is given in the order confirmation.

### 2.1.10 Reduced backlash variant

Helical, parallel-shaft helical and helical-bevel gear units with reduced backlash are available as of gear unit size 37. The rotational clearance of these gear units is considerably less than that of the standard versions so that positioning tasks can be solved with great precision. The rotational clearance is specified in angular minutes in the chapters entitled "Geometrically possible combinations." The circumferential backlash for the output shaft is specified without load (max. 1% of the rated output torque); the gear unit input end is blocked. For further information, refer to chapter "Reduced backlash gear units" (→ 🗎 103).

### 2.1.11 Multi-stage gearmotors

You can achieve particularly low output speeds by using multi-stage gear units or multi-stage gearmotors. This involves mounting a helical gear unit on the input end as a second gear unit.

It may be necessary to limit the motor power to match the maximum permitted output torque of the gear unit.

### 2.1.12 RM gear units, RM gearmotors

RM gear units and RM gearmotors are a special type of helical gear units with an extended output bearing hub. They were designed especially for agitating applications and allow for high overhung and axial loads and bending moments. The other data are the same as for standard helical gear units and standard helical gearmotors. You can find special project planning notes for RM gear units in the chapter "Project planning for RM gear units" (→ 🗎 51).

### 2.1.13 SPIROPLAN® gearmotors

SPIROPLAN® gearmotors are robust, single- and two-stage right-angle gearmotors with SPIROPLAN® gearing. They have three main differences from the helical-worm gear units: the material combination of the steel-on-steel gearing, the special tooth meshing relationships and the aluminum housing. As a result, SPIROPLAN® right-angle gearmotors are wear-free and lightweight.

The particularly short design and the aluminum housing make for very compact and lightweight drive solutions.

The wear-free gearing and the life-long lubrication facilitate long periods of maintenance-free operation. The identical hole spacing and axle height of the foot and face allows for a number of mounting options.

Two different flange diameters are available. On request, SPIROPLAN® gearmotors can be equipped with a torque arm.

21284997/EN – 03/2015

### 2.1.14 Brakemotors

On request, motors and gearmotors can be supplied with an integrated mechanical brake. The SEW-EURODRIVE brake is an electromagnetic disk brake with a DC coil that releases electrically and brakes using spring force. Due to its operating principle, the brake is applied if the power fails. It meets the basic safety requirements. The brake can also be released mechanically if equipped with manual brake release. For this purpose, the brake comes with either a hand lever with automatic reset or an adjustable setscrew. The brake is controlled with a brake control that is either installed in the motor wiring space or the control cabinet.

A characteristic feature of the brakes is their very short design. The brake bearing endshield is a part of both the motor and the brake. The integrated construction of the SEW-EURODRIVE brakemotor permits particularly compact and robust solutions.

### 2.1.15 International markets

**USA and Canada**

On request, SEW-EURODRIVE supplies UL registered motors or CSA certified motors with connection conditions according to CSA and NEMA standard.

**Eurasian Economic Union / Customs Union between Russia, Belarus, and Kazakhstan.**

Motors marketed in Russia, Belarus or Kazakhstan as of March 15, 2015 must bear the EAC mark (Eurasian Conformity), similar to the European CE mark.

As in the case of the CE mark, the EAC mark is used by manufacturers and suppliers to confirm that a product has undergone a conformity process and meets the specified technical requirements. Conformity is issued by an authorized certifying body. The technical requirements for the conformity evaluation procedure are set forth in the technical regulations of the Customs Union (TR CU). These regulations refer to standards that must be applied for a manufacturer to meet the requirements. SEW motors comply with the technical regulations of the Customs Union for low-voltage systems. Contact your sales representative to assist you in such cases.

### 2.1.16 Components on the input side

The following components on the input side are available for the gear units from SEW-EURODRIVE:

- **Input covers with input shaft extension,** optionally with
  - Centering shoulder
  - Backstop
  - Motor platform
- **Adapter**
  - for mounting IEC or NEMA motors with the option of a backstop
  - for mounting servomotors with a square flange
  - with torque limiting safety couplings and speed or slip monitor
  - with hydraulic centrifugal coupling, also with disc brake or backstop

21284997/EN – 03/2015

#### 2.1.17 Swing base

A swing base is a drive unit consisting of helical-bevel gear unit, hydraulic centrifugal coupling and electric motor. The complete arrangement is mounted to a rigid mounting rail.

Motor swings are available with the following optional accessories:

- Torque arm
- Mechanical thermal monitoring unit
- Contactlaess thermal monitoring unit

## 2.2 Corrosion and surface protection

### 2.2.1 General information

SEW-EURODRIVE offers various optional protective measures for operating motors and gearmotors under special ambient conditions.

These preventive measures comprise two groups:

- Corrosion protection KS for motors
- Surface protection OS for motors and gear units

For motors, optimum protection is offered by a combination of corrosion protection KS and surface protection OS.

Special optional protective measures for the output shafts are also available.

### 2.2.2 KS corrosion protection

KS corrosion protection for motors comprises the following measures:

- All retaining screws that are loosened during operation are made of stainless steel.
- The nameplates are made of stainless steel.
- Various motor parts are coated with a finishing varnish.
- The flange contact surfaces and shaft ends are treated with a temporary rust preventive.
- Additional measures are performed for brakemotors.

A sticker labeled "KORROSIONSSCHUTZ" (corrosion protection) on the fan guard indicates special treatment has been applied.

#### INFORMATION

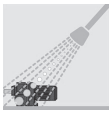
The following motor options are not available with KS corrosion protection:

- /V forced cooling fan
- Shaft-centered encoders /ES, /ES7, /EG, /EG7, /EV7, /AS, /AS7, /AG, /AG7, /AV7

21284997/EN – 03/2015

### 2.2.3 OS surface protection

In addition to standard surface protection, motors and gear units are also available with surface protection OS1 to OS4. The special measure "Z" is also available. Special measure "Z" means that large contour recesses are filled with rubber before painting.

| Surface protection[1) 2)] | | Ambient conditions | Sample applications |
|---|---|---|---|
| Standard |  | Suitable for machines and systems within buildings and interior rooms with neutral atmospheres.<br>Similar to corrosivity category[3)]:<br>• C1 (negligible) | • Machines and systems in the automotive industry<br>• Transport systems in logistics<br>• Conveyor belts at airports |
| OS1 |  | Suitable for environments prone to condensation and atmospheres with low humidity or contamination, such as applications outdoors under roof or with protection.<br>Similar to corrosivity category[3)]:<br>• C2 (low) | • Systems in saw mills<br>• Hall gates<br>• Agitators and mixers |
| OS2 |  | Suited for environments with high humidity or moderate atmospheric contamination, such as applications outdoors subject to direct weathering.<br>Similar to corrosivity category[3)]:<br>• C3 (moderate) | • Applications in amusement parks<br>• Aerial tramways and chair-lifts<br>• Applications in gravel plants<br>• Systems in nuclear power plants |
| OS3 |  | Suitable for environments with high humidity and occasionally severe atmospheric and chemical contamination. Occasionally acidic or caustic wet cleaning. Also for applications in coastal areas with moderate salt load.<br>Similar to corrosivity category[3)]:<br>• C4 (high) | • Sewage treatment plants<br>• Port cranes<br>• Mining applications |
| OS4 |  | Suitable for environments with permanent humidity and severe atmospheric or chemical contamination. Regular acidic and caustic wet cleaning, also with chemical cleaning agents.<br>Similar to corrosivity category[3)]:<br>• C5-1 (very high) | • Drives in malting plants<br>• Wet areas in the beverage industry<br>• Conveyor belts in the food industry |

1) IP56 and IP66 motors/brakemotors are only available with OS2, OS3, or OS4 surface protection.

2) Gearmotors with OS2 - OS4 surface protection are only available in combination with KS corrosion protection for motors.

3) According to DIN EN ISO 12944-2 classification of ambient conditions

21284997/EN – 03/2015

### 2.2.4 Special protection measures

Gearmotor output shafts can be treated with special optional protective measures for operation subject to severe environmental pollution or in particularly demanding applications.

| Measure | Protection principle | Suitable for: |
|---|---|---|
| FKM oil seal | High quality material | Drives subject to chemical contamination |
| Coating on output shaft end | Surface coating of the contact surface of the oil seal | Severe environmental impact and in conjunction with FKM oil seal |
| Stainless steel output shaft | Surface protection due to high-quality material | Particularly demanding applications in terms of surface protection |

### 2.2.5 NOCO® fluid

As standard, SEW-EURODRIVE supplies NOCO® fluid corrosion protection and lubricant with every hollow shaft gear unit. Use NOCO® fluid when installing hollow shaft gear units. Using this fluid can help prevent contact corrosion and makes it easier to disassemble the drive at a later time. NOCO® fluid is also suitable for protecting machined metal surfaces that do not have corrosion protection, including parts of shaft ends or flanges. You can also order larger quantities of NOCO® fluid from SEW-EURODRIVE.

| Container quantity | Packaging type | Part number |
|---|---|---|
| 5.5 g | Sachet | 0 910 781 9 |
| 100 g | Tube | 0 325 314 7 |
| 1 kg | Tub | 0 910 782 7 |

NOCO® fluid is a food grade substance according to NSF-H1. The food-grade NOCO® fluid features a corresponding NSF-H1 label on the packaging.

21284997/EN – 03/2015

## 2.3 Extended storage

### 2.3.1 Variant

## INFORMATION

"Extended storage" gear units must remain tightly sealed until startup to prevent the VCI anti-corrosion agent from evaporating.

The gear units come with the oil fill according to the specified mounting position (M1 – M6). Check the oil level before you start operating the gear unit for the first time.

You can also order gear units designed for "extended storage". SEW-EURODRIVE recommends the "extended storage" type for storage periods longer than 9 months. A VCI anti-corrosion agent (**v**olatile **c**orrosion **i**nhibitor) is added to the lubricant in these gear units. Please note that this VCI anti-corrosion agent is only effective in a temperature range of -25°C to +50°C. The flange contact surfaces and shaft ends are also treated with an anti-corrosion agent. If not specified otherwise in your order, the gear unit with "extended storage" option will be supplied with OS1 surface protection. You can order OS2, OS3 or OS4 instead of OS1.

### 2.3.2 Storage conditions

Observe the storage conditions specified in the following table for extended storage:

| Climate zone | Packaging[1)] | Storage[2)] | Storage duration |
|---|---|---|---|
| Temperate<br>(Europe, USA, Canada, China and Russia, excluding tropical zones) | • Packed in containers<br>• With desiccant and moisture indicator sealed in the plastic wrap | • Roofed<br>• Protected against rain and snow<br>• Shock-free | Up to 3 years with regular checks of the packaging and moisture indicator (rel. humidity < 50%) |
| | Open | • Under roof and enclosed at constant temperature and atmospheric humidity (5 °C < ϑ < 50 °C, < 50% relative humidity)<br>• No sudden temperature variations<br>• Controlled ventilation with filter (free from dust and dirt)<br>• No aggressive vapors<br>• No shocks | 2 years or more with regular inspections<br>• Check for cleanness and mechanical damage during the inspection<br>• Check corrosion protection |

21284997/EN – 03/2015

| Climate zone | Packaging[1)] | Storage[2)] | Storage duration |
|---|---|---|---|
| Tropical<br>(Asia, Africa, Central and South America, Australia, New Zealand excluding temperate zones) | • Packed in containers<br>• With desiccant and moisture indicator sealed in the plastic wrap<br>• Protected against insect damage and mildew by chemical treatment | • Roofed<br>• Protected against rain and snow<br>• Shock-free | Up to 3 years with regular checks of the packaging and moisture indicator (rel. humidity < 50%) |
| | Open | • Under roof and enclosed at constant temperature and atmospheric humidity (5 °C < ϑ < 50 °C, < 50% relative humidity)<br>• No sudden temperature variations<br>• Controlled ventilation with filter (free from dust and dirt)<br>• No aggressive vapors<br>• No shocks<br>• Protected against insect damage | 2 years or more with regular inspections<br>• Check for cleanness and mechanical damage during the inspection<br>• Check corrosion protection |

1) The packaging must be carried out by an experienced company using the packaging materials that have been explicitly specified for the particular application.

2) SEW-EURODRIVE recommends to store the gear units according to the mounting position.

## 2.4 Condition monitoring: Oil aging sensor

### 2.4.1 DUO10A diagnostic unit

The DUO10A diagnostic unit consists of a temperature sensor and the actual evaluation unit. The service life curves of the oil grades common in SEW gear units are stored in the evaluation unit. SEW-EURODRIVE can customize any oil grade in the diagnostic unit. Standard parameterization is performed directly on the evaluation unit. During operation, the evaluation unit uses the oil temperature to continuously calculate the remaining service life in days until the next oil change. The remaining service life is displayed directly on the evaluation unit. When the service life has expired, this can be transferred to a higher level system via a binary signal and evaluated or visualized there.

Using the DUO10A diagnostic unit, the system operator no longer has to replace the oil within predefined intervals, but can adapt the replacement interval individually to the actual load. The benefits are reduced maintenance and service costs and increased system availability.

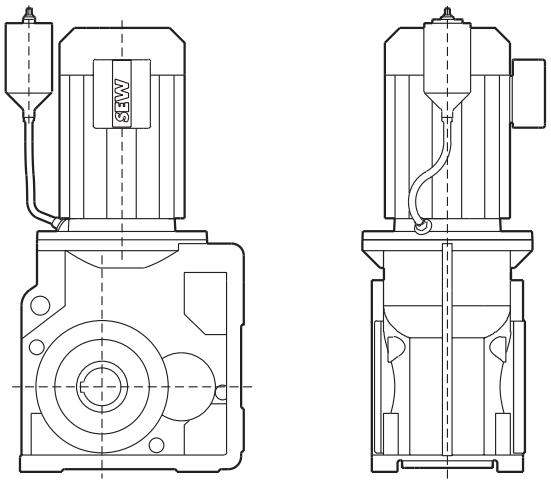
## 2.5 Oil expansion tank

The oil expansion tank allows the lubricant or air space of the gear unit to expand. This means no lubricant can escape the breather valve at high operating temperatures.

21284997/EN – 03/2015

SEW-EURODRIVE recommends to use oil expansion tanks for gear units and gearmotors in M4 mounting position and for input speeds > 2000 rpm.

The following figure shows the oil expansion tank.




*4979181323*

The oil compensator is suppled as assembly kit. It is intended for mounting onto the gearmotor. However, if installation space is limited or if the compensator is intended for gear units without motor, it can be mounted to nearby machine parts.

For further information, please contact your SEW-EURODRIVE sales representative.

21284997/EN – 03/2015

# 3 Overview of types and type designations

## 3.1 Designs and gear unit options



Below an overview of type designations for R, F, K, S, and W gear units and their options.

### 3.1.1 Helical gear units

| Designation | |
|---|---|
| RX.. | Single-stage foot mounted design |
| RXF.. | Single-stage B5 flange-mounted design |
| R.. | Foot-mounted design |
| R..F | Foot-mounted and B5 flange-mounted design |
| RF.. | B5 flange-mounted design |
| RZ.. | B14 flange-mounted design |
| RM.. | B5 flange-mounted design with extended bearing hub |

### 3.1.2 Parallel-shaft helical gear units

| Designation | |
|---|---|
| F.. | Foot-mounted design |
| FA..B | Foot-mounted design and hollow shaft |
| FH..B | Foot-mounted design and hollow shaft with shrink disk |
| FV..B | Foot-mounted design and hollow shaft with splined hollow shaft to DIN 5480 |
| FF.. | B5 flange-mounted design |
| FAF.. | B5 flange-mounted design and hollow shaft |
| FHF.. | B5 flange-mounted design and hollow shaft with shrink disk |
| FVF.. | B5 flange-mounted design and hollow shaft with splined hollow shaft to DIN 5480 |
| FA.. | Hollow shaft |
| FH.. | Hollow shaft with shrink disk |
| FT.. | Hollow shaft with TorqLOC® hollow shaft mounting system |
| FV.. | Splined hollow shaft according DIN 5480 |
| FZ..[1)] | B14 flange-mounted design |
| FAZ.. | B14 flange-mounted design and hollow shaft |
| FHZ.. | B14 flange-mounted design and hollow shaft with shrink disk |
| FVZ.. | B14 flange-mounted design and hollow shaft with splined hollow shaft to DIN 5480 |

1) The gear unit design FZ.. is not considered in the gearmotor dimension sheets (chapter 9.5). Contact SEW-EURODRIVE if required.

21284997/EN – 03/2015

### 3.1.3 Helical-bevel gear units

| Designation | |
|---|---|
| K.. | Foot-mounted design |
| KA..B | Foot-mounted design and hollow shaft |
| KAF.B | B5 flange-mounted design, hollow shaft and foot-mounted design |
| KF..B | Foot-mounted design, B5 flange-mounted design |
| KH..B | Foot-mounted design and hollow shaft with shrink disk |
| KHF.B | B5 flange-mounted design and hollow shaft with shrink disk and flange-mounted design |
| KV..B | Foot-mounted design and hollow shaft with splined hollow shaft to DIN 5480 |
| KF.. | B5 flange-mounted design |
| KAF.. | B5 flange-mounted design and hollow shaft |
| KHF.. | B5 flange-mounted design and hollow shaft with shrink disk |
| KVF.. | B5 flange-mounted design and hollow shaft with splined hollow shaft to DIN 5480 |
| KA.. | Hollow shaft |
| KH.. | Hollow shaft with shrink disk |
| KT.. | Hollow shaft with TorqLOC® hollow shaft mounting system |
| KV.. | Splined hollow shaft according DIN 5480 |
| KZ..[1)] | B14 flange-mounted design |
| KAZ.. | B14 flange-mounted design and hollow shaft |
| KHZ.. | B14 flange-mounted design and hollow shaft with shrink disk |
| KVZ.. | B14 flange-mounted design and hollow shaft with splined hollow shaft to DIN 5480 |

1) The gear unit design KZ.. is not considered in the gearmotor dimension sheets (chapter 10.5). Contact SEW-EURODRIVE if required.

### 3.1.4 Helical-worm gear units

| Designation | |
|---|---|
| S.. | Foot-mounted design |
| SF.. | B5 flange-mounted design |
| SAF.. | B5 flange-mounted and hollow shaft |
| SHF.. | B5 flange-mounted design and hollow shaft with shrink disk |
| SA.. | Hollow shaft |
| SH.. | Hollow shaft with shrink disk |
| ST.. | Hollow shaft with TorqLOC® hollow shaft mounting system |
| SAZ.. | B14 flange-mounted design and hollow shaft |
| SHZ.. | B14 flange-mounted and hollow shaft with shrink disk |

21284997/EN – 03/2015

### 3.1.5 SPIROPLAN® gear units

| Designation | |
|---|---|
| W.. | Foot-mounted design |
| WF.. | Flange-mounted design |
| WAF.. | Flange-mounted version and hollow shaft |
| WA.. | Hollow shaft |
| WA..B | Foot-mounted version and hollow shaft |
| WH..B | Foot-mounted version and hollow shaft with shrink disk |
| WHF.. | Flange-mounted and hollow shaft with shrink disk |
| WH.. | Hollow shaft with shrink disk |
| WT.. | Hollow shaft with TorqLOC® hollow shaft mounting system |

### 3.1.6 Options

R, F and K gear units:

| Designation | |
|---|---|
| /R | Reduced backlash |

K, S and W gear units:

| Designation | |
|---|---|
| /T | With torque arm |

F gear units:

| Designation | |
|---|---|
| /G | With rubber buffer |

### 3.1.7 Condition monitoring

| Designation | Option |
|---|---|
| /DUO | Diagnostic Unit Oil = Oil aging sensor |

21284997/EN – 03/2015

## 3.2 Designs and options for the DRN.. motor series

### 3.2.1 Designation of the motors

| Design | Description |
|---|---|
| DRN.. | Energy efficient motors of energy efficiency class IE3 |
| 80 – 315 | Sizes:<br>80 / 90 / 100 / 112 / 132 / 160 / 180 / 200 / 225 / 250 / 280 / 315 |
| S, M, ME, LS, L, H | Lengths:<br>S = Short; M = Medium; L = Long; H = Extra-long design<br>ME = longer variant of length M<br>LS = Length S with shorter package |
| 4 | Number of poles 4 |

### 3.2.2 Output variants

| Designation | Option | Size DRN.. |
|---|---|---|
| /FI | IEC foot-mounted motor | 80M – 315H |
| /F.A, /F.B | Universal foot version | 80M – 132S,<br>225S – 315H |
| /FG | 7-series integral motor, as stand-alone motor | 80M – 315H |
| /FF | IEC flange-mounted motor with bore | 80M – 315H |
| /FT | IEC flange-mounted motor with threads | 80M – 100L |
| /FL | Flange mounted motor (deviating from IEC) | 80M – 315H |
| /FM | 7-series integral motor with IEC feet | 80M – 315H |
| /FE | IEC flange-mounted motor with bore and IEC feet | 80M – 315H |
| /FY | IEC flange-mounted motor with threads and IEC feet | 80M – 100L |
| /FK | Flange-mounted motor (deviating from IEC) with feet | 80M – 280M[1)] |
| /FC | C-face flange-mounted motor, dimensions in inch | 80M – 160L[1)] |

1) In preparation

### 3.2.3 Mechanical attachments

| Designation | Option | Size |
|---|---|---|
| /BE.. | Spring-loaded brake with specification of size | 80M – 315H |
| HR | Manual brake release of the brake, automatic disengaging function | 80M – 315H |
| HF | Manual brake release, lockable | 80M – 315H |
| /RS | Backstop | 80M – 315H |
| /MSW | MOVI-SWITCH® | 80M – 100L |
| /MI | Motor identification module for MOVIMOT® | 80M – 112M |
| /MM03 – MM40 | MOVIMOT® | 80M – 112M |

21284997/EN – 03/2015

| Designation | Option | Size |
|---|---|---|
| /MO | MOVIMOT® option(s) | 80M – 112M |



### 3.2.4 Connection alternatives

| Designation | Option | Size |
|---|---|---|
| /IS | Integrated plug connector | 80M – 132S |
| /ASE. | HAN 10ES plug connector on terminal box with single locking latch (cage clamp contacts on the motor side) | 80M – 132S |
| /ASB. | HAN 10ES plug connector on terminal box with double locking latch (cage clamp contacts on the motor side) | 80M – 132S |
| /ACE. | HAN 10E plug connector on terminal box with single locking latch (crimp contacts on the motor side) | 80M – 132S |
| /ACB. | HAN 10E plug connector on terminal box with double locking latch (crimp contacts on the motor side) | 80M – 132S |
| /AME. | HAN Modular 10B plug connector on terminal box with single locking latch (crimp contacts on the motor side) | 80M – 132S |
| /ABE. | | 80M – 225M |
| /ADE. | | 80M – 225M |
| /AKE. | | 132M – 225M |
| /AMB. | HAN Modular 10B plug connector on terminal box with double locking latch (crimp contacts on the motor side) | 80M – 132S |
| /ABB. | | 80M – 225M |
| /ADB. | | 80M – 225M |
| /AKB. | | 132M – 225M |
| /AND. | Harting Han® Q8/0, single locking latch | 80M – 132S |
| /AFQ. | Round plug connector Molex/ Amphenol, 4-pole power 1 3/8" (AFQ8 housing Al), 3-pole brake connection 7/8", 3 fixed ends, max. 25 A, BG/BGE/BSR/BUR brake | 80M – 132S |
| /AFL. | Round plug connector Molex/ Amphenol, 4-pole power 7/8" (AFL8 housing Al), 3-pole brake connection 7/8", 3 ends, max. 25 A, BG/BGE/BSR/BUR brake | 80M – 100L |
| /KCC | 6 or 10-pole terminal strip with cage clamp contacts | 80M – 132S |
| /KC1 | C1-profile-compliant connection of the electric monorail system drive (VDI guideline 3643) (for DR71, 80). Alternatively for DR.90 – 132 for a more compact connection range | 80M – 132S |
| /IV | Other industrial plug connectors according to customer specifications | 80M – 225M |

### 3.2.5 Temperature sensor / temperature detection

| Designation | Option | Size |
|---|---|---|
| /TF | Temperature sensor (PTC thermistor or PTC resistor) | 80M – 315H |
| /TH | Thermostat (bimetallic switch) | 80M – 315H |
| /KY | 1 KTY84 – 130 sensor | 80M – 315H |

21284997/EN – 03/2015

| Designation | Option | Size |
|---|---|---|
| /PT | 1 / 3 PT100 sensor(s) | 80M – 315H |

### 3.2.6 Encoders

| Designation | Option | Size |
|---|---|---|
| /ES7S[1)] | Mounted speed sensor with sin/cos interface | 80M – 132S |
| /EG7S[1)] | | 132M – 280M |
| /EV7S | | 80M – 280M |
| /EH7S | | 315S – 315H |
| /ES7R | Mounted speed sensor with TTL (RS-422) interface, V = 9 – 26 V | 80M – 132S |
| /EG7R | | 132M – 280M |
| /EV7R | | 80M – 280M |
| /EH7R | | 315S – 315H |
| /EI7C[1)] | Built-in incremental encoder with HTL interface, 24 periods | 80M – 132S |
| /EI76 | Built-in incremental encoder with HTL interface and 6 / 2 / 1 period(s) | 80M – 132S |
| /EI72 | | 80M – 132S |
| /EI71 | | 80M – 132S |
| /AS7W[1)] | Mount-on absolute encoder, RS-485 interface (multi-turn) | 80M – 132S |
| /AG7W[1)] | | 132M – 280M |
| /AV7W | | 80M – 280M |
| /AS7Y[1)] | Mount-on absolute encoder, SSI interface (multi-turn) | 80M – 132S |
| /AG7Y[1)] | | 132M – 280M |
| /AV7Y | | 80M – 280M |
| /AH7Y | | 315S – 315H |
| /ES7A | Mounting adapter for speed sensors from the SEW-EURODRIVE portfolio | 80M – 132S |
| /EG7A | | 132M – 280M |
| /EV7A | | 80M – 280M |
| /EH7A | | 315S – 315H |
| /ES7C | Mount-on speed sensor with HTL interface | 80M – 132S |
| /EG7C | | 132M – 280M |
| /EV7C | | 80M – 280M |
| /EH7C | | 315S – 315H |
| /EH7T | Mount-on speed sensor TTL (RS-422) interface | 315S – 315H |
| /XV.A | Mounting adapter for non-SEW speed sensors | 80M – 280M |
| /XH1. | Mounted non-SEW speed sensor | 80M – 132S[2)] |
| /XV.. | | 80M – 280M |

1) Also available in a safety-rated design

2) In preparation

21284997/EN – 03/2015

### 3.2.7 Ventilation

| Designation | Option | Size |
|---|---|---|
| /V | Forced cooling fan | 80M – 315H |
| /Z | Additional inertia (flywheel fan) | 80M – 132L |
| /AL | Metal fan | 80M – 315H |
| /U | Non-ventilated (without fan) | 80M – 315H |
| /OL | Non-ventilated (closed B-side) | 80M – 132S[1)] |
| /C | Protection canopy for fan guard | 80M – 315H |

1) In preparation

### 3.2.8 Bearings

| Designation | Option | Size |
|---|---|---|
| /NS | Lubrication device | 250M – 315H |
| /ERF | Reinforced bearings on A-side with roller bearing | 250M – 315H |
| /NIB | Insulated bearing B-side | 250M – 315H |

### 3.2.9 Condition monitoring

| Designation | Option | Size |
|---|---|---|
| /DUE | Diagnostic Unit Eddy Current = function/wear monitoring for brakes BE1 – BE122 | 80M – 315H[1)] |

1) In preparation

### 3.2.10 Other additional features

| Designation | Option | Size |
|---|---|---|
| /DH | Condensation drain hole | 80M – 315H |
| /RI | Reinforced winding insulation | 80M – 315H |
| /RI2 | Reinforced winding insulation with increased resistance against partial discharge | 80M – 315H[1)] |
| /2W | Second shaft end on the motor/brakemotor | 80M – 315H |

1) In preparation

21284997/EN – 03/2015

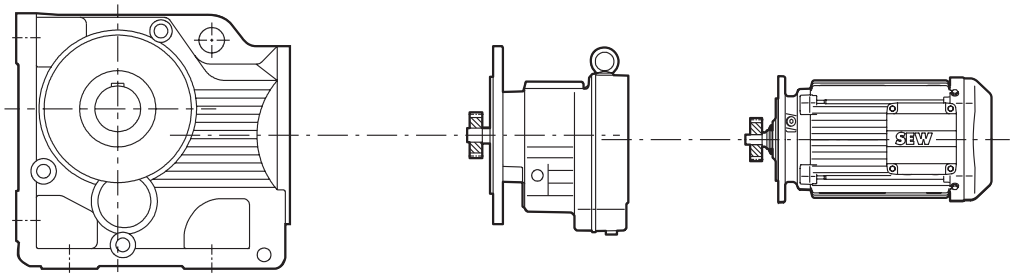
## 3.3 Example type designation of a DRN.. gearmotor

The type designation of the gearmotor starts from the component on the output end.

For instance, a multi-stage helical-bevel gearmotor with temperature sensor in the motor winding has the following type designation:

| **Example: K107R77DRN100M4 /TF** | | |
|---|---|---|
| Gear unit type | K | 1. Gear unit |
| Gear unit size | 107 | |
| Gear unit series | R | 2. Gear unit |
| Gear unit size | 77 | |
| Motor series | DRN.. | Motor |
| Motor size | 100 | |
| Length | M | |
| Number of poles | 4 | |
| Motor option temperature sensor | /TF | Option |

Example: DRN.. gearmotor

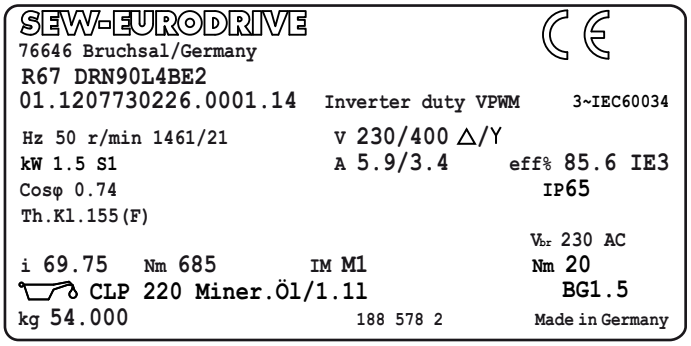



K107 R77 DRN100M4/TF

*13368182539*

## 3.4 DRN.. gearmotor nameplate

The following figure shows an example of the nameplate of a DRN.. gearmotor.




*13373073675*

21284997/EN – 03/2015

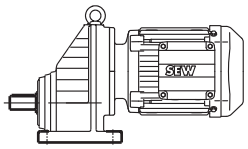
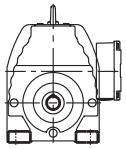
## 3.5 Gearmotor types

### INFORMATION

The variants described in this chapter refer to DR.. gearmotors from SEW-EURODRIVE. They also apply to gear units without motors.

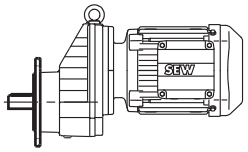
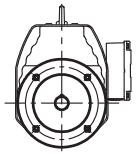
### 3.5.1 Helical gearmotors

The following types of helical gearmotors are available:

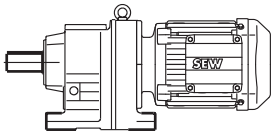
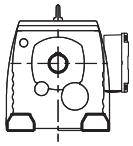
**RX..DR..**

Single-stage helical gearmotor in foot-mounted design

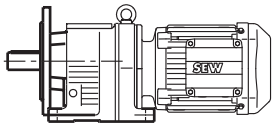
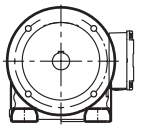
**RXF..DR..**

Single-stage helical gearmotor in B5 flange-mounted design

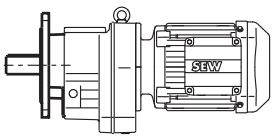
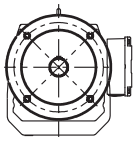
**R..DR..**

Foot-mounted helical gearmotor

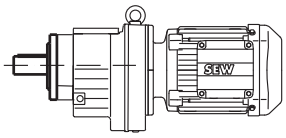
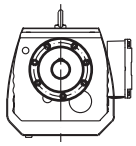
**R..F DR..**

Foot and B5 flange-mounted helical gearmotor

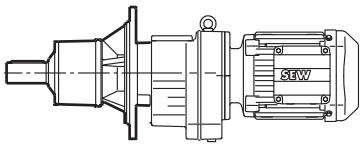
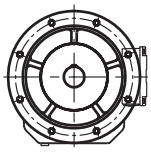
**RF..DR..**

Helical gearmotor in B5 flange-mounted design

**RZ..DR..**

B14 flange-mounted helical gearmotor

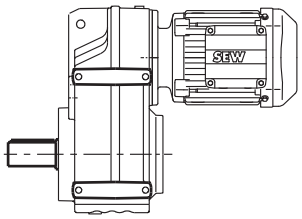
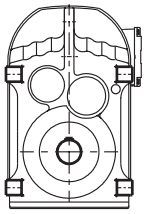
**RM..DR..**

B5 flange-mounted helical gearmotor with extended bearing hub

21284997/EN – 03/2015

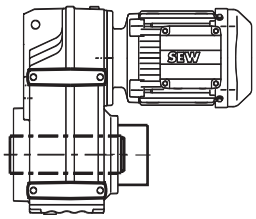
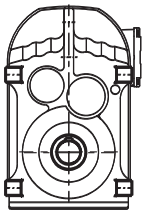
### 3.5.2 Parallel-shaft helical gearmotors

The following types of parallel-shaft helical gearmotors are available:

**F..DR..**

Parallel-shaft helical gearmotor in foot-mounted design

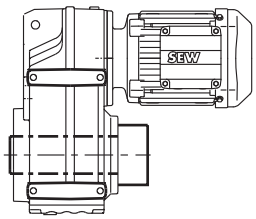
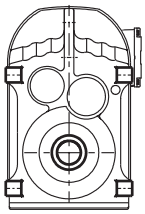



**FA..B DR..**

Parallel-shaft helical gearmotor in foot-mounted design with hollow shaft

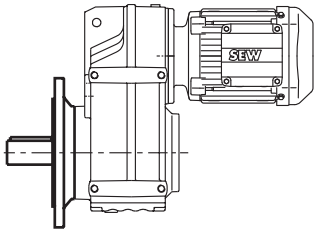
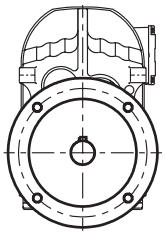
**FV..B DR..**

Parallel-shaft helical gearmotor in foot-mounted design with hollow shaft and splining to DIN 5480

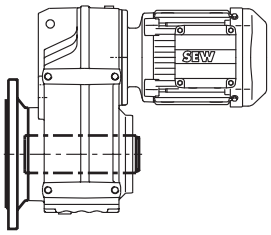
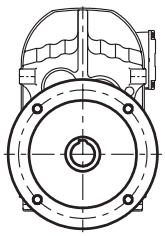
**FH..B DR..**

Parallel-shaft helical gearmotor in foot-mounted design with hollow shaft and shrink disk

**FF..DR..**

Parallel-shaft helical gearmotor in B5 flange-mounted design

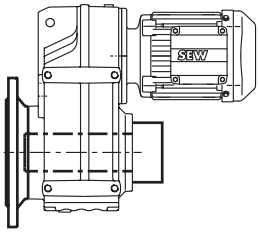
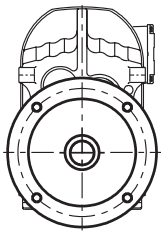



**FAF..DR..**

Parallel-shaft helical gearmotor in B5 flange-mounted design with hollow shaft

**FVF..DR..**

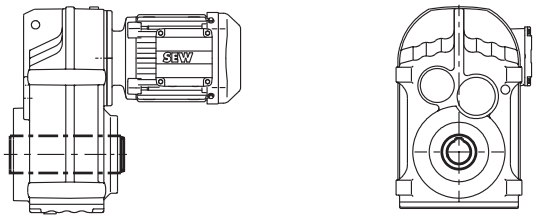
Parallel-shaft helical gearmotor in B5 flange-mounted design with hollow shaft and splining to DIN 5480

**FHF..DR..**

Parallel-shaft helical gearmotor in B5 flange-mounted design with hollow shaft and shrink disk

21284997/EN – 03/2015

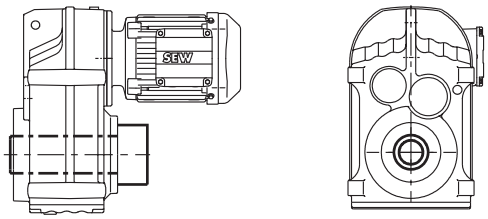


**FA..DR..**

Parallel-shaft helical gearmotor with hollow shaft

**FV..DR..**

Parallel-shaft helical gearmotor with hollow shaft and splining to DIN 5480

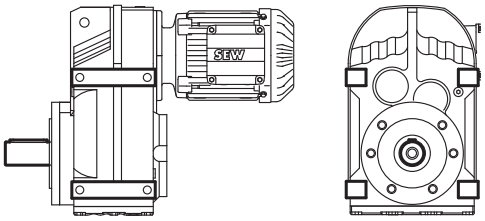


**FH..DR..**

Parallel-shaft helical gearmotor with hollow shaft and shrink disk

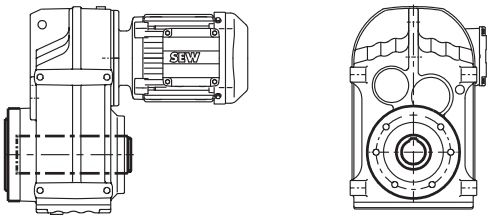
**FT..DR..**

Parallel-shaft helical gearmotor with hollow shaft and TorqLOC® hollow shaft mounting system



**FZ..DR..**[1)]

Parallel-shaft helical gearmotor in B14 flange-mounted design.

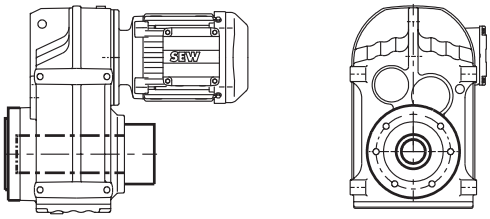


**FAZ..DR..**

Parallel-shaft helical gearmotor in B14 flange-mounted design with hollow shaft

**FVZ..DR..**

Parallel-shaft helical gearmotor in B14 flange-mounted design with hollow shaft and splining to DIN 5480



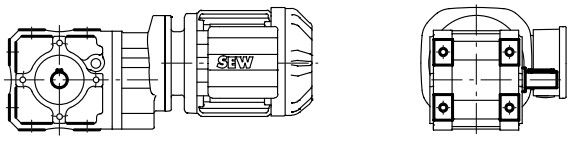
**FHZ..DR..**

Parallel-shaft helical gearmotor in B14 flange-mounted design with hollow shaft and shrink disk

1) The gear unit design FZ.. is not considered in the gearmotor dimension sheets (chapter 9.5). Contact SEW-EURODRIVE, if required.

### 3.5.3 Helical-bevel gearmotors, gear unit sizes K..9

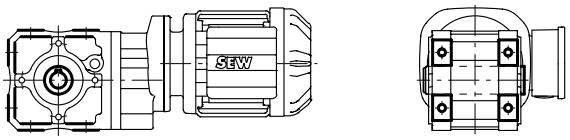
The following types of helical-bevel gearmotors with gear units of size K..9 are available:



**K.9DR..**

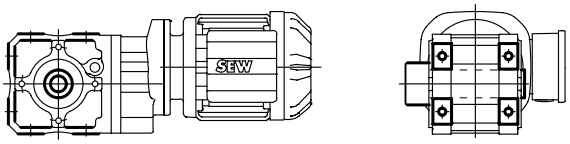
Foot-mounted helical-bevel gearmotor

21284997/EN – 03/2015



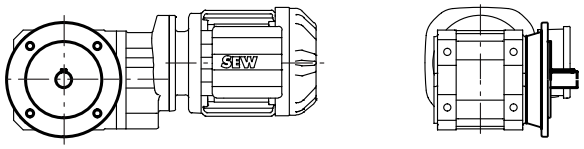
**KA.9B..DR..**

Foot-mounted helical-bevel gearmotor with hollow shaft



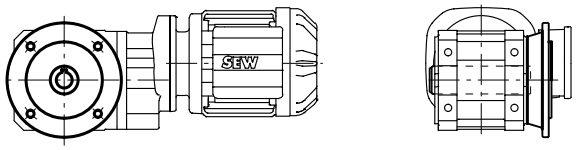
**KH.9B..DR..**

Foot-mounted helical-bevel gearmotor with hollow shaft and shrink disk



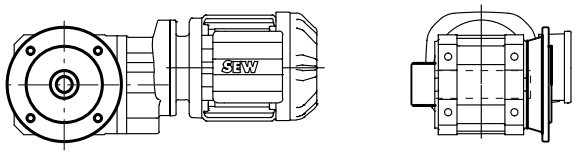
**KF.9B..DR..**

Foot-mounted helical-bevel gearmotor with B5 flange



**KAF.9B..DR..**

Foot-mounted helical-bevel gearmotor with B5 flange and hollow shaft

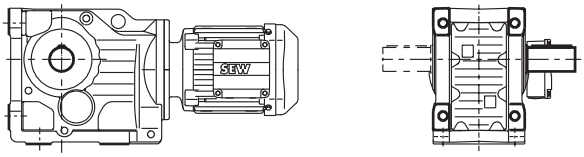


**KHF.9B..DR..**

Foot-mounted helical-bevel gearmotor with B5 flange, hollow shaft and shrink disk

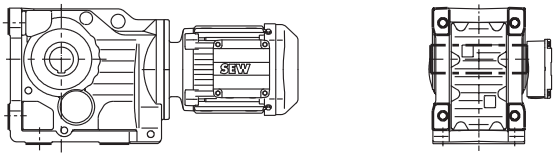
### 3.5.4 Helical-bevel gearmotors, gear unit sizes K..7

The following types of helical-bevel gearmotors with gear units of size K..7 are available:



**K..7..DR..**

Helical-bevel gearmotor in foot-mounted design

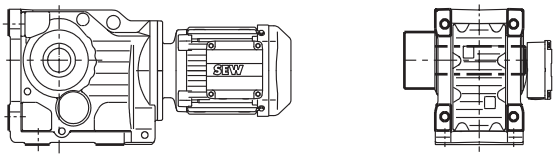


**KA..7B..DR..**

Helical-bevel gearmotor in foot-mounted design with hollow shaft

**KV..7B..DR..**

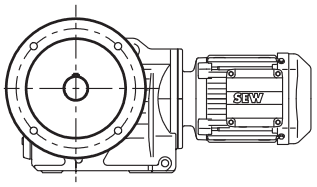
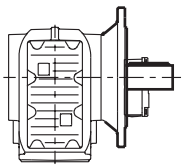
Helical-bevel gearmotor in foot-mounted design with hollow shaft and splining acc. to DIN 5480



**KH..7B..DR..**

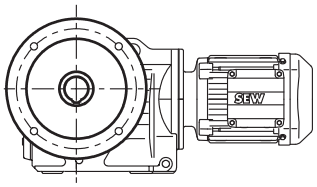
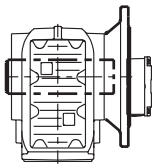
Helical-bevel gearmotor in foot-mounted design with hollow shaft and shrink disk

21284997/EN – 03/2015

**KF..7..DR..**

Helical-bevel gearmotor in B5 flange-mounted design

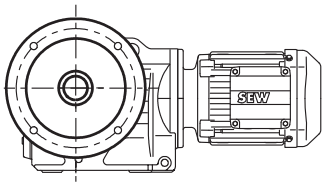
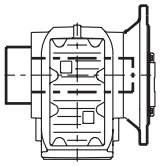



**KAF..7..DR..**

Helical-bevel gearmotor in B5 flange-mounted design with hollow shaft

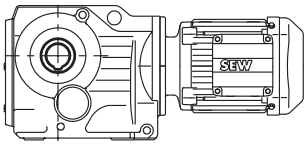
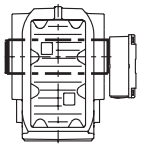
**KVF..7..DR..**

Helical-bevel gearmotor in B5 flange-mounted design with hollow shaft and splining acc. to DIN 5480

**KHF..7..DR..**

Helical-bevel gearmotor in B5 flange-mounted design with hollow shaft and shrink disk

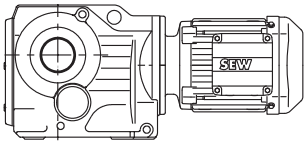
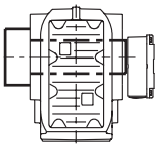



**KA..7..DR..**

Helical-bevel gearmotor with hollow shaft

**KV..7..DR..**

Helical-bevel gearmotor with hollow shaft and splining to DIN 5480

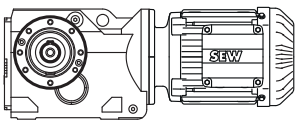
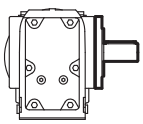



**KH..7..DR..**

Helical-bevel gearmotor with hollow shaft and shrink disk

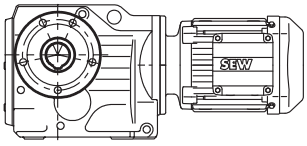
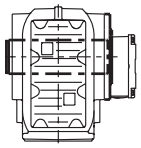
**KT..7..DR..**

Helical-bevel gearmotor with hollow shaft and TorqLOC® hollow shaft mounting system

**KZ..7..DR..** [1)]

Helical-bevel gearmotor in B14 flange-mounted design.

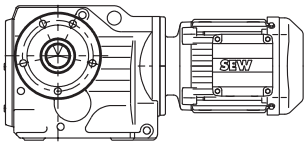
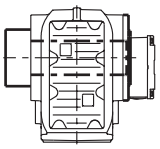
**KAZ..7..DR..**

Helical-bevel gearmotor in B14 flange-mounted design with hollow shaft

**KVZ..7..DR..**

Helical-bevel gearmotor in B14 flange-mounted design with hollow shaft and splining acc. to DIN 5480

21284997/EN – 03/2015

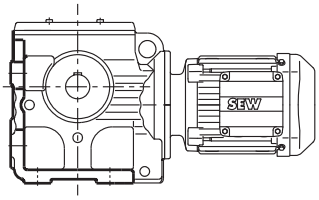
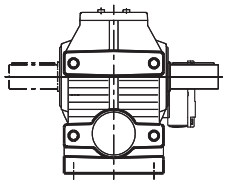
**KHZ..7..DR..**

Helical-bevel gearmotor in B14 flange-mounted design with hollow shaft and shrink disk

1) The gear unit design KZ.. is not considered in the gearmotor dimension sheets (chapter 10.5). Contact SEW-EURODRIVE, if required.

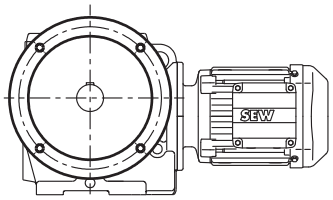
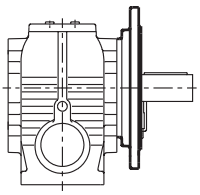
### 3.5.5 Helical-worm gearmotors

The following types of helical-worm gearmotors can be supplied:

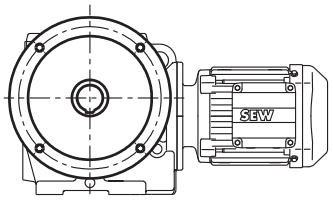
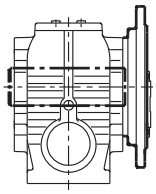
**S..DR..**

Foot-mounted helical-worm gearmotor

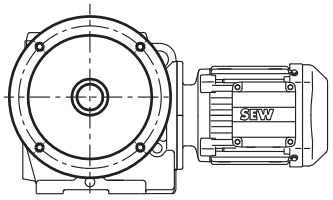
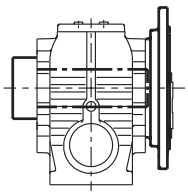
**SF..DR..**

Helical-worm gearmotor in B5 flange-mounted version

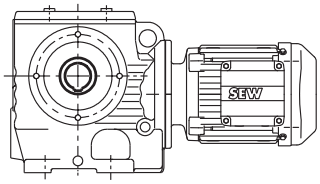
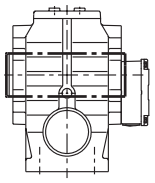
**SAF..DR..**

Helical-worm gearmotor in B5 flange-mounted version with hollow shaft

**SHF..DR..**

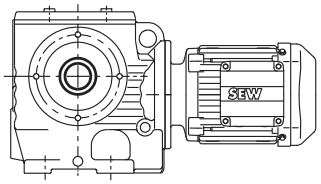
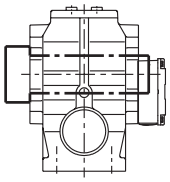
Helical-worm gearmotor in B5 flange-mounted version with hollow shaft and shrink disk

**SA..DR..**

Helical-worm gearmotor with hollow shaft

21284997/EN – 03/2015

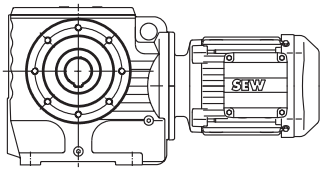
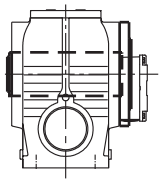



**SH..DR..**

Helical-worm gearmotor with hollow shaft and shrink disk

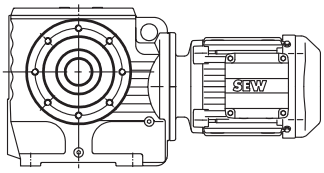
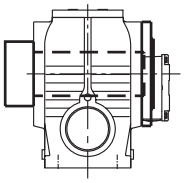
**ST..DR..**

Helical-worm gearmotor with hollow shaft and TorqLOC® hollow shaft mounting system

**SAZ..DR..**

B14 flange-mounted helical-worm gearmotor with hollow shaft

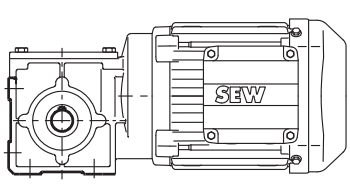
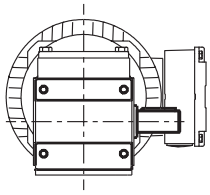



**SHZ..DR..**

B14 flange-mounted helical-worm gearmotor with hollow shaft and shrink disk

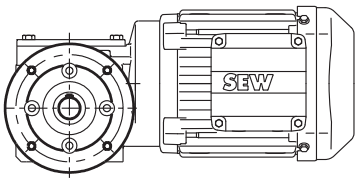
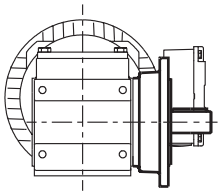
### 3.5.6 SPIROPLAN® gearmotors, gear unit sizes W..10, W..20, W..30

The following types of SPIROPLAN® gearmotors with gear units of sizes W..10, W..20 and W..30 are available:

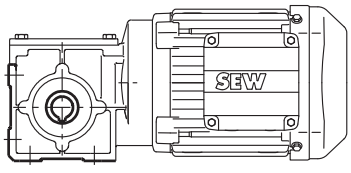
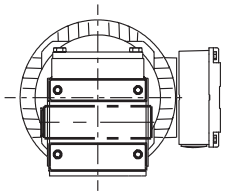
**W10..DR.., W20..DR.., W30..DR..,**

Foot-mounted SPIROPLAN® gearmotor

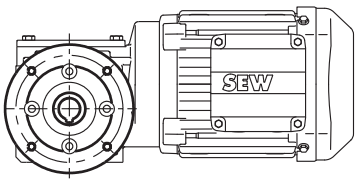
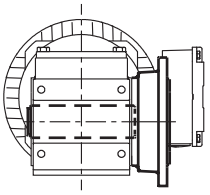
**WF10..DR.., WF20..DR.., WF30..DR..**

Flange-mounted SPIROPLAN® gearmotor

**WA10..DR.., WA20..DR.., WA30..DR..**

SPIROPLAN® gearmotor with hollow shaft

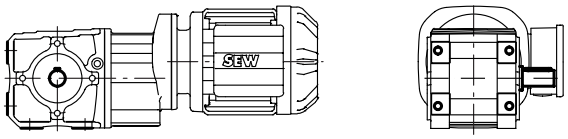
**WAF10..DR.., WAF20..DR.., WAF30..DR..**

Flange-mounted SPIROPLAN® gearmotor with hollow shaft

21284997/EN – 03/2015

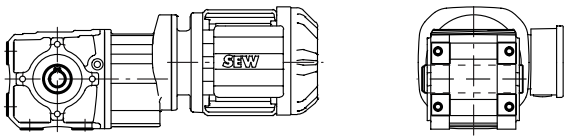
### 3.5.7 SPIROPLAN® gearmotors, gear unit sizes W..37 and W..47

The following types of SPIROPLAN® gearmotors with gear units of sizes W..37 and W..47 are available:



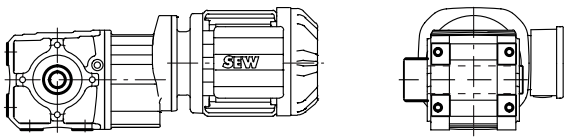
**W37..DR.., W47..DR..**

Foot-mounted SPIROPLAN® gearmotor



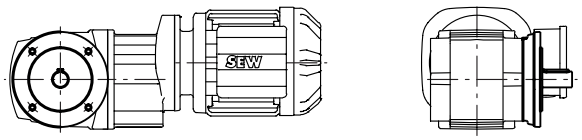
**WA37..B DR.., WA47..B DR..**

Foot-mounted SPIROPLAN® gearmotor with hollow shaft



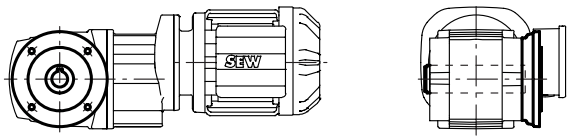
**WH37..B DR.., WH47..B DR..**

Foot-mounted SPIROPLAN® gearmotor with hollow shaft and shrink disk



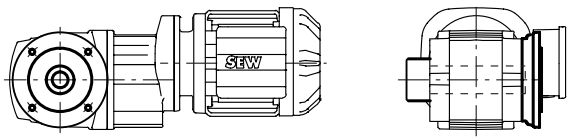
**WF37..DR.., WF47..DR..**

B5 flange-mounted SPIROPLAN® gearmotor



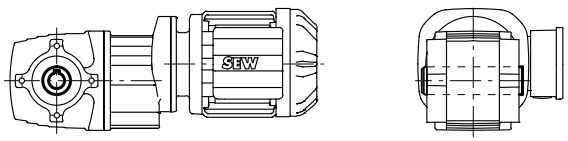
**WAF37..DR.., WAF47..DR..**

B5 flange-mounted SPIROPLAN® gearmotor with hollow shaft



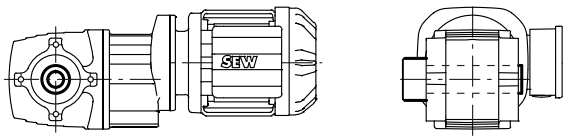
**WHF37..DR.., WHF47..DR..**

B5 flange-mounted SPIROPLAN® gearmotor with hollow shaft and shrink disk



**WA37..DR.., WA47..DR..**

SPIROPLAN® gearmotor with hollow shaft



**WH37..DR.., WH47..DR..**

SPIROPLAN® gearmotor with hollow shaft and shrink disk

**WT37..DR.., WT47..DR..**

SPIROPLAN® gearmotor with hollow shaft and TorqLOC® hollow shaft mounting system

21284997/EN – 03/2015

# 4 Project planning for drives

## 4.1 Additional publications

For more details on the subject of project planning for drives, visit the SEW-EURODRIVE website where you can order or download the following publications of the "Drive Engineering – Practical Implementation" series:

- Project Planning for Drives
- EMC in Drive Engineering – Basic Theoretical Principles and EMC-Compliant Installation in Practice
- Efficient Plant Automation with Mechatronic Drive Solutions
- SEW encoder systems
- Servo Technology
- Drive Engineering - Practical Implementation: Explosion-Proof Drives to EU Directive 94/9/EC

## 4.2 Drive and gear unit selection data

Certain data of the application have to be provided to being able to precisely define the components for your drive.

| Designation | Meaning | Unit |
|---|---|---|
| $n_{amin}$ | Minimum output speed | rpm |
| $n_{amax}$ | maximum output speed | rpm |
| $P_a$ at $n_{amin}$ | Output power at minimum output speed | kW |
| $P_a$ at $n_{amax}$ | Output power at maximum output speed | kW |
| $M_a$ at $n_{amin}$ | Output torque at minimum output speed | Nm |
| $M_a$ at $n_{amax}$ | Output torque at maximum output speed | Nm |
| $F_A$ | Axial load (tension and compression) on the output shaft | N |
| $F_R$ | Overhung load on output shaft | N |
| $J_{load}$ | Mass moment of inertia to be driven | $10^{-4}$ kgm$^2$ |
| R, F, K, S, W<br>M1 - M6 | Mounting position and required gear unit type; see also the chapters "Mounting position of gear units" (→ 🗎 54) and "Project planning notes for R, F, K, S, W gear units" (→ 🗎 40) | - |
| IP.. | Required degree of protection | - |
| $\vartheta_{amb}$ | Ambient temperature | °C |
| H | Installation altitude | m above sea level SL |
| S.., ..% cdf | Duty type and cyclic duration factor (cdf); alternatively, exact load cycle can be entered. | - |
| Z | Starting frequency; alternatively, exact load cycle can be specified | 1/h |
| $f_{line}$ | Line frequency | Hz |
| $V_{mot}$<br>$V_{brake}$ | Operating voltage of motor and brake | V |
| $M_B$ | Required braking torque | Nm |
| For inverter operation: required control type and setting range | | |

**Determining the motor data**

It is first necessary to have data on the machine to be driven (mass, speed, setting range, etc.) to design the drive correctly. These data help determine the required power, torque and speed. Refer to the "Drive Engineering – Practical Implementation, Project Planning" publication or the "SEW Workbench" project planning software for assistance.

**Selecting the correct drive**

The appropriate drive can be selected once the power and speed of the drive have been calculated and with regard to other mechanical requirements.

21284997/EN – 03/2015

## 4.3 Project planning procedure – DR.. motors

### 4.3.1 Drive selection – non-controlled operation

The following flow diagram illustrates the project planning procedure for a non-controlled drive. The drive consists of a gearmotor operated on the grid.

**Necessary information on the machine to be driven**

- Technical data and environmental conditions
- Stopping accuracy
- Output speed
- Start-up acceleration and deceleration
- Cyclic duration factor and starting frequency

↓

**Calculation of the relevant application data**

- Static and dynamic power
- Speeds
- Torques, powers
- Travel diagram, if required
- Determine the necessary service factor $f_B$

↓

**Motor selection**

- Torque/power/speed (number of poles)
- Acceleration torque/starting torque
- Starting frequency
- Determine the energy efficiency class IE
- Mechanical brake (braking work, braking torque, brake service life)
- Motor equipment (brake, plug connector, thermal motor protedction, etc.)

↓

**Gear unit selection**

- Define gear unit type, gear unit size, gear unit ratio and gear unit version
- Check the positioning accuracy
- Check the service factor $f_B$

↓

**Make sure that all requirements have been met.**

21284997/EN – 03/2015

### 4.3.2 Drive selection – controlled operation

The following flow diagram illustrates the project planning procedure for a positioning drive. The drive consists of a gearmotor that is powered by an inverter.

**Necessary information on the machine to be driven**

- Technical data and environmental conditions
- Positioning accuracy
- Speed setting range
- Calculate the travel cycle

↓

**Calculation of the relevant application data**

- Travel diagram
- Speeds
- Static, dynamic torques
- Regenerative power

↓

**Gear unit selection**

- Define gear unit type, gear unit size, gear unit ratio and gear unit version
- Check the positioning accuracy
- Check the gear unit utilization ($M_{a\,max} \geq M_a$)
- Check the input speed (churning losses)

↓

**Motor selection**

- Maximum torque
- With dynamic drives: effective torque at medium speed
- Maximum speed
- Determine the energy efficiency class IE
- Observe dynamic and thermal torque curves
- Selection of the correct encoder
- Motor equipment (brake, plug connector, TF selection, etc.)

↓

**Inverter selection**

- Motor/inverter assignment
- Continuous current and peak current for current-controlled inverters/axes

↓

**Selecting the braking resistor**

- Based on the calculated regenerative power, cdf and peak braking power

↓

**Options**
- EMC measures
- Operation/communication
- Additional functions

↓

**Make sure that all requirements have been met.**

## 4.4 Project planning information – R, F, K, S, W gear units

### 4.4.1 Efficiency of gear units

**General information**

The efficiency of gear units is mainly determined by the gearing and bearing friction. Keep in mind that the starting efficiency of a gear unit is always less than its efficiency at operating speed. This applies in particular to helical-worm and SPIROPLAN® right-angle gear units.

**R, F, K gear units**

Depending on the number of gear stages, the gearing efficiency of helical, parallel-shaft and helical-bevel gear units is up to 96% (3-stage), 97% (2-stage) and 98% (1-stage).

**S and W gear units**

The gearing in helical-worm and SPIROPLAN® gear units produces a high proportion of sliding friction. As a result, these gear units have higher gearing losses than R, F or K gear units and thus be less efficient.

Other factors influencing efficiency:

- Gear ratio of the helical-worm or SPIROPLAN® stage
- Input speed
- Gear unit temperature

Helical-worm gear units from SEW-EURODRIVE are helical gear/worm combinations that are significantly more efficient than plain worm gear units.

The efficiency may reach $\eta < 0.5$ if the helical-worm gear stage has a very high gear ratio.

*Self-locking*

Retrodriving torque in helical-worm or SPIROPLAN® gear units produces an efficiency of $\eta' = 2 - 1/\eta$, which is significantly less favorable than the forward efficiency $\eta$. The helical-worm or SPIROPLAN® gear unit is self-locking if the forward efficiency $\eta$ is ≤ 0.5. Some SPIROPLAN® gear units are also dynamically self-locking. Contact SEW-EURODRIVE if you want to make technical use of the braking effect of self-locking characteristics.

## INFORMATION

Note that the self-locking effect of helical-worm and SPIROPLAN® gear units is not permitted as the sole safety function for hoists.

21284997/EN – 03/2015

*Run-in phase*

The tooth flanks of new helical-worm and SPIROPLAN® gear units are not yet completely smooth. That fact makes for a greater friction angle and less efficiency than during later operation. This effect intensifies with increasing gear ratio.

During the run-in phase, the nominal efficiency of the gear unit is reduced by the relevant value from the following tables.

| | Worm | |
|---|---|---|
| | **i range** | **η reduction** |
| 1-start | approx. 50 – 280 | approx. 12% |
| 2-start | approx. 20 – 75 | approx. 6% |
| 3-start | approx. 20 – 90 | approx. 3% |
| 5-start | approx. 6 – 25 | approx. 3% |
| 6 start | approx. 7 – 25 | approx. 2 % |

| SPIROPLAN® W10 to W30 | | SPIROPLAN® W37 and W47 | |
|---|---|---|---|
| **i range** | **η reduction** | **i range** | **η reduction** |
| approx. 35 – 75 | approx. 15% | - | - |
| approx. 20 – 35 | approx. 10% | - | - |
| approx. 10 – 20 | approx. 8% | approx. 30 – 70 | approx. 8% |
| approx. 8 | approx. 5% | approx. 10 – 30 | approx. 5% |
| approx. 6 | approx. 3% | approx. 3 – 10 | approx. 3% |

The run-in phase usually lasts 48 hours. The following conditions must be met for helical-worm and SPIROPLAN® gear units to achieve their nominal efficiency ratings:

- The gear unit has been completely run-in.
- The gear unit has reached nominal operating temperature.
- The recommended lubricant has been filled.
- The gear unit is operating in the nominal load range.

**Churning losses**

In specific gear unit mounting positions (see also chapter "Gear unit mounting positions and order information" (→ 🗎 54)), the first gearing stage is completely immersed in the lubricant. With larger gear unit sizes and high circumferential velocities of the input stage, this gives rise to churning losses constituting a factor which cannot be ignored. Contact SEW-EURODRIVE if you wish to use gear units of this type.

To reduce churning losses to a minimum, use gear units in the M1 mounting position.

21284997/EN – 03/2015

## 4.5 Service factor

### 4.5.1 Determining the service factor

The effect of the driven machine on the gear unit is taken into account to a sufficient level of accuracy using the service factor $f_B$. The service factor is determined according to the daily operating time and the starting frequency Z. Three load classifications are taken into account depending on the mass acceleration factor. You can determine the service factor applicable to your application in the following figure. The service factor determined must be smaller than or equal to the service factor specified in the selection tables.

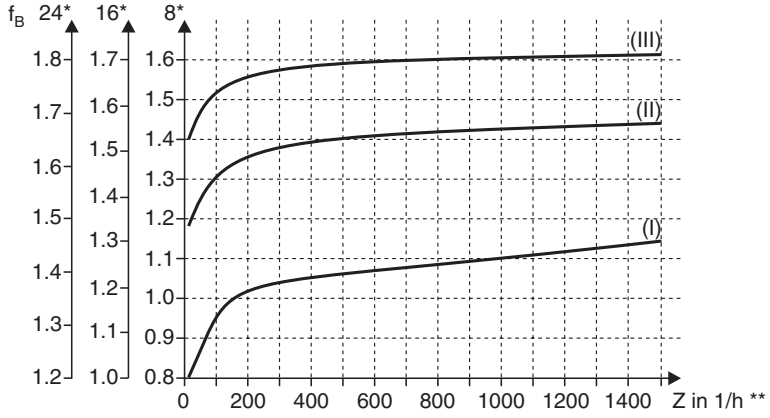
Condition for service factor

$$M_a \times f_B \leq M_{amax}$$

$M_a$ Output torque in Nm

$f_B$ SEW service factor

$M_{amax}$ Maximum output torque in Nm




* Daily operating time in hours/day

** Starting frequency Z: The cycles include all starting and braking procedures as well as changeovers from low to high speed and vice versa.

**Load classification**

Three load classifications are distinguished:

(I) Uniform, permitted mass acceleration factor ≤ 0.2

(II) Non-uniform, permitted mass acceleration factor ≤ 3

(III) Non-uniform, permitted mass acceleration factor ≤ 10

**Mass acceleration factor**

The mass acceleration factor is calculated as follows:

$$\text{Mass acceleration factor} = \frac{\text{All external mass moments of inertia}}{\text{Mass moment of inertia at motor end}}$$

"All external mass moments of inertia" are the mass moments of inertia of the driven machine and the gear unit, scaled down to the motor speed. The calculation for scaling down to motor speed is performed using the following formula:

21284997/EN – 03/2015

Scaling down the mass moment of inertia on the motor shaft

$$J_X = J \times \left( \frac{n}{n_M} \right)^2$$

$J_X$ Reduced mass moment of inertia on the motor shaft
J Mass moment of inertia with reference to the output speed of the gear unit
n Output speed of the gear unit
$n_M$ Motor speed

"Mass moment of inertia at the motor end" is the mass moment of inertia of the motor and, if installed, the brake and the flywheel fan (Z fan).

Service factors $f_B$ > 1.8 may occur with large mass acceleration factors (> 10), high levels of backlash in the transmission elements or large overhung loads. Contact SEW-EURODRIVE in such a case.

### 4.5.2 Servicefactor: SEW-$f_B$

The method for determining the maximum permitted continuous torque $M_{amax}$ and using this value to derive the service factor $f_B = M_{amax} / M_a$ is not defined in a standard and varies greatly from manufacturer to manufacturer. Even at a SEW service factor of $f_B$ = 1, the gear units afford an extremely high level of safety and reliability in the fatigue strength range (exception: wearing of the worm wheel in helical-worm gear units). The service factor may differ from specifications of other gear unit manufacturers. If you are in doubt, contact SEW-EURODRIVE for more detailed information on your specific drive.

**Example**

Mass acceleration factor 2.5 (load classification II), operating time 14 hours/day (read off at 16 h/d) and 300 cycles/hour produce a service factor $f_B$ = 1.5, as shown in the figure on the previous page. According to the selection tables, the selected gearmotor must have an SEW-$f_B$ value of 1.5 or greater.

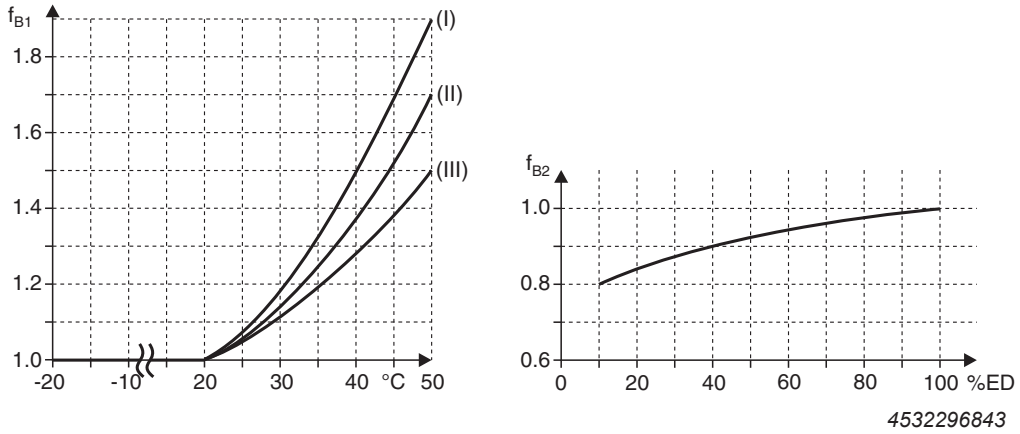
### 4.5.3 Helical-worm gear unit

In the case of helical-worm gear units, two further service factors have to be taken into account in addition to the service factor $f_B$ shown the above diagram. They are:

- $f_{B1}$ = Service factor from ambient temperature
- $f_{B2}$ = Service factor from cyclic duration factor

21284997/EN – 03/2015

The additional service factors $f_{B1}$ and $f_{B2}$ can be determined by referring to the diagram below. For $f_{B1}$, the load classification is taken into account in the same way as for $f_B$. The following diagram shows the additional service factors $f_{B1}$ and $f_{B2}$:




Cyclic duration factor

$$CDF = \frac{Time\ under\ load\ in\ min\ /\ h}{60} \times 100$$

CDF Cyclic duration factor in %

Contact SEW-EURODRIVE in the case of temperatures below -20°C (→ diagram $f_{B1}$).

The total service factor for helical-worm gear units is calculated as follows:

Total service factor

$$f_{Btot} = f_B \times f_{B1} \times f_{B2}$$

$f_{Btot}$ Total service factor

$f_B$ SEW service factor

$f_{B1}$ Service factor from ambient temperature

$f_{B2}$ Service factor from cyclic duration factor

**Example**

The gearmotor with the service factor $f_B$ = 1.51 in the previous example is to be a helical-worm gearmotor.

Ambient temperature $\vartheta$ = 40°C → $f_{B1}$ = 1.38 (read off at load classification II)

Time under load = 40 min/h → CDF = 66.67% → $f_{B2}$ = 0.95

The total service factor is $f_{Btot}$ = 1.51 × 1.38 × 0.95 = 1.98

According to the selection tables, the selected helical-worm gearmotor must have an SEW $f_B$ service factor of 1.98 or greater.

21284997/EN – 03/2015

## 4.6 Overhung and axial loads

### 4.6.1 Determining the overhung load

When determining the resulting overhung load, the type of transmission element mounted on the shaft end must be considered. The following transmission element factors $f_Z$ have to be considered for various transmission elements.

| Transmission element | Transmission element factor $f_Z$ | Comments |
|---|---|---|
| Gears | 1.15 | < 17 teeth |
| Sprockets | 1.40 | < 13 teeth |
| Sprockets | 1.25 | < 20 teeth |
| Narrow V-belt pulleys | 1.75 | Influence of the pre-tensioning force |
| Flat belt pulleys | 2.50 | Influence of the pre-tensioning force |
| Toothed belt pulleys | 1.50 | Influence of the pre-tensioning force |
| Gear rack pinion, pre-tensioned | 2.00 | Influence of the pre-tensioning force |

The overhung force load exerted on the motor or gear unit shaft is then calculated as follows:

$$F_R = \frac{M_d \times 2000}{d_0} \times f_Z$$

$F_R$ Overhung load in N

$M_d$ Torque in Nm

$d_0$ Mean diameter of the installed transmission element in mm

$f_Z$ Transmission element factor

### 4.6.2 Permitted overhung load

The basis for determining the permitted overhung loads is the computation of the rated bearing service life $L_{10h}$ of the anti-friction bearings (according to ISO 281).

For special operating conditions, the permitted overhung loads can be determined with regard to the modified service life $L_{na}$ on request.

The permitted overhung loads $F_{Ra}$ for the output shafts of foot-mounted gear units with a solid shaft are listed in the selection tables for gearmotors. For other versions, contact SEW-EURODRIVE.

21284997/EN – 03/2015

## INFORMATION

**The values refer to force applied to the center of the shaft end (in right-angle gear units as viewed onto the A-side output). The values for the force application angle α and direction of rotation are based on the most unfavorable conditions.**

- For K and S gear units, only 50% of the $F_{Ra}$ value specified in the selection tables is permitted in mounting position M1 with wall attachment on the front face.
- Helical-bevel gearmotors K167 and K187 in mounting positions M1 to M4: A maximum of 50% of the overhung load $F_{Ra}$ specified in the selection tables is permitted in the case of gear unit mountings other than those shown in the mounting position sheets.
- Foot and flange-mounted helical gearmotors (R..F): A maximum of 50% of the overhung load $F_{Ra}$ specified in the selection tables is permitted in the case of torque transmission via the flange mounting.

### 4.6.3 Higher permitted overhung loads

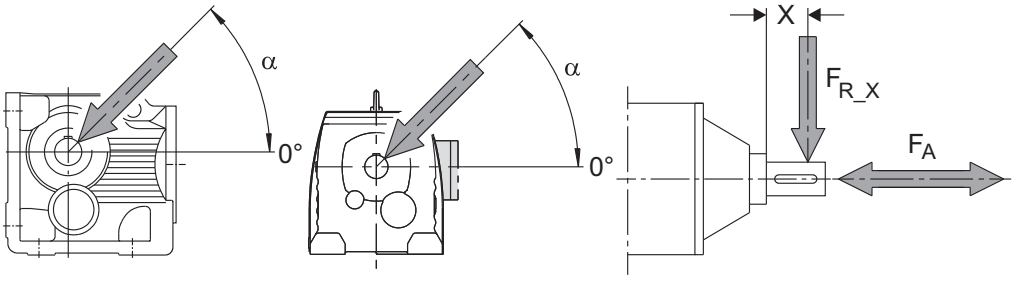
Exactly considering the force application angle α and the direction of rotation makes it possible to achieve a higher overhung load than listed in the selection tables.

Furthermore, higher output shaft loads are permitted if heavy duty bearings are installed, especially with R, F and K gear units.

Contact SEW-EURODRIVE in such cases.

### 4.6.4 Definition of the force application

Force application is defined according to the following figure:




*9007203549116427*

$F_{R_X}$ Permitted overhung load at point x in N

$F_A$ Permitted axial load in N

α Force application angle

### 4.6.5 Permitted axial forces

If there is no overhung load, then an axial load $F_A$ (tension or compression) amounting to 50% of the overhung load given in the selection tables is permitted. This condition applies to the following gearmotors:

- Helical gearmotors except for R..137... to R..167...
- Parallel shaft and helical-bevel gearmotors with solid shaft except for F97...
- Helical-worm gearmotors with solid shaft

21284997/EN – 03/2015

## INFORMATION

Contact SEW-EURODRIVE for all other types of gear units and in the event of significantly greater axial forces or combinations of overhung load and axial force.



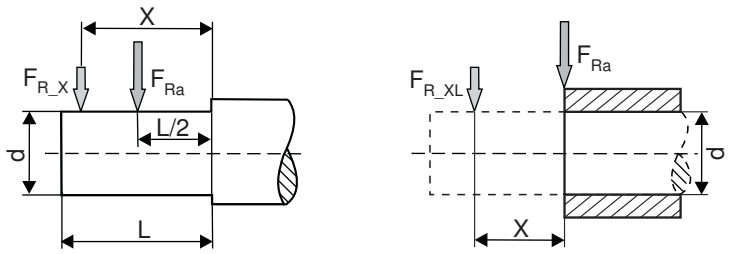
### 4.6.6 Input end: Overhung load conversion for off-center force application

## INFORMATION

Contact SEW-EURODRIVE with regard to the project planning of gear units with input shaft assemblies and off-center force application.

### 4.6.7 On the output side: Overhung load conversion for off-center force application

The permitted overhung loads must be calculated according the selection tables using the following formulae in the event that force is not applied at the center of the shaft end. The smaller of the two values $F_{R_XL}$ (according to bearing life) and $F_{R_XW}$ (according to shaft strength) is the permitted value for the overhung load at point x. Note that the calculations apply to $M_{a\ max}$.




Overhung load $F_{R_X}$ for off-center force application

41100683

$F_{R_XL}$ based on bearing service life

$$F_{R_XL} = F_{Ra} \times \frac{a}{b + X}$$

$F_{R_XW}$ based on shaft strength

$$F_{R_XW} = \frac{c}{f + X}$$

| | |
|---|---|
| $F_{Ra}$ | Permitted overhung load (X = L/2) based on $M_{amax}$ in N for foot-mounted gear units according to the selection tables |
| X | Distance from the shaft shoulder to the force application point in mm |
| a, b, f | Gear unit constants for overhung load conversion in mm |
| c | Gear unit constant for overhung load conversion in Nmm |

21284997/EN – 03/2015

### Gear unit constants for overhung load conversion

| Gear unit type | a mm | b mm | c Nmm | f mm | d mm | l mm |
|---|---|---|---|---|---|---|
| RX57 | 43.5 | 23.5 | $1.51 \times 10^5$ | 34.2 | 20 | 40 |
| RX67 | 52.5 | 27.5 | $2.42 \times 10^5$ | 39.7 | 25 | 50 |
| RX77 | 60.5 | 30.5 | $1.95 \times 10^5$ | 0 | 30 | 60 |
| RX87 | 73.5 | 33.5 | $7.69 \times 10^5$ | 48.9 | 40 | 80 |
| RX97 | 86.5 | 36.5 | $1.43 \times 10^6$ | 53.9 | 50 | 100 |
| RX107 | 102.5 | 42.5 | $2.47 \times 10^6$ | 62.3 | 60 | 120 |
| R07 | 72.0 | 52.0 | $4.67 \times 10^4$ | 11 | 20 | 40 |
| R17 | 88.5 | 68.5 | $6.527 \times 10^4$ | 17 | 20 | 40 |
| R27 | 106.5 | 81.5 | $1.56 \times 10^5$ | 11.8 | 25 | 50 |
| R37 | 118 | 93 | $1.24 \times 10^5$ | 0 | 25 | 50 |
| R47 | 137 | 107 | $2.44 \times 10^5$ | 15 | 30 | 60 |
| R57 | 147.5 | 112.5 | $3.77 \times 10^5$ | 18 | 35 | 70 |
| R67 | 168.5 | 133.5 | $2.65 \times 10^5$ | 0 | 35 | 70 |
| R77 | 173.7 | 133.7 | $3.97 \times 10^5$ | 0 | 40 | 80 |
| R87 | 216.7 | 166.7 | $8.47 \times 10^5$ | 0 | 50 | 100 |
| R97 | 255.5 | 195.5 | $1.06 \times 10^6$ | 0 | 60 | 120 |
| R107 | 285.5 | 215.5 | $2.06 \times 10^6$ | 0 | 70 | 140 |
| R137 | 343.5 | 258.5 | $4.58 \times 10^6$ | 0 | 90 | 170 |
| R147 | 402 | 297 | $8.65 \times 10^6$ | 33 | 110 | 210 |
| R167 | 450 | 345 | $1.26 \times 10^7$ | 0 | 120 | 210 |
| F27 | 109.5 | 84.5 | $1.13 \times 10^5$ | 0 | 25 | 50 |
| F37 | 123.5 | 98.5 | $1.07 \times 10^5$ | 0 | 25 | 50 |
| F47 | 153.5 | 123.5 | $1.40 \times 10^5$ | 0 | 30 | 60 |
| F57 | 170.7 | 135.7 | $2.70 \times 10^5$ | 0 | 35 | 70 |
| F67 | 181.3 | 141.3 | $4.12 \times 10^5$ | 0 | 40 | 80 |
| F77 | 215.8 | 165.8 | $7.87 \times 10^5$ | 0 | 50 | 100 |
| F87 | 263 | 203 | $1.06 \times 10^6$ | 0 | 60 | 120 |
| F97 | 350 | 280 | $2.09 \times 10^6$ | 0 | 70 | 140 |
| F107 | 373.5 | 288.5 | $4.23 \times 10^6$ | 0 | 90 | 170 |
| F127 | 442.5 | 337.5 | $9.45 \times 10^6$ | 0 | 110 | 210 |
| F157 | 512 | 407 | $1.05 \times 10^7$ | 0 | 120 | 210 |
| K19 | 103.7 | 83.7 | $8.66 \times 10^4$ | 0 | 20 | 40 |
| K29 | 124.5 | 99.5 | $1.26 \times 10^5$ | 0 | 25 | 50 |
| K37 | 123.5 | 98.5 | $1.30 \times 10^5$ | 0 | 25 | 50 |
| K47 | 153.5 | 123.5 | $1.40 \times 10^5$ | 0 | 30 | 60 |
| K57 | 169.7 | 134.7 | $2.70 \times 10^5$ | 0 | 35 | 70 |
| K67 | 181.3 | 141.3 | $4.12 \times 10^5$ | 0 | 40 | 80 |
| K77 | 215.8 | 165.8 | $7.69 \times 10^5$ | 0 | 50 | 100 |
| K87 | 252 | 192 | $1.64 \times 10^6$ | 0 | 60 | 120 |
| K97 | 319 | 249 | $2.80 \times 10^6$ | 0 | 70 | 140 |
| K107 | 373.5 | 288.5 | $5.53 \times 10^6$ | 0 | 90 | 170 |
| K127 | 443.5 | 338.5 | $8.31 \times 10^6$ | 0 | 110 | 210 |
| K157 | 509 | 404 | $1.18 \times 10^7$ | 0 | 120 | 210 |
| K167 | 621.5 | 496.5 | $1.88 \times 10^7$ | 0 | 160 | 250 |
| K187 | 720.5 | 560.5 | $3.04 \times 10^7$ | 0 | 190 | 320 |
| S37 | 118.5 | 98.5 | $6.0 \times 10^4$ | 0 | 20 | 40 |
| S47 | 130 | 105 | $1.33 \times 10^5$ | 0 | 25 | 50 |
| S57 | 150 | 120 | $2.14 \times 10^5$ | 0 | 30 | 60 |
| S67 | 184 | 149 | $3.04 \times 10^5$ | 0 | 35 | 70 |
| S77 | 224 | 179 | $5.26 \times 10^5$ | 0 | 45 | 90 |
| S87 | 281.5 | 221.5 | $1.68 \times 10^6$ | 0 | 60 | 120 |
| S97 | 326.3 | 256.3 | $2.54 \times 10^6$ | 0 | 70 | 140 |
| W10 | 84.8 | 64.8 | $3.6 \times 10^4$ | 0 | 16 | 40 |
| W20 | 98.5 | 78.5 | $4.4 \times 10^4$ | 0 | 20 | 40 |
| W30 | 109.5 | 89.5 | $6.0 \times 10^4$ | 0 | 20 | 40 |
| W37 | 121.1 | 101.1 | $6.95 \times 10^4$ | 0 | 20 | 40 |
| W47 | 145.5 | 115.5 | $4.26 \times 10^5$ | 35.6 | 30 | 60 |

Values for types not listed are available on request.

21284997/EN – 03/2015

## 4.7 Multi-stage gearmotors

### 4.7.1 General information

You can achieve particularly low output speeds by using double gear units or multi-stage gearmotors. This means an additional second gear unit, usually a helical gear unit, is installed in front of the gear unit or between gear unit and motor.

The resulting total reduction ratio may necessitate gear unit protection.

### 4.7.2 Limiting the motor power

Reduce the maximum output motor power according to the maximum permitted output torque on the gear unit ($M_{a\ max}$). For this purpose you first have to determine the maximum permitted motor torque ($M_{N\ perm}$).

You can calculate the maximum permitted motor torque as follows:

Maximum permitted motor torque

$$M_{N\,perm} = \frac{M_{a\ max}}{i_{tot} \times \eta_{tot}}$$

| | |
|---|---|
| $M_{n\ perm}$ | Maximum permitted motor torque in Nm |
| $M_{a\ max}$ | Maximum permitted output torque in Nm |
| $i_{tot}$ | Total gear unit ratio |
| $\eta_{tot}$ | Overall efficiency |

Use this maximum permitted motor torque $M_{N\ perm}$ and the load diagram of the motor to determine the associated value for the motor current.

Take appropriate measures to prevent the continuous current consumption of the motor from exceeding the pre-determined value for the motor torque $M_{N\ perm}$. An appropriate measure would be to set the trip current of the motor protection switch to this maximum current value. A motor circuit breaker offers the option to compensate for a brief overload, for example during the startup phase of the motor. A suitable measure for inverter drives is to limit the output current of the inverter according to the determined motor current.

### 4.7.3 Checking brake torques

When using a multi-stage brakemotor, you have to limit the braking torque ($M_B$) according to the maximum permitted motor torque $M_{N\ perm}$. The maximum permitted braking torque is 200% $M_{N\ perm}$.

Maximum braking torque

$$M_{B\ max} \leq 200\%\ M_{N\ perm}$$

| | |
|---|---|
| $M_{B\ max}$ | Maximum braking torque in Nm |
| $M_{N\ perm}$ | Maximum permitted motor torque in Nm |

If you have questions regarding the permitted starting frequency of multi-stage brake motors, please consult SEW-EURODRIVE.

21284997/EN – 03/2015

### 4.7.4 Preventing blocking

Blockage on the output side of the multi-stage gear unit or multi-stage gearmotor is not permitted. The reason is that indeterminable torques and uncontrolled overhung and axial loads may occur. The gear units may suffer irreparable damage as a result.

## INFORMATION

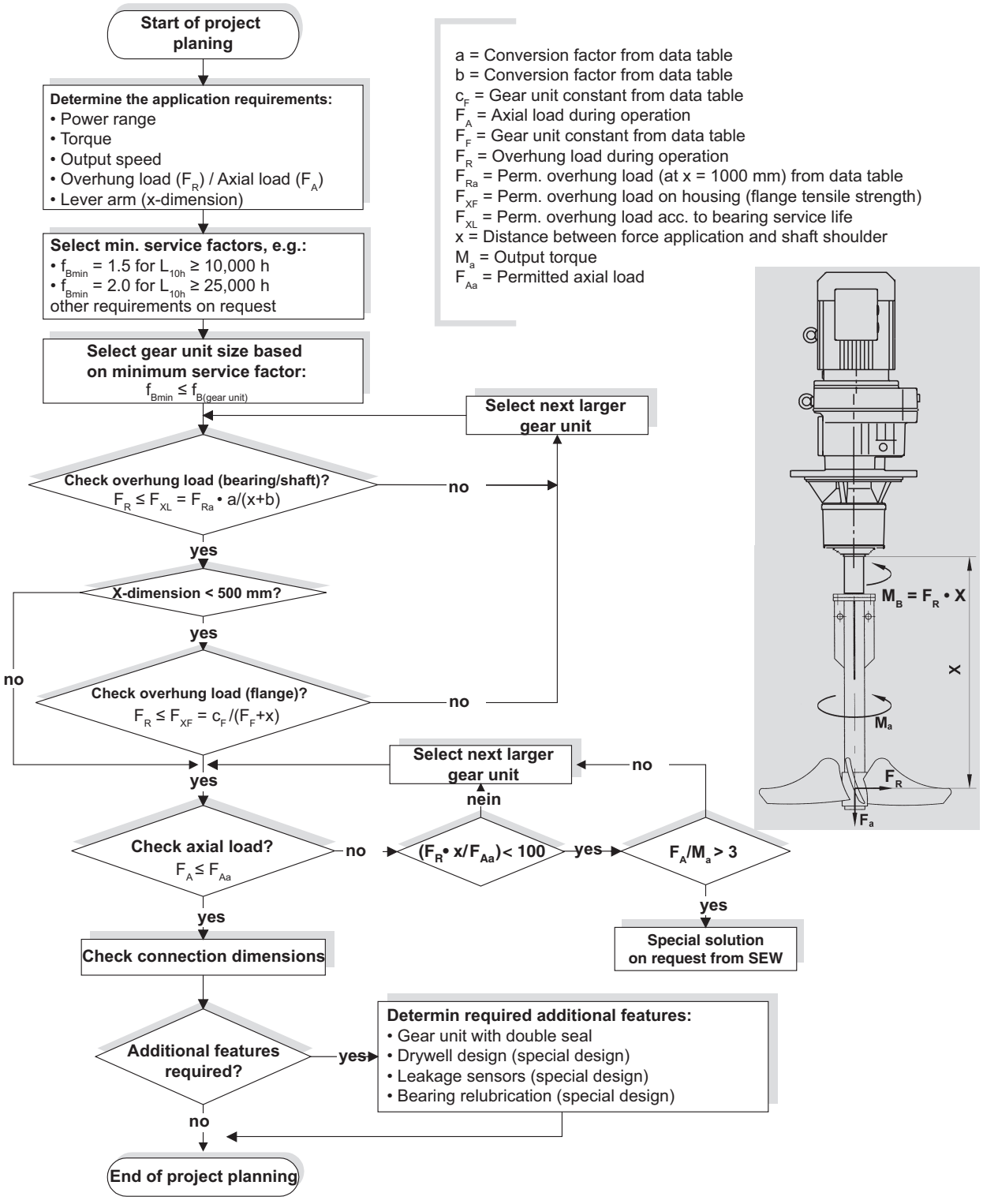
Consult SEW-EURODRIVE if blockages of the double gear unit or multi-stage gearmotor cannot be avoided due to the application.

21284997/EN – 03/2015

## 4.8 Project planning for RM gear units

### 4.8.1 Project planning procedure

You must take account of the higher overhung and axial loads when planning projects with RM helical gearmotors with an extended bearing hub. Observe the following project planning procedure:




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### 4.8.2 Permitted overhung loads and axial forces

The following table shows the permitted overhung loads $F_{Ra}$ and axial loads $F_{Aa}$ for various service factors $f_B$ and nominal bearing service life $L_{10h}$.

**$f_{Bmin}$ = 1.5; $L_{10h}$ = 10,000 h**

| | | $n_a$ in rpm | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | < 16 | 16-25 | 26-40 | 41-60 | 61-100 | 101-160 | 161-250 | 251-400 |
| RM57 | $F_{Ra}$ in N | 400 | 400 | 400 | 400 | 400 | 405 | 410 | 415 |
| | $F_{Aa}$ in N | 18800 | 15000 | 11500 | 9700 | 7100 | 5650 | 4450 | 3800 |
| RM67 | $F_{Ra}$ in N | 575 | 575 | 575 | 580 | 575 | 585 | 590 | 600 |
| | $F_{Aa}$ in N | 19000 | 18900 | 15300 | 11900 | 9210 | 7470 | 5870 | 5050 |
| RM77 | $F_{Ra}$ in N | 1200 | 1200 | 1200 | 1200 | 1200 | 1210 | 1210 | 1220 |
| | $F_{Aa}$ in N | 22000 | 22000 | 19400 | 15100 | 11400 | 9220 | 7200 | 6710 |
| RM87 | $F_{Ra}$ in N | 1970 | 1970 | 1970 | 1970 | 1980 | 1990 | 2000 | 2010 |
| | $F_{Aa}$ in N | 30000 | 30000 | 23600 | 18000 | 14300 | 11000 | 8940 | 8030 |
| RM97 | $F_{Ra}$ in N | 2980 | 2980 | 2980 | 2990 | 3010 | 3050 | 3060 | 3080 |
| | $F_{Aa}$ in N | 40000 | 36100 | 27300 | 20300 | 15900 | 12600 | 9640 | 7810 |
| RM107 | $F_{Ra}$ in N | 4230 | 4230 | 4230 | 4230 | 4230 | 4230 | 3580 | 3830 |
| | $F_{Aa}$ in N | 48000 | 41000 | 30300 | 23000 | 18000 | 13100 | 9550 | 9030 |
| RM137 | $F_{Ra}$ in N | 8710 | 8710 | 8710 | 8710 | 7220 | 5060 | 3980 | 6750 |
| | $F_{Aa}$ in N | 70000 | 70000 | 70000 | 57600 | 46900 | 44000 | 35600 | 32400 |
| RM147 | $F_{Ra}$ in N | 11100 | 11100 | 11100 | 11100 | 11100 | 10600 | 8640 | 10800 |
| | $F_{Aa}$ in N | 70000 | 70000 | 69700 | 58400 | 45600 | 38000 | 32800 | 30800 |
| RM167 | $F_{Ra}$ in N | 14600 | 14600 | 14600 | 14600 | 14600 | 14700 | – | – |
| | $F_{Aa}$ in N | 70000 | 70000 | 70000 | 60300 | 45300 | 36900 | – | – |

**$f_{Bmin}$ = 2.0; $L_{10h}$ = 25,000 h**

| | | $n_a$ in rpm | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | < 16 | 16-25 | 26-40 | 41-60 | 61-100 | 101-160 | 161-250 | 251-400 |
| RM57 | $F_{Ra}$ in N | 410 | 410 | 410 | 410 | 410 | 415 | 415 | 420 |
| | $F_{Aa}$ in N | 12100 | 9600 | 7350 | 6050 | 4300 | 3350 | 2600 | 2200 |
| RM67 | $F_{Ra}$ in N | 590 | 590 | 590 | 595 | 590 | 595 | 600 | 605 |
| | $F_{Aa}$ in N | 15800 | 12000 | 9580 | 7330 | 5580 | 4460 | 3460 | 2930 |
| RM77 | $F_{Ra}$ in N | 1210 | 1210 | 1210 | 1210 | 1210 | 1220 | 1220 | 1220 |
| | $F_{Aa}$ in N | 20000 | 15400 | 11900 | 9070 | 6670 | 5280 | 4010 | 3700 |
| RM87 | $F_{Ra}$ in N | 2000 | 2000 | 2000 | 2000 | 2000 | 1720 | 1690 | 1710 |
| | $F_{Aa}$ in N | 24600 | 19200 | 14300 | 10600 | 8190 | 6100 | 5490 | 4860 |
| RM97 | $F_{Ra}$ in N | 3040 | 3040 | 3040 | 3050 | 3070 | 3080 | 2540 | 2430 |
| | $F_{Aa}$ in N | 28400 | 22000 | 16200 | 11600 | 8850 | 6840 | 5830 | 4760 |
| RM107 | $F_{Ra}$ in N | 4330 | 4330 | 4330 | 4330 | 4330 | 3350 | 2810 | 2990 |
| | $F_{Aa}$ in N | 32300 | 24800 | 17800 | 13000 | 9780 | 8170 | 5950 | 5620 |
| RM137 | $F_{Ra}$ in N | 8850 | 8850 | 8850 | 8830 | 5660 | 4020 | 3200 | 5240 |
| | $F_{Aa}$ in N | 70000 | 59900 | 48000 | 37900 | 33800 | 31700 | 25600 | 23300 |
| RM147 | $F_{Ra}$ in N | 11400 | 11400 | 11400 | 11400 | 11400 | 8320 | 6850 | 8440 |
| | $F_{Aa}$ in N | 70000 | 60600 | 45900 | 39900 | 33500 | 27900 | 24100 | 22600 |
| RM167 | $F_{Ra}$ in N | 15100 | 15100 | 15100 | 15100 | 15100 | 13100 | – | – |
| | $F_{Aa}$ in N | 70000 | 63500 | 51600 | 37800 | 26800 | 23600 | – | – |

21284997/EN – 03/2015

### 4.8.3 Conversion factors and gear unit constants

The following conversion factors and gear unit constants apply to calculating the permitted overhung load $F_{xL}$ at point x ≠ 1000 mm for RM gearmotors:

| Gear unit type | a | b | $c_F$ ($f_B$ = 1.5) | $c_F$ ($f_B$ = 2.0) | $F_F$ |
|---|---|---|---|---|---|
| RM57 | 1047 | 47 | 1220600 | 1260400 | 277 |
| RM67 | 1047 | 47 | 2047600 | 2100000 | 297.5 |
| RM77 | 1050 | 50 | 2512800 | 2574700 | 340.5 |
| RM87 | 1056.5 | 56.5 | 4917800 | 5029000 | 414 |
| RM97 | 1061 | 61 | 10911600 | 11124100 | 481 |
| RM107 | 1069 | 69 | 15367000 | 15652000 | 554.5 |
| RM137 | 1088 | 88 | 25291700 | 25993600 | 650 |
| RM147 | 1091 | 91 | 30038700 | 31173900 | 756 |
| RM167 | 1089.5 | 89.5 | 42096100 | 43654300 | 869 |

### 4.8.4 Additional weight of RM gear units

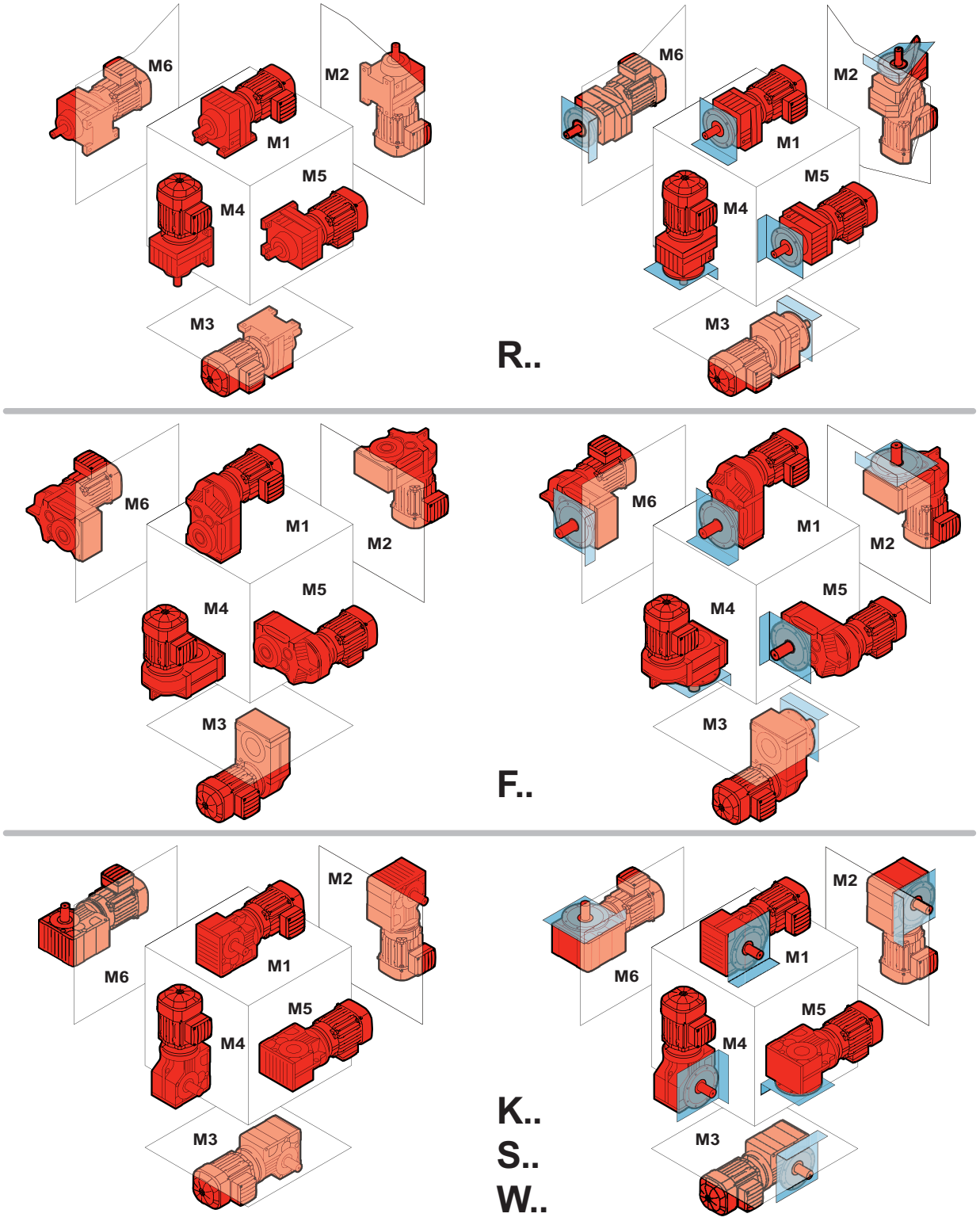
| Type | Additional weight compared to RF with reference to the smallest RF flange<br>Δm in kg |
|---|---|
| RM57 | 12.0 |
| RM67 | 15.8 |
| RM77 | 25.0 |
| RM87 | 29.7 |
| RM97 | 51.3 |
| RM107 | 88.0 |
| RM137 | 111.1 |
| RM147 | 167.4 |
| RM167 | 195.4 |

21284997/EN – 03/2015

# 5 Gear unit mounting positions and order information

## 5.1 General mounting position information – R, F, K, S, W gear units

The following figure shows the SEW mounting positions M1 – M6 of the gear units:




21284997/EN – 03/2015

## 5.2 Order information

### INFORMATION

The following order information is required for R, F, K, S, and W gear units or gearmotors in addition to the mounting position to exactly determine the drive design.

This information is also required for gearmotors that do not depend on a particular mounting position.



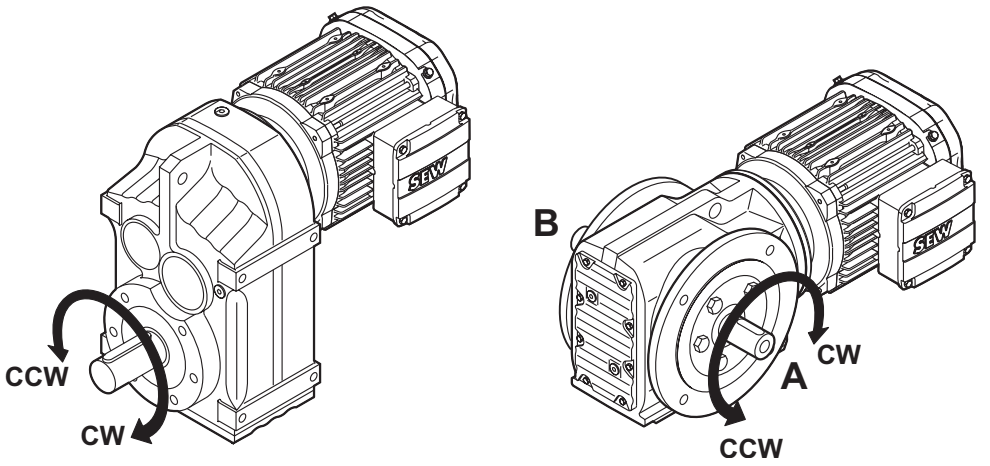
### 5.2.1 Order information for all gear units and gearmotors

Observe the following notes for all gear units and gearmotors from SEW-EURODRIVE.

#### Output direction of rotation with backstop

If the drive has a backstop RS, you have to indicate the direction of rotation of the output for the drive. The following definition applies:

| | |
|---|---|
| As viewed at the output shaft: | Clockwise (CW) = Rotating clockwise |
| | Counterclockwise (CCW) = Rotating counterclockwise |




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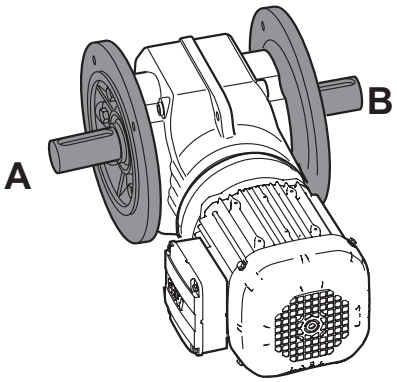
In right-angle gear units, you also have to indicate whether the direction of rotation is given looking onto the A or B-side.

21284997/EN – 03/2015

#### Position of the output shaft and the output flange

In right-angle gear units, you also have to indicate the position of the output shaft and the output flange:

- A or B or AB

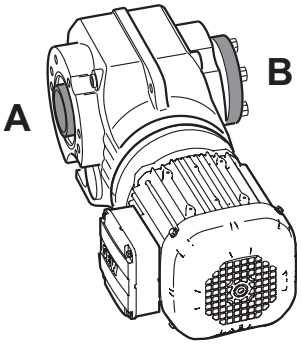



*4579723275*

#### Position of the output end in right-angle gear units

In shaft mounted right-angle gear units with a shrink disc, you also have to indicate whether the A or B-side is the output end. In the figure below, the A-side is the output end. The shrink disc is located opposite the output end.

In the case of shaft-mounted right-angle gear units, the designation "output end" is equivalent to the "shaft position" of right-angle gear units with a solid shaft.




*4579730955*

## INFORMATION

For the permitted mounting surfaces (= hatched area), refer to the mounting position sheets.

**Example:** Only the mounting surface at the bottom is possible with helical-bevel gear units K167/K187 in mounting positions M5 and M6.

### 5.2.2 Position of motor terminal box and cable entry

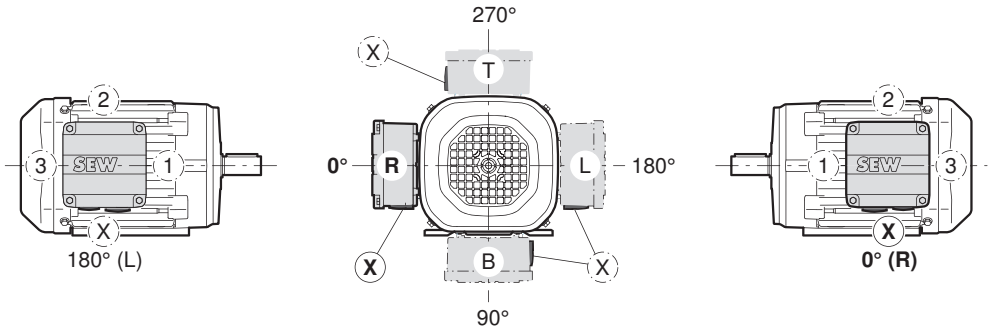
The position of the motor terminal box was previously specified as 0°, 90°, 180° or 270° as viewed onto the fan guard (= B-side); see the following figure. A change in the product standard EN 60034 stipulates that the following designations have to be used for the terminal box positions of foot-mounted motors in the future:

- As viewed onto the output shaft = A-side
- Designation as R (right), B (bottom), L (left) and T (top)

21284997/EN – 03/2015

This new designation applies to foot-mounted motors without a gear unit in mounting position B3 (= M1). The previous designation is retained for gearmotors. The following figure shows both designations. Where the mounting position of the motor changes, R, B, L and T are rotated accordingly. In motor mounting position B8 (= M3), T is at the bottom.

The position of the cable entry can be selected as well. "X" (= normal position), "1", "2" or "3" are possible, as shown in the following figure.




*3975310859*

Unless indicated otherwise, you will receive the terminal box type 0° with "X" cable entry. For mounting position M3, we recommend that you select cable entry "2".

## INFORMATION

Only cable entries "X" and "2" are possible with the DR63 motor. Exception: This limitation does not apply with IS plug connectors.

## INFORMATION

When the **terminal box is in the 90° (B) position**, check whether the gearmotor has to be supported.

**Software support**

Not all cable entry positions X, 1, 2, 3 and terminal box positions 0°(R), 90°(B), 180°(L), 270°(T) are possible in all cases. Some additional features for the motor require a connection inside the terminal box, which means this terminal box is larger than the standard terminal box due to the normative air gaps and creepage distances. The dimension sheets only depict the standard terminal box.

Dimensions not listed in the dimension sheets can be determined via the relevant CAD data on the SEW-EURODRIVE website.

### 5.2.3 Sample orders

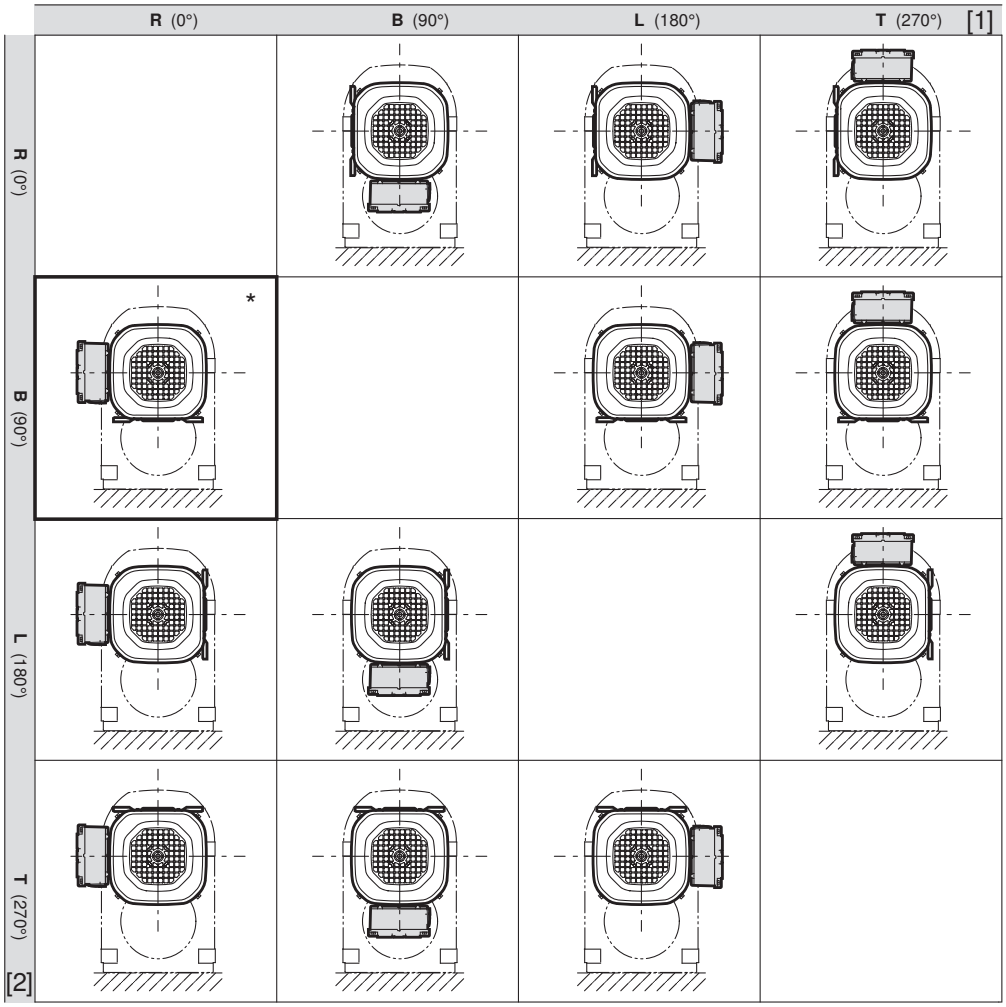
| Type (examples) | Mounting position | Shaft position | Flange position | Terminal box position | Position of cable entry | Direction of rotation of output |
|---|---|---|---|---|---|---|
| K47DRK71M4/RS | M2 | A | – | 0° | "X" | CW |
| SF77DRS90L4 | M6 | AB | AB | 90° | "3" | - |
| KA97DRE132M4 | M4 | B | – | 270° | "2" | - |
| KH107DRN160M4 | M1 | A | – | 180° | "3" | - |
| KAF67A | M3 | A | B | – | – | – |

21284997/EN – 03/2015

### 5.2.4 Position motor terminal box and foot for gearmotors with motor option /FM

With gearmotors, the motor is designed as flange-mounted motor for gear unit mounting. It is also possible to provide the motor with feet that can be used for customer components. The load values of the feet are available from SEW-EURODRIVE on request. The position of the foot must be specified in the order.

The following figure shows the possible positions of the terminal box and the feet for gearmotors with motor option /FM.




13588943243

[1] Terminal box positions [2] Foot positions

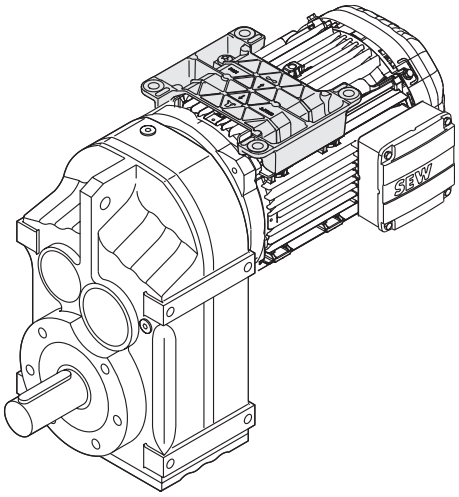
*) If not specified otherwise in the order, the gearmotor is delivered with foot position B (90°) and terminal box position R (0°).

## INFORMATION

The foot on the motor is not suited to attach a complete gearmotor.

21284997/EN – 03/2015

Example: F87DRN100L4/FM:




*13678896779*

Order information on mounting position of the complete drive, foot positions, terminal box and cable entry:

| | |
|---|---|
| Mounting position complete drive: | M1 |
| Terminal box position: | R (0°) |
| Cable entry: | X |
| Foot position: | T (270°) |

### 5.2.5 Change of mounting position

It is important that you read the following information when you operate the gearmotor in a mounting position other than indicated in the order:

- Adjust the lubricant fill quantity so that it matches the new mounting position.
- Adjust position of breather valve
- For helical-bevel gearmotors: If you wish to switch to mounting position M5 or M6, regardless of the original mounting position, please consult SEW-EURODRIVE
- For helical-worm gearmotors: Contact SEW-EURODRIVE when changing to mounting position M2 or M3.

21284997/EN – 03/2015

## 5.3 Key to the mounting position sheets

### INFORMATION

The positions of the breather valve, oil level plug and oil drain plug specified in the mounting position sheets are binding and correspond to the assembly specifications.

### INFORMATION

SPIROPLAN® are position-independent, with the exception of W..37 and W..47 in mounting position M4. However, mounting positions M1 to M6 are also shown for SPIROPLAN® gearmotors to assist you in working with this documentation.

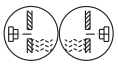
### INFORMATION

SPIROPLAN® gearmotors W..20 to W..30 cannot be equipped with breather valves, oil level plugs or drain plugs.

SPIROPLAN® gearmotors W..37 and W..47 can be equipped with breather valve, oil level plug or drain plug.

### 5.3.1 Symbols used

The following table shows the symbols used in the mounting position sheets and what they mean:

| Symbol | Meaning |
|---|---|
|  | Breather valve |
|  | Oil level plug[1)] |
|  | Oil drain plug |

1) Does not apply to the 1st gear unit (large gear unit) of multi-stage drives.

21284997/EN – 03/2015

### 5.3.2 Churning losses

*(→ 🗎 XY)

Churning losses may occur in some mounting positions. Contact SEW-EURODRIVE in case of the following combinations:

| Mounting position | Gear unit type | Gear unit size | Input speed rpm |
|---|---|---|---|
| M2, M4 | R | 97 ... 107 | > 2500 |
| | | > 107 | >1500 |
| M2, M3, M4, M5, M6 | F | 97 ... 107 | > 2500 |
| | | > 107 | > 1500 |
| | K | 77 ... 107 | > 2500 |
| | | > 107 | > 1500 |
| | S | 77 ... 97 | > 2500 |

### 5.3.3 Displayed shaft

Observe the following information regarding the display of shafts on the mounting position sheets:

## INFORMATION

**For gear units with solid shaft:** The displayed shaft is always on the A-side.

**For shaft mounted gear units:** The shaft with dashed lines represents the customer shaft. The output end ( = shaft position) is always shown on the A-side.

### 5.3.4 Position of breather valve/oil drain plug in motor flange

As shown in the mounting position sheets in chapter "Helical gearmotors mounting positions" (→ 🗎 65) and the following, the position of the breather valve and oil drain plug depend on the gearmotor mounting position.

The following table shows the position of the breather valve and the oil drain plug depending on the mounting position:

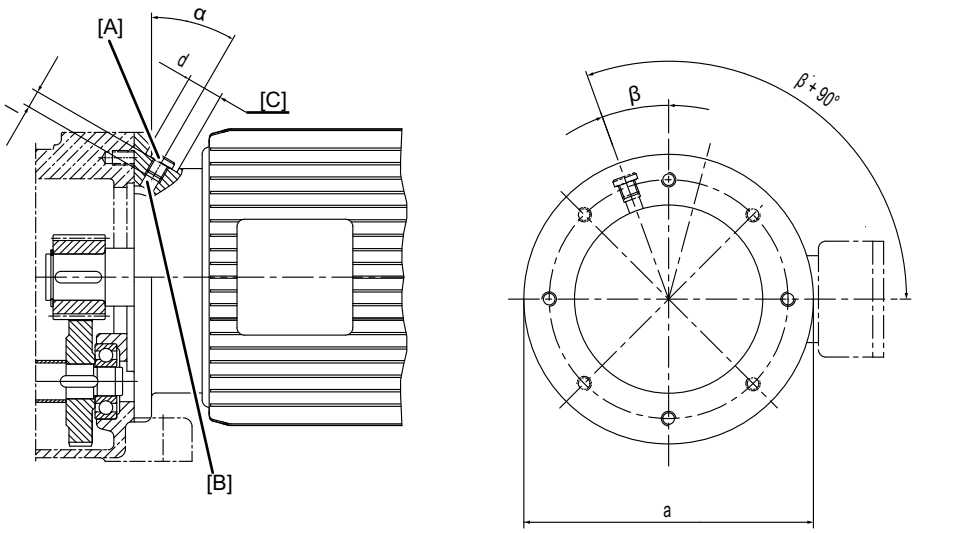
| Mounting position | Breather valve position | Oil drain plug position |
|---|---|---|
| M1, M3, M5, M6 | In the gear unit housing | In the gear unit housing |
| M4 | **In the motor flange** | In the gear unit housing |
| M2 | In the gear unit housing | **In the motor flange** |

If the breather valve (M4 mounting position) or the oil drain plug (M2 mounting position) is positioned in the motor flange, the position depends on the terminal box position.

## INFORMATION

The positions of the breather valve/oil drain plug in the mounting position sheets in chapter "Helical gearmotors mounting positions" (→ 🗎 65) and the following chapters always refers to the standard terminal box position 0°. Note that the position of the breather valve / oil drain plug is changed depending on the possible terminal box positions (90°, 180°, 270°).

The following illustration shows the exact position of the breather valve / oil drain plug in the motor flange.




13066345867

[A] Position of breather valve / oil drain plug
[B] Continuous core drilling
[C] Counterbored bore
[α] Drill angle
[d] Diameter of the countersinking
[l] Thread length
[a] Flange diameter
[β] Position angle

21284997/EN – 03/2015

## Dimension tables

The following tables contain the dimensions regarding the position of the breather valve and the oil drain plug depending on the motor size.

| DR.. motor type | a in mm | α in ° | β in ° | Thread designation | Ø d in mm | l in mm |
|---|---|---|---|---|---|---|
| DR63 | 120 | 30 | 45 | M10x1 | 15 | 10 |
| | 160 | | 22.5 | | | |
| | 200 | | | M12×1.5 | 18 | 12 |
| DR..71 | 120 | 0 | 45 | M10×1.5 | 15 | 10 |
| | 160 | 30 | 22.5 | | | |
| | 200 | | | M12×1.5 | 18 | 12 |
| | 250 | | | | | |
| | 300 | 90 | | M22×1.5 | 28 | 14 |

| DRN80 – 132 motor type | a in mm | α in ° | β in ° | Thread designation | Ø d in mm | l in mm |
|---|---|---|---|---|---|---|
| DRN80 | 120 | 30 | 22.5 | M10×1.5 | 15 | 10 |
| | 160 | | | | | |
| | 200 | | | M12×1.5 | 18 | 12 |
| | 250 | | | | | |
| | 300 | 90 | | M22×1.5 | 28 | 14 |
| DRN90 | 120 | 30 | 22.5 | M10×1.5 | 15 | 12 |
| | 160 | | | | | |
| | 200 | | | M12×1.5 | 15 | 16 |
| | 250 | | | | 18 | 12 |
| | 300 | | | M22×1.5 | 28 | |
| DRN100 | 120 | 30 | 22.5 | M10×1.5 | 15 | 10 |
| | 160 | | | | | 12 |
| | 200 | | | M12×1.5 | 18 | |
| | 250 | | | | | |
| | 300 | | | M22×1.5 | 28 | 14 |
| | 350 | | | | | |
| DRN112M DRN132S | 160 | 30 | 22.5 | M10×1.5 | 15 | 10 |
| | 200 | | | M12×1.5 | 18 | 12 |
| | 250 | | | | | |
| | 300 | | | M22×1.5 | 28 | 14 |
| | 350 | | | | | |
| | 400 | 45 | | | | 10 |
| | 450 | | | M33x2 | 40 | 16 |
| DRN132M/L | 160 | 30 | 22.5 | M10×1.5 | 15 | 10 |
| | 200 | 15 | | M12×1.5 | 18 | 14 |
| | 250 | 30 | | | | |
| | 300 | | | M22×1.5 | 28 | 12 |
| | 350 | | | | | 14 |
| | 400 | | | | | 13 |
| | 450 | 75 | | M33x2 | 40 | 16 |
| | 550 | 90 | | M42x2 | 50 | 18 |

| DRN160 – 315 motor type | a in mm | α in ° | β in ° | Thread designation | Ø d in mm | l in mm |
|---|---|---|---|---|---|---|
| DRN160 | 200 | 30 | 22.5 | M10×1.5 | 15 | 17 |
| | 250 | | | M12×1.5 | 18 | 15 |
| | 300 | | | M22×1.5 | 28 | 12 |
| | 350 | | | | | |
| | 400 | | | | | 16 |
| | 450 | | | M33x2 | 40 | |
| | 550 | 90 | | M42x2 | 50 | |

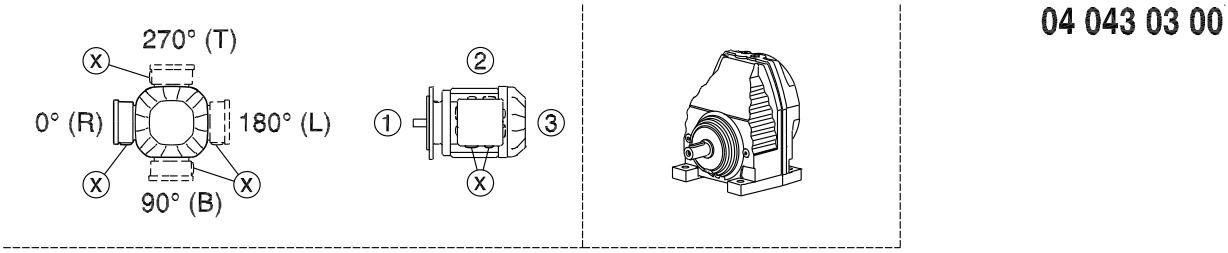
21284997/EN – 03/2015

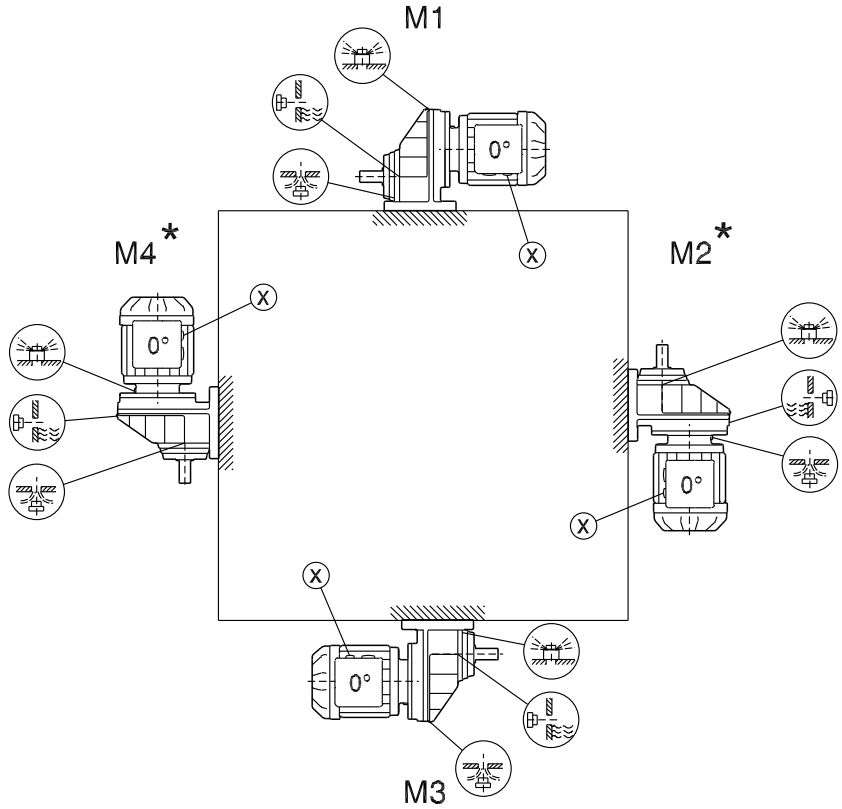
| DRN160 – 315 motor type | a in mm | α in ° | β in ° | Thread designation | Ø d in mm | l in mm |
|---|---|---|---|---|---|---|
| DRN180 | 250 | 30 | 22.5 | M12×1.5 | 18 | 15 |
| | 300 | | | M22×1.5 | 28 | |
| | 350 | | | | | |
| | 400 | | | | | 16 |
| | 450 | | | M33x2 | 40 | |
| | 550 | 90 | | M42x2 | 50 | 17 |
| DRN200 | 250 | 30 | 22.5 | M12×1.5 | 18 | 15 |
| | 300 | | | M22×1.5 | 28 | |
| | 350 | | | | | 14 |
| | 400 | | | | | 16 |
| | 450 | | | M33x2 | 40 | |
| | 550 | | | M42x2 | 50 | 19 |
| DRN225 | 300 | 30 | 22.5 | M22×1.5 | 28 | 15 |
| | 350 | | | | | 14 |
| | 400 | | | | | 16 |
| | 450 | | | M33x2 | 40 | 17 |
| | 550 | | | M42x2 | 50 | 29 |
| DRN250 DRN280 | 350 | 15 | 22.5 | M22×1.5 | 28 | 14 |
| | 400 | | 21 | | | |
| | 450 | | 22.5 | M33x2 | 40 | 16 |
| | 550 | | | M42x2 | 50 | |
| DRN315 | 450 | 30 | 22.5 | M33x2 | 40 | 30 |
| | 550 | | 11.25 | M42x2 | 50 | 20 |

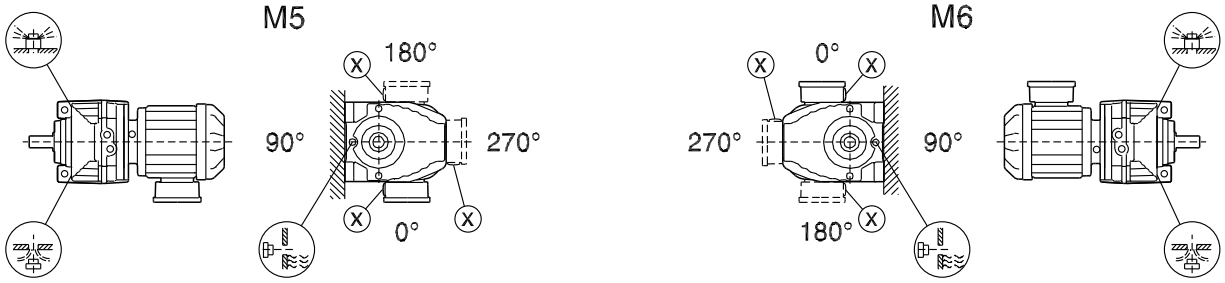
21284997/EN – 03/2015

## 5.4 Mounting positions of helical gearmotors

### 5.4.1 RX57-RX107

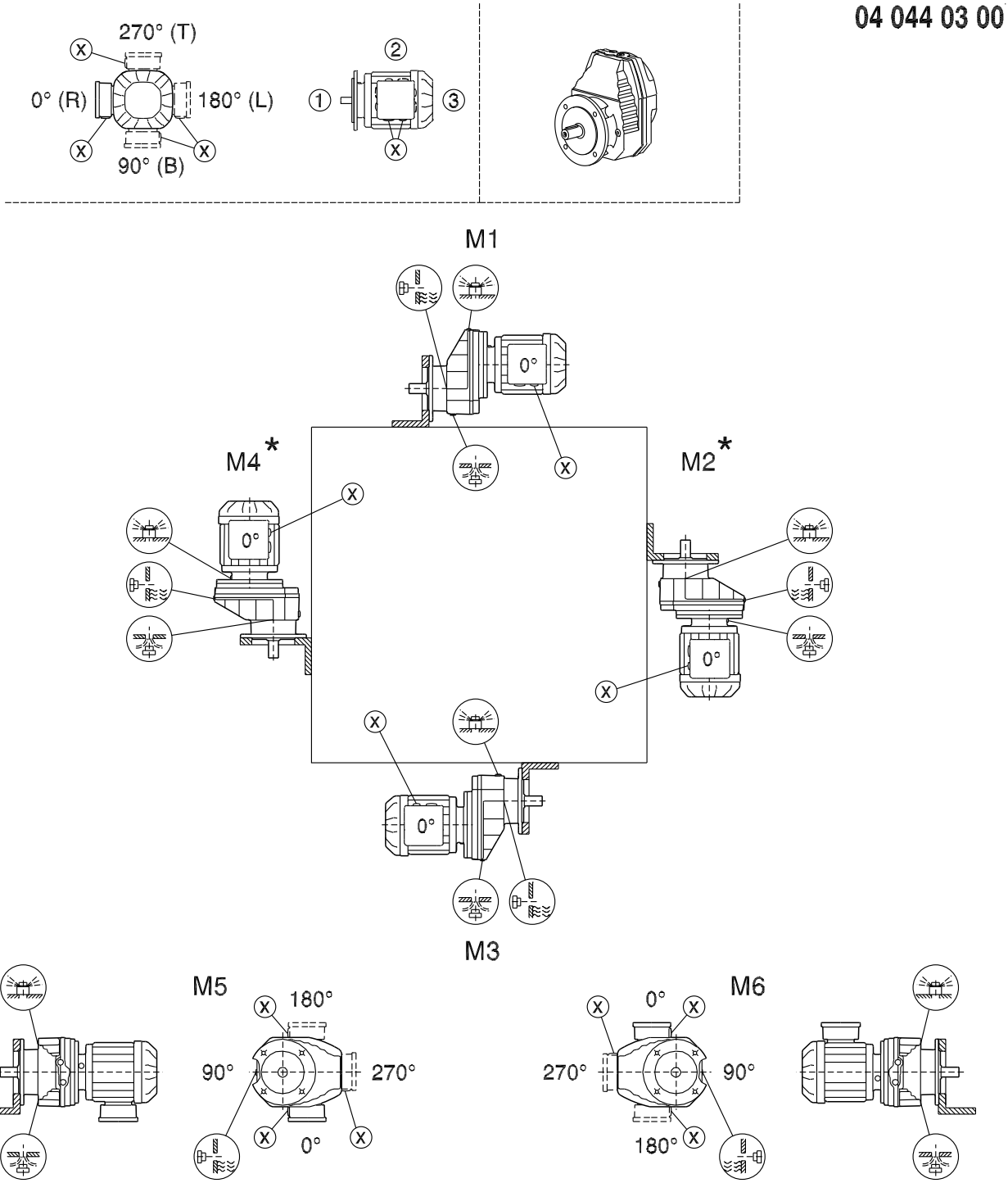


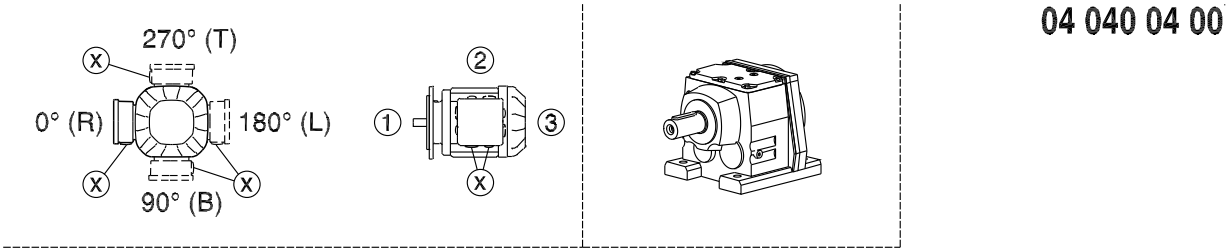

* (→ 61)

### 5.4.2 RXF57-RXF107

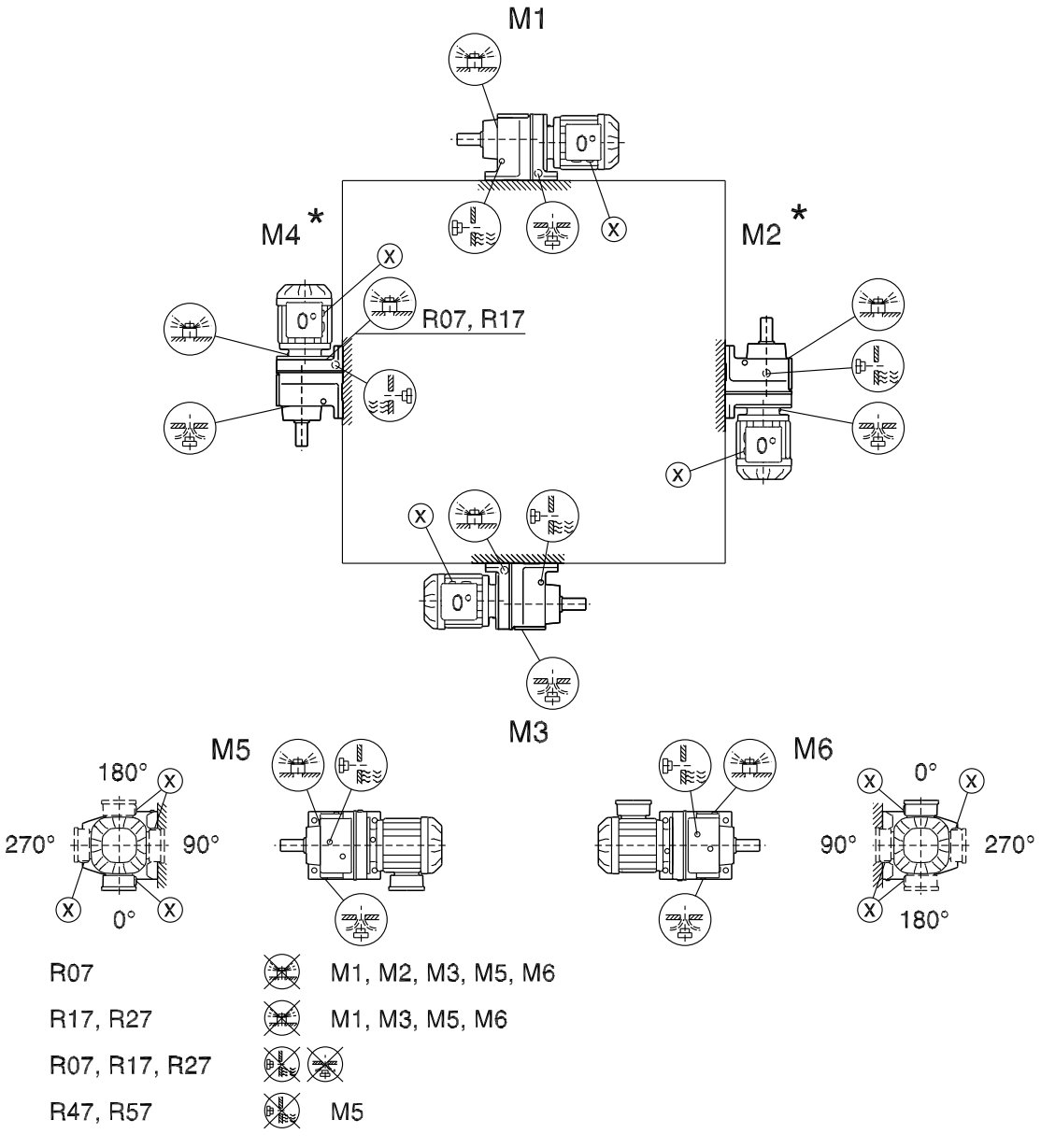



* (→ 🗎 61)

### 5.4.3 R07-R167



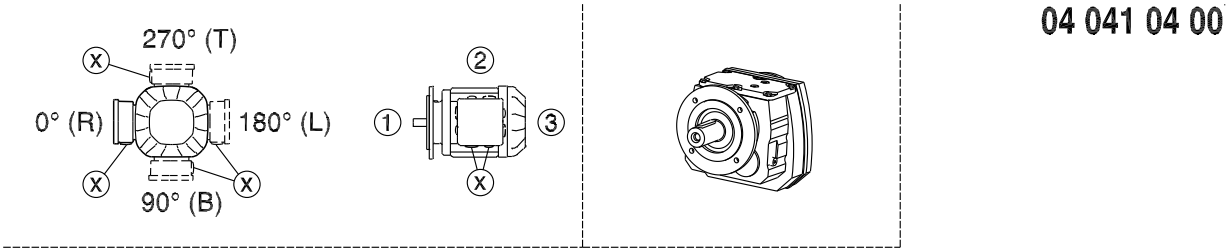

04 040 04 00

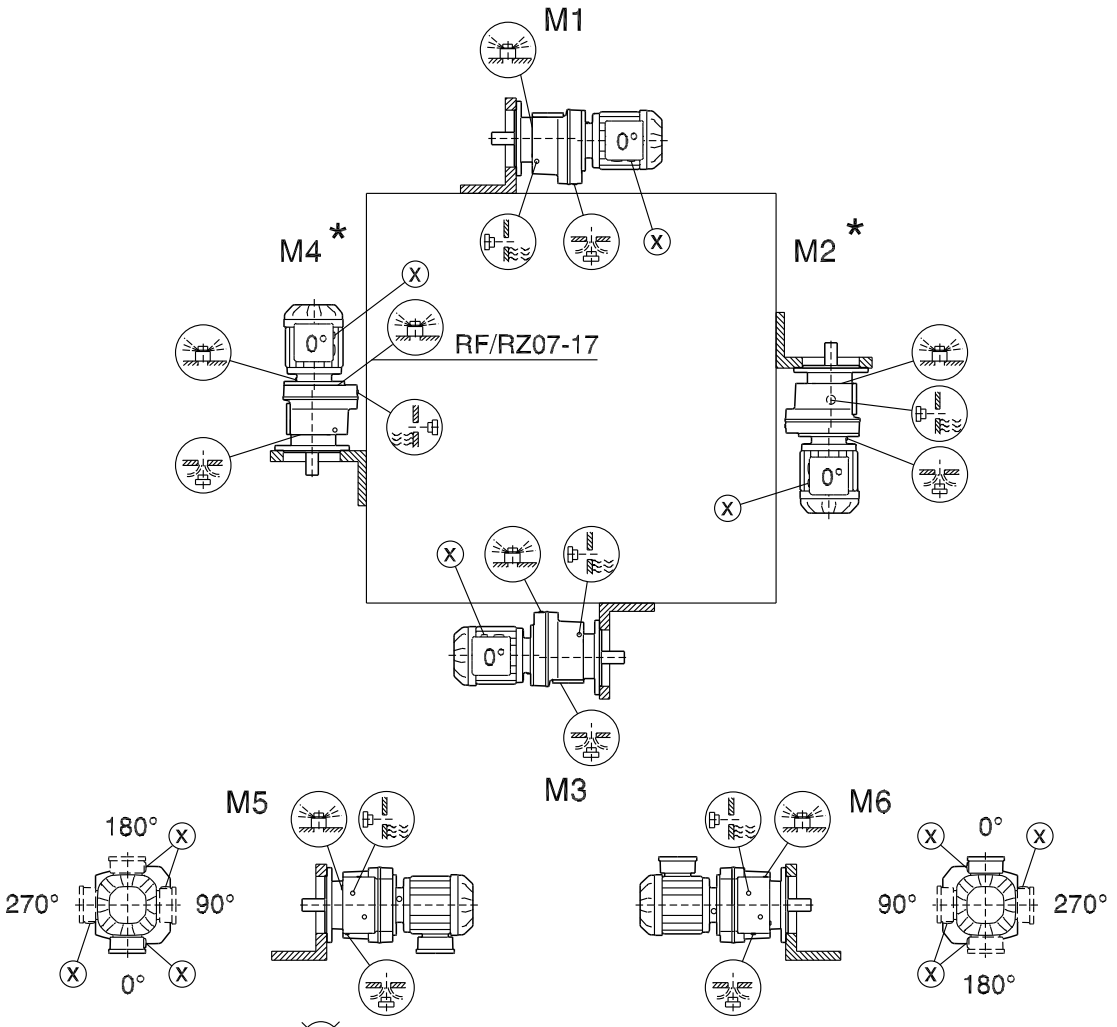



| | | |
|---|---|---|
| R07 | ⊗ | M1, M2, M3, M5, M6 |
| R17, R27 | ⊗ | M1, M3, M5, M6 |
| R07, R17, R27 | ⊗ ⊗ | |
| R47, R57 | ⊗ | M5 |

* (→ 🗎 61)

### 5.4.4 RF07-RF167, RZ07-RZ87



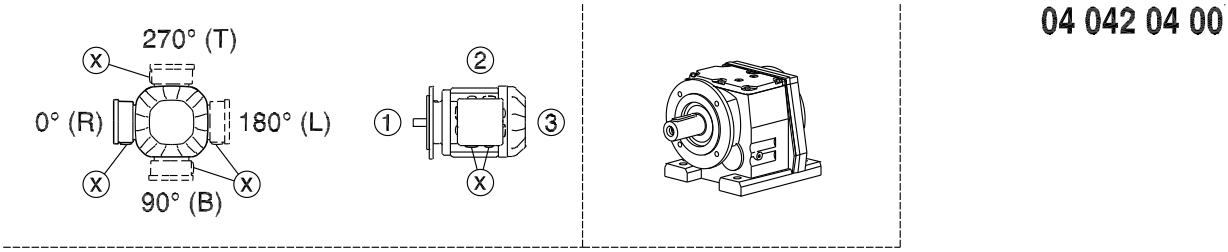



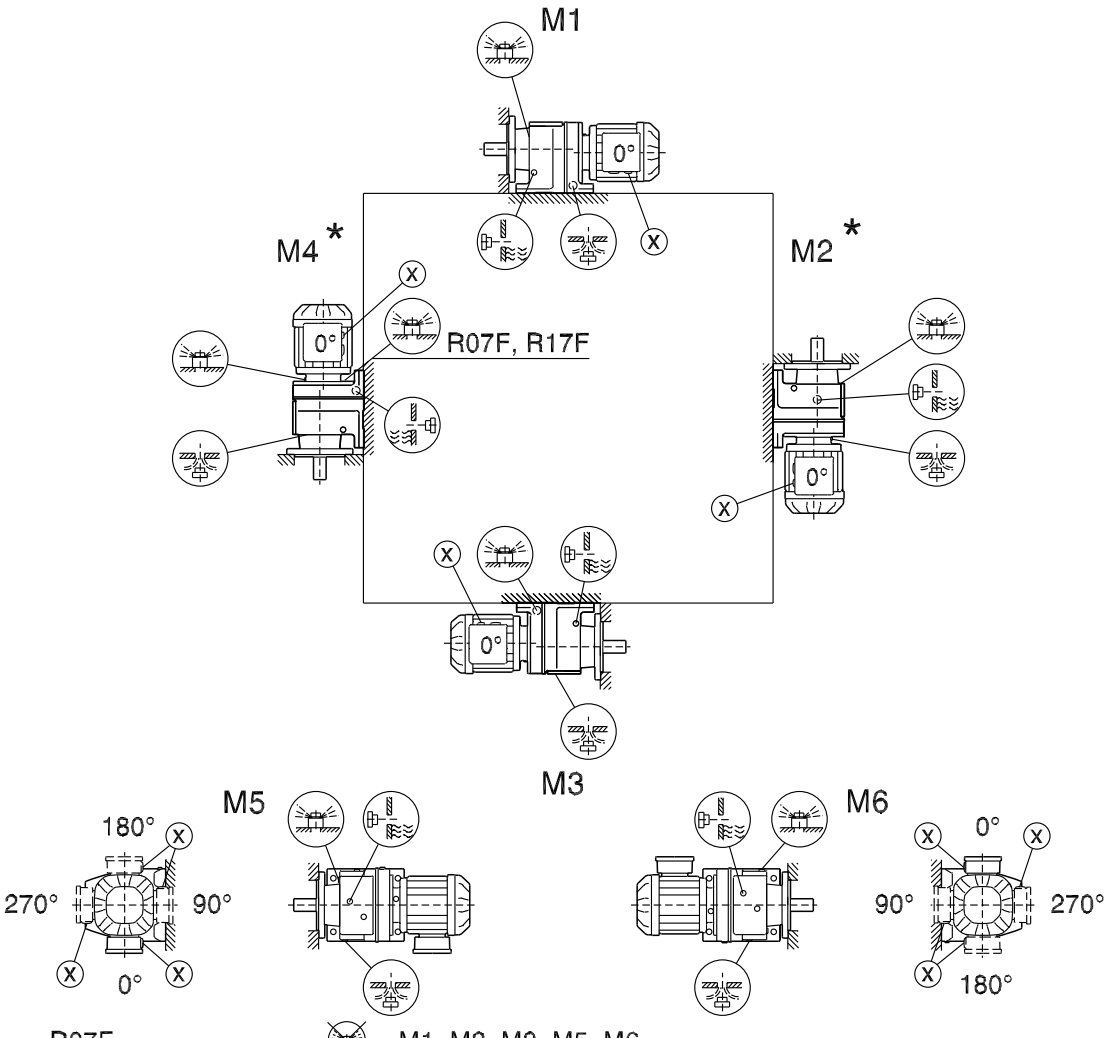

| | | |
|---|---|---|
| RF/RZ07 | ⊗ | M1, M2, M3, M5, M6 |
| RF/RZ17, 27 | ⊗ | M1, M3, M5, M6 |
| RF/RZ07, 17, 27 | ⊗ ⊗ | |
| RF/RZ47, 57 | ⊗ | M5 |

* (→ 61)

21284997/EN – 03/2015

### 5.4.5 R07F-R87F




| | | |
|---|---|---|
| R07F | ⊗ | M1, M2, M3, M5, M6 |
| R17F, R27F | ⊗ | M1, M3, M5, M6 |
| R07F, R17F, R27F | ⊗ ⊗ | |
| R47F, R57F | ⊗ | M5 |

* (→ 🗎 61)

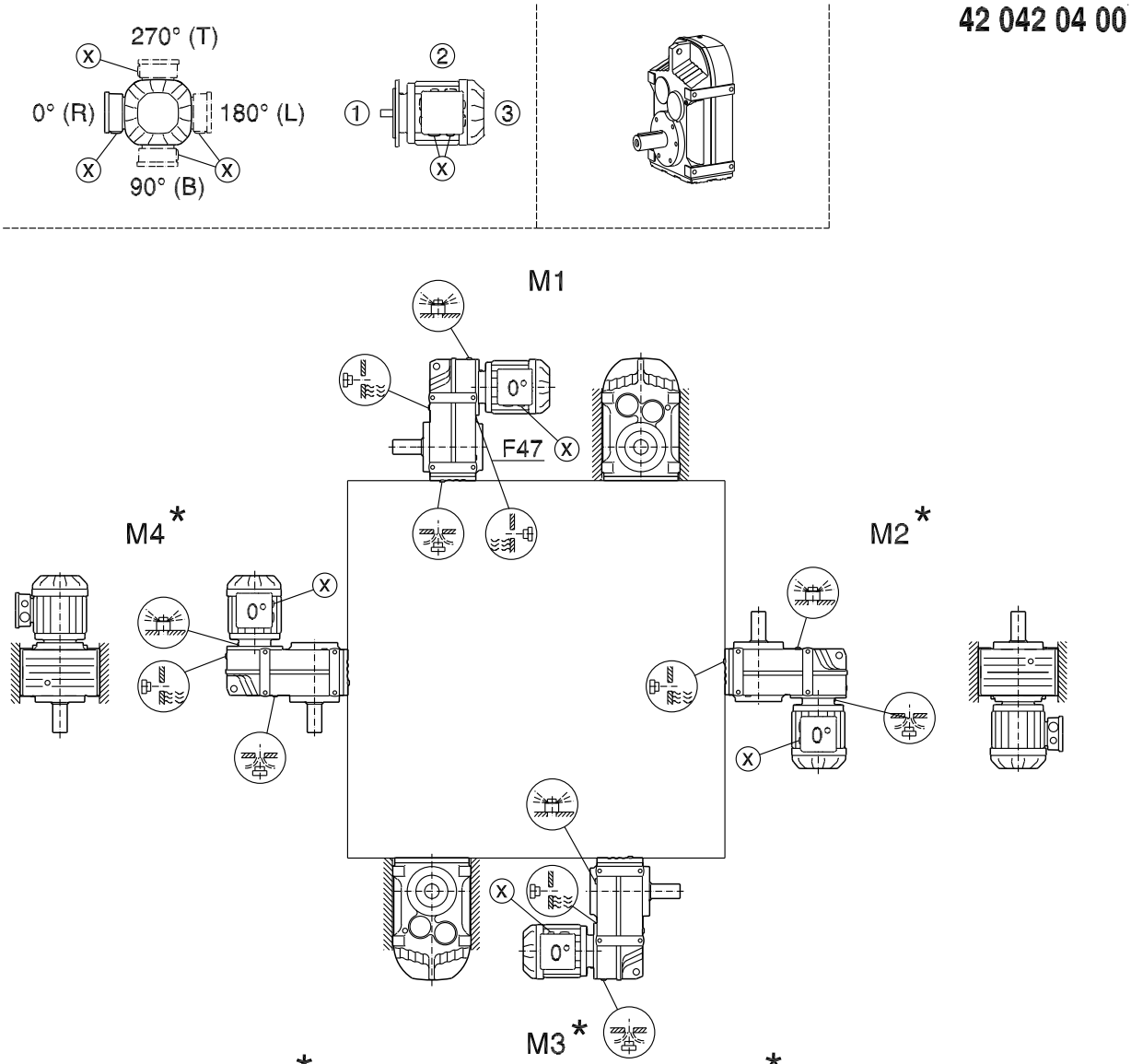
Observe the notes in chapter "Project planning for gear units" / "Overhung and axial loads" (→ 🗎 45).

21284997/EN – 03/2015

## 5.5 Mounting positions of parallel-shaft helical gearmotors

### 5.5.1 F/FA..B/FH27B-157B, FV27B-107B

42 042 04 00

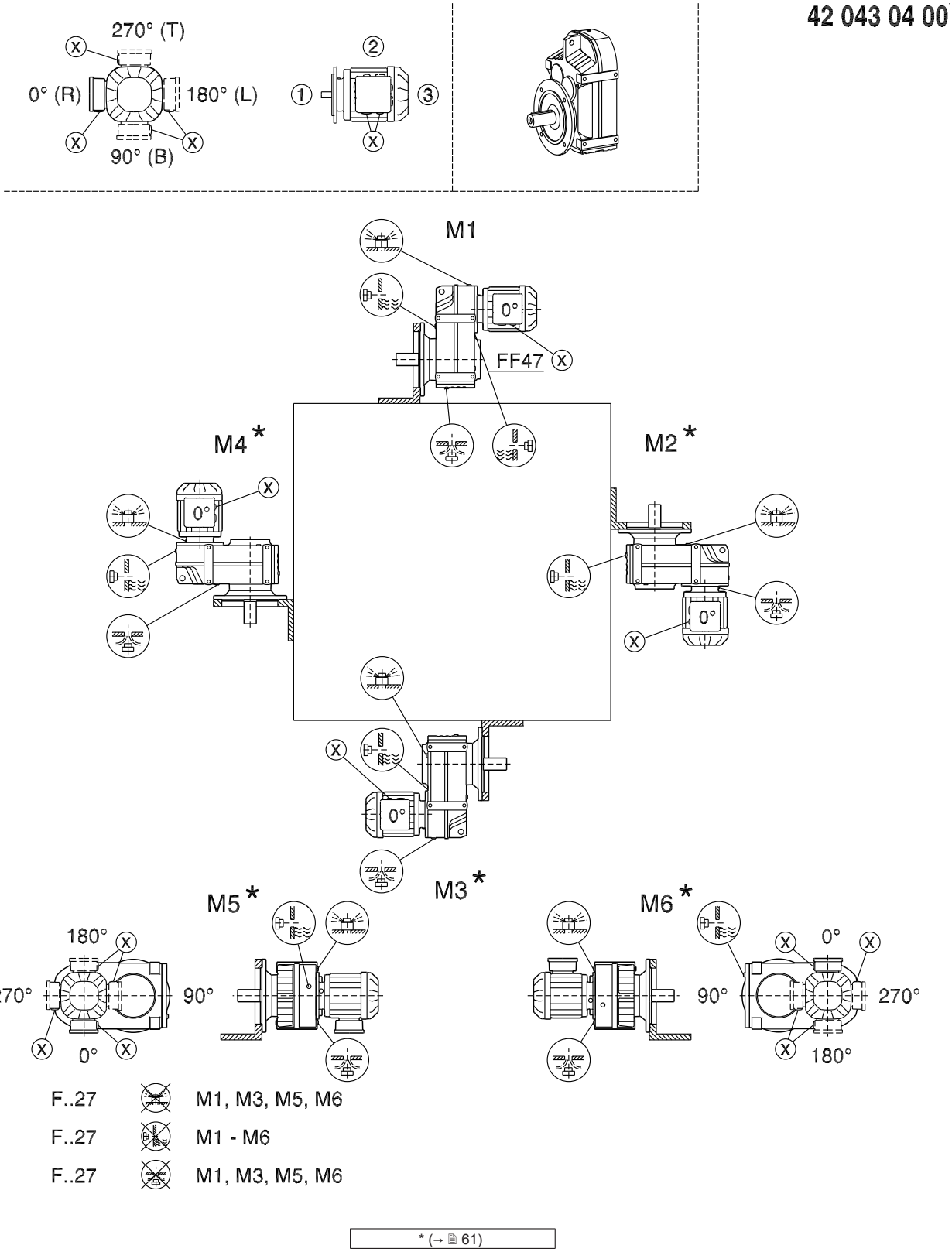



| | | |
|---|---|---|
| F..27 | ⊗ | M1, M3, M5, M6 |
| F..27 | ⊗ | M1 - M6 |
| F..27 | ⊗ | M1, M3, M5, M6 |

* (→ 🗎 61)

21284997/EN – 03/2015

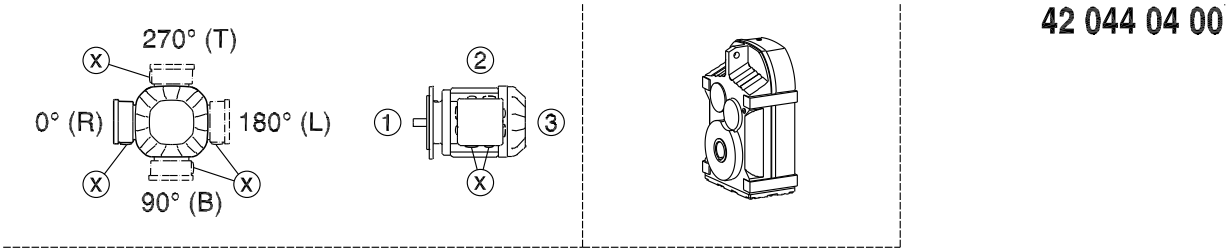
### 5.5.2 FF/FAF/FHF/FZ/FAZ/FHZ27-157, FVF/FVZ27-107



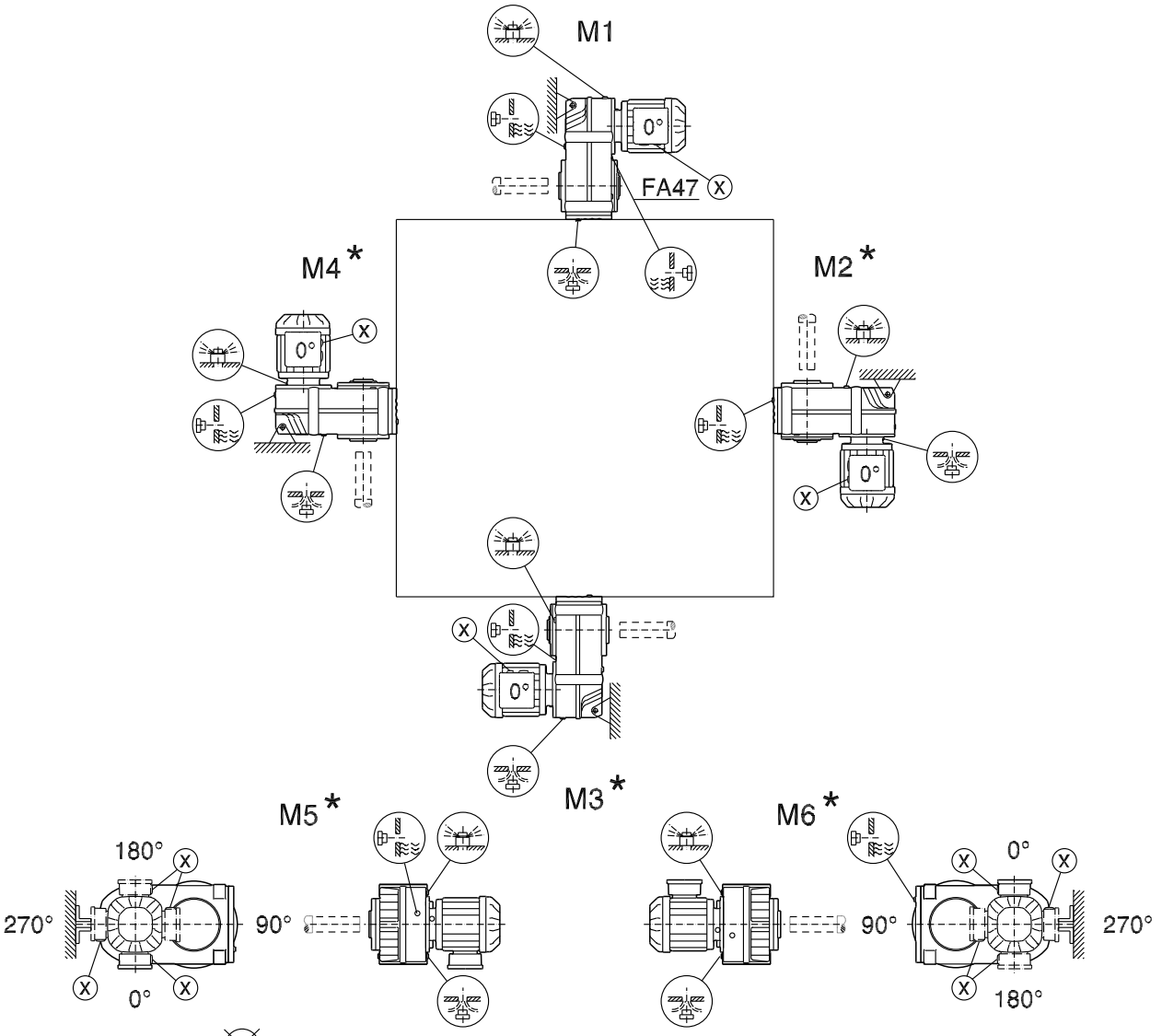

| | | |
|---|---|---|
| F..27 | | M1, M3, M5, M6 |
| F..27 | | M1 - M6 |
| F..27 | | M1, M3, M5, M6 |

* (→ 61)

### 5.5.3 FA/FH27-157, FV27-107, FT37-97




42 044 04 00




| | | |
|---|---|---|
| F..27 | | M1, M3, M5, M6 |
| F..27 | | M1 - M6 |
| F..27 | | M1, M3, M5, M6 |

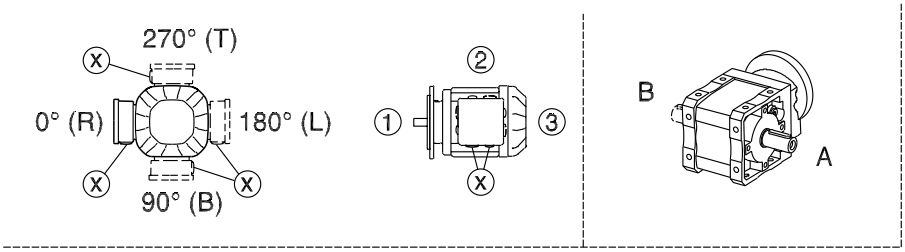
* (→ 61)

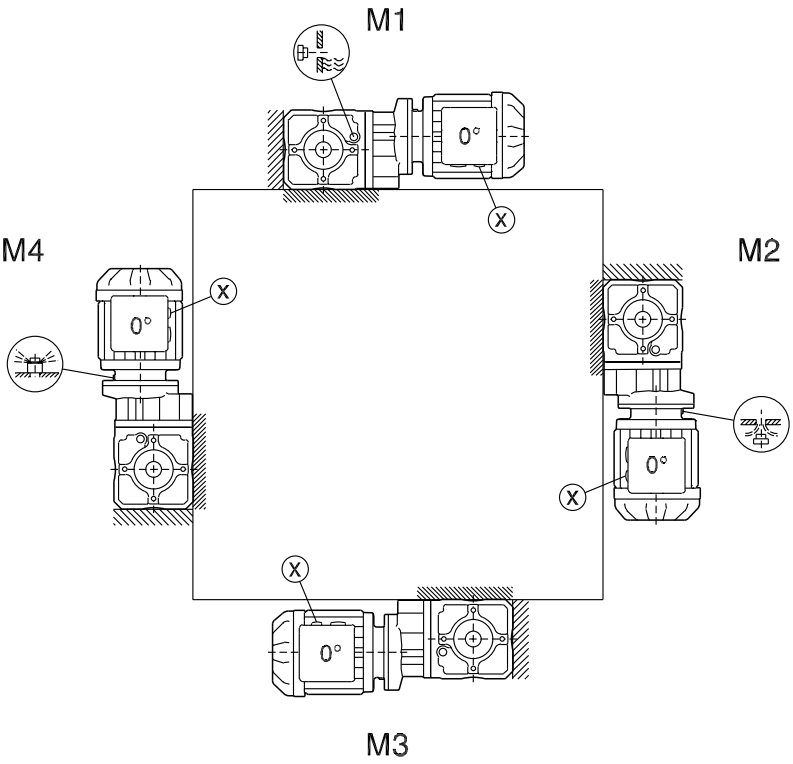
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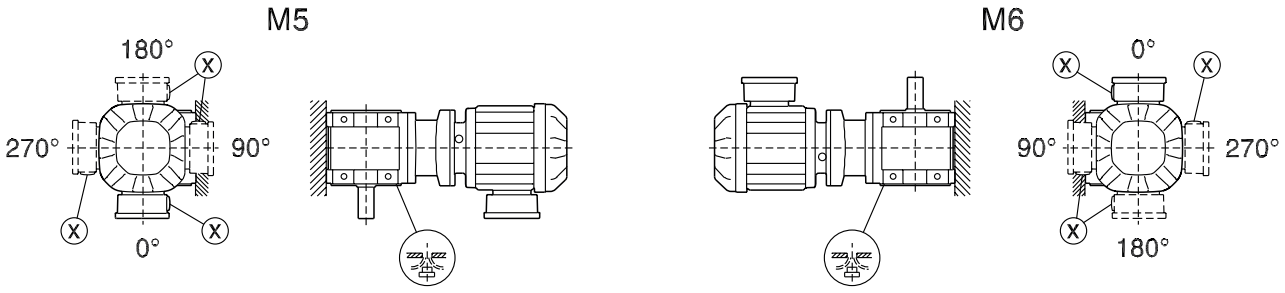
## 5.6 Mounting positions of helical-bevel gearmotors

### 5.6.1 K/KA..B/KH19B-29B

33 010 00 13

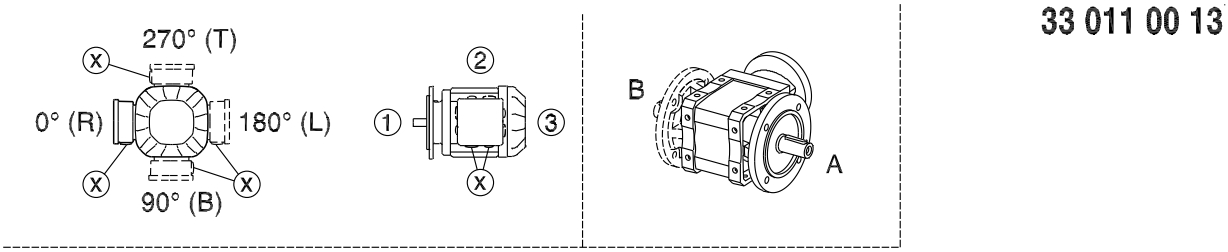


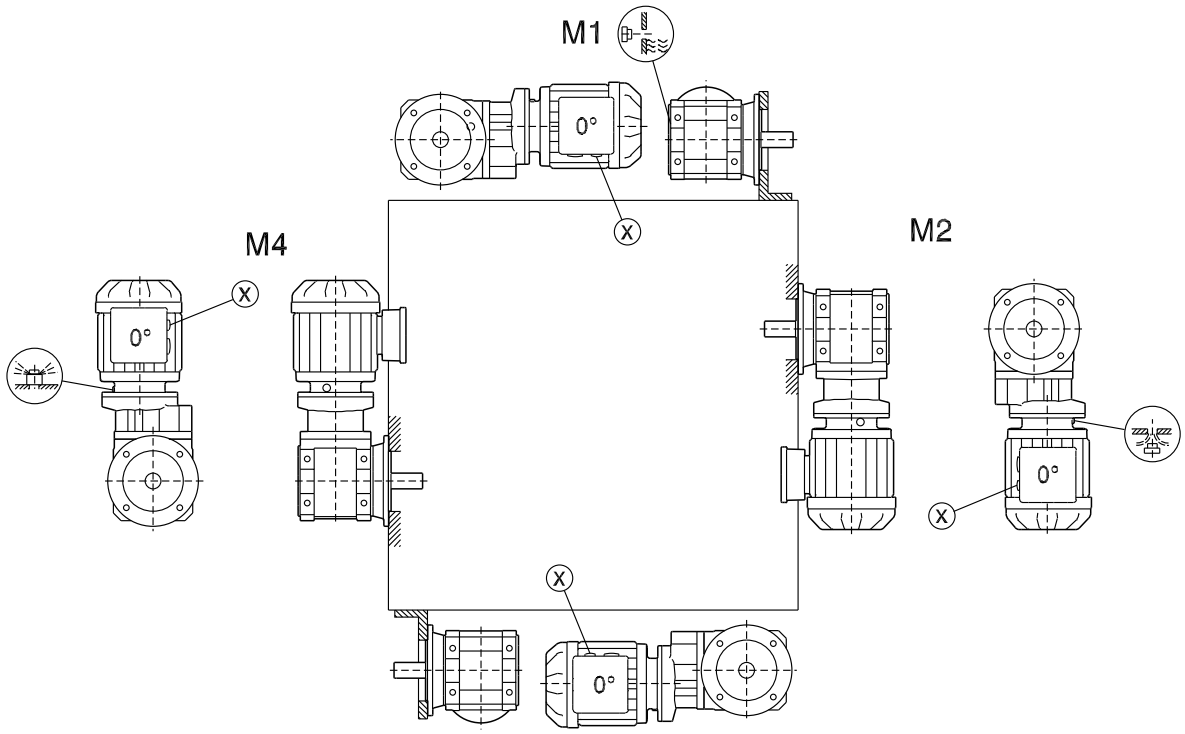



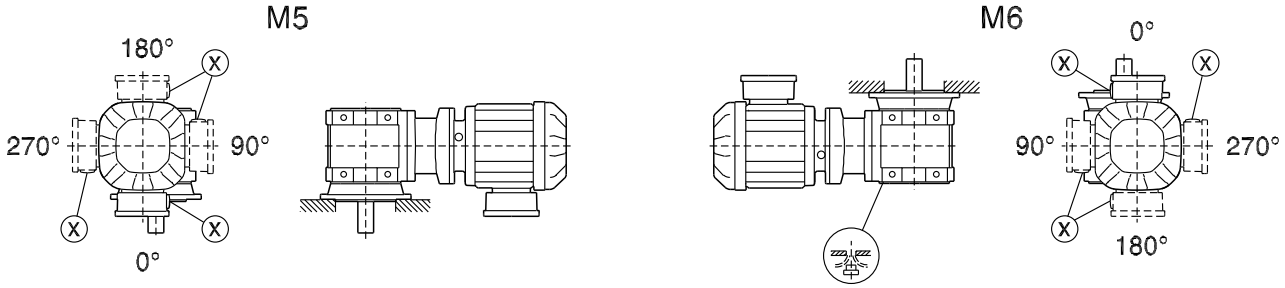




Observe the notes in chapter "Project planning for gear units" / "Overhung and axial loads" (→ 🗎 45).

### 5.6.2 KF..B/KAF..B/KHF19B-29B



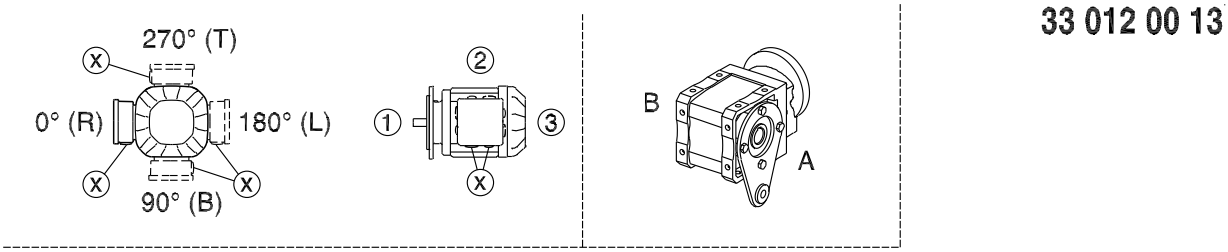



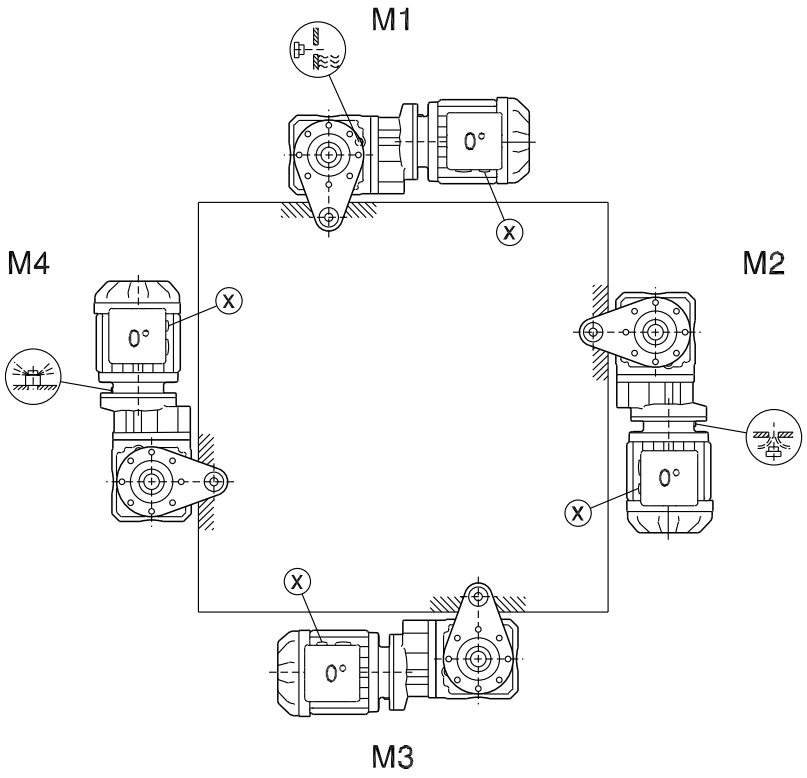



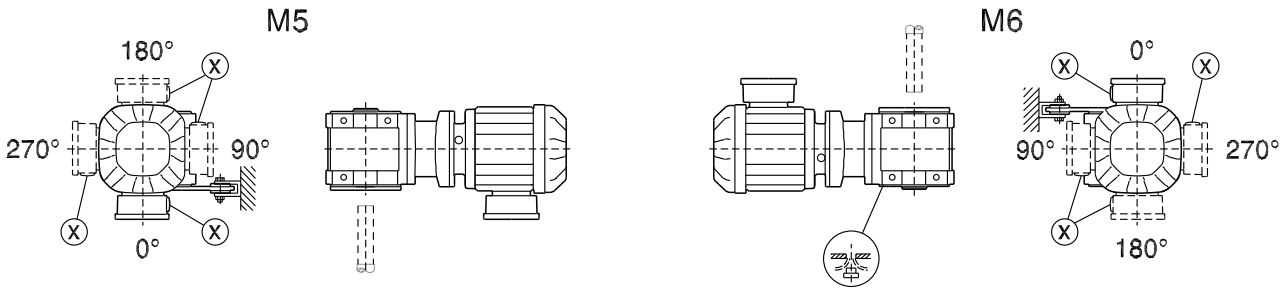

Observe the notes in chapter "Project planning for gear units" / "Overhung and axial loads" (→ 🗎 45).

21284997/EN – 03/2015

### 5.6.3 KA..B/KH19B-29B



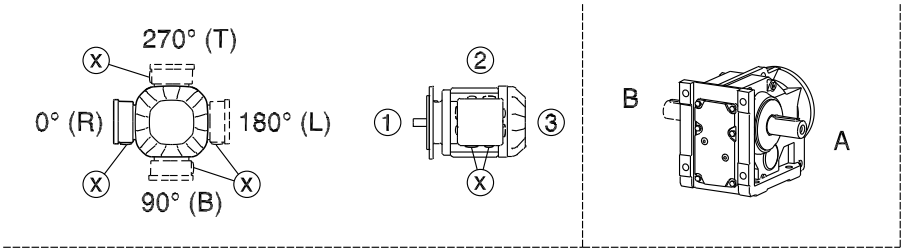



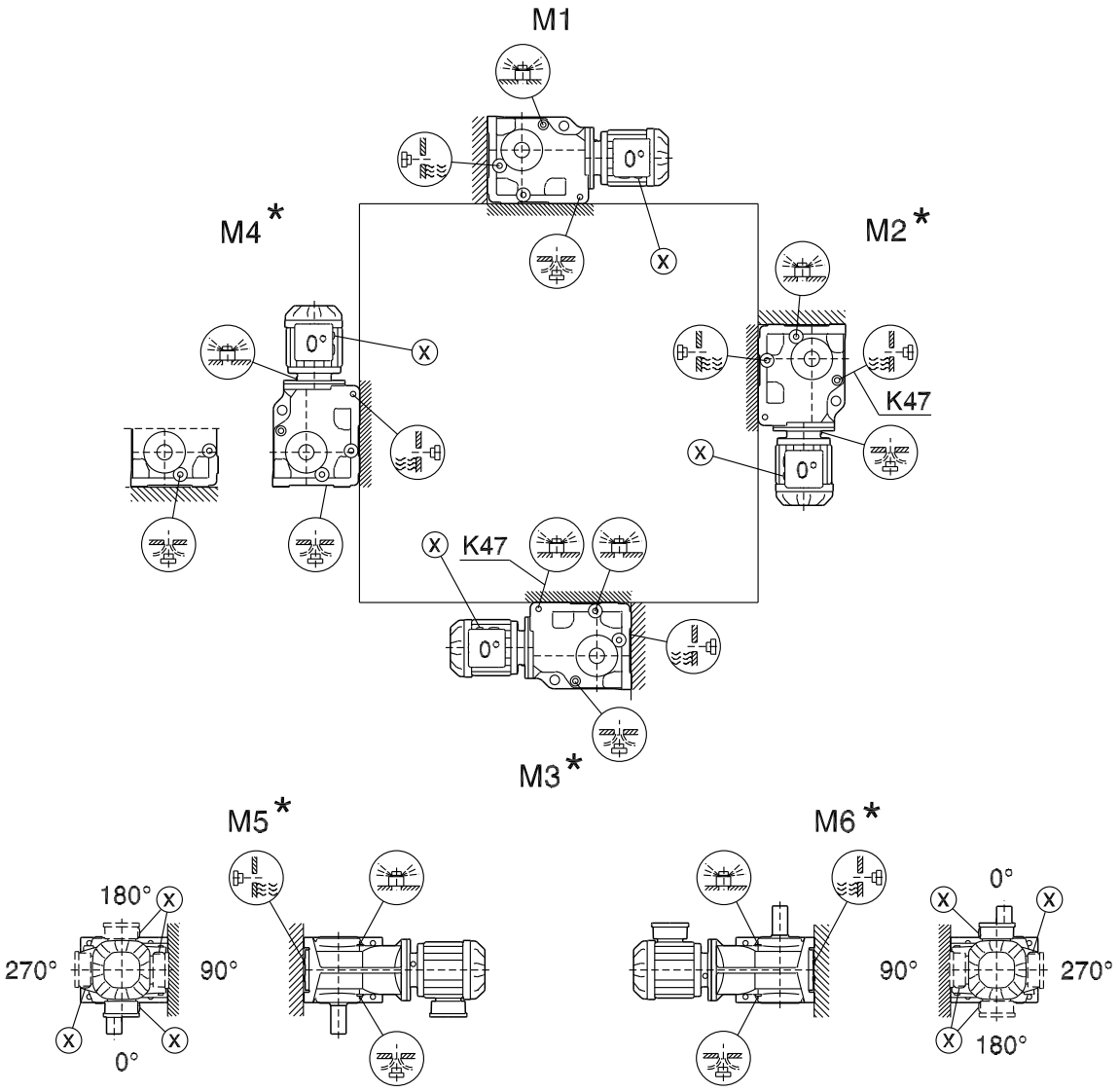




Observe the notes in chapter "Project planning for gear units" / "Overhung and axial loads" (→ 🗎 45).

### 5.6.4 K/KA..B/KH37B-157B, KV37B-107B

34 025 04 00



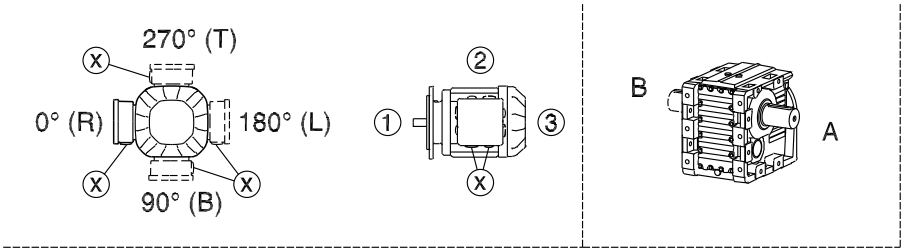

* (→ 🗎 61)

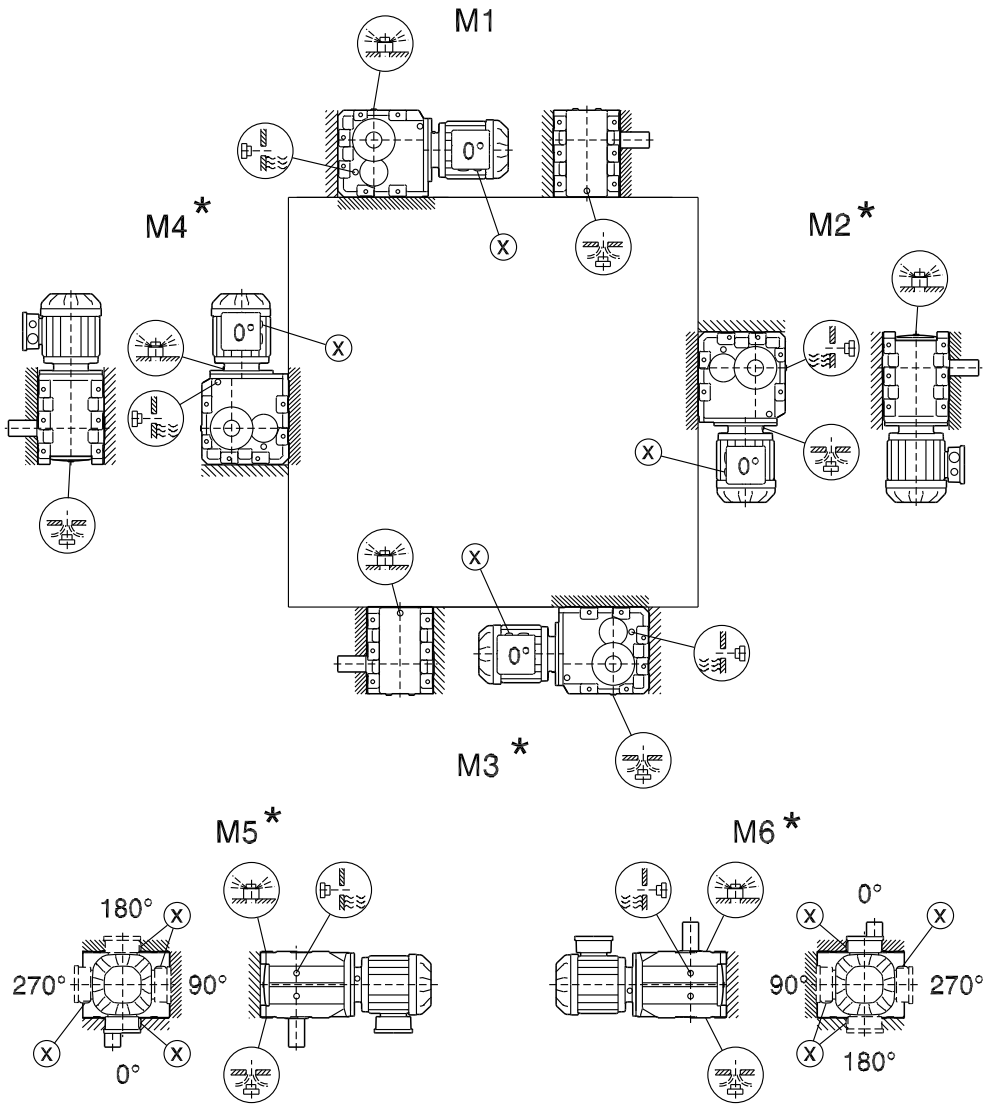
Observe the notes in chapter "Project planning for gear units" / "Overhung and axial loads" (→ 🗎 45).

21284997/EN – 03/2015

### 5.6.5 K167-187, KH167B-187B

34 026 04 00



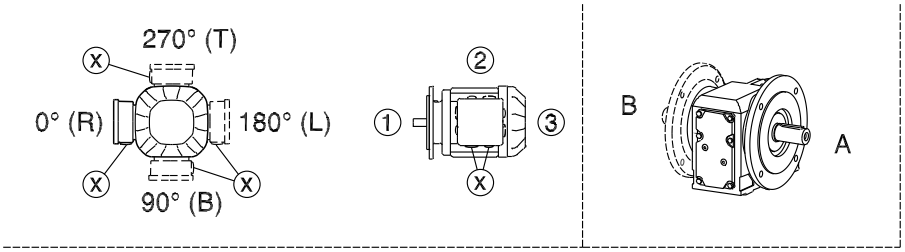



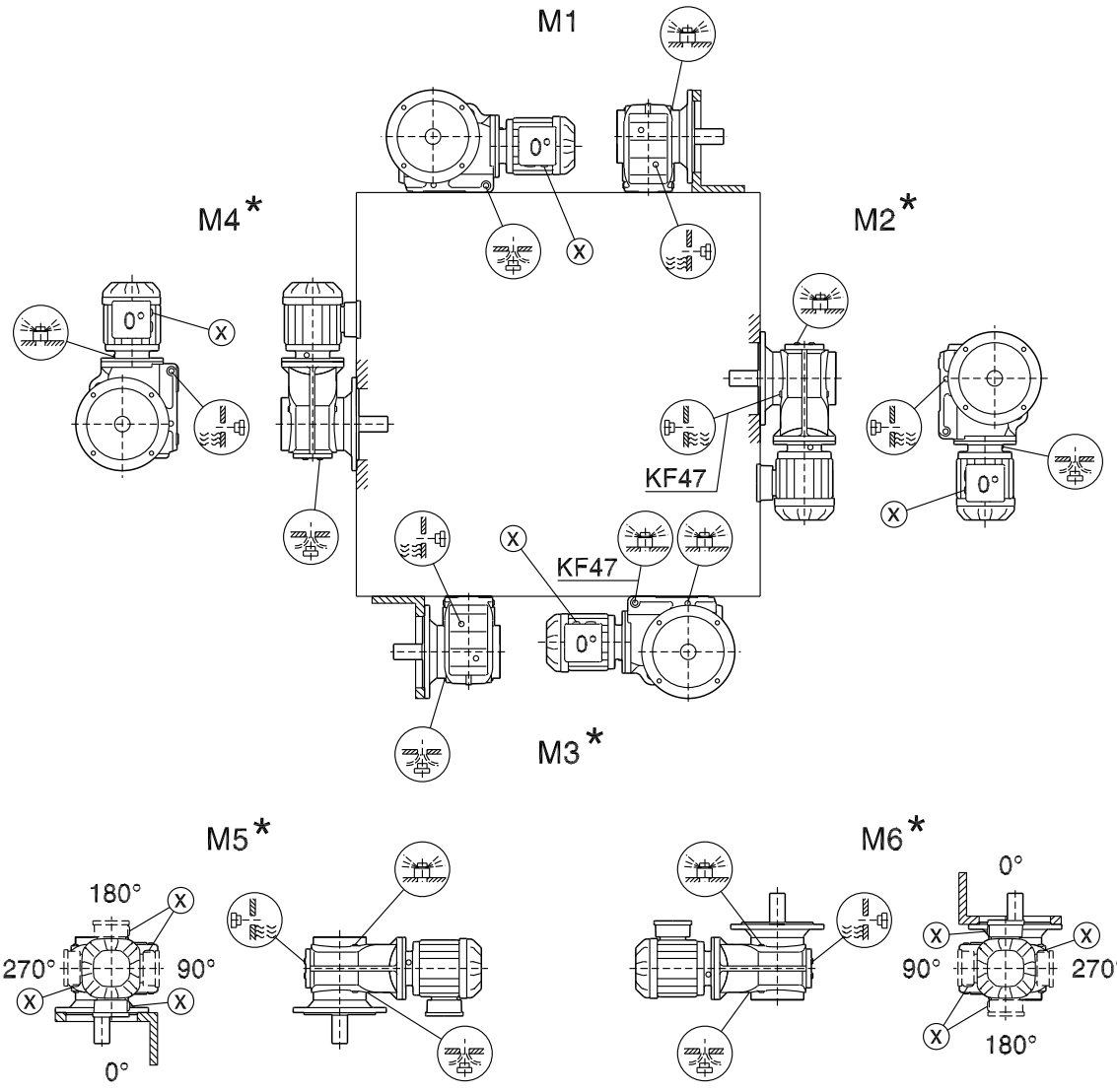

* (→ 🗎 61)

Observe the notes in chapter "Project planning for gear units" / "Overhung and axial loads" (→ 🗎 45).

### 5.6.6 KF/KAF/KHF/KZ/KAZ/KHZ37-157, KVF/KVZ37-107

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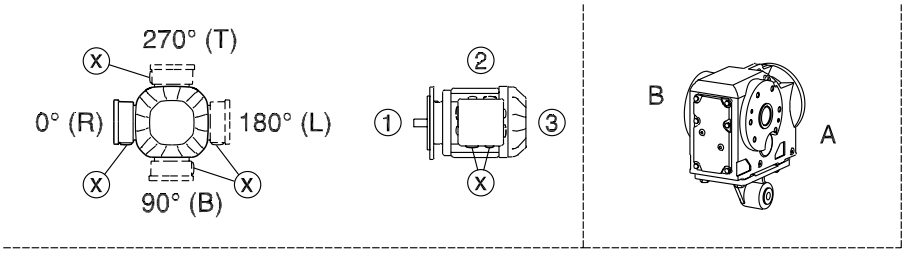



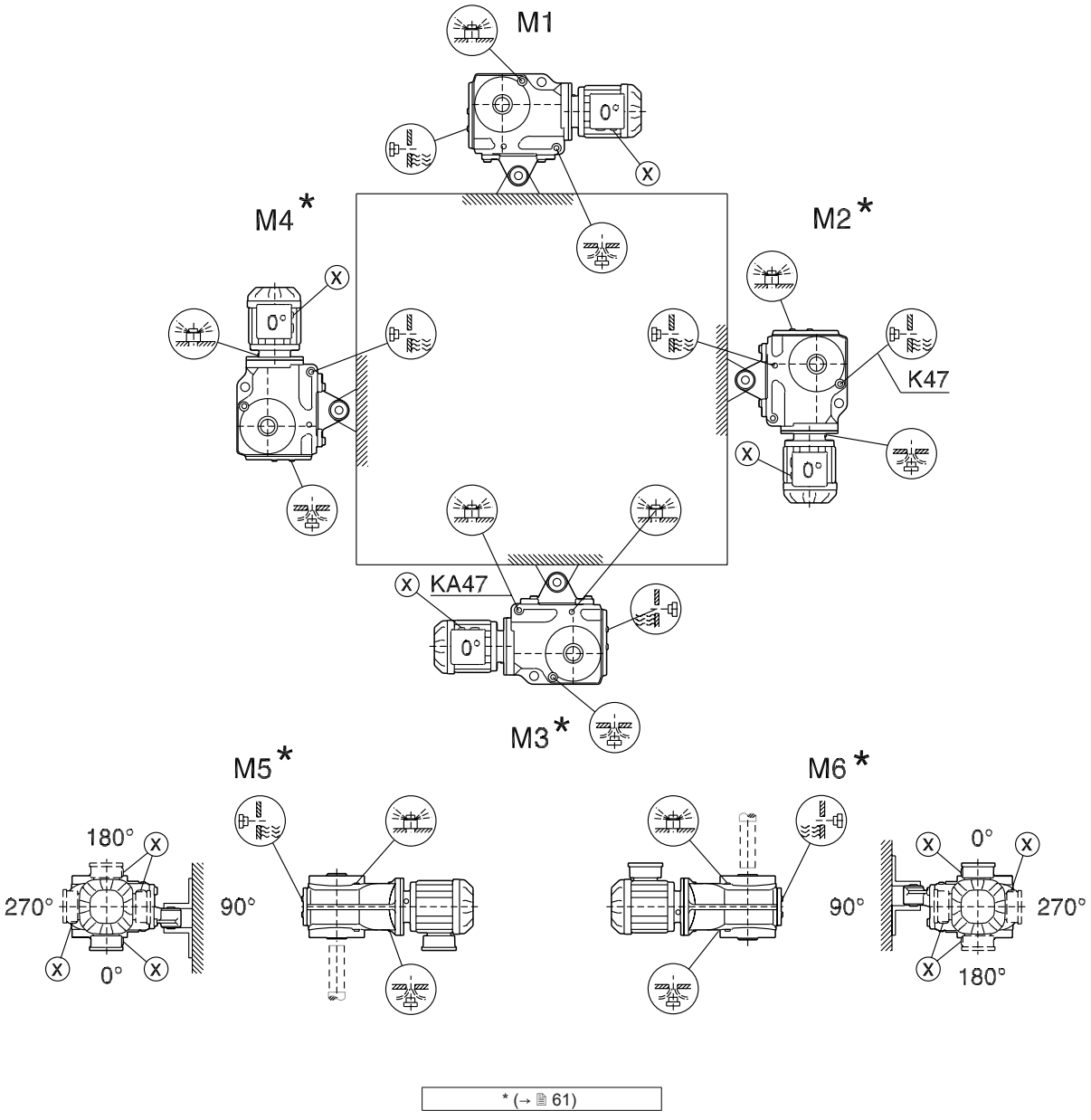

* (→ 61)

21284997/EN – 03/2015

### 5.6.7 KA/KH37-157, KV37-107, KT37-97

39 025 05 00

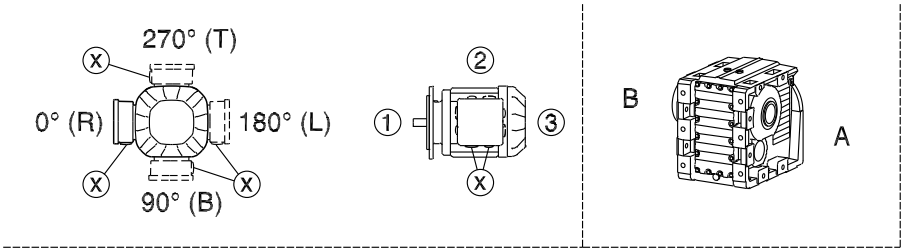


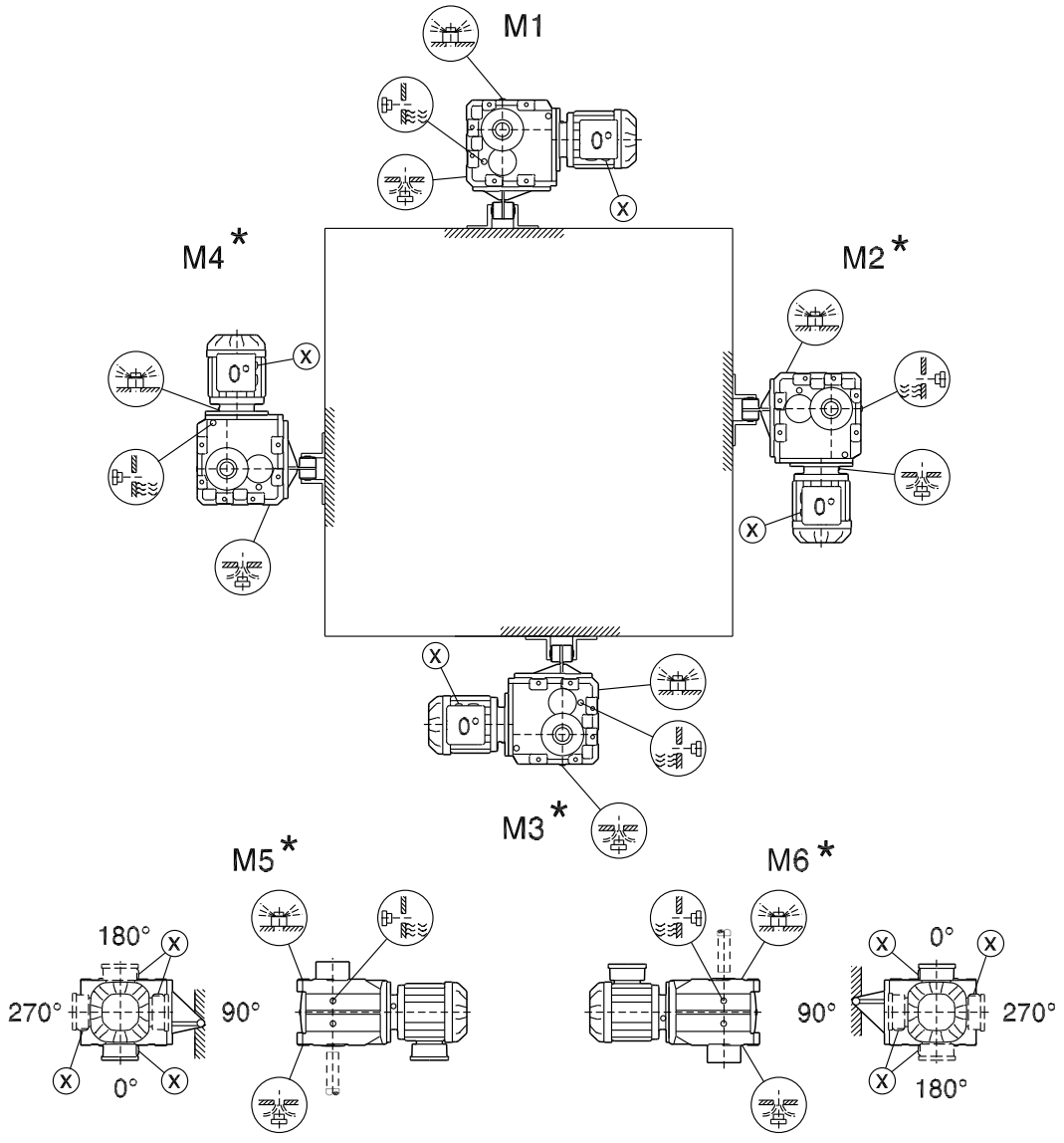




* (→ 🗎 61)

### 5.6.8 KH167-187

39 026 05 00



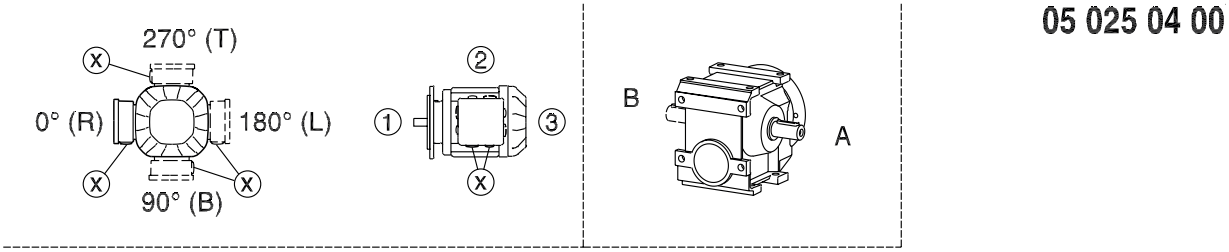



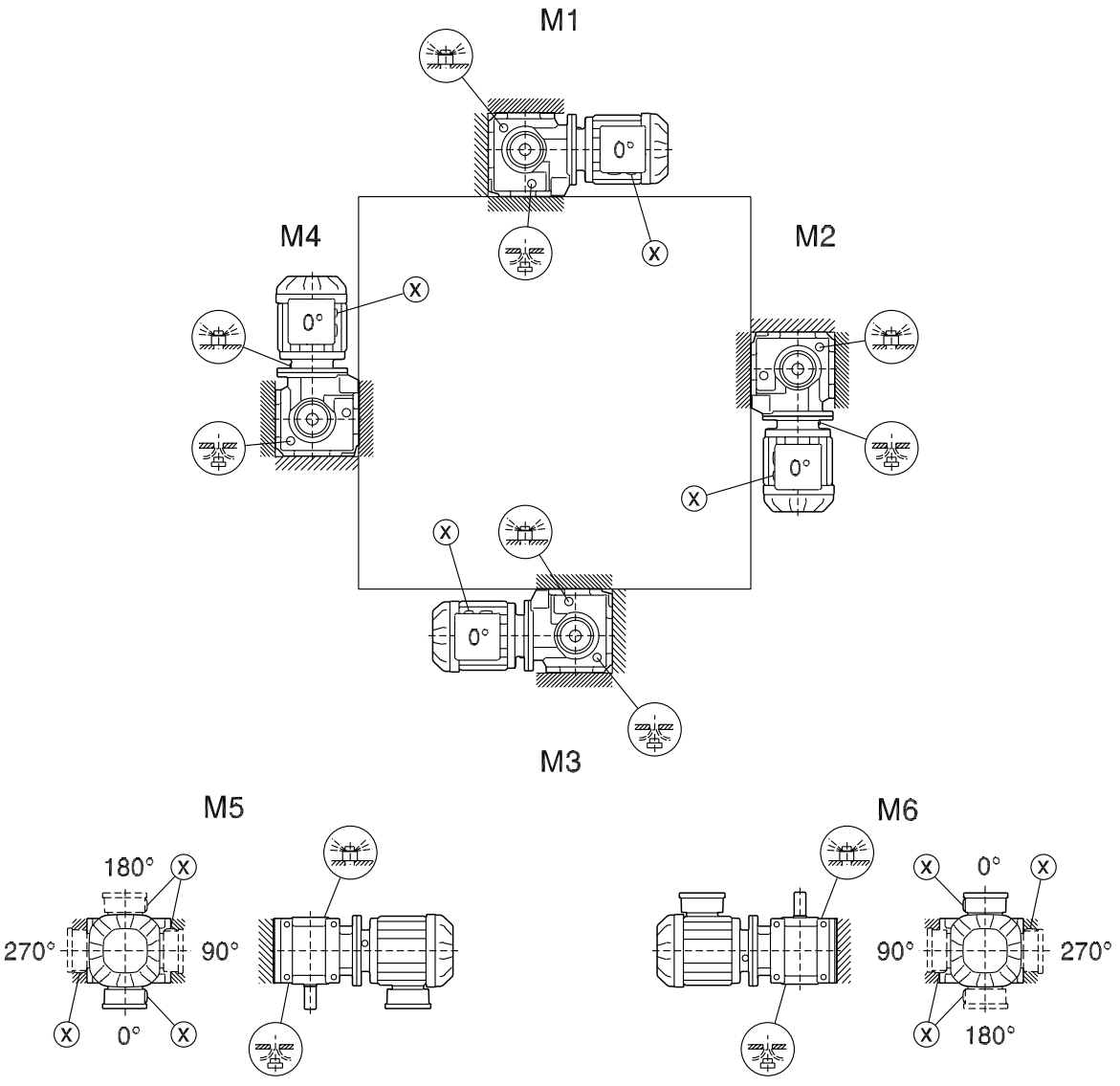

* (→ 🗎 61)

21284997/EN – 03/2015

## 5.7 Mounting positions of helical-worm gearmotors

### 5.7.1 S37

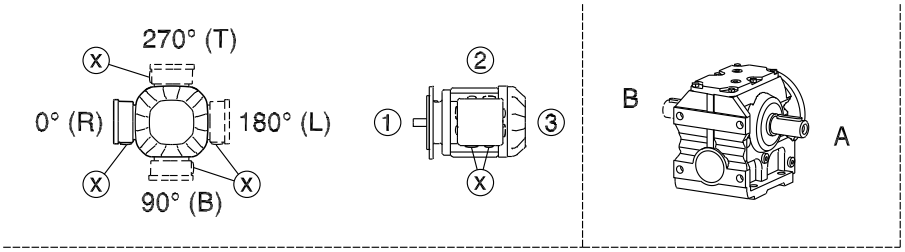


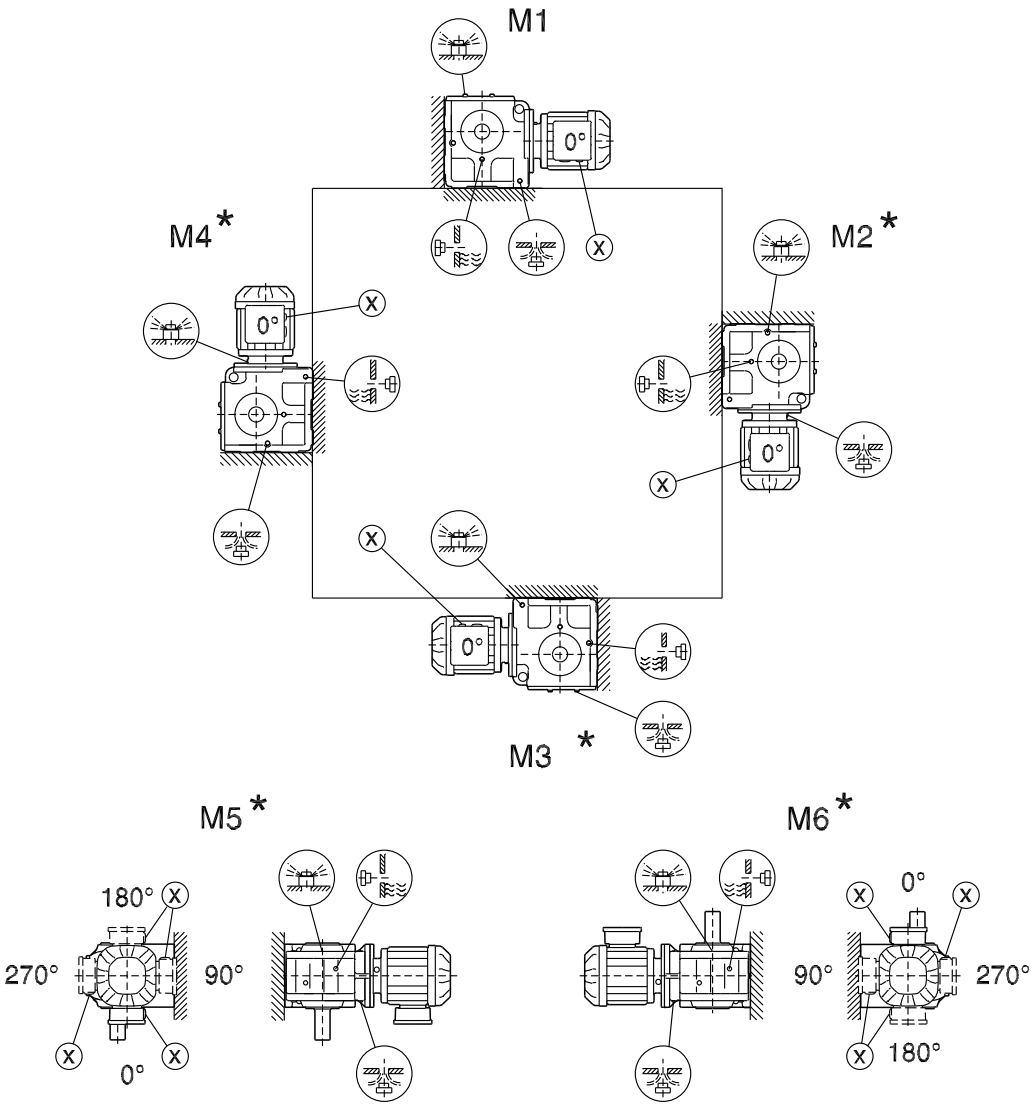




Observe the notes in chapter "Project planning for gear units" / "Overhung and axial loads" (→ 🗎 45).

### 5.7.2 S47-S97

05 026 04 00



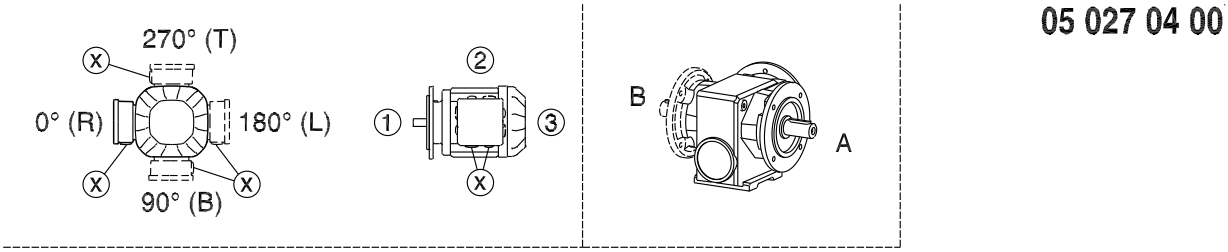



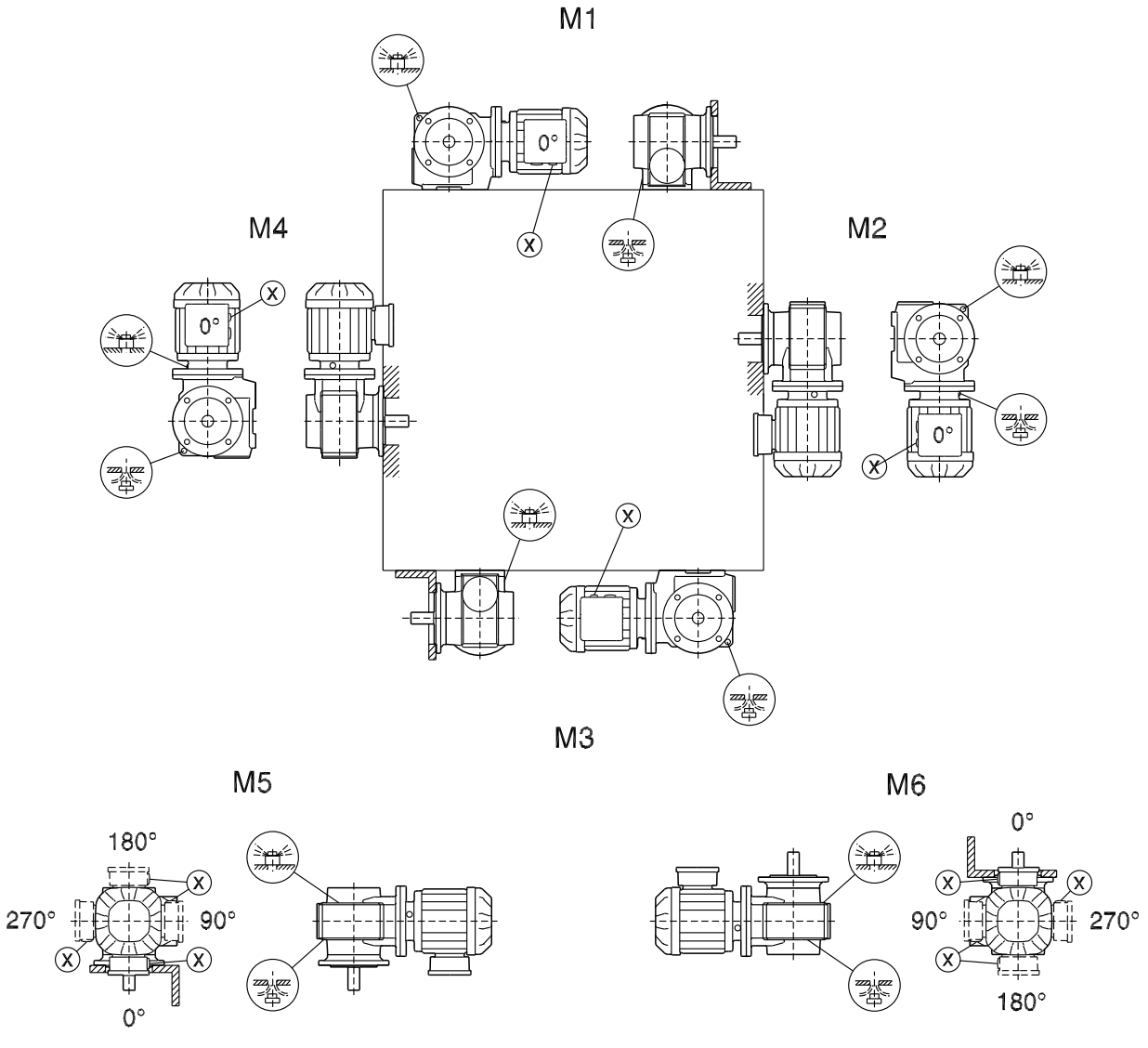

* (→ 🗎 61)

Observe the notes in chapter "Project planning for gear units" / "Overhung and axial loads" (→ 🗎 45).

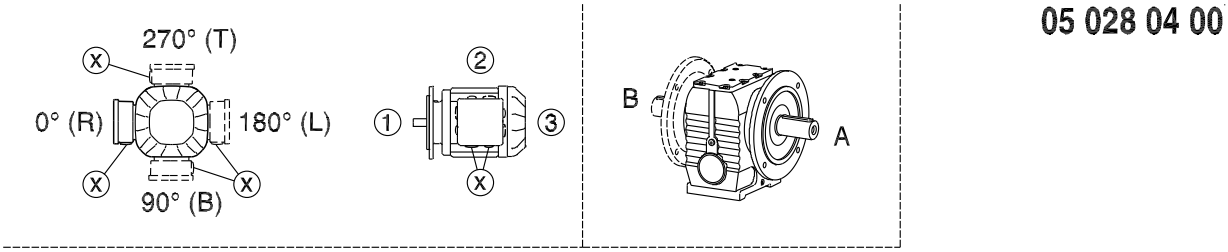
21284997/EN – 03/2015

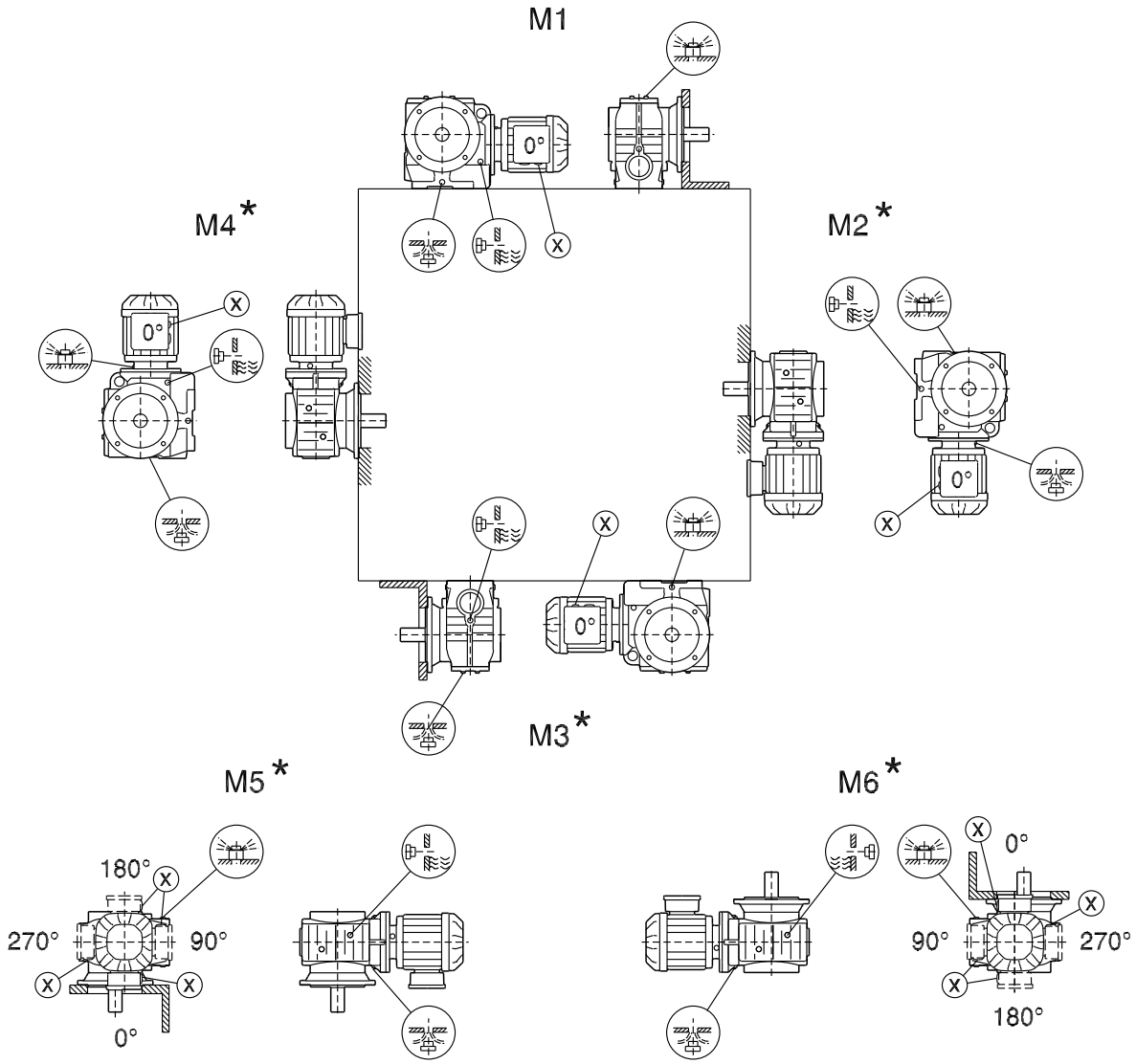
### 5.7.3 SF/SAF/SHF37



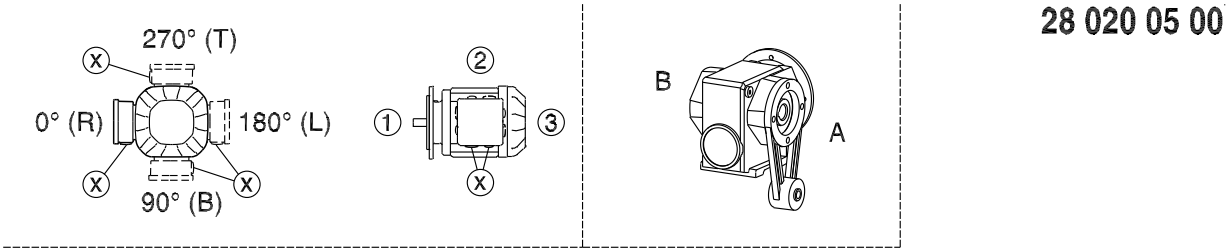
### 5.7.4 SF/SAF/SHF/SAZ/SHZ47-97

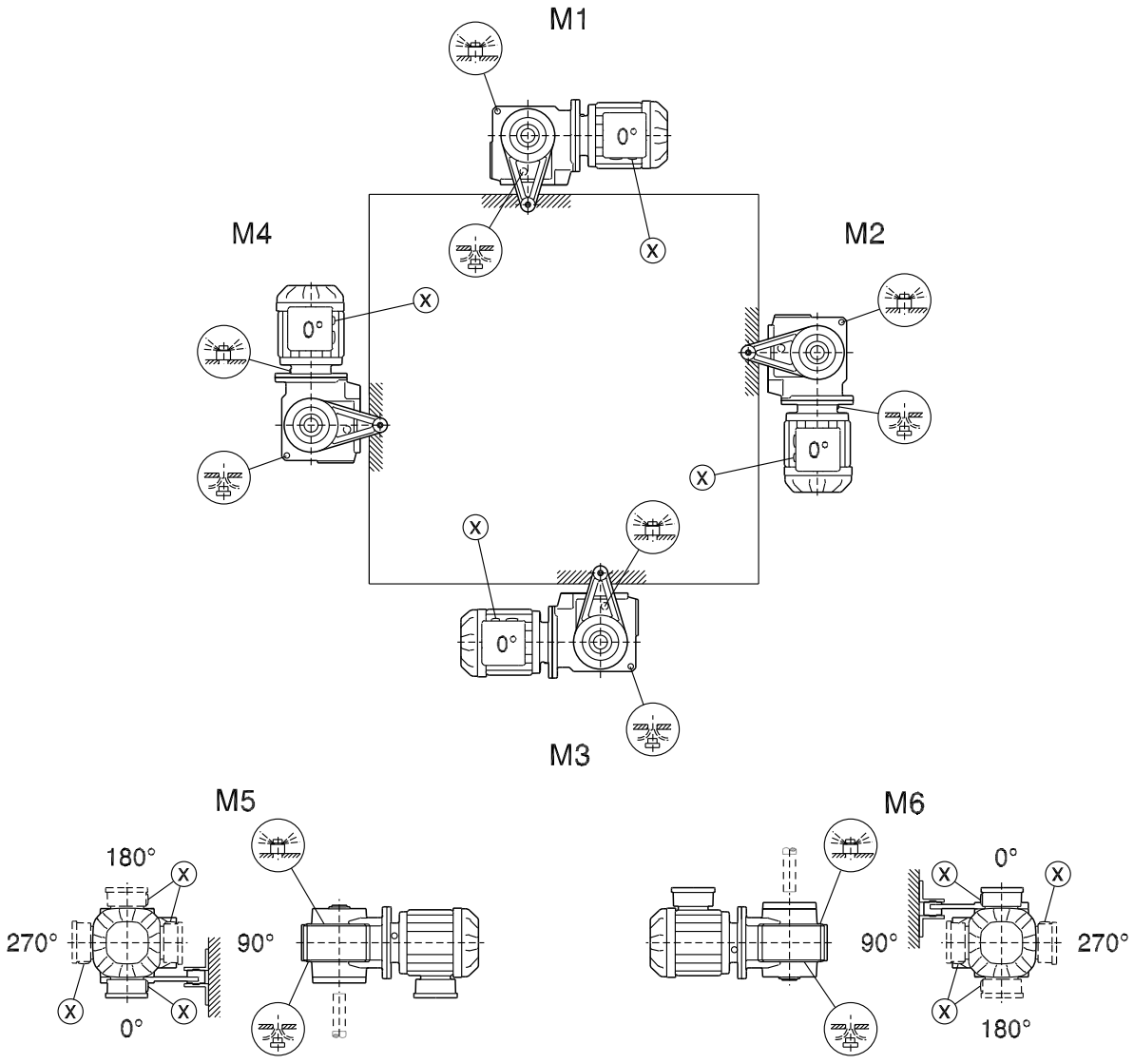



* (→ 🗎 61)

### 5.7.5 SA/SH/ST37



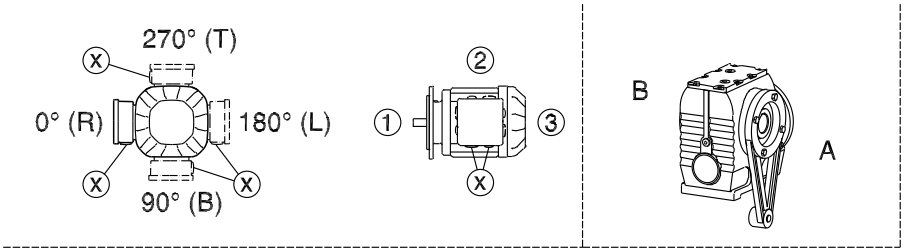



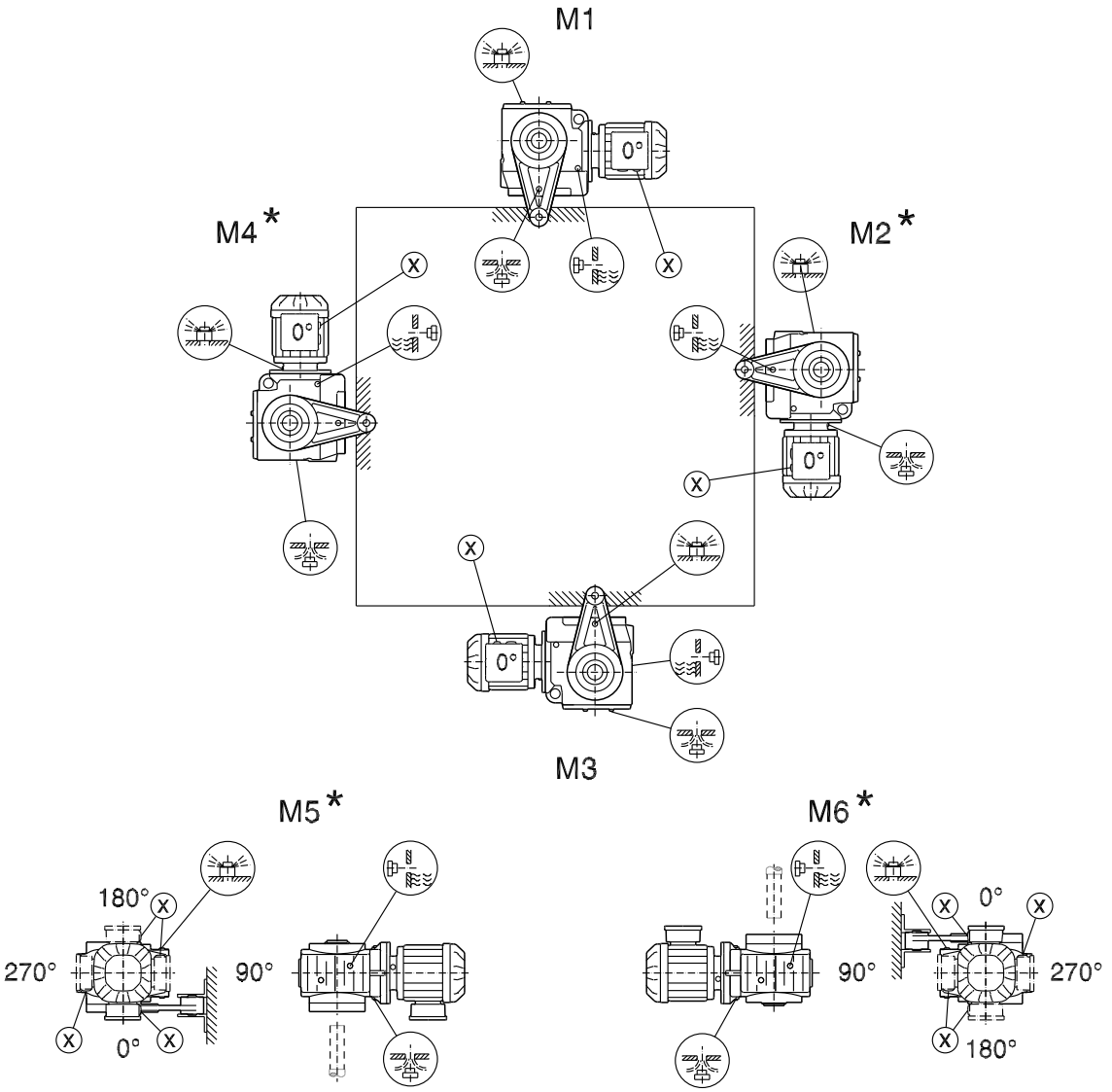



21284997/EN – 03/2015

### 5.7.6 SA/SH/ST47-97

28 021 04 00

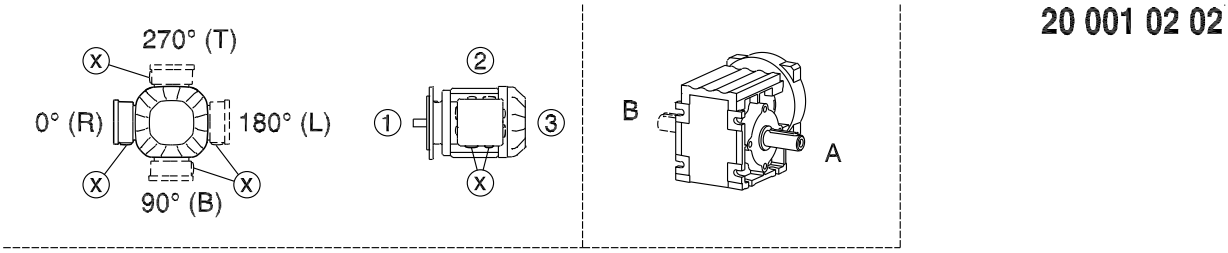


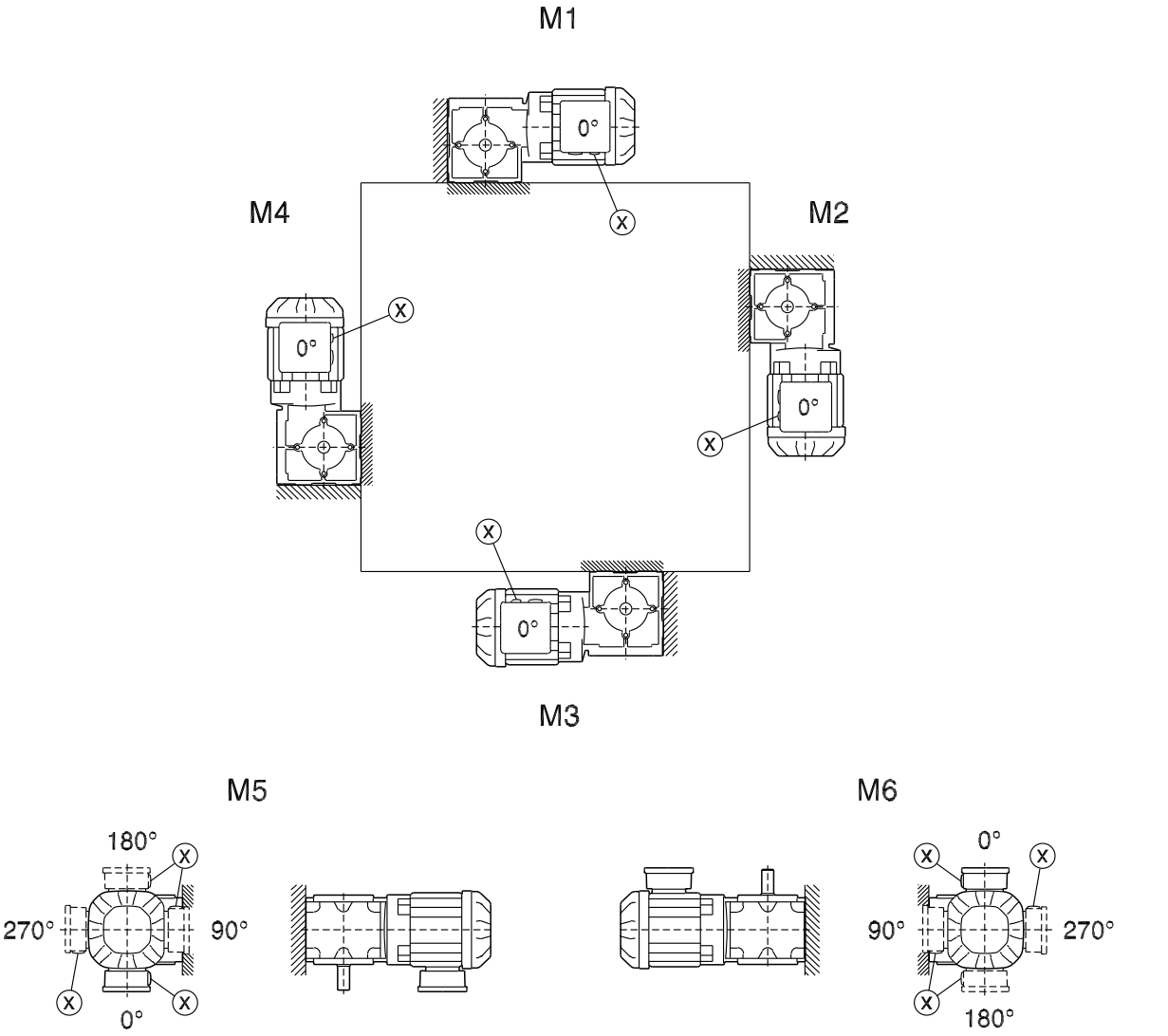

* (→ 61)

## 5.8 Mounting positions of SPIROPLAN® gearmotors

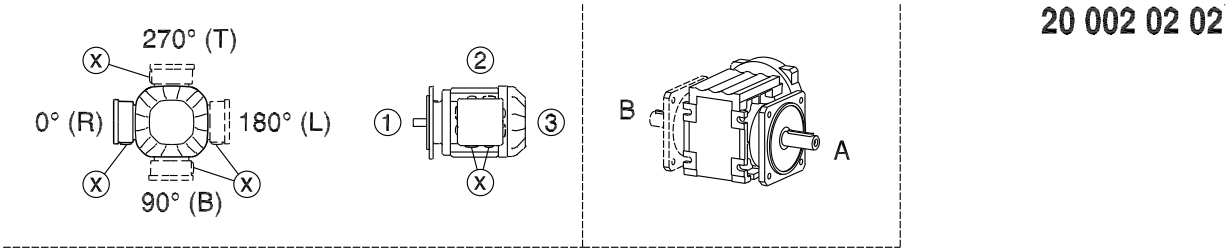
### 5.8.1 W10-30



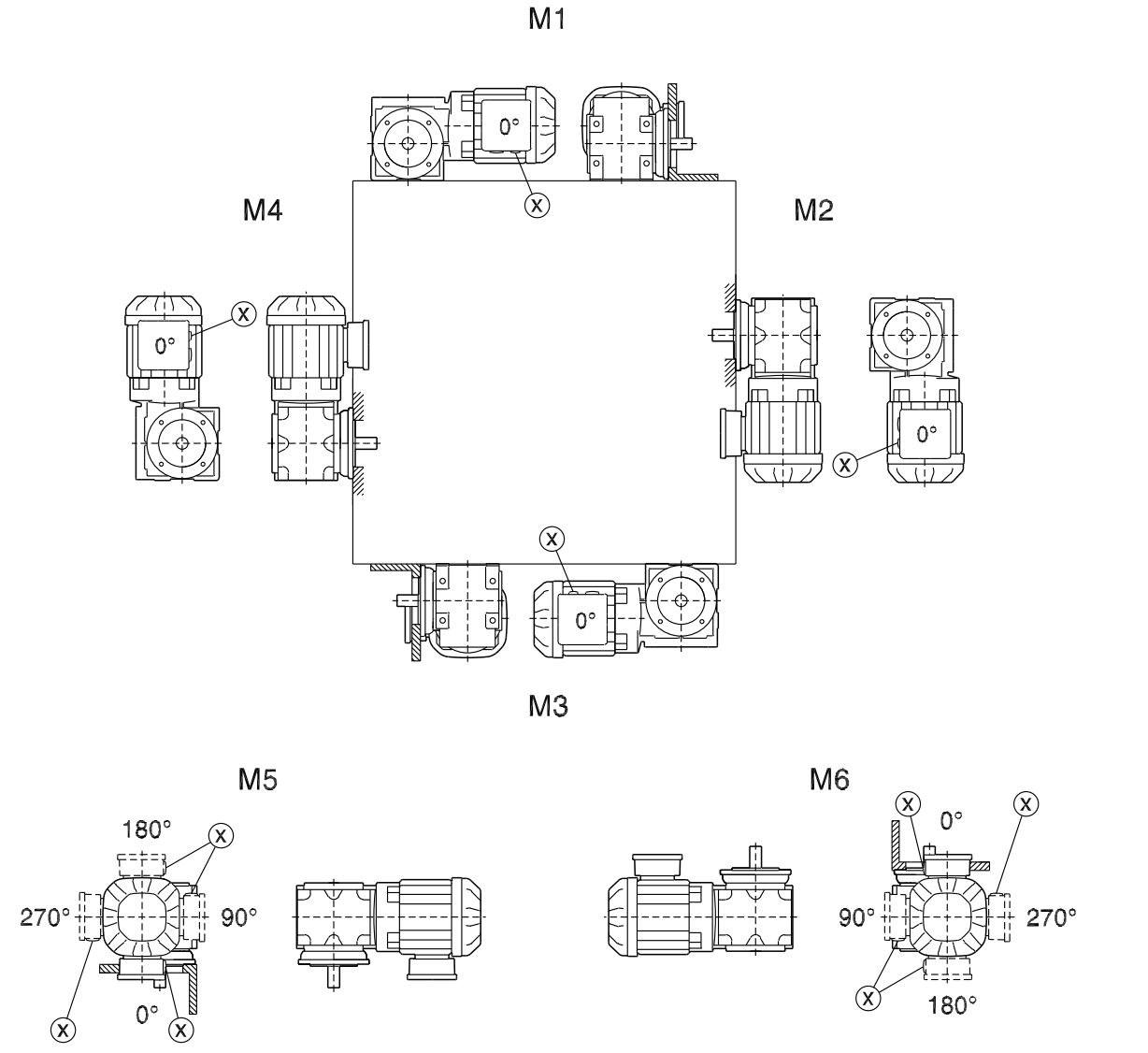

20 001 02 02



### 5.8.2 WF10-30

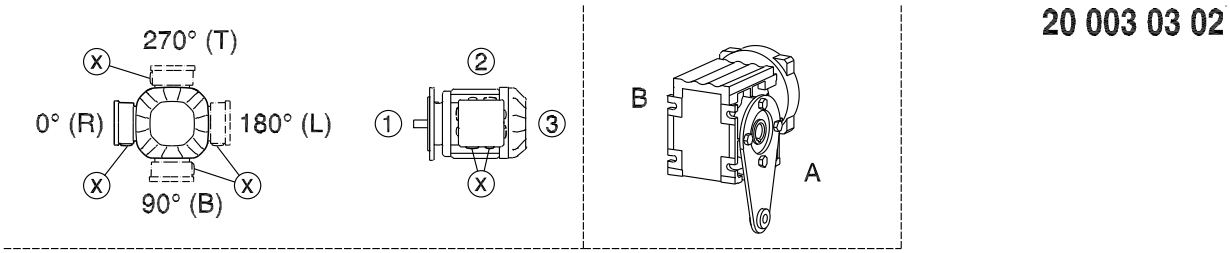



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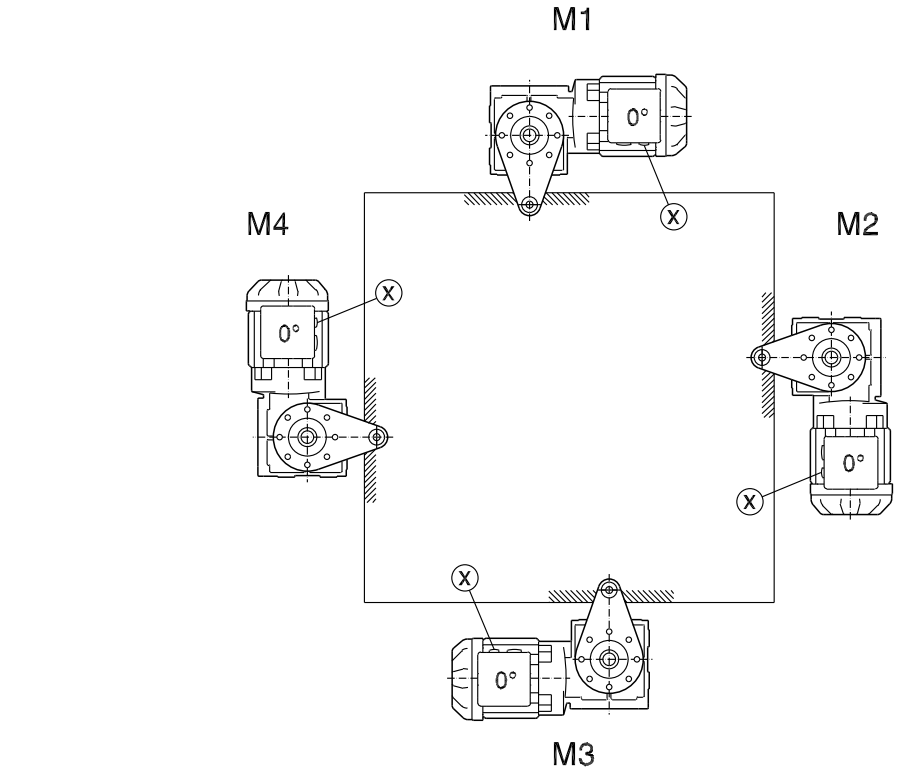


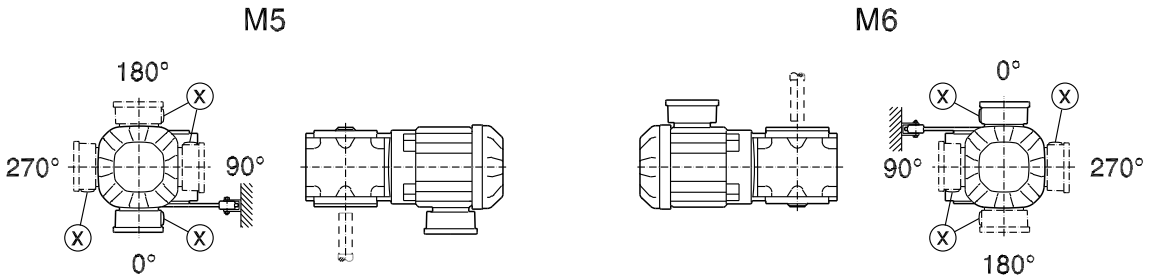

21284997/EN – 03/2015

### 5.8.3 WA10-30



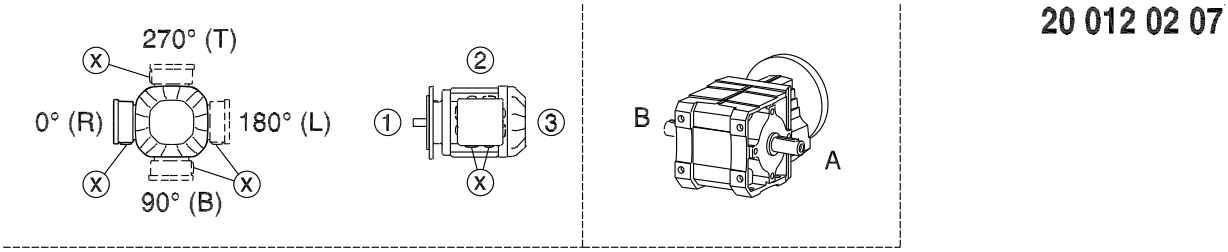

20 003 03 02

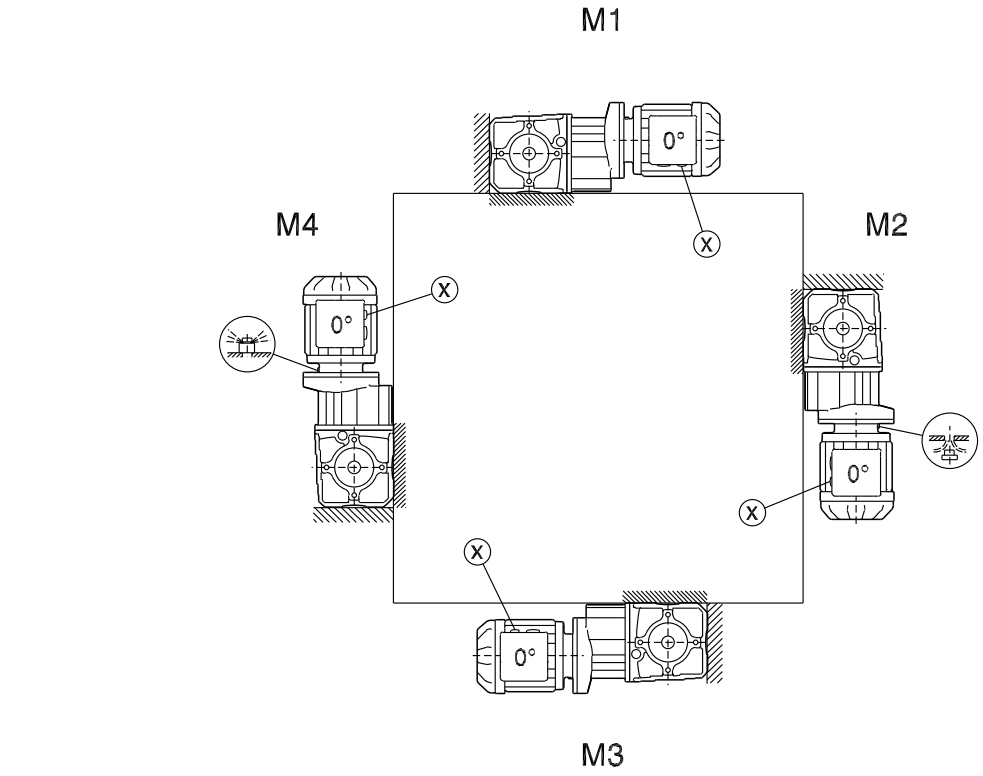


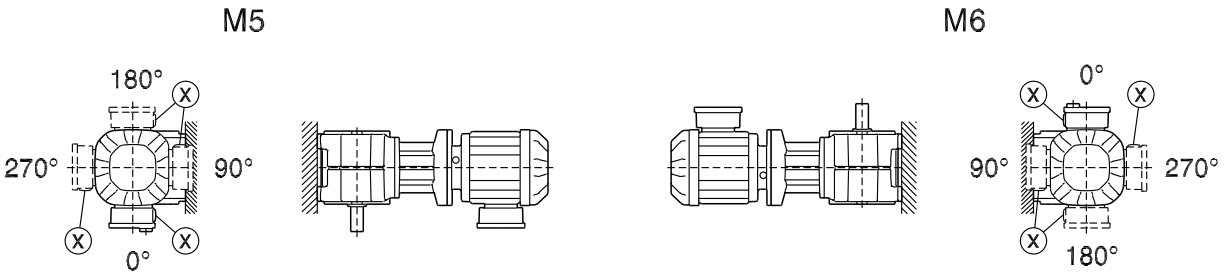




21284997/EN – 03/2015

### 5.8.4 W/WA..B/WH37B-47B

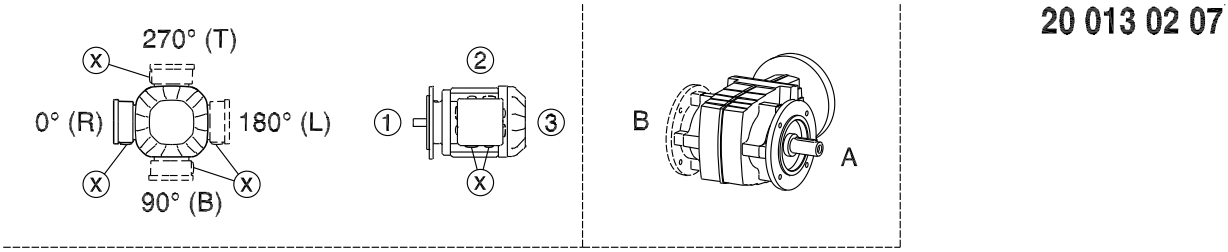


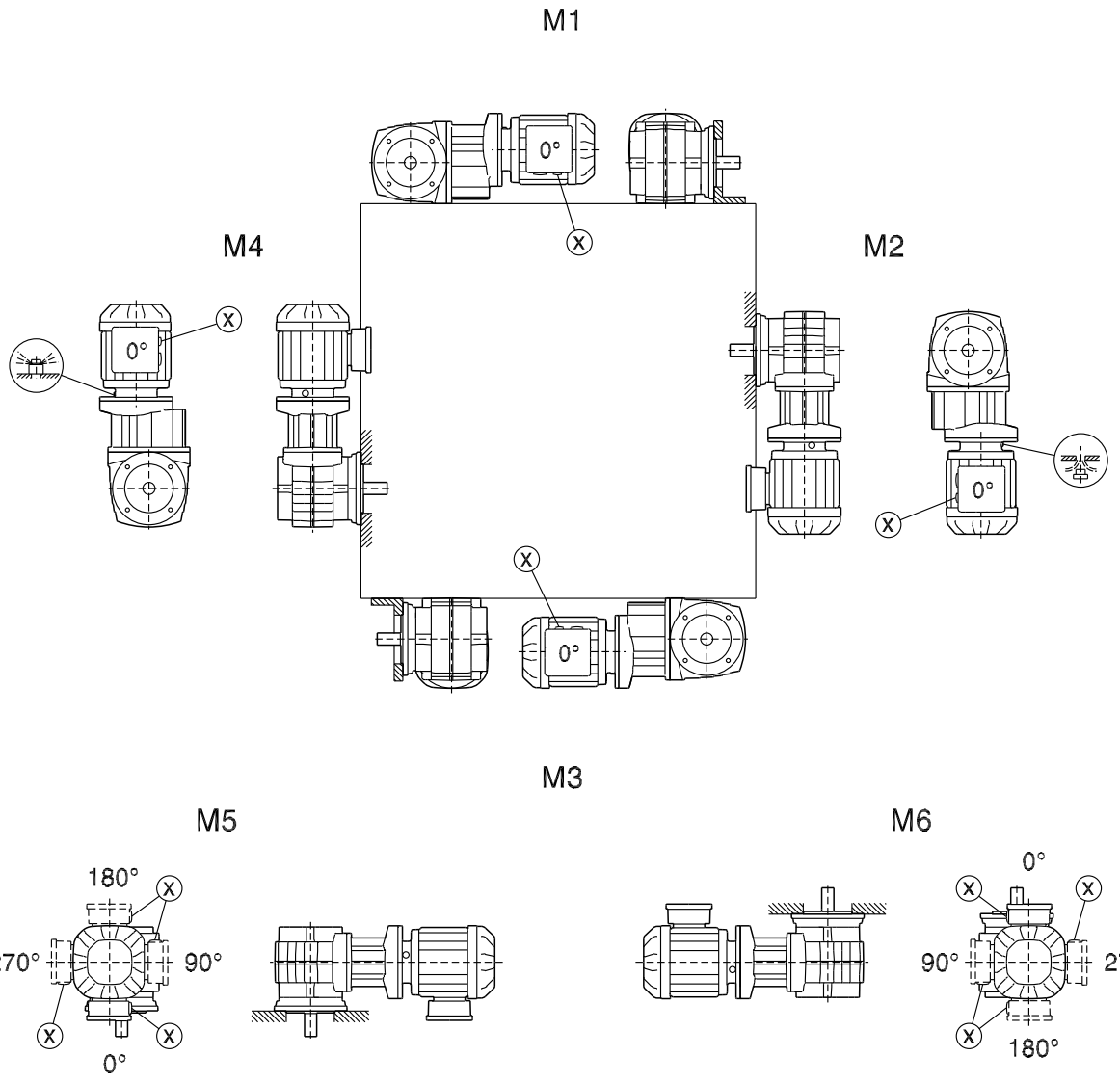



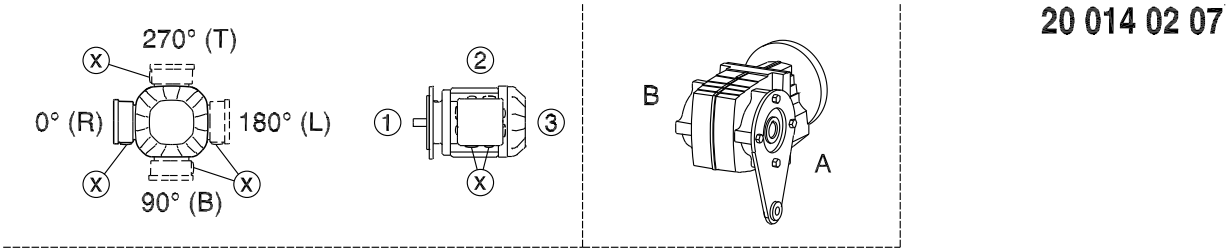

21284997/EN – 03/2015

### 5.8.5 WF/WAF/WHF37-47

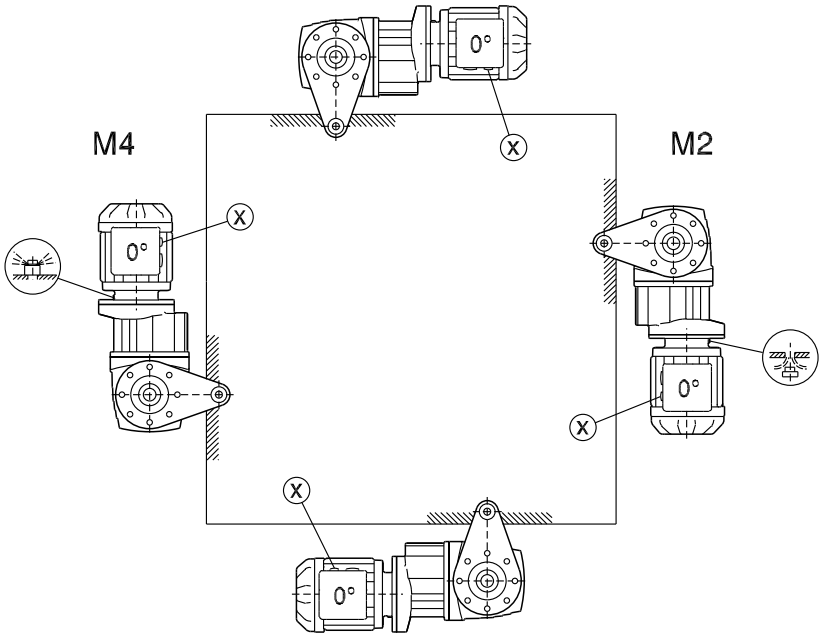


### 5.8.6 WA/WH/WT37-47



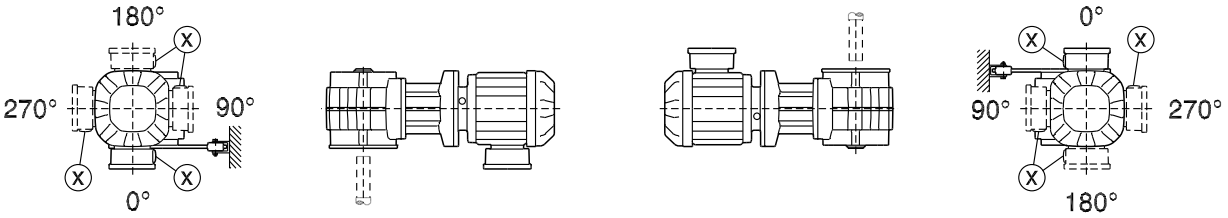

M1




M4 M2

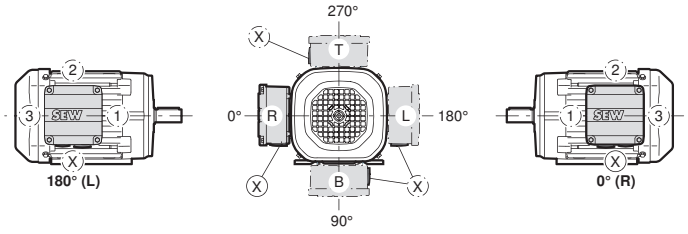
M3

M5 M6



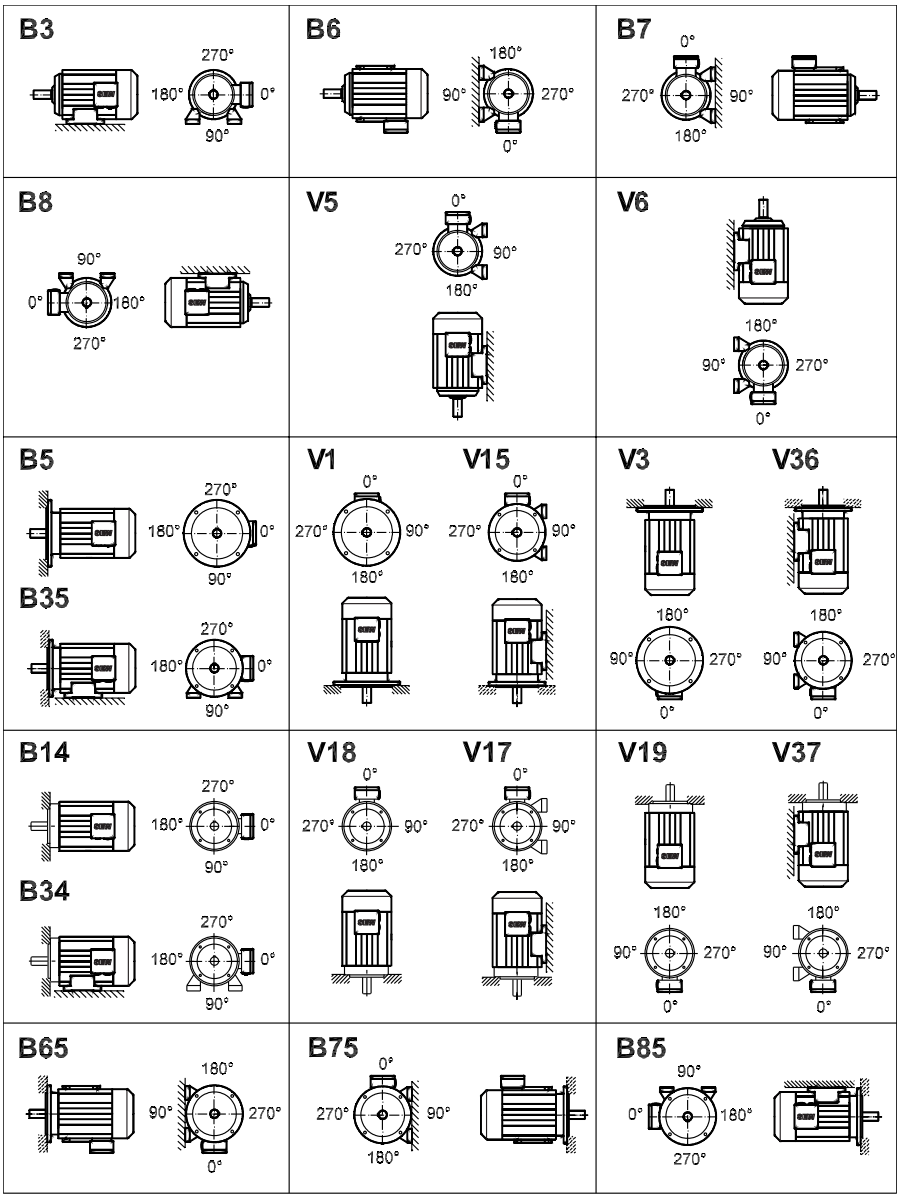
## 5.9 Mounting positions of AC motors

### 5.9.1 Motor terminal box position and cable entry




*8670476811*

### 5.9.2 Mounting positions




*9007203230054539*

# 6 Design and operating notes

## 6.1 Lubricants

### 6.1.1 General information

## INFORMATION

Unless a special arrangement is made, SEW-EURODRIVE supplies the drives with a lubricant fill adapted for the specific gear unit and mounting position. This is based on the specification of the mounting position (see chapter "Gear unit mounting positions and order information" (→ 🗎 54)) in the drive order.

If the mounting position is changed, the lubricant fill quantity must be adapted accordingly (see chapter "Lubricant fill quantities" (→ 🗎 97)). Consequently, a **change to the mounting position** can only occur following consultation with SEW-EURODRIVE, otherwise your **right to claim under warranty no longer applies**.

### 6.1.2 Bearing greases

The rolling bearings in SEW gear units are given a factory-fill with the greases listed below. SEW-EURODRIVE recommends regreasing rolling bearings with a grease filling at the same time as changing the oil.

| | Ambient temperature | Manufacturer | Type |
|---|---|---|---|
| Gear unit roller bearings | -40°C to +80°C | Fuchs | Renolit CX-TOM 15[1)] |
| | -40°C to +80°C | Klüber | Petamo GHY 133 N |
|  | -40°C to +40°C | Castrol | Obeen FS 2 |
|  | –20°C to +40°C | Fuchs | Plantogel 2S |

1) Rolling bearing grease based on semi-synthetic base oil.

## INFORMATION

The following grease quantities are required:

- **For fast-running bearings (gear unit input side):** Fill the cavities between the rolling elements one-third full with grease.
- **For slow-running bearings (gear unit output side):** Fill the cavities between the rolling elements two-thirds full with grease.

21284997/EN – 03/2015

### 6.1.3 Lubricant table

The lubricant table on the following page shows the permitted lubricants for SEW-EURODRIVE gear units.

**Key to lubricant table**

| | |
|---|---|
| CLP PG | = Polyglycol (W gear units, conforms to USDA-H1) |
| CLP HC | = Synthetic hydrocarbons |
| E | = Ester oil (water hazard class 1 (German regulation – "WKG") |
| HCE | = Synthetic hydrocarbons + ester oil (USDA - H1 certification) |
| HLP | = Hydraulic oil |
| | = Synthetic lubricant (= synthetic roller bearing grease) |
| 1) | Helical-worm gear units with PG oil: please consult SEW-EURODRIVE |
| 2) | Special lubricant for SPIROPLAN® gear units only |
| 3) | Use SEW $f_B \geq 1.2$ |
| 4) | Pay attention to critical starting behavior at low temperatures. |
| 5) | Low-viscosity grease |
| 6 | Ambient temperature |
| 7) | Bold |
|  | Lubricant for the food industry (food grade oil) |
|  | Biodegradable oil (lubricant for agriculture, forestry, and fisheries) |



21284997/EN – 03/2015

## Lubricant table

01 751 09 04

| | 6) °C -50 0 +50 +100 | DIN (ISO) | ISO,NLGI | Mobil | Shell | bp | | TEXACO | Castrol Tribol | Castrol Optimol | FUCHS | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| R... K37-187 (HK...) F... | Standard -15 +40 | CLP (CC) | VG 220 | Mobilgear 600 XP 220 | Shell Omala S2 G 220 | BP Energol GR-XP 220 | Klüberoil GEM 1-220 N | Meropa 220 | Tribol 1100/220 | Optigear BM 220 | Renolin CLP 220 | Carter EP 220 |
| | -20 +80 | CLP PG | VG 220 | Mobil Glygoyle 220 | Shell Omala S4 WE 220 | BP Enersyn SG-XP 220 | Klübersynth GH 6-220 | Synlube CLP 220 | Tribol 800/220 | Optiflex A 220 | Renolin PG 220 | Carter SY 220 |
| | -20 +60 | CLP HC | VG 220 | Mobil SHC 630 | Shell Omala S4 GX 220 | | Klübersynth GEM 4-220 N | Pinnacle EP 220 | Tribol 1510/220 | Optigear Synthetic X 220 | Renolin Unisyn CLP 220 | Carter SH 220 |
| | 4) -40 +40 | CLP HC | VG 150 | Mobil SHC 629 | Shell Omala S4 GX 150 | | Klübersynth GEM 4-150 N | Pinnacle EP 150 | | Optigear Synthetic X 150 | Renolin Unisyn CLP 150 | Carter SH 150 |
| | -20 +25 | CLP (CC) | VG 150 | Mobilgear 600 XP 150 | Shell Omala S2 G 150 | BP Energol GR-XP 150 | Klüberoil GEM 1-150 N | Meropa 150 | Tribol 1100/150 | Optigear BM 100 | Renolin CLP 150 | Carter EP 150 |
| | -40 +20 | CLP HC | VG 68 | Mobil SHC 626 | Shell Omala S4 GX 68 | | | | | | Renolin Unisyn CLP 68 | |
| | -40 + 0 | CLP HC | VG 32 | Mobil SHC 624 | | | Klüber-Summit HySyn FG-32 | Cetus PAO 46 | | Optitleb HY 32 | Renolin Unisyn OL 32 | Dacnis SH 32 |
| K..19 - K..29 | 4) -20 Standard +60 | CLP PG | VG 460 | | | | Klübersynth GH 6-460 | | | | | |
| | 4) -20 +60 | H1 PG | VG 460 | | | | Klübersynth UH1 6-460 | | | | | |
| S...(HS...) | Standard 0 +40 | CLP (CC) | VG 680 | Mobilgear 600 XP 680 | Shell Omala S2 G 680 | BP Energol GR-XP 680 | Klüberoil GEM 1-680 N | Meropa 680 | Tribol 1100/680 | Optigear BM 680 | Renolin SEW 680 | Carter EP 680 |
| | 1) -20 +80 | CLP PG | VG 680 | Mobil Glygoyle 680 | Shell Omala S4 WE 680 | BP Enersyn SG-XP 680 | Klübersynth GH 6-680 | Synlube CLP 680 | Tribol 800/680 | Optiflex A 680 | Renolin PG 680 | |
| | -20 +60 | CLP HC | VG 460 | Mobil SHC 634 | Shell Omala S4 GX 460 | | Klübersynth GEM 4-460 N | Pinnacle EP 460 | | Optigear Synthetic X 460 | Renolin Unisyn CLP 460 | Carter SH 460 |
| | 4) -40 +30 | CLP HC | VG 150 | Mobil SHC 629 | Shell Omala S4 GX 150 | | Klübersynth GEM 4-150 N | Pinnacle EP 150 | | Optigear Synthetic X 150 | Renolin Unisyn CLP 150 | Carter SH 150 |
| | -20 +10 | CLP (CC) | VG 150 | Mobilgear 600 XP 150 | Shell Omala S2 G 150 | BP Energol GR-XP 150 | Klüberoil GEM 1-150 N | Meropa 150 | Tribol 1100/150 | Optigear BM 150 | Renolin CLP 150 | Carter EP 150 |
| | 1) -20 +40 | CLP PG | VG 220 | Mobil Glygoyle 220 | Shell Omala S4 WE 220 | BP Enersyn SG-XP 220 | Klübersynth GH 6-220 | Synlube CLP 220 | Tribol 800/220 | Optiflex A 220 | Renolin PG 220 | Carter SY 220 |
| | -40 +20 | CLP HC | VG 68 | Mobil SHC 626 | Shell Omala S4 GX 68 | | | | | | Renolin Unisyn CLP 68 | |
| | -40 0 | CLP HC | VG 32 | Mobil SHC 624 | | | Klüber-Summit HySyn FG-32 | Cetus PAO 46 | | Alphasyn T32 | Renolin Unisyn OL 32 | Dacnis SH 32 |
| R.. K37-187 / HK.. F.. S.. / HS.. | -10 +40 | CLPHC NSF H1 | VG 460 | | | | Klüberoil 4UH1-460 N | | | Optileb GT 460 | Cassida Fluid GL 460 | |
| | -20 +30 | | VG 220 | | | | Klüberoil 4UH1-220 N | | | Optileb GT 220 | Cassida Fluid GL 220 | |
| | -40 0 | | VG 68 | | | | Klüberoil 4UH1-68 N | | | Optileb HY 68 | Cassida Fluid HF 68 | |
| | -20 +40 | E | VG 460 | | | | Klüberbio CA2-460 | | | | Plantogear 460 S | |
| W...(HW...) | 2) -20 Standard +40 | SEW PG | VG 460 | | | | Klüber SEW HT-460-5 | | | | | |
| | 4) -40 +10 | API GL5 | SAE 75W90 (~VG 100) | Mobil Synth Gear Oil 75 W90 | | | | | | | | |
| | 3) -20 +60 | H1 PG | VG 460 | | | | Klübersynth UH1 6-460 | | | | | |
| PS.F.. | -20 Standard +80 | CLP PG | VG 220 | | | | Klübersynth GH 6-220 | | | | | |
| | -20 +60 | H1 PG | VG 460 | | | | Klübersynth UH1 6-460 | | | | | |
| | -40 0 | CLP HC | VG 32 | Mobil SHC 624 | | | | | | | | |
| PS.C.. | -10 Standard +40 | CLP (CC) | VG 220 | Mobilgear 600 XP 220 | | | | | | | | |
| | 5) -20 +40 | DIN 51 818 | NLGI 00 | Mobillux EP 004 | | | | | | | | |
| | -20 +40 | DIN 51 818 | NLGI 1 | | | | Klübersynth UH1 14-151 | | | | | |
| | -40 0 | CLP HC | VG 32 | Mobil SHC 624 | | | | | | | | |
| BS.F.. | -20 Standard +60 | CLP PG | VG 220 | | | | Klübersynth GH 6-220 | | | | | |
| | -20 +60 | H1 PG | VG 460 | | | | Klübersynth UH1 6-460 | | | | | |

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### 6.1.4 Lubricant fill quantities

## INFORMATION

The specified fill quantities are only given as a **guideline**. The precise values vary depending on the number of stages and gear ratio. When filling, it is essential to check the **oil level plug since it indicates the precise oil volume**.



The following tables show guide values for lubricant fill quantities in relation to the mounting position M1 – M6.

#### Helical (R) gear units

R.., R..F

| Gear units | Fill quantity in liters | | | | | |
|---|---|---|---|---|---|---|
| | M1[1)] | M2 | M3 | M4 | M5 | M6 |
| R07 | 0.12 | 0.20 | | | | |
| R17 | 0.25 | 0.55 | 0.35 | 0.55 | 0.35 | 0.40 |
| R27 | 0.25/0.40 | 0.70 | 0.50 | 0.70 | 0.50 | |
| R37 | 0.30/0.95 | 0.85 | 0.95 | 1.05 | 0.75 | 0.95 |
| R47 | 0.70/1.50 | 1.60 | 1.50 | 1.65 | 1.50 | |
| R57 | 0.80/1.70 | 1.90 | 1.70 | 2.10 | 1.70 | |
| R67 | 1.10/2.30 | 2.40 | 2.80 | 2.90 | 1.80 | 2.00 |
| R77 | 1.20/3.00 | 3.30 | 3.60 | 3.80 | 2.50 | 3.40 |
| R87 | 2.30/6.0 | 6.4 | 7.2 | | 6.3 | 6.5 |
| R97 | 4.60/9.8 | 11.7 | | 13.4 | 11.3 | 11.7 |
| R107 | 6.0/13.7 | 16.3 | 16.9 | 19.2 | 13.2 | 15.9 |
| R137 | 10.0/25.0 | 28.0 | 29.5 | 31.5 | 25.0 | |
| R147 | 15.4/40.0 | 46.5 | 48.0 | 52.0 | 39.5 | 41.0 |
| R167 | 27.0/70.0 | 82.0 | 78.0 | 88.0 | 66.0 | 69.0 |

1) In the case of double gear units, the large gear unit must be filled with the greater oil volume.

RF..

| Gear units | Fill quantity in liters | | | | | |
|---|---|---|---|---|---|---|
| | M1[1)] | M2 | M3 | M4 | M5 | M6 |
| RF07 | 0.12 | 0.20 | | | | |
| RF17 | 0.25 | 0.55 | 0.35 | 0.55 | 0.35 | 0.40 |
| RF27 | 0.25/0.40 | 0.70 | 0.50 | 0.70 | 0.50 | |
| RF37 | 0.35/0.95 | 0.90 | 0.95 | 1.05 | 0.75 | 0.95 |
| RF47 | 0.65/1.50 | 1.60 | 1.50 | 1.65 | 1.50 | |
| RF57 | 0.80/1.70 | 1.80 | 1.70 | 2.00 | 1.70 | |
| RF67 | 1.20/2.50 | 2.50 | 2.70 | 2.80 | 1.90 | 2.10 |
| RF77 | 1.20/2.60 | 3.10 | 3.30 | 3.60 | 2.40 | 3.00 |
| RF87 | 2.40/6.0 | 6.4 | 7.1 | 7.2 | 6.3 | 6.4 |
| RF97 | 5.1/10.2 | 11.9 | 11.2 | 14.0 | 11.2 | 11.8 |
| RF107 | 6.3/14.9 | 15.9 | 17.0 | 19.2 | 13.1 | 15.9 |
| RF137 | 9.5/25.0 | 27.0 | 29.0 | 32.5 | 25.0 | |
| RF147 | 16.4/42.0 | 47.0 | 48.0 | 52.0 | 42.0 | 42.0 |
| RF167 | 26.0/70.0 | 82.0 | 78.0 | 88.0 | 65.0 | 71.0 |

1) In the case of double gear units, the large gear unit must be filled with the greater oil volume.

21284997/EN – 03/2015

RX..

| Gear units | Fill quantity in liters | | | | | |
|---|---|---|---|---|---|---|
| | M1 | M2 | M3 | M4 | M5 | M6 |
| RX57 | 0.60 | 0.80 | 1.30 | | 0.90 | |
| RX67 | 0.80 | | 1.70 | 1.90 | 1.10 | |
| RX77 | 1.10 | 1.50 | 2.60 | 2.70 | 1.60 | |
| RX87 | 1.70 | 2.50 | 4.80 | | 2.90 | |
| RX97 | 2.10 | 3.40 | 7.4 | 7.0 | 4.80 | |
| RX107 | 3.90 | 5.6 | 11.6 | 11.9 | 7.7 | |

RXF..

| Gear units | Fill quantity in liters | | | | | |
|---|---|---|---|---|---|---|
| | M1 | M2 | M3 | M4 | M5 | M6 |
| RXF57 | 0.50 | 0.80 | 1.10 | | 0.70 | |
| RXF67 | 0.70 | 0.80 | 1.50 | 1.40 | 1.00 | |
| RXF77 | 0.90 | 1.30 | 2.40 | 2.00 | 1.60 | |
| RXF87 | 1.60 | 1.95 | 4.90 | 3.95 | 2.90 | |
| RXF97 | 2.10 | 3.70 | 7.1 | 6.3 | 4.80 | |
| RXF107 | 3.10 | 5.7 | 11.2 | 9.3 | 7.2 | |

### Parallel-shaft helical (F) gear units

F.., FA..B, FH..B, FV..B

| Gear units | Fill quantity in liters | | | | | |
|---|---|---|---|---|---|---|
| | M1 | M2 | M3 | M4 | M5 | M6 |
| F..27 | 0.60 | 0.80 | 0.65 | 0.70 | 0.60 | |
| F..37 | 0.95 | 1.25 | 0.70 | 1.25 | 1.00 | 1.10 |
| F..47 | 1.50 | 1.80 | 1.10 | 1.90 | 1.50 | 1.70 |
| F..57 | 2.60 | 3.50 | 2.10 | 3.50 | 2.80 | 2.90 |
| F..67 | 2.70 | 3.80 | 1.90 | 3.80 | 2.90 | 3.20 |
| F..77 | 5.9 | 7.3 | 4.30 | 8.0 | 6.0 | 6.3 |
| F..87 | 10.8 | 13.0 | 7.7 | 13.8 | 10.8 | 11.0 |
| F..97 | 18.5 | 22.5 | 12.6 | 25.2 | 18.5 | 20.0 |
| F..107 | 24.5 | 32.0 | 19.5 | 37.5 | 27.0 | |
| F..127 | 40.5 | 54.5 | 34.0 | 61.0 | 46.3 | 47.0 |
| F..157 | 69.0 | 104.0 | 63.0 | 105.0 | 86.0 | 78.0 |

FF..

| Gear units | Fill quantity in liters | | | | | |
|---|---|---|---|---|---|---|
| | M1 | M2 | M3 | M4 | M5 | M6 |
| FF27 | 0.60 | 0.80 | 0.65 | 0.70 | 0.60 | |
| FF37 | 1.00 | 1.25 | 0.70 | 1.30 | 1.00 | |
| FF47 | 1.60 | 1.85 | 1.10 | 1.90 | 1.50 | 1.70 |
| FF57 | 2.80 | 3.50 | 2.10 | 3.70 | 2.90 | 3.00 |
| FF67 | 2.70 | 3.80 | 1.90 | 3.80 | 2.90 | 3.20 |
| FF77 | 5.9 | 7.3 | 4.30 | 8.1 | 6.0 | 6.3 |
| FF87 | 10.8 | 13.2 | 7.8 | 14.1 | 11.0 | 11.2 |
| FF97 | 19.0 | 22.5 | 12.6 | 25.6 | 18.9 | 20.5 |
| FF107 | 25.5 | 32.0 | 19.5 | 38.5 | 27.5 | 28.0 |
| FF127 | 41.5 | 55.5 | 34.0 | 63.0 | 46.3 | 49.0 |
| FF157 | 72.0 | 105.0 | 64.0 | 106.0 | 87.0 | 79.0 |

21284997/EN – 03/2015

FA.., FH.., FV.., FAF.., FAZ.., FHF.., FZ.., FHZ.., FVF.., FVZ.., FT..

| Gear units | Fill quantity in liters | | | | | |
|---|---|---|---|---|---|---|
| | M1 | M2 | M3 | M4 | M5 | M6 |
| F..27 | 0.60 | 0.80 | 0.65 | 0.70 | 0.60 | |
| F..37 | 0.95 | 1.25 | 0.70 | 1.25 | 1.00 | 1.10 |
| F..47 | 1.50 | 1.80 | 1.10 | 1.90 | 1.50 | 1.70 |
| F..57 | 2.70 | 3.50 | 2.10 | 3.40 | 2.90 | 3.00 |
| F..67 | 2.70 | 3.80 | 1.90 | 3.80 | 2.90 | 3.20 |
| F..77 | 5.9 | 7.3 | 4.30 | 8.0 | 6.0 | 6.3 |
| F..87 | 10.8 | 13.0 | 7.7 | 13.8 | 10.8 | 11.0 |
| F..97 | 18.5 | 22.5 | 12.6 | 25.2 | 18.5 | 20.0 |
| F..107 | 24.5 | 32.0 | 19.5 | 37.5 | 27.0 | |
| F..127 | 39.0 | 54.5 | 34.0 | 61.0 | 45.0 | 46.5 |
| F..157 | 68.0 | 103.0 | 62.0 | 104.0 | 85.0 | 79.5 |

**Helical-bevel (K) gear units**

## INFORMATION

All K..9 gear have a universal mounting position, which means that K..9 gear units of the same design are filled with the same amount of oil independent of the mounting position. An exception to this is the M4 mounting position.

K.., KA..B, KH..B, KV..B

| Gear units | Fill quantity in liters | | | | | |
|---|---|---|---|---|---|---|
| | M1 | M2 | M3 | M4 | M5 | M6 |
| K..19 | 0.35 | | | 0.38 | 0.35 | |
| K..29 | 0.65 | | | 0.8 | 0.65 | |
| K..37 | 0.50 | 1.00 | | 1.25 | 0.95 | |
| K..47 | 0.80 | 1.30 | 1.50 | 2.00 | 1.60 | |
| K..57 | 1.10 | 2.20 | | 2.80 | 2.30 | 2.10 |
| K..67 | 1.10 | 2.40 | 2.60 | 3.45 | 2.60 | |
| K..77 | 2.20 | 4.10 | 4.40 | 5.8 | 4.20 | 4.40 |
| K..87 | 3.70 | 8.0 | 8.7 | 10.9 | 8.0 | |
| K..97 | 7.0 | 14.0 | 15.7 | 20.0 | 15.7 | 15.5 |
| K..107 | 10.0 | 21.0 | 25.5 | 33.5 | 24.0 | |
| K..127 | 21.0 | 41.5 | 44.0 | 54.0 | 40.0 | 41.0 |
| K..157 | 31.0 | 62.0 | 65.0 | 90.0 | 58.0 | 62.0 |
| K..167 | 33.0 | 95.0 | 105.0 | 123.0 | 85.0 | 84.0 |
| K..187 | 53.0 | 152.0 | 167.0 | 200 | 143.0 | |

KF..

| Gear units | Fill quantity in liters | | | | | |
|---|---|---|---|---|---|---|
| | M1 | M2 | M3 | M4 | M5 | M6 |
| KF19 | 0.35 | | | 0.38 | 0.35 | |
| KF29 | 0.75 | | | 0.9 | 0.75 | |
| KF37 | 0.50 | 1.10 | | 1.50 | 1.00 | |
| KF47 | 0.80 | 1.30 | 1.70 | 2.20 | 1.60 | |
| KF57 | 1.20 | 2.20 | 2.40 | 3.15 | 2.50 | 2.30 |
| KF67 | 1.10 | 2.40 | 2.80 | 3.70 | 2.70 | |
| KF77 | 2.10 | 4.10 | 4.40 | 5.9 | 4.50 | |
| KF87 | 3.70 | 8.2 | 9.0 | 11.9 | 8.4 | |
| KF97 | 7.0 | 14.7 | 17.3 | 21.5 | 15.7 | 16.5 |
| KF107 | 10.0 | 21.8 | 25.8 | 35.1 | 25.2 | |
| KF127 | 21.0 | 41.5 | 46.0 | 55.0 | 41.0 | |
| KF157 | 31.0 | 66.0 | 69.0 | 92.0 | 62.0 | |

KA.., KH.., KV.., KAF.., KHF.., KVF.., KZ.., KAZ.., KHZ.., KVZ.., KT..

| Gear units | Fill quantity in liters | | | | | |
|---|---|---|---|---|---|---|
| | M1 | M2 | M3 | M4 | M5 | M6 |
| K..19 | 0.35 | | | 0.38 | 0.35 | |
| K..29 | 0.65 | | | 0.8 | 0.65 | |
| K..37 | 0.50 | 1.00 | | 1.40 | 1.00 | |
| K..47 | 0.80 | 1.30 | 1.60 | 2.15 | 1.60 | |
| K..57 | 1.20 | 2.20 | 2.40 | 3.15 | 2.70 | 2.40 |
| K..67 | 1.10 | 2.40 | 2.70 | 3.70 | 2.60 | |
| K..77 | 2.10 | 4.10 | 4.60 | 5.9 | 4.40 | |
| K..87 | 3.70 | 8.2 | 8.8 | 11.1 | 8.0 | |
| K..97 | 7.0 | 14.7 | 15.7 | 20.0 | 15.7 | |
| K..107 | 10.0 | 20.5 | 24.0 | 32.4 | 24.0 | |
| K..127 | 21.0 | 41.5 | 43.0 | 52.0 | 40.0 | |
| K..157 | 31.0 | 66.0 | 67.0 | 87.0 | 62.0 | |
| K..167 | 33.0 | 95.0 | 105.0 | 123.0 | 85.0 | 84.0 |
| K..187 | 53.0 | 152.0 | 167.0 | 200 | 143.0 | |

### Helical-worm (S) gear units

S

| Gear units | Fill quantity in liters | | | | | |
|---|---|---|---|---|---|---|
| | M1 | M2 | M3[1)] | M4 | M5 | M6 |
| S..37 | 0.25 | 0.40 | 0.50 | 0.55 | 0.40 | |
| S..47 | 0.35 | 0.80 | 0.70/0.90 | 1.00 | 0.80 | |
| S..57 | 0.50 | 1.20 | 1.00/1.20 | 1.45 | 1.30 | |
| S..67 | 1.00 | 2.00 | 2.20/3.10 | 3.10 | 2.60 | 2.60 |
| S..77 | 1.90 | 4.20 | 3.70/5.4 | 5.9 | 4.40 | |
| S..87 | 3.30 | 8.1 | 6.9/10.4 | 11.3 | 8.4 | |
| S..97 | 6.8 | 15.0 | 13.4/18.0 | 21.8 | 17.0 | |

1) The larger gear unit of multi-stage gear units must be filled with the larger oil quantity.

21284997/EN – 03/2015

SF..

| Gear units | Fill quantity in liters | | | | | |
|---|---|---|---|---|---|---|
| | M1 | M2 | M3[1)] | M4 | M5 | M6 |
| SF37 | 0.25 | 0.40 | 0.50 | 0.55 | 0.40 | |
| SF47 | 0.40 | 0.90 | 0.90/1.05 | 1.05 | 1.00 | |
| SF57 | 0.50 | 1.20 | 1.00/1.50 | 1.55 | 1.40 | |
| SF67 | 1.00 | 2.20 | 2.30/3.00 | 3.20 | 2.70 | |
| SF77 | 1.90 | 4.10 | 3.90/5.8 | 6.5 | 4.90 | |
| SF87 | 3.80 | 8.0 | 7.1/10.1 | 12.0 | 9.1 | |
| SF97 | 7.4 | 15.0 | 13.8/18.8 | 22.6 | 18.0 | |

1) The larger gear unit of multi-stage gear units must be filled with the larger oil quantity.

SA.., SH.., SAF.., SHZ.., SAZ.., SHF.., ST..

| Gear units | Fill quantity in liters | | | | | |
|---|---|---|---|---|---|---|
| | M1 | M2 | M3[1)] | M4 | M5 | M6 |
| S..37 | 0.25 | 0.40 | 0.50 | | 0.40 | |
| S..47 | 0.40 | 0.80 | 0.70/0.90 | 1.00 | 0.80 | |
| S..57 | 0.50 | 1.10 | 1.00/1.50 | 1.50 | 1.20 | |
| S..67 | 1.00 | 2.00 | 1.80/2.60 | 2.90 | 2.50 | |
| S..77 | 1.80 | 3.90 | 3.60/5.0 | 5.8 | 4.50 | |
| S..87 | 3.80 | 7.4 | 6.0/8.7 | 10.8 | 8.0 | |
| S..97 | 7.0 | 14.0 | 11.4/16.0 | 20.5 | 15.7 | |

1) The larger gear unit of multi-stage gear units must be filled with the larger oil quantity.

**SPIROPLAN® (W) gear units**

## INFORMATION

SPIROPLAN® gear units W..10 to W..30 have a universal mounting position, which means that gear units of the same design are filled with the same amount of oil independent of the mounting position.

The oil fill quantity of SPIROPLAN® gear units W..37 and W..47 in mounting position M4 is different from that of the other mounting positions.

W.., WA..B, WH..B

| Gear units | Fill quantity in liters | | | | | |
|---|---|---|---|---|---|---|
| | M1 | M2 | M3 | M4 | M5 | M6 |
| W..10 | 0.16 | | | | | |
| W..20 | 0.24 | | | | | |
| W..30 | 0.40 | | | | | |
| W..37 | 0.50 | | | 0.70 | 0.50 | |
| W..47 | 0.90 | | | 1.40 | 0.90 | |

WF..

| Gear units | Fill quantity in liters | | | | | |
|---|---|---|---|---|---|---|
| | M1 | M2 | M3 | M4 | M5 | M6 |
| WF10 | 0.16 | | | | | |
| WF20 | 0.24 | | | | | |
| WF30 | 0.40 | | | | | |
| WF37 | 0.50 | | | 0.70 | 0.50 | |
| WF47 | 0.90 | | | 1.55 | 0.90 | |

21284997/EN – 03/2015

WA.., WAF..,WH.., WT.., WHF..

| Gear units | Fill quantity in liters | | | | | |
|---|---|---|---|---|---|---|
| | M1 | M2 | M3 | M4 | M5 | M6 |
| W..10 | 0.16 | | | | | |
| W..20 | 0.24 | | | | | |
| W..30 | 0.40 | | | | | |
| W..37 | 0.50 | | | 0.70 | 0.50 | |
| W..47 | 0.80 | | | 1.40 | 0.80 | |

## 6.2 Gear unit venting

### INFORMATION

The function of breather valves can be impaired by dirt and dust in the environment.

If necessary, contact SEW-EURODRIVE to discuss alternative venting systems.

21284997/EN – 03/2015

## 6.3 Reduced backlash gear unit types

Helical, parallel-shaft helical and helical-bevel gear units with reduced backlash are available as of gear unit size 37. The rotational clearance of these gear units is considerably less than that of the standard versions so that positioning tasks can be solved with great precision. Rotational clearances are specified in the technical data in angular minutes. The circumferential backlash for the output shaft is specified without load (max. 1% of the rated output torque); the gear unit input end is blocked.



The reduced backlash variant is available for the following gear units:

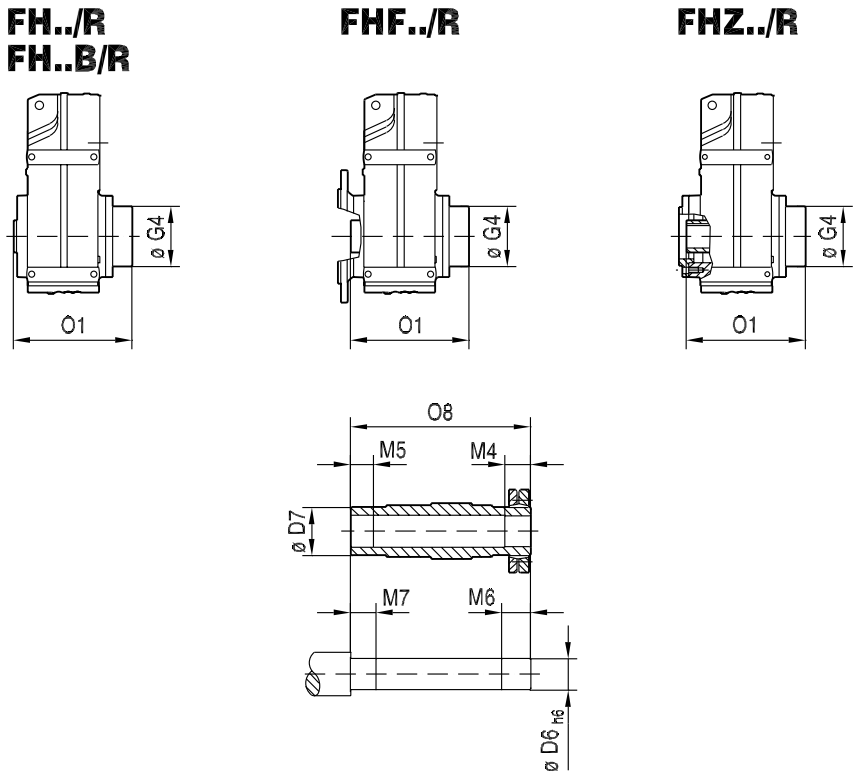
- Helical gear units (R), sizes 37 to 167
- Parallel-shaft helical gear units (F), sizes 37 to 157
- Helical-bevel gear units (K), sizes 37 to 187

Multi-stage gear units are not available with reduced backlash.

The dimensions of the reduced backlash variants correspond to the dimensions of the standard designs, except for parallel-shaft gear units FH.87 and FH.97 with reduced backlash.

The following figure shows the dimensions of the FH.87 and FH.97 gear units with reduced backlash:

42 020 00 09




6644506891

| Type | Dimensions in mm | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | D6 | D7 | G4 | M4 | M5 | M6 | M7 | O1 | O8 |
| FH.87/R | Ø 65 $_{h6}$ | Ø 85 | Ø 163 | 41 | 40 | 46 | 45 | 312.5 | 299.5 |
| FH.97/R | Ø 75 $_{h6}$ | Ø 95 | Ø 184 | 55 | 50 | 60 | 55 | 382.5 | 367 |

21284997/EN – 03/2015

## 6.4 Installation/removal of gear units with hollow shaft and key

### INFORMATION

Always use the supplied NOCO® fluid during assembly. The fluid prevents contact corrosion and facilitates subsequent removal.

The key dimension X is specified by the customer, though X must be greater than DK (DK = diameter of customer shaft).

See figures for "Customer shaft with and without contact shoulder."

### 6.4.1 Installation

SEW-EURODRIVE recommends 2 variants for installing gear units with hollow shaft and key onto the input shaft of the driven machine (= customer shaft):

1. Use the fastening parts supplied for installation.
2. Use the optional installation/removal kit for installation.

#### Supplied fastening parts

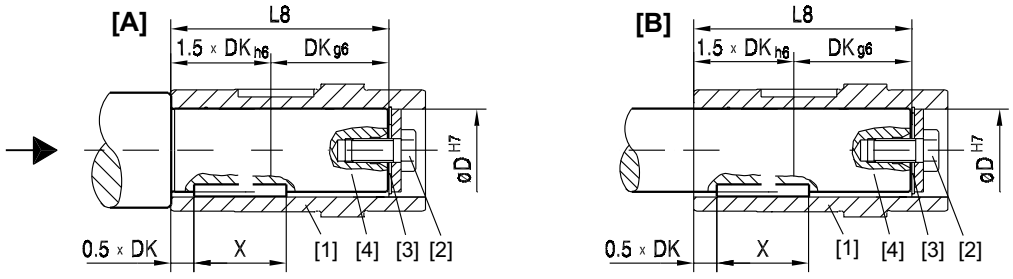
The following fastening parts are supplied as standard:

- Retaining screw with washer [2]
- Circlip [3]

**Note the following points concerning the customer shaft:**

- The installation length of the customer shaft with contact shoulder [A] must be L8 mm - 1 mm.
- The installation length of the customer shaft without contact shoulder [B] must equal L8.

The following figure shows the customer shaft with contact shoulder [A] and without contact shoulder [B].




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| | | | |
|---|---|---|---|
| DK | Diameter of customer shaft | [2] | Retaining screw with washer |
| X | Key | [3] | Retaining ring |
| [1] | Hollow shaft | [4] | Customer shaft |

21284997/EN – 03/2015

**Dimensions and tightening torque:**

Tightening torques MS for the retaining screw [2]:

| Gear unit type | $D^{H7}$ mm | DK mm | L8 mm | MS Nm |
|---|---|---|---|---|
| WA..10 | 16 | | 69 | 8 |
| WA..20 | 18 | | 84 | |
| WA..20 | 20 | | | |
| KA..19 | | | 92 | |
| FA..27 | 25 | | 88 | 20 |
| KA..29 | | | 107 | |
| KA..29 | 30 | | | |
| WA..30, WA..37 | 20 | | 105 | 8 |
| SA..37, BSAF202 | | | 104 | |
| FA..37, KA..37, SA..47 | 30 | | 105 | 20 |
| BSAF302 | 25 | | 118 | |
| SA..47, WA..37 | | | 105 | |
| BSAF402 | 30 | | 138 | |
| FA..47, KA..47, SA..57 | 35 | | 132 | |
| WA..47 | 30 | | 122 | |
| SA..57 | | | 132 | |
| FA..57, KA..57 | 40 | | 142 | 40 |
| BSAF502 | | | 158 | |
| FA..67, KA..67 | | | 156 | |
| SA..67 | | | 144 | |
| SA..67 | 45 | | | |
| BSAF602 | 55 | | 179 | 80 |
| FA..77, KA..77, SA..77 | 50 | | 183 | 40 |
| SA..77 | 60 | | 180 | 80 |
| FA..87, KA..87 | | | 210 | |
| SA..87 | | | 220 | |
| SA..87 | 70 | | | |
| BSAF802 | 60 | | 222 | |
| FA..97, KA..97 | 70 | | 270 | |
| SA..97 | | | 260 | |
| FA..107, KA..107 | 80 | | 313 | |
| SA..97 | 90 | | 255 | 200 |
| FA..107, KA..107 | | | 313 | |
| FA..127, KA..127 | 100 | | 373 | |
| FA..157, KA..157 | 120 | | 460 | |

**Installation/removal kit**

You can use the optional installation/removal kit for installation. This can be ordered for the specific gear unit types by quoting the part numbers in the following table. The delivery includes:

- Spacer tube for installation without contact shoulder [5]
- Retaining screw for installation [2]
- Forcing washer for removal [7]
- Locked nut for removal [8]

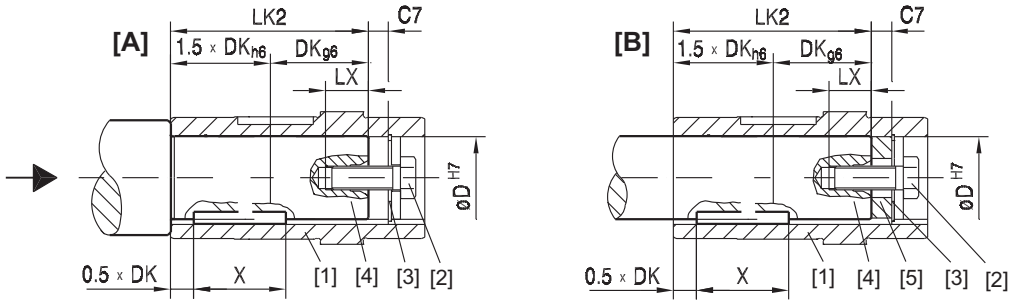
The short retaining screw delivered as standard is not required.

21284997/EN – 03/2015

**Note the following information concerning the customer shaft:**

- The installation length of the customer shaft must be LK2. Do not use the spacer tube if the customer shaft **has a contact shoulder [A]**.
- The installation length of the customer shaft must be LK2. Use the spacer tube if the customer shaft **has no contact shoulder [B]**.

The following figure shows the customer shaft with contact shoulder [A] and without contact shoulder [B].




*9007203563708043*

| | | | |
|---|---|---|---|
| DK | Diameter of customer shaft | [3] | Retaining ring |
| X | Key dimension | [4] | Customer shaft |
| [1] | Hollow shaft | [5] | Spacer tube |
| [2] | Retaining screw with washer | | |

**Dimensions, tightening torques and part numbers:**

Tightening torques MS for the retaining screw [2]:

| Type | D$^{H7}$ mm | DK mm | LK2 mm | LX$^{+2}$ mm | C7 mm | MS Nm | Part number of installation/ removal kit |
|---|---|---|---|---|---|---|---|
| WA..10 | 16 | | 57 | 12.5 | 11 | 8 | 643 712 5 |
| WA..20 | 18 | | 72 | 16 | 12 | | 643 682 X |
| WA..20 | 20 | | 72 | | | | 643 683 8 |
| WA..30, WA..37 | | | 93 | | | | |
| SA..37 | | | 92 | | | | |
| KA..19 | | | 80 | | | | |
| KA..29 | 25 | | 95 | 22 | 16 | 20 | 643 684 6 |
| FA..27 | | | 72 | | | | |
| SA..47 | | | 89 | | | | |
| WA..47 | 30 | | 106 | | | | 643 685 4 |
| FA..37, KA..37 | | | 89 | | | | |
| SA..47 | | | 89 | | | | |
| SA..57 | | | 116 | | | | |
| KA..29 | | | 95 | | | | |
| FA..47, KA..47, SA..57 | 35 | | 114 | 28 | 18 | | 643 686 2 |
| FA..57, KA..57 | 40 | | 124 | 36 | | 40 | 643 687 0 |
| FA..67 | | | 138 | | | | |
| KA..67 | | | 138 | | | | |
| SA..67 | | | 126 | | | | |
| SA..67 | 45 | | 126 | | | | 643 688 9 |
| FA..77, KA..77, SA..77 | 50 | | 165 | | | | 643 689 7 |
| FA..87, KA..87 | 60 | | 188 | 42 | 22 | 80 | 643 690 0 |
| SA..77 | | | 158 | | | | |
| SA..87 | | | 198 | | | | |
| FA..97, KA..97 | 70 | | 248 | | | | 643 691 9 |
| SA..87 | | | 198 | | | | |
| SA..97 | | | 238 | | | | |

21284997/EN – 03/2015

| Type | $D^{H7}$ mm | DK mm | LK2 mm | $LX^{+2}$ mm | C7 mm | MS Nm | Part number of installation/ removal kit |
|---|---|---|---|---|---|---|---|
| FA..107, KA..107 | 80 | | 287 | 42 | 26 | 80 | 106 821 12 |
| FA..107, KA..107 | 90 | | 287 | 50 | 26 | 200 | 643 692 7 |
| SA..97 | | | 229 | | | | |
| FA..127, KA..127 | 100 | | 347 | | | | 643 693 5 |
| FA..157, KA..157 | 120 | | 434 | | | | 643 694 3 |

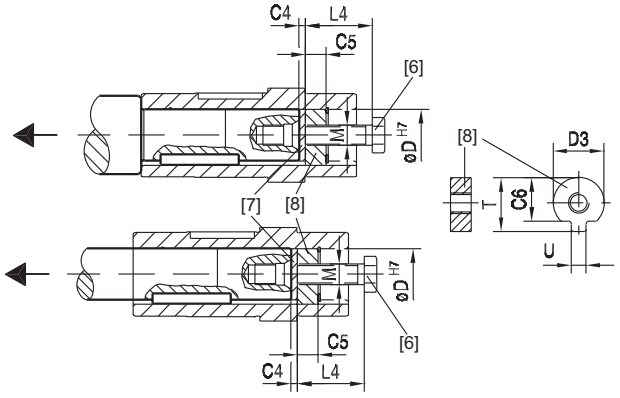


### 6.4.2 Removal

Applies only if installation/removal kit was previously used for installation.

1. Loosen the retaining screw [6].
2. Remove the circlip [3] and, if used, the spacer tube [5].
3. Insert the forcing washer [7] and the locked nut [8] between the customer shaft [4] and circlip [3] according to the following figure.
4. Re-install the circlip [3].
5. Re-install the retaining screw [6]. Now you can force the gear unit off the shaft.

The following figures shows the removal of a gear unit with hollow shaft and key.




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[6] Retaining screw
[7] Forcing washer
[8] Locked nut for removal

**Dimensions and part numbers:**

| Type | $D^{H7}$ mm | M | C4 mm | C5 mm | C6 mm | $U^{-0.5}$ mm | $T^{-0.5}$ mm | $D3^{-0.5}$ mm | L4 mm | Part number of installation/removal kit |
|---|---|---|---|---|---|---|---|---|---|---|
| WA..10 | 16 | M5 | 5 | 5 | 12 | 4.5 | 18 | 15.7 | 50 | 643 712 5 |
| WA..20 | 18 | M6 | | 6 | 13.5 | 5.5 | 20.5 | 17.7 | 25 | 643 682 X |
| WA..20, WA..30, SA..37, WA..37, KA..19 | 20 | | | | 15.5 | | 22.5 | 19.7 | | 643 683 8 |
| FA..27, SA..47, WA..47, KA..29 | 25 | M10 | | 10 | 20 | 7.5 | 28 | 24.7 | 35 | 643 684 6 |
| FA..37, KA..37, SA..47, SA..57, WA..47, KA..29 | 30 | | | | 25 | | 33 | 29.7 | | 643 685 4 |
| FA..47, KA..47, SA..57 | 35 | M12 | | 12 | 29 | 9.5 | 38 | 34.7 | 45 | 643 686 2 |
| FA..57, KA..57, FA..67, KA..67, SA..67 | 40 | M16 | | | 34 | 11.5 | 41.9 | 39.7 | 50 | 643 687 0 |
| SA..67 | 45 | | | | 38.5 | 13.5 | 48.5 | 44.7 | | 643 688 9 |
| FA..77, KA..77, SA..77 | 50 | | | | 43.5 | | 53.5 | 49.7 | | 643 689 7 |

21284997/EN – 03/2015

| Type | $D^{H7}$ mm | M | C4 mm | C5 mm | C6 mm | $U^{-0.5}$ mm | $T^{-0.5}$ mm | $D3^{-0.5}$ mm | L4 mm | Part number of installation/removal kit |
|---|---|---|---|---|---|---|---|---|---|---|
| FA..87, KA..87, SA..77, SA..87 | 60 | M20 | | 16 | 56 | 17.5 | 64 | 59.7 | 60 | 643 690 0 |
| FA..97, KA..97, SA..87, SA..97 | 70 | | | | 65.5 | 19.5 | 74.5 | 69.7 | | 643 691 9 |
| FA..107, KA..107 | 80 | | | 20 | 75.5 | 21.5 | 85 | 79.7 | 70 | 106 8211 2 |
| FA..107, KA..107, SA..97 | 90 | M24 | | | 80 | 24.5 | 95 | 89.7 | | 643 692 7 |
| FA..127, KA..127 | 100 | | | | 89 | 27.5 | 106 | 99.7 | | 643 693 5 |
| FA..157, KA..157 | 120 | | | | 107 | 31 | 127 | 119.7 | | 643 694 3 |

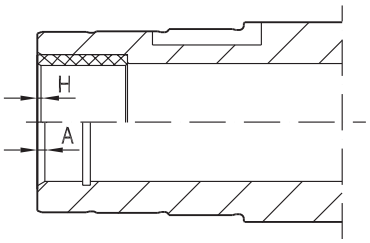
21284997/EN – 03/2015

## 6.5 Gear units with hollow shaft

### 6.5.1 Chamfers on hollow shafts

The following illustration shows the chamfers on parallel-shaft helical, helical-bevel, helical-worm and SPIROPLAN® gear units with hollow shaft:

00 004 002




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| Gear units | Design | |
|---|---|---|
| | with hollow shaft (A) | with hollow shaft and shrink disc (H) |
| W..10 | 1.5 × 30° | - |
| W..20 | 2 × 30° | - |
| W..30 | | - |
| F..27 | | 0.5 × 45° |
| K..19 | | |
| K..29 | | |
| F../K../S../W..37 | | |
| F../K../S../ W..47 | | |
| S..57 | | |
| F../K..57 | | |
| F../K../S..67 | | |
| F../K../S..77 | | |
| F../K../S..87 | 3 × 30° | |
| F../K../S..97 | | |
| F../K..107 | | |
| F../K..127 | 5 × 30° | |
| F../K..157 | | |
| KH167 | – | |
| KH187 | – | |

### 6.5.2 Special motor/gear unit combinations

Please note for parallel shaft helical gearmotors with hollow shaft (FA..B, FV..B, FH..B, FAF, FVF, FHF, FA, FV, FH, FT, FAZ, FVZ, FHZ):

- If you are using a customer shaft pushed through on the motor end, there may be a collision when a "small gear unit" is used in combination with a "large motor."
- Check the motor dimension AC to decide whether there will be a collision with a pushed-through customer shaft.

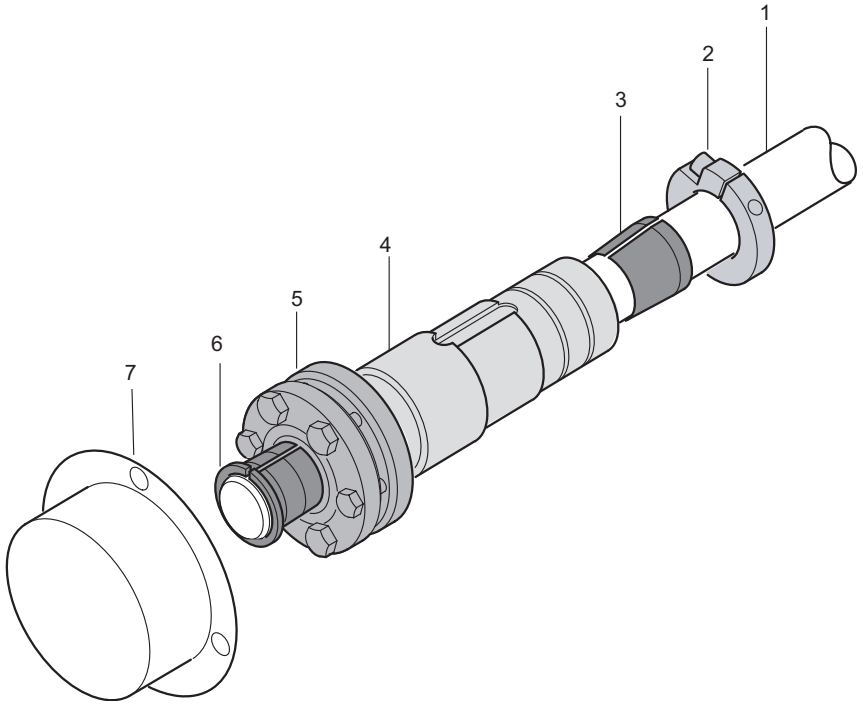
21284997/EN – 03/2015

## 6.6 TorqLOC® mounting system for gear units with hollow shaft

### 6.6.1 Description of TorqLOC®

The TorqLOC® hollow shaft mounting system is used for achieving a non-positive connection between the customer's shaft and the hollow shaft in the gear unit. The TorqLOC® hollow shaft mounting system is an alternative to the hollow shaft with shrink disk, the hollow shaft with key and the splined hollow shaft that have been used so far.

The TorqLOC® hollow shaft mounting system consists of the following components:




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| | | | |
|---|---|---|---|
| [1] | Customer shaft | [5] | Shrink disk |
| [2] | Clamping ring | [6] | Conical steel bushing |
| [3] | Conical bronze bushing | [7] | Fixed hood cover |
| [4] | Hollow shaft in gear unit | | |

### 6.6.2 Benefits of TorqLOC®

The TorqLOC® hollow shaft mounting system provides the following advantages:

- Cost saving because the customer shaft can be made from drawn material up to quality h11.
- Cost saving because different customer shaft diameters can be covered by one hollow shaft diameter and different bushings.
- Simple installation since there is no need to accommodate any shaft connections.
- Simple removal even after many hours of operation because the formation of contact corrosion has been reduced and the conical connections can easily be released.

### 6.6.3 Technical data

The TorqLOC® hollow shaft mounting system is approved for input torques of 92 Nm to 18,000 Nm.

21284997/EN – 03/2015

The following gear units are available with TorqLOC® hollow shaft mounting system:

- Parallel-shaft helical gear units in gear unit sizes 37 to 157 (FT37 – FT157)
- Helical-bevel gear units in gear unit sizes 37 to 157 (KT37 – KT157)
- Helical-worm gear units in gear unit sizes 37 to 97 (ST37 – ST97)
- SPIROPLAN® gear units in sizes 37 and 47 (WT.7)



### Available options

The following options are available for gear units with a TorqLOC® hollow shaft mounting system:

- For helical-bevel, helical-worm and SPIROPLAN® gear units (KT.., ST.., WT.7..): "torque arm" option (../T)
- For parallel-shaft helical gear units (FT..): "rubber buffer" option (../G)

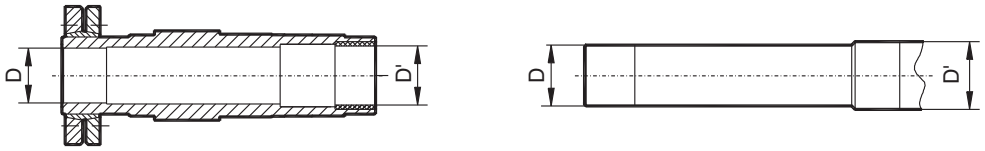
21284997/EN – 03/2015

## 6.7 Shouldered hollow shaft option with shrink disk

The following gear units with a hollow shaft and shrink disk are also available with an optional larger bore diameter D':

- Parallel-shaft helical gear units FH/FHF/FHZ37 – 157
- Helical-bevel gear units KH/KHF/KHZ37 – 157
- Helical-worm gear units SH/SHF47 – 97

D' = D as standard.




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| Gear units | Bore diameter D / optionally D' mm |
|---|---|
| FH/FHF/FHZ37, KH/KHF/KHZ37, SH/SHF/SHZ47 | 30 / 32 |
| FH/FHF/FHZ47, KH/KHF/KHZ47, SH/SHF/SHZ57 | 35 / 36 |
| FH/FHF/FHZ57, KH/KHF/KHZ57 | 40 / 42 |
| FH/FHF/FHZ67, KH/KHF/KHZ67, SH/SHF/SHZ67 | 40 / 42 |
| FH/FHF/FHZ77, KH/KHF/KHZ77, SH/SHF/SHZ77 | 50 / 52 |
| FH/FHF/FHZ87, KH/KHF/KHZ87, SH/SHF/SHZ87 | 65 / 66 |
| FH/FHF/FHZ97, KH/KHF/KHZ97, SH/SHF/SHZ97 | 75 / 76 |
| FH/FHF/FHZ107, KH/KHF/KHZ107 | 95 / 96 |
| FH/FHF/FHZ127, KH/KHF/KHZ127 | 105 / 106 |
| FH/FHF/FHZ157, KH/KHF/KHZ157 | 125 / 126 |

Diameter D / D' must be specified when ordering gear units with a shouldered hollow shaft (optional bore diameter D').

### 6.7.1 Sample order

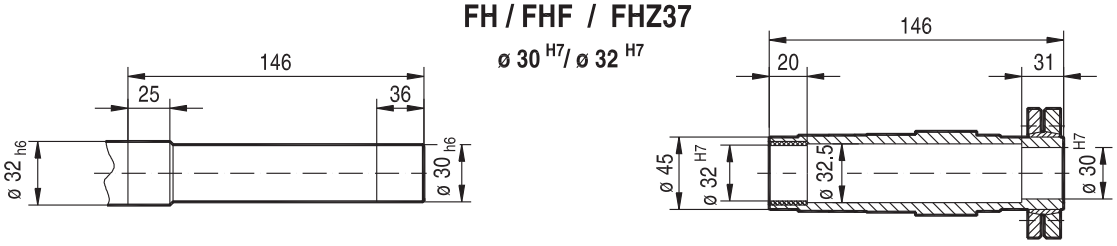
FH37 DRS80M4 with hollow shaft 30/32 mm

21284997/EN – 03/2015

### 6.7.2 Parallel-shaft helical gear units with shouldered hollow shaft (dimensions in mm):

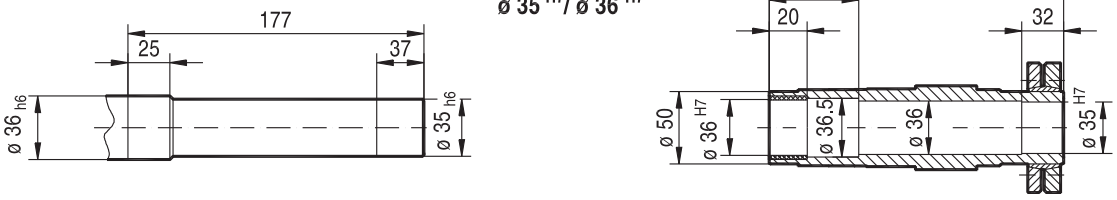
**FH / FHF / FHZ37**

**ø 30 H7 / ø 32 H7**



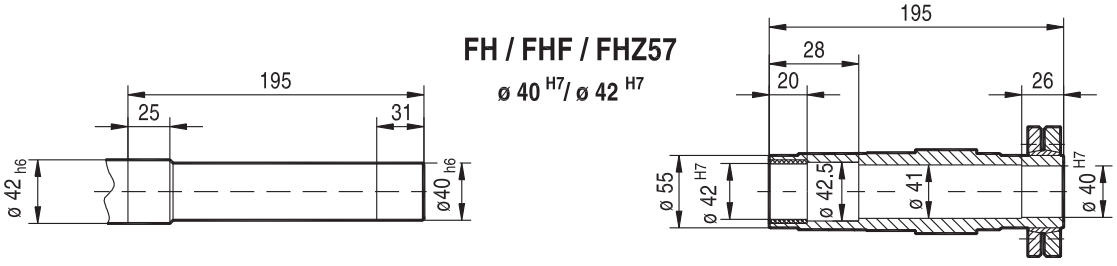

**FH / FHF / FHZ47**

**ø 35 H7 / ø 36 H7**



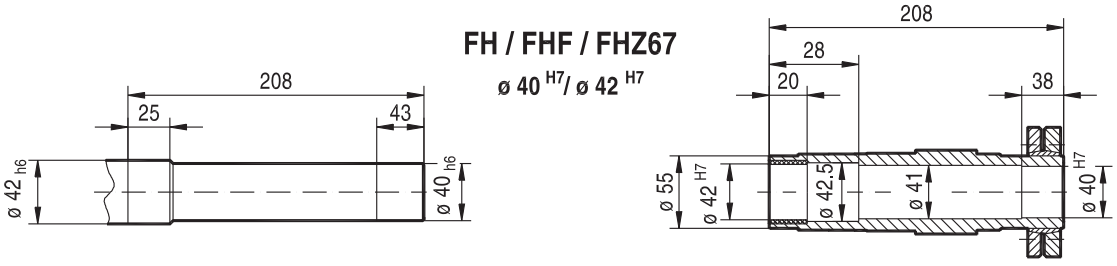

**FH / FHF / FHZ57**

**ø 40 H7 / ø 42 H7**



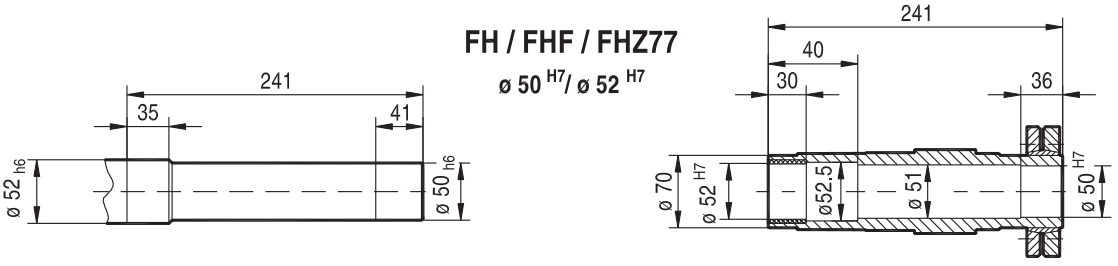

**FH / FHF / FHZ67**

**ø 40 H7 / ø 42 H7**




**FH / FHF / FHZ77**

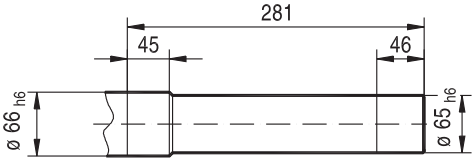
**ø 50 H7 / ø 52 H7**

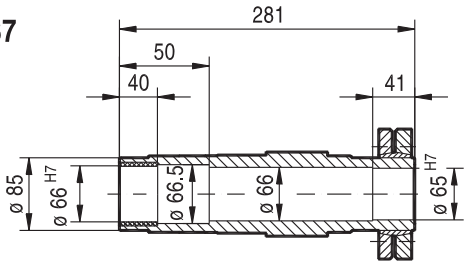



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## FH / FHF / FHZ87

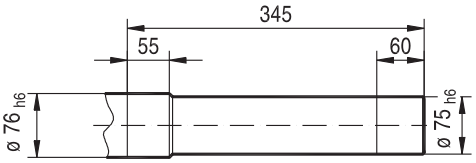
ø 65 H7/ ø 66 H7

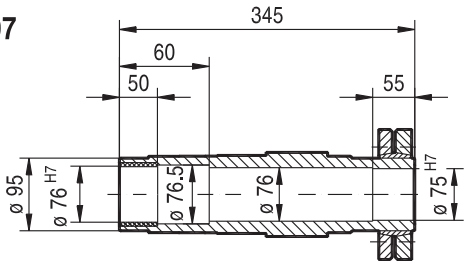



## FH / FHF / FHZ97

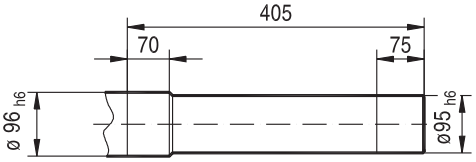
ø 75 H7/ ø 76 H7

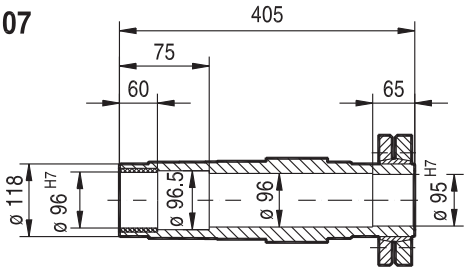



## FH / FHF / FHZ107

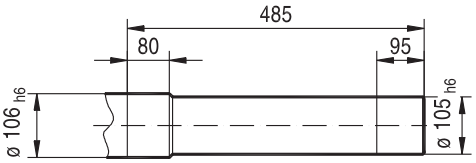
ø 95 H7/ ø 96 H7

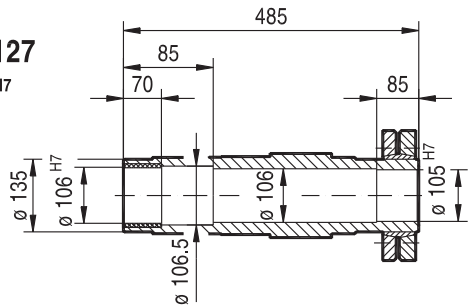



## FH / FHF / FHZ127

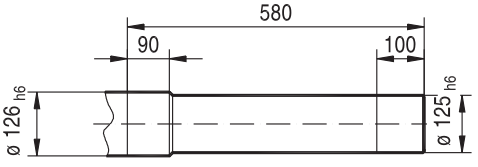
ø 105 H7/ ø 106 H7

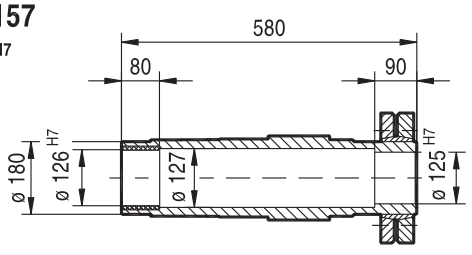



## FH / FHF / FHZ157

ø 125 H7/ ø 126 H7



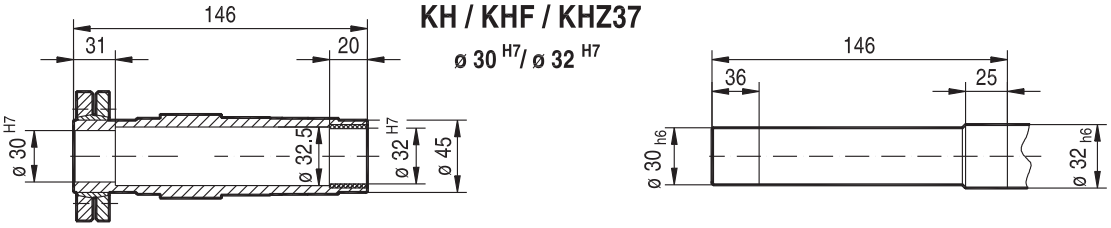

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21284997/EN – 03/2015

### 6.7.3 Helical-bevel gear units with shouldered hollow shaft (dimensions in mm):

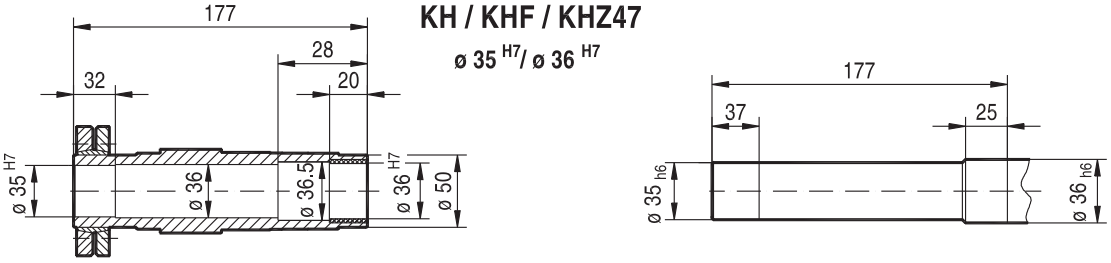
**KH / KHF / KHZ37**

**ø 30 H7/ ø 32 H7**



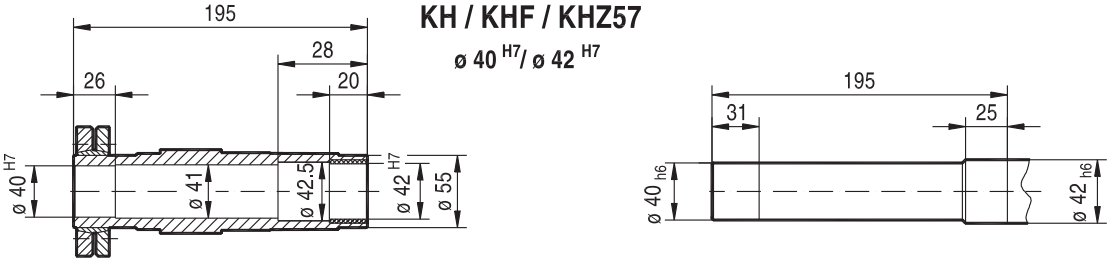

**KH / KHF / KHZ47**

**ø 35 H7/ ø 36 H7**



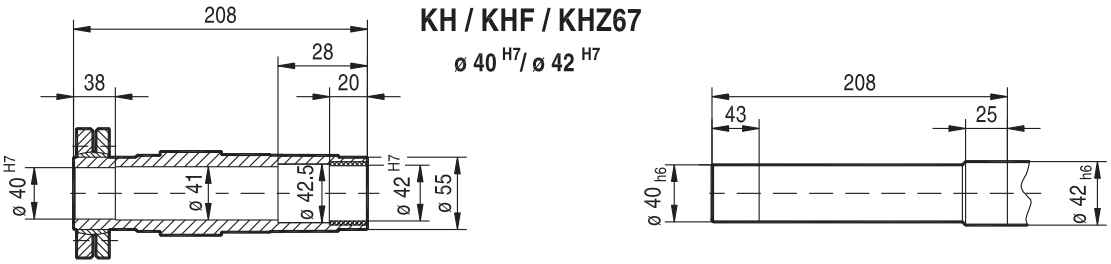

**KH / KHF / KHZ57**

**ø 40 H7/ ø 42 H7**



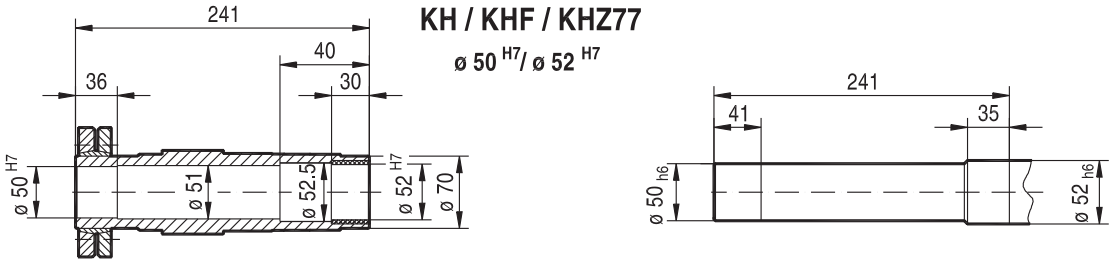

**KH / KHF / KHZ67**

**ø 40 H7/ ø 42 H7**

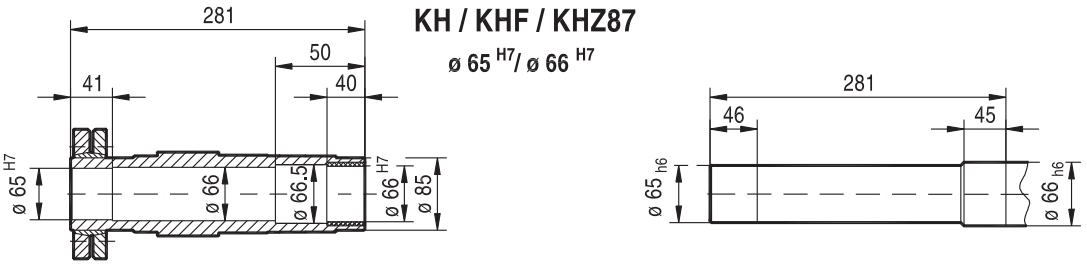



**KH / KHF / KHZ77**

**ø 50 H7/ ø 52 H7**

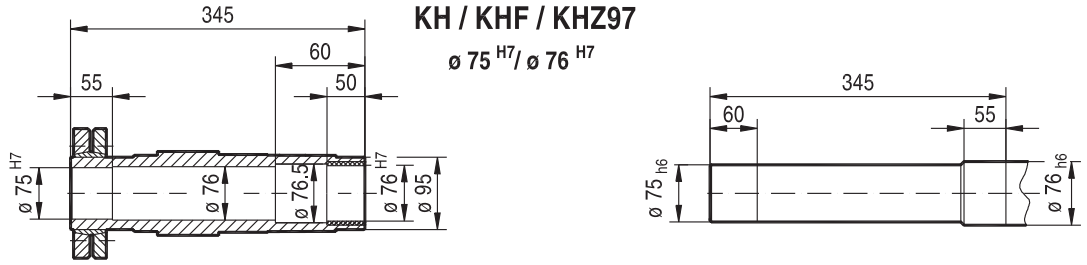



*4987063435*



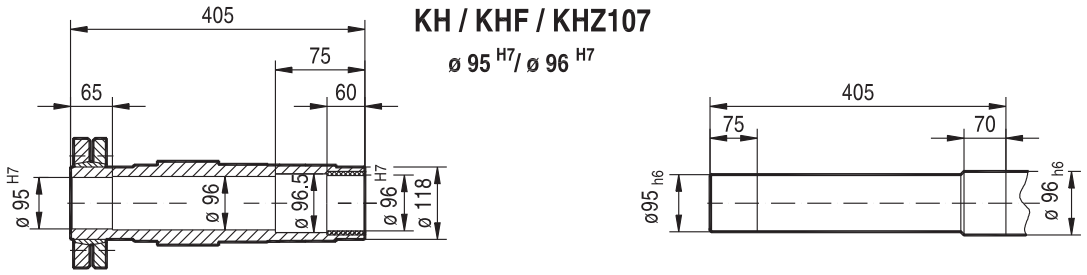

**KH / KHF / KHZ87**

**ø 65 H7/ ø 66 H7**



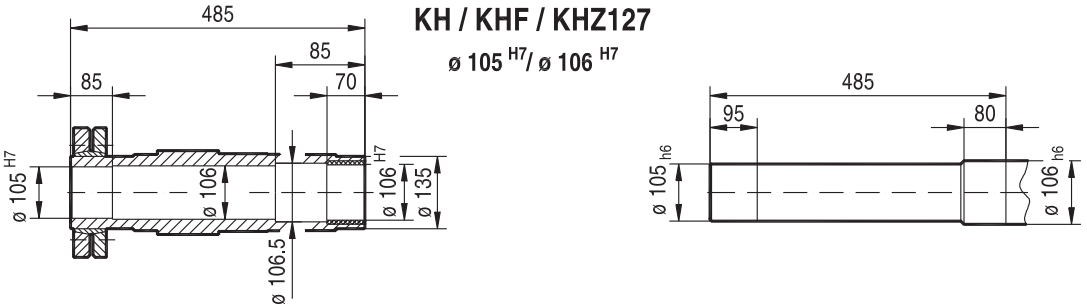

**KH / KHF / KHZ97**

**ø 75 H7/ ø 76 H7**



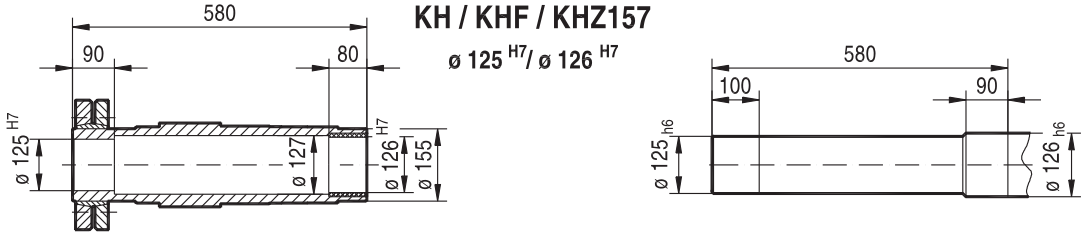

**KH / KHF / KHZ107**

**ø 95 H7/ ø 96 H7**




**KH / KHF / KHZ127**

**ø 105 H7/ ø 106 H7**



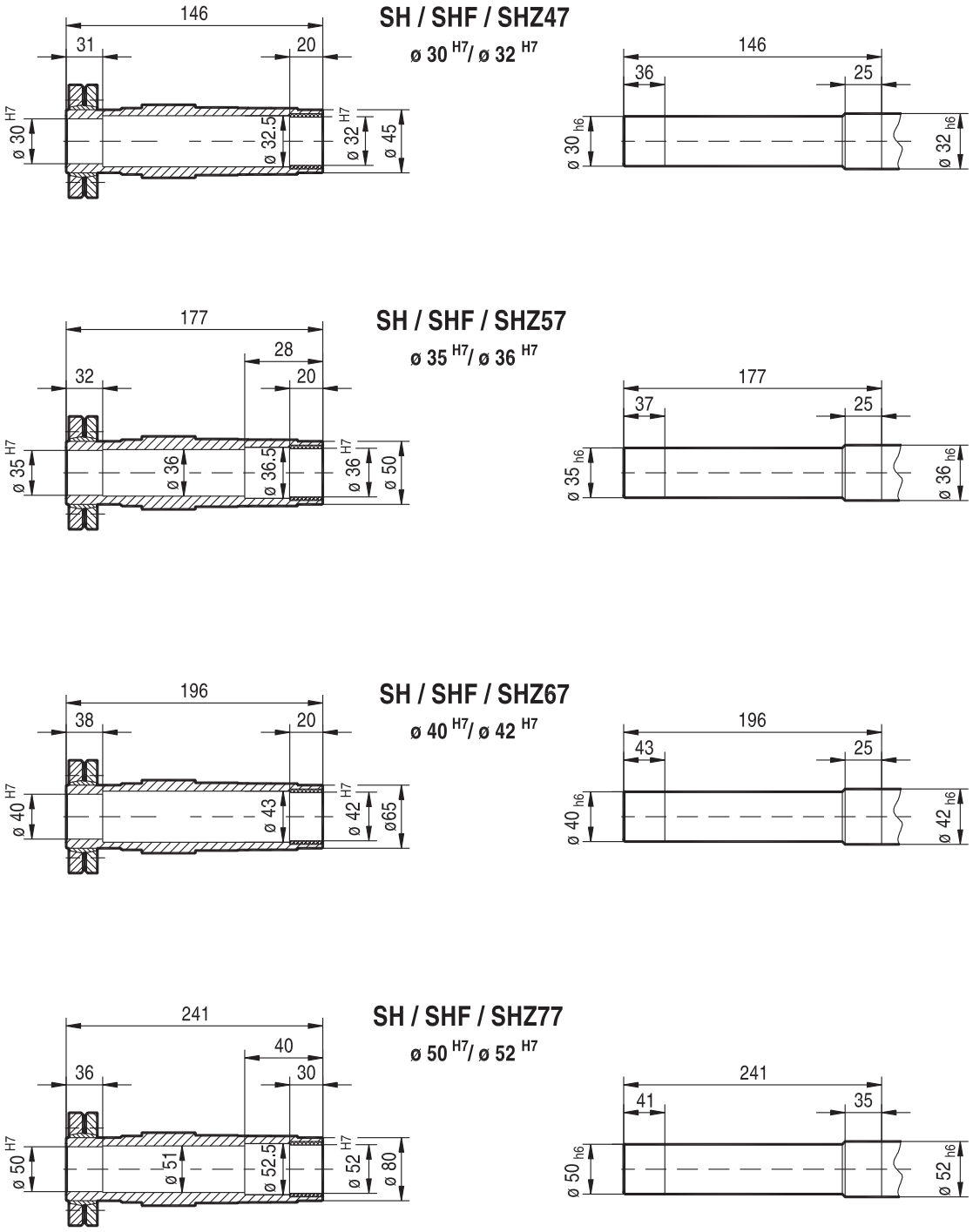

**KH / KHF / KHZ157**

**ø 125 H7/ ø 126 H7**

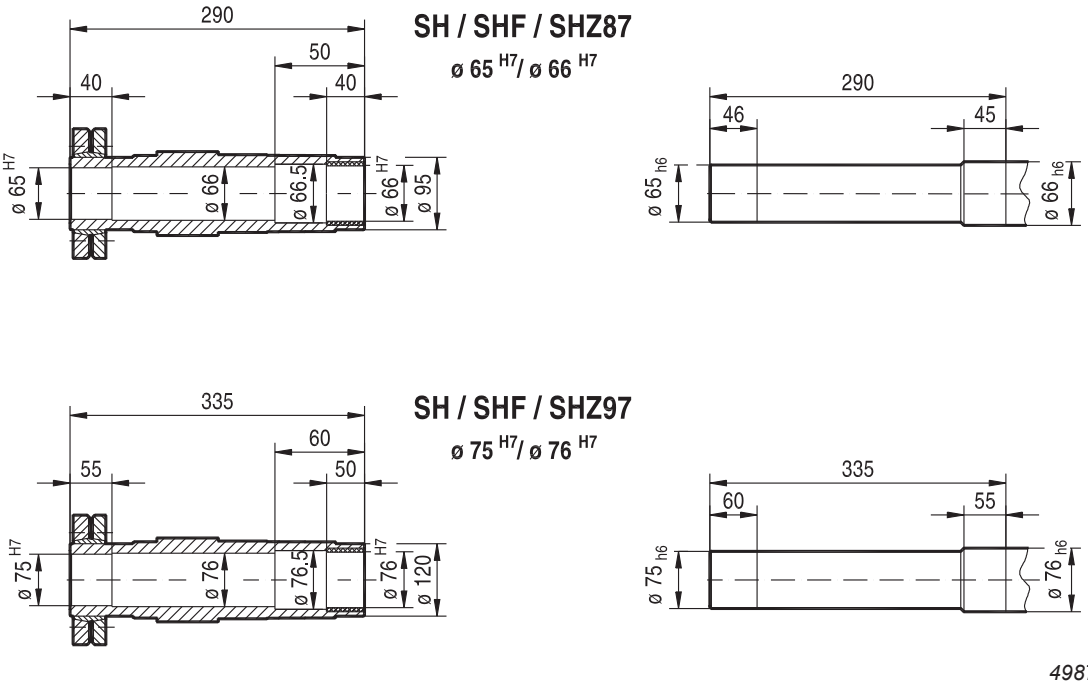
*4987065099*

21284997/EN – 03/2015

### 6.7.4 Helical-worm gear units with shouldered hollow shaft (dimensions in mm):




*4987067787*

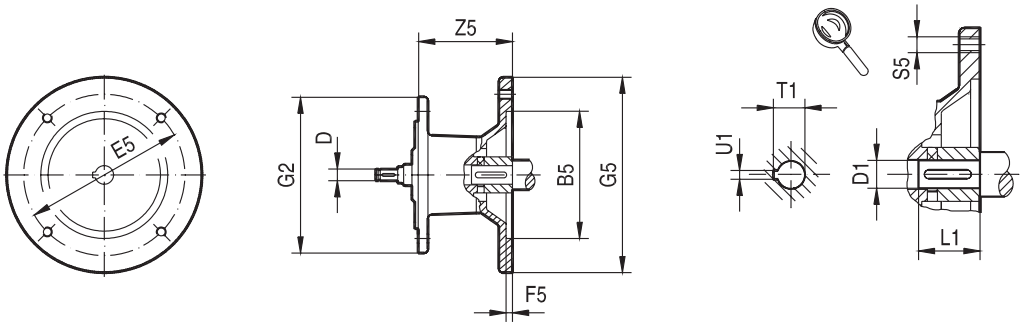



*4987069451*

21284997/EN – 03/2015

## 6.8 Adapters for mounting IEC motors

**23 002 100**




*9007204242190859*

| Gear unit type | Adapter type | Dimensions in mm | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | B5 | D | E5 | F5 | G2 | G5 | S5 | Z5 | D1 | L1 | T1 | U1 |
| R..27, R..37<br>F..27, F..37, F..47<br>K..19, K..29, K..37<br>S..37, S..47, S..57<br>W..37 | AM63 | 95 | 10 | 115 | 3.5 | 120 | 140 | M8 | 72 | 11 | 23 | 12.8 | 4 |
| | AM71[1] | 110 | | 130 | 4 | | 160 | | | 14 | 30 | 16.3 | 5 |
| | AM80[1] | 130 | 12 | 165 | 4.5 | | 200 | M10 | 106 | 19 | 40 | 21.8 | 6 |
| | AM90[1] | | 14 | | | | | | | 24 | 50 | 27.3 | 8 |
| R..47[2], R..57, R..67<br>F..57, F..67<br>K..47[2], K..57, K..67<br>S..67<br>W..47[3] | AM63 | 95 | 10 | 115 | 3.5 | 160 | 140 | M8 | 66 | 11 | 23 | 12.8 | 4 |
| | AM71 | 110 | | 130 | 4 | | 160 | | | 14 | 30 | 16.3 | 5 |
| | AM80 | 130 | 12 | 165 | 4.5 | | 200 | M10 | 99 | 19 | 40 | 21.8 | 6 |
| | AM90 | | 14 | | | | | | | 24 | 50 | 27.3 | 8 |
| | AM100[1] | 180 | 16 | 215 | 5 | | 250 | M12 | 134 | 28 | 60 | 31.3 | 8 |
| | AM112[1] | | 18 | | | | | | | | | | |
| | AM132S/M[1] | 230 | 22 | 265 | | | 300 | | 191 | 38 | 80 | 41.3 | 10 |
| R..77<br>F..77<br>K..77<br>S..77 | AM63 | 95 | 10 | 115 | 3.5 | 200 | 140 | M8 | 60 | 11 | 23 | 12.8 | 4 |
| | AM71 | 110 | | 130 | 4 | | 160 | | | 14 | 30 | 16.3 | 5 |
| | AM80 | 130 | 12 | 165 | 4.5 | | 200 | M10 | 92 | 19 | 40 | 21.8 | 6 |
| | AM90 | | 14 | | | | | | | 24 | 50 | 27.3 | 8 |
| | AM100[1] | 180 | 16 | 215 | 5 | | 250 | M12 | 126 | 28 | 60 | 31.3 | 8 |
| | AM112[1] | | 18 | | | | | | | | | | |
| | AM132S/M[1] | 230 | 22 | 265 | | | 300 | | 179 | 38 | 80 | 41.3 | 10 |
| | AM132ML[1] | | 28 | | | | | | | | | | |
| R..87<br>F..87<br>K..87<br>S..87[4] | AM80 | 130 | 12 | 165 | 4.5 | 250 | 200 | M10 | 87 | 19 | 40 | 21.8 | 6 |
| | AM90 | | 14 | | | | | | | 24 | 50 | 27.3 | 8 |
| | AM100 | 180 | 16 | 215 | 5 | | 250 | M12 | 121 | 28 | 60 | 31.3 | 8 |
| | AM112 | | 18 | | | | | | | | | | |
| | AM132S/M | 230 | 22 | 265 | | | 300 | | 174 | 38 | 80 | 41.3 | 10 |
| | AM132ML | | 28 | | | | | | | | | | |
| | AM160[1] | 250 | 28 | 300 | 6 | | 350 | M16 | 232 | 42 | 110 | 45.3 | 12 |
| | AM180[1] | | 32 | | | | | | | 48 | | 51.8 | 14 |

1) Check dimension 1/2 G5 because component may protrude past foot-mounting surface if installed on R, K, S or W foot-mounted gear unit.

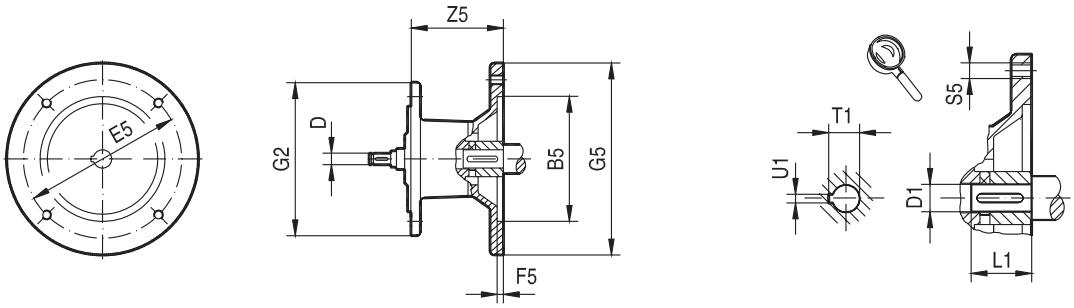
2) Max. AM100

3) Max. AM90

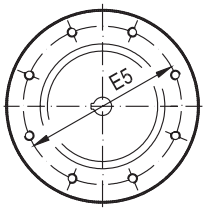
4) Not with AM180

**23 003 100**

## Fig.1




## Fig.2




*9007204242194571*

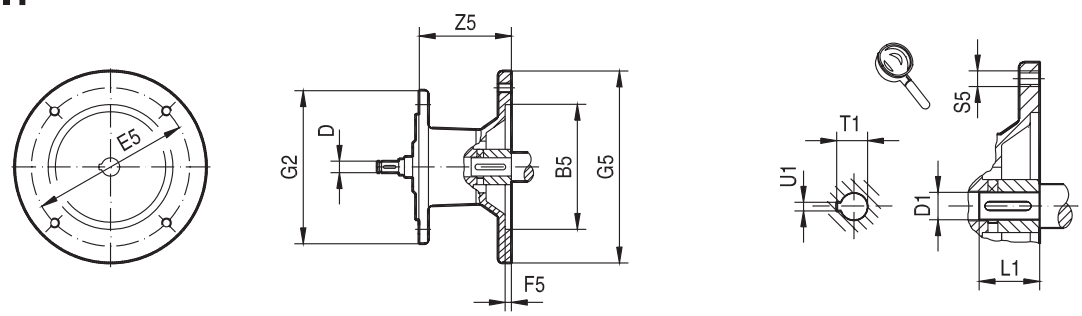
| Gear unit type | Adapter type | Fig. | Dimensions in mm | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | B5 | D | E5 | F5 | G2 | G5 | S5 | Z5 | D1 | L1 | T1 | U1 |
| R..97<br>F..97<br>K..97<br>S..97[1] | AM100 | 1 | 180 | 16 | 215 | 5 | 300 | 250 | M12 | 116 | 28 | 60 | 31.3 | 8 |
| | AM112 | | | 18 | | | | | | | | | | |
| | AM132S/M | | 230 | 22 | 265 | | | 300 | | 169 | 38 | 80 | 41.3 | 10 |
| | AM132ML | | | 28 | | | | | | | | | | |
| | AM160 | | 250 | | 300 | 6 | | 350 | M16 | 227 | 42 | 110 | 45.3 | 12 |
| | AM180 | | | 32 | | | | | | | 48 | | 51.8 | 14 |
| | AM200 | | 300 | 38 | 350 | 7 | | 400 | | 268 | 55 | | 59.3 | 16 |
| R..107<br>F..107<br>K..107 | AM100 | | 180 | 16 | 215 | 5 | 350 | 250 | M12 | 110 | 28 | 60 | 31.3 | 8 |
| | AM112 | | | 18 | | | | | | | | | | |
| | AM132S/M | | 230 | 22 | 265 | | | 300 | | 163 | 38 | 80 | 41.3 | 10 |
| | AM132ML | | | 28 | | | | | | | | | | |
| | AM160 | | 250 | | 300 | 6 | | 350 | M16 | 221 | 42 | 110 | 45.3 | 12 |
| | AM180 | | | 32 | | | | | | | 48 | | 51.8 | 14 |
| | AM200 | | 300 | 38 | 350 | 7 | | 400 | | 262 | 55 | | 59.3 | 16 |
| | AM225 | 2 | 350 | | 400 | | | 450 | | 277 | 60 | 140 | 64.4 | 18 |
| R..137 | AM132S/M | 1 | 230 | 22 | 265 | 5 | 400 | 300 | M12 | 156 | 38 | 80 | 41.3 | 10 |
| | AM132ML | | | 28 | | | | | | | | | | |
| | AM160 | | 250 | | 300 | 6 | | 350 | M16 | 214 | 42 | 110 | 45.3 | 12 |
| | AM180 | | | 32 | | | | | | | 48 | | 51.8 | 14 |
| | AM200 | | 300 | 38 | 350 | 7 | | 400 | | 255 | 55 | | 59.3 | 16 |
| | AM225 | 2 | 350 | | 400 | | | 450 | | 270 | 60 | 140 | 64.4 | 18 |

1) Not with AM200

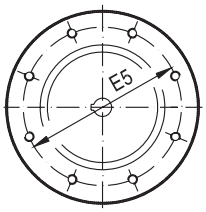
21284997/EN – 03/2015

23 004 100

## Fig.1




## Fig.2

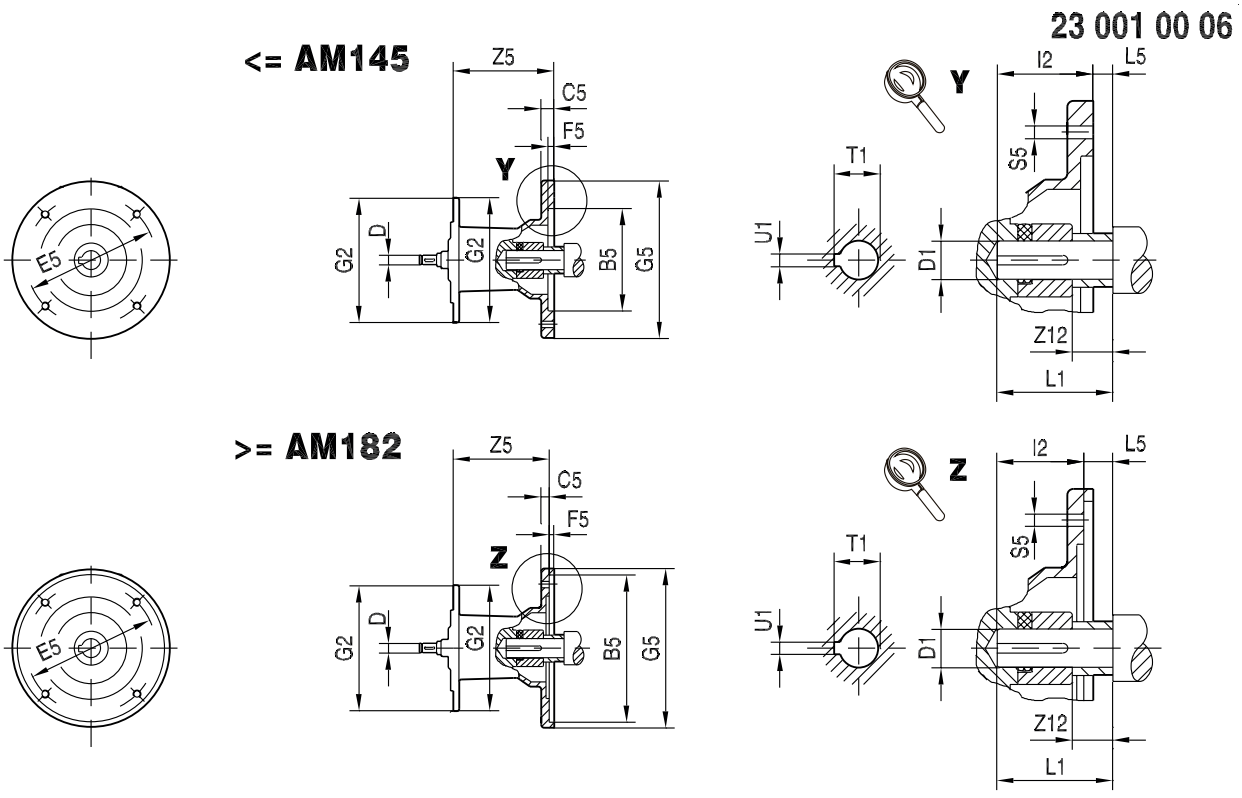



*4987456011*

| Gear unit type | Adapter type | Fig. | Dimensions in mm | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | B5 | D | E5 | F5 | G2 | G5 | S5 | Z5 | D1 | L1 | T1 | U1 |
| R..147<br>F..127<br>K..127 | AM132S/M | 1 | 230 | 22 | 265 | 5 | 450 | 300 | M12 | 148 | 38 | 80 | 41.3 | 10 |
| | AM132ML | | | 28 | | | | | | | | | | |
| | AM160 | | 250 | 28 | 300 | 6 | | 350 | M16 | 206 | 42 | 110 | 45.3 | 12 |
| | AM180 | | | 32 | | | | | | | 48 | | 51.8 | 14 |
| | AM200 | | 300 | 38 | 350 | 7 | | 400 | | 247 | 55 | | 59.3 | 16 |
| | AM225 | 2 | 350 | | 400 | | | 450 | | 262 | 60 | 140 | 64.4 | 18 |
| | AM250 | | 450 | 48 | 500 | | | 550 | | 336 | 65 | | 69.4 | |
| | AM280 | | | | | | | | | | 75 | | 79.9 | 20 |
| R..167<br>F..157<br>K..157<br>K..167<br>K..187 | AM160 | 1 | 250 | 28 | 300 | 6 | 550 | 350 | | 198 | 42 | 110 | 45.3 | 12 |
| | AM180 | | | 32 | | | | | | | 48 | | 51.8 | 14 |
| | AM200 | | 300 | 38 | 350 | 7 | | 400 | | 239 | 55 | | 59.3 | 16 |
| | AM225 | 2 | 350 | | 400 | | | 450 | | 254 | 60 | 140 | 64.4 | 18 |
| | AM250 | | 450 | 48 | 500 | | | 550 | | 328 | 65 | | 69.4 | |
| | AM280 | | | | | | | | | | 75 | | 79.9 | 20 |

21284997/EN – 03/2015

## 6.9 Adapters for mounting NEMA motors

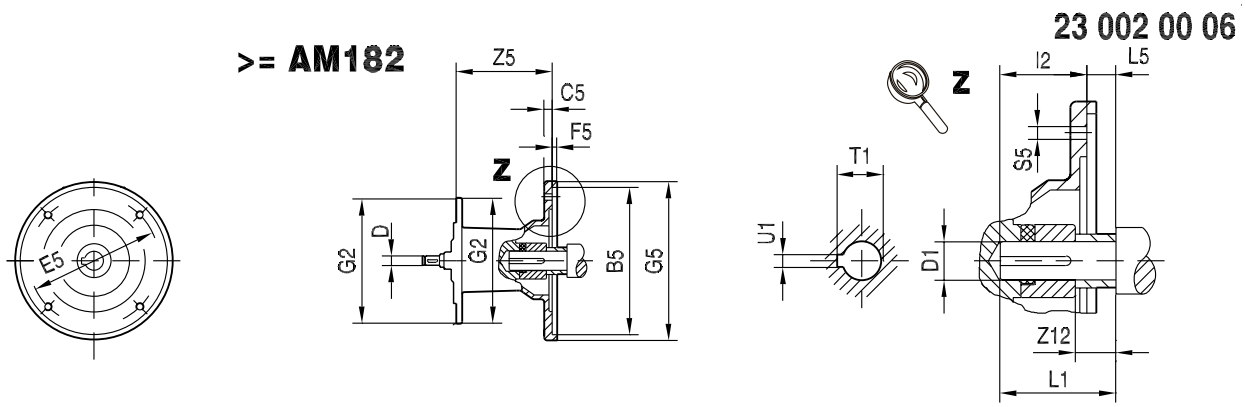



*9007204242131979*

| Gear unit type | Adapter type | Dimensions in mm | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | B5 | C5 | D | E5 | F5 | G2 | G5 | I2 | L5 | S5 | Z5 | Z12 | D1 | L1 | T1 | U1 |
| R..27, R..37<br>F..27, F..37, F..47<br>K..19, K..29, K..37<br>S..37, S..47, S..57<br>W..37 | AM56 | 114.3 | 11 | 10 | 149.2 | 4.5 | 120 | 170 | 52.55 | -4.8 | 10.5 | 93.5 | 16.5 | 15.875 | 47 | 18.1 | 4.76 |
| | AM143 | | 12 | 12 | | | | | 54.1 | 3 | | 117 | 14.5 | 22.225 | 57 | 24.7 | |
| | AM145 | | | 14 | | | | | | | | | | | | | |
| R..47, R..57, R..67<br>F..57, F..67<br>K..47, K..57, K..67<br>S..67<br>W..47[1)] | AM56 | | 11 | 10 | | | 160 | | 52.55 | -4.8 | | 87 | 16.5 | 15.875 | 47 | 18.1 | |
| | AM143 | | 12 | 12 | | | | | 54.1 | 3 | | 110.5 | 14.5 | 22.225 | 57 | 24.7 | |
| | AM145 | | | 14 | | | | | | | | | | | | | |
| | AM182 | 215.9 | 10 | 16 | 184 | 5 | | 228 | 66.85 | 3 | 15 | 147.5 | 16.5 | 28.575 | 69 | 31.7 | 6.35 |
| | AM184 | | | 18 | | | | | | | | | | | | | |
| | AM213/215 | | 11 | 22 | | | | | 79.55 | 6.3 | | 200.5 | 15.8 | 34.925 | 85 | 38.7 | 7.94 |
| R..77<br>F..77<br>K..77<br>S..77 | AM56 | 114.3 | 11 | 10 | 149.2 | 4.5 | 200 | 170 | 52.55 | -4.8 | 10.5 | 81 | 16.5 | 15.875 | 47 | 18.1 | 4.76 |
| | AM143 | | 12 | 12 | | | | | 54.1 | 3 | | 103.5 | 14.5 | 22.225 | 57 | 24.7 | |
| | AM145 | | | 14 | | | | | | | | | | | | | |
| | AM182 | 215.9 | 10 | 16 | 184 | 5 | | 228 | 66.85 | 3 | 15 | 139.5 | 16.5 | 28.575 | 69 | 31.7 | 6.35 |
| | AM184 | | | 18 | | | | | | | | | | | | | |
| | AM213/215 | | 11 | 22 | | | | | 79.55 | 6.3 | | 188.5 | 15.8 | 34.925 | 85 | 38.7 | 7.94 |
| R..87<br>F..87<br>K..87<br>S..87 | AM143 | 114.3 | 12 | 12 | 149.2 | 4.5 | 250 | 170 | 54.1 | 3 | 10.5 | 98.5 | 14.5 | 22.225 | 57 | 24.7 | 4.76 |
| | AM145 | | | 14 | | | | | | | | | | | | | |
| | AM182 | 215.9 | 10 | 16 | 184 | 5 | | 228 | 66.85 | 3 | 15 | 134.5 | 16.5 | 28.575 | 69 | 31.7 | 6.35 |
| | AM184 | | | 18 | | | | | | | | | | | | | |
| | AM213/215 | | 11 | 22 | | | | | 79.55 | 6.3 | | 183.5 | 15.8 | 34.925 | 85 | 38.7 | 7.94 |
| | AM254/256 | | 12 | 28 | | | | | 95.3 | 6.3 | | 234 | 8.8 | 41.275 | 101 | 45.8 | 9.53 |
| | AM284/286 | 266.7 | 15 | 32 | 228.6 | | | 286 | 111.05 | 6.3 | 15 | 241 | 15.8 | 47.625 | 117 | 53.4 | 12.7 |

1) Max. AM143/AM145

21284997/EN – 03/2015



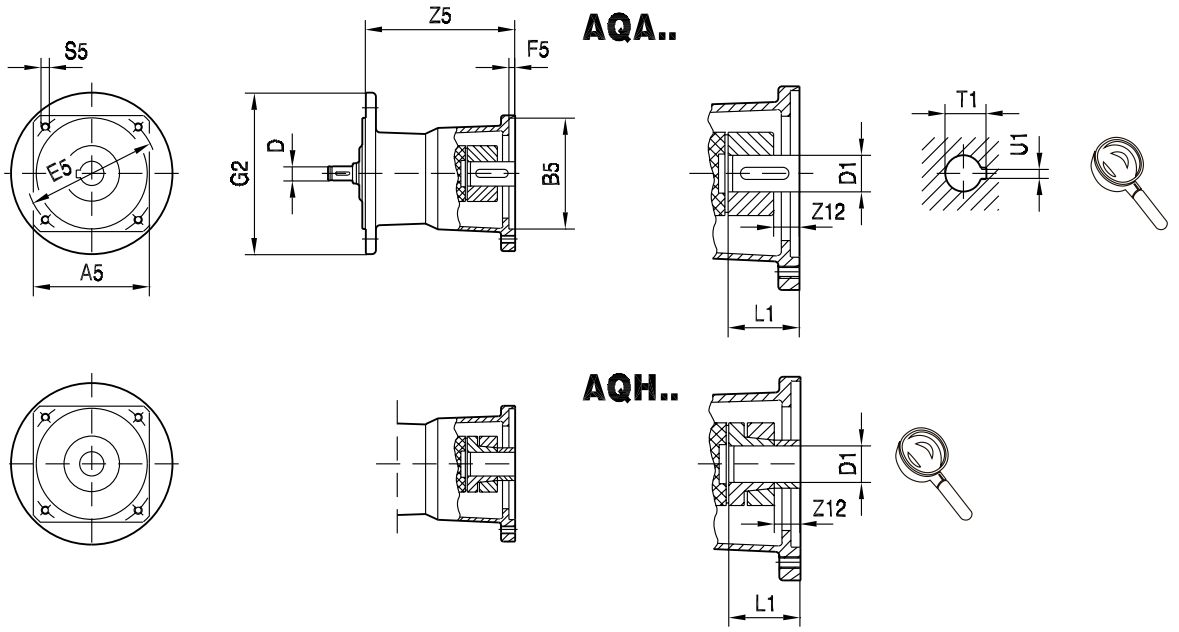

9007204242133899

| Gear unit type | Adapter type | Dimensions in mm | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | B5 | C5 | D | E5 | F5 | G2 | G5 | I2 | L5 | S5 | Z5 | Z12 | D1 | L1 | T1 | U1 |
| R..97<br>F..97<br>K..97<br>S..97 | AM182 | 215.9 | 10 | 16 | 184 | 5 | 300 | 228 | 66.85 | 3 | 15 | 129.5 | 16.5 | 28.575 | 69 | 31.7 | 6.35 |
| | AM184 | | | 18 | | | | | | | | | | | | | |
| | AM213/215 | | 11 | 22 | | | | | 79.55 | 6.3 | | 178.5 | 15.8 | 34.925 | 85 | 38.7 | 7.94 |
| | AM254/256 | | 12 | 28 | | | | | 95.3 | | | 229 | 8.8 | 41.275 | 101 | 45.8 | 9.53 |
| | AM284/286 | 266.7 | 20 | 32 | 228.6 | | | 286 | 111.05 | | | 236 | 15.8 | 47.625 | 117 | 53.4 | 12.7 |
| | AM324/326 | 317.5 | 17 | 38 | 279.4 | | | 356 | 127.05 | | 17.5 | 296 | 34.8 | 53.975 | 133 | 60 | 12.7 |
| | AM364/365 | | | | | | | | 143.05 | | | | | 60.325 | 149 | 67.6 | 15.875 |
| R..107<br>F..107<br>K..107 | AM182 | 215.9 | 10 | 16 | 184 | | 350 | 228 | 66.85 | 3 | 15 | 123.5 | 16.5 | 28.575 | 69.85 | 31.7 | 6.35 |
| | AM184 | | | 18 | | | | | | 6.3 | | | | | | | |
| | AM213/215 | | 11 | 22 | | | | | 79.55 | | | 172.5 | 15.8 | 34.925 | 85.85 | 38.7 | 7.94 |
| | AM254/256 | | 12 | 28 | | | | | 95.3 | | | 223 | 8.8 | 41.275 | 101.6 | 45.8 | 9.53 |
| | AM284/286 | 266.7 | 15 | 32 | 228.6 | | | 286 | 111.05 | | | 230 | 15.8 | 47.625 | 117.35 | 53.4 | 12.7 |
| | AM324/326 | 317.5 | 17 | 38 | 279.4 | | | 356 | 127.05 | | 17.5 | 290 | 34.8 | 53.975 | 133.35 | 60 | 12.7 |
| | AM364/365 | | | | | | | | 143.05 | | | | | 60.325 | 149.35 | 67.6 | 15.875 |
| R..137 | AM213/215 | 215.9 | 11 | 22 | 184 | | 400 | 228 | 79.55 | | 15 | 165.5 | 15.8 | 34.925 | 85.85 | 38.7 | 7.94 |
| | AM254/256 | | 12 | 28 | | | | | 95.3 | | | 216 | 8.8 | 41.275 | 101.6 | 45.8 | 9.53 |
| | AM284/286 | 266.7 | 15 | 32 | 228.6 | | | 286 | 111.05 | | | 223 | 15.8 | 47.625 | 117.35 | 53.4 | 12.7 |
| | AM324/326 | 317.5 | 17 | 38 | 279.4 | | | 356 | 127.05 | | 17.5 | 283 | 34.8 | 53.975 | 133.35 | 60 | 12.7 |
| | AM364/365 | | | | | | | | 143.05 | | | | | 60.325 | 149.35 | 67.6 | 15.875 |
| R..147<br>F..127<br>K..127 | AM213/215 | 215.9 | 11 | 22 | 184 | | 450 | 228 | 79.55 | | 15 | 157.5 | 15.8 | 34.925 | 85.85 | 38.7 | 7.94 |
| | AM254/256 | | 12 | 28 | | | | | 95.3 | | | 208 | 8.8 | 41.275 | 101.6 | 45.8 | 9.53 |
| | AM284/286 | 266.7 | 15 | 32 | 228.6 | | | 286 | 111.05 | | | 215 | 15.8 | 47.625 | 117.35 | 53.4 | 12.7 |
| | AM324/326 | 317.5 | 17 | 38 | 279.4 | | | 356 | 127.05 | | 17.5 | 275 | 34.8 | 53.975 | 133.35 | 60 | 12.7 |
| | AM364/365 | | | | | | | | 143.05 | | | | | 60.325 | 149.35 | 67.6 | 15.875 |
| R..167<br>F..157<br>K..157<br>K..167<br>K..187 | AM254/256 | 215.9 | 12 | 28 | 184 | | 550 | 228 | 95.3 | | 15 | 200 | 8.8 | 41.275 | 101.6 | 45.8 | 9.53 |
| | AM284/286 | 266.7 | 15 | 32 | 228.6 | | | 286 | 111.05 | | | 207 | 15.8 | 47.625 | 117.35 | 53.4 | 12.7 |
| | AM324/326 | 317.5 | 17 | 38 | 279.4 | | | 356 | 127.05 | | 17.5 | 267 | 34.8 | 53.975 | 133.35 | 60 | 12.7 |
| | AM364/365 | | | | | | | | 143.05 | | | | | 60.325 | 149.35 | 67.6 | 15.875 |

21284997/EN – 03/2015

## 6.10 Adapters for mounting servomotors

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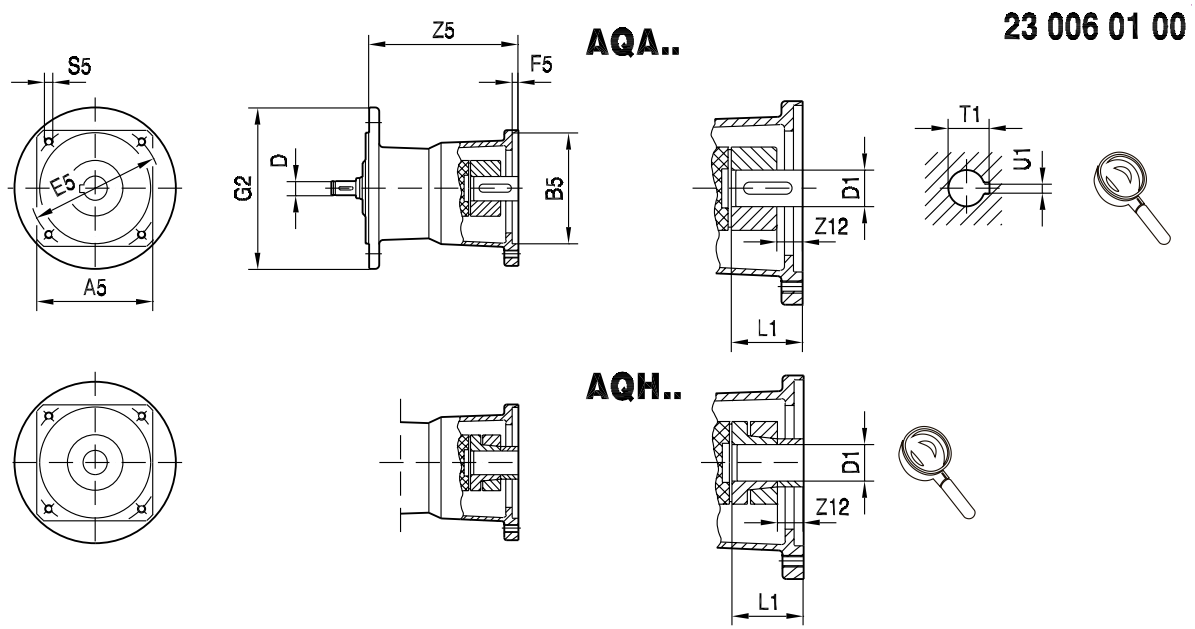

| Gear unit type | Adapter type | Dimensions in mm | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | A5 | B5 | D | E5 | F5 | G2 | S5 | Z5 | Z12[1] | Z12[2] | D1 | L1 | T1[1] | U1[1] |
| R..27, R..37<br>F..27, F..37, F..47<br>K..19, K..29, K..37<br>S..37, S..47,<br>S..57<br>W..37 | AQ..80/1 | 82 | 60 | 10<br>12 | 75 | 3 | 120 | M5 | 104.5 | 5.5 | 5.5 | 11 | 23 | 12.8 | 4 |
| | AQ..80/2 | | | | | | | | | | | 14 | 30 | 16.3 | 5 |
| | AQ..80/3 | | 50 | | 95 | | | M6 | 129.5 | - | - | | | | |
| | AQ..100/1 | 100 | 80 | 10<br>12<br>14<br>16 | 100 | 4 | | | | | | | | | 5 |
| | AQ..100/2 | | 95 | | 115 | | | M8 | | | | | | | |
| | AQ..100/3 | | 80 | | 100 | | | M6 | 143.5 | 2 | 14 | 19 | 40 | 21.8 | 6 |
| | AQ..100/4 | | 95 | | 115 | | | M8 | 152.5 | 11 | 23 | | | | |
| | AQ..115/1 | 115 | 110 | | 130 | | | | | | | | | | |
| | AQ..115/2 | | | | | | | | | | | | | | |
| | AQ..115/3 | | | | | | | | | 16 | 16 | 24 | 50 | 27.3 | 8 |
| R..47, R..57,<br>R..67<br>F..57, F..67<br>K..47[3], K..57,<br>K..67<br>S..67<br>W..47 | AQ..80/1 | 82 | 60 | 10<br>12 | 75 | 3 | 160 | M5 | 98 | 5.5 | 5.5 | 11 | 23 | 12.8 | 4 |
| | AQ..80/2 | | | | | | | | | | | 14 | 30 | 16.3 | 5 |
| | AQ..80/3 | | 50 | | 95 | | | M6 | 122.5 | - | - | | | | |
| | AQ..100/1 | 100 | 80 | 10<br>12<br>14<br>16 | 100 | 4 | | | | | | | | | |
| | AQ..100/2 | | 95 | | 115 | | | M8 | | | | | | | |
| | AQ..100/3 | | 80 | | 100 | | | M6 | 136.5 | 2 | 14 | 19 | 40 | 21.8 | 6 |
| | AQ..100/4 | | 95 | | 115 | | | M8 | 145.5 | 11 | 23 | | | | |
| | AQ..115/1 | 115 | 110 | | 130 | | | | | | | | | | |
| | AQ..115/2 | | | | | | | | | | | | | | |
| | AQ..115/3 | | | | | | | | | 16 | 16 | 24 | 50 | 27.3 | 8 |
| | AQ..140/1 | 140 | 130 | 16<br>18<br>22 | 165 | 5 | | M10 | 175 | | | | | | |
| | AQ..140/2 | | | | | | | | | | | | | | |
| | AQ..140/3 | | | | | | | | 188 | 22 | 22 | 32 | 60 | 35.5 | 10 |
| | AQ..140/4 | | | | | | | | | | | 28 | | 31.3 | 8 |
| | AQ..160/1 | 162 | 155 | | 190 | | | | | | | 32 | | 35.3 | 10 |
| | AQ..190/1 | 190 | 130 | 22<br>28 | 215 | | | M12 | 237.5 | 24 | 24 | | | | |
| | AQ..190/2 | | 180 | | | | | | | | | | | | |
| | AQ..190/3 | | | | | | | | 261.5 | 34 | 34 | 38 | 80 | 41.3 | |

1) For variants with keyway (AQA..)

2) For variants with clamping ring hub (AQH..)

3) Not with AQ190

21284997/EN – 03/2015



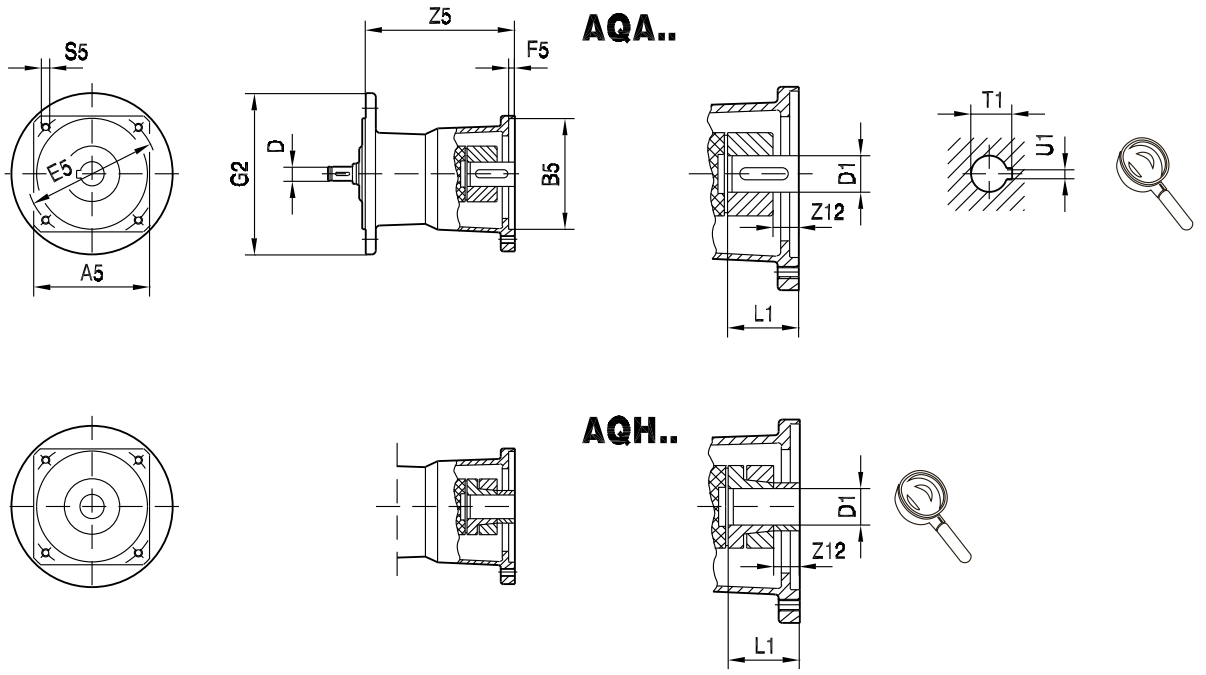

| Gear unit type | Adapter type | Dimensions in mm | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | A5 | B5 | D | E5 | F5 | G2 | S5 | Z5 | Z12[1] | Z12[2] | D1 | L1 | T1[1] | U1[1] |
| R..77<br>F..77<br>K..77<br>S..77 | AQ..80/1 | 82 | 60 | 10<br>12 | 75 | 3 | 200 | M5 | 92 | 5.5 | 5.5 | 11 | 23 | 12.8 | 4 |
| | AQ..80/2 | | | | | | | | | | | 14 | 30 | 16.3 | 5 |
| | AQ..80/3 | | 50 | | 95 | | | M6 | | | | | | | |
| | AQ..100/1 | 100 | 80 | 10<br>12<br>14<br>16 | 100 | 4 | | | 115.5 | - | - | | | | |
| | AQ..100/2 | | 95 | | 115 | | | M8 | | | | | | | |
| | AQ..100/3 | | 80 | | 100 | | | M6 | 129.5 | 2 | 14 | 19 | 40 | 21.8 | 6 |
| | AQ..100/4 | | 95 | | 115 | | | M8 | | | | | | | |
| | AQ..115/1 | 115 | | | 130 | | | | 138.5 | 11 | 23 | | | | |
| | AQ..115/2 | | 110 | | | | | | | | | | | | |
| | AQ..115/3 | | | | | | | | | 16 | 16 | 24 | 50 | 27.3 | 8 |
| | AQ..140/1 | 140 | 130 | 16<br>18<br>22 | 165 | 5 | | M10 | 167 | | | | | | |
| | AQ..140/2 | | | | | | | | | | | | | | |
| | AQ..140/3 | | | | | | | | 180 | 22 | 22 | 32 | 60 | 35.3 | 10 |
| | AQ..140/4 | | | | | | | | | | | 28 | | 31.3 | 8 |
| | AQ..160/1 | 162 | 155 | | 190 | | | | | | | 32 | | 35.3 | 10 |
| | AQ..190/1 | 190 | 130 | 22<br>28 | 215 | | | M12 | 225.5 | 24 | 24 | | | 35.3 | |
| | AQ..190/2 | | 180 | | | | | | | | | | | | |
| | AQ..190/3 | | | | | | | | 249.5 | 34 | 34 | 38 | 80 | 41.3 | |
| R..87<br>F..87<br>K..87<br>S..87 | AQ..100/1 | 100 | 80 | 12<br>14<br>16 | 100 | 4 | 250 | M6 | 110.5 | - | - | 14 | 30 | 16.3 | 5 |
| | AQ..100/2 | | 95 | | 115 | | | M8 | | | | | | | |
| | AQ..100/3 | | 80 | | 100 | | | M6 | 124.5 | 2 | 14 | 19 | 40 | 21.8 | 6 |
| | AQ..100/4 | | 95 | | 115 | | | M8 | | | | | | | |
| | AQ..115/1 | 115 | | | 130 | | | | 133.5 | 11 | 23 | | | | |
| | AQ..115/2 | | 110 | | | | | | | | | | | | |
| | AQ..115/3 | | | | | | | | | 16 | 16 | 24 | 50 | 27.3 | 8 |
| | AQ..140/1 | 140 | 130 | 16<br>18<br>22 | 165 | 5 | | M10 | 162 | | | | | | |
| | AQ..140/2 | | | | | | | | | | | | | | |
| | AQ..140/3 | | | | | | | | 175 | 22 | 22 | 32 | 60 | 35.3 | 10 |
| | AQ..140/4 | | | | | | | | | | | 28 | | 31.3 | 8 |
| | AQ..160/1 | 162 | 155 | | 190 | | | | | | | 32 | | 35.3 | 10 |
| | AQ..190/1 | 190 | 130 | 22<br>28 | 215 | | | M12 | 220.5 | 24 | 24 | | | | |
| | AQ..190/2 | | 180 | | | | | | | | | | | | |
| | AQ..190/3 | | | | | | | | 244.5 | 34 | 34 | 38 | 80 | 41.3 | |

1) For variants with keyway (AQA..)

2) For variants with clamping ring hub (AQH..)

21284997/EN – 03/2015

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| Gear unit type | Adapter type | Dimensions in mm | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | A5 | B5 | D | E5 | F5 | G2 | S5 | Z5 | Z12[1] | Z12[2] | D1 | L1 | T1[1] | U1[1] |
| R..97<br>F..97<br>K..97<br>S..97 | AQ..140/1 | 140 | 110 | 16<br>18<br>22 | 165 | 5 | 300 | M10 | 157 | 16 | 16 | 24 | 50 | 27.3 | 8 |
| | AQ..140/2 | | 130 | | | | | | 170 | 22 | 22 | 32 | 60 | 35.3 | 10 |
| | AQ..140/3 | | | | | | | | | | | 28 | | 31.3 | 8 |
| | AQ..140/4 | | | | | | | | | | | 32 | | 35.3 | 10 |
| | AQ..160/1 | 162 | 155 | | 190 | | | | | | | | | | |
| | AQ..190/1 | 190 | 130 | 22<br>28 | 215 | | | M12 | 215.5 | 24 | 24 | | | | |
| | AQ..190/2 | | 180 | | | | | | | | | | | | |
| | AQ..190/3 | | | | | | | | 239.5 | 34 | 34 | 38 | 80 | 41.3 | |
| R..107<br>F..107<br>K..107 | AQ..140/1 | 140 | 110 | 16<br>18<br>22 | 165 | | 350 | M10 | 151 | 16 | 16 | 24 | 50 | 27.3 | 8 |
| | AQ..140/2 | | 130 | | | | | | 164 | 22 | 22 | 32 | 60 | 35.3 | 10 |
| | AQ..140/3 | | | | | | | | | | | 28 | | 31.3 | 8 |
| | AQ..140/4 | | | | | | | | | | | 32 | | 35.3 | 10 |
| | AQ..160/1 | 162 | 155 | | 190 | | | | | | | | | | |
| | AQ..190/1 | 190 | 130 | 22<br>28 | 215 | | | M12 | 209.5 | 24 | 24 | | | | |
| | AQ..190/2 | | 180 | | | | | | | | | | | | |
| | AQ..190/3 | | | | | | | | 233.5 | 34 | 34 | 38 | 80 | 41.3 | |
| R..137 | AQ..190/1 | | 130 | | | | 400 | | 202.5 | 24 | 24 | 32 | 60 | 35.3 | |
| | AQ..190/2 | | 180 | | | | | | | | | | | | |
| | AQ..190/3 | | | | | | | | 226.5 | 34 | 34 | 38 | 80 | 41.3 | |
| R..147<br>F..127<br>K..127 | AQ..190/1 | | 130 | | | | 450 | | 194.5 | 24 | 24 | 32 | 60 | 35.3 | |
| | AQ..190/2 | | 180 | | | | | | | | | | | | |
| | AQ..190/3 | | | | | | | | 218.5 | 34 | 34 | 38 | 80 | 41.3 | |

1) For variants with keyway (AQA..)

2) For variants with clamping ring hub (AQH..)

21284997/EN – 03/2015

## 6.11 Gear unit mounting

Use bolts of quality 8.8 to fasten gear units and gearmotors.

**Exception**

Use bolts of **quality 10.9** for the the customer flange mounting to transmit the nominal torques for the following flange-mounted helical gearmotors (RF../RZ..) and foot/ flange-mounted versions (R..F):

- RF37, R37F with flange Ø 120 mm
- RF47, R47F with flange Ø 140 mm
- RF57, R57F with flange Ø 160 mm
- RF147 with flange ∅ 450 mm
- RF167 with flange ∅ 550 mm
- RZ37 – RZ87



21284997/EN – 03/2015

## 6.12 Torque arms

### 6.12.1 Available torque arms



**NOTICE**

Danger due to static overdetermination if gear units with foot (e.g. KA19/29B, KA127/157B or FA127/157B) are mounted both via the torque arm and via the foot plate.

Risk of injuries and damage to property.

- Especially with the KA.9B/T variant, it is not permitted to use the foot plates and the torque arm at the same time.
- The KA.9B/T variant may only be mounted via torque arms.
- K.9 or KA.9B variants may only be mounted via the foot plate.
- If you want to use foot plates and torque arms for mounting, consult with SEW-EURODRIVE.

| Gear units | Size | |
|---|---|---|
| | 19 | 29 |
| KA, KH, KV, KT | 1 068 411 5 | 1 068 410 7 |

| Gear units | Size | | | | | |
|---|---|---|---|---|---|---|
| | 27 | 37 | 47 | 57 | 67 | 77 |
| KA, KH, KV, KT | – | 643 425 8 | 643 428 2 | 643 431 2 | 643 431 2 | 643 434 7 |
| SA, SH, ST | – | 126 994 1 | 644 237 4 | 644 240 4 | 644 243 9 | 644 246 3 |
| FA, FH, FV, FT<br>Rubber buffer (2 pieces) | 013 348 5 | 013 348 5 | 013 348 5 | 013 348 5 | 013 348 5 | 013 349 3 |

| Gear units | Size | | | | |
|---|---|---|---|---|---|
| | 87 | 97 | 107 | 127 | 157 |
| KA, KH, KV, KT | 643 437 1 | 643 440 1 | 643 443 6 | 643 294 8 | - |
| SA, SH, ST | 644 249 8 | 644 252 8 | - | - | - |
| FA, FH, FV, FT<br>Rubber buffer (2 pieces) | 013 349 3 | 013 350 7 | 013 350 7 | 013 351 5 | 013 347 7 |

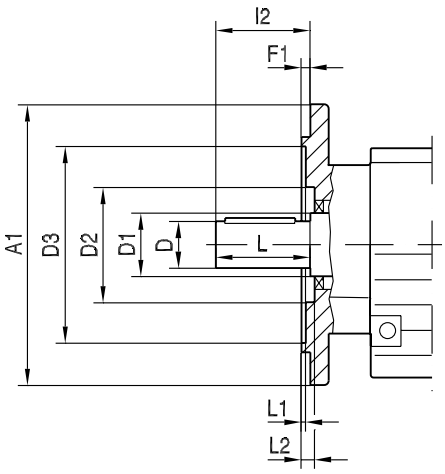
| Gear units | Size | | | | |
|---|---|---|---|---|---|
| | 10 | 20 | 30 | 37 | 47 |
| WA | 1 061 021 9 | 1 68 073 0 | 1 68 011 0 | 1 061 129 0 | 1 061 187 8 |

### 6.12.2 Torque arms for KH167.., KH187..

As standard, torque arms are not available for gear unit sizes KH167.. and KH187... Consult SEW-EURODRIVE if you need torque arms for these gear units.

21284997/EN – 03/2015

## 6.13 Flange contours of RF.. and R..F gear units




*9007203564912395*

Check dimensions L1 and L2 for selection and installation of output elements.

| Type | Dimensions in mm | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A1 | D | D1 | D2 | | D3 | F1 | l2 | L | L1 | | L2 |
| | | | | RF | R..F | | | | | RF | R..F | |
| RF07, R07F | 120 | 20 | 22 | 38 | 38 | 72 | 3 | 40 | 40 | 2 | 2 | 6 |
| | 140[1)] | | | | - | 85 | | | | | - | |
| | 160[1)] | | | | | 100 | 3.5 | | | 2.5 | – | 6.5 |
| RF17, R17F | 120 | | 25 | 46 | 46 | 65 | 3 | | | 1 | 1 | 5 |
| | 140 | | | | - | 78 | | | | | – | |
| | 160[1)] | | | | | 95 | 3.5 | | | | | 6 |
| RF27, R27F | 120 | 25 | 30 | 54 | 54 | 66 | 3 | 50 | 50 | 1 | 1 | 6 |
| | 140 | | | | – | 79 | | | | 3 | - | 7 |
| | 160 | | | | | 92 | 3.5 | | | | | |
| RF37, R37F | 120 | | 35 | 60 | 63 | 70 | 3 | | | 5 | 4 | |
| | 160 | | | | – | 96 | 3.5 | | | 1 | - | 7.5 |
| | 200[1)] | | | | | 119 | | | | | | |
| RF47, R47F | 140 | 30 | | 72 | 64 | 82 | 3 | 60 | 60 | 4 | 1 | 6 |
| | 160 | | | | – | 96 | 3.5 | | | 0.5 | - | 6.5 |
| | 200 | | | | | 116 | | | | | | |
| RF57, R57F | 160 | 35 | 40 | 76 | 75 | 96 | | 70 | 70 | 4 | 2.5 | 5 |
| | 200 | | | | – | 116 | | | | 0 | - | |
| | 250[1)] | | | | | 160 | 4 | | | 0.5 | | 5.5 |
| RF67, R67F | 200 | | 50 | 90 | 90 | 118 | 3.5 | | | 2 | 4 | 7 |
| | 250 | | | | – | 160 | 4 | | | 1 | - | 7.5 |
| RF77, R77F | 250 | 40 | 52 | 112 | 100 | 160 | | 80 | 80 | 0.5 | 2.5 | 7 |
| | 300[1)] | | | | - | 210 | | | | | – | |
| RF87, R87F | 300 | 50 | 62 | 123 | 122 | 210 | | 100 | 100 | 0 | 1.5 | 8 |
| | 350 | | | | - | 226 | 5 | | | 1 | - | 9 |
| RF97 | | 60 | 72 | 136 | | 236 | | 120 | 120 | 0 | | 9 |
| | 450 | | | | | 320 | | | | | | |

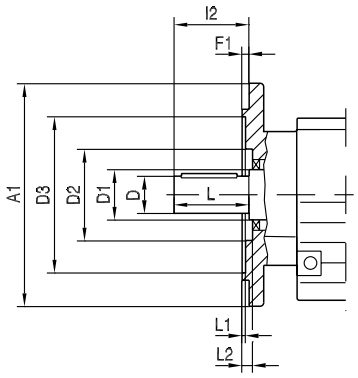
Table continued on next page.

1) The flange contour protrudes from under the base surface.

| Type | Dimensions in mm | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A1 | D | D1 | D2 | | D3 | F1 | I2 | L | L1 | | L2 |
| | | | | RF | R..F | | | | | RF | R..F | |
| RF107 | 350 | 70 | 82 | 157 | | 232 | 5 | 140 | 140 | 0 | | 11 |
| | 450 | | | 186 | | 316 | | | | | | |
| RF137 | | 90 | 108 | 180 | | 316 | | 170 | 170 | | | 10 |
| | 550 | | | | | 416 | | | | | | |
| RF147 | 450 | 110 | 125 | 210 | | 316 | | 210 | 210 | | | |
| | 550 | | | | | 416 | | | | | | |
| RF167 | | 120 | 145 | 290 | | 416 | | | | 1, | | |
| | 660 | | | | | 517 | 6 | | | 2 | | 11 |

21284997/EN – 03/2015

## 6.14 Flange contours of FF.., KF.., SF.. and WF.. gear units




*9007203564915467*

Check dimensions L1 and L2 for selection and installation of output elements.

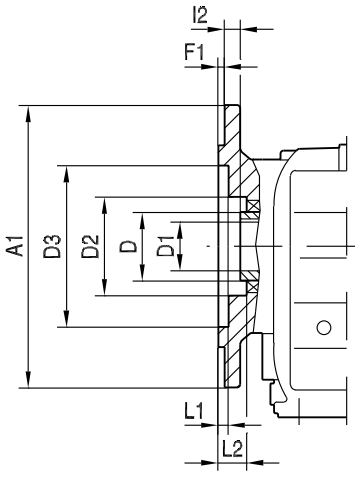
| Type | Dimensions in mm | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | A1 | D | D1 | D2 | D3 | F1 | I2 | L | L1 | L2 |
| FF27 | 160 | 25 | 40 | 66 | 96 | 3.5 | 50 | 50 | 3 | 18.5 |
| FF37 | | | 30 | 70 | 94 | | | | 2 | 6 |
| FF47 | 200 | 30 | 40 | 72 | 115 | | 60 | 60 | 3.5 | 7.5 |
| FF57 | 250 | 35 | | 84 | 155 | 4 | 70 | 70 | 4 | 9 |
| FF67 | 250 | 40 | 50 | | | | 80 | 80 | | |
| FF77 | 300 | 50 | 55 | 82 | 205 | | 100 | 100 | 5 | |
| FF87 | 350 | 60 | 65 | 115 | 220 | 5 | 120 | 120 | | |
| FF97 | 450 | 70 | 75 | 112 | 320 | | 140 | 140 | 8 | 10 |
| FF107 | | 90 | 100 | 159 | 318 | | 170 | 170 | 16 | 9 |
| FF127 | 550 | 110 | 118 | - | 420 | | 210 | 210 | 10 | - |
| FF157 | 660 | 120 | 135 | 190 | 520 | 6 | | | 8 | 14 |
| KF19 | 120 | 20 | 25 | - | 70 | 2.5 | 40 | 40 | - | 11.5 |
| KF19 | 160 | | | | 100 | | | | | |
| KF29 | | 25 | 30 | | 109 | 3.5 | 50 | 50 | | 6.5 |
| KF29 | 200 | | | | 115 | | | | | |
| KF37 | 160 | | | 70 | 94 | | | | 2 | 6 |
| KF47 | 200 | 30 | 40 | 72 | 115 | | 60 | 60 | 3.5 | 7.5 |
| KF57 | 250 | 35 | | 84 | 155 | 4 | 70 | 70 | 4 | 9 |
| KF67 | | 40 | 50 | | | | 80 | 80 | | |
| KF77 | 300 | 50 | 55 | 82 | 205 | | 100 | 100 | 5 | |
| KF87 | 350 | 60 | 65 | 115 | 220 | 5 | 120 | 120 | | |
| KF97 | 450 | 70 | 75 | 112 | 320 | | 140 | 140 | 8 | 10 |
| KF107 | | 90 | 100 | 159 | 318 | | 170 | 170 | 16 | 9 |
| KF127 | 550 | 110 | 118 | - | 420 | | 210 | 210 | 10 | - |
| KF157 | 660 | 120 | 135 | 190 | 520 | 6 | 210 | 210 | 8 | 14 |
| SF37 | 120 | 20 | 25 | - | 68 | 3 | 40 | 40 | 6 | - |
| SF37 | 160 | 20 | | – | 96 | 3.5 | | | 5.5 | |
| SF47 | | 25 | 30 | 70 | 94 | | 50 | 50 | 2 | 6 |
| SF57 | 200 | 30 | 40 | 72 | 115 | | 60 | 60 | 3.5 | 7.5 |
| SF67 | | 35 | 45 | – | | | 70 | 70 | 8.5 | - |
| SF77 | 250 | 45 | 55 | 108 | 160 | 4 | 90 | 90 | 8 | 9 |
| SF87 | 350 | 60 | 65 | 130 | 220 | 5 | 120 | 120 | 6 | 10 |
| SF97 | 450 | 70 | 75 | 150 | 320 | | 140 | 140 | 8.5 | |
| WF10 | 80 | 16 | 25 | – | 39 | 2.5 | 40 | 40 | 30 | – |
| WF10 | 120 | | 25 | 39 | 74 | 3 | | | 5 | 30 |

Table continued on next page.

| Type | Dimensions in mm | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | A1 | D | D1 | D2 | D3 | F1 | I2 | L | L1 | L2 |
| WF20 | 110 | 20 | 30 | 44 | 53 | -4 | 40 | 40 | 27 | 35 |
| WF20 | 120 | | | - | 45 | 2.5 | | | 37.5 | - |
| WF30 | | | | 48 | 63 | | | | 18 | 27 |
| WF30 | 160 | | | | | | | | 33 | 42 |
| WF37 | 120 | | | - | 70 | | | | - | 10.5 |
| WF37 | 160 | | | | | | | | | 25.5 |
| WF47 | | 30 | 35 | | 92 | 3.5 | 10 | 60 | 6 | – |

21284997/EN – 03/2015

## 6.15 Flange contours of FAF.., KAF.., SAF.. and WAF.. gear units




*18014402819885835*

Check dimensions L1 and L2 for selection and installation of output elements.

| Type | Dimensions in mm | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | A1 | D | D1 | D2 | D3 | F1 | I2 | L1 | L2 |
| FAF27 | 160 | 40 | 25 | 66 | 96 | 3.5 | 20 | 3 | 18.5 |
| FAF37 | | 45 | 30 | 62 | 94 | | 24 | 2 | 30 |
| FAF47 | 200 | 50 | 35 | 70 | 115 | | 25 | 3.5 | 31.5 |
| FAF57 | 250 | 55 | 40 | 76 | 155 | 4 | 23.5 | 4 | 31 |
| FAF67 | | | | | | | 23 | | |
| FAF77 | 300 | 70 | 50 | 95 | 205 | | 37 | 5 | 45 |
| FAF87 | 350 | 85 | 60 | 120 | 220 | 5 | 30 | | 39 |
| FAF97 | 450 | 95 | 70 | 135 | 320 | | 41.5 | 5.5 | 51 |
| FAF107 | | 118 | 90 | 224 | | | 41 | 16 | 52 |
| FAF127 | 550 | 135 | 100 | 185 | 420 | | 51 | 6 | 63 |
| FAF157 | 660 | 155 | 120 | 200 | 520 | 6 | 60 | 10 | 74 |
| KAF19 | 120 | 30 | 20 | 60 | 70 | 2.5 | 25 | 9 | 25.5 |
| KAF19 | 160 | | | | 100 | | | | |
| KAF29 | 160 | 40 | 25 / 30 | - | 105 | 3.5 | 33.5 | - | 6.5 |
| KAF29 | 200 | | | – | 118 | | | | |
| KAF37 | 160 | 45 | 30 | 62 | 94 | | 24 | 2 | 30 |
| KAF47 | 200 | 50 | 35 | 70 | 115 | | 25 | 3.5 | 8.5 |
| KAF57 | 250 | 55 | 40 | 76 | 155 | 4 | 23.5 | 4 | 31 |
| KAF67 | | | | | | | 23 | | |
| KAF77 | 300 | 70 | 50 | 95 | 205 | | 37 | 5 | 45 |
| KAF87 | 350 | 85 | 60 | 120 | 220 | 5 | 30 | | 39 |
| KAF97 | 450 | 95 | 70 | 135 | 320 | | 41.5 | 5.5 | 51 |
| KAF107 | | 118 | 90 | 224 | | | 41 | 16 | 52 |
| KAF127 | 550 | 135 | 100 | 185 | 420 | | 51 | 6 | 63 |
| KAF157 | 660 | 155 | 120 | 200 | 520 | 6 | 60 | 10 | 74 |
| SAF37 | 120 | 35 | 20 | - | 68 | 3 | 15 | 6 | - |
| SAF37 | 160 | | | | 96 | 3.5 | | 5.5 | |
| SAF47 | | 45 | 30 / 25 | 62 | 94 | | 24 | 2 | 30 |
| SAF57 | 200 | 50 | 35 / 30 | 70 | 115 | | 25 | 3.5 | 31.5 |
| SAF67 | | 65 | 45 / 40 | 91 | | | 42.5 | 4 | 48.5 |
| SAF77 | 250 | 80 | 60 / 50 | 112 | 164 | 4 | 45.5 | 5 | 53.5 |
| SAF87 | 350 | 95 | 70 / 60 | 131 | 220 | 5 | 52.5 | 6 | 62.5 |

Table continued on next page.

| Type | Dimensions in mm | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | A1 | D | D1 | D2 | D3 | F1 | I2 | L1 | L2 |
| SAF97 | 450 | 120 | 90 / 70 | 160 | 320 | 5 | 60 | 6.5 | 69 |
| WAF10 | 80 | 25 | 16 | - | 39 | 2.5 | 23 | 30 | – |
| WAF10 | 120 | | | 39 | 74 | 3 | | 5 | 30 |
| WAF20 | 110 | 30 | 18 / 20 | 44 | 53 | -4 | 30 | 27 | 35 |
| WAF20 | 120 | | | - | 45 | 2.5 | | 37.5 | - |
| WAF30 | | | 20 | 48 | 63 | | 19.5 | 18 | 27 |
| WAF30 | 160 | | | | 63 | | 34.5 | 33 | 42 |
| WAF37 | 120 | 35 | 20 / 25 | 54 | 70 | | 19.5 | 10.5 | 27 |
| WAF37 | 160 | | | | | | 34.5 | 25.5 | 42 |
| WAF47 | | 45 | 25 / 30 | 72 | 92 | 3.5 | 10 | 6 | 45 |

## 6.16 Fixed covers

The following gear unit types with hollow shaft and shrink disk are equipped with a rotating cover as standard:

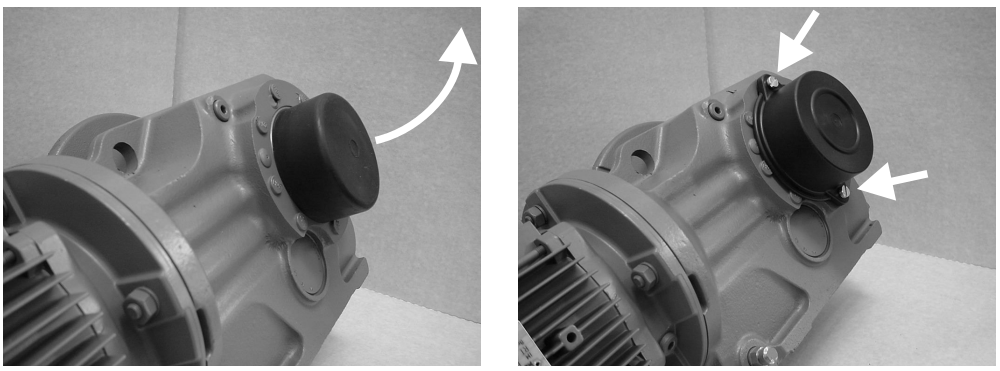
- Parallel-shaft helical, helical-worm and SPIROPLAN® gear units of sizes 37 – 97
- Helical-bevel gear units of sizes 19 – 29 and 37 – 97

If you require a fixed cover for safety reasons, the relevant part numbers can be found in the next chapter.

The following gear unit types with hollow shaft and shrink disk come equipped with a fixed cover with gasket as standard.

- Explosion-proof parallel-shaft, helical-bevel, helical-worm and SPIROPLAN® gear units
- Parallel-shaft helical gear units size 27
- Parallel-shaft and helical-bevel gear units size 107 and greater

The following figure shows how to replace the rotating cover with a fixed cover.

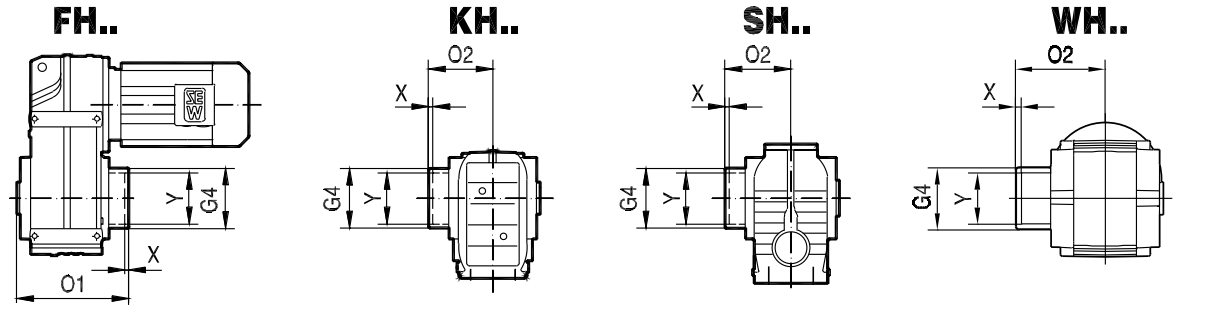


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1. Pull off the rotating cover
2. Install and fasten fixed cover

21284997/EN – 03/2015

### 6.16.1 Part numbers and dimensions for fixed covers




9007208441826187

| Parallel-shaft helical gearmotors | FH..37 | FH..47 | FH..57 | FH..67 | FH..77 | FH..87 | FH..97 |
|---|---|---|---|---|---|---|---|
| Part number | 643 513 0 | 643 514 9 | 643 515 7 | 643 515 7 | 643 516 5 | 643 517 3 | 643 518 1 |
| G4 in mm | 78 | 88 | 100 | 100 | 121 | 164 | 185 |
| O1 in mm | 157 | 188.5 | 207.5 | 221.5 | 255 | 295 | 363.5 |
| X in mm | 2 | 4.5 | 7.5 | 6 | 6 | 4 | 6.5 |
| Y in mm | 75 | 83 | 83 | 93 | 114 | 159 | 174 |

| Helical-bevel gearmotors[1)] | KH..19 | KH..29 |
|---|---|---|
| Part number | 1 068 415 8 | 1 068 416 6 |
| G4 in mm | 62 | 68 |
| O2 in mm | 83 | 90 |
| X in mm | 2 | 4 |
| Y in mm | 50 | 60 |

1) Not possible for foot-mounted helical-bevel gear units with hollow shaft and shrink disk (KH..B).

| Helical-bevel gearmotors[1)] | KH..37 | KH..47 | KH..57 | KH..67 | KH..77 | KH..87 | KH..97 |
|---|---|---|---|---|---|---|---|
| Part number | 643 513 0 | 643 514 9 | 643 515 7 | 643 515 7 | 643 516 5 | 643 517 3 | 643 518 1 |
| G4 in mm | 78 | 88 | 100 | 100 | 121 | 164 | 185 |
| O2 in mm | 95 | 111.5 | 122.5 | 129 | 147 | 172 | 210.5 |
| X in mm | 0 | 1.5 | 5.5 | 3 | 1 | 2 | 4.5 |
| Y in mm | 75 | 83 | 83 | 93 | 114 | 159 | 174 |

1) Not possible in foot-mounted helical-bevel gear units with hollow shaft and shrink disk (KH..B).

| Helical-worm gearmotors | SH..37 | SH..47 | SH..57 | SH..67 | SH..77 | SH..87 | SH..97 |
|---|---|---|---|---|---|---|---|
| Part number | 643 512 2 | 643 513 0 | 643 514 9 | 643 515 7 | 643 516 5 | 643 517 3 | 643 518 1 |
| G4 in mm | 59 | 78 | 88 | 100 | 121 | 164 | 185 |
| O2 in mm | 88 | 95 | 111.5 | 123 | 147 | 176 | 204.5 |
| X in mm | 1 | 0 | 1.5 | 3 | 1 | 0 | 0.5 |
| Y in mm | 53 | 75 | 83 | 93 | 114 | 159 | 174 |

| SPIROPLAN® gearmotors | WH..37 | WH..47 |
|---|---|---|
| Part number | 1 061 136 3 | 1 061 194 0 |
| G4 in mm | 68 | 80.5 |
| O2 in mm | 95.5 | 109.5 |
| X in mm | 11 | 12.5 |
| Y in mm | 50 | 72 |

21284997/EN – 03/2015

## 6.17 Condition monitoring: Oil aging sensor

### 6.17.1 Technical data of oil aging sensor

**DUO10A diagnostic unit**

| DUO10A | Technical data | | |
|---|---|---|---|
| Preset oil grades | OIL1 | CLP mineral oil. | $T_{max}$ = 100°C |
| | | Bio oil | $T_{max}$ = 100°C |
| | OIL2 | CLP HC synthetic oil: | $T_{max}$ = 130°C |
| | | CLP PAO oil | $T_{max}$ = 130°C |
| | OIL3 | Polyglycol CLP PG | $T_{max}$ = 130°C |
| | OIL4 | Food grade oil | $T_{max}$ = 100°C |
| Switch outputs | 1: Early warning (time to next oil change can be set to between 2 and 100 days)<br>2: Main alarm (time to oil change 0 days)<br>3: Maximum temperature exceeded $T_{max}$<br>4: DUO10A is ready for operation | | |
| Permitted oil temperature | -40°C – +130°C | | |
| Permitted temperature sensor | PT1000 | | |
| EMC | IEC1000-4-2/3/4/6 | | |
| Ambient temperature | -25°C – +70°C | | |
| Operating voltage | DC 18 – 28 V | | |
| Current consumption for DC 24 V | < 90 mA | | |
| Protection class | III | | |
| Degree of protection | IP67 (optionally IP69K) | | |
| Housing materials | Evaluation unit: V2A, EPDM/X, PBT, FPM<br>Temperature sensor: V4A | | |
| Electrical connection | Evaluation unit: M12 plug connector<br>PT1000 temperature sensor: M12 plug connector | | |

21284997/EN – 03/2015

### Designations and part numbers

| Designation | Description | Part number |
|---|---|---|
| DUO10A  *4310626315* | Evaluation unit (basic unit) | 1 343 875 1 |
| DUO10A-PUR-M12-5m | 5 m PUR cable with 1 connector | 1 343 877 8 |
| DUO10A-PVC-M12-5m | 5 m PVC cable with 1 connector | 1 343 878 6 |
| DUO10A | Angle bracket | 1 343 880 8 |
| DUO10A D = 34 | Installation clamp | 1 343 879 4 |
| W4843 PT1000  | PT1000 temperature sensor | 1 343 881 6 |
| W4843_4x0.34-2m-PUR | 2 m PUR cable for PT1000[1)] | 1 343 882 4 |
| W4843_4x0.34-2m-PVC | 2 m PVC cable for PT1000[2)] | 1 343 883 2 |
| DUO10A  *4310631563* | Protection cap (for aseptic design, IP69K) | 1 343 902 2 |

1) PUR cables are particularly suited for use in oil-contaminated environments.

2) PVC cables are particularly suited for use in moist environments.

### Mounting to standard gear units (R, F, K,S)

Adapter for mounting the PT1000 temperature sensor in screw plug holes:

| Complete adapter for PT1000 sensor | Part number |
|---|---|
| M10 × 1 | 1 343 903 0 |
| M12 × 1.5 | 1 343 904 9 |
| M22 × 1.5 | 1 343 905 7 |
| M33 × 2 | 1 343 906 5 |
| M42 × 2 | 1 343 907 3 |

Mounting base for installing the diagnostic unit at the gear unit with an angle bracket:

| Mounting base with sealing ring | Part number |
|---|---|
| M10 × 1 | 1 343 441 1 |
| M12 × 1.5 | 1 343 827 1 |
| M22 × 1.5 | 1 343 829 8 |
| M33 × 2 | 1 343 830 1 |
| M42 × 2 | 1 343 832 8 |

21284997/EN – 03/2015

# 7 Important information on selection tables and dimension drawings

## 7.1 Possible geometrical combinations

### 7.1.1 Structure of the combination tables

These tables show geometrically possible combinations of single-speed gear units and AC (brake) motors. Contact SEW-EURODRIVE for information on pole-changing AC (brake) motors.

For each combination, the input speed $n_e$ = 1400 rpm and the output speed $n_a$, the maximum output torque $M_{amax}$, the permitted overhung load $F_{RA}$ at maximum output torque (valid for foot-mounted gear units with solid shaft), the torsion angle φ (/R) and the gear unit ratio are specified.

If no value is specified for the torsion angle $\varphi_{(/R)}$, the gear unit with this gear unit ratio is not available with "reduced backlash (/R)" option. If a numerical value is given, this gear unit is also available with "reduced backlash (/R)" option. The numerical value specifies the rotational clearance of the reduced backlash version in angular minutes '.

| R77, $n_e$=1400 1/min | | | | | | | | | | | 820Nm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ [1] N | $\varphi_{(/R)}$ ´ | i | DR63S DR63M ... | DRN80M DRN90S ... | DRN90L | DRN100LS DRN100L ... | DRN112M | DRN132S DRN132M ... | DRN132L DRN160M |
| | | | | 3 | | | | | | | |
| 7.2 | 820 | 9920 | 6.4 | 195.24* | | | | | | | |
| 8.4 | 820 | 9920 | 6.5 | 166.59 | | | | | | | |

Gear unit ratio; a value with * refers to finite gear unit ratio

No value (-): The reduced backlash option (/R) is not possible for this i
Numerical value: Reduced backlash option is possible möglich; the numeric value indicates the rotational clearance of the reduced backlash design in angular minutes.

Permitted overhung load at maximum output torque $M_{amax}$ ; [1] The value refers to the foot-mounted design with solid shaft

Maximum output torque

Output speed

Combination with motor in the header **is possible**.

Combination with motor in the header **is not possible**.

*13377205771*

2 Number of stages of the gear ratios (1, 2 or 3 stages). Helical gear units (R) – with the exception of the single-stage RX gear units – and parallel-shaft helical gear units (F) have 2 or 3 stages, depending on the gear unit ratio.

RX helical, helical-bevel, helical-worm and SPIROPLAN® gear units (RX, K, S, and W) have a defined number of stages:

- RX helical gear units: RX.. always single-stage
- Helical-bevel gear unit: K..7 always 3-stage, K..9 always 2-stage

21284997/EN – 03/2015

- Helical-worm gear units: always 2-stage
- SPIROPLAN® gear units: W..10 to W..30 always single-stage, W..37 and W..47 always 2-stage



Stages of the double gear unit ratios (2-2, 3-3, 2-3 or 3-2 stages). The number of stages of the primary gear unit (= small gear unit) is given on the right; the number of stages of the output gear unit (= large gear unit) is given on the left. The primary gear unit of the double gear unit is always a helical gear unit.

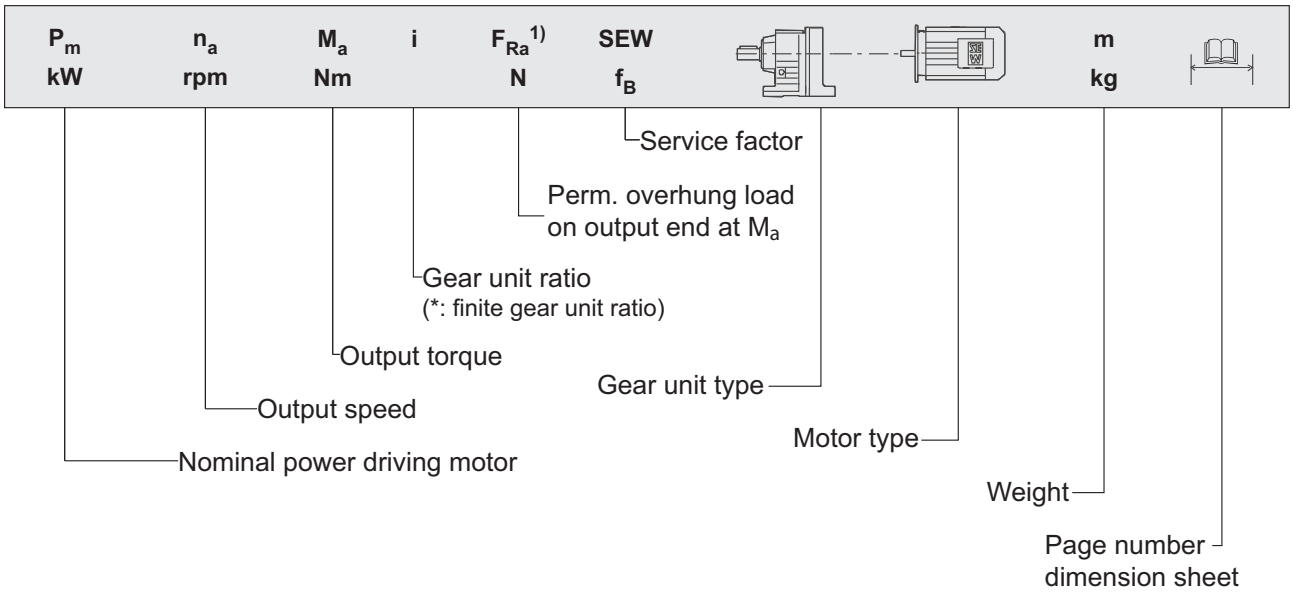
## 7.2 Selection tables for gearmotors

### 7.2.1 Structure of the selection tables

The two figures below illustrate the structure of the selection tables for gearmotors. There are two types of selection tables:

1. For standard output speeds, sorted according to the rated power $P_m$ of the driving motor in kW.
2. For particularly low output speeds, multi-stage gearmotors are always sorted according to the maximum permitted output torque $M_{a\,max}$ in Nm.

**Table for standard output speeds:**




*11951824139*

[1] Overhung load for foot-mounted gear units with solid shaft; overhung loads for other gear unit types upon request

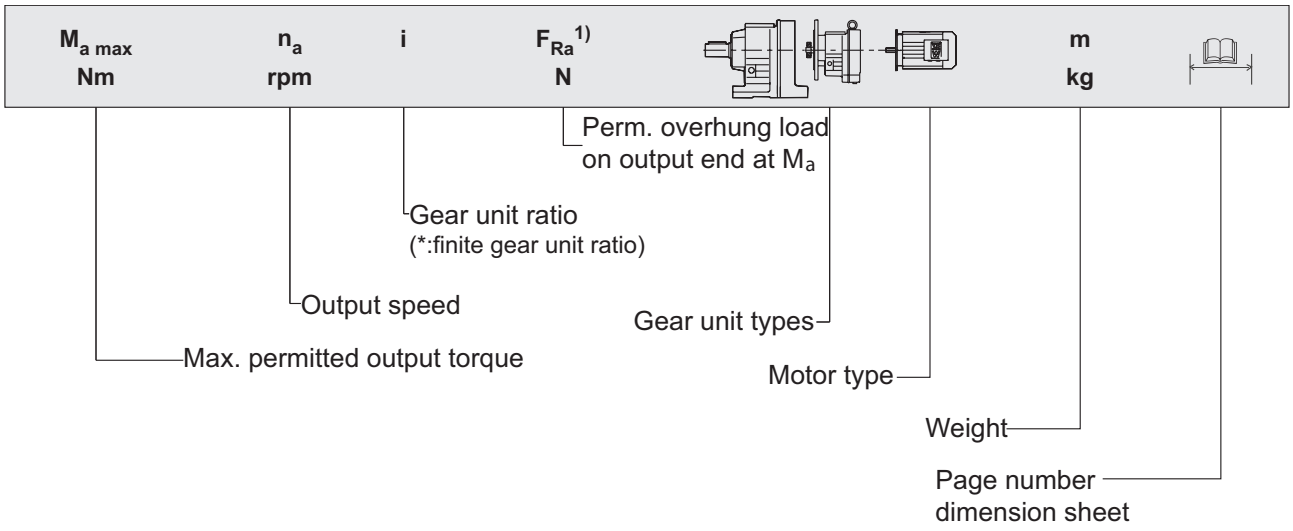
## INFORMATION

Only applies to SPIROPLAN® (W) gearmotors:

If a lubricant is used for the food industry (food grade), SEW $f_B \geq 1.2$ required.

21284997/EN – 03/2015

**Table for extremely low output speeds (multi-stage gearmotors):**




*11951826315*

1) Overhung load for foot-mounted gear units with solid shaft; overhung loads for other gear unit types upon request

## INFORMATION

In drives for particularly low output speeds (multi-stage gearmotors), the motor power must be limited to the maximum permitted output torque of the gear unit.



21284997/EN – 03/2015

## 7.3 Dimension sheet information

### 7.3.1 Symbols for scope of delivery



Standard parts supplied by SEW-EURODRIVE.



Standard parts not supplied by SEW-EURODRIVE.

### 7.3.2 Tolerances

**Shaft heights**

The following tolerances apply to the indicated dimensions:

| | | |
|---|---|---|
| h | ≤ 250 mm | → -0.5 mm |
| h | > 250 mm | → -1 mm |

**Foot-mounted gear units:** Check the mounted motor because it may project below the mounting surface.

**Shaft ends**

Diameter tolerance:

| | | |
|---|---|---|
| Ø | ≤ 50 mm | → ISO k6 |
| Ø | > 50 mm | → ISO m6 |

Center holes in accordance with DIN 332, shape DR:

| | | | | | |
|---|---|---|---|---|---|
| Ø | = 7 – 10 mm | → M3 | Ø | > 30 – 38 mm | → M12 |
| Ø | > 10 – 13 mm | → M4 | Ø | > 38 – 50 mm | → M16 |
| Ø | > 13 – 16 mm | → M5 | Ø | > 50 – 85 mm | → M20 |
| Ø | > 16 – 21 mm | → M6 | Ø | > 85 – 130 mm | → M24 |
| Ø | > 21 – 24 mm | → M8 | Ø | > 130 mm | → M30 |
| Ø | > 24 – 30 mm | → M10 | | | |

Keys: according to DIN 6885 (domed type)

**Hollow shafts**

Diameter tolerance:

Ø → ISO H7 measured with plug gauge

Keys: according to DIN 6885 (domed type)

Exception: Key for WA37 with shaft Ø 25 mm according to DIN 6885-3 (shallow pattern)

21284997/EN – 03/2015

**Multiple-spline shafts**

$D_m$ Measuring roller diameter

$M_e$ Check size

**Flanges**

Centering shoulder tolerance:

Ø ≤ 230 mm (flange sizes A120 – A300) → ISO j6

Ø > 230 mm (flange sizes A350 – A660) → ISO h6

Up to 3 different flange dimensions are available for each size of helical gear units, SPIROPLAN® gear units, AC (brake) motors and explosion-proof AC (brake) motors. The possible flanges for each size are shown in the relevant dimension sheets.



### 7.3.3 Eyebolts, lifting eyes

R07...R27 helical gear units, motors up to DR100 and the SPIROPLAN® gearmotors W..10 to W..30 are delivered without special transportation fixtures. All other gear units and motors are equipped with cast-on lifting eyes, screw-on lifting eyes or screw-on eyebolts.

| Gear unit/motor type | Screw-on | | Cast-on |
|---|---|---|---|
| | Eyebolts | Lifting eyes | Eyebolts |
| R..37 – R..57 | - | • | – |
| R..67 – R..167 | • | – | – |
| RX57 – RX67 | - | • | – |
| RX77 – RX107 | • | – | – |
| F..27 – F..157 | - | - | • |
| K..19 – K..29 | - | • | – |
| K..37 – K..157 | - | - | • |
| K..167 – K..187 | • | – | – |
| S..37 – S..47 | - | • | – |
| S..57 – S..97 | - | - | • |
| W37 – W47 | - | • | – |
| ≥ DR112 | • | – | – |

### 7.3.4 Breather valves

The gear unit dimension drawings always show the screw plugs. The corresponding screw plug is replaced by an activated breather valve at the factory depending on the ordered mounting position M1 – M6. The result may be slightly altered contour dimensions.

### 7.3.5 Shrink disk connection

Hollow shaft gear unit with shrink disk connection: If required, please request a detailed data sheet on shrink disks, data sheet no. 33 753 nn 95.

21284997/EN – 03/2015

### 7.3.6 Splined hollow shaft

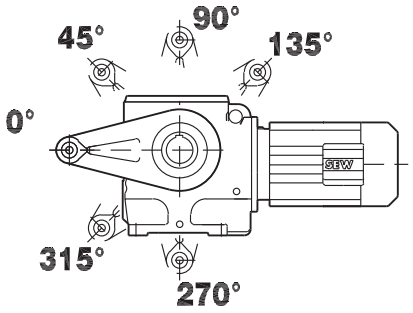
FV.. hollow shaft gear unit sizes 27 to 107, and KV.. sizes 37 to 107 are supplied with splining according to standard 5480.

### 7.3.7 Rubber buffer for FA/FH/FV/FT

Preload rubber buffer by the indicated value ΔL The characteristic curve of the rubber buffers is available from SEW-EURODRIVE on request.

### 7.3.8 Position of the torque arm

The following illustration shows the possible torque arm positions for helical-worm gear units, the 2-stage K..9 helical-bevel gear units, and SPIROPLAN® gear units (135 ° position not possible with SPIROPLAN® gear units) as well as the respective angles:




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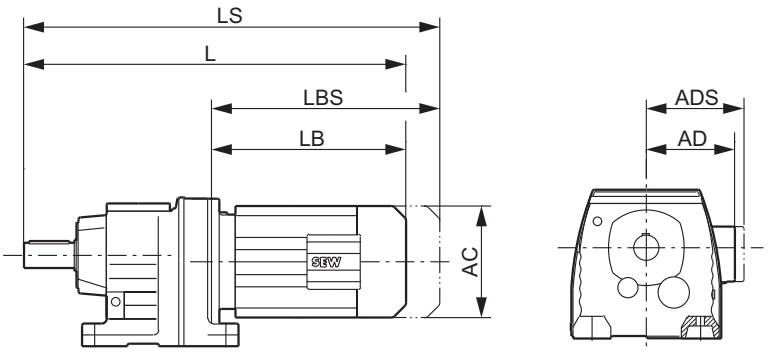
For more information about torque arms, refer to the respective dimension sheets of the gearmotors.

| Gearmotor | Dimension sheets on page |
|---|---|
| Helical-bevel gearmotors | (→ 🗎 513) |
| Helical-worm gearmotors | (→ 🗎 619) |
| SPIROPLAN® gearmotors | (→ 🗎 701) |

21284997/EN – 03/2015

### 7.3.9 Dimension designations of motors

The following is an overview of the motor dimension designations:




*8671113739*

| | |
|---|---|
| L | Total length of gearmotor |
| LS | Total length of gearmotor including brake |
| LB | Length of motor |
| LBS | Length of brakemotor |
| AC | Diameter of motor |
| AD | Center of motor shaft to top part of terminal box |
| ADS | Center of brakemotor shaft to top part of terminal box |

## 7.4 Gearmotor dimensions

### 7.4.1 Motor options

The motor dimensions may change when installing motor options. Refer to the dimension drawings of the motor options in the "AC Motors" catalog.

### 7.4.2 Special designs

The terminal box dimensions in special designs might vary from the standard.

### 7.4.3 EN 50347

European standard EN 50347 became effective in August 2001. This standard adopts the dimension designations for three-phase AC motors for sizes 56 to 315M and flange sizes 65 to 740 from the IEC 72-1 standard.

The new dimension designations given in EN 50347 / IEC 72-1 are used for the dimensions in question in the dimension tables of the dimensions sheets.

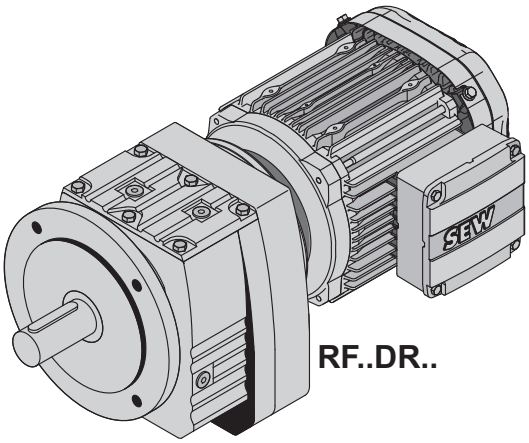
### 7.4.4 FZ../KZ.. gear unit designs

The gear unit designs FZ../KZ.. are not considered in the gearmotor dimension sheets. Contact SEW-EURODRIVE if required.

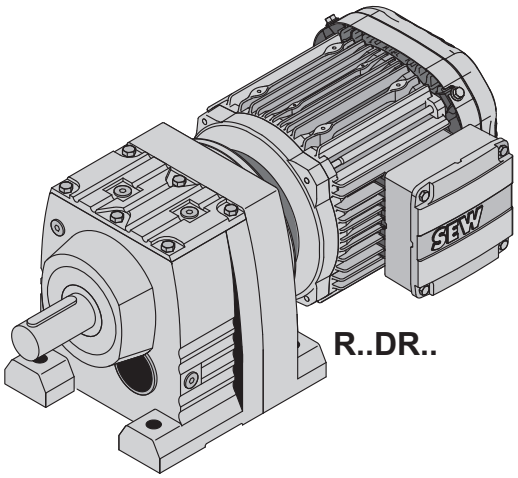
21284997/EN – 03/2015

# 8 Helical gearmotors

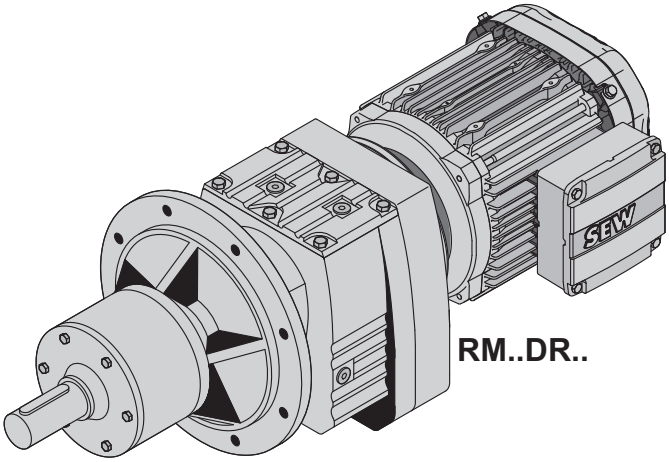
## 8.1 R..DRN.. designs



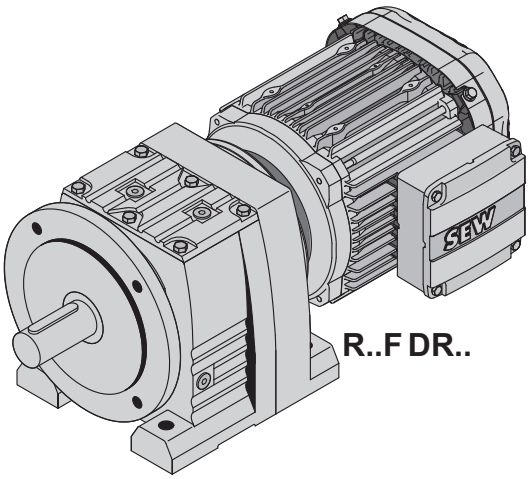

RF..DR..




R..DR..



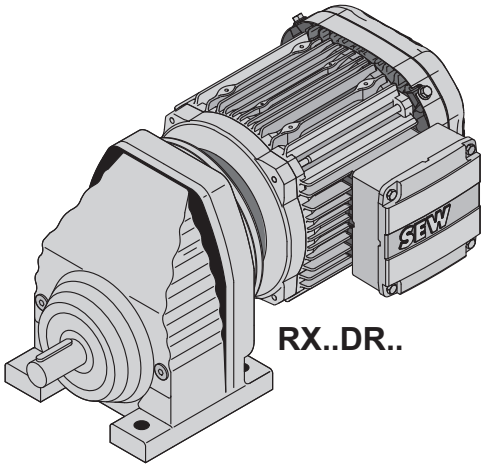

RM..DR..



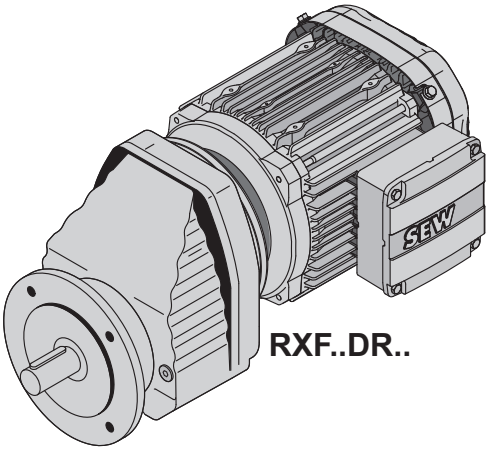

R..F DR..

*8654457099*

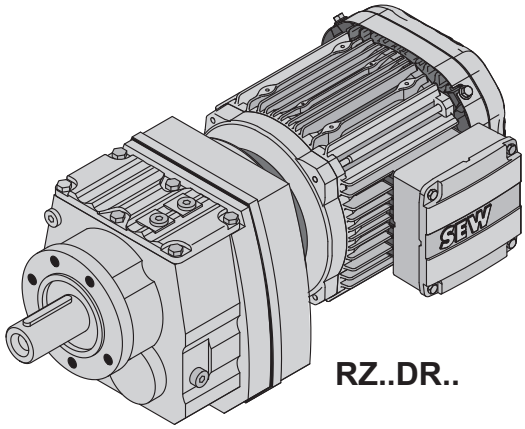
21284997/EN – 03/2015




**RX..DR..**




**RXF..DR..**




**RZ..DR..**

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21284997/EN – 03/2015

## 8.2 Possible geometrical combinations of R..DRN..

**RX57, $n_e$=1400 1/min — 69 Nm**

| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | 1 | | | | |
| 255 | 39 | 3100 | - | 5.50* | | | | | | |
| 276 | 36 | 3030 | - | 5.07 | | | | | | |
| 322 | 68 | 2640 | - | 4.35 | | | | | | |
| 369 | 69 | 2480 | - | 3.79 | | | | | | |
| 394 | 69 | 2420 | - | 3.55* | | | | | | |
| 446 | 65 | 2320 | - | 3.14 | | | | | | |
| 481 | 67 | 2170 | - | 2.91 | | | | | | |
| 530 | 69 | 1810 | - | 2.64* | | | | | | |
| 591 | 69 | 1500 | - | 2.37 | | | | | | |
| 686 | 69 | 1070 | - | 2.04 | | | | | | |
| 729 | 69 | 880 | - | 1.92* | | | | | | |
| 848 | 69 | 430 | - | 1.65 | | | | | | |
| 946 | 68 | 112 | - | 1.48 | | | | | | |
| 1075 | 63 | 132 | - | 1.30 | | | | | | |

**RX67, $n_e$=1400 1/min — 134 Nm**

| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | 1 | | | | |
| 231 | 43 | 4000 | - | 6.07 | | | | | | |
| 270 | 75 | 3580 | - | 5.18 | | | | | | |
| 309 | 82 | 3350 | - | 4.53 | | | | | | |
| 326 | 80 | 3300 | - | 4.30* | | | | | | |
| 371 | 87 | 3090 | - | 3.77 | | | | | | |
| 438 | 100 | 2800 | - | 3.20* | | | | | | |
| 484 | 106 | 2640 | - | 2.89 | | | | | | |
| 551 | 118 | 2000 | - | 2.54 | | | | | | |
| 583 | 123 | 1530 | - | 2.40* | | | | | | |
| 686 | 134 | 230 | - | 2.04 | | | | | | |
| 753 | 126 | 225 | - | 1.86 | | | | | | |
| 870 | 114 | 245 | - | 1.61 | | | | | | |
| 1000 | 104 | 205 | - | 1.40* | | | | | | |

**RX77, $n_e$=1400 1/min — 215 Nm**

| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M | DRN132L DRN160M DRN160L |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | 1 | | | | | |
| 175 | 57 | 6330 | - | 8.00* | | | | | | | |
| 187 | 53 | 6200 | - | 7.47 | | | | | | | |
| 218 | 103 | 5600 | - | 6.41 | | | | | | | |

21284997/EN – 03/2015

## RX77, $n_e$=1400 1/min — 215 Nm

| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M | DRN132L DRN160M DRN160L |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 249 | 110 | 5300 | - | 5.63 | | | | | | | |
| 262 | 103 | 5240 | - | 5.35* | | | | | | | |
| 296 | 123 | 4890 | - | 4.73 | | | | | | | |
| 347 | 143 | 4490 | - | 4.04* | | | | | | | |
| 378 | 153 | 4280 | - | 3.70 | | | | | | | |
| 431 | 182 | 3140 | - | 3.25* | | | | | | | |
| 455 | 193 | 2490 | - | 3.08* | | | | | | | |
| 519 | 215 | 1030 | - | 2.70 | | | | | | | |
| 576 | 215 | 425 | - | 2.43 | | | | | | | |
| 657 | 200 | 360 | - | 2.13 | | | | | | | |
| 745 | 187 | 255 | - | 1.88* | | | | | | | |
| 838 | 173 | 240 | - | 1.67 | | | | | | | |
| 986 | 155 | 240 | - | 1.42 | | | | | | | |

## RX87, $n_e$=1400 1/min — 405 Nm

| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M | DRN132L DRN160M DRN160L | DRN180M DRN180L | DRN200L |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 1 | | | | | | |
| 162 | 139 | 7890 | - | 8.65 | | | | | | | | | |
| 183 | 149 | 7500 | - | 7.63 | | | | | | | | | |
| 194 | 140 | 7380 | - | 7.20* | | | | | | | | | |
| 217 | 192 | 6860 | - | 6.45 | | | | | | | | | |
| 252 | 225 | 6330 | - | 5.56* | | | | | | | | | |
| 276 | 250 | 5990 | - | 5.07 | | | | | | | | | |
| 311 | 290 | 5520 | - | 4.50* | | | | | | | | | |
| 370 | 305 | 5050 | - | 3.78 | | | | | | | | | |
| 402 | 405 | 2810 | - | 3.48 | | | | | | | | | |
| 453 | 405 | 2030 | - | 3.09 | | | | | | | | | |
| 507 | 405 | 1200 | - | 2.76* | | | | | | | | | |
| 565 | 405 | 470 | - | 2.48 | | | | | | | | | |
| 651 | 385 | 42 | - | 2.15 | | | | | | | | | |
| 725 | 355 | 185 | - | 1.93 | | | | | | | | | |
| 875 | 315 | 74 | - | 1.60* | | | | | | | | | |
| 1005 | 290 | 74 | - | 1.39 | | | | | | | | | |

## RX97, $n_e$=1400 1/min — 595 Nm

| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M | DRN132L DRN160M DRN160L | DRN180M DRN180L | DRN200L DRN225S |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 1 | | | | | | |
| 170 | 225 | 9570 | - | 8.23 | | | | | | | | | |
| 196 | 260 | 8960 | - | 7.16* | | | | | | | | | |
| 213 | 300 | 8510 | - | 6.56 | | | | | | | | | |
| 242 | 420 | 7650 | - | 5.79 | | | | | | | | | |
| 285 | 395 | 7240 | - | 4.91 | | | | | | | | | |
| 310 | 595 | 6210 | - | 4.52 | | | | | | | | | |
| 347 | 595 | 5450 | - | 4.04 | | | | | | | | | |

21284997/EN – 03/2015

| RX97, $n_e$=1400 1/min | | | | | | | | | | | | | 595 Nm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M | DRN132L DRN160M DRN160L | DRN180M DRN180L | DRN200L DRN225S |
| 385 | 595 | 4610 | - | 3.64* | | | | | | | | | |
| 424 | 595 | 3820 | - | 3.30 | | | | | | | | | |
| 479 | 595 | 2890 | - | 2.92 | | | | | | | | | |
| 530 | 595 | 2020 | - | 2.64 | | | | | | | | | |
| 625 | 595 | 545 | - | 2.24* | | | | | | | | | |
| 714 | 570 | 19 | - | 1.96 | | | | | | | | | |
| 854 | 505 | 51 | - | 1.64 | | | | | | | | | |
| 986 | 455 | 132 | - | 1.42 | | | | | | | | | |

| RX107, $n_e$=1400 1/min | | | | | | | | | | 830 Nm |
|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DRN100LS DRN100L | DRN112M | DRN132S DRN132M | DRN132L DRN160M DRN160L | DRN180M DRN180L | DRN200L DRN225S DRN225M |
| | | | | |  1 | | | | | |
| 211 | 460 | 9660 | - | 6.63* | | | | | | |
| 250 | 455 | 9040 | - | 5.61 | | | | | | |
| 270 | 695 | 7780 | - | 5.19 | | | | | | |
| 301 | 695 | 7380 | - | 4.65 | | | | | | |
| 333 | 830 | 6140 | - | 4.20* | | | | | | |
| 367 | 830 | 5260 | - | 3.81 | | | | | | |
| 414 | 830 | 4190 | - | 3.38 | | | | | | |
| 456 | 830 | 3300 | - | 3.07 | | | | | | |
| 530 | 830 | 1850 | - | 2.64* | | | | | | |
| 609 | 830 | 760 | - | 2.30 | | | | | | |
| 718 | 765 | 420 | - | 1.95 | | | | | | |
| 819 | 705 | 345 | - | 1.71 | | | | | | |
| 972 | 645 | 315 | - | 1.44 | | | | | | |

| R07, $n_e$=1400 1/min | | | | | 50 Nm |
|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DT56M DT56L DR63S DR63M DR63L DRS71S DRS71M |
| | | | | |  3 |
| 18 | 50 | 1510 | - | 78.24 | |
| 20 | 50 | 1510 | - | 71.47 | |
| 23 | 50 | 1510 | - | 60.32 | |
| 27 | 50 | 1510 | - | 51.52 | |
| 29 | 50 | 1470 | - | 47.78 | |
| 32 | 50 | 1420 | - | 44.16 | |
| 34 | 50 | 1380 | - | 41.31 | |
| 35 | 50 | 1370 | - | 40.34 | |
| 36 | 50 | 1340 | - | 38.51 | |
| 41 | 50 | 1270 | - | 34.05 | |
| 48 | 50 | 1190 | - | 29.08 | |
| 52 | 50 | 1150 | - | 26.97 | |
| 60 | 50 | 1080 | - | 23.32 | |

21284997/EN – 03/2015

| R07, $n_e$=1400 1/min | | | | | 50 Nm |
|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DT56M<br>DT56L<br>DR63S<br>DR63M<br>DR63L<br>DRS71S<br>DRS71M |
| 64 | 50 | 1040 | - | 21.73 | |
| | | | | 2 | |
| 76 | 50 | 960 | - | 18.31 | |
| 84 | 50 | 920 | - | 16.73 | |
| 99 | 50 | 850 | - | 14.12 | |
| 116 | 50 | 790 | - | 12.06 | |
| 125 | 50 | 760 | - | 11.18 | |
| 145 | 50 | 710 | - | 9.67 | |
| 155 | 50 | 685 | - | 9.01 | |
| 178 | 49 | 645 | - | 7.85 | |
| 187 | 43 | 595 | - | 7.48 | |
| 205 | 43 | 535 | - | 6.83 | |
| 243 | 40 | 530 | - | 5.76 | |
| 285 | 37 | 530 | - | 4.92 | |
| 306 | 36 | 520 | - | 4.57 | |
| 354 | 34 | 505 | - | 3.95 | |
| 380 | 33 | 500 | - | 3.68 | |
| 436 | 31 | 495 | - | 3.21 | |

| R17, $n_e$=1400 1/min | | | | | | 85 Nm |
|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S<br>DR63M<br>DR63L<br>DRS71S<br>DRS71M | DRN80M |
| | | | | 3 | | |
| 17 | 85 | 1770 | - | 81.64 | | |
| 20 | 85 | 1770 | - | 70.39 | | |
| 21 | 85 | 1770 | - | 65.61 | | |
| 24 | 85 | 1770 | - | 57.35 | | |
| 26 | 85 | 1770 | - | 53.76 | | |
| 30 | 85 | 1770 | - | 47.44 | | |
| 32 | 85 | 1770 | - | 44.18 | | |
| 36 | 85 | 1770 | - | 38.61 | | |
| 39 | 85 | 1770 | - | 36.20 | | |
| 44 | 85 | 1770 | - | 31.94 | | |
| 49 | 85 | 1770 | - | 28.32 | | |
| 58 | 85 | 1650 | - | 24.07 | | |
| | | | | 2 | | |
| 55 | 85 | 1680 | - | 25.23 | | |
| 60 | 85 | 1620 | - | 23.15 | | |
| 71 | 85 | 1500 | - | 19.71 | | |
| 82 | 85 | 1400 | - | 16.99 | | |
| 88 | 85 | 1350 | - | 15.84 | | |
| 101 | 85 | 1270 | - | 13.84 | | |
| 108 | 85 | 1230 | - | 12.98 | | |
| 122 | 81 | 1180 | - | 11.45 | | |

21284997/EN – 03/2015

| R17, $n_e$=1400 1/min | | | | | | 85 Nm |
|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M |
| 138 | 77 | 1140 | - | 10.15 | | |
| 162 | 72 | 1090 | - | 8.63 | | |
| 185 | 56 | 1040 | - | 7.55 | | |
| 199 | 55 | 1010 | - | 7.04 | | |
| 228 | 54 | 950 | - | 6.15 | | |
| 243 | 53 | 930 | - | 5.76 | | |
| 275 | 51 | 890 | - | 5.09 | | |
| 310 | 48 | 870 | - | 4.51 | | |
| 366 | 45 | 820 | - | 3.83 | | |

| R27, $n_e$=1400 1/min | | | | | | | | 130 Nm |
|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L |
| | | | | |  3 | | | |
| 10 | 130 | 4230 | - | 135.09 | | | | |
| 11 | 130 | 4230 | - | 123.91 | | | | |
| 13 | 130 | 4230 | - | 105.49 | | | | |
| 15 | 130 | 4230 | - | 90.96 | | | | |
| 17 | 130 | 4230 | - | 84.78 | | | | |
| 19 | 130 | 4230 | - | 74.11 | | | | |
| 20 | 130 | 4180 | - | 69.47 | | | | |
| 23 | 130 | 3980 | - | 61.30 | | | | |
| 25 | 130 | 3840 | - | 55.87 | | | | |
| 29 | 130 | 3630 | - | 48.17 | | | | |
| 31 | 130 | 3530 | - | 44.90 | | | | |
| 36 | 130 | 3350 | - | 39.25 | | | | |
| 38 | 130 | 3260 | - | 36.79 | | | | |
| 43 | 130 | 3100 | - | 32.47 | | | | |
| 49 | 130 | 2950 | - | 28.78 | | | | |
| 57 | 130 | 2760 | - | 24.47 | | | | |
| | | | | |  2 | | | |
| 49 | 130 | 2940 | - | 28.37 | | | | |
| 54 | 130 | 2840 | - | 26.09 | | | | |
| 63 | 130 | 2660 | - | 22.32 | | | | |
| 72 | 130 | 2510 | - | 19.35 | | | | |
| 77 | 130 | 2440 | - | 18.08 | | | | |
| 90 | 130 | 2290 | - | 15.63 | | | | |
| 105 | 130 | 2140 | - | 13.28* | | | | |
| 118 | 129 | 1980 | - | 11.86 | | | | |
| 138 | 122 | 1890 | - | 10.13 | | | | |
| 149 | 122 | 900 | - | 9.41 | | | | |
| 172 | 116 | 870 | - | 8.16 | | | | |
| 183 | 112 | 900 | - | 7.63* | | | | |
| 212 | 106 | 880 | - | 6.59 | | | | |
| 250 | 99 | 880 | - | 5.60* | | | | |
| 280 | 95 | 860 | - | 5.00* | | | | |

21284997/EN – 03/2015

| R27, $n_e$=1400 1/min | | | | | | | | 130 Nm |
|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L |
| 328 | 87 | 920 | - | 4.27 | | | | |
| 350 | 85 | 900 | - | 4.00* | | | | |
| 415 | 79 | 900 | - | 3.37 | | | | |

| R27R17, $n_e$=1400 1/min | | | | | | 130 Nm |
|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M |
| | | | | | 3 3 | |
| 0.16 | 130 | 4230 | - | 8612 | | |
| 0.19 | 130 | 3320 | - | 7425 | | |
| 0.20 | 130 | 4230 | - | 6921 | | |
| 0.23 | 130 | 4230 | - | 6050 | | |
| 0.27 | 130 | 3320 | - | 5217 | | |
| 0.30 | 130 | 4230 | - | 4661 | | |
| 0.34 | 130 | 3320 | - | 4073 | | |
| 0.40 | 130 | 4230 | - | 3516 | | |
| 0.44 | 130 | 4230 | - | 3160 | | |
| 0.51 | 130 | 4230 | - | 2763 | | |
| 0.58 | 130 | 4230 | - | 2414 | | |
| 0.66 | 130 | 4230 | - | 2110 | | |
| 0.75 | 130 | 4230 | - | 1862 | | |
| 0.86 | 130 | 3320 | - | 1625 | | |
| 0.98 | 130 | 4230 | - | 1434 | | |
| 1.1 | 130 | 4230 | - | 1254 | | |
| | | | | | 2 3 | |
| 0.77 | 130 | 4230 | - | 1822 | | |
| 0.89 | 130 | 4230 | - | 1580 | | |
| 0.96 | 130 | 4230 | - | 1464 | | |
| 1.1 | 130 | 4230 | - | 1270 | | |
| 1.3 | 130 | 4230 | - | 1100 | | |
| 1.4 | 130 | 4230 | - | 972 | | |
| 1.7 | 130 | 4230 | - | 840 | | |
| 1.9 | 130 | 4230 | - | 741 | | |
| 2.1 | 130 | 4230 | - | 654 | | |
| 2.5 | 130 | 4230 | - | 566 | | |
| 2.8 | 130 | 4230 | - | 499 | | |
| | | | | | 3 2 | |
| 1.3 | 130 | 4230 | - | 1101 | | |
| 1.5 | 130 | 4230 | - | 962 | | |
| 1.7 | 130 | 3320 | - | 848 | | |
| 1.9 | 130 | 3320 | - | 743 | | |
| 2.2 | 130 | 4230 | - | 649 | | |
| 2.5 | 130 | 4230 | - | 567 | | |
| 2.8 | 130 | 4230 | - | 509 | | |
| 3.2 | 130 | 4230 | - | 432 | | |
| 3.6 | 130 | 4230 | - | 387 | | |



21284997/EN – 03/2015

| R27R17, $n_e$=1400 1/min | | | | | | 130 Nm |
|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M |
| 4.1 | 130 | 3320 | - | 339 | | |
| 4.7 | 130 | 3320 | - | 296 | | |
| 5.4 | 130 | 4230 | - | 259 | | |
| 6.1 | 130 | 4230 | - | 229 | | |
| 7.0 | 130 | 4230 | - | 200 | | |
| 7.9 | 130 | 3320 | - | 177 | | |
| 8.4 | 130 | 4230 | - | 166 | | |
| 9.3 | 130 | 4230 | - | 150 | | |
| 9.9 | 130 | 4230 | - | 141 | | |
| 11 | 130 | 3320 | - | 124 | | |
| 13 | 130 | 4230 | - | 110 | | |
| 15 | 130 | 4230 | - | 94 | | |
| | | | | | 2 | 2 |
| 3.2 | 130 | 4230 | - | 440 | | |
| 3.7 | 130 | 4230 | - | 381 | | |
| 4.3 | 130 | 4230 | - | 329 | | |
| 4.8 | 130 | 4230 | - | 290 | | |
| 5.5 | 130 | 4230 | - | 256 | | |
| 6.2 | 130 | 4230 | - | 227 | | |
| 6.9 | 130 | 4230 | - | 203 | | |
| 7.8 | 130 | 4230 | - | 179 | | |
| 9.0 | 130 | 4230 | - | 156 | | |
| 10 | 130 | 4230 | - | 135 | | |
| 12 | 130 | 4230 | - | 118 | | |
| 13 | 130 | 4230 | - | 104 | | |
| 16 | 130 | 4230 | - | 90 | | |

| R37, $n_e$=1400 1/min | | | | | | | | 200 Nm |
|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L |
| | | | | | | 3 | | |
| 10 | 200 | 4940 | 7.9 | 134.82 | | | | |
| 11 | 200 | 4940 | 8 | 123.66 | | | | |
| 13 | 200 | 4940 | 8 | 105.28 | | | | |
| 15 | 200 | 4940 | 8 | 90.77 | | | | |
| 17 | 200 | 4940 | 8 | 84.61 | | | | |
| 19 | 200 | 4940 | 8 | 73.96 | | | | |
| 20 | 200 | 4940 | 8 | 69.33 | | | | |
| 23 | 200 | 4940 | 8.1 | 61.18 | | | | |
| 25 | 200 | 4940 | 8.7 | 55.76 | | | | |
| 29 | 200 | 4940 | 8.7 | 48.08 | | | | |
| 31 | 200 | 4940 | 8.8 | 44.81 | | | | |
| 36 | 200 | 4760 | 8.8 | 39.17 | | | | |
| 38 | 200 | 4540 | 8.9 | 36.72 | | | | |
| 43 | 200 | 4120 | 8.9 | 32.40 | | | | |
| 49 | 200 | 3740 | 9 | 28.73 | | | | |

21284997/EN – 03/2015

| R37, $n_e$=1400 1/min | | | | | | | | 200 Nm |
|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L |
| 57 | 200 | 3240 | 9 | 24.42 | | | | |
| | | | | | | 2 | | |
| 49 | 200 | 3690 | 7.3 | 28.32 | | | | |
| 54 | 185 | 3860 | 7.4 | 26.03 | | | | |
| 63 | 200 | 2970 | 7.4 | 22.27 | | | | |
| 73 | 200 | 2570 | 7.5 | 19.31 | | | | |
| 78 | 200 | 2390 | 7.5 | 18.05 | | | | |
| 90 | 200 | 2010 | 7.7 | 15.60 | | | | |
| 106 | 190 | 1880 | 7.9 | 13.25 | | | | |
| 118 | 183 | 1810 | 8 | 11.83 | | | | |
| 138 | 170 | 1820 | 8.1 | 10.11 | | | | |
| 148 | 167 | 1760 | 8.2 | 9.47 | | | | |
| 176 | 156 | 1720 | 8.4 | 7.97 | | | | |
| 210 | 144 | 1000 | 12.1 | 6.67 | | | | |
| 247 | 142 | 760 | 12.4 | 5.67 | | | | |
| 277 | 135 | 790 | 12.7 | 5.06 | | | | |
| 324 | 126 | 820 | 13 | 4.32 | | | | |
| 346 | 122 | 840 | 13.2 | 4.05 | | | | |
| 411 | 112 | 900 | 13.7 | 3.41 | | | | |

| R37R17, $n_e$=1400 1/min | | | | | | 200 Nm |
|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M |
| | | | | | 3 3 | |
| 0.16 | 200 | 4940 | - | 8595 | | |
| 0.19 | 200 | 4940 | - | 7411 | | |
| 0.20 | 200 | 4940 | - | 6907 | | |
| 0.23 | 200 | 4940 | - | 6038 | | |
| 0.27 | 200 | 4940 | - | 5206 | | |
| 0.30 | 200 | 4940 | - | 4651 | | |
| 0.34 | 200 | 4940 | - | 4065 | | |
| 0.38 | 200 | 4940 | - | 3658 | | |
| 0.44 | 200 | 4940 | - | 3154 | | |
| 0.51 | 200 | 4940 | - | 2757 | | |
| 0.58 | 200 | 4940 | - | 2409 | | |
| 0.66 | 200 | 4940 | - | 2106 | | |
| 0.75 | 200 | 4940 | - | 1856 | | |
| 0.86 | 200 | 4940 | - | 1622 | | |
| 0.98 | 200 | 4940 | - | 1431 | | |
| 1.1 | 200 | 4940 | - | 1251 | | |
| | | | | | 2 3 | |
| 0.77 | 200 | 4940 | - | 1818 | | |
| 0.89 | 200 | 4940 | - | 1576 | | |
| 1.0 | 200 | 4940 | - | 1359 | | |
| 1.1 | 200 | 4940 | - | 1267 | | |
| 1.3 | 200 | 4940 | - | 1098 | | |



21284997/EN – 03/2015

| R37R17, $n_e$=1400 1/min | | | | | | 200 Nm |
|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M |
| 1.4 | 200 | 4940 | - | 970 | | |
| 1.7 | 200 | 4940 | - | 839 | | |
| 1.9 | 200 | 4940 | - | 740 | | |
| 2.1 | 200 | 4940 | - | 653 | | |
| 2.4 | 200 | 4940 | - | 577 | | |
| 2.8 | 200 | 4940 | - | 498 | | |
| | | | | |  3  2 | |
| 1.3 | 200 | 4940 | - | 1099 | | |
| 1.5 | 200 | 4940 | - | 960 | | |
| 1.7 | 200 | 4940 | - | 847 | | |
| 1.9 | 200 | 4940 | - | 741 | | |
| 2.2 | 200 | 4940 | - | 647 | | |
| 2.5 | 200 | 4940 | - | 566 | | |
| 2.8 | 200 | 4940 | - | 508 | | |
| 3.2 | 200 | 4940 | - | 431 | | |
| 3.6 | 200 | 4940 | - | 387 | | |
| 4.1 | 200 | 4940 | - | 338 | | |
| 4.7 | 200 | 4940 | - | 296 | | |
| 5.4 | 200 | 4940 | - | 259 | | |
| 6.1 | 200 | 4940 | - | 228 | | |
| 7.0 | 200 | 4940 | - | 199 | | |
| 8.1 | 200 | 4940 | - | 172 | | |
| 9.3 | 200 | 4940 | - | 150 | | |
| 11 | 200 | 4940 | - | 130 | | |
| 11 | 200 | 4940 | - | 124 | | |
| 13 | 200 | 4940 | - | 110 | | |
| 15 | 200 | 4940 | - | 94 | | |
| | | | | |  2  2 | |
| 3.2 | 200 | 4940 | - | 439 | | |
| 3.7 | 200 | 4940 | - | 378 | | |
| 4.3 | 200 | 4940 | - | 328 | | |
| 4.8 | 200 | 4940 | - | 289 | | |
| 5.3 | 200 | 4940 | - | 265 | | |
| 6.2 | 200 | 4940 | - | 226 | | |
| 6.9 | 200 | 4940 | - | 202 | | |
| 7.8 | 200 | 4940 | - | 179 | | |
| 9.0 | 200 | 4940 | - | 156 | | |
| 10 | 200 | 4940 | - | 135 | | |
| 11 | 200 | 4940 | - | 127 | | |
| 13 | 200 | 4940 | - | 104 | | |
| 16 | 200 | 4940 | - | 90 | | |

21284997/EN – 03/2015

| R47, $n_e$=1400 1/min | | | | | | | | | | 300 Nm |
|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S |
| | | | | | | 3 | | | | |
| 7.9 | 300 | 5420 | 6.9 | 176.88 | | | | | | |
| 8.6 | 300 | 5420 | 6.9 | 162.94 | | | | | | |
| 10 | 300 | 5420 | 6.9 | 139.99 | | | | | | |
| 11 | 300 | 5420 | 6.9 | 121.87 | | | | | | |
| 12 | 300 | 5420 | 6.9 | 114.17 | | | | | | |
| 14 | 300 | 5420 | 7 | 100.86 | | | | | | |
| 15 | 300 | 5420 | 7 | 93.68 | | | | | | |
| 16 | 300 | 5420 | 7 | 84.90 | | | | | | |
| 18 | 300 | 5420 | 7 | 76.23 | | | | | | |
| 20 | 300 | 5420 | 7.6 | 68.54 | | | | | | |
| 22 | 300 | 5420 | 7.6 | 64.21 | | | | | | |
| 25 | 300 | 5420 | 7.6 | 56.73 | | | | | | |
| 27 | 300 | 5350 | 7.6 | 52.69 | | | | | | |
| 29 | 300 | 5140 | 7.7 | 47.75 | | | | | | |
| 33 | 300 | 4930 | 7.7 | 42.87 | | | | | | |
| 38 | 300 | 4630 | 7.7 | 36.93 | | | | | | |
| 40 | 300 | 4520 | 7.7 | 34.73 | | | | | | |
| 47 | 300 | 4240 | 7.8 | 29.88 | | | | | | |
| 52 | 300 | 4050 | 7.9 | 26.70 | | | | | | |
| 59 | 300 | 3840 | 8 | 23.59 | | | | | | |
| | | | | | | 2 | | | | |
| 41 | 240 | 4680 | 6.5 | 33.79 | | | | | | |
| 45 | 220 | 4610 | 6.5 | 31.12 | | | | | | |
| 52 | 300 | 4050 | 6.6 | 26.74 | | | | | | |
| 60 | 300 | 3820 | 6.6 | 23.28 | | | | | | |
| 64 | 300 | 3710 | 6.7 | 21.81 | | | | | | |
| 73 | 295 | 3530 | 6.8 | 19.27 | | | | | | |
| 78 | 290 | 3390 | 6.8 | 17.89 | | | | | | |
| 86 | 275 | 3350 | 6.9 | 16.22 | | | | | | |
| 96 | 265 | 3230 | 7 | 14.56 | | | | | | |
| 112 | 250 | 3080 | 7.1 | 12.54 | | | | | | |
| 119 | 245 | 3020 | 7.1 | 11.79 | | | | | | |
| 138 | 230 | 2880 | 7.3 | 10.15 | | | | | | |
| 154 | 220 | 2780 | 7.7 | 9.07 | | | | | | |
| 175 | 205 | 2690 | 7.8 | 8.01 | | | | | | |
| 180 | 163 | 2720 | 9.5 | 7.76* | | | | | | |
| 201 | 159 | 2620 | 9.7 | 6.96 | | | | | | |
| 233 | 156 | 2470 | 9.9 | 6.00 | | | | | | |
| 248 | 155 | 2410 | 10 | 5.64* | | | | | | |
| 289 | 150 | 2280 | 10.3 | 4.85 | | | | | | |
| 323 | 146 | 2190 | 11.1 | 4.34 | | | | | | |
| 366 | 144 | 2080 | 11.4 | 3.83 | | | | | | |



21284997/EN – 03/2015

| R47R37, $n_e$=1400 1/min | | | | | | | | 300 Nm |
|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L |
| | | | | | 3 3 | | | |
| 0.10 | 300 | 5420 | - | 13598 | | | | |
| 0.11 | 300 | 5420 | - | 12472 | | | | |
| 0.13 | 300 | 5420 | - | 10619 | | | | |
| 0.15 | 300 | 5420 | - | 9155 | | | | |
| 0.16 | 300 | 5420 | - | 8534 | | | | |
| 0.19 | 300 | 5420 | - | 7460 | | | | |
| 0.20 | 300 | 5420 | - | 6993 | | | | |
| 0.23 | 300 | 5420 | - | 6171 | | | | |
| 0.25 | 300 | 5420 | - | 5624 | | | | |
| 0.29 | 300 | 5420 | - | 4849 | | | | |
| 0.31 | 300 | 5420 | - | 4520 | | | | |
| 0.35 | 300 | 5420 | - | 3951 | | | | |
| 0.38 | 300 | 5420 | - | 3704 | | | | |
| 0.43 | 300 | 5420 | - | 3268 | | | | |
| 0.48 | 300 | 5420 | - | 2898 | | | | |
| 0.57 | 300 | 5420 | - | 2463 | | | | |
| | | | | | 2 3 | | | |
| 0.54 | 300 | 5420 | - | 2598 | | | | |
| 0.59 | 300 | 5420 | - | 2383 | | | | |
| 0.69 | 300 | 5420 | - | 2029 | | | | |
| 0.80 | 300 | 5420 | - | 1749 | | | | |
| 0.86 | 300 | 5420 | - | 1630 | | | | |
| 0.98 | 300 | 5420 | - | 1425 | | | | |
| 1.0 | 300 | 5420 | - | 1336* | | | | |
| 1.2 | 300 | 5420 | - | 1179 | | | | |
| 1.3 | 300 | 5420 | - | 1074 | | | | |
| 1.5 | 300 | 5420 | - | 927 | | | | |
| 1.6 | 300 | 5420 | - | 863 | | | | |
| 1.9 | 300 | 5420 | - | 755 | | | | |
| 2.0 | 300 | 5420 | - | 708 | | | | |
| 2.2 | 300 | 5420 | - | 624 | | | | |
| 2.5 | 300 | 5420 | - | 554 | | | | |
| 3.0 | 300 | 5420 | - | 471 | | | | |
| | | | | | 3 2 | | | |
| 0.49 | 300 | 5420 | - | 2856 | | | | |
| 0.53 | 300 | 5420 | - | 2625 | | | | |
| 0.62 | 300 | 5420 | - | 2246 | | | | |
| 0.72 | 300 | 5420 | - | 1948 | | | | |
| 0.77 | 300 | 5420 | - | 1821 | | | | |
| 0.89 | 300 | 5420 | - | 1573 | | | | |
| 1.2 | 300 | 5420 | - | 1193 | | | | |
| 1.4 | 300 | 5420 | - | 1020 | | | | |
| 1.5 | 300 | 5420 | - | 955 | | | | |
| 1.7 | 300 | 5420 | - | 804 | | | | |
| 2.1 | 300 | 5420 | - | 673 | | | | |
| 2.4 | 300 | 5420 | - | 572 | | | | |
| 2.7 | 300 | 5420 | - | 510 | | | | |

21284997/EN – 03/2015

| R47R37, $n_e$=1400 1/min | | | | | | | | 300 Nm |
|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L |
| 3.2 | 300 | 5420 | - | 436 | | | | |
| 3.4 | 300 | 5420 | - | 408 | | | | |
| 4.1 | 300 | 5420 | - | 344 | | | | |
| | | | | | 2 | 2 | | |
| 2.6 | 300 | 5420 | - | 546 | | | | |
| 2.8 | 300 | 5420 | - | 502 | | | | |
| 3.3 | 300 | 5420 | - | 429 | | | | |
| 3.8 | 300 | 5420 | - | 372 | | | | |
| 4.0 | 300 | 5420 | - | 348 | | | | |
| 4.7 | 300 | 5420 | - | 301 | | | | |
| 5.5 | 300 | 5420 | - | 255 | | | | |
| 6.1 | 300 | 5420 | - | 228 | | | | |
| 7.2 | 300 | 5420 | - | 195 | | | | |
| 7.7 | 300 | 5420 | - | 182 | | | | |
| 9.1 | 300 | 5420 | - | 154 | | | | |
| 11 | 300 | 5420 | - | 129 | | | | |
| 13 | 300 | 5420 | - | 109 | | | | |
| 14 | 300 | 5420 | - | 98 | | | | |

| R57, $n_e$=1400 1/min | | | | | | | | | | 450 Nm |
|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M |
| | | | | | | 3 | | | | |
| 7.5 | 450 | 7100 | 6.9 | 186.89 | | | | | | |
| 8.1 | 450 | 7100 | 6.9 | 172.17 | | | | | | |
| 9.5 | 450 | 7100 | 6.9 | 147.92 | | | | | | |
| 11 | 450 | 7100 | 6.9 | 128.77 | | | | | | |
| 12 | 450 | 7100 | 6.9 | 120.63 | | | | | | |
| 13 | 450 | 7100 | 7 | 106.58 | | | | | | |
| 14 | 450 | 7100 | 7 | 98.99 | | | | | | |
| 16 | 450 | 7100 | 7 | 89.71 | | | | | | |
| 17 | 450 | 7100 | 7 | 80.55 | | | | | | |
| 20 | 450 | 7100 | 7.5 | 69.23 | | | | | | |
| 22 | 450 | 6980 | 7.5 | 64.85 | | | | | | |
| 24 | 450 | 6630 | 7.6 | 57.29 | | | | | | |
| 26 | 450 | 6430 | 7.6 | 53.22 | | | | | | |
| 29 | 450 | 6170 | 7.6 | 48.23 | | | | | | |
| 32 | 450 | 5900 | 7.6 | 43.30 | | | | | | |
| 38 | 450 | 5530 | 7.6 | 37.30* | | | | | | |
| 40 | 450 | 5390 | 7.7 | 35.07 | | | | | | |
| 46 | 450 | 5040 | 7.7 | 30.18 | | | | | | |
| 52 | 450 | 4800 | 7.8 | 26.97 | | | | | | |
| | | | | | | 2 | | | | |
| 53 | 450 | 4750 | 6.4 | 26.31 | | | | | | |
| 56 | 450 | 4640 | 6.5 | 24.99* | | | | | | |
| 64 | 450 | 4370 | 6.6 | 21.93 | | | | | | |

| R57, $n_e$=1400 1/min | | | | | | | | | | 450 Nm |
|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M |
| 75 | 450 | 4050 | 6.7 | 18.60* | | | | | | |
| 83 | 450 | 3860 | 6.7 | 16.79 | | | | | | |
| 95 | 435 | 3690 | 6.8 | 14.77* | | | | | | |
| 100 | 430 | 3610 | 6.8 | 13.95* | | | | | | |
| 118 | 405 | 3430 | 6.9 | 11.88 | | | | | | |
| 130 | 390 | 3330 | 7.2 | 10.79 | | | | | | |
| 150 | 370 | 3180 | 7.4 | 9.35 | | | | | | |
| 155 | 375 | 2010 | 8.7 | 9.06 | | | | | | |
| 176 | 355 | 2020 | 8.8 | 7.97 | | | | | | |
| 186 | 350 | 1950 | 8.8 | 7.53 | | | | | | |
| 218 | 335 | 1770 | 9 | 6.41 | | | | | | |
| 241 | 320 | 1820 | 9.6 | 5.82 | | | | | | |
| 277 | 305 | 1730 | 9.9 | 5.05 | | | | | | |
| 319 | 280 | 1900 | 10.1 | 4.39 | | | | | | |

| R57R37, $n_e$=1400 1/min | | | | | | | | 450 Nm |
|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L |
| | | | | | 3 3 | | | |
| 0.10 | 450 | 7100 | - | 14369 | | | | |
| 0.12 | 450 | 7100 | - | 12095 | | | | |
| 0.13 | 450 | 7100 | - | 10860 | | | | |
| 0.15 | 450 | 7100 | - | 9445 | | | | |
| 0.17 | 450 | 7100 | - | 8480 | | | | |
| 0.19 | 450 | 7100 | - | 7312 | | | | |
| 0.21 | 450 | 7100 | - | 6521 | | | | |
| 0.25 | 450 | 7100 | - | 5585 | | | | |
| 0.28 | 450 | 7100 | - | 4928 | | | | |
| 0.32 | 450 | 7100 | - | 4378 | | | | |
| 0.36 | 450 | 7100 | - | 3873 | | | | |
| 0.42 | 450 | 7100 | - | 3344 | | | | |
| 0.48 | 450 | 7100 | - | 2907 | | | | |
| 0.55 | 450 | 7100 | - | 2567 | | | | |
| 0.62 | 450 | 7100 | - | 2244 | | | | |
| 0.71 | 450 | 7100 | - | 1967 | | | | |
| | | | | | 2 3 | | | |
| 0.47 | 450 | 7100 | - | 2957 | | | | |
| 0.56 | 450 | 7100 | - | 2508 | | | | |
| 0.61 | 450 | 7100 | - | 2309 | | | | |
| 0.70 | 450 | 7100 | - | 1991 | | | | |
| 0.79 | 450 | 7100 | - | 1768 | | | | |
| 0.92 | 450 | 7100 | - | 1520 | | | | |
| 1.0 | 450 | 7100 | - | 1342* | | | | |
| 1.2 | 450 | 7100 | - | 1164 | | | | |
| 1.4 | 450 | 7100 | - | 1027 | | | | |
| 1.6 | 450 | 7100 | - | 894 | | | | |

21284997/EN – 03/2015

| R57R37, $n_e$=1400 1/min | | | | | | | | 450 Nm |
|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L |
| 1.7 | 450 | 7100 | - | 805 | | | | |
| 2.0 | 450 | 7100 | - | 683 | | | | |
| 2.3 | 450 | 7100 | - | 603 | | | | |
| 2.6 | 450 | 7100 | - | 534 | | | | |
| 3.1 | 450 | 7100 | - | 454 | | | | |
| 3.4 | 450 | 7100 | - | 410 | | | | |
| | | | | | 3 | 2 | | |
| 0.81 | 450 | 7100 | - | 1732 | | | | |
| 0.90 | 450 | 7100 | - | 1555 | | | | |
| 1.0 | 450 | 7100 | - | 1399 | | | | |
| 1.2 | 450 | 7100 | - | 1189 | | | | |
| 1.4 | 450 | 7100 | - | 1034 | | | | |
| 1.8 | 450 | 7100 | - | 782 | | | | |
| 2.1 | 450 | 7100 | - | 678 | | | | |
| 2.3 | 450 | 7100 | - | 604 | | | | |
| 2.6 | 450 | 7100 | - | 537 | | | | |
| 3.0 | 450 | 7100 | - | 471 | | | | |
| 3.9 | 450 | 7100 | - | 357 | | | | |
| 4.4 | 450 | 7100 | - | 319 | | | | |
| 5.1 | 450 | 7100 | - | 273 | | | | |
| 5.8 | 450 | 7100 | - | 241 | | | | |
| 6.5 | 450 | 7100 | - | 215 | | | | |
| 7.5 | 450 | 7100 | - | 187 | | | | |
| 8.5 | 450 | 7100 | - | 164 | | | | |
| 9.9 | 450 | 7100 | - | 142 | | | | |
| | | | | | 2 | 2 | | |
| 3.9 | 450 | 7100 | - | 359 | | | | |
| 4.3 | 450 | 7100 | - | 324 | | | | |
| 4.8 | 450 | 7100 | - | 290 | | | | |
| 5.3 | 450 | 7100 | - | 262 | | | | |
| 5.7 | 450 | 7100 | - | 246* | | | | |
| 6.4 | 450 | 7100 | - | 220* | | | | |
| 7.4 | 450 | 7100 | - | 188 | | | | |
| 8.8 | 450 | 7100 | - | 159 | | | | |
| 9.6 | 450 | 7100 | - | 146 | | | | |
| 10 | 450 | 7100 | - | 134 | | | | |

| R67, $n_e$=1400 1/min | | | | | | | | | | 600 Nm |
|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M |
| | | | | | | 3 | | | | |
| 7.0 | 600 | 7560 | 6.4 | 199.81 | | | | | | |
| 7.6 | 600 | 7560 | 6.4 | 184.07 | | | | | | |
| 8.9 | 600 | 7560 | 6.4 | 158.14 | | | | | | |
| 10 | 600 | 7560 | 6.4 | 137.67 | | | | | | |
| 11 | 600 | 7560 | 6.4 | 128.97 | | | | | | |

21284997/EN – 03/2015

| R67, $n_e$=1400 1/min | | | | | | | | | | 600 Nm |
|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M |
| 12 | 600 | 7560 | 6.5 | 113.94 | | | | | | |
| 13 | 600 | 7560 | 6.5 | 105.83 | | | | | | |
| 15 | 600 | 7560 | 6.5 | 95.91 | | | | | | |
| 16 | 600 | 7560 | 6.5 | 86.11 | | | | | | |
| 19 | 600 | 7560 | 6.5 | 74.17 | | | | | | |
| 20 | 600 | 7560 | 6.5 | 69.75 | | | | | | |
| 23 | 600 | 7560 | 7 | 61.26 | | | | | | |
| 25 | 600 | 7560 | 7 | 56.89 | | | | | | |
| 27 | 600 | 7560 | 7.1 | 51.56 | | | | | | |
| 30 | 600 | 7560 | 7.1 | 46.29 | | | | | | |
| 35 | 580 | 7790 | 7.1 | 39.88* | | | | | | |
| 37 | 570 | 7900 | 7.1 | 37.50 | | | | | | |
| 43 | 540 | 8210 | 7.2 | 32.27 | | | | | | |
| 49 | 520 | 8400 | 7.3 | 28.83 | | | | | | |
| | | | | | |  2 | | | | |
| 50 | 540 | 8210 | 6 | 28.13 | | | | | | |
| 52 | 540 | 8210 | 6 | 26.72 | | | | | | |
| 60 | 560 | 8010 | 6.1 | 23.44 | | | | | | |
| 70 | 600 | 7560 | 6.2 | 19.89 | | | | | | |
| 78 | 590 | 7330 | 6.2 | 17.95 | | | | | | |
| 89 | 560 | 7130 | 6.3 | 15.79 | | | | | | |
| 94 | 550 | 6980 | 6.3 | 14.91 | | | | | | |
| 110 | 520 | 6640 | 6.4 | 12.70 | | | | | | |
| 121 | 500 | 6500 | 6.7 | 11.54 | | | | | | |
| 140 | 470 | 6220 | 6.8 | 10.00 | | | | | | |
| 161 | 440 | 5960 | 7 | 8.70* | | | | | | |
| 180 | 380 | 5830 | 8.3 | 7.79 | | | | | | |
| 190 | 370 | 5790 | 8.3 | 7.36* | | | | | | |
| 223 | 330 | 5590 | 8.5 | 6.27 | | | | | | |
| 246 | 310 | 5450 | 9.1 | 5.70 | | | | | | |
| 284 | 290 | 5210 | 9.4 | 4.93 | | | | | | |
| 326 | 270 | 5000 | 9.7 | 4.29 | | | | | | |

| R67R37, $n_e$=1400 1/min | | | | | | | | 600 Nm |
|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L |
| | | | | |  3  3 | | | |
| 0.09 | 600 | 7560 | - | 15361 | | | | |
| 0.11 | 600 | 7560 | - | 12931 | | | | |
| 0.12 | 600 | 7560 | - | 11996 | | | | |
| 0.14 | 600 | 7560 | - | 10097 | | | | |
| 0.15 | 600 | 7560 | - | 9066 | | | | |
| 0.18 | 600 | 7560 | - | 7816 | | | | |
| 0.21 | 600 | 7560 | - | 6732 | | | | |
| 0.23 | 600 | 7560 | - | 5970 | | | | |
| 0.27 | 600 | 7560 | - | 5268 | | | | |

21284997/EN – 03/2015

| R67R37, $n_e$=1400 1/min | | | | | | | | 600 Nm |
|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L |
| 0.30 | 600 | 7560 | - | 4680 | | | | |
| 0.34 | 600 | 7560 | - | 4136 | | | | |
| 0.39 | 600 | 7560 | - | 3566 | | | | |
| 0.45 | 600 | 7560 | - | 3125 | | | | |
| 0.51 | 600 | 7560 | - | 2745 | | | | |
| 0.58 | 600 | 7560 | - | 2403 | | | | |
| | | | | | 2 3 | | | |
| 0.52 | 600 | 7560 | - | 2682 | | | | |
| 0.57 | 600 | 7560 | - | 2460 | | | | |
| 0.67 | 600 | 7560 | - | 2094 | | | | |
| 0.78 | 600 | 7560 | - | 1805 | | | | |
| 0.86 | 600 | 7560 | - | 1629 | | | | |
| 0.95 | 600 | 7560 | - | 1471 | | | | |
| 1.0 | 600 | 7560 | - | 1379 | | | | |
| 1.3 | 600 | 7560 | - | 1109 | | | | |
| 1.5 | 600 | 7560 | - | 956 | | | | |
| 1.6 | 600 | 7560 | - | 891 | | | | |
| 1.9 | 600 | 7560 | - | 730 | | | | |
| 2.2 | 600 | 7560 | - | 644 | | | | |
| 2.5 | 600 | 7560 | - | 571 | | | | |
| 2.9 | 600 | 7560 | - | 486 | | | | |
| | | | | | 3 2 | | | |
| 0.66 | 600 | 7560 | - | 2136 | | | | |
| 0.76 | 600 | 7560 | - | 1852 | | | | |
| 0.85 | 600 | 7560 | - | 1652 | | | | |
| 0.98 | 600 | 7560 | - | 1432 | | | | |
| 1.1 | 600 | 7560 | - | 1259 | | | | |
| 1.3 | 600 | 7560 | - | 1106 | | | | |
| 1.7 | 600 | 7560 | - | 836 | | | | |
| 1.9 | 600 | 7560 | - | 750 | | | | |
| 2.2 | 600 | 7560 | - | 646 | | | | |
| 2.4 | 600 | 7560 | - | 574 | | | | |
| 2.8 | 600 | 7560 | - | 495 | | | | |
| 3.2 | 600 | 7560 | - | 438 | | | | |
| 3.6 | 600 | 7560 | - | 388 | | | | |
| 4.1 | 600 | 7560 | - | 344 | | | | |
| 4.8 | 600 | 7560 | - | 294 | | | | |
| 5.4 | 600 | 7560 | - | 261 | | | | |
| 6.0 | 600 | 7560 | - | 234 | | | | |
| 7.0 | 600 | 7560 | - | 200 | | | | |
| 8.0 | 600 | 7560 | - | 176 | | | | |
| 8.9 | 600 | 7560 | - | 158 | | | | |
| | | | | | 2 2 | | | |
| 3.2 | 600 | 7560 | - | 443 | | | | |
| 3.6 | 600 | 7560 | - | 384 | | | | |
| 3.9 | 600 | 7560 | - | 359 | | | | |
| 4.5 | 600 | 7560 | - | 310 | | | | |
| 5.3 | 600 | 7560 | - | 264* | | | | |

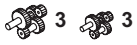


21284997/EN – 03/2015

| R67R37, $n_e$=1400 1/min | | | | | | | | 600 Nm |
|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L |
| 6.0 | 600 | 7560 | - | 235 | | | | |
| 7.0 | 600 | 7560 | - | 201 | | | | |
| 7.7 | 600 | 7560 | - | 181 | | | | |
| 8.8 | 600 | 7560 | - | 159 | | | | |

| R77, $n_e$=1400 1/min | | | | | | | | | | | 820 Nm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M | DRN132L DRN160M DRN160L |
|  3 | | | | | | | | | | | |
| 7.2 | 820 | 9920 | 6.4 | 195.24* | | | | | | | |
| 8.4 | 820 | 9920 | 6.5 | 166.59 | | | | | | | |
| 9.6 | 820 | 9920 | 6.4 | 145.67 | | | | | | | |
| 10 | 820 | 9920 | 6.4 | 138.39 | | | | | | | |
| 12 | 820 | 9920 | 6.5 | 121.42 | | | | | | | |
| 14 | 820 | 9920 | 6.5 | 102.99 | | | | | | | |
| 15 | 820 | 9920 | 6.5 | 92.97 | | | | | | | |
| 17 | 820 | 9920 | 6.5 | 81.80 | | | | | | | |
| 18 | 820 | 9920 | 6.5 | 77.24 | | | | | | | |
| 21 | 820 | 9920 | 6.5 | 65.77 | | | | | | | |
| 24 | 820 | 9920 | 7.1 | 57.68 | | | | | | | |
| 27 | 820 | 9920 | 7.1 | 52.07 | | | | | | | |
| 31 | 820 | 9920 | 7.1 | 45.81 | | | | | | | |
| 32 | 820 | 9920 | 7.1 | 43.26 | | | | | | | |
| 38 | 820 | 9920 | 7.1 | 36.83 | | | | | | | |
| 42 | 820 | 9920 | 7.2 | 33.47 | | | | | | | |
| 48 | 820 | 9920 | 7.3 | 29.00 | | | | | | | |
| 55 | 780 | 10100 | 7.3 | 25.23 | | | | | | | |
|  2 | | | | | | | | | | | |
| 60 | 820 | 8870 | 6.1 | 23.37 | | | | | | | |
| 65 | 820 | 8250 | 6.1 | 21.43 | | | | | | | |
| 74 | 780 | 7980 | 6.1 | 18.80 | | | | | | | |
| 79 | 780 | 7620 | 6.2 | 17.82* | | | | | | | |
| 90 | 740 | 7390 | 6.2 | 15.60 | | | | | | | |
| 100 | 720 | 7050 | 6.5 | 14.05 | | | | | | | |
| 114 | 690 | 6740 | 6.4 | 12.33 | | | | | | | |
| 129 | 660 | 6490 | 6.5 | 10.88 | | | | | | | |
| 145 | 630 | 6300 | 6.7 | 9.64 | | | | | | | |
| 163 | 630 | 4110 | 7.5 | 8.59 | | | | | | | |
| 181 | 610 | 3940 | 7.9 | 7.74 | | | | | | | |
| 206 | 580 | 3850 | 7.8 | 6.79 | | | | | | | |
| 234 | 540 | 3990 | 8 | 5.99* | | | | | | | |
| 264 | 510 | 3990 | 8.4 | 5.31* | | | | | | | |

21284997/EN – 03/2015

| R77R37, $n_e$=1400 1/min | | | | | | | | 820 Nm |
|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L |
| | | | | |  3 3 | | | |
| 0.09 | 820 | 9920 | - | 16370 | | | | |
| 0.09 | 820 | 9920 | - | 15015 | | | | |
| 0.10 | 820 | 9920 | - | 13885 | | | | |
| 0.11 | 820 | 9920 | - | 12783 | | | | |
| 0.13 | 820 | 9920 | - | 11021 | | | | |
| 0.14 | 820 | 9920 | - | 9788 | | | | |
| 0.16 | 820 | 9920 | - | 8714 | | | | |
| 0.18 | 820 | 9920 | - | 7617 | | | | |
| 0.21 | 820 | 9920 | - | 6770 | | | | |
| 0.24 | 820 | 9920 | - | 5838 | | | | |
| 0.27 | 820 | 9920 | - | 5184 | | | | |
| 0.31 | 820 | 9920 | - | 4470 | | | | |
| 0.35 | 820 | 9920 | - | 3999 | | | | |
| 0.40 | 820 | 9920 | - | 3488 | | | | |
| 0.46 | 820 | 9920 | - | 3053 | | | | |
| 0.52 | 820 | 9920 | - | 2671 | | | | |
| | | | | |  2 3 | | | |
| 0.44 | 820 | 9920 | - | 3151 | | | | |
| 0.48 | 820 | 9920 | - | 2890 | | | | |
| 0.57 | 820 | 9920 | - | 2460 | | | | |
| 0.66 | 820 | 9920 | - | 2121 | | | | |
| 0.71 | 820 | 9920 | - | 1977 | | | | |
| 0.81 | 820 | 9920 | - | 1728 | | | | |
| 0.86 | 820 | 9920 | - | 1620 | | | | |
| 0.98 | 820 | 9920 | - | 1430 | | | | |
| 1.1 | 820 | 9920 | - | 1303 | | | | |
| 1.2 | 820 | 9920 | - | 1124 | | | | |
| 1.3 | 820 | 9920 | - | 1047 | | | | |
| 1.5 | 820 | 9920 | - | 915 | | | | |
| 1.6 | 820 | 9920 | - | 858 | | | | |
| 1.8 | 820 | 9920 | - | 757 | | | | |
| 2.1 | 820 | 9920 | - | 671 | | | | |
| 2.5 | 820 | 9920 | - | 571 | | | | |
| | | | | |  3 2 | | | |
| 0.60 | 820 | 9920 | - | 2345 | | | | |
| 0.68 | 820 | 9920 | - | 2070 | | | | |
| 0.77 | 820 | 9920 | - | 1822 | | | | |
| 0.89 | 820 | 9920 | - | 1580 | | | | |
| 1.0 | 820 | 9920 | - | 1394 | | | | |
| 1.1 | 820 | 9920 | - | 1218 | | | | |
| 1.3 | 820 | 9920 | - | 1084* | | | | |
| 1.5 | 820 | 9920 | - | 940 | | | | |
| 1.7 | 820 | 9920 | - | 821 | | | | |
| 1.9 | 820 | 9920 | - | 731 | | | | |
| 2.2 | 820 | 9920 | - | 646 | | | | |
| 2.5 | 820 | 9920 | - | 560 | | | | |
| 2.9 | 820 | 9920 | - | 488 | | | | |



21284997/EN – 03/2015

| R77R37, $n_e$=1400 1/min | | | | | | | | 820 Nm |
|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L |
| 3.2 | 820 | 9920 | - | 436 | | | | |
| 3.8 | 820 | 9920 | - | 373 | | | | |
| 4.3 | 820 | 9920 | - | 327 | | | | |
| 4.8 | 820 | 9920 | - | 289 | | | | |
| 5.4 | 820 | 9920 | - | 260 | | | | |
| 6.2 | 820 | 9920 | - | 224 | | | | |
| 7.1 | 820 | 9920 | - | 197 | | | | |
| 8.3 | 820 | 9920 | - | 169 | | | | |
| 9.4 | 820 | 9920 | - | 149 | | | | |
| | | | | | 2 | 2 | | |
| 2.7 | 820 | 9920 | - | 520 | | | | |
| 3.1 | 820 | 9920 | - | 451 | | | | |
| 3.3 | 820 | 9920 | - | 422 | | | | |
| 3.8 | 820 | 9920 | - | 365 | | | | |
| 4.5 | 820 | 9920 | - | 310* | | | | |
| 5.1 | 820 | 9920 | - | 276 | | | | |
| 5.9 | 820 | 9920 | - | 236 | | | | |
| 6.3 | 820 | 9920 | - | 221 | | | | |
| 7.5 | 820 | 9920 | - | 186 | | | | |

| R87, $n_e$=1400 1/min | | | | | | | | | | | | 1550 Nm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M | DRN132L DRN160M DRN160L | DRN180M DRN180L | DRN200L |
| | | | | | | | 3 | | | | | | |
| 5.7 | 1550 | 16900 | 6 | 246.54 | | | | | | | | | |
| 6.5 | 1550 | 16900 | 6 | 216.54 | | | | | | | | | |
| 6.8 | 1550 | 16900 | 6 | 205.71 | | | | | | | | | |
| 7.7 | 1550 | 16900 | 6 | 181.77 | | | | | | | | | |
| 9.0 | 1550 | 16900 | 6 | 155.34 | | | | | | | | | |
| 9.8 | 1550 | 16900 | 6 | 142.41 | | | | | | | | | |
| 11 | 1550 | 16900 | 6 | 124.97 | | | | | | | | | |
| 12 | 1550 | 16900 | 6 | 118.43* | | | | | | | | | |
| 14 | 1550 | 16900 | 6 | 103.65 | | | | | | | | | |
| 15 | 1550 | 16900 | 6 | 93.38 | | | | | | | | | |
| 17 | 1550 | 16900 | 6 | 81.92 | | | | | | | | | |
| 19 | 1550 | 16900 | 6.4 | 72.57 | | | | | | | | | |
| 22 | 1550 | 15800 | 6.4 | 63.68* | | | | | | | | | |
| 23 | 1550 | 15200 | 6.4 | 60.35* | | | | | | | | | |
| 27 | 1550 | 13500 | 6.5 | 52.82 | | | | | | | | | |
| 29 | 1550 | 12300 | 6.5 | 47.58 | | | | | | | | | |
| 34 | 1550 | 10800 | 6.5 | 41.74 | | | | | | | | | |
| 38 | 1550 | 9470 | 6.5 | 36.84* | | | | | | | | | |
| 43 | 1550 | 8220 | 6.6 | 32.66* | | | | | | | | | |
| 50 | 1500 | 7370 | 6.6 | 27.88 | | | | | | | | | |
| | | | | | | | 2 | | | | | | |
| 41 | 1500 | 9480 | 5.5 | 34.40* | | | | | | | | | |
| 45 | 1550 | 7820 | 5.5 | 31.40 | | | | | | | | | |

21284997/EN – 03/2015

| R87, $n_e$=1400 1/min | | | | | | | | | | | | 1550 Nm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M | DRN132L DRN160M DRN160L | DRN180M DRN180L | DRN200L |
| 50 | 1550 | 6640 | 5.5 | 27.84* | | | | | | | | | |
| 60 | 1550 | 5000 | 5.5 | 23.40 | | | | | | | | | |
| 65 | 1500 | 4970 | 5.7 | 21.51 | | | | | | | | | |
| 73 | 1440 | 4800 | 5.7 | 19.10 | | | | | | | | | |
| 82 | 1390 | 4580 | 5.8 | 17.08* | | | | | | | | | |
| 91 | 1340 | 4450 | 5.9 | 15.35 | | | | | | | | | |
| 105 | 1280 | 4220 | 6 | 13.33 | | | | | | | | | |
| 117 | 1230 | 4120 | 6 | 11.93 | | | | | | | | | |
| 141 | 1180 | 3520 | 6.1 | 9.90* | | | | | | | | | |
| 153 | 1210 | 99 | 6.3 | 9.14* | | | | | | | | | |
| 170 | 1160 | 225 | 6.6 | 8.22 | | | | | | | | | |
| 196 | 1070 | 820 | 6.7 | 7.13 | | | | | | | | | |
| 219 | 1020 | 970 | 6.8 | 6.39 | | | | | | | | | |
| 264 | 910 | 1710 | 7 | 5.30* | | | | | | | | | |

| R87R57, $n_e$=1400 1/min | | | | | | | | | | 1550 Nm |
|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M |
| | | | | | | 3 3 | | | | |
| 0.08 | 1550 | 16900 | - | 17452 | | | | | | |
| 0.09 | 1550 | 16900 | - | 15310 | | | | | | |
| 0.10 | 1550 | 16900 | - | 13813 | | | | | | |
| 0.12 | 1550 | 16900 | - | 12025 | | | | | | |
| 0.13 | 1550 | 16900 | - | 10549 | | | | | | |
| 0.15 | 1550 | 16900 | - | 9244 | | | | | | |
| 0.17 | 1550 | 16900 | - | 8109 | | | | | | |
| 0.20 | 1550 | 16900 | - | 7038 | | | | | | |
| 0.23 | 1550 | 16900 | - | 6174 | | | | | | |
| 0.26 | 1550 | 16900 | - | 5449 | | | | | | |
| 0.29 | 1550 | 16900 | - | 4831 | | | | | | |
| 0.33 | 1550 | 16900 | - | 4206 | | | | | | |
| 0.37 | 1550 | 16900 | - | 3744 | | | | | | |
| 0.43 | 1550 | 16900 | - | 3233 | | | | | | |
| 0.49 | 1550 | 16900 | - | 2873 | | | | | | |
| 0.56 | 1550 | 16900 | - | 2518 | | | | | | |
| 0.63 | 1550 | 16900 | - | 2209 | | | | | | |
| 0.71 | 1550 | 16900 | - | 1961 | | | | | | |
| 1.4 | 1550 | 16900 | - | 994 | | | | | | |
| 1.6 | 1550 | 16900 | - | 881 | | | | | | |
| | | | | | | 2 3 | | | | |
| 0.35 | 1550 | 16900 | - | 4020 | | | | | | |
| 0.38 | 1550 | 16900 | - | 3703 | | | | | | |
| 0.44 | 1550 | 16900 | - | 3182 | | | | | | |
| 0.51 | 1550 | 16900 | - | 2770 | | | | | | |
| 0.54 | 1550 | 16900 | - | 2595 | | | | | | |
| 0.66 | 1550 | 16900 | - | 2129 | | | | | | |
| 0.73 | 1550 | 16900 | - | 1930 | | | | | | |
| 0.81 | 1550 | 16900 | - | 1733 | | | | | | |

| R87R57, $n_e$=1400 1/min | | | | | | | | | | 1550 Nm |
|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M |
| 0.94 | 1550 | 16900 | - | 1489 | | | | | | |
| 1.0 | 1550 | 16900 | - | 1395 | | | | | | |
| 1.1 | 1550 | 16900 | - | 1232 | | | | | | |
| 1.2 | 1550 | 16900 | - | 1145 | | | | | | |
| 1.4 | 1550 | 16900 | - | 1037 | | | | | | |
| 1.5 | 1550 | 16900 | - | 931 | | | | | | |
| 1.7 | 1550 | 16900 | - | 802* | | | | | | |
| 1.9 | 1550 | 16900 | - | 754 | | | | | | |
| 2.2 | 1550 | 16900 | - | 649 | | | | | | |
| 2.4 | 1550 | 16900 | - | 580 | | | | | | |
|  | | | | | | | | | | |
| 0.81 | 1550 | 16900 | - | 1737 | | | | | | |
| 0.92 | 1550 | 16900 | - | 1524 | | | | | | |
| 1.1 | 1550 | 16900 | - | 1303 | | | | | | |
| 1.2 | 1550 | 16900 | - | 1143 | | | | | | |
| 1.4 | 1550 | 16900 | - | 1008 | | | | | | |
| 1.6 | 1550 | 16900 | - | 885 | | | | | | |
| 1.8 | 1550 | 16900 | - | 776 | | | | | | |
| 2.0 | 1550 | 16900 | - | 685* | | | | | | |
| 2.3 | 1550 | 16900 | - | 599 | | | | | | |
| 2.7 | 1550 | 16900 | - | 525 | | | | | | |
| 3.1 | 1550 | 16900 | - | 456* | | | | | | |
| 3.5 | 1550 | 16900 | - | 398 | | | | | | |
| 4.0 | 1550 | 16900 | - | 352 | | | | | | |
| 4.6 | 1550 | 16900 | - | 305 | | | | | | |
| 5.2 | 1550 | 16900 | - | 268 | | | | | | |
| 5.9 | 1550 | 16900 | - | 236* | | | | | | |
| 6.7 | 1550 | 16900 | - | 209* | | | | | | |
|  | | | | | | | | | | |
| 2.6 | 1550 | 16900 | - | 538 | | | | | | |
| 3.0 | 1550 | 16900 | - | 472 | | | | | | |
| 3.5 | 1550 | 16900 | - | 400 | | | | | | |
| 3.9 | 1550 | 16900 | - | 361 | | | | | | |
| 4.7 | 1550 | 16900 | - | 300 | | | | | | |
| 5.5 | 1550 | 16900 | - | 256 | | | | | | |
| 6.0 | 1550 | 16900 | - | 232 | | | | | | |
| 7.2 | 1550 | 16900 | - | 195 | | | | | | |

| R97, $n_e$=1400 1/min | | | | | | | | | | | | | 3000 Nm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M | DRN132L DRN160M DRN160L | DRN180M DRN180L | DRN200L DRN225S |
|  | | | | | | | | | | | | | |
| 4.8 | 3000 | 19800 | 5.7 | 289.74 | | | | | | | | | |
| 5.5 | 3000 | 19800 | 5.7 | 255.71 | | | | | | | | | |
| 5.8 | 3000 | 19800 | 5.7 | 241.25 | | | | | | | | | |
| 6.5 | 3000 | 19800 | 5.7 | 216.28 | | | | | | | | | |
| 7.5 | 3000 | 19800 | 5.7 | 186.30 | | | | | | | | | |

21284997/EN – 03/2015

## R97, $n_e$=1400 1/min — 3000 Nm

| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M | DRN132L DRN160M DRN160L | DRN180M DRN180L | DRN200L DRN225S |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8.2 | 3000 | 19800 | 5.7 | 170.02 | | | | | | | | | |
| 9.3 | 3000 | 19800 | 5.7 | 150.78 | | | | | | | | | |
| 11 | 3000 | 19800 | 5.7 | 126.75 | | | | | | | | | |
| 12 | 3000 | 19800 | 5.7 | 116.48 | | | | | | | | | |
| 14 | 3000 | 19800 | 5.7 | 103.44 | | | | | | | | | |
| 15 | 3000 | 19800 | 5.7 | 92.48 | | | | | | | | | |
| 17 | 3000 | 19800 | 5.8 | 83.15 | | | | | | | | | |
| 19 | 3000 | 18000 | 5.8 | 72.17 | | | | | | | | | |
| 21 | 3000 | 16300 | 6.1 | 65.21 | | | | | | | | | |
| 23 | 3000 | 14800 | 6.2 | 59.92 | | | | | | | | | |
| 26 | 3000 | 12900 | 6.2 | 53.21 | | | | | | | | | |
| 29 | 3000 | 11100 | 6.2 | 47.58 | | | | | | | | | |
| 33 | 3000 | 9480 | 6.2 | 42.78 | | | | | | | | | |
| 38 | 3000 | 7410 | 6.3 | 37.13 | | | | | | | | | |
| 42 | 2890 | 7160 | 6.3 | 33.25 | | | | | | | | | |
| 51 | 2670 | 7260 | 6.3 | 27.58 | | | | | | | | | |
|  2 | | | | | | | | | | | | | |
| 44 | 2560 | 10600 | 5.3 | 32.05 | | | | | | | | | |
| 51 | 2560 | 8380 | 5.3 | 27.19 | | | | | | | | | |
| 56 | 2830 | 4140 | 5.4 | 25.03 | | | | | | | | | |
| 63 | 2720 | 4060 | 5.5 | 22.37 | | | | | | | | | |
| 70 | 2610 | 4110 | 5.5 | 20.14 | | | | | | | | | |
| 77 | 2500 | 4270 | 5.6 | 18.24 | | | | | | | | | |
| 87 | 2400 | 4130 | 5.6 | 16.17 | | | | | | | | | |
| 96 | 2300 | 4240 | 5.6 | 14.62 | | | | | | | | | |
| 113 | 2190 | 3850 | 5.7 | 12.39 | | | | | | | | | |
| 129 | 2090 | 3720 | 5.8 | 10.83 | | | | | | | | | |
| 151 | 2030 | - | 5.6 | 9.29 | | | | | | | | | |
| 167 | 2030 | - | 5.7 | 8.39 | | | | | | | | | |
| 197 | 2000 | - | 5.8 | 7.12 | | | | | | | | | |
| 225 | 1890 | - | 5.9 | 6.21 | | | | | | | | | |
| 269 | 1780 | - | 6.1 | 5.20 | | | | | | | | | |
| 311 | 1630 | - | 6.2 | 4.50* | | | | | | | | | |

## R97R57, $n_e$=1400 1/min — 3000 Nm

| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M |
|---|---|---|---|---|---|---|---|---|---|---|
|  3  3 | | | | | | | | | | |
| 0.06 | 3000 | 19800 | - | 21769 | | | | | | |
| 0.07 | 3000 | 19800 | - | 19332 | | | | | | |
| 0.08 | 3000 | 19800 | - | 17230 | | | | | | |
| 0.09 | 3000 | 19800 | - | 14999 | | | | | | |
| 0.11 | 3000 | 19800 | - | 13320 | | | | | | |
| 0.13 | 3000 | 19800 | - | 11156 | | | | | | |
| 0.14 | 3000 | 19800 | - | 10030 | | | | | | |
| 0.16 | 3000 | 19800 | - | 8706 | | | | | | |
| 0.18 | 3000 | 19800 | - | 7692 | | | | | | |
| 0.21 | 3000 | 19800 | - | 6708 | | | | | | |

21284997/EN – 03/2015

| R97R57, $n_e$=1400 1/min | | | | | | | | | | 3000 Nm |
|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M |
| 0.24 | 3000 | 19800 | - | 5931 | | | | | | |
| 0.27 | 3000 | 19800 | - | 5161 | | | | | | |
| 0.31 | 3000 | 19800 | - | 4559 | | | | | | |
| 0.35 | 3000 | 19800 | - | 4004 | | | | | | |
| 0.40 | 3000 | 19800 | - | 3481 | | | | | | |
|  | | | | | | | | | | |
| 0.30 | 3000 | 19800 | - | 4678 | | | | | | |
| 0.32 | 3000 | 19800 | - | 4309 | | | | | | |
| 0.38 | 3000 | 19800 | - | 3702 | | | | | | |
| 0.46 | 3000 | 19800 | - | 3019 | | | | | | |
| 0.52 | 3000 | 19800 | - | 2668 | | | | | | |
| 0.62 | 3000 | 19800 | - | 2245 | | | | | | |
| 0.69 | 3000 | 19800 | - | 2016 | | | | | | |
| 0.81 | 3000 | 19800 | - | 1733 | | | | | | |
| 0.86 | 3000 | 19800 | - | 1623 | | | | | | |
| 0.98 | 3000 | 19800 | - | 1434 | | | | | | |
| 1.2 | 3000 | 19800 | - | 1207 | | | | | | |
| 1.3 | 3000 | 19800 | - | 1084 | | | | | | |
| 1.5 | 3000 | 19800 | - | 934 | | | | | | |
| 1.6 | 3000 | 19800 | - | 878 | | | | | | |
| 1.9 | 3000 | 19800 | - | 755 | | | | | | |
|  | | | | | | | | | | |
| 0.46 | 3000 | 19800 | - | 3065 | | | | | | |
| 0.51 | 3000 | 19800 | - | 2722 | | | | | | |
| 0.61 | 3000 | 19800 | - | 2311 | | | | | | |
| 0.67 | 3000 | 19800 | - | 2078 | | | | | | |
| 0.77 | 3000 | 19800 | - | 1823 | | | | | | |
| 0.88 | 3000 | 19800 | - | 1583 | | | | | | |
| 1.0 | 3000 | 19800 | - | 1396 | | | | | | |
| 1.1 | 3000 | 19800 | - | 1228 | | | | | | |
| 1.3 | 3000 | 19800 | - | 1069 | | | | | | |
| 1.5 | 3000 | 19800 | - | 938 | | | | | | |
| 1.7 | 3000 | 19800 | - | 824 | | | | | | |
| 1.9 | 3000 | 19800 | - | 737 | | | | | | |
| 2.2 | 3000 | 19800 | - | 632 | | | | | | |
| 2.5 | 3000 | 19800 | - | 560 | | | | | | |
| 2.9 | 3000 | 19800 | - | 484 | | | | | | |
| 3.2 | 3000 | 19800 | - | 431 | | | | | | |
| 3.7 | 3000 | 19800 | - | 379 | | | | | | |
| 4.2 | 3000 | 19800 | - | 336 | | | | | | |
| 4.7 | 3000 | 19800 | - | 296 | | | | | | |
| 5.6 | 3000 | 19800 | - | 249 | | | | | | |
| 6.0 | 3000 | 19800 | - | 234 | | | | | | |
| 6.7 | 3000 | 19800 | - | 209 | | | | | | |
|  | | | | | | | | | | |
| 2.2 | 3000 | 19800 | - | 625 | | | | | | |
| 2.6 | 3000 | 19800 | - | 549 | | | | | | |
| 3.0 | 3000 | 19800 | - | 466 | | | | | | |

21284997/EN – 03/2015

| R97R57, $n_e$=1400 1/min | | | | | | | | | | 3000 Nm |
|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M |
| 3.3 | 3000 | 19800 | - | 420 | | | | | | |
| 3.8 | 3000 | 19800 | - | 370 | | | | | | |
| 4.0 | 3000 | 19800 | - | 349 | | | | | | |
| 4.7 | 3000 | 19800 | - | 297 | | | | | | |
| 5.2 | 3000 | 19800 | - | 270 | | | | | | |
| 6.2 | 3000 | 19800 | - | 227 | | | | | | |

| R107, $n_e$=1400 1/min | | | | | | | | | | 4300 Nm |
|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DRN100LS DRN100L | DRN112M | DRN132S DRN132M | DRN132L DRN160M DRN160L | DRN180M DRN180L | DRN200L DRN225S DRN225M |
| | | | | | |  3 | | | | |
| 5.6 | 4300 | 29500 | 7 | 251.15 | | | | | | |
| 6.1 | 4300 | 29500 | 7 | 229.95 | | | | | | |
| 6.9 | 4300 | 29500 | 7 | 203.16 | | | | | | |
| 8.1 | 4300 | 29500 | 7 | 172.34 | | | | | | |
| 8.8 | 4300 | 29500 | 7 | 158.68 | | | | | | |
| 9.9 | 4300 | 29500 | 7 | 141.83 | | | | | | |
| 11 | 4300 | 29500 | 7 | 127.68 | | | | | | |
| 12 | 4300 | 29500 | 7 | 115.63 | | | | | | |
| 14 | 4300 | 29500 | 7 | 102.53 | | | | | | |
| 15 | 4300 | 29500 | 7 | 92.70 | | | | | | |
| 18 | 4300 | 29500 | 7.1 | 78.57 | | | | | | |
| 19 | 4300 | 29500 | 7.3 | 72.88 | | | | | | |
| 21 | 4300 | 29200 | 7.3 | 65.60* | | | | | | |
| 24 | 4300 | 28000 | 7.4 | 59.41 | | | | | | |
| 27 | 4300 | 26600 | 7.4 | 52.68 | | | | | | |
| 29 | 4300 | 25500 | 7.4 | 47.63 | | | | | | |
| 35 | 4300 | 23800 | 7.4 | 40.37* | | | | | | |
| 40 | 4300 | 22400 | 7.4 | 35.26 | | | | | | |
| 47 | 4300 | 20700 | 7.5 | 29.49 | | | | | | |
| | | | | | |  2 | | | | |
| 45 | 4300 | 21100 | 6.7 | 30.77 | | | | | | |
| 51 | 4300 | 20100 | 6.8 | 27.58 | | | | | | |
| 56 | 4300 | 19200 | 6.8 | 24.90* | | | | | | |
| 62 | 4300 | 18300 | 6.9 | 22.62 | | | | | | |
| 70 | 4300 | 17300 | 6.9 | 20.07 | | | | | | |
| 77 | 4300 | 16600 | 6.8 | 18.21 | | | | | | |
| 89 | 4300 | 15400 | 6.9 | 15.65 | | | | | | |
| 102 | 4300 | 14400 | 6.9 | 13.66 | | | | | | |
| 121 | 4300 | 13300 | 7 | 11.59 | | | | | | |
| 138 | 4300 | 12400 | 7.1 | 10.13 | | | | | | |
| 164 | 4300 | 11300 | 7.2 | 8.56 | | | | | | |
| 178 | 2970 | 13800 | 8.8 | 7.86 | | | | | | |
| 210 | 2970 | 12800 | 8.9 | 6.66 | | | | | | |
| 241 | 2970 | 12100 | 9 | 5.82 | | | | | | |
| 285 | 2900 | 11300 | 9.3 | 4.92 | | | | | | |



21284997/EN – 03/2015

| R107R77, $n_e$=1400 1/min | | | | | | | | | | | 4300 Nm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M | DRN132L DRN160M DRN160L |
| | | | | | |  3  3 | | | | | |
| 0.07 | 4300 | 29500 | - | 20018 | | | | | | | |
| 0.08 | 4300 | 29500 | - | 17080 | | | | | | | |
| 0.09 | 4300 | 29500 | - | 14936 | | | | | | | |
| 0.11 | 4300 | 29500 | - | 12829 | | | | | | | |
| 0.12 | 4300 | 29500 | - | 11256 | | | | | | | |
| 0.15 | 4300 | 29500 | - | 9547 | | | | | | | |
| 0.16 | 4300 | 29500 | - | 8618 | | | | | | | |
| 0.18 | 4300 | 29500 | - | 7583 | | | | | | | |
| 0.21 | 4300 | 29500 | - | 6743 | | | | | | | |
| 0.24 | 4300 | 29500 | - | 5914 | | | | | | | |
| 0.27 | 4300 | 29500 | - | 5168 | | | | | | | |
| 0.32 | 4300 | 29500 | - | 4435 | | | | | | | |
| 0.36 | 4300 | 29500 | - | 3896 | | | | | | | |
| 0.41 | 4300 | 29500 | - | 3432 | | | | | | | |
| 0.46 | 4300 | 29500 | - | 3039 | | | | | | | |
| 0.52 | 4300 | 29500 | - | 2688 | | | | | | | |
| 0.60 | 4300 | 29500 | - | 2339 | | | | | | | |
| | | | | | |  2  3 | | | | | |
| 0.36 | 4300 | 29500 | - | 3918 | | | | | | | |
| 0.42 | 4300 | 29500 | - | 3343 | | | | | | | |
| 0.46 | 4300 | 29500 | - | 3034 | | | | | | | |
| 0.53 | 4300 | 29500 | - | 2653 | | | | | | | |
| 0.61 | 4300 | 29500 | - | 2280 | | | | | | | |
| 0.68 | 4300 | 29500 | - | 2067 | | | | | | | |
| 0.83 | 4300 | 29500 | - | 1693 | | | | | | | |
| 0.90 | 4300 | 29500 | - | 1550 | | | | | | | |
| 1.00 | 4300 | 29500 | - | 1407 | | | | | | | |
| 1.2 | 4300 | 29500 | - | 1209 | | | | | | | |
| 1.3 | 4300 | 29500 | - | 1055 | | | | | | | |
| 1.5 | 4300 | 29500 | - | 919 | | | | | | | |
| 1.7 | 4300 | 29500 | - | 815 | | | | | | | |
| 2.0 | 4300 | 29500 | - | 717 | | | | | | | |
| 2.2 | 4300 | 29500 | - | 626 | | | | | | | |
| 2.7 | 4300 | 29500 | - | 528 | | | | | | | |
| | | | | | |  3  2 | | | | | |
| 0.70 | 4300 | 29500 | - | 1987 | | | | | | | |
| 0.77 | 4300 | 29500 | - | 1827 | | | | | | | |
| 0.88 | 4300 | 29500 | - | 1599 | | | | | | | |
| 1.0 | 4300 | 29500 | - | 1400* | | | | | | | |
| 1.1 | 4300 | 29500 | - | 1226 | | | | | | | |
| 1.3 | 4300 | 29500 | - | 1104 | | | | | | | |
| 1.5 | 4300 | 29500 | - | 939 | | | | | | | |
| 1.7 | 4300 | 29500 | - | 822 | | | | | | | |
| 2.3 | 4300 | 29500 | - | 614 | | | | | | | |
| 2.6 | 4300 | 29500 | - | 544 | | | | | | | |
| 2.8 | 4300 | 29500 | - | 492 | | | | | | | |
| 3.4 | 4300 | 29500 | - | 417 | | | | | | | |

21284997/EN – 03/2015

| R107R77, $n_e$=1400 1/min | | | | | | | | | | | 4300 Nm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M | DRN132L DRN160M DRN160L |
| 3.8 | 4300 | 29500 | - | 369 | | | | | | | |
| 4.3 | 4300 | 29500 | - | 323 | | | | | | | |
| 4.9 | 4300 | 29500 | - | 285 | | | | | | | |
| 5.5 | 4300 | 29500 | - | 253 | | | | | | | |
| 6.5 | 4300 | 29500 | - | 214* | | | | | | | |
| 7.5 | 4300 | 29500 | - | 187 | | | | | | | |
| | | | | | | 2 | 2 | | | | |
| 3.0 | 4300 | 29500 | - | 469 | | | | | | | |
| 3.3 | 4300 | 29500 | - | 426 | | | | | | | |
| 3.7 | 4300 | 29500 | - | 377 | | | | | | | |
| 4.3 | 4300 | 29500 | - | 325 | | | | | | | |
| 4.9 | 4300 | 29500 | - | 284 | | | | | | | |
| 5.5 | 4300 | 29500 | - | 256 | | | | | | | |
| 6.4 | 4300 | 29500 | - | 220 | | | | | | | |
| 7.3 | 4300 | 29500 | - | 193 | | | | | | | |
| 8.1 | 4300 | 29500 | - | 172 | | | | | | | |

| R137, $n_e$=1400 1/min | | | | | | | | | 8000 Nm |
|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DRN132S DRN132M | DRN132L DRN160M DRN160L | DRN180M DRN180L | DRN200L DRN225S DRN225M | DRN250M DRN280S DRN280M |
| | | | | | | 3 | | | |
| 6.3 | 8000 | 53400 | 6 | 222.60* | | | | | |
| 7.4 | 8000 | 53400 | 6 | 188.45 | | | | | |
| 8.0 | 8000 | 53400 | 6.1 | 174.40* | | | | | |
| 9.0 | 8000 | 53400 | 6.1 | 156.31 | | | | | |
| 9.9 | 8000 | 53400 | 6.1 | 141.12* | | | | | |
| 11 | 8000 | 53400 | 6.1 | 128.18 | | | | | |
| 12 | 8000 | 53400 | 6.1 | 113.72 | | | | | |
| 14 | 8000 | 53400 | 6.1 | 103.20* | | | | | |
| 16 | 8000 | 53400 | 6.1 | 88.70* | | | | | |
| 17 | 8000 | 53400 | 6.4 | 80.91* | | | | | |
| 19 | 8000 | 53400 | 6.4 | 73.49 | | | | | |
| 21 | 8000 | 53400 | 6.4 | 65.20 | | | | | |
| 24 | 8000 | 53400 | 6.4 | 59.17* | | | | | |
| 28 | 8000 | 53400 | 6.4 | 50.86* | | | | | |
| 32 | 8000 | 53400 | 6.4 | 44.39 | | | | | |
| 37 | 8000 | 53400 | 6.4 | 37.65 | | | | | |
| 43 | 8000 | 53400 | 6.5 | 32.91 | | | | | |
| 50 | 7680 | 54100 | 6.5 | 27.83 | | | | | |
| | | | | | | 2 | | | |
| 47 | 7780 | 53900 | 5.7 | 29.57* | | | | | |
| 58 | 8000 | 49400 | 5.8 | 24.12 | | | | | |
| 64 | 8000 | 47100 | 5.8 | 22.00* | | | | | |
| 74 | 8000 | 43500 | 5.9 | 19.04* | | | | | |
| 83 | 8000 | 40600 | 5.9 | 16.80* | | | | | |
| 96 | 8000 | 37300 | 5.9 | 14.51 | | | | | |
| 109 | 8000 | 34700 | 6 | 12.83 | | | | | |

| R137, $n_e$=1400 1/min | | | | | | | | | 8000 Nm |
|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DRN132S DRN132M | DRN132L DRN160M DRN160L | DRN180M DRN180L | DRN200L DRN225S DRN225M | DRN250M DRN280S DRN280M |
| 130 | 8000 | 31100 | 6.1 | 10.79 | | | | | |
| 161 | 7840 | 27600 | 6.1 | 8.71 | | | | | |
| 184 | 5110 | 39000 | 8 | 7.59 | | | | | |
| 219 | 5110 | 35900 | 8.2 | 6.38 | | | | | |
| 272 | 4600 | 34500 | 8.2 | 5.15 | | | | | |

| R137R77, $n_e$=1400 1/min | | | | | | | | | | | 8000 Nm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M | DRN132L DRN160M DRN160L |
| | | | | | | 3 3 | | | | | |
| 0.06 | 8000 | 53400 | - | 22203* | | | | | | | |
| 0.07 | 8000 | 53400 | - | 18945 | | | | | | | |
| 0.08 | 8000 | 53400 | - | 16566 | | | | | | | |
| 0.09 | 8000 | 53400 | - | 14777 | | | | | | | |
| 0.11 | 8000 | 53400 | - | 12921 | | | | | | | |
| 0.12 | 8000 | 53400 | - | 11712 | | | | | | | |
| 0.13 | 8000 | 53400 | - | 10573* | | | | | | | |
| 0.16 | 8000 | 53400 | - | 8784 | | | | | | | |
| 0.19 | 8000 | 53400 | - | 7479 | | | | | | | |
| 0.21 | 8000 | 53400 | - | 6559 | | | | | | | |
| 0.24 | 8000 | 53400 | - | 5834 | | | | | | | |
| 0.27 | 8000 | 53400 | - | 5116 | | | | | | | |
| 0.31 | 8000 | 53400 | - | 4464 | | | | | | | |
| 0.36 | 8000 | 53400 | - | 3928* | | | | | | | |
| 0.41 | 8000 | 53400 | - | 3454 | | | | | | | |
| 0.47 | 8000 | 53400 | - | 2993 | | | | | | | |
| | | | | | | 2 3 | | | | | |
| 0.30 | 8000 | 53400 | - | 4709* | | | | | | | |
| 0.35 | 8000 | 53400 | - | 4018 | | | | | | | |
| 0.40 | 8000 | 53400 | - | 3514 | | | | | | | |
| 0.42 | 8000 | 53400 | - | 3338 | | | | | | | |
| 0.48 | 8000 | 53400 | - | 2929 | | | | | | | |
| 0.56 | 8000 | 53400 | - | 2484 | | | | | | | |
| 0.62 | 8000 | 53400 | - | 2242* | | | | | | | |
| 0.75 | 8000 | 53400 | - | 1863 | | | | | | | |
| 0.88 | 8000 | 53400 | - | 1586 | | | | | | | |
| 1.0 | 8000 | 53400 | - | 1391 | | | | | | | |
| 1.1 | 8000 | 53400 | - | 1256 | | | | | | | |
| 1.3 | 8000 | 53400 | - | 1105 | | | | | | | |
| 1.3 | 8000 | 53400 | - | 1043 | | | | | | | |
| 1.6 | 8000 | 53400 | - | 888 | | | | | | | |
| 2.0 | 8000 | 53400 | - | 699 | | | | | | | |
| 2.3 | 8000 | 53400 | - | 609 | | | | | | | |
| | | | | | | 3 2 | | | | | |
| 0.53 | 8000 | 53400 | - | 2658 | | | | | | | |
| 0.58 | 8000 | 53400 | - | 2412 | | | | | | | |
| 0.68 | 8000 | 53400 | - | 2073* | | | | | | | |

21284997/EN – 03/2015

| R137R77, $n_e$=1400 1/min | | | | | | | | | | | 8000 Nm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M | DRN132L DRN160M DRN160L |
| 0.76 | 8000 | 53400 | - | 1839* | | | | | | | |
| 0.88 | 8000 | 53400 | - | 1598 | | | | | | | |
| 1.0 | 8000 | 53400 | - | 1397 | | | | | | | |
| 1.1 | 8000 | 53400 | - | 1226* | | | | | | | |
| 1.3 | 8000 | 53400 | - | 1090* | | | | | | | |
| 1.5 | 8000 | 53400 | - | 951 | | | | | | | |
| 1.7 | 8000 | 53400 | - | 831 | | | | | | | |
| 1.9 | 8000 | 53400 | - | 730 | | | | | | | |
| 2.2 | 8000 | 53400 | - | 629 | | | | | | | |
| 2.5 | 8000 | 53400 | - | 560 | | | | | | | |
| 2.9 | 8000 | 53400 | - | 490* | | | | | | | |
| 3.3 | 8000 | 53400 | - | 428 | | | | | | | |
| 3.7 | 8000 | 53400 | - | 381 | | | | | | | |
| 4.3 | 8000 | 53400 | - | 323 | | | | | | | |
| 4.8 | 8000 | 53400 | - | 291 | | | | | | | |
| 5.5 | 8000 | 53400 | - | 255* | | | | | | | |
| 6.3 | 8000 | 53400 | - | 223 | | | | | | | |
| 7.1 | 8000 | 53400 | - | 197* | | | | | | | |
| 8.0 | 8000 | 53400 | - | 175 | | | | | | | |
| | | | | | | 2 | 2 | | | | |
| 2.5 | 8000 | 53400 | - | 564 | | | | | | | |
| 2.7 | 8000 | 53400 | - | 517 | | | | | | | |
| 3.1 | 8000 | 53400 | - | 453* | | | | | | | |
| 3.7 | 8000 | 53400 | - | 376 | | | | | | | |
| 4.1 | 8000 | 53400 | - | 339 | | | | | | | |
| 4.7 | 8000 | 53400 | - | 297 | | | | | | | |

| R147, $n_e$=1400 1/min | | | | | | | | 13000 Nm |
|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DRN132L DRN160M DRN160L | DRN180M DRN180L | DRN200L DRN225S DRN225M | DRN250M DRN280S DRN280M |
| | | | | | | 3 | | |
| 8.6 | 13000 | 62700 | 5.5 | 163.31 | | | | |
| 9.5 | 13000 | 62700 | 5.5 | 146.91 | | | | |
| 12 | 13000 | 62700 | 5.5 | 119.86 | | | | |
| 13 | 13000 | 62700 | 5.5 | 109.31 | | | | |
| 15 | 13000 | 62700 | 5.5 | 94.60* | | | | |
| 17 | 13000 | 62700 | 5.5 | 83.47 | | | | |
| 19 | 13000 | 62700 | 5.5 | 72.09 | | | | |
| 21 | 13000 | 62700 | 5.8 | 66.99 | | | | |
| 23 | 13000 | 62700 | 5.8 | 61.09 | | | | |
| 26 | 13000 | 62700 | 5.8 | 52.87 | | | | |
| 30 | 13000 | 62700 | 5.8 | 46.65 | | | | |
| 35 | 13000 | 62700 | 5.8 | 40.29 | | | | |
| 39 | 13000 | 62700 | 5.9 | 35.64 | | | | |
| 47 | 13000 | 62700 | 5.9 | 29.95 | | | | |
| 58 | 11900 | 64700 | 5.9 | 24.19 | | | | |

21284997/EN – 03/2015

| R147, $n_e$=1400 1/min | | | | | | | | 13000 Nm |
|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DRN132L DRN160M DRN160L | DRN180M DRN180L | DRN200L DRN225S DRN225M | DRN250M DRN280S DRN280M |
| | | | | | | 2 | | |
| 68 | 12000 | 64600 | 5.2 | 20.44 | | | | |
| 78 | 10500 | 67000 | 5.3 | 18.04 | | | | |
| 90 | 13000 | 62700 | 5.3 | 15.64 | | | | |
| 101 | 12600 | 63400 | 5.3 | 13.91 | | | | |
| 117 | 13000 | 60400 | 5.4 | 11.99 | | | | |
| 144 | 13000 | 54400 | 5.5 | 9.74 | | | | |
| 169 | 13000 | 49900 | 5.6 | 8.26 | | | | |
| 193 | 8670 | 58400 | 7.5 | 7.25 | | | | |
| 238 | 8670 | 53200 | 7.6 | 5.89 | | | | |
| 280 | 8670 | 49300 | 7.8 | 5.00 | | | | |

| R147R77, $n_e$=1400 1/min | | | | | | | | | | | 13000 Nm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M | DRN132L DRN160M DRN160L |
| | | | | | | 3 | 3 | | | | |
| 0.06 | 13000 | 62700 | - | 23401 | | | | | | | |
| 0.07 | 13000 | 62700 | - | 21342 | | | | | | | |
| 0.08 | 13000 | 62700 | - | 18210 | | | | | | | |
| 0.09 | 13000 | 62700 | - | 15923 | | | | | | | |
| 0.10 | 13000 | 62700 | - | 14075 | | | | | | | |
| 0.11 | 13000 | 62700 | - | 12344 | | | | | | | |
| 0.13 | 13000 | 62700 | - | 11143 | | | | | | | |
| 0.14 | 13000 | 62700 | - | 9743 | | | | | | | |
| 0.17 | 13000 | 62700 | - | 8443 | | | | | | | |
| 0.19 | 13000 | 62700 | - | 7307 | | | | | | | |
| 0.22 | 13000 | 62700 | - | 6447 | | | | | | | |
| 0.25 | 13000 | 62700 | - | 5568 | | | | | | | |
| 0.28 | 13000 | 62700 | - | 4926 | | | | | | | |
| 0.32 | 13000 | 62700 | - | 4325 | | | | | | | |
| 0.37 | 13000 | 62700 | - | 3754 | | | | | | | |
| 0.42 | 13000 | 62700 | - | 3302 | | | | | | | |
| 0.48 | 13000 | 62700 | - | 2898 | | | | | | | |
| | | | | | | 3 | 2 | | | | |
| 0.55 | 13000 | 62700 | - | 2555 | | | | | | | |
| 0.63 | 13000 | 62700 | - | 2211 | | | | | | | |
| 0.72 | 13000 | 62700 | - | 1951 | | | | | | | |
| 0.82 | 13000 | 62700 | - | 1705 | | | | | | | |
| 0.91 | 13000 | 62700 | - | 1536 | | | | | | | |
| 1.1 | 13000 | 62700 | - | 1329 | | | | | | | |
| 1.2 | 13000 | 62700 | - | 1166 | | | | | | | |
| 1.4 | 13000 | 62700 | - | 1029 | | | | | | | |
| 1.6 | 13000 | 62700 | - | 889 | | | | | | | |
| 1.8 | 13000 | 62700 | - | 784 | | | | | | | |
| 2.0 | 13000 | 62700 | - | 695 | | | | | | | |
| 2.3 | 13000 | 62700 | - | 619 | | | | | | | |
| 2.5 | 13000 | 62700 | - | 558 | | | | | | | |

21284997/EN – 03/2015

| R147R77, $n_e$=1400 1/min | | | | | | | | | | | 13000 Nm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M | DRN132L DRN160M DRN160L |
| 2.9 | 13000 | 62700 | - | 489 | | | | | | | |
| 3.4 | 13000 | 62700 | - | 415 | | | | | | | |

| R147R87, $n_e$=1400 1/min | | | | | | | | | | | | 13000 Nm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M | DRN132L DRN160M DRN160L | DRN180M DRN180L | DRN200L |
| | | | | | | | 3 | 2 | | | | |
| 2.6 | 13000 | 62700 | - | 533 | | | | | | | | |
| 3.0 | 13000 | 62700 | - | 462 | | | | | | | | |
| 3.3 | 13000 | 62700 | - | 426 | | | | | | | | |
| 3.8 | 13000 | 62700 | - | 368 | | | | | | | | |
| 4.3 | 13000 | 62700 | - | 326 | | | | | | | | |
| 5.0 | 13000 | 62700 | - | 280 | | | | | | | | |
| 5.7 | 13000 | 62700 | - | 247 | | | | | | | | |
| 6.5 | 13000 | 62700 | - | 214 | | | | | | | | |
| 7.4 | 13000 | 62700 | - | 189 | | | | | | | | |
| 8.8 | 13000 | 62700 | - | 159 | | | | | | | | |

| R167, $n_e$=1400 1/min | | | | | | | | | | 18000 Nm |
|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DRN132L DRN160M DRN160L | DRN180M DRN180L | DRN200L DRN225S DRN225M | DRN250M DRN280S DRN280M | DRN315S DRN315M | DRN315L DRN315H |
| | | | | | | 3 | | | | |
| 6.1 | 18000 | 120000 | 5.2 | 229.71 | | | | | | |
| 7.5 | 18000 | 120000 | 5.2 | 186.93* | | | | | | |
| 9.1 | 18000 | 120000 | 5.2 | 153.07 | | | | | | |
| 10 | 18000 | 120000 | 5.2 | 139.98 | | | | | | |
| 11 | 18000 | 120000 | 5.2 | 121.81* | | | | | | |
| 13 | 18000 | 120000 | 5.2 | 107.49 | | | | | | |
| 15 | 18000 | 120000 | 5.2 | 93.19 | | | | | | |
| 17 | 18000 | 120000 | 5.2 | 82.91* | | | | | | |
| 19 | 18000 | 120000 | 5.6 | 73.70* | | | | | | |
| 21 | 18000 | 120000 | 5.6 | 67.40 | | | | | | |
| 24 | 18000 | 120000 | 5.6 | 58.65 | | | | | | |
| 27 | 18000 | 120000 | 5.6 | 51.76 | | | | | | |
| 31 | 18000 | 120000 | 5.6 | 44.87 | | | | | | |
| 35 | 18000 | 120000 | 5.6 | 39.92 | | | | | | |
| 41 | 18000 | 120000 | 5.6 | 34.41 | | | | | | |
| 50 | 18000 | 120000 | 5.7 | 27.96 | | | | | | |
| 59 | 18000 | 116500 | 5.7 | 23.71 | | | | | | |
| | | | | | | 2 | | | | |
| 30 | 7000 | 120000 | 5 | 46.00 | | | | | | |
| 37 | 9000 | 120000 | 5 | 37.74 | | | | | | |
| 46 | 10000 | 120000 | 5 | 30.71 | | | | | | |
| 57 | 14000 | 120000 | 5.1 | 24.57 | | | | | | |
| 64 | 13000 | 120000 | 5.1 | 21.85 | | | | | | |
| 74 | 16000 | 111400 | 5.1 | 19.03 | | | | | | |
| 82 | 15000 | 108900 | 5.1 | 16.98 | | | | | | |

21284997/EN – 03/2015

| R167, $n_e$=1400 1/min | | | | | | | | | | | 18000 Nm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DRN132L DRN160M DRN160L | DRN180M DRN180L | DRN200L DRN225S DRN225M | DRN250M DRN280S DRN280M | DRN315S DRN315M | DRN315L DRN315H |
| 97 | 18000 | 93800 | 5.2 | 14.48 | | | | | | |
| 117 | 17000 | 88700 | 5.3 | 11.99 | | | | | | |
| 137 | 17000 | 82500 | 5.3 | 10.24 | | | | | | |

| R167R97, $n_e$=1400 1/min | | | | | | | | | | | | | 18000 Nm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M | DRN132L DRN160M DRN160L | DRN180M DRN180L | DRN200L DRN225S |
| | | | | | | | 3 | 3 | | | | | |
| 0.05 | 18000 | 120000 | - | 27001 | | | | | | | | | |
| 0.06 | 18000 | 120000 | - | 22482 | | | | | | | | | |
| 0.07 | 18000 | 120000 | - | 20002* | | | | | | | | | |
| 0.08 | 18000 | 120000 | - | 17361 | | | | | | | | | |
| 0.09 | 18000 | 120000 | - | 15446 | | | | | | | | | |
| 0.10 | 18000 | 120000 | - | 14051 | | | | | | | | | |
| 0.12 | 18000 | 120000 | - | 11812 | | | | | | | | | |
| 0.13 | 18000 | 120000 | - | 10509 | | | | | | | | | |
| 0.15 | 18000 | 120000 | - | 9631 | | | | | | | | | |
| 0.18 | 18000 | 120000 | - | 7749 | | | | | | | | | |
| 0.20 | 18000 | 120000 | - | 6894 | | | | | | | | | |
| 0.23 | 18000 | 120000 | - | 6077 | | | | | | | | | |
| 0.26 | 18000 | 120000 | - | 5407 | | | | | | | | | |
| 0.30 | 18000 | 120000 | - | 4650 | | | | | | | | | |
| 0.34 | 18000 | 120000 | - | 4129 | | | | | | | | | |
| 0.38 | 18000 | 120000 | - | 3692 | | | | | | | | | |
| 0.45 | 18000 | 120000 | - | 3099 | | | | | | | | | |
| | | | | | | | 3 | 2 | | | | | |
| 0.53 | 18000 | 120000 | - | 2657* | | | | | | | | | |
| 0.60 | 18000 | 120000 | - | 2333 | | | | | | | | | |
| 0.67 | 18000 | 120000 | - | 2085 | | | | | | | | | |
| 0.75 | 18000 | 120000 | - | 1877 | | | | | | | | | |
| 0.84 | 18000 | 120000 | - | 1670* | | | | | | | | | |
| 0.97 | 18000 | 120000 | - | 1438 | | | | | | | | | |
| 1.1 | 18000 | 120000 | - | 1279 | | | | | | | | | |
| 1.2 | 18000 | 120000 | - | 1123 | | | | | | | | | |
| 1.4 | 18000 | 120000 | - | 999 | | | | | | | | | |
| 1.6 | 18000 | 120000 | - | 861 | | | | | | | | | |
| 1.8 | 18000 | 120000 | - | 760 | | | | | | | | | |
| 2.1 | 18000 | 120000 | - | 656 | | | | | | | | | |
| 2.4 | 18000 | 120000 | - | 579 | | | | | | | | | |
| 2.8 | 18000 | 120000 | - | 503 | | | | | | | | | |
| 3.2 | 18000 | 120000 | - | 432 | | | | | | | | | |
| 3.7 | 18000 | 120000 | - | 376 | | | | | | | | | |
| 4.2 | 18000 | 120000 | - | 335 | | | | | | | | | |
| 4.6 | 18000 | 120000 | - | 303 | | | | | | | | | |
| 5.0 | 18000 | 120000 | - | 279 | | | | | | | | | |

21284997/EN – 03/2015

| R167R107, $n_e$=1400 1/min | | | | | | | | | | 18000 Nm |
|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DRN100LS DRN100L | DRN112M | DRN132S DRN132M | DRN132L DRN160M DRN160L | DRN180M DRN180L | DRN200L DRN225S DRN225M |
| | | | | | | 2 3 | | | | |
| 0.38 | 18000 | 120000 | - | 3637 | | | | | | |
| 0.42 | 18000 | 120000 | - | 3330 | | | | | | |
| 0.51 | 18000 | 120000 | - | 2757 | | | | | | |
| 0.57 | 18000 | 120000 | - | 2436 | | | | | | |
| 0.61 | 18000 | 120000 | - | 2298 | | | | | | |
| 0.68 | 18000 | 120000 | - | 2066 | | | | | | |
| 0.76 | 18000 | 120000 | - | 1849 | | | | | | |
| 0.84 | 18000 | 120000 | - | 1674 | | | | | | |
| 0.94 | 18000 | 120000 | - | 1485 | | | | | | |
| 1.0 | 18000 | 120000 | - | 1342 | | | | | | |
| 1.1 | 18000 | 120000 | - | 1229 | | | | | | |
| 1.3 | 18000 | 120000 | - | 1111 | | | | | | |
| 1.5 | 18000 | 120000 | - | 950 | | | | | | |
| 1.6 | 18000 | 120000 | - | 860 | | | | | | |
| 1.8 | 18000 | 120000 | - | 763 | | | | | | |
| 2.0 | 18000 | 120000 | - | 690 | | | | | | |
| 2.4 | 18000 | 120000 | - | 585 | | | | | | |
| 2.7 | 18000 | 120000 | - | 511 | | | | | | |
| | | | | | | 3 2 | | | | |
| 4.0 | 18000 | 120000 | - | 349 | | | | | | |
| 4.7 | 18000 | 120000 | - | 295 | | | | | | |
| 5.2 | 18000 | 120000 | - | 270 | | | | | | |
| 6.1 | 18000 | 120000 | - | 229 | | | | | | |
| 7.0 | 18000 | 120000 | - | 200 | | | | | | |
| 8.3 | 18000 | 120000 | - | 169 | | | | | | |
| | | | | | | 2 2 | | | | |
| 3.1 | 18000 | 120000 | - | 446 | | | | | | |
| 3.5 | 18000 | 120000 | - | 399 | | | | | | |
| 3.9 | 18000 | 120000 | - | 361 | | | | | | |
| 4.3 | 18000 | 120000 | - | 328 | | | | | | |
| 4.8 | 18000 | 120000 | - | 291 | | | | | | |
| 5.3 | 18000 | 120000 | - | 264 | | | | | | |
| 6.2 | 18000 | 120000 | - | 227 | | | | | | |
| 7.1 | 18000 | 120000 | - | 198 | | | | | | |
| 8.3 | 18000 | 120000 | - | 168 | | | | | | |



21284997/EN – 03/2015

## 8.3 R..DRN.. selection tables in kW

### $P_m$ = 0.09 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **17** | 52 | 78.24 | 1490 | 0.95 | | | | | | |
| **18** | 47 | 71.47 | 1520 | 1.05 | | | | | | |
| **22** | 40 | 60.32 | 1560 | 1.25 | | | | | | |
| **25** | 34 | 51.52 | 1590 | 1.45 | | | | | | |
| **27** | 32 | 47.78 | 1600 | 1.60 | | | | | | |
| **29** | 29 | 44.16 | 1610 | 1.70 | | | | | | |
| **31** | 27 | 41.31 | 1600 | 1.85 | **R** | **07** | **DT** | **56M4** | 5.8 | 264 |
| **32** | 27 | 40.34 | 1590 | 1.85 | **RF** | **07** | **DT** | **56M4** | 5.8 | 265 |
| **34** | 26 | 38.51 | 1570 | 1.95 | | | | | | |
| **38** | 22 | 34.05 | 1520 | 2.2 | | | | | | |
| **45** | 19 | 29.08 | 1460 | 2.6 | | | | | | |
| **48** | 18 | 26.97 | 1430 | 2.8 | | | | | | |
| **56** | 15 | 23.32 | 1370 | 3.2 | | | | | | |
| **60** | 14 | 21.73 | 1350 | 3.5 | | | | | | |
| **71** | 12 | 18.31 | 1280 | 4.1 | | | | | | |
| **78** | 11 | 16.73 | 1250 | 4.5 | | | | | | |
| **92** | 9.3 | 14.12 | 1190 | 5.4 | | | | | | |
| **108** | 8.0 | 12.06 | 1140 | 6.2 | | | | | | |
| **116** | 7.4 | 11.18 | 1110 | 6.8 | | | | | | |
| **134** | 6.4 | 9.67 | 1060 | 7.8 | | | | | | |
| **144** | 6.0 | 9.01 | 1040 | 8.3 | | | | | | |
| **166** | 5.2 | 7.85 | 1000 | 9.4 | **R** | **07** | **DT** | **56M4** | 5.7 | 264 |
| **174** | 4.9 | 7.48 | 980 | 8.8 | **RF** | **07** | **DT** | **56M4** | 5.7 | 265 |
| **190** | 4.5 | 6.83 | 960 | 9.6 | | | | | | |
| **226** | 3.8 | 5.76 | 910 | 11 | | | | | | |
| **264** | 3.3 | 4.92 | 860 | 11 | | | | | | |
| **285** | 3.0 | 4.57 | 840 | 12 | | | | | | |
| **329** | 2.6 | 3.95 | 800 | 13 | | | | | | |
| **353** | 2.4 | 3.68 | 790 | 14 | | | | | | |
| **405** | 2.1 | 3.21 | 755 | 15 | | | | | | |

### $P_m$ = 0.12 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **0.06** | 13300 | 21342 | 62000 | 1.00 | | | | | | |
| **0.08** | 11300 | 18210 | 65700 | 1.15 | **R** | **147R77** | **DR** | **63S4** | 420 | 301 |
| **0.09** | 9920 | 15923 | 67900 | 1.30 | **RF** | **147R77** | **DR** | **63S4** | 430 | 301 |
| **0.10** | 8770 | 14075 | 69400 | 1.50 | **RM** | **147R77** | **DR** | **63S4** | 600 | 301 |
| **0.11** | 7640 | 12344 | 70700 | 1.70 | | | | | | |
| **0.12** | 6730 | 11143 | 71600 | 1.95 | | | | | | |
| **0.14** | 6030 | 9743 | 72200 | 2.2 | **R** | **147R77** | **DR** | **63S4** | 420 | 301 |
| **0.16** | 4830 | 8443 | 73100 | 2.7 | **RF** | **147R77** | **DR** | **63S4** | 430 | 301 |
| **0.19** | 4180 | 7307 | 73400 | 3.1 | **RM** | **147R77** | **DR** | **63S4** | 600 | 301 |
| **0.21** | 3690 | 6447 | 73700 | 3.5 | | | | | | |
| **0.25** | 3180 | 5568 | 73900 | 4.1 | | | | | | |
| **0.11** | 8050 | 12921 | 53300 | 1.00 | | | | | | |
| **0.12** | 7250 | 11712 | 54900 | 1.10 | | | | | | |
| **0.13** | 6390 | 10573 | 56400 | 1.25 | | | | | | |
| **0.16** | 5020 | 8784 | 58400 | 1.60 | **R** | **137R77** | **DR** | **63S4** | 290 | 301 |
| **0.18** | 4090 | 7479 | 59400 | 1.95 | **RF** | **137R77** | **DR** | **63S4** | 310 | 301 |
| **0.21** | 4060 | 6559 | 59400 | 1.95 | **RM** | **137R77** | **DR** | **63S4** | 425 | 301 |
| **0.24** | 3190 | 5834 | 60200 | 2.5 | | | | | | |
| **0.27** | 3160 | 5116 | 60200 | 2.5 | | | | | | |
| **0.18** | 4410 | 7583 | 28800 | 0.95 | | | | | | |
| **0.20** | 3690 | 6743 | 32400 | 1.15 | | | | | | |
| **0.23** | 3660 | 5914 | 32500 | 1.15 | **R** | **107R77** | **DR** | **63S4** | 200 | 301 |
| **0.27** | 2820 | 5168 | 35500 | 1.50 | **RF** | **107R77** | **DR** | **63S4** | 210 | 301 |
| **0.31** | 2530 | 4435 | 36100 | 1.70 | **RM** | **107R77** | **DR** | **63S4** | 295 | 301 |
| **0.35** | 2260 | 3896 | 36500 | 1.90 | | | | | | |
| **0.45** | 1880 | 3039 | 36900 | 2.3 | | | | | | |

21284997/EN – 03/2015

## $P_m$ = 0.12 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **0.35** | 2470 | 3918 | 36200 | 1.75 | | | | | | |
| **0.41** | 2100 | 3343 | 36700 | 2.0 | | | | | | |
| **0.45** | 1910 | 3034 | 36900 | 2.2 | **R** | **107R77** | **DR** | **63S4** | 195 | 301 |
| **0.52** | 1670 | 2653 | 37100 | 2.6 | **RF** | **107R77** | **DR** | **63S4** | 200 | 301 |
| **0.61** | 1430 | 2280 | 37300 | 3.0 | **RM** | **107R77** | **DR** | **63S4** | 290 | 301 |
| **0.67** | 1290 | 2067 | 37400 | 3.3 | | | | | | |
| **0.30** | 3050 | 4559 | 17700 | 1.00 | **R** | **97R57** | **DR** | **63S4** | 130 | 301 |
| **0.34** | 2560 | 4004 | 23700 | 1.15 | **RF** | **97R57** | **DR** | **63S4** | 145 | 301 |
| **0.40** | 2270 | 3481 | 25200 | 1.30 | **RM** | **97R57** | **DR** | **63S4** | 195 | 301 |
| **0.29** | 3230 | 4678 | 4840 | 0.95 | | | | | | |
| **0.32** | 2980 | 4309 | 20400 | 1.00 | | | | | | |
| **0.37** | 2560 | 3702 | 23700 | 1.15 | | | | | | |
| **0.46** | 2080 | 3019 | 26100 | 1.45 | **R** | **97R57** | **DR** | **63S4** | 125 | 301 |
| **0.52** | 1800 | 2668 | 27100 | 1.65 | **RF** | **97R57** | **DR** | **63S4** | 140 | 301 |
| **0.61** | 1480 | 2245 | 27700 | 2.0 | **RM** | **97R57** | **DR** | **63S4** | 195 | 301 |
| **0.68** | 1300 | 2016 | 27900 | 2.3 | | | | | | |
| **0.80** | 1190 | 1733 | 28000 | 2.5 | | | | | | |
| **0.45** | 2120 | 3065 | 25900 | 1.40 | | | | | | |
| **0.51** | 1880 | 2722 | 26800 | 1.60 | | | | | | |
| **0.60** | 1590 | 2311 | 27500 | 1.90 | | | | | | |
| **0.66** | 1430 | 2078 | 27700 | 2.1 | **R** | **97R57** | **DR** | **63S4** | 130 | 301 |
| **0.76** | 1230 | 1823 | 28000 | 2.4 | **RF** | **97R57** | **DR** | **63S4** | 145 | 301 |
| **0.87** | 1070 | 1583 | 28200 | 2.8 | **RM** | **97R57** | **DR** | **63S4** | 195 | 301 |
| **0.99** | 900 | 1396 | 28300 | 3.3 | | | | | | |
| **1.1** | 770 | 1228 | 28400 | 3.9 | | | | | | |
| | | | | | **R** | **87R57** | **DR** | **63S4** | 86 | 301 |
| **0.48** | 1760 | 2873 | 15200 | 0.90 | **RF** | **87R57** | **DR** | **63S4** | 93 | 301 |
| **0.70** | 1300 | 1961 | 18500 | 1.20 | **RM** | **87R57** | **DR** | **63S4** | 125 | 301 |
| **0.53** | 1780 | 2595 | 15000 | 0.85 | | | | | | |
| **0.65** | 1430 | 2129 | 17700 | 1.10 | **R** | **87R57** | **DR** | **63S4** | 85 | 301 |
| **0.72** | 1270 | 1930 | 18600 | 1.20 | **RF** | **87R57** | **DR** | **63S4** | 92 | 301 |
| **0.80** | 1120 | 1733 | 19300 | 1.40 | **RM** | **87R57** | **DR** | **63S4** | 120 | 301 |
| **0.79** | 1140 | 1737 | 19200 | 1.35 | | | | | | |
| **0.91** | 1000 | 1524 | 19800 | 1.55 | | | | | | |
| **1.1** | 810 | 1303 | 20000 | 1.90 | | | | | | |
| **1.2** | 710 | 1143 | 20000 | 2.2 | **R** | **87R57** | **DR** | **63S4** | 85 | 301 |
| **1.6** | 580 | 885 | 20000 | 2.6 | **RF** | **87R57** | **DR** | **63S4** | 92 | 301 |
| **1.8** | 510 | 776 | 20000 | 3.0 | **RM** | **87R57** | **DR** | **63S4** | 120 | 301 |
| **2.0** | 450 | 685 | 20000 | 3.4 | | | | | | |
| **2.3** | 360 | 599 | 20000 | 4.3 | | | | | | |
| **1.1** | 930 | 1303 | 8660 | 0.85 | | | | | | |
| **1.2** | 795 | 1124 | 10100 | 1.05 | **R** | **77R37** | **DR** | **63S4** | 45 | 301 |
| **1.3** | 740 | 1047 | 10600 | 1.10 | **RF** | **77R37** | **DR** | **63S4** | 51 | 301 |
| **1.5** | 635 | 915 | 11300 | 1.30 | **RM** | **77R37** | **DR** | **63S4** | 76 | 301 |
| **1.1** | 820 | 1218 | 9910 | 1.00 | | | | | | |
| **1.3** | 740 | 1084 | 10600 | 1.10 | | | | | | |
| **1.5** | 660 | 940 | 11200 | 1.25 | **R** | **77R37** | **DR** | **63S4** | 46 | 301 |
| **1.7** | 520 | 821 | 12000 | 1.55 | **RF** | **77R37** | **DR** | **63S4** | 52 | 301 |
| **1.9** | 475 | 731 | 12200 | 1.70 | **RM** | **77R37** | **DR** | **63S4** | 77 | 301 |
| **2.1** | 455 | 646 | 12300 | 1.80 | | | | | | |
| **2.6** | 375 | 520 | 12600 | 2.2 | | | | | | |
| **3.1** | 320 | 451 | 12700 | 2.5 | **R** | **77R37** | **DR** | **63S4** | 45 | 301 |
| **3.3** | 300 | 422 | 12800 | 2.7 | **RF** | **77R37** | **DR** | **63S4** | 51 | 301 |
| **3.8** | 255 | 365 | 12900 | 3.2 | **RM** | **77R37** | **DR** | **63S4** | 76 | 301 |
| **1.6** | 625 | 891 | 7190 | 0.95 | | | | | | |
| **1.9** | 505 | 730 | 8530 | 1.20 | **R** | **67R37** | **DR** | **63S4** | 40 | 301 |
| **2.1** | 440 | 644 | 9060 | 1.35 | **RF** | **67R37** | **DR** | **63S4** | 43 | 301 |
| **2.4** | 385 | 571 | 9430 | 1.55 | **RM** | **67R37** | **DR** | **63S4** | 59 | 301 |
| **2.8** | 320 | 486 | 9790 | 1.85 | | | | | | |
| **1.6** | 590 | 836 | 7670 | 1.00 | | | | | | |
| **1.8** | 490 | 750 | 8630 | 1.20 | **R** | **67R37** | **DR** | **63S4** | 41 | 301 |
| **2.1** | 440 | 646 | 9050 | 1.35 | **RF** | **67R37** | **DR** | **63S4** | 44 | 301 |
| **2.4** | 400 | 574 | 9330 | 1.50 | **RM** | **67R37** | **DR** | **63S4** | 60 | 301 |
| **2.8** | 345 | 495 | 9660 | 1.75 | | | | | | |
| **3.2** | 285 | 438 | 9940 | 2.1 | | | | | | |



21284997/EN – 03/2015

## $P_m$ = 0.12 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **1.8** | 550 | 782 | 4650 | 0.80 | | | | | | |
| **2.0** | 455 | 678 | 7070 | 1.00 | | | | | | |
| **2.3** | 410 | 604 | 7260 | 1.10 | **R** | **57R37** | **DR** | **63S4** | 34 | 301 |
| **2.6** | 370 | 537 | 7400 | 1.20 | **RF** | **57R37** | **DR** | **63S4** | 38 | 301 |
| **2.9** | 325 | 471 | 7550 | 1.35 | **RM** | **57R37** | **DR** | **63S4** | 50 | 301 |
| **3.9** | 240 | 357 | 7760 | 1.85 | | | | | | |
| **4.3** | 215 | 319 | 7820 | 2.1 | | | | | | |
| **3.8** | 255 | 359 | 7730 | 1.75 | | | | | | |
| **4.3** | 230 | 324 | 7790 | 1.95 | | | | | | |
| **4.8** | 200 | 290 | 7840 | 2.2 | **R** | **57R37** | **DR** | **63S4** | 33 | 301 |
| **5.3** | 185 | 262 | 7880 | 2.4 | **RF** | **57R37** | **DR** | **63S4** | 37 | 301 |
| **5.6** | 170 | 246 | 7900 | 2.6 | **RM** | **57R37** | **DR** | **63S4** | 49 | 301 |
| **6.3** | 150 | 220 | 7930 | 3.0 | | | | | | |
| **2.7** | 340 | 510 | 4360 | 0.85 | | | | | | |
| **3.2** | 285 | 436 | 5480 | 1.05 | **R** | **47R37** | **DR** | **63S4** | 28 | 301 |
| **3.4** | 265 | 408 | 5590 | 1.10 | **RF** | **47R37** | **DR** | **63S4** | 28 | 301 |
| **4.0** | 215 | 344 | 5780 | 1.35 | | | | | | |
| **2.8** | 365 | 502 | 3020 | 0.80 | | | | | | |
| **3.2** | 310 | 429 | 5350 | 0.95 | | | | | | |
| **3.7** | 265 | 372 | 5580 | 1.10 | | | | | | |
| **4.0** | 245 | 348 | 5670 | 1.20 | **R** | **47R37** | **DR** | **63S4** | 28 | 301 |
| **4.6** | 210 | 301 | 5810 | 1.40 | **RF** | **47R37** | **DR** | **63S4** | 28 | 301 |
| **5.4** | 177 | 255 | 5920 | 1.70 | | | | | | |
| **6.0** | 156 | 228 | 5980 | 1.95 | | | | | | |
| **7.1** | 130 | 195 | 6040 | 2.3 | | | | | | |
| **4.1** | 225 | 338 | 4570 | 0.90 | | | | | | |
| **4.7** | 210 | 296 | 4780 | 0.95 | | | | | | |
| **5.3** | 184 | 259 | 5130 | 1.10 | **R** | **37R17** | **DR** | **63S4** | 17 | 301 |
| **6.0** | 163 | 228 | 5360 | 1.25 | **RF** | **37R17** | **DR** | **63S4** | 19 | 301 |
| **6.9** | 140 | 199 | 5550 | 1.40 | | | | | | |
| **8.0** | 122 | 172 | 5680 | 1.65 | | | | | | |
| **4.2** | 235 | 328 | 3730 | 0.85 | | | | | | |
| **4.8** | 205 | 289 | 4880 | 1.00 | | | | | | |
| **5.2** | 192 | 265 | 5040 | 1.05 | **R** | **37R17** | **DR** | **63S4** | 17 | 301 |
| **6.1** | 156 | 226 | 5410 | 1.30 | **RF** | **37R17** | **DR** | **63S4** | 18 | 301 |
| **6.8** | 144 | 202 | 5520 | 1.40 | | | | | | |
| **7.7** | 125 | 179 | 5660 | 1.60 | | | | | | |
| **6.0** | 158 | 229 | 4090 | 0.80 | | | | | | |
| **6.9** | 138 | 200 | 4200 | 0.95 | **R** | **27R17** | **DR** | **63S4** | 11 | 301 |
| **7.8** | 121 | 177 | 4270 | 1.05 | **RF** | **27R17** | **DR** | **63S4** | 11 | 301 |
| **8.3** | 116 | 166 | 4290 | 1.10 | | | | | | |
| **6.1** | 157 | 227 | 4100 | 0.85 | | | | | | |
| **6.8** | 144 | 203 | 4170 | 0.90 | **R** | **27R17** | **DR** | **63S4** | 11 | 301 |
| **7.7** | 125 | 179 | 4260 | 1.05 | **RF** | **27R17** | **DR** | **63S4** | 11 | 301 |
| **8.8** | 106 | 156 | 4330 | 1.25 | | | | | | |
| **4.6** | 245 | 195.24* | 12900 | 3.3 | **R** | **77** | **DR** | **63M6** | 37 | 285 |
| **5.4** | 210 | 166.59 | 13000 | 3.9 | **RF** | **77** | **DR** | **63M6** | 43 | 286 |
| **6.2** | 186 | 145.67 | 13000 | 4.4 | **RM** | **77** | **DR** | **63M6** | 68 | 286 |
| **4.5** | 250 | 199.81 | 10100 | 2.4 | | | | | | |
| **4.9** | 230 | 184.07 | 10100 | 2.6 | | | | | | |
| **5.7** | 200 | 158.14 | 10300 | 3.0 | **R** | **67** | **DR** | **63M6** | 30 | 282 |
| **6.5** | 175 | 137.67 | 10300 | 3.4 | **RF** | **67** | **DR** | **63M6** | 33 | 283 |
| **7.0** | 164 | 128.97 | 10400 | 3.6 | **RM** | **67** | **DR** | **63M6** | 49 | 283 |
| **7.9** | 145 | 113.94 | 10400 | 4.1 | | | | | | |
| **6.9** | 166 | 199.81 | 10300 | 3.6 | **R** | **67** | **DR** | **63S4** | 30 | 282 |
| **7.5** | 153 | 184.07 | 10400 | 3.9 | **RF** | **67** | **DR** | **63S4** | 33 | 283 |
| | | | | | **RM** | **67** | **DR** | **63S4** | 49 | 283 |
| **4.8** | 235 | 186.89 | 7780 | 1.90 | | | | | | |
| **5.2** | 215 | 172.17 | 7820 | 2.0 | | | | | | |
| **6.1** | 188 | 147.92 | 7870 | 2.4 | **R** | **57** | **DR** | **63M6** | 23 | 279 |
| **7.0** | 164 | 128.77 | 7910 | 2.7 | **RF** | **57** | **DR** | **63M6** | 27 | 280 |
| **7.5** | 154 | 120.63 | 7920 | 2.9 | **RM** | **57** | **DR** | **63M6** | 39 | 280 |
| **8.4** | 136 | 106.58 | 7950 | 3.3 | | | | | | |
| **9.1** | 126 | 98.99 | 7960 | 3.6 | | | | | | |

21284997/EN – 03/2015

## $P_m$ = 0.12 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **7.4** | 155 | 186.89 | 7920 | 2.9 | | | | | | |
| **8.0** | 143 | 172.17 | 7940 | 3.2 | **R** | **57** | **DR** | **63S4** | 23 | 279 |
| **9.3** | 123 | 147.92 | 7960 | 3.7 | **RF** | **57** | **DR** | **63S4** | 27 | 280 |
| **11** | 107 | 128.77 | 7980 | 4.2 | **RM** | **57** | **DR** | **63S4** | 39 | 280 |
| **5.1** | 225 | 176.88 | 5760 | 1.35 | | | | | | |
| **5.5** | 205 | 162.94 | 5830 | 1.45 | **R** | **47** | **DR** | **63M6** | 18 | 276 |
| **6.4** | 178 | 139.99 | 5920 | 1.70 | **RF** | **47** | **DR** | **63M6** | 18 | 277 |
| **7.4** | 155 | 121.87 | 5980 | 1.95 | | | | | | |
| **7.8** | 147 | 176.88 | 6000 | 2.0 | | | | | | |
| **8.5** | 135 | 162.94 | 6030 | 2.2 | | | | | | |
| **9.9** | 116 | 139.99 | 6070 | 2.6 | | | | | | |
| **11** | 101 | 121.87 | 6100 | 3.0 | **R** | **47** | **DR** | **63S4** | 18 | 276 |
| **12** | 95 | 114.17 | 6100 | 3.2 | **RF** | **47** | **DR** | **63S4** | 18 | 277 |
| **14** | 84 | 100.86 | 6120 | 3.6 | | | | | | |
| **15** | 78 | 93.68 | 6130 | 3.9 | | | | | | |
| **6.7** | 172 | 134.82 | 5270 | 1.15 | | | | | | |
| **7.3** | 157 | 123.66 | 5400 | 1.25 | | | | | | |
| **8.6** | 134 | 105.28 | 5600 | 1.50 | **R** | **37** | **DR** | **63M6** | 14 | 273 |
| **9.9** | 116 | 90.77 | 5730 | 1.75 | **RF** | **37** | **DR** | **63M6** | 16 | 274 |
| **11** | 108 | 84.61 | 5770 | 1.85 | | | | | | |
| **12** | 94 | 73.96 | 5850 | 2.1 | | | | | | |
| **10** | 112 | 134.82 | 5750 | 1.80 | | | | | | |
| **11** | 103 | 123.66 | 5800 | 1.95 | | | | | | |
| **13** | 87 | 105.28 | 5880 | 2.3 | **R** | **37** | **DR** | **63S4** | 14 | 273 |
| **15** | 75 | 90.77 | 5930 | 2.6 | **RF** | **37** | **DR** | **63S4** | 16 | 274 |
| **16** | 70 | 84.61 | 5950 | 2.8 | | | | | | |
| **19** | 61 | 73.96 | 5980 | 3.3 | | | | | | |
| **7.3** | 158 | 123.91 | 4090 | 0.80 | | | | | | |
| **8.5** | 134 | 105.49 | 4210 | 0.95 | | | | | | |
| **9.9** | 116 | 90.96 | 4300 | 1.10 | **R** | **27** | **DR** | **63M6** | 8.3 | 270 |
| **11** | 108 | 84.78 | 4320 | 1.20 | **RF** | **27** | **DR** | **63M6** | 8.2 | 271 |
| **12** | 94 | 74.11 | 4370 | 1.40 | | | | | | |
| **10** | 112 | 135.09 | 4310 | 1.15 | | | | | | |
| **11** | 103 | 123.91 | 4340 | 1.25 | | | | | | |
| **13** | 88 | 105.49 | 4390 | 1.50 | | | | | | |
| **15** | 76 | 90.96 | 4420 | 1.70 | | | | | | |
| **16** | 70 | 84.78 | 4440 | 1.85 | | | | | | |
| **19** | 62 | 74.11 | 4460 | 2.1 | **R** | **27** | **DR** | **63S4** | 8.3 | 270 |
| **20** | 58 | 69.47 | 4460 | 2.2 | **RF** | **27** | **DR** | **63S4** | 8.2 | 271 |
| **23** | 51 | 61.30 | 4400 | 2.6 | | | | | | |
| **25** | 46 | 55.87 | 4280 | 2.8 | | | | | | |
| **29** | 40 | 48.17 | 4090 | 3.2 | | | | | | |
| **31** | 37 | 44.90 | 4000 | 3.5 | | | | | | |
| **11** | 104 | 81.64 | 300 | 0.80 | | | | | | |
| **13** | 90 | 70.39 | 1470 | 0.95 | | | | | | |
| **14** | 84 | 65.61 | 1860 | 1.00 | **R** | **17** | **DR** | **63M6** | 7.6 | 267 |
| **16** | 73 | 57.35 | 2440 | 1.15 | **RF** | **17** | **DR** | **63M6** | 7.5 | 268 |
| **17** | 68 | 53.76 | 2500 | 1.25 | | | | | | |
| **19** | 60 | 47.44 | 2500 | 1.40 | | | | | | |
| **17** | 68 | 81.64 | 2500 | 1.25 | | | | | | |
| **20** | 58 | 70.39 | 2500 | 1.45 | | | | | | |
| **21** | 54 | 65.61 | 2500 | 1.55 | | | | | | |
| **24** | 48 | 57.35 | 2500 | 1.80 | | | | | | |
| **26** | 45 | 53.76 | 2500 | 1.90 | | | | | | |
| **29** | 39 | 47.44 | 2500 | 2.2 | **R** | **17** | **DR** | **63S4** | 7.6 | 267 |
| **31** | 37 | 44.18 | 2500 | 2.3 | **RF** | **17** | **DR** | **63S4** | 7.5 | 268 |
| **36** | 32 | 38.61 | 2430 | 2.6 | | | | | | |
| **38** | 30 | 36.20 | 2390 | 2.8 | | | | | | |
| **43** | 26 | 31.94 | 2310 | 3.2 | | | | | | |
| **49** | 24 | 28.32 | 2230 | 3.6 | | | | | | |
| **57** | 20 | 24.07 | 2130 | 4.2 | | | | | | |



21284997/EN – 03/2015

| $P_m$ = 0.12 kW | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | | m kg | |
| **23** | 50 | 60.32 | 1500 | 1.00 | | | | | | | |
| **27** | 43 | 51.52 | 1550 | 1.15 | | | | | | | |
| **29** | 40 | 47.78 | 1560 | 1.25 | | | | | | | |
| **31** | 37 | 44.16 | 1530 | 1.35 | | | | | | | |
| **33** | 34 | 41.31 | 1510 | 1.45 | | | | | | | |
| **34** | 34 | 40.34 | 1500 | 1.50 | **R** | **07** | **DR** | **63S4** | | 6.4 | 264 |
| **36** | 32 | 38.51 | 1490 | 1.55 | **RF** | **07** | **DR** | **63S4** | | 6.4 | 265 |
| **41** | 28 | 34.05 | 1440 | 1.75 | | | | | | | |
| **47** | 24 | 29.08 | 1390 | 2.1 | | | | | | | |
| **51** | 22 | 26.97 | 1360 | 2.2 | | | | | | | |
| **59** | 19 | 23.32 | 1320 | 2.6 | | | | | | | |
| **63** | 18 | 21.73 | 1290 | 2.8 | | | | | | | |
| **22** | 53 | 60.32 | 1480 | 0.95 | | | | | | | |
| **25** | 45 | 51.52 | 1540 | 1.10 | | | | | | | |
| **27** | 42 | 47.78 | 1550 | 1.20 | | | | | | | |
| **29** | 39 | 44.16 | 1550 | 1.30 | | | | | | | |
| **31** | 36 | 41.31 | 1530 | 1.35 | | | | | | | |
| **32** | 36 | 40.34 | 1520 | 1.40 | **R** | **07** | **DT** | **56L4** | | 5.8 | 264 |
| **34** | 34 | 38.51 | 1510 | 1.45 | **RF** | **07** | **DT** | **56L4** | | 5.8 | 265 |
| **38** | 30 | 34.05 | 1460 | 1.65 | | | | | | | |
| **45** | 26 | 29.08 | 1410 | 1.95 | | | | | | | |
| **48** | 24 | 26.97 | 1380 | 2.1 | | | | | | | |
| **56** | 21 | 23.32 | 1340 | 2.4 | | | | | | | |
| **60** | 19 | 21.73 | 1310 | 2.6 | | | | | | | |
| **75** | 15 | 18.31 | 1230 | 3.3 | | | | | | | |
| **82** | 14 | 16.73 | 1200 | 3.6 | | | | | | | |
| **98** | 12 | 14.12 | 1150 | 4.3 | | | | | | | |
| **114** | 10 | 12.06 | 1100 | 5.0 | | | | | | | |
| **123** | 9.3 | 11.18 | 1070 | 5.4 | | | | | | | |
| **143** | 8.0 | 9.67 | 1030 | 6.2 | | | | | | | |
| **153** | 7.5 | 9.01 | 1010 | 6.7 | | | | | | | |
| **176** | 6.5 | 7.85 | 970 | 7.5 | **R** | **07** | **DR** | **63S4** | | 6.3 | 264 |
| **185** | 6.2 | 7.48 | 950 | 6.9 | **RF** | **07** | **DR** | **63S4** | | 6.3 | 265 |
| **202** | 5.7 | 6.83 | 930 | 7.5 | | | | | | | |
| **239** | 4.8 | 5.76 | 880 | 8.3 | | | | | | | |
| **280** | 4.1 | 4.92 | 840 | 9.0 | | | | | | | |
| **302** | 3.8 | 4.57 | 820 | 9.5 | | | | | | | |
| **350** | 3.3 | 3.95 | 785 | 10 | | | | | | | |
| **375** | 3.1 | 3.68 | 765 | 11 | | | | | | | |
| **430** | 2.7 | 3.21 | 735 | 11 | | | | | | | |
| **71** | 16 | 18.31 | 1250 | 3.1 | | | | | | | |
| **78** | 15 | 16.73 | 1220 | 3.4 | | | | | | | |
| **92** | 12 | 14.12 | 1170 | 4.0 | | | | | | | |
| **108** | 11 | 12.06 | 1120 | 4.7 | | | | | | | |
| **116** | 9.9 | 11.18 | 1090 | 5.0 | | | | | | | |
| **134** | 8.5 | 9.67 | 1050 | 5.9 | | | | | | | |
| **144** | 7.9 | 9.01 | 1030 | 6.3 | | | | | | | |
| **166** | 6.9 | 7.85 | 980 | 7.1 | **R** | **07** | **DT** | **56L4** | | 5.7 | 264 |
| **174** | 6.6 | 7.48 | 970 | 6.5 | **RF** | **07** | **DT** | **56L4** | | 5.7 | 265 |
| **190** | 6.0 | 6.83 | 950 | 7.2 | | | | | | | |
| **226** | 5.1 | 5.76 | 900 | 7.8 | | | | | | | |
| **264** | 4.3 | 4.92 | 860 | 8.6 | | | | | | | |
| **285** | 4.0 | 4.57 | 840 | 9.0 | | | | | | | |
| **329** | 3.5 | 3.95 | 800 | 9.7 | | | | | | | |
| **353** | 3.2 | 3.68 | 780 | 10 | | | | | | | |
| **405** | 2.8 | 3.21 | 750 | 11 | | | | | | | |
| **227** | 5.0 | 6.07 | 4260 | 8.6 | | | | | | | |
| **267** | 4.3 | 5.18 | 4050 | 17 | **RX** | **67** | **DR** | **63S4** | | 16 | 254 |
| **305** | 3.8 | 4.53 | 3870 | 22 | **RXF** | **67** | **DR** | **63S4** | | 20 | 255 |
| **321** | 3.6 | 4.30* | 3810 | 22 | | | | | | | |

21284997/EN – 03/2015

## $P_m$ = 0.12 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **251** | 4.6 | 5.50* | 3360 | 8.5 | | | | | | |
| **272** | 4.2 | 5.07 | 3270 | 8.6 | | | | | | |
| **317** | 3.6 | 4.35 | 3120 | 19 | | | | | | |
| **364** | 3.1 | 3.79 | 2980 | 22 | | | | | | |
| **389** | 2.9 | 3.55* | 2910 | 24 | | | | | | |
| **440** | 2.6 | 3.14 | 2800 | 25 | **RX** | **57** | **DR** | **63S4** | 14 | 252 |
| **474** | 2.4 | 2.91 | 2730 | 28 | **RXF** | **57** | **DR** | **63S4** | 16 | 253 |
| **523** | 2.2 | 2.64* | 2640 | 31 | | | | | | |
| **582** | 2.0 | 2.37 | 2550 | 34 | | | | | | |
| **676** | 1.7 | 2.04 | 2430 | 41 | | | | | | |
| **719** | 1.6 | 1.92* | 2380 | 43 | | | | | | |
| **835** | 1.4 | 1.65 | 2260 | 49 | | | | | | |

## $P_m$ = 0.18 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **0.09** | 14900 | 14075 | 50900 | 0.85 | | | | | | |
| **0.11** | 13000 | 12344 | 62500 | 1.00 | **R** | **147R77** | **DR** | **63M4** | 420 | 301 |
| **0.12** | 11600 | 11143 | 65200 | 1.10 | **RF** | **147R77** | **DR** | **63M4** | 430 | 301 |
| **0.14** | 10300 | 9743 | 67300 | 1.25 | **RM** | **147R77** | **DR** | **63M4** | 600 | 301 |
| **0.16** | 8550 | 8443 | 69700 | 1.50 | | | | | | |
| **0.18** | 7400 | 7307 | 70900 | 1.75 | | | | | | |
| **0.20** | 6530 | 6447 | 71800 | 2.00 | | | | | | |
| **0.24** | 5640 | 5568 | 72500 | 2.3 | **R** | **147R77** | **DR** | **63M4** | 420 | 301 |
| **0.27** | 5140 | 4926 | 72800 | 2.5 | **RF** | **147R77** | **DR** | **63M4** | 430 | 301 |
| **0.31** | 4420 | 4325 | 73300 | 2.9 | **RM** | **147R77** | **DR** | **63M4** | 600 | 301 |
| **0.35** | 3920 | 3754 | 73600 | 3.3 | | | | | | |
| **0.40** | 3370 | 3302 | 73800 | 3.8 | | | | | | |
| **0.15** | 8900 | 8784 | 50100 | 0.90 | | | | | | |
| **0.18** | 7390 | 7479 | 54600 | 1.10 | | | | | | |
| **0.20** | 6950 | 6559 | 55500 | 1.15 | **R** | **137R77** | **DR** | **63M4** | 290 | 301 |
| **0.23** | 5760 | 5834 | 57400 | 1.40 | **RF** | **137R77** | **DR** | **63M4** | 310 | 301 |
| **0.26** | 5420 | 5116 | 57900 | 1.50 | **RM** | **137R77** | **DR** | **63M4** | 425 | 301 |
| **0.30** | 4520 | 4464 | 59000 | 1.75 | | | | | | |
| **0.34** | 3980 | 3928 | 59500 | 2.0 | | | | | | |
| **0.28** | 5060 | 4709 | 58300 | 1.60 | | | | | | |
| **0.33** | 4320 | 4018 | 59200 | 1.85 | **R** | **137R77** | **DR** | **63M4** | 280 | 301 |
| **0.38** | 3770 | 3514 | 59700 | 2.1 | **RF** | **137R77** | **DR** | **63M4** | 300 | 301 |
| **0.40** | 3580 | 3338 | 59900 | 2.2 | **RM** | **137R77** | **DR** | **63M4** | 415 | 301 |
| **0.45** | 3140 | 2929 | 60200 | 2.5 | | | | | | |
| **0.30** | 4490 | 4435 | 28400 | 0.95 | **R** | **107R77** | **DR** | **63M4** | 200 | 301 |
| **0.34** | 3980 | 3896 | 31100 | 1.10 | **RF** | **107R77** | **DR** | **63M4** | 210 | 301 |
| **0.43** | 3220 | 3039 | 34200 | 1.35 | **RM** | **107R77** | **DR** | **63M4** | 295 | 301 |
| **0.34** | 4210 | 3918 | 29900 | 1.00 | | | | | | |
| **0.39** | 3590 | 3343 | 32800 | 1.20 | | | | | | |
| **0.44** | 3260 | 3034 | 34100 | 1.30 | **R** | **107R77** | **DR** | **63M4** | 195 | 301 |
| **0.50** | 2850 | 2653 | 35400 | 1.50 | **RF** | **107R77** | **DR** | **63M4** | 200 | 301 |
| **0.58** | 2450 | 2280 | 36200 | 1.75 | **RM** | **107R77** | **DR** | **63M4** | 290 | 301 |
| **0.64** | 2210 | 2067 | 36500 | 1.95 | | | | | | |
| **0.66** | 2100 | 1987 | 36700 | 2.0 | | | | | | |
| **0.72** | 1870 | 1827 | 36900 | 2.3 | **R** | **107R77** | **DR** | **63M4** | 200 | 301 |
| **0.83** | 1590 | 1599 | 37200 | 2.7 | **RF** | **107R77** | **DR** | **63M4** | 205 | 301 |
| **0.94** | 1430 | 1400 | 37300 | 3.0 | **RM** | **107R77** | **DR** | **63M4** | 295 | 301 |
| **1.1** | 1220 | 1226 | 37400 | 3.5 | | | | | | |



21284997/EN – 03/2015

| $P_m$ = 0.18 kW | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | | m kg | |
| **0.49** | 2990 | 2668 | 20000 | 1.00 | | | | | | | |
| **0.59** | 2480 | 2245 | 24200 | 1.20 | | | | | | | |
| **0.65** | 2200 | 2016 | 25500 | 1.35 | | | | | | | |
| **0.76** | 1960 | 1733 | 26500 | 1.50 | | | | | | | |
| **0.81** | 1840 | 1623 | 27000 | 1.65 | **R** | **97R57** | **DR** | **63M4** | | 125 | 301 |
| **0.92** | 1610 | 1434 | 27500 | 1.85 | **RF** | **97R57** | **DR** | **63M4** | | 140 | 301 |
| **1.1** | 1330 | 1207 | 27900 | 2.2 | **RM** | **97R57** | **DR** | **63M4** | | 195 | 301 |
| **1.2** | 1180 | 1084 | 28000 | 2.5 | | | | | | | |
| **1.4** | 1000 | 934 | 28200 | 3.0 | | | | | | | |
| **1.5** | 930 | 878 | 28300 | 3.2 | | | | | | | |
| **1.8** | 790 | 755 | 28400 | 3.8 | | | | | | | |
| **0.49** | 3090 | 2722 | 15900 | 0.95 | **R** | **97R57** | **DR** | **63M4** | | 130 | 301 |
| **0.57** | 2620 | 2311 | 23400 | 1.15 | **RF** | **97R57** | **DR** | **63M4** | | 145 | 301 |
| **0.64** | 2350 | 2078 | 24800 | 1.25 | **RM** | **97R57** | **DR** | **63M4** | | 195 | 301 |
| **0.89** | 1690 | 1489 | 15900 | 0.90 | | | | | | | |
| **0.95** | 1580 | 1395 | 16700 | 1.00 | | | | | | | |
| **1.1** | 1380 | 1232 | 18000 | 1.10 | **R** | **87R57** | **DR** | **63M4** | | 85 | 301 |
| **1.2** | 1270 | 1145 | 18600 | 1.20 | **RF** | **87R57** | **DR** | **63M4** | | 92 | 301 |
| **1.3** | 1140 | 1037 | 19200 | 1.35 | **RM** | **87R57** | **DR** | **63M4** | | 120 | 301 |
| **1.4** | 1010 | 931 | 19800 | 1.50 | | | | | | | |
| **1.6** | 860 | 802 | 20000 | 1.80 | | | | | | | |
| **0.87** | 1680 | 1524 | 15900 | 0.90 | | | | | | | |
| **1.0** | 1390 | 1303 | 17900 | 1.10 | **R** | **87R57** | **DR** | **63M4** | | 85 | 301 |
| **1.2** | 1220 | 1143 | 18900 | 1.25 | **RF** | **87R57** | **DR** | **63M4** | | 92 | 301 |
| **1.5** | 970 | 885 | 19900 | 1.60 | **RM** | **87R57** | **DR** | **63M4** | | 120 | 301 |
| **1.7** | 850 | 776 | 20000 | 1.80 | | | | | | | |
| **1.5** | 970 | 858 | 5830 | 0.85 | | | | | | | |
| **1.7** | 850 | 757 | 9590 | 0.95 | **R** | **77R37** | **DR** | **63M4** | | 45 | 301 |
| **2.0** | 750 | 671 | 10500 | 1.10 | **RF** | **77R37** | **DR** | **63M4** | | 51 | 301 |
| **2.3** | 630 | 571 | 11400 | 1.30 | **RM** | **77R37** | **DR** | **63M4** | | 76 | 301 |
| **1.6** | 880 | 821 | 9230 | 0.90 | | | | | | | |
| **1.8** | 800 | 731 | 10100 | 1.00 | | | | | | | |
| **2.0** | 745 | 646 | 10500 | 1.10 | | | | | | | |
| **2.4** | 645 | 560 | 11300 | 1.25 | **R** | **77R37** | **DR** | **63M4** | | 46 | 301 |
| **2.7** | 550 | 488 | 11800 | 1.50 | **RF** | **77R37** | **DR** | **63M4** | | 52 | 301 |
| **3.0** | 485 | 436 | 12100 | 1.70 | **RM** | **77R37** | **DR** | **63M4** | | 77 | 301 |
| **3.5** | 420 | 373 | 12400 | 1.95 | | | | | | | |
| **4.0** | 365 | 327 | 12600 | 2.2 | | | | | | | |
| **4.6** | 325 | 289 | 12700 | 2.5 | | | | | | | |
| **2.3** | 635 | 571 | 7060 | 0.95 | **R** | **67R37** | **DR** | **63M4** | | 40 | 301 |
| **2.7** | 535 | 486 | 8250 | 1.10 | **RF** | **67R37** | **DR** | **63M4** | | 43 | 301 |
| | | | | | **RM** | **67R37** | **DR** | **63M4** | | 59 | 301 |
| **2.3** | 655 | 574 | 5820 | 0.90 | | | | | | | |
| **2.7** | 565 | 495 | 7950 | 1.05 | | | | | | | |
| **3.0** | 480 | 438 | 8740 | 1.25 | **R** | **67R37** | **DR** | **63M4** | | 41 | 301 |
| **3.4** | 425 | 388 | 9160 | 1.40 | **RF** | **67R37** | **DR** | **63M4** | | 44 | 301 |
| **3.8** | 390 | 344 | 9380 | 1.55 | **RM** | **67R37** | **DR** | **63M4** | | 60 | 301 |
| **4.5** | 315 | 294 | 9800 | 1.90 | | | | | | | |
| **5.1** | 290 | 261 | 9920 | 2.1 | | | | | | | |
| **2.9** | 500 | 454 | 6650 | 0.90 | **R** | **57R37** | **DR** | **63M4** | | 33 | 301 |
| **3.2** | 450 | 410 | 7090 | 1.00 | **RF** | **57R37** | **DR** | **63M4** | | 37 | 301 |
| | | | | | **RM** | **57R37** | **DR** | **63M4** | | 49 | 301 |
| **2.8** | 535 | 471 | 5250 | 0.85 | | | | | | | |
| **3.7** | 400 | 357 | 7300 | 1.10 | | | | | | | |
| **4.1** | 355 | 319 | 7460 | 1.25 | **R** | **57R37** | **DR** | **63M4** | | 34 | 301 |
| **4.8** | 300 | 273 | 7630 | 1.50 | **RF** | **57R37** | **DR** | **63M4** | | 38 | 301 |
| **5.5** | 260 | 241 | 7730 | 1.75 | **RM** | **57R37** | **DR** | **63M4** | | 50 | 301 |
| **6.1** | 230 | 215 | 7790 | 1.95 | | | | | | | |

21284997/EN – 03/2015

| $P_m$ = 0.18 kW | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | | m kg | |
| **3.7** | 420 | 359 | 7230 | 1.05 | | | | | | | |
| **4.1** | 375 | 324 | 7380 | 1.20 | | | | | | | |
| **4.6** | 335 | 290 | 7530 | 1.35 | | | | | | | |
| **5.0** | 300 | 262 | 7620 | 1.50 | **R** | **57R37** | **DR** | **63M4** | | 33 | 301 |
| **5.4** | 280 | 246 | 7680 | 1.60 | **RF** | **57R37** | **DR** | **63M4** | | 37 | 301 |
| **6.0** | 245 | 220 | 7750 | 1.80 | **RM** | **57R37** | **DR** | **63M4** | | 49 | 301 |
| **7.0** | 210 | 188 | 7830 | 2.1 | | | | | | | |
| **8.3** | 177 | 159 | 7890 | 2.6 | | | | | | | |
| **4.4** | 345 | 301 | 4150 | 0.85 | | | | | | | |
| **5.2** | 290 | 255 | 5460 | 1.05 | **R** | **47R37** | **DR** | **63M4** | | 28 | 301 |
| **5.8** | 255 | 228 | 5620 | 1.15 | **RF** | **47R37** | **DR** | **63M4** | | 28 | 301 |
| **6.8** | 215 | 195 | 5790 | 1.40 | | | | | | | |
| **6.6** | 225 | 199 | 4510 | 0.85 | **R** | **37R17** | **DR** | **63M4** | | 17 | 301 |
| **7.7** | 199 | 172 | 4960 | 1.00 | **RF** | **37R17** | **DR** | **63M4** | | 19 | 301 |
| **8.8** | 173 | 150 | 5260 | 1.15 | | | | | | | |
| **6.5** | 230 | 202 | 4050 | 0.85 | **R** | **37R17** | **DR** | **63M4** | | 17 | 301 |
| **7.4** | 205 | 179 | 4870 | 0.95 | **RF** | **37R17** | **DR** | **63M4** | | 18 | 301 |
| **8.5** | 176 | 156 | 5220 | 1.15 | | | | | | | |
| **9.4** | 157 | 141 | 4100 | 0.85 | | | | | | | |
| **11** | 139 | 124 | 4190 | 0.95 | **R** | **27R17** | **DR** | **63M4** | | 11 | 301 |
| **12** | 124 | 110 | 4260 | 1.05 | **RF** | **27R17** | **DR** | **63M4** | | 11 | 301 |
| **14** | 105 | 94 | 4340 | 1.25 | | | | | | | |
| **9.8** | 152 | 135 | 4120 | 0.85 | | | | | | | |
| **11** | 139 | 118 | 4190 | 0.95 | **R** | **27R17** | **DR** | **63M4** | | 11 | 301 |
| **13** | 121 | 104 | 4270 | 1.10 | **RF** | **27R17** | **DR** | **63M4** | | 11 | 301 |
| **15** | 104 | 90 | 4340 | 1.25 | | | | | | | |
| | | | | | **R** | **77** | **DR** | **63L6** | | 38 | 285 |
| **4.5** | 385 | 195.24* | 12500 | 2.1 | **RF** | **77** | **DR** | **63L6** | | 43 | 286 |
| **5.2** | 325 | 166.59 | 12700 | 2.5 | **RM** | **77** | **DR** | **63L6** | | 68 | 286 |
| **6.0** | 285 | 145.67 | 12800 | 2.8 | **R** | **77** | **DR** | **63L6** | | 38 | 285 |
| **6.3** | 270 | 138.39 | 12900 | 3.0 | **RF** | **77** | **DR** | **63L6** | | 43 | 286 |
| **7.2** | 235 | 121.42 | 12900 | 3.4 | **RM** | **77** | **DR** | **63L6** | | 68 | 286 |
| **6.8** | 250 | 195.24* | 12900 | 3.2 | | | | | | | |
| **7.9** | 215 | 166.59 | 13000 | 3.8 | **R** | **77** | **DR** | **63M4** | | 37 | 285 |
| **9.1** | 190 | 145.67 | 13000 | 4.3 | **RF** | **77** | **DR** | **63M4** | | 43 | 286 |
| **9.5** | 180 | 138.39 | 13000 | 4.6 | **RM** | **77** | **DR** | **63M4** | | 68 | 286 |
| **4.4** | 390 | 199.81 | 9370 | 1.50 | | | | | | | |
| **4.7** | 360 | 184.07 | 9560 | 1.65 | | | | | | | |
| **5.5** | 310 | 158.14 | 9830 | 1.90 | | | | | | | |
| **6.3** | 270 | 137.67 | 10000 | 2.2 | | | | | | | |
| **6.8** | 250 | 128.97 | 10100 | 2.4 | **R** | **67** | **DR** | **63L6** | | 30 | 282 |
| **7.6** | 225 | 113.94 | 10200 | 2.7 | **RF** | **67** | **DR** | **63L6** | | 34 | 283 |
| **8.2** | 205 | 105.83 | 10200 | 2.9 | **RM** | **67** | **DR** | **63L6** | | 49 | 283 |
| **9.1** | 190 | 95.91 | 10300 | 3.2 | | | | | | | |
| **10** | 170 | 86.11 | 10300 | 3.5 | | | | | | | |
| **12** | 146 | 74.17 | 10400 | 4.1 | | | | | | | |
| **12** | 138 | 69.75 | 10400 | 4.4 | | | | | | | |
| **6.6** | 260 | 199.81 | 10100 | 2.3 | | | | | | | |
| **7.2** | 235 | 184.07 | 10100 | 2.5 | | | | | | | |
| **8.4** | 205 | 158.14 | 10200 | 2.9 | **R** | **67** | **DR** | **63M4** | | 30 | 282 |
| **9.6** | 179 | 137.67 | 10300 | 3.4 | **RF** | **67** | **DR** | **63M4** | | 33 | 283 |
| **10** | 168 | 128.97 | 10300 | 3.6 | **RM** | **67** | **DR** | **63M4** | | 49 | 283 |
| **12** | 148 | 113.94 | 10400 | 4.0 | | | | | | | |
| **12** | 138 | 105.83 | 10400 | 4.4 | | | | | | | |
| **4.7** | 365 | 186.89 | 7420 | 1.20 | | | | | | | |
| **5.0** | 340 | 172.17 | 7510 | 1.30 | **R** | **57** | **DR** | **63L6** | | 24 | 279 |
| **5.9** | 290 | 147.92 | 7650 | 1.55 | **RF** | **57** | **DR** | **63L6** | | 27 | 280 |
| **6.8** | 250 | 128.77 | 7740 | 1.75 | **RM** | **57** | **DR** | **63L6** | | 39 | 280 |
| **7.2** | 235 | 120.63 | 7780 | 1.90 | | | | | | | |



21284997/EN – 03/2015

## $P_m$ = 0.18 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **7.1** | 240 | 186.89 | 7770 | 1.85 | | | | | | |
| **7.7** | 220 | 172.17 | 7810 | 2.0 | | | | | | |
| **8.9** | 193 | 147.92 | 7860 | 2.3 | | | | | | |
| **10** | 168 | 128.77 | 7900 | 2.7 | **R** | **57** | **DR** | **63M4** | 23 | 279 |
| **11** | 157 | 120.63 | 7920 | 2.9 | **RF** | **57** | **DR** | **63M4** | 27 | 280 |
| **12** | 139 | 106.58 | 7940 | 3.2 | **RM** | **57** | **DR** | **63M4** | 39 | 280 |
| **13** | 129 | 98.99 | 7950 | 3.5 | | | | | | |
| **15** | 117 | 89.71 | 7970 | 3.8 | | | | | | |
| **7.5** | 230 | 176.88 | 5740 | 1.30 | | | | | | |
| **8.1** | 210 | 162.94 | 5810 | 1.40 | | | | | | |
| **9.4** | 182 | 139.99 | 5910 | 1.65 | | | | | | |
| **11** | 159 | 121.87 | 5980 | 1.90 | | | | | | |
| **12** | 149 | 114.17 | 6000 | 2.0 | **R** | **47** | **DR** | **63M4** | 18 | 276 |
| **13** | 131 | 100.86 | 6040 | 2.3 | **RF** | **47** | **DR** | **63M4** | 18 | 277 |
| **14** | 122 | 93.68 | 6060 | 2.5 | | | | | | |
| **16** | 111 | 84.90 | 6080 | 2.7 | | | | | | |
| **17** | 99 | 76.23 | 6100 | 3.0 | | | | | | |
| **7.0** | 240 | 123.66 | 3060 | 0.80 | | | | | | |
| **8.3** | 205 | 105.28 | 4840 | 0.95 | **R** | **37** | **DR** | **63L6** | 15 | 273 |
| **9.6** | 179 | 90.77 | 5190 | 1.10 | **RF** | **37** | **DR** | **63L6** | 16 | 274 |
| **10** | 167 | 84.61 | 5310 | 1.20 | | | | | | |
| **9.8** | 176 | 134.82 | 5230 | 1.15 | | | | | | |
| **11** | 161 | 123.66 | 5370 | 1.25 | | | | | | |
| **13** | 137 | 105.28 | 5580 | 1.45 | | | | | | |
| **15** | 118 | 90.77 | 5710 | 1.70 | | | | | | |
| **16** | 110 | 84.61 | 5760 | 1.80 | **R** | **37** | **DR** | **63M4** | 14 | 273 |
| **18** | 96 | 73.96 | 5840 | 2.1 | **RF** | **37** | **DR** | **63M4** | 16 | 274 |
| **19** | 90 | 69.33 | 5870 | 2.2 | | | | | | |
| **22** | 80 | 61.18 | 5920 | 2.5 | | | | | | |
| **24** | 73 | 55.76 | 5940 | 2.8 | | | | | | |
| **27** | 63 | 48.08 | 5960 | 3.2 | | | | | | |
| **11** | 161 | 123.91 | 4070 | 0.80 | | | | | | |
| **13** | 137 | 105.49 | 4200 | 0.95 | | | | | | |
| **15** | 118 | 90.96 | 4280 | 1.10 | | | | | | |
| **16** | 110 | 84.78 | 4320 | 1.20 | | | | | | |
| **18** | 96 | 74.11 | 4360 | 1.35 | | | | | | |
| **19** | 90 | 69.47 | 4380 | 1.45 | | | | | | |
| **22** | 80 | 61.30 | 4320 | 1.65 | | | | | | |
| **24** | 73 | 55.87 | 4210 | 1.80 | **R** | **27** | **DR** | **63M4** | 8.3 | 270 |
| **27** | 63 | 48.17 | 4040 | 2.1 | **RF** | **27** | **DR** | **63M4** | 8.2 | 271 |
| **29** | 58 | 44.90 | 3960 | 2.2 | | | | | | |
| **34** | 51 | 39.25 | 3810 | 2.5 | | | | | | |
| **36** | 48 | 36.79 | 3740 | 2.7 | | | | | | |
| **41** | 42 | 32.47 | 3610 | 3.1 | | | | | | |
| **46** | 38 | 28.78 | 3480 | 3.5 | | | | | | |
| **54** | 32 | 24.47 | 3310 | 4.1 | | | | | | |
| **47** | 37 | 28.37 | 3460 | 3.5 | | | | | | |
| **51** | 34 | 26.09 | 3380 | 3.8 | | | | | | |
| **59** | 29 | 22.32 | 3220 | 4.5 | | | | | | |
| **68** | 25 | 19.35 | 3090 | 5.2 | **R** | **27** | **DR** | **63M4** | 8.0 | 270 |
| **73** | 24 | 18.08 | 3020 | 5.5 | **RF** | **27** | **DR** | **63M4** | 8.0 | 271 |
| **84** | 20 | 15.63 | 2890 | 6.4 | | | | | | |
| **99** | 17 | 13.28* | 2750 | 7.5 | | | | | | |
| **16** | 106 | 81.64 | 47 | 0.80 | | | | | | |
| **19** | 92 | 70.39 | 1330 | 0.95 | | | | | | |
| **20** | 85 | 65.61 | 1740 | 1.00 | | | | | | |
| **23** | 75 | 57.35 | 2350 | 1.15 | | | | | | |
| **25** | 70 | 53.76 | 2500 | 1.20 | | | | | | |
| **28** | 62 | 47.44 | 2450 | 1.40 | **R** | **17** | **DR** | **63M4** | 7.6 | 267 |
| **30** | 58 | 44.18 | 2410 | 1.50 | **RF** | **17** | **DR** | **63M4** | 7.5 | 268 |
| **34** | 50 | 38.61 | 2340 | 1.70 | | | | | | |
| **36** | 47 | 36.20 | 2300 | 1.80 | | | | | | |
| **41** | 42 | 31.94 | 2240 | 2.0 | | | | | | |
| **47** | 37 | 28.32 | 2170 | 2.3 | | | | | | |
| **55** | 31 | 24.07 | 2080 | 2.7 | | | | | | |

21284997/EN – 03/2015

## $P_m$ = 0.18 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **52** | 33 | 25.23 | 2110 | 2.6 | | | | | | |
| **57** | 30 | 23.15 | 2060 | 2.8 | **R** | **17** | **DR** | **63M4** | 7.3 | 267 |
| **67** | 26 | 19.71 | 1970 | 3.3 | **RF** | **17** | **DR** | **63M4** | 7.2 | 268 |
| **78** | 22 | 16.99 | 1890 | 3.8 | | | | | | |
| **28** | 62 | 47.78 | 1100 | 0.80 | | | | | | |
| **30** | 58 | 44.16 | 1340 | 0.85 | | | | | | |
| **32** | 54 | 41.31 | 1390 | 0.95 | | | | | | |
| **33** | 52 | 40.34 | 1380 | 0.95 | | | | | | |
| **34** | 50 | 38.51 | 1380 | 1.00 | **R** | **07** | **DR** | **63M4** | 6.4 | 264 |
| **39** | 44 | 34.05 | 1350 | 1.15 | **RF** | **07** | **DR** | **63M4** | 6.4 | 265 |
| **45** | 38 | 29.08 | 1310 | 1.30 | | | | | | |
| **49** | 35 | 26.97 | 1290 | 1.40 | | | | | | |
| **57** | 30 | 23.32 | 1250 | 1.65 | | | | | | |
| **61** | 28 | 21.73 | 1240 | 1.75 | | | | | | |
| **72** | 24 | 18.31 | 1190 | 2.1 | | | | | | |
| **79** | 22 | 16.73 | 1160 | 2.3 | | | | | | |
| **94** | 18 | 14.12 | 1120 | 2.7 | | | | | | |
| **109** | 16 | 12.06 | 1070 | 3.2 | | | | | | |
| **118** | 15 | 11.18 | 1050 | 3.4 | | | | | | |
| **137** | 13 | 9.67 | 1010 | 4.0 | | | | | | |
| **146** | 12 | 9.01 | 990 | 4.3 | | | | | | |
| **168** | 10 | 7.85 | 960 | 4.8 | **R** | **07** | **DR** | **63M4** | 6.3 | 264 |
| **177** | 9.7 | 7.48 | 940 | 4.4 | **RF** | **07** | **DR** | **63M4** | 6.3 | 265 |
| **193** | 8.9 | 6.83 | 920 | 4.8 | | | | | | |
| **229** | 7.5 | 5.76 | 880 | 5.3 | | | | | | |
| **268** | 6.4 | 4.92 | 840 | 5.8 | | | | | | |
| **289** | 5.9 | 4.57 | 820 | 6.1 | | | | | | |
| **334** | 5.1 | 3.95 | 785 | 6.7 | | | | | | |
| **359** | 4.8 | 3.68 | 765 | 6.9 | | | | | | |
| **412** | 4.2 | 3.21 | 735 | 7.4 | | | | | | |
| **243** | 7.1 | 11.18 | 860 | 7.0 | | | | | | |
| **281** | 6.1 | 9.67 | 820 | 8.2 | | | | | | |
| **302** | 5.7 | 9.01 | 810 | 8.8 | | | | | | |
| **346** | 5.0 | 7.85 | 775 | 9.8 | | | | | | |
| **364** | 4.7 | 7.48 | 765 | 9.2 | | | | | | |
| **398** | 4.3 | 6.83 | 740 | 10 | **R** | **07** | **DR** | **63S2** | 6.3 | 264 |
| **472** | 3.6 | 5.76 | 705 | 11 | **RF** | **07** | **DR** | **63S2** | 6.3 | 265 |
| **552** | 3.1 | 4.92 | 670 | 12 | | | | | | |
| **596** | 2.9 | 4.57 | 655 | 12 | | | | | | |
| **689** | 2.5 | 3.95 | 625 | 14 | | | | | | |
| **739** | 2.3 | 3.68 | 615 | 14 | | | | | | |
| **848** | 2.0 | 3.21 | 585 | 16 | | | | | | |
| **143** | 12 | 6.07 | 4940 | 3.6 | | | | | | |
| **168** | 10 | 5.18 | 4690 | 7.4 | **RX** | **67** | **DR** | **63L6** | 17 | 254 |
| **192** | 8.9 | 4.53 | 4490 | 9.2 | **RXF** | **67** | **DR** | **63L6** | 21 | 255 |
| **202** | 8.5 | 4.30* | 4410 | 9.4 | | | | | | |
| **218** | 7.9 | 6.07 | 4310 | 5.4 | | | | | | |
| **255** | 6.7 | 5.18 | 4090 | 11 | | | | | | |
| **292** | 5.9 | 4.53 | 3920 | 14 | | | | | | |
| **307** | 5.6 | 4.30* | 3850 | 14 | | | | | | |
| **350** | 4.9 | 3.77 | 3690 | 18 | **RX** | **67** | **DR** | **63M4** | 16 | 254 |
| **412** | 4.2 | 3.20* | 3500 | 24 | **RXF** | **67** | **DR** | **63M4** | 20 | 255 |
| **457** | 3.8 | 2.89 | 3380 | 28 | | | | | | |
| **519** | 3.3 | 2.54 | 3240 | 36 | | | | | | |
| **550** | 3.1 | 2.40* | 3180 | 40 | | | | | | |
| **646** | 2.7 | 2.04 | 3020 | 50 | | | | | | |
| **158** | 11 | 5.50* | 3880 | 3.6 | | | | | | |
| **172** | 10 | 5.07 | 3780 | 3.6 | **RX** | **57** | **DR** | **63L6** | 14 | 252 |
| **200** | 8.6 | 4.35 | 3600 | 7.9 | **RXF** | **57** | **DR** | **63L6** | 16 | 253 |
| **230** | 7.5 | 3.79 | 3440 | 9.2 | | | | | | |



21284997/EN – 03/2015

## $P_m$ = 0.18 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **240** | 7.2 | 5.50* | 3400 | 5.4 | | | | | | |
| **261** | 6.6 | 5.07 | 3310 | 5.4 | | | | | | |
| **303** | 5.7 | 4.35 | 3150 | 12 | | | | | | |
| **348** | 4.9 | 3.79 | 3010 | 14 | | | | | | |
| **372** | 4.6 | 3.55* | 2940 | 15 | | | | | | |
| **421** | 4.1 | 3.14 | 2830 | 16 | **RX** | **57** | **DR** | **63M4** | 14 | 252 |
| **453** | 3.8 | 2.91 | 2760 | 18 | **RXF** | **57** | **DR** | **63M4** | 16 | 253 |
| **500** | 3.4 | 2.64* | 2670 | 20 | | | | | | |
| **557** | 3.1 | 2.37 | 2580 | 22 | | | | | | |
| **647** | 2.7 | 2.04 | 2460 | 26 | | | | | | |
| **688** | 2.5 | 1.92* | 2410 | 28 | | | | | | |
| **799** | 2.2 | 1.65 | 2290 | 31 | | | | | | |

## $P_m$ = 0.25 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **0.13** | 15100 | 9743 | 48200 | 0.85 | | | | | | |
| **0.15** | 12700 | 8443 | 63100 | 1.00 | | | | | | |
| **0.18** | 11000 | 7307 | 66200 | 1.20 | | | | | | |
| **0.20** | 9740 | 6447 | 68100 | 1.35 | **R** | **147R77** | **DR** | **63L4** | 420 | 301 |
| **0.23** | 8410 | 5568 | 69800 | 1.55 | **RF** | **147R77** | **DR** | **63L4** | 430 | 301 |
| **0.26** | 7590 | 4926 | 70700 | 1.70 | **RM** | **147R77** | **DR** | **63L4** | 600 | 301 |
| **0.30** | 6570 | 4325 | 71700 | 2.00 | | | | | | |
| **0.35** | 5790 | 3754 | 72400 | 2.2 | | | | | | |
| **0.39** | 5020 | 3302 | 72900 | 2.6 | | | | | | |
| **0.45** | 4370 | 2898 | 73300 | 3.0 | | | | | | |
| **0.22** | 8660 | 5834 | 51100 | 0.90 | | | | | | |
| **0.25** | 7960 | 5116 | 53500 | 1.00 | **R** | **137R77** | **DR** | **63L4** | 290 | 301 |
| **0.29** | 6740 | 4464 | 55800 | 1.20 | **RF** | **137R77** | **DR** | **63L4** | 310 | 301 |
| **0.33** | 5930 | 3928 | 57100 | 1.35 | **RM** | **137R77** | **DR** | **63L4** | 425 | 301 |
| **0.28** | 7430 | 4709 | 54600 | 1.10 | | | | | | |
| **0.32** | 6340 | 4018 | 56500 | 1.25 | **R** | **137R77** | **DR** | **63L4** | 280 | 301 |
| **0.37** | 5540 | 3514 | 57700 | 1.45 | **RF** | **137R77** | **DR** | **63L4** | 300 | 301 |
| **0.39** | 5260 | 3338 | 58100 | 1.50 | **RM** | **137R77** | **DR** | **63L4** | 415 | 301 |
| **0.44** | 4620 | 2929 | 58900 | 1.75 | | | | | | |
| **0.49** | 4180 | 2658 | 59300 | 1.90 | | | | | | |
| **0.54** | 3800 | 2412 | 59700 | 2.1 | | | | | | |
| **0.63** | 3260 | 2073 | 60100 | 2.4 | **R** | **137R77** | **DR** | **63L4** | 290 | 301 |
| **0.71** | 2810 | 1839 | 60500 | 2.8 | **RF** | **137R77** | **DR** | **63L4** | 310 | 301 |
| **0.93** | 2180 | 1397 | 60800 | 3.7 | **RM** | **137R77** | **DR** | **63L4** | 420 | 301 |
| **1.1** | 1880 | 1226 | 61000 | 4.2 | | | | | | |
| | | | | | **R** | **107R77** | **DR** | **63L4** | 205 | 301 |
| **0.43** | 4730 | 3039 | 25600 | 0.90 | **RF** | **107R77** | **DR** | **63L4** | 210 | 301 |
| | | | | | **RM** | **107R77** | **DR** | **63L4** | 295 | 301 |
| | | | | | **R** | **107R77** | **DR** | **63L4** | 195 | 301 |
| **0.43** | 4780 | 3034 | 23600 | 0.90 | **RF** | **107R77** | **DR** | **63L4** | 200 | 301 |
| | | | | | **RM** | **107R77** | **DR** | **63L4** | 290 | 301 |
| **0.65** | 3100 | 1987 | 34600 | 1.40 | | | | | | |
| **0.71** | 2790 | 1827 | 35600 | 1.55 | | | | | | |
| **0.81** | 2400 | 1599 | 36300 | 1.80 | **R** | **107R77** | **DR** | **63L4** | 200 | 301 |
| **0.93** | 2140 | 1400 | 36600 | 2.0 | **RF** | **107R77** | **DR** | **63L4** | 205 | 301 |
| **1.1** | 1840 | 1226 | 36900 | 2.3 | **RM** | **107R77** | **DR** | **63L4** | 295 | 301 |
| **1.4** | 1430 | 939 | 37300 | 3.0 | | | | | | |
| **1.6** | 1230 | 822 | 37400 | 3.5 | | | | | | |
| | | | | | **R** | **97R57** | **DR** | **63L4** | 125 | 301 |
| **0.75** | 2840 | 1733 | 22000 | 1.05 | **RF** | **97R57** | **DR** | **63L4** | 145 | 301 |
| **0.80** | 2650 | 1623 | 23200 | 1.15 | **RM** | **97R57** | **DR** | **63L4** | 195 | 301 |

21284997/EN – 03/2015

## $P_m$ = 0.25 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **0.71** | 2960 | 1823 | 21100 | 1.00 | | | | | | |
| **0.82** | 2570 | 1583 | 23700 | 1.15 | | | | | | |
| **0.93** | 2230 | 1396 | 25400 | 1.35 | | | | | | |
| **1.1** | 1940 | 1228 | 26600 | 1.55 | **R** | **97R57** | **DR** | **63L4** | 130 | 301 |
| **1.2** | 1750 | 1069 | 27300 | 1.70 | **RF** | **97R57** | **DR** | **63L4** | 145 | 301 |
| **1.4** | 1520 | 938 | 27600 | 1.95 | **RM** | **97R57** | **DR** | **63L4** | 195 | 301 |
| **1.6** | 1300 | 824 | 27900 | 2.3 | | | | | | |
| **1.8** | 1160 | 737 | 28100 | 2.6 | | | | | | |
| **2.1** | 990 | 632 | 28200 | 3.0 | | | | | | |
| **1.1** | 1850 | 1145 | 10700 | 0.85 | | | | | | |
| **1.2** | 1660 | 1037 | 16000 | 0.95 | **R** | **87R57** | **DR** | **63L4** | 85 | 301 |
| **1.4** | 1480 | 931 | 17400 | 1.05 | **RF** | **87R57** | **DR** | **63L4** | 93 | 301 |
| **1.6** | 1260 | 802 | 18600 | 1.20 | **RM** | **87R57** | **DR** | **63L4** | 120 | 301 |
| **1.1** | 1790 | 1143 | 14700 | 0.85 | | | | | | |
| **1.5** | 1420 | 885 | 17800 | 1.10 | | | | | | |
| **1.7** | 1240 | 776 | 18700 | 1.25 | | | | | | |
| **1.9** | 1100 | 685 | 19400 | 1.40 | **R** | **87R57** | **DR** | **63L4** | 86 | 301 |
| **2.2** | 920 | 599 | 20000 | 1.65 | **RF** | **87R57** | **DR** | **63L4** | 93 | 301 |
| **2.5** | 810 | 525 | 20000 | 1.90 | **RM** | **87R57** | **DR** | **63L4** | 125 | 301 |
| **2.8** | 715 | 456 | 20000 | 2.2 | | | | | | |
| **4.9** | 415 | 268 | 20000 | 3.7 | | | | | | |
| | | | | | **R** | **77R37** | **DR** | **63L4** | 46 | 301 |
| **2.3** | 910 | 571 | 8910 | 0.90 | **RF** | **77R37** | **DR** | **63L4** | 52 | 301 |
| | | | | | **RM** | **77R37** | **DR** | **63L4** | 77 | 301 |
| **2.3** | 920 | 560 | 8780 | 0.90 | | | | | | |
| **2.7** | 795 | 488 | 10100 | 1.05 | | | | | | |
| **3.0** | 705 | 436 | 10900 | 1.15 | | | | | | |
| **3.5** | 605 | 373 | 11500 | 1.35 | **R** | **77R37** | **DR** | **63L4** | 47 | 301 |
| **4.0** | 530 | 327 | 11900 | 1.55 | **RF** | **77R37** | **DR** | **63L4** | 53 | 301 |
| **4.5** | 470 | 289 | 12200 | 1.75 | **RM** | **77R37** | **DR** | **63L4** | 78 | 301 |
| **5.0** | 420 | 260 | 12400 | 1.95 | | | | | | |
| **5.8** | 355 | 224 | 12600 | 2.3 | | | | | | |
| **3.4** | 620 | 388 | 7290 | 0.95 | | | | | | |
| **3.8** | 565 | 344 | 7950 | 1.05 | | | | | | |
| **4.4** | 465 | 294 | 8870 | 1.30 | | | | | | |
| **5.0** | 420 | 261 | 9180 | 1.40 | **R** | **67R37** | **DR** | **63L4** | 41 | 301 |
| **5.6** | 380 | 234 | 9460 | 1.60 | **RF** | **67R37** | **DR** | **63L4** | 45 | 301 |
| **6.5** | 320 | 200 | 9780 | 1.85 | **RM** | **67R37** | **DR** | **63L4** | 60 | 301 |
| **7.4** | 275 | 176 | 9980 | 2.2 | | | | | | |
| **8.2** | 250 | 158 | 10100 | 2.4 | | | | | | |
| **3.4** | 640 | 384 | 6960 | 0.95 | | | | | | |
| **3.6** | 600 | 359 | 7550 | 1.00 | | | | | | |
| **4.2** | 515 | 310 | 8430 | 1.15 | **R** | **67R37** | **DR** | **63L4** | 41 | 301 |
| **4.9** | 435 | 264 | 9100 | 1.40 | **RF** | **67R37** | **DR** | **63L4** | 44 | 301 |
| **5.5** | 385 | 235 | 9420 | 1.55 | **RM** | **67R37** | **DR** | **63L4** | 59 | 301 |
| **6.5** | 325 | 201 | 9750 | 1.85 | | | | | | |
| **7.2** | 295 | 181 | 9900 | 2.0 | | | | | | |
| **4.1** | 515 | 319 | 6050 | 0.85 | | | | | | |
| **4.8** | 435 | 273 | 7160 | 1.05 | | | | | | |
| **5.4** | 380 | 241 | 7380 | 1.20 | **R** | **57R37** | **DR** | **63L4** | 35 | 301 |
| **6.0** | 340 | 215 | 7510 | 1.30 | **RF** | **57R37** | **DR** | **63L4** | 38 | 301 |
| **7.0** | 300 | 187 | 7630 | 1.50 | **RM** | **57R37** | **DR** | **63L4** | 50 | 301 |
| **7.9** | 260 | 164 | 7730 | 1.75 | | | | | | |
| **9.2** | 225 | 142 | 7800 | 2.00 | | | | | | |
| **4.0** | 540 | 324 | 4980 | 0.85 | | | | | | |
| **4.5** | 480 | 290 | 6950 | 0.95 | **R** | **57R37** | **DR** | **63L4** | 34 | 301 |
| **5.0** | 435 | 262 | 7160 | 1.05 | **RF** | **57R37** | **DR** | **63L4** | 37 | 301 |
| **5.3** | 405 | 246 | 7280 | 1.10 | **RM** | **57R37** | **DR** | **63L4** | 49 | 301 |
| **5.9** | 360 | 220 | 7440 | 1.25 | | | | | | |
| **5.7** | 370 | 228 | 2440 | 0.80 | | | | | | |
| **6.7** | 315 | 195 | 5320 | 0.95 | **R** | **47R37** | **DR** | **63L4** | 29 | 301 |
| **7.1** | 295 | 182 | 5440 | 1.00 | **RF** | **47R37** | **DR** | **63L4** | 29 | 301 |
| **8.5** | 245 | 154 | 5680 | 1.20 | | | | | | |

21284997/EN – 03/2015

## $P_m$ = 0.25 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **8.7** | 245 | 150 | 2540 | 0.80 | | | | | | |
| **10** | 210 | 130 | 4790 | 0.95 | | | | | | |
| **10** | 200 | 124 | 4930 | 1.00 | **R** | **37R17** | **DR** | **63L4** | 18 | 301 |
| **12** | 178 | 110 | 5200 | 1.10 | **RF** | **37R17** | **DR** | **63L4** | 19 | 301 |
| **14** | 152 | 94 | 5460 | 1.30 | | | | | | |
| **9.7** | 220 | 135 | 4660 | 0.90 | | | | | | |
| **10** | 210 | 127 | 4770 | 0.95 | **R** | **37R17** | **DR** | **63L4** | 18 | 301 |
| **12** | 174 | 104 | 5250 | 1.15 | **RF** | **37R17** | **DR** | **63L4** | 19 | 301 |
| **14** | 150 | 90 | 5470 | 1.35 | | | | | | |
| **4.6** | 520 | 195.24* | 12000 | 1.55 | **R** | **77** | **DRS** | **71S6** | 39 | 285 |
| **5.4** | 440 | 166.59 | 12300 | 1.85 | **RF** | **77** | **DRS** | **71S6** | 45 | 286 |
| **6.1** | 385 | 145.67 | 12500 | 2.1 | **RM** | **77** | **DRS** | **71S6** | 70 | 286 |
| **6.7** | 355 | 195.24* | 12600 | 2.3 | | | | | | |
| **7.8** | 305 | 166.59 | 12800 | 2.7 | **R** | **77** | **DR** | **63L4** | 38 | 285 |
| **8.9** | 265 | 145.67 | 12900 | 3.1 | **RF** | **77** | **DR** | **63L4** | 43 | 286 |
| **9.4** | 250 | 138.39 | 12900 | 3.2 | **RM** | **77** | **DR** | **63L4** | 68 | 286 |
| **11** | 220 | 121.42 | 13000 | 3.7 | | | | | | |
| **4.5** | 530 | 199.81 | 8280 | 1.15 | | | | | | |
| **4.9** | 490 | 184.07 | 8660 | 1.20 | | | | | | |
| **5.7** | 420 | 158.14 | 9190 | 1.40 | **R** | **67** | **DRS** | **71S6** | 32 | 282 |
| **6.5** | 365 | 137.67 | 9540 | 1.65 | **RF** | **67** | **DRS** | **71S6** | 35 | 283 |
| **6.9** | 340 | 128.97 | 9670 | 1.75 | **RM** | **67** | **DRS** | **71S6** | 51 | 283 |
| **7.8** | 300 | 113.94 | 9870 | 1.95 | | | | | | |
| **8.5** | 280 | 105.83 | 9960 | 2.1 | | | | | | |
| **6.5** | 365 | 199.81 | 9540 | 1.65 | | | | | | |
| **7.1** | 335 | 184.07 | 9700 | 1.80 | | | | | | |
| **8.2** | 290 | 158.14 | 9930 | 2.1 | | | | | | |
| **9.4** | 250 | 137.67 | 10100 | 2.4 | **R** | **67** | **DR** | **63L4** | 30 | 282 |
| **10** | 235 | 128.97 | 10100 | 2.5 | **RF** | **67** | **DR** | **63L4** | 34 | 283 |
| **11** | 205 | 113.94 | 10200 | 2.9 | **RM** | **67** | **DR** | **63L4** | 49 | 283 |
| **12** | 194 | 105.83 | 10300 | 3.1 | | | | | | |
| **14** | 176 | 95.91 | 10300 | 3.4 | | | | | | |
| **15** | 158 | 86.11 | 10400 | 3.8 | | | | | | |
| **4.8** | 495 | 186.89 | 6760 | 0.90 | | | | | | |
| **5.2** | 455 | 172.17 | 7060 | 1.00 | | | | | | |
| **6.0** | 390 | 147.92 | 7330 | 1.15 | **R** | **57** | **DRS** | **71S6** | 26 | 279 |
| **7.0** | 340 | 128.77 | 7500 | 1.30 | **RF** | **57** | **DRS** | **71S6** | 29 | 280 |
| **7.4** | 320 | 120.63 | 7570 | 1.40 | **RM** | **57** | **DRS** | **71S6** | 41 | 280 |
| **8.4** | 280 | 106.58 | 7670 | 1.60 | | | | | | |
| **9.0** | 260 | 98.99 | 7720 | 1.70 | | | | | | |
| **7.0** | 340 | 186.89 | 7500 | 1.30 | | | | | | |
| **7.6** | 315 | 172.17 | 7580 | 1.40 | | | | | | |
| **8.8** | 270 | 147.92 | 7700 | 1.65 | | | | | | |
| **10** | 235 | 128.77 | 7780 | 1.90 | | | | | | |
| **11** | 220 | 120.63 | 7810 | 2.0 | **R** | **57** | **DR** | **63L4** | 24 | 279 |
| **12** | 196 | 106.58 | 7860 | 2.3 | **RF** | **57** | **DR** | **63L4** | 27 | 280 |
| **13** | 182 | 98.99 | 7880 | 2.5 | **RM** | **57** | **DR** | **63L4** | 39 | 280 |
| **14** | 165 | 89.71 | 7910 | 2.7 | | | | | | |
| **16** | 148 | 80.55 | 7930 | 3.0 | | | | | | |
| **19** | 127 | 69.23 | 7960 | 3.5 | | | | | | |
| **7.4** | 320 | 176.88 | 5280 | 0.90 | | | | | | |
| **8.0** | 295 | 162.94 | 5420 | 1.00 | | | | | | |
| **9.3** | 255 | 139.99 | 5630 | 1.15 | | | | | | |
| **11** | 220 | 121.87 | 5770 | 1.35 | | | | | | |
| **11** | 205 | 114.17 | 5820 | 1.45 | | | | | | |
| **13** | 185 | 100.86 | 5900 | 1.60 | | | | | | |
| **14** | 172 | 93.68 | 5940 | 1.75 | **R** | **47** | **DR** | **63L4** | 19 | 276 |
| **15** | 156 | 84.90 | 5980 | 1.90 | **RF** | **47** | **DR** | **63L4** | 19 | 277 |
| **17** | 140 | 76.23 | 6020 | 2.1 | | | | | | |
| **19** | 126 | 68.54 | 6050 | 2.4 | | | | | | |
| **20** | 118 | 64.21 | 6070 | 2.5 | | | | | | |
| **23** | 104 | 56.73 | 6090 | 2.9 | | | | | | |
| **25** | 97 | 52.69 | 6100 | 3.1 | | | | | | |
| **27** | 88 | 47.75 | 6080 | 3.4 | | | | | | |

21284997/EN – 03/2015

## $P_m$ = 0.25 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **9.6** | 245 | 134.82 | 2630 | 0.80 | | | | | | |
| **11** | 225 | 123.66 | 4560 | 0.90 | | | | | | |
| **12** | 193 | 105.28 | 5030 | 1.05 | | | | | | |
| **14** | 167 | 90.77 | 5320 | 1.20 | | | | | | |
| **15** | 155 | 84.61 | 5420 | 1.30 | | | | | | |
| **18** | 136 | 73.96 | 5580 | 1.45 | | | | | | |
| **19** | 127 | 69.33 | 5650 | 1.55 | **R** | **37** | **DR** | **63L4** | 15 | 273 |
| **21** | 112 | 61.18 | 5750 | 1.80 | **RF** | **37** | **DR** | **63L4** | 16 | 274 |
| **23** | 102 | 55.76 | 5800 | 1.95 | | | | | | |
| **27** | 88 | 48.08 | 5870 | 2.3 | | | | | | |
| **29** | 82 | 44.81 | 5760 | 2.4 | | | | | | |
| **33** | 72 | 39.17 | 5540 | 2.8 | | | | | | |
| **35** | 67 | 36.72 | 5430 | 3.0 | | | | | | |
| **40** | 60 | 32.40 | 5230 | 3.4 | | | | | | |
| **15** | 156 | 84.78 | 4100 | 0.85 | | | | | | |
| **18** | 136 | 74.11 | 4210 | 0.95 | | | | | | |
| **19** | 128 | 69.47 | 4240 | 1.00 | | | | | | |
| **21** | 113 | 61.30 | 4180 | 1.15 | | | | | | |
| **23** | 103 | 55.87 | 4090 | 1.25 | | | | | | |
| **27** | 88 | 48.17 | 3940 | 1.45 | **R** | **27** | **DR** | **63L4** | 9.0 | 270 |
| **29** | 82 | 44.90 | 3870 | 1.60 | **RF** | **27** | **DR** | **63L4** | 8.9 | 271 |
| **33** | 72 | 39.25 | 3730 | 1.80 | | | | | | |
| **35** | 68 | 36.79 | 3660 | 1.90 | | | | | | |
| **40** | 60 | 32.47 | 3540 | 2.2 | | | | | | |
| **45** | 53 | 28.78 | 3420 | 2.5 | | | | | | |
| **53** | 45 | 24.47 | 3270 | 2.9 | | | | | | |
| **46** | 52 | 28.37 | 3410 | 2.5 | | | | | | |
| **50** | 48 | 26.09 | 3330 | 2.7 | | | | | | |
| **58** | 41 | 22.32 | 3180 | 3.2 | | | | | | |
| **67** | 36 | 19.35 | 3050 | 3.7 | | | | | | |
| **72** | 33 | 18.08 | 2990 | 3.9 | | | | | | |
| **83** | 29 | 15.63 | 2860 | 4.5 | | | | | | |
| **98** | 24 | 13.28* | 2730 | 5.3 | | | | | | |
| **110** | 22 | 11.86 | 2630 | 5.9 | | | | | | |
| **128** | 19 | 10.13 | 2510 | 6.6 | **R** | **27** | **DR** | **63L4** | 8.7 | 270 |
| **138** | 17 | 9.41 | 2440 | 7.0 | **RF** | **27** | **DR** | **63L4** | 8.6 | 271 |
| **159** | 15 | 8.16 | 2330 | 7.7 | | | | | | |
| **170** | 14 | 7.63* | 2280 | 8.0 | | | | | | |
| **197** | 12 | 6.59 | 2180 | 8.8 | | | | | | |
| **232** | 10 | 5.60* | 2080 | 9.6 | | | | | | |
| **260** | 9.2 | 5.00* | 2000 | 10 | | | | | | |
| **304** | 7.8 | 4.27 | 1900 | 11 | | | | | | |
| **325** | 7.3 | 4.00* | 1870 | 12 | | | | | | |
| **386** | 6.2 | 3.37 | 1770 | 13 | | | | | | |
| **23** | 105 | 57.35 | 156 | 0.80 | | | | | | |
| **24** | 99 | 53.76 | 785 | 0.85 | | | | | | |
| **27** | 87 | 47.44 | 1630 | 1.00 | | | | | | |
| **29** | 81 | 44.18 | 2000 | 1.05 | **R** | **17** | **DR** | **63L4** | 8.3 | 267 |
| **34** | 71 | 38.61 | 2200 | 1.20 | **RF** | **17** | **DR** | **63L4** | 8.2 | 268 |
| **36** | 66 | 36.20 | 2180 | 1.30 | | | | | | |
| **41** | 59 | 31.94 | 2120 | 1.45 | | | | | | |
| **46** | 52 | 28.32 | 2070 | 1.65 | | | | | | |
| **54** | 44 | 24.07 | 2000 | 1.90 | | | | | | |
| **52** | 46 | 25.23 | 2020 | 1.85 | | | | | | |
| **56** | 42 | 23.15 | 1980 | 2.0 | | | | | | |
| **66** | 36 | 19.71 | 1910 | 2.4 | | | | | | |
| **77** | 31 | 16.99 | 1840 | 2.7 | **R** | **17** | **DR** | **63L4** | 8.0 | 267 |
| **82** | 29 | 15.84 | 1810 | 2.9 | **RF** | **17** | **DR** | **63L4** | 7.9 | 268 |
| **94** | 25 | 13.84 | 1740 | 3.4 | | | | | | |
| **100** | 24 | 12.98 | 1720 | 3.6 | | | | | | |
| **114** | 21 | 11.45 | 1660 | 3.9 | | | | | | |
| **38** | 62 | 34.05 | 1090 | 0.80 | | | | | | |
| **45** | 53 | 29.08 | 1200 | 0.95 | | | | | | |
| **48** | 50 | 26.97 | 1190 | 1.00 | **R** | **07** | **DR** | **63L4** | 7.2 | 264 |
| **56** | 43 | 23.32 | 1170 | 1.15 | **RF** | **07** | **DR** | **63L4** | 7.2 | 265 |
| **60** | 40 | 21.73 | 1160 | 1.25 | | | | | | |



21284997/EN – 03/2015

| $P_m$ = 0.25 kW | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | | m kg | |
| **71** | 34 | 18.31 | 1120 | 1.50 | | | | | | | |
| **78** | 31 | 16.73 | 1100 | 1.65 | | | | | | | |
| **92** | 26 | 14.12 | 1070 | 1.95 | | | | | | | |
| **108** | 22 | 12.06 | 1030 | 2.3 | | | | | | | |
| **116** | 20 | 11.18 | 1010 | 2.4 | | | | | | | |
| **134** | 18 | 9.67 | 980 | 2.8 | | | | | | | |
| **144** | 16 | 9.01 | 960 | 3.0 | | | | | | | |
| **166** | 14 | 7.85 | 930 | 3.4 | **R** | **07** | **DR** | **63L4** | | 7.0 | 264 |
| **174** | 14 | 7.48 | 920 | 3.1 | **RF** | **07** | **DR** | **63L4** | | 7.0 | 265 |
| **190** | 12 | 6.83 | 900 | 3.4 | | | | | | | |
| **226** | 11 | 5.76 | 860 | 3.8 | | | | | | | |
| **264** | 9.0 | 4.92 | 820 | 4.1 | | | | | | | |
| **285** | 8.4 | 4.57 | 800 | 4.3 | | | | | | | |
| **329** | 7.3 | 3.95 | 770 | 4.7 | | | | | | | |
| **353** | 6.8 | 3.68 | 755 | 4.8 | | | | | | | |
| **405** | 5.9 | 3.21 | 725 | 5.2 | | | | | | | |
| **238** | 10 | 11.18 | 840 | 5.0 | | | | | | | |
| **275** | 8.7 | 9.67 | 810 | 5.8 | | | | | | | |
| **295** | 8.1 | 9.01 | 795 | 6.2 | | | | | | | |
| **339** | 7.0 | 7.85 | 765 | 7.0 | | | | | | | |
| **356** | 6.7 | 7.48 | 755 | 6.4 | | | | | | | |
| **389** | 6.1 | 6.83 | 735 | 7.0 | **R** | **07** | **DR** | **63M2** | | 6.3 | 264 |
| **461** | 5.2 | 5.76 | 700 | 7.7 | **RF** | **07** | **DR** | **63M2** | | 6.3 | 265 |
| **540** | 4.4 | 4.92 | 665 | 8.4 | | | | | | | |
| **583** | 4.1 | 4.57 | 650 | 8.8 | | | | | | | |
| **674** | 3.5 | 3.95 | 625 | 9.7 | | | | | | | |
| **723** | 3.3 | 3.68 | 610 | 10 | | | | | | | |
| **829** | 2.9 | 3.21 | 585 | 11 | | | | | | | |
| **148** | 16 | 6.07 | 4860 | 2.6 | | | | | | | |
| **173** | 14 | 5.18 | 4620 | 5.4 | **RX** | **67** | **DRS** | **71S6** | | 19 | 254 |
| **198** | 12 | 4.53 | 4420 | 6.8 | **RXF** | **67** | **DRS** | **71S6** | | 23 | 255 |
| **208** | 12 | 4.30* | 4350 | 7.0 | | | | | | | |
| **214** | 11 | 6.07 | 4310 | 3.9 | | | | | | | |
| **251** | 9.5 | 5.18 | 4100 | 7.9 | | | | | | | |
| **287** | 8.3 | 4.53 | 3920 | 9.9 | | | | | | | |
| **302** | 7.9 | 4.30* | 3860 | 10 | | | | | | | |
| **345** | 6.9 | 3.77 | 3700 | 13 | **RX** | **67** | **DR** | **63L4** | | 17 | 254 |
| **406** | 5.9 | 3.20* | 3500 | 17 | **RXF** | **67** | **DR** | **63L4** | | 21 | 255 |
| **450** | 5.3 | 2.89 | 3390 | 20 | | | | | | | |
| **511** | 4.7 | 2.54 | 3250 | 25 | | | | | | | |
| **542** | 4.4 | 2.40* | 3190 | 28 | | | | | | | |
| **636** | 3.8 | 2.04 | 3020 | 35 | | | | | | | |
| **163** | 15 | 5.50* | 3820 | 2.6 | | | | | | | |
| **177** | 14 | 5.07 | 3720 | 2.7 | **RX** | **57** | **DRS** | **71S6** | | 16 | 252 |
| **206** | 12 | 4.35 | 3540 | 5.9 | **RXF** | **57** | **DRS** | **71S6** | | 18 | 253 |
| **236** | 10 | 3.79 | 3390 | 6.8 | | | | | | | |
| **236** | 10 | 5.50* | 3390 | 3.9 | | | | | | | |
| **257** | 9.3 | 5.07 | 3300 | 3.9 | | | | | | | |
| **299** | 8.0 | 4.35 | 3150 | 8.5 | | | | | | | |
| **343** | 7.0 | 3.79 | 3010 | 9.9 | | | | | | | |
| **366** | 6.5 | 3.55* | 2950 | 11 | | | | | | | |
| **414** | 5.8 | 3.14 | 2830 | 11 | **RX** | **57** | **DR** | **63L4** | | 14 | 252 |
| **446** | 5.3 | 2.91 | 2760 | 13 | **RXF** | **57** | **DR** | **63L4** | | 16 | 253 |
| **492** | 4.8 | 2.64* | 2680 | 14 | | | | | | | |
| **548** | 4.4 | 2.37 | 2580 | 16 | | | | | | | |
| **637** | 3.7 | 2.04 | 2460 | 19 | | | | | | | |
| **677** | 3.5 | 1.92* | 2410 | 20 | | | | | | | |
| **787** | 3.0 | 1.65 | 2300 | 23 | | | | | | | |

21284997/EN – 03/2015

## $P_m$ = 0.37 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **0.19** | 15900 | 7307 | 37500 | 0.80 | | | | | | |
| **0.21** | 14000 | 6447 | 60400 | 0.90 | | | | | | |
| **0.25** | 12100 | 5568 | 64300 | 1.05 | | | | | | |
| **0.28** | 10900 | 4926 | 66400 | 1.20 | **R** | **147R77** | **DRS** | **71S4** | 425 | 301 |
| **0.32** | 9470 | 4325 | 68500 | 1.35 | **RF** | **147R77** | **DRS** | **71S4** | 430 | 301 |
| **0.37** | 8310 | 3754 | 70000 | 1.55 | **RM** | **147R77** | **DRS** | **71S4** | 600 | 301 |
| **0.42** | 7230 | 3302 | 71100 | 1.80 | | | | | | |
| **0.48** | 6320 | 2898 | 71900 | 2.1 | | | | | | |
| **0.31** | 9730 | 4464 | 36000 | 0.80 | **R** | **137R77** | **DRS** | **71S4** | 290 | 301 |
| **0.35** | 8570 | 3928 | 51500 | 0.95 | **RF** | **137R77** | **DRS** | **71S4** | 315 | 301 |
| | | | | | **RM** | **137R77** | **DRS** | **71S4** | 425 | 301 |
| **0.34** | 9080 | 4018 | 48100 | 0.90 | | | | | | |
| **0.39** | 7940 | 3514 | 53500 | 1.00 | | | | | | |
| **0.41** | 7540 | 3338 | 54300 | 1.05 | **R** | **137R77** | **DRS** | **71S4** | 280 | 301 |
| **0.47** | 6610 | 2929 | 56000 | 1.20 | **RF** | **137R77** | **DRS** | **71S4** | 305 | 301 |
| **0.56** | 5600 | 2484 | 57600 | 1.45 | **RM** | **137R77** | **DRS** | **71S4** | 415 | 301 |
| **0.62** | 5020 | 2242 | 58400 | 1.60 | | | | | | |
| **0.52** | 5990 | 2658 | 57000 | 1.35 | | | | | | |
| **0.57** | 5440 | 2412 | 57800 | 1.45 | | | | | | |
| **0.67** | 4670 | 2073 | 58800 | 1.70 | | | | | | |
| **0.75** | 4060 | 1839 | 59400 | 1.95 | **R** | **137R77** | **DRS** | **71S4** | 290 | 301 |
| **0.99** | 3130 | 1397 | 60200 | 2.6 | **RF** | **137R77** | **DRS** | **71S4** | 315 | 301 |
| **1.1** | 2710 | 1226 | 60500 | 2.9 | **RM** | **137R77** | **DRS** | **71S4** | 425 | 301 |
| **1.3** | 2440 | 1090 | 60700 | 3.3 | | | | | | |
| **1.4** | 2130 | 951 | 60900 | 3.8 | | | | | | |
| **0.67** | 4660 | 2067 | 27300 | 0.90 | | | | | | |
| **0.82** | 3790 | 1693 | 31900 | 1.15 | | | | | | |
| **0.89** | 3420 | 1550 | 33500 | 1.25 | **R** | **107R77** | **DRS** | **71S4** | 200 | 301 |
| **0.98** | 3100 | 1407 | 34600 | 1.40 | **RF** | **107R77** | **DRS** | **71S4** | 205 | 301 |
| **1.1** | 2660 | 1209 | 35900 | 1.60 | **RM** | **107R77** | **DRS** | **71S4** | 290 | 301 |
| **1.3** | 2330 | 1055 | 36400 | 1.85 | | | | | | |
| **0.69** | 4450 | 1987 | 28600 | 0.95 | | | | | | |
| **0.76** | 4030 | 1827 | 30800 | 1.05 | | | | | | |
| **0.86** | 3490 | 1599 | 33200 | 1.25 | **R** | **107R77** | **DRS** | **71S4** | 205 | 301 |
| **0.99** | 3090 | 1400 | 34600 | 1.40 | **RF** | **107R77** | **DRS** | **71S4** | 210 | 301 |
| **1.1** | 2670 | 1226 | 35900 | 1.60 | **RM** | **107R77** | **DRS** | **71S4** | 295 | 301 |
| **1.5** | 2070 | 939 | 36700 | 2.1 | | | | | | |
| **1.7** | 1790 | 822 | 37000 | 2.4 | | | | | | |
| **1.1** | 2760 | 1207 | 22500 | 1.10 | **R** | **97R57** | **DRS** | **71S4** | 130 | 301 |
| **1.3** | 2460 | 1084 | 24300 | 1.20 | **RF** | **97R57** | **DRS** | **71S4** | 145 | 301 |
| | | | | | **RM** | **97R57** | **DRS** | **71S4** | 195 | 301 |
| **0.99** | 3170 | 1396 | 10800 | 0.95 | | | | | | |
| **1.1** | 2770 | 1228 | 22500 | 1.10 | | | | | | |
| **1.3** | 2470 | 1069 | 24200 | 1.20 | | | | | | |
| **1.5** | 2160 | 938 | 25700 | 1.40 | | | | | | |
| **1.7** | 1860 | 824 | 26900 | 1.60 | **R** | **97R57** | **DRS** | **71S4** | 130 | 301 |
| **1.9** | 1660 | 737 | 27400 | 1.80 | **RF** | **97R57** | **DRS** | **71S4** | 145 | 301 |
| **2.2** | 1420 | 632 | 27700 | 2.1 | **RM** | **97R57** | **DRS** | **71S4** | 200 | 301 |
| **3.2** | 980 | 431 | 28200 | 3.1 | | | | | | |
| **3.6** | 850 | 379 | 28300 | 3.5 | | | | | | |
| **4.1** | 765 | 336 | 28400 | 3.9 | | | | | | |
| **1.7** | 1810 | 802 | 13800 | 0.85 | **R** | **87R57** | **DRS** | **71S4** | 87 | 301 |
| **1.8** | 1690 | 754 | 15800 | 0.90 | **RF** | **87R57** | **DRS** | **71S4** | 94 | 301 |
| **2.1** | 1440 | 649 | 17600 | 1.05 | **RM** | **87R57** | **DRS** | **71S4** | 125 | 301 |
| **1.8** | 1770 | 776 | 15100 | 0.85 | | | | | | |
| **2.0** | 1560 | 685 | 16800 | 1.00 | | | | | | |
| **2.3** | 1330 | 599 | 18300 | 1.15 | **R** | **87R57** | **DRS** | **71S4** | 88 | 301 |
| **2.6** | 1170 | 525 | 19100 | 1.30 | **RF** | **87R57** | **DRS** | **71S4** | 95 | 301 |
| **3.0** | 1020 | 456 | 19700 | 1.50 | **RM** | **87R57** | **DRS** | **71S4** | 125 | 301 |
| **5.2** | 595 | 268 | 20000 | 2.6 | | | | | | |
| **5.8** | 525 | 236 | 20000 | 2.9 | | | | | | |
| **2.6** | 1260 | 538 | 18700 | 1.25 | **R** | **87R57** | **DRS** | **71S4** | 86 | 301 |
| **2.9** | 1100 | 472 | 19400 | 1.40 | **RF** | **87R57** | **DRS** | **71S4** | 93 | 301 |
| **3.4** | 920 | 400 | 20000 | 1.65 | **RM** | **87R57** | **DRS** | **71S4** | 125 | 301 |
| **3.8** | 830 | 361 | 20000 | 1.85 | | | | | | |



21284997/EN – 03/2015

| $P_m$ = 0.37 kW | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | | m kg | |
| **3.7** | 860 | 373 | 9520 | 0.95 | | | | | | | |
| **4.2** | 755 | 327 | 10500 | 1.10 | | | | | | | |
| **4.8** | 670 | 289 | 11100 | 1.20 | | | | | | | |
| **5.3** | 600 | 260 | 11600 | 1.35 | **R** | **77R37** | **DRS** | **71S4** | | 49 | 301 |
| **6.2** | 505 | 224 | 12000 | 1.60 | **RF** | **77R37** | **DRS** | **71S4** | | 55 | 301 |
| **7.0** | 445 | 197 | 12300 | 1.85 | **RM** | **77R37** | **DRS** | **71S4** | | 80 | 301 |
| **8.2** | 385 | 169 | 12500 | 2.1 | | | | | | | |
| **9.3** | 340 | 149 | 12700 | 2.4 | | | | | | | |
| **4.7** | 665 | 294 | 4670 | 0.90 | | | | | | | |
| **5.3** | 600 | 261 | 7550 | 1.00 | **R** | **67R37** | **DRS** | **71S4** | | 43 | 301 |
| **5.9** | 535 | 234 | 8220 | 1.10 | **RF** | **67R37** | **DRS** | **71S4** | | 47 | 301 |
| **6.9** | 455 | 200 | 8930 | 1.30 | **RM** | **67R37** | **DRS** | **71S4** | | 62 | 301 |
| **3.1** | 1130 | 289.74 | 28100 | 2.6 | | | | | | | |
| **3.5** | 990 | 255.71 | 28200 | 3.0 | **R** | **97** | **DRS** | **71M6** | | 110 | 291 |
| **3.8** | 940 | 241.25 | 28300 | 3.2 | **RF** | **97** | **DRS** | **71M6** | | 125 | 292 |
| **4.2** | 840 | 216.28 | 28400 | 3.6 | **RM** | **97** | **DRS** | **71M6** | | 175 | 292 |
| **3.7** | 960 | 246.54 | 20000 | 1.60 | | | | | | | |
| **4.2** | 840 | 216.54 | 20000 | 1.85 | | | | | | | |
| **4.4** | 800 | 205.71 | 20000 | 1.95 | **R** | **87** | **DRS** | **71M6** | | 67 | 288 |
| **5.0** | 705 | 181.77 | 20000 | 2.2 | **RF** | **87** | **DRS** | **71M6** | | 74 | 289 |
| **5.8** | 605 | 155.34 | 20000 | 2.6 | **RM** | **87** | **DRS** | **71M6** | | 105 | 289 |
| **6.4** | 555 | 142.41 | 20000 | 2.8 | | | | | | | |
| **5.4** | 650 | 166.59 | 11200 | 1.25 | **R** | **77** | **DRS** | **71M6** | | 41 | 285 |
| **6.2** | 565 | 145.67 | 11700 | 1.45 | **RF** | **77** | **DRS** | **71M6** | | 46 | 286 |
| **6.5** | 540 | 138.39 | 11900 | 1.50 | **RM** | **77** | **DRS** | **71M6** | | 71 | 286 |
| **7.1** | 495 | 195.24* | 12100 | 1.65 | | | | | | | |
| **8.3** | 425 | 166.59 | 12400 | 1.90 | | | | | | | |
| **9.5** | 370 | 145.67 | 12600 | 2.2 | **R** | **77** | **DRS** | **71S4** | | 39 | 285 |
| **10.0** | 350 | 138.39 | 12600 | 2.3 | **RF** | **77** | **DRS** | **71S4** | | 45 | 286 |
| **11** | 310 | 121.42 | 12800 | 2.6 | **RM** | **77** | **DRS** | **71S4** | | 70 | 286 |
| **13** | 260 | 102.99 | 12900 | 3.1 | | | | | | | |
| **15** | 235 | 92.97 | 12900 | 3.4 | | | | | | | |
| **5.7** | 615 | 158.14 | 7350 | 0.95 | | | | | | | |
| **6.6** | 535 | 137.67 | 8240 | 1.10 | **R** | **67** | **DRS** | **71M6** | | 34 | 282 |
| **7.0** | 500 | 128.97 | 8550 | 1.20 | **RF** | **67** | **DRS** | **71M6** | | 37 | 283 |
| **7.9** | 440 | 113.94 | 9030 | 1.35 | **RM** | **67** | **DRS** | **71M6** | | 52 | 283 |
| **6.9** | 510 | 199.81 | 8480 | 1.15 | | | | | | | |
| **7.5** | 470 | 184.07 | 8820 | 1.25 | | | | | | | |
| **8.7** | 400 | 158.14 | 9300 | 1.50 | | | | | | | |
| **10** | 350 | 137.67 | 9620 | 1.70 | | | | | | | |
| **11** | 330 | 128.97 | 9740 | 1.80 | | | | | | | |
| **12** | 290 | 113.94 | 9920 | 2.1 | **R** | **67** | **DRS** | **71S4** | | 32 | 282 |
| **13** | 270 | 105.83 | 10000 | 2.2 | **RF** | **67** | **DRS** | **71S4** | | 35 | 283 |
| **14** | 245 | 95.91 | 10100 | 2.4 | **RM** | **67** | **DRS** | **71S4** | | 51 | 283 |
| **16** | 220 | 86.11 | 10200 | 2.7 | | | | | | | |
| **19** | 190 | 74.17 | 10300 | 3.2 | | | | | | | |
| **20** | 179 | 69.75 | 10300 | 3.4 | | | | | | | |
| **23** | 157 | 61.26 | 10400 | 3.8 | | | | | | | |
| **24** | 146 | 56.89 | 10400 | 4.1 | | | | | | | |
| **7.0** | 500 | 128.77 | 6610 | 0.90 | | | | | | | |
| **7.5** | 470 | 120.63 | 7010 | 0.95 | **R** | **57** | **DRS** | **71M6** | | 27 | 279 |
| **8.5** | 415 | 106.58 | 7250 | 1.10 | **RF** | **57** | **DRS** | **71M6** | | 30 | 280 |
| **9.1** | 385 | 98.99 | 7360 | 1.15 | **RM** | **57** | **DRS** | **71M6** | | 42 | 280 |

21284997/EN – 03/2015

## $P_m$ = 0.37 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **7.4** | 475 | 186.89 | 6980 | 0.95 | | | | | | |
| **8.0** | 440 | 172.17 | 7140 | 1.00 | | | | | | |
| **9.3** | 375 | 147.92 | 7380 | 1.20 | | | | | | |
| **11** | 325 | 128.77 | 7540 | 1.35 | | | | | | |
| **11** | 305 | 120.63 | 7610 | 1.45 | | | | | | |
| **13** | 270 | 106.58 | 7700 | 1.65 | **R** | **57** | **DRS** | **71S4** | 26 | 279 |
| **14** | 250 | 98.99 | 7740 | 1.80 | **RF** | **57** | **DRS** | **71S4** | 29 | 280 |
| **15** | 225 | 89.71 | 7800 | 1.95 | **RM** | **57** | **DRS** | **71S4** | 41 | 280 |
| **17** | 205 | 80.55 | 7840 | 2.2 | | | | | | |
| **20** | 177 | 69.23 | 7890 | 2.5 | | | | | | |
| **21** | 166 | 64.85 | 7910 | 2.7 | | | | | | |
| **24** | 147 | 57.29 | 7760 | 3.1 | | | | | | |
| **26** | 136 | 53.22 | 7600 | 3.3 | | | | | | |
| **29** | 124 | 48.23 | 7380 | 3.6 | | | | | | |
| **9.9** | 355 | 139.99 | 3490 | 0.85 | | | | | | |
| **11** | 310 | 121.87 | 5350 | 0.95 | | | | | | |
| **12** | 290 | 114.17 | 5460 | 1.05 | | | | | | |
| **14** | 255 | 100.86 | 5620 | 1.15 | | | | | | |
| **15** | 235 | 93.68 | 5700 | 1.25 | | | | | | |
| **16** | 215 | 84.90 | 5790 | 1.40 | | | | | | |
| **18** | 195 | 76.23 | 5870 | 1.55 | | | | | | |
| **20** | 176 | 68.54 | 5930 | 1.70 | **R** | **47** | **DRS** | **71S4** | 20 | 276 |
| **21** | 164 | 64.21 | 5960 | 1.80 | **RF** | **47** | **DRS** | **71S4** | 20 | 277 |
| **24** | 145 | 56.73 | 6010 | 2.1 | | | | | | |
| **26** | 135 | 52.69 | 5990 | 2.2 | | | | | | |
| **29** | 122 | 47.75 | 5820 | 2.4 | | | | | | |
| **32** | 110 | 42.87 | 5650 | 2.7 | | | | | | |
| **37** | 94 | 36.93 | 5410 | 3.2 | | | | | | |
| **40** | 89 | 34.73 | 5310 | 3.4 | | | | | | |
| **41** | 86 | 33.79 | 5270 | 2.8 | | | | | | |
| **44** | 80 | 31.12 | 5140 | 2.8 | | | | | | |
| **52** | 68 | 26.74 | 4920 | 4.4 | **R** | **47** | **DRS** | **71S4** | 20 | 276 |
| **59** | 60 | 23.28 | 4720 | 5.0 | **RF** | **47** | **DRS** | **71S4** | 20 | 277 |
| **63** | 56 | 21.81 | 4620 | 5.4 | | | | | | |
| **15** | 230 | 90.77 | 4250 | 0.85 | | | | | | |
| **16** | 215 | 84.61 | 4720 | 0.90 | **R** | **37** | **DRS** | **71S4** | 17 | 273 |
| **19** | 189 | 73.96 | 5070 | 1.05 | **RF** | **37** | **DRS** | **71S4** | 18 | 274 |
| **20** | 178 | 69.33 | 5210 | 1.15 | | | | | | |
| **23** | 157 | 61.18 | 5410 | 1.30 | | | | | | |
| **25** | 143 | 55.76 | 5530 | 1.40 | | | | | | |
| **29** | 123 | 48.08 | 5580 | 1.60 | | | | | | |
| **31** | 115 | 44.81 | 5480 | 1.75 | **R** | **37** | **DRS** | **71S4** | 17 | 273 |
| **35** | 100 | 39.17 | 5280 | 2.00 | **RF** | **37** | **DRS** | **71S4** | 18 | 274 |
| **38** | 94 | 36.72 | 5190 | 2.1 | | | | | | |
| **43** | 83 | 32.40 | 5010 | 2.4 | | | | | | |
| **48** | 74 | 28.73 | 4850 | 2.7 | | | | | | |
| **57** | 62 | 24.42 | 4620 | 3.2 | | | | | | |
| **49** | 72 | 28.32 | 4830 | 2.8 | | | | | | |
| **53** | 67 | 26.03 | 4710 | 2.8 | | | | | | |
| **62** | 57 | 22.27 | 4500 | 3.5 | **R** | **37** | **DRS** | **71S4** | 17 | 273 |
| **71** | 49 | 19.31 | 4320 | 4.0 | **RF** | **37** | **DRS** | **71S4** | 18 | 274 |
| **76** | 46 | 18.05 | 4230 | 4.3 | | | | | | |
| **88** | 40 | 15.60 | 4050 | 5.0 | | | | | | |
| **104** | 34 | 13.25 | 3850 | 5.6 | **R** | **37** | **DRS** | **71S4** | 17 | 273 |
| **117** | 30 | 11.83 | 3720 | 6.0 | **RF** | **37** | **DRS** | **71S4** | 18 | 274 |
| **23** | 157 | 61.30 | 3870 | 0.85 | | | | | | |
| **25** | 143 | 55.87 | 3800 | 0.90 | | | | | | |
| **29** | 123 | 48.17 | 3680 | 1.05 | | | | | | |
| **31** | 115 | 44.90 | 3620 | 1.15 | | | | | | |
| **35** | 100 | 39.25 | 3510 | 1.30 | **R** | **27** | **DRS** | **71S4** | 11 | 270 |
| **38** | 94 | 36.79 | 3460 | 1.40 | **RF** | **27** | **DRS** | **71S4** | 11 | 271 |
| **42** | 83 | 32.47 | 3350 | 1.55 | | | | | | |
| **48** | 74 | 28.78 | 3250 | 1.75 | | | | | | |
| **56** | 63 | 24.47 | 3110 | 2.1 | | | | | | |



21284997/EN – 03/2015

| $P_m$ = 0.37 kW | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | | m kg | |
| **49** | 73 | 28.37 | 3240 | 1.80 | | | | | | | |
| **53** | 67 | 26.09 | 3170 | 1.95 | | | | | | | |
| **62** | 57 | 22.32 | 3040 | 2.3 | | | | | | | |
| **71** | 50 | 19.35 | 2920 | 2.6 | **R** | **27** | **DRS** | **71S4** | | 11 | 270 |
| **76** | 46 | 18.08 | 2860 | 2.8 | **RF** | **27** | **DRS** | **71S4** | | 11 | 271 |
| **88** | 40 | 15.63 | 2750 | 3.2 | | | | | | | |
| **104** | 34 | 13.28* | 2620 | 3.8 | | | | | | | |
| **36** | 99 | 38.61 | 770 | 0.85 | | | | | | | |
| **38** | 93 | 36.20 | 1260 | 0.90 | | | | | | | |
| **43** | 82 | 31.94 | 1910 | 1.05 | **R** | **17** | **DRS** | **71S4** | | 10 | 267 |
| **49** | 72 | 28.32 | 1880 | 1.15 | **RF** | **17** | **DRS** | **71S4** | | 10.0 | 268 |
| **57** | 62 | 24.07 | 1830 | 1.40 | | | | | | | |
| **55** | 65 | 25.23 | 1840 | 1.30 | | | | | | | |
| **60** | 59 | 23.15 | 1820 | 1.45 | | | | | | | |
| **70** | 50 | 19.71 | 1760 | 1.70 | | | | | | | |
| **81** | 44 | 16.99 | 1710 | 1.95 | | | | | | | |
| **87** | 40 | 15.84 | 1680 | 2.1 | | | | | | | |
| **100** | 35 | 13.84 | 1630 | 2.4 | | | | | | | |
| **106** | 33 | 12.98 | 1610 | 2.6 | | | | | | | |
| **121** | 29 | 11.45 | 1560 | 2.8 | | | | | | | |
| **136** | 26 | 10.15 | 1520 | 3.0 | **R** | **17** | **DRS** | **71S4** | | 9.8 | 267 |
| **160** | 22 | 8.63 | 1460 | 3.3 | **RF** | **17** | **DRS** | **71S4** | | 9.7 | 268 |
| **183** | 19 | 7.55 | 1370 | 2.9 | | | | | | | |
| **196** | 18 | 7.04 | 1350 | 3.1 | | | | | | | |
| **224** | 16 | 6.15 | 1300 | 3.4 | | | | | | | |
| **239** | 15 | 5.76 | 1280 | 3.6 | | | | | | | |
| **271** | 13 | 5.09 | 1240 | 3.9 | | | | | | | |
| **306** | 12 | 4.51 | 1200 | 4.2 | | | | | | | |
| **360** | 9.8 | 3.83 | 1140 | 4.6 | | | | | | | |
| **75** | 47 | 18.31 | 1000 | 1.05 | | | | | | | |
| **82** | 43 | 16.73 | 980 | 1.15 | | | | | | | |
| **98** | 36 | 14.12 | 960 | 1.40 | | | | | | | |
| **114** | 31 | 12.06 | 940 | 1.60 | | | | | | | |
| **123** | 29 | 11.18 | 930 | 1.75 | | | | | | | |
| **143** | 25 | 9.67 | 900 | 2.0 | | | | | | | |
| **153** | 23 | 9.01 | 890 | 2.2 | | | | | | | |
| **176** | 20 | 7.85 | 860 | 2.4 | **R** | **07** | **DRS** | **71S4** | | 8.8 | 264 |
| **185** | 19 | 7.48 | 860 | 2.2 | **RF** | **07** | **DRS** | **71S4** | | 8.8 | 265 |
| **202** | 18 | 6.83 | 840 | 2.5 | | | | | | | |
| **239** | 15 | 5.76 | 810 | 2.7 | | | | | | | |
| **280** | 13 | 4.92 | 780 | 2.9 | | | | | | | |
| **302** | 12 | 4.57 | 765 | 3.1 | | | | | | | |
| **350** | 10 | 3.95 | 735 | 3.4 | | | | | | | |
| **375** | 9.4 | 3.68 | 720 | 3.5 | | | | | | | |
| **430** | 8.2 | 3.21 | 695 | 3.8 | | | | | | | |
| **274** | 13 | 9.67 | 780 | 3.9 | | | | | | | |
| **294** | 12 | 9.01 | 765 | 4.2 | | | | | | | |
| **337** | 10 | 7.85 | 740 | 4.7 | | | | | | | |
| **354** | 10 | 7.48 | 730 | 4.3 | | | | | | | |
| **388** | 9.1 | 6.83 | 715 | 4.7 | | | | | | | |
| **460** | 7.7 | 5.76 | 680 | 5.2 | **R** | **07** | **DR** | **63L2** | | 7.0 | 264 |
| **538** | 6.6 | 4.92 | 650 | 5.6 | **RF** | **07** | **DR** | **63L2** | | 7.0 | 265 |
| **580** | 6.1 | 4.57 | 640 | 5.9 | | | | | | | |
| **671** | 5.3 | 3.95 | 610 | 6.4 | | | | | | | |
| **720** | 4.9 | 3.68 | 600 | 6.7 | | | | | | | |
| **826** | 4.3 | 3.21 | 575 | 7.2 | | | | | | | |
| **175** | 20 | 5.18 | 4560 | 3.7 | | | | | | | |
| **200** | 18 | 4.53 | 4370 | 4.6 | **RX** | **67** | **DRS** | **71M6** | | 20 | 254 |
| **210** | 17 | 4.30* | 4300 | 4.8 | **RXF** | **67** | **DRS** | **71M6** | | 24 | 255 |
| **240** | 15 | 3.77 | 4130 | 5.9 | | | | | | | |

21284997/EN – 03/2015

## $P_m$ = 0.37 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **227** | 16 | 6.07 | 4200 | 2.8 | | | | | | |
| **267** | 13 | 5.18 | 3990 | 5.6 | | | | | | |
| **305** | 12 | 4.53 | 3820 | 7.1 | | | | | | |
| **321** | 11 | 4.30* | 3760 | 7.3 | | | | | | |
| **366** | 9.7 | 3.77 | 3600 | 9.0 | **RX** | **67** | **DRS** | **71S4** | 19 | 254 |
| **431** | 8.2 | 3.20* | 3420 | 12 | **RXF** | **67** | **DRS** | **71S4** | 23 | 255 |
| **478** | 7.4 | 2.89 | 3310 | 14 | | | | | | |
| **543** | 6.5 | 2.54 | 3170 | 18 | | | | | | |
| **575** | 6.1 | 2.40* | 3110 | 20 | | | | | | |
| **675** | 5.2 | 2.04 | 2950 | 26 | | | | | | |
| **208** | 17 | 4.35 | 3490 | 4.0 | | | | | | |
| **239** | 15 | 3.79 | 3340 | 4.7 | **RX** | **57** | **DRS** | **71M6** | 17 | 252 |
| **255** | 14 | 3.55* | 3280 | 5.0 | **RXF** | **57** | **DRS** | **71M6** | 19 | 253 |
| **251** | 14 | 5.50* | 3300 | 2.8 | | | | | | |
| **272** | 13 | 5.07 | 3210 | 2.8 | | | | | | |
| **317** | 11 | 4.35 | 3060 | 6.1 | | | | | | |
| **364** | 9.7 | 3.79 | 2930 | 7.1 | | | | | | |
| **389** | 9.1 | 3.55* | 2870 | 7.6 | | | | | | |
| **440** | 8.0 | 3.14 | 2760 | 8.1 | **RX** | **57** | **DRS** | **71S4** | 16 | 252 |
| **474** | 7.5 | 2.91 | 2690 | 8.9 | **RXF** | **57** | **DRS** | **71S4** | 18 | 253 |
| **523** | 6.8 | 2.64* | 2610 | 10 | | | | | | |
| **582** | 6.1 | 2.37 | 2520 | 11 | | | | | | |
| **676** | 5.2 | 2.04 | 2400 | 13 | | | | | | |
| **719** | 4.9 | 1.92* | 2350 | 14 | | | | | | |
| **835** | 4.2 | 1.65 | 2240 | 16 | | | | | | |

## $P_m$ = 0.55 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **0.22** | 19800 | 6077 | 120000 | 0.90 | | | | | | |
| **0.25** | 17600 | 5407 | 120000 | 1.00 | **R** | **167R97** | **DRS** | **71M4** | 760 | 301 |
| **0.29** | 15000 | 4650 | 120000 | 1.20 | **RF** | **167R97** | **DRS** | **71M4** | 760 | 301 |
| **0.33** | 13100 | 4129 | 120000 | 1.35 | **RM** | **167R97** | **DRS** | **71M4** | 960 | 301 |
| **0.28** | 16800 | 4926 | 22000 | 0.75 | | | | | | |
| **0.31** | 14700 | 4325 | 53800 | 0.90 | **R** | **147R77** | **DRS** | **71M4** | 425 | 301 |
| **0.36** | 12800 | 3754 | 62900 | 1.00 | **RF** | **147R77** | **DRS** | **71M4** | 430 | 301 |
| **0.41** | 11200 | 3302 | 65900 | 1.15 | **RM** | **147R77** | **DRS** | **71M4** | 600 | 301 |
| **0.47** | 9830 | 2898 | 68000 | 1.30 | | | | | | |
| **0.53** | 8890 | 2555 | 69300 | 1.45 | | | | | | |
| **0.62** | 7690 | 2211 | 70600 | 1.70 | | | | | | |
| **0.70** | 6790 | 1951 | 71500 | 1.90 | **R** | **147R77** | **DRS** | **71M4** | 425 | 301 |
| **0.80** | 5810 | 1705 | 72400 | 2.2 | **RF** | **147R77** | **DRS** | **71M4** | 430 | 301 |
| **0.89** | 5200 | 1536 | 72800 | 2.5 | **RM** | **147R77** | **DRS** | **71M4** | 600 | 301 |
| **1.0** | 4500 | 1329 | 73300 | 2.9 | | | | | | |
| **1.2** | 3920 | 1166 | 73600 | 3.3 | | | | | | |
| | | | | | **R** | **137R77** | **DRS** | **71M4** | 280 | 301 |
| **0.55** | 8640 | 2484 | 51200 | 0.90 | **RF** | **137R77** | **DRS** | **71M4** | 305 | 301 |
| | | | | | **RM** | **137R77** | **DRS** | **71M4** | 415 | 301 |
| **0.51** | 9250 | 2658 | 45300 | 0.85 | | | | | | |
| **0.56** | 8390 | 2412 | 52300 | 0.95 | | | | | | |
| **0.66** | 7210 | 2073 | 55000 | 1.10 | | | | | | |
| **0.74** | 6310 | 1839 | 56500 | 1.25 | | | | | | |
| **0.85** | 5410 | 1598 | 57900 | 1.50 | **R** | **137R77** | **DRS** | **71M4** | 290 | 301 |
| **0.97** | 4840 | 1397 | 58600 | 1.65 | **RF** | **137R77** | **DRS** | **71M4** | 315 | 301 |
| **1.1** | 4220 | 1226 | 59300 | 1.90 | **RM** | **137R77** | **DRS** | **71M4** | 425 | 301 |
| **1.2** | 3770 | 1090 | 59700 | 2.1 | | | | | | |
| **1.4** | 3290 | 951 | 60100 | 2.4 | | | | | | |
| **1.6** | 2810 | 831 | 60500 | 2.8 | | | | | | |

## $P_m$ = 0.55 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **0.97** | 4820 | 1407 | 21900 | 0.90 | | | | | | |
| **1.1** | 4150 | 1209 | 30200 | 1.05 | | | | | | |
| **1.3** | 3620 | 1055 | 32700 | 1.20 | **R** | **107R77** | **DRS** | **71M4** | 200 | 301 |
| **1.5** | 3160 | 919 | 34400 | 1.35 | **RF** | **107R77** | **DRS** | **71M4** | 205 | 301 |
| **1.7** | 2820 | 815 | 35500 | 1.50 | **RM** | **107R77** | **DRS** | **71M4** | 295 | 301 |
| **1.9** | 2460 | 717 | 36200 | 1.75 | | | | | | |
| **2.2** | 2150 | 626 | 36600 | 2.0 | | | | | | |
| **0.97** | 4800 | 1400 | 22800 | 0.90 | | | | | | |
| **1.1** | 4170 | 1226 | 30100 | 1.05 | **R** | **107R77** | **DRS** | **71M4** | 205 | 301 |
| **1.2** | 3740 | 1104 | 32200 | 1.15 | **RF** | **107R77** | **DRS** | **71M4** | 210 | 301 |
| **1.4** | 3220 | 939 | 34200 | 1.35 | **RM** | **107R77** | **DRS** | **71M4** | 300 | 301 |
| **1.7** | 2800 | 822 | 35600 | 1.55 | | | | | | |
| **1.6** | 2870 | 824 | 21800 | 1.05 | | | | | | |
| **1.8** | 2560 | 737 | 23700 | 1.15 | | | | | | |
| **2.2** | 2200 | 632 | 25500 | 1.35 | | | | | | |
| **2.4** | 1910 | 560 | 26700 | 1.55 | | | | | | |
| **2.8** | 1660 | 484 | 27400 | 1.80 | **R** | **97R57** | **DRS** | **71M4** | 130 | 301 |
| **3.2** | 1510 | 431 | 27600 | 2.00 | **RF** | **97R57** | **DRS** | **71M4** | 150 | 301 |
| **3.6** | 1320 | 379 | 27900 | 2.3 | **RM** | **97R57** | **DRS** | **71M4** | 200 | 301 |
| **4.0** | 1170 | 336 | 28000 | 2.6 | | | | | | |
| **4.6** | 1030 | 296 | 28200 | 2.9 | | | | | | |
| **5.5** | 850 | 249 | 28300 | 3.5 | | | | | | |
| **2.6** | 1810 | 525 | 13600 | 0.85 | | | | | | |
| **3.0** | 1580 | 456 | 16700 | 1.00 | **R** | **87R57** | **DRS** | **71M4** | 89 | 301 |
| **3.4** | 1360 | 398 | 18100 | 1.15 | **RF** | **87R57** | **DRS** | **71M4** | 96 | 301 |
| **3.9** | 1210 | 352 | 18900 | 1.30 | **RM** | **87R57** | **DRS** | **71M4** | 125 | 301 |
| **4.4** | 1040 | 305 | 19700 | 1.50 | | | | | | |
| **2.9** | 1680 | 472 | 15900 | 0.90 | **R** | **87R57** | **DRS** | **71M4** | 87 | 301 |
| **3.4** | 1420 | 400 | 17800 | 1.10 | **RF** | **87R57** | **DRS** | **71M4** | 95 | 301 |
| **3.8** | 1280 | 361 | 18600 | 1.20 | **RM** | **87R57** | **DRS** | **71M4** | 125 | 301 |
| **4.9** | 980 | 276 | 4510 | 0.85 | | | | | | |
| **5.8** | 840 | 236 | 9730 | 1.00 | **R** | **77R37** | **DRS** | **71M4** | 49 | 301 |
| **6.2** | 785 | 221 | 10200 | 1.05 | **RF** | **77R37** | **DRS** | **71M4** | 55 | 301 |
| **7.3** | 655 | 186 | 11200 | 1.25 | **RM** | **77R37** | **DRS** | **71M4** | 80 | 301 |
| **3.2** | 1660 | 289.74 | 27400 | 1.80 | | | | | | |
| **3.6** | 1460 | 255.71 | 27700 | 2.0 | **R** | **97** | **DRS** | **80S6** | 110 | 291 |
| **3.8** | 1380 | 241.25 | 27800 | 2.2 | **RF** | **97** | **DRS** | **80S6** | 130 | 292 |
| **4.2** | 1240 | 216.28 | 28000 | 2.4 | **RM** | **97** | **DRS** | **80S6** | 180 | 292 |
| **4.7** | 1110 | 289.74 | 28100 | 2.7 | | | | | | |
| **5.3** | 980 | 255.71 | 28200 | 3.0 | **R** | **97** | **DRS** | **71M4** | 110 | 291 |
| **5.6** | 930 | 241.25 | 28300 | 3.2 | **RF** | **97** | **DRS** | **71M4** | 125 | 292 |
| **6.3** | 830 | 216.28 | 28400 | 3.6 | **RM** | **97** | **DRS** | **71M4** | 175 | 292 |
| **3.7** | 1410 | 246.54 | 17800 | 1.10 | | | | | | |
| **4.2** | 1240 | 216.54 | 18800 | 1.25 | **R** | **87** | **DRS** | **80S6** | 69 | 288 |
| **4.4** | 1180 | 205.71 | 19100 | 1.30 | **RF** | **87** | **DRS** | **80S6** | 76 | 289 |
| **5.0** | 1040 | 181.77 | 19700 | 1.50 | **RM** | **87** | **DRS** | **80S6** | 105 | 289 |
| **5.9** | 890 | 155.34 | 20000 | 1.75 | | | | | | |
| **5.5** | 950 | 246.54 | 20000 | 1.65 | | | | | | |
| **6.3** | 830 | 216.54 | 20000 | 1.85 | | | | | | |
| **6.6** | 790 | 205.71 | 20000 | 1.95 | | | | | | |
| **7.5** | 700 | 181.77 | 20000 | 2.2 | **R** | **87** | **DRS** | **71M4** | 67 | 288 |
| **8.8** | 595 | 155.34 | 20000 | 2.6 | **RF** | **87** | **DRS** | **71M4** | 74 | 289 |
| **9.6** | 545 | 142.41 | 20000 | 2.8 | **RM** | **87** | **DRS** | **71M4** | 105 | 289 |
| **11** | 480 | 124.97 | 20000 | 3.2 | | | | | | |
| **11** | 455 | 118.43* | 20000 | 3.4 | | | | | | |
| **13** | 400 | 103.65 | 20000 | 3.9 | | | | | | |
| **8.2** | 640 | 166.59 | 11300 | 1.25 | | | | | | |
| **9.3** | 560 | 145.67 | 11800 | 1.45 | | | | | | |
| **9.8** | 530 | 138.39 | 11900 | 1.55 | | | | | | |
| **11** | 465 | 121.42 | 12200 | 1.75 | **R** | **77** | **DRS** | **71M4** | 41 | 285 |
| **13** | 395 | 102.99 | 12500 | 2.1 | **RF** | **77** | **DRS** | **71M4** | 46 | 286 |
| **15** | 355 | 92.97 | 12600 | 2.3 | **RM** | **77** | **DRS** | **71M4** | 71 | 286 |
| **17** | 315 | 81.80 | 12800 | 2.6 | | | | | | |
| **18** | 295 | 77.24 | 12800 | 2.8 | | | | | | |
| **21** | 250 | 65.77 | 12900 | 3.2 | | | | | | |

21284997/EN – 03/2015

| $P_m$ = 0.55 kW | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
| **8.6** | 610 | 158.14 | 7430 | 1.00 | | | | | | |
| **9.9** | 530 | 137.67 | 8290 | 1.15 | | | | | | |
| **11** | 495 | 128.97 | 8600 | 1.20 | | | | | | |
| **12** | 440 | 113.94 | 9060 | 1.35 | | | | | | |
| **13** | 405 | 105.83 | 9280 | 1.45 | **R** | **67** | **DRS** | **71M4** | 34 | 282 |
| **14** | 370 | 95.91 | 9520 | 1.60 | **RF** | **67** | **DRS** | **71M4** | 37 | 283 |
| **16** | 330 | 86.11 | 9730 | 1.80 | **RM** | **67** | **DRS** | **71M4** | 52 | 283 |
| **18** | 285 | 74.17 | 9940 | 2.1 | | | | | | |
| **20** | 265 | 69.75 | 10000 | 2.2 | | | | | | |
| **22** | 235 | 61.26 | 10100 | 2.5 | | | | | | |
| **24** | 215 | 56.89 | 10200 | 2.7 | | | | | | |
| **11** | 465 | 120.63 | 7030 | 0.95 | | | | | | |
| **13** | 410 | 106.58 | 7260 | 1.10 | | | | | | |
| **14** | 380 | 98.99 | 7370 | 1.20 | | | | | | |
| **15** | 345 | 89.71 | 7490 | 1.30 | | | | | | |
| **17** | 310 | 80.55 | 7600 | 1.45 | | | | | | |
| **20** | 265 | 69.23 | 7710 | 1.70 | **R** | **57** | **DRS** | **71M4** | 27 | 279 |
| **21** | 250 | 64.85 | 7750 | 1.80 | **RF** | **57** | **DRS** | **71M4** | 30 | 280 |
| **24** | 220 | 57.29 | 7530 | 2.0 | **RM** | **57** | **DRS** | **71M4** | 42 | 280 |
| **26** | 205 | 53.22 | 7380 | 2.2 | | | | | | |
| **28** | 186 | 48.23 | 7190 | 2.4 | | | | | | |
| **31** | 167 | 43.30 | 6980 | 2.7 | | | | | | |
| **36** | 144 | 37.30* | 6700 | 3.1 | | | | | | |
| **39** | 135 | 35.07 | 6580 | 3.3 | | | | | | |
| **52** | 102 | 26.31 | 6060 | 4.4 | | | | | | |
| **54** | 97 | 24.99* | 5970 | 4.7 | **R** | **57** | **DRS** | **71M4** | 26 | 279 |
| **62** | 85 | 21.93 | 5740 | 5.3 | **RF** | **57** | **DRS** | **71M4** | 29 | 280 |
| **73** | 72 | 18.60* | 5460 | 6.3 | **RM** | **57** | **DRS** | **71M4** | 41 | 280 |
| **15** | 360 | 93.68 | 3280 | 0.85 | | | | | | |
| **16** | 325 | 84.90 | 5230 | 0.90 | | | | | | |
| **18** | 290 | 76.23 | 5450 | 1.00 | | | | | | |
| **20** | 260 | 68.54 | 5600 | 1.15 | | | | | | |
| **21** | 245 | 64.21 | 5670 | 1.20 | | | | | | |
| **24** | 215 | 56.73 | 5780 | 1.35 | **R** | **47** | **DRS** | **71M4** | 22 | 276 |
| **26** | 200 | 52.69 | 5770 | 1.45 | **RF** | **47** | **DRS** | **71M4** | 22 | 277 |
| **28** | 184 | 47.75 | 5630 | 1.65 | | | | | | |
| **32** | 166 | 42.87 | 5470 | 1.80 | | | | | | |
| **37** | 143 | 36.93 | 5260 | 2.1 | | | | | | |
| **39** | 134 | 34.73 | 5180 | 2.2 | | | | | | |
| **46** | 115 | 29.88 | 4970 | 2.6 | | | | | | |
| **51** | 103 | 26.74 | 4820 | 2.9 | | | | | | |
| **58** | 90 | 23.28 | 4630 | 3.3 | **R** | **47** | **DRS** | **71M4** | 21 | 276 |
| **62** | 84 | 21.81 | 4540 | 3.6 | **RF** | **47** | **DRS** | **71M4** | 21 | 277 |
| **22** | 235 | 61.18 | 3910 | 0.85 | | | | | | |
| **24** | 215 | 55.76 | 4740 | 0.95 | | | | | | |
| **28** | 186 | 48.08 | 5120 | 1.10 | | | | | | |
| **30** | 173 | 44.81 | 5230 | 1.15 | | | | | | |
| **35** | 151 | 39.17 | 5070 | 1.30 | **R** | **37** | **DRS** | **71M4** | 18 | 273 |
| **37** | 142 | 36.72 | 4990 | 1.40 | **RF** | **37** | **DRS** | **71M4** | 19 | 274 |
| **42** | 125 | 32.40 | 4840 | 1.60 | | | | | | |
| **47** | 111 | 28.73 | 4700 | 1.80 | | | | | | |
| **56** | 94 | 24.42 | 4500 | 2.1 | | | | | | |
| **61** | 86 | 22.27 | 4390 | 2.3 | | | | | | |
| **70** | 75 | 19.31 | 4220 | 2.7 | | | | | | |
| **75** | 70 | 18.05 | 4140 | 2.9 | **R** | **37** | **DRS** | **71M4** | 18 | 273 |
| **87** | 60 | 15.60 | 3970 | 3.3 | **RF** | **37** | **DRS** | **71M4** | 19 | 274 |
| **103** | 51 | 13.25 | 3790 | 3.7 | | | | | | |
| **115** | 46 | 11.83 | 3670 | 4.0 | | | | | | |
| **35** | 152 | 39.25 | 3280 | 0.85 | | | | | | |
| **37** | 142 | 36.79 | 3240 | 0.90 | | | | | | |
| **42** | 125 | 32.47 | 3160 | 1.05 | **R** | **27** | **DRS** | **71M4** | 12 | 270 |
| **47** | 111 | 28.78 | 3080 | 1.15 | **RF** | **27** | **DRS** | **71M4** | 12 | 271 |
| **56** | 94 | 24.47 | 2970 | 1.40 | | | | | | |

21284997/EN – 03/2015

## $P_m$ = 0.55 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **61** | 86 | 22.32 | 2910 | 1.50 | | | | | | |
| **70** | 75 | 19.35 | 2810 | 1.75 | | | | | | |
| **75** | 70 | 18.08 | 2760 | 1.85 | | | | | | |
| **87** | 60 | 15.63 | 2660 | 2.2 | | | | | | |
| **102** | 51 | 13.28* | 2550 | 2.5 | | | | | | |
| **115** | 46 | 11.86 | 2470 | 2.8 | | | | | | |
| **134** | 39 | 10.13 | 2370 | 3.1 | | | | | | |
| **144** | 36 | 9.41 | 2290 | 3.4 | **R** | **27** | **DRS** | **71M4** | 12 | 270 |
| **167** | 32 | 8.16 | 2200 | 3.7 | **RF** | **27** | **DRS** | **71M4** | 12 | 271 |
| **178** | 29 | 7.63* | 2160 | 3.8 | | | | | | |
| **206** | 25 | 6.59 | 2070 | 4.2 | | | | | | |
| **243** | 22 | 5.60* | 1980 | 4.6 | | | | | | |
| **272** | 19 | 5.00* | 1910 | 4.9 | | | | | | |
| **318** | 16 | 4.27 | 1830 | 5.3 | | | | | | |
| **340** | 15 | 4.00* | 1790 | 5.5 | | | | | | |
| **404** | 13 | 3.37 | 1700 | 6.1 | | | | | | |
| **52** | 100 | 53.76 | 630 | 0.85 | | | | | | |
| **59** | 89 | 47.44 | 1530 | 0.95 | **R** | **17** | **DRS** | **71M2** | 11 | 267 |
| **64** | 83 | 44.18 | 1600 | 1.05 | **RF** | **17** | **DRS** | **71M2** | 11 | 268 |
| **73** | 72 | 38.61 | 1580 | 1.20 | | | | | | |
| **69** | 76 | 19.71 | 1590 | 1.10 | | | | | | |
| **80** | 66 | 16.99 | 1560 | 1.30 | | | | | | |
| **86** | 61 | 15.84 | 1540 | 1.40 | | | | | | |
| **98** | 53 | 13.84 | 1510 | 1.60 | | | | | | |
| **105** | 50 | 12.98 | 1500 | 1.70 | | | | | | |
| **119** | 44 | 11.45 | 1460 | 1.85 | | | | | | |
| **134** | 39 | 10.15 | 1430 | 1.95 | | | | | | |
| **158** | 33 | 8.63 | 1380 | 2.2 | **R** | **17** | **DRS** | **71M4** | 11 | 267 |
| **180** | 29 | 7.55 | 1290 | 1.90 | **RF** | **17** | **DRS** | **71M4** | 11 | 268 |
| **193** | 27 | 7.04 | 1270 | 2.0 | | | | | | |
| **221** | 24 | 6.15 | 1240 | 2.3 | | | | | | |
| **236** | 22 | 5.76 | 1220 | 2.4 | | | | | | |
| **267** | 20 | 5.09 | 1180 | 2.6 | | | | | | |
| **302** | 17 | 4.51 | 1150 | 2.8 | | | | | | |
| **355** | 15 | 3.83 | 1110 | 3.0 | | | | | | |
| **326** | 16 | 8.63 | 1160 | 4.5 | | | | | | |
| **372** | 14 | 7.55 | 1090 | 4.0 | **R** | **17** | **DRS** | **71M2** | 11 | 267 |
| **399** | 13 | 7.04 | 1070 | 4.2 | **RF** | **17** | **DRS** | **71M2** | 11 | 268 |
| **457** | 12 | 6.15 | 1040 | 4.7 | | | | | | |
| **153** | 34 | 18.31 | 810 | 1.45 | | | | | | |
| **168** | 31 | 16.73 | 795 | 1.60 | | | | | | |
| **199** | 26 | 14.12 | 775 | 1.90 | | | | | | |
| **233** | 22 | 12.06 | 755 | 2.2 | | | | | | |
| **251** | 21 | 11.18 | 745 | 2.4 | | | | | | |
| **291** | 18 | 9.67 | 725 | 2.8 | | | | | | |
| **312** | 17 | 9.01 | 715 | 3.0 | | | | | | |
| **358** | 15 | 7.85 | 690 | 3.3 | **R** | **07** | **DRS** | **71M2** | 10 | 264 |
| **376** | 14 | 7.48 | 685 | 3.1 | **RF** | **07** | **DRS** | **71M2** | 10 | 265 |
| **411** | 13 | 6.83 | 670 | 3.4 | | | | | | |
| **487** | 11 | 5.76 | 645 | 3.7 | | | | | | |
| **571** | 9.2 | 4.92 | 620 | 4.0 | | | | | | |
| **615** | 8.5 | 4.57 | 605 | 4.2 | | | | | | |
| **712** | 7.4 | 3.95 | 585 | 4.6 | | | | | | |
| **764** | 6.9 | 3.68 | 570 | 4.8 | | | | | | |
| **876** | 6.0 | 3.21 | 550 | 5.2 | | | | | | |
| **177** | 30 | 5.18 | 4480 | 2.5 | | | | | | |
| **202** | 26 | 4.53 | 4300 | 3.2 | **RX** | **67** | **DRS** | **80S6** | 22 | 254 |
| **213** | 25 | 4.30* | 4230 | 3.2 | **RXF** | **67** | **DRS** | **80S6** | 26 | 255 |
| **243** | 22 | 3.77 | 4060 | 4.0 | | | | | | |

21284997/EN – 03/2015

## $P_m$ = 0.55 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **263** | 20 | 5.18 | 3970 | 3.8 | | | | | | |
| **300** | 17 | 4.53 | 3800 | 4.7 | | | | | | |
| **316** | 17 | 4.30* | 3740 | 4.8 | | | | | | |
| **360** | 15 | 3.77 | 3590 | 6.0 | | | | | | |
| **425** | 12 | 3.20* | 3410 | 8.1 | | | | | | |
| **471** | 11 | 2.89 | 3300 | 9.5 | **RX** | **67** | **DRS** | **71M4** | 20 | 254 |
| **535** | 9.8 | 2.54 | 3160 | 12 | **RXF** | **67** | **DRS** | **71M4** | 24 | 255 |
| **567** | 9.3 | 2.40* | 3110 | 13 | | | | | | |
| **666** | 7.9 | 2.04 | 2950 | 17 | | | | | | |
| **732** | 7.2 | 1.86 | 2860 | 18 | | | | | | |
| **845** | 6.2 | 1.61 | 2730 | 18 | | | | | | |
| **210** | 25 | 4.35 | 3420 | 2.7 | | | | | | |
| **241** | 22 | 3.79 | 3280 | 3.2 | | | | | | |
| **258** | 20 | 3.55* | 3220 | 3.4 | **RX** | **57** | **DRS** | **80S6** | 20 | 252 |
| **292** | 18 | 3.14 | 3100 | 3.6 | **RXF** | **57** | **DRS** | **80S6** | 22 | 253 |
| **314** | 17 | 2.91 | 3030 | 4.0 | | | | | | |
| **312** | 17 | 4.35 | 3040 | 4.0 | | | | | | |
| **359** | 15 | 3.79 | 2910 | 4.7 | | | | | | |
| **383** | 14 | 3.55* | 2850 | 5.0 | | | | | | |
| **434** | 12 | 3.14 | 2740 | 5.4 | | | | | | |
| **467** | 11 | 2.91 | 2680 | 6.0 | | | | | | |
| **515** | 10 | 2.64* | 2600 | 6.8 | **RX** | **57** | **DRS** | **71M4** | 17 | 252 |
| **574** | 9.2 | 2.37 | 2510 | 7.5 | **RXF** | **57** | **DRS** | **71M4** | 19 | 253 |
| **666** | 7.9 | 2.04 | 2390 | 8.8 | | | | | | |
| **708** | 7.4 | 1.92* | 2340 | 9.3 | | | | | | |
| **823** | 6.4 | 1.65 | 2230 | 11 | | | | | | |
| **921** | 5.7 | 1.48 | 2150 | 12 | | | | | | |
| **1045** | 5.0 | 1.30 | 2070 | 13 | | | | | | |

## $P_m$ = 0.75 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **0.31** | 19700 | 4650 | 120000 | 0.90 | **R** | **167R97** | **DRN** | **80M4** | 760 | 301 |
| **0.35** | 17300 | 4129 | 120000 | 1.05 | **RF** | **167R97** | **DRN** | **80M4** | 770 | 301 |
| | | | | | **RM** | **167R97** | **DRN** | **80M4** | 960 | 301 |
| **0.54** | 11500 | 2657 | 120000 | 1.55 | | | | | | |
| **0.62** | 10000 | 2333 | 120000 | 1.80 | **R** | **167R97** | **DRN** | **80M4** | 760 | 301 |
| **0.69** | 8850 | 2085 | 120000 | 2.0 | **RF** | **167R97** | **DRN** | **80M4** | 760 | 301 |
| **1.0** | 6250 | 1438 | 120000 | 2.9 | **RM** | **167R97** | **DRN** | **80M4** | 960 | 301 |
| | | | | | **R** | **147R77** | **DRN** | **80M4** | 430 | 301 |
| **0.44** | 14600 | 3302 | 54700 | 0.90 | **RF** | **147R77** | **DRN** | **80M4** | 435 | 301 |
| **0.50** | 12800 | 2898 | 63000 | 1.00 | **RM** | **147R77** | **DRN** | **80M4** | 600 | 301 |
| **0.56** | 11500 | 2555 | 65300 | 1.10 | | | | | | |
| **0.65** | 10000 | 2211 | 67800 | 1.30 | | | | | | |
| **0.74** | 8830 | 1951 | 69300 | 1.45 | **R** | **147R77** | **DRN** | **80M4** | 430 | 301 |
| **0.84** | 7590 | 1705 | 70700 | 1.70 | **RF** | **147R77** | **DRN** | **80M4** | 435 | 301 |
| **0.94** | 6810 | 1536 | 71500 | 1.90 | **RM** | **147R77** | **DRN** | **80M4** | 600 | 301 |
| **1.1** | 5890 | 1329 | 72300 | 2.2 | | | | | | |
| **1.2** | 5130 | 1166 | 72900 | 2.5 | | | | | | |
| **0.77** | 8340 | 1863 | 52500 | 0.95 | | | | | | |
| **0.91** | 7060 | 1586 | 55300 | 1.15 | **R** | **137R77** | **DRN** | **80M4** | 285 | 301 |
| **1.0** | 6290 | 1391 | 56600 | 1.25 | **RF** | **137R77** | **DRN** | **80M4** | 310 | 301 |
| **1.2** | 5660 | 1256 | 57500 | 1.40 | **RM** | **137R77** | **DRN** | **80M4** | 420 | 301 |
| **0.69** | 9380 | 2073 | 43000 | 0.85 | | | | | | |
| **0.78** | 8230 | 1839 | 52900 | 0.95 | | | | | | |
| **0.90** | 7080 | 1598 | 55200 | 1.15 | | | | | | |
| **1.0** | 6300 | 1397 | 56600 | 1.25 | **R** | **137R77** | **DRN** | **80M4** | 295 | 301 |
| **1.2** | 5500 | 1226 | 57800 | 1.45 | **RF** | **137R77** | **DRN** | **80M4** | 320 | 301 |
| **1.3** | 4910 | 1090 | 58500 | 1.65 | **RM** | **137R77** | **DRN** | **80M4** | 430 | 301 |
| **1.5** | 4290 | 951 | 59200 | 1.85 | | | | | | |
| **1.7** | 3680 | 831 | 59800 | 2.2 | | | | | | |
| **2.0** | 3210 | 730 | 60200 | 2.5 | | | | | | |

| $P_m$ = 0.75 kW | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
| 1.4 | 4720 | 1055 | 25800 | 0.90 | R | 107R77 | DRN | 80M4 | 205 | 301 |
| 1.6 | 4120 | 919 | 30400 | 1.05 | RF | 107R77 | DRN | 80M4 | 210 | 301 |
| 1.8 | 3670 | 815 | 32500 | 1.15 | RM | 107R77 | DRN | 80M4 | 300 | 301 |
| 1.5 | 4200 | 939 | 30000 | 1.00 | | | | | | |
| 1.8 | 3650 | 822 | 32500 | 1.20 | R | 107R77 | DRN | 80M4 | 210 | 301 |
| 3.9 | 1630 | 369 | 37100 | 2.6 | RF | 107R77 | DRN | 80M4 | 215 | 301 |
| 4.4 | 1420 | 323 | 37300 | 3.0 | RM | 107R77 | DRN | 80M4 | 305 | 301 |
| 2.3 | 2860 | 632 | 21900 | 1.05 | | | | | | |
| 2.6 | 2500 | 560 | 24100 | 1.20 | | | | | | |
| 3.0 | 2170 | 484 | 25700 | 1.40 | | | | | | |
| 3.3 | 1960 | 431 | 26500 | 1.55 | R | 97R57 | DRN | 80M4 | 135 | 301 |
| 3.8 | 1710 | 379 | 27300 | 1.75 | RF | 97R57 | DRN | 80M4 | 155 | 301 |
| 4.3 | 1520 | 336 | 27600 | 1.95 | RM | 97R57 | DRN | 80M4 | 205 | 301 |
| 4.9 | 1340 | 296 | 27900 | 2.2 | | | | | | |
| 5.8 | 1110 | 249 | 28100 | 2.7 | | | | | | |
| 3.6 | 1780 | 398 | 15100 | 0.85 | | | | | | |
| 4.1 | 1580 | 352 | 16700 | 1.00 | R | 87R57 | DRN | 80M4 | 94 | 301 |
| 4.7 | 1360 | 305 | 18100 | 1.15 | RF | 87R57 | DRN | 80M4 | 100 | 301 |
| 5.4 | 1200 | 268 | 18900 | 1.30 | RM | 87R57 | DRN | 80M4 | 130 | 301 |
| 6.1 | 1060 | 236 | 19600 | 1.45 | | | | | | |
| 4.0 | 1660 | 361 | 16100 | 0.95 | R | 87R57 | DRN | 80M4 | 92 | 301 |
| 4.8 | 1370 | 300 | 18100 | 1.15 | RF | 87R57 | DRN | 80M4 | 100 | 301 |
| 5.6 | 1160 | 256 | 19100 | 1.35 | RM | 87R57 | DRN | 80M4 | 130 | 301 |
| 5.0 | 1440 | 289.74 | 27700 | 2.1 | | | | | | |
| 5.6 | 1270 | 255.71 | 27900 | 2.4 | | | | | | |
| 6.0 | 1190 | 241.25 | 28000 | 2.5 | R | 97 | DRN | 80M4 | 115 | 291 |
| 6.7 | 1070 | 216.28 | 28200 | 2.8 | RF | 97 | DRN | 80M4 | 130 | 292 |
| 7.7 | 920 | 186.30 | 28300 | 3.2 | RM | 97 | DRN | 80M4 | 180 | 292 |
| 8.5 | 840 | 170.02 | 28400 | 3.6 | | | | | | |
| 5.8 | 1220 | 246.54 | 18800 | 1.25 | | | | | | |
| 6.6 | 1070 | 216.54 | 19500 | 1.45 | | | | | | |
| 7.0 | 1020 | 205.71 | 19700 | 1.50 | | | | | | |
| 7.9 | 900 | 181.77 | 20000 | 1.70 | | | | | | |
| 9.3 | 770 | 155.34 | 20000 | 2.0 | R | 87 | DRN | 80M4 | 72 | 288 |
| 10 | 705 | 142.41 | 20000 | 2.2 | RF | 87 | DRN | 80M4 | 79 | 289 |
| 12 | 620 | 124.97 | 20000 | 2.5 | RM | 87 | DRN | 80M4 | 110 | 289 |
| 12 | 585 | 118.43* | 20000 | 2.6 | | | | | | |
| 14 | 515 | 103.65 | 20000 | 3.0 | | | | | | |
| 15 | 460 | 93.38 | 20000 | 3.3 | | | | | | |
| 8.6 | 820 | 166.59 | 9840 | 1.00 | R | 77 | DRN | 80M4 | 46 | 285 |
| 9.9 | 720 | 145.67 | 10700 | 1.15 | RF | 77 | DRN | 80M4 | 51 | 286 |
| 10 | 685 | 138.39 | 11000 | 1.20 | RM | 77 | DRN | 80M4 | 76 | 286 |
| 12 | 600 | 121.42 | 11500 | 1.35 | | | | | | |
| 14 | 510 | 102.99 | 12000 | 1.60 | | | | | | |
| 15 | 460 | 92.97 | 12200 | 1.75 | | | | | | |
| 18 | 405 | 81.80 | 12500 | 2.0 | | | | | | |
| 19 | 380 | 77.24 | 12500 | 2.1 | R | 77 | DRN | 80M4 | 46 | 285 |
| 22 | 325 | 65.77 | 12700 | 2.5 | RF | 77 | DRN | 80M4 | 51 | 286 |
| 25 | 285 | 57.68 | 12800 | 2.9 | RM | 77 | DRN | 80M4 | 76 | 286 |
| 28 | 255 | 52.07 | 12900 | 3.2 | | | | | | |
| 31 | 225 | 45.81 | 13000 | 3.6 | | | | | | |
| 33 | 215 | 43.26 | 13000 | 3.8 | | | | | | |
| 11 | 640 | 128.97 | 7030 | 0.95 | | | | | | |
| 13 | 565 | 113.94 | 7940 | 1.05 | | | | | | |
| 14 | 525 | 105.83 | 8340 | 1.15 | | | | | | |
| 15 | 475 | 95.91 | 8780 | 1.25 | | | | | | |
| 17 | 425 | 86.11 | 9150 | 1.40 | R | 67 | DRN | 80M4 | 38 | 282 |
| 19 | 365 | 74.17 | 9530 | 1.65 | RF | 67 | DRN | 80M4 | 41 | 283 |
| 21 | 345 | 69.75 | 9650 | 1.75 | RM | 67 | DRN | 80M4 | 57 | 283 |
| 24 | 300 | 61.26 | 9860 | 1.95 | | | | | | |
| 25 | 280 | 56.89 | 9960 | 2.1 | | | | | | |
| 28 | 255 | 51.56 | 10100 | 2.3 | | | | | | |
| 31 | 230 | 46.29 | 10200 | 2.6 | | | | | | |

21284997/EN – 03/2015

| $P_m$ = 0.75 kW | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | | m kg | |
| **14** | 530 | 106.58 | 5570 | 0.85 | | | | | | | |
| **15** | 490 | 98.99 | 6910 | 0.90 | | | | | | | |
| **16** | 445 | 89.71 | 7120 | 1.00 | **R** | **57** | **DRN** | **80M4** | | 32 | 279 |
| **18** | 400 | 80.55 | 7300 | 1.10 | **RF** | **57** | **DRN** | **80M4** | | 35 | 280 |
| **21** | 340 | 69.23 | 7460 | 1.30 | **RM** | **57** | **DRN** | **80M4** | | 47 | 280 |
| **22** | 320 | 64.85 | 7360 | 1.40 | | | | | | | |
| **25** | 280 | 57.29 | 7150 | 1.60 | | | | | | | |
| **27** | 260 | 53.22 | 7020 | 1.70 | | | | | | | |
| **30** | 235 | 48.23 | 6850 | 1.90 | | | | | | | |
| **33** | 215 | 43.30 | 6670 | 2.1 | **R** | **57** | **DRN** | **80M4** | | 32 | 279 |
| **39** | 186 | 37.30* | 6410 | 2.4 | **RF** | **57** | **DRN** | **80M4** | | 35 | 280 |
| **41** | 174 | 35.07 | 6310 | 2.6 | **RM** | **57** | **DRN** | **80M4** | | 47 | 280 |
| **48** | 150 | 30.18 | 6060 | 3.0 | | | | | | | |
| **53** | 134 | 26.97 | 5870 | 3.4 | | | | | | | |
| **55** | 131 | 26.31 | 5830 | 3.4 | | | | | | | |
| **58** | 124 | 24.99* | 5750 | 3.6 | **R** | **57** | **DRN** | **80M4** | | 31 | 279 |
| **66** | 109 | 21.93 | 5540 | 4.1 | **RF** | **57** | **DRN** | **80M4** | | 34 | 280 |
| **77** | 93 | 18.60* | 5280 | 4.9 | **RM** | **57** | **DRN** | **80M4** | | 46 | 280 |
| **21** | 340 | 68.54 | 4530 | 0.90 | | | | | | | |
| **22** | 315 | 64.21 | 5310 | 0.95 | **R** | **47** | **DRN** | **80M4** | | 26 | 276 |
| **25** | 280 | 56.73 | 5510 | 1.05 | **RF** | **47** | **DRN** | **80M4** | | 27 | 277 |
| **27** | 260 | 52.69 | 5430 | 1.15 | | | | | | | |
| **30** | 235 | 47.75 | 5320 | 1.25 | | | | | | | |
| **34** | 210 | 42.87 | 5180 | 1.40 | | | | | | | |
| **39** | 184 | 36.93 | 5000 | 1.65 | **R** | **47** | **DRN** | **80M4** | | 26 | 276 |
| **41** | 173 | 34.73 | 4930 | 1.75 | **RF** | **47** | **DRN** | **80M4** | | 27 | 277 |
| **48** | 149 | 29.88 | 4740 | 2.0 | | | | | | | |
| **54** | 133 | 26.70 | 4610 | 2.3 | | | | | | | |
| **61** | 117 | 23.59 | 4460 | 2.6 | | | | | | | |
| **54** | 133 | 26.74 | 4610 | 2.3 | | | | | | | |
| **62** | 116 | 23.28 | 4440 | 2.6 | | | | | | | |
| **66** | 108 | 21.81 | 4360 | 2.8 | **R** | **47** | **DRN** | **80M4** | | 26 | 276 |
| **75** | 96 | 19.27 | 4220 | 3.1 | **RF** | **47** | **DRN** | **80M4** | | 26 | 277 |
| **80** | 89 | 17.89 | 4130 | 3.3 | | | | | | | |
| **89** | 81 | 16.22 | 4020 | 3.4 | | | | | | | |
| **30** | 235 | 48.08 | 3630 | 0.85 | | | | | | | |
| **32** | 220 | 44.81 | 4490 | 0.90 | **R** | **37** | **DRN** | **80M4** | | 23 | 273 |
| **37** | 195 | 39.17 | 4760 | 1.05 | **RF** | **37** | **DRN** | **80M4** | | 24 | 274 |
| **39** | 183 | 36.72 | 4690 | 1.10 | | | | | | | |
| **44** | 161 | 32.40 | 4570 | 1.25 | **R** | **37** | **DRN** | **80M4** | | 23 | 273 |
| **50** | 143 | 28.73 | 4440 | 1.40 | **RF** | **37** | **DRN** | **80M4** | | 24 | 274 |
| **59** | 121 | 24.42 | 4280 | 1.65 | | | | | | | |
| **65** | 111 | 22.27 | 4180 | 1.80 | | | | | | | |
| **75** | 96 | 19.31 | 4030 | 2.1 | | | | | | | |
| **80** | 90 | 18.05 | 3960 | 2.2 | | | | | | | |
| **92** | 78 | 15.60 | 3810 | 2.6 | **R** | **37** | **DRN** | **80M4** | | 22 | 273 |
| **109** | 66 | 13.25 | 3640 | 2.9 | **RF** | **37** | **DRN** | **80M4** | | 24 | 274 |
| **122** | 59 | 11.83 | 3530 | 3.1 | | | | | | | |
| **142** | 50 | 10.11 | 3380 | 3.4 | | | | | | | |
| **152** | 47 | 9.47 | 3310 | 3.6 | | | | | | | |
| **50** | 143 | 28.78 | 2860 | 0.90 | **R** | **27** | **DRN** | **80M4** | | 17 | 270 |
| **59** | 122 | 24.47 | 2770 | 1.05 | **RF** | **27** | **DRN** | **80M4** | | 17 | 271 |
| **65** | 111 | 22.32 | 2720 | 1.15 | | | | | | | |
| **74** | 96 | 19.35 | 2640 | 1.35 | | | | | | | |
| **80** | 90 | 18.08 | 2610 | 1.45 | | | | | | | |
| **92** | 78 | 15.63 | 2520 | 1.65 | | | | | | | |
| **108** | 66 | 13.28* | 2430 | 1.95 | | | | | | | |
| **121** | 59 | 11.86 | 2360 | 2.2 | | | | | | | |
| **142** | 50 | 10.13 | 2260 | 2.4 | **R** | **27** | **DRN** | **80M4** | | 16 | 270 |
| **153** | 47 | 9.41 | 2180 | 2.6 | **RF** | **27** | **DRN** | **80M4** | | 16 | 271 |
| **177** | 41 | 8.16 | 2110 | 2.9 | | | | | | | |
| **189** | 38 | 7.63* | 2070 | 3.0 | | | | | | | |
| **218** | 33 | 6.59 | 1990 | 3.2 | | | | | | | |
| **257** | 28 | 5.60* | 1900 | 3.6 | | | | | | | |
| **288** | 25 | 5.00* | 1840 | 3.8 | | | | | | | |



21284997/EN – 03/2015

## $P_m$ = 0.75 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **73** | 98 | 19.71 | 840 | 0.85 | | | | | | |
| **85** | 84 | 16.99 | 1380 | 1.00 | | | | | | |
| **91** | 79 | 15.84 | 1380 | 1.10 | | | | | | |
| **104** | 69 | 13.84 | 1370 | 1.25 | | | | | | |
| **111** | 65 | 12.98 | 1360 | 1.30 | | | | | | |
| **126** | 57 | 11.45 | 1340 | 1.40 | | | | | | |
| **142** | 50 | 10.15 | 1320 | 1.55 | **R** | **17** | **DRN** | **80M4** | 16 | 267 |
| **167** | 43 | 8.63 | 1280 | 1.70 | **RF** | **17** | **DRN** | **80M4** | 15 | 268 |
| **191** | 38 | 7.55 | 1190 | 1.50 | | | | | | |
| **205** | 35 | 7.04 | 1180 | 1.55 | | | | | | |
| **234** | 31 | 6.15 | 1150 | 1.75 | | | | | | |
| **250** | 29 | 5.76 | 1140 | 1.85 | | | | | | |
| **283** | 25 | 5.09 | 1110 | 2.0 | | | | | | |
| **319** | 22 | 4.51 | 1080 | 2.1 | | | | | | |
| **376** | 19 | 3.83 | 1040 | 2.4 | | | | | | |
| **278** | 26 | 5.18 | 3850 | 2.9 | | | | | | |
| **318** | 23 | 4.53 | 3700 | 3.6 | | | | | | |
| **335** | 21 | 4.30* | 3640 | 3.7 | | | | | | |
| **382** | 19 | 3.77 | 3490 | 4.6 | | | | | | |
| **450** | 16 | 3.20* | 3320 | 6.3 | | | | | | |
| **498** | 14 | 2.89 | 3210 | 7.4 | **RX** | **67** | **DRN** | **80M4** | 25 | 254 |
| **567** | 13 | 2.54 | 3080 | 9.3 | **RXF** | **67** | **DRN** | **80M4** | 29 | 255 |
| **600** | 12 | 2.40* | 3030 | 10 | | | | | | |
| **705** | 10 | 2.04 | 2880 | 13 | | | | | | |
| **775** | 9.2 | 1.86 | 2790 | 14 | | | | | | |
| **895** | 8.0 | 1.61 | 2660 | 14 | | | | | | |
| **331** | 22 | 4.35 | 2940 | 3.1 | | | | | | |
| **380** | 19 | 3.79 | 2820 | 3.7 | | | | | | |
| **406** | 18 | 3.55* | 2760 | 3.9 | | | | | | |
| **459** | 16 | 3.14 | 2660 | 4.2 | | | | | | |
| **494** | 14 | 2.91 | 2600 | 4.6 | | | | | | |
| **545** | 13 | 2.64* | 2520 | 5.3 | **RX** | **57** | **DRN** | **80M4** | 22 | 252 |
| **608** | 12 | 2.37 | 2440 | 5.8 | **RXF** | **57** | **DRN** | **80M4** | 24 | 253 |
| **705** | 10 | 2.04 | 2330 | 6.8 | | | | | | |
| **750** | 9.6 | 1.92* | 2280 | 7.2 | | | | | | |
| **872** | 8.2 | 1.65 | 2180 | 8.4 | | | | | | |
| **975** | 7.3 | 1.48 | 2100 | 9.3 | | | | | | |
| **1105** | 6.5 | 1.30 | 2020 | 9.7 | | | | | | |

## $P_m$ = 1.1 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **0.55** | 17100 | 2657 | 120000 | 1.05 | | | | | | |
| **0.62** | 14900 | 2333 | 120000 | 1.20 | | | | | | |
| **0.70** | 13200 | 2085 | 120000 | 1.35 | | | | | | |
| **0.78** | 11800 | 1877 | 120000 | 1.50 | **R** | **167R97** | **DRN** | **90S4** | 760 | 301 |
| **0.87** | 10500 | 1670 | 120000 | 1.70 | **RF** | **167R97** | **DRN** | **90S4** | 770 | 301 |
| **1.0** | 9290 | 1438 | 120000 | 1.95 | **RM** | **167R97** | **DRN** | **90S4** | 960 | 301 |
| **1.1** | 8270 | 1279 | 120000 | 2.2 | | | | | | |
| **1.3** | 7200 | 1123 | 120000 | 2.5 | | | | | | |
| **0.66** | 14600 | 2211 | 54200 | 0.90 | | | | | | |
| **0.75** | 12900 | 1951 | 62700 | 1.00 | | | | | | |
| **0.85** | 11100 | 1705 | 65900 | 1.15 | | | | | | |
| **0.95** | 10000 | 1536 | 67700 | 1.30 | | | | | | |
| **1.1** | 8700 | 1329 | 69500 | 1.50 | **R** | **147R77** | **DRN** | **90S4** | 435 | 301 |
| **1.2** | 7600 | 1166 | 70700 | 1.70 | **RF** | **147R77** | **DRN** | **90S4** | 440 | 301 |
| **1.4** | 6670 | 1029 | 71600 | 1.95 | **RM** | **147R77** | **DRN** | **90S4** | 610 | 301 |
| **1.6** | 5790 | 889 | 72400 | 2.2 | | | | | | |
| **1.9** | 5080 | 784 | 72900 | 2.6 | | | | | | |
| **2.1** | 4490 | 695 | 73300 | 2.9 | | | | | | |
| **1.0** | 9230 | 1391 | 45500 | 0.85 | | | | | | |
| **1.2** | 8320 | 1256 | 52600 | 0.95 | **R** | **137R77** | **DRN** | **90S4** | 290 | 301 |
| **1.3** | 7290 | 1105 | 54800 | 1.10 | **RF** | **137R77** | **DRN** | **90S4** | 315 | 301 |
| **1.4** | 6870 | 1043 | 55600 | 1.15 | **RM** | **137R77** | **DRN** | **90S4** | 425 | 301 |
| **1.6** | 5830 | 888 | 57300 | 1.35 | | | | | | |

21284997/EN – 03/2015

## $P_m$ = 1.1 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **1.0** | 9250 | 1397 | 45200 | 0.85 | | | | | | |
| **1.2** | 8090 | 1226 | 53200 | 1.00 | | | | | | |
| **1.3** | 7210 | 1090 | 55000 | 1.10 | | | | | | |
| **1.5** | 6300 | 951 | 56600 | 1.25 | **R** | **137R77** | **DRN** | **90S4** | 300 | 301 |
| **1.8** | 5440 | 831 | 57800 | 1.45 | **RF** | **137R77** | **DRN** | **90S4** | 325 | 301 |
| **2.0** | 4750 | 730 | 58700 | 1.70 | **RM** | **137R77** | **DRN** | **90S4** | 435 | 301 |
| **2.3** | 4060 | 629 | 59400 | 1.95 | | | | | | |
| **2.6** | 3670 | 560 | 59800 | 2.2 | | | | | | |
| **3.0** | 3160 | 490 | 60200 | 2.5 | | | | | | |
| | | | | | **R** | **107R77** | **DRN** | **90S4** | 210 | 301 |
| **2.0** | 4730 | 717 | 25600 | 0.90 | **RF** | **107R77** | **DRN** | **90S4** | 215 | 301 |
| | | | | | **RM** | **107R77** | **DRN** | **90S4** | 305 | 301 |
| **2.4** | 3980 | 614 | 31100 | 1.10 | | | | | | |
| **2.7** | 3510 | 544 | 33100 | 1.20 | | | | | | |
| **3.0** | 3180 | 492 | 34300 | 1.35 | | | | | | |
| **3.5** | 2690 | 417 | 35900 | 1.60 | **R** | **107R77** | **DRN** | **90S4** | 215 | 301 |
| **4.0** | 2410 | 369 | 36300 | 1.80 | **RF** | **107R77** | **DRN** | **90S4** | 220 | 301 |
| **4.5** | 2100 | 323 | 36700 | 2.0 | **RM** | **107R77** | **DRN** | **90S4** | 310 | 301 |
| **5.1** | 1850 | 285 | 36900 | 2.3 | | | | | | |
| **5.8** | 1630 | 253 | 37100 | 2.6 | | | | | | |
| **3.4** | 2870 | 431 | 21800 | 1.05 | | | | | | |
| **3.8** | 2510 | 379 | 24000 | 1.20 | | | | | | |
| **4.3** | 2240 | 336 | 25400 | 1.35 | **R** | **97R57** | **DRN** | **90S4** | 140 | 301 |
| **4.9** | 1960 | 296 | 26500 | 1.55 | **RF** | **97R57** | **DRN** | **90S4** | 160 | 301 |
| **5.8** | 1640 | 249 | 27400 | 1.80 | **RM** | **97R57** | **DRN** | **90S4** | 210 | 301 |
| **6.2** | 1530 | 234 | 27600 | 1.95 | | | | | | |
| **7.0** | 1360 | 209 | 27800 | 2.2 | | | | | | |
| **5.4** | 1770 | 268 | 15200 | 0.90 | **R** | **87R57** | **DRN** | **90S4** | 100 | 301 |
| **6.2** | 1560 | 236 | 16800 | 1.00 | **RF** | **87R57** | **DRN** | **90S4** | 105 | 301 |
| **7.0** | 1360 | 209 | 18100 | 1.15 | **RM** | **87R57** | **DRN** | **90S4** | 135 | 301 |
| **5.7** | 1710 | 256 | 15700 | 0.90 | **R** | **87R57** | **DRN** | **90S4** | 99 | 301 |
| **6.3** | 1550 | 232 | 16900 | 1.00 | **RF** | **87R57** | **DRN** | **90S4** | 105 | 301 |
| **7.5** | 1310 | 195 | 18400 | 1.20 | **RM** | **87R57** | **DRN** | **90S4** | 135 | 301 |
| **5.7** | 1840 | 255.71 | 27000 | 1.65 | | | | | | |
| **6.0** | 1740 | 241.25 | 27300 | 1.70 | | | | | | |
| **6.7** | 1560 | 216.28 | 27600 | 1.90 | | | | | | |
| **7.8** | 1340 | 186.30 | 27900 | 2.2 | **R** | **97** | **DRN** | **90S4** | 120 | 291 |
| **8.6** | 1220 | 170.02 | 28000 | 2.4 | **RF** | **97** | **DRN** | **90S4** | 135 | 292 |
| **9.6** | 1080 | 150.78 | 28100 | 2.8 | **RM** | **97** | **DRN** | **90S4** | 185 | 292 |
| **11** | 910 | 126.75 | 28300 | 3.3 | | | | | | |
| **12** | 840 | 116.48 | 28400 | 3.6 | | | | | | |
| **6.7** | 1560 | 216.54 | 16800 | 1.00 | **R** | **87** | **DRN** | **90S4** | 77 | 288 |
| **7.1** | 1480 | 205.71 | 17400 | 1.05 | **RF** | **87** | **DRN** | **90S4** | 84 | 289 |
| **8.0** | 1310 | 181.77 | 18400 | 1.20 | **RM** | **87** | **DRN** | **90S4** | 115 | 289 |
| **9.4** | 1120 | 155.34 | 19300 | 1.40 | | | | | | |
| **10** | 1020 | 142.41 | 19700 | 1.50 | | | | | | |
| **12** | 900 | 124.97 | 20000 | 1.70 | | | | | | |
| **12** | 850 | 118.43* | 20000 | 1.80 | | | | | | |
| **14** | 745 | 103.65 | 20000 | 2.1 | **R** | **87** | **DRN** | **90S4** | 77 | 288 |
| **16** | 670 | 93.38 | 20000 | 2.3 | **RF** | **87** | **DRN** | **90S4** | 84 | 289 |
| **18** | 590 | 81.92 | 20000 | 2.6 | **RM** | **87** | **DRN** | **90S4** | 115 | 289 |
| **20** | 520 | 72.57 | 20000 | 3.0 | | | | | | |
| **23** | 455 | 63.68* | 20000 | 3.4 | | | | | | |
| **24** | 435 | 60.35* | 20000 | 3.6 | | | | | | |
| **28** | 380 | 52.82 | 20000 | 4.1 | | | | | | |
| **12** | 870 | 121.42 | 9360 | 0.95 | **R** | **77** | **DRN** | **90S4** | 50 | 285 |
| **14** | 740 | 102.99 | 10600 | 1.10 | **RF** | **77** | **DRN** | **90S4** | 56 | 286 |
| **16** | 670 | 92.97 | 11100 | 1.20 | **RM** | **77** | **DRN** | **90S4** | 81 | 286 |

21284997/EN – 03/2015

## $P_m$ = 1.1 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **18** | 590 | 81.80 | 11600 | 1.40 | | | | | | |
| **19** | 555 | 77.24 | 11800 | 1.45 | | | | | | |
| **22** | 470 | 65.77 | 12200 | 1.75 | | | | | | |
| **25** | 415 | 57.68 | 12400 | 1.95 | **R** | **77** | **DRN** | **90S4** | 50 | 285 |
| **28** | 375 | 52.07 | 12600 | 2.2 | **RF** | **77** | **DRN** | **90S4** | 56 | 286 |
| **32** | 330 | 45.81 | 12700 | 2.5 | **RM** | **77** | **DRN** | **90S4** | 81 | 286 |
| **34** | 310 | 43.26 | 12800 | 2.6 | | | | | | |
| **40** | 265 | 36.83 | 12900 | 3.1 | | | | | | |
| **43** | 240 | 33.47 | 12900 | 3.4 | | | | | | |
| **17** | 620 | 86.11 | 7290 | 0.95 | | | | | | |
| **20** | 535 | 74.17 | 8260 | 1.10 | | | | | | |
| **21** | 500 | 69.75 | 8550 | 1.20 | | | | | | |
| **24** | 440 | 61.26 | 9050 | 1.35 | | | | | | |
| **26** | 410 | 56.89 | 9270 | 1.45 | **R** | **67** | **DRN** | **90S4** | 45 | 282 |
| **28** | 370 | 51.56 | 9510 | 1.60 | **RF** | **67** | **DRN** | **90S4** | 48 | 283 |
| **31** | 330 | 46.29 | 9720 | 1.80 | **RM** | **67** | **DRN** | **90S4** | 64 | 283 |
| **36** | 285 | 39.88* | 9940 | 2.0 | | | | | | |
| **39** | 270 | 37.50 | 10000 | 2.1 | | | | | | |
| **45** | 230 | 32.27 | 10200 | 2.3 | | | | | | |
| **50** | 205 | 28.83 | 10200 | 2.5 | | | | | | |
| **52** | 200 | 28.13 | 10100 | 2.7 | | | | | | |
| **54** | 193 | 26.72 | 10000 | 2.8 | **R** | **67** | **DRN** | **90S4** | 44 | 282 |
| **62** | 169 | 23.44 | 9620 | 3.3 | **RF** | **67** | **DRN** | **90S4** | 47 | 283 |
| **73** | 144 | 19.89 | 9160 | 4.2 | **RM** | **67** | **DRN** | **90S4** | 63 | 283 |
| **21** | 495 | 69.23 | 6720 | 0.90 | **R** | **57** | **DRN** | **90S4** | 38 | 279 |
| **22** | 465 | 64.85 | 6800 | 0.95 | **RF** | **57** | **DRN** | **90S4** | 41 | 280 |
| **25** | 410 | 57.29 | 6660 | 1.10 | **RM** | **57** | **DRN** | **90S4** | 53 | 280 |
| **27** | 380 | 53.22 | 6560 | 1.15 | | | | | | |
| **30** | 345 | 48.23 | 6440 | 1.30 | | | | | | |
| **34** | 310 | 43.30 | 6290 | 1.45 | **R** | **57** | **DRN** | **90S4** | 38 | 279 |
| **39** | 265 | 37.30* | 6090 | 1.65 | **RF** | **57** | **DRN** | **90S4** | 41 | 280 |
| **41** | 250 | 35.07 | 6000 | 1.80 | **RM** | **57** | **DRN** | **90S4** | 53 | 280 |
| **48** | 215 | 30.18 | 5790 | 2.1 | | | | | | |
| **54** | 195 | 26.97 | 5630 | 2.3 | | | | | | |
| **55** | 190 | 26.31 | 5600 | 2.4 | | | | | | |
| **58** | 180 | 24.99* | 5530 | 2.5 | **R** | **57** | **DRN** | **90S4** | 37 | 279 |
| **66** | 158 | 21.93 | 5340 | 2.8 | **RF** | **57** | **DRN** | **90S4** | 40 | 280 |
| **78** | 134 | 18.60* | 5110 | 3.4 | **RM** | **57** | **DRN** | **90S4** | 52 | 280 |
| **87** | 121 | 16.79 | 4970 | 3.7 | | | | | | |
| **30** | 340 | 47.75 | 4310 | 0.85 | | | | | | |
| **34** | 305 | 42.87 | 4810 | 0.95 | | | | | | |
| **39** | 265 | 36.93 | 4680 | 1.15 | | | | | | |
| **42** | 250 | 34.73 | 4620 | 1.20 | **R** | **47** | **DRN** | **90S4** | 33 | 276 |
| **49** | 215 | 29.88 | 4480 | 1.40 | **RF** | **47** | **DRN** | **90S4** | 33 | 277 |
| **54** | 193 | 26.70 | 4370 | 1.55 | | | | | | |
| **62** | 170 | 23.59 | 4250 | 1.75 | | | | | | |
| **62** | 168 | 23.28 | 4240 | 1.80 | | | | | | |
| **67** | 157 | 21.81 | 4170 | 1.90 | | | | | | |
| **76** | 139 | 19.27 | 4040 | 2.1 | | | | | | |
| **81** | 129 | 17.89 | 3970 | 2.2 | | | | | | |
| **90** | 117 | 16.22 | 3870 | 2.4 | **R** | **47** | **DRN** | **90S4** | 32 | 276 |
| **100** | 105 | 14.56 | 3760 | 2.5 | **RF** | **47** | **DRN** | **90S4** | 32 | 277 |
| **116** | 91 | 12.54 | 3620 | 2.8 | | | | | | |
| **123** | 85 | 11.79 | 3550 | 2.9 | | | | | | |
| **143** | 73 | 10.15 | 3410 | 3.1 | | | | | | |
| **160** | 65 | 9.07 | 3300 | 3.4 | | | | | | |
| **45** | 230 | 32.40 | 3040 | 0.85 | | | | | | |
| **51** | 205 | 28.73 | 3410 | 0.95 | **R** | **37** | **DRN** | **90S4** | 28 | 273 |
| **60** | 176 | 24.42 | 3800 | 1.15 | **RF** | **37** | **DRN** | **90S4** | 30 | 274 |
| **75** | 139 | 19.31 | 3810 | 1.45 | | | | | | |
| **81** | 130 | 18.05 | 3750 | 1.55 | **R** | **37** | **DRN** | **90S4** | 28 | 273 |
| **93** | 113 | 15.60 | 3630 | 1.80 | **RF** | **37** | **DRN** | **90S4** | 30 | 274 |

21284997/EN – 03/2015

## $P_m$ = 1.1 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **110** | 96 | 13.25 | 3490 | 2.00 | | | | | | |
| **123** | 85 | 11.83 | 3390 | 2.1 | | | | | | |
| **144** | 73 | 10.11 | 3260 | 2.3 | | | | | | |
| **154** | 68 | 9.47 | 3200 | 2.4 | **R** | **37** | **DRN** | **90S4** | 28 | 273 |
| **182** | 58 | 7.97 | 3060 | 2.7 | **RF** | **37** | **DRN** | **90S4** | 30 | 274 |
| **218** | 48 | 6.67 | 2890 | 3.0 | | | | | | |
| **257** | 41 | 5.67 | 2760 | 3.5 | | | | | | |
| **288** | 37 | 5.06 | 2670 | 3.7 | | | | | | |
| **75** | 140 | 19.35 | 2420 | 0.95 | | | | | | |
| **80** | 131 | 18.08 | 2400 | 1.00 | | | | | | |
| **93** | 113 | 15.63 | 2340 | 1.15 | | | | | | |
| **110** | 96 | 13.28* | 2270 | 1.35 | | | | | | |
| **123** | 86 | 11.86 | 2220 | 1.50 | | | | | | |
| **144** | 73 | 10.13 | 2140 | 1.65 | | | | | | |
| **155** | 68 | 9.41 | 2060 | 1.80 | | | | | | |
| **178** | 59 | 8.16 | 1990 | 1.95 | **R** | **27** | **DRN** | **90S4** | 22 | 270 |
| **191** | 55 | 7.63* | 1960 | 2.0 | **RF** | **27** | **DRN** | **90S4** | 22 | 271 |
| **221** | 48 | 6.59 | 1900 | 2.2 | | | | | | |
| **260** | 40 | 5.60* | 1820 | 2.4 | | | | | | |
| **291** | 36 | 5.00* | 1770 | 2.6 | | | | | | |
| **341** | 31 | 4.27 | 1700 | 2.8 | | | | | | |
| **364** | 29 | 4.00* | 1670 | 2.9 | | | | | | |
| **432** | 24 | 3.37 | 1600 | 3.2 | | | | | | |
| **258** | 41 | 5.63 | 5610 | 2.7 | | | | | | |
| **272** | 39 | 5.35* | 5520 | 2.7 | **RX** | **77** | **DRN** | **90S4** | 41 | 256 |
| **308** | 34 | 4.73 | 5320 | 3.6 | **RXF** | **77** | **DRN** | **90S4** | 43 | 257 |
| **321** | 33 | 4.53 | 3620 | 2.5 | | | | | | |
| **338** | 31 | 4.30* | 3560 | 2.6 | | | | | | |
| **386** | 27 | 3.77 | 3430 | 3.2 | | | | | | |
| **455** | 23 | 3.20* | 3260 | 4.3 | | | | | | |
| **504** | 21 | 2.89 | 3160 | 5.1 | | | | | | |
| **572** | 18 | 2.54 | 3040 | 6.4 | **RX** | **67** | **DRN** | **90S4** | 31 | 254 |
| **606** | 17 | 2.40* | 2980 | 7.1 | **RXF** | **67** | **DRN** | **90S4** | 35 | 255 |
| **712** | 15 | 2.04 | 2840 | 9.1 | | | | | | |
| **783** | 13 | 1.86 | 2750 | 9.4 | | | | | | |
| **904** | 12 | 1.61 | 2630 | 9.8 | | | | | | |
| **1040** | 10 | 1.40* | 2510 | 10 | | | | | | |
| **384** | 27 | 3.79 | 2750 | 2.5 | | | | | | |
| **410** | 26 | 3.55* | 2700 | 2.7 | | | | | | |
| **464** | 23 | 3.14 | 2600 | 2.9 | | | | | | |
| **499** | 21 | 2.91 | 2540 | 3.2 | | | | | | |
| **551** | 19 | 2.64* | 2470 | 3.6 | | | | | | |
| **614** | 17 | 2.37 | 2390 | 4.0 | **RX** | **57** | **DRN** | **90S4** | 29 | 252 |
| **713** | 15 | 2.04 | 2280 | 4.7 | **RXF** | **57** | **DRN** | **90S4** | 30 | 253 |
| **758** | 14 | 1.92* | 2240 | 5.0 | | | | | | |
| **881** | 12 | 1.65 | 2140 | 5.8 | | | | | | |
| **986** | 11 | 1.48 | 2060 | 6.4 | | | | | | |
| **1115** | 9.4 | 1.30 | 1990 | 6.7 | | | | | | |

## $P_m$ = 1.5 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **0.63** | 20600 | 2333 | 120000 | 0.85 | | | | | | |
| **0.70** | 18300 | 2085 | 120000 | 1.00 | | | | | | |
| **0.78** | 16300 | 1877 | 120000 | 1.10 | | | | | | |
| **0.87** | 14500 | 1670 | 120000 | 1.25 | **R** | **167R97** | **DRN** | **90L4** | 760 | 301 |
| **1.0** | 12700 | 1438 | 120000 | 1.40 | **RF** | **167R97** | **DRN** | **90L4** | 770 | 301 |
| **1.1** | 11300 | 1279 | 120000 | 1.60 | **RM** | **167R97** | **DRN** | **90L4** | 970 | 301 |
| **1.3** | 9930 | 1123 | 120000 | 1.80 | | | | | | |
| **1.5** | 8840 | 999 | 120000 | 2.0 | | | | | | |
| **3.4** | 3770 | 426 | 73700 | 3.4 | **R** | **147R87** | **DRN** | **90L4** | 455 | 301 |
| **4.0** | 3250 | 368 | 73900 | 4.0 | **RF** | **147R87** | **DRN** | **90L4** | 465 | 301 |
| | | | | | **RM** | **147R87** | **DRN** | **90L4** | 630 | 301 |

## $P_m$ = 1.5 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **0.86** | 15300 | 1705 | 45900 | 0.85 | | | | | | |
| **0.95** | 13700 | 1536 | 61000 | 0.95 | | | | | | |
| **1.1** | 11900 | 1329 | 64700 | 1.10 | | | | | | |
| **1.2** | 10400 | 1166 | 67100 | 1.25 | | | | | | |
| **1.4** | 9180 | 1029 | 68900 | 1.40 | **R** | **147R77** | **DRN** | **90L4** | 435 | 301 |
| **1.6** | 7950 | 889 | 70400 | 1.65 | **RF** | **147R77** | **DRN** | **90L4** | 445 | 301 |
| **1.9** | 6990 | 784 | 71300 | 1.85 | **RM** | **147R77** | **DRN** | **90L4** | 610 | 301 |
| **2.1** | 6180 | 695 | 72100 | 2.1 | | | | | | |
| **2.4** | 5570 | 619 | 72500 | 2.3 | | | | | | |
| **2.6** | 5010 | 558 | 72900 | 2.6 | | | | | | |
| **1.4** | 9410 | 1043 | 42400 | 0.85 | | | | | | |
| **1.6** | 7990 | 888 | 53400 | 1.00 | **R** | **137R77** | **DRN** | **90L4** | 295 | 301 |
| **2.1** | 6260 | 699 | 56600 | 1.30 | **RF** | **137R77** | **DRN** | **90L4** | 320 | 301 |
| **2.4** | 5430 | 609 | 57800 | 1.45 | **RM** | **137R77** | **DRN** | **90L4** | 430 | 301 |
| **1.3** | 9870 | 1090 | 32900 | 0.80 | | | | | | |
| **1.5** | 8610 | 951 | 51300 | 0.95 | | | | | | |
| **1.8** | 7460 | 831 | 54500 | 1.05 | | | | | | |
| **2.0** | 6520 | 730 | 56200 | 1.25 | | | | | | |
| **2.3** | 5590 | 629 | 57600 | 1.45 | **R** | **137R77** | **DRN** | **90L4** | 305 | 301 |
| **2.6** | 5040 | 560 | 58400 | 1.60 | **RF** | **137R77** | **DRN** | **90L4** | 325 | 301 |
| **3.0** | 4360 | 490 | 59100 | 1.85 | **RM** | **137R77** | **DRN** | **90L4** | 440 | 301 |
| **3.4** | 3800 | 428 | 59700 | 2.1 | | | | | | |
| **3.8** | 3430 | 381 | 60000 | 2.3 | | | | | | |
| **4.5** | 2910 | 323 | 60400 | 2.8 | | | | | | |
| | | | | | **R** | **107R77** | **DRN** | **90L4** | 210 | 301 |
| **2.8** | 4720 | 528 | 25800 | 0.90 | **RF** | **107R77** | **DRN** | **90L4** | 220 | 301 |
| | | | | | **RM** | **107R77** | **DRN** | **90L4** | 305 | 301 |
| **2.7** | 4840 | 544 | 21300 | 0.90 | | | | | | |
| **3.0** | 4380 | 492 | 29000 | 1.00 | **R** | **107R77** | **DRN** | **90L4** | 220 | 301 |
| **3.5** | 3710 | 417 | 32300 | 1.15 | **RF** | **107R77** | **DRN** | **90L4** | 225 | 301 |
| **4.0** | 3310 | 369 | 33900 | 1.30 | **RM** | **107R77** | **DRN** | **90L4** | 310 | 301 |
| **4.5** | 2890 | 323 | 35300 | 1.50 | | | | | | |
| | | | | | **R** | **107R77** | **DRN** | **90L4** | 210 | 301 |
| **3.1** | 4300 | 469 | 29400 | 1.00 | **RF** | **107R77** | **DRN** | **90L4** | 215 | 301 |
| | | | | | **RM** | **107R77** | **DRN** | **90L4** | 305 | 301 |
| **4.3** | 3050 | 336 | 17400 | 1.00 | | | | | | |
| **4.9** | 2680 | 296 | 23000 | 1.10 | **R** | **97R57** | **DRN** | **90L4** | 145 | 301 |
| **5.9** | 2250 | 249 | 25300 | 1.35 | **RF** | **97R57** | **DRN** | **90L4** | 165 | 301 |
| **6.2** | 2100 | 234 | 26000 | 1.45 | **RM** | **97R57** | **DRN** | **90L4** | 215 | 301 |
| **7.0** | 1870 | 209 | 26800 | 1.60 | | | | | | |
| **5.7** | 2500 | 255.71 | 24000 | 1.20 | | | | | | |
| **6.1** | 2360 | 241.25 | 24800 | 1.25 | | | | | | |
| **6.8** | 2120 | 216.28 | 25900 | 1.40 | | | | | | |
| **7.8** | 1820 | 186.30 | 27000 | 1.65 | | | | | | |
| **8.6** | 1660 | 170.02 | 27400 | 1.80 | **R** | **97** | **DRN** | **90L4** | 120 | 291 |
| **9.7** | 1470 | 150.78 | 27700 | 2.0 | **RF** | **97** | **DRN** | **90L4** | 140 | 292 |
| **12** | 1240 | 126.75 | 28000 | 2.4 | **RM** | **97** | **DRN** | **90L4** | 190 | 292 |
| **13** | 1140 | 116.48 | 28100 | 2.6 | | | | | | |
| **14** | 1010 | 103.44 | 28200 | 3.0 | | | | | | |
| **16** | 900 | 92.48 | 28300 | 3.3 | | | | | | |
| **8.0** | 1780 | 181.77 | 15100 | 0.85 | | | | | | |
| **9.4** | 1520 | 155.34 | 17100 | 1.00 | | | | | | |
| **10** | 1390 | 142.41 | 17900 | 1.10 | **R** | **87** | **DRN** | **90L4** | 80 | 288 |
| **12** | 1220 | 124.97 | 18800 | 1.25 | **RF** | **87** | **DRN** | **90L4** | 87 | 289 |
| **12** | 1160 | 118.43* | 19200 | 1.35 | **RM** | **87** | **DRN** | **90L4** | 115 | 289 |
| **14** | 1010 | 103.65 | 19800 | 1.55 | | | | | | |
| **16** | 910 | 93.38 | 20000 | 1.70 | | | | | | |
| **18** | 800 | 81.92 | 20000 | 1.95 | | | | | | |
| **20** | 710 | 72.57 | 20000 | 2.2 | | | | | | |
| **23** | 620 | 63.68* | 20000 | 2.5 | **R** | **87** | **DRN** | **90L4** | 80 | 288 |
| **24** | 590 | 60.35* | 20000 | 2.6 | **RF** | **87** | **DRN** | **90L4** | 87 | 289 |
| **28** | 515 | 52.82 | 20000 | 3.0 | **RM** | **87** | **DRN** | **90L4** | 115 | 289 |
| **31** | 465 | 47.58 | 20000 | 3.3 | | | | | | |
| **35** | 405 | 41.74 | 20000 | 3.8 | | | | | | |
| **40** | 360 | 36.84* | 19400 | 4.3 | | | | | | |

21284997/EN – 03/2015

## $P_m$ = 1.5 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **16** | 910 | 92.97 | 8980 | 0.90 | | | | | | |
| **18** | 800 | 81.80 | 10100 | 1.00 | **R** | **77** | **DRN** | **90L4** | 54 | 285 |
| **19** | 755 | 77.24 | 10500 | 1.10 | **RF** | **77** | **DRN** | **90L4** | 59 | 286 |
| **22** | 640 | 65.77 | 11300 | 1.25 | **RM** | **77** | **DRN** | **90L4** | 84 | 286 |
| **25** | 565 | 57.68 | 11700 | 1.45 | | | | | | |
| **28** | 510 | 52.07 | 12000 | 1.60 | | | | | | |
| **32** | 445 | 45.81 | 12300 | 1.85 | | | | | | |
| **34** | 420 | 43.26 | 12400 | 1.95 | **R** | **77** | **DRN** | **90L4** | 54 | 285 |
| **40** | 360 | 36.83 | 12600 | 2.3 | **RF** | **77** | **DRN** | **90L4** | 59 | 286 |
| **44** | 325 | 33.47 | 12700 | 2.5 | **RM** | **77** | **DRN** | **90L4** | 84 | 286 |
| **50** | 280 | 29.00 | 12400 | 2.9 | | | | | | |
| **58** | 245 | 25.23 | 11900 | 3.2 | | | | | | |
| **62** | 225 | 23.37 | 11600 | 3.6 | **R** | **77** | **DRN** | **90L4** | 52 | 285 |
| **68** | 210 | 21.43 | 11400 | 3.9 | **RF** | **77** | **DRN** | **90L4** | 58 | 286 |
| **78** | 184 | 18.80 | 10900 | 4.2 | **RM** | **77** | **DRN** | **90L4** | 83 | 286 |
| **24** | 600 | 61.26 | 7550 | 1.00 | | | | | | |
| **26** | 555 | 56.89 | 8030 | 1.10 | | | | | | |
| **28** | 505 | 51.56 | 8530 | 1.20 | | | | | | |
| **32** | 450 | 46.29 | 8960 | 1.30 | **R** | **67** | **DRN** | **90L4** | 48 | 282 |
| **37** | 390 | 39.88* | 9390 | 1.50 | **RF** | **67** | **DRN** | **90L4** | 51 | 283 |
| **39** | 365 | 37.50 | 9530 | 1.55 | **RM** | **67** | **DRN** | **90L4** | 67 | 283 |
| **45** | 315 | 32.27 | 9810 | 1.70 | | | | | | |
| **51** | 280 | 28.83 | 9960 | 1.85 | | | | | | |
| **52** | 275 | 28.13 | 9890 | 1.95 | | | | | | |
| **55** | 260 | 26.72 | 9760 | 2.1 | **R** | **67** | **DRN** | **90L4** | 47 | 282 |
| **62** | 225 | 23.44 | 9410 | 2.4 | **RF** | **67** | **DRN** | **90L4** | 50 | 283 |
| **73** | 195 | 19.89 | 8980 | 3.1 | **RM** | **67** | **DRN** | **90L4** | 66 | 283 |
| **81** | 176 | 17.95 | 8720 | 3.4 | | | | | | |
| **27** | 520 | 53.22 | 5900 | 0.85 | **R** | **57** | **DRN** | **90L4** | 41 | 279 |
| **30** | 470 | 48.23 | 5980 | 0.95 | **RF** | **57** | **DRN** | **90L4** | 45 | 280 |
| **34** | 420 | 43.30 | 5880 | 1.05 | **RM** | **57** | **DRN** | **90L4** | 57 | 280 |
| **39** | 365 | 37.30* | 5730 | 1.25 | | | | | | |
| **42** | 340 | 35.07 | 5670 | 1.30 | **R** | **57** | **DRN** | **90L4** | 41 | 279 |
| **48** | 295 | 30.18 | 5500 | 1.50 | **RF** | **57** | **DRN** | **90L4** | 45 | 280 |
| **54** | 260 | 26.97 | 5380 | 1.70 | **RM** | **57** | **DRN** | **90L4** | 57 | 280 |
| **56** | 255 | 26.31 | 5350 | 1.75 | | | | | | |
| **58** | 245 | 24.99* | 5290 | 1.85 | | | | | | |
| **67** | 215 | 21.93 | 5130 | 2.1 | | | | | | |
| **79** | 182 | 18.60* | 4930 | 2.5 | **R** | **57** | **DRN** | **90L4** | 40 | 279 |
| **87** | 165 | 16.79 | 4810 | 2.7 | **RF** | **57** | **DRN** | **90L4** | 44 | 280 |
| **99** | 145 | 14.77* | 4650 | 3.0 | **RM** | **57** | **DRN** | **90L4** | 56 | 280 |
| **105** | 137 | 13.95* | 4580 | 3.1 | | | | | | |
| **123** | 116 | 11.88 | 4390 | 3.5 | | | | | | |
| **40** | 360 | 36.93 | 3260 | 0.85 | | | | | | |
| **42** | 340 | 34.73 | 4290 | 0.90 | | | | | | |
| **49** | 290 | 29.88 | 4190 | 1.00 | **R** | **47** | **DRN** | **90L4** | 36 | 276 |
| **55** | 260 | 26.70 | 4110 | 1.15 | **RF** | **47** | **DRN** | **90L4** | 36 | 277 |
| **62** | 230 | 23.59 | 4020 | 1.30 | | | | | | |
| **63** | 225 | 23.28 | 4010 | 1.30 | | | | | | |
| **67** | 210 | 21.81 | 3960 | 1.40 | | | | | | |
| **76** | 189 | 19.27 | 3860 | 1.55 | | | | | | |
| **82** | 175 | 17.89 | 3800 | 1.65 | | | | | | |
| **90** | 159 | 16.22 | 3710 | 1.75 | | | | | | |
| **100** | 143 | 14.56 | 3620 | 1.85 | | | | | | |
| **116** | 123 | 12.54 | 3490 | 2.0 | | | | | | |
| **124** | 116 | 11.79 | 3440 | 2.1 | | | | | | |
| **144** | 100 | 10.15 | 3310 | 2.3 | **R** | **47** | **DRN** | **90L4** | 35 | 276 |
| **161** | 89 | 9.07 | 3210 | 2.5 | **RF** | **47** | **DRN** | **90L4** | 35 | 277 |
| **182** | 79 | 8.01 | 3110 | 2.6 | | | | | | |
| **188** | 76 | 7.76* | 3040 | 2.1 | | | | | | |
| **210** | 68 | 6.96 | 2950 | 2.3 | | | | | | |
| **244** | 59 | 6.00 | 2830 | 2.6 | | | | | | |
| **259** | 55 | 5.64* | 2780 | 2.8 | | | | | | |
| **301** | 48 | 4.85 | 2670 | 3.2 | | | | | | |
| **337** | 43 | 4.34 | 2590 | 3.4 | | | | | | |
| **381** | 38 | 3.83 | 2500 | 3.8 | | | | | | |



21284997/EN – 03/2015

## $P_m$ = 1.5 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **76** | 189 | 19.31 | 2760 | 1.05 | | | | | | |
| **81** | 177 | 18.05 | 2930 | 1.15 | **R** | **37** | **DRN** | **90L4** | 31 | 273 |
| **94** | 153 | 15.60 | 3230 | 1.30 | **RF** | **37** | **DRN** | **90L4** | 33 | 274 |
| **110** | 130 | 13.25 | 3320 | 1.45 | | | | | | |
| **123** | 116 | 11.83 | 3240 | 1.60 | | | | | | |
| **145** | 99 | 10.11 | 3130 | 1.70 | | | | | | |
| **154** | 93 | 9.47 | 3080 | 1.80 | | | | | | |
| **183** | 78 | 7.97 | 2950 | 2.0 | | | | | | |
| **219** | 65 | 6.67 | 2800 | 2.2 | **R** | **37** | **DRN** | **90L4** | 31 | 273 |
| **258** | 56 | 5.67 | 2680 | 2.6 | **RF** | **37** | **DRN** | **90L4** | 33 | 274 |
| **289** | 50 | 5.06 | 2600 | 2.7 | | | | | | |
| **338** | 42 | 4.32 | 2490 | 3.0 | | | | | | |
| **361** | 40 | 4.05 | 2450 | 3.1 | | | | | | |
| **429** | 33 | 3.41 | 2330 | 3.4 | | | | | | |
| **93** | 153 | 15.63 | 1780 | 0.85 | | | | | | |
| **110** | 130 | 13.28* | 2080 | 1.00 | | | | | | |
| **123** | 116 | 11.86 | 2060 | 1.10 | | | | | | |
| **144** | 99 | 10.13 | 2010 | 1.25 | | | | | | |
| **179** | 80 | 8.16 | 1870 | 1.45 | | | | | | |
| **192** | 75 | 7.63* | 1850 | 1.50 | **R** | **27** | **DRN** | **90L4** | 25 | 270 |
| **222** | 65 | 6.59 | 1800 | 1.65 | **RF** | **27** | **DRN** | **90L4** | 25 | 271 |
| **261** | 55 | 5.60* | 1740 | 1.80 | | | | | | |
| **292** | 49 | 5.00* | 1700 | 1.95 | | | | | | |
| **342** | 42 | 4.27 | 1640 | 2.1 | | | | | | |
| **365** | 39 | 4.00* | 1610 | 2.2 | | | | | | |
| **434** | 33 | 3.37 | 1540 | 2.4 | | | | | | |
| **259** | 55 | 5.63 | 5520 | 2.00 | | | | | | |
| **273** | 52 | 5.35* | 5440 | 1.95 | | | | | | |
| **309** | 46 | 4.73 | 5240 | 2.6 | | | | | | |
| **362** | 40 | 4.04* | 4990 | 3.6 | | | | | | |
| **394** | 36 | 3.70 | 4860 | 4.2 | **RX** | **77** | **DRN** | **90L4** | 44 | 256 |
| **450** | 32 | 3.25* | 4670 | 5.7 | **RXF** | **77** | **DRN** | **90L4** | 46 | 257 |
| **474** | 30 | 3.08* | 4590 | 6.4 | | | | | | |
| **542** | 26 | 2.70 | 4400 | 8.1 | | | | | | |
| **602** | 24 | 2.43 | 4260 | 9.0 | | | | | | |
| **323** | 44 | 4.53 | 3540 | 1.85 | | | | | | |
| **340** | 42 | 4.30* | 3490 | 1.90 | | | | | | |
| **387** | 37 | 3.77 | 3360 | 2.4 | | | | | | |
| **457** | 31 | 3.20* | 3200 | 3.2 | | | | | | |
| **506** | 28 | 2.89 | 3100 | 3.7 | | | | | | |
| **575** | 25 | 2.54 | 2990 | 4.7 | **RX** | **67** | **DRN** | **90L4** | 34 | 254 |
| **609** | 24 | 2.40* | 2940 | 5.2 | **RXF** | **67** | **DRN** | **90L4** | 38 | 255 |
| **715** | 20 | 2.04 | 2790 | 6.7 | | | | | | |
| **787** | 18 | 1.86 | 2710 | 6.9 | | | | | | |
| **908** | 16 | 1.61 | 2590 | 7.2 | | | | | | |
| **1045** | 14 | 1.40* | 2480 | 7.6 | | | | | | |
| **386** | 37 | 3.79 | 2670 | 1.85 | | | | | | |
| **412** | 35 | 3.55* | 2620 | 2.00 | | | | | | |
| **466** | 31 | 3.14 | 2540 | 2.1 | | | | | | |
| **502** | 29 | 2.91 | 2480 | 2.4 | | | | | | |
| **553** | 26 | 2.64* | 2410 | 2.7 | | | | | | |
| **616** | 23 | 2.37 | 2340 | 3.0 | **RX** | **57** | **DRN** | **90L4** | 32 | 252 |
| **716** | 20 | 2.04 | 2240 | 3.4 | **RXF** | **57** | **DRN** | **90L4** | 34 | 253 |
| **761** | 19 | 1.92* | 2200 | 3.7 | | | | | | |
| **884** | 16 | 1.65 | 2100 | 4.3 | | | | | | |
| **990** | 14 | 1.48 | 2030 | 4.7 | | | | | | |
| **1120** | 13 | 1.30 | 1960 | 4.9 | | | | | | |

21284997/EN – 03/2015

## $P_m$ = 2.2 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **0.87** | 21900 | 1670 | 120000 | 0.80 | | | | | | |
| **1.0** | 19100 | 1438 | 120000 | 0.95 | | | | | | |
| **1.1** | 17000 | 1279 | 120000 | 1.05 | | | | | | |
| **1.3** | 14800 | 1123 | 120000 | 1.20 | **R** | **167R97** | **DRN** | **100LS4** | 770 | 301 |
| **1.4** | 13200 | 999 | 120000 | 1.35 | **RF** | **167R97** | **DRN** | **100LS4** | 780 | 301 |
| **1.7** | 11400 | 861 | 120000 | 1.60 | **RM** | **167R97** | **DRN** | **100LS4** | 970 | 301 |
| **1.9** | 10100 | 760 | 120000 | 1.80 | | | | | | |
| **2.2** | 8460 | 656 | 120000 | 2.1 | | | | | | |
| **2.7** | 6980 | 533 | 71300 | 1.85 | | | | | | |
| **3.1** | 6010 | 462 | 72200 | 2.2 | **R** | **147R87** | **DRN** | **100LS4** | 460 | 301 |
| **3.4** | 5650 | 426 | 72500 | 2.3 | **RF** | **147R87** | **DRN** | **100LS4** | 470 | 301 |
| **3.9** | 4880 | 368 | 73000 | 2.7 | **RM** | **147R87** | **DRN** | **100LS4** | 640 | 301 |
| **4.4** | 4310 | 326 | 73400 | 3.0 | | | | | | |
| **1.2** | 15500 | 1166 | 42600 | 0.85 | | | | | | |
| **1.4** | 13700 | 1029 | 61200 | 0.95 | | | | | | |
| **1.6** | 11800 | 889 | 64800 | 1.10 | | | | | | |
| **1.8** | 10400 | 784 | 67100 | 1.25 | **R** | **147R77** | **DRN** | **100LS4** | 440 | 301 |
| **2.1** | 9240 | 695 | 68800 | 1.40 | **RF** | **147R77** | **DRN** | **100LS4** | 450 | 301 |
| **2.3** | 8300 | 619 | 70000 | 1.55 | **RM** | **147R77** | **DRN** | **100LS4** | 620 | 301 |
| **2.6** | 7470 | 558 | 70900 | 1.75 | | | | | | |
| **3.0** | 6540 | 489 | 71800 | 2.00 | | | | | | |
| **2.1** | 9340 | 699 | 43700 | 0.85 | **R** | **137R77** | **DRN** | **100LS4** | 300 | 301 |
| **2.4** | 8110 | 609 | 53100 | 1.00 | **RF** | **137R77** | **DRN** | **100LS4** | 325 | 301 |
| | | | | | **RM** | **137R77** | **DRN** | **100LS4** | 435 | 301 |
| **2.0** | 9740 | 730 | 35900 | 0.80 | | | | | | |
| **2.3** | 8360 | 629 | 52400 | 0.95 | | | | | | |
| **2.6** | 7510 | 560 | 54400 | 1.05 | | | | | | |
| **3.0** | 6520 | 490 | 56200 | 1.25 | | | | | | |
| **3.4** | 5690 | 428 | 57500 | 1.40 | **R** | **137R77** | **DRN** | **100LS4** | 310 | 301 |
| **3.8** | 5110 | 381 | 58300 | 1.55 | **RF** | **137R77** | **DRN** | **100LS4** | 330 | 301 |
| **4.5** | 4330 | 323 | 59200 | 1.85 | **RM** | **137R77** | **DRN** | **100LS4** | 445 | 301 |
| **5.0** | 3900 | 291 | 59600 | 2.0 | | | | | | |
| **5.7** | 3410 | 255 | 60000 | 2.3 | | | | | | |
| **6.5** | 2980 | 223 | 60400 | 2.7 | | | | | | |
| **4.5** | 4320 | 323 | 29300 | 1.00 | | | | | | |
| **5.1** | 3800 | 285 | 31900 | 1.15 | **R** | **107R77** | **DRN** | **100LS4** | 220 | 301 |
| **5.7** | 3360 | 253 | 33700 | 1.30 | **RF** | **107R77** | **DRN** | **100LS4** | 230 | 301 |
| **6.8** | 2850 | 214 | 35400 | 1.50 | **RM** | **107R77** | **DRN** | **100LS4** | 315 | 301 |
| | | | | | **R** | **107R77** | **DRN** | **100LS4** | 215 | 301 |
| **4.5** | 4410 | 325 | 28800 | 0.95 | **RF** | **107R77** | **DRN** | **100LS4** | 220 | 301 |
| | | | | | **RM** | **107R77** | **DRN** | **100LS4** | 310 | 301 |
| | | | | | **R** | **97R57** | **DRN** | **100LS4** | 150 | 301 |
| **6.9** | 2790 | 209 | 22300 | 1.05 | **RF** | **97R57** | **DRN** | **100LS4** | 165 | 301 |
| | | | | | **RM** | **97R57** | **DRN** | **100LS4** | 220 | 301 |
| **5.8** | 3630 | 251.15 | 32600 | 1.20 | **R** | **107** | **DRN** | **100LS4** | 185 | 293 |
| **6.3** | 3330 | 229.95 | 33800 | 1.30 | **RF** | **107** | **DRN** | **100LS4** | 190 | 294 |
| **7.1** | 2940 | 203.16 | 35100 | 1.45 | **RM** | **107** | **DRN** | **100LS4** | 275 | 294 |
| **8.4** | 2490 | 172.34 | 36200 | 1.70 | | | | | | |
| **9.1** | 2290 | 158.68 | 36400 | 1.85 | | | | | | |
| **10** | 2050 | 141.83 | 36700 | 2.1 | **R** | **107** | **DRN** | **100LS4** | 185 | 293 |
| **11** | 1840 | 127.68 | 36900 | 2.3 | **RF** | **107** | **DRN** | **100LS4** | 190 | 294 |
| **13** | 1670 | 115.63 | 37100 | 2.6 | **RM** | **107** | **DRN** | **100LS4** | 275 | 294 |
| **14** | 1480 | 102.53 | 37200 | 2.9 | | | | | | |
| **16** | 1340 | 92.70 | 37400 | 3.2 | | | | | | |
| **6.7** | 3130 | 216.28 | 13800 | 0.95 | **R** | **97** | **DRN** | **100LS4** | 125 | 291 |
| **7.8** | 2690 | 186.30 | 22900 | 1.10 | **RF** | **97** | **DRN** | **100LS4** | 145 | 292 |
| **8.5** | 2460 | 170.02 | 24300 | 1.20 | **RM** | **97** | **DRN** | **100LS4** | 195 | 292 |



21284997/EN – 03/2015

## $P_m$ = 2.2 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **9.6** | 2180 | 150.78 | 25600 | 1.35 | | | | | | |
| **11** | 1830 | 126.75 | 27000 | 1.65 | | | | | | |
| **12** | 1680 | 116.48 | 27400 | 1.80 | | | | | | |
| **14** | 1490 | 103.44 | 27600 | 2.0 | | | | | | |
| **16** | 1330 | 92.48 | 27900 | 2.2 | **R** | **97** | **DRN** | **100LS4** | 125 | 291 |
| **17** | 1200 | 83.15 | 28000 | 2.5 | **RF** | **97** | **DRN** | **100LS4** | 145 | 292 |
| **20** | 1040 | 72.17 | 28200 | 2.9 | **RM** | **97** | **DRN** | **100LS4** | 195 | 292 |
| **22** | 940 | 65.21 | 27500 | 3.2 | | | | | | |
| **24** | 860 | 59.92 | 26800 | 3.5 | | | | | | |
| **27** | 770 | 53.21 | 25900 | 3.9 | | | | | | |
| **30** | 685 | 47.58 | 25000 | 4.4 | | | | | | |
| **12** | 1810 | 124.97 | 13900 | 0.85 | | | | | | |
| **12** | 1710 | 118.43* | 15700 | 0.90 | **R** | **87** | **DRN** | **100LS4** | 85 | 288 |
| **14** | 1500 | 103.65 | 17300 | 1.05 | **RF** | **87** | **DRN** | **100LS4** | 92 | 289 |
| **16** | 1350 | 93.38 | 18200 | 1.15 | **RM** | **87** | **DRN** | **100LS4** | 120 | 289 |
| **18** | 1180 | 81.92 | 19000 | 1.30 | | | | | | |
| **20** | 1050 | 72.57 | 19600 | 1.45 | | | | | | |
| **23** | 920 | 63.68* | 20000 | 1.70 | | | | | | |
| **24** | 870 | 60.35* | 20000 | 1.75 | | | | | | |
| **27** | 765 | 52.82 | 20000 | 2.0 | **R** | **87** | **DRN** | **100LS4** | 85 | 288 |
| **30** | 685 | 47.58 | 20000 | 2.2 | **RF** | **87** | **DRN** | **100LS4** | 92 | 289 |
| **35** | 600 | 41.74 | 19700 | 2.6 | **RM** | **87** | **DRN** | **100LS4** | 120 | 289 |
| **39** | 530 | 36.84* | 19000 | 2.9 | | | | | | |
| **44** | 470 | 32.66* | 18400 | 3.3 | | | | | | |
| **42** | 495 | 34.40* | 18700 | 3.0 | | | | | | |
| **46** | 450 | 31.40 | 18200 | 3.4 | **R** | **87** | **DRN** | **100LS4** | 83 | 288 |
| **52** | 400 | 27.84* | 17500 | 3.8 | **RF** | **87** | **DRN** | **100LS4** | 90 | 289 |
| **62** | 335 | 23.40 | 16700 | 4.6 | **RM** | **87** | **DRN** | **100LS4** | 120 | 289 |
| **67** | 310 | 21.51 | 16200 | 4.8 | | | | | | |
| **22** | 950 | 65.77 | 7900 | 0.85 | | | | | | |
| **25** | 830 | 57.68 | 9770 | 1.00 | **R** | **77** | **DRN** | **100LS4** | 58 | 285 |
| **28** | 750 | 52.07 | 10500 | 1.10 | **RF** | **77** | **DRN** | **100LS4** | 64 | 286 |
| **32** | 660 | 45.81 | 11200 | 1.25 | **RM** | **77** | **DRN** | **100LS4** | 88 | 286 |
| **34** | 625 | 43.26 | 11400 | 1.30 | | | | | | |
| **39** | 530 | 36.83 | 11900 | 1.55 | **R** | **77** | **DRN** | **100LS4** | 58 | 285 |
| **43** | 485 | 33.47 | 12100 | 1.70 | **RF** | **77** | **DRN** | **100LS4** | 64 | 286 |
| **50** | 420 | 29.00 | 12000 | 1.95 | **RM** | **77** | **DRN** | **100LS4** | 88 | 286 |
| **57** | 365 | 25.23 | 11600 | 2.1 | | | | | | |
| **62** | 335 | 23.37 | 11400 | 2.4 | | | | | | |
| **68** | 310 | 21.43 | 11100 | 2.6 | | | | | | |
| **77** | 270 | 18.80 | 10700 | 2.9 | **R** | **77** | **DRN** | **100LS4** | 57 | 285 |
| **81** | 255 | 17.82* | 10500 | 3.0 | **RF** | **77** | **DRN** | **100LS4** | 62 | 286 |
| **93** | 225 | 15.60 | 10100 | 3.3 | **RM** | **77** | **DRN** | **100LS4** | 87 | 286 |
| **103** | 200 | 14.05 | 9830 | 3.5 | | | | | | |
| **36** | 575 | 39.88* | 7820 | 1.00 | | | | | | |
| **39** | 540 | 37.50 | 8180 | 1.05 | **R** | **67** | **DRN** | **100LS4** | 52 | 282 |
| **45** | 465 | 32.27 | 8850 | 1.15 | **RF** | **67** | **DRN** | **100LS4** | 55 | 283 |
| **50** | 415 | 28.83 | 9220 | 1.25 | **RM** | **67** | **DRN** | **100LS4** | 71 | 283 |
| **62** | 335 | 23.44 | 9070 | 1.65 | | | | | | |
| **73** | 285 | 19.89 | 8700 | 2.1 | | | | | | |
| **81** | 260 | 17.95 | 8470 | 2.3 | | | | | | |
| **92** | 225 | 15.79 | 8180 | 2.4 | | | | | | |
| **97** | 215 | 14.91 | 8050 | 2.6 | **R** | **67** | **DRN** | **100LS4** | 51 | 282 |
| **114** | 184 | 12.70 | 7700 | 2.8 | **RF** | **67** | **DRN** | **100LS4** | 54 | 283 |
| **126** | 167 | 11.54 | 7500 | 3.0 | **RM** | **67** | **DRN** | **100LS4** | 70 | 283 |
| **145** | 145 | 10.00 | 7190 | 3.2 | | | | | | |
| **167** | 126 | 8.70* | 6910 | 3.5 | | | | | | |
| **186** | 113 | 7.79 | 6700 | 3.4 | | | | | | |
| **39** | 540 | 37.30* | 5120 | 0.85 | | | | | | |
| **41** | 505 | 35.07 | 5100 | 0.90 | **R** | **57** | **DRN** | **100LS4** | 45 | 279 |
| **48** | 435 | 30.18 | 5010 | 1.05 | **RF** | **57** | **DRN** | **100LS4** | 48 | 280 |
| **54** | 390 | 26.97 | 4940 | 1.15 | **RM** | **57** | **DRN** | **100LS4** | 60 | 280 |

21284997/EN – 03/2015

## $P_m$ = 2.2 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **66** | 315 | 21.93 | 4780 | 1.40 | | | | | | |
| **78** | 265 | 18.60* | 4630 | 1.65 | | | | | | |
| **86** | 240 | 16.79 | 4540 | 1.85 | | | | | | |
| **98** | 210 | 14.77* | 4420 | 2.0 | | | | | | |
| **104** | 200 | 13.95* | 4360 | 2.1 | **R** | **57** | **DRN** | **100LS4** | 44 | 279 |
| **122** | 172 | 11.88 | 4210 | 2.4 | **RF** | **57** | **DRN** | **100LS4** | 48 | 280 |
| **134** | 156 | 10.79 | 4110 | 2.5 | **RM** | **57** | **DRN** | **100LS4** | 60 | 280 |
| **155** | 135 | 9.35 | 3970 | 2.7 | | | | | | |
| **160** | 131 | 9.06 | 3950 | 2.9 | | | | | | |
| **182** | 116 | 7.97 | 3820 | 3.1 | | | | | | |
| **75** | 275 | 19.27 | 3540 | 1.05 | | | | | | |
| **89** | 230 | 16.22 | 3450 | 1.15 | | | | | | |
| **100** | 210 | 14.56 | 3380 | 1.25 | | | | | | |
| **116** | 182 | 12.54 | 3290 | 1.40 | | | | | | |
| **123** | 171 | 11.79 | 3250 | 1.45 | | | | | | |
| **143** | 147 | 10.15 | 3140 | 1.55 | | | | | | |
| **160** | 131 | 9.07 | 3070 | 1.65 | | | | | | |
| **181** | 116 | 8.01 | 2980 | 1.75 | **R** | **47** | **DRN** | **100LS4** | 39 | 276 |
| **187** | 112 | 7.76* | 2890 | 1.45 | **RF** | **47** | **DRN** | **100LS4** | 39 | 277 |
| **208** | 101 | 6.96 | 2820 | 1.60 | | | | | | |
| **242** | 87 | 6.00 | 2720 | 1.80 | | | | | | |
| **257** | 82 | 5.64* | 2680 | 1.90 | | | | | | |
| **299** | 70 | 4.85 | 2580 | 2.1 | | | | | | |
| **334** | 63 | 4.34 | 2510 | 2.3 | | | | | | |
| **378** | 56 | 3.83 | 2430 | 2.6 | | | | | | |
| **93** | 225 | 15.60 | 1180 | 0.90 | | | | | | |
| **109** | 192 | 13.25 | 1740 | 1.00 | **R** | **37** | **DRN** | **100LS4** | 35 | 273 |
| **123** | 171 | 11.83 | 2060 | 1.05 | **RF** | **37** | **DRN** | **100LS4** | 37 | 274 |
| **143** | 146 | 10.11 | 2410 | 1.15 | | | | | | |
| **153** | 137 | 9.47 | 2530 | 1.20 | | | | | | |
| **182** | 116 | 7.97 | 2790 | 1.35 | | | | | | |
| **217** | 97 | 6.67 | 2500 | 1.50 | | | | | | |
| **256** | 82 | 5.67 | 2550 | 1.75 | **R** | **37** | **DRN** | **100LS4** | 35 | 273 |
| **287** | 73 | 5.06 | 2490 | 1.85 | **RF** | **37** | **DRN** | **100LS4** | 37 | 274 |
| **336** | 63 | 4.32 | 2400 | 2.0 | | | | | | |
| **358** | 59 | 4.05 | 2360 | 2.1 | | | | | | |
| **425** | 49 | 3.41 | 2260 | 2.3 | | | | | | |
| **143** | 147 | 10.13 | 1180 | 0.85 | | | | | | |
| **220** | 95 | 6.59 | 1180 | 1.10 | | | | | | |
| **259** | 81 | 5.60* | 1430 | 1.20 | | | | | | |
| **290** | 72 | 5.00* | 1570 | 1.30 | **R** | **27** | **DRN** | **100LS4** | 29 | 270 |
| **340** | 62 | 4.27 | 1530 | 1.40 | **RF** | **27** | **DRN** | **100LS4** | 29 | 271 |
| **362** | 58 | 4.00* | 1510 | 1.45 | | | | | | |
| **430** | 49 | 3.37 | 1460 | 1.60 | | | | | | |
| **307** | 68 | 4.73 | 5140 | 1.80 | | | | | | |
| **359** | 59 | 4.04* | 4910 | 2.4 | | | | | | |
| **392** | 54 | 3.70 | 4780 | 2.8 | | | | | | |
| **446** | 47 | 3.25* | 4600 | 3.9 | | | | | | |
| **471** | 45 | 3.08* | 4530 | 4.3 | | | | | | |
| **538** | 39 | 2.70 | 4350 | 5.5 | **RX** | **77** | **DRN** | **100LS4** | 48 | 256 |
| **597** | 35 | 2.43 | 4210 | 6.1 | **RXF** | **77** | **DRN** | **100LS4** | 50 | 257 |
| **681** | 31 | 2.13 | 4040 | 6.5 | | | | | | |
| **771** | 27 | 1.88* | 3890 | 6.9 | | | | | | |
| **870** | 24 | 1.67 | 3740 | 7.2 | | | | | | |
| **1020** | 21 | 1.42 | 3560 | 7.5 | | | | | | |
| **384** | 55 | 3.77 | 3250 | 1.60 | | | | | | |
| **453** | 46 | 3.20* | 3110 | 2.2 | | | | | | |
| **502** | 42 | 2.89 | 3020 | 2.5 | | | | | | |
| **570** | 37 | 2.54 | 2920 | 3.2 | | | | | | |
| **604** | 35 | 2.40* | 2870 | 3.5 | **RX** | **67** | **DRN** | **100LS4** | 38 | 254 |
| **710** | 30 | 2.04 | 2740 | 4.5 | **RXF** | **67** | **DRN** | **100LS4** | 42 | 255 |
| **781** | 27 | 1.86 | 2660 | 4.7 | | | | | | |
| **901** | 23 | 1.61 | 2550 | 4.9 | | | | | | |
| **1035** | 20 | 1.40* | 2440 | 5.1 | | | | | | |



21284997/EN – 03/2015

## $P_m$ = 2.2 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **462** | 45 | 3.14 | 2430 | 1.45 | | | | | | |
| **549** | 38 | 2.64* | 2330 | 1.80 | | | | | | |
| **612** | 34 | 2.37 | 2260 | 2.0 | | | | | | |
| **710** | 30 | 2.04 | 2170 | 2.3 | **RX** | **57** | **DRN** | **100LS4** | 36 | 252 |
| **755** | 28 | 1.92* | 2130 | 2.5 | **RXF** | **57** | **DRN** | **100LS4** | 37 | 253 |
| **878** | 24 | 1.65 | 2040 | 2.9 | | | | | | |
| **982** | 21 | 1.48 | 1980 | 3.2 | | | | | | |
| **1110** | 19 | 1.30 | 1910 | 3.3 | | | | | | |

## $P_m$ = 3.0 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **1.3** | 20300 | 1123 | 120000 | 0.90 | | | | | | |
| **1.5** | 18100 | 999 | 120000 | 1.00 | | | | | | |
| **1.7** | 15600 | 861 | 120000 | 1.15 | **R** | **167R97** | **DRN** | **100L4** | 780 | 301 |
| **1.9** | 13800 | 760 | 120000 | 1.30 | **RF** | **167R97** | **DRN** | **100L4** | 780 | 301 |
| **2.2** | 11600 | 656 | 120000 | 1.55 | **RM** | **167R97** | **DRN** | **100L4** | 980 | 301 |
| **2.9** | 8940 | 503 | 120000 | 2.0 | | | | | | |
| **2.7** | 9590 | 533 | 68400 | 1.35 | | | | | | |
| **3.2** | 8260 | 462 | 70000 | 1.55 | | | | | | |
| **3.4** | 7730 | 426 | 70600 | 1.70 | **R** | **147R87** | **DRN** | **100L4** | 470 | 301 |
| **4.0** | 6680 | 368 | 71600 | 1.95 | **RF** | **147R87** | **DRN** | **100L4** | 475 | 301 |
| **4.5** | 5910 | 326 | 72300 | 2.2 | **RM** | **147R87** | **DRN** | **100L4** | 640 | 301 |
| **5.2** | 5010 | 280 | 72900 | 2.6 | | | | | | |
| **1.6** | 16200 | 889 | 33300 | 0.80 | | | | | | |
| **1.9** | 14200 | 784 | 58900 | 0.90 | **R** | **147R77** | **DRN** | **100L4** | 445 | 301 |
| **2.1** | 12600 | 695 | 63400 | 1.05 | **RF** | **147R77** | **DRN** | **100L4** | 455 | 301 |
| **2.4** | 11300 | 619 | 65700 | 1.15 | **RM** | **147R77** | **DRN** | **100L4** | 620 | 301 |
| **2.6** | 10100 | 558 | 67500 | 1.25 | | | | | | |
| **3.0** | 8910 | 490 | 50000 | 0.90 | | | | | | |
| **3.4** | 7780 | 428 | 53800 | 1.05 | | | | | | |
| **3.8** | 6970 | 381 | 55400 | 1.15 | **R** | **137R77** | **DRN** | **100L4** | 315 | 301 |
| **4.5** | 5910 | 323 | 57200 | 1.35 | **RF** | **137R77** | **DRN** | **100L4** | 340 | 301 |
| **5.0** | 5320 | 291 | 58000 | 1.50 | **RM** | **137R77** | **DRN** | **100L4** | 450 | 301 |
| **5.7** | 4650 | 255 | 58800 | 1.70 | | | | | | |
| **6.5** | 4070 | 223 | 59400 | 1.95 | | | | | | |
| | | | | | **R** | **137R77** | **DRN** | **100L4** | 305 | 301 |
| **2.8** | 9600 | 517 | 38900 | 0.85 | **RF** | **137R77** | **DRN** | **100L4** | 330 | 301 |
| **3.2** | 8410 | 453 | 52200 | 0.95 | **RM** | **137R77** | **DRN** | **100L4** | 440 | 301 |
| **5.8** | 4600 | 253 | 27700 | 0.95 | **R** | **107R77** | **DRN** | **100L4** | 230 | 301 |
| **6.8** | 3900 | 214 | 31500 | 1.10 | **RF** | **107R77** | **DRN** | **100L4** | 235 | 301 |
| **7.8** | 3400 | 187 | 33500 | 1.25 | **RM** | **107R77** | **DRN** | **100L4** | 325 | 301 |
| | | | | | **R** | **107R77** | **DRN** | **100L4** | 225 | 301 |
| **5.7** | 4730 | 256 | 25600 | 0.90 | **RF** | **107R77** | **DRN** | **100L4** | 230 | 301 |
| | | | | | **RM** | **107R77** | **DRN** | **100L4** | 315 | 301 |
| **6.3** | 4520 | 229.95 | 28200 | 0.95 | | | | | | |
| **7.2** | 3990 | 203.16 | 31000 | 1.10 | | | | | | |
| **8.4** | 3390 | 172.34 | 33600 | 1.25 | | | | | | |
| **9.2** | 3120 | 158.68 | 34500 | 1.40 | | | | | | |
| **10** | 2790 | 141.83 | 35600 | 1.55 | **R** | **107** | **DRN** | **100L4** | 190 | 293 |
| **11** | 2510 | 127.68 | 36200 | 1.70 | **RF** | **107** | **DRN** | **100L4** | 195 | 294 |
| **13** | 2270 | 115.63 | 36500 | 1.90 | **RM** | **107** | **DRN** | **100L4** | 285 | 294 |
| **14** | 2010 | 102.53 | 36800 | 2.1 | | | | | | |
| **16** | 1820 | 92.70 | 37000 | 2.4 | | | | | | |
| **19** | 1540 | 78.57 | 35500 | 2.8 | | | | | | |
| **20** | 1430 | 72.88 | 34800 | 3.0 | | | | | | |

21284997/EN – 03/2015

## $P_m$ = 3.0 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **9.7** | 2960 | 150.78 | 21000 | 1.00 | | | | | | |
| **11** | 2490 | 126.75 | 24100 | 1.20 | | | | | | |
| **12** | 2290 | 116.48 | 25100 | 1.30 | | | | | | |
| **14** | 2030 | 103.44 | 26200 | 1.45 | | | | | | |
| **16** | 1810 | 92.48 | 27100 | 1.65 | | | | | | |
| **18** | 1630 | 83.15 | 27400 | 1.85 | | | | | | |
| **20** | 1410 | 72.17 | 27500 | 2.1 | **R** | **97** | **DRN** | **100L4** | 135 | 291 |
| **22** | 1280 | 65.21 | 26700 | 2.3 | **RF** | **97** | **DRN** | **100L4** | 150 | 292 |
| **24** | 1170 | 59.92 | 26100 | 2.5 | **RM** | **97** | **DRN** | **100L4** | 200 | 292 |
| **27** | 1040 | 53.21 | 25300 | 2.9 | | | | | | |
| **31** | 930 | 47.58 | 24500 | 3.2 | | | | | | |
| **34** | 840 | 42.78 | 23800 | 3.6 | | | | | | |
| **39** | 730 | 37.13 | 22800 | 4.1 | | | | | | |
| **44** | 650 | 33.25 | 22100 | 4.4 | | | | | | |
| **16** | 1830 | 93.38 | 12100 | 0.85 | | | | | | |
| **18** | 1610 | 81.92 | 16500 | 0.95 | **R** | **87** | **DRN** | **100L4** | 92 | 288 |
| **20** | 1420 | 72.57 | 17700 | 1.10 | **RF** | **87** | **DRN** | **100L4** | 99 | 289 |
| **23** | 1250 | 63.68* | 18700 | 1.25 | **RM** | **87** | **DRN** | **100L4** | 130 | 289 |
| **24** | 1180 | 60.35* | 19000 | 1.30 | | | | | | |
| **28** | 1030 | 52.82 | 19700 | 1.50 | | | | | | |
| **31** | 930 | 47.58 | 19800 | 1.65 | **R** | **87** | **DRN** | **100L4** | 92 | 288 |
| **35** | 820 | 41.74 | 19200 | 1.90 | **RF** | **87** | **DRN** | **100L4** | 99 | 289 |
| **40** | 720 | 36.84* | 18500 | 2.1 | **RM** | **87** | **DRN** | **100L4** | 130 | 289 |
| **45** | 640 | 32.66* | 17900 | 2.4 | | | | | | |
| **52** | 545 | 27.88 | 17200 | 2.7 | | | | | | |
| **42** | 675 | 34.40* | 18200 | 2.2 | | | | | | |
| **46** | 615 | 31.40 | 17700 | 2.5 | | | | | | |
| **52** | 545 | 27.84* | 17200 | 2.8 | | | | | | |
| **62** | 460 | 23.40 | 16300 | 3.4 | **R** | **87** | **DRN** | **100L4** | 90 | 288 |
| **68** | 420 | 21.51 | 15900 | 3.5 | **RF** | **87** | **DRN** | **100L4** | 97 | 289 |
| **76** | 375 | 19.10 | 15400 | 3.8 | **RM** | **87** | **DRN** | **100L4** | 125 | 289 |
| **85** | 335 | 17.08* | 14900 | 4.1 | | | | | | |
| **95** | 300 | 15.35 | 14400 | 4.4 | | | | | | |
| **32** | 900 | 45.81 | 9090 | 0.90 | **R** | **77** | **DRN** | **100L4** | 65 | 285 |
| **34** | 850 | 43.26 | 9620 | 0.95 | **RF** | **77** | **DRN** | **100L4** | 71 | 286 |
| **40** | 720 | 36.83 | 10700 | 1.15 | **RM** | **77** | **DRN** | **100L4** | 96 | 286 |
| **44** | 655 | 33.47 | 11200 | 1.25 | | | | | | |
| **50** | 570 | 29.00 | 11600 | 1.45 | **R** | **77** | **DRN** | **100L4** | 65 | 285 |
| **58** | 495 | 25.23 | 11200 | 1.55 | **RF** | **77** | **DRN** | **100L4** | 71 | 286 |
| | | | | | **RM** | **77** | **DRN** | **100L4** | 96 | 286 |
| **62** | 455 | 23.37 | 11000 | 1.80 | | | | | | |
| **68** | 420 | 21.43 | 10700 | 1.95 | | | | | | |
| **77** | 365 | 18.80 | 10400 | 2.1 | | | | | | |
| **82** | 350 | 17.82* | 10200 | 2.2 | | | | | | |
| **93** | 305 | 15.60 | 9870 | 2.4 | | | | | | |
| **104** | 275 | 14.05 | 9600 | 2.6 | **R** | **77** | **DRN** | **100L4** | 64 | 285 |
| **118** | 240 | 12.33 | 9250 | 2.8 | **RF** | **77** | **DRN** | **100L4** | 70 | 286 |
| **134** | 210 | 10.88 | 8930 | 3.1 | **RM** | **77** | **DRN** | **100L4** | 94 | 286 |
| **151** | 190 | 9.64 | 8620 | 3.3 | | | | | | |
| **169** | 169 | 8.59 | 8400 | 3.7 | | | | | | |
| **188** | 152 | 7.74 | 8140 | 4.0 | | | | | | |
| **214** | 134 | 6.79 | 7830 | 4.3 | | | | | | |
| **62** | 460 | 23.44 | 8660 | 1.20 | | | | | | |
| **73** | 390 | 19.89 | 8350 | 1.55 | | | | | | |
| **81** | 350 | 17.95 | 8150 | 1.65 | | | | | | |
| **92** | 310 | 15.79 | 7900 | 1.80 | **R** | **67** | **DRN** | **100L4** | 58 | 282 |
| **98** | 290 | 14.91 | 7790 | 1.85 | **RF** | **67** | **DRN** | **100L4** | 61 | 283 |
| **115** | 245 | 12.70 | 7470 | 2.1 | **RM** | **67** | **DRN** | **100L4** | 77 | 283 |
| **126** | 225 | 11.54 | 7290 | 2.2 | | | | | | |
| **146** | 197 | 10.00 | 7010 | 2.4 | | | | | | |
| | | | | | **R** | **57** | **DRN** | **100L4** | 52 | 279 |
| **54** | 530 | 26.97 | 4430 | 0.85 | **RF** | **57** | **DRN** | **100L4** | 56 | 280 |
| | | | | | **RM** | **57** | **DRN** | **100L4** | 68 | 280 |
| **66** | 430 | 21.93 | 4360 | 1.05 | **R** | **57** | **DRN** | **100L4** | 51 | 279 |
| **78** | 365 | 18.60* | 4280 | 1.25 | **RF** | **57** | **DRN** | **100L4** | 55 | 280 |
| **87** | 330 | 16.79 | 4220 | 1.35 | **RM** | **57** | **DRN** | **100L4** | 67 | 280 |



21284997/EN – 03/2015

## $P_m$ = 3.0 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **99** | 290 | 14.77* | 4140 | 1.50 | | | | | | |
| **104** | 270 | 13.95* | 4100 | 1.55 | | | | | | |
| **123** | 230 | 11.88 | 3980 | 1.75 | | | | | | |
| **135** | 210 | 10.79 | 3900 | 1.85 | | | | | | |
| **156** | 184 | 9.35 | 3790 | 2.0 | | | | | | |
| **161** | 178 | 9.06 | 3780 | 2.1 | **R** | **57** | **DRN** | **100L4** | 51 | 279 |
| **183** | 157 | 7.97 | 3670 | 2.3 | **RF** | **57** | **DRN** | **100L4** | 55 | 280 |
| **193** | 148 | 7.53 | 3620 | 2.4 | **RM** | **57** | **DRN** | **100L4** | 67 | 280 |
| **227** | 126 | 6.41 | 3480 | 2.7 | | | | | | |
| **250** | 115 | 5.82 | 3400 | 2.8 | | | | | | |
| **289** | 99 | 5.05 | 3270 | 3.1 | | | | | | |
| **332** | 86 | 4.39 | 3160 | 3.2 | | | | | | |
| **90** | 315 | 16.22 | 2210 | 0.85 | | | | | | |
| **100** | 285 | 14.56 | 2650 | 0.90 | **R** | **47** | **DRN** | **100L4** | 46 | 276 |
| **116** | 245 | 12.54 | 3040 | 1.00 | **RF** | **47** | **DRN** | **100L4** | 46 | 277 |
| **123** | 230 | 11.79 | 3020 | 1.05 | | | | | | |
| **143** | 200 | 10.15 | 2950 | 1.15 | | | | | | |
| **161** | 178 | 9.07 | 2890 | 1.25 | | | | | | |
| **182** | 158 | 8.01 | 2820 | 1.30 | | | | | | |
| **188** | 153 | 7.76* | 2720 | 1.05 | | | | | | |
| **209** | 137 | 6.96 | 2660 | 1.15 | **R** | **47** | **DRN** | **100L4** | 46 | 276 |
| **243** | 118 | 6.00 | 2590 | 1.30 | **RF** | **47** | **DRN** | **100L4** | 46 | 277 |
| **258** | 111 | 5.64* | 2550 | 1.40 | | | | | | |
| **300** | 95 | 4.85 | 2470 | 1.55 | | | | | | |
| **336** | 85 | 4.34 | 2410 | 1.70 | | | | | | |
| **380** | 75 | 3.83 | 2340 | 1.90 | | | | | | |
| **144** | 199 | 10.11 | 920 | 0.85 | | | | | | |
| **154** | 186 | 9.47 | 1140 | 0.90 | **R** | **37** | **DRN** | **100L4** | 42 | 273 |
| **183** | 157 | 7.97 | 1610 | 1.00 | **RF** | **37** | **DRN** | **100L4** | 44 | 274 |
| **218** | 131 | 6.67 | 1350 | 1.10 | | | | | | |
| **257** | 111 | 5.67 | 1700 | 1.25 | | | | | | |
| **288** | 100 | 5.06 | 1900 | 1.35 | **R** | **37** | **DRN** | **100L4** | 42 | 273 |
| **337** | 85 | 4.32 | 2110 | 1.50 | **RF** | **37** | **DRN** | **100L4** | 44 | 274 |
| **360** | 80 | 4.05 | 2180 | 1.55 | | | | | | |
| **427** | 67 | 3.41 | 2160 | 1.65 | | | | | | |
| **260** | 110 | 5.60* | 455 | 0.90 | | | | | | |
| **291** | 98 | 5.00* | 695 | 0.95 | | | | | | |
| **341** | 84 | 4.27 | 970 | 1.05 | **R** | **27** | **DRN** | **100L4** | 37 | 270 |
| **364** | 79 | 4.00* | 1070 | 1.10 | **RF** | **27** | **DRN** | **100L4** | 37 | 271 |
| **432** | 66 | 3.37 | 1280 | 1.20 | | | | | | |
| **226** | 127 | 6.45 | 7050 | 1.50 | | | | | | |
| **262** | 109 | 5.56* | 6760 | 2.1 | | | | | | |
| **287** | 100 | 5.07 | 6580 | 2.5 | **RX** | **87** | **DRN** | **100L4** | 72 | 258 |
| **324** | 89 | 4.50* | 6350 | 3.3 | **RXF** | **87** | **DRN** | **100L4** | 77 | 259 |
| **385** | 74 | 3.78 | 6030 | 4.1 | | | | | | |
| **308** | 93 | 4.73 | 5000 | 1.30 | | | | | | |
| **360** | 79 | 4.04* | 4780 | 1.80 | | | | | | |
| **393** | 73 | 3.70 | 4670 | 2.1 | **RX** | **77** | **DRN** | **100L4** | 55 | 256 |
| **448** | 64 | 3.25* | 4500 | 2.8 | **RXF** | **77** | **DRN** | **100L4** | 57 | 257 |
| **473** | 61 | 3.08* | 4430 | 3.2 | | | | | | |
| **386** | 74 | 3.77 | 3120 | 1.15 | | | | | | |
| **455** | 63 | 3.20* | 3000 | 1.60 | | | | | | |
| **504** | 57 | 2.89 | 2920 | 1.85 | | | | | | |
| **573** | 50 | 2.54 | 2820 | 2.4 | | | | | | |
| **607** | 47 | 2.40* | 2780 | 2.6 | **RX** | **67** | **DRN** | **100L4** | 45 | 254 |
| **713** | 40 | 2.04 | 2660 | 3.3 | **RXF** | **67** | **DRN** | **100L4** | 49 | 255 |
| **784** | 37 | 1.86 | 2590 | 3.4 | | | | | | |
| **905** | 32 | 1.61 | 2480 | 3.6 | | | | | | |
| **1040** | 28 | 1.40* | 2380 | 3.8 | | | | | | |

21284997/EN – 03/2015

## $P_m$ = 3.0 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **464** | 62 | 3.14 | 2310 | 1.05 | | | | | | |
| **552** | 52 | 2.64* | 2220 | 1.35 | | | | | | |
| **614** | 47 | 2.37 | 2160 | 1.50 | | | | | | |
| **713** | 40 | 2.04 | 2080 | 1.70 | **RX** | **57** | **DRN** | **100L4** | 43 | 252 |
| **758** | 38 | 1.92* | 2050 | 1.85 | **RXF** | **57** | **DRN** | **100L4** | 45 | 253 |
| **881** | 33 | 1.65 | 1970 | 2.1 | | | | | | |
| **986** | 29 | 1.48 | 1910 | 2.3 | | | | | | |
| **1115** | 26 | 1.30 | 1850 | 2.4 | | | | | | |

## $P_m$ = 4.0 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **1.7** | 20800 | 861 | 120000 | 0.85 | | | | | | |
| **1.9** | 18400 | 760 | 120000 | 1.00 | | | | | | |
| **2.2** | 15600 | 656 | 120000 | 1.15 | **R** | **167R97** | **DRN** | **112M4** | 780 | 301 |
| **2.9** | 11900 | 503 | 120000 | 1.50 | **RF** | **167R97** | **DRN** | **112M4** | 790 | 301 |
| **3.9** | 8970 | 376 | 120000 | 2.0 | **RM** | **167R97** | **DRN** | **112M4** | 990 | 301 |
| **4.4** | 7980 | 335 | 120000 | 2.2 | | | | | | |
| **2.8** | 12800 | 533 | 63000 | 1.00 | | | | | | |
| **3.2** | 11000 | 462 | 66200 | 1.20 | | | | | | |
| **3.4** | 10300 | 426 | 67300 | 1.25 | | | | | | |
| **4.0** | 8900 | 368 | 69200 | 1.45 | **R** | **147R87** | **DRN** | **112M4** | 475 | 301 |
| **4.5** | 7870 | 326 | 70400 | 1.65 | **RF** | **147R87** | **DRN** | **112M4** | 485 | 301 |
| **5.2** | 6700 | 280 | 71600 | 1.95 | **RM** | **147R87** | **DRN** | **112M4** | 650 | 301 |
| **5.9** | 5910 | 247 | 72300 | 2.2 | | | | | | |
| **6.9** | 5110 | 214 | 72900 | 2.5 | | | | | | |
| **7.8** | 4520 | 189 | 73200 | 2.9 | | | | | | |
| **9.2** | 3790 | 159 | 73600 | 3.4 | | | | | | |
| **2.4** | 15000 | 619 | 49400 | 0.85 | | | | | | |
| **2.6** | 13500 | 558 | 61500 | 0.95 | **R** | **147R77** | **DRN** | **112M4** | 455 | 301 |
| **3.0** | 11800 | 489 | 64800 | 1.10 | **RF** | **147R77** | **DRN** | **112M4** | 465 | 301 |
| **3.5** | 10000 | 415 | 67700 | 1.30 | **RM** | **147R77** | **DRN** | **112M4** | 630 | 301 |
| **3.8** | 9280 | 381 | 44800 | 0.85 | | | | | | |
| **4.5** | 7870 | 323 | 53700 | 1.00 | **R** | **137R77** | **DRN** | **112M4** | 325 | 301 |
| **5.0** | 7080 | 291 | 55200 | 1.15 | **RF** | **137R77** | **DRN** | **112M4** | 350 | 301 |
| **5.8** | 6190 | 255 | 56700 | 1.30 | **RM** | **137R77** | **DRN** | **112M4** | 460 | 301 |
| **6.6** | 5420 | 223 | 57900 | 1.45 | | | | | | |
| **3.9** | 9260 | 376 | 45100 | 0.85 | **R** | **137R77** | **DRN** | **112M4** | 315 | 301 |
| **4.3** | 8340 | 339 | 52500 | 0.95 | **RF** | **137R77** | **DRN** | **112M4** | 340 | 301 |
| **4.9** | 7300 | 297 | 54800 | 1.10 | **RM** | **137R77** | **DRN** | **112M4** | 450 | 301 |
| | | | | | **R** | **107R77** | **DRN** | **112M4** | 240 | 301 |
| **7.8** | 4530 | 187 | 28100 | 0.95 | **RF** | **107R77** | **DRN** | **112M4** | 245 | 301 |
| | | | | | **RM** | **107R77** | **DRN** | **112M4** | 330 | 301 |
| | | | | | **R** | **107R77** | **DRN** | **112M4** | 230 | 301 |
| **7.6** | 4740 | 193 | 25200 | 0.90 | **RF** | **107R77** | **DRN** | **112M4** | 240 | 301 |
| **8.5** | 4240 | 172 | 29800 | 1.00 | **RM** | **107R77** | **DRN** | **112M4** | 325 | 301 |
| **8.5** | 4490 | 172.34 | 28400 | 0.95 | | | | | | |
| **9.2** | 4140 | 158.68 | 30300 | 1.05 | | | | | | |
| **10** | 3700 | 141.83 | 32400 | 1.15 | | | | | | |
| **11** | 3330 | 127.68 | 33800 | 1.30 | | | | | | |
| **13** | 3010 | 115.63 | 34900 | 1.45 | **R** | **107** | **DRN** | **112M4** | 200 | 293 |
| **14** | 2670 | 102.53 | 35900 | 1.60 | **RF** | **107** | **DRN** | **112M4** | 205 | 294 |
| **16** | 2410 | 92.70 | 36200 | 1.80 | **RM** | **107** | **DRN** | **112M4** | 295 | 294 |
| **19** | 2050 | 78.57 | 34600 | 2.1 | | | | | | |
| **20** | 1900 | 72.88 | 33900 | 2.3 | | | | | | |
| **22** | 1710 | 65.60* | 33000 | 2.5 | | | | | | |
| **25** | 1550 | 59.41 | 32100 | 2.8 | | | | | | |
| **28** | 1370 | 52.68 | 31000 | 3.1 | | | | | | |



21284997/EN – 03/2015

## $P_m$ = 4.0 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **13** | 3030 | 116.48 | 18300 | 1.00 | | | | | | |
| **14** | 2690 | 103.44 | 22900 | 1.10 | | | | | | |
| **16** | 2410 | 92.48 | 24500 | 1.25 | | | | | | |
| **18** | 2160 | 83.15 | 25700 | 1.40 | | | | | | |
| **20** | 1880 | 72.17 | 26500 | 1.60 | | | | | | |
| **22** | 1700 | 65.21 | 25800 | 1.75 | **R** | **97** | **DRN** | **112M4** | 140 | 291 |
| **24** | 1560 | 59.92 | 25300 | 1.90 | **RF** | **97** | **DRN** | **112M4** | 160 | 292 |
| **28** | 1380 | 53.21 | 24600 | 2.2 | **RM** | **97** | **DRN** | **112M4** | 210 | 292 |
| **31** | 1240 | 47.58 | 23800 | 2.4 | | | | | | |
| **34** | 1110 | 42.78 | 23200 | 2.7 | | | | | | |
| **39** | 960 | 37.13 | 22300 | 3.1 | | | | | | |
| **44** | 860 | 33.25 | 21600 | 3.3 | | | | | | |
| **46** | 830 | 32.05 | 21400 | 3.1 | | | | | | |
| **54** | 705 | 27.19 | 20400 | 3.6 | **R** | **97** | **DRN** | **112M4** | 140 | 291 |
| **58** | 650 | 25.03 | 20000 | 4.3 | **RF** | **97** | **DRN** | **112M4** | 155 | 292 |
| **65** | 580 | 22.37 | 19300 | 4.7 | **RM** | **97** | **DRN** | **112M4** | 205 | 292 |
| **73** | 525 | 20.14 | 18700 | 5.0 | | | | | | |
| **23** | 1660 | 63.68* | 13700 | 0.95 | **R** | **87** | **DRN** | **112M4** | 100 | 288 |
| **24** | 1570 | 60.35* | 14300 | 1.00 | **RF** | **87** | **DRN** | **112M4** | 110 | 289 |
| **28** | 1370 | 52.82 | 15500 | 1.10 | **RM** | **87** | **DRN** | **112M4** | 140 | 289 |
| **31** | 1240 | 47.58 | 16300 | 1.25 | | | | | | |
| **35** | 1080 | 41.74 | 17000 | 1.40 | **R** | **87** | **DRN** | **112M4** | 100 | 288 |
| **40** | 960 | 36.84* | 17500 | 1.60 | **RF** | **87** | **DRN** | **112M4** | 110 | 289 |
| **45** | 850 | 32.66* | 17400 | 1.80 | **RM** | **87** | **DRN** | **112M4** | 140 | 289 |
| **52** | 725 | 27.88 | 16700 | 2.1 | | | | | | |
| **43** | 890 | 34.40* | 17600 | 1.65 | | | | | | |
| **47** | 810 | 31.40 | 17200 | 1.90 | | | | | | |
| **53** | 725 | 27.84* | 16700 | 2.1 | | | | | | |
| **63** | 610 | 23.40 | 15900 | 2.5 | | | | | | |
| **68** | 560 | 21.51 | 15600 | 2.7 | **R** | **87** | **DRN** | **112M4** | 99 | 288 |
| **77** | 495 | 19.10 | 15100 | 2.9 | **RF** | **87** | **DRN** | **112M4** | 105 | 289 |
| **86** | 445 | 17.08* | 14600 | 3.1 | **RM** | **87** | **DRN** | **112M4** | 135 | 289 |
| **95** | 400 | 15.35 | 14200 | 3.3 | | | | | | |
| **110** | 345 | 13.33 | 13600 | 3.7 | | | | | | |
| **123** | 310 | 11.93 | 13200 | 4.0 | | | | | | |
| **40** | 960 | 36.83 | 7260 | 0.85 | | | | | | |
| **44** | 870 | 33.47 | 9400 | 0.95 | **R** | **77** | **DRN** | **112M4** | 74 | 285 |
| **50** | 755 | 29.00 | 10500 | 1.10 | **RF** | **77** | **DRN** | **112M4** | 80 | 286 |
| **58** | 655 | 25.23 | 10700 | 1.20 | **RM** | **77** | **DRN** | **112M4** | 105 | 286 |
| **63** | 605 | 23.37 | 10500 | 1.35 | | | | | | |
| **68** | 555 | 21.43 | 10300 | 1.45 | | | | | | |
| **78** | 490 | 18.80 | 10000 | 1.60 | | | | | | |
| **82** | 460 | 17.82* | 9880 | 1.70 | | | | | | |
| **94** | 405 | 15.60 | 9560 | 1.80 | | | | | | |
| **104** | 365 | 14.05 | 9310 | 1.95 | | | | | | |
| **119** | 320 | 12.33 | 9000 | 2.2 | **R** | **77** | **DRN** | **112M4** | 73 | 285 |
| **135** | 280 | 10.88 | 8700 | 2.3 | **RF** | **77** | **DRN** | **112M4** | 79 | 286 |
| **152** | 250 | 9.64 | 8420 | 2.5 | **RM** | **77** | **DRN** | **112M4** | 105 | 286 |
| **170** | 220 | 8.59 | 8240 | 2.8 | | | | | | |
| **189** | 200 | 7.74 | 8000 | 3.0 | | | | | | |
| **216** | 177 | 6.79 | 7700 | 3.3 | | | | | | |
| **244** | 156 | 5.99* | 7420 | 3.4 | | | | | | |
| **276** | 139 | 5.31* | 7160 | 3.7 | | | | | | |

21284997/EN – 03/2015

## $P_m$ = 4.0 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **74** | 515 | 19.89 | 7910 | 1.15 | | | | | | |
| **82** | 465 | 17.95 | 7750 | 1.25 | | | | | | |
| **93** | 410 | 15.79 | 7550 | 1.35 | | | | | | |
| **98** | 385 | 14.91 | 7460 | 1.40 | | | | | | |
| **115** | 330 | 12.70 | 7190 | 1.55 | | | | | | |
| **127** | 300 | 11.54 | 7030 | 1.65 | | | | | | |
| **146** | 260 | 10.00 | 6790 | 1.80 | **R** | **67** | **DRN** | **112M4** | 67 | 282 |
| **168** | 225 | 8.70* | 6550 | 1.95 | **RF** | **67** | **DRN** | **112M4** | 70 | 283 |
| **188** | 200 | 7.79 | 6390 | 1.85 | **RM** | **67** | **DRN** | **112M4** | 86 | 283 |
| **199** | 192 | 7.36* | 6290 | 1.95 | | | | | | |
| **234** | 164 | 6.27 | 6020 | 2.0 | | | | | | |
| **257** | 149 | 5.70 | 5860 | 2.1 | | | | | | |
| **297** | 129 | 4.93 | 5630 | 2.2 | | | | | | |
| **341** | 112 | 4.29 | 5410 | 2.4 | | | | | | |
| **79** | 485 | 18.60* | 3680 | 0.95 | **R** | **57** | **DRN** | **112M4** | 61 | 279 |
| **87** | 435 | 16.79 | 3820 | 1.05 | **RF** | **57** | **DRN** | **112M4** | 64 | 280 |
| **99** | 385 | 14.77* | 3790 | 1.15 | **RM** | **57** | **DRN** | **112M4** | 76 | 280 |
| **105** | 360 | 13.95* | 3770 | 1.20 | | | | | | |
| **123** | 305 | 11.88 | 3700 | 1.30 | | | | | | |
| **136** | 280 | 10.79 | 3650 | 1.40 | | | | | | |
| **157** | 240 | 9.35 | 3560 | 1.50 | | | | | | |
| **162** | 235 | 9.06 | 3570 | 1.60 | **R** | **57** | **DRN** | **112M4** | 61 | 279 |
| **184** | 205 | 7.97 | 3480 | 1.70 | **RF** | **57** | **DRN** | **112M4** | 64 | 280 |
| **194** | 196 | 7.53 | 3440 | 1.80 | **RM** | **57** | **DRN** | **112M4** | 76 | 280 |
| **228** | 167 | 6.41 | 3330 | 2.0 | | | | | | |
| **251** | 152 | 5.82 | 3260 | 2.1 | | | | | | |
| **290** | 132 | 5.05 | 3160 | 2.3 | | | | | | |
| **333** | 115 | 4.39 | 3050 | 2.4 | | | | | | |
| **144** | 260 | 10.15 | 2070 | 0.85 | | | | | | |
| **161** | 235 | 9.07 | 2450 | 0.95 | | | | | | |
| **183** | 205 | 8.01 | 2630 | 1.00 | | | | | | |
| **210** | 182 | 6.96 | 2470 | 0.90 | | | | | | |
| **244** | 156 | 6.00 | 2420 | 1.00 | **R** | **47** | **DRN** | **112M4** | 56 | 276 |
| **260** | 147 | 5.64* | 2400 | 1.05 | **RF** | **47** | **DRN** | **112M4** | 56 | 277 |
| **302** | 127 | 4.85 | 2340 | 1.20 | | | | | | |
| **338** | 113 | 4.34 | 2290 | 1.30 | | | | | | |
| **382** | 100 | 3.83 | 2230 | 1.45 | | | | | | |
| **263** | 145 | 5.56* | 6580 | 1.55 | | | | | | |
| **289** | 132 | 5.07 | 6420 | 1.90 | **RX** | **87** | **DRN** | **112M4** | 81 | 258 |
| **325** | 117 | 4.50* | 6210 | 2.5 | **RXF** | **87** | **DRN** | **112M4** | 86 | 259 |
| **387** | 99 | 3.78 | 5910 | 3.1 | | | | | | |
| **362** | 105 | 4.04* | 4630 | 1.35 | | | | | | |
| **395** | 97 | 3.70 | 4530 | 1.60 | | | | | | |
| **450** | 85 | 3.25* | 4370 | 2.2 | | | | | | |
| **475** | 80 | 3.08* | 4310 | 2.4 | | | | | | |
| **543** | 70 | 2.70 | 4150 | 3.1 | **RX** | **77** | **DRN** | **112M4** | 64 | 256 |
| **603** | 63 | 2.43 | 4030 | 3.4 | **RXF** | **77** | **DRN** | **112M4** | 67 | 257 |
| **687** | 56 | 2.13 | 3880 | 3.6 | | | | | | |
| **779** | 49 | 1.88* | 3740 | 3.8 | | | | | | |
| **878** | 43 | 1.67 | 3620 | 4.0 | | | | | | |
| **1030** | 37 | 1.42 | 3450 | 4.2 | | | | | | |
| **458** | 83 | 3.20* | 2860 | 1.20 | | | | | | |
| **507** | 75 | 2.89 | 2790 | 1.40 | | | | | | |
| **576** | 66 | 2.54 | 2710 | 1.80 | | | | | | |
| **610** | 63 | 2.40* | 2670 | 1.95 | **RX** | **67** | **DRN** | **112M4** | 55 | 254 |
| **716** | 53 | 2.04 | 2560 | 2.5 | **RXF** | **67** | **DRN** | **112M4** | 59 | 255 |
| **788** | 48 | 1.86 | 2500 | 2.6 | | | | | | |
| **910** | 42 | 1.61 | 2400 | 2.7 | | | | | | |
| **1045** | 37 | 1.40* | 2310 | 2.8 | | | | | | |
| **555** | 69 | 2.64* | 1740 | 1.00 | | | | | | |
| **618** | 62 | 2.37 | 1840 | 1.10 | | | | | | |
| **717** | 53 | 2.04 | 1960 | 1.30 | | | | | | |
| **762** | 50 | 1.92* | 1950 | 1.40 | **RX** | **57** | **DRN** | **112M4** | 52 | 252 |
| **886** | 43 | 1.65 | 1880 | 1.60 | **RXF** | **57** | **DRN** | **112M4** | 54 | 253 |
| **992** | 39 | 1.48 | 1830 | 1.75 | | | | | | |
| **1120** | 34 | 1.30 | 1780 | 1.85 | | | | | | |



21284997/EN – 03/2015

## $P_m$ = 5.5 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **2.2** | 21700 | 656 | 120000 | 0.85 | | | | | | |
| **2.5** | 19000 | 579 | 120000 | 0.95 | | | | | | |
| **2.9** | 16600 | 503 | 120000 | 1.10 | | | | | | |
| **3.4** | 14100 | 432 | 120000 | 1.25 | **R** | **167R97** | **DRN** | **132S4** | 800 | 301 |
| **3.9** | 12400 | 376 | 120000 | 1.45 | **RF** | **167R97** | **DRN** | **132S4** | 800 | 301 |
| **4.4** | 11000 | 335 | 120000 | 1.60 | **RM** | **167R97** | **DRN** | **132S4** | 1000 | 301 |
| **4.8** | 9930 | 303 | 120000 | 1.80 | | | | | | |
| **5.2** | 9150 | 279 | 120000 | 1.95 | | | | | | |
| **3.2** | 15300 | 462 | 45900 | 0.85 | | | | | | |
| **3.4** | 14200 | 426 | 59000 | 0.90 | | | | | | |
| **4.0** | 12300 | 368 | 64000 | 1.05 | | | | | | |
| **4.5** | 10900 | 326 | 66400 | 1.20 | **R** | **147R87** | **DRN** | **132S4** | 490 | 301 |
| **5.2** | 9300 | 280 | 68700 | 1.40 | **RF** | **147R87** | **DRN** | **132S4** | 495 | 301 |
| **5.9** | 8210 | 247 | 70100 | 1.60 | **RM** | **147R87** | **DRN** | **132S4** | 660 | 301 |
| **6.8** | 7090 | 214 | 71200 | 1.85 | | | | | | |
| **7.7** | 6270 | 189 | 72000 | 2.1 | | | | | | |
| **6.6** | 8000 | 222.60* | 53400 | 1.00 | | | | | | |
| **7.8** | 6770 | 188.45 | 55800 | 1.20 | **R** | **137** | **DRN** | **132S4** | 295 | 295 |
| **8.4** | 6260 | 174.40* | 56600 | 1.30 | **RF** | **137** | **DRN** | **132S4** | 320 | 296 |
| **9.4** | 5610 | 156.31 | 57600 | 1.40 | **RM** | **137** | **DRN** | **132S4** | 430 | 296 |
| **10** | 5070 | 141.12* | 58300 | 1.60 | | | | | | |
| **11** | 4600 | 128.18 | 58900 | 1.75 | | | | | | |
| **13** | 4080 | 113.72 | 59400 | 1.95 | | | | | | |
| **14** | 3700 | 103.20* | 59800 | 2.2 | | | | | | |
| **16** | 3180 | 88.70* | 60200 | 2.5 | **R** | **137** | **DRN** | **132S4** | 295 | 295 |
| **18** | 2900 | 80.91* | 60400 | 2.8 | **RF** | **137** | **DRN** | **132S4** | 320 | 296 |
| **20** | 2640 | 73.49 | 60600 | 3.0 | **RM** | **137** | **DRN** | **132S4** | 430 | 296 |
| **22** | 2340 | 65.20 | 60800 | 3.4 | | | | | | |
| **25** | 2120 | 59.17* | 60900 | 3.8 | | | | | | |
| **29** | 1820 | 50.86* | 61000 | 4.4 | | | | | | |
| **11** | 4590 | 127.68 | 27800 | 0.95 | | | | | | |
| **13** | 4150 | 115.63 | 30200 | 1.05 | | | | | | |
| **14** | 3680 | 102.53 | 32400 | 1.15 | | | | | | |
| **16** | 3330 | 92.70 | 33800 | 1.30 | | | | | | |
| **19** | 2820 | 78.57 | 33400 | 1.50 | **R** | **107** | **DRN** | **132S4** | 210 | 293 |
| **20** | 2610 | 72.88 | 32800 | 1.65 | **RF** | **107** | **DRN** | **132S4** | 215 | 294 |
| **22** | 2350 | 65.60* | 31900 | 1.80 | **RM** | **107** | **DRN** | **132S4** | 305 | 294 |
| **25** | 2130 | 59.41 | 31100 | 2.0 | | | | | | |
| **28** | 1890 | 52.68 | 30200 | 2.3 | | | | | | |
| **31** | 1710 | 47.63 | 29400 | 2.5 | | | | | | |
| **36** | 1450 | 40.37* | 28100 | 3.0 | | | | | | |
| **18** | 2980 | 83.15 | 20000 | 1.00 | | | | | | |
| **20** | 2590 | 72.17 | 22100 | 1.15 | | | | | | |
| **22** | 2340 | 65.21 | 24600 | 1.30 | | | | | | |
| **24** | 2150 | 59.92 | 24100 | 1.40 | | | | | | |
| **27** | 1910 | 53.21 | 23500 | 1.55 | **R** | **97** | **DRN** | **132S4** | 155 | 291 |
| **31** | 1710 | 47.58 | 22900 | 1.75 | **RF** | **97** | **DRN** | **132S4** | 170 | 292 |
| **34** | 1530 | 42.78 | 22400 | 1.95 | **RM** | **97** | **DRN** | **132S4** | 220 | 292 |
| **39** | 1330 | 37.13 | 21600 | 2.2 | | | | | | |
| **44** | 1190 | 33.25 | 21000 | 2.4 | | | | | | |
| **53** | 990 | 27.58 | 20000 | 2.7 | | | | | | |
| **46** | 1150 | 32.05 | 20800 | 2.2 | | | | | | |
| **54** | 970 | 27.19 | 19900 | 2.6 | | | | | | |
| **58** | 890 | 25.03 | 19500 | 3.1 | **R** | **97** | **DRN** | **132S4** | 150 | 291 |
| **65** | 800 | 22.37 | 18900 | 3.4 | **RF** | **97** | **DRN** | **132S4** | 165 | 292 |
| **73** | 720 | 20.14 | 18300 | 3.6 | **RM** | **97** | **DRN** | **132S4** | 220 | 292 |
| **80** | 655 | 18.24 | 17800 | 3.8 | | | | | | |
| **90** | 580 | 16.17 | 17200 | 4.1 | | | | | | |
| **31** | 1710 | 47.58 | 15700 | 0.90 | | | | | | |
| **35** | 1500 | 41.74 | 17300 | 1.05 | **R** | **87** | **DRN** | **132S4** | 110 | 288 |
| **40** | 1320 | 36.84* | 17100 | 1.15 | **RF** | **87** | **DRN** | **132S4** | 120 | 289 |
| **45** | 1170 | 32.66* | 16600 | 1.30 | **RM** | **87** | **DRN** | **132S4** | 150 | 289 |
| **52** | 1000 | 27.88 | 16100 | 1.50 | | | | | | |

21284997/EN – 03/2015

## $P_m$ = 5.5 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **52** | 1000 | 27.84* | 16000 | 1.55 | | | | | | |
| **62** | 840 | 23.40 | 15400 | 1.85 | | | | | | |
| **68** | 770 | 21.51 | 15100 | 1.95 | | | | | | |
| **76** | 685 | 19.10 | 14600 | 2.1 | | | | | | |
| **86** | 610 | 17.08* | 14200 | 2.3 | | | | | | |
| **95** | 550 | 15.35 | 13800 | 2.4 | **R** | **87** | **DRN** | **132S4** | 110 | 288 |
| **110** | 475 | 13.33 | 13300 | 2.7 | **RF** | **87** | **DRN** | **132S4** | 120 | 289 |
| **122** | 425 | 11.93 | 12900 | 2.9 | **RM** | **87** | **DRN** | **132S4** | 150 | 289 |
| **148** | 355 | 9.90* | 12200 | 3.3 | | | | | | |
| **160** | 325 | 9.14* | 12100 | 3.7 | | | | | | |
| **178** | 295 | 8.22 | 11700 | 3.9 | | | | | | |
| **205** | 255 | 7.13 | 11200 | 4.2 | | | | | | |
| **78** | 675 | 18.80 | 9320 | 1.15 | **R** | **77** | **DRN** | **132S4** | 84 | 285 |
| **82** | 640 | 17.82* | 9360 | 1.20 | **RF** | **77** | **DRN** | **132S4** | 90 | 286 |
| **94** | 560 | 15.60 | 9110 | 1.30 | **RM** | **77** | **DRN** | **132S4** | 115 | 286 |
| **104** | 505 | 14.05 | 8910 | 1.45 | | | | | | |
| **119** | 440 | 12.33 | 8650 | 1.55 | | | | | | |
| **134** | 390 | 10.88 | 8390 | 1.70 | | | | | | |
| **152** | 345 | 9.64 | 8150 | 1.80 | **R** | **77** | **DRN** | **132S4** | 84 | 285 |
| **170** | 305 | 8.59 | 8030 | 2.0 | **RF** | **77** | **DRN** | **132S4** | 90 | 286 |
| **189** | 275 | 7.74 | 7810 | 2.2 | **RM** | **77** | **DRN** | **132S4** | 115 | 286 |
| **215** | 240 | 6.79 | 7530 | 2.4 | | | | | | |
| **244** | 215 | 5.99* | 7270 | 2.5 | | | | | | |
| **275** | 191 | 5.31* | 7030 | 2.7 | | | | | | |
| **92** | 565 | 15.79 | 6720 | 1.00 | | | | | | |
| **98** | 535 | 14.91 | 6980 | 1.05 | | | | | | |
| **115** | 455 | 12.70 | 6790 | 1.15 | | | | | | |
| **127** | 410 | 11.54 | 6660 | 1.20 | | | | | | |
| **146** | 355 | 10.00 | 6470 | 1.30 | | | | | | |
| **168** | 310 | 8.70* | 6280 | 1.40 | **R** | **67** | **DRN** | **132S4** | 79 | 282 |
| **187** | 280 | 7.79 | 6150 | 1.35 | **RF** | **67** | **DRN** | **132S4** | 82 | 283 |
| **199** | 260 | 7.36* | 6070 | 1.40 | **RM** | **67** | **DRN** | **132S4** | 98 | 283 |
| **233** | 225 | 6.27 | 5830 | 1.45 | | | | | | |
| **257** | 200 | 5.70 | 5690 | 1.50 | | | | | | |
| **296** | 177 | 4.93 | 5480 | 1.65 | | | | | | |
| **340** | 154 | 4.29 | 5280 | 1.75 | | | | | | |
| **99** | 530 | 14.77* | 1860 | 0.80 | | | | | | |
| **105** | 500 | 13.95* | 2200 | 0.85 | **R** | **57** | **DRN** | **132S4** | 72 | 279 |
| **123** | 425 | 11.88 | 3000 | 0.95 | **RF** | **57** | **DRN** | **132S4** | 76 | 280 |
| **135** | 385 | 10.79 | 3270 | 1.00 | **RM** | **57** | **DRN** | **132S4** | 88 | 280 |
| **156** | 335 | 9.35 | 3240 | 1.10 | | | | | | |
| **183** | 285 | 7.97 | 3210 | 1.25 | | | | | | |
| **194** | 270 | 7.53 | 3190 | 1.30 | **R** | **57** | **DRN** | **132S4** | 72 | 279 |
| **228** | 230 | 6.41 | 3110 | 1.45 | **RF** | **57** | **DRN** | **132S4** | 76 | 280 |
| **251** | 205 | 5.82 | 3060 | 1.55 | **RM** | **57** | **DRN** | **132S4** | 88 | 280 |
| **290** | 181 | 5.05 | 2980 | 1.70 | | | | | | |
| **333** | 158 | 4.39 | 2900 | 1.75 | | | | | | |
| **301** | 174 | 4.85 | 1920 | 0.85 | | | | | | |
| **337** | 156 | 4.34 | 2110 | 0.95 | **R** | **47** | **DRN** | **132S4** | 67 | 276 |
| **381** | 138 | 3.83 | 2070 | 1.05 | **RF** | **47** | **DRN** | **132S4** | 67 | 277 |
| **221** | 235 | 6.63* | 10400 | 1.95 | | | | | | |
| **260** | 200 | 5.61 | 9920 | 2.3 | **RX** | **107** | **DRN** | **132S4** | 150 | 262 |
| **281** | 187 | 5.19 | 9700 | 3.7 | **RXF** | **107** | **DRN** | **132S4** | 165 | 263 |
| **314** | 167 | 4.65 | 9400 | 4.2 | | | | | | |
| **252** | 205 | 5.79 | 8330 | 2.0 | | | | | | |
| **297** | 177 | 4.91 | 7960 | 2.2 | | | | | | |
| **323** | 163 | 4.52 | 7780 | 3.7 | | | | | | |
| **361** | 145 | 4.04 | 7530 | 4.1 | | | | | | |
| **401** | 131 | 3.64* | 7310 | 4.6 | | | | | | |
| **443** | 118 | 3.30 | 7100 | 5.0 | **RX** | **97** | **DRN** | **132S4** | 115 | 260 |
| **500** | 105 | 2.92 | 6850 | 5.7 | **RXF** | **97** | **DRN** | **132S4** | 125 | 261 |
| **553** | 95 | 2.64 | 6650 | 6.3 | | | | | | |
| **652** | 81 | 2.24* | 6320 | 7.4 | | | | | | |
| **747** | 70 | 1.96 | 6070 | 8.1 | | | | | | |
| **893** | 59 | 1.64 | 5740 | 8.6 | | | | | | |
| **1030** | 51 | 1.42 | 5490 | 8.9 | | | | | | |



21284997/EN – 03/2015

## $P_m$ = 5.5 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **325** | 162 | 4.50* | 6000 | 1.80 | | | | | | |
| **386** | 136 | 3.78 | 5740 | 2.2 | | | | | | |
| **420** | 125 | 3.48 | 5610 | 3.2 | | | | | | |
| **473** | 111 | 3.09 | 5430 | 3.6 | **RX** | **87** | **DRN** | **132S4** | 92 | 258 |
| **529** | 99 | 2.76* | 5260 | 4.1 | **RXF** | **87** | **DRN** | **132S4** | 97 | 259 |
| **589** | 89 | 2.48 | 5100 | 4.5 | | | | | | |
| **678** | 77 | 2.15 | 4900 | 5.0 | | | | | | |
| **450** | 117 | 3.25* | 4200 | 1.55 | | | | | | |
| **474** | 111 | 3.08* | 4140 | 1.75 | | | | | | |
| **542** | 97 | 2.70 | 4010 | 2.2 | | | | | | |
| **602** | 87 | 2.43 | 3900 | 2.5 | **RX** | **77** | **DRN** | **132S4** | 76 | 256 |
| **686** | 77 | 2.13 | 3760 | 2.6 | **RXF** | **77** | **DRN** | **132S4** | 78 | 257 |
| **777** | 68 | 1.88* | 3640 | 2.8 | | | | | | |
| **877** | 60 | 1.67 | 3520 | 2.9 | | | | | | |
| **1025** | 51 | 1.42 | 3360 | 3.0 | | | | | | |
| **575** | 91 | 2.54 | 2540 | 1.30 | | | | | | |
| **609** | 86 | 2.40* | 2510 | 1.45 | | | | | | |
| **715** | 73 | 2.04 | 2420 | 1.80 | **RX** | **67** | **DRN** | **132S4** | 66 | 254 |
| **787** | 67 | 1.86 | 2370 | 1.90 | **RXF** | **67** | **DRN** | **132S4** | 70 | 255 |
| **908** | 58 | 1.61 | 2290 | 1.95 | | | | | | |
| **1045** | 50 | 1.40* | 2210 | 2.1 | | | | | | |
| **716** | 73 | 2.04 | 725 | 0.95 | | | | | | |
| **761** | 69 | 1.92* | 810 | 1.00 | | | | | | |
| **884** | 59 | 1.65 | 990 | 1.15 | **RX** | **57** | **DRN** | **132S4** | 64 | 252 |
| **990** | 53 | 1.48 | 1060 | 1.30 | **RXF** | **57** | **DRN** | **132S4** | 65 | 253 |
| **1120** | 47 | 1.30 | 1200 | 1.35 | | | | | | |

## $P_m$ = 7.5 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **2.9** | 22700 | 503 | 120000 | 0.80 | | | | | | |
| **3.4** | 19400 | 432 | 120000 | 0.95 | | | | | | |
| **3.9** | 17000 | 376 | 120000 | 1.05 | **R** | **167R97** | **DRN** | **132M4** | 810 | 301 |
| **4.4** | 15100 | 335 | 120000 | 1.20 | **RF** | **167R97** | **DRN** | **132M4** | 820 | 301 |
| **4.8** | 13500 | 303 | 120000 | 1.30 | **RM** | **167R97** | **DRN** | **132M4** | 1020 | 301 |
| **5.3** | 12500 | 279 | 120000 | 1.45 | | | | | | |
| **4.5** | 14800 | 326 | 52300 | 0.90 | | | | | | |
| **5.2** | 12600 | 280 | 63300 | 1.00 | | | | | | |
| **5.9** | 11200 | 247 | 65900 | 1.15 | **R** | **147R87** | **DRN** | **132M4** | 510 | 301 |
| **6.9** | 9670 | 214 | 68200 | 1.35 | **RF** | **147R87** | **DRN** | **132M4** | 510 | 301 |
| **7.8** | 8550 | 189 | 69700 | 1.50 | **RM** | **147R87** | **DRN** | **132M4** | 680 | 301 |
| **9.2** | 7190 | 159 | 71200 | 1.80 | | | | | | |
| **7.8** | 9190 | 188.45 | 46300 | 0.85 | | | | | | |
| **8.4** | 8500 | 174.40* | 51800 | 0.95 | **R** | **137** | **DRN** | **132M4** | 315 | 295 |
| **9.4** | 7620 | 156.31 | 54200 | 1.05 | **RF** | **137** | **DRN** | **132M4** | 335 | 296 |
| **10** | 6880 | 141.12* | 55600 | 1.15 | **RM** | **137** | **DRN** | **132M4** | 445 | 296 |
| **11** | 6250 | 128.18 | 56600 | 1.30 | | | | | | |
| **13** | 5540 | 113.72 | 57700 | 1.45 | | | | | | |
| **14** | 5030 | 103.20* | 58400 | 1.60 | | | | | | |
| **17** | 4320 | 88.70* | 59200 | 1.85 | **R** | **137** | **DRN** | **132M4** | 315 | 295 |
| **18** | 3940 | 80.91* | 59600 | 2.0 | **RF** | **137** | **DRN** | **132M4** | 335 | 296 |
| **20** | 3580 | 73.49 | 59900 | 2.2 | **RM** | **137** | **DRN** | **132M4** | 445 | 296 |
| **23** | 3180 | 65.20 | 60200 | 2.5 | | | | | | |
| **25** | 2880 | 59.17* | 60400 | 2.8 | | | | | | |
| **29** | 2480 | 50.86* | 60700 | 3.2 | | | | | | |

21284997/EN – 03/2015

## $P_m$ = 7.5 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **16** | 4520 | 92.70 | 28200 | 0.95 | | | | | | |
| **19** | 3830 | 78.57 | 31600 | 1.10 | | | | | | |
| **20** | 3550 | 72.88 | 31100 | 1.20 | | | | | | |
| **22** | 3200 | 65.60* | 30500 | 1.35 | | | | | | |
| **25** | 2890 | 59.41 | 29800 | 1.50 | **R** | **107** | **DRN** | **132M4** | 230 | 293 |
| **28** | 2570 | 52.68 | 29000 | 1.65 | **RF** | **107** | **DRN** | **132M4** | 235 | 294 |
| **31** | 2320 | 47.63 | 28300 | 1.85 | **RM** | **107** | **DRN** | **132M4** | 320 | 294 |
| **36** | 1960 | 40.37* | 27200 | 2.2 | | | | | | |
| **42** | 1720 | 35.26 | 26200 | 2.5 | | | | | | |
| **50** | 1430 | 29.49 | 25000 | 3.0 | | | | | | |
| **48** | 1500 | 30.77 | 25300 | 2.9 | | | | | | |
| **53** | 1340 | 27.58 | 24600 | 3.2 | **R** | **107** | **DRN** | **132M4** | 220 | 293 |
| **59** | 1210 | 24.90* | 23900 | 3.5 | **RF** | **107** | **DRN** | **132M4** | 230 | 294 |
| **65** | 1100 | 22.62 | 23300 | 3.9 | **RM** | **107** | **DRN** | **132M4** | 315 | 294 |
| **24** | 2920 | 59.92 | 21500 | 1.05 | | | | | | |
| **28** | 2590 | 53.21 | 22100 | 1.15 | **R** | **97** | **DRN** | **132M4** | 170 | 291 |
| **31** | 2320 | 47.58 | 21600 | 1.30 | **RF** | **97** | **DRN** | **132M4** | 190 | 292 |
| **34** | 2080 | 42.78 | 21200 | 1.45 | **RM** | **97** | **DRN** | **132M4** | 240 | 292 |
| **40** | 1810 | 37.13 | 20600 | 1.65 | | | | | | |
| **44** | 1620 | 33.25 | 20100 | 1.80 | **R** | **97** | **DRN** | **132M4** | 170 | 291 |
| **53** | 1340 | 27.58 | 19200 | 2.00 | **RF** | **97** | **DRN** | **132M4** | 190 | 292 |
| | | | | | **RM** | **97** | **DRN** | **132M4** | 240 | 292 |
| **46** | 1560 | 32.05 | 19900 | 1.65 | | | | | | |
| **54** | 1320 | 27.19 | 19200 | 1.95 | | | | | | |
| **59** | 1220 | 25.03 | 18800 | 2.3 | **R** | **97** | **DRN** | **132M4** | 170 | 291 |
| **66** | 1090 | 22.37 | 18300 | 2.5 | **RF** | **97** | **DRN** | **132M4** | 185 | 292 |
| **73** | 980 | 20.14 | 17800 | 2.7 | **RM** | **97** | **DRN** | **132M4** | 235 | 292 |
| **80** | 880 | 18.24 | 17300 | 2.8 | | | | | | |
| **40** | 1790 | 36.84* | 14700 | 0.85 | **R** | **87** | **DRN** | **132M4** | 130 | 288 |
| **45** | 1590 | 32.66* | 15600 | 0.95 | **RF** | **87** | **DRN** | **132M4** | 135 | 289 |
| **53** | 1360 | 27.88 | 15200 | 1.10 | **RM** | **87** | **DRN** | **132M4** | 165 | 289 |
| **53** | 1350 | 27.84* | 15200 | 1.15 | | | | | | |
| **63** | 1140 | 23.40 | 14600 | 1.35 | | | | | | |
| **68** | 1040 | 21.51 | 14400 | 1.45 | | | | | | |
| **77** | 930 | 19.10 | 14000 | 1.55 | | | | | | |
| **86** | 830 | 17.08* | 13700 | 1.65 | | | | | | |
| **96** | 745 | 15.35 | 12600 | 1.80 | | | | | | |
| **110** | 650 | 13.33 | 12900 | 1.95 | **R** | **87** | **DRN** | **132M4** | 130 | 288 |
| **123** | 580 | 11.93 | 12500 | 2.1 | **RF** | **87** | **DRN** | **132M4** | 135 | 289 |
| **148** | 480 | 9.90* | 11900 | 2.4 | **RM** | **87** | **DRN** | **132M4** | 165 | 289 |
| **161** | 445 | 9.14* | 11800 | 2.7 | | | | | | |
| **179** | 400 | 8.22 | 11500 | 2.9 | | | | | | |
| **206** | 345 | 7.13 | 11000 | 3.1 | | | | | | |
| **230** | 310 | 6.39 | 10700 | 3.3 | | | | | | |
| **277** | 255 | 5.30* | 10100 | 3.5 | | | | | | |
| **78** | 910 | 18.80 | 5520 | 0.85 | | | | | | |
| **82** | 860 | 17.82* | 5910 | 0.90 | | | | | | |
| **94** | 760 | 15.60 | 6760 | 0.95 | | | | | | |
| **104** | 685 | 14.05 | 7300 | 1.05 | | | | | | |
| **119** | 600 | 12.33 | 7850 | 1.15 | | | | | | |
| **135** | 530 | 10.88 | 7960 | 1.25 | **R** | **77** | **DRN** | **132M4** | 100 | 285 |
| **152** | 470 | 9.64 | 7770 | 1.35 | **RF** | **77** | **DRN** | **132M4** | 110 | 286 |
| **171** | 415 | 8.59 | 7690 | 1.50 | **RM** | **77** | **DRN** | **132M4** | 135 | 286 |
| **190** | 375 | 7.74 | 7540 | 1.60 | | | | | | |
| **216** | 330 | 6.79 | 7300 | 1.75 | | | | | | |
| **245** | 290 | 5.99* | 7060 | 1.85 | | | | | | |
| **276** | 255 | 5.31* | 6840 | 1.95 | | | | | | |

21284997/EN – 03/2015

## $P_m$ = 7.5 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **116** | 615 | 12.70 | 4420 | 0.85 | | | | | | |
| **127** | 560 | 11.54 | 5010 | 0.90 | | | | | | |
| **147** | 485 | 10.00 | 5740 | 0.95 | | | | | | |
| **169** | 420 | 8.70* | 5900 | 1.05 | | | | | | |
| **188** | 380 | 7.79 | 5600 | 1.00 | **R** | **67** | **DRN** | **132M4** | 97 | 282 |
| **199** | 355 | 7.36* | 5760 | 1.05 | **RF** | **67** | **DRN** | **132M4** | 100 | 283 |
| **234** | 305 | 6.27 | 5570 | 1.10 | **RM** | **67** | **DRN** | **132M4** | 115 | 283 |
| **258** | 275 | 5.70 | 5450 | 1.10 | | | | | | |
| **298** | 240 | 4.93 | 5270 | 1.20 | | | | | | |
| **342** | 205 | 4.29 | 5100 | 1.30 | | | | | | |
| **184** | 385 | 7.97 | 1120 | 0.90 | | | | | | |
| **195** | 365 | 7.53 | 1410 | 0.95 | | | | | | |
| **229** | 310 | 6.41 | 2120 | 1.05 | **R** | **57** | **DRN** | **132M4** | 91 | 279 |
| **252** | 280 | 5.82 | 2470 | 1.15 | **RF** | **57** | **DRN** | **132M4** | 94 | 280 |
| **291** | 245 | 5.05 | 2750 | 1.25 | **RM** | **57** | **DRN** | **132M4** | 105 | 280 |
| **334** | 210 | 4.39 | 2700 | 1.30 | | | | | | |
| **222** | 320 | 6.63* | 10000 | 1.40 | | | | | | |
| **262** | 270 | 5.61 | 9620 | 1.65 | | | | | | |
| **283** | 250 | 5.19 | 9420 | 2.7 | **RX** | **107** | **DRN** | **132M4** | 165 | 262 |
| **316** | 225 | 4.65 | 9140 | 3.1 | **RXF** | **107** | **DRN** | **132M4** | 185 | 263 |
| **350** | 200 | 4.20* | 8890 | 4.0 | | | | | | |
| **253** | 280 | 5.79 | 8030 | 1.50 | | | | | | |
| **299** | 235 | 4.91 | 7700 | 1.65 | | | | | | |
| **325** | 220 | 4.52 | 7530 | 2.7 | | | | | | |
| **363** | 197 | 4.04 | 7310 | 3.0 | **RX** | **97** | **DRN** | **132M4** | 135 | 260 |
| **403** | 178 | 3.64* | 7110 | 3.4 | **RXF** | **97** | **DRN** | **132M4** | 140 | 261 |
| **445** | 161 | 3.30 | 6910 | 3.7 | | | | | | |
| **502** | 143 | 2.92 | 6680 | 4.2 | | | | | | |
| **326** | 215 | 4.50* | 5720 | 1.30 | | | | | | |
| **388** | 185 | 3.78 | 5500 | 1.65 | | | | | | |
| **422** | 170 | 3.48 | 5380 | 2.4 | | | | | | |
| **476** | 151 | 3.09 | 5230 | 2.7 | | | | | | |
| **532** | 135 | 2.76* | 5080 | 3.0 | **RX** | **87** | **DRN** | **132M4** | 110 | 258 |
| **592** | 121 | 2.48 | 4940 | 3.4 | **RXF** | **87** | **DRN** | **132M4** | 115 | 259 |
| **682** | 105 | 2.15 | 4750 | 3.7 | | | | | | |
| **761** | 94 | 1.93 | 4610 | 3.8 | | | | | | |
| **918** | 78 | 1.60* | 4370 | 4.0 | | | | | | |
| **1055** | 68 | 1.39 | 4200 | 4.3 | | | | | | |
| **452** | 159 | 3.25* | 3890 | 1.15 | | | | | | |
| **477** | 150 | 3.08* | 3910 | 1.30 | | | | | | |
| **545** | 132 | 2.70 | 3800 | 1.65 | | | | | | |
| **604** | 118 | 2.43 | 3710 | 1.80 | **RX** | **77** | **DRN** | **132M4** | 94 | 256 |
| **689** | 104 | 2.13 | 3600 | 1.90 | **RXF** | **77** | **DRN** | **132M4** | 96 | 257 |
| **781** | 92 | 1.88* | 3490 | 2.0 | | | | | | |
| **881** | 81 | 1.67 | 3380 | 2.1 | | | | | | |
| **1030** | 69 | 1.42 | 3240 | 2.2 | | | | | | |
| **578** | 124 | 2.54 | 1590 | 0.95 | | | | | | |
| **612** | 117 | 2.40* | 1700 | 1.05 | | | | | | |
| **718** | 100 | 2.04 | 1890 | 1.35 | **RX** | **67** | **DRN** | **132M4** | 85 | 254 |
| **790** | 91 | 1.86 | 2000 | 1.40 | **RXF** | **67** | **DRN** | **132M4** | 89 | 255 |
| **913** | 78 | 1.61 | 2120 | 1.45 | | | | | | |
| **1050** | 68 | 1.40* | 2070 | 1.50 | | | | | | |

## $P_m$ = 9.2 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **3.9** | 20900 | 376 | 120000 | 0.85 | **R** | **167R97** | **DRN** | **132L4** | 820 | 301 |
| **4.4** | 18600 | 335 | 120000 | 0.95 | **RF** | **167R97** | **DRN** | **132L4** | 830 | 301 |
| **4.9** | 16700 | 303 | 120000 | 1.10 | **RM** | **167R97** | **DRN** | **132L4** | 1020 | 301 |
| **5.3** | 15400 | 279 | 120000 | 1.15 | | | | | | |

21284997/EN – 03/2015

## $P_m$ = 9.2 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **5.2** | 15500 | 280 | 42500 | 0.85 | | | | | | |
| **6.0** | 13700 | 247 | 61100 | 0.95 | **R** | **147R87** | **DRN** | **132L4** | 510 | 301 |
| **6.9** | 11800 | 214 | 64800 | 1.10 | **RF** | **147R87** | **DRN** | **132L4** | 520 | 301 |
| **7.8** | 10500 | 189 | 67000 | 1.25 | **RM** | **147R87** | **DRN** | **132L4** | 690 | 301 |
| **9.3** | 8830 | 159 | 69300 | 1.45 | | | | | | |
| **9.0** | 9760 | 163.31 | 68100 | 1.35 | **R** | **147** | **DRN** | **132L4** | 450 | 297 |
| **10** | 8770 | 146.91 | 69400 | 1.50 | **RF** | **147** | **DRN** | **132L4** | 455 | 298 |
| **12** | 7160 | 119.86 | 71200 | 1.80 | **RM** | **147** | **DRN** | **132L4** | 620 | 298 |
| **13** | 6530 | 109.31 | 71800 | 2.00 | | | | | | |
| **16** | 5650 | 94.60* | 72500 | 2.3 | **R** | **147** | **DRN** | **132L4** | 450 | 297 |
| **18** | 4980 | 83.47 | 73000 | 2.6 | **RF** | **147** | **DRN** | **132L4** | 455 | 298 |
| **20** | 4300 | 72.09 | 73400 | 3.0 | **RM** | **147** | **DRN** | **132L4** | 620 | 298 |
| **22** | 4000 | 66.99 | 73500 | 3.2 | | | | | | |
| **9.4** | 9340 | 156.31 | 43800 | 0.85 | | | | | | |
| **10** | 8430 | 141.12* | 52100 | 0.95 | **R** | **137** | **DRN** | **132L4** | 320 | 295 |
| **11** | 7660 | 128.18 | 54100 | 1.05 | **RF** | **137** | **DRN** | **132L4** | 345 | 296 |
| **13** | 6790 | 113.72 | 55700 | 1.20 | **RM** | **137** | **DRN** | **132L4** | 455 | 296 |
| **14** | 6160 | 103.20* | 56800 | 1.30 | | | | | | |
| **17** | 5300 | 88.70* | 58000 | 1.50 | | | | | | |
| **18** | 4830 | 80.91* | 58600 | 1.65 | | | | | | |
| **20** | 4390 | 73.49 | 59100 | 1.80 | **R** | **137** | **DRN** | **132L4** | 320 | 295 |
| **23** | 3890 | 65.20 | 59600 | 2.0 | **RF** | **137** | **DRN** | **132L4** | 345 | 296 |
| **25** | 3530 | 59.17* | 59900 | 2.3 | **RM** | **137** | **DRN** | **132L4** | 455 | 296 |
| **29** | 3030 | 50.86* | 60300 | 2.6 | | | | | | |
| **33** | 2650 | 44.39 | 60600 | 3.0 | | | | | | |
| **19** | 4690 | 78.57 | 26900 | 0.90 | | | | | | |
| **20** | 4350 | 72.88 | 29200 | 1.00 | | | | | | |
| **22** | 3920 | 65.60* | 29200 | 1.10 | | | | | | |
| **25** | 3550 | 59.41 | 28700 | 1.20 | **R** | **107** | **DRN** | **132L4** | 235 | 293 |
| **28** | 3140 | 52.68 | 28000 | 1.35 | **RF** | **107** | **DRN** | **132L4** | 245 | 294 |
| **31** | 2840 | 47.63 | 27400 | 1.50 | **RM** | **107** | **DRN** | **132L4** | 330 | 294 |
| **36** | 2410 | 40.37* | 26400 | 1.80 | | | | | | |
| **42** | 2100 | 35.26 | 25600 | 2.0 | | | | | | |
| **50** | 1760 | 29.49 | 24500 | 2.4 | | | | | | |
| **48** | 1830 | 30.77 | 24700 | 2.3 | | | | | | |
| **53** | 1640 | 27.58 | 24000 | 2.6 | **R** | **107** | **DRN** | **132L4** | 230 | 293 |
| **59** | 1480 | 24.90* | 23400 | 2.9 | **RF** | **107** | **DRN** | **132L4** | 235 | 294 |
| **65** | 1350 | 22.62 | 22800 | 3.2 | **RM** | **107** | **DRN** | **132L4** | 325 | 294 |
| **73** | 1190 | 20.07 | 22100 | 3.6 | | | | | | |
| **28** | 3180 | 53.21 | 10800 | 0.95 | **R** | **97** | **DRN** | **132L4** | 180 | 291 |
| **31** | 2840 | 47.58 | 20600 | 1.05 | **RF** | **97** | **DRN** | **132L4** | 195 | 292 |
| **34** | 2550 | 42.78 | 20200 | 1.15 | **RM** | **97** | **DRN** | **132L4** | 250 | 292 |
| **40** | 2210 | 37.13 | 19800 | 1.35 | **R** | **97** | **DRN** | **132L4** | 180 | 291 |
| **44** | 1980 | 33.25 | 19300 | 1.45 | **RF** | **97** | **DRN** | **132L4** | 195 | 292 |
| **53** | 1640 | 27.58 | 18600 | 1.60 | **RM** | **97** | **DRN** | **132L4** | 250 | 292 |
| **59** | 1490 | 25.03 | 18200 | 1.90 | | | | | | |
| **66** | 1330 | 22.37 | 17800 | 2.0 | | | | | | |
| **73** | 1200 | 20.14 | 17300 | 2.2 | **R** | **97** | **DRN** | **132L4** | 175 | 291 |
| **81** | 1090 | 18.24 | 16900 | 2.3 | **RF** | **97** | **DRN** | **132L4** | 195 | 292 |
| **91** | 960 | 16.17 | 16400 | 2.5 | **RM** | **97** | **DRN** | **132L4** | 245 | 292 |
| **101** | 870 | 14.62 | 16000 | 2.6 | | | | | | |
| **119** | 740 | 12.39 | 15300 | 3.0 | | | | | | |
| **68** | 1280 | 21.51 | 13800 | 1.15 | | | | | | |
| **77** | 1140 | 19.10 | 13500 | 1.25 | | | | | | |
| **86** | 1020 | 17.08* | 13200 | 1.35 | | | | | | |
| **96** | 910 | 15.35 | 12900 | 1.45 | | | | | | |
| **110** | 795 | 13.33 | 12500 | 1.60 | **R** | **87** | **DRN** | **132L4** | 135 | 288 |
| **123** | 710 | 11.93 | 12200 | 1.70 | **RF** | **87** | **DRN** | **132L4** | 145 | 289 |
| **148** | 590 | 9.90* | 11600 | 2.00 | **RM** | **87** | **DRN** | **132L4** | 175 | 289 |
| **161** | 545 | 9.14* | 11600 | 2.2 | | | | | | |
| **179** | 490 | 8.22 | 11300 | 2.4 | | | | | | |
| **206** | 425 | 7.13 | 10900 | 2.5 | | | | | | |
| **230** | 380 | 6.39 | 10500 | 2.7 | | | | | | |



21284997/EN – 03/2015

## $P_m$ = 9.2 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **105** | 830 | 14.05 | 4880 | 0.85 | | | | | | |
| **119** | 735 | 12.33 | 5730 | 0.95 | **R** | **77** | **DRN** | **132L4** | 110 | 285 |
| **135** | 650 | 10.88 | 6380 | 1.00 | **RF** | **77** | **DRN** | **132L4** | 115 | 286 |
| **152** | 575 | 9.64 | 6880 | 1.10 | **RM** | **77** | **DRN** | **132L4** | 140 | 286 |
| **190** | 460 | 7.74 | 6370 | 1.30 | | | | | | |
| **216** | 405 | 6.79 | 6770 | 1.45 | **R** | **77** | **DRN** | **132L4** | 110 | 285 |
| **245** | 355 | 5.99* | 6890 | 1.50 | **RF** | **77** | **DRN** | **132L4** | 115 | 286 |
| **277** | 315 | 5.31* | 6690 | 1.60 | **RM** | **77** | **DRN** | **132L4** | 140 | 286 |
| **283** | 310 | 5.19 | 9200 | 2.2 | | | | | | |
| **316** | 275 | 4.65 | 8940 | 2.5 | | | | | | |
| **350** | 250 | 4.20* | 8710 | 3.3 | **RX** | **107** | **DRN** | **132L4** | 175 | 262 |
| **385** | 225 | 3.81 | 8490 | 3.6 | **RXF** | **107** | **DRN** | **132L4** | 190 | 263 |
| **434** | 200 | 3.38 | 8220 | 4.1 | | | | | | |
| **325** | 270 | 4.52 | 7330 | 2.2 | | | | | | |
| **364** | 240 | 4.04 | 7130 | 2.5 | | | | | | |
| **404** | 215 | 3.64* | 6940 | 2.7 | | | | | | |
| **446** | 197 | 3.30 | 6760 | 3.0 | | | | | | |
| **503** | 175 | 2.92 | 6550 | 3.4 | **RX** | **97** | **DRN** | **132L4** | 140 | 260 |
| **556** | 158 | 2.64 | 6370 | 3.8 | **RXF** | **97** | **DRN** | **132L4** | 150 | 261 |
| **656** | 134 | 2.24* | 6080 | 4.4 | | | | | | |
| **751** | 117 | 1.96 | 5850 | 4.9 | | | | | | |
| **898** | 98 | 1.64 | 5560 | 5.2 | | | | | | |
| **1040** | 85 | 1.42 | 5320 | 5.4 | | | | | | |
| **423** | 205 | 3.48 | 5200 | 1.95 | | | | | | |
| **476** | 184 | 3.09 | 5060 | 2.2 | | | | | | |
| **533** | 165 | 2.76* | 4930 | 2.5 | | | | | | |
| **592** | 148 | 2.48 | 4800 | 2.7 | **RX** | **87** | **DRN** | **132L4** | 120 | 258 |
| **682** | 129 | 2.15 | 4630 | 3.0 | **RXF** | **87** | **DRN** | **132L4** | 125 | 259 |
| **762** | 115 | 1.93 | 4500 | 3.1 | | | | | | |
| **919** | 96 | 1.60* | 4270 | 3.3 | | | | | | |
| **1055** | 83 | 1.39 | 4110 | 3.5 | | | | | | |
| **605** | 145 | 2.43 | 3070 | 1.50 | | | | | | |
| **690** | 127 | 2.13 | 3210 | 1.55 | | | | | | |
| **782** | 112 | 1.88* | 3300 | 1.65 | **RX** | **77** | **DRN** | **132L4** | 100 | 256 |
| **882** | 100 | 1.67 | 3270 | 1.75 | **RXF** | **77** | **DRN** | **132L4** | 105 | 257 |
| **1035** | 85 | 1.42 | 3140 | 1.80 | | | | | | |

## $P_m$ = 11.0 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **5.0** | 19100 | 295 | 120000 | 0.95 | | | | | | |
| **5.4** | 17800 | 270 | 120000 | 1.00 | **R** | **167R107** | **DRN** | **160M4** | 900 | 301 |
| **6.4** | 15000 | 229 | 120000 | 1.20 | **RF** | **167R107** | **DRN** | **160M4** | 910 | 301 |
| **7.4** | 13000 | 200 | 120000 | 1.35 | **RM** | **167R107** | **DRN** | **160M4** | 1100 | 301 |
| **8.7** | 11000 | 169 | 120000 | 1.65 | | | | | | |
| | | | | | **R** | **167R107** | **DRN** | **160M4** | 900 | 301 |
| **5.1** | 19500 | 291 | 120000 | 0.90 | **RF** | **167R107** | **DRN** | **160M4** | 900 | 301 |
| | | | | | **RM** | **167R107** | **DRN** | **160M4** | 1100 | 301 |
| **4.4** | 22200 | 335 | 120000 | 0.80 | **R** | **167R97** | **DRN** | **160M4** | 860 | 301 |
| **4.9** | 20000 | 303 | 120000 | 0.90 | **RF** | **167R97** | **DRN** | **160M4** | 860 | 301 |
| **5.3** | 18400 | 279 | 120000 | 1.00 | **RM** | **167R97** | **DRN** | **160M4** | 1060 | 301 |
| **6.0** | 16400 | 247 | 29500 | 0.80 | | | | | | |
| **6.9** | 14200 | 214 | 59800 | 0.90 | **R** | **147R87** | **DRN** | **160M4** | 550 | 301 |
| **7.8** | 12500 | 189 | 63500 | 1.05 | **RF** | **147R87** | **DRN** | **160M4** | 560 | 301 |
| **9.3** | 10500 | 159 | 67000 | 1.25 | **RM** | **147R87** | **DRN** | **160M4** | 720 | 301 |
| **6.4** | 16300 | 229.71 | 120000 | 1.10 | **R** | **167** | **DRN** | **160M4** | 730 | 299 |
| **7.9** | 13300 | 186.93* | 120000 | 1.35 | **RF** | **167** | **DRN** | **160M4** | 730 | 300 |
| | | | | | **RM** | **167** | **DRN** | **160M4** | 930 | 300 |

21284997/EN – 03/2015

## $P_m$ = 11.0 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **9.6** | 10900 | 153.07 | 120000 | 1.65 | | | | | | |
| **11** | 9980 | 139.98 | 120000 | 1.80 | | | | | | |
| **12** | 8680 | 121.81* | 120000 | 2.1 | **R** | **167** | **DRN** | **160M4** | 730 | 299 |
| **14** | 7660 | 107.49 | 120000 | 2.4 | **RF** | **167** | **DRN** | **160M4** | 730 | 300 |
| **16** | 6640 | 93.19 | 120000 | 2.7 | **RM** | **167** | **DRN** | **160M4** | 930 | 300 |
| **18** | 5910 | 82.91* | 120000 | 3.0 | | | | | | |
| **9.0** | 11600 | 163.31 | 65200 | 1.10 | **R** | **147** | **DRN** | **160M4** | 480 | 297 |
| **10** | 10400 | 146.91 | 67100 | 1.25 | **RF** | **147** | **DRN** | **160M4** | 490 | 298 |
| **12** | 8540 | 119.86 | 69700 | 1.50 | **RM** | **147** | **DRN** | **160M4** | 660 | 298 |
| **13** | 7790 | 109.31 | 70500 | 1.65 | | | | | | |
| **16** | 6740 | 94.60* | 71600 | 1.95 | | | | | | |
| **18** | 5950 | 83.47 | 72200 | 2.2 | **R** | **147** | **DRN** | **160M4** | 480 | 297 |
| **20** | 5140 | 72.09 | 72900 | 2.5 | **RF** | **147** | **DRN** | **160M4** | 490 | 298 |
| **22** | 4770 | 66.99 | 73100 | 2.7 | **RM** | **147** | **DRN** | **160M4** | 660 | 298 |
| **24** | 4350 | 61.09 | 73300 | 3.0 | | | | | | |
| **28** | 3770 | 52.87 | 73700 | 3.4 | | | | | | |
| **10** | 10000 | 141.12* | 27800 | 0.80 | | | | | | |
| **11** | 9140 | 128.18 | 47100 | 0.90 | | | | | | |
| **13** | 8100 | 113.72 | 53100 | 1.00 | | | | | | |
| **14** | 7350 | 103.20* | 54700 | 1.10 | | | | | | |
| **17** | 6320 | 88.70* | 56500 | 1.25 | | | | | | |
| **18** | 5760 | 80.91* | 57400 | 1.40 | **R** | **137** | **DRN** | **160M4** | 355 | 295 |
| **20** | 5240 | 73.49 | 58100 | 1.55 | **RF** | **137** | **DRN** | **160M4** | 375 | 296 |
| **23** | 4640 | 65.20 | 58800 | 1.70 | **RM** | **137** | **DRN** | **160M4** | 485 | 296 |
| **25** | 4210 | 59.17* | 59300 | 1.90 | | | | | | |
| **29** | 3620 | 50.86* | 59800 | 2.2 | | | | | | |
| **33** | 3160 | 44.39 | 60200 | 2.5 | | | | | | |
| **39** | 2680 | 37.65 | 60600 | 3.0 | | | | | | |
| **45** | 2340 | 32.91 | 60800 | 3.4 | | | | | | |
| **22** | 4670 | 65.60* | 27200 | 0.90 | | | | | | |
| **25** | 4230 | 59.41 | 27500 | 1.00 | | | | | | |
| **28** | 3750 | 52.68 | 27000 | 1.15 | **R** | **107** | **DRN** | **160M4** | 270 | 293 |
| **31** | 3390 | 47.63 | 26500 | 1.25 | **RF** | **107** | **DRN** | **160M4** | 275 | 294 |
| **36** | 2870 | 40.37* | 25600 | 1.50 | **RM** | **107** | **DRN** | **160M4** | 365 | 294 |
| **42** | 2510 | 35.26 | 24900 | 1.70 | | | | | | |
| **50** | 2100 | 29.49 | 23900 | 2.0 | | | | | | |
| **48** | 2190 | 30.77 | 24100 | 1.95 | | | | | | |
| **53** | 1960 | 27.58 | 23500 | 2.2 | | | | | | |
| **59** | 1770 | 24.90* | 22900 | 2.4 | **R** | **107** | **DRN** | **160M4** | 265 | 293 |
| **65** | 1610 | 22.62 | 22400 | 2.7 | **RF** | **107** | **DRN** | **160M4** | 270 | 294 |
| **73** | 1430 | 20.07 | 21700 | 3.0 | **RM** | **107** | **DRN** | **160M4** | 355 | 294 |
| **81** | 1290 | 18.21 | 21200 | 3.3 | | | | | | |
| **34** | 3050 | 42.78 | 17800 | 1.00 | | | | | | |
| **40** | 2640 | 37.13 | 18900 | 1.15 | **R** | **97** | **DRN** | **160M4** | 210 | 291 |
| **44** | 2370 | 33.25 | 18600 | 1.20 | **RF** | **97** | **DRN** | **160M4** | 230 | 292 |
| **53** | 1960 | 27.58 | 18000 | 1.35 | **RM** | **97** | **DRN** | **160M4** | 280 | 292 |
| **59** | 1780 | 25.03 | 17600 | 1.60 | **R** | **97** | **DRN** | **160M4** | 210 | 291 |
| **66** | 1590 | 22.37 | 17200 | 1.70 | **RF** | **97** | **DRN** | **160M4** | 225 | 292 |
| **73** | 1430 | 20.14 | 16900 | 1.80 | **RM** | **97** | **DRN** | **160M4** | 275 | 292 |
| **81** | 1300 | 18.24 | 16500 | 1.90 | | | | | | |
| **91** | 1150 | 16.17 | 16000 | 2.1 | | | | | | |
| **101** | 1040 | 14.62 | 15600 | 2.2 | | | | | | |
| **119** | 880 | 12.39 | 15000 | 2.5 | **R** | **97** | **DRN** | **160M4** | 210 | 291 |
| **136** | 770 | 10.83 | 14500 | 2.7 | **RF** | **97** | **DRN** | **160M4** | 225 | 292 |
| **159** | 660 | 9.29 | 14200 | 3.1 | **RM** | **97** | **DRN** | **160M4** | 275 | 292 |
| **175** | 595 | 8.39 | 13800 | 3.4 | | | | | | |
| **207** | 505 | 7.12 | 13100 | 3.9 | | | | | | |
| **237** | 440 | 6.21 | 12600 | 4.3 | | | | | | |
| **68** | 1530 | 21.51 | 13200 | 1.00 | **R** | **87** | **DRN** | **160M4** | 170 | 288 |
| **77** | 1360 | 19.10 | 13000 | 1.05 | **RF** | **87** | **DRN** | **160M4** | 175 | 289 |
| **86** | 1210 | 17.08* | 12700 | 1.15 | **RM** | **87** | **DRN** | **160M4** | 205 | 289 |



21284997/EN – 03/2015

## $P_m$ = 11.0 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **96** | 1090 | 15.35 | 12500 | 1.20 | | | | | | |
| **111** | 950 | 13.33 | 12100 | 1.35 | | | | | | |
| **123** | 850 | 11.93 | 11800 | 1.45 | | | | | | |
| **149** | 705 | 9.90* | 11300 | 1.65 | **R** | **87** | **DRN** | **160M4** | 170 | 288 |
| **161** | 650 | 9.14* | 11400 | 1.85 | **RF** | **87** | **DRN** | **160M4** | 175 | 289 |
| **179** | 585 | 8.22 | 11100 | 2.00 | **RM** | **87** | **DRN** | **160M4** | 205 | 289 |
| **206** | 505 | 7.13 | 10700 | 2.1 | | | | | | |
| **231** | 455 | 6.39 | 10400 | 2.2 | | | | | | |
| **278** | 375 | 5.30* | 9850 | 2.4 | | | | | | |
| **135** | 775 | 10.88 | 4400 | 0.85 | **R** | **77** | **DRN** | **160M4** | 140 | 285 |
| **153** | 685 | 9.64 | 5130 | 0.90 | **RF** | **77** | **DRN** | **160M4** | 150 | 286 |
| | | | | | **RM** | **77** | **DRN** | **160M4** | 175 | 286 |
| **190** | 550 | 7.74 | 4740 | 1.10 | | | | | | |
| **217** | 480 | 6.79 | 5340 | 1.20 | **R** | **77** | **DRN** | **160M4** | 140 | 285 |
| **246** | 425 | 5.99* | 5800 | 1.25 | **RF** | **77** | **DRN** | **160M4** | 150 | 286 |
| **277** | 375 | 5.31* | 6140 | 1.35 | **RM** | **77** | **DRN** | **160M4** | 175 | 286 |
| **284** | 370 | 5.19 | 8950 | 1.90 | | | | | | |
| **317** | 330 | 4.65 | 8720 | 2.1 | | | | | | |
| **351** | 295 | 4.20* | 8510 | 2.8 | | | | | | |
| **386** | 270 | 3.81 | 8300 | 3.0 | **RX** | **107** | **DRN** | **160M4** | 210 | 262 |
| **435** | 240 | 3.38 | 8050 | 3.4 | **RXF** | **107** | **DRN** | **160M4** | 225 | 263 |
| **480** | 215 | 3.07 | 7840 | 3.8 | | | | | | |
| **558** | 188 | 2.64* | 7530 | 4.4 | | | | | | |
| **326** | 320 | 4.52 | 7120 | 1.85 | | | | | | |
| **364** | 285 | 4.04 | 6940 | 2.1 | | | | | | |
| **405** | 255 | 3.64* | 6770 | 2.3 | | | | | | |
| **447** | 235 | 3.30 | 6600 | 2.5 | | | | | | |
| **504** | 205 | 2.92 | 6410 | 2.8 | **RX** | **97** | **DRN** | **160M4** | 175 | 260 |
| **557** | 188 | 2.64 | 6240 | 3.2 | **RXF** | **97** | **DRN** | **160M4** | 185 | 261 |
| **658** | 160 | 2.24* | 5970 | 3.7 | | | | | | |
| **753** | 140 | 1.96 | 5750 | 4.1 | | | | | | |
| **900** | 117 | 1.64 | 5470 | 4.3 | | | | | | |
| **1040** | 101 | 1.42 | 5240 | 4.5 | | | | | | |
| **424** | 245 | 3.48 | 5000 | 1.65 | | | | | | |
| **477** | 220 | 3.09 | 4890 | 1.85 | **RX** | **87** | **DRN** | **160M4** | 150 | 258 |
| **534** | 197 | 2.76* | 4770 | 2.1 | **RXF** | **87** | **DRN** | **160M4** | 155 | 259 |
| **594** | 177 | 2.48 | 4660 | 2.3 | | | | | | |
| **684** | 154 | 2.15 | 4500 | 2.5 | | | | | | |
| **764** | 138 | 1.93 | 4380 | 2.6 | **RX** | **87** | **DRN** | **160M4** | 150 | 258 |
| **921** | 114 | 1.60* | 4170 | 2.8 | **RXF** | **87** | **DRN** | **160M4** | 155 | 259 |
| **1060** | 99 | 1.39 | 4020 | 2.9 | | | | | | |
| **607** | 173 | 2.43 | 1980 | 1.25 | | | | | | |
| **691** | 152 | 2.13 | 2220 | 1.30 | | | | | | |
| **784** | 134 | 1.88* | 2400 | 1.40 | **RX** | **77** | **DRN** | **160M4** | 135 | 256 |
| **884** | 119 | 1.67 | 2520 | 1.45 | **RXF** | **77** | **DRN** | **160M4** | 135 | 257 |
| **1035** | 101 | 1.42 | 2630 | 1.55 | | | | | | |

## $P_m$ = 15.0 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **6.4** | 20600 | 229 | 120000 | 0.85 | **R** | **167R107** | **DRN** | **160L4** | 920 | 301 |
| **7.4** | 17900 | 200 | 120000 | 1.00 | **RF** | **167R107** | **DRN** | **160L4** | 920 | 301 |
| **8.7** | 15100 | 169 | 120000 | 1.20 | **RM** | **167R107** | **DRN** | **160L4** | 1120 | 301 |
| **6.5** | 20700 | 227 | 120000 | 0.85 | **R** | **167R107** | **DRN** | **160L4** | 910 | 301 |
| **7.4** | 18000 | 198 | 120000 | 1.00 | **RF** | **167R107** | **DRN** | **160L4** | 920 | 301 |
| | | | | | **RM** | **167R107** | **DRN** | **160L4** | 1110 | 301 |
| **6.4** | 22300 | 229.71 | 120000 | 0.80 | **R** | **167** | **DRN** | **160L4** | 740 | 299 |
| **7.9** | 18100 | 186.93* | 120000 | 1.00 | **RF** | **167** | **DRN** | **160L4** | 750 | 300 |
| | | | | | **RM** | **167** | **DRN** | **160L4** | 940 | 300 |

21284997/EN – 03/2015

## $P_m$ = 15.0 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **9.6** | 14800 | 153.07 | 120000 | 1.20 | | | | | | |
| **11** | 13600 | 139.98 | 120000 | 1.30 | | | | | | |
| **12** | 11800 | 121.81* | 120000 | 1.50 | | | | | | |
| **14** | 10400 | 107.49 | 120000 | 1.70 | **R** | **167** | **DRN** | **160L4** | 740 | 299 |
| **16** | 9050 | 93.19 | 120000 | 2.00 | **RF** | **167** | **DRN** | **160L4** | 750 | 300 |
| **18** | 8050 | 82.91* | 120000 | 2.2 | **RM** | **167** | **DRN** | **160L4** | 940 | 300 |
| **20** | 7160 | 73.70* | 120000 | 2.5 | | | | | | |
| **22** | 6540 | 67.40 | 120000 | 2.8 | | | | | | |
| **9.0** | 15800 | 163.31 | 38500 | 0.80 | | | | | | |
| **10** | 14200 | 146.91 | 59000 | 0.90 | **R** | **147** | **DRN** | **160L4** | 495 | 297 |
| **12** | 11600 | 119.86 | 65200 | 1.10 | **RF** | **147** | **DRN** | **160L4** | 500 | 298 |
| **13** | 10600 | 109.31 | 66900 | 1.20 | **RM** | **147** | **DRN** | **160L4** | 670 | 298 |
| **16** | 9190 | 94.60* | 68900 | 1.40 | | | | | | |
| **18** | 8110 | 83.47 | 70200 | 1.60 | | | | | | |
| **20** | 7000 | 72.09 | 71300 | 1.85 | **R** | **147** | **DRN** | **160L4** | 495 | 297 |
| **22** | 6500 | 66.99 | 71800 | 2.0 | **RF** | **147** | **DRN** | **160L4** | 500 | 298 |
| **24** | 5930 | 61.09 | 72300 | 2.2 | **RM** | **147** | **DRN** | **160L4** | 670 | 298 |
| **28** | 5130 | 52.87 | 72900 | 2.5 | | | | | | |
| **32** | 4530 | 46.65 | 73200 | 2.9 | | | | | | |
| **14** | 10000 | 103.20* | 28800 | 0.80 | | | | | | |
| **17** | 8620 | 88.70* | 51300 | 0.95 | **R** | **137** | **DRN** | **160L4** | 370 | 295 |
| **18** | 7860 | 80.91* | 53700 | 1.00 | **RF** | **137** | **DRN** | **160L4** | 390 | 296 |
| **20** | 7140 | 73.49 | 55100 | 1.10 | **RM** | **137** | **DRN** | **160L4** | 500 | 296 |
| **23** | 6330 | 65.20 | 56500 | 1.25 | | | | | | |
| **25** | 5740 | 59.17* | 57400 | 1.40 | | | | | | |
| **29** | 4940 | 50.86* | 58500 | 1.60 | **R** | **137** | **DRN** | **160L4** | 370 | 295 |
| **33** | 4310 | 44.39 | 59200 | 1.85 | **RF** | **137** | **DRN** | **160L4** | 390 | 296 |
| **39** | 3650 | 37.65 | 59800 | 2.2 | **RM** | **137** | **DRN** | **160L4** | 500 | 296 |
| **45** | 3190 | 32.91 | 60200 | 2.5 | | | | | | |
| **53** | 2700 | 27.83 | 60500 | 2.8 | | | | | | |
| **31** | 4620 | 47.63 | 24400 | 0.95 | | | | | | |
| **37** | 3920 | 40.37* | 23900 | 1.10 | **R** | **107** | **DRN** | **160L4** | 285 | 293 |
| **42** | 3420 | 35.26 | 23400 | 1.25 | **RF** | **107** | **DRN** | **160L4** | 290 | 294 |
| **50** | 2860 | 29.49 | 22600 | 1.50 | **RM** | **107** | **DRN** | **160L4** | 380 | 294 |
| **48** | 2990 | 30.77 | 22800 | 1.45 | | | | | | |
| **53** | 2680 | 27.58 | 22300 | 1.60 | | | | | | |
| **59** | 2410 | 24.90* | 21800 | 1.80 | | | | | | |
| **65** | 2190 | 22.62 | 21400 | 1.95 | **R** | **107** | **DRN** | **160L4** | 280 | 293 |
| **73** | 1940 | 20.07 | 20800 | 2.2 | **RF** | **107** | **DRN** | **160L4** | 285 | 294 |
| **81** | 1760 | 18.21 | 20400 | 2.4 | **RM** | **107** | **DRN** | **160L4** | 375 | 294 |
| **94** | 1520 | 15.65 | 19600 | 2.8 | | | | | | |
| **108** | 1320 | 13.66 | 19000 | 3.2 | | | | | | |
| | | | | | **R** | **97** | **DRN** | **160L4** | 230 | 291 |
| **53** | 2680 | 27.58 | 16500 | 1.00 | **RF** | **97** | **DRN** | **160L4** | 245 | 292 |
| | | | | | **RM** | **97** | **DRN** | **160L4** | 295 | 292 |
| **59** | 2430 | 25.03 | 16300 | 1.15 | | | | | | |
| **66** | 2170 | 22.37 | 16100 | 1.25 | | | | | | |
| **73** | 1950 | 20.14 | 15800 | 1.35 | | | | | | |
| **81** | 1770 | 18.24 | 15500 | 1.40 | | | | | | |
| **91** | 1570 | 16.17 | 15200 | 1.55 | | | | | | |
| **101** | 1420 | 14.62 | 14900 | 1.60 | **R** | **97** | **DRN** | **160L4** | 225 | 291 |
| **119** | 1200 | 12.39 | 14400 | 1.80 | **RF** | **97** | **DRN** | **160L4** | 240 | 292 |
| **136** | 1050 | 10.83 | 13900 | 2.00 | **RM** | **97** | **DRN** | **160L4** | 295 | 292 |
| **159** | 900 | 9.29 | 13800 | 2.2 | | | | | | |
| **176** | 810 | 8.39 | 13400 | 2.5 | | | | | | |
| **207** | 690 | 7.12 | 12800 | 2.9 | | | | | | |
| **237** | 600 | 6.21 | 12300 | 3.1 | | | | | | |
| **86** | 1650 | 17.08* | 11600 | 0.85 | | | | | | |
| **96** | 1490 | 15.35 | 11500 | 0.90 | **R** | **87** | **DRN** | **160L4** | 185 | 288 |
| **111** | 1290 | 13.33 | 11300 | 1.00 | **RF** | **87** | **DRN** | **160L4** | 190 | 289 |
| **124** | 1150 | 11.93 | 11100 | 1.05 | **RM** | **87** | **DRN** | **160L4** | 220 | 289 |



21284997/EN – 03/2015

## $P_m$ = 15.0 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **149** | 960 | 9.90* | 10700 | 1.25 | | | | | | |
| **161** | 880 | 9.14* | 10900 | 1.35 | | | | | | |
| **179** | 795 | 8.22 | 10700 | 1.45 | **R** | **87** | **DRN** | **160L4** | 185 | 288 |
| **207** | 690 | 7.13 | 10300 | 1.55 | **RF** | **87** | **DRN** | **160L4** | 190 | 289 |
| **231** | 620 | 6.39 | 10000 | 1.65 | **RM** | **87** | **DRN** | **160L4** | 220 | 289 |
| **278** | 515 | 5.30* | 9570 | 1.75 | | | | | | |
| **284** | 500 | 5.19 | 8420 | 1.40 | | | | | | |
| **317** | 450 | 4.65 | 8240 | 1.55 | **RX** | **107** | **DRN** | **160L4** | 225 | 262 |
| **351** | 405 | 4.20* | 8080 | 2.0 | **RXF** | **107** | **DRN** | **160L4** | 240 | 263 |
| **386** | 370 | 3.81 | 7910 | 2.2 | | | | | | |
| **436** | 325 | 3.38 | 7690 | 2.5 | | | | | | |
| **480** | 295 | 3.07 | 7520 | 2.8 | | | | | | |
| **558** | 255 | 2.64* | 7240 | 3.2 | | | | | | |
| **640** | 220 | 2.30 | 6990 | 3.7 | **RX** | **107** | **DRN** | **160L4** | 225 | 262 |
| **754** | 190 | 1.95 | 6690 | 4.0 | **RXF** | **107** | **DRN** | **160L4** | 240 | 263 |
| **863** | 166 | 1.71 | 6450 | 4.2 | | | | | | |
| **1020** | 140 | 1.44 | 6150 | 4.6 | | | | | | |
| **326** | 435 | 4.52 | 6650 | 1.35 | | | | | | |
| **365** | 390 | 4.04 | 6520 | 1.50 | | | | | | |
| **405** | 350 | 3.64* | 6380 | 1.70 | | | | | | |
| **447** | 320 | 3.30 | 6250 | 1.85 | | | | | | |
| **504** | 280 | 2.92 | 6100 | 2.1 | **RX** | **97** | **DRN** | **160L4** | 190 | 260 |
| **558** | 255 | 2.64 | 5960 | 2.3 | **RXF** | **97** | **DRN** | **160L4** | 200 | 261 |
| **658** | 215 | 2.24* | 5720 | 2.7 | | | | | | |
| **753** | 190 | 1.96 | 5530 | 3.0 | | | | | | |
| **901** | 159 | 1.64 | 5280 | 3.2 | | | | | | |
| **1040** | 138 | 1.42 | 5080 | 3.3 | | | | | | |
| **424** | 335 | 3.48 | 4310 | 1.20 | | | | | | |
| **477** | 295 | 3.09 | 4500 | 1.35 | | | | | | |
| **534** | 265 | 2.76* | 4420 | 1.50 | **RX** | **87** | **DRN** | **160L4** | 165 | 258 |
| **594** | 240 | 2.48 | 4340 | 1.70 | **RXF** | **87** | **DRN** | **160L4** | 170 | 259 |
| **684** | 205 | 2.15 | 4220 | 1.85 | | | | | | |
| **764** | 187 | 1.93 | 4130 | 1.90 | | | | | | |
| **921** | 155 | 1.60* | 3960 | 2.0 | **RX** | **87** | **DRN** | **160L4** | 165 | 258 |
| **1060** | 135 | 1.39 | 3830 | 2.1 | **RXF** | **87** | **DRN** | **160L4** | 170 | 259 |

## $P_m$ = 18.5 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **7.9** | 22300 | 186.93* | 120000 | 0.80 | | | | | | |
| **9.7** | 18200 | 153.07 | 120000 | 1.00 | **R** | **167** | **DRN** | **180M4** | 770 | 299 |
| **11** | 16700 | 139.98 | 120000 | 1.10 | **RF** | **167** | **DRN** | **180M4** | 770 | 300 |
| **12** | 14500 | 121.81* | 120000 | 1.25 | **RM** | **167** | **DRN** | **180M4** | 970 | 300 |
| **14** | 12800 | 107.49 | 120000 | 1.40 | | | | | | |
| **16** | 11100 | 93.19 | 120000 | 1.60 | | | | | | |
| **18** | 9910 | 82.91* | 120000 | 1.80 | **R** | **167** | **DRN** | **180M4** | 770 | 299 |
| **20** | 8800 | 73.70* | 120000 | 2.0 | **RF** | **167** | **DRN** | **180M4** | 770 | 300 |
| **22** | 8050 | 67.40 | 120000 | 2.2 | **RM** | **167** | **DRN** | **180M4** | 970 | 300 |
| **25** | 7000 | 58.65 | 120000 | 2.6 | | | | | | |
| **12** | 14300 | 119.86 | 58400 | 0.90 | **R** | **147** | **DRN** | **180M4** | 520 | 297 |
| **14** | 13000 | 109.31 | 62500 | 1.00 | **RF** | **147** | **DRN** | **180M4** | 530 | 298 |
| **16** | 11300 | 94.60* | 65800 | 1.15 | **RM** | **147** | **DRN** | **180M4** | 690 | 298 |
| **18** | 9970 | 83.47 | 67800 | 1.30 | | | | | | |
| **20** | 8610 | 72.09 | 69600 | 1.50 | | | | | | |
| **22** | 8000 | 66.99 | 70300 | 1.60 | **R** | **147** | **DRN** | **180M4** | 520 | 297 |
| **24** | 7300 | 61.09 | 71000 | 1.80 | **RF** | **147** | **DRN** | **180M4** | 530 | 298 |
| **28** | 6310 | 52.87 | 71900 | 2.1 | **RM** | **147** | **DRN** | **180M4** | 690 | 298 |
| **32** | 5570 | 46.65 | 72500 | 2.3 | | | | | | |
| **37** | 4810 | 40.29 | 73100 | 2.7 | | | | | | |
| **18** | 9670 | 80.91* | 37500 | 0.85 | | | | | | |
| **20** | 8780 | 73.49 | 50600 | 0.90 | **R** | **137** | **DRN** | **180M4** | 390 | 295 |
| **23** | 7790 | 65.20 | 53800 | 1.05 | **RF** | **137** | **DRN** | **180M4** | 415 | 296 |
| **25** | 7070 | 59.17* | 55200 | 1.15 | **RM** | **137** | **DRN** | **180M4** | 530 | 296 |

21284997/EN – 03/2015

## $P_m$ = 18.5 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **29** | 6070 | 50.86* | 56900 | 1.30 | | | | | | |
| **33** | 5300 | 44.39 | 58000 | 1.50 | **R** | **137** | **DRN** | **180M4** | 390 | 295 |
| **39** | 4500 | 37.65 | 59000 | 1.80 | **RF** | **137** | **DRN** | **180M4** | 415 | 296 |
| **45** | 3930 | 32.91 | 59600 | 2.0 | **RM** | **137** | **DRN** | **180M4** | 530 | 296 |
| **53** | 3320 | 27.83 | 60100 | 2.3 | | | | | | |
| **50** | 3530 | 29.57* | 59900 | 2.2 | | | | | | |
| **61** | 2880 | 24.12 | 60400 | 2.8 | **R** | **137** | **DRN** | **180M4** | 380 | 295 |
| **67** | 2620 | 22.00* | 60600 | 3.0 | **RF** | **137** | **DRN** | **180M4** | 405 | 296 |
| **78** | 2270 | 19.04* | 60800 | 3.5 | **RM** | **137** | **DRN** | **180M4** | 520 | 296 |
| **88** | 2000 | 16.80* | 60900 | 4.0 | | | | | | |
| **37** | 4820 | 40.37* | 22100 | 0.90 | **R** | **107** | **DRN** | **180M4** | 305 | 293 |
| **42** | 4210 | 35.26 | 22000 | 1.00 | **RF** | **107** | **DRN** | **180M4** | 310 | 294 |
| **50** | 3520 | 29.49 | 21500 | 1.20 | **RM** | **107** | **DRN** | **180M4** | 400 | 294 |
| **59** | 2970 | 24.90* | 20900 | 1.45 | | | | | | |
| **65** | 2700 | 22.62 | 20500 | 1.60 | | | | | | |
| **74** | 2390 | 20.07 | 20100 | 1.80 | | | | | | |
| **81** | 2170 | 18.21 | 19700 | 2.00 | | | | | | |
| **94** | 1870 | 15.65 | 19000 | 2.3 | **R** | **107** | **DRN** | **180M4** | 300 | 293 |
| **108** | 1630 | 13.66 | 18400 | 2.6 | **RF** | **107** | **DRN** | **180M4** | 305 | 294 |
| **128** | 1380 | 11.59 | 17700 | 3.1 | **RM** | **107** | **DRN** | **180M4** | 395 | 294 |
| **146** | 1210 | 10.13 | 17100 | 3.6 | | | | | | |
| **188** | 930 | 7.86 | 16300 | 3.2 | | | | | | |
| **222** | 795 | 6.66 | 15500 | 3.7 | | | | | | |
| **73** | 2400 | 20.14 | 14900 | 1.10 | | | | | | |
| **81** | 2180 | 18.24 | 14700 | 1.15 | | | | | | |
| **91** | 1930 | 16.17 | 14400 | 1.25 | | | | | | |
| **101** | 1740 | 14.62 | 14200 | 1.30 | | | | | | |
| **119** | 1480 | 12.39 | 13800 | 1.50 | | | | | | |
| **137** | 1290 | 10.83 | 13400 | 1.60 | **R** | **97** | **DRN** | **180M4** | 245 | 291 |
| **159** | 1100 | 9.29 | 13400 | 1.85 | **RF** | **97** | **DRN** | **180M4** | 265 | 292 |
| **176** | 1000 | 8.39 | 13100 | 2.0 | **RM** | **97** | **DRN** | **180M4** | 315 | 292 |
| **208** | 850 | 7.12 | 12500 | 2.4 | | | | | | |
| **238** | 740 | 6.21 | 12100 | 2.5 | | | | | | |
| **284** | 620 | 5.20 | 11500 | 2.9 | | | | | | |
| **328** | 535 | 4.50* | 11100 | 3.0 | | | | | | |
| **111** | 1590 | 13.33 | 10500 | 0.80 | | | | | | |
| **124** | 1420 | 11.93 | 10400 | 0.85 | | | | | | |
| **149** | 1180 | 9.90* | 10200 | 1.00 | | | | | | |
| **162** | 1090 | 9.14* | 10500 | 1.10 | **R** | **87** | **DRN** | **180M4** | 205 | 288 |
| **180** | 980 | 8.22 | 10300 | 1.20 | **RF** | **87** | **DRN** | **180M4** | 215 | 289 |
| **207** | 850 | 7.13 | 10000 | 1.25 | **RM** | **87** | **DRN** | **180M4** | 245 | 289 |
| **231** | 760 | 6.39 | 9750 | 1.35 | | | | | | |
| **279** | 630 | 5.30* | 9330 | 1.45 | | | | | | |
| **352** | 500 | 4.20* | 7700 | 1.65 | | | | | | |
| **387** | 455 | 3.81 | 7560 | 1.80 | **RX** | **107** | **DRN** | **180M4** | 245 | 262 |
| **437** | 400 | 3.38 | 7390 | 2.0 | **RXF** | **107** | **DRN** | **180M4** | 260 | 263 |
| **481** | 365 | 3.07 | 7240 | 2.3 | | | | | | |
| **560** | 315 | 2.64* | 6990 | 2.6 | | | | | | |
| **641** | 275 | 2.30 | 6770 | 3.0 | | | | | | |
| **756** | 230 | 1.95 | 6500 | 3.3 | **RX** | **107** | **DRN** | **180M4** | 245 | 262 |
| **865** | 200 | 1.71 | 6280 | 3.4 | **RXF** | **107** | **DRN** | **180M4** | 260 | 263 |
| **1025** | 173 | 1.44 | 6000 | 3.7 | | | | | | |
| **406** | 435 | 3.64* | 6050 | 1.35 | | | | | | |
| **448** | 390 | 3.30 | 5950 | 1.50 | | | | | | |
| **506** | 345 | 2.92 | 5820 | 1.70 | | | | | | |
| **559** | 315 | 2.64 | 5700 | 1.90 | **RX** | **97** | **DRN** | **180M4** | 215 | 260 |
| **660** | 265 | 2.24* | 5500 | 2.2 | **RXF** | **97** | **DRN** | **180M4** | 220 | 261 |
| **755** | 230 | 1.96 | 5340 | 2.4 | | | | | | |
| **903** | 196 | 1.64 | 5110 | 2.6 | | | | | | |
| **1045** | 169 | 1.42 | 4930 | 2.7 | | | | | | |
| **536** | 325 | 2.76* | 3090 | 1.25 | | | | | | |
| **596** | 295 | 2.48 | 3380 | 1.35 | | | | | | |
| **686** | 255 | 2.15 | 3670 | 1.50 | **RX** | **87** | **DRN** | **180M4** | 190 | 258 |
| **766** | 230 | 1.93 | 3850 | 1.55 | **RXF** | **87** | **DRN** | **180M4** | 195 | 259 |
| **924** | 191 | 1.60* | 3760 | 1.65 | | | | | | |
| **1060** | 166 | 1.39 | 3660 | 1.75 | | | | | | |



21284997/EN – 03/2015

## $P_m$ = 22 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **9.6** | 21700 | 153.07 | 120000 | 0.85 | **R** | **167** | **DRN** | **180L4** | 780 | 299 |
| **11** | 19900 | 139.98 | 120000 | 0.90 | **RF** | **167** | **DRN** | **180L4** | 790 | 300 |
| **12** | 17300 | 121.81* | 120000 | 1.05 | **RM** | **167** | **DRN** | **180L4** | 980 | 300 |
| **14** | 15200 | 107.49 | 120000 | 1.20 | | | | | | |
| **16** | 13200 | 93.19 | 120000 | 1.35 | | | | | | |
| **18** | 11700 | 82.91* | 120000 | 1.55 | | | | | | |
| **20** | 10400 | 73.70* | 120000 | 1.70 | **R** | **167** | **DRN** | **180L4** | 780 | 299 |
| **22** | 9580 | 67.40 | 120000 | 1.90 | **RF** | **167** | **DRN** | **180L4** | 790 | 300 |
| **25** | 8340 | 58.65 | 120000 | 2.2 | **RM** | **167** | **DRN** | **180L4** | 980 | 300 |
| **29** | 7360 | 51.76 | 120000 | 2.4 | | | | | | |
| **33** | 6380 | 44.87 | 120000 | 2.8 | | | | | | |
| **14** | 15500 | 109.31 | 43100 | 0.85 | | | | | | |
| **16** | 13400 | 94.60* | 61700 | 0.95 | **R** | **147** | **DRN** | **180L4** | 530 | 297 |
| **18** | 11800 | 83.47 | 64800 | 1.10 | **RF** | **147** | **DRN** | **180L4** | 540 | 298 |
| **20** | 10200 | 72.09 | 67400 | 1.25 | **RM** | **147** | **DRN** | **180L4** | 710 | 298 |
| **22** | 9520 | 66.99 | 68400 | 1.35 | | | | | | |
| **24** | 8680 | 61.09 | 69500 | 1.50 | | | | | | |
| **28** | 7520 | 52.87 | 70800 | 1.75 | **R** | **147** | **DRN** | **180L4** | 530 | 297 |
| **32** | 6630 | 46.65 | 71700 | 1.95 | **RF** | **147** | **DRN** | **180L4** | 540 | 298 |
| **37** | 5730 | 40.29 | 72400 | 2.3 | **RM** | **147** | **DRN** | **180L4** | 710 | 298 |
| **41** | 5060 | 35.64 | 72900 | 2.6 | | | | | | |
| **49** | 4260 | 29.95 | 73400 | 3.0 | | | | | | |
| **23** | 9270 | 65.20 | 44900 | 0.85 | | | | | | |
| **25** | 8410 | 59.17* | 52200 | 0.95 | **R** | **137** | **DRN** | **180L4** | 410 | 295 |
| **29** | 7230 | 50.86* | 54900 | 1.10 | **RF** | **137** | **DRN** | **180L4** | 430 | 296 |
| **33** | 6310 | 44.39 | 56500 | 1.25 | **RM** | **137** | **DRN** | **180L4** | 540 | 296 |
| **39** | 5350 | 37.65 | 58000 | 1.50 | **R** | **137** | **DRN** | **180L4** | 410 | 295 |
| **45** | 4680 | 32.91 | 58800 | 1.70 | **RF** | **137** | **DRN** | **180L4** | 430 | 296 |
| **53** | 3950 | 27.83 | 59500 | 1.95 | **RM** | **137** | **DRN** | **180L4** | 540 | 296 |
| **50** | 4200 | 29.57* | 59300 | 1.85 | | | | | | |
| **61** | 3430 | 24.12 | 60000 | 2.3 | **R** | **137** | **DRN** | **180L4** | 400 | 295 |
| **67** | 3120 | 22.00* | 60200 | 2.6 | **RF** | **137** | **DRN** | **180L4** | 420 | 296 |
| **78** | 2700 | 19.04* | 60500 | 3.0 | **RM** | **137** | **DRN** | **180L4** | 530 | 296 |
| **88** | 2380 | 16.80* | 60700 | 3.4 | **R** | **137** | **DRN** | **180L4** | 400 | 295 |
| **102** | 2060 | 14.51 | 60900 | 3.9 | **RF** | **137** | **DRN** | **180L4** | 420 | 296 |
| **115** | 1820 | 12.83 | 61000 | 4.4 | **RM** | **137** | **DRN** | **180L4** | 530 | 296 |
| **42** | 5010 | 35.26 | 11500 | 0.85 | **R** | **107** | **DRN** | **180L4** | 320 | 293 |
| **50** | 4190 | 29.49 | 20400 | 1.05 | **RF** | **107** | **DRN** | **180L4** | 330 | 294 |
| | | | | | **RM** | **107** | **DRN** | **180L4** | 415 | 294 |
| **59** | 3540 | 24.90* | 20000 | 1.20 | **R** | **107** | **DRN** | **180L4** | 315 | 293 |
| **65** | 3210 | 22.62 | 19700 | 1.35 | **RF** | **107** | **DRN** | **180L4** | 320 | 294 |
| **74** | 2850 | 20.07 | 19300 | 1.50 | **RM** | **107** | **DRN** | **180L4** | 410 | 294 |
| **81** | 2590 | 18.21 | 19000 | 1.65 | | | | | | |
| **94** | 2220 | 15.65 | 18400 | 1.95 | | | | | | |
| **108** | 1940 | 13.66 | 17900 | 2.2 | | | | | | |
| **127** | 1640 | 11.59 | 17300 | 2.6 | **R** | **107** | **DRN** | **180L4** | 315 | 293 |
| **146** | 1440 | 10.13 | 16800 | 3.0 | **RF** | **107** | **DRN** | **180L4** | 320 | 294 |
| **172** | 1210 | 8.56 | 16100 | 3.5 | **RM** | **107** | **DRN** | **180L4** | 410 | 294 |
| **188** | 1110 | 7.86 | 16000 | 2.7 | | | | | | |
| **222** | 940 | 6.66 | 15300 | 3.1 | | | | | | |
| **254** | 820 | 5.82 | 14800 | 3.6 | | | | | | |
| **73** | 2860 | 20.14 | 14000 | 0.90 | | | | | | |
| **81** | 2590 | 18.24 | 13900 | 0.95 | **R** | **97** | **DRN** | **180L4** | 260 | 291 |
| **91** | 2300 | 16.17 | 13700 | 1.05 | **RF** | **97** | **DRN** | **180L4** | 280 | 292 |
| **101** | 2080 | 14.62 | 13500 | 1.10 | **RM** | **97** | **DRN** | **180L4** | 330 | 292 |
| **119** | 1760 | 12.39 | 13200 | 1.25 | | | | | | |
| **136** | 1530 | 10.83 | 12900 | 1.35 | | | | | | |
| **159** | 1320 | 9.29 | 13100 | 1.55 | | | | | | |
| **176** | 1190 | 8.39 | 12800 | 1.70 | **R** | **97** | **DRN** | **180L4** | 260 | 291 |
| **208** | 1010 | 7.12 | 12300 | 2.00 | **RF** | **97** | **DRN** | **180L4** | 280 | 292 |
| **238** | 880 | 6.21 | 11900 | 2.1 | **RM** | **97** | **DRN** | **180L4** | 330 | 292 |
| **284** | 735 | 5.20 | 11300 | 2.4 | | | | | | |
| **328** | 640 | 4.50* | 10900 | 2.6 | | | | | | |

21284997/EN – 03/2015

## $P_m$ = 22 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **149** | 1400 | 9.90* | 9630 | 0.85 | | | | | | |
| **162** | 1300 | 9.14* | 10100 | 0.95 | | | | | | |
| **180** | 1160 | 8.22 | 9940 | 1.00 | **R** | **87** | **DRN** | **180L4** | 220 | 288 |
| **207** | 1010 | 7.13 | 9680 | 1.05 | **RF** | **87** | **DRN** | **180L4** | 230 | 289 |
| **231** | 900 | 6.39 | 9470 | 1.10 | **RM** | **87** | **DRN** | **180L4** | 260 | 289 |
| **279** | 750 | 5.30* | 9100 | 1.20 | | | | | | |
| **352** | 595 | 4.20* | 7330 | 1.40 | | | | | | |
| **387** | 540 | 3.81 | 7220 | 1.55 | | | | | | |
| **436** | 480 | 3.38 | 7080 | 1.70 | **RX** | **107** | **DRN** | **180L4** | 260 | 262 |
| **481** | 435 | 3.07 | 6950 | 1.90 | **RXF** | **107** | **DRN** | **180L4** | 280 | 263 |
| **559** | 375 | 2.64* | 6740 | 2.2 | | | | | | |
| **641** | 325 | 2.30 | 6550 | 2.5 | | | | | | |
| **756** | 275 | 1.95 | 6310 | 2.8 | **RX** | **107** | **DRN** | **180L4** | 260 | 262 |
| **865** | 240 | 1.71 | 6100 | 2.9 | **RXF** | **107** | **DRN** | **180L4** | 280 | 263 |
| **1025** | 205 | 1.44 | 5860 | 3.1 | | | | | | |
| **406** | 515 | 3.64* | 5720 | 1.15 | | | | | | |
| **448** | 465 | 3.30 | 5640 | 1.25 | | | | | | |
| **505** | 415 | 2.92 | 5550 | 1.45 | | | | | | |
| **559** | 375 | 2.64 | 5460 | 1.60 | **RX** | **97** | **DRN** | **180L4** | 230 | 260 |
| **659** | 315 | 2.24* | 5290 | 1.85 | **RXF** | **97** | **DRN** | **180L4** | 235 | 261 |
| **755** | 275 | 1.96 | 5150 | 2.0 | | | | | | |
| **903** | 230 | 1.64 | 4950 | 2.2 | | | | | | |
| **1045** | 200 | 1.42 | 4780 | 2.3 | | | | | | |
| **535** | 390 | 2.76* | 1320 | 1.05 | | | | | | |
| **595** | 350 | 2.48 | 1760 | 1.15 | | | | | | |
| **686** | 305 | 2.15 | 2200 | 1.25 | **RX** | **87** | **DRN** | **180L4** | 205 | 258 |
| **766** | 270 | 1.93 | 2490 | 1.30 | **RXF** | **87** | **DRN** | **180L4** | 210 | 259 |
| **923** | 225 | 1.60* | 2790 | 1.40 | | | | | | |
| **1060** | 198 | 1.39 | 3060 | 1.45 | | | | | | |

## $P_m$ = 30 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **14** | 20800 | 107.49 | 120000 | 0.85 | **R** | **167** | **DRN** | **200L4** | 890 | 299 |
| **16** | 18000 | 93.19 | 120000 | 1.00 | **RF** | **167** | **DRN** | **200L4** | 900 | 300 |
| **18** | 16000 | 82.91* | 120000 | 1.10 | **RM** | **167** | **DRN** | **200L4** | 1090 | 300 |
| **20** | 14200 | 73.70* | 120000 | 1.25 | | | | | | |
| **22** | 13000 | 67.40 | 120000 | 1.40 | | | | | | |
| **25** | 11300 | 58.65 | 120000 | 1.60 | | | | | | |
| **29** | 10000 | 51.76 | 120000 | 1.80 | **R** | **167** | **DRN** | **200L4** | 890 | 299 |
| **33** | 8680 | 44.87 | 120000 | 2.1 | **RF** | **167** | **DRN** | **200L4** | 900 | 300 |
| **37** | 7720 | 39.92 | 120000 | 2.3 | **RM** | **167** | **DRN** | **200L4** | 1090 | 300 |
| **43** | 6660 | 34.41 | 120000 | 2.7 | | | | | | |
| **53** | 5410 | 27.96 | 120000 | 3.3 | | | | | | |
| **62** | 4580 | 23.71 | 120000 | 3.9 | | | | | | |
| **18** | 16100 | 83.47 | 34200 | 0.80 | | | | | | |
| **21** | 13900 | 72.09 | 60600 | 0.95 | **R** | **147** | **DRN** | **200L4** | 640 | 297 |
| **22** | 12900 | 66.99 | 62700 | 1.00 | **RF** | **147** | **DRN** | **200L4** | 650 | 298 |
| **24** | 11800 | 61.09 | 64900 | 1.10 | **RM** | **147** | **DRN** | **200L4** | 820 | 298 |
| **28** | 10200 | 52.87 | 67400 | 1.25 | | | | | | |
| **32** | 9030 | 46.65 | 69100 | 1.45 | | | | | | |
| **37** | 7790 | 40.29 | 70500 | 1.65 | **R** | **147** | **DRN** | **200L4** | 640 | 297 |
| **42** | 6890 | 35.64 | 71400 | 1.90 | **RF** | **147** | **DRN** | **200L4** | 650 | 298 |
| **49** | 5790 | 29.95 | 72400 | 2.2 | **RM** | **147** | **DRN** | **200L4** | 820 | 298 |
| **61** | 4680 | 24.19 | 73200 | 2.5 | | | | | | |
| **72** | 3950 | 20.44 | 73600 | 3.0 | **R** | **147** | **DRN** | **200L4** | 630 | 297 |
| **82** | 3490 | 18.04 | 73800 | 3.0 | **RF** | **147** | **DRN** | **200L4** | 640 | 298 |
| **95** | 3020 | 15.64 | 74000 | 4.3 | **RM** | **147** | **DRN** | **200L4** | 810 | 298 |
| **29** | 9840 | 50.86* | 33600 | 0.80 | | | | | | |
| **33** | 8590 | 44.39 | 51400 | 0.95 | **R** | **137** | **DRN** | **200L4** | 510 | 295 |
| **39** | 7280 | 37.65 | 54800 | 1.10 | **RF** | **137** | **DRN** | **200L4** | 540 | 296 |
| **45** | 6370 | 32.91 | 56500 | 1.25 | **RM** | **137** | **DRN** | **200L4** | 650 | 296 |
| **53** | 5380 | 27.83 | 57900 | 1.45 | | | | | | |

## $P_m$ = 30 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **61** | 4660 | 24.12 | 58800 | 1.70 | | | | | | |
| **67** | 4250 | 22.00* | 59200 | 1.90 | **R** | **137** | **DRN** | **200L4** | 500 | 295 |
| **78** | 3680 | 19.04* | 59800 | 2.2 | **RF** | **137** | **DRN** | **200L4** | 530 | 296 |
| **88** | 3250 | 16.80* | 60200 | 2.5 | **RM** | **137** | **DRN** | **200L4** | 640 | 296 |
| **102** | 2800 | 14.51 | 59500 | 2.8 | | | | | | |
| **115** | 2480 | 12.83 | 58300 | 3.2 | **R** | **137** | **DRN** | **200L4** | 500 | 295 |
| **137** | 2080 | 10.79 | 56600 | 3.8 | **RF** | **137** | **DRN** | **200L4** | 530 | 296 |
| **195** | 1460 | 7.59 | 53200 | 3.5 | **RM** | **137** | **DRN** | **200L4** | 640 | 296 |
| **232** | 1230 | 6.38 | 51200 | 4.1 | | | | | | |
| **74** | 3880 | 20.07 | 17600 | 1.10 | | | | | | |
| **81** | 3520 | 18.21 | 17400 | 1.20 | | | | | | |
| **95** | 3020 | 15.65 | 17100 | 1.40 | | | | | | |
| **108** | 2640 | 13.66 | 16800 | 1.65 | | | | | | |
| **128** | 2240 | 11.59 | 16300 | 1.90 | **R** | **107** | **DRN** | **200L4** | 425 | 293 |
| **146** | 1960 | 10.13 | 15900 | 2.2 | **RF** | **107** | **DRN** | **200L4** | 430 | 294 |
| **173** | 1650 | 8.56 | 15300 | 2.6 | **RM** | **107** | **DRN** | **200L4** | 520 | 294 |
| **188** | 1520 | 7.86 | 15500 | 1.95 | | | | | | |
| **222** | 1280 | 6.66 | 14800 | 2.3 | | | | | | |
| **254** | 1120 | 5.82 | 14300 | 2.6 | | | | | | |
| **301** | 950 | 4.92 | 13700 | 3.0 | | | | | | |
| **101** | 2830 | 14.62 | 12000 | 0.80 | | | | | | |
| **119** | 2390 | 12.39 | 11900 | 0.90 | **R** | **97** | **DRN** | **200L4** | 370 | 291 |
| **137** | 2090 | 10.83 | 11800 | 1.00 | **RF** | **97** | **DRN** | **200L4** | 390 | 292 |
| **159** | 1790 | 9.29 | 12300 | 1.15 | **RM** | **97** | **DRN** | **200L4** | 440 | 292 |
| **176** | 1620 | 8.39 | 12000 | 1.25 | | | | | | |
| **208** | 1370 | 7.12 | 11700 | 1.45 | | | | | | |
| **238** | 1200 | 6.21 | 11300 | 1.55 | **R** | **97** | **DRN** | **200L4** | 370 | 291 |
| **285** | 1000 | 5.20 | 10900 | 1.75 | **RF** | **97** | **DRN** | **200L4** | 390 | 292 |
| **329** | 870 | 4.50* | 10500 | 1.85 | **RM** | **97** | **DRN** | **200L4** | 440 | 292 |
| **437** | 655 | 3.38 | 6370 | 1.25 | | | | | | |
| **482** | 590 | 3.07 | 6300 | 1.40 | | | | | | |
| **561** | 510 | 2.64* | 6180 | 1.60 | | | | | | |
| **642** | 445 | 2.30 | 6050 | 1.85 | **RX** | **107** | **DRN** | **200L4** | 370 | 262 |
| **757** | 375 | 1.95 | 5870 | 2.0 | **RXF** | **107** | **DRN** | **200L4** | 385 | 263 |
| **866** | 330 | 1.71 | 5710 | 2.1 | | | | | | |
| **1025** | 275 | 1.44 | 5520 | 2.3 | | | | | | |
| **506** | 565 | 2.92 | 3170 | 1.05 | | | | | | |
| **560** | 510 | 2.64 | 3600 | 1.15 | | | | | | |
| **661** | 430 | 2.24* | 4090 | 1.35 | **RX** | **97** | **DRN** | **200L4** | 335 | 260 |
| **756** | 375 | 1.96 | 4480 | 1.50 | **RXF** | **97** | **DRN** | **200L4** | 345 | 261 |
| **904** | 315 | 1.64 | 4570 | 1.60 | | | | | | |
| **1045** | 270 | 1.42 | 4450 | 1.65 | | | | | | |

## $P_m$ = 37 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **16** | 22200 | 93.19 | 120000 | 0.80 | | | | | | |
| **18** | 19700 | 82.91* | 120000 | 0.90 | | | | | | |
| **20** | 17500 | 73.70* | 120000 | 1.00 | | | | | | |
| **22** | 16000 | 67.40 | 120000 | 1.10 | | | | | | |
| **25** | 13900 | 58.65 | 120000 | 1.30 | **R** | **167** | **DRN** | **225S4** | 920 | 299 |
| **29** | 12300 | 51.76 | 120000 | 1.45 | **RF** | **167** | **DRN** | **225S4** | 930 | 300 |
| **33** | 10600 | 44.87 | 120000 | 1.70 | **RM** | **167** | **DRN** | **225S4** | 1120 | 300 |
| **37** | 9510 | 39.92 | 120000 | 1.90 | | | | | | |
| **43** | 8200 | 34.41 | 120000 | 2.2 | | | | | | |
| **53** | 6660 | 27.96 | 120000 | 2.7 | | | | | | |
| **48** | 7320 | 30.71 | 120000 | 1.35 | | | | | | |
| **60** | 5850 | 24.57 | 120000 | 2.4 | **R** | **167** | **DRN** | **225S4** | 910 | 299 |
| **68** | 5200 | 21.85 | 120000 | 2.5 | **RF** | **167** | **DRN** | **225S4** | 920 | 300 |
| **78** | 4530 | 19.03 | 120000 | 3.5 | **RM** | **167** | **DRN** | **225S4** | 1120 | 300 |
| **87** | 4040 | 16.98 | 120000 | 3.7 | | | | | | |

21284997/EN – 03/2015

## $P_m$ = 37 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **22** | 15900 | 66.99 | 37000 | 0.80 | **R** | **147** | **DRN** | **225S4** | 670 | 297 |
| **24** | 14500 | 61.09 | 55600 | 0.90 | **RF** | **147** | **DRN** | **225S4** | 680 | 298 |
| **28** | 12600 | 52.87 | 63400 | 1.05 | **RM** | **147** | **DRN** | **225S4** | 850 | 298 |
| **32** | 11100 | 46.65 | 66100 | 1.15 | | | | | | |
| **37** | 9600 | 40.29 | 68300 | 1.35 | **R** | **147** | **DRN** | **225S4** | 670 | 297 |
| **42** | 8490 | 35.64 | 69700 | 1.55 | **RF** | **147** | **DRN** | **225S4** | 680 | 298 |
| **49** | 7140 | 29.95 | 71200 | 1.80 | **RM** | **147** | **DRN** | **225S4** | 850 | 298 |
| **61** | 5760 | 24.19 | 72400 | 2.1 | | | | | | |
| **73** | 4870 | 20.44 | 73000 | 2.5 | **R** | **147** | **DRN** | **225S4** | 660 | 297 |
| **82** | 4290 | 18.04 | 73400 | 2.4 | **RF** | **147** | **DRN** | **225S4** | 670 | 298 |
| **95** | 3720 | 15.64 | 73700 | 3.5 | **RM** | **147** | **DRN** | **225S4** | 840 | 298 |
| | | | | | **R** | **147** | **DRN** | **225S4** | 660 | 297 |
| **107** | 3310 | 13.91 | 73900 | 3.8 | **RF** | **147** | **DRN** | **225S4** | 670 | 298 |
| | | | | | **RM** | **147** | **DRN** | **225S4** | 840 | 298 |
| **39** | 8970 | 37.65 | 49600 | 0.90 | **R** | **137** | **DRN** | **225S4** | 550 | 295 |
| **45** | 7840 | 32.91 | 53700 | 1.00 | **RF** | **137** | **DRN** | **225S4** | 570 | 296 |
| **53** | 6630 | 27.83 | 56000 | 1.15 | **RM** | **137** | **DRN** | **225S4** | 680 | 296 |
| **61** | 5750 | 24.12 | 57400 | 1.40 | | | | | | |
| **67** | 5240 | 22.00* | 58100 | 1.55 | **R** | **137** | **DRN** | **225S4** | 540 | 295 |
| **78** | 4530 | 19.04* | 57800 | 1.75 | **RF** | **137** | **DRN** | **225S4** | 560 | 296 |
| **88** | 4000 | 16.80* | 57300 | 2.0 | **RM** | **137** | **DRN** | **225S4** | 670 | 296 |
| **102** | 3450 | 14.51 | 56500 | 2.3 | | | | | | |
| **115** | 3050 | 12.83 | 55700 | 2.6 | | | | | | |
| **137** | 2570 | 10.79 | 54400 | 3.1 | **R** | **137** | **DRN** | **225S4** | 540 | 295 |
| **170** | 2070 | 8.71 | 52500 | 3.8 | **RF** | **137** | **DRN** | **225S4** | 560 | 296 |
| **195** | 1800 | 7.59 | 51800 | 2.8 | **RM** | **137** | **DRN** | **225S4** | 670 | 296 |
| **232** | 1520 | 6.38 | 50000 | 3.4 | | | | | | |
| **288** | 1220 | 5.15 | 47700 | 3.7 | | | | | | |
| **74** | 4780 | 20.07 | 16100 | 0.90 | | | | | | |
| **81** | 4340 | 18.21 | 16100 | 1.00 | | | | | | |
| **95** | 3730 | 15.65 | 15900 | 1.15 | | | | | | |
| **108** | 3250 | 13.66 | 15700 | 1.30 | | | | | | |
| **128** | 2760 | 11.59 | 15400 | 1.55 | **R** | **107** | **DRN** | **225S4** | 455 | 293 |
| **146** | 2410 | 10.13 | 15100 | 1.80 | **RF** | **107** | **DRN** | **225S4** | 460 | 294 |
| **173** | 2040 | 8.56 | 14700 | 2.1 | **RM** | **107** | **DRN** | **225S4** | 550 | 294 |
| **189** | 1870 | 7.86 | 15000 | 1.60 | | | | | | |
| **222** | 1580 | 6.66 | 14400 | 1.85 | | | | | | |
| **254** | 1380 | 5.82 | 14000 | 2.1 | | | | | | |
| **301** | 1170 | 4.92 | 13400 | 2.5 | | | | | | |
| **438** | 800 | 3.38 | 4530 | 1.05 | | | | | | |
| **483** | 730 | 3.07 | 5010 | 1.15 | | | | | | |
| **561** | 625 | 2.64* | 5580 | 1.30 | | | | | | |
| **643** | 545 | 2.30 | 5610 | 1.50 | **RX** | **107** | **DRN** | **225S4** | 400 | 262 |
| **758** | 465 | 1.95 | 5480 | 1.65 | **RXF** | **107** | **DRN** | **225S4** | 420 | 263 |
| **868** | 405 | 1.71 | 5370 | 1.75 | | | | | | |
| **1025** | 340 | 1.44 | 5220 | 1.85 | | | | | | |

## $P_m$ = 45 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **20** | 21300 | 73.70* | 120000 | 0.85 | | | | | | |
| **22** | 19500 | 67.40 | 120000 | 0.90 | **R** | **167** | **DRN** | **225M4** | 920 | 299 |
| **25** | 17000 | 58.65 | 120000 | 1.05 | **RF** | **167** | **DRN** | **225M4** | 930 | 300 |
| **29** | 15000 | 51.76 | 120000 | 1.20 | **RM** | **167** | **DRN** | **225M4** | 1120 | 300 |
| **33** | 13000 | 44.87 | 120000 | 1.40 | | | | | | |
| **37** | 11500 | 39.92 | 120000 | 1.55 | **R** | **167** | **DRN** | **225M4** | 920 | 299 |
| **43** | 9970 | 34.41 | 120000 | 1.80 | **RF** | **167** | **DRN** | **225M4** | 930 | 300 |
| **53** | 8100 | 27.96 | 120000 | 2.2 | **RM** | **167** | **DRN** | **225M4** | 1120 | 300 |
| **62** | 6870 | 23.71 | 120000 | 2.6 | | | | | | |

## $P_m$ = 45 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **48** | 8900 | 30.71 | 120000 | 1.10 | | | | | | |
| **60** | 7120 | 24.57 | 120000 | 1.95 | **R** | **167** | **DRN** | **225M4** | 910 | 299 |
| **68** | 6330 | 21.85 | 120000 | 2.0 | **RF** | **167** | **DRN** | **225M4** | 920 | 300 |
| **78** | 5510 | 19.03 | 120000 | 2.9 | **RM** | **167** | **DRN** | **225M4** | 1120 | 300 |
| **87** | 4920 | 16.98 | 120000 | 3.0 | | | | | | |
| **28** | 15300 | 52.87 | 46000 | 0.85 | | | | | | |
| **32** | 13500 | 46.65 | 61600 | 0.95 | | | | | | |
| **37** | 11600 | 40.29 | 65100 | 1.10 | **R** | **147** | **DRN** | **225M4** | 670 | 297 |
| **42** | 10300 | 35.64 | 67300 | 1.25 | **RF** | **147** | **DRN** | **225M4** | 680 | 298 |
| **49** | 8680 | 29.95 | 69500 | 1.50 | **RM** | **147** | **DRN** | **225M4** | 850 | 298 |
| **61** | 7010 | 24.19 | 71300 | 1.70 | | | | | | |
| **73** | 5920 | 20.44 | 72300 | 2.0 | | | | | | |
| **82** | 5220 | 18.04 | 72800 | 2.0 | | | | | | |
| **95** | 4530 | 15.64 | 73200 | 2.9 | **R** | **147** | **DRN** | **225M4** | 660 | 297 |
| **107** | 4030 | 13.91 | 73500 | 3.1 | **RF** | **147** | **DRN** | **225M4** | 670 | 298 |
| **124** | 3470 | 11.99 | 73800 | 3.7 | **RM** | **147** | **DRN** | **225M4** | 840 | 298 |
| **204** | 2100 | 7.25 | 74300 | 4.1 | | | | | | |
| | | | | | **R** | **137** | **DRN** | **225M4** | 550 | 295 |
| **45** | 9540 | 32.91 | 40100 | 0.85 | **RF** | **137** | **DRN** | **225M4** | 570 | 296 |
| **53** | 8060 | 27.83 | 51300 | 0.95 | **RM** | **137** | **DRN** | **225M4** | 680 | 296 |
| **61** | 6990 | 24.12 | 52500 | 1.15 | | | | | | |
| **67** | 6370 | 22.00* | 53000 | 1.25 | **R** | **137** | **DRN** | **225M4** | 540 | 295 |
| **78** | 5520 | 19.04* | 53400 | 1.45 | **RF** | **137** | **DRN** | **225M4** | 560 | 296 |
| **88** | 4870 | 16.80* | 53400 | 1.65 | **RM** | **137** | **DRN** | **225M4** | 670 | 296 |
| **102** | 4200 | 14.51 | 53100 | 1.90 | | | | | | |
| **115** | 3720 | 12.83 | 52700 | 2.2 | | | | | | |
| **137** | 3120 | 10.79 | 51900 | 2.6 | **R** | **137** | **DRN** | **225M4** | 540 | 295 |
| **170** | 2520 | 8.71 | 50500 | 3.1 | **RF** | **137** | **DRN** | **225M4** | 560 | 296 |
| **195** | 2200 | 7.59 | 50100 | 2.3 | **RM** | **137** | **DRN** | **225M4** | 670 | 296 |
| **232** | 1840 | 6.38 | 48600 | 2.8 | | | | | | |
| **288** | 1490 | 5.15 | 46600 | 3.1 | | | | | | |
| **95** | 4530 | 15.65 | 14600 | 0.95 | | | | | | |
| **108** | 3960 | 13.66 | 14600 | 1.10 | | | | | | |
| **128** | 3350 | 11.59 | 14400 | 1.30 | | | | | | |
| **146** | 2930 | 10.13 | 14300 | 1.45 | **R** | **107** | **DRN** | **225M4** | 455 | 293 |
| **173** | 2480 | 8.56 | 14000 | 1.75 | **RF** | **107** | **DRN** | **225M4** | 460 | 294 |
| **189** | 2270 | 7.86 | 14400 | 1.30 | **RM** | **107** | **DRN** | **225M4** | 550 | 294 |
| **222** | 1930 | 6.66 | 13900 | 1.55 | | | | | | |
| **254** | 1680 | 5.82 | 13500 | 1.75 | | | | | | |
| **301** | 1420 | 4.92 | 13000 | 2.0 | | | | | | |
| **438** | 980 | 3.38 | 1450 | 0.85 | | | | | | |
| **483** | 890 | 3.07 | 2160 | 0.95 | | | | | | |
| **561** | 765 | 2.64* | 3040 | 1.10 | | | | | | |
| **643** | 665 | 2.30 | 3700 | 1.25 | **RX** | **107** | **DRN** | **225M4** | 400 | 262 |
| **758** | 565 | 1.95 | 4250 | 1.35 | **RXF** | **107** | **DRN** | **225M4** | 420 | 263 |
| **868** | 495 | 1.71 | 4590 | 1.40 | | | | | | |
| **1025** | 415 | 1.44 | 4880 | 1.55 | | | | | | |

## $P_m$ = 55 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **25** | 20700 | 58.65 | 120000 | 0.85 | | | | | | |
| **29** | 18300 | 51.76 | 120000 | 1.00 | | | | | | |
| **33** | 15900 | 44.87 | 120000 | 1.15 | **R** | **167** | **DRN** | **250M4** | 1070 | 299 |
| **37** | 14100 | 39.92 | 120000 | 1.25 | **RF** | **167** | **DRN** | **250M4** | 1080 | 300 |
| **43** | 12100 | 34.41 | 120000 | 1.50 | **RM** | **167** | **DRN** | **250M4** | 1270 | 300 |
| **53** | 9900 | 27.96 | 120000 | 1.80 | | | | | | |
| **62** | 8400 | 23.71 | 120000 | 2.1 | | | | | | |
| **60** | 8700 | 24.57 | 120000 | 1.60 | **R** | **167** | **DRN** | **250M4** | 1070 | 299 |
| **68** | 7740 | 21.85 | 120000 | 1.70 | **RF** | **167** | **DRN** | **250M4** | 1070 | 300 |
| **78** | 6740 | 19.03 | 120000 | 2.4 | **RM** | **167** | **DRN** | **250M4** | 1270 | 300 |

21284997/EN – 03/2015

## $P_m$ = 55 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **87** | 6010 | 16.98 | 120000 | 2.5 | **R** | **167** | **DRN** | **250M4** | 1070 | 299 |
| **102** | 5120 | 14.48 | 120000 | 3.5 | **RF** | **167** | **DRN** | **250M4** | 1070 | 300 |
| **124** | 4250 | 11.99 | 120000 | 4.0 | **RM** | **167** | **DRN** | **250M4** | 1270 | 300 |
| **32** | 16500 | 46.65 | 28000 | 0.80 | | | | | | |
| **37** | 14200 | 40.29 | 58900 | 0.90 | **R** | **147** | **DRN** | **250M4** | 820 | 297 |
| **42** | 12600 | 35.64 | 63400 | 1.05 | **RF** | **147** | **DRN** | **250M4** | 830 | 298 |
| **49** | 10600 | 29.95 | 66900 | 1.20 | **RM** | **147** | **DRN** | **250M4** | 1000 | 298 |
| **61** | 8570 | 24.19 | 69700 | 1.40 | | | | | | |
| **73** | 7240 | 20.44 | 71100 | 1.65 | | | | | | |
| **82** | 6390 | 18.04 | 71900 | 1.65 | **R** | **147** | **DRN** | **250M4** | 810 | 297 |
| **95** | 5540 | 15.64 | 72600 | 2.4 | **RF** | **147** | **DRN** | **250M4** | 820 | 298 |
| **107** | 4930 | 13.91 | 73000 | 2.6 | **RM** | **147** | **DRN** | **250M4** | 990 | 298 |
| **124** | 4240 | 11.99 | 73400 | 3.1 | | | | | | |
| **152** | 3450 | 9.74 | 73800 | 3.8 | **R** | **147** | **DRN** | **250M4** | 810 | 297 |
| **204** | 2560 | 7.25 | 74200 | 3.4 | **RF** | **147** | **DRN** | **250M4** | 820 | 298 |
| **252** | 2080 | 5.89 | 72400 | 4.2 | **RM** | **147** | **DRN** | **250M4** | 990 | 298 |
| **78** | 6740 | 19.04* | 47800 | 1.20 | **R** | **137** | **DRN** | **250M4** | 690 | 295 |
| **88** | 5950 | 16.80* | 48500 | 1.35 | **RF** | **137** | **DRN** | **250M4** | 710 | 296 |
| **102** | 5140 | 14.51 | 48900 | 1.55 | **RM** | **137** | **DRN** | **250M4** | 820 | 296 |
| **115** | 4540 | 12.83 | 49000 | 1.75 | | | | | | |
| **137** | 3820 | 10.79 | 48700 | 2.1 | | | | | | |
| **170** | 3080 | 8.71 | 48000 | 2.5 | **R** | **137** | **DRN** | **250M4** | 690 | 295 |
| **195** | 2690 | 7.59 | 48100 | 1.90 | **RF** | **137** | **DRN** | **250M4** | 710 | 296 |
| **232** | 2260 | 6.38 | 46900 | 2.3 | **RM** | **137** | **DRN** | **250M4** | 820 | 296 |
| **288** | 1820 | 5.15 | 45200 | 2.5 | | | | | | |

## $P_m$ = 75 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **33** | 21600 | 44.87 | 120000 | 0.85 | | | | | | |
| **37** | 19200 | 39.92 | 120000 | 0.95 | **R** | **167** | **DRN** | **280S4** | 1120 | 299 |
| **43** | 16600 | 34.41 | 120000 | 1.10 | **RF** | **167** | **DRN** | **280S4** | 1130 | 300 |
| **53** | 13500 | 27.96 | 120000 | 1.35 | **RM** | **167** | **DRN** | **280S4** | 1320 | 300 |
| **62** | 11400 | 23.71 | 120000 | 1.55 | | | | | | |
| **60** | 11800 | 24.57 | 120000 | 1.20 | **R** | **167** | **DRN** | **280S4** | 1110 | 299 |
| **68** | 10500 | 21.85 | 120000 | 1.25 | **RF** | **167** | **DRN** | **280S4** | 1120 | 300 |
| **78** | 9190 | 19.03 | 120000 | 1.75 | **RM** | **167** | **DRN** | **280S4** | 1320 | 300 |
| **87** | 8200 | 16.98 | 120000 | 1.85 | | | | | | |
| **102** | 6990 | 14.48 | 120000 | 2.6 | **R** | **167** | **DRN** | **280S4** | 1110 | 299 |
| **124** | 5790 | 11.99 | 116600 | 2.9 | **RF** | **167** | **DRN** | **280S4** | 1120 | 300 |
| **145** | 4940 | 10.24 | 112700 | 3.4 | **RM** | **167** | **DRN** | **280S4** | 1320 | 300 |
| **49** | 14400 | 29.95 | 56700 | 0.90 | **R** | **147** | **DRN** | **280S4** | 870 | 297 |
| **61** | 11600 | 24.19 | 65100 | 1.00 | **RF** | **147** | **DRN** | **280S4** | 880 | 298 |
| | | | | | **RM** | **147** | **DRN** | **280S4** | 1050 | 298 |
| **73** | 9870 | 20.44 | 68000 | 1.20 | | | | | | |
| **82** | 8710 | 18.04 | 69500 | 1.20 | **R** | **147** | **DRN** | **280S4** | 860 | 297 |
| **95** | 7550 | 15.64 | 70800 | 1.70 | **RF** | **147** | **DRN** | **280S4** | 870 | 298 |
| **107** | 6720 | 13.91 | 71600 | 1.85 | **RM** | **147** | **DRN** | **280S4** | 1040 | 298 |
| **124** | 5790 | 11.99 | 72400 | 2.2 | | | | | | |
| **152** | 4700 | 9.74 | 73100 | 2.8 | | | | | | |
| **179** | 3990 | 8.26 | 73500 | 3.3 | **R** | **147** | **DRN** | **280S4** | 860 | 297 |
| **204** | 3500 | 7.25 | 73100 | 2.5 | **RF** | **147** | **DRN** | **280S4** | 870 | 298 |
| **252** | 2840 | 5.89 | 70100 | 3.0 | **RM** | **147** | **DRN** | **280S4** | 1040 | 298 |
| **297** | 2410 | 5.00 | 67600 | 3.6 | | | | | | |



21284997/EN – 03/2015

## $P_m$ = 90 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **37** | 23100 | 39.92 | 120000 | 0.80 | **R** | **167** | **DRN** | **280M4** | 1240 | 299 |
| **43** | 19900 | 34.41 | 120000 | 0.90 | **RF** | **167** | **DRN** | **280M4** | 1240 | 300 |
| **53** | 16200 | 27.96 | 120000 | 1.10 | **RM** | **167** | **DRN** | **280M4** | 1440 | 300 |
| **62** | 13700 | 23.71 | 120000 | 1.30 | | | | | | |
| | | | | | **R** | **167** | **DRN** | **280M4** | 1230 | 299 |
| **78** | 11000 | 19.03 | 120000 | 1.45 | **RF** | **167** | **DRN** | **280M4** | 1240 | 300 |
| | | | | | **RM** | **167** | **DRN** | **280M4** | 1430 | 300 |
| **87** | 9850 | 16.98 | 120000 | 1.50 | | | | | | |
| **102** | 8400 | 14.48 | 117300 | 2.1 | **R** | **167** | **DRN** | **280M4** | 1230 | 299 |
| **123** | 6960 | 11.99 | 113500 | 2.4 | **RF** | **167** | **DRN** | **280M4** | 1240 | 300 |
| **145** | 5940 | 10.24 | 110100 | 2.9 | **RM** | **167** | **DRN** | **280M4** | 1430 | 300 |
| **95** | 9070 | 15.64 | 69000 | 1.45 | **R** | **147** | **DRN** | **280M4** | 970 | 297 |
| **106** | 8070 | 13.91 | 70200 | 1.55 | **RF** | **147** | **DRN** | **280M4** | 980 | 298 |
| | | | | | **RM** | **147** | **DRN** | **280M4** | 1150 | 298 |
| **124** | 6950 | 11.99 | 71400 | 1.85 | | | | | | |
| **152** | 5650 | 9.74 | 72500 | 2.3 | | | | | | |
| **179** | 4790 | 8.26 | 73000 | 2.7 | **R** | **147** | **DRN** | **280M4** | 970 | 297 |
| **204** | 4200 | 7.25 | 70900 | 2.1 | **RF** | **147** | **DRN** | **280M4** | 980 | 298 |
| **251** | 3410 | 5.89 | 68300 | 2.5 | **RM** | **147** | **DRN** | **280M4** | 1150 | 298 |
| **296** | 2890 | 5.00 | 66100 | 3.0 | | | | | | |

## $P_m$ = 110 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **53** | 19700 | 27.96 | 117100 | 0.90 | **R** | **167** | **DRN** | **315S4** | 1480 | 299 |
| **63** | 16700 | 23.71 | 116900 | 1.10 | **RF** | **167** | **DRN** | **315S4** | 1490 | 300 |
| | | | | | **RM** | **167** | **DRN** | **315S4** | 1680 | 300 |
| **78** | 13400 | 19.03 | 115500 | 1.20 | | | | | | |
| **88** | 11900 | 16.98 | 114300 | 1.25 | **R** | **167** | **DRN** | **315S4** | 1470 | 299 |
| **103** | 10200 | 14.48 | 112200 | 1.75 | **RF** | **167** | **DRN** | **315S4** | 1480 | 300 |
| **124** | 8460 | 11.99 | 109200 | 2.0 | **RM** | **167** | **DRN** | **315S4** | 1680 | 300 |
| **145** | 7220 | 10.24 | 106400 | 2.4 | | | | | | |

## $P_m$ = 132 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | **R** | **167** | **DRN** | **315M4** | 1500 | 299 |
| **63** | 20000 | 23.71 | 107900 | 0.90 | **RF** | **167** | **DRN** | **315M4** | 1510 | 300 |
| | | | | | **RM** | **167** | **DRN** | **315M4** | 1700 | 300 |
| **78** | 16100 | 19.03 | 108300 | 1.00 | | | | | | |
| **88** | 14300 | 16.98 | 107800 | 1.05 | **R** | **167** | **DRN** | **315M4** | 1490 | 299 |
| **103** | 12200 | 14.48 | 106700 | 1.45 | **RF** | **167** | **DRN** | **315M4** | 1500 | 300 |
| **124** | 10100 | 11.99 | 104700 | 1.65 | **RM** | **167** | **DRN** | **315M4** | 1700 | 300 |
| **145** | 8670 | 10.24 | 102600 | 1.95 | | | | | | |

## $P_m$ = 160 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **103** | 14800 | 14.48 | 99700 | 1.20 | **R** | **167** | **DRN** | **315L4** | 1630 | 299 |
| **124** | 12300 | 11.99 | 98900 | 1.40 | **RF** | **167** | **DRN** | **315L4** | 1630 | 300 |
| **145** | 10500 | 10.24 | 97600 | 1.60 | **RM** | **167** | **DRN** | **315L4** | 1830 | 300 |

21284997/EN – 03/2015

## 8.4 R..R..DRN.. selection tables for low output speeds in Nm

**$M_{a\ max}$ = 130 Nm**

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|
| **0.16** | 8612 | 4230 | | | | | | | |
| **0.19** | 7425 | 4230 | | | | | | | |
| **0.20** | 6921 | 4230 | | | | | | | |
| **0.23** | 6050 | 4230 | | | | | | | |
| **0.26** | 5217 | 4230 | | | | | | | |
| **0.30** | 4661 | 4230 | **R** | **27R17** | **DR** | **63S4** | | 12 | 301 |
| **0.34** | 4073 | 4230 | **RF** | **27R17** | **DR** | **63S4** | | 11 | 301 |
| **0.39** | 3516 | 4230 | | | | | | | |
| **0.44** | 3160 | 4230 | | | | | | | |
| **0.50** | 2763 | 4230 | | | | | | | |
| **0.57** | 2414 | 4230 | | | | | | | |
| **0.65** | 2110 | 4230 | | | | | | | |
| **0.76** | 1822 | 4230 | | | | | | | |
| **0.87** | 1580 | 4230 | | | | | | | |
| **0.94** | 1464 | 4230 | | | | | | | |
| **1.1** | 1270 | 4230 | | | | | | | |
| **1.2** | 1100 | 4230 | | | | | | | |
| **1.4** | 972 | 4230 | **R** | **27R17** | **DR** | **63S4** | | 11 | 301 |
| **1.6** | 840 | 4230 | **RF** | **27R17** | **DR** | **63S4** | | 11 | 301 |
| **1.9** | 741 | 4230 | | | | | | | |
| **2.1** | 654 | 4230 | | | | | | | |
| **2.4** | 566 | 4230 | | | | | | | |
| **2.8** | 499 | 4230 | | | | | | | |
| **3.1** | 440 | 4230 | | | | | | | |
| **3.6** | 381 | 4230 | | | | | | | |
| **4.2** | 329 | 4230 | | | | | | | |
| **4.8** | 290 | 4230 | **R** | **27R17** | **DR** | **63S4** | | 11 | 301 |
| **5.4** | 256 | 4230 | **RF** | **27R17** | **DR** | **63S4** | | 11 | 301 |
| **6.1** | 227 | 4230 | | | | | | | |
| **6.8** | 203 | 4230 | | | | | | | |
| **7.4** | 179 | 4230 | | | | | | | |
| **8.5** | 156 | 4230 | **R** | **27R17** | **DR** | **63M4** | | 11 | 301 |
| **9.8** | 135 | 4230 | **RF** | **27R17** | **DR** | **63M4** | | 11 | 301 |
| **11** | 118 | 4230 | | | | | | | |
| **12** | 104 | 4230 | **R** | **27R17** | **DR** | **63L4** | | 12 | 301 |
| **14** | 90 | 4230 | **RF** | **27R17** | **DR** | **63L4** | | 12 | 301 |

**$M_{a\ max}$ = 200 Nm**

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|
| **0.16** | 8595 | 4940 | | | | | | | |
| **0.19** | 7411 | 4940 | | | | | | | |
| **0.20** | 6907 | 4940 | | | | | | | |
| **0.23** | 6038 | 4940 | | | | | | | |
| **0.27** | 5206 | 4940 | | | | | | | |
| **0.30** | 4651 | 4940 | **R** | **37R17** | **DR** | **63S4** | | 17 | 301 |
| **0.34** | 4065 | 4940 | **RF** | **37R17** | **DR** | **63S4** | | 19 | 301 |
| **0.38** | 3658 | 4940 | | | | | | | |
| **0.44** | 3154 | 4940 | | | | | | | |
| **0.50** | 2757 | 4940 | | | | | | | |
| **0.57** | 2409 | 4940 | | | | | | | |
| **0.66** | 2106 | 4940 | | | | | | | |

21284997/EN – 03/2015

## $M_{a\ max}$ = 200 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|
| **0.76** | 1818 | 4940 | | | | | | | |
| **0.88** | 1576 | 4940 | | | | | | | |
| **1.0** | 1359 | 4940 | | | | | | | |
| **1.1** | 1267 | 4940 | | | | | | | |
| **1.3** | 1098 | 4940 | **R** | **37R17** | **DR** | **63S4** | | 17 | 301 |
| **1.4** | 970 | 4940 | **RF** | **37R17** | **DR** | **63S4** | | 19 | 301 |
| **1.6** | 839 | 4940 | | | | | | | |
| **1.9** | 740 | 4940 | | | | | | | |
| **2.1** | 653 | 4940 | | | | | | | |
| **2.4** | 577 | 4940 | | | | | | | |
| **2.8** | 498 | 4940 | | | | | | | |
| **3.1** | 439 | 4940 | | | | | | | |
| **3.6** | 378 | 4940 | **R** | **37R17** | **DR** | **63S4** | | 17 | 301 |
| **4.2** | 328 | 4940 | **RF** | **37R17** | **DR** | **63S4** | | 18 | 301 |
| **4.8** | 289 | 4940 | | | | | | | |
| **5.0** | 265 | 4940 | | | | | | | |
| **5.8** | 226 | 4940 | **R** | **37R17** | **DR** | **63M4** | | 17 | 301 |
| **6.5** | 202 | 4940 | **RF** | **37R17** | **DR** | **63M4** | | 18 | 301 |
| **7.4** | 179 | 4940 | | | | | | | |
| **8.4** | 156 | 4940 | | | | | | | |
| **9.7** | 135 | 4940 | **R** | **37R17** | **DR** | **63L4** | | 18 | 301 |
| **10** | 127 | 4940 | **RF** | **37R17** | **DR** | **63L4** | | 19 | 301 |
| **13** | 104 | 4940 | **R** | **37R17** | **DRS** | **71S4** | | 19 | 301 |
| **15** | 90 | 4940 | **RF** | **37R17** | **DRS** | **71S4** | | 21 | 301 |

## $M_{a\ max}$ = 300 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|
| **0.10** | 13598 | 5420 | | | | | | | |
| **0.11** | 12472 | 5420 | | | | | | | |
| **0.13** | 10619 | 5420 | | | | | | | |
| **0.15** | 9155 | 5420 | | | | | | | |
| **0.16** | 8534 | 5420 | | | | | | | |
| **0.18** | 7460 | 5420 | | | | | | | |
| **0.20** | 6993 | 5420 | | | | | | | |
| **0.22** | 6171 | 5420 | **R** | **47R37** | **DR** | **63S4** | | 29 | 301 |
| **0.25** | 5624 | 5420 | **RF** | **47R37** | **DR** | **63S4** | | 29 | 301 |
| **0.28** | 4849 | 5420 | | | | | | | |
| **0.31** | 4520 | 5420 | | | | | | | |
| **0.35** | 3951 | 5420 | | | | | | | |
| **0.37** | 3704 | 5420 | | | | | | | |
| **0.42** | 3268 | 5420 | | | | | | | |
| **0.48** | 2898 | 5420 | | | | | | | |
| **0.56** | 2463 | 5420 | | | | | | | |
| **0.53** | 2598 | 5420 | | | | | | | |
| **0.58** | 2383 | 5420 | | | | | | | |
| **0.68** | 2029 | 5420 | | | | | | | |
| **0.79** | 1749 | 5420 | | | | | | | |
| **0.85** | 1630 | 5420 | | | | | | | |
| **0.97** | 1425 | 5420 | **R** | **47R37** | **DR** | **63S4** | | 29 | 301 |
| **1.0** | 1336 | 5420 | **RF** | **47R37** | **DR** | **63S4** | | 29 | 301 |
| **1.2** | 1179 | 5420 | | | | | | | |
| **1.3** | 1074 | 5420 | | | | | | | |
| **1.5** | 927 | 5420 | | | | | | | |
| **1.6** | 863 | 5420 | | | | | | | |
| **1.8** | 755 | 5420 | | | | | | | |
| **2.5** | 546 | 5420 | | | | | | | |
| **2.8** | 502 | 5420 | **R** | **47R37** | **DR** | **63S4** | | 28 | 301 |
| **3.2** | 429 | 5420 | **RF** | **47R37** | **DR** | **63S4** | | 28 | 301 |
| **3.6** | 372 | 5420 | | | | | | | |
| **3.8** | 348 | 5420 | **R** | **47R37** | **DR** | **63M4** | | 28 | 301 |
| **4.4** | 301 | 5420 | **RF** | **47R37** | **DR** | **63M4** | | 28 | 301 |

21284997/EN – 03/2015

## $M_{a\ max}$ = 300 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|
| **5.1** | 255 | 5420 | **R** | **47R37** | **DR** | **63L4** | 29 | 301 |
| **5.7** | 228 | 5420 | **RF** | **47R37** | **DR** | **63L4** | 29 | 301 |

## $M_{a\ max}$ = 450 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|
| **0.10** | 14369 | 7100 | | | | | | |
| **0.11** | 12095 | 7100 | | | | | | |
| **0.13** | 10860 | 7100 | | | | | | |
| **0.15** | 9445 | 7100 | | | | | | |
| **0.16** | 8480 | 7100 | | | | | | |
| **0.19** | 7312 | 7100 | | | | | | |
| **0.21** | 6521 | 7100 | | | | | | |
| **0.25** | 5585 | 7100 | **R** | **57R37** | **DR** | **63S4** | 34 | 301 |
| **0.28** | 4928 | 7100 | **RF** | **57R37** | **DR** | **63S4** | 38 | 301 |
| **0.32** | 4378 | 7100 | **RM** | **57R37** | **DR** | **63S4** | 50 | 301 |
| **0.36** | 3873 | 7100 | | | | | | |
| **0.41** | 3344 | 7100 | | | | | | |
| **0.47** | 2907 | 7100 | | | | | | |
| **0.54** | 2567 | 7100 | | | | | | |
| **0.61** | 2244 | 7100 | | | | | | |
| **0.70** | 1967 | 7100 | | | | | | |
| **0.80** | 1732 | 7100 | | | | | | |
| **0.89** | 1555 | 7100 | | | | | | |
| **0.99** | 1399 | 7100 | **R** | **57R37** | **DR** | **63S4** | 34 | 301 |
| **1.2** | 1189 | 7100 | **RF** | **57R37** | **DR** | **63S4** | 38 | 301 |
| **1.3** | 1034 | 7100 | **RM** | **57R37** | **DR** | **63S4** | 50 | 301 |
| **1.8** | 782 | 7100 | | | | | | |
| **2.0** | 678 | 7100 | | | | | | |
| **2.2** | 604 | 7100 | **R** | **57R37** | **DR** | **63M4** | 34 | 301 |
| **2.5** | 537 | 7100 | **RF** | **57R37** | **DR** | **63M4** | 38 | 301 |
| **2.8** | 471 | 7100 | **RM** | **57R37** | **DR** | **63M4** | 50 | 301 |
| **3.6** | 357 | 7100 | **R** | **57R37** | **DR** | **63L4** | 35 | 301 |
| **4.1** | 319 | 7100 | **RF** | **57R37** | **DR** | **63L4** | 38 | 301 |
| | | | **RM** | **57R37** | **DR** | **63L4** | 50 | 301 |
| **5.1** | 273 | 7100 | **R** | **57R37** | **DRS** | **71S4** | 37 | 301 |
| **5.7** | 241 | 7100 | **RF** | **57R37** | **DRS** | **71S4** | 40 | 301 |
| | | | **RM** | **57R37** | **DRS** | **71S4** | 52 | 301 |

## $M_{a\ max}$ = 600 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|
| **0.09** | 15361 | 7560 | | | | | | |
| **0.11** | 12931 | 7560 | | | | | | |
| **0.12** | 11996 | 7560 | | | | | | |
| **0.14** | 10097 | 7560 | | | | | | |
| **0.15** | 9066 | 7560 | | | | | | |
| **0.18** | 7816 | 7560 | | | | | | |
| **0.20** | 6732 | 7560 | **R** | **67R37** | **DR** | **63S4** | 41 | 301 |
| **0.23** | 5970 | 7560 | **RF** | **67R37** | **DR** | **63S4** | 44 | 301 |
| **0.26** | 5268 | 7560 | **RM** | **67R37** | **DR** | **63S4** | 60 | 301 |
| **0.29** | 4680 | 7560 | | | | | | |
| **0.33** | 4136 | 7560 | | | | | | |
| **0.39** | 3566 | 7560 | | | | | | |
| **0.44** | 3125 | 7560 | | | | | | |
| **0.50** | 2745 | 7560 | | | | | | |
| **0.57** | 2403 | 7560 | | | | | | |

21284997/EN – 03/2015

## $M_{a\ max}$ = 600 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|
| **0.51** | 2682 | 7560 | | | | | | |
| **0.56** | 2460 | 7560 | | | | | | |
| **0.66** | 2094 | 7560 | **R** | **67R37** | **DR** | **63S4** | 40 | 301 |
| **0.76** | 1805 | 7560 | **RF** | **67R37** | **DR** | **63S4** | 43 | 301 |
| **0.85** | 1629 | 7560 | **RM** | **67R37** | **DR** | **63S4** | 59 | 301 |
| **0.94** | 1471 | 7560 | | | | | | |
| **1.0** | 1379 | 7560 | | | | | | |
| **1.8** | 730 | 7560 | **R** | **67R37** | **DR** | **63M4** | 40 | 301 |
| **2.3** | 571 | 7560 | **RF** | **67R37** | **DR** | **63M4** | 43 | 301 |
| | | | **RM** | **67R37** | **DR** | **63M4** | 59 | 301 |
| **2.7** | 486 | 7560 | **R** | **67R37** | **DR** | **63L4** | 41 | 301 |
| | | | **RF** | **67R37** | **DR** | **63L4** | 44 | 301 |
| | | | **RM** | **67R37** | **DR** | **63L4** | 60 | 301 |
| **0.84** | 1652 | 7560 | | | | | | |
| **0.96** | 1432 | 7560 | **R** | **67R37** | **DR** | **63S4** | 41 | 301 |
| **1.1** | 1259 | 7560 | **RF** | **67R37** | **DR** | **63S4** | 44 | 301 |
| **1.2** | 1106 | 7560 | **RM** | **67R37** | **DR** | **63S4** | 60 | 301 |
| **1.6** | 836 | 7560 | | | | | | |
| **1.8** | 750 | 7560 | **R** | **67R37** | **DR** | **63M4** | 41 | 301 |
| **2.0** | 646 | 7560 | **RF** | **67R37** | **DR** | **63M4** | 44 | 301 |
| **2.3** | 574 | 7560 | **RM** | **67R37** | **DR** | **63M4** | 60 | 301 |
| **2.6** | 495 | 7560 | **R** | **67R37** | **DR** | **63L4** | 41 | 301 |
| **3.0** | 438 | 7560 | **RF** | **67R37** | **DR** | **63L4** | 45 | 301 |
| **3.4** | 388 | 7560 | **RM** | **67R37** | **DR** | **63L4** | 60 | 301 |
| **4.0** | 344 | 7560 | **R** | **67R37** | **DRS** | **71S4** | 43 | 301 |
| **4.7** | 294 | 7560 | **RF** | **67R37** | **DRS** | **71S4** | 47 | 301 |
| | | | **RM** | **67R37** | **DRS** | **71S4** | 62 | 301 |

## $M_{a\ max}$ = 820 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|
| **0.08** | 16370 | 9920 | | | | | | |
| **0.09** | 15015 | 9920 | | | | | | |
| **0.10** | 13885 | 9920 | | | | | | |
| **0.11** | 12783 | 9920 | | | | | | |
| **0.13** | 11021 | 9920 | | | | | | |
| **0.14** | 9788 | 9920 | | | | | | |
| **0.16** | 8714 | 9920 | | | | | | |
| **0.18** | 7617 | 9920 | **R** | **77R37** | **DR** | **63S4** | 46 | 301 |
| **0.20** | 6770 | 9920 | **RF** | **77R37** | **DR** | **63S4** | 52 | 301 |
| **0.24** | 5838 | 9920 | **RM** | **77R37** | **DR** | **63S4** | 77 | 301 |
| **0.27** | 5184 | 9920 | | | | | | |
| **0.31** | 4470 | 9920 | | | | | | |
| **0.35** | 3999 | 9920 | | | | | | |
| **0.40** | 3488 | 9920 | | | | | | |
| **0.45** | 3053 | 9920 | | | | | | |
| **0.52** | 2671 | 9920 | | | | | | |
| **0.44** | 3151 | 9920 | | | | | | |
| **0.48** | 2890 | 9920 | | | | | | |
| **0.56** | 2460 | 9920 | | | | | | |
| **0.65** | 2121 | 9920 | **R** | **77R37** | **DR** | **63S4** | 45 | 301 |
| **0.70** | 1977 | 9920 | **RF** | **77R37** | **DR** | **63S4** | 51 | 301 |
| **0.80** | 1728 | 9920 | **RM** | **77R37** | **DR** | **63S4** | 76 | 301 |
| **0.85** | 1620 | 9920 | | | | | | |
| **0.97** | 1430 | 9920 | | | | | | |
| **1.1** | 1303 | 9920 | | | | | | |
| **1.2** | 1124 | 9920 | | | | | | |
| **1.3** | 1047 | 9920 | **R** | **77R37** | **DR** | **63M4** | 45 | 301 |
| **1.4** | 915 | 9920 | **RF** | **77R37** | **DR** | **63M4** | 51 | 301 |
| **1.5** | 858 | 9920 | **RM** | **77R37** | **DR** | **63M4** | 76 | 301 |
| **1.7** | 757 | 9920 | | | | | | |

21284997/EN – 03/2015

## $M_{a\ max}$ = 820 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|
| 1.9 | 671 | 9920 | R | 77R37 | DR | 63L4 | 46 | 301 |
| 2.3 | 571 | 9920 | RF | 77R37 | DR | 63L4 | 52 | 301 |
| | | | RM | 77R37 | DR | 63L4 | 77 | 301 |
| 2.3 | 560 | 9920 | R | 77R37 | DR | 63L4 | 47 | 301 |
| | | | RF | 77R37 | DR | 63L4 | 53 | 301 |
| | | | RM | 77R37 | DR | 63L4 | 78 | 301 |
| 2.8 | 488 | 9920 | R | 77R37 | DRS | 71S4 | 49 | 301 |
| 3.2 | 436 | 9920 | RF | 77R37 | DRS | 71S4 | 55 | 301 |
| 3.7 | 373 | 9920 | RM | 77R37 | DRS | 71S4 | 80 | 301 |
| 4.2 | 327 | 9920 | R | 77R37 | DRS | 71M4 | 50 | 301 |
| 4.7 | 289 | 9920 | RF | 77R37 | DRS | 71M4 | 56 | 301 |
| 5.2 | 260 | 9920 | RM | 77R37 | DRS | 71M4 | 81 | 301 |

## $M_{a\ max}$ = 1550 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|
| 0.08 | 17452 | 16900 | | | | | | |
| 0.09 | 15310 | 16900 | | | | | | |
| 0.10 | 13813 | 16900 | | | | | | |
| 0.11 | 12025 | 16900 | | | | | | |
| 0.13 | 10549 | 16900 | | | | | | |
| 0.15 | 9244 | 16900 | | | | | | |
| 0.17 | 8109 | 16900 | R | 87R57 | DR | 63S4 | 86 | 301 |
| 0.20 | 7038 | 16900 | RF | 87R57 | DR | 63S4 | 93 | 301 |
| 0.22 | 6174 | 16900 | RM | 87R57 | DR | 63S4 | 125 | 301 |
| 0.25 | 5449 | 16900 | | | | | | |
| 0.29 | 4831 | 16900 | | | | | | |
| 0.33 | 4206 | 16900 | | | | | | |
| 0.37 | 3744 | 16900 | | | | | | |
| 0.43 | 3233 | 16900 | | | | | | |
| 0.48 | 2873 | 16900 | | | | | | |
| 0.67 | 1961 | 16900 | R | 87R57 | DR | 63M4 | 86 | 301 |
| | | | RF | 87R57 | DR | 63M4 | 93 | 301 |
| | | | RM | 87R57 | DR | 63M4 | 125 | 301 |
| 0.34 | 4020 | 16900 | | | | | | |
| 0.43 | 3182 | 16900 | R | 87R57 | DR | 63S4 | 85 | 301 |
| 0.50 | 2770 | 16900 | RF | 87R57 | DR | 63S4 | 92 | 301 |
| 0.53 | 2595 | 16900 | RM | 87R57 | DR | 63S4 | 120 | 301 |
| 0.62 | 2129 | 16900 | | | | | | |
| 0.68 | 1930 | 16900 | R | 87R57 | DR | 63M4 | 85 | 301 |
| 0.76 | 1733 | 16900 | RF | 87R57 | DR | 63M4 | 92 | 301 |
| 0.89 | 1489 | 16900 | RM | 87R57 | DR | 63M4 | 120 | 301 |
| 0.95 | 1395 | 16900 | | | | | | |
| 1.0 | 1232 | 16900 | R | 87R57 | DR | 63L4 | 86 | 301 |
| 1.1 | 1145 | 16900 | RF | 87R57 | DR | 63L4 | 93 | 301 |
| 1.2 | 1037 | 16900 | RM | 87R57 | DR | 63L4 | 120 | 301 |
| 1.7 | 802 | 16900 | R | 87R57 | DRS | 71S4 | 87 | 301 |
| 1.8 | 754 | 16900 | RF | 87R57 | DRS | 71S4 | 94 | 301 |
| | | | RM | 87R57 | DRS | 71S4 | 125 | 301 |
| 0.76 | 1737 | 16900 | R | 87R57 | DR | 63M4 | 85 | 301 |
| 0.87 | 1524 | 16900 | RF | 87R57 | DR | 63M4 | 93 | 301 |
| | | | RM | 87R57 | DR | 63M4 | 120 | 301 |
| 1.0 | 1303 | 16900 | R | 87R57 | DR | 63L4 | 86 | 301 |
| 1.3 | 1008 | 16900 | RF | 87R57 | DR | 63L4 | 93 | 301 |
| | | | RM | 87R57 | DR | 63L4 | 125 | 301 |
| 1.6 | 885 | 16900 | R | 87R57 | DRS | 71S4 | 88 | 301 |
| 2.0 | 685 | 16900 | RF | 87R57 | DRS | 71S4 | 95 | 301 |
| | | | RM | 87R57 | DRS | 71S4 | 125 | 301 |
| 2.3 | 599 | 16900 | R | 87R57 | DRS | 71M4 | 89 | 301 |
| | | | RF | 87R57 | DRS | 71M4 | 96 | 301 |
| | | | RM | 87R57 | DRS | 71M4 | 125 | 301 |

## $M_{a\ max}$ = 1550 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|
| **3.6** | 398 | 16900 | **R** | **87R57** | **DRN** | **80M4** | 94 | 301 |
| **4.1** | 352 | 16900 | **RF** | **87R57** | **DRN** | **80M4** | 100 | 301 |
| | | | **RM** | **87R57** | **DRN** | **80M4** | 130 | 301 |
| **4.8** | 305 | 16900 | **R** | **87R57** | **DRN** | **90S4** | 100 | 301 |
| **5.4** | 268 | 16900 | **RF** | **87R57** | **DRN** | **90S4** | 105 | 301 |
| | | | **RM** | **87R57** | **DRN** | **90S4** | 135 | 301 |
| **2.5** | 538 | 16900 | **R** | **87R57** | **DRS** | **71M4** | 88 | 301 |
| **2.9** | 472 | 16900 | **RF** | **87R57** | **DRS** | **71M4** | 95 | 301 |
| | | | **RM** | **87R57** | **DRS** | **71M4** | 125 | 301 |
| **3.6** | 400 | 16900 | **R** | **87R57** | **DRN** | **80M4** | 92 | 301 |
| **4.0** | 361 | 16900 | **RF** | **87R57** | **DRN** | **80M4** | 100 | 301 |
| | | | **RM** | **87R57** | **DRN** | **80M4** | 130 | 301 |
| **4.8** | 300 | 16900 | **R** | **87R57** | **DRN** | **90S4** | 99 | 301 |
| **5.7** | 256 | 16900 | **RF** | **87R57** | **DRN** | **90S4** | 105 | 301 |
| | | | **RM** | **87R57** | **DRN** | **90S4** | 135 | 301 |

## $M_{a\ max}$ = 3000 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|
| **0.06** | 21769 | 19800 | | | | | | |
| **0.07** | 19332 | 19800 | | | | | | |
| **0.08** | 17230 | 19800 | | | | | | |
| **0.09** | 14999 | 19800 | | | | | | |
| **0.10** | 13320 | 19800 | | | | | | |
| **0.12** | 11156 | 19800 | **R** | **97R57** | **DR** | **63S4** | 130 | 301 |
| **0.14** | 10030 | 19800 | **RF** | **97R57** | **DR** | **63S4** | 145 | 301 |
| **0.16** | 8706 | 19800 | **RM** | **97R57** | **DR** | **63S4** | 195 | 301 |
| **0.18** | 7692 | 19800 | | | | | | |
| **0.21** | 6708 | 19800 | | | | | | |
| **0.23** | 5931 | 19800 | | | | | | |
| **0.27** | 5161 | 19800 | | | | | | |
| **0.33** | 4004 | 19800 | **R** | **97R57** | **DR** | **63M4** | 130 | 301 |
| **0.38** | 3481 | 19800 | **RF** | **97R57** | **DR** | **63M4** | 145 | 301 |
| | | | **RM** | **97R57** | **DR** | **63M4** | 195 | 301 |
| **0.29** | 4678 | 19800 | **R** | **97R57** | **DR** | **63S4** | 125 | 301 |
| | | | **RF** | **97R57** | **DR** | **63S4** | 145 | 301 |
| | | | **RM** | **97R57** | **DR** | **63S4** | 195 | 301 |
| **0.31** | 4309 | 19800 | **R** | **97R57** | **DR** | **63M4** | 125 | 301 |
| **0.36** | 3702 | 19800 | **RF** | **97R57** | **DR** | **63M4** | 145 | 301 |
| **0.44** | 3019 | 19800 | **RM** | **97R57** | **DR** | **63M4** | 195 | 301 |
| **0.49** | 2668 | 19800 | **R** | **97R57** | **DR** | **63L4** | 125 | 301 |
| **0.58** | 2245 | 19800 | **RF** | **97R57** | **DR** | **63L4** | 145 | 301 |
| **0.64** | 2016 | 19800 | **RM** | **97R57** | **DR** | **63L4** | 195 | 301 |
| **0.80** | 1733 | 19800 | **R** | **97R57** | **DRS** | **71S4** | 130 | 301 |
| **0.85** | 1623 | 19800 | **RF** | **97R57** | **DRS** | **71S4** | 145 | 301 |
| **0.96** | 1434 | 19800 | **RM** | **97R57** | **DRS** | **71S4** | 195 | 301 |
| **1.1** | 1207 | 19800 | | | | | | |
| **1.2** | 1084 | 19800 | **R** | **97R57** | **DRS** | **71M4** | 130 | 301 |
| **1.5** | 934 | 19800 | **RF** | **97R57** | **DRS** | **71M4** | 145 | 301 |
| **1.6** | 878 | 19800 | **RM** | **97R57** | **DRS** | **71M4** | 200 | 301 |
| **1.9** | 755 | 19800 | **R** | **97R57** | **DRN** | **80M4** | 135 | 301 |
| | | | **RF** | **97R57** | **DRN** | **80M4** | 150 | 301 |
| | | | **RM** | **97R57** | **DRN** | **80M4** | 200 | 301 |
| **0.76** | 1823 | 19800 | **R** | **97R57** | **DRS** | **71S4** | 130 | 301 |
| **0.87** | 1583 | 19800 | **RF** | **97R57** | **DRS** | **71S4** | 145 | 301 |
| **0.99** | 1396 | 19800 | **RM** | **97R57** | **DRS** | **71S4** | 200 | 301 |
| **1.1** | 1228 | 19800 | **R** | **97R57** | **DRS** | **71M4** | 130 | 301 |
| **1.3** | 1069 | 19800 | **RF** | **97R57** | **DRS** | **71M4** | 150 | 301 |
| **1.4** | 938 | 19800 | **RM** | **97R57** | **DRS** | **71M4** | 200 | 301 |

21284997/EN – 03/2015

## $M_{a\ max}$ = 3000 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|
| **1.8** | 824 | 19800 | **R** | **97R57** | **DRN** | **80M4** | 135 | 301 |
| **2.0** | 737 | 19800 | **RF** | **97R57** | **DRN** | **80M4** | 155 | 301 |
| | | | **RM** | **97R57** | **DRN** | **80M4** | 205 | 301 |
| **2.3** | 632 | 19800 | **R** | **97R57** | **DRN** | **90S4** | 140 | 301 |
| **2.6** | 560 | 19800 | **RF** | **97R57** | **DRN** | **90S4** | 160 | 301 |
| **3.0** | 484 | 19800 | **RM** | **97R57** | **DRN** | **90S4** | 210 | 301 |
| **3.4** | 431 | 19800 | **R** | **97R57** | **DRN** | **90L4** | 145 | 301 |
| **3.8** | 379 | 19800 | **RF** | **97R57** | **DRN** | **90L4** | 165 | 301 |
| **4.3** | 336 | 19800 | **RM** | **97R57** | **DRN** | **90L4** | 215 | 301 |
| **4.9** | 296 | 19800 | **R** | **97R57** | **DRN** | **100LS4** | 150 | 301 |
| **5.8** | 249 | 19800 | **RF** | **97R57** | **DRN** | **100LS4** | 165 | 301 |
| **6.2** | 234 | 19800 | **RM** | **97R57** | **DRN** | **100LS4** | 220 | 301 |
| **2.3** | 625 | 19800 | **R** | **97R57** | **DRN** | **90S4** | 140 | 301 |
| **2.6** | 549 | 19800 | **RF** | **97R57** | **DRN** | **90S4** | 155 | 301 |
| | | | **RM** | **97R57** | **DRN** | **90S4** | 210 | 301 |
| **5.4** | 270 | 19800 | **R** | **97R57** | **DRN** | **100LS4** | 145 | 301 |
| **6.4** | 227 | 19800 | **RF** | **97R57** | **DRN** | **100LS4** | 165 | 301 |
| | | | **RM** | **97R57** | **DRN** | **100LS4** | 215 | 301 |

## $M_{a\ max}$ = 4300 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|
| **0.07** | 20018 | 29500 | | | | | | |
| **0.08** | 17080 | 29500 | | | | | | |
| **0.09** | 14936 | 29500 | | | | | | |
| **0.11** | 12829 | 29500 | **R** | **107R77** | **DR** | **63S4** | 200 | 301 |
| **0.12** | 11256 | 29500 | **RF** | **107R77** | **DR** | **63S4** | 210 | 301 |
| **0.14** | 9547 | 29500 | **RM** | **107R77** | **DR** | **63S4** | 295 | 301 |
| **0.16** | 8618 | 29500 | | | | | | |
| **0.18** | 7583 | 29500 | | | | | | |
| **0.20** | 6743 | 29500 | | | | | | |
| **0.22** | 5914 | 29500 | **R** | **107R77** | **DR** | **63M4** | 200 | 301 |
| **0.26** | 5168 | 29500 | **RF** | **107R77** | **DR** | **63M4** | 210 | 301 |
| **0.30** | 4435 | 29500 | **RM** | **107R77** | **DR** | **63M4** | 295 | 301 |
| **0.33** | 3896 | 29500 | **R** | **107R77** | **DR** | **63L4** | 205 | 301 |
| **0.43** | 3039 | 29500 | **RF** | **107R77** | **DR** | **63L4** | 210 | 301 |
| | | | **RM** | **107R77** | **DR** | **63L4** | 295 | 301 |
| **0.33** | 3918 | 29500 | **R** | **107R77** | **DR** | **63L4** | 195 | 301 |
| **0.39** | 3343 | 29500 | **RF** | **107R77** | **DR** | **63L4** | 200 | 301 |
| **0.43** | 3034 | 29500 | **RM** | **107R77** | **DR** | **63L4** | 290 | 301 |
| **0.52** | 2653 | 29500 | **R** | **107R77** | **DRS** | **71S4** | 200 | 301 |
| **0.61** | 2280 | 29500 | **RF** | **107R77** | **DRS** | **71S4** | 205 | 301 |
| **0.67** | 2067 | 29500 | **RM** | **107R77** | **DRS** | **71S4** | 290 | 301 |
| **0.80** | 1693 | 29500 | **R** | **107R77** | **DRS** | **71M4** | 200 | 301 |
| **0.88** | 1550 | 29500 | **RF** | **107R77** | **DRS** | **71M4** | 205 | 301 |
| **0.97** | 1407 | 29500 | **RM** | **107R77** | **DRS** | **71M4** | 295 | 301 |
| **1.2** | 1209 | 29500 | **R** | **107R77** | **DRN** | **80M4** | 205 | 301 |
| **1.4** | 1055 | 29500 | **RF** | **107R77** | **DRN** | **80M4** | 210 | 301 |
| | | | **RM** | **107R77** | **DRN** | **80M4** | 300 | 301 |
| **1.6** | 919 | 29500 | **R** | **107R77** | **DRN** | **90S4** | 210 | 301 |
| **1.8** | 815 | 29500 | **RF** | **107R77** | **DRN** | **90S4** | 215 | 301 |
| **2.0** | 717 | 29500 | **RM** | **107R77** | **DRN** | **90S4** | 305 | 301 |
| **2.3** | 626 | 29500 | **R** | **107R77** | **DRN** | **90L4** | 210 | 301 |
| **2.8** | 528 | 29500 | **RF** | **107R77** | **DRN** | **90L4** | 220 | 301 |
| | | | **RM** | **107R77** | **DRN** | **90L4** | 305 | 301 |
| **0.69** | 1987 | 29500 | **R** | **107R77** | **DRS** | **71S4** | 205 | 301 |
| | | | **RF** | **107R77** | **DRS** | **71S4** | 210 | 301 |
| | | | **RM** | **107R77** | **DRS** | **71S4** | 295 | 301 |
| **0.74** | 1827 | 29500 | **R** | **107R77** | **DRS** | **71M4** | 205 | 301 |
| **0.85** | 1599 | 29500 | **RF** | **107R77** | **DRS** | **71M4** | 210 | 301 |
| **0.97** | 1400 | 29500 | **RM** | **107R77** | **DRS** | **71M4** | 300 | 301 |

21284997/EN – 03/2015

## $M_{a\ max}$ = 4300 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|
| **1.2** | 1226 | 29500 | **R** | **107R77** | **DRN** | **80M4** | 210 | 301 |
| **1.3** | 1104 | 29500 | **RF** | **107R77** | **DRN** | **80M4** | 215 | 301 |
| | | | **RM** | **107R77** | **DRN** | **80M4** | 305 | 301 |
| **1.6** | 939 | 29500 | **R** | **107R77** | **DRN** | **90S4** | 215 | 301 |
| **1.8** | 822 | 29500 | **RF** | **107R77** | **DRN** | **90S4** | 220 | 301 |
| | | | **RM** | **107R77** | **DRN** | **90S4** | 310 | 301 |
| **2.4** | 614 | 29500 | **R** | **107R77** | **DRN** | **90L4** | 220 | 301 |
| **2.7** | 544 | 29500 | **RF** | **107R77** | **DRN** | **90L4** | 225 | 301 |
| **3.0** | 492 | 29500 | **RM** | **107R77** | **DRN** | **90L4** | 310 | 301 |
| **3.5** | 417 | 29500 | **R** | **107R77** | **DRN** | **100LS4** | 220 | 301 |
| **3.9** | 369 | 29500 | **RF** | **107R77** | **DRN** | **100LS4** | 230 | 301 |
| **4.5** | 323 | 29500 | **RM** | **107R77** | **DRN** | **100LS4** | 315 | 301 |
| **5.1** | 285 | 29500 | **R** | **107R77** | **DRN** | **100L4** | 230 | 301 |
| **5.8** | 253 | 29500 | **RF** | **107R77** | **DRN** | **100L4** | 235 | 301 |
| | | | **RM** | **107R77** | **DRN** | **100L4** | 325 | 301 |
| **6.8** | 214 | 29500 | **R** | **107R77** | **DRN** | **112M4** | 240 | 301 |
| **7.8** | 187 | 29500 | **RF** | **107R77** | **DRN** | **112M4** | 245 | 301 |
| | | | **RM** | **107R77** | **DRN** | **112M4** | 330 | 301 |
| **3.1** | 469 | 29500 | **R** | **107R77** | **DRN** | **90L4** | 210 | 301 |
| | | | **RF** | **107R77** | **DRN** | **90L4** | 215 | 301 |
| | | | **RM** | **107R77** | **DRN** | **90L4** | 305 | 301 |
| **3.4** | 426 | 29500 | **R** | **107R77** | **DRN** | **100LS4** | 215 | 301 |
| **3.8** | 377 | 29500 | **RF** | **107R77** | **DRN** | **100LS4** | 220 | 301 |
| **4.5** | 325 | 29500 | **RM** | **107R77** | **DRN** | **100LS4** | 310 | 301 |
| **5.1** | 284 | 29500 | **R** | **107R77** | **DRN** | **100L4** | 225 | 301 |
| **5.7** | 256 | 29500 | **RF** | **107R77** | **DRN** | **100L4** | 230 | 301 |
| | | | **RM** | **107R77** | **DRN** | **100L4** | 315 | 301 |
| **6.7** | 220 | 29500 | **R** | **107R77** | **DRN** | **112M4** | 230 | 301 |
| **7.6** | 193 | 29500 | **RF** | **107R77** | **DRN** | **112M4** | 240 | 301 |
| | | | **RM** | **107R77** | **DRN** | **112M4** | 325 | 301 |
| **8.5** | 172 | 29500 | **R** | **107R77** | **DRN** | **132S4** | 245 | 301 |
| | | | **RF** | **107R77** | **DRN** | **132S4** | 250 | 301 |
| | | | **RM** | **107R77** | **DRN** | **132S4** | 335 | 301 |

## $M_{a\ max}$ = 8000 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|
| **0.06** | 22203 | 53400 | | | | | | |
| **0.07** | 18945 | 53400 | **R** | **137R77** | **DR** | **63S4** | 290 | 301 |
| **0.08** | 16566 | 53400 | **RF** | **137R77** | **DR** | **63S4** | 310 | 301 |
| **0.09** | 14777 | 53400 | **RM** | **137R77** | **DR** | **63S4** | 425 | 301 |
| **0.11** | 12921 | 53400 | | | | | | |
| **0.11** | 11712 | 53400 | **R** | **137R77** | **DR** | **63M4** | 290 | 301 |
| **0.12** | 10573 | 53400 | **RF** | **137R77** | **DR** | **63M4** | 310 | 301 |
| **0.15** | 8784 | 53400 | **RM** | **137R77** | **DR** | **63M4** | 425 | 301 |
| **0.17** | 7479 | 53400 | **R** | **137R77** | **DR** | **63L4** | 290 | 301 |
| **0.20** | 6559 | 53400 | **RF** | **137R77** | **DR** | **63L4** | 310 | 301 |
| **0.22** | 5834 | 53400 | **RM** | **137R77** | **DR** | **63L4** | 425 | 301 |
| **0.27** | 5116 | 53400 | **R** | **137R77** | **DRS** | **71S4** | 290 | 301 |
| **0.31** | 4464 | 53400 | **RF** | **137R77** | **DRS** | **71S4** | 315 | 301 |
| **0.35** | 3928 | 53400 | **RM** | **137R77** | **DRS** | **71S4** | 425 | 301 |
| **0.39** | 3454 | 53400 | **R** | **137R77** | **DRS** | **71M4** | 290 | 301 |
| **0.45** | 2993 | 53400 | **RF** | **137R77** | **DRS** | **71M4** | 315 | 301 |
| | | | **RM** | **137R77** | **DRS** | **71M4** | 425 | 301 |
| **0.29** | 4709 | 53400 | **R** | **137R77** | **DRS** | **71S4** | 280 | 301 |
| **0.34** | 4018 | 53400 | **RF** | **137R77** | **DRS** | **71S4** | 305 | 301 |
| | | | **RM** | **137R77** | **DRS** | **71S4** | 415 | 301 |
| **0.39** | 3514 | 53400 | **R** | **137R77** | **DRS** | **71M4** | 280 | 301 |
| **0.41** | 3338 | 53400 | **RF** | **137R77** | **DRS** | **71M4** | 305 | 301 |
| **0.46** | 2929 | 53400 | **RM** | **137R77** | **DRS** | **71M4** | 415 | 301 |
| **0.55** | 2484 | 53400 | | | | | | |

21284997/EN – 03/2015

## $M_{a\ max}$ = 8000 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|
| **0.64** | 2242 | 53400 | **R** | **137R77** | **DRN** | **80M4** | | 285 | 301 |
| **0.77** | 1863 | 53400 | **RF** | **137R77** | **DRN** | **80M4** | | 310 | 301 |
| | | | **RM** | **137R77** | **DRN** | **80M4** | | 420 | 301 |
| **0.92** | 1586 | 53400 | **R** | **137R77** | **DRN** | **90S4** | | 290 | 301 |
| **1.0** | 1391 | 53400 | **RF** | **137R77** | **DRN** | **90S4** | | 315 | 301 |
| **1.2** | 1256 | 53400 | **RM** | **137R77** | **DRN** | **90S4** | | 425 | 301 |
| **1.3** | 1105 | 53400 | **R** | **137R77** | **DRN** | **90L4** | | 295 | 301 |
| **1.4** | 1043 | 53400 | **RF** | **137R77** | **DRN** | **90L4** | | 320 | 301 |
| | | | **RM** | **137R77** | **DRN** | **90L4** | | 430 | 301 |
| **1.6** | 888 | 53400 | **R** | **137R77** | **DRN** | **100LS4** | | 300 | 301 |
| **2.1** | 699 | 53400 | **RF** | **137R77** | **DRN** | **100LS4** | | 325 | 301 |
| **2.4** | 609 | 53400 | **RM** | **137R77** | **DRN** | **100LS4** | | 435 | 301 |
| **0.51** | 2658 | 53400 | **R** | **137R77** | **DRS** | **71M4** | | 290 | 301 |
| **0.56** | 2412 | 53400 | **RF** | **137R77** | **DRS** | **71M4** | | 315 | 301 |
| | | | **RM** | **137R77** | **DRS** | **71M4** | | 425 | 301 |
| **0.69** | 2073 | 53400 | **R** | **137R77** | **DRN** | **80M4** | | 295 | 301 |
| **0.78** | 1839 | 53400 | **RF** | **137R77** | **DRN** | **80M4** | | 320 | 301 |
| | | | **RM** | **137R77** | **DRN** | **80M4** | | 430 | 301 |
| **0.91** | 1598 | 53400 | **R** | **137R77** | **DRN** | **90S4** | | 300 | 301 |
| **1.0** | 1397 | 53400 | **RF** | **137R77** | **DRN** | **90S4** | | 325 | 301 |
| **1.2** | 1226 | 53400 | **RM** | **137R77** | **DRN** | **90S4** | | 435 | 301 |
| **1.3** | 1090 | 53400 | **R** | **137R77** | **DRN** | **90L4** | | 305 | 301 |
| **1.5** | 951 | 53400 | **RF** | **137R77** | **DRN** | **90L4** | | 325 | 301 |
| | | | **RM** | **137R77** | **DRN** | **90L4** | | 440 | 301 |
| **1.7** | 831 | 53400 | **R** | **137R77** | **DRN** | **100LS4** | | 310 | 301 |
| **2.0** | 730 | 53400 | **RF** | **137R77** | **DRN** | **100LS4** | | 330 | 301 |
| **2.3** | 629 | 53400 | **RM** | **137R77** | **DRN** | **100LS4** | | 445 | 301 |
| **2.6** | 560 | 53400 | **R** | **137R77** | **DRN** | **100L4** | | 315 | 301 |
| **3.0** | 490 | 53400 | **RF** | **137R77** | **DRN** | **100L4** | | 340 | 301 |
| | | | **RM** | **137R77** | **DRN** | **100L4** | | 450 | 301 |
| **3.4** | 428 | 53400 | **R** | **137R77** | **DRN** | **112M4** | | 325 | 301 |
| **3.8** | 381 | 53400 | **RF** | **137R77** | **DRN** | **112M4** | | 350 | 301 |
| | | | **RM** | **137R77** | **DRN** | **112M4** | | 460 | 301 |
| **4.5** | 323 | 53400 | **R** | **137R77** | **DRN** | **132S4** | | 335 | 301 |
| **5.0** | 291 | 53400 | **RF** | **137R77** | **DRN** | **132S4** | | 360 | 301 |
| **5.7** | 255 | 53400 | **RM** | **137R77** | **DRN** | **132S4** | | 470 | 301 |
| **2.6** | 564 | 53400 | **R** | **137R77** | **DRN** | **100L4** | | 305 | 301 |
| **2.8** | 517 | 53400 | **RF** | **137R77** | **DRN** | **100L4** | | 330 | 301 |
| **3.2** | 453 | 53400 | **RM** | **137R77** | **DRN** | **100L4** | | 440 | 301 |
| **3.9** | 376 | 53400 | **R** | **137R77** | **DRN** | **112M4** | | 315 | 301 |
| **4.3** | 339 | 53400 | **RF** | **137R77** | **DRN** | **112M4** | | 340 | 301 |
| | | | **RM** | **137R77** | **DRN** | **112M4** | | 450 | 301 |
| **4.9** | 297 | 53400 | **R** | **137R77** | **DRN** | **132S4** | | 325 | 301 |
| | | | **RF** | **137R77** | **DRN** | **132S4** | | 350 | 301 |
| | | | **RM** | **137R77** | **DRN** | **132S4** | | 460 | 301 |

## $M_{a\ max}$ = 13000 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|
| **0.06** | 23401 | 62700 | **R** | **147R77** | **DR** | **63S4** | | 420 | 301 |
| **0.06** | 21342 | 62700 | **RF** | **147R77** | **DR** | **63S4** | | 430 | 301 |
| | | | **RM** | **147R77** | **DR** | **63S4** | | 600 | 301 |
| **0.07** | 18210 | 62700 | **R** | **147R77** | **DR** | **63M4** | | 420 | 301 |
| **0.08** | 15923 | 62700 | **RF** | **147R77** | **DR** | **63M4** | | 430 | 301 |
| **0.09** | 14075 | 62700 | **RM** | **147R77** | **DR** | **63M4** | | 600 | 301 |
| **0.11** | 12344 | 62700 | | | | | | | |
| **0.12** | 11143 | 62700 | **R** | **147R77** | **DR** | **63L4** | | 420 | 301 |
| **0.13** | 9743 | 62700 | **RF** | **147R77** | **DR** | **63L4** | | 430 | 301 |
| | | | **RM** | **147R77** | **DR** | **63L4** | | 600 | 301 |

21284997/EN – 03/2015

## $M_{a\ max}$ = 13000 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|
| **0.16** | 8443 | 62700 | **R** | **147R77** | **DRS** | **71S4** | 425 | 301 |
| **0.19** | 7307 | 62700 | **RF** | **147R77** | **DRS** | **71S4** | 430 | 301 |
| **0.21** | 6447 | 62700 | **RM** | **147R77** | **DRS** | **71S4** | 600 | 301 |
| **0.24** | 5568 | 62700 | **R** | **147R77** | **DRS** | **71M4** | 425 | 301 |
| **0.28** | 4926 | 62700 | **RF** | **147R77** | **DRS** | **71M4** | 430 | 301 |
| **0.31** | 4325 | 62700 | **RM** | **147R77** | **DRS** | **71M4** | 600 | 301 |
| **0.38** | 3754 | 62700 | **R** | **147R77** | **DRN** | **80M4** | 430 | 301 |
| **0.44** | 3302 | 62700 | **RF** | **147R77** | **DRN** | **80M4** | 435 | 301 |
| | | | **RM** | **147R77** | **DRN** | **80M4** | 600 | 301 |
| **0.50** | 2898 | 62700 | **R** | **147R77** | **DRN** | **90S4** | 435 | 301 |
| | | | **RF** | **147R77** | **DRN** | **90S4** | 440 | 301 |
| | | | **RM** | **147R77** | **DRN** | **90S4** | 610 | 301 |
| **0.57** | 2555 | 62700 | **R** | **147R77** | **DRN** | **90S4** | 435 | 301 |
| **0.66** | 2211 | 62700 | **RF** | **147R77** | **DRN** | **90S4** | 440 | 301 |
| | | | **RM** | **147R77** | **DRN** | **90S4** | 610 | 301 |
| **0.75** | 1951 | 62700 | **R** | **147R77** | **DRN** | **90L4** | 435 | 301 |
| **0.86** | 1705 | 62700 | **RF** | **147R77** | **DRN** | **90L4** | 445 | 301 |
| **0.95** | 1536 | 62700 | **RM** | **147R77** | **DRN** | **90L4** | 610 | 301 |
| **1.1** | 1329 | 62700 | **R** | **147R77** | **DRN** | **100LS4** | 440 | 301 |
| **1.2** | 1166 | 62700 | **RF** | **147R77** | **DRN** | **100LS4** | 450 | 301 |
| **1.4** | 1029 | 62700 | **RM** | **147R77** | **DRN** | **100LS4** | 620 | 301 |
| **1.6** | 889 | 62700 | **R** | **147R77** | **DRN** | **100L4** | 445 | 301 |
| **1.9** | 784 | 62700 | **RF** | **147R77** | **DRN** | **100L4** | 455 | 301 |
| | | | **RM** | **147R77** | **DRN** | **100L4** | 620 | 301 |
| **2.1** | 695 | 62700 | **R** | **147R77** | **DRN** | **112M4** | 455 | 301 |
| **2.4** | 619 | 62700 | **RF** | **147R77** | **DRN** | **112M4** | 465 | 301 |
| **2.6** | 558 | 62700 | **RM** | **147R77** | **DRN** | **112M4** | 630 | 301 |
| **3.0** | 489 | 62700 | **R** | **147R77** | **DRN** | **132S4** | 470 | 301 |
| | | | **RF** | **147R77** | **DRN** | **132S4** | 475 | 301 |
| | | | **RM** | **147R77** | **DRN** | **132S4** | 640 | 301 |
| **2.7** | 533 | 62700 | **R** | **147R87** | **DRN** | **132S4** | 490 | 301 |
| **3.2** | 462 | 62700 | **RF** | **147R87** | **DRN** | **132S4** | 495 | 301 |
| **3.4** | 426 | 62700 | **RM** | **147R87** | **DRN** | **132S4** | 660 | 301 |
| **4.0** | 368 | 62700 | **R** | **147R87** | **DRN** | **132M4** | 510 | 301 |
| **4.5** | 326 | 62700 | **RF** | **147R87** | **DRN** | **132M4** | 510 | 301 |
| | | | **RM** | **147R87** | **DRN** | **132M4** | 680 | 301 |
| **5.2** | 280 | 62700 | **R** | **147R87** | **DRN** | **132L4** | 510 | 301 |
| **6.0** | 247 | 62700 | **RF** | **147R87** | **DRN** | **132L4** | 520 | 301 |
| | | | **RM** | **147R87** | **DRN** | **132L4** | 690 | 301 |
| **6.9** | 214 | 62700 | **R** | **147R87** | **DRN** | **160M4** | 550 | 301 |
| | | | **RF** | **147R87** | **DRN** | **160M4** | 560 | 301 |
| | | | **RM** | **147R87** | **DRN** | **160M4** | 720 | 301 |

## $M_{a\ max}$ = 18000 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|
| **0.05** | 27001 | 120000 | | | | | | |
| **0.06** | 22482 | 120000 | | | | | | |
| **0.07** | 20002 | 120000 | | | | | | |
| **0.08** | 17361 | 120000 | **R** | **167R97** | **DRS** | **71M4** | 760 | 301 |
| **0.09** | 15446 | 120000 | **RF** | **167R97** | **DRS** | **71M4** | 760 | 301 |
| **0.10** | 14051 | 120000 | **RM** | **167R97** | **DRS** | **71M4** | 960 | 301 |
| **0.12** | 11812 | 120000 | | | | | | |
| **0.13** | 10509 | 120000 | | | | | | |
| **0.14** | 9631 | 120000 | | | | | | |
| **0.19** | 7749 | 120000 | **R** | **167R97** | **DRN** | **80M4** | 760 | 301 |
| **0.21** | 6894 | 120000 | **RF** | **167R97** | **DRN** | **80M4** | 770 | 301 |
| | | | **RM** | **167R97** | **DRN** | **80M4** | 960 | 301 |
| **0.22** | 6077 | 120000 | **R** | **167R97** | **DRS** | **71M4** | 760 | 301 |
| | | | **RF** | **167R97** | **DRS** | **71M4** | 760 | 301 |
| | | | **RM** | **167R97** | **DRS** | **71M4** | 960 | 301 |

21284997/EN – 03/2015

| $M_{a\ max}$ = 18000 Nm | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
| 0.27 | 5407 | 120000 | R | 167R97 | DRN | 80M4 | 760 | 301 |
| 0.31 | 4650 | 120000 | RF | 167R97 | DRN | 80M4 | 770 | 301 |
| | | | RM | 167R97 | DRN | 80M4 | 960 | 301 |
| 0.35 | 4129 | 120000 | R | 167R97 | DRN | 90S4 | 760 | 301 |
| 0.39 | 3692 | 120000 | RF | 167R97 | DRN | 90S4 | 770 | 301 |
| | | | RM | 167R97 | DRN | 90S4 | 970 | 301 |
| 0.55 | 2657 | 120000 | R | 167R97 | DRN | 90L4 | 760 | 301 |
| 0.63 | 2333 | 120000 | RF | 167R97 | DRN | 90L4 | 770 | 301 |
| 0.70 | 2085 | 120000 | RM | 167R97 | DRN | 90L4 | 970 | 301 |
| 0.77 | 1877 | 120000 | R | 167R97 | DRN | 100LS4 | 770 | 301 |
| 0.87 | 1670 | 120000 | RF | 167R97 | DRN | 100LS4 | 780 | 301 |
| 1.0 | 1438 | 120000 | RM | 167R97 | DRN | 100LS4 | 970 | 301 |
| 1.1 | 1279 | 120000 | R | 167R97 | DRN | 100L4 | 780 | 301 |
| 1.3 | 1123 | 120000 | RF | 167R97 | DRN | 100L4 | 780 | 301 |
| 1.5 | 999 | 120000 | RM | 167R97 | DRN | 100L4 | 980 | 301 |
| 1.7 | 861 | 120000 | R | 167R97 | DRN | 112M4 | 780 | 301 |
| 1.9 | 760 | 120000 | RF | 167R97 | DRN | 112M4 | 790 | 301 |
| | | | RM | 167R97 | DRN | 112M4 | 990 | 301 |
| 2.2 | 656 | 120000 | R | 167R97 | DRN | 132S4 | 800 | 301 |
| 2.5 | 579 | 120000 | RF | 167R97 | DRN | 132S4 | 800 | 301 |
| | | | RM | 167R97 | DRN | 132S4 | 1000 | 301 |
| 2.9 | 503 | 120000 | R | 167R97 | DRN | 132M4 | 810 | 301 |
| 3.4 | 432 | 120000 | RF | 167R97 | DRN | 132M4 | 820 | 301 |
| | | | RM | 167R97 | DRN | 132M4 | 1020 | 301 |
| 3.9 | 376 | 120000 | R | 167R97 | DRN | 132L4 | 820 | 301 |
| 4.4 | 335 | 120000 | RF | 167R97 | DRN | 132L4 | 830 | 301 |
| | | | RM | 167R97 | DRN | 132L4 | 1020 | 301 |
| 4.9 | 303 | 120000 | R | 167R97 | DRN | 160M4 | 860 | 301 |
| 5.3 | 279 | 120000 | RF | 167R97 | DRN | 160M4 | 860 | 301 |
| | | | RM | 167R97 | DRN | 160M4 | 1060 | 301 |
| 5.0 | 295 | 120000 | R | 167R107 | DRN | 160M4 | 900 | 301 |
| | | | RF | 167R107 | DRN | 160M4 | 910 | 301 |
| | | | RM | 167R107 | DRN | 160M4 | 1100 | 301 |
| 5.4 | 270 | 120000 | R | 167R107 | DRN | 160L4 | 920 | 301 |
| 6.4 | 229 | 120000 | RF | 167R107 | DRN | 160L4 | 920 | 301 |
| | | | RM | 167R107 | DRN | 160L4 | 1120 | 301 |
| 7.4 | 200 | 120000 | R | 167R107 | DRN | 180M4 | 940 | 301 |
| | | | RF | 167R107 | DRN | 180M4 | 950 | 301 |
| | | | RM | 167R107 | DRN | 180M4 | 1140 | 301 |
| 5.1 | 291 | 120000 | R | 167R107 | DRN | 160M4 | 900 | 301 |
| | | | RF | 167R107 | DRN | 160M4 | 900 | 301 |
| | | | RM | 167R107 | DRN | 160M4 | 1100 | 301 |
| 5.6 | 264 | 120000 | R | 167R107 | DRN | 160L4 | 910 | 301 |
| 6.5 | 227 | 120000 | RF | 167R107 | DRN | 160L4 | 920 | 301 |
| 7.4 | 198 | 120000 | RM | 167R107 | DRN | 160L4 | 1110 | 301 |

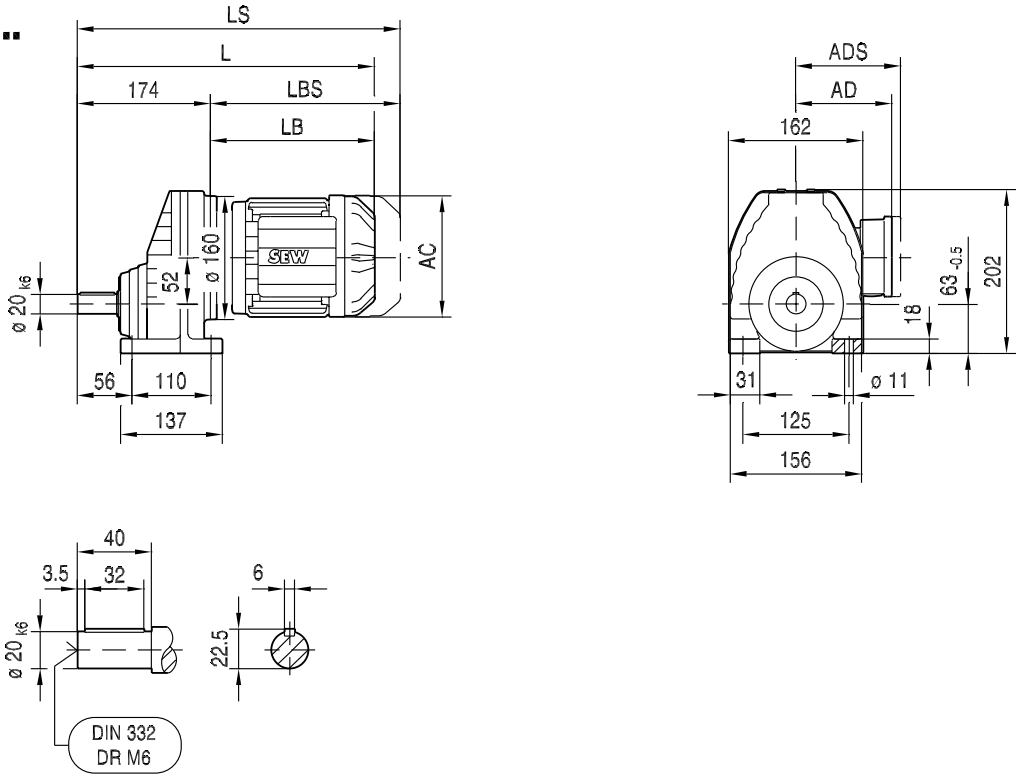


21284997/EN – 03/2015

## 8.5 R..DRN.. dimension sheets in mm

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**RX57..**

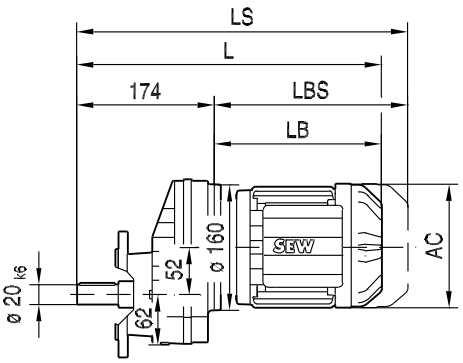


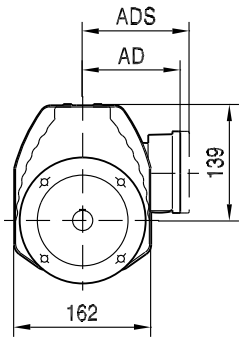

| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 | 221 | 221 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 | 170 | 170 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 | 172 | 172 |
| **L** | 359 | 370 | 395 | 449 | 451 | 483 | 479 | 529 | 560 | 614 |
| **LS** | 414 | 438 | 463 | 530 | 544 | 576 | 573 | 623 | 672 | 726 |
| **LB** | 185 | 196 | 221 | 275 | 277 | 309 | 305 | 355 | 386 | 440 |
| **LBS** | 240 | 264 | 289 | 356 | 370 | 402 | 399 | 449 | 498 | 552 |

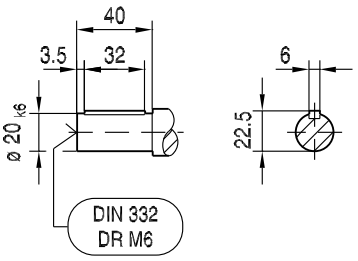
21284997/EN – 03/2015

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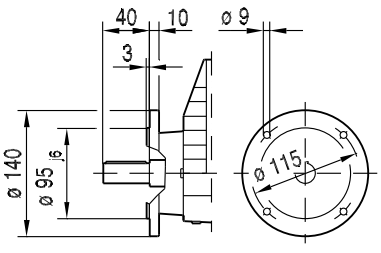
## RXF57..



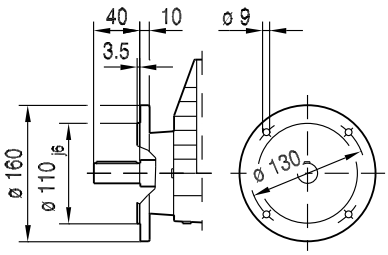



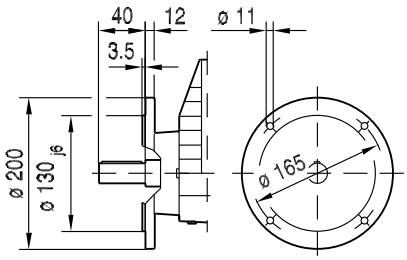

### ø 140




### ø 160




### ø 200

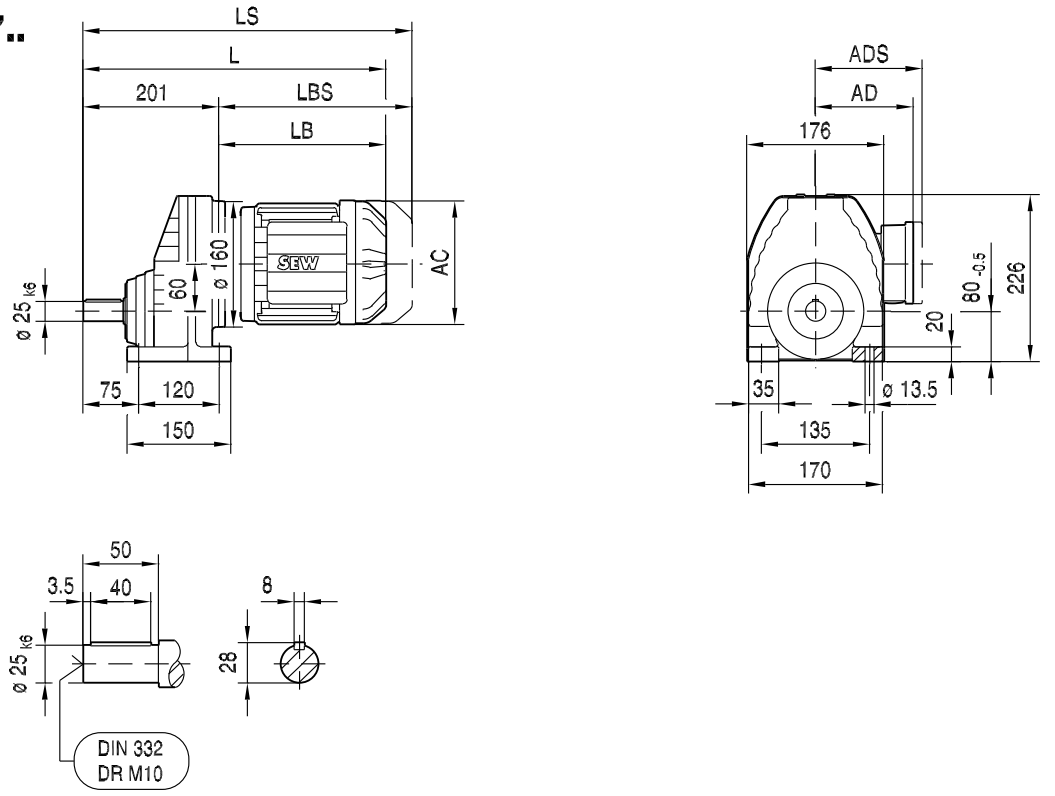



| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 | 221 | 221 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 | 170 | 170 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 | 172 | 172 |
| **L** | 359 | 370 | 395 | 449 | 451 | 483 | 479 | 529 | 560 | 614 |
| **LS** | 414 | 438 | 463 | 530 | 544 | 576 | 573 | 623 | 672 | 726 |
| **LB** | 185 | 196 | 221 | 275 | 277 | 309 | 305 | 355 | 386 | 440 |
| **LBS** | 240 | 264 | 289 | 356 | 370 | 402 | 399 | 449 | 498 | 552 |

21284997/EN – 03/2015

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**RX67..**

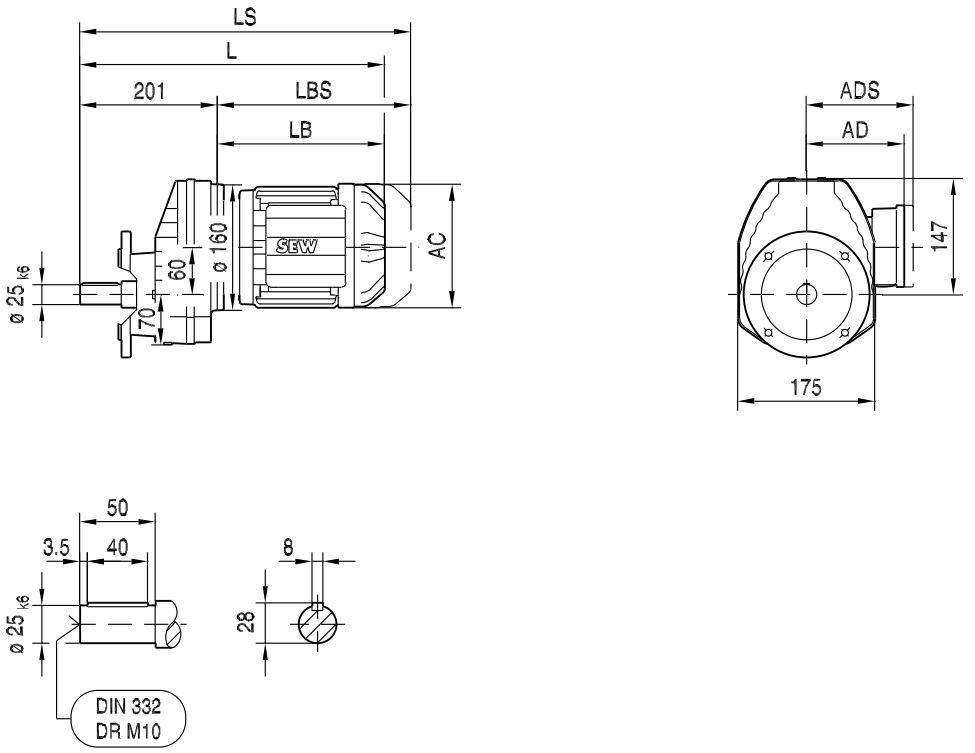



| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 | 221 | 221 | 261 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 | 170 | 170 | 228 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 | 172 | 172 | 228 |
| **L** | 386 | 397 | 422 | 476 | 478 | 510 | 506 | 556 | 587 | 641 | 659 |
| **LS** | 441 | 465 | 490 | 557 | 571 | 603 | 600 | 650 | 699 | 753 | 797 |
| **LB** | 185 | 196 | 221 | 275 | 277 | 309 | 305 | 355 | 386 | 440 | 458 |
| **LBS** | 240 | 264 | 289 | 356 | 370 | 402 | 399 | 449 | 498 | 552 | 596 |

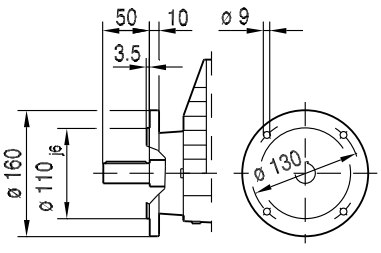
21284997/EN – 03/2015

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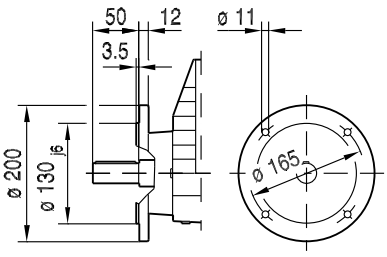
## RXF67..



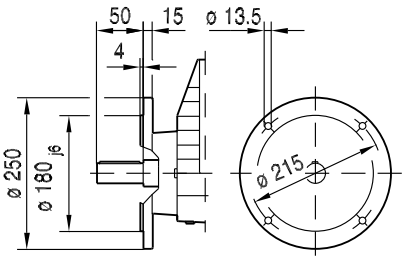

### ø 160




### ø 200



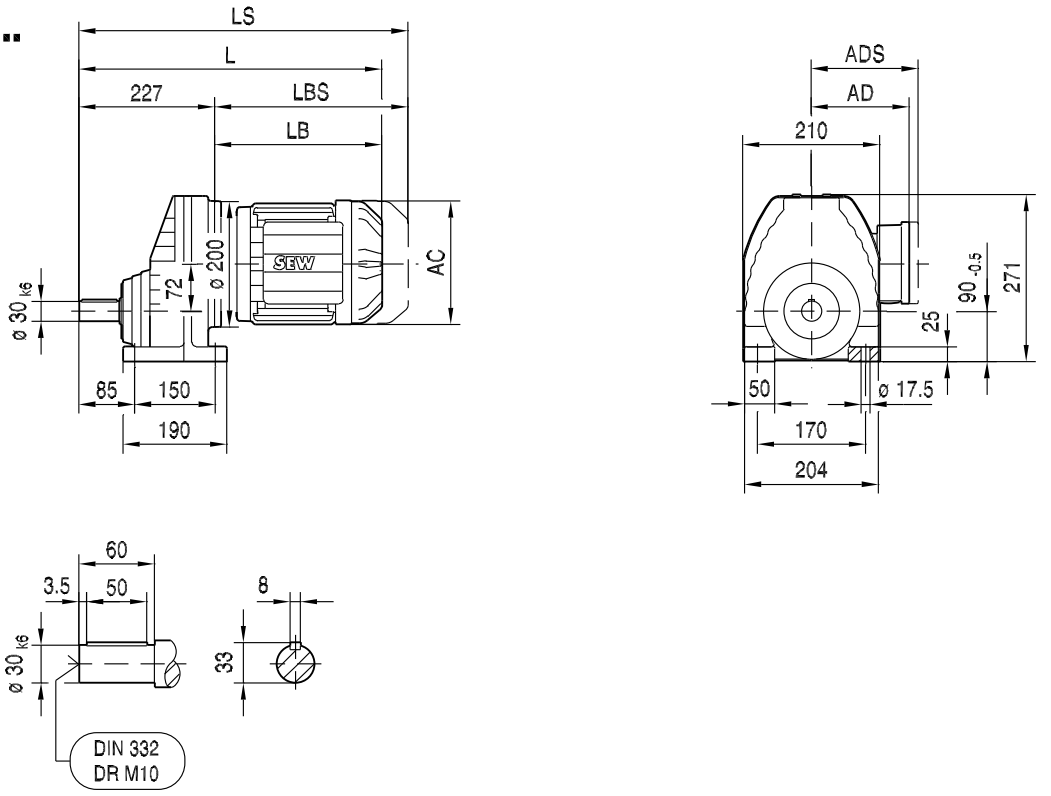

### ø 250




| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 | 221 | 221 | 261 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 | 170 | 170 | 228 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 | 172 | 172 | 228 |
| **L** | 386 | 397 | 422 | 476 | 478 | 510 | 506 | 556 | 587 | 641 | 659 |
| **LS** | 441 | 465 | 490 | 557 | 571 | 603 | 600 | 650 | 699 | 753 | 797 |
| **LB** | 185 | 196 | 221 | 275 | 277 | 309 | 305 | 355 | 386 | 440 | 458 |
| **LBS** | 240 | 264 | 289 | 356 | 370 | 402 | 399 | 449 | 498 | 552 | 596 |

01 008 00 14

**RX77..**

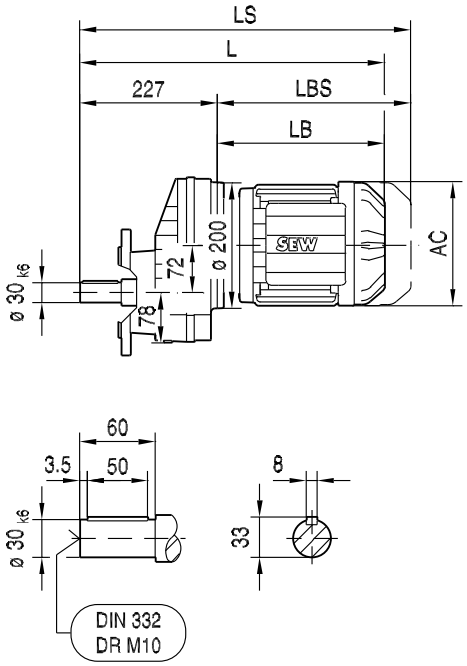


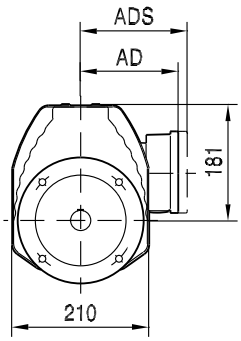

| (→ 142) | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M |
|---|---|---|---|---|---|---|---|---|---|
| **AC** | 179 | 179 | 197 | 197 | 221 | 221 | 261 | 261 | 314 |
| **AD** | 140 | 140 | 157 | 157 | 170 | 170 | 228 | 228 | 253 |
| **ADS** | 150 | 150 | 158 | 158 | 172 | 172 | 228 | 228 | 253 |
| **L** | 497 | 529 | 525 | 575 | 606 | 656 | 674 | 700 | 766 |
| **LS** | 590 | 622 | 619 | 669 | 718 | 768 | 812 | 837 | 955 |
| **LB** | 270 | 302 | 298 | 348 | 379 | 429 | 447 | 473 | 539 |
| **LBS** | 363 | 395 | 392 | 442 | 491 | 541 | 585 | 610 | 728 |

21284997/EN – 03/2015

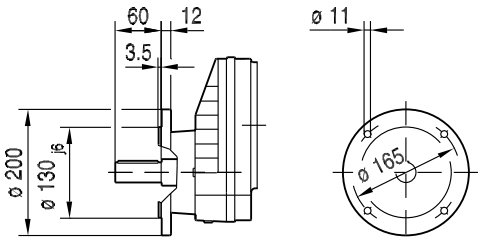
01 009 00 14

## RXF77..

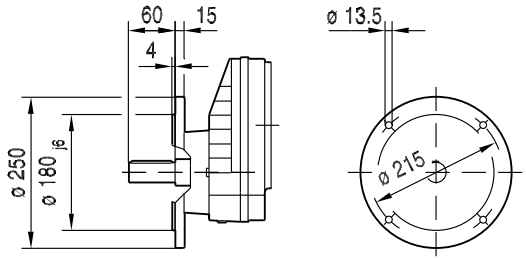



### ø 200




### ø 250

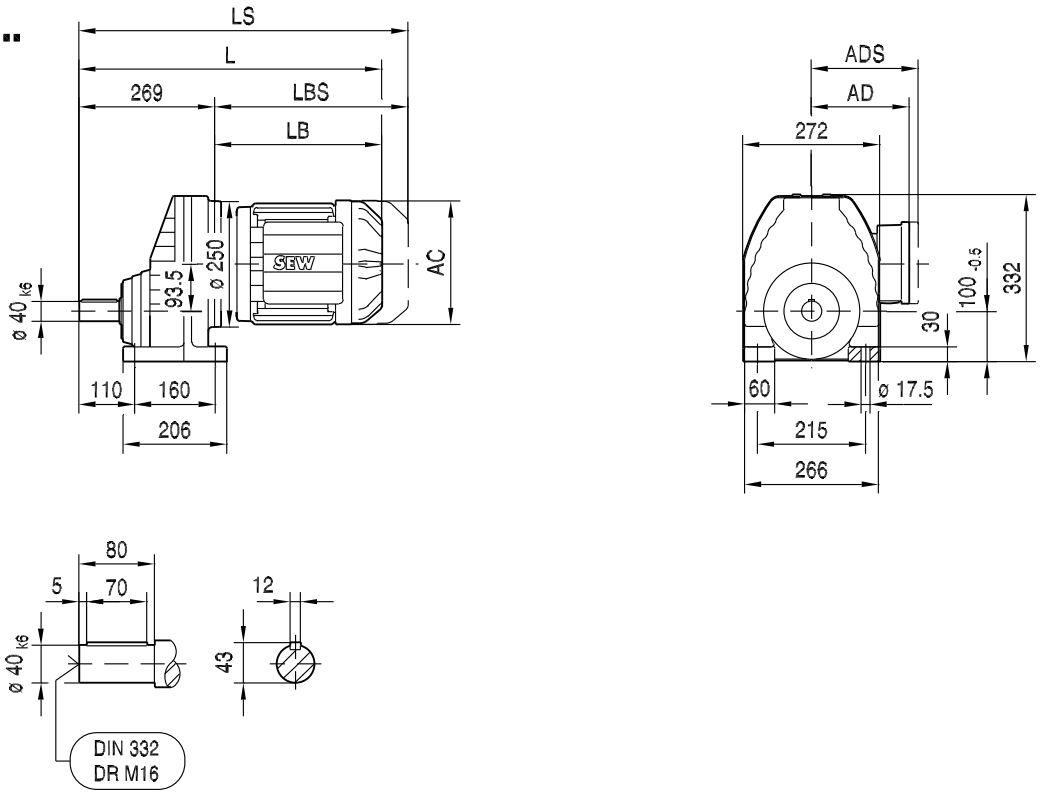



| (→ 142) | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M |
|---|---|---|---|---|---|---|---|---|---|
| **AC** | 179 | 179 | 197 | 197 | 221 | 221 | 261 | 261 | 314 |
| **AD** | 140 | 140 | 157 | 157 | 170 | 170 | 228 | 228 | 253 |
| **ADS** | 150 | 150 | 158 | 158 | 172 | 172 | 228 | 228 | 253 |
| **L** | 497 | 529 | 525 | 575 | 606 | 656 | 674 | 700 | 766 |
| **LS** | 590 | 622 | 619 | 669 | 718 | 768 | 812 | 837 | 955 |
| **LB** | 270 | 302 | 298 | 348 | 379 | 429 | 447 | 473 | 539 |
| **LBS** | 363 | 395 | 392 | 442 | 491 | 541 | 585 | 610 | 728 |

21284997/EN – 03/2015

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**RX87..**

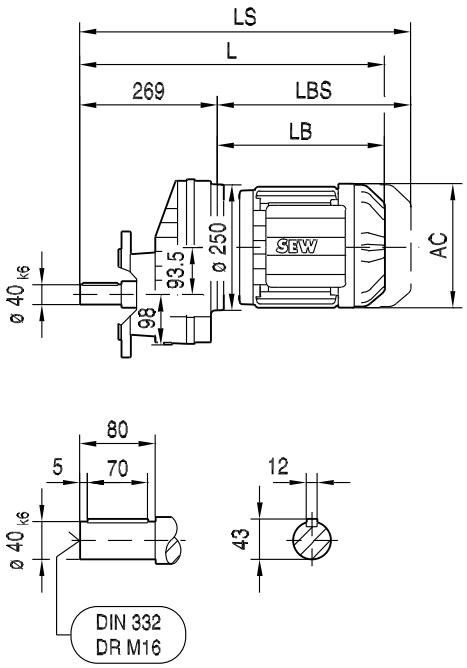


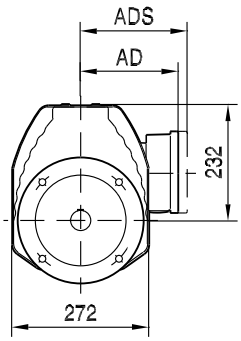

| (→ 142) | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M | DRN160L | DRN180.. |
|---|---|---|---|---|---|---|---|---|
| **AC** | 197 | 221 | 221 | 261 | 261 | 314 | 314 | 357 |
| **AD** | 157 | 170 | 170 | 228 | 228 | 253 | 253 | 268 |
| **ADS** | 158 | 172 | 172 | 228 | 228 | 253 | 253 | 268 |
| **L** | 612 | 643 | 693 | 711 | 737 | 803 | 803 | 826 |
| **LS** | 706 | 755 | 805 | 849 | 874 | 992 | 992 | 1015 |
| **LB** | 343 | 374 | 424 | 442 | 468 | 534 | 534 | 557 |
| **LBS** | 437 | 486 | 536 | 580 | 605 | 723 | 723 | 746 |

21284997/EN – 03/2015

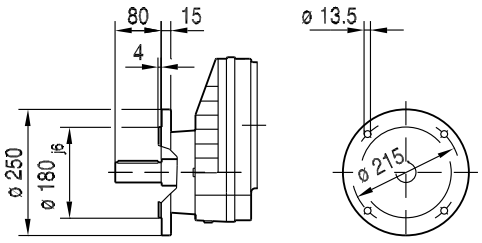
01 011 00 14

## RXF87..

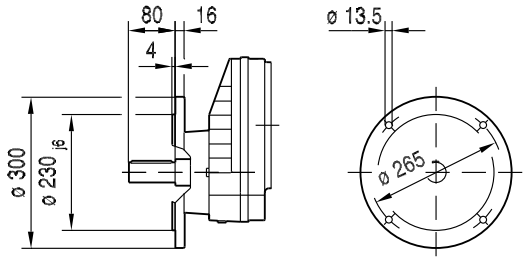



### ø 250




### ø 300

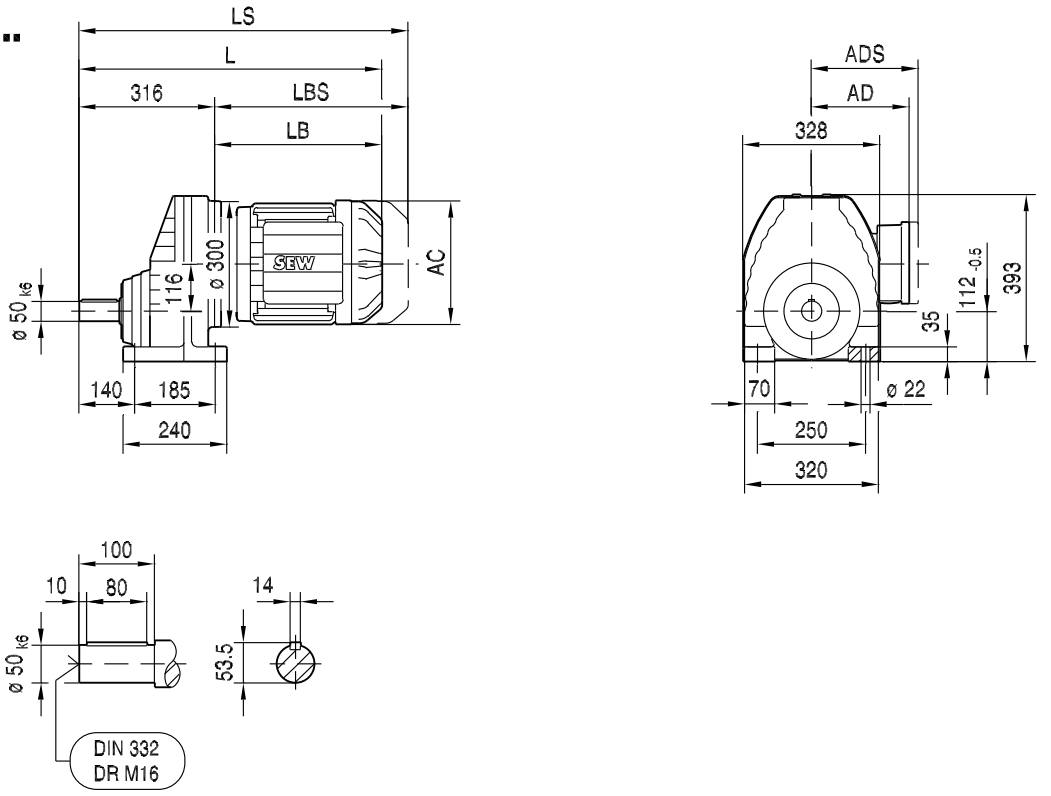



| (→ 142) | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M | DRN160L | DRN180.. |
|---|---|---|---|---|---|---|---|---|
| **AC** | 197 | 221 | 221 | 261 | 261 | 314 | 314 | 357 |
| **AD** | 157 | 170 | 170 | 228 | 228 | 253 | 253 | 268 |
| **ADS** | 158 | 172 | 172 | 228 | 228 | 253 | 253 | 268 |
| **L** | 612 | 643 | 693 | 711 | 737 | 803 | 803 | 826 |
| **LS** | 706 | 755 | 805 | 849 | 874 | 992 | 992 | 1015 |
| **LB** | 343 | 374 | 424 | 442 | 468 | 534 | 534 | 557 |
| **LBS** | 437 | 486 | 536 | 580 | 605 | 723 | 723 | 746 |

21284997/EN – 03/2015

01 012 00 14

**RX97..**

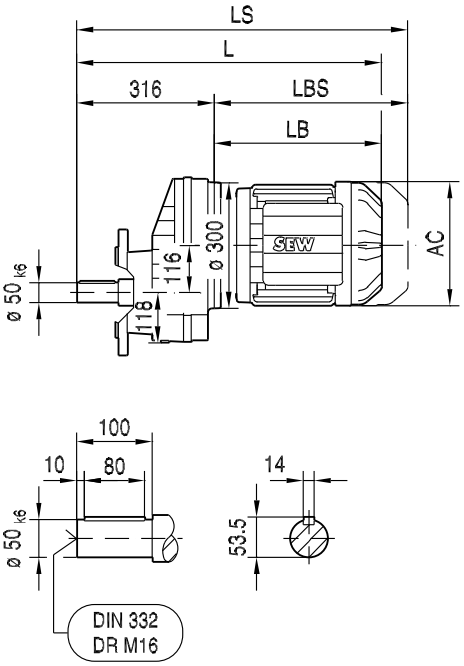


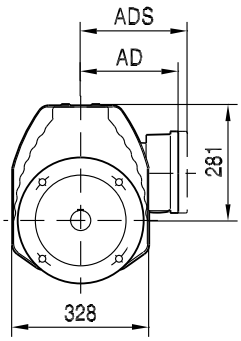

| (→ 142) | DRN132S | DRN132M | DRN132L | DRN160M | DRN160L | DRN180.. | DRN200L | |
|---|---|---|---|---|---|---|---|---|
| **AC** | 221 | 261 | 261 | 314 | 314 | 357 | 394 | |
| **AD** | 170 | 228 | 228 | 253 | 253 | 268 | 283 | |
| **ADS** | 172 | 228 | 228 | 253 | 253 | 268 | 283 | |
| **L** | 735 | 753 | 779 | 845 | 845 | 868 | 978 | |
| **LS** | 847 | 891 | 916 | 1034 | 1034 | 1057 | 1183 | |
| **LB** | 419 | 437 | 463 | 529 | 529 | 552 | 662 | |
| **LBS** | 531 | 575 | 600 | 718 | 718 | 741 | 867 | |

21284997/EN – 03/2015

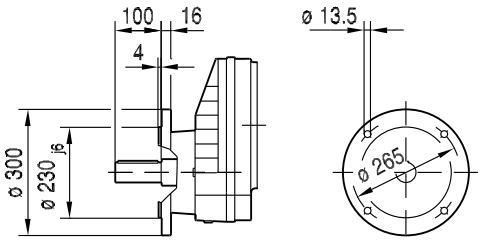
01 013 00 14

## RXF97..

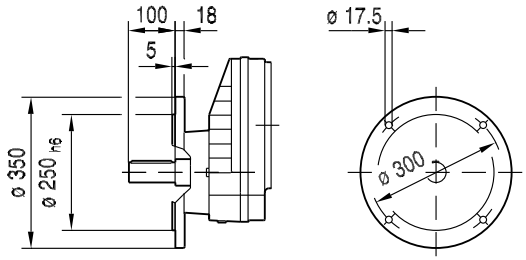



### ø 300




### ø 350

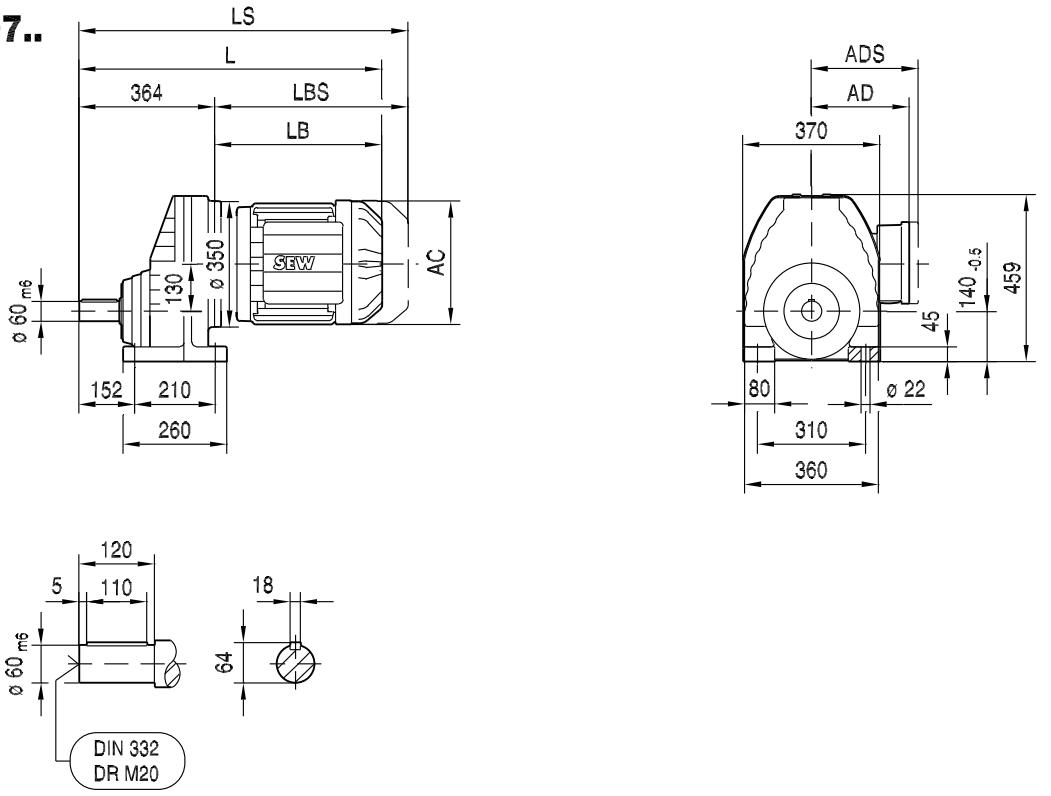



| (→ 142) | DRN132S | DRN132M | DRN132L | DRN160M | DRN160L | DRN180.. | DRN200L | |
|---|---|---|---|---|---|---|---|---|
| **AC** | 221 | 261 | 261 | 314 | 314 | 357 | 394 | |
| **AD** | 170 | 228 | 228 | 253 | 253 | 268 | 283 | |
| **ADS** | 172 | 228 | 228 | 253 | 253 | 268 | 283 | |
| **L** | 735 | 753 | 779 | 845 | 845 | 868 | 978 | |
| **LS** | 847 | 891 | 916 | 1034 | 1034 | 1057 | 1183 | |
| **LB** | 419 | 437 | 463 | 529 | 529 | 552 | 662 | |
| **LBS** | 531 | 575 | 600 | 718 | 718 | 741 | 867 | |

21284997/EN – 03/2015

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**RX107..**

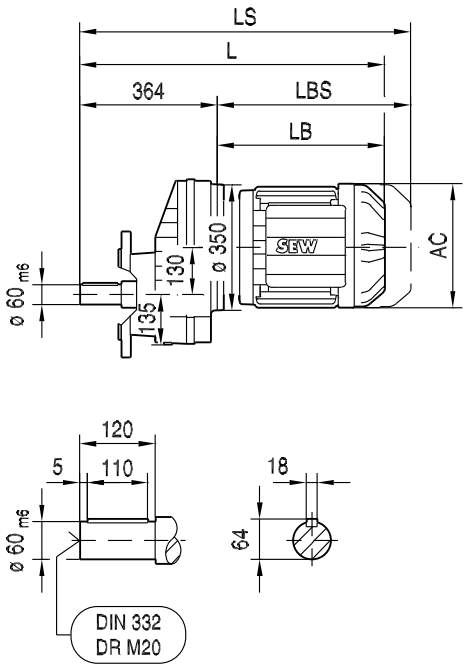


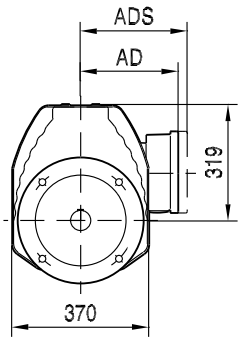

| (→ 142) | DRN132S | DRN132M | DRN132L | DRN160M | DRN160L | DRN180.. | DRN200L | DRN225.. |
|---|---|---|---|---|---|---|---|---|
| **AC** | 221 | 261 | 261 | 314 | 314 | 357 | 394 | 434 |
| **AD** | 170 | 228 | 228 | 253 | 253 | 268 | 283 | 305 |
| **ADS** | 172 | 228 | 228 | 253 | 253 | 268 | 283 | 305 |
| **L** | 777 | 795 | 821 | 887 | 887 | 910 | 1020 | 994 |
| **LS** | 889 | 933 | 958 | 1076 | 1076 | 1099 | 1225 | 1199 |
| **LB** | 413 | 431 | 457 | 523 | 523 | 546 | 656 | 630 |
| **LBS** | 525 | 569 | 594 | 712 | 712 | 735 | 861 | 835 |

21284997/EN – 03/2015

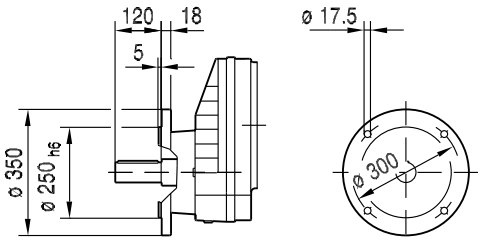
01 015 00 14

## RXF107..

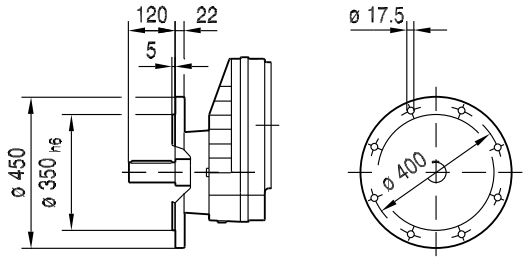



### ø 350




### ø 450



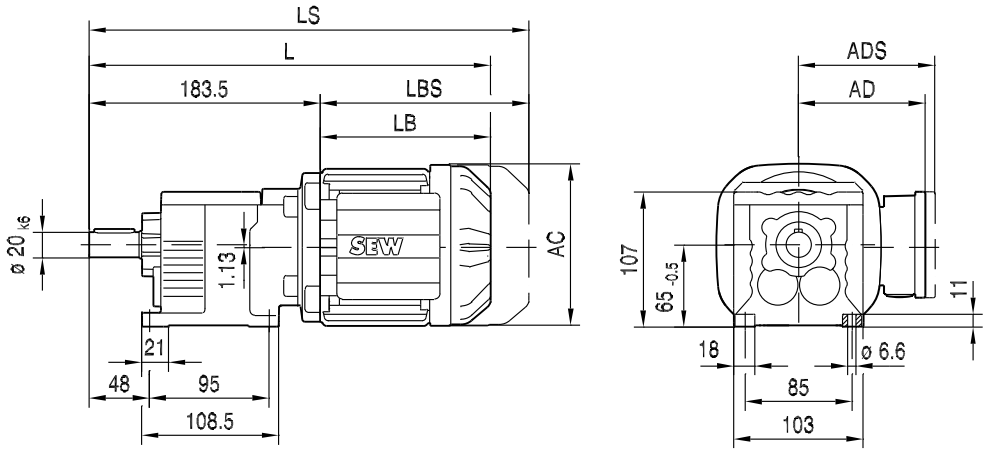

| (→ 142) | DRN132S | DRN132M | DRN132L | DRN160M | DRN160L | DRN180.. | DRN200L | DRN225.. |
|---|---|---|---|---|---|---|---|---|
| **AC** | 221 | 261 | 261 | 314 | 314 | 357 | 394 | 434 |
| **AD** | 170 | 228 | 228 | 253 | 253 | 268 | 283 | 305 |
| **ADS** | 172 | 228 | 228 | 253 | 253 | 268 | 283 | 305 |
| **L** | 777 | 795 | 821 | 887 | 887 | 910 | 1020 | 994 |
| **LS** | 889 | 933 | 958 | 1076 | 1076 | 1099 | 1225 | 1199 |
| **LB** | 413 | 431 | 457 | 523 | 523 | 546 | 656 | 630 |
| **LBS** | 525 | 569 | 594 | 712 | 712 | 735 | 861 | 835 |

21284997/EN – 03/2015

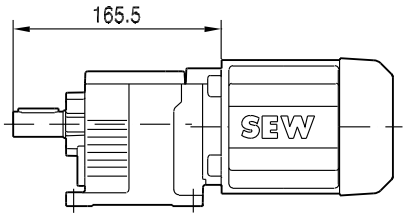
01 016 00 14

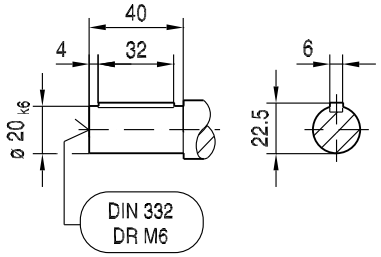
**R07..**

**DR..**

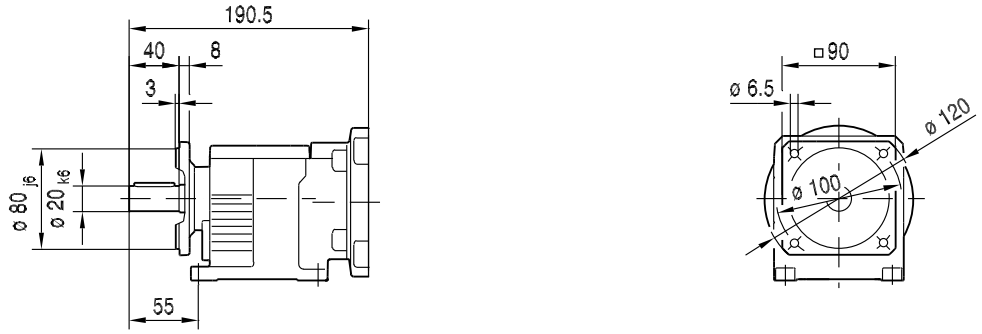



**DT56..**




**R07F..**



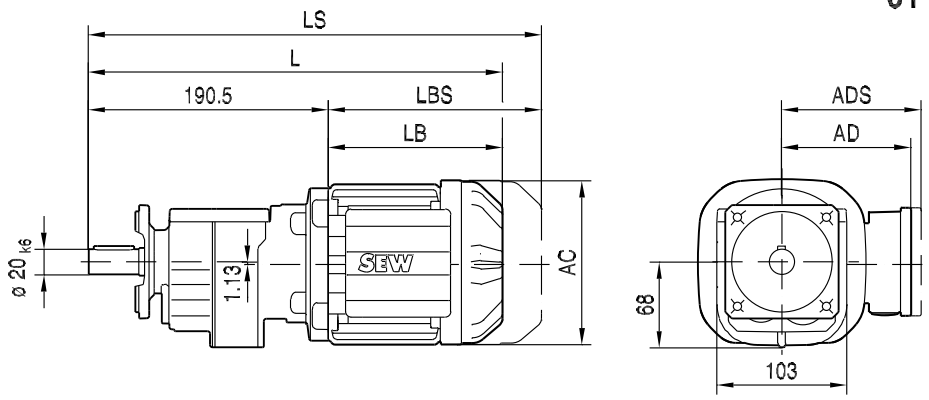

| (→ 142) | DT56.. | DR63.. | DR71S | DR71M | | | | |
|---|---|---|---|---|---|---|---|---|
| **AC** | 109 | 132 | 139 | 139 | | | | |
| **AD** | 87 | 105 | 119 | 119 | | | | |
| **ADS** | 87 | 105 | 129 | 129 | | | | |
| **L** | 302 | 333 | 344 | 369 | | | | |
| **LS** | 338 | 388 | 412 | 437 | | | | |
| **LB** | 136 | 149 | 160 | 185 | | | | |
| **LBS** | 172 | 204 | 228 | 253 | | | | |

21284997/EN – 03/2015

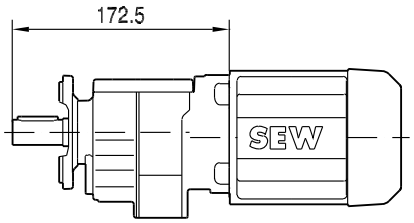
01 017 00 14

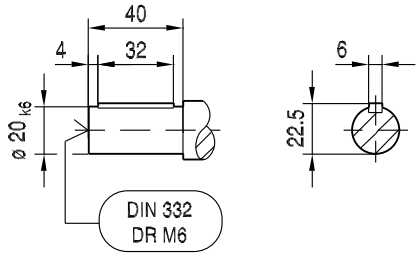
**RF07..**

**DR..**

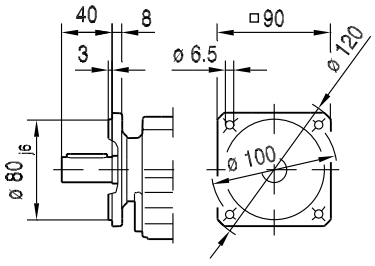



**DT56..**

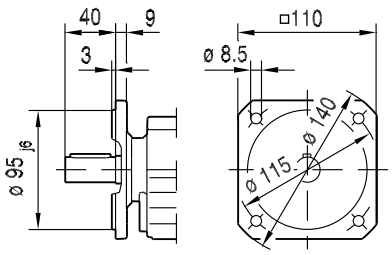


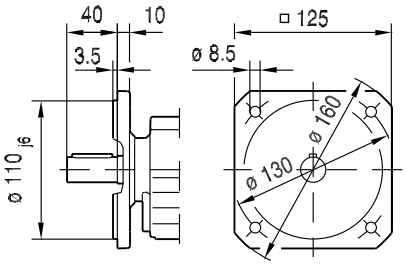

**ø 120**




**ø 140**




**ø 160**



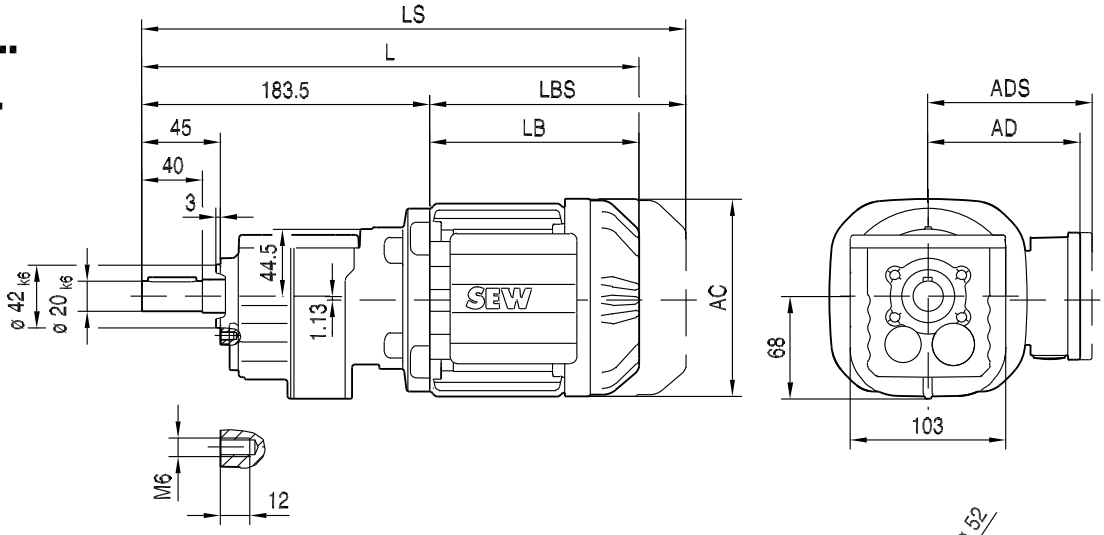

| (→ 142) | DT56.. | DR63.. | DR71S | DR71M | | | | |
|---|---|---|---|---|---|---|---|---|
| **AC** | 109 | 132 | 139 | 139 | | | | |
| **AD** | 87 | 105 | 119 | 119 | | | | |
| **ADS** | 87 | 105 | 129 | 129 | | | | |
| **L** | 309 | 340 | 351 | 376 | | | | |
| **LS** | 345 | 395 | 419 | 444 | | | | |
| **LB** | 136 | 149 | 160 | 185 | | | | |
| **LBS** | 172 | 204 | 228 | 253 | | | | |

21284997/EN – 03/2015

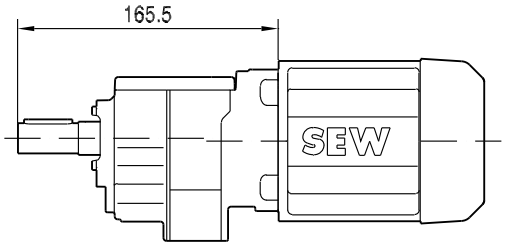
01 018 00 14

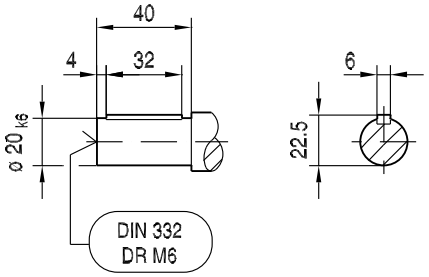
**RZ07..**

**DR..**




**DT56..**



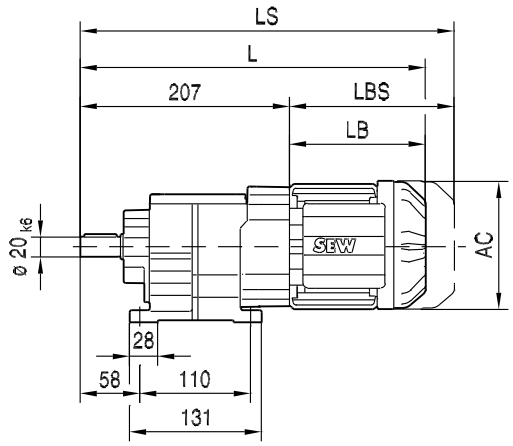



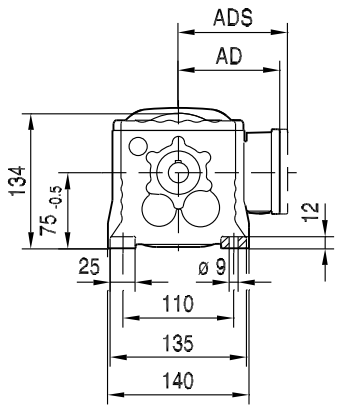

| (→ 142) | DT56.. | DR63.. | DR71S | DR71M | | | | |
|---|---|---|---|---|---|---|---|---|
| **AC** | 109 | 132 | 139 | 139 | | | | |
| **AD** | 87 | 105 | 119 | 119 | | | | |
| **ADS** | 87 | 105 | 129 | 129 | | | | |
| **L** | 302 | 333 | 344 | 369 | | | | |
| **LS** | 338 | 388 | 412 | 437 | | | | |
| **LB** | 136 | 149 | 160 | 185 | | | | |
| **LBS** | 172 | 204 | 228 | 253 | | | | |

21284997/EN – 03/2015

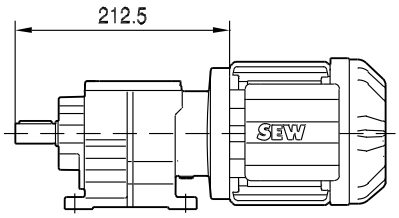
01 019 00 14

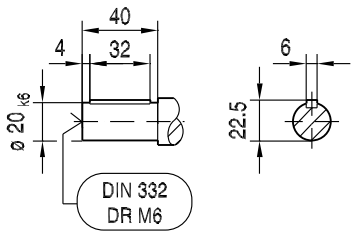
## R17..



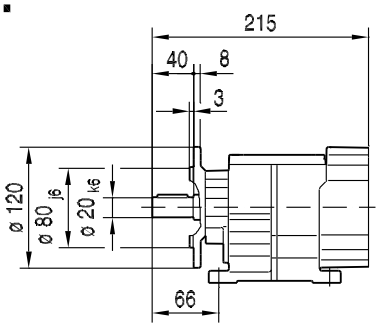



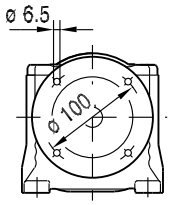

## DR80..



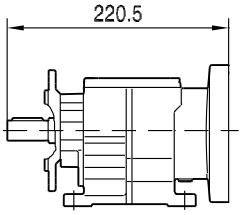




## R17F..



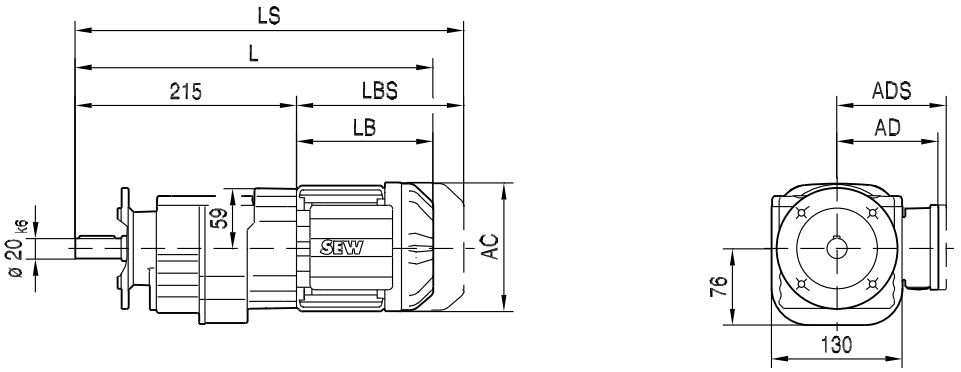

## DR80..



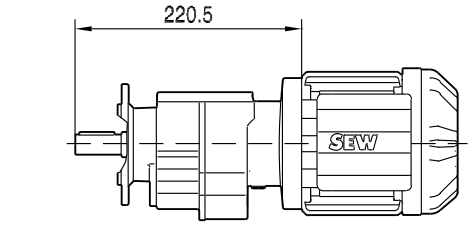

| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | | | | |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | | | | |
| **AD** | 105 | 119 | 119 | 128 | | | | |
| **ADS** | 105 | 129 | 129 | 139 | | | | |
| **L** | 356 | 367 | 392 | 442 | | | | |
| **LS** | 411 | 435 | 460 | 523 | | | | |
| **LB** | 149 | 160 | 185 | 235 | | | | |
| **LBS** | 204 | 228 | 253 | 316 | | | | |

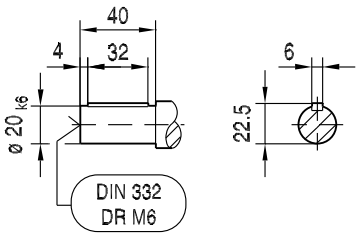
01 020 00 14

**RF17..**

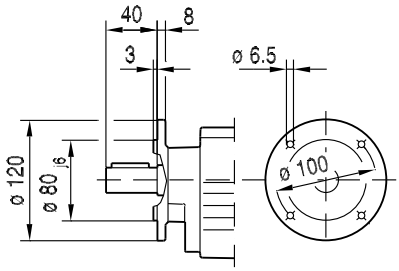



**DR80..**

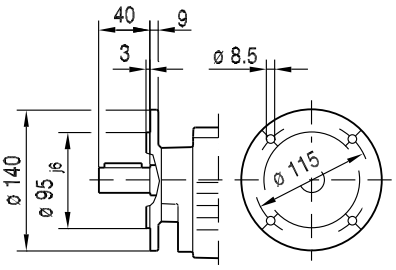


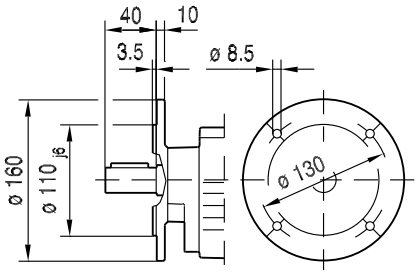

**ø 120**




**ø 140**




**ø 160**

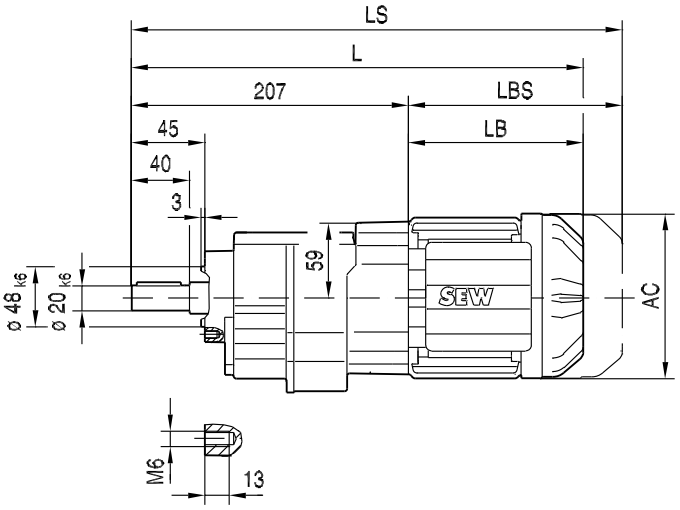


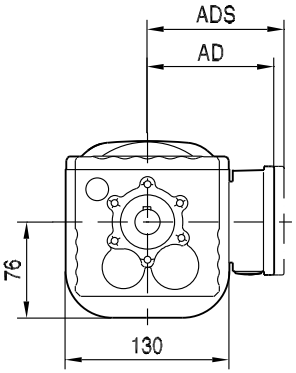

| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | | | | |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | | | | |
| **AD** | 105 | 119 | 119 | 128 | | | | |
| **ADS** | 105 | 129 | 129 | 139 | | | | |
| **L** | 364 | 375 | 400 | 450 | | | | |
| **LS** | 419 | 443 | 468 | 531 | | | | |
| **LB** | 149 | 160 | 185 | 235 | | | | |
| **LBS** | 204 | 228 | 253 | 316 | | | | |

21284997/EN – 03/2015

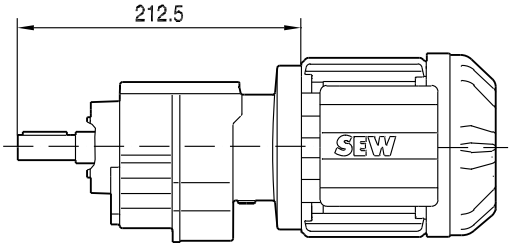
01 021 00 14

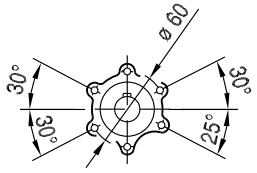
## RZ17..

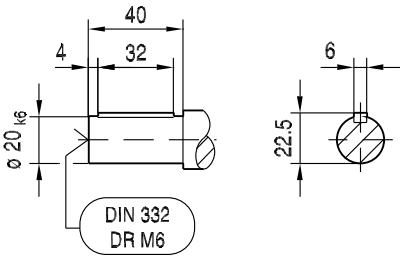



## DR80..



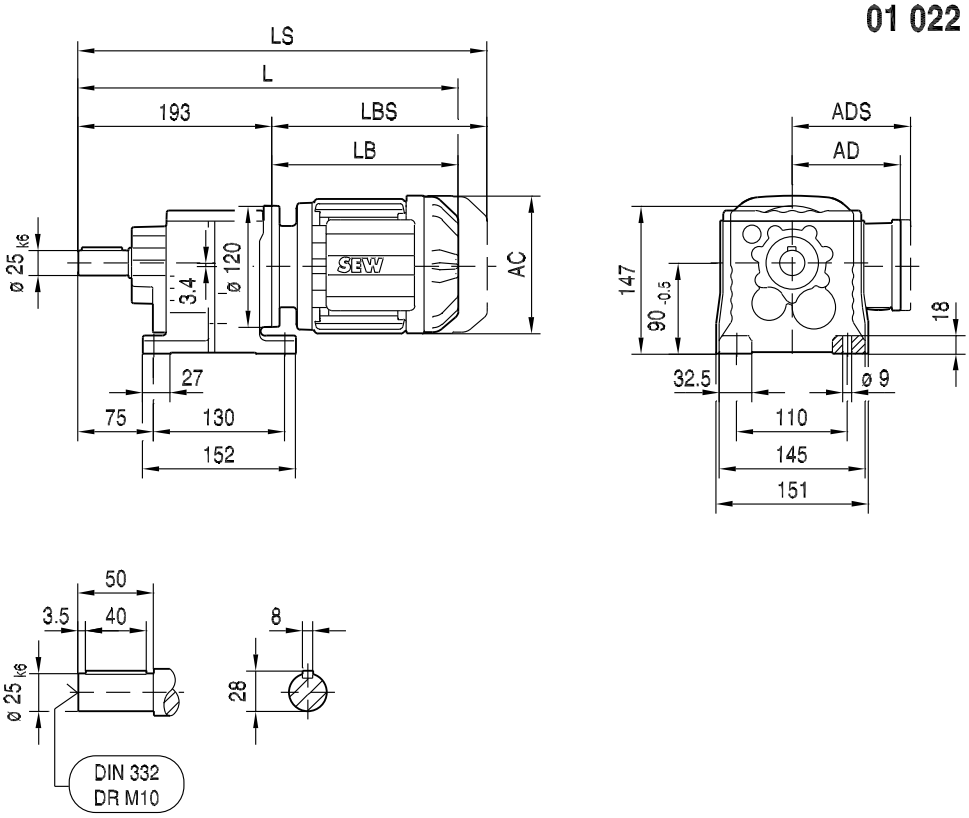




| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | | | | |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | | | | |
| **AD** | 105 | 119 | 119 | 128 | | | | |
| **ADS** | 105 | 129 | 129 | 139 | | | | |
| **L** | 356 | 367 | 392 | 442 | | | | |
| **LS** | 411 | 435 | 460 | 523 | | | | |
| **LB** | 149 | 160 | 185 | 235 | | | | |
| **LBS** | 204 | 228 | 253 | 316 | | | | |

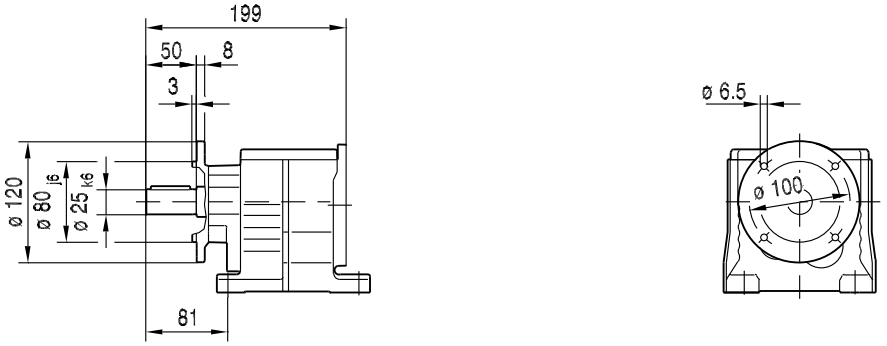
21284997/EN – 03/2015

01 022 00 14

## R27..




## R27F..

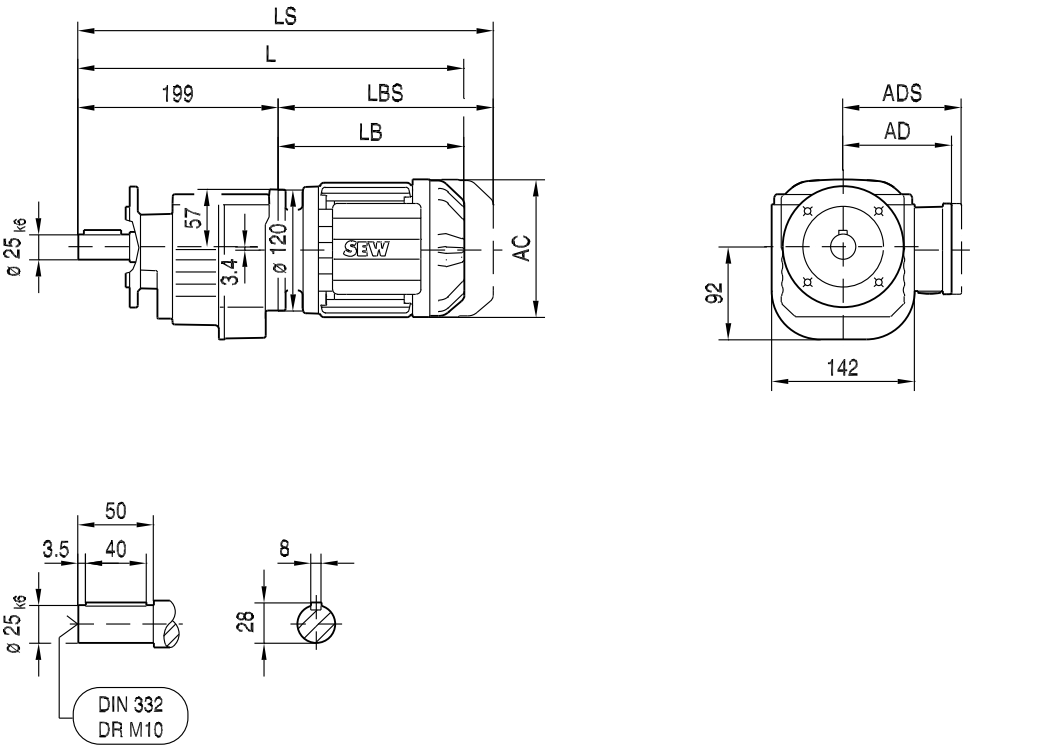



| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 |
| **L** | 384 | 395 | 420 | 475 | 476 | 508 | 507 | 557 |
| **LS** | 439 | 463 | 488 | 556 | 570 | 602 | 601 | 651 |
| **LB** | 191 | 202 | 227 | 282 | 283 | 315 | 314 | 364 |
| **LBS** | 246 | 270 | 295 | 363 | 377 | 409 | 408 | 458 |

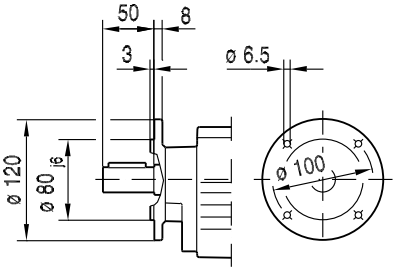
21284997/EN – 03/2015

01 023 00 14

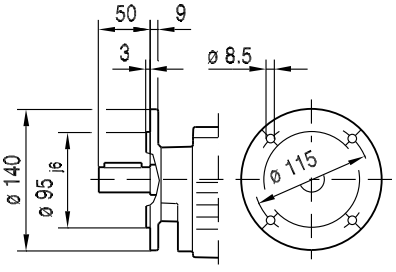
## RF27..



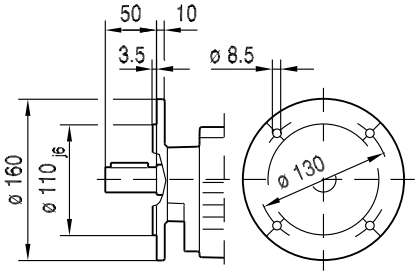

### ø 120




### ø 140

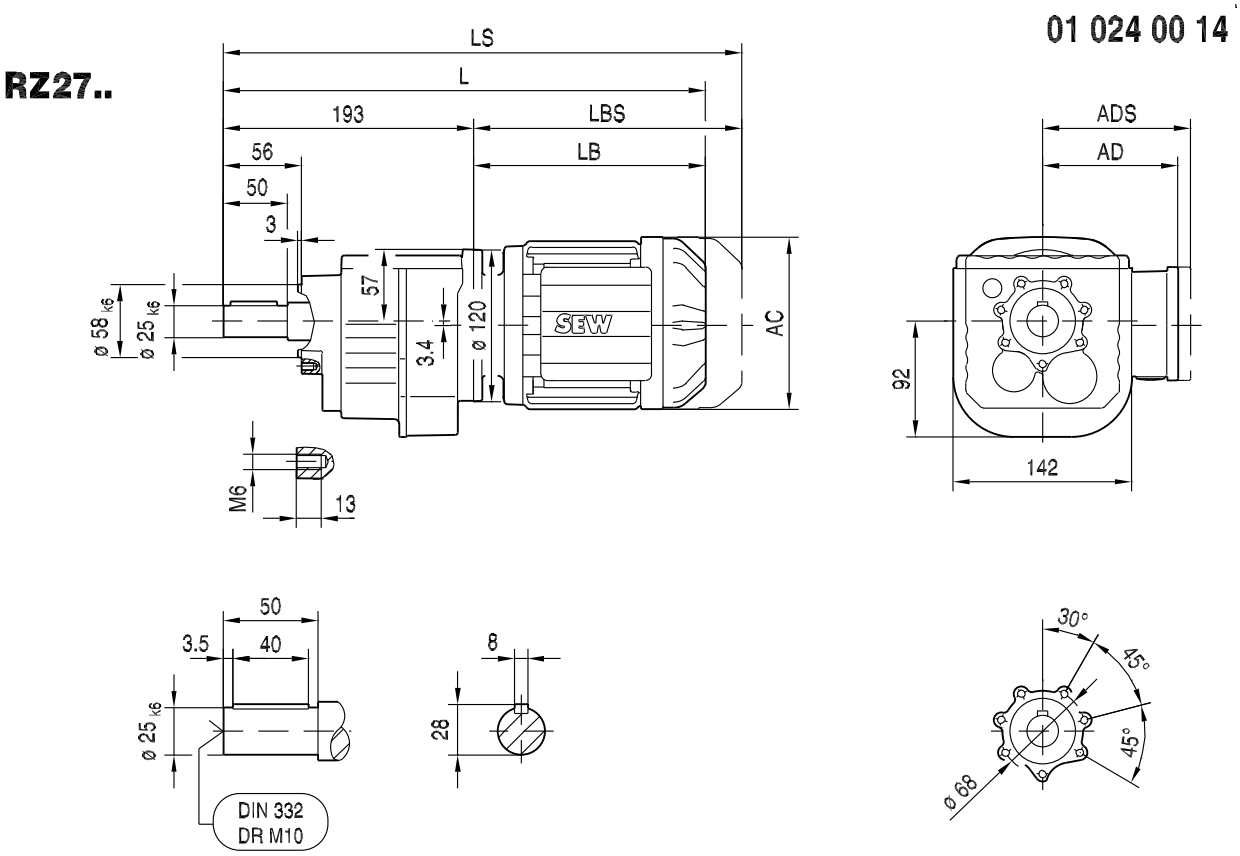



### ø 160




| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 |
| **L** | 390 | 401 | 426 | 481 | 482 | 514 | 513 | 563 |
| **LS** | 445 | 469 | 494 | 562 | 576 | 608 | 607 | 657 |
| **LB** | 191 | 202 | 227 | 282 | 283 | 315 | 314 | 364 |
| **LBS** | 246 | 270 | 295 | 363 | 377 | 409 | 408 | 458 |

21284997/EN – 03/2015

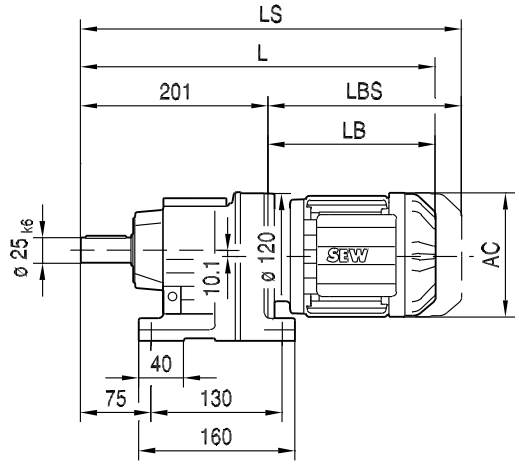


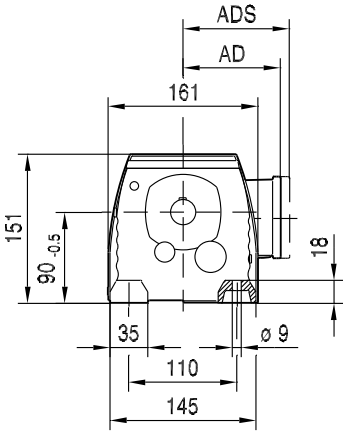

| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 |
| **L** | 384 | 395 | 420 | 475 | 476 | 508 | 507 | 557 |
| **LS** | 439 | 463 | 488 | 556 | 570 | 602 | 601 | 651 |
| **LB** | 191 | 202 | 227 | 282 | 283 | 315 | 314 | 364 |
| **LBS** | 246 | 270 | 295 | 363 | 377 | 409 | 408 | 458 |

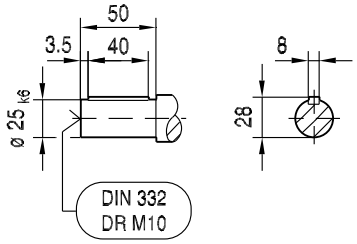
21284997/EN – 03/2015

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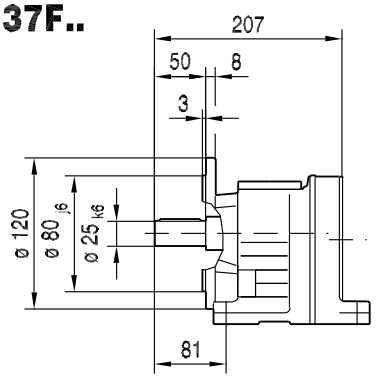
## R37..

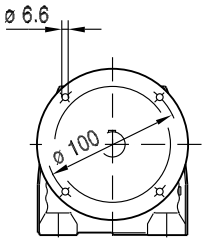



## R37F..



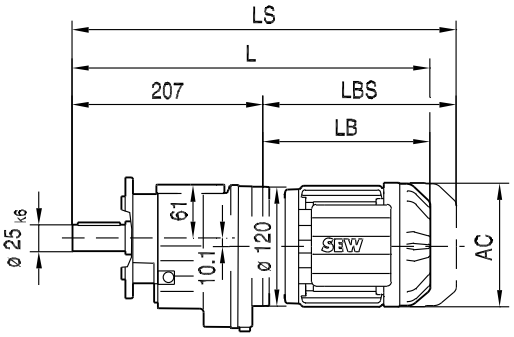



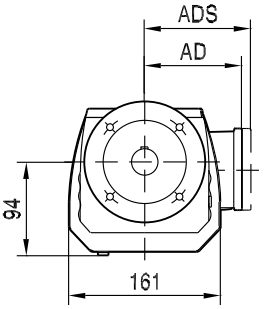

| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 |
| **L** | 392 | 403 | 428 | 483 | 484 | 516 | 515 | 565 |
| **LS** | 447 | 471 | 496 | 564 | 578 | 610 | 609 | 659 |
| **LB** | 191 | 202 | 227 | 282 | 283 | 315 | 314 | 364 |
| **LBS** | 246 | 270 | 295 | 363 | 377 | 409 | 408 | 458 |

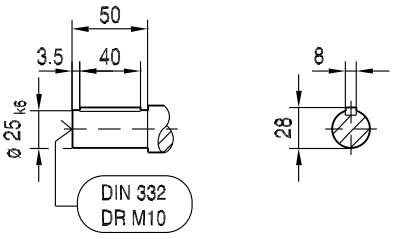
21284997/EN – 03/2015

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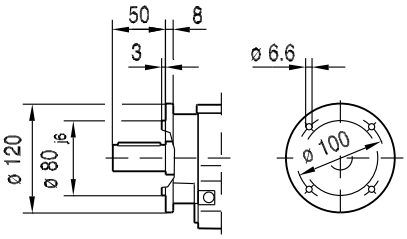
## RF37..



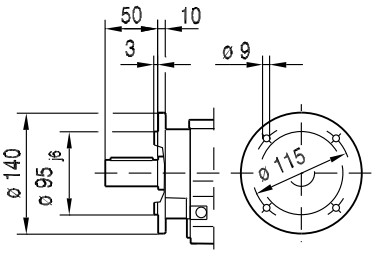



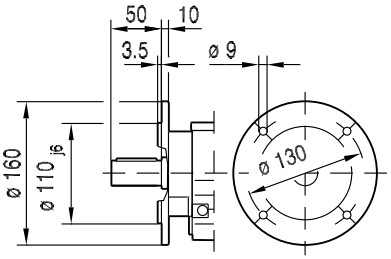

### ø 120



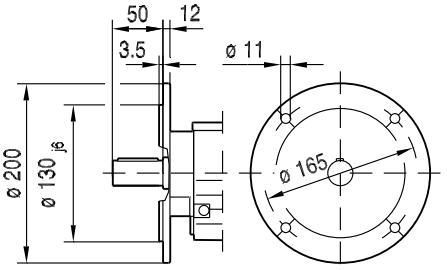

### ø 140




### ø 160




### ø 200

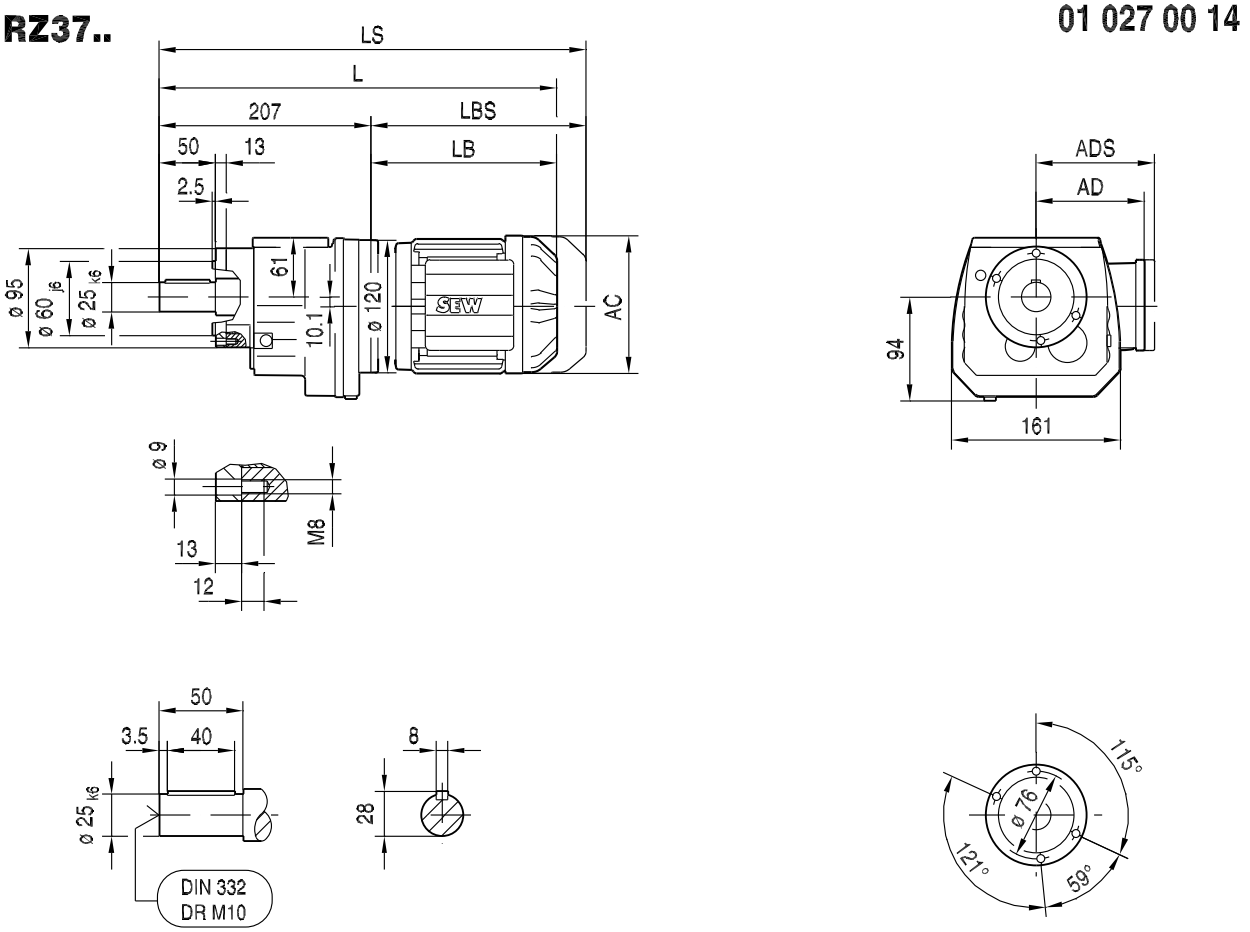



| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 |
| **L** | 398 | 409 | 434 | 489 | 490 | 522 | 521 | 571 |
| **LS** | 453 | 477 | 502 | 570 | 584 | 616 | 615 | 665 |
| **LB** | 191 | 202 | 227 | 282 | 283 | 315 | 314 | 364 |
| **LBS** | 246 | 270 | 295 | 363 | 377 | 409 | 408 | 458 |

21284997/EN – 03/2015

**RZ37..**

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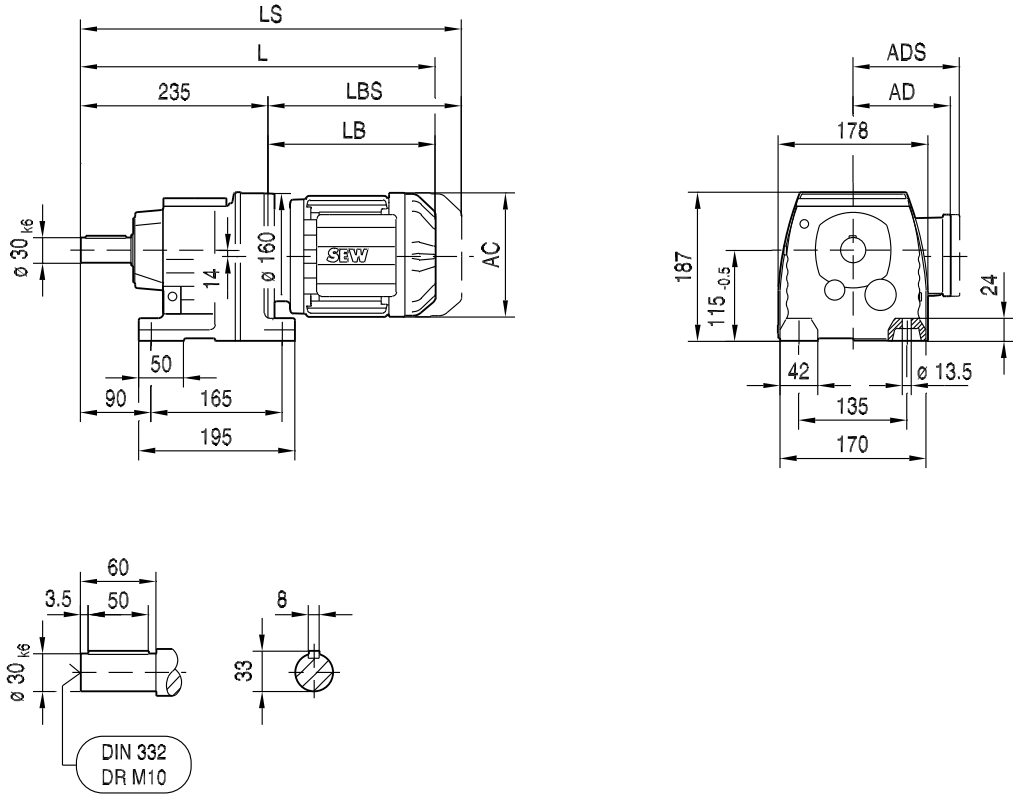



| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 |
| **L** | 398 | 409 | 434 | 489 | 490 | 522 | 521 | 571 |
| **LS** | 453 | 477 | 502 | 570 | 584 | 616 | 615 | 665 |
| **LB** | 191 | 202 | 227 | 282 | 283 | 315 | 314 | 364 |
| **LBS** | 246 | 270 | 295 | 363 | 377 | 409 | 408 | 458 |

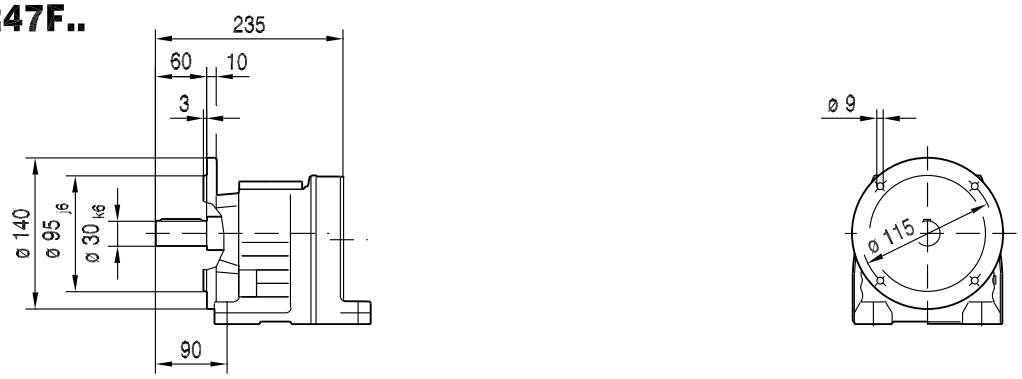
21284997/EN – 03/2015

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## R47..




## R47F..

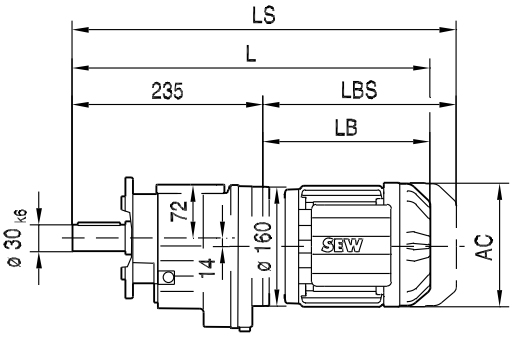


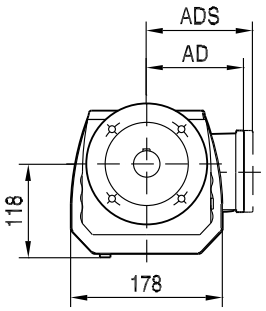

| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 | 221 | 221 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 | 170 | 170 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 | 172 | 172 |
| **L** | 420 | 431 | 456 | 510 | 512 | 544 | 540 | 590 | 621 | 675 |
| **LS** | 475 | 499 | 524 | 591 | 605 | 637 | 634 | 684 | 733 | 787 |
| **LB** | 185 | 196 | 221 | 275 | 277 | 309 | 305 | 355 | 386 | 440 |
| **LBS** | 240 | 264 | 289 | 356 | 370 | 402 | 399 | 449 | 498 | 552 |

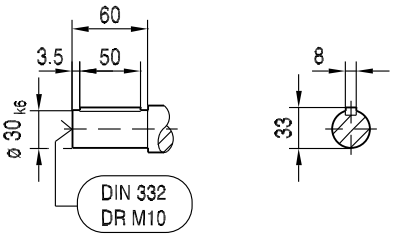
21284997/EN – 03/2015

01 029 00 14

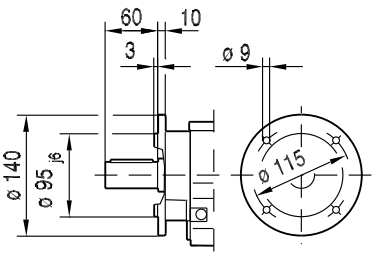
## RF47..



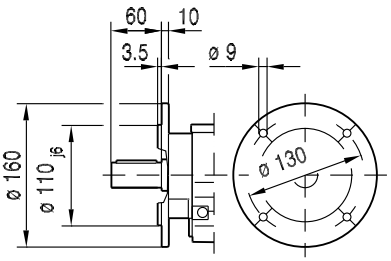



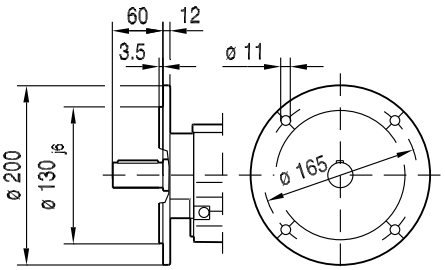

### ø 140




### ø 160




### ø 200

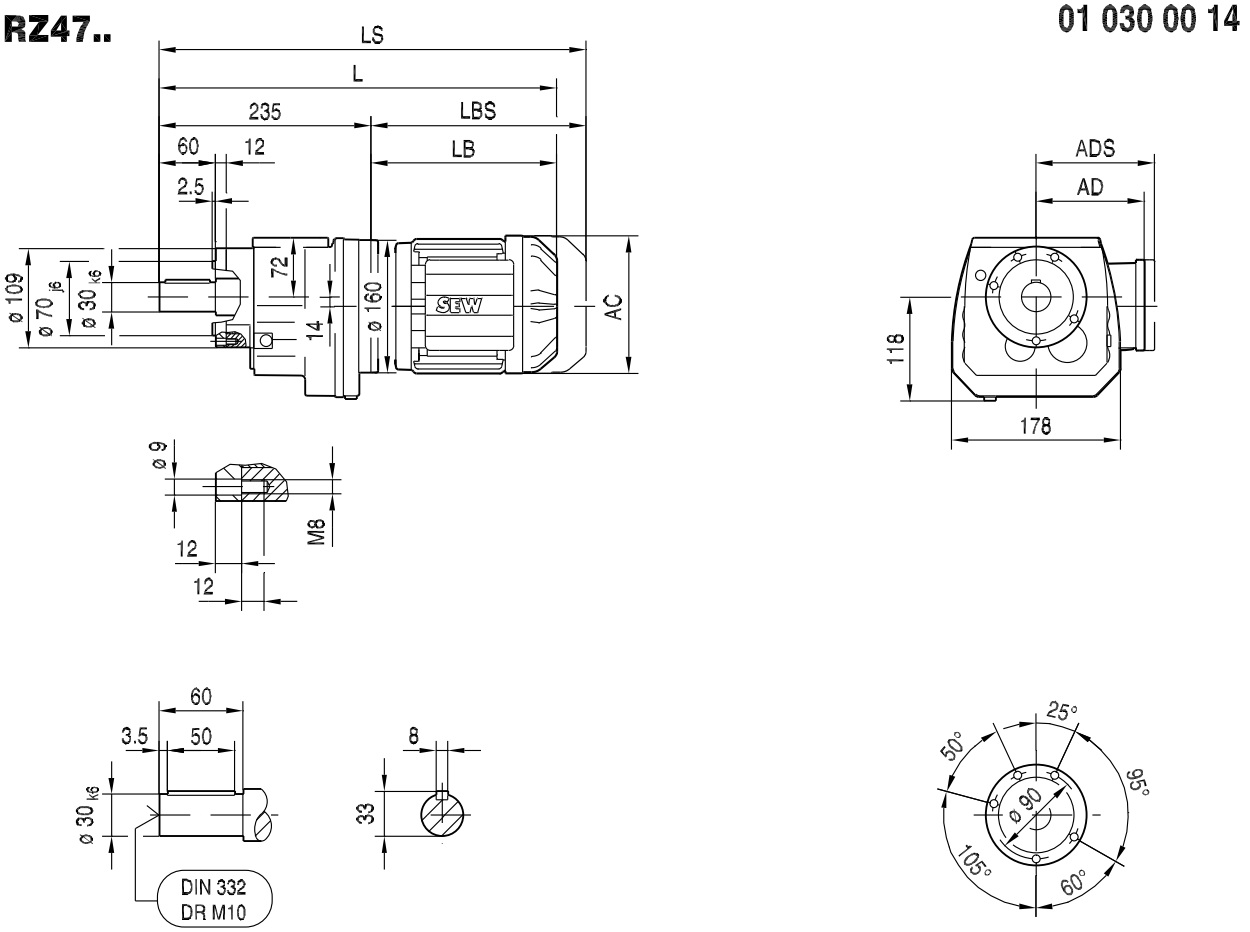



| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 | 221 | 221 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 | 170 | 170 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 | 172 | 172 |
| **L** | 420 | 431 | 456 | 510 | 512 | 544 | 540 | 590 | 621 | 675 |
| **LS** | 475 | 499 | 524 | 591 | 605 | 637 | 634 | 684 | 733 | 787 |
| **LB** | 185 | 196 | 221 | 275 | 277 | 309 | 305 | 355 | 386 | 440 |
| **LBS** | 240 | 264 | 289 | 356 | 370 | 402 | 399 | 449 | 498 | 552 |

21284997/EN – 03/2015

**RZ47..**

01 030 00 14

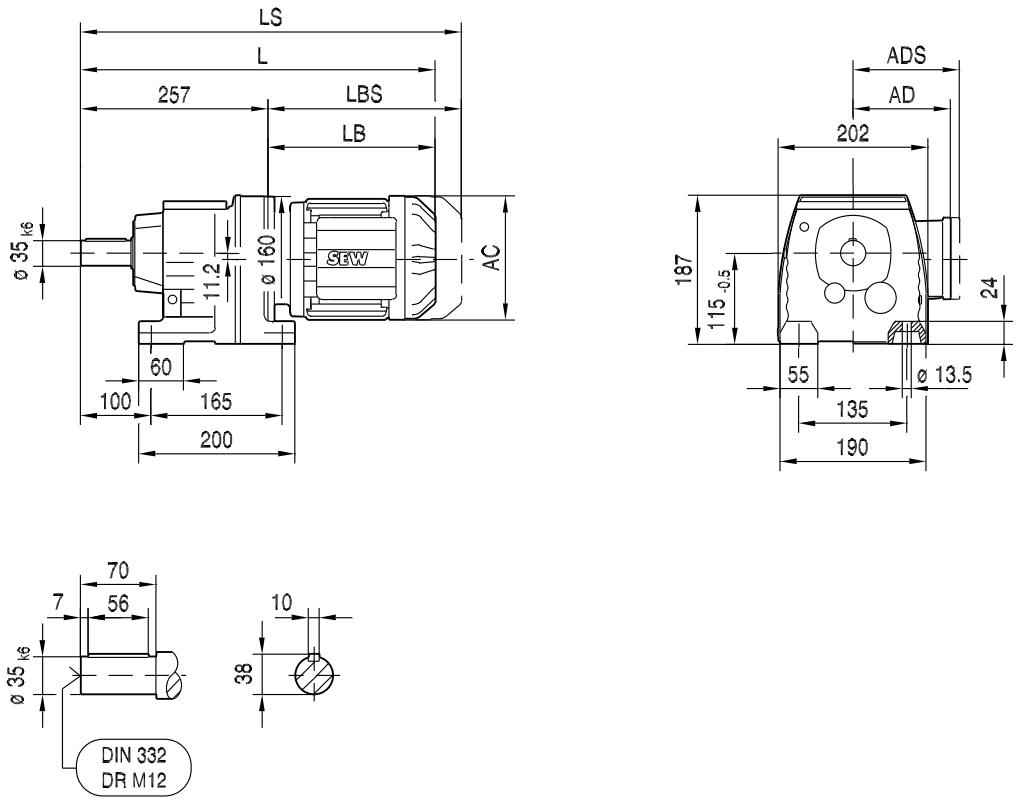



| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 | 221 | 221 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 | 170 | 170 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 | 172 | 172 |
| **L** | 420 | 431 | 456 | 510 | 512 | 544 | 540 | 590 | 621 | 675 |
| **LS** | 475 | 499 | 524 | 591 | 605 | 637 | 634 | 684 | 733 | 787 |
| **LB** | 185 | 196 | 221 | 275 | 277 | 309 | 305 | 355 | 386 | 440 |
| **LBS** | 240 | 264 | 289 | 356 | 370 | 402 | 399 | 449 | 498 | 552 |

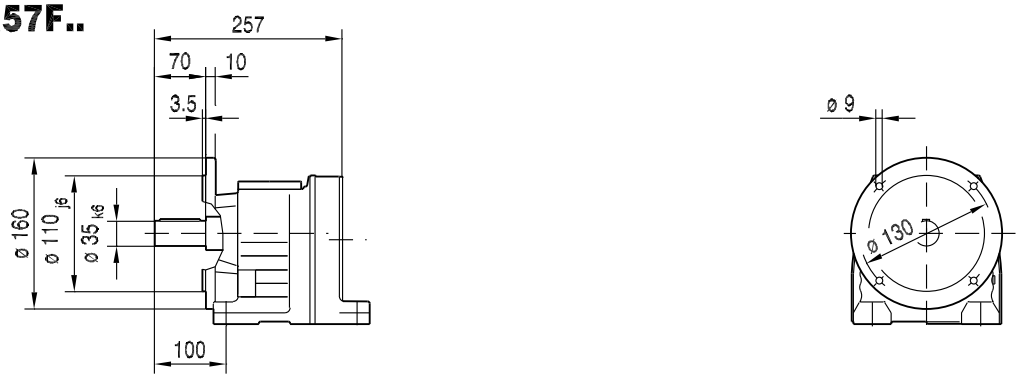
21284997/EN – 03/2015

01 031 00 14

## R57..




## R57F..

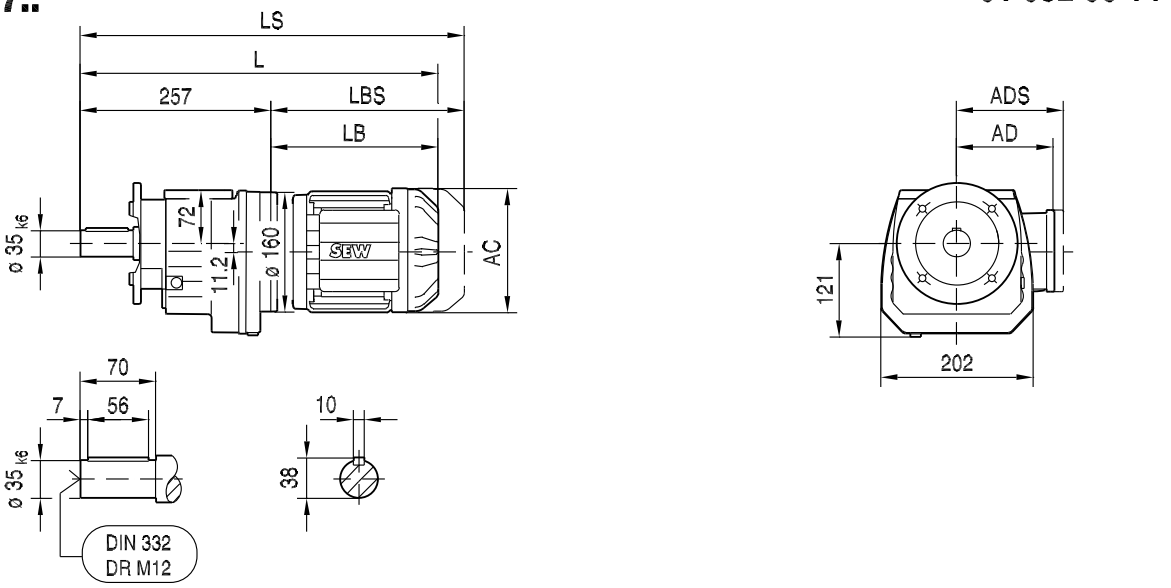


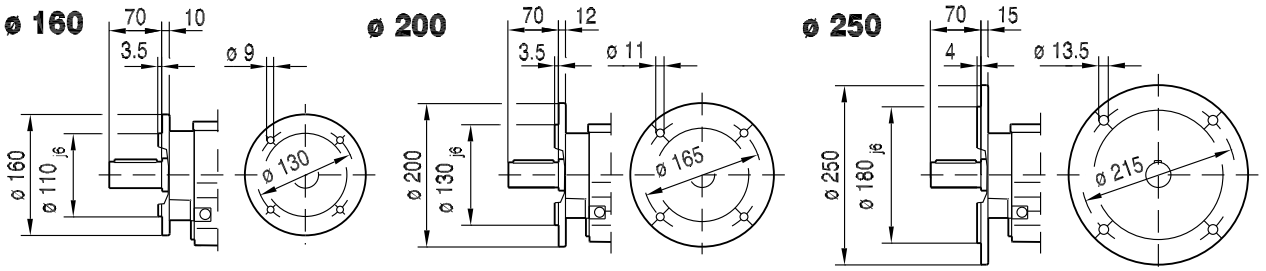

| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 | 221 | 221 | 261 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 | 170 | 170 | 228 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 | 172 | 172 | 228 |
| **L** | 442 | 453 | 478 | 532 | 534 | 566 | 562 | 612 | 643 | 697 | 715 |
| **LS** | 497 | 521 | 546 | 613 | 627 | 659 | 656 | 706 | 755 | 809 | 853 |
| **LB** | 185 | 196 | 221 | 275 | 277 | 309 | 305 | 355 | 386 | 440 | 458 |
| **LBS** | 240 | 264 | 289 | 356 | 370 | 402 | 399 | 449 | 498 | 552 | 596 |

21284997/EN – 03/2015

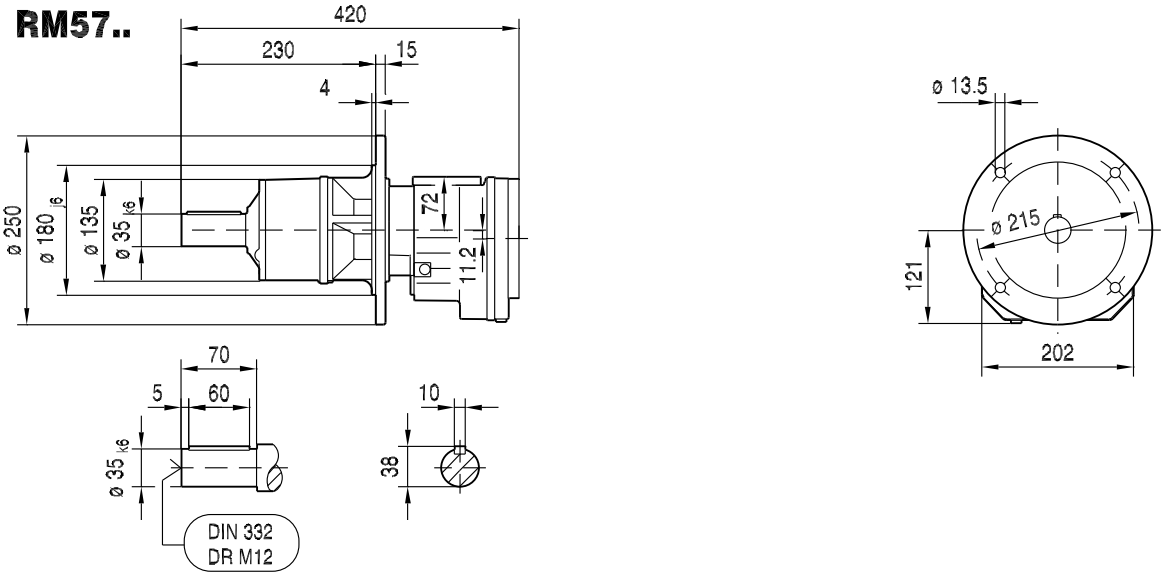
## RF57..

01 032 00 14




## RM57..

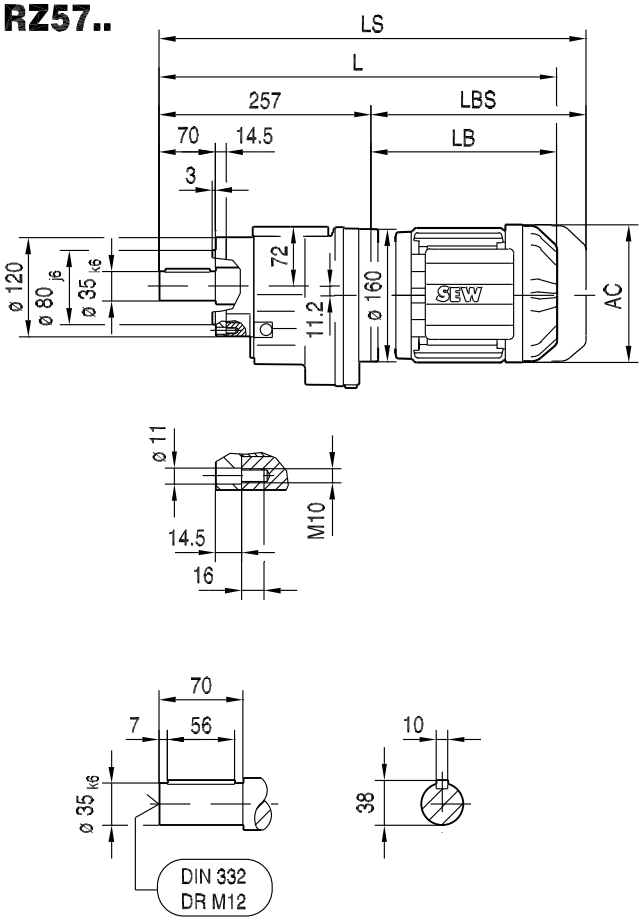


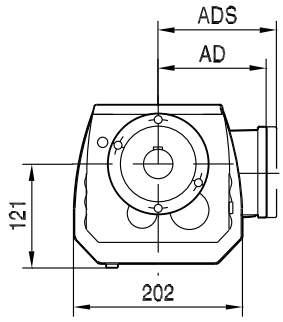

| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 | 221 | 221 | 261 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 | 170 | 170 | 228 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 | 172 | 172 | 228 |
| **L** | 442 | 453 | 478 | 532 | 534 | 566 | 562 | 612 | 643 | 697 | 715 |
| **LS** | 497 | 521 | 546 | 613 | 627 | 659 | 656 | 706 | 755 | 809 | 853 |
| **LB** | 185 | 196 | 221 | 275 | 277 | 309 | 305 | 355 | 386 | 440 | 458 |
| **LBS** | 240 | 264 | 289 | 356 | 370 | 402 | 399 | 449 | 498 | 552 | 596 |

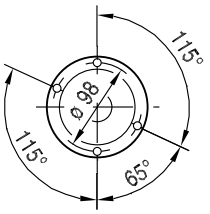
21284997/EN – 03/2015

**RZ57..**

01 033 00 14



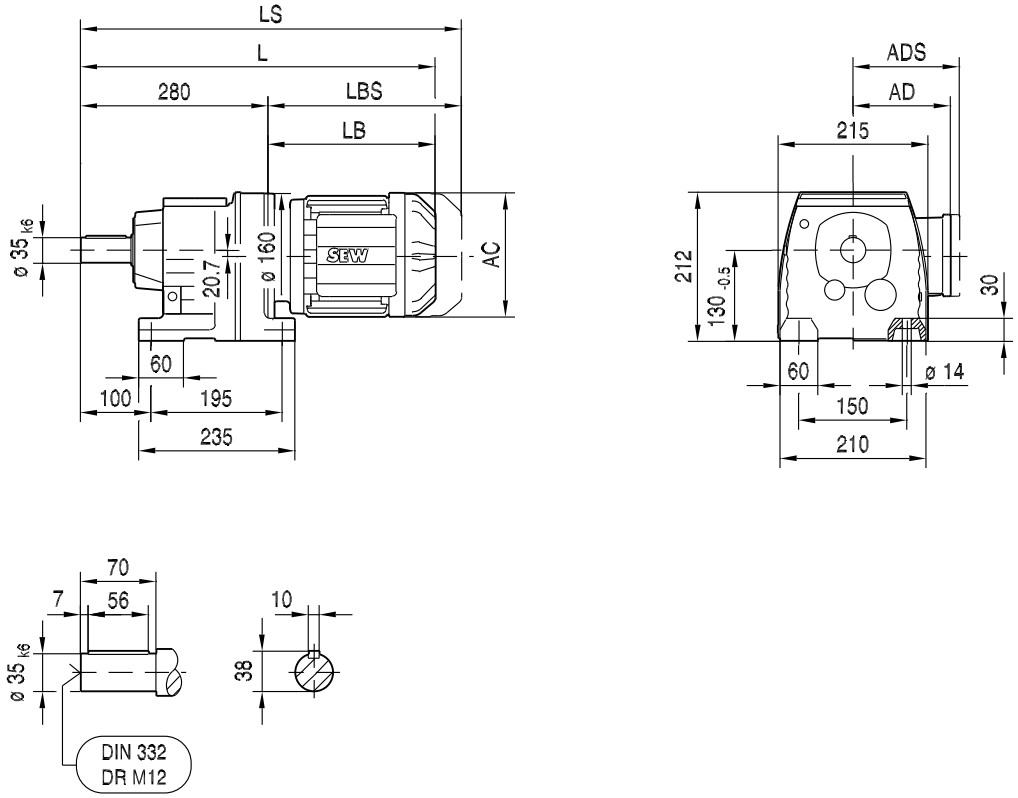




| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 | 221 | 221 | 261 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 | 170 | 170 | 228 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 | 172 | 172 | 228 |
| **L** | 442 | 453 | 478 | 532 | 534 | 566 | 562 | 612 | 643 | 697 | 715 |
| **LS** | 497 | 521 | 546 | 613 | 627 | 659 | 656 | 706 | 755 | 809 | 853 |
| **LB** | 185 | 196 | 221 | 275 | 277 | 309 | 305 | 355 | 386 | 440 | 458 |
| **LBS** | 240 | 264 | 289 | 356 | 370 | 402 | 399 | 449 | 498 | 552 | 596 |

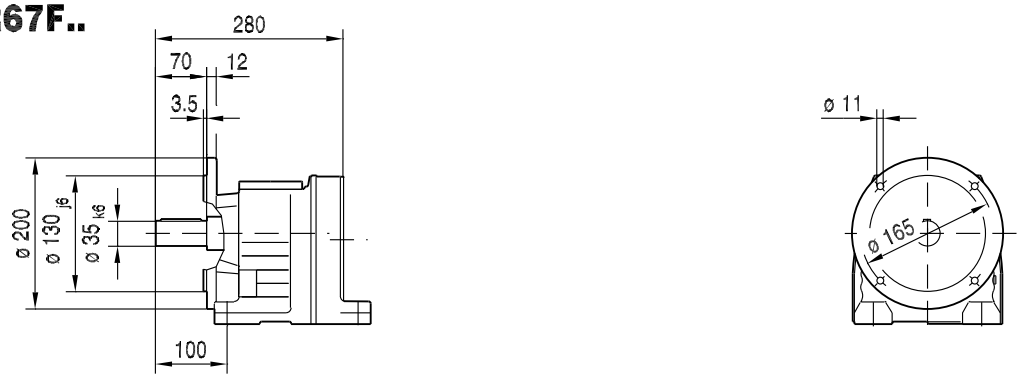
21284997/EN – 03/2015

01 034 00 14

## R67..




## R67F..

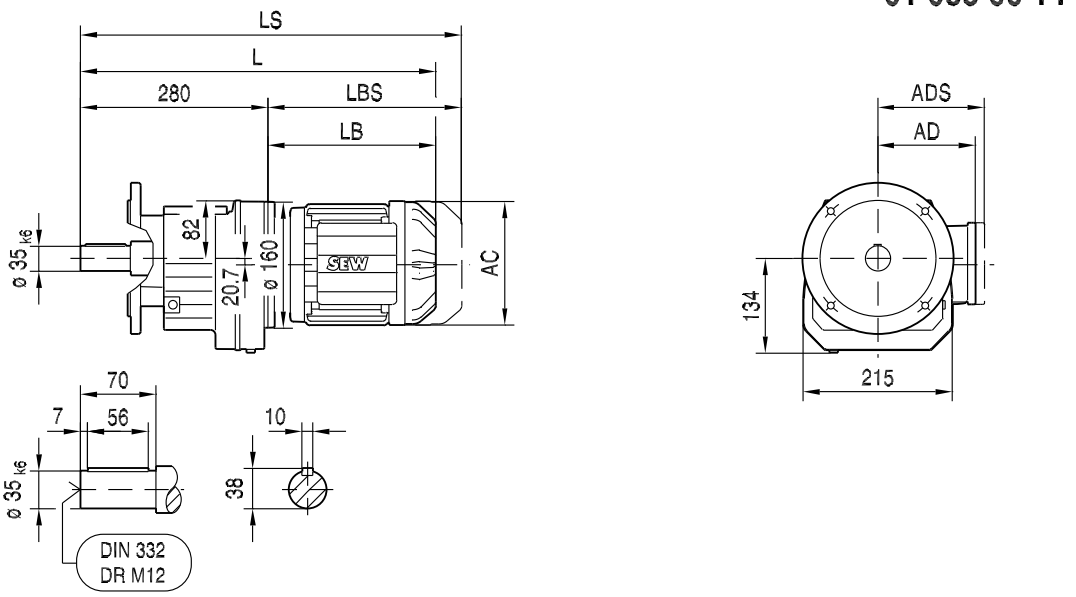



| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 | 221 | 221 | 261 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 | 170 | 170 | 228 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 | 172 | 172 | 228 |
| **L** | 465 | 476 | 501 | 555 | 557 | 589 | 585 | 635 | 666 | 720 | 738 |
| **LS** | 520 | 544 | 569 | 636 | 650 | 682 | 679 | 729 | 778 | 832 | 876 |
| **LB** | 185 | 196 | 221 | 275 | 277 | 309 | 305 | 355 | 386 | 440 | 458 |
| **LBS** | 240 | 264 | 289 | 356 | 370 | 402 | 399 | 449 | 498 | 552 | 596 |

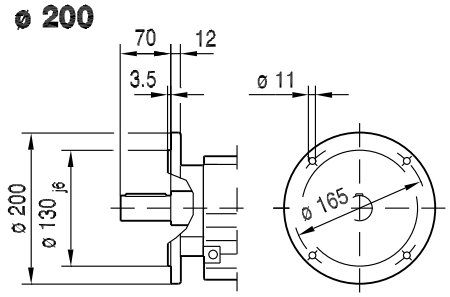
21284997/EN – 03/2015

01 035 00 14

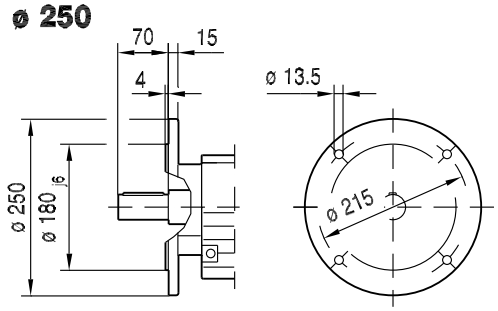
## RF67..



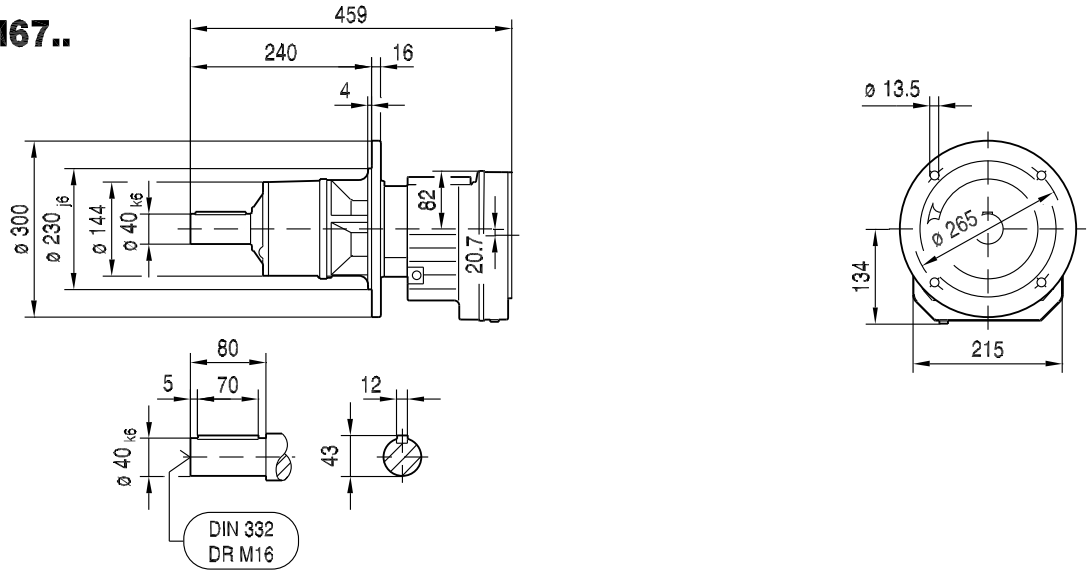

## ø 200




## ø 250




## RM67..

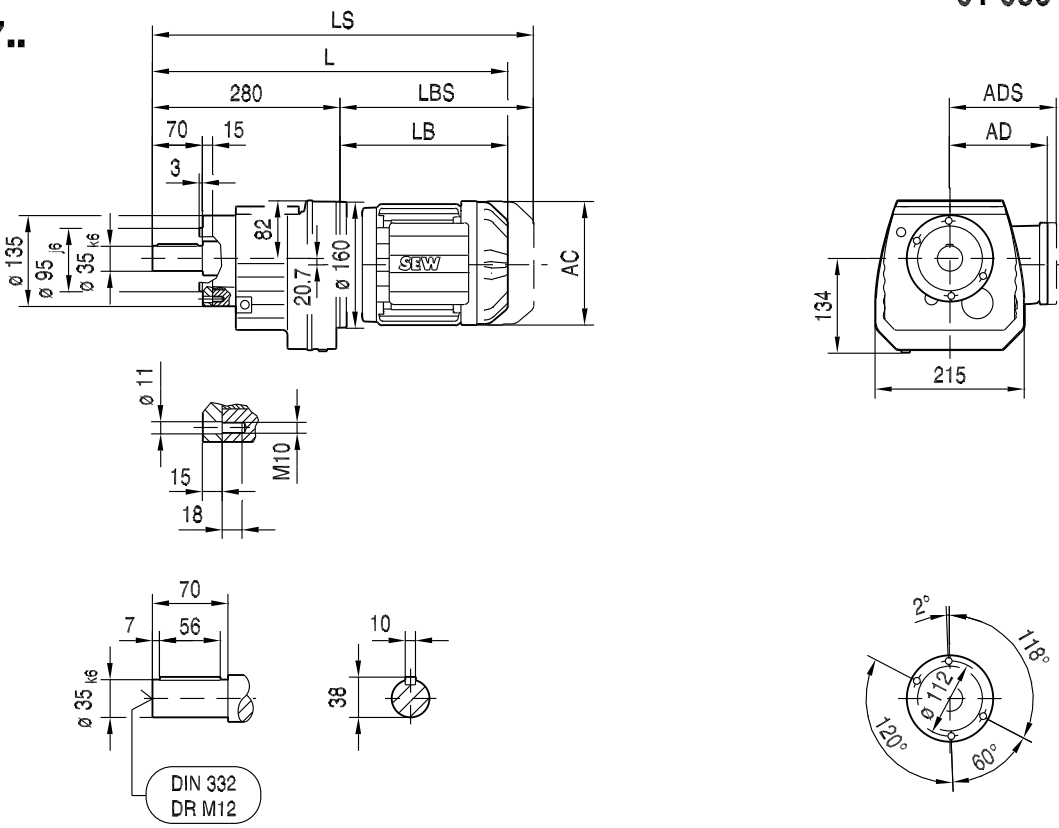



| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 | 221 | 221 | 261 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 | 170 | 170 | 228 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 | 172 | 172 | 228 |
| **L** | 465 | 476 | 501 | 555 | 557 | 589 | 585 | 635 | 666 | 720 | 738 |
| **LS** | 520 | 544 | 569 | 636 | 650 | 682 | 679 | 729 | 778 | 832 | 876 |
| **LB** | 185 | 196 | 221 | 275 | 277 | 309 | 305 | 355 | 386 | 440 | 458 |
| **LBS** | 240 | 264 | 289 | 356 | 370 | 402 | 399 | 449 | 498 | 552 | 596 |

21284997/EN – 03/2015

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**RZ67..**

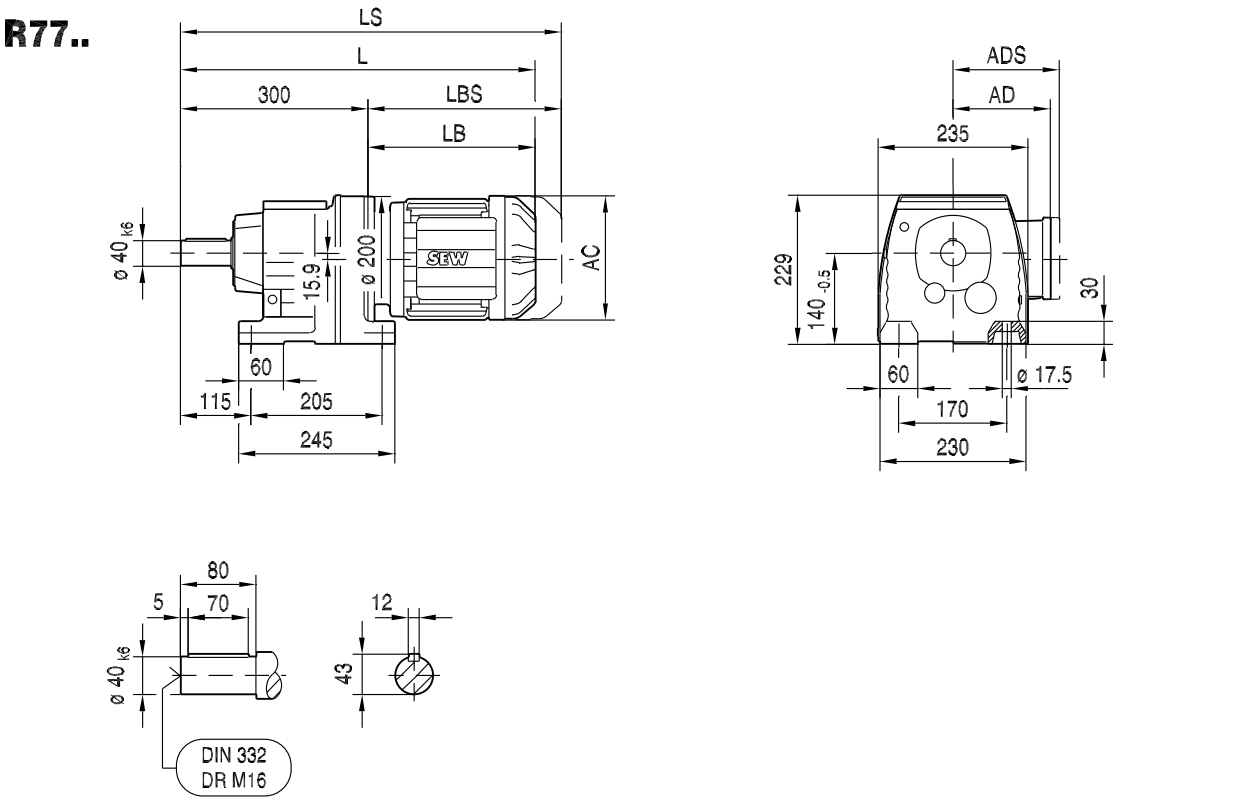



| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 | 221 | 221 | 261 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 | 170 | 170 | 228 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 | 172 | 172 | 228 |
| **L** | 465 | 476 | 501 | 555 | 557 | 589 | 585 | 635 | 666 | 720 | 738 |
| **LS** | 520 | 544 | 569 | 636 | 650 | 682 | 679 | 729 | 778 | 832 | 876 |
| **LB** | 185 | 196 | 221 | 275 | 277 | 309 | 305 | 355 | 386 | 440 | 458 |
| **LBS** | 240 | 264 | 289 | 356 | 370 | 402 | 399 | 449 | 498 | 552 | 596 |

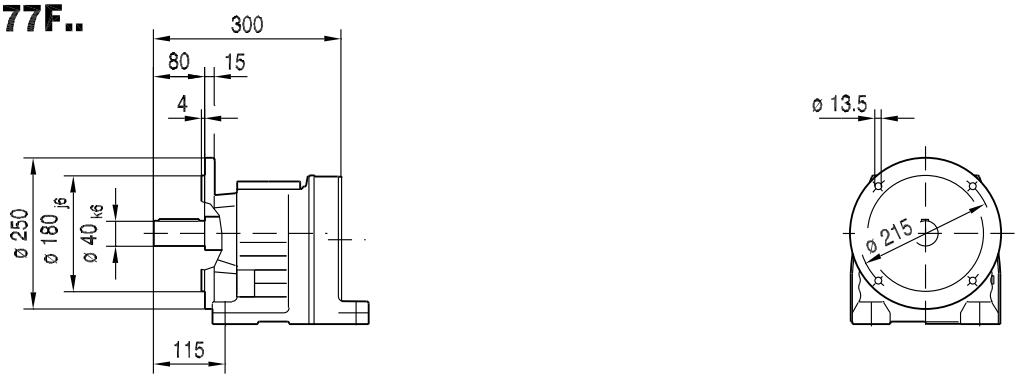
21284997/EN – 03/2015

01 037 00 14

## R77..




## R77F..

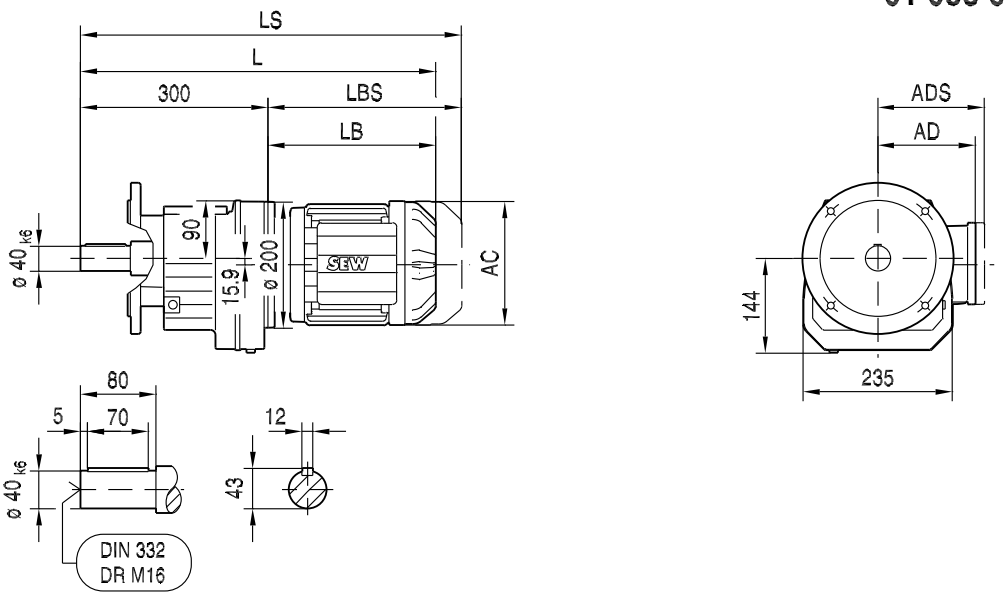



| (→ 142) | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 156 | 179 | 179 | 197 | 197 | 221 | 221 | 261 | 261 | 314 |
| **AD** | 128 | 140 | 140 | 157 | 157 | 170 | 170 | 228 | 228 | 253 |
| **ADS** | 139 | 150 | 150 | 158 | 158 | 172 | 172 | 228 | 228 | 253 |
| **L** | 568 | 570 | 602 | 598 | 648 | 679 | 729 | 747 | 773 | 839 |
| **LS** | 649 | 663 | 695 | 692 | 742 | 791 | 841 | 885 | 910 | 1028 |
| **LB** | 268 | 270 | 302 | 298 | 348 | 379 | 429 | 447 | 473 | 539 |
| **LBS** | 349 | 363 | 395 | 392 | 442 | 491 | 541 | 585 | 610 | 728 |

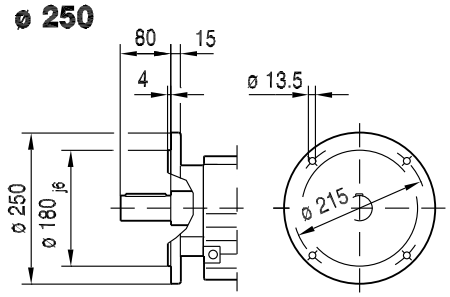
21284997/EN – 03/2015

01 038 00 14

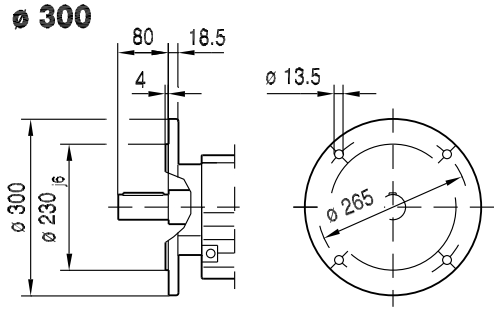
## RF77..



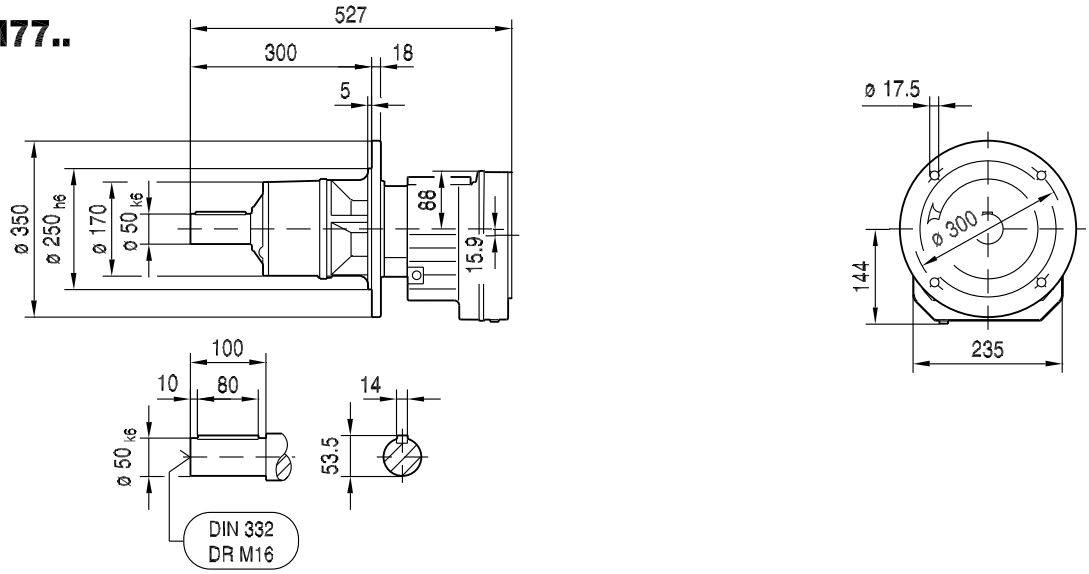

## ø 250




## ø 300




## RM77..

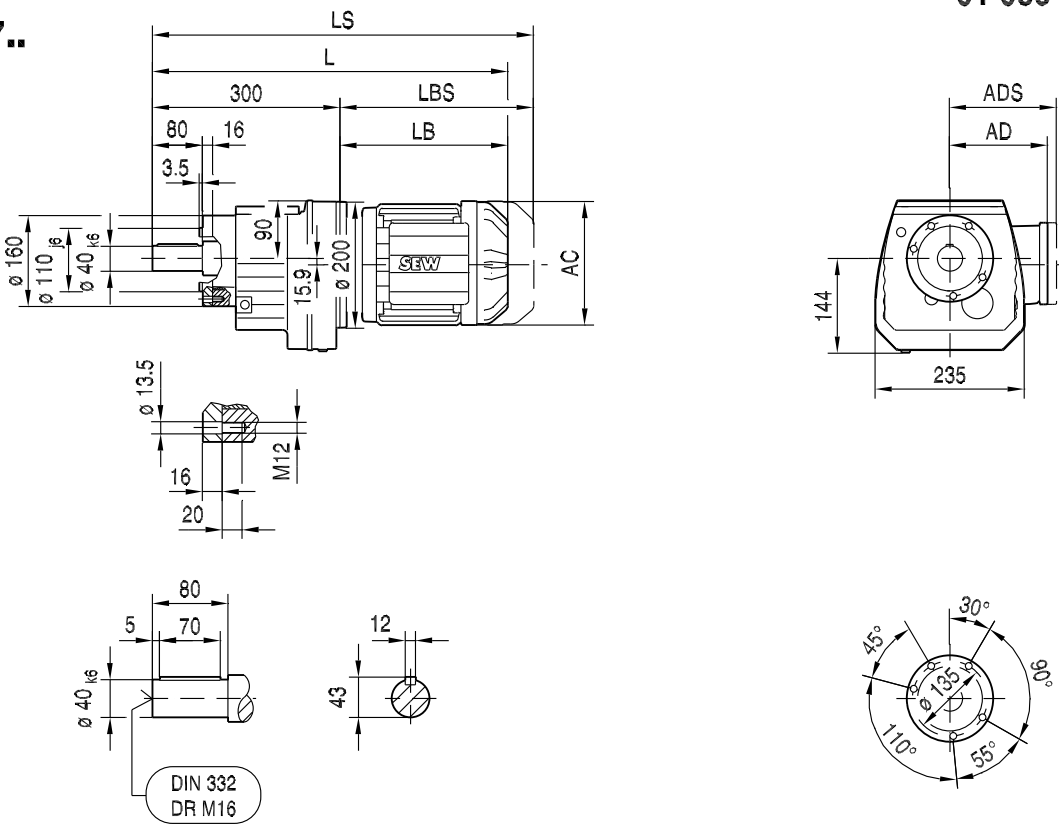



| (→ 142) | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 156 | 179 | 179 | 197 | 197 | 221 | 221 | 261 | 261 | 314 |
| **AD** | 128 | 140 | 140 | 157 | 157 | 170 | 170 | 228 | 228 | 253 |
| **ADS** | 139 | 150 | 150 | 158 | 158 | 172 | 172 | 228 | 228 | 253 |
| **L** | 568 | 570 | 602 | 598 | 648 | 679 | 729 | 747 | 773 | 839 |
| **LS** | 649 | 663 | 695 | 692 | 742 | 791 | 841 | 885 | 910 | 1028 |
| **LB** | 268 | 270 | 302 | 298 | 348 | 379 | 429 | 447 | 473 | 539 |
| **LBS** | 349 | 363 | 395 | 392 | 442 | 491 | 541 | 585 | 610 | 728 |

21284997/EN – 03/2015

01 039 00 14

**RZ77..**

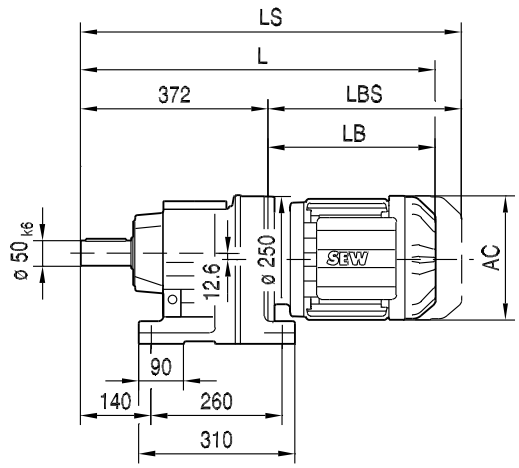


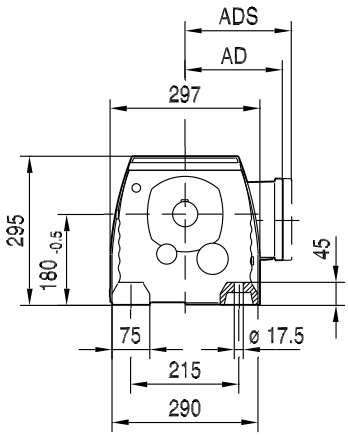

| (→ 142) | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 156 | 179 | 179 | 197 | 197 | 221 | 221 | 261 | 261 | 314 |
| **AD** | 128 | 140 | 140 | 157 | 157 | 170 | 170 | 228 | 228 | 253 |
| **ADS** | 139 | 150 | 150 | 158 | 158 | 172 | 172 | 228 | 228 | 253 |
| **L** | 568 | 570 | 602 | 598 | 648 | 679 | 729 | 747 | 773 | 839 |
| **LS** | 649 | 663 | 695 | 692 | 742 | 791 | 841 | 885 | 910 | 1028 |
| **LB** | 268 | 270 | 302 | 298 | 348 | 379 | 429 | 447 | 473 | 539 |
| **LBS** | 349 | 363 | 395 | 392 | 442 | 491 | 541 | 585 | 610 | 728 |

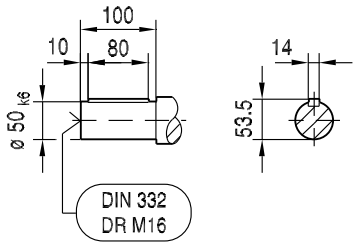
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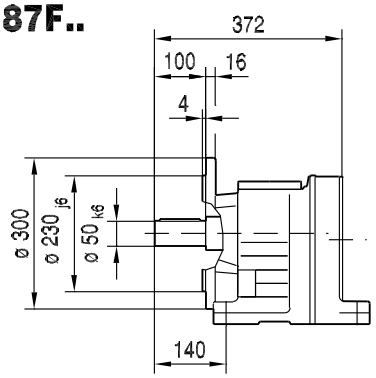
## R87..

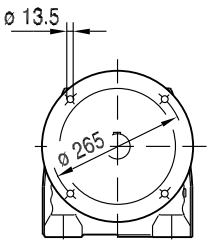



## R87F..



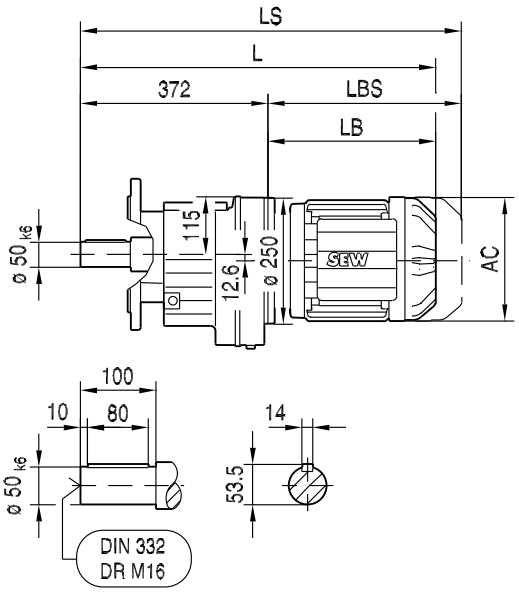



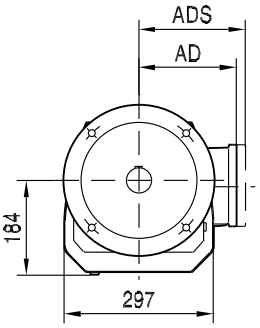

| (→ 142) | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M | DRN160L | DRN180.. |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 179 | 197 | 197 | 221 | 221 | 261 | 261 | 314 | 314 | 357 |
| **AD** | 140 | 157 | 157 | 170 | 170 | 228 | 228 | 253 | 253 | 268 |
| **ADS** | 150 | 158 | 158 | 172 | 172 | 228 | 228 | 253 | 253 | 268 |
| **L** | 669 | 665 | 715 | 746 | 796 | 814 | 840 | 906 | 906 | 929 |
| **LS** | 762 | 759 | 809 | 858 | 908 | 952 | 977 | 1095 | 1095 | 1118 |
| **LB** | 297 | 293 | 343 | 374 | 424 | 442 | 468 | 534 | 534 | 557 |
| **LBS** | 390 | 387 | 437 | 486 | 536 | 580 | 605 | 723 | 723 | 746 |

21284997/EN – 03/2015

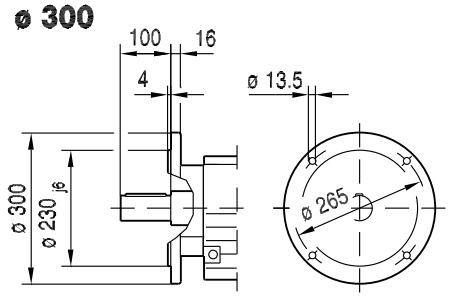
01 041 00 14

## RF87..

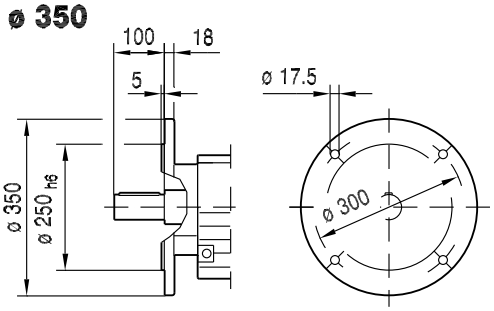


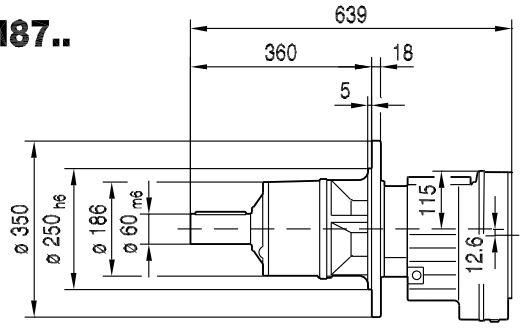

## ø 300

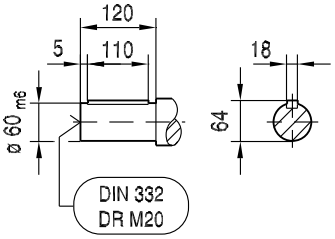


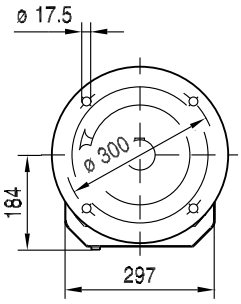

## ø 350




## RM87..



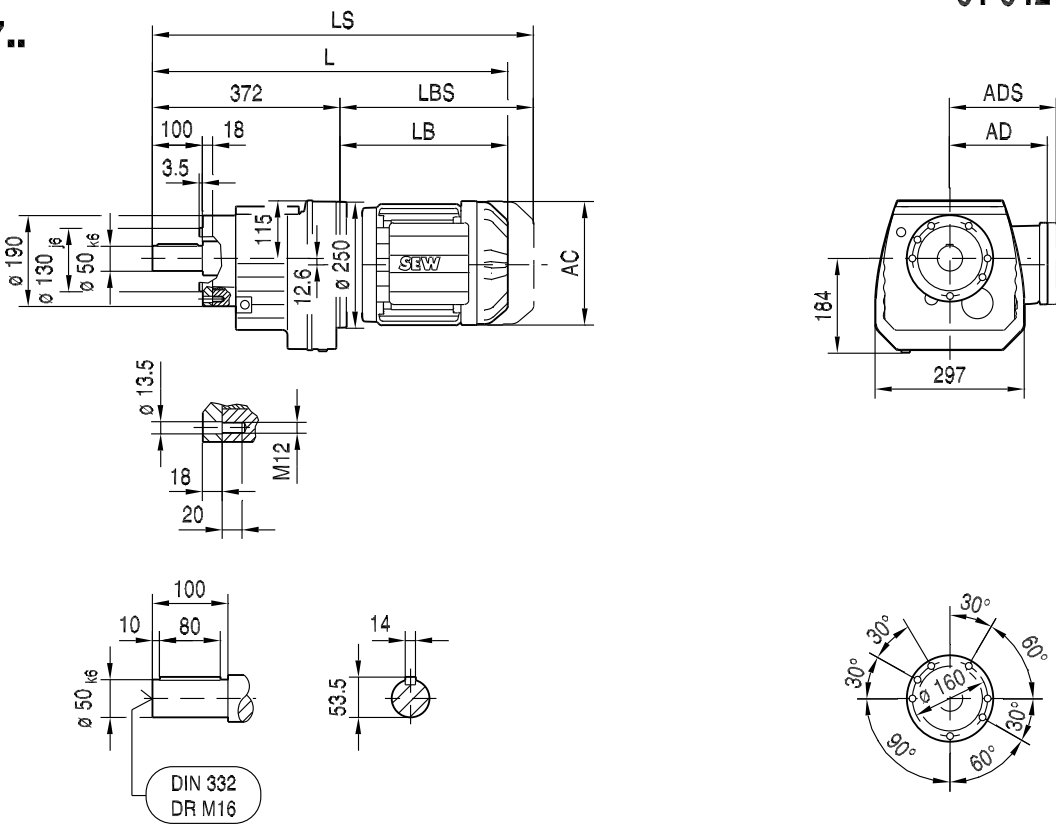




| (→ 142) | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M | DRN160L | DRN180.. |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 179 | 197 | 197 | 221 | 221 | 261 | 261 | 314 | 314 | 357 |
| **AD** | 140 | 157 | 157 | 170 | 170 | 228 | 228 | 253 | 253 | 268 |
| **ADS** | 150 | 158 | 158 | 172 | 172 | 228 | 228 | 253 | 253 | 268 |
| **L** | 669 | 665 | 715 | 746 | 796 | 814 | 840 | 906 | 906 | 929 |
| **LS** | 762 | 759 | 809 | 858 | 908 | 952 | 977 | 1095 | 1095 | 1118 |
| **LB** | 297 | 293 | 343 | 374 | 424 | 442 | 468 | 534 | 534 | 557 |
| **LBS** | 390 | 387 | 437 | 486 | 536 | 580 | 605 | 723 | 723 | 746 |

21284997/EN – 03/2015

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**RZ87..**

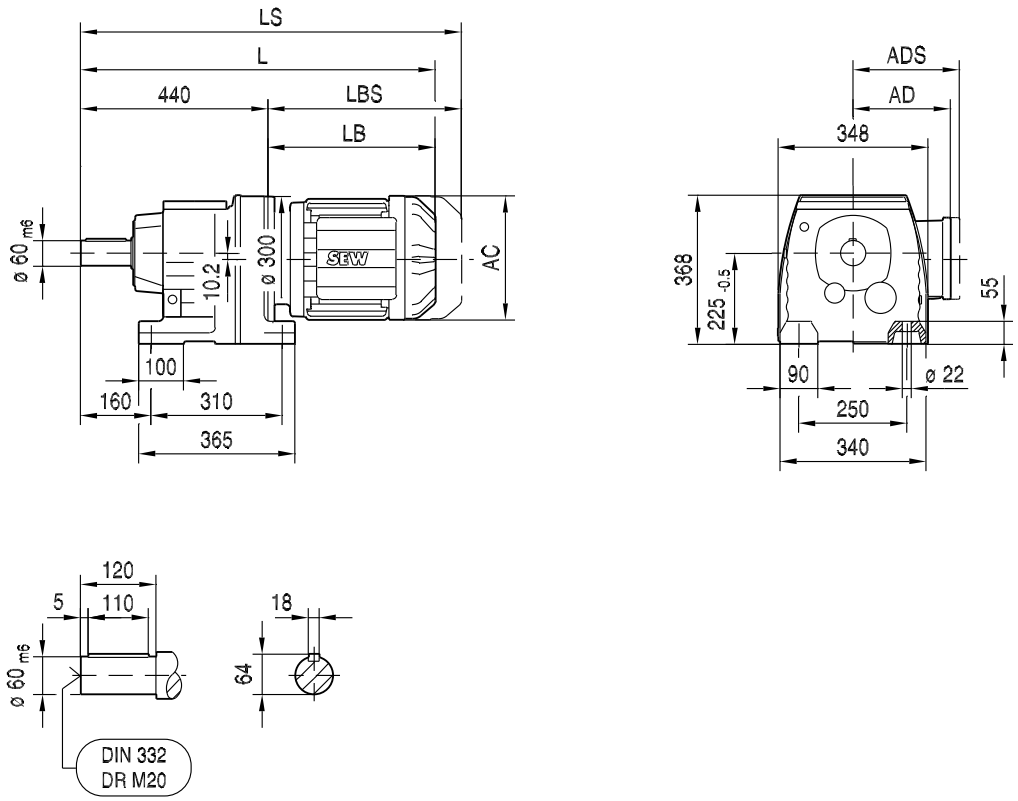



| (→ 142) | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M | DRN160L | DRN180.. |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 179 | 197 | 197 | 221 | 221 | 261 | 261 | 314 | 314 | 357 |
| **AD** | 140 | 157 | 157 | 170 | 170 | 228 | 228 | 253 | 253 | 268 |
| **ADS** | 150 | 158 | 158 | 172 | 172 | 228 | 228 | 253 | 253 | 268 |
| **L** | 669 | 665 | 715 | 746 | 796 | 814 | 840 | 906 | 906 | 929 |
| **LS** | 762 | 759 | 809 | 858 | 908 | 952 | 977 | 1095 | 1095 | 1118 |
| **LB** | 297 | 293 | 343 | 374 | 424 | 442 | 468 | 534 | 534 | 557 |
| **LBS** | 390 | 387 | 437 | 486 | 536 | 580 | 605 | 723 | 723 | 746 |

21284997/EN – 03/2015

01 043 00 14

**R97..**

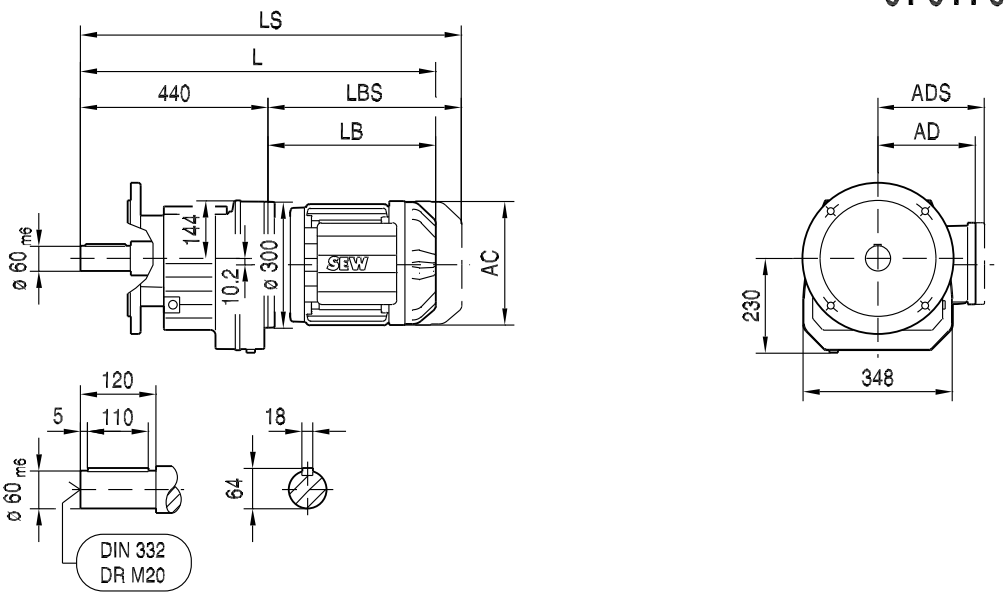



| (→ 142) | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M | DRN160L | DRN180.. | DRN200L |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 197 | 197 | 221 | 221 | 261 | 261 | 314 | 314 | 357 | 394 |
| **AD** | 157 | 157 | 170 | 170 | 228 | 228 | 253 | 253 | 268 | 283 |
| **ADS** | 158 | 158 | 172 | 172 | 228 | 228 | 253 | 253 | 268 | 283 |
| **L** | 728 | 778 | 809 | 859 | 877 | 903 | 969 | 969 | 992 | 1102 |
| **LS** | 822 | 872 | 921 | 971 | 1015 | 1040 | 1158 | 1158 | 1181 | 1307 |
| **LB** | 288 | 338 | 369 | 419 | 437 | 463 | 529 | 529 | 552 | 662 |
| **LBS** | 382 | 432 | 481 | 531 | 575 | 600 | 718 | 718 | 741 | 867 |

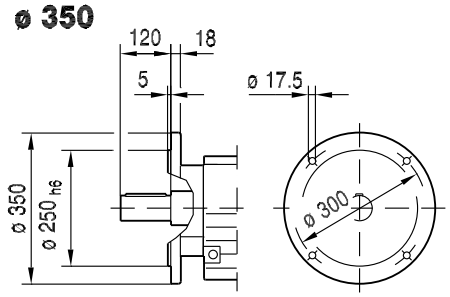
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01 044 00 14

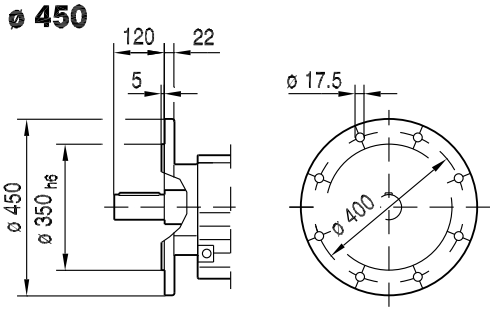
## RF97..



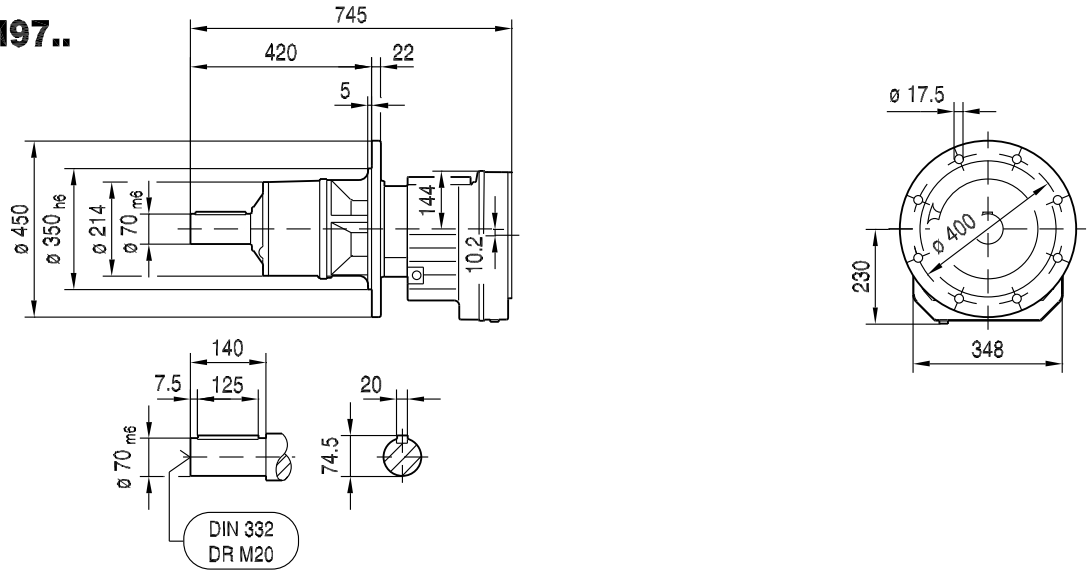

## ø 350




## ø 450




## RM97..

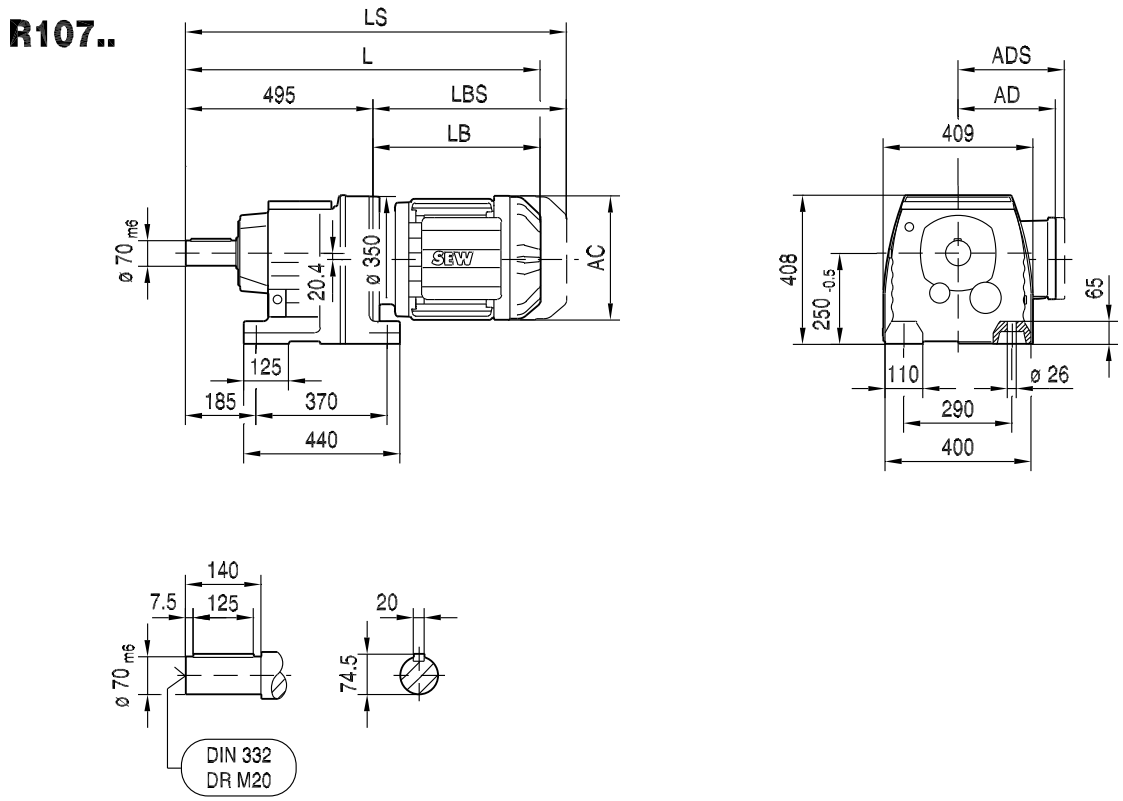



| (→ 142) | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M | DRN160L | DRN180.. | DRN200L |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 197 | 197 | 221 | 221 | 261 | 261 | 314 | 314 | 357 | 394 |
| **AD** | 157 | 157 | 170 | 170 | 228 | 228 | 253 | 253 | 268 | 283 |
| **ADS** | 158 | 158 | 172 | 172 | 228 | 228 | 253 | 253 | 268 | 283 |
| **L** | 728 | 778 | 809 | 859 | 877 | 903 | 969 | 969 | 992 | 1102 |
| **LS** | 822 | 872 | 921 | 971 | 1015 | 1040 | 1158 | 1158 | 1181 | 1307 |
| **LB** | 288 | 338 | 369 | 419 | 437 | 463 | 529 | 529 | 552 | 662 |
| **LBS** | 382 | 432 | 481 | 531 | 575 | 600 | 718 | 718 | 741 | 867 |

21284997/EN – 03/2015

01 045 00 14

**R107..**

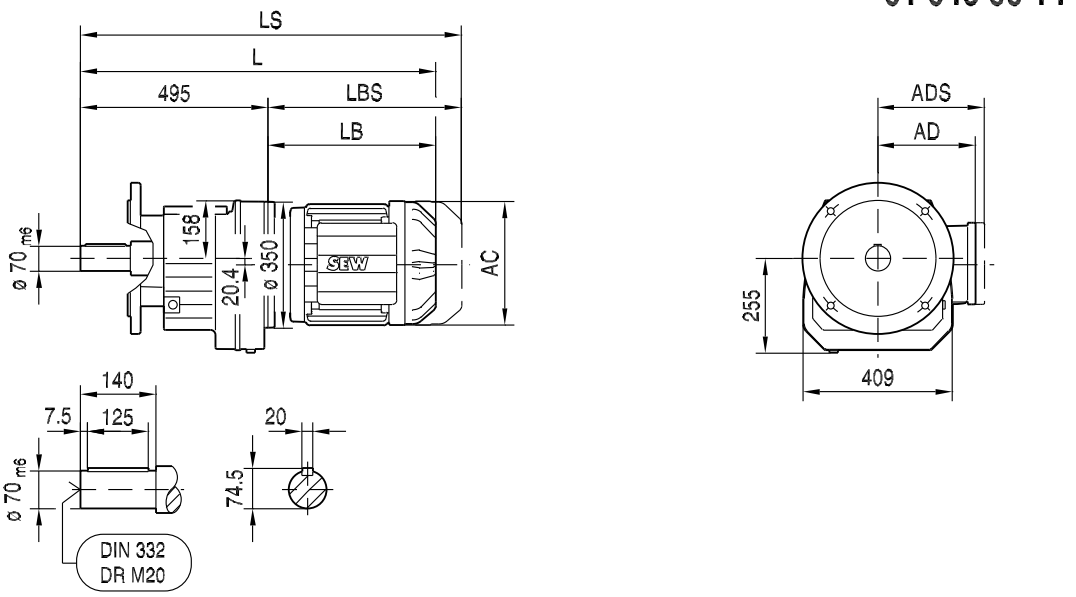



| (→ 142) | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M | DRN160L | DRN180.. | DRN200L | DRN225.. |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 197 | 221 | 221 | 261 | 261 | 314 | 314 | 357 | 394 | 434 |
| **AD** | 157 | 170 | 170 | 228 | 228 | 253 | 253 | 268 | 283 | 305 |
| **ADS** | 158 | 172 | 172 | 228 | 228 | 253 | 253 | 268 | 283 | 305 |
| **L** | 827 | 858 | 908 | 926 | 952 | 1018 | 1018 | 1041 | 1151 | 1125 |
| **LS** | 921 | 970 | 1020 | 1064 | 1089 | 1207 | 1207 | 1230 | 1356 | 1330 |
| **LB** | 332 | 363 | 413 | 431 | 457 | 523 | 523 | 546 | 656 | 630 |
| **LBS** | 426 | 475 | 525 | 569 | 594 | 712 | 712 | 735 | 861 | 835 |

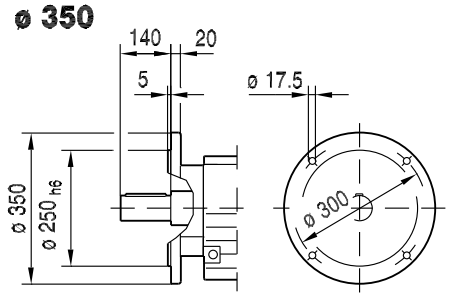
21284997/EN – 03/2015

01 046 00 14

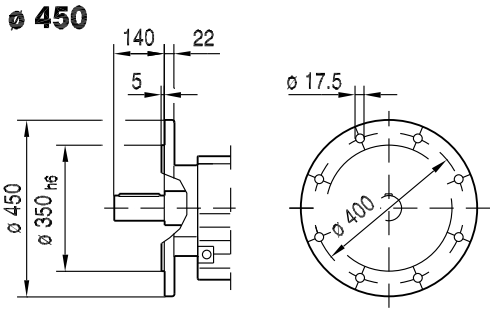
## RF107..



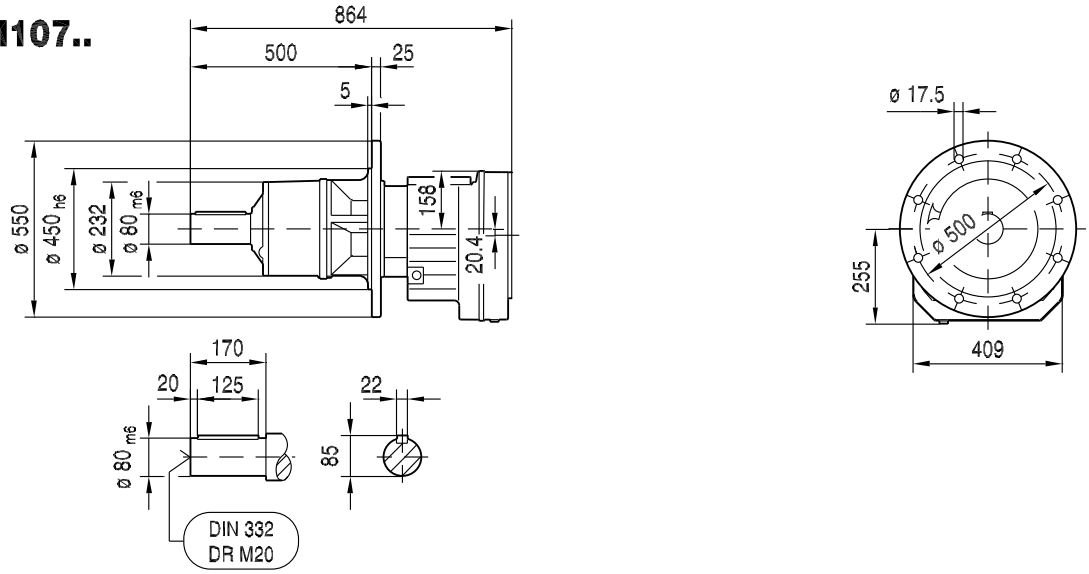

## ø 350




## ø 450




## RM107..

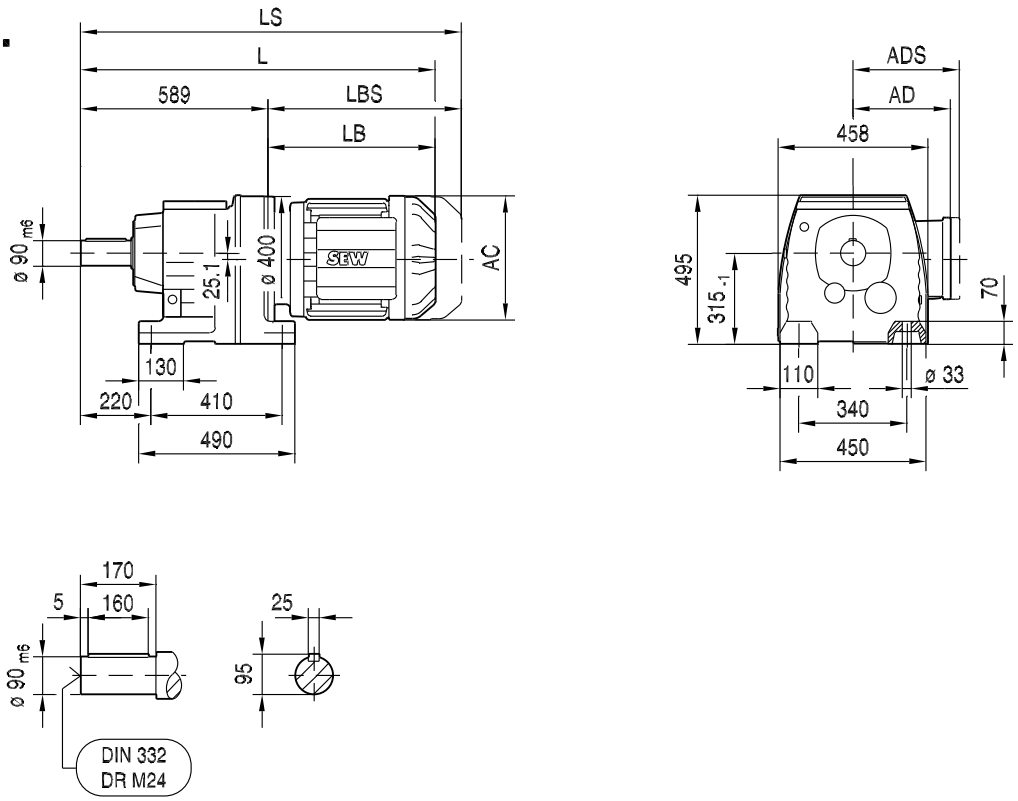



| (→ 142) | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M | DRN160L | DRN180.. | DRN200L | DRN225.. |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 197 | 221 | 221 | 261 | 261 | 314 | 314 | 357 | 394 | 434 |
| **AD** | 157 | 170 | 170 | 228 | 228 | 253 | 253 | 268 | 283 | 305 |
| **ADS** | 158 | 172 | 172 | 228 | 228 | 253 | 253 | 268 | 283 | 305 |
| **L** | 827 | 858 | 908 | 926 | 952 | 1018 | 1018 | 1041 | 1151 | 1125 |
| **LS** | 921 | 970 | 1020 | 1064 | 1089 | 1207 | 1207 | 1230 | 1356 | 1330 |
| **LB** | 332 | 363 | 413 | 431 | 457 | 523 | 523 | 546 | 656 | 630 |
| **LBS** | 426 | 475 | 525 | 569 | 594 | 712 | 712 | 735 | 861 | 835 |

21284997/EN – 03/2015

01 047 00 14

**R137..**

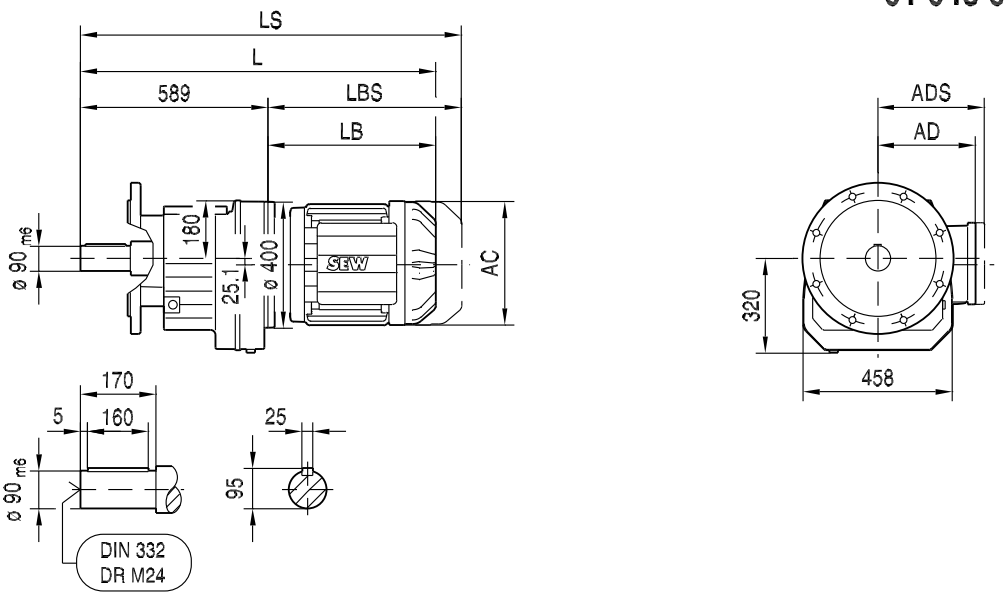



| (→ 142) | DRN132S | DRN132M | DRN132L | DRN160M | DRN160L | DRN180.. | DRN200L | DRN225.. | DRN250M |
|---|---|---|---|---|---|---|---|---|---|
| **AC** | 221 | 261 | 261 | 314 | 314 | 357 | 394 | 434 | 495 |
| **AD** | 170 | 228 | 228 | 253 | 253 | 268 | 283 | 305 | 394 |
| **ADS** | 172 | 228 | 228 | 253 | 253 | 268 | 283 | 305 | 394 |
| **L** | 995 | 1013 | 1039 | 1105 | 1105 | 1128 | 1238 | 1212 | 1349 |
| **LS** | 1107 | 1151 | 1176 | 1294 | 1294 | 1317 | 1443 | 1417 | 1589 |
| **LB** | 406 | 424 | 450 | 516 | 516 | 539 | 649 | 623 | 760 |
| **LBS** | 518 | 562 | 587 | 705 | 705 | 728 | 854 | 828 | 1000 |

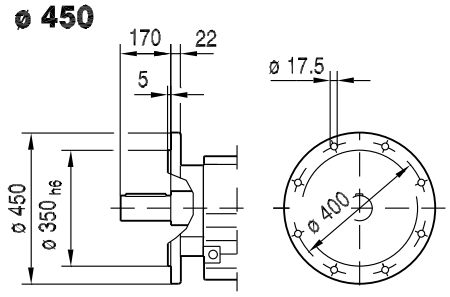
21284997/EN – 03/2015

01 048 00 14

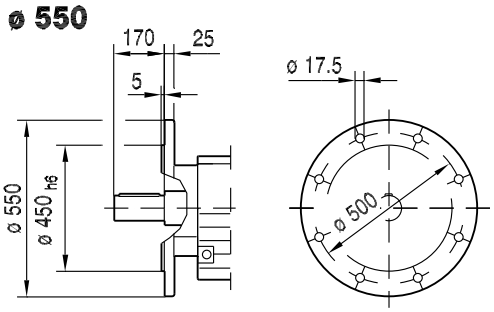
## RF137..



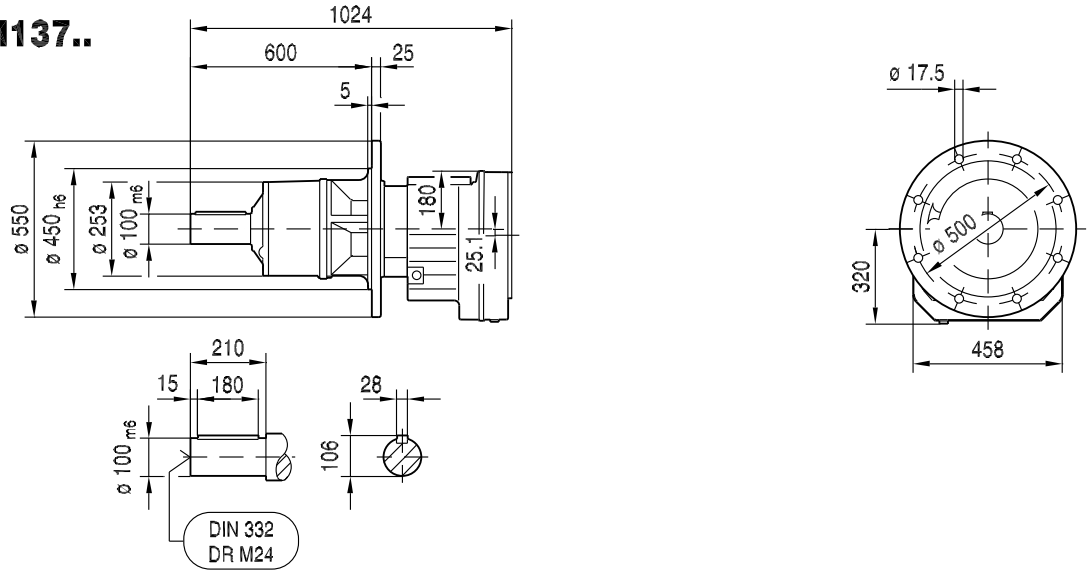

### ø 450




### ø 550




## RM137..

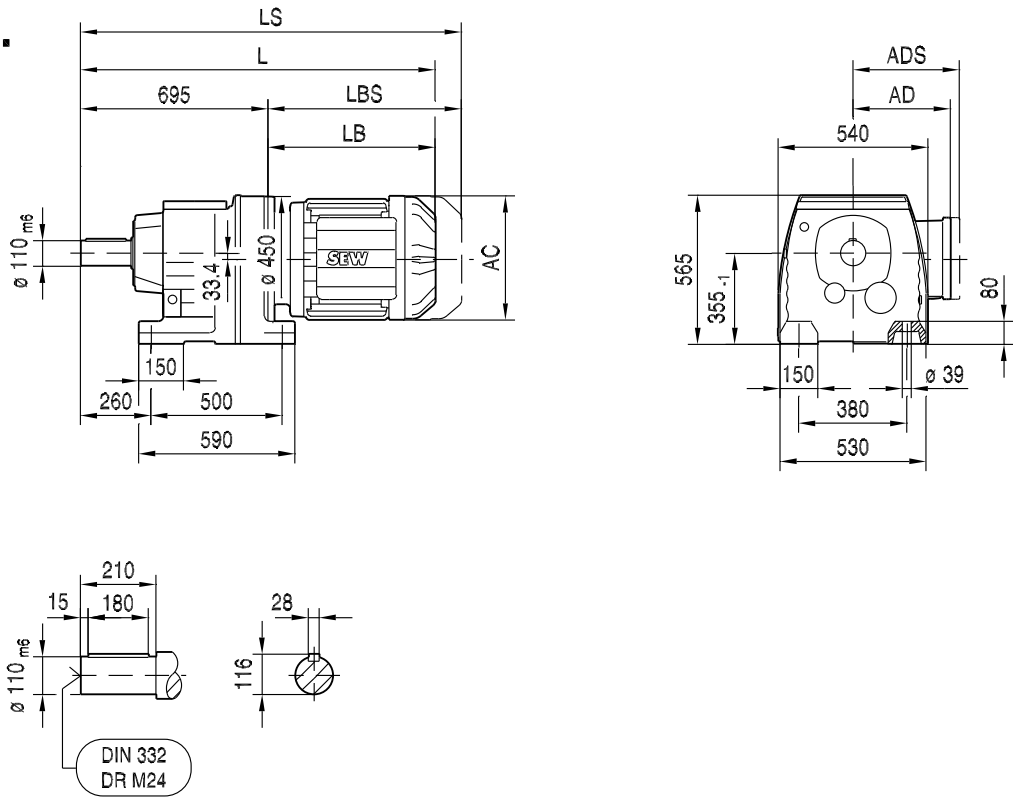



| (→ 142) | DRN132S | DRN132M | DRN132L | DRN160M | DRN160L | DRN180.. | DRN200L | DRN225.. | DRN250M |
|---|---|---|---|---|---|---|---|---|---|
| **AC** | 221 | 261 | 261 | 314 | 314 | 357 | 394 | 434 | 495 |
| **AD** | 170 | 228 | 228 | 253 | 253 | 268 | 283 | 305 | 394 |
| **ADS** | 172 | 228 | 228 | 253 | 253 | 268 | 283 | 305 | 394 |
| **L** | 995 | 1013 | 1039 | 1105 | 1105 | 1128 | 1238 | 1212 | 1349 |
| **LS** | 1107 | 1151 | 1176 | 1294 | 1294 | 1317 | 1443 | 1417 | 1589 |
| **LB** | 406 | 424 | 450 | 516 | 516 | 539 | 649 | 623 | 760 |
| **LBS** | 518 | 562 | 587 | 705 | 705 | 728 | 854 | 828 | 1000 |

21284997/EN – 03/2015

01 049 00 14

**R147..**

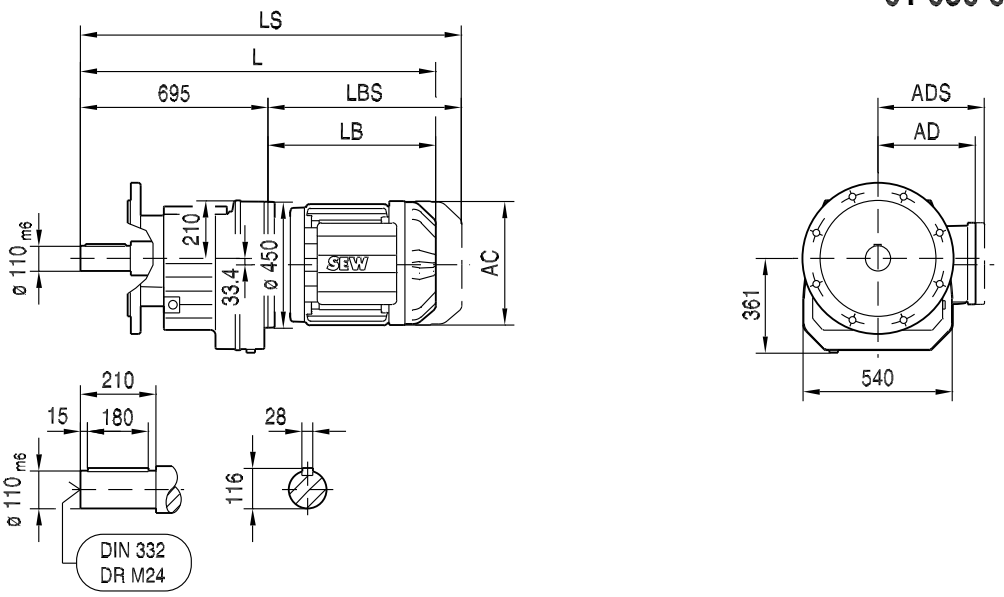



| (→ 142) | DRN132L | DRN160M | DRN160L | DRN180.. | DRN200L | DRN225.. | DRN250M | DRN280S | DRN280M |
|---|---|---|---|---|---|---|---|---|---|
| **AC** | 261 | 314 | 314 | 357 | 394 | 434 | 495 | 495 | 495 |
| **AD** | 228 | 253 | 253 | 268 | 283 | 305 | 394 | 394 | 394 |
| **ADS** | 228 | 253 | 253 | 268 | 283 | 305 | 394 | 394 | 394 |
| **L** | 1137 | 1203 | 1203 | 1226 | 1336 | 1310 | 1447 | 1447 | 1542 |
| **LS** | 1274 | 1392 | 1392 | 1415 | 1541 | 1515 | 1687 | 1687 | 1782 |
| **LB** | 442 | 508 | 508 | 531 | 641 | 615 | 752 | 752 | 847 |
| **LBS** | 579 | 697 | 697 | 720 | 846 | 820 | 992 | 992 | 1087 |

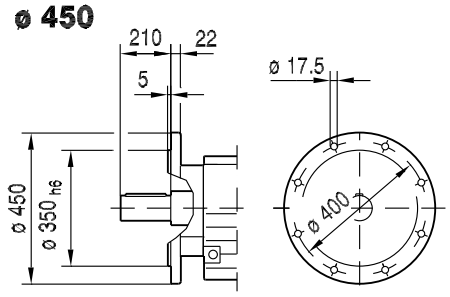
21284997/EN – 03/2015

01 050 00 14

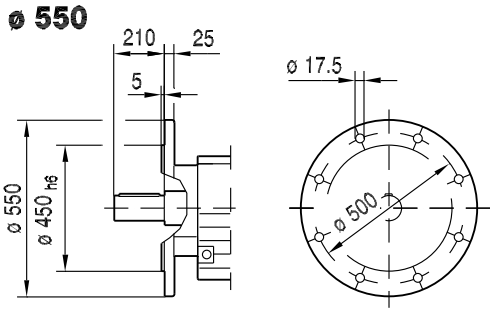
## RF147..



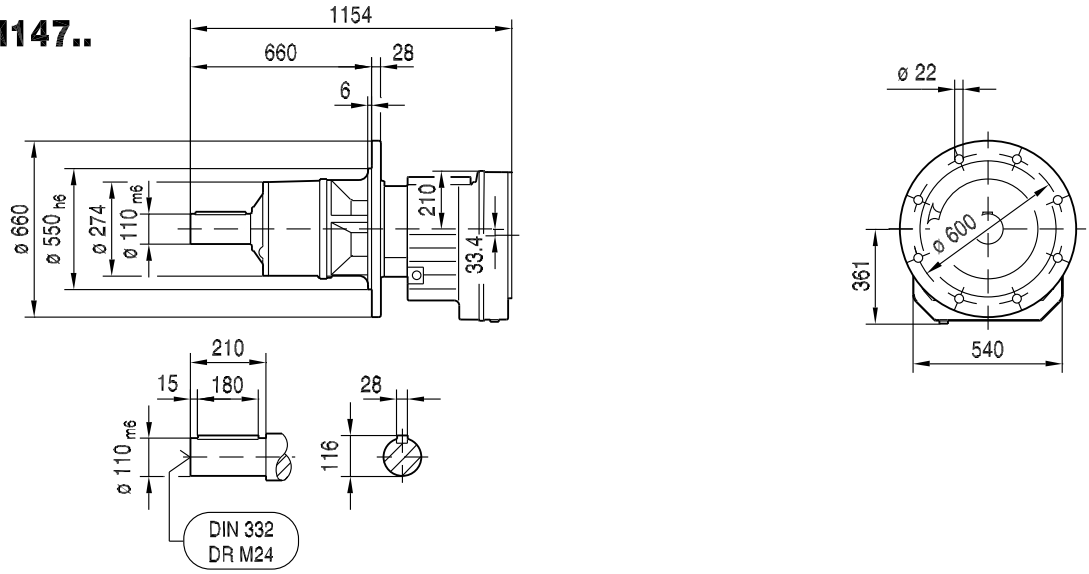

### ø 450




### ø 550




## RM147..

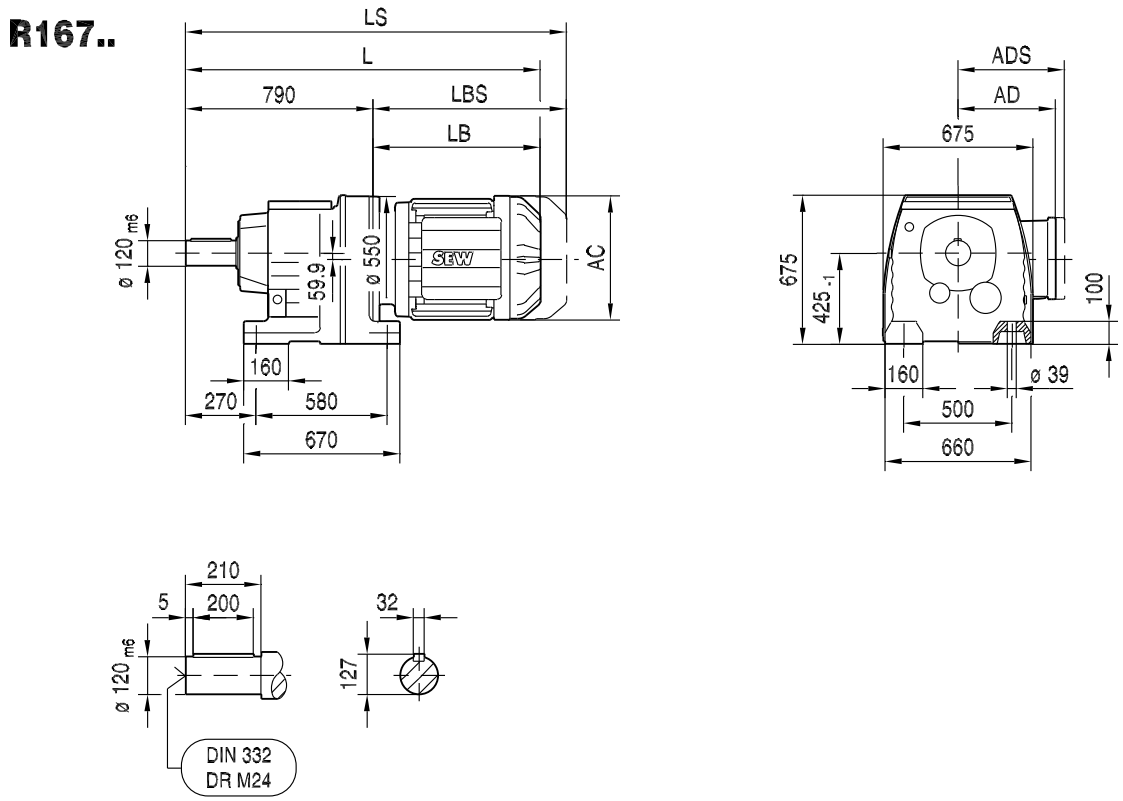



| (→ 142) | DRN132L | DRN160M | DRN160L | DRN180.. | DRN200L | DRN225.. | DRN250M | DRN280S | DRN280M |
|---|---|---|---|---|---|---|---|---|---|
| **AC** | 261 | 314 | 314 | 357 | 394 | 434 | 495 | 495 | 495 |
| **AD** | 228 | 253 | 253 | 268 | 283 | 305 | 394 | 394 | 394 |
| **ADS** | 228 | 253 | 253 | 268 | 283 | 305 | 394 | 394 | 394 |
| **L** | 1137 | 1203 | 1203 | 1226 | 1336 | 1310 | 1447 | 1447 | 1542 |
| **LS** | 1274 | 1392 | 1392 | 1415 | 1541 | 1515 | 1687 | 1687 | 1782 |
| **LB** | 442 | 508 | 508 | 531 | 641 | 615 | 752 | 752 | 847 |
| **LBS** | 579 | 697 | 697 | 720 | 846 | 820 | 992 | 992 | 1087 |

21284997/EN – 03/2015

01 051 00 14

**R167..**

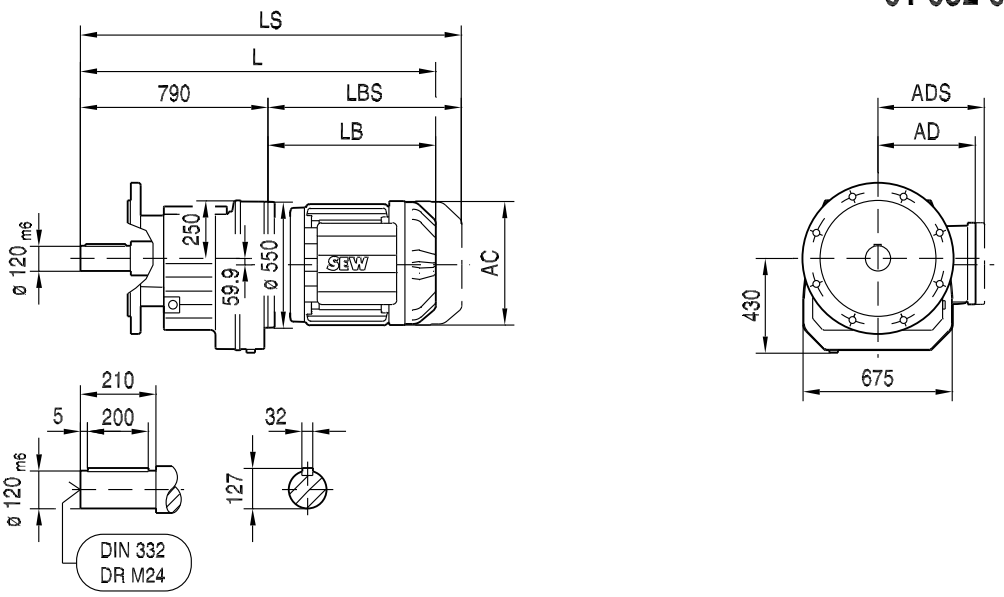



| (→ 142) | DRN160L | DRN180.. | DRN200L | DRN225.. | DRN250M | DRN280S | DRN280M | DRN315S-M | DRN315ME-H |
|---|---|---|---|---|---|---|---|---|---|
| **AC** | 314 | 357 | 394 | 434 | 495 | 495 | 495 | 624 | 624 |
| **AD** | 253 | 268 | 283 | 305 | 394 | 394 | 394 | 506 | 506 |
| **ADS** | 253 | 268 | 283 | 305 | 394 | 394 | 394 | 506 | 506 |
| **L** | 1290 | 1313 | 1423 | 1397 | 1534 | 1534 | 1629 | 1731 | 1861 |
| **LS** | 1479 | 1502 | 1628 | 1602 | 1774 | 1774 | 1869 | 1982 | 2112 |
| **LB** | 500 | 523 | 633 | 607 | 744 | 744 | 839 | 941 | 1071 |
| **LBS** | 689 | 712 | 838 | 812 | 984 | 984 | 1079 | 1192 | 1322 |

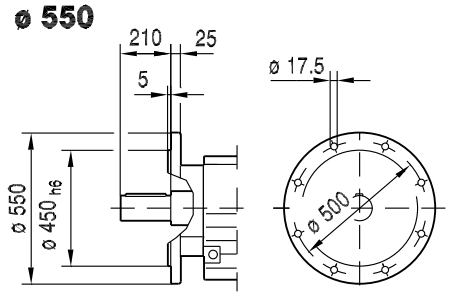
21284997/EN – 03/2015

01 052 00 14

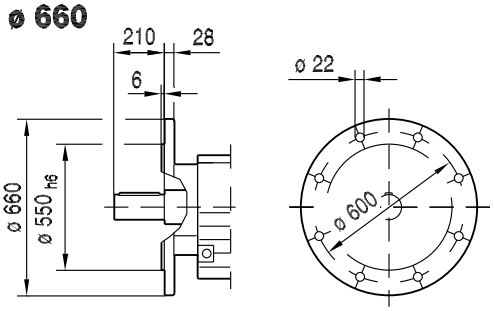
## RF167..



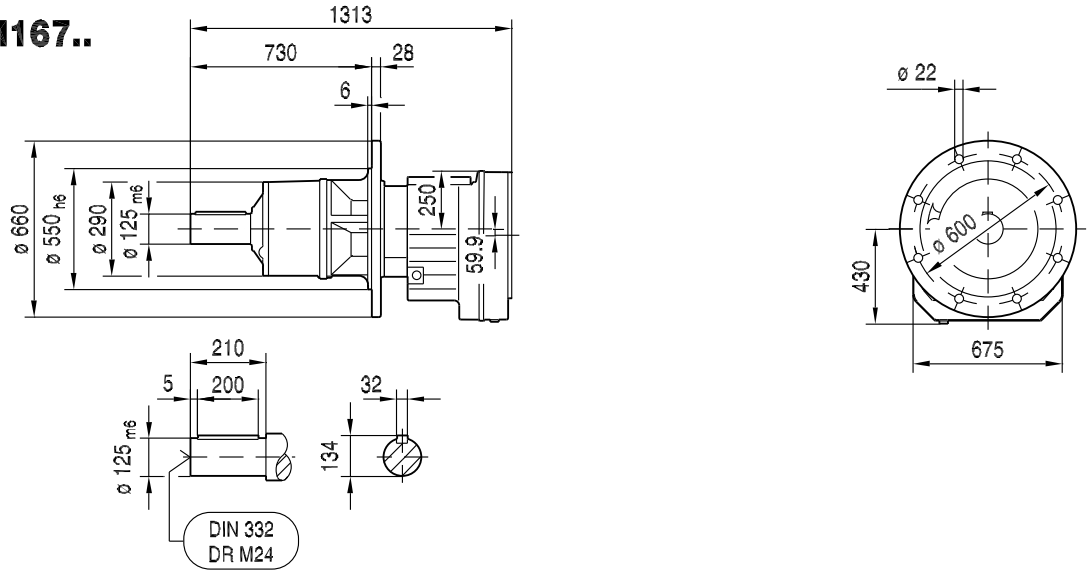

### ø 550




### ø 660



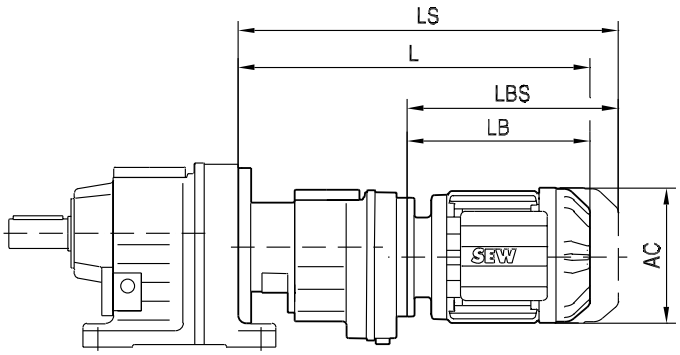

## RM167..




| (→ 142) | DRN160L | DRN180.. | DRN200L | DRN225.. | DRN250M | DRN280S | DRN280M | DRN315S-M | DRN315ME-H |
|---|---|---|---|---|---|---|---|---|---|
| **AC** | 314 | 357 | 394 | 434 | 495 | 495 | 495 | 624 | 624 |
| **AD** | 253 | 268 | 283 | 305 | 394 | 394 | 394 | 506 | 506 |
| **ADS** | 253 | 268 | 283 | 305 | 394 | 394 | 394 | 506 | 506 |
| **L** | 1290 | 1313 | 1423 | 1397 | 1534 | 1534 | 1629 | 1731 | 1861 |
| **LS** | 1479 | 1502 | 1628 | 1602 | 1774 | 1774 | 1869 | 1982 | 2112 |
| **LB** | 500 | 523 | 633 | 607 | 744 | 744 | 839 | 941 | 1071 |
| **LBS** | 689 | 712 | 838 | 812 | 984 | 984 | 1079 | 1192 | 1322 |

21284997/EN – 03/2015

01 131 00 06






| (→ 142) | | AC | L | LS | LB | LBS |
|---|---|---|---|---|---|---|
| **R..27R17** | **DR63..** | 132 | 324 | 379 | 149 | 204 |
| **R..37R17** | **DR63..** | 132 | 324 | 379 | 149 | 204 |
| | **DR71S** | 139 | 335 | 403 | 160 | 228 |
| **R..47R37** | **DR63..** | 132 | 356 | 411 | 191 | 246 |
| | **DR71S** | 139 | 367 | 434 | 202 | 269 |
| | **DR71M** | 139 | 392 | 459 | 227 | 294 |
| **R..57R37** | **DR63..** | 132 | 356 | 411 | 191 | 246 |
| | **DR71S** | 139 | 367 | 434 | 202 | 269 |
| | **DR71M** | 139 | 392 | 459 | 227 | 294 |
| **R..67R37** | **DR63..** | 132 | 356 | 411 | 191 | 246 |
| | **DR71S** | 139 | 367 | 434 | 202 | 269 |
| | **DR71M** | 139 | 392 | 459 | 227 | 294 |
| | **DRN80M** | 156 | 446 | 527 | 281 | 362 |
| **R..77R37** | **DR63..** | 132 | 348 | 403 | 191 | 246 |
| | **DR71S** | 139 | 359 | 426 | 202 | 269 |
| | **DR71M** | 139 | 384 | 451 | 227 | 294 |
| | **DRN80M** | 156 | 438 | 519 | 281 | 362 |
| | **DRN90S** | 179 | 440 | 533 | 283 | 376 |
| **R..87R57** | **DR63..** | 132 | 412 | 467 | 185 | 240 |
| | **DR71S** | 139 | 423 | 491 | 196 | 264 |
| | **DR71M** | 139 | 448 | 516 | 221 | 289 |
| | **DRN80M** | 156 | 502 | 583 | 275 | 356 |
| | **DRN90S** | 179 | 504 | 597 | 277 | 370 |
| | **DRN90L** | 179 | 536 | 629 | 309 | 402 |
| **R..97R57** | **DR63..** | 132 | 407 | 462 | 185 | 240 |
| | **DR71S** | 139 | 418 | 486 | 196 | 264 |
| | **DR71M** | 139 | 443 | 511 | 221 | 289 |
| | **DRN80M** | 156 | 497 | 578 | 275 | 356 |
| | **DRN90S** | 179 | 499 | 592 | 277 | 370 |
| | **DRN90L** | 179 | 531 | 624 | 309 | 402 |
| | **DRN100L** | 197 | 578 | 671 | 355 | 448 |
| | **DRN100LS** | 197 | 528 | 621 | 305 | 398 |
| **R..107R77** | **DR63..** | 132 | 425 | 480 | 178 | 233 |
| | **DR71S** | 139 | 436 | 504 | 189 | 257 |
| | **DR71M** | 139 | 461 | 529 | 214 | 282 |
| | **DRN80M** | 156 | 515 | 596 | 268 | 349 |
| | **DRN90S** | 179 | 517 | 610 | 270 | 363 |
| | **DRN90L** | 179 | 549 | 642 | 302 | 395 |
| | **DRN100L** | 197 | 595 | 688 | 348 | 441 |
| | **DRN100LS** | 197 | 545 | 638 | 298 | 391 |
| | **DRN112M** | 221 | 626 | 738 | 379 | 491 |
| | **DRN132S** | 221 | 676 | 788 | 429 | 541 |

| (→ 142) | | AC | L | LS | LB | LBS |
|---|---|---|---|---|---|---|
| **R..137R77** | **DR63..** | 132 | 418 | 473 | 178 | 233 |
| | **DR71S** | 139 | 429 | 497 | 189 | 257 |
| | **DR71M** | 139 | 454 | 522 | 214 | 282 |
| | **DRN80M** | 156 | 508 | 589 | 268 | 349 |
| | **DRN90S** | 179 | 510 | 603 | 270 | 363 |
| | **DRN90L** | 179 | 542 | 635 | 302 | 395 |
| | **DRN100L** | 197 | 588 | 681 | 348 | 441 |
| | **DRN100LS** | 197 | 538 | 631 | 298 | 391 |
| | **DRN112M** | 221 | 619 | 731 | 379 | 491 |
| | **DRN132S** | 221 | 669 | 781 | 429 | 541 |
| | **DRN132M** | 261 | 685 | 824 | 445 | 584 |
| | **DRN132L** | 261 | 710 | 849 | 470 | 609 |
| **R..147R77** | **DR63..** | 132 | 410 | 465 | 178 | 233 |
| | **DR71S** | 139 | 421 | 489 | 189 | 257 |
| | **DR71M** | 139 | 446 | 514 | 214 | 282 |
| | **DRN80M** | 156 | 500 | 581 | 268 | 349 |
| | **DRN90S** | 179 | 502 | 595 | 270 | 363 |
| | **DRN90L** | 179 | 534 | 627 | 302 | 395 |
| | **DRN100L** | 197 | 580 | 673 | 348 | 441 |
| | **DRN100LS** | 197 | 530 | 623 | 298 | 391 |
| | **DRN112M** | 221 | 611 | 723 | 379 | 491 |
| | **DRN132S** | 221 | 661 | 773 | 429 | 541 |
| **R..147R87** | **DRN90L** | 179 | 577 | 670 | 297 | 390 |
| | **DRN100L** | 197 | 623 | 716 | 343 | 436 |
| | **DRN100LS** | 197 | 573 | 666 | 293 | 386 |
| | **DRN112M** | 221 | 654 | 766 | 374 | 486 |
| | **DRN132S** | 221 | 704 | 816 | 424 | 536 |
| | **DRN132M** | 261 | 720 | 859 | 440 | 579 |
| | **DRN132L** | 261 | 745 | 884 | 465 | 604 |
| | **DRN160M** | 314 | 814 | 1003 | 534 | 723 |
| | **DRN160L** | 314 | 814 | 1003 | 534 | 723 |
| **R..167R97** | **DR71M** | 139 | 529 | 597 | 204 | 272 |
| | **DRN80M** | 156 | 583 | 664 | 258 | 339 |
| | **DRN90S** | 179 | 585 | 678 | 260 | 353 |
| | **DRN90L** | 179 | 617 | 710 | 292 | 385 |
| | **DRN100L** | 197 | 663 | 756 | 338 | 431 |
| | **DRN100LS** | 197 | 613 | 706 | 288 | 381 |
| | **DRN112M** | 221 | 694 | 806 | 369 | 481 |
| | **DRN132S** | 221 | 744 | 856 | 419 | 531 |
| | **DRN132M** | 261 | 760 | 899 | 435 | 574 |
| | **DRN132L** | 261 | 785 | 924 | 460 | 599 |
| | **DRN160M** | 314 | 854 | 1043 | 529 | 718 |

Die Tabelle wird auf der Folgeseite fortgesetzt.

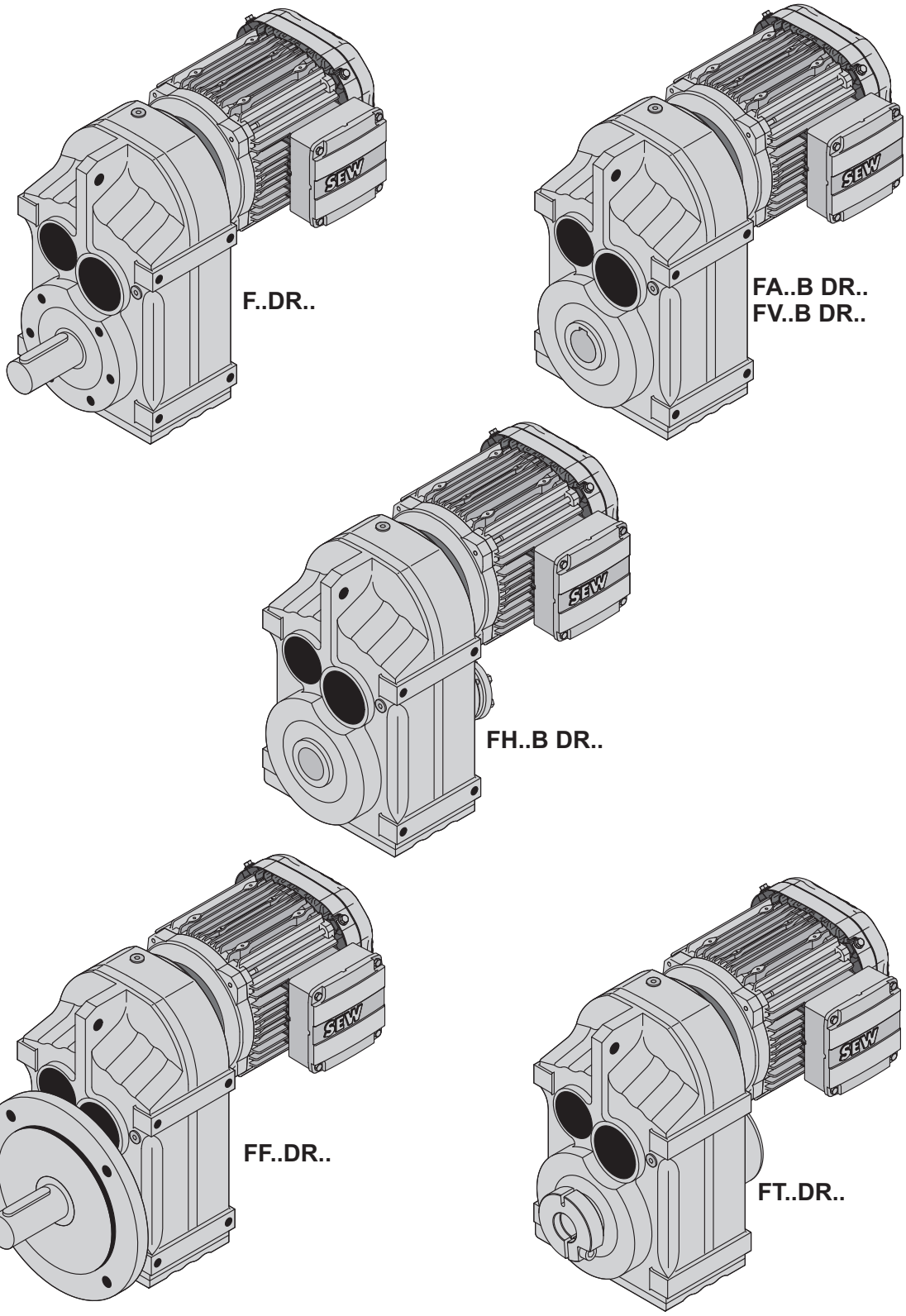
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| (→ 142) | | AC | L | LS | LB | LBS |
|---|---|---|---|---|---|---|
| **R..167R107** | **DRN100L** | 197 | 714 | 807 | 332 | 425 |
| | **DRN100LS** | 197 | 664 | 757 | 282 | 375 |
| | **DRN112M** | 221 | 745 | 857 | 363 | 475 |
| | **DRN132S** | 221 | 795 | 907 | 413 | 525 |
| | **DRN132M** | 261 | 811 | 950 | 429 | 568 |
| | **DRN132L** | 261 | 836 | 975 | 454 | 593 |
| | **DRN160M** | 314 | 905 | 1094 | 523 | 712 |
| | **DRN160L** | 314 | 905 | 1094 | 523 | 712 |
| | **DRN180M** | 357 | 930 | 1119 | 548 | 737 |

21284997/EN – 03/2015

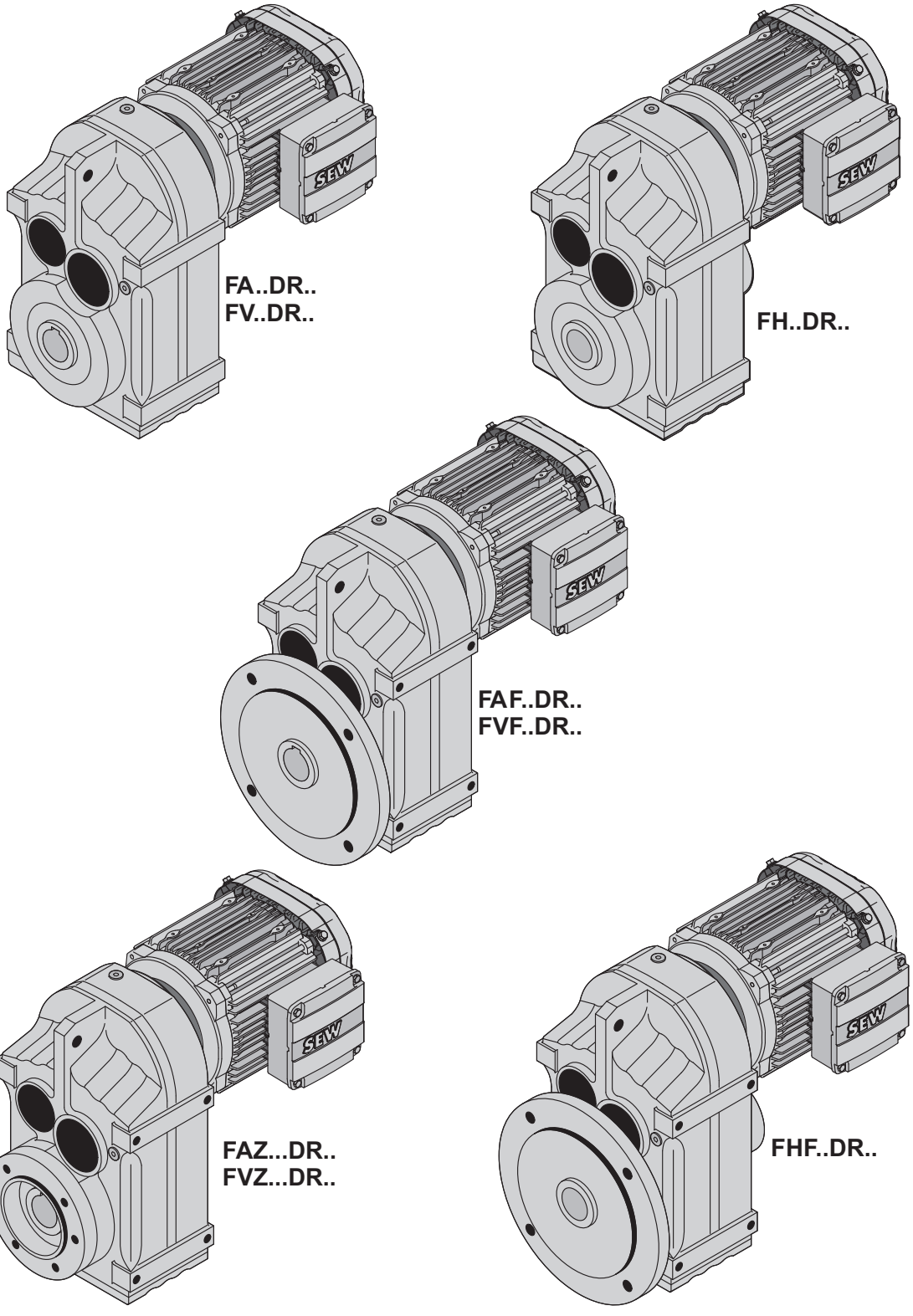
# 9 Parallel-shaft helical gearmotors

## 9.1 F..DRN.. designs

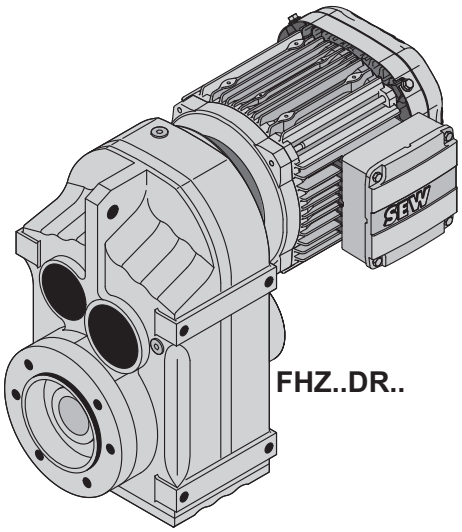




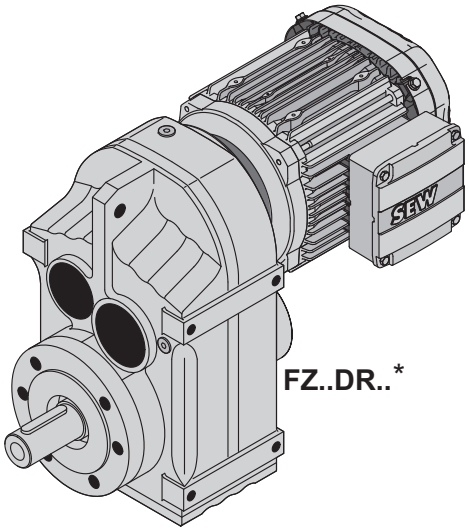

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**FHZ..DR..**




**FZ..DR..***

*13467679883*

*) The gear unit design FZ.. is not considered in the gearmotor dimension sheets. Contact SEW-EURODRIVE if required.



21284997/EN – 03/2015

## 9.2 Possible geometrical combinations of F..DRN..

| F27, $n_e$=1400 1/min | | | | | | | | 130 Nm |
|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L |
| | | | | |  3 | | | |
| 9.9 | 130 | 4500 | - | 140.74 | | | | |
| 11 | 130 | 4500 | - | 129.09 | | | | |
| 13 | 130 | 4500 | - | 109.90 | | | | |
| 15 | 130 | 4500 | - | 94.76 | | | | |
| 16 | 130 | 4500 | - | 88.32 | | | | |
| 18 | 130 | 4500 | - | 77.21 | | | | |
| 19 | 130 | 4500 | - | 72.37 | | | | |
| 22 | 130 | 4400 | - | 63.86 | | | | |
| 25 | 130 | 4180 | - | 56.62 | | | | |
| 28 | 130 | 3980 | - | 50.19 | | | | |
| 30 | 130 | 3860 | - | 46.78 | | | | |
| 34 | 130 | 3640 | - | 40.89 | | | | |
| 37 | 130 | 3530 | - | 38.33 | | | | |
| 41 | 130 | 3340 | - | 33.83 | | | | |
| | | | | |  2 | | | |
| 47 | 130 | 3140 | - | 29.56 | | | | |
| 52 | 130 | 3030 | - | 27.18 | | | | |
| 60 | 130 | 2820 | - | 23.25 | | | | |
| 69 | 130 | 2630 | - | 20.15 | | | | |
| 74 | 130 | 2550 | - | 18.84 | | | | |
| 86 | 130 | 2370 | - | 16.28 | | | | |
| 101 | 130 | 2180 | - | 13.84 | | | | |
| 113 | 130 | 2060 | - | 12.35 | | | | |
| 133 | 130 | 1900 | - | 10.55 | | | | |
| 142 | 130 | 1830 | - | 9.88 | | | | |
| 149 | 130 | 1660 | - | 9.40 | | | | |
| 172 | 123 | 1580 | - | 8.13 | | | | |
| 203 | 114 | 1530 | - | 6.91 | | | | |
| 227 | 109 | 1480 | - | 6.17 | | | | |
| 266 | 100 | 1440 | - | 5.27 | | | | |
| 284 | 96 | 1420 | - | 4.93 | | | | |
| 337 | 87 | 1380 | - | 4.16 | | | | |

| F27R17, $n_e$=1400 1/min | | | | | | 130 Nm |
|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M |
| | | | | |  3  3 | |
| 0.16 | 130 | 4500 | - | 8972 | | |
| 0.18 | 130 | 4500 | - | 7736 | | |
| 0.19 | 130 | 4500 | - | 7211 | | |
| 0.22 | 130 | 4500 | - | 6303 | | |
| 0.26 | 130 | 4500 | - | 5435 | | |
| 0.29 | 130 | 4500 | - | 4855 | | |

21284997/EN – 03/2015

| F27R17, $n_e$=1400 1/min | | | | | | 130 Nm |
|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M |
| 0.33 | 130 | 4500 | - | 4243 | | |
| 0.38 | 130 | 4500 | - | 3715 | | |
| 0.43 | 130 | 4500 | - | 3247 | | |
| 0.49 | 130 | 4500 | - | 2878 | | |
| 0.56 | 130 | 4500 | - | 2515 | | |
| 0.63 | 130 | 4500 | - | 2217 | | |
|  | | | | | | |
| 0.74 | 130 | 4500 | - | 1898 | | |
| 0.85 | 130 | 4500 | - | 1645 | | |
| 0.92 | 130 | 4500 | - | 1525 | | |
| 1.1 | 130 | 4500 | - | 1322 | | |
| 1.2 | 130 | 4500 | - | 1146 | | |
| 1.4 | 130 | 4500 | - | 1013 | | |
| 1.6 | 130 | 4500 | - | 890 | | |
| 1.8 | 130 | 4500 | - | 778 | | |
| 2.1 | 130 | 4500 | - | 682 | | |
| 2.3 | 130 | 4500 | - | 602 | | |
| 2.7 | 130 | 4500 | - | 520 | | |
|  | | | | | | |
| 0.72 | 130 | 4500 | - | 1948 | | |
| 0.77 | 130 | 4500 | - | 1826 | | |
| 0.87 | 130 | 4500 | - | 1610 | | |
| 1.0 | 130 | 4500 | - | 1399 | | |
| 1.1 | 130 | 4500 | - | 1230 | | |
| 1.5 | 130 | 4500 | - | 948 | | |
| 1.7 | 130 | 4500 | - | 829 | | |
| 1.9 | 130 | 4500 | - | 731 | | |
| 2.2 | 130 | 4500 | - | 633 | | |
| 2.5 | 130 | 4500 | - | 551* | | |
| 2.9 | 130 | 4500 | - | 489 | | |
| 3.3 | 130 | 4500 | - | 427 | | |
| 3.7 | 130 | 4500 | - | 379 | | |
| 4.3 | 130 | 4500 | - | 326 | | |
| 4.9 | 130 | 4500 | - | 288 | | |
| 5.6 | 130 | 4500 | - | 251 | | |
| 6.3 | 130 | 4500 | - | 221 | | |
| 8.1 | 130 | 4500 | - | 172 | | |
| 9.2 | 130 | 4500 | - | 153 | | |
| 11 | 130 | 4500 | - | 130 | | |
|  | | | | | | |
| 3.1 | 130 | 4500 | - | 458 | | |
| 3.5 | 130 | 4500 | - | 397 | | |
| 4.1 | 130 | 4500 | - | 342 | | |
| 4.6 | 130 | 4500 | - | 302 | | |
| 5.3 | 130 | 4500 | - | 266 | | |
| 5.9 | 130 | 4500 | - | 236 | | |
| 6.6 | 130 | 4500 | - | 211 | | |
| 7.5 | 130 | 4500 | - | 186 | | |

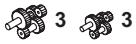


21284997/EN – 03/2015

| F27R17, $n_e$=1400 1/min | | | | | | 130 Nm |
|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M |
| 9.9 | 130 | 4500 | - | 142 | | |
| 11 | 130 | 4500 | - | 124 | | |
| 13 | 130 | 4500 | - | 109 | | |
| 15 | 130 | 4500 | - | 96 | | |

| F37, $n_e$=1400 1/min | | | | | | | | 200 Nm |
|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L |
| | | | | |  3 | | | |
| 11 | 200 | 4290 | 6.8 | 128.51 | | | | |
| 12 | 200 | 4290 | 6.8 | 117.88 | | | | |
| 14 | 200 | 4290 | 6.8 | 100.36 | | | | |
| 16 | 200 | 4290 | 6.8 | 86.53 | | | | |
| 17 | 200 | 4290 | 6.8 | 80.65 | | | | |
| 20 | 200 | 4290 | 6.9 | 70.50 | | | | |
| 21 | 200 | 4290 | 6.9 | 66.09 | | | | |
| 24 | 200 | 4290 | 6.9 | 58.32 | | | | |
| 26 | 200 | 4290 | 7.5 | 54.54 | | | | |
| 27 | 200 | 4290 | 6.9 | 51.70 | | | | |
| 30 | 200 | 4290 | 7.6 | 47.02 | | | | |
| 32 | 200 | 4290 | 7.6 | 43.83 | | | | |
| 37 | 200 | 4290 | 7.7 | 38.31 | | | | |
| 39 | 200 | 4290 | 7.7 | 35.91 | | | | |
| 44 | 200 | 4290 | 7.7 | 31.69 | | | | |
| 50 | 200 | 4060 | 7.8 | 28.09 | | | | |
| 59 | 200 | 3760 | 7.8 | 23.88 | | | | |
| | | | | |  2 | | | |
| 59 | 200 | 3740 | 6.1 | 23.63 | | | | |
| 68 | 200 | 3500 | 6.2 | 20.57 | | | | |
| 73 | 200 | 3390 | 6.2 | 19.27 | | | | |
| 82 | 200 | 3180 | 6.4 | 17.03 | | | | |
| 89 | 200 | 3070 | 6.4 | 15.81 | | | | |
| 98 | 200 | 2910 | 6.5 | 14.33 | | | | |
| 109 | 200 | 2750 | 6.6 | 12.87 | | | | |
| 126 | 190 | 2620 | 6.7 | 11.08 | | | | |
| 134 | 185 | 2580 | 6.8 | 10.42 | | | | |
| 156 | 175 | 2460 | 6.9 | 8.97 | | | | |
| 175 | 170 | 2360 | 7.4 | 8.01 | | | | |
| 188 | 145 | 2350 | 9.9 | 7.44 | | | | |
| 208 | 140 | 2270 | 10 | 6.74 | | | | |
| 231 | 135 | 2190 | 10.2 | 6.05 | | | | |
| 269 | 125 | 2120 | 10.5 | 5.21 | | | | |
| 286 | 120 | 2100 | 10.6 | 4.90 | | | | |
| 332 | 110 | 2030 | 10.9 | 4.22 | | | | |
| 371 | 105 | 1970 | 11.9 | 3.77 | | | | |

21284997/EN – 03/2015

| F37R17, $n_e$=1400 1/min | | | | | | 200 Nm |
|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M |
| | | | | |  3 3 | |
| 0.17 | 200 | 4290 | - | 8193 | | |
| 0.20 | 200 | 4290 | - | 7064 | | |
| 0.21 | 200 | 4290 | - | 6585 | | |
| 0.24 | 200 | 4290 | - | 5756 | | |
| 0.28 | 200 | 4290 | - | 4963 | | |
| 0.32 | 200 | 4290 | - | 4434 | | |
| 0.36 | 200 | 4290 | - | 3875 | | |
| 0.41 | 200 | 4290 | - | 3392 | | |
| 0.47 | 200 | 4290 | - | 2965 | | |
| 0.54 | 200 | 4290 | - | 2587 | | |
| 0.61 | 200 | 4290 | - | 2284 | | |
| 0.70 | 200 | 4290 | - | 1997 | | |
| 0.80 | 200 | 4290 | - | 1742 | | |
| 0.91 | 200 | 4290 | - | 1545 | | |
| | | | | |  2 3 | |
| 0.73 | 200 | 4290 | - | 1929 | | |
| 0.83 | 200 | 4290 | - | 1679 | | |
| 0.90 | 200 | 4290 | - | 1550 | | |
| 1.0 | 200 | 4290 | - | 1356 | | |
| 1.2 | 200 | 4290 | - | 1180 | | |
| 1.3 | 200 | 4290 | - | 1044 | | |
| 1.5 | 200 | 4290 | - | 914 | | |
| 1.7 | 200 | 4290 | - | 808 | | |
| 2.0 | 200 | 4290 | - | 698 | | |
| 2.3 | 200 | 4290 | - | 616 | | |
| 2.6 | 200 | 4290 | - | 544 | | |
| 3.0 | 200 | 4290 | - | 466 | | |
| 3.4 | 200 | 4290 | - | 411 | | |
| 3.8 | 200 | 4290 | - | 364 | | |
| | | | | |  3 2 | |
| 1.0 | 200 | 4290 | - | 1370 | | |
| 1.2 | 200 | 4290 | - | 1198 | | |
| 1.3 | 200 | 4290 | - | 1047 | | |
| 1.5 | 200 | 4290 | - | 915 | | |
| 1.7 | 200 | 4290 | - | 807 | | |
| 2.0 | 200 | 4290 | - | 707 | | |
| 2.3 | 200 | 4290 | - | 617 | | |
| 2.6 | 200 | 4290 | - | 538 | | |
| 2.9 | 200 | 4290 | - | 477 | | |
| 3.4 | 200 | 4290 | - | 412 | | |
| 3.8 | 200 | 4290 | - | 365 | | |
| 4.3 | 200 | 4290 | - | 322 | | |
| 5.0 | 200 | 4290 | - | 278 | | |
| 5.8 | 200 | 4290 | - | 242 | | |
| 6.3 | 200 | 4290 | - | 221 | | |
| 7.2 | 200 | 4290 | - | 195 | | |
| 8.3 | 200 | 4290 | - | 168 | | |



21284997/EN – 03/2015

| F37R17, $n_e$=1400 1/min | | | | | | 200 Nm |
|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M |
| 9.5 | 200 | 4290 | - | 147 | | |
| 11 | 200 | 4290 | - | 127 | | |
| 12 | 200 | 4290 | - | 121 | | |
| 13 | 200 | 4290 | - | 108 | | |
| 15 | 200 | 4290 | - | 91 | | |
| | | | | | 2 | 2 |
| 4.3 | 200 | 4290 | - | 326 | | |
| 4.9 | 200 | 4290 | - | 285 | | |
| 5.6 | 200 | 4290 | - | 250 | | |
| 6.4 | 200 | 4290 | - | 219 | | |
| 7.5 | 200 | 4290 | - | 186 | | |
| 8.4 | 200 | 4290 | - | 167 | | |
| 9.7 | 200 | 4290 | - | 145 | | |
| 11 | 200 | 4290 | - | 129 | | |
| 12 | 200 | 4290 | - | 118 | | |
| 14 | 200 | 4290 | - | 98 | | |
| 16 | 200 | 4290 | - | 87 | | |

| F47, $n_e$=1400 1/min | | | | | | | | 400 Nm |
|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L |
| | | | | | | 3 | | |
| 7.3 | 400 | 5920 | 6.1 | 190.76 | | | | |
| 8.0 | 400 | 5920 | 6.2 | 175.38 | | | | |
| 9.3 | 400 | 5920 | 6.2 | 150.06 | | | | |
| 11 | 400 | 5920 | 6.2 | 130.07 | | | | |
| 12 | 400 | 5920 | 6.2 | 121.57 | | | | |
| 13 | 400 | 5920 | 6.2 | 105.09 | | | | |
| 16 | 400 | 5920 | 6.2 | 89.29 | | | | |
| 18 | 400 | 5920 | 6.2 | 79.72 | | | | |
| 21 | 400 | 5920 | 6.3 | 68.09 | | | | |
| 21 | 400 | 5920 | 6.7 | 65.36 | | | | |
| 25 | 400 | 5920 | 6.8 | 56.49 | | | | |
| 29 | 400 | 5920 | 6.8 | 48.00* | | | | |
| 33 | 400 | 5920 | 6.8 | 42.86 | | | | |
| 38 | 400 | 5920 | 6.9 | 36.61 | | | | |
| 41 | 400 | 5920 | 6.9 | 34.29 | | | | |
| 48 | 400 | 5790 | 7 | 28.88 | | | | |
| | | | | | | 2 | | |
| 45 | 400 | 5920 | 5.7 | 30.86 | | | | |
| 48 | 400 | 5830 | 5.7 | 29.32 | | | | |
| 54 | 400 | 5460 | 5.8 | 25.72 | | | | |
| 64 | 400 | 5030 | 5.9 | 21.82 | | | | |
| 71 | 400 | 4770 | 5.9 | 19.70 | | | | |
| 81 | 400 | 4450 | 6 | 17.33 | | | | |
| 86 | 400 | 4320 | 6 | 16.36 | | | | |

21284997/EN – 03/2015

| F47, $n_e$=1400 1/min | | | | | | | | 400 Nm |
|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L |
| 101 | 400 | 3950 | 6.1 | 13.93 | | | | |
| 111 | 400 | 3740 | 6.4 | 12.66 | | | | |
| 128 | 400 | 3440 | 6.5 | 10.97 | | | | |
| 156 | 330 | 3250 | 8 | 8.96 | | | | |
| 178 | 380 | 2630 | 8.1 | 7.88 | | | | |
| 188 | 380 | 2530 | 8.2 | 7.44* | | | | |
| 221 | 350 | 2470 | 8.4 | 6.34 | | | | |
| 243 | 340 | 2390 | 9 | 5.76 | | | | |
| 281 | 320 | 2310 | 9.2 | 4.99 | | | | |

| F47R17, $n_e$=1400 1/min | | | | | | 400 Nm |
|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M |
| | | | | | 3 3 | |
| 0.11 | 400 | 5920 | - | 12251 | | |
| 0.13 | 400 | 5920 | - | 10619 | | |
| 0.14 | 400 | 5920 | - | 9846 | | |
| 0.16 | 400 | 5920 | - | 8534 | | |
| 0.19 | 400 | 5920 | - | 7460 | | |
| 0.21 | 400 | 5920 | - | 6536 | | |
| 0.24 | 400 | 5920 | - | 5746 | | |
| 0.28 | 400 | 5920 | - | 5022 | | |
| 0.32 | 400 | 5920 | - | 4401 | | |
| 0.36 | 400 | 5920 | - | 3883 | | |
| 0.41 | 400 | 5920 | - | 3443 | | |
| 0.47 | 400 | 5920 | - | 2976 | | |
| 0.53 | 400 | 5920 | - | 2629 | | |
| 0.61 | 400 | 5920 | - | 2304 | | |
| 0.69 | 400 | 5920 | - | 2033 | | |
| | | | | | 2 3 | |
| 0.56 | 400 | 5920 | - | 2519 | | |
| 0.58 | 400 | 5920 | - | 2394 | | |
| 0.64 | 400 | 5920 | - | 2172 | | |
| 0.69 | 400 | 5920 | - | 2025 | | |
| 0.79 | 400 | 5920 | - | 1770 | | |
| 0.89 | 400 | 5920 | - | 1576 | | |
| 1.0 | 400 | 5920 | - | 1363 | | |
| 1.2 | 400 | 5920 | - | 1192 | | |
| 1.3 | 400 | 5920 | - | 1061 | | |
| 1.5 | 400 | 5920 | - | 931 | | |
| 1.7 | 400 | 5920 | - | 822 | | |
| 2.0 | 400 | 5920 | - | 706 | | |
| 2.3 | 400 | 5920 | - | 619 | | |
| | | | | | 3 2 | |
| 0.78 | 400 | 5920 | - | 1785 | | |
| 0.89 | 400 | 5920 | - | 1578 | | |

| F47R17, $n_e$=1400 1/min | | | | | | | 400 Nm |
|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M | |
| 1.0 | 400 | 5920 | - | 1364 | | | |
| 1.2 | 400 | 5920 | - | 1203 | | | |
| 1.3 | 400 | 5920 | - | 1049 | | | |
| 1.5 | 400 | 5920 | - | 918 | | | |
| 1.7 | 400 | 5920 | - | 809 | | | |
| 2.0 | 400 | 5920 | - | 700 | | | |
| 2.3 | 400 | 5920 | - | 622 | | | |
| 2.6 | 400 | 5920 | - | 543 | | | |
| 2.9 | 400 | 5920 | - | 475 | | | |
| 3.3 | 400 | 5920 | - | 419 | | | |
| 3.8 | 400 | 5920 | - | 370 | | | |
| 4.3 | 400 | 5920 | - | 324 | | | |
| 4.9 | 400 | 5920 | - | 288 | | | |
| 5.6 | 400 | 5920 | - | 249 | | | |
| 6.4 | 400 | 5920 | - | 218 | | | |
| 7.3 | 400 | 5920 | - | 193 | | | |
| 8.0 | 400 | 5920 | - | 175 | | | |
| 9.5 | 400 | 5920 | - | 147 | | | |
| 11 | 400 | 5920 | - | 130 | | | |
| 2 2 | | | | | | | |
| 2.7 | 400 | 5920 | - | 524 | | | |
| 2.9 | 400 | 5920 | - | 489 | | | |
| 3.3 | 400 | 5920 | - | 427 | | | |
| 3.7 | 400 | 5920 | - | 381 | | | |
| 4.2 | 400 | 5920 | - | 334 | | | |
| 4.7 | 400 | 5920 | - | 295 | | | |
| 5.5 | 400 | 5920 | - | 253 | | | |
| 6.5 | 400 | 5920 | - | 217 | | | |
| 7.4 | 400 | 5920 | - | 190 | | | |
| 7.9 | 400 | 5920 | - | 178 | | | |
| 9.4 | 400 | 5920 | - | 149 | | | |
| 11 | 400 | 5920 | - | 131 | | | |

| F57, $n_e$=1400 1/min | | | | | | | | | | 600 Nm |
|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M |
| 3 | | | | | | | | | | |
| 7.0 | 600 | 9200 | 6 | 199.70 | | | | | | |
| 7.6 | 600 | 9200 | 6.1 | 183.60 | | | | | | |
| 8.9 | 600 | 9200 | 6.1 | 157.09 | | | | | | |
| 10 | 600 | 9200 | 6.1 | 136.16 | | | | | | |
| 11 | 600 | 9200 | 6.1 | 127.27 | | | | | | |
| 13 | 600 | 9200 | 6.1 | 110.01 | | | | | | |
| 15 | 600 | 9200 | 6.1 | 93.47 | | | | | | |
| 17 | 600 | 9200 | 6.1 | 83.46 | | | | | | |
| 19 | 600 | 9200 | 6.5 | 72.98 | | | | | | |

21284997/EN – 03/2015

| F57, $n_e$=1400 1/min | | | | | | | | | | 600 Nm |
|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M |
| 21 | 600 | 9200 | 6.5 | 68.22 | | | | | | |
| 24 | 600 | 9200 | 6.5 | 58.97 | | | | | | |
| 28 | 600 | 9200 | 6.6 | 50.10 | | | | | | |
| 31 | 600 | 9160 | 6.6 | 44.73 | | | | | | |
| 37 | 600 | 8510 | 6.6 | 38.21 | | | | | | |
| 39 | 600 | 8250 | 6.6 | 35.79 | | | | | | |
| 46 | 590 | 7650 | 6.7 | 30.15 | | | | | | |
|  2 | | | | | | | | | | |
| 35 | 290 | 10500 | 5.7 | 40.13 | | | | | | |
| 41 | 500 | 8670 | 5.7 | 34.24 | | | | | | |
| 47 | 545 | 7890 | 5.6 | 29.94 | | | | | | |
| 49 | 535 | 7760 | 5.7 | 28.45 | | | | | | |
| 56 | 575 | 7060 | 5.8 | 24.96 | | | | | | |
| 66 | 600 | 6350 | 5.8 | 21.17 | | | | | | |
| 73 | 600 | 6020 | 5.9 | 19.11 | | | | | | |
| 83 | 600 | 5620 | 5.9 | 16.81 | | | | | | |
| 88 | 600 | 5450 | 6 | 15.88 | | | | | | |
| 104 | 600 | 4980 | 6.1 | 13.52 | | | | | | |
| 114 | 600 | 4710 | 6.3 | 12.29 | | | | | | |
| 132 | 600 | 4320 | 6.4 | 10.64 | | | | | | |
| 150 | 420 | 4760 | 7.6 | 9.31 | | | | | | |
| 171 | 420 | 4450 | 7.8 | 8.19 | | | | | | |
| 181 | 420 | 4310 | 7.8 | 7.73 | | | | | | |
| 213 | 420 | 3940 | 8 | 6.58 | | | | | | |
| 234 | 420 | 3730 | 8.6 | 5.98 | | | | | | |
| 270 | 415 | 3460 | 8.8 | 5.18 | | | | | | |

| F57R37, $n_e$=1400 1/min | | | | | | | | 600 Nm |
|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L |
|  3  3 | | | | | | | | |
| 0.09 | 600 | 9200 | - | 14832 | | | | |
| 0.10 | 600 | 9200 | - | 13604 | | | | |
| 0.11 | 600 | 9200 | - | 12602 | | | | |
| 0.12 | 600 | 9200 | - | 11252 | | | | |
| 0.14 | 600 | 9200 | - | 9986 | | | | |
| 0.16 | 600 | 9200 | - | 8787 | | | | |
| 0.18 | 600 | 9200 | - | 7908 | | | | |
| 0.20 | 600 | 9200 | - | 6913 | | | | |
| 0.23 | 600 | 9200 | - | 6030 | | | | |
| 0.26 | 600 | 9200 | - | 5289 | | | | |
| 0.30 | 600 | 9200 | - | 4654 | | | | |
| 0.34 | 600 | 9200 | - | 4060 | | | | |
| 0.39 | 600 | 9200 | - | 3564 | | | | |
| 0.44 | 600 | 9200 | - | 3161 | | | | |
| 0.51 | 600 | 9200 | - | 2737 | | | | |

21284997/EN – 03/2015

| F57R37, $n_e$=1400 1/min | | | | | | | | 600 Nm |
|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L |
| 0.58 | 600 | 9200 | - | 2409 | | | | |
| 0.66 | 600 | 9200 | - | 2131 | | | | |
| 0.76 | 600 | 9200 | - | 1840 | | | | |
| 0.86 | 600 | 9200 | - | 1623 | | | | |
| 0.97 | 600 | 9200 | - | 1439 | | | | |
| 1.1 | 600 | 9200 | - | 1238 | | | | |
| 2 3 | | | | | | | | |
| 0.49 | 600 | 9200 | - | 2854 | | | | |
| 0.54 | 600 | 9200 | - | 2576 | | | | |
| 0.62 | 600 | 9200 | - | 2266 | | | | |
| 0.70 | 600 | 9200 | - | 2012 | | | | |
| 0.78 | 600 | 9200 | - | 1791 | | | | |
| 0.87 | 600 | 9200 | - | 1617 | | | | |
| 0.98 | 600 | 9200 | - | 1422 | | | | |
| 1.1 | 600 | 9200 | - | 1243 | | | | |
| 1.3 | 600 | 9200 | - | 1066 | | | | |
| 1.5 | 600 | 9200 | - | 949 | | | | |
| 1.6 | 600 | 9200 | - | 856 | | | | |
| 1.9 | 600 | 9200 | - | 749 | | | | |
| 2.1 | 600 | 9200 | - | 658 | | | | |
| 2.6 | 600 | 9200 | - | 549 | | | | |
| 2.9 | 600 | 9200 | - | 483 | | | | |
| 3 2 | | | | | | | | |
| 1.3 | 600 | 9200 | - | 1106 | | | | |
| 1.4 | 600 | 9200 | - | 967 | | | | |
| 1.6 | 600 | 9200 | - | 851 | | | | |
| 1.9 | 600 | 9200 | - | 738 | | | | |
| 2.2 | 600 | 9200 | - | 646 | | | | |
| 2.5 | 600 | 9200 | - | 558 | | | | |
| 2.8 | 600 | 9200 | - | 506 | | | | |
| 3.1 | 600 | 9200 | - | 452 | | | | |
| 3.6 | 600 | 9200 | - | 386 | | | | |
| 4.1 | 600 | 9200 | - | 338 | | | | |
| 5.5 | 600 | 9200 | - | 255 | | | | |
| 7.0 | 600 | 9200 | - | 201 | | | | |
| 7.7 | 600 | 9200 | - | 181 | | | | |
| 9.0 | 600 | 9200 | - | 155 | | | | |
| 2 2 | | | | | | | | |
| 3.3 | 600 | 9200 | - | 426 | | | | |
| 3.7 | 600 | 9200 | - | 382 | | | | |
| 4.2 | 600 | 9200 | - | 330 | | | | |
| 4.7 | 600 | 9200 | - | 298 | | | | |
| 5.3 | 600 | 9200 | - | 262 | | | | |
| 6.2 | 600 | 9200 | - | 226 | | | | |
| 7.0 | 600 | 9200 | - | 200 | | | | |
| 8.2 | 600 | 9200 | - | 170 | | | | |
| 9.2 | 600 | 9200 | - | 152 | | | | |
| 10 | 600 | 9200 | - | 134 | | | | |

21284997/EN – 03/2015

| F67, $n_e$=1400 1/min | | | | | | | | | | 820 Nm |
|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M |
| | | | | | |  3 | | | | |
| 6.1 | 820 | 10300 | 5.7 | 228.99 | | | | | | |
| 7.2 | 820 | 10300 | 5.8 | 195.39 | | | | | | |
| 8.2 | 820 | 10300 | 5.7 | 170.85 | | | | | | |
| 8.6 | 820 | 10300 | 5.7 | 162.31 | | | | | | |
| 9.8 | 820 | 10300 | 5.8 | 142.40 | | | | | | |
| 12 | 820 | 10300 | 5.8 | 120.79 | | | | | | |
| 13 | 820 | 10300 | 5.8 | 109.04 | | | | | | |
| 15 | 820 | 10300 | 5.8 | 95.94 | | | | | | |
| 15 | 820 | 10300 | 5.8 | 90.59 | | | | | | |
| 18 | 820 | 10300 | 6.3 | 79.76 | | | | | | |
| 21 | 820 | 10300 | 6.3 | 67.65 | | | | | | |
| 23 | 820 | 10300 | 6.3 | 61.07 | | | | | | |
| 26 | 820 | 10300 | 6.3 | 53.73 | | | | | | |
| 28 | 820 | 10300 | 6.3 | 50.74 | | | | | | |
| 32 | 820 | 10300 | 6.3 | 43.20 | | | | | | |
| 36 | 780 | 10700 | 6.4 | 39.26 | | | | | | |
| 41 | 740 | 11000 | 6.5 | 34.01 | | | | | | |
| | | | | | |  2 | | | | |
| 39 | 820 | 10300 | 5.3 | 36.30 | | | | | | |
| 44 | 820 | 10300 | 5.4 | 32.08 | | | | | | |
| 51 | 820 | 10300 | 5.4 | 27.41 | | | | | | |
| 56 | 820 | 10300 | 5.4 | 25.13 | | | | | | |
| 63 | 820 | 10300 | 5.5 | 22.05 | | | | | | |
| 67 | 820 | 10300 | 5.5 | 20.90* | | | | | | |
| 77 | 820 | 10300 | 5.6 | 18.29 | | | | | | |
| 85 | 820 | 10300 | 5.8 | 16.48 | | | | | | |
| 97 | 820 | 10300 | 5.7 | 14.46 | | | | | | |
| 110 | 820 | 10300 | 5.8 | 12.76 | | | | | | |
| 124 | 820 | 10300 | 6 | 11.31 | | | | | | |
| 145 | 820 | 10300 | 6.1 | 9.66 | | | | | | |
| 154 | 530 | 11400 | 8 | 9.08 | | | | | | |
| 163 | 570 | 10900 | 8.1 | 8.60 | | | | | | |
| 186 | 610 | 10100 | 8.2 | 7.53 | | | | | | |
| 206 | 620 | 9660 | 8.7 | 6.78 | | | | | | |
| 235 | 610 | 9200 | 8.6 | 5.95 | | | | | | |
| 267 | 590 | 8850 | 8.8 | 5.25 | | | | | | |
| 300 | 560 | 8590 | 9.3 | 4.66 | | | | | | |
| 353 | 500 | 8390 | 9.6 | 3.97 | | | | | | |

| F67R37, $n_e$=1400 1/min | | | | | | | | 820 Nm |
|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L |
| | | | | |  3  3 | | | |
| 0.07 | 820 | 10300 | - | 19199 | | | | |
| 0.08 | 820 | 10300 | - | 17610 | | | | |

21284997/EN – 03/2015

| F67R37, $n_e$=1400 1/min | | | | | | | | 820 Nm |
|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L |
| 0.09 | 820 | 10300 | - | 14992 | | | | |
| 0.11 | 820 | 10300 | - | 12926 | | | | |
| 0.12 | 820 | 10300 | - | 11480 | | | | |
| 0.14 | 820 | 10300 | - | 10220 | | | | |
| 0.16 | 820 | 10300 | - | 8933 | | | | |
| 0.18 | 820 | 10300 | - | 7940 | | | | |
| 0.20 | 820 | 10300 | - | 7096 | | | | |
| 0.23 | 820 | 10300 | - | 6080 | | | | |
| 0.26 | 820 | 10300 | - | 5341 | | | | |
| 0.30 | 820 | 10300 | - | 4690 | | | | |
| 0.34 | 820 | 10300 | - | 4091 | | | | |
| 0.39 | 820 | 10300 | - | 3574 | | | | |
| 0.45 | 820 | 10300 | - | 3133 | | | | |
| 0.51 | 820 | 10300 | - | 2756 | | | | |
| 0.57 | 820 | 10300 | - | 2439 | | | | |
|  | | | | | | | | |
| 0.41 | 820 | 10300 | - | 3377 | | | | |
| 0.48 | 820 | 10300 | - | 2912 | | | | |
| 0.52 | 820 | 10300 | - | 2714 | | | | |
| 0.59 | 820 | 10300 | - | 2372 | | | | |
| 0.66 | 820 | 10300 | - | 2126 | | | | |
| 0.75 | 820 | 10300 | - | 1859 | | | | |
| 0.86 | 820 | 10300 | - | 1631 | | | | |
| 0.97 | 820 | 10300 | - | 1437 | | | | |
| 1.1 | 820 | 10300 | - | 1256 | | | | |
| 1.2 | 820 | 10300 | - | 1126 | | | | |
| 1.4 | 820 | 10300 | - | 984 | | | | |
| 1.6 | 820 | 10300 | - | 864 | | | | |
| 1.9 | 820 | 10300 | - | 722 | | | | |
| 2.2 | 820 | 10300 | - | 634 | | | | |
| 2.6 | 820 | 10300 | - | 539 | | | | |
|  | | | | | | | | |
| 0.66 | 820 | 10300 | - | 2106 | | | | |
| 0.74 | 820 | 10300 | - | 1884 | | | | |
| 0.86 | 820 | 10300 | - | 1635 | | | | |
| 0.98 | 820 | 10300 | - | 1429 | | | | |
| 1.1 | 820 | 10300 | - | 1271 | | | | |
| 1.3 | 820 | 10300 | - | 1102 | | | | |
| 1.4 | 820 | 10300 | - | 970 | | | | |
| 1.6 | 820 | 10300 | - | 858 | | | | |
| 1.9 | 820 | 10300 | - | 755 | | | | |
| 2.2 | 820 | 10300 | - | 641 | | | | |
| 2.4 | 820 | 10300 | - | 572 | | | | |
| 2.8 | 820 | 10300 | - | 509 | | | | |
| 3.2 | 820 | 10300 | - | 437 | | | | |
| 3.6 | 820 | 10300 | - | 384 | | | | |
| 4.1 | 820 | 10300 | - | 338 | | | | |
| 4.6 | 820 | 10300 | - | 305 | | | | |
| 5.4 | 820 | 10300 | - | 257 | | | | |

21284997/EN – 03/2015

| F67R37, $n_e$=1400 1/min | | | | | | | | 820 Nm |
|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L |
| 6.1 | 820 | 10300 | - | 231 | | | | |
| 6.8 | 820 | 10300 | - | 205 | | | | |
| 8.0 | 820 | 10300 | - | 175 | | | | |
| | | | | | 2 | 2 | | |
| 2.8 | 820 | 10300 | - | 500 | | | | |
| 3.1 | 820 | 10300 | - | 454 | | | | |
| 3.6 | 820 | 10300 | - | 392 | | | | |
| 4.2 | 820 | 10300 | - | 333 | | | | |
| 4.7 | 820 | 10300 | - | 297 | | | | |
| 5.4 | 820 | 10300 | - | 261 | | | | |
| 5.9 | 820 | 10300 | - | 238 | | | | |
| 7.0 | 820 | 10300 | - | 200 | | | | |
| 8.0 | 820 | 10300 | - | 176 | | | | |

| F77, $n_e$=1400 1/min | | | | | | | | | | | 1500 Nm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M | DRN132L DRN160M DRN160L |
| | | | | | | 3 | | | | | |
| 5.0 | 1500 | 15700 | 5.4 | 281.71 | | | | | | | |
| 5.3 | 1500 | 15700 | 5.4 | 262.93 | | | | | | | |
| 6.2 | 1500 | 15700 | 5.4 | 225.79 | | | | | | | |
| 7.1 | 1500 | 15700 | 5.4 | 198.31 | | | | | | | |
| 7.4 | 1500 | 15700 | 5.4 | 188.40 | | | | | | | |
| 8.4 | 1500 | 15700 | 5.5 | 166.47 | | | | | | | |
| 9.8 | 1500 | 15700 | 5.5 | 142.27 | | | | | | | |
| 11 | 1500 | 15700 | 5.5 | 130.42 | | | | | | | |
| 12 | 1500 | 15700 | 5.5 | 114.45 | | | | | | | |
| 13 | 1500 | 15700 | 5.5 | 108.46* | | | | | | | |
| 15 | 1500 | 15700 | 5.5 | 94.93 | | | | | | | |
| 16 | 1500 | 15700 | 5.5 | 85.52 | | | | | | | |
| 19 | 1500 | 15700 | 5.5 | 75.02 | | | | | | | |
| 19 | 1500 | 15700 | 5.9 | 72.50 | | | | | | | |
| 21 | 1500 | 15700 | 5.9 | 66.46 | | | | | | | |
| 24 | 1500 | 15700 | 6 | 58.32 | | | | | | | |
| 25 | 1500 | 15700 | 6 | 55.27 | | | | | | | |
| 29 | 1500 | 15700 | 6 | 48.37 | | | | | | | |
| 32 | 1500 | 15700 | 6.1 | 43.58 | | | | | | | |
| 37 | 1500 | 15700 | 6 | 38.23 | | | | | | | |
| 41 | 1500 | 15700 | 6.1 | 33.74 | | | | | | | |
| 47 | 1500 | 15700 | 6.1 | 29.91 | | | | | | | |
| 55 | 1450 | 16100 | 6.2 | 25.54 | | | | | | | |
| | | | | | | 2 | | | | | |
| 38 | 1110 | 17900 | 4.9 | 36.58 | | | | | | | |
| 44 | 1380 | 16500 | 4.9 | 31.51 | | | | | | | |
| 49 | 1430 | 16200 | 4.9 | 28.75 | | | | | | | |
| 55 | 1500 | 15700 | 4.9 | 25.50* | | | | | | | |



21284997/EN – 03/2015

| F77, $n_e$=1400 1/min | | | | | | | | | | | 1500 Nm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M | DRN132L DRN160M DRN160L |
| 65 | 1500 | 15700 | 5 | 21.43 | | | | | | | |
| 71 | 1500 | 15700 | 5.1 | 19.70 | | | | | | | |
| 80 | 1500 | 15700 | 5.2 | 17.49 | | | | | | | |
| 90 | 1500 | 15700 | 5.2 | 15.64* | | | | | | | |
| 100 | 1500 | 15700 | 5.4 | 14.06 | | | | | | | |
| 115 | 1500 | 14900 | 5.4 | 12.20 | | | | | | | |
| 128 | 1500 | 14200 | 5.5 | 10.93 | | | | | | | |
| 151 | 1080 | 13800 | 7.1 | 9.30 | | | | | | | |
| 169 | 1080 | 13100 | 7.1 | 8.26 | | | | | | | |
| 189 | 1080 | 12500 | 7.2 | 7.39 | | | | | | | |
| 211 | 1080 | 12000 | 7.5 | 6.64 | | | | | | | |
| 243 | 1080 | 11300 | 7.7 | 5.76 | | | | | | | |
| 271 | 1080 | 10700 | 7.8 | 5.16 | | | | | | | |
| 327 | 1010 | 10200 | 8.1 | 4.28 | | | | | | | |

| F77R37, $n_e$=1400 1/min | | | | | | | | 1500 Nm |
|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L |
| | | | | | 3 3 | | | |
| 0.07 | 1500 | 15700 | - | 19180 | | | | |
| 0.08 | 1500 | 15700 | - | 17593 | | | | |
| 0.09 | 1500 | 15700 | - | 16128 | | | | |
| 0.09 | 1500 | 15700 | - | 14978 | | | | |
| 0.10 | 1500 | 15700 | - | 13731 | | | | |
| 0.12 | 1500 | 15700 | - | 12049 | | | | |
| 0.13 | 1500 | 15700 | - | 11035 | | | | |
| 0.14 | 1500 | 15700 | - | 9683 | | | | |
| 0.17 | 1500 | 15700 | - | 8464 | | | | |
| 0.19 | 1500 | 15700 | - | 7520 | | | | |
| 0.21 | 1500 | 15700 | - | 6580 | | | | |
| 0.24 | 1500 | 15700 | - | 5808 | | | | |
| 0.28 | 1500 | 15700 | - | 5026 | | | | |
| 0.32 | 1500 | 15700 | - | 4435 | | | | |
| 0.37 | 1500 | 15700 | - | 3832 | | | | |
| 0.41 | 1500 | 15700 | - | 3381 | | | | |
| 0.47 | 1500 | 15700 | - | 2978 | | | | |
| 0.54 | 1500 | 15700 | - | 2613 | | | | |
| 0.61 | 1500 | 15700 | - | 2284 | | | | |
| 0.69 | 1500 | 15700 | - | 2029 | | | | |
| | | | | | 2 3 | | | |
| 0.28 | 1110 | 17900 | - | 4931 | | | | |
| 0.31 | 1110 | 17900 | - | 4523 | | | | |
| 0.36 | 1110 | 17900 | - | 3851 | | | | |
| 0.42 | 1110 | 17900 | - | 3320 | | | | |
| 0.45 | 1110 | 17900 | - | 3095 | | | | |
| 0.52 | 1110 | 17900 | - | 2705 | | | | |

21284997/EN – 03/2015

| F77R37, $n_e$=1400 1/min | | | | | | | | 1500 Nm |
|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L |
| 0.55 | 1110 | 17900 | - | 2536 | | | | |
| 0.63 | 1110 | 17900 | - | 2238 | | | | |
| 0.69 | 1110 | 17900 | - | 2039 | | | | |
| 0.80 | 1110 | 17900 | - | 1759 | | | | |
| 0.85 | 1110 | 17900 | - | 1639 | | | | |
| 0.98 | 1110 | 17900 | - | 1433 | | | | |
| 1.0 | 1110 | 17900 | - | 1343 | | | | |
| 1.2 | 1110 | 17900 | - | 1185 | | | | |
| 1.3 | 1110 | 17900 | - | 1051 | | | | |
| 1.6 | 1110 | 17900 | - | 893 | | | | |
| | | | | |  3  2 | | | |
| 0.81 | 1500 | 15700 | - | 1728 | | | | |
| 0.91 | 1500 | 15700 | - | 1544 | | | | |
| 1.0 | 1500 | 15700 | - | 1354 | | | | |
| 1.2 | 1500 | 15700 | - | 1200 | | | | |
| 1.3 | 1500 | 15700 | - | 1053 | | | | |
| 1.5 | 1500 | 15700 | - | 910 | | | | |
| 1.7 | 1500 | 15700 | - | 810 | | | | |
| 2.0 | 1500 | 15700 | - | 710 | | | | |
| 2.3 | 1500 | 15700 | - | 615* | | | | |
| 2.6 | 1500 | 15700 | - | 538 | | | | |
| 2.9 | 1500 | 15700 | - | 480 | | | | |
| 3.4 | 1500 | 15700 | - | 413 | | | | |
| 3.8 | 1500 | 15700 | - | 367 | | | | |
| 4.3 | 1500 | 15700 | - | 323 | | | | |
| 5.0 | 1500 | 15700 | - | 280 | | | | |
| 5.7 | 1500 | 15700 | - | 247 | | | | |
| 6.3 | 1500 | 15700 | - | 221 | | | | |
| 7.0 | 1500 | 15700 | - | 199 | | | | |
| | | | | |  2  2 | | | |
| 1.7 | 1110 | 17900 | - | 815 | | | | |
| 2.0 | 1110 | 17900 | - | 706 | | | | |
| 2.1 | 1110 | 17900 | - | 660 | | | | |
| 2.5 | 1110 | 17900 | - | 571 | | | | |
| 2.9 | 1110 | 17900 | - | 485 | | | | |
| 3.2 | 1110 | 17900 | - | 433 | | | | |
| 3.8 | 1110 | 17900 | - | 370 | | | | |
| 4.0 | 1110 | 17900 | - | 346 | | | | |
| 4.8 | 1110 | 17900 | - | 292 | | | | |

| F87, $n_e$=1400 1/min | | | | | | | | | | | | | 3000 Nm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M | DRN132L DRN160M DRN160L | DRN180M DRN180L | DRN200L |
| | | | | | | |  3 | | | | | | |
| 5.2 | 3000 | 19800 | 7 | 270.68 | | | | | | | | | |
| 5.5 | 3000 | 19800 | 7 | 255.37 | | | | | | | | | |
| 6.1 | 3000 | 19800 | 7 | 228.93 | | | | | | | | | |

21284997/EN – 03/2015

| F87, $n_e$=1400 1/min | | | | | | | | | | | | | 3000 Nm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M | DRN132L DRN160M DRN160L | DRN180M DRN180L | DRN200L |
| 7.1 | 3000 | 19800 | 7 | 197.20 | | | | | | | | | |
| 7.8 | 3000 | 19800 | 7 | 179.97 | | | | | | | | | |
| 8.8 | 3000 | 19800 | 7 | 159.61 | | | | | | | | | |
| 10 | 3000 | 19800 | 7 | 134.16 | | | | | | | | | |
| 11 | 3000 | 19800 | 7 | 123.29 | | | | | | | | | |
| 13 | 3000 | 19800 | 7.1 | 109.49 | | | | | | | | | |
| 14 | 3000 | 19800 | 7.1 | 97.89 | | | | | | | | | |
| 16 | 3000 | 19800 | 7.1 | 88.01 | | | | | | | | | |
| 18 | 3000 | 19800 | 7.1 | 76.39 | | | | | | | | | |
| 20 | 3000 | 19600 | 7.1 | 68.40 | | | | | | | | | |
| 25 | 3000 | 17700 | 7.1 | 56.75 | | | | | | | | | |
| 28 | 2940 | 16800 | 7.5 | 50.36 | | | | | | | | | |
| 31 | 2820 | 16200 | 7.5 | 45.28 | | | | | | | | | |
| 36 | 2720 | 15400 | 7.5 | 39.30 | | | | | | | | | |
| 40 | 2610 | 14900 | 7.6 | 35.19 | | | | | | | | | |
| 48 | 2510 | 13800 | 7.6 | 29.20 | | | | | | | | | |
|  2 | | | | | | | | | | | | | |
| 41 | 2610 | 14600 | 6.6 | 33.92 | | | | | | | | | |
| 49 | 2450 | 13900 | 6.6 | 28.78 | | | | | | | | | |
| 53 | 3000 | 11100 | 6.8 | 26.50 | | | | | | | | | |
| 59 | 3000 | 10300 | 6.8 | 23.68 | | | | | | | | | |
| 66 | 3000 | 9520 | 6.8 | 21.32* | | | | | | | | | |
| 73 | 3000 | 8840 | 6.9 | 19.31 | | | | | | | | | |
| 82 | 3000 | 8040 | 6.9 | 17.12 | | | | | | | | | |
| 90 | 3000 | 7390 | 7 | 15.48 | | | | | | | | | |
| 107 | 3000 | 6370 | 7 | 13.12* | | | | | | | | | |
| 122 | 3000 | 5580 | 7.1 | 11.46 | | | | | | | | | |
| 146 | 2880 | 5050 | 7.2 | 9.58 | | | | | | | | | |
| 169 | 1530 | 8890 | 6.7 | 8.29 | | | | | | | | | |
| 190 | 1530 | 8280 | 6.8 | 7.35 | | | | | | | | | |
| 211 | 1530 | 7790 | 6.8 | 6.65 | | | | | | | | | |
| 249 | 1530 | 7020 | 7 | 5.63 | | | | | | | | | |
| 285 | 1530 | 6430 | 7.1 | 4.92 | | | | | | | | | |
| 340 | 1460 | 5980 | 7.4 | 4.12 | | | | | | | | | |

| F87R57, $n_e$=1400 1/min | | | | | | | | | | 3000 Nm |
|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M |
|  3  3 | | | | | | | | | | |
| 0.06 | 3000 | 19800 | - | 23042 | | | | | | |
| 0.07 | 3000 | 19800 | - | 20462 | | | | | | |
| 0.08 | 3000 | 19800 | - | 18238 | | | | | | |
| 0.09 | 3000 | 19800 | - | 15877 | | | | | | |
| 0.10 | 3000 | 19800 | - | 14099 | | | | | | |
| 0.11 | 3000 | 19800 | - | 12205 | | | | | | |
| 0.13 | 3000 | 19800 | - | 10433 | | | | | | |
| 0.15 | 3000 | 19800 | - | 9381 | | | | | | |
| 0.17 | 3000 | 19800 | - | 8142 | | | | | | |

21284997/EN – 03/2015

| F87R57, $n_e$=1400 1/min | | | | | | | | | | 3000 Nm |
|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M |
| 0.20 | 3000 | 19800 | - | 7100 | | | | | | |
| 0.22 | 3000 | 19800 | - | 6273 | | | | | | |
| 0.25 | 3000 | 19800 | - | 5510 | | | | | | |
| 0.28 | 3000 | 19800 | - | 4954 | | | | | | |
| 0.33 | 3000 | 19800 | - | 4245 | | | | | | |
| 0.38 | 3000 | 19800 | - | 3721 | | | | | | |
| 2 3 | | | | | | | | | | |
| 0.28 | 3000 | 19800 | - | 4952 | | | | | | |
| 0.31 | 3000 | 19800 | - | 4562 | | | | | | |
| 0.36 | 3000 | 19800 | - | 3919 | | | | | | |
| 0.40 | 3000 | 19800 | - | 3503 | | | | | | |
| 0.44 | 3000 | 19800 | - | 3196 | | | | | | |
| 0.49 | 3000 | 19800 | - | 2857 | | | | | | |
| 0.55 | 3000 | 19800 | - | 2524 | | | | | | |
| 0.66 | 3000 | 19800 | - | 2134 | | | | | | |
| 0.73 | 3000 | 19800 | - | 1913* | | | | | | |
| 0.82 | 3000 | 19800 | - | 1717 | | | | | | |
| 0.95 | 3000 | 19800 | - | 1476 | | | | | | |
| 1.1 | 3000 | 19800 | - | 1278 | | | | | | |
| 1.2 | 3000 | 19800 | - | 1142 | | | | | | |
| 1.4 | 3000 | 19800 | - | 988 | | | | | | |
| 1.6 | 3000 | 19800 | - | 883 | | | | | | |
| 1.9 | 3000 | 19800 | - | 748 | | | | | | |
| 3 2 | | | | | | | | | | |
| 0.43 | 3000 | 19800 | - | 3244 | | | | | | |
| 0.49 | 3000 | 19800 | - | 2881 | | | | | | |
| 0.54 | 3000 | 19800 | - | 2576 | | | | | | |
| 0.64 | 3000 | 19800 | - | 2199 | | | | | | |
| 0.73 | 3000 | 19800 | - | 1930 | | | | | | |
| 0.82 | 3000 | 19800 | - | 1709 | | | | | | |
| 0.94 | 3000 | 19800 | - | 1493 | | | | | | |
| 1.1 | 3000 | 19800 | - | 1300 | | | | | | |
| 1.2 | 3000 | 19800 | - | 1148 | | | | | | |
| 1.4 | 3000 | 19800 | - | 1010 | | | | | | |
| 1.6 | 3000 | 19800 | - | 887 | | | | | | |
| 1.8 | 3000 | 19800 | - | 780 | | | | | | |
| 2.1 | 3000 | 19800 | - | 674 | | | | | | |
| 2.3 | 3000 | 19800 | - | 609 | | | | | | |
| 2.7 | 3000 | 19800 | - | 515 | | | | | | |
| 3.1 | 3000 | 19800 | - | 452 | | | | | | |
| 4.1 | 3000 | 19800 | - | 345 | | | | | | |
| 4.7 | 3000 | 19800 | - | 300 | | | | | | |
| 5.6 | 3000 | 19800 | - | 249 | | | | | | |
| 2 2 | | | | | | | | | | |
| 2.1 | 3000 | 19800 | - | 662 | | | | | | |
| 2.4 | 3000 | 19800 | - | 592 | | | | | | |
| 2.7 | 3000 | 19800 | - | 519 | | | | | | |
| 3.0 | 3000 | 19800 | - | 468 | | | | | | |



21284997/EN – 03/2015

| F87R57, $n_e$=1400 1/min | | | | | | | | | | 3000 Nm |
|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M |
| 3.5 | 3000 | 19800 | - | 398 | | | | | | |
| 4.0 | 3000 | 19800 | - | 350 | | | | | | |
| 4.4 | 3000 | 19800 | - | 315* | | | | | | |
| 5.0 | 3000 | 19800 | - | 281 | | | | | | |
| 5.8 | 3000 | 19800 | - | 240 | | | | | | |
| 6.6 | 3000 | 19800 | - | 211 | | | | | | |
| 7.3 | 3000 | 19800 | - | 193 | | | | | | |

| F97, $n_e$=1400 1/min | | | | | | | | | | | | 4300 Nm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M | DRN132L DRN160M DRN160L | DRN180M DRN180L | DRN200L DRN225S |
| | | | | | | | 3 | | | | | |
| 5.1 | 4300 | 29900 | 6 | 276.77 | | | | | | | | |
| 5.5 | 4300 | 29900 | 6 | 253.41 | | | | | | | | |
| 6.3 | 4300 | 29900 | 6 | 223.88 | | | | | | | | |
| 7.4 | 4300 | 29900 | 6 | 189.92 | | | | | | | | |
| 8.0 | 4300 | 29900 | 6 | 174.87 | | | | | | | | |
| 9.0 | 4300 | 29900 | 6 | 156.30 | | | | | | | | |
| 9.9 | 4300 | 29900 | 6 | 140.71 | | | | | | | | |
| 11 | 4300 | 29900 | 6 | 127.42 | | | | | | | | |
| 12 | 4300 | 29900 | 6 | 112.99 | | | | | | | | |
| 14 | 4300 | 29900 | 6 | 102.16 | | | | | | | | |
| 14 | 4300 | 29900 | 6.2 | 97.58 | | | | | | | | |
| 16 | 4300 | 29900 | 6.3 | 89.85 | | | | | | | | |
| 16 | 4300 | 29900 | 6 | 86.59 | | | | | | | | |
| 17 | 4300 | 29900 | 6.3 | 80.31 | | | | | | | | |
| 19 | 4300 | 29900 | 6 | 75.63 | | | | | | | | |
| 19 | 4300 | 29900 | 6.3 | 72.29 | | | | | | | | |
| 21 | 4300 | 29000 | 6.3 | 65.47 | | | | | | | | |
| 24 | 4300 | 27200 | 6.3 | 58.06 | | | | | | | | |
| 27 | 4300 | 25800 | 6.3 | 52.49 | | | | | | | | |
| 31 | 4300 | 23600 | 6.4 | 44.49 | | | | | | | | |
| 36 | 4300 | 21900 | 6.4 | 38.86 | | | | | | | | |
| 43 | 4300 | 19800 | 6.4 | 32.50 | | | | | | | | |
| | | | | | | | 2 | | | | | |
| 32 | 3070 | 27600 | 5.6 | 43.28 | | | | | | | | |
| 38 | 3070 | 25500 | 5.6 | 36.64 | | | | | | | | |
| 41 | 4300 | 20300 | 5.7 | 33.91 | | | | | | | | |
| 46 | 4300 | 19000 | 5.8 | 30.39 | | | | | | | | |
| 51 | 4300 | 17900 | 5.8 | 27.44* | | | | | | | | |
| 56 | 4300 | 16800 | 5.8 | 24.92 | | | | | | | | |
| 63 | 4300 | 15600 | 5.9 | 22.11 | | | | | | | | |
| 70 | 4300 | 14600 | 5.8 | 20.07 | | | | | | | | |
| 81 | 4300 | 13200 | 5.9 | 17.25* | | | | | | | | |
| 93 | 4300 | 11900 | 5.9 | 15.06 | | | | | | | | |
| 110 | 4300 | 10500 | 6 | 12.77 | | | | | | | | |
| 125 | 4100 | 10000 | 6 | 11.16 | | | | | | | | |
| 155 | 2360 | 13400 | 8.6 | 9.06 | | | | | | | | |

21284997/EN – 03/2015

| F97, $n_e$=1400 1/min | | | | | | | | | | | | 4300 Nm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M | DRN132L DRN160M DRN160L | DRN180M DRN180L | DRN200L DRN225S |
| 170 | 2360 | 12600 | 8.5 | 8.22 | | | | | | | | |
| 198 | 2360 | 11500 | 8.6 | 7.07 | | | | | | | | |
| 227 | 2250 | 11100 | 8.7 | 6.17 | | | | | | | | |
| 268 | 2150 | 10400 | 8.8 | 5.23 | | | | | | | | |
| 306 | 2050 | 9950 | 9 | 4.57 | | | | | | | | |
| 362 | 1800 | 9960 | 9 | 3.87 | | | | | | | | |

| F97R57, $n_e$=1400 1/min | | | | | | | | | | 4300 Nm |
|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M |
| | | | | | 3 3 | | | | | |
| 0.05 | 4300 | 29900 | - | 29211 | | | | | | |
| 0.05 | 4300 | 29900 | - | 26911 | | | | | | |
| 0.06 | 4300 | 29900 | - | 23814 | | | | | | |
| 0.07 | 4300 | 29900 | - | 20813 | | | | | | |
| 0.08 | 4300 | 29900 | - | 18119* | | | | | | |
| 0.09 | 4300 | 29900 | - | 15472 | | | | | | |
| 0.10 | 4300 | 29900 | - | 14022 | | | | | | |
| 0.11 | 4300 | 29900 | - | 12324 | | | | | | |
| 0.13 | 4300 | 29900 | - | 10838 | | | | | | |
| 0.15 | 4300 | 29900 | - | 9576 | | | | | | |
| 0.17 | 4300 | 29900 | - | 8318 | | | | | | |
| 0.19 | 4300 | 29900 | - | 7328 | | | | | | |
| 0.22 | 4300 | 29900 | - | 6469 | | | | | | |
| 0.25 | 4300 | 29900 | - | 5615 | | | | | | |
| 0.28 | 4300 | 29900 | - | 4961* | | | | | | |
| 0.32 | 4300 | 29900 | - | 4333* | | | | | | |
| | | | | | 2 3 | | | | | |
| 0.22 | 4300 | 29900 | - | 6338 | | | | | | |
| 0.25 | 4300 | 29900 | - | 5680 | | | | | | |
| 0.28 | 4300 | 29900 | - | 5016 | | | | | | |
| 0.32 | 4300 | 29900 | - | 4367 | | | | | | |
| 0.36 | 4300 | 29900 | - | 3914 | | | | | | |
| 0.42 | 4300 | 29900 | - | 3357 | | | | | | |
| 0.47 | 4300 | 29900 | - | 3009 | | | | | | |
| 0.57 | 4300 | 29900 | - | 2448 | | | | | | |
| 0.64 | 4300 | 29900 | - | 2199 | | | | | | |
| 0.71 | 4300 | 29900 | - | 1971 | | | | | | |
| 0.80 | 4300 | 29900 | - | 1741* | | | | | | |
| 0.95 | 4300 | 29900 | - | 1468 | | | | | | |
| 1.1 | 4300 | 29900 | - | 1316 | | | | | | |
| 1.2 | 4300 | 29900 | - | 1189* | | | | | | |
| 1.4 | 4300 | 29900 | - | 1023 | | | | | | |
| | | | | | 3 2 | | | | | |
| 0.36 | 4300 | 29900 | - | 3906 | | | | | | |
| 0.42 | 4300 | 29900 | - | 3352 | | | | | | |
| 0.48 | 4300 | 29900 | - | 2907 | | | | | | |



21284997/EN – 03/2015

| F97R57, $n_e$=1400 1/min | | | | | | | | | | 4300 Nm |
|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M |
| 0.55 | 4300 | 29900 | - | 2553 | | | | | | |
| 0.62 | 4300 | 29900 | - | 2245 | | | | | | |
| 0.71 | 4300 | 29900 | - | 1970 | | | | | | |
| 0.81 | 4300 | 29900 | - | 1722 | | | | | | |
| 0.92 | 4300 | 29900 | - | 1527 | | | | | | |
| 1.1 | 4300 | 29900 | - | 1327 | | | | | | |
| 1.2 | 4300 | 29900 | - | 1171* | | | | | | |
| 1.4 | 4300 | 29900 | - | 1022 | | | | | | |
| 1.6 | 4300 | 29900 | - | 898 | | | | | | |
| 1.8 | 4300 | 29900 | - | 784 | | | | | | |
| 2.0 | 4300 | 29900 | - | 690 | | | | | | |
| 2.3 | 4300 | 29900 | - | 605 | | | | | | |
| 2.6 | 4300 | 29900 | - | 529 | | | | | | |
| 3.0 | 4300 | 29900 | - | 467 | | | | | | |
| 3.4 | 4300 | 29900 | - | 406 | | | | | | |
| 3.9 | 4300 | 29900 | - | 363 | | | | | | |
| 4.9 | 4300 | 29900 | - | 285 | | | | | | |
| 5.7 | 4300 | 29900 | - | 245 | | | | | | |
| 6.7 | 4300 | 29900 | - | 208 | | | | | | |
| 7.2 | 4300 | 29900 | - | 195 | | | | | | |
| | | | | | | 2 | 2 | | | |
| 1.6 | 4300 | 29900 | - | 892 | | | | | | |
| 1.8 | 4300 | 29900 | - | 760 | | | | | | |
| 2.1 | 4300 | 29900 | - | 667 | | | | | | |
| 2.5 | 4300 | 29900 | - | 569 | | | | | | |
| 2.7 | 4300 | 29900 | - | 510 | | | | | | |
| 3.0 | 4300 | 29900 | - | 473* | | | | | | |
| 3.5 | 4300 | 29900 | - | 403 | | | | | | |
| 3.9 | 4300 | 29900 | - | 361 | | | | | | |
| 4.4 | 4300 | 29900 | - | 317 | | | | | | |
| 5.1 | 4300 | 29900 | - | 275 | | | | | | |
| 5.8 | 4300 | 29900 | - | 242 | | | | | | |

| F107, $n_e$=1400 1/min | | | | | | | | | | | 7840 Nm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DRN100LS DRN100L | DRN112M | DRN132S DRN132M | DRN132L DRN160M DRN160L | DRN180M DRN180L | DRN200L DRN225S DRN225M | DRN250M |
| | | | | | | 3 | | | | | |
| 5.5 | 7680 | 49800 | 5.4 | 254.40* | | | | | | | |
| 6.5 | 7680 | 49800 | 5.4 | 215.37 | | | | | | | |
| 7.0 | 7680 | 49800 | 5.4 | 199.31 | | | | | | | |
| 7.8 | 7680 | 49800 | 5.4 | 178.64 | | | | | | | |
| 8.7 | 7680 | 49800 | 5.4 | 161.28* | | | | | | | |
| 9.6 | 7680 | 49800 | 5.4 | 146.49 | | | | | | | |
| 11 | 7680 | 49800 | 5.4 | 129.97 | | | | | | | |
| 12 | 7680 | 49800 | 5.4 | 117.94 | | | | | | | |
| 14 | 7680 | 49800 | 5.4 | 101.38* | | | | | | | |
| 15 | 7680 | 49800 | 5.6 | 92.47* | | | | | | | |
| 16 | 7680 | 49800 | 5.4 | 88.49 | | | | | | | |

21284997/EN – 03/2015

| F107, $n_e$=1400 1/min | | | | | | | | | | | 7840 Nm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DRN100LS DRN100L | DRN112M | DRN132S DRN132M | DRN132L DRN160M DRN160L | DRN180M DRN180L | DRN200L DRN225S DRN225M | DRN250M |
| 17 | 7680 | 49800 | 5.7 | 83.99 | | | | | | | |
| 19 | 7680 | 49800 | 5.7 | 74.52 | | | | | | | |
| 21 | 7680 | 49800 | 5.7 | 67.62 | | | | | | | |
| 24 | 7680 | 47800 | 5.7 | 58.12* | | | | | | | |
| 28 | 7680 | 45100 | 5.7 | 50.73 | | | | | | | |
| 33 | 7680 | 42000 | 5.7 | 43.03 | | | | | | | |
| 37 | 7680 | 39500 | 5.7 | 37.61 | | | | | | | |
| 44 | 7680 | 36500 | 5.8 | 31.80 | | | | | | | |
| 2 | | | | | | | | | | | |
| 41 | 7400 | 38300 | 5.1 | 33.79* | | | | | | | |
| 51 | 7840 | 33300 | 5.2 | 27.57 | | | | | | | |
| 56 | 7840 | 31500 | 5.2 | 25.14 | | | | | | | |
| 64 | 7840 | 28800 | 5.2 | 21.76* | | | | | | | |
| 73 | 7840 | 26500 | 5.2 | 19.20* | | | | | | | |
| 84 | 7840 | 23900 | 5.3 | 16.58 | | | | | | | |
| 95 | 7680 | 22400 | 5.3 | 14.67 | | | | | | | |
| 114 | 7000 | 22600 | 5.4 | 12.33 | | | | | | | |
| 141 | 6500 | 21500 | 5.4 | 9.96 | | | | | | | |
| 144 | 4910 | 23500 | 6.7 | 9.69 | | | | | | | |
| 167 | 4800 | 22000 | 6.7 | 8.37 | | | | | | | |
| 189 | 4600 | 21300 | 6.8 | 7.40 | | | | | | | |
| 225 | 4600 | 19000 | 7 | 6.22 | | | | | | | |
| 278 | 4600 | 16400 | 7 | 5.03 | | | | | | | |

| F107R77, $n_e$=1400 1/min | | | | | | | | | | | 7840 Nm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M | DRN132L DRN160M DRN160L |
| 3 3 | | | | | | | | | | | |
| 0.06 | 7680 | 49800 | - | 25375* | | | | | | | |
| 0.06 | 7680 | 49800 | - | 21652 | | | | | | | |
| 0.07 | 7680 | 49800 | - | 18933 | | | | | | | |
| 0.08 | 7680 | 49800 | - | 16888 | | | | | | | |
| 0.09 | 7680 | 49800 | - | 14767 | | | | | | | |
| 0.12 | 7680 | 49800 | - | 11348* | | | | | | | |
| 0.14 | 7680 | 49800 | - | 10039 | | | | | | | |
| 0.16 | 7680 | 49800 | - | 8548 | | | | | | | |
| 0.18 | 7680 | 49800 | - | 7674 | | | | | | | |
| 0.21 | 7680 | 49800 | - | 6767 | | | | | | | |
| 0.24 | 7680 | 49800 | - | 5954 | | | | | | | |
| 0.27 | 7680 | 49800 | - | 5223 | | | | | | | |
| 0.31 | 7680 | 49800 | - | 4567 | | | | | | | |
| 0.35 | 7680 | 49800 | - | 3948 | | | | | | | |
| 0.40 | 7680 | 49800 | - | 3521 | | | | | | | |
| 2 3 | | | | | | | | | | | |
| 0.26 | 7840 | 49400 | - | 5383* | | | | | | | |
| 0.30 | 7840 | 49400 | - | 4593 | | | | | | | |
| 0.35 | 7840 | 49400 | - | 4016 | | | | | | | |

21284997/EN – 03/2015

| F107R77, $n_e$=1400 1/min | | | | | | | | | | | 7840 Nm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M | DRN132L DRN160M DRN160L |
| 0.37 | 7840 | 49400 | - | 3815 | | | | | | | |
| 0.42 | 7840 | 49400 | - | 3347 | | | | | | | |
| 0.49 | 7840 | 49400 | - | 2839 | | | | | | | |
| 0.55 | 7840 | 49400 | - | 2563* | | | | | | | |
| 0.62 | 7840 | 49400 | - | 2255 | | | | | | | |
| 0.66 | 7840 | 49400 | - | 2129 | | | | | | | |
| 0.77 | 7840 | 49400 | - | 1813 | | | | | | | |
| 0.88 | 7840 | 49400 | - | 1590 | | | | | | | |
| 0.97 | 7840 | 49400 | - | 1436 | | | | | | | |
| 1.1 | 7840 | 49400 | - | 1263 | | | | | | | |
| 1.2 | 7840 | 49400 | - | 1193 | | | | | | | |
| 1.4 | 7840 | 49400 | - | 1015 | | | | | | | |
| 1.5 | 7840 | 49400 | - | 923 | | | | | | | |
| 1.8 | 7840 | 49400 | - | 800 | | | | | | | |
| 2.0 | 7840 | 49400 | - | 696 | | | | | | | |
| 3 2 | | | | | | | | | | | |
| 0.46 | 7680 | 49800 | - | 3037 | | | | | | | |
| 0.51 | 7680 | 49800 | - | 2756 | | | | | | | |
| 0.59 | 7680 | 49800 | - | 2369 | | | | | | | |
| 0.68 | 7680 | 49800 | - | 2068 | | | | | | | |
| 0.77 | 7680 | 49800 | - | 1826 | | | | | | | |
| 0.88 | 7680 | 49800 | - | 1597 | | | | | | | |
| 1.00 | 7680 | 49800 | - | 1401 | | | | | | | |
| 1.1 | 7680 | 49800 | - | 1243 | | | | | | | |
| 1.3 | 7680 | 49800 | - | 1087 | | | | | | | |
| 1.5 | 7680 | 49800 | - | 950 | | | | | | | |
| 1.7 | 7680 | 49800 | - | 834 | | | | | | | |
| 1.9 | 7680 | 49800 | - | 736 | | | | | | | |
| 2.2 | 7680 | 49800 | - | 640 | | | | | | | |
| 2.5 | 7680 | 49800 | - | 560 | | | | | | | |
| 2.9 | 7680 | 49800 | - | 489 | | | | | | | |
| 3.2 | 7680 | 49800 | - | 436 | | | | | | | |
| 3.8 | 7680 | 49800 | - | 370 | | | | | | | |
| 4.2 | 7680 | 49800 | - | 333 | | | | | | | |
| 4.8 | 7680 | 49800 | - | 291 | | | | | | | |
| 5.5 | 7680 | 49800 | - | 255 | | | | | | | |
| 6.2 | 7680 | 49800 | - | 225* | | | | | | | |
| 7.4 | 7680 | 49800 | - | 190 | | | | | | | |
| 2 2 | | | | | | | | | | | |
| 2.2 | 7840 | 49400 | - | 644 | | | | | | | |
| 2.4 | 7840 | 49400 | - | 591 | | | | | | | |
| 2.7 | 7840 | 49400 | - | 518* | | | | | | | |
| 2.9 | 7840 | 49400 | - | 491 | | | | | | | |
| 3.3 | 7840 | 49400 | - | 430 | | | | | | | |
| 3.6 | 7840 | 49400 | - | 387 | | | | | | | |
| 4.1 | 7840 | 49400 | - | 340 | | | | | | | |
| 4.7 | 7840 | 49400 | - | 300 | | | | | | | |
| 5.3 | 7840 | 49400 | - | 266 | | | | | | | |

21284997/EN – 03/2015

| F127, $n_e$=1400 1/min | | | | | | | | | 12000 Nm |
|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DRN132S DRN132M | DRN132L DRN160M DRN160L | DRN180M DRN180L | DRN200L DRN225S DRN225M | DRN250M DRN280S DRN280M |
| | | | | | | 3 | | | |
| 8.2 | 12000 | 90000 | 4.9 | 170.83 | | | | | |
| 9.1 | 12000 | 90000 | 4.9 | 153.67* | | | | | |
| 11 | 12000 | 90000 | 4.9 | 125.37 | | | | | |
| 12 | 12000 | 88000 | 4.9 | 114.34 | | | | | |
| 14 | 12000 | 83000 | 4.9 | 98.95 | | | | | |
| 16 | 12000 | 79000 | 4.9 | 87.31* | | | | | |
| 19 | 12000 | 74300 | 4.9 | 75.41* | | | | | |
| 20 | 12000 | 72100 | 5.2 | 70.07 | | | | | |
| 22 | 12000 | 69400 | 5.2 | 63.91 | | | | | |
| 25 | 12000 | 65200 | 5.2 | 55.31 | | | | | |
| 29 | 12000 | 61300 | 5.2 | 48.80 | | | | | |
| 33 | 12000 | 56800 | 5.2 | 42.15 | | | | | |
| 38 | 12000 | 53200 | 5.2 | 37.28 | | | | | |
| 45 | 12000 | 48300 | 5.3 | 31.33 | | | | | |
| 55 | 12000 | 42400 | 5.3 | 25.30 | | | | | |
| | | | | | | 2 | | | |
| 52 | 8500 | 55300 | 4.6 | 26.86 | | | | | |
| 57 | 8500 | 53300 | 4.6 | 24.57 | | | | | |
| 65 | 12000 | 38000 | 4.7 | 21.38 | | | | | |
| 74 | 11000 | 38800 | 4.7 | 18.87 | | | | | |
| 86 | 11000 | 35400 | 4.7 | 16.36 | | | | | |
| 96 | 11000 | 32600 | 4.7 | 14.55 | | | | | |
| 112 | 10000 | 33300 | 4.8 | 12.54 | | | | | |
| 137 | 9500 | 30900 | 4.9 | 10.19 | | | | | |
| 158 | 7000 | 36400 | 6.3 | 8.86 | | | | | |
| 178 | 6000 | 37000 | 6.4 | 7.88 | | | | | |
| 206 | 7000 | 32200 | 6.5 | 6.80 | | | | | |
| 254 | 6000 | 31700 | 6.7 | 5.52 | | | | | |
| 299 | 6000 | 29500 | 6.8 | 4.68 | | | | | |

| F127R77, $n_e$=1400 1/min | | | | | | | | | | | 12000 Nm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M | DRN132L DRN160M DRN160L |
| | | | | | | 3 | 3 | | | | |
| 0.06 | 12000 | 90000 | - | 24478* | | | | | | | |
| 0.06 | 12000 | 90000 | - | 22323 | | | | | | | |
| 0.07 | 12000 | 90000 | - | 19048 | | | | | | | |
| 0.08 | 12000 | 90000 | - | 16656 | | | | | | | |
| 0.10 | 12000 | 90000 | - | 14722* | | | | | | | |
| 0.11 | 12000 | 90000 | - | 12912 | | | | | | | |
| 0.12 | 12000 | 90000 | - | 11656* | | | | | | | |
| 0.14 | 12000 | 90000 | - | 10191 | | | | | | | |
| 0.16 | 12000 | 90000 | - | 8831 | | | | | | | |
| 0.18 | 12000 | 90000 | - | 7643 | | | | | | | |
| 0.21 | 12000 | 90000 | - | 6715 | | | | | | | |
| 0.24 | 12000 | 90000 | - | 5925 | | | | | | | |

21284997/EN – 03/2015

| F127R77, $n_e$=1400 1/min | | | | | | | | | | | 12000 Nm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M | DRN132L DRN160M DRN160L |
| 0.27 | 12000 | 90000 | - | 5153 | | | | | | | |
| 0.31 | 12000 | 90000 | - | 4533 | | | | | | | |
| 0.36 | 12000 | 90000 | - | 3926 | | | | | | | |
| 0.41 | 12000 | 90000 | - | 3454 | | | | | | | |
| 0.46 | 12000 | 90000 | - | 3031 | | | | | | | |
| 3 2 | | | | | | | | | | | |
| 0.52 | 12000 | 90000 | - | 2672 | | | | | | | |
| 0.59 | 12000 | 90000 | - | 2357* | | | | | | | |
| 0.69 | 12000 | 90000 | - | 2038 | | | | | | | |
| 0.78 | 12000 | 90000 | - | 1784 | | | | | | | |
| 0.87 | 12000 | 90000 | - | 1606 | | | | | | | |
| 1.0 | 12000 | 90000 | - | 1390 | | | | | | | |
| 1.1 | 12000 | 90000 | - | 1220 | | | | | | | |
| 1.3 | 12000 | 90000 | - | 1077 | | | | | | | |
| 1.5 | 12000 | 90000 | - | 930 | | | | | | | |
| 1.7 | 12000 | 90000 | - | 820 | | | | | | | |
| 1.9 | 12000 | 90000 | - | 727 | | | | | | | |
| 2.2 | 12000 | 90000 | - | 648 | | | | | | | |
| 2.6 | 12000 | 90000 | - | 549 | | | | | | | |
| 2.8 | 12000 | 90000 | - | 495 | | | | | | | |
| 3.3 | 12000 | 90000 | - | 428 | | | | | | | |
| 3.7 | 12000 | 90000 | - | 376 | | | | | | | |

| F127R87, $n_e$=1400 1/min | | | | | | | | | | | | 12000 Nm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M | DRN132L DRN160M DRN160L | DRN180M DRN180L | DRN200L |
| 3 2 | | | | | | | | | | | | |
| 2.9 | 12000 | 90000 | - | 483 | | | | | | | | |
| 3.3 | 12000 | 90000 | - | 418 | | | | | | | | |
| 3.7 | 12000 | 90000 | - | 374 | | | | | | | | |
| 4.5 | 12000 | 90000 | - | 312 | | | | | | | | |
| 4.8 | 12000 | 90000 | - | 293 | | | | | | | | |
| 5.4 | 12000 | 90000 | - | 259 | | | | | | | | |
| 6.3 | 12000 | 90000 | - | 223 | | | | | | | | |
| 7.1 | 12000 | 90000 | - | 198 | | | | | | | | |
| 8.4 | 12000 | 90000 | - | 166 | | | | | | | | |

| F157, $n_e$=1400 1/min | | | | | | | | | | 18000 Nm |
|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DRN132L DRN160M DRN160L | DRN180M DRN180L | DRN200L DRN225S DRN225M | DRN250M DRN280S DRN280M | DRN315S DRN315M | DRN315L DRN315H |
| 3 | | | | | | | | | | |
| 5.2 | 18000 | 100300 | 4.5 | 267.43 | | | | | | |
| 6.4 | 18000 | 100300 | 4.5 | 217.62* | | | | | | |
| 7.9 | 18000 | 100300 | 4.5 | 178.20* | | | | | | |
| 8.6 | 18000 | 100300 | 4.5 | 162.96 | | | | | | |
| 9.9 | 18000 | 100300 | 4.5 | 141.80* | | | | | | |
| 11 | 18000 | 100300 | 4.5 | 125.14 | | | | | | |

21284997/EN – 03/2015

## F157, $n_e$=1400 1/min — 18000 Nm

| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DRN132L DRN160M DRN160L | DRN180M DRN180L | DRN200L DRN225S DRN225M | DRN250M DRN280S DRN280M | DRN315S DRN315M | DRN315L DRN315H |
|---|---|---|---|---|---|---|---|---|---|---|
| 13 | 18000 | 100300 | 4.5 | 108.49 | | | | | | |
| 15 | 18000 | 100300 | 4.5 | 96.53* | | | | | | |
| 16 | 18000 | 95800 | 4.8 | 85.80* | | | | | | |
| 18 | 18000 | 92300 | 4.8 | 78.46 | | | | | | |
| 21 | 18000 | 87000 | 4.8 | 68.28* | | | | | | |
| 23 | 18000 | 82500 | 4.8 | 60.25 | | | | | | |
| 27 | 18000 | 77500 | 4.8 | 52.24 | | | | | | |
| 30 | 18000 | 73600 | 4.8 | 46.48* | | | | | | |
| 35 | 18000 | 68900 | 4.9 | 40.06 | | | | | | |
| 43 | 18000 | 62500 | 4.9 | 32.55 | | | | | | |
| 51 | 18000 | 57800 | 4.9 | 27.60 | | | | | | |
| | | | | | | 2 | | | | |
| 26 | 8000 | 98300 | 4.3 | 53.55 | | | | | | |
| 32 | 10000 | 87800 | 4.3 | 43.94* | | | | | | |
| 39 | 11000 | 79300 | 4.4 | 35.75* | | | | | | |
| 49 | 17000 | 60800 | 4.4 | 28.60* | | | | | | |
| 55 | 15000 | 61500 | 4.4 | 25.43 | | | | | | |
| 63 | 18000 | 51800 | 4.4 | 22.16 | | | | | | |
| 71 | 17000 | 50900 | 4.4 | 19.77 | | | | | | |
| 83 | 18000 | 44900 | 4.5 | 16.85 | | | | | | |
| 100 | 17000 | 42500 | 4.6 | 13.96 | | | | | | |
| 117 | 16000 | 40900 | 4.6 | 11.92 | | | | | | |

## F157R97, $n_e$=1400 1/min — 18000 Nm

| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M | DRN132L DRN160M DRN160L | DRN180M DRN180L | DRN200L DRN225S |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 3 | 3 | | | | | |
| 0.04 | 18000 | 100300 | - | 31434 | | | | | | | | | |
| 0.05 | 18000 | 100300 | - | 26173 | | | | | | | | | |
| 0.06 | 18000 | 100300 | - | 23464 | | | | | | | | | |
| 0.07 | 18000 | 100300 | - | 20212 | | | | | | | | | |
| 0.08 | 18000 | 100300 | - | 17984* | | | | | | | | | |
| 0.09 | 18000 | 100300 | - | 16358 | | | | | | | | | |
| 0.10 | 18000 | 100300 | - | 13751 | | | | | | | | | |
| 0.11 | 18000 | 100300 | - | 12235 | | | | | | | | | |
| 0.14 | 18000 | 100300 | - | 10033 | | | | | | | | | |
| 0.16 | 18000 | 100300 | - | 9021 | | | | | | | | | |
| 0.17 | 18000 | 100300 | - | 8026 | | | | | | | | | |
| 0.20 | 18000 | 100300 | - | 7075 | | | | | | | | | |
| 0.22 | 18000 | 100300 | - | 6295 | | | | | | | | | |
| 0.26 | 18000 | 100300 | - | 5404 | | | | | | | | | |
| 0.29 | 18000 | 100300 | - | 4831 | | | | | | | | | |
| 0.34 | 18000 | 100300 | - | 4130* | | | | | | | | | |
| 0.39 | 18000 | 100300 | - | 3607 | | | | | | | | | |
| 0.44 | 18000 | 100300 | - | 3210 | | | | | | | | | |
| 0.50 | 18000 | 100300 | - | 2780 | | | | | | | | | |
| 0.97 | 18000 | 100300 | - | 1441 | | | | | | | | | |

21284997/EN – 03/2015

| F157R97, $n_e$=1400 1/min | | | | | | | | | | | | | 18000 Nm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M | DRN132L DRN160M DRN160L | DRN180M DRN180L | DRN200L DRN225S |
| | | | | | | | 3 | 2 | | | | | |
| 0.58 | 18000 | 100300 | - | 2427 | | | | | | | | | |
| 0.64 | 18000 | 100300 | - | 2185 | | | | | | | | | |
| 0.72 | 18000 | 100300 | - | 1944* | | | | | | | | | |
| 0.84 | 18000 | 100300 | - | 1674 | | | | | | | | | |
| 1.1 | 18000 | 100300 | - | 1308 | | | | | | | | | |
| 1.2 | 18000 | 100300 | - | 1169 | | | | | | | | | |
| 1.5 | 18000 | 100300 | - | 953 | | | | | | | | | |
| 1.7 | 18000 | 100300 | - | 845 | | | | | | | | | |
| 1.8 | 18000 | 100300 | - | 764 | | | | | | | | | |
| 2.1 | 18000 | 100300 | - | 680 | | | | | | | | | |
| 2.4 | 18000 | 100300 | - | 576 | | | | | | | | | |
| 2.8 | 18000 | 100300 | - | 503 | | | | | | | | | |
| 3.1 | 18000 | 100300 | - | 446 | | | | | | | | | |
| 4.0 | 18000 | 100300 | - | 353 | | | | | | | | | |
| 4.6 | 18000 | 100300 | - | 302 | | | | | | | | | |
| 5.1 | 18000 | 100300 | - | 273 | | | | | | | | | |
| 6.0 | 18000 | 100300 | - | 232 | | | | | | | | | |
| 6.9 | 18000 | 100300 | - | 202 | | | | | | | | | |
| 7.1 | 18000 | 100300 | - | 197 | | | | | | | | | |

21284997/EN – 03/2015

## 9.3 F..DRN.. selection tables in kW

| $P_m$ = 0.12 kW | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
| **0.06** | 13900 | 22323 | 86700 | 0.85 | | | | | | |
| **0.07** | 11800 | 19048 | 90000 | 1.00 | | | | | | |
| **0.08** | 10300 | 16656 | 90000 | 1.15 | **FA** | **127R77** | **DR** | **63S4** | 425 | 432 |
| **0.09** | 9180 | 14722 | 90000 | 1.30 | **FAF** | **127R77** | **DR** | **63S4** | 465 | 432 |
| **0.11** | 7990 | 12912 | 90000 | 1.50 | **F** | **127R77** | **DR** | **63S4** | 460 | 432 |
| **0.12** | 7040 | 11656 | 90000 | 1.70 | **FF** | **127R77** | **DR** | **63S4** | 510 | 432 |
| **0.14** | 6310 | 10191 | 90000 | 1.90 | | | | | | |
| **0.09** | 9200 | 14767 | 45500 | 0.85 | | | | | | |
| **0.12** | 7070 | 11348 | 51400 | 1.10 | | | | | | |
| **0.14** | 5740 | 10039 | 54600 | 1.35 | | | | | | |
| **0.16** | 4670 | 8548 | 57000 | 1.65 | **FA** | **107R77** | **DR** | **63S4** | 275 | 432 |
| **0.18** | 4750 | 7674 | 56800 | 1.60 | **FAF** | **107R77** | **DR** | **63S4** | 295 | 432 |
| **0.20** | 4090 | 6767 | 58200 | 1.90 | **F** | **107R77** | **DR** | **63S4** | 290 | 432 |
| **0.23** | 3460 | 5954 | 59500 | 2.2 | **FF** | **107R77** | **DR** | **63S4** | 320 | 432 |
| **0.26** | 2990 | 5223 | 60400 | 2.6 | | | | | | |
| **0.30** | 2840 | 4567 | 60700 | 2.7 | | | | | | |
| **0.39** | 2120 | 3521 | 62000 | 3.6 | | | | | | |
| **0.21** | 4140 | 6469 | 30400 | 1.05 | **FA** | **97R57** | **DR** | **63S4** | 185 | 432 |
| **0.25** | 3820 | 5615 | 31300 | 1.15 | **FAF** | **97R57** | **DR** | **63S4** | 205 | 432 |
| **0.28** | 3320 | 4961 | 32500 | 1.30 | **F** | **97R57** | **DR** | **63S4** | 190 | 432 |
| **0.32** | 2900 | 4333 | 33500 | 1.50 | **FF** | **97R57** | **DR** | **63S4** | 225 | 432 |
| **0.35** | 2690 | 3906 | 34000 | 1.60 | **FA** | **97R57** | **DR** | **63S4** | 180 | 432 |
| **0.41** | 2320 | 3352 | 34800 | 1.85 | **FAF** | **97R57** | **DR** | **63S4** | 205 | 432 |
| **0.47** | 1910 | 2907 | 35500 | 2.2 | **F** | **97R57** | **DR** | **63S4** | 190 | 432 |
| **0.54** | 1750 | 2553 | 35800 | 2.4 | **FF** | **97R57** | **DR** | **63S4** | 225 | 432 |
| | | | | | **FA** | **87R57** | **DR** | **63S4** | 120 | 432 |
| **0.33** | 2760 | 4245 | 23800 | 1.10 | **FAF** | **87R57** | **DR** | **63S4** | 130 | 432 |
| **0.37** | 2210 | 3721 | 25800 | 1.35 | **F** | **87R57** | **DR** | **63S4** | 125 | 432 |
| | | | | | **FF** | **87R57** | **DR** | **63S4** | 140 | 432 |
| **0.43** | 2240 | 3244 | 25700 | 1.35 | | | | | | |
| **0.48** | 1990 | 2881 | 26500 | 1.50 | | | | | | |
| **0.54** | 1780 | 2576 | 27100 | 1.70 | | | | | | |
| **0.63** | 1510 | 2199 | 27800 | 2.00 | **FA** | **87R57** | **DR** | **63S4** | 115 | 432 |
| **0.72** | 1300 | 1930 | 28300 | 2.3 | **FAF** | **87R57** | **DR** | **63S4** | 130 | 432 |
| **0.81** | 1170 | 1709 | 28600 | 2.6 | **F** | **87R57** | **DR** | **63S4** | 125 | 432 |
| **0.92** | 1030 | 1493 | 28900 | 2.9 | **FF** | **87R57** | **DR** | **63S4** | 140 | 432 |
| **1.1** | 820 | 1300 | 29300 | 3.7 | | | | | | |
| **1.2** | 745 | 1148 | 29500 | 4.0 | | | | | | |
| | | | | | **FA** | **77R37** | **DR** | **63S4** | 65 | 432 |
| **0.53** | 1820 | 2613 | 13000 | 0.80 | **FAF** | **77R37** | **DR** | **63S4** | 72 | 432 |
| **0.60** | 1570 | 2284 | 15200 | 0.95 | **F** | **77R37** | **DR** | **63S4** | 69 | 432 |
| **0.68** | 1380 | 2029 | 16400 | 1.10 | **FF** | **77R37** | **DR** | **63S4** | 80 | 432 |
| **0.80** | 1180 | 1728 | 17500 | 1.25 | | | | | | |
| **0.89** | 1090 | 1544 | 17900 | 1.40 | | | | | | |
| **1.0** | 950 | 1354 | 18500 | 1.55 | **FA** | **77R37** | **DR** | **63S4** | 65 | 432 |
| **1.2** | 840 | 1200 | 18800 | 1.75 | **FAF** | **77R37** | **DR** | **63S4** | 72 | 432 |
| **1.3** | 740 | 1053 | 19100 | 2.0 | **F** | **77R37** | **DR** | **63S4** | 69 | 432 |
| **1.5** | 630 | 910 | 19400 | 2.4 | **FF** | **77R37** | **DR** | **63S4** | 80 | 432 |
| **1.7** | 525 | 810 | 19600 | 2.8 | | | | | | |
| **1.9** | 460 | 710 | 19800 | 3.2 | | | | | | |
| **0.97** | 960 | 1429 | 7070 | 0.85 | | | | | | |
| **1.1** | 860 | 1271 | 9840 | 0.95 | | | | | | |
| **1.2** | 725 | 1102 | 11100 | 1.15 | | | | | | |
| **1.4** | 635 | 970 | 11700 | 1.30 | **FA** | **67R37** | **DR** | **63S4** | 43 | 432 |
| **1.6** | 560 | 858 | 12100 | 1.45 | **FAF** | **67R37** | **DR** | **63S4** | 49 | 432 |
| **1.8** | 490 | 755 | 12400 | 1.65 | **F** | **67R37** | **DR** | **63S4** | 46 | 432 |
| **2.2** | 415 | 641 | 12700 | 1.95 | **FF** | **67R37** | **DR** | **63S4** | 52 | 432 |
| **2.4** | 390 | 572 | 12800 | 2.1 | | | | | | |
| **2.7** | 330 | 509 | 13000 | 2.5 | | | | | | |
| **3.2** | 285 | 437 | 13000 | 2.8 | | | | | | |



21284997/EN – 03/2015

## $P_m$ = 0.12 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **1.6** | 610 | 851 | 9100 | 1.00 | | | | | | |
| **1.9** | 520 | 738 | 9750 | 1.15 | **FA** | **57R37** | **DR** | **63S4** | 39 | 432 |
| **2.1** | 455 | 646 | 10200 | 1.30 | **FAF** | **57R37** | **DR** | **63S4** | 45 | 432 |
| **2.5** | 385 | 558 | 10600 | 1.55 | **F** | **57R37** | **DR** | **63S4** | 39 | 432 |
| **2.7** | 345 | 506 | 10900 | 1.75 | **FF** | **57R37** | **DR** | **63S4** | 46 | 432 |
| **3.0** | 295 | 452 | 11100 | 2.0 | | | | | | |
| **3.2** | 310 | 426 | 11100 | 1.95 | | | | | | |
| **3.6** | 270 | 382 | 11300 | 2.2 | **FA** | **57R37** | **DR** | **63S4** | 38 | 432 |
| **4.2** | 230 | 330 | 11500 | 2.6 | **FAF** | **57R37** | **DR** | **63S4** | 44 | 432 |
| **4.6** | 210 | 298 | 11500 | 2.8 | **F** | **57R37** | **DR** | **63S4** | 39 | 432 |
| **5.3** | 185 | 262 | 11500 | 3.2 | **FF** | **57R37** | **DR** | **63S4** | 45 | 432 |
| **2.5** | 385 | 543 | 6100 | 1.05 | **FA** | **47R17** | **DR** | **63S4** | 24 | 432 |
| **2.9** | 330 | 475 | 6740 | 1.20 | **FAF** | **47R17** | **DR** | **63S4** | 26 | 432 |
| **3.3** | 290 | 419 | 7150 | 1.40 | **F** | **47R17** | **DR** | **63S4** | 25 | 432 |
| | | | | | **FF** | **47R17** | **DR** | **63S4** | 28 | 432 |
| **2.6** | 380 | 524 | 6190 | 1.05 | | | | | | |
| **2.8** | 350 | 489 | 6530 | 1.15 | | | | | | |
| **3.2** | 300 | 427 | 7020 | 1.30 | **FA** | **47R17** | **DR** | **63S4** | 23 | 432 |
| **3.6** | 265 | 381 | 7310 | 1.50 | **FAF** | **47R17** | **DR** | **63S4** | 26 | 432 |
| **4.1** | 235 | 334 | 7550 | 1.70 | **F** | **47R17** | **DR** | **63S4** | 24 | 432 |
| **4.7** | 205 | 295 | 7740 | 1.95 | **FF** | **47R17** | **DR** | **63S4** | 27 | 432 |
| **5.4** | 172 | 253 | 7910 | 2.3 | | | | | | |
| **4.3** | 215 | 322 | 3990 | 0.90 | **FA** | **37R17** | **DR** | **63S4** | 19 | 432 |
| **5.0** | 192 | 278 | 4400 | 1.05 | **FAF** | **37R17** | **DR** | **63S4** | 20 | 432 |
| **5.7** | 162 | 242 | 4750 | 1.25 | **F** | **37R17** | **DR** | **63S4** | 19 | 432 |
| **6.2** | 156 | 221 | 4820 | 1.30 | **FF** | **37R17** | **DR** | **63S4** | 21 | 432 |
| **4.2** | 235 | 326 | 3710 | 0.85 | | | | | | |
| **4.8** | 200 | 285 | 4250 | 1.00 | **FA** | **37R17** | **DR** | **63S4** | 19 | 432 |
| **5.5** | 177 | 250 | 4590 | 1.15 | **FAF** | **37R17** | **DR** | **63S4** | 20 | 432 |
| **6.3** | 156 | 219 | 4820 | 1.30 | **F** | **37R17** | **DR** | **63S4** | 19 | 432 |
| **7.4** | 132 | 186 | 5040 | 1.50 | **FF** | **37R17** | **DR** | **63S4** | 21 | 432 |
| **8.3** | 118 | 167 | 5140 | 1.70 | | | | | | |
| **6.2** | 155 | 221 | 4500 | 0.85 | **FA** | **27R17** | **DR** | **63S4** | 13 | 432 |
| **8.0** | 119 | 172 | 4500 | 1.10 | **FAF** | **27R17** | **DR** | **63S4** | 14 | 432 |
| **9.0** | 104 | 153 | 4500 | 1.25 | **F** | **27R17** | **DR** | **63S4** | 13 | 432 |
| **11** | 87 | 130 | 4500 | 1.50 | **FF** | **27R17** | **DR** | **63S4** | 14 | 432 |
| **6.5** | 150 | 211 | 4500 | 0.85 | | | | | | |
| **7.4** | 131 | 186 | 4500 | 1.00 | **FA** | **27R17** | **DR** | **63S4** | 13 | 432 |
| **9.7** | 102 | 142 | 4500 | 1.25 | **FAF** | **27R17** | **DR** | **63S4** | 13 | 432 |
| **11** | 88 | 124 | 4500 | 1.45 | **F** | **27R17** | **DR** | **63S4** | 13 | 432 |
| **13** | 77 | 109 | 4500 | 1.70 | **FF** | **27R17** | **DR** | **63S4** | 14 | 432 |
| **14** | 67 | 96 | 4500 | 1.95 | | | | | | |
| **3.9** | 290 | 228.99 | 13000 | 2.8 | | | | | | |
| **4.6** | 245 | 195.39 | 13000 | 3.3 | **FA** | **67** | **DR** | **63M6** | 32 | 399 |
| **5.3** | 215 | 170.85 | 13000 | 3.8 | **FAF** | **67** | **DR** | **63M6** | 38 | 398 |
| **5.6** | 205 | 162.31 | 13000 | 4.0 | **F** | **67** | **DR** | **63M6** | 35 | 397 |
| **6.3** | 181 | 142.40 | 13000 | 4.5 | **FF** | **67** | **DR** | **63M6** | 41 | 398 |
| **4.5** | 250 | 199.70 | 11400 | 2.4 | | | | | | |
| **4.9** | 230 | 183.60 | 11500 | 2.6 | **FA** | **57** | **DR** | **63M6** | 28 | 394 |
| **5.7** | 200 | 157.09 | 11500 | 3.0 | **FAF** | **57** | **DR** | **63M6** | 34 | 393 |
| **6.6** | 173 | 136.16 | 11500 | 3.5 | **F** | **57** | **DR** | **63M6** | 28 | 392 |
| **7.1** | 162 | 127.27 | 11500 | 3.7 | **FF** | **57** | **DR** | **63M6** | 35 | 393 |
| **6.9** | 166 | 199.70 | 11500 | 3.6 | **FA** | **57** | **DR** | **63S4** | 28 | 394 |
| **7.5** | 152 | 183.60 | 11500 | 3.9 | **FAF** | **57** | **DR** | **63S4** | 34 | 393 |
| **8.8** | 130 | 157.09 | 11500 | 4.6 | **F** | **57** | **DR** | **63S4** | 28 | 392 |
| **10** | 113 | 136.16 | 11500 | 5.3 | **FF** | **57** | **DR** | **63S4** | 35 | 393 |
| **4.7** | 240 | 190.76 | 7510 | 1.65 | | | | | | |
| **5.1** | 220 | 175.38 | 7640 | 1.80 | | | | | | |
| **6.0** | 191 | 150.06 | 7820 | 2.1 | **FA** | **47** | **DR** | **63M6** | 21 | 389 |
| **6.9** | 166 | 130.07 | 7940 | 2.4 | **FAF** | **47** | **DR** | **63M6** | 24 | 388 |
| **7.4** | 155 | 121.57 | 7990 | 2.6 | **F** | **47** | **DR** | **63M6** | 22 | 387 |
| **8.6** | 134 | 105.09 | 8060 | 3.0 | **FF** | **47** | **DR** | **63M6** | 25 | 388 |
| **10** | 114 | 89.29 | 8130 | 3.5 | | | | | | |
| **11** | 102 | 79.72 | 8160 | 3.9 | | | | | | |

21284997/EN – 03/2015

## $P_m$ = 0.12 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **7.2** | 158 | 190.76 | 7970 | 2.5 | **FA** | **47** | **DR** | **63S4** | 21 | 389 |
| **7.9** | 146 | 175.38 | 8020 | 2.8 | **FAF** | **47** | **DR** | **63S4** | 24 | 388 |
| **9.2** | 125 | 150.06 | 8100 | 3.2 | **F** | **47** | **DR** | **63S4** | 22 | 387 |
| **11** | 108 | 130.07 | 8150 | 3.7 | **FF** | **47** | **DR** | **63S4** | 25 | 388 |
| **7.0** | 164 | 128.51 | 4740 | 1.20 | | | | | | |
| **7.6** | 150 | 117.88 | 4880 | 1.35 | **FA** | **37** | **DR** | **63M6** | 16 | 384 |
| **9.0** | 128 | 100.36 | 5070 | 1.55 | **FAF** | **37** | **DR** | **63M6** | 18 | 383 |
| **10** | 110 | 86.53 | 5190 | 1.80 | **F** | **37** | **DR** | **63M6** | 16 | 382 |
| **11** | 103 | 80.65 | 5240 | 1.95 | **FF** | **37** | **DR** | **63M6** | 18 | 383 |
| **11** | 107 | 128.51 | 5220 | 1.85 | | | | | | |
| **12** | 98 | 117.88 | 5270 | 2.0 | **FA** | **37** | **DR** | **63S4** | 16 | 384 |
| **14** | 83 | 100.36 | 5340 | 2.4 | **FAF** | **37** | **DR** | **63S4** | 18 | 383 |
| **16** | 72 | 86.53 | 5400 | 2.8 | **F** | **37** | **DR** | **63S4** | 16 | 382 |
| **17** | 67 | 80.65 | 5410 | 3.0 | **FF** | **37** | **DR** | **63S4** | 18 | 383 |
| **8.2** | 140 | 109.90 | 4500 | 0.95 | **FA** | **27** | **DR** | **63M6** | 9.9 | 380 |
| **9.5** | 121 | 94.76 | 4500 | 1.10 | **FAF** | **27** | **DR** | **63M6** | 11 | 379 |
| **10** | 112 | 88.32 | 4500 | 1.15 | **F** | **27** | **DR** | **63M6** | 10 | 378 |
| **12** | 98 | 77.21 | 4500 | 1.30 | **FF** | **27** | **DR** | **63M6** | 11 | 379 |
| **9.8** | 117 | 140.74 | 4500 | 1.10 | | | | | | |
| **11** | 107 | 129.09 | 4500 | 1.20 | | | | | | |
| **13** | 91 | 109.90 | 4500 | 1.40 | | | | | | |
| **15** | 79 | 94.76 | 4500 | 1.65 | | | | | | |
| **16** | 73 | 88.32 | 4500 | 1.75 | | | | | | |
| **18** | 64 | 77.21 | 4500 | 2.0 | **FA** | **27** | **DR** | **63S4** | 9.9 | 380 |
| **19** | 60 | 72.37 | 4500 | 2.2 | **FAF** | **27** | **DR** | **63S4** | 11 | 379 |
| **22** | 53 | 63.86 | 4500 | 2.4 | **F** | **27** | **DR** | **63S4** | 10 | 378 |
| **24** | 47 | 56.62 | 4500 | 2.8 | **FF** | **27** | **DR** | **63S4** | 11 | 379 |
| **28** | 42 | 50.19 | 4500 | 3.1 | | | | | | |
| **30** | 39 | 46.78 | 4500 | 3.4 | | | | | | |
| **34** | 34 | 40.89 | 4500 | 3.8 | | | | | | |
| **36** | 32 | 38.33 | 4430 | 4.1 | | | | | | |
| **41** | 28 | 33.83 | 4270 | 4.6 | | | | | | |
| **47** | 24 | 29.56 | 4100 | 5.3 | | | | | | |
| **51** | 23 | 27.18 | 4000 | 5.8 | | | | | | |
| **59** | 19 | 23.25 | 3820 | 6.7 | | | | | | |
| **68** | 17 | 20.15 | 3650 | 7.8 | | | | | | |
| **73** | 16 | 18.84 | 3580 | 8.3 | | | | | | |
| **85** | 14 | 16.28 | 3420 | 9.6 | | | | | | |
| **100** | 12 | 13.84 | 3250 | 11 | | | | | | |
| **112** | 10 | 12.35 | 3140 | 13 | **FA** | **27** | **DR** | **63S4** | 9.6 | 380 |
| **131** | 8.8 | 10.55 | 2990 | 15 | **FAF** | **27** | **DR** | **63S4** | 10 | 379 |
| **140** | 8.2 | 9.88 | 2920 | 16 | **F** | **27** | **DR** | **63S4** | 10 | 378 |
| **147** | 7.8 | 9.40 | 2870 | 17 | **FF** | **27** | **DR** | **63S4** | 11 | 379 |
| **170** | 6.7 | 8.13 | 2740 | 18 | | | | | | |
| **200** | 5.7 | 6.91 | 2600 | 20 | | | | | | |
| **224** | 5.1 | 6.17 | 2510 | 21 | | | | | | |
| **262** | 4.4 | 5.27 | 2390 | 23 | | | | | | |
| **280** | 4.1 | 4.93 | 2340 | 23 | | | | | | |
| **332** | 3.5 | 4.16 | 2210 | 25 | | | | | | |

## $P_m$ = 0.18 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **0.10** | 13600 | 12912 | 87200 | 0.90 | | | | | | |
| **0.11** | 12100 | 11656 | 90000 | 1.00 | **FA** | **127R77** | **DR** | **63M4** | 425 | 432 |
| **0.13** | 10700 | 10191 | 90000 | 1.10 | **FAF** | **127R77** | **DR** | **63M4** | 465 | 432 |
| **0.15** | 8940 | 8831 | 90000 | 1.35 | **F** | **127R77** | **DR** | **63M4** | 460 | 432 |
| **0.17** | 7740 | 7643 | 90000 | 1.55 | **FF** | **127R77** | **DR** | **63M4** | 510 | 432 |
| **0.20** | 7130 | 6715 | 90000 | 1.70 | | | | | | |

## $P_m$ = 0.18 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **0.15** | 8440 | 8548 | 47700 | 0.90 | | | | | | |
| **0.17** | 8130 | 7674 | 48600 | 0.95 | | | | | | |
| **0.20** | 7070 | 6767 | 51400 | 1.10 | **FA** | **107R77** | **DR** | **63M4** | 275 | 432 |
| **0.22** | 6080 | 5954 | 53800 | 1.25 | **FAF** | **107R77** | **DR** | **63M4** | 295 | 432 |
| **0.25** | 5290 | 5223 | 55700 | 1.45 | **F** | **107R77** | **DR** | **63M4** | 290 | 432 |
| **0.29** | 4850 | 4567 | 56600 | 1.60 | **FF** | **107R77** | **DR** | **63M4** | 320 | 432 |
| **0.37** | 3670 | 3521 | 59100 | 2.1 | | | | | | |
| **0.43** | 3250 | 3037 | 59900 | 2.4 | **FA** | **107R77** | **DR** | **63M4** | 275 | 432 |
| **0.48** | 2950 | 2756 | 60500 | 2.6 | **FAF** | **107R77** | **DR** | **63M4** | 295 | 432 |
| **0.56** | 2540 | 2369 | 61200 | 3.0 | **F** | **107R77** | **DR** | **63M4** | 290 | 432 |
| **0.64** | 2210 | 2068 | 61800 | 3.5 | **FF** | **107R77** | **DR** | **63M4** | 315 | 432 |
| | | | | | **FA** | **97R57** | **DR** | **63M4** | 185 | 432 |
| **0.30** | 4800 | 4333 | 22800 | 0.90 | **FAF** | **97R57** | **DR** | **63M4** | 205 | 432 |
| | | | | | **F** | **97R57** | **DR** | **63M4** | 190 | 432 |
| | | | | | **FF** | **97R57** | **DR** | **63M4** | 225 | 432 |
| **0.34** | 4420 | 3906 | 29500 | 0.95 | | | | | | |
| **0.39** | 3800 | 3352 | 31300 | 1.15 | | | | | | |
| **0.45** | 3210 | 2907 | 32800 | 1.35 | | | | | | |
| **0.52** | 2890 | 2553 | 33600 | 1.50 | **FA** | **97R57** | **DR** | **63M4** | 180 | 432 |
| **0.59** | 2540 | 2245 | 34300 | 1.70 | **FAF** | **97R57** | **DR** | **63M4** | 205 | 432 |
| **0.67** | 2210 | 1970 | 35000 | 1.95 | **F** | **97R57** | **DR** | **63M4** | 190 | 432 |
| **0.77** | 1950 | 1722 | 35500 | 2.2 | **FF** | **97R57** | **DR** | **63M4** | 225 | 432 |
| **0.86** | 1730 | 1527 | 35900 | 2.5 | | | | | | |
| **0.99** | 1420 | 1327 | 36400 | 3.0 | | | | | | |
| **1.1** | 1330 | 1171 | 36500 | 3.2 | | | | | | |
| **0.51** | 2920 | 2576 | 22300 | 1.00 | | | | | | |
| **0.60** | 2490 | 2199 | 24800 | 1.20 | | | | | | |
| **0.68** | 2160 | 1930 | 25900 | 1.40 | | | | | | |
| **0.77** | 1930 | 1709 | 26600 | 1.55 | **FA** | **87R57** | **DR** | **63M4** | 115 | 432 |
| **0.88** | 1690 | 1493 | 27300 | 1.75 | **FAF** | **87R57** | **DR** | **63M4** | 130 | 432 |
| **1.0** | 1390 | 1300 | 28100 | 2.1 | **F** | **87R57** | **DR** | **63M4** | 125 | 432 |
| **1.2** | 1250 | 1148 | 28400 | 2.4 | **FF** | **87R57** | **DR** | **63M4** | 140 | 432 |
| **1.3** | 1080 | 1010 | 28800 | 2.8 | | | | | | |
| **1.5** | 970 | 887 | 29000 | 3.1 | | | | | | |
| **1.7** | 830 | 780 | 29300 | 3.6 | | | | | | |
| **0.86** | 1770 | 1544 | 13500 | 0.85 | | | | | | |
| **0.98** | 1550 | 1354 | 15300 | 0.95 | | | | | | |
| **1.1** | 1380 | 1200 | 16500 | 1.10 | **FA** | **77R37** | **DR** | **63M4** | 65 | 432 |
| **1.2** | 1210 | 1053 | 17400 | 1.25 | **FAF** | **77R37** | **DR** | **63M4** | 72 | 432 |
| **1.4** | 1030 | 910 | 18200 | 1.45 | **F** | **77R37** | **DR** | **63M4** | 69 | 432 |
| **1.6** | 880 | 810 | 18700 | 1.70 | **FF** | **77R37** | **DR** | **63M4** | 80 | 432 |
| **1.9** | 780 | 710 | 19000 | 1.90 | | | | | | |
| **2.2** | 690 | 615 | 19300 | 2.2 | | | | | | |
| **1.5** | 940 | 858 | 8660 | 0.85 | | | | | | |
| **1.8** | 820 | 755 | 10200 | 1.00 | | | | | | |
| **2.1** | 700 | 641 | 11200 | 1.15 | **FA** | **67R37** | **DR** | **63M4** | 43 | 432 |
| **2.3** | 645 | 572 | 11600 | 1.25 | **FAF** | **67R37** | **DR** | **63M4** | 49 | 432 |
| **2.6** | 555 | 509 | 12100 | 1.45 | **F** | **67R37** | **DR** | **63M4** | 46 | 432 |
| **3.0** | 480 | 437 | 12500 | 1.70 | **FF** | **67R37** | **DR** | **63M4** | 52 | 432 |
| **3.4** | 430 | 384 | 12700 | 1.90 | | | | | | |
| **2.6** | 575 | 500 | 12000 | 1.40 | | | | | | |
| **2.9** | 525 | 454 | 12300 | 1.55 | | | | | | |
| **3.4** | 450 | 392 | 12600 | 1.80 | **FA** | **67R37** | **DR** | **63M4** | 42 | 432 |
| **4.0** | 380 | 333 | 12900 | 2.2 | **FAF** | **67R37** | **DR** | **63M4** | 48 | 432 |
| **4.4** | 335 | 297 | 13000 | 2.4 | **F** | **67R37** | **DR** | **63M4** | 45 | 432 |
| **5.1** | 295 | 261 | 13000 | 2.8 | **FF** | **67R37** | **DR** | **63M4** | 51 | 432 |
| **5.6** | 260 | 238 | 13000 | 3.1 | | | | | | |
| **6.6** | 215 | 200 | 13000 | 3.7 | | | | | | |
| **2.4** | 635 | 558 | 7570 | 0.95 | | | | | | |
| **2.6** | 570 | 506 | 9420 | 1.05 | **FA** | **57R37** | **DR** | **63M4** | 39 | 432 |
| **2.9** | 495 | 452 | 9930 | 1.20 | **FAF** | **57R37** | **DR** | **63M4** | 45 | 432 |
| **3.4** | 425 | 386 | 10400 | 1.40 | **F** | **57R37** | **DR** | **63M4** | 39 | 432 |
| **3.9** | 370 | 338 | 10700 | 1.60 | **FF** | **57R37** | **DR** | **63M4** | 46 | 432 |

21284997/EN – 03/2015

## $P_m$ = 0.18 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **3.1** | 500 | 426 | 9910 | 1.20 | | | | | | |
| **3.5** | 445 | 382 | 10300 | 1.35 | | | | | | |
| **4.0** | 380 | 330 | 10700 | 1.55 | **FA** | **57R37** | **DR** | **63M4** | 38 | 432 |
| **4.4** | 340 | 298 | 10900 | 1.75 | **FAF** | **57R37** | **DR** | **63M4** | 44 | 432 |
| **5.0** | 300 | 262 | 11100 | 2.00 | **F** | **57R37** | **DR** | **63M4** | 39 | 432 |
| **5.8** | 255 | 226 | 11400 | 2.3 | **FF** | **57R37** | **DR** | **63M4** | 45 | 432 |
| **6.6** | 220 | 200 | 11500 | 2.7 | | | | | | |
| **3.6** | 410 | 370 | 5210 | 0.95 | **FA** | **47R17** | **DR** | **63M4** | 24 | 432 |
| **4.1** | 375 | 324 | 6250 | 1.05 | **FAF** | **47R17** | **DR** | **63M4** | 26 | 432 |
| **4.6** | 325 | 288 | 6810 | 1.20 | **F** | **47R17** | **DR** | **63M4** | 25 | 432 |
| **5.3** | 275 | 249 | 7250 | 1.45 | **FF** | **47R17** | **DR** | **63M4** | 28 | 432 |
| **4.0** | 385 | 334 | 6100 | 1.05 | | | | | | |
| **4.5** | 335 | 295 | 6680 | 1.20 | **FA** | **47R17** | **DR** | **63M4** | 23 | 432 |
| **5.2** | 285 | 253 | 7190 | 1.40 | **FAF** | **47R17** | **DR** | **63M4** | 26 | 432 |
| **6.1** | 250 | 217 | 7430 | 1.55 | **F** | **47R17** | **DR** | **63M4** | 24 | 432 |
| **7.0** | 220 | 190 | 7650 | 1.80 | **FF** | **47R17** | **DR** | **63M4** | 27 | 432 |
| **7.4** | 205 | 178 | 7740 | 1.95 | | | | | | |
| **7.1** | 215 | 186 | 4060 | 0.95 | **FA** | **37R17** | **DR** | **63M4** | 19 | 432 |
| **7.9** | 194 | 167 | 4380 | 1.05 | **FAF** | **37R17** | **DR** | **63M4** | 20 | 432 |
| **9.1** | 171 | 145 | 4660 | 1.15 | **F** | **37R17** | **DR** | **63M4** | 19 | 432 |
| **10** | 151 | 129 | 4870 | 1.30 | **FF** | **37R17** | **DR** | **63M4** | 21 | 432 |
| **9.3** | 166 | 142 | 4500 | 0.80 | **FA** | **27R17** | **DR** | **63M4** | 13 | 432 |
| **11** | 144 | 124 | 4500 | 0.90 | **FAF** | **27R17** | **DR** | **63M4** | 13 | 432 |
| **12** | 126 | 109 | 4500 | 1.05 | **F** | **27R17** | **DR** | **63M4** | 13 | 432 |
| **14** | 110 | 96 | 4500 | 1.20 | **FF** | **27R17** | **DR** | **63M4** | 14 | 432 |
| **3.1** | 555 | 281.71 | 19600 | 2.7 | **FA** | **77** | **DR** | **63L6** | 57 | 404 |
| **3.3** | 515 | 262.93 | 19700 | 2.9 | **FAF** | **77** | **DR** | **63L6** | 63 | 403 |
| **3.8** | 445 | 225.79 | 19800 | 3.4 | **F** | **77** | **DR** | **63L6** | 60 | 402 |
| | | | | | **FF** | **77** | **DR** | **63L6** | 71 | 403 |
| **3.8** | 450 | 228.99 | 12600 | 1.80 | **FA** | **67** | **DR** | **63L6** | 33 | 399 |
| **4.4** | 385 | 195.39 | 12900 | 2.1 | **FAF** | **67** | **DR** | **63L6** | 39 | 398 |
| **5.1** | 335 | 170.85 | 13000 | 2.4 | **F** | **67** | **DR** | **63L6** | 36 | 397 |
| | | | | | **FF** | **67** | **DR** | **63L6** | 42 | 398 |
| **5.8** | 295 | 228.99 | 13000 | 2.8 | **FA** | **67** | **DR** | **63M4** | 32 | 399 |
| **6.8** | 250 | 195.39 | 13000 | 3.2 | **FAF** | **67** | **DR** | **63M4** | 38 | 398 |
| **7.7** | 220 | 170.85 | 13000 | 3.7 | **F** | **67** | **DR** | **63M4** | 35 | 397 |
| | | | | | **FF** | **67** | **DR** | **63M4** | 41 | 398 |
| **4.4** | 390 | 199.70 | 10600 | 1.50 | | | | | | |
| **4.7** | 360 | 183.60 | 10800 | 1.65 | **FA** | **57** | **DR** | **63L6** | 29 | 394 |
| **5.5** | 310 | 157.09 | 11100 | 1.95 | **FAF** | **57** | **DR** | **63L6** | 34 | 393 |
| **6.4** | 265 | 136.16 | 11300 | 2.2 | **F** | **57** | **DR** | **63L6** | 29 | 392 |
| **6.8** | 250 | 127.27 | 11400 | 2.4 | **FF** | **57** | **DR** | **63L6** | 35 | 393 |
| **7.9** | 215 | 110.01 | 11500 | 2.8 | | | | | | |
| **6.6** | 260 | 199.70 | 11300 | 2.3 | | | | | | |
| **7.2** | 235 | 183.60 | 11500 | 2.5 | **FA** | **57** | **DR** | **63M4** | 28 | 394 |
| **8.4** | 200 | 157.09 | 11500 | 2.9 | **FAF** | **57** | **DR** | **63M4** | 34 | 393 |
| **9.7** | 177 | 136.16 | 11500 | 3.4 | **F** | **57** | **DR** | **63M4** | 28 | 392 |
| **10** | 166 | 127.27 | 11500 | 3.6 | **FF** | **57** | **DR** | **63M4** | 35 | 393 |
| **4.6** | 375 | 190.76 | 6240 | 1.05 | | | | | | |
| **5.0** | 345 | 175.38 | 6600 | 1.15 | **FA** | **47** | **DR** | **63L6** | 22 | 389 |
| **5.8** | 295 | 150.06 | 7090 | 1.35 | **FAF** | **47** | **DR** | **63L6** | 24 | 388 |
| **6.7** | 255 | 130.07 | 7410 | 1.55 | **F** | **47** | **DR** | **63L6** | 22 | 387 |
| **7.2** | 240 | 121.57 | 7530 | 1.65 | **FF** | **47** | **DR** | **63L6** | 25 | 388 |
| **6.9** | 245 | 190.76 | 7470 | 1.60 | | | | | | |
| **7.5** | 225 | 175.38 | 7600 | 1.75 | **FA** | **47** | **DR** | **63M4** | 21 | 389 |
| **8.8** | 195 | 150.06 | 7800 | 2.0 | **FAF** | **47** | **DR** | **63M4** | 24 | 388 |
| **10** | 169 | 130.07 | 7920 | 2.4 | **F** | **47** | **DR** | **63M4** | 22 | 387 |
| **11** | 158 | 121.57 | 7970 | 2.5 | **FF** | **47** | **DR** | **63M4** | 25 | 388 |
| **7.4** | 230 | 117.88 | 3750 | 0.85 | | | | | | |
| **8.7** | 198 | 100.36 | 4320 | 1.00 | **FA** | **37** | **DR** | **63L6** | 17 | 384 |
| **10** | 171 | 86.53 | 4660 | 1.15 | **FAF** | **37** | **DR** | **63L6** | 18 | 383 |
| **11** | 159 | 80.65 | 4790 | 1.25 | **F** | **37** | **DR** | **63L6** | 17 | 382 |
| **12** | 139 | 70.50 | 4970 | 1.45 | **FF** | **37** | **DR** | **63L6** | 19 | 383 |

21284997/EN – 03/2015

## $P_m$ = 0.18 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **10** | 167 | 128.51 | 4700 | 1.20 | | | | | | |
| **11** | 154 | 117.88 | 4840 | 1.30 | | | | | | |
| **13** | 131 | 100.36 | 5040 | 1.55 | **FA** | **37** | **DR** | **63M4** | 16 | 384 |
| **15** | 113 | 86.53 | 5180 | 1.75 | **FAF** | **37** | **DR** | **63M4** | 18 | 383 |
| **16** | 105 | 80.65 | 5230 | 1.90 | **F** | **37** | **DR** | **63M4** | 16 | 382 |
| **19** | 92 | 70.50 | 5300 | 2.2 | **FF** | **37** | **DR** | **63M4** | 18 | 383 |
| **20** | 86 | 66.09 | 5330 | 2.3 | | | | | | |
| **23** | 76 | 58.32 | 5380 | 2.6 | | | | | | |
| **12** | 143 | 109.90 | 4500 | 0.90 | | | | | | |
| **14** | 123 | 94.76 | 4500 | 1.05 | | | | | | |
| **15** | 115 | 88.32 | 4500 | 1.15 | | | | | | |
| **17** | 100 | 77.21 | 4500 | 1.30 | | | | | | |
| **18** | 94 | 72.37 | 4500 | 1.40 | **FA** | **27** | **DR** | **63M4** | 9.9 | 380 |
| **21** | 83 | 63.86 | 4500 | 1.55 | **FAF** | **27** | **DR** | **63M4** | 11 | 379 |
| **23** | 74 | 56.62 | 4500 | 1.75 | **F** | **27** | **DR** | **63M4** | 10 | 378 |
| **26** | 65 | 50.19 | 4500 | 2.00 | **FF** | **27** | **DR** | **63M4** | 11 | 379 |
| **28** | 61 | 46.78 | 4500 | 2.1 | | | | | | |
| **32** | 53 | 40.89 | 4410 | 2.4 | | | | | | |
| **34** | 50 | 38.33 | 4340 | 2.6 | | | | | | |
| **39** | 44 | 33.83 | 4200 | 3.0 | | | | | | |
| **45** | 38 | 29.56 | 4040 | 3.4 | | | | | | |
| **49** | 35 | 27.18 | 3950 | 3.7 | | | | | | |
| **57** | 30 | 23.25 | 3780 | 4.3 | | | | | | |
| **65** | 26 | 20.15 | 3630 | 5.0 | | | | | | |
| **70** | 24 | 18.84 | 3560 | 5.3 | | | | | | |
| **81** | 21 | 16.28 | 3410 | 6.1 | | | | | | |
| **95** | 18 | 13.84 | 3240 | 7.2 | | | | | | |
| **107** | 16 | 12.35 | 3140 | 8.1 | **FA** | **27** | **DR** | **63M4** | 9.6 | 380 |
| **125** | 14 | 10.55 | 2990 | 9.5 | **FAF** | **27** | **DR** | **63M4** | 10 | 379 |
| **134** | 13 | 9.88 | 2930 | 10 | **F** | **27** | **DR** | **63M4** | 10 | 378 |
| **140** | 12 | 9.40 | 2870 | 11 | **FF** | **27** | **DR** | **63M4** | 11 | 379 |
| **162** | 11 | 8.13 | 2750 | 12 | | | | | | |
| **191** | 9.0 | 6.91 | 2610 | 13 | | | | | | |
| **214** | 8.0 | 6.17 | 2520 | 14 | | | | | | |
| **251** | 6.9 | 5.27 | 2400 | 14 | | | | | | |
| **268** | 6.4 | 4.93 | 2350 | 15 | | | | | | |
| **318** | 5.4 | 4.16 | 2230 | 16 | | | | | | |
| **335** | 5.1 | 8.13 | 2190 | 24 | | | | | | |
| **394** | 4.4 | 6.91 | 2080 | 26 | **FA** | **27** | **DR** | **63S2** | 9.6 | 380 |
| **441** | 3.9 | 6.17 | 2000 | 28 | **FAF** | **27** | **DR** | **63S2** | 10 | 379 |
| **516** | 3.3 | 5.27 | 1910 | 30 | **F** | **27** | **DR** | **63S2** | 10 | 378 |
| **551** | 3.1 | 4.93 | 1870 | 31 | **FF** | **27** | **DR** | **63S2** | 11 | 379 |
| **655** | 2.6 | 4.16 | 1770 | 33 | | | | | | |

## $P_m$ = 0.25 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **0.15** | 13300 | 8831 | 87900 | 0.90 | | | | | | |
| **0.17** | 11500 | 7643 | 90000 | 1.05 | **FA** | **127R77** | **DR** | **63L4** | 425 | 432 |
| **0.19** | 10400 | 6715 | 90000 | 1.15 | **FAF** | **127R77** | **DR** | **63L4** | 465 | 432 |
| **0.22** | 9230 | 5925 | 90000 | 1.30 | **F** | **127R77** | **DR** | **63L4** | 465 | 432 |
| **0.25** | 7940 | 5153 | 90000 | 1.50 | **FF** | **127R77** | **DR** | **63L4** | 510 | 432 |
| **0.29** | 6890 | 4533 | 90000 | 1.75 | | | | | | |
| **0.22** | 9050 | 5954 | 46000 | 0.85 | **FA** | **107R77** | **DR** | **63L4** | 275 | 432 |
| **0.25** | 7890 | 5223 | 49300 | 0.95 | **FAF** | **107R77** | **DR** | **63L4** | 295 | 432 |
| **0.28** | 7120 | 4567 | 51300 | 1.10 | **F** | **107R77** | **DR** | **63L4** | 290 | 432 |
| **0.37** | 5430 | 3521 | 55300 | 1.40 | **FF** | **107R77** | **DR** | **63L4** | 320 | 432 |
| **0.43** | 4780 | 3037 | 56800 | 1.60 | | | | | | |
| **0.47** | 4340 | 2756 | 57700 | 1.75 | **FA** | **107R77** | **DR** | **63L4** | 275 | 432 |
| **0.55** | 3730 | 2369 | 59000 | 2.1 | **FAF** | **107R77** | **DR** | **63L4** | 295 | 432 |
| **0.63** | 3250 | 2068 | 59900 | 2.4 | **F** | **107R77** | **DR** | **63L4** | 290 | 432 |
| **0.81** | 2490 | 1597 | 61300 | 3.1 | **FF** | **107R77** | **DR** | **63L4** | 320 | 432 |
| **0.93** | 2150 | 1401 | 61900 | 3.6 | | | | | | |

21284997/EN – 03/2015

## $P_m$ = 0.25 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **0.45** | 4670 | 2907 | 27500 | 0.90 | | | | | | |
| **0.51** | 4180 | 2553 | 30300 | 1.05 | | | | | | |
| **0.58** | 3670 | 2245 | 31600 | 1.15 | | | | | | |
| **0.66** | 3200 | 1970 | 32800 | 1.35 | **FA** | **97R57** | **DR** | **63L4** | 185 | 432 |
| **0.75** | 2820 | 1722 | 33700 | 1.50 | **FAF** | **97R57** | **DR** | **63L4** | 205 | 432 |
| **0.85** | 2500 | 1527 | 34400 | 1.70 | **F** | **97R57** | **DR** | **63L4** | 190 | 432 |
| **0.98** | 2090 | 1327 | 35200 | 2.0 | **FF** | **97R57** | **DR** | **63L4** | 225 | 432 |
| **1.1** | 1910 | 1171 | 35500 | 2.2 | | | | | | |
| **1.3** | 1670 | 1022 | 36000 | 2.6 | | | | | | |
| **0.67** | 3130 | 1930 | 13500 | 0.95 | | | | | | |
| **0.76** | 2790 | 1709 | 23700 | 1.05 | | | | | | |
| **0.87** | 2440 | 1493 | 25000 | 1.25 | | | | | | |
| **1.0** | 2050 | 1300 | 26300 | 1.45 | **FA** | **87R57** | **DR** | **63L4** | 120 | 432 |
| **1.1** | 1830 | 1148 | 26900 | 1.65 | **FAF** | **87R57** | **DR** | **63L4** | 130 | 432 |
| **1.3** | 1590 | 1010 | 27600 | 1.90 | **F** | **87R57** | **DR** | **63L4** | 125 | 432 |
| **1.5** | 1410 | 887 | 28000 | 2.1 | **FF** | **87R57** | **DR** | **63L4** | 140 | 432 |
| **1.7** | 1230 | 780 | 28500 | 2.4 | | | | | | |
| **1.9** | 1040 | 674 | 28900 | 2.9 | | | | | | |
| **1.2** | 1740 | 1053 | 13900 | 0.85 | | | | | | |
| **1.4** | 1490 | 910 | 15700 | 1.00 | | | | | | |
| **1.6** | 1290 | 810 | 16900 | 1.15 | **FA** | **77R37** | **DR** | **63L4** | 66 | 432 |
| **1.8** | 1130 | 710 | 17700 | 1.30 | **FAF** | **77R37** | **DR** | **63L4** | 72 | 432 |
| **2.1** | 1000 | 615 | 18300 | 1.50 | **F** | **77R37** | **DR** | **63L4** | 70 | 432 |
| **2.4** | 870 | 538 | 18700 | 1.70 | **FF** | **77R37** | **DR** | **63L4** | 80 | 432 |
| **2.7** | 775 | 480 | 19000 | 1.95 | | | | | | |
| **3.2** | 660 | 413 | 19400 | 2.3 | | | | | | |
| **2.3** | 930 | 572 | 9150 | 0.90 | **FA** | **67R37** | **DR** | **63L4** | 44 | 432 |
| **2.6** | 810 | 509 | 10400 | 1.00 | **FAF** | **67R37** | **DR** | **63L4** | 50 | 432 |
| **3.0** | 700 | 437 | 11200 | 1.15 | **F** | **67R37** | **DR** | **63L4** | 46 | 432 |
| | | | | | **FF** | **67R37** | **DR** | **63L4** | 53 | 432 |
| **2.6** | 830 | 500 | 10200 | 1.00 | | | | | | |
| **2.9** | 755 | 454 | 10800 | 1.10 | | | | | | |
| **3.3** | 650 | 392 | 11600 | 1.25 | **FA** | **67R37** | **DR** | **63L4** | 42 | 432 |
| **3.9** | 550 | 333 | 12200 | 1.50 | **FAF** | **67R37** | **DR** | **63L4** | 49 | 432 |
| **4.4** | 485 | 297 | 12500 | 1.70 | **F** | **67R37** | **DR** | **63L4** | 45 | 432 |
| **5.0** | 425 | 261 | 12700 | 1.90 | **FF** | **67R37** | **DR** | **63L4** | 51 | 432 |
| **5.5** | 385 | 238 | 12900 | 2.1 | | | | | | |
| **3.4** | 620 | 386 | 8830 | 0.95 | **FA** | **57R37** | **DR** | **63L4** | 40 | 432 |
| **3.8** | 540 | 338 | 9640 | 1.10 | **FAF** | **57R37** | **DR** | **63L4** | 45 | 432 |
| **5.1** | 405 | 255 | 10500 | 1.45 | **F** | **57R37** | **DR** | **63L4** | 40 | 432 |
| | | | | | **FF** | **57R37** | **DR** | **63L4** | 46 | 432 |
| **3.4** | 635 | 382 | 7390 | 0.95 | | | | | | |
| **3.9** | 550 | 330 | 9570 | 1.10 | | | | | | |
| **4.4** | 495 | 298 | 9950 | 1.20 | **FA** | **57R37** | **DR** | **63L4** | 39 | 432 |
| **5.0** | 435 | 262 | 10300 | 1.35 | **FAF** | **57R37** | **DR** | **63L4** | 45 | 432 |
| **5.8** | 370 | 226 | 10700 | 1.60 | **F** | **57R37** | **DR** | **63L4** | 39 | 432 |
| **6.5** | 320 | 200 | 11000 | 1.85 | **FF** | **57R37** | **DR** | **63L4** | 46 | 432 |
| **7.6** | 275 | 170 | 11300 | 2.2 | | | | | | |
| **5.2** | 400 | 249 | 5880 | 1.00 | **FA** | **47R17** | **DR** | **63L4** | 24 | 432 |
| **6.0** | 355 | 218 | 6470 | 1.10 | **FAF** | **47R17** | **DR** | **63L4** | 27 | 432 |
| **6.7** | 315 | 193 | 6920 | 1.25 | **F** | **47R17** | **DR** | **63L4** | 25 | 432 |
| **7.4** | 285 | 175 | 7180 | 1.40 | **FF** | **47R17** | **DR** | **63L4** | 28 | 432 |
| **5.1** | 410 | 253 | 4980 | 0.95 | | | | | | |
| **6.0** | 365 | 217 | 6380 | 1.10 | **FA** | **47R17** | **DR** | **63L4** | 24 | 432 |
| **6.8** | 315 | 190 | 6900 | 1.25 | **FAF** | **47R17** | **DR** | **63L4** | 26 | 432 |
| **7.3** | 295 | 178 | 7090 | 1.35 | **F** | **47R17** | **DR** | **63L4** | 25 | 432 |
| **8.7** | 245 | 149 | 7480 | 1.60 | **FF** | **47R17** | **DR** | **63L4** | 28 | 432 |
| **9.9** | 215 | 131 | 7670 | 1.85 | | | | | | |
| **8.9** | 245 | 145 | 3420 | 0.80 | | | | | | |
| **10** | 215 | 129 | 4040 | 0.90 | **FA** | **37R17** | **DR** | **63L4** | 20 | 432 |
| **11** | 198 | 118 | 4320 | 1.00 | **FAF** | **37R17** | **DR** | **63L4** | 21 | 432 |
| **13** | 164 | 98 | 4740 | 1.20 | **F** | **37R17** | **DR** | **63L4** | 20 | 432 |
| **15** | 144 | 87 | 4940 | 1.40 | **FF** | **37R17** | **DR** | **63L4** | 22 | 432 |



21284997/EN – 03/2015

## $P_m$ = 0.25 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **3.2** | 750 | 281.71 | 19100 | 2.0 | | | | | | |
| **3.4** | 700 | 262.93 | 19300 | 2.1 | **FA** | **77** | **DRS** | **71S6** | 58 | 404 |
| **4.0** | 600 | 225.79 | 19500 | 2.5 | **FAF** | **77** | **DRS** | **71S6** | 65 | 403 |
| **4.5** | 525 | 198.31 | 19600 | 2.8 | **F** | **77** | **DRS** | **71S6** | 62 | 402 |
| **4.8** | 500 | 188.40 | 19700 | 3.0 | **FF** | **77** | **DRS** | **71S6** | 73 | 403 |
| **3.9** | 610 | 228.99 | 11800 | 1.35 | | | | | | |
| **4.6** | 520 | 195.39 | 12300 | 1.55 | **FA** | **67** | **DRS** | **71S6** | 34 | 399 |
| **5.2** | 455 | 170.85 | 12600 | 1.80 | **FAF** | **67** | **DRS** | **71S6** | 41 | 398 |
| **5.5** | 430 | 162.31 | 12700 | 1.90 | **F** | **67** | **DRS** | **71S6** | 37 | 397 |
| **6.3** | 375 | 142.40 | 12900 | 2.2 | **FF** | **67** | **DRS** | **71S6** | 43 | 398 |
| **5.7** | 420 | 228.99 | 12700 | 1.95 | | | | | | |
| **6.6** | 355 | 195.39 | 13000 | 2.3 | **FA** | **67** | **DR** | **63L4** | 33 | 399 |
| **7.6** | 310 | 170.85 | 13000 | 2.6 | **FAF** | **67** | **DR** | **63L4** | 39 | 398 |
| **8.0** | 295 | 162.31 | 13000 | 2.8 | **F** | **67** | **DR** | **63L4** | 36 | 397 |
| **9.1** | 260 | 142.40 | 13000 | 3.1 | **FF** | **67** | **DR** | **63L4** | 42 | 398 |
| **4.5** | 530 | 199.70 | 9700 | 1.15 | | | | | | |
| **4.9** | 485 | 183.60 | 9990 | 1.25 | **FA** | **57** | **DRS** | **71S6** | 31 | 394 |
| **5.7** | 415 | 157.09 | 10500 | 1.45 | **FAF** | **57** | **DRS** | **71S6** | 36 | 393 |
| **6.6** | 360 | 136.16 | 10800 | 1.65 | **F** | **57** | **DRS** | **71S6** | 31 | 392 |
| **7.0** | 335 | 127.27 | 10900 | 1.75 | **FF** | **57** | **DRS** | **71S6** | 37 | 393 |
| **8.1** | 290 | 110.01 | 11200 | 2.0 | | | | | | |
| **6.5** | 365 | 199.70 | 10800 | 1.65 | | | | | | |
| **7.1** | 335 | 183.60 | 10900 | 1.80 | **FA** | **57** | **DR** | **63L4** | 29 | 394 |
| **8.3** | 285 | 157.09 | 11200 | 2.1 | **FAF** | **57** | **DR** | **63L4** | 34 | 393 |
| **9.6** | 250 | 136.16 | 11400 | 2.4 | **F** | **57** | **DR** | **63L4** | 29 | 392 |
| **10** | 230 | 127.27 | 11500 | 2.6 | **FF** | **57** | **DR** | **63L4** | 35 | 393 |
| **12** | 200 | 110.01 | 11500 | 3.0 | | | | | | |
| **6.0** | 400 | 150.06 | 5920 | 1.00 | **FA** | **47** | **DRS** | **71S6** | 24 | 389 |
| **6.9** | 345 | 130.07 | 6590 | 1.15 | **FAF** | **47** | **DRS** | **71S6** | 26 | 388 |
| **7.4** | 320 | 121.57 | 6830 | 1.25 | **F** | **47** | **DRS** | **71S6** | 24 | 387 |
| **8.5** | 280 | 105.09 | 7230 | 1.45 | **FF** | **47** | **DRS** | **71S6** | 27 | 388 |
| **6.8** | 350 | 190.76 | 6550 | 1.15 | | | | | | |
| **7.4** | 320 | 175.38 | 6850 | 1.25 | | | | | | |
| **8.7** | 275 | 150.06 | 7270 | 1.45 | **FA** | **47** | **DR** | **63L4** | 22 | 389 |
| **10.0** | 235 | 130.07 | 7540 | 1.65 | **FAF** | **47** | **DR** | **63L4** | 24 | 388 |
| **11** | 220 | 121.57 | 7640 | 1.80 | **F** | **47** | **DR** | **63L4** | 22 | 387 |
| **12** | 193 | 105.09 | 7810 | 2.1 | **FF** | **47** | **DR** | **63L4** | 25 | 388 |
| **15** | 164 | 89.29 | 7950 | 2.4 | | | | | | |
| **10** | 235 | 128.51 | 3690 | 0.85 | | | | | | |
| **11** | 215 | 117.88 | 4040 | 0.90 | | | | | | |
| **13** | 184 | 100.36 | 4500 | 1.10 | | | | | | |
| **15** | 159 | 86.53 | 4790 | 1.25 | | | | | | |
| **16** | 148 | 80.65 | 4900 | 1.35 | | | | | | |
| **18** | 130 | 70.50 | 5060 | 1.55 | | | | | | |
| **20** | 121 | 66.09 | 5120 | 1.65 | **FA** | **37** | **DR** | **63L4** | 17 | 384 |
| **22** | 107 | 58.32 | 5210 | 1.85 | **FAF** | **37** | **DR** | **63L4** | 18 | 383 |
| **24** | 100 | 54.54 | 5260 | 2.0 | **F** | **37** | **DR** | **63L4** | 17 | 382 |
| **25** | 95 | 51.70 | 5280 | 2.1 | **FF** | **37** | **DR** | **63L4** | 19 | 383 |
| **28** | 86 | 47.02 | 5330 | 2.3 | | | | | | |
| **30** | 80 | 43.83 | 5360 | 2.5 | | | | | | |
| **34** | 70 | 38.31 | 5400 | 2.8 | | | | | | |
| **36** | 66 | 35.91 | 5420 | 3.0 | | | | | | |
| **41** | 58 | 31.69 | 5440 | 3.4 | | | | | | |
| **17** | 142 | 77.21 | 4500 | 0.90 | | | | | | |
| **18** | 133 | 72.37 | 4500 | 1.00 | | | | | | |
| **20** | 117 | 63.86 | 4500 | 1.10 | | | | | | |
| **23** | 104 | 56.62 | 4500 | 1.25 | **FA** | **27** | **DR** | **63L4** | 11 | 380 |
| **26** | 92 | 50.19 | 4440 | 1.40 | **FAF** | **27** | **DR** | **63L4** | 11 | 379 |
| **28** | 86 | 46.78 | 4370 | 1.50 | **F** | **27** | **DR** | **63L4** | 11 | 378 |
| **32** | 75 | 40.89 | 4240 | 1.75 | **FF** | **27** | **DR** | **63L4** | 12 | 379 |
| **34** | 70 | 38.33 | 4180 | 1.85 | | | | | | |
| **38** | 62 | 33.83 | 4060 | 2.1 | | | | | | |

21284997/EN – 03/2015

## $P_m$ = 0.25 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **44** | 54 | 29.56 | 3920 | 2.4 | | | | | | |
| **48** | 50 | 27.18 | 3840 | 2.6 | | | | | | |
| **56** | 43 | 23.25 | 3690 | 3.0 | | | | | | |
| **64** | 37 | 20.15 | 3550 | 3.5 | | | | | | |
| **69** | 35 | 18.84 | 3480 | 3.8 | | | | | | |
| **80** | 30 | 16.28 | 3350 | 4.4 | | | | | | |
| **94** | 25 | 13.84 | 3200 | 5.1 | | | | | | |
| **105** | 23 | 12.35 | 3090 | 5.7 | **FA** | **27** | **DR** | **63L4** | 10 | 380 |
| **123** | 19 | 10.55 | 2950 | 6.7 | **FAF** | **27** | **DR** | **63L4** | 11 | 379 |
| **132** | 18 | 9.88 | 2900 | 7.2 | **F** | **27** | **DR** | **63L4** | 11 | 378 |
| **138** | 17 | 9.40 | 2840 | 7.5 | **FF** | **27** | **DR** | **63L4** | 12 | 379 |
| **160** | 15 | 8.13 | 2720 | 8.3 | | | | | | |
| **188** | 13 | 6.91 | 2590 | 9.0 | | | | | | |
| **211** | 11 | 6.17 | 2500 | 9.6 | | | | | | |
| **247** | 9.7 | 5.27 | 2380 | 10 | | | | | | |
| **264** | 9.1 | 4.93 | 2340 | 11 | | | | | | |
| **313** | 7.6 | 4.16 | 2220 | 11 | | | | | | |
| **327** | 7.3 | 8.13 | 2180 | 17 | | | | | | |
| **385** | 6.2 | 6.91 | 2080 | 18 | **FA** | **27** | **DR** | **63M2** | 9.6 | 380 |
| **431** | 5.5 | 6.17 | 2000 | 20 | **FAF** | **27** | **DR** | **63M2** | 10 | 379 |
| **505** | 4.7 | 5.27 | 1910 | 21 | **F** | **27** | **DR** | **63M2** | 10 | 378 |
| **539** | 4.4 | 4.93 | 1870 | 22 | **FF** | **27** | **DR** | **63M2** | 11 | 379 |
| **640** | 3.7 | 4.16 | 1770 | 24 | | | | | | |

## $P_m$ = 0.37 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **0.21** | 14900 | 6715 | 84600 | 0.80 | | | | | | |
| **0.23** | 13200 | 5925 | 88100 | 0.90 | | | | | | |
| **0.27** | 11400 | 5153 | 90000 | 1.05 | **FA** | **127R77** | **DRS** | **71S4** | 430 | 432 |
| **0.30** | 9930 | 4533 | 90000 | 1.20 | **FAF** | **127R77** | **DRS** | **71S4** | 465 | 432 |
| **0.35** | 8690 | 3926 | 90000 | 1.40 | **F** | **127R77** | **DRS** | **71S4** | 465 | 432 |
| **0.40** | 7560 | 3454 | 90000 | 1.60 | **FF** | **127R77** | **DRS** | **71S4** | 510 | 432 |
| **0.46** | 6610 | 3031 | 90000 | 1.80 | | | | | | |
| **0.45** | 6850 | 3037 | 52000 | 1.10 | | | | | | |
| **0.50** | 6210 | 2756 | 53500 | 1.25 | **FA** | **107R77** | **DRS** | **71S4** | 275 | 432 |
| **0.58** | 5340 | 2369 | 55500 | 1.45 | **FAF** | **107R77** | **DRS** | **71S4** | 295 | 432 |
| **0.67** | 4660 | 2068 | 57000 | 1.65 | **F** | **107R77** | **DRS** | **71S4** | 290 | 432 |
| **0.86** | 3570 | 1597 | 59300 | 2.2 | **FF** | **107R77** | **DRS** | **71S4** | 320 | 432 |
| **0.70** | 4540 | 1970 | 29200 | 0.95 | | | | | | |
| **0.80** | 3990 | 1722 | 30800 | 1.10 | | | | | | |
| **0.90** | 3540 | 1527 | 32000 | 1.20 | **FA** | **97R57** | **DRS** | **71S4** | 185 | 432 |
| **1.0** | 2990 | 1327 | 33300 | 1.45 | **FAF** | **97R57** | **DRS** | **71S4** | 205 | 432 |
| **1.2** | 2710 | 1171 | 33900 | 1.60 | **F** | **97R57** | **DRS** | **71S4** | 190 | 432 |
| **1.4** | 2370 | 1022 | 34700 | 1.80 | **FF** | **97R57** | **DRS** | **71S4** | 225 | 432 |
| **1.5** | 2000 | 898 | 35400 | 2.1 | | | | | | |
| **1.1** | 2930 | 1300 | 22000 | 1.00 | | | | | | |
| **1.2** | 2610 | 1148 | 24400 | 1.15 | | | | | | |
| **1.4** | 2280 | 1010 | 25600 | 1.30 | | | | | | |
| **1.6** | 2010 | 887 | 26400 | 1.50 | **FA** | **87R57** | **DRS** | **71S4** | 120 | 432 |
| **1.8** | 1760 | 780 | 27100 | 1.70 | **FAF** | **87R57** | **DRS** | **71S4** | 130 | 432 |
| **2.0** | 1500 | 674 | 27800 | 2.00 | **F** | **87R57** | **DRS** | **71S4** | 125 | 432 |
| **2.3** | 1370 | 609 | 28100 | 2.2 | **FF** | **87R57** | **DRS** | **71S4** | 140 | 432 |
| **2.7** | 1150 | 515 | 28600 | 2.6 | | | | | | |
| **3.0** | 1020 | 452 | 28900 | 2.9 | | | | | | |
| **1.7** | 1840 | 810 | 11300 | 0.80 | | | | | | |
| **1.9** | 1620 | 710 | 14900 | 0.95 | | | | | | |
| **2.2** | 1420 | 615 | 16200 | 1.05 | **FA** | **77R37** | **DRS** | **71S4** | 68 | 432 |
| **2.6** | 1240 | 538 | 17200 | 1.20 | **FAF** | **77R37** | **DRS** | **71S4** | 74 | 432 |
| **2.9** | 1100 | 480 | 17900 | 1.35 | **F** | **77R37** | **DRS** | **71S4** | 72 | 432 |
| **3.4** | 940 | 413 | 18500 | 1.60 | **FF** | **77R37** | **DRS** | **71S4** | 82 | 432 |
| **3.8** | 840 | 367 | 18900 | 1.80 | | | | | | |
| **4.3** | 750 | 323 | 19100 | 2.0 | | | | | | |

21284997/EN – 03/2015

## $P_m$ = 0.37 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **3.6** | 880 | 384 | 9670 | 0.95 | **FA** | **67R37** | **DRS** | **71S4** | 46 | 432 |
| **4.1** | 785 | 338 | 10600 | 1.05 | **FAF** | **67R37** | **DRS** | **71S4** | 52 | 432 |
| **4.5** | 700 | 305 | 11200 | 1.15 | **F** | **67R37** | **DRS** | **71S4** | 48 | 432 |
| **5.4** | 590 | 257 | 11900 | 1.40 | **FF** | **67R37** | **DRS** | **71S4** | 55 | 432 |
| **6.0** | 520 | 231 | 12300 | 1.55 | | | | | | |
| **5.4** | 580 | 255 | 9330 | 1.05 | **FA** | **57R37** | **DRS** | **71S4** | 42 | 432 |
| **6.9** | 455 | 201 | 10200 | 1.30 | **FAF** | **57R37** | **DRS** | **71S4** | 47 | 432 |
| **7.6** | 410 | 181 | 10500 | 1.45 | **F** | **57R37** | **DRS** | **71S4** | 42 | 432 |
| | | | | | **FF** | **57R37** | **DRS** | **71S4** | 48 | 432 |
| **5.3** | 615 | 262 | 9070 | 0.95 | | | | | | |
| **6.1** | 525 | 226 | 9740 | 1.15 | **FA** | **57R37** | **DRS** | **71S4** | 41 | 432 |
| **6.9** | 460 | 200 | 10200 | 1.30 | **FAF** | **57R37** | **DRS** | **71S4** | 47 | 432 |
| **8.1** | 390 | 170 | 10600 | 1.50 | **F** | **57R37** | **DRS** | **71S4** | 41 | 432 |
| **9.0** | 345 | 152 | 10900 | 1.70 | **FF** | **57R37** | **DRS** | **71S4** | 48 | 432 |
| **10** | 305 | 134 | 11100 | 1.95 | | | | | | |
| **7.9** | 400 | 175 | 5860 | 1.00 | **FA** | **47R17** | **DRS** | **71S4** | 26 | 432 |
| **9.4** | 340 | 147 | 6660 | 1.15 | **FAF** | **47R17** | **DRS** | **71S4** | 29 | 432 |
| **11** | 300 | 130 | 7050 | 1.35 | **F** | **47R17** | **DRS** | **71S4** | 27 | 432 |
| | | | | | **FF** | **47R17** | **DRS** | **71S4** | 30 | 432 |
| **3.3** | 1050 | 270.68 | 28900 | 2.8 | **FA** | **87** | **DRS** | **71M6** | 99 | 409 |
| **3.5** | 990 | 255.37 | 29000 | 3.0 | **FAF** | **87** | **DRS** | **71M6** | 110 | 408 |
| **4.0** | 890 | 228.93 | 29200 | 3.4 | **F** | **87** | **DRS** | **71M6** | 105 | 407 |
| | | | | | **FF** | **87** | **DRS** | **71M6** | 120 | 408 |
| **4.0** | 880 | 225.79 | 18700 | 1.70 | **FA** | **77** | **DRS** | **71M6** | 60 | 404 |
| **4.6** | 770 | 198.31 | 19100 | 1.95 | **FAF** | **77** | **DRS** | **71M6** | 66 | 403 |
| **4.8** | 735 | 188.40 | 19200 | 2.0 | **F** | **77** | **DRS** | **71M6** | 64 | 402 |
| **5.4** | 645 | 166.47 | 19400 | 2.3 | **FF** | **77** | **DRS** | **71M6** | 74 | 403 |
| **6.4** | 555 | 142.27 | 19600 | 2.7 | | | | | | |
| **4.9** | 720 | 281.71 | 19200 | 2.1 | **FA** | **77** | **DRS** | **71S4** | 58 | 404 |
| **5.2** | 670 | 262.93 | 19300 | 2.2 | **FAF** | **77** | **DRS** | **71S4** | 65 | 403 |
| **6.1** | 575 | 225.79 | 19500 | 2.6 | **F** | **77** | **DRS** | **71S4** | 62 | 402 |
| **7.0** | 505 | 198.31 | 19700 | 3.0 | **FF** | **77** | **DRS** | **71S4** | 73 | 403 |
| **4.6** | 760 | 195.39 | 10800 | 1.05 | **FA** | **67** | **DRS** | **71M6** | 36 | 399 |
| **5.3** | 665 | 170.85 | 11500 | 1.25 | **FAF** | **67** | **DRS** | **71M6** | 42 | 398 |
| **5.6** | 630 | 162.31 | 11700 | 1.30 | **F** | **67** | **DRS** | **71M6** | 39 | 397 |
| **6.4** | 555 | 142.40 | 12100 | 1.45 | **FF** | **67** | **DRS** | **71M6** | 45 | 398 |
| **7.5** | 470 | 120.79 | 12500 | 1.75 | | | | | | |
| **6.0** | 585 | 228.99 | 12000 | 1.40 | | | | | | |
| **7.1** | 500 | 195.39 | 12400 | 1.65 | **FA** | **67** | **DRS** | **71S4** | 34 | 399 |
| **8.1** | 435 | 170.85 | 12700 | 1.85 | **FAF** | **67** | **DRS** | **71S4** | 41 | 398 |
| **8.5** | 415 | 162.31 | 12800 | 1.95 | **F** | **67** | **DRS** | **71S4** | 37 | 397 |
| **9.7** | 360 | 142.40 | 12900 | 2.2 | **FF** | **67** | **DRS** | **71S4** | 43 | 398 |
| **11** | 305 | 120.79 | 13000 | 2.6 | | | | | | |
| **5.8** | 610 | 157.09 | 9100 | 1.00 | **FA** | **57** | **DRS** | **71M6** | 32 | 394 |
| **6.6** | 530 | 136.16 | 9700 | 1.15 | **FAF** | **57** | **DRS** | **71M6** | 37 | 393 |
| **7.1** | 495 | 127.27 | 9940 | 1.20 | **F** | **57** | **DRS** | **71M6** | 32 | 392 |
| **8.2** | 425 | 110.01 | 10400 | 1.40 | **FF** | **57** | **DRS** | **71M6** | 38 | 393 |
| **6.9** | 510 | 199.70 | 9850 | 1.15 | | | | | | |
| **7.5** | 470 | 183.60 | 10100 | 1.30 | | | | | | |
| **8.8** | 400 | 157.09 | 10600 | 1.50 | **FA** | **57** | **DRS** | **71S4** | 31 | 394 |
| **10** | 345 | 136.16 | 10900 | 1.70 | **FAF** | **57** | **DRS** | **71S4** | 36 | 393 |
| **11** | 325 | 127.27 | 11000 | 1.85 | **F** | **57** | **DRS** | **71S4** | 31 | 392 |
| **13** | 280 | 110.01 | 11200 | 2.1 | **FF** | **57** | **DRS** | **71S4** | 37 | 393 |
| **15** | 235 | 93.47 | 11500 | 2.5 | | | | | | |
| **17** | 210 | 83.46 | 11500 | 2.8 | | | | | | |
| **9.2** | 380 | 150.06 | 6140 | 1.05 | | | | | | |
| **11** | 330 | 130.07 | 6740 | 1.20 | **FA** | **47** | **DRS** | **71S4** | 24 | 389 |
| **13** | 265 | 105.09 | 7320 | 1.50 | **FAF** | **47** | **DRS** | **71S4** | 26 | 388 |
| **15** | 225 | 89.29 | 7600 | 1.75 | **F** | **47** | **DRS** | **71S4** | 24 | 387 |
| **17** | 200 | 79.72 | 7750 | 1.95 | **FF** | **47** | **DRS** | **71S4** | 27 | 388 |
| **20** | 174 | 68.09 | 7900 | 2.3 | | | | | | |
| **21** | 167 | 65.36 | 7930 | 2.4 | | | | | | |

21284997/EN – 03/2015

## $P_m$ = 0.37 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **16** | 220 | 86.53 | 3960 | 0.90 | | | | | | |
| **17** | 205 | 80.65 | 4200 | 0.95 | | | | | | |
| **20** | 180 | 70.50 | 4550 | 1.10 | | | | | | |
| **21** | 169 | 66.09 | 4680 | 1.20 | | | | | | |
| **24** | 149 | 58.32 | 4880 | 1.35 | | | | | | |
| **25** | 140 | 54.54 | 4970 | 1.45 | **FA** | **37** | **DRS** | **71S4** | 19 | 384 |
| **27** | 132 | 51.70 | 5030 | 1.50 | **FAF** | **37** | **DRS** | **71S4** | 20 | 383 |
| **29** | 120 | 47.02 | 5120 | 1.65 | **F** | **37** | **DRS** | **71S4** | 19 | 382 |
| **31** | 112 | 43.83 | 5180 | 1.80 | **FF** | **37** | **DRS** | **71S4** | 21 | 383 |
| **36** | 98 | 38.31 | 5270 | 2.0 | | | | | | |
| **38** | 92 | 35.91 | 5300 | 2.2 | | | | | | |
| **44** | 81 | 31.69 | 5300 | 2.5 | | | | | | |
| **49** | 72 | 28.09 | 5140 | 2.8 | | | | | | |
| **58** | 61 | 23.88 | 4930 | 3.3 | | | | | | |
| **24** | 145 | 56.62 | 4080 | 0.90 | | | | | | |
| **28** | 128 | 50.19 | 4010 | 1.00 | **FA** | **27** | **DRS** | **71S4** | 13 | 380 |
| **30** | 120 | 46.78 | 3970 | 1.10 | **FAF** | **27** | **DRS** | **71S4** | 13 | 379 |
| **34** | 105 | 40.89 | 3880 | 1.25 | **F** | **27** | **DRS** | **71S4** | 13 | 378 |
| **36** | 98 | 38.33 | 3840 | 1.35 | **FF** | **27** | **DRS** | **71S4** | 14 | 379 |
| **41** | 87 | 33.83 | 3750 | 1.50 | | | | | | |
| **47** | 76 | 29.56 | 3650 | 1.70 | | | | | | |
| **51** | 70 | 27.18 | 3580 | 1.85 | | | | | | |
| **59** | 60 | 23.25 | 3460 | 2.2 | | | | | | |
| **68** | 52 | 20.15 | 3340 | 2.5 | | | | | | |
| **73** | 48 | 18.84 | 3290 | 2.7 | | | | | | |
| **85** | 42 | 16.28 | 3170 | 3.1 | | | | | | |
| **100** | 35 | 13.84 | 3040 | 3.7 | | | | | | |
| **112** | 32 | 12.35 | 2950 | 4.1 | **FA** | **27** | **DRS** | **71S4** | 12 | 380 |
| **131** | 27 | 10.55 | 2820 | 4.8 | **FAF** | **27** | **DRS** | **71S4** | 13 | 379 |
| **140** | 25 | 9.88 | 2770 | 5.1 | **F** | **27** | **DRS** | **71S4** | 13 | 378 |
| **147** | 24 | 9.40 | 2710 | 5.4 | **FF** | **27** | **DRS** | **71S4** | 14 | 379 |
| **170** | 21 | 8.13 | 2600 | 5.9 | | | | | | |
| **200** | 18 | 6.91 | 2490 | 6.4 | | | | | | |
| **224** | 16 | 6.17 | 2410 | 6.9 | | | | | | |
| **262** | 14 | 5.27 | 2300 | 7.4 | | | | | | |
| **280** | 13 | 4.93 | 2250 | 7.6 | | | | | | |
| **332** | 11 | 4.16 | 2140 | 8.2 | | | | | | |
| **326** | 11 | 8.13 | 2150 | 11 | | | | | | |
| **384** | 9.2 | 6.91 | 2050 | 12 | **FA** | **27** | **DR** | **63L2** | 10 | 380 |
| **430** | 8.2 | 6.17 | 1980 | 13 | **FAF** | **27** | **DR** | **63L2** | 11 | 379 |
| **503** | 7.0 | 5.27 | 1890 | 14 | **F** | **27** | **DR** | **63L2** | 11 | 378 |
| **537** | 6.6 | 4.93 | 1850 | 15 | **FF** | **27** | **DR** | **63L2** | 12 | 379 |
| **638** | 5.5 | 4.16 | 1750 | 16 | | | | | | |

## $P_m$ = 0.55 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **0.22** | 20500 | 6295 | 91800 | 0.90 | **FA** | **157R97** | **DRS** | **71M4** | 770 | 432 |
| **0.25** | 17100 | 5404 | 102700 | 1.05 | **FAF** | **157R97** | **DRS** | **71M4** | 830 | 432 |
| **0.49** | 8820 | 2780 | 118800 | 2.0 | **F** | **157R97** | **DRS** | **71M4** | 790 | 432 |
| | | | | | **FF** | **157R97** | **DRS** | **71M4** | 900 | 432 |
| **0.56** | 7790 | 2427 | 120000 | 2.3 | **FA** | **157R97** | **DRS** | **71M4** | 760 | 432 |
| **0.81** | 5530 | 1674 | 120000 | 3.2 | **FAF** | **157R97** | **DRS** | **71M4** | 820 | 432 |
| **1.0** | 4270 | 1308 | 120000 | 4.2 | **F** | **157R97** | **DRS** | **71M4** | 790 | 432 |
| **1.2** | 3750 | 1169 | 120000 | 4.8 | **FF** | **157R97** | **DRS** | **71M4** | 890 | 432 |
| **0.35** | 13400 | 3926 | 87700 | 0.90 | **FA** | **127R77** | **DRS** | **71M4** | 430 | 432 |
| **0.39** | 11700 | 3454 | 90000 | 1.00 | **FAF** | **127R77** | **DRS** | **71M4** | 465 | 432 |
| **0.45** | 10200 | 3031 | 90000 | 1.15 | **F** | **127R77** | **DRS** | **71M4** | 465 | 432 |
| | | | | | **FF** | **127R77** | **DRS** | **71M4** | 510 | 432 |

## $P_m$ = 0.55 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **0.57** | 8240 | 2369 | 48300 | 0.95 | | | | | | |
| **0.66** | 7200 | 2068 | 51100 | 1.05 | | | | | | |
| **0.74** | 6190 | 1826 | 53600 | 1.25 | | | | | | |
| **0.85** | 5530 | 1597 | 55100 | 1.40 | **FA** | **107R77** | **DRS** | **71M4** | 275 | 432 |
| **0.97** | 4820 | 1401 | 56700 | 1.60 | **FAF** | **107R77** | **DRS** | **71M4** | 300 | 432 |
| **1.1** | 4210 | 1243 | 58000 | 1.80 | **F** | **107R77** | **DRS** | **71M4** | 295 | 432 |
| **1.2** | 3760 | 1087 | 58900 | 2.0 | **FF** | **107R77** | **DRS** | **71M4** | 320 | 432 |
| **1.4** | 3220 | 950 | 60000 | 2.4 | | | | | | |
| **1.6** | 2800 | 834 | 60800 | 2.7 | | | | | | |
| **2.1** | 2180 | 640 | 61900 | 3.5 | | | | | | |
| **1.0** | 4620 | 1327 | 28900 | 0.95 | | | | | | |
| **1.2** | 4150 | 1171 | 30300 | 1.05 | | | | | | |
| **1.3** | 3620 | 1022 | 31800 | 1.20 | | | | | | |
| **1.5** | 3100 | 898 | 33100 | 1.40 | | | | | | |
| **1.7** | 2740 | 784 | 33900 | 1.55 | **FA** | **97R57** | **DRS** | **71M4** | 185 | 432 |
| **2.0** | 2380 | 690 | 34600 | 1.80 | **FAF** | **97R57** | **DRS** | **71M4** | 210 | 432 |
| **2.2** | 2100 | 605 | 35200 | 2.0 | **F** | **97R57** | **DRS** | **71M4** | 195 | 432 |
| **2.6** | 1820 | 529 | 35700 | 2.4 | **FF** | **97R57** | **DRS** | **71M4** | 225 | 432 |
| **2.9** | 1610 | 467 | 36100 | 2.7 | | | | | | |
| **3.4** | 1380 | 406 | 36500 | 3.1 | | | | | | |
| **3.7** | 1240 | 363 | 36700 | 3.5 | | | | | | |
| **1.5** | 3100 | 887 | 15200 | 0.95 | | | | | | |
| **1.7** | 2710 | 780 | 24000 | 1.10 | | | | | | |
| **2.0** | 2330 | 674 | 25400 | 1.30 | **FA** | **87R57** | **DRS** | **71M4** | 120 | 432 |
| **2.2** | 2120 | 609 | 26100 | 1.40 | **FAF** | **87R57** | **DRS** | **71M4** | 135 | 432 |
| **2.6** | 1790 | 515 | 27000 | 1.70 | **F** | **87R57** | **DRS** | **71M4** | 125 | 432 |
| **3.0** | 1570 | 452 | 27600 | 1.90 | **FF** | **87R57** | **DRS** | **71M4** | 140 | 432 |
| **3.9** | 1180 | 345 | 28600 | 2.5 | | | | | | |
| **2.8** | 1690 | 480 | 14300 | 0.90 | **FA** | **77R37** | **DRS** | **71M4** | 69 | 432 |
| **3.3** | 1440 | 413 | 16100 | 1.05 | **FAF** | **77R37** | **DRS** | **71M4** | 76 | 432 |
| **3.7** | 1290 | 367 | 17000 | 1.15 | **F** | **77R37** | **DRS** | **71M4** | 73 | 432 |
| **4.2** | 1140 | 323 | 17700 | 1.30 | **FF** | **77R37** | **DRS** | **71M4** | 83 | 432 |
| **5.3** | 900 | 257 | 9470 | 0.90 | **FA** | **67R37** | **DRS** | **71M4** | 47 | 432 |
| **5.9** | 800 | 231 | 10400 | 1.00 | **FAF** | **67R37** | **DRS** | **71M4** | 53 | 432 |
| **6.6** | 720 | 205 | 11100 | 1.15 | **F** | **67R37** | **DRS** | **71M4** | 50 | 432 |
| **7.8** | 610 | 175 | 11800 | 1.35 | **FF** | **67R37** | **DRS** | **71M4** | 56 | 432 |
| **3.4** | 1550 | 270.68 | 27700 | 1.95 | | | | | | |
| **3.6** | 1460 | 255.37 | 27900 | 2.0 | **FA** | **87** | **DRS** | **80S6** | 100 | 409 |
| **4.0** | 1310 | 228.93 | 28300 | 2.3 | **FAF** | **87** | **DRS** | **80S6** | 115 | 408 |
| **4.6** | 1130 | 197.20 | 28700 | 2.6 | **F** | **87** | **DRS** | **80S6** | 105 | 407 |
| **5.1** | 1030 | 179.97 | 28900 | 2.9 | **FF** | **87** | **DRS** | **80S6** | 120 | 408 |
| **4.0** | 1290 | 225.79 | 17000 | 1.15 | **FA** | **77** | **DRS** | **80S6** | 62 | 404 |
| **4.6** | 1130 | 198.31 | 17700 | 1.30 | **FAF** | **77** | **DRS** | **80S6** | 69 | 403 |
| **4.9** | 1080 | 188.40 | 18000 | 1.40 | **F** | **77** | **DRS** | **80S6** | 66 | 402 |
| | | | | | **FF** | **77** | **DRS** | **80S6** | 77 | 403 |
| **5.5** | 950 | 166.47 | 18500 | 1.55 | **FA** | **77** | **DRS** | **80S6** | 62 | 404 |
| **6.4** | 810 | 142.27 | 18900 | 1.85 | **FAF** | **77** | **DRS** | **80S6** | 69 | 403 |
| **7.0** | 745 | 130.42 | 19100 | 2.0 | **F** | **77** | **DRS** | **80S6** | 66 | 402 |
| | | | | | **FF** | **77** | **DRS** | **80S6** | 77 | 403 |
| **6.0** | 870 | 225.79 | 18800 | 1.70 | | | | | | |
| **6.9** | 765 | 198.31 | 19100 | 1.95 | | | | | | |
| **7.2** | 725 | 188.40 | 19200 | 2.1 | | | | | | |
| **8.2** | 640 | 166.47 | 19400 | 2.3 | **FA** | **77** | **DRS** | **71M4** | 60 | 404 |
| **9.6** | 545 | 142.27 | 19600 | 2.7 | **FAF** | **77** | **DRS** | **71M4** | 66 | 403 |
| **10** | 500 | 130.42 | 19700 | 3.0 | **F** | **77** | **DRS** | **71M4** | 64 | 402 |
| **12** | 440 | 114.45 | 19800 | 3.4 | **FF** | **77** | **DRS** | **71M4** | 74 | 403 |
| **13** | 415 | 108.46* | 19800 | 3.6 | | | | | | |
| **14** | 365 | 94.93 | 19900 | 4.1 | | | | | | |

21284997/EN – 03/2015

## $P_m$ = 0.55 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **7.0** | 750 | 195.39 | 10900 | 1.10 | | | | | | |
| **8.0** | 655 | 170.85 | 11500 | 1.25 | | | | | | |
| **8.4** | 625 | 162.31 | 11700 | 1.30 | | | | | | |
| **9.6** | 545 | 142.40 | 12200 | 1.50 | **FA** | **67** | **DRS** | **71M4** | 36 | 399 |
| **11** | 465 | 120.79 | 12600 | 1.75 | **FAF** | **67** | **DRS** | **71M4** | 42 | 398 |
| **12** | 420 | 109.04 | 12700 | 1.95 | **F** | **67** | **DRS** | **71M4** | 39 | 397 |
| **14** | 370 | 95.94 | 12900 | 2.2 | **FF** | **67** | **DRS** | **71M4** | 45 | 398 |
| **15** | 345 | 90.59 | 13000 | 2.3 | | | | | | |
| **17** | 305 | 79.76 | 13000 | 2.7 | | | | | | |
| **8.7** | 605 | 157.09 | 9150 | 1.00 | | | | | | |
| **10.0** | 525 | 136.16 | 9740 | 1.15 | | | | | | |
| **11** | 490 | 127.27 | 9980 | 1.20 | | | | | | |
| **12** | 420 | 110.01 | 10400 | 1.40 | **FA** | **57** | **DRS** | **71M4** | 32 | 394 |
| **15** | 360 | 93.47 | 10800 | 1.65 | **FAF** | **57** | **DRS** | **71M4** | 37 | 393 |
| **16** | 320 | 83.46 | 11000 | 1.85 | **F** | **57** | **DRS** | **71M4** | 32 | 392 |
| **19** | 280 | 72.98 | 11200 | 2.1 | **FF** | **57** | **DRS** | **71M4** | 38 | 393 |
| **20** | 260 | 68.22 | 11300 | 2.3 | | | | | | |
| **23** | 225 | 58.97 | 11500 | 2.6 | | | | | | |
| **13** | 405 | 105.09 | 5840 | 1.00 | | | | | | |
| **15** | 340 | 89.29 | 6620 | 1.15 | | | | | | |
| **17** | 305 | 79.72 | 6990 | 1.30 | **FA** | **47** | **DRS** | **71M4** | 25 | 389 |
| **20** | 260 | 68.09 | 7360 | 1.50 | **FAF** | **47** | **DRS** | **71M4** | 27 | 388 |
| **21** | 250 | 65.36 | 7440 | 1.60 | **F** | **47** | **DRS** | **71M4** | 25 | 387 |
| **24** | 215 | 56.49 | 7670 | 1.85 | **FF** | **47** | **DRS** | **71M4** | 29 | 388 |
| **28** | 185 | 48.00* | 7850 | 2.2 | | | | | | |
| **32** | 166 | 42.86 | 7940 | 2.4 | | | | | | |
| **23** | 225 | 58.32 | 3890 | 0.90 | | | | | | |
| **25** | 210 | 54.54 | 4140 | 0.95 | | | | | | |
| **26** | 200 | 51.70 | 4300 | 1.00 | | | | | | |
| **29** | 182 | 47.02 | 4540 | 1.10 | **FA** | **37** | **DRS** | **71M4** | 20 | 384 |
| **31** | 169 | 43.83 | 4680 | 1.20 | **FAF** | **37** | **DRS** | **71M4** | 21 | 383 |
| **36** | 148 | 38.31 | 4900 | 1.35 | **F** | **37** | **DRS** | **71M4** | 20 | 382 |
| **38** | 139 | 35.91 | 4980 | 1.45 | **FF** | **37** | **DRS** | **71M4** | 22 | 383 |
| **43** | 122 | 31.69 | 4990 | 1.65 | | | | | | |
| **48** | 108 | 28.09 | 4870 | 1.85 | | | | | | |
| **57** | 92 | 23.88 | 4700 | 2.2 | | | | | | |
| **58** | 91 | 23.63 | 4690 | 2.2 | | | | | | |
| **66** | 79 | 20.57 | 4540 | 2.5 | **FA** | **37** | **DRS** | **71M4** | 20 | 384 |
| **71** | 74 | 19.27 | 4470 | 2.7 | **FAF** | **37** | **DRS** | **71M4** | 21 | 383 |
| **80** | 66 | 17.03 | 4340 | 3.0 | **F** | **37** | **DRS** | **71M4** | 20 | 382 |
| **95** | 55 | 14.33 | 4150 | 3.6 | **FF** | **37** | **DRS** | **71M4** | 22 | 383 |
| **36** | 144 | 77.21 | 3410 | 0.90 | | | | | | |
| **39** | 135 | 72.37 | 3390 | 0.95 | **FA** | **27** | **DRS** | **71M2** | 14 | 380 |
| **44** | 119 | 63.86 | 3350 | 1.10 | **FAF** | **27** | **DRS** | **71M2** | 14 | 379 |
| **50** | 106 | 56.62 | 3290 | 1.25 | **F** | **27** | **DRS** | **71M2** | 14 | 378 |
| **56** | 94 | 50.19 | 3230 | 1.40 | **FF** | **27** | **DRS** | **71M2** | 15 | 379 |
| **58** | 90 | 23.25 | 3210 | 1.45 | | | | | | |
| **67** | 78 | 20.15 | 3130 | 1.65 | | | | | | |
| **72** | 73 | 18.84 | 3090 | 1.80 | | | | | | |
| **84** | 63 | 16.28 | 3000 | 2.1 | | | | | | |
| **98** | 53 | 13.84 | 2900 | 2.4 | | | | | | |
| **110** | 48 | 12.35 | 2820 | 2.7 | | | | | | |
| **129** | 41 | 10.55 | 2720 | 3.2 | **FA** | **27** | **DRS** | **71M4** | 13 | 380 |
| **138** | 38 | 9.88 | 2670 | 3.4 | **FAF** | **27** | **DRS** | **71M4** | 14 | 379 |
| **145** | 36 | 9.40 | 2610 | 3.6 | **F** | **27** | **DRS** | **71M4** | 14 | 378 |
| **167** | 31 | 8.13 | 2510 | 3.9 | **FF** | **27** | **DRS** | **71M4** | 15 | 379 |
| **197** | 27 | 6.91 | 2410 | 4.3 | | | | | | |
| **221** | 24 | 6.17 | 2340 | 4.6 | | | | | | |
| **258** | 20 | 5.27 | 2240 | 4.9 | | | | | | |
| **276** | 19 | 4.93 | 2200 | 5.0 | | | | | | |
| **327** | 16 | 4.16 | 2100 | 5.4 | | | | | | |



21284997/EN – 03/2015

## $P_m$ = 0.55 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **346** | 15 | 8.13 | 2070 | 8.1 | | | | | | |
| **407** | 13 | 6.91 | 1970 | 8.8 | **FA** | **27** | **DRS** | **71M2** | 13 | 380 |
| **456** | 12 | 6.17 | 1910 | 9.5 | **FAF** | **27** | **DRS** | **71M2** | 14 | 379 |
| **533** | 9.8 | 5.27 | 1820 | 10 | **F** | **27** | **DRS** | **71M2** | 14 | 378 |
| **570** | 9.2 | 4.93 | 1790 | 10 | **FF** | **27** | **DRS** | **71M2** | 15 | 379 |
| **676** | 7.8 | 4.16 | 1700 | 11 | | | | | | |

## $P_m$ = 0.75 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **0.52** | 11600 | 2780 | 114700 | 1.55 | **FA** | **157R97** | **DRN** | **80M4** | 770 | 432 |
| | | | | | **FAF** | **157R97** | **DRN** | **80M4** | 830 | 432 |
| | | | | | **F** | **157R97** | **DRN** | **80M4** | 790 | 432 |
| | | | | | **FF** | **157R97** | **DRN** | **80M4** | 900 | 432 |
| **0.59** | 10300 | 2427 | 116800 | 1.75 | **FA** | **157R97** | **DRN** | **80M4** | 770 | 432 |
| **0.86** | 7280 | 1674 | 120000 | 2.5 | **FAF** | **157R97** | **DRN** | **80M4** | 830 | 432 |
| **1.1** | 5620 | 1308 | 120000 | 3.2 | **F** | **157R97** | **DRN** | **80M4** | 790 | 432 |
| **1.2** | 4960 | 1169 | 120000 | 3.6 | **FF** | **157R97** | **DRN** | **80M4** | 900 | 432 |
| **0.48** | 13400 | 3031 | 87700 | 0.90 | **FA** | **127R77** | **DRN** | **80M4** | 435 | 432 |
| | | | | | **FAF** | **127R77** | **DRN** | **80M4** | 470 | 432 |
| | | | | | **F** | **127R77** | **DRN** | **80M4** | 470 | 432 |
| | | | | | **FF** | **127R77** | **DRN** | **80M4** | 520 | 432 |
| **0.54** | 12000 | 2672 | 90000 | 1.00 | **FA** | **127R77** | **DRN** | **80M4** | 435 | 432 |
| **0.61** | 10500 | 2357 | 90000 | 1.15 | **FAF** | **127R77** | **DRN** | **80M4** | 470 | 432 |
| **0.71** | 9120 | 2038 | 90000 | 1.30 | **F** | **127R77** | **DRN** | **80M4** | 470 | 432 |
| **0.81** | 7940 | 1784 | 90000 | 1.50 | **FF** | **127R77** | **DRN** | **80M4** | 510 | 432 |
| **0.90** | 7120 | 1606 | 90000 | 1.70 | | | | | | |
| **0.79** | 8090 | 1826 | 48700 | 0.95 | | | | | | |
| **0.90** | 7200 | 1597 | 51100 | 1.05 | | | | | | |
| **1.0** | 6280 | 1401 | 53300 | 1.20 | **FA** | **107R77** | **DRN** | **80M4** | 280 | 432 |
| **1.2** | 5510 | 1243 | 55200 | 1.40 | **FAF** | **107R77** | **DRN** | **80M4** | 305 | 432 |
| **1.3** | 4900 | 1087 | 56500 | 1.55 | **F** | **107R77** | **DRN** | **80M4** | 300 | 432 |
| **1.5** | 4210 | 950 | 58000 | 1.80 | **FF** | **107R77** | **DRN** | **80M4** | 325 | 432 |
| **1.7** | 3670 | 834 | 59100 | 2.1 | | | | | | |
| **2.2** | 2850 | 640 | 60700 | 2.7 | | | | | | |
| **3.3** | 1940 | 436 | 62300 | 4.0 | | | | | | |
| **1.4** | 4690 | 1022 | 26900 | 0.90 | | | | | | |
| **1.6** | 4040 | 898 | 30600 | 1.05 | | | | | | |
| **1.8** | 3560 | 784 | 31900 | 1.20 | **FA** | **97R57** | **DRN** | **80M4** | 190 | 432 |
| **2.1** | 3100 | 690 | 33100 | 1.40 | **FAF** | **97R57** | **DRN** | **80M4** | 215 | 432 |
| **2.4** | 2730 | 605 | 33900 | 1.55 | **F** | **97R57** | **DRN** | **80M4** | 200 | 432 |
| **2.7** | 2370 | 529 | 34700 | 1.80 | **FF** | **97R57** | **DRN** | **80M4** | 230 | 432 |
| **3.1** | 2090 | 467 | 35200 | 2.0 | | | | | | |
| **3.6** | 1800 | 406 | 35700 | 2.4 | | | | | | |
| **4.0** | 1620 | 363 | 36100 | 2.6 | | | | | | |
| **2.1** | 3030 | 674 | 18400 | 1.00 | **FA** | **87R57** | **DRN** | **80M4** | 125 | 432 |
| **2.4** | 2750 | 609 | 23900 | 1.10 | **FAF** | **87R57** | **DRN** | **80M4** | 140 | 432 |
| **2.8** | 2320 | 515 | 25400 | 1.30 | **F** | **87R57** | **DRN** | **80M4** | 130 | 432 |
| **3.2** | 2040 | 452 | 26300 | 1.45 | **FF** | **87R57** | **DRN** | **80M4** | 145 | 432 |
| **4.2** | 1540 | 345 | 27700 | 1.95 | | | | | | |
| **3.9** | 1670 | 367 | 14400 | 0.90 | **FA** | **77R37** | **DRN** | **80M4** | 74 | 432 |
| **4.5** | 1480 | 323 | 15800 | 1.00 | **FAF** | **77R37** | **DRN** | **80M4** | 80 | 432 |
| **5.2** | 1270 | 280 | 17000 | 1.15 | **F** | **77R37** | **DRN** | **80M4** | 77 | 432 |
| | | | | | **FF** | **77R37** | **DRN** | **80M4** | 88 | 432 |
| **5.3** | 1340 | 270.68 | 28200 | 2.2 | **FA** | **87** | **DRN** | **80M4** | 105 | 409 |
| **5.6** | 1270 | 255.37 | 28400 | 2.4 | **FAF** | **87** | **DRN** | **80M4** | 115 | 408 |
| **6.3** | 1130 | 228.93 | 28700 | 2.6 | **F** | **87** | **DRN** | **80M4** | 110 | 407 |
| | | | | | **FF** | **87** | **DRN** | **80M4** | 125 | 408 |
| **6.4** | 1120 | 225.79 | 17800 | 1.35 | **FA** | **77** | **DRN** | **80M4** | 65 | 404 |
| **7.3** | 980 | 198.31 | 18400 | 1.50 | **FAF** | **77** | **DRN** | **80M4** | 71 | 403 |
| **7.6** | 930 | 188.40 | 18500 | 1.60 | **F** | **77** | **DRN** | **80M4** | 68 | 402 |
| | | | | | **FF** | **77** | **DRN** | **80M4** | 79 | 403 |

21284997/EN – 03/2015

## $P_m$ = 0.75 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **8.6** | 820 | 166.47 | 18900 | 1.80 | | | | | | |
| **10** | 705 | 142.27 | 19200 | 2.1 | **FA** | **77** | **DRN** | **80M4** | 65 | 404 |
| **11** | 645 | 130.42 | 19400 | 2.3 | **FAF** | **77** | **DRN** | **80M4** | 71 | 403 |
| **13** | 565 | 114.45 | 19600 | 2.6 | **F** | **77** | **DRN** | **80M4** | 68 | 402 |
| **13** | 535 | 108.46* | 19600 | 2.8 | **FF** | **77** | **DRN** | **80M4** | 79 | 403 |
| **8.4** | 840 | 170.85 | 10000 | 0.95 | **FA** | **67** | **DRN** | **80M4** | 41 | 399 |
| **8.9** | 800 | 162.31 | 10400 | 1.00 | **FAF** | **67** | **DRN** | **80M4** | 47 | 398 |
| **10** | 705 | 142.40 | 11200 | 1.15 | **F** | **67** | **DRN** | **80M4** | 43 | 397 |
| **12** | 600 | 120.79 | 11900 | 1.35 | **FF** | **67** | **DRN** | **80M4** | 49 | 398 |
| **13** | 540 | 109.04 | 12200 | 1.50 | | | | | | |
| **15** | 475 | 95.94 | 12500 | 1.70 | **FA** | **67** | **DRN** | **80M4** | 41 | 399 |
| **16** | 450 | 90.59 | 12600 | 1.80 | **FAF** | **67** | **DRN** | **80M4** | 47 | 398 |
| **18** | 395 | 79.76 | 12800 | 2.1 | **F** | **67** | **DRN** | **80M4** | 43 | 397 |
| **21** | 335 | 67.65 | 13000 | 2.4 | **FF** | **67** | **DRN** | **80M4** | 49 | 398 |
| **24** | 300 | 61.07 | 13000 | 2.7 | | | | | | |
| **11** | 630 | 127.27 | 7950 | 0.95 | | | | | | |
| **13** | 545 | 110.01 | 9590 | 1.10 | | | | | | |
| **15** | 460 | 93.47 | 10200 | 1.30 | | | | | | |
| **17** | 415 | 83.46 | 10500 | 1.45 | **FA** | **57** | **DRN** | **80M4** | 37 | 394 |
| **20** | 360 | 72.98 | 10800 | 1.65 | **FAF** | **57** | **DRN** | **80M4** | 42 | 393 |
| **21** | 335 | 68.22 | 10900 | 1.75 | **F** | **57** | **DRN** | **80M4** | 37 | 392 |
| **24** | 290 | 58.97 | 11200 | 2.0 | **FF** | **57** | **DRN** | **80M4** | 43 | 393 |
| **29** | 245 | 50.10 | 11400 | 2.4 | | | | | | |
| **32** | 220 | 44.73 | 11300 | 2.7 | | | | | | |
| **18** | 395 | 79.72 | 5970 | 1.00 | **FA** | **47** | **DRN** | **80M4** | 29 | 389 |
| **21** | 335 | 68.09 | 6680 | 1.20 | **FAF** | **47** | **DRN** | **80M4** | 32 | 388 |
| **22** | 325 | 65.36 | 6820 | 1.25 | **F** | **47** | **DRN** | **80M4** | 30 | 387 |
| | | | | | **FF** | **47** | **DRN** | **80M4** | 33 | 388 |
| **25** | 280 | 56.49 | 7220 | 1.40 | | | | | | |
| **30** | 235 | 48.00* | 7540 | 1.70 | **FA** | **47** | **DRN** | **80M4** | 29 | 389 |
| **34** | 210 | 42.86 | 7700 | 1.90 | **FAF** | **47** | **DRN** | **80M4** | 32 | 388 |
| **39** | 182 | 36.61 | 7860 | 2.2 | **F** | **47** | **DRN** | **80M4** | 30 | 387 |
| **42** | 171 | 34.29 | 7770 | 2.4 | **FF** | **47** | **DRN** | **80M4** | 33 | 388 |
| **50** | 144 | 28.88 | 7460 | 2.8 | | | | | | |
| **31** | 230 | 47.02 | 3730 | 0.85 | | | | | | |
| **33** | 215 | 43.83 | 4020 | 0.90 | **FA** | **37** | **DRN** | **80M4** | 24 | 384 |
| **38** | 191 | 38.31 | 4420 | 1.05 | **FAF** | **37** | **DRN** | **80M4** | 26 | 383 |
| **40** | 179 | 35.91 | 4570 | 1.10 | **F** | **37** | **DRN** | **80M4** | 25 | 382 |
| **45** | 158 | 31.69 | 4590 | 1.25 | **FF** | **37** | **DRN** | **80M4** | 27 | 383 |
| **51** | 140 | 28.09 | 4500 | 1.45 | | | | | | |
| **61** | 118 | 23.63 | 4370 | 1.70 | | | | | | |
| **70** | 102 | 20.57 | 4250 | 1.95 | **FA** | **37** | **DRN** | **80M4** | 24 | 384 |
| **75** | 96 | 19.27 | 4200 | 2.1 | **FAF** | **37** | **DRN** | **80M4** | 26 | 383 |
| **85** | 85 | 17.03 | 4090 | 2.4 | **F** | **37** | **DRN** | **80M4** | 25 | 382 |
| **100** | 71 | 14.33 | 3930 | 2.8 | **FF** | **37** | **DRN** | **80M4** | 27 | 383 |
| **112** | 64 | 12.87 | 3830 | 3.1 | | | | | | |
| **62** | 116 | 23.25 | 2900 | 1.10 | | | | | | |
| **71** | 100 | 20.15 | 2860 | 1.30 | | | | | | |
| **76** | 94 | 18.84 | 2830 | 1.40 | | | | | | |
| **88** | 81 | 16.28 | 2770 | 1.60 | | | | | | |
| **104** | 69 | 13.84 | 2700 | 1.90 | | | | | | |
| **117** | 61 | 12.35 | 2640 | 2.1 | | | | | | |
| **136** | 52 | 10.55 | 2560 | 2.5 | **FA** | **27** | **DRN** | **80M4** | 18 | 380 |
| **146** | 49 | 9.88 | 2520 | 2.6 | **FAF** | **27** | **DRN** | **80M4** | 19 | 379 |
| **153** | 47 | 9.40 | 2450 | 2.8 | **F** | **27** | **DRN** | **80M4** | 19 | 378 |
| **177** | 40 | 8.13 | 2370 | 3.0 | **FF** | **27** | **DRN** | **80M4** | 19 | 379 |
| **208** | 34 | 6.91 | 2280 | 3.3 | | | | | | |
| **234** | 31 | 6.17 | 2220 | 3.6 | | | | | | |
| **273** | 26 | 5.27 | 2140 | 3.8 | | | | | | |
| **292** | 25 | 4.93 | 2100 | 3.9 | | | | | | |
| **346** | 21 | 4.16 | 2010 | 4.2 | | | | | | |



21284997/EN – 03/2015

## $P_m$ = 1.1 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **0.52** | 17400 | 2780 | 101800 | 1.05 | **FA**<br>**FAF**<br>**F**<br>**FF** | **157R97**<br>**157R97**<br>**157R97**<br>**157R97** | **DRN**<br>**DRN**<br>**DRN**<br>**DRN** | **90S4**<br>**90S4**<br>**90S4**<br>**90S4** | 780<br>840<br>800<br>900 | 432<br>432<br>432<br>432 |
| **0.60** | 15400 | 2427 | 107100 | 1.15 | | | | | | |
| **0.67** | 13700 | 2185 | 110800 | 1.30 | | | | | | |
| **0.75** | 12200 | 1944 | 113700 | 1.45 | | | | | | |
| **0.87** | 10800 | 1674 | 116000 | 1.65 | **FA** | **157R97** | **DRN** | **90S4** | 770 | 432 |
| **1.1** | 8380 | 1308 | 119300 | 2.2 | **FAF** | **157R97** | **DRN** | **90S4** | 830 | 432 |
| **1.2** | 7420 | 1169 | 120000 | 2.4 | **F** | **157R97** | **DRN** | **90S4** | 790 | 432 |
| **1.5** | 5930 | 953 | 120000 | 3.0 | **FF** | **157R97** | **DRN** | **90S4** | 900 | 432 |
| **1.7** | 5180 | 845 | 120000 | 3.5 | | | | | | |
| **3.3** | 2740 | 446 | 120000 | 6.6 | | | | | | |
| **4.8** | 1850 | 302 | 120000 | 9.7 | | | | | | |
| **0.71** | 13400 | 2038 | 87700 | 0.90 | | | | | | |
| **0.82** | 11700 | 1784 | 90000 | 1.00 | **FA** | **127R77** | **DRN** | **90S4** | 440 | 432 |
| **0.91** | 10500 | 1606 | 90000 | 1.15 | **FAF** | **127R77** | **DRN** | **90S4** | 475 | 432 |
| **1.0** | 9100 | 1390 | 90000 | 1.30 | **F** | **127R77** | **DRN** | **90S4** | 475 | 432 |
| **1.2** | 7950 | 1220 | 90000 | 1.50 | **FF** | **127R77** | **DRN** | **90S4** | 520 | 432 |
| **1.4** | 7070 | 1077 | 90000 | 1.70 | | | | | | |
| **1.2** | 8140 | 1243 | 48600 | 0.95 | | | | | | |
| **1.3** | 7200 | 1087 | 51100 | 1.05 | **FA** | **107R77** | **DRN** | **90S4** | 285 | 432 |
| **1.5** | 6220 | 950 | 53500 | 1.25 | **FAF** | **107R77** | **DRN** | **90S4** | 310 | 432 |
| **1.8** | 5430 | 834 | 55300 | 1.40 | **F** | **107R77** | **DRN** | **90S4** | 305 | 432 |
| **2.0** | 4770 | 736 | 56800 | 1.60 | **FF** | **107R77** | **DRN** | **90S4** | 330 | 432 |
| **2.3** | 4200 | 640 | 58000 | 1.85 | | | | | | |
| **2.1** | 4560 | 690 | 29100 | 0.95 | | | | | | |
| **2.4** | 4010 | 605 | 30700 | 1.05 | **FA** | **97R57** | **DRN** | **90S4** | 195 | 432 |
| **2.8** | 3490 | 529 | 32100 | 1.25 | **FAF** | **97R57** | **DRN** | **90S4** | 220 | 432 |
| **3.1** | 3080 | 467 | 33100 | 1.40 | **F** | **97R57** | **DRN** | **90S4** | 205 | 432 |
| **3.6** | 2660 | 406 | 34100 | 1.60 | **FF** | **97R57** | **DRN** | **90S4** | 240 | 432 |
| **4.0** | 2390 | 363 | 34600 | 1.80 | | | | | | |
| **3.2** | 3000 | 452 | 19600 | 1.00 | **FA** | **87R57** | **DRN** | **90S4** | 130 | 432 |
| **4.2** | 2270 | 345 | 25600 | 1.30 | **FAF** | **87R57** | **DRN** | **90S4** | 145 | 432 |
| **4.8** | 1960 | 300 | 26500 | 1.50 | **F** | **87R57** | **DRN** | **90S4** | 140 | 432 |
| **5.8** | 1630 | 249 | 27500 | 1.85 | **FF** | **87R57** | **DRN** | **90S4** | 155 | 432 |
| **5.3** | 1990 | 276.77 | 35400 | 2.2 | **FA** | **97** | **DRN** | **90S4** | 175 | 414 |
| **5.7** | 1820 | 253.41 | 35700 | 2.4 | **FAF** | **97** | **DRN** | **90S4** | 195 | 413 |
| **6.5** | 1610 | 223.88 | 36100 | 2.7 | **F** | **97** | **DRN** | **90S4** | 180 | 412 |
| | | | | | **FF** | **97** | **DRN** | **90S4** | 215 | 413 |
| **5.4** | 1950 | 270.68 | 26600 | 1.55 | **FA** | **87** | **DRN** | **90S4** | 110 | 409 |
| **5.7** | 1840 | 255.37 | 26900 | 1.65 | **FAF** | **87** | **DRN** | **90S4** | 120 | 408 |
| **6.4** | 1650 | 228.93 | 27400 | 1.80 | **F** | **87** | **DRN** | **90S4** | 115 | 407 |
| **7.4** | 1420 | 197.20 | 28000 | 2.1 | **FF** | **87** | **DRN** | **90S4** | 130 | 408 |
| **8.1** | 1290 | 179.97 | 28300 | 2.3 | **FA** | **87** | **DRN** | **90S4** | 110 | 409 |
| **9.1** | 1150 | 159.61 | 28600 | 2.6 | **FAF** | **87** | **DRN** | **90S4** | 120 | 408 |
| **11** | 960 | 134.16 | 29000 | 3.1 | **F** | **87** | **DRN** | **90S4** | 115 | 407 |
| **12** | 890 | 123.29 | 29200 | 3.4 | **FF** | **87** | **DRN** | **90S4** | 130 | 408 |
| **7.3** | 1430 | 198.31 | 16200 | 1.05 | **FA** | **77** | **DRN** | **90S4** | 69 | 404 |
| **7.7** | 1360 | 188.40 | 16600 | 1.10 | **FAF** | **77** | **DRN** | **90S4** | 76 | 403 |
| **8.7** | 1200 | 166.47 | 17400 | 1.25 | **F** | **77** | **DRN** | **90S4** | 73 | 402 |
| **10** | 1020 | 142.27 | 18200 | 1.45 | **FF** | **77** | **DRN** | **90S4** | 84 | 403 |
| **11** | 940 | 130.42 | 18500 | 1.60 | | | | | | |
| **13** | 820 | 114.45 | 18900 | 1.80 | **FA** | **77** | **DRN** | **90S4** | 69 | 404 |
| **13** | 780 | 108.46* | 19000 | 1.90 | **FAF** | **77** | **DRN** | **90S4** | 76 | 403 |
| **15** | 685 | 94.93 | 19300 | 2.2 | **F** | **77** | **DRN** | **90S4** | 73 | 402 |
| **17** | 615 | 85.52 | 19500 | 2.4 | **FF** | **77** | **DRN** | **90S4** | 84 | 403 |
| **19** | 540 | 75.02 | 19600 | 2.8 | | | | | | |
| **12** | 870 | 120.79 | 9820 | 0.95 | **FA**<br>**FAF**<br>**F**<br>**FF** | **67**<br>**67**<br>**67**<br>**67** | **DRN**<br>**DRN**<br>**DRN**<br>**DRN** | **90S4**<br>**90S4**<br>**90S4**<br>**90S4** | 47<br>53<br>50<br>56 | 399<br>398<br>397<br>398 |

21284997/EN – 03/2015

## $P_m$ = 1.1 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **13** | 785 | 109.04 | 10600 | 1.05 | | | | | | |
| **15** | 690 | 95.94 | 11300 | 1.20 | | | | | | |
| **16** | 650 | 90.59 | 11600 | 1.25 | | | | | | |
| **18** | 575 | 79.76 | 12000 | 1.40 | | | | | | |
| **22** | 485 | 67.65 | 12500 | 1.70 | **FA** | **67** | **DRN** | **90S4** | 47 | 399 |
| **24** | 440 | 61.07 | 12700 | 1.85 | **FAF** | **67** | **DRN** | **90S4** | 53 | 398 |
| **27** | 385 | 53.73 | 12900 | 2.1 | **F** | **67** | **DRN** | **90S4** | 50 | 397 |
| **29** | 365 | 50.74 | 12900 | 2.2 | **FF** | **67** | **DRN** | **90S4** | 56 | 398 |
| **34** | 310 | 43.20 | 13000 | 2.6 | | | | | | |
| **37** | 280 | 39.26 | 13000 | 2.8 | | | | | | |
| **43** | 245 | 34.01 | 13000 | 3.0 | | | | | | |
| **17** | 600 | 83.46 | 9180 | 1.00 | | | | | | |
| **20** | 525 | 72.98 | 9740 | 1.15 | | | | | | |
| **21** | 490 | 68.22 | 9980 | 1.20 | | | | | | |
| **25** | 425 | 58.97 | 10400 | 1.40 | **FA** | **57** | **DRN** | **90S4** | 43 | 394 |
| **29** | 360 | 50.10 | 10800 | 1.65 | **FAF** | **57** | **DRN** | **90S4** | 48 | 393 |
| **33** | 320 | 44.73 | 10600 | 1.85 | **F** | **57** | **DRN** | **90S4** | 43 | 392 |
| **38** | 275 | 38.21 | 10300 | 2.2 | **FF** | **57** | **DRN** | **90S4** | 50 | 393 |
| **41** | 255 | 35.79 | 10100 | 2.3 | | | | | | |
| **48** | 215 | 30.15 | 9720 | 2.7 | | | | | | |
| | | | | | **FA** | **47** | **DRN** | **90S4** | 35 | 389 |
| **26** | 405 | 56.49 | 5680 | 1.00 | **FAF** | **47** | **DRN** | **90S4** | 38 | 388 |
| **30** | 345 | 48.00* | 6600 | 1.15 | **F** | **47** | **DRN** | **90S4** | 36 | 387 |
| | | | | | **FF** | **47** | **DRN** | **90S4** | 39 | 388 |
| **34** | 305 | 42.86 | 6970 | 1.30 | **FA** | **47** | **DRN** | **90S4** | 35 | 389 |
| **40** | 260 | 36.61 | 7300 | 1.50 | **FAF** | **47** | **DRN** | **90S4** | 38 | 388 |
| **42** | 245 | 34.29 | 7210 | 1.60 | **F** | **47** | **DRN** | **90S4** | 36 | 387 |
| **50** | 205 | 28.88 | 6990 | 1.90 | **FF** | **47** | **DRN** | **90S4** | 39 | 388 |
| **47** | 220 | 30.86 | 7080 | 1.80 | | | | | | |
| **50** | 210 | 29.32 | 7010 | 1.90 | **FA** | **47** | **DRN** | **90S4** | 34 | 389 |
| **57** | 186 | 25.72 | 6820 | 2.2 | **FAF** | **47** | **DRN** | **90S4** | 37 | 388 |
| **67** | 158 | 21.82 | 6580 | 2.5 | **F** | **47** | **DRN** | **90S4** | 35 | 387 |
| **74** | 142 | 19.70 | 6430 | 2.8 | **FF** | **47** | **DRN** | **90S4** | 38 | 388 |
| **46** | 225 | 31.69 | 3830 | 0.85 | **FA** | **37** | **DRN** | **90S4** | 30 | 384 |
| **52** | 200 | 28.09 | 3960 | 1.00 | **FAF** | **37** | **DRN** | **90S4** | 32 | 383 |
| **61** | 172 | 23.88 | 3920 | 1.15 | **F** | **37** | **DRN** | **90S4** | 31 | 382 |
| | | | | | **FF** | **37** | **DRN** | **90S4** | 33 | 383 |
| **71** | 149 | 20.57 | 3860 | 1.35 | | | | | | |
| **76** | 139 | 19.27 | 3820 | 1.45 | | | | | | |
| **85** | 123 | 17.03 | 3760 | 1.65 | **FA** | **37** | **DRN** | **90S4** | 30 | 384 |
| **102** | 103 | 14.33 | 3650 | 1.95 | **FAF** | **37** | **DRN** | **90S4** | 32 | 383 |
| **113** | 93 | 12.87 | 3580 | 2.2 | **F** | **37** | **DRN** | **90S4** | 31 | 382 |
| **131** | 80 | 11.08 | 3470 | 2.4 | **FF** | **37** | **DRN** | **90S4** | 32 | 383 |
| **140** | 75 | 10.42 | 3430 | 2.5 | | | | | | |
| **162** | 65 | 8.97 | 3320 | 2.7 | | | | | | |
| **72** | 146 | 20.15 | 2440 | 0.90 | | | | | | |
| **77** | 136 | 18.84 | 2440 | 0.95 | | | | | | |
| **89** | 118 | 16.28 | 2440 | 1.10 | | | | | | |
| **105** | 100 | 13.84 | 2410 | 1.30 | | | | | | |
| **118** | 89 | 12.35 | 2380 | 1.45 | | | | | | |
| **138** | 76 | 10.55 | 2330 | 1.70 | **FA** | **27** | **DRN** | **90S4** | 24 | 380 |
| **147** | 71 | 9.88 | 2310 | 1.80 | **FAF** | **27** | **DRN** | **90S4** | 25 | 379 |
| **155** | 68 | 9.40 | 2230 | 1.90 | **F** | **27** | **DRN** | **90S4** | 24 | 378 |
| **179** | 59 | 8.13 | 2180 | 2.1 | **FF** | **27** | **DRN** | **90S4** | 25 | 379 |
| **211** | 50 | 6.91 | 2120 | 2.3 | | | | | | |
| **236** | 45 | 6.17 | 2080 | 2.4 | | | | | | |
| **276** | 38 | 5.27 | 2010 | 2.6 | | | | | | |
| **295** | 36 | 4.93 | 1990 | 2.7 | | | | | | |
| **350** | 30 | 4.16 | 1910 | 2.9 | | | | | | |

21284997/EN – 03/2015

## $P_m$ = 1.5 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **0.60** | 21300 | 2427 | 88800 | 0.85 | | | | | | |
| **0.67** | 19000 | 2185 | 96900 | 0.95 | | | | | | |
| **0.75** | 16900 | 1944 | 103200 | 1.05 | | | | | | |
| **0.87** | 14800 | 1674 | 108300 | 1.20 | **FA** | **157R97** | **DRN** | **90L4** | 780 | 432 |
| **1.1** | 11500 | 1308 | 114900 | 1.55 | **FAF** | **157R97** | **DRN** | **90L4** | 840 | 432 |
| **1.2** | 10200 | 1169 | 116900 | 1.75 | **F** | **157R97** | **DRN** | **90L4** | 800 | 432 |
| **1.5** | 8250 | 953 | 119500 | 2.2 | **FF** | **157R97** | **DRN** | **90L4** | 900 | 432 |
| **1.7** | 7240 | 845 | 120000 | 2.5 | | | | | | |
| **3.3** | 3820 | 446 | 120000 | 4.7 | | | | | | |
| **4.8** | 2590 | 302 | 120000 | 7.0 | | | | | | |
| **0.91** | 14400 | 1606 | 85700 | 0.85 | | | | | | |
| **1.0** | 12400 | 1390 | 89500 | 0.95 | | | | | | |
| **1.2** | 10900 | 1220 | 90000 | 1.10 | **FA** | **127R77** | **DRN** | **90L4** | 440 | 432 |
| **1.4** | 9690 | 1077 | 90000 | 1.25 | **FAF** | **127R77** | **DRN** | **90L4** | 480 | 432 |
| **1.6** | 8320 | 930 | 90000 | 1.45 | **F** | **127R77** | **DRN** | **90L4** | 480 | 432 |
| **1.8** | 7310 | 820 | 90000 | 1.65 | **FF** | **127R77** | **DRN** | **90L4** | 520 | 432 |
| **2.0** | 6460 | 727 | 90000 | 1.85 | | | | | | |
| **2.2** | 5830 | 648 | 90000 | 2.1 | | | | | | |
| **1.5** | 8530 | 950 | 47500 | 0.90 | | | | | | |
| **1.8** | 7460 | 834 | 50400 | 1.05 | | | | | | |
| **2.0** | 6560 | 736 | 52700 | 1.15 | **FA** | **107R77** | **DRN** | **90L4** | 290 | 432 |
| **2.3** | 5760 | 640 | 54600 | 1.35 | **FAF** | **107R77** | **DRN** | **90L4** | 310 | 432 |
| **2.6** | 4980 | 560 | 56300 | 1.55 | **F** | **107R77** | **DRN** | **90L4** | 305 | 432 |
| **3.0** | 4350 | 489 | 57700 | 1.75 | **FF** | **107R77** | **DRN** | **90L4** | 335 | 432 |
| **3.4** | 3920 | 436 | 58600 | 1.95 | | | | | | |
| **4.0** | 3320 | 370 | 59800 | 2.3 | | | | | | |
| **2.8** | 4780 | 529 | 23800 | 0.90 | **FA** | **97R57** | **DRN** | **90L4** | 200 | 432 |
| **3.1** | 4220 | 467 | 30100 | 1.00 | **FAF** | **97R57** | **DRN** | **90L4** | 220 | 432 |
| **3.6** | 3650 | 406 | 31700 | 1.20 | **F** | **97R57** | **DRN** | **90L4** | 210 | 432 |
| **4.0** | 3270 | 363 | 32700 | 1.30 | **FF** | **97R57** | **DRN** | **90L4** | 240 | 432 |
| | | | | | **FA** | **87R57** | **DRN** | **90L4** | 135 | 432 |
| **4.9** | 2700 | 300 | 24100 | 1.10 | **FAF** | **87R57** | **DRN** | **90L4** | 150 | 432 |
| **5.9** | 2240 | 249 | 25700 | 1.35 | **F** | **87R57** | **DRN** | **90L4** | 140 | 432 |
| | | | | | **FF** | **87R57** | **DRN** | **90L4** | 155 | 432 |
| **5.3** | 2710 | 276.77 | 34000 | 1.60 | | | | | | |
| **5.8** | 2480 | 253.41 | 34400 | 1.75 | **FA** | **97** | **DRN** | **90L4** | 175 | 414 |
| **6.5** | 2190 | 223.88 | 35000 | 1.95 | **FAF** | **97** | **DRN** | **90L4** | 200 | 413 |
| **7.7** | 1860 | 189.92 | 35600 | 2.3 | **F** | **97** | **DRN** | **90L4** | 185 | 412 |
| **8.4** | 1710 | 174.87 | 35900 | 2.5 | **FF** | **97** | **DRN** | **90L4** | 215 | 413 |
| **5.4** | 2650 | 270.68 | 24300 | 1.15 | **FA** | **87** | **DRN** | **90L4** | 110 | 409 |
| **5.7** | 2500 | 255.37 | 24800 | 1.20 | **FAF** | **87** | **DRN** | **90L4** | 125 | 408 |
| **6.4** | 2240 | 228.93 | 25700 | 1.35 | **F** | **87** | **DRN** | **90L4** | 120 | 407 |
| **7.4** | 1930 | 197.20 | 26600 | 1.55 | **FF** | **87** | **DRN** | **90L4** | 135 | 408 |
| **8.1** | 1760 | 179.97 | 27100 | 1.70 | | | | | | |
| **9.2** | 1560 | 159.61 | 27700 | 1.90 | **FA** | **87** | **DRN** | **90L4** | 110 | 409 |
| **11** | 1310 | 134.16 | 28300 | 2.3 | **FAF** | **87** | **DRN** | **90L4** | 125 | 408 |
| **13** | 1070 | 109.49 | 28800 | 2.8 | **F** | **87** | **DRN** | **90L4** | 120 | 407 |
| **15** | 950 | 97.89 | 29100 | 3.1 | **FF** | **87** | **DRN** | **90L4** | 135 | 408 |
| **8.8** | 1630 | 166.47 | 14800 | 0.90 | **FA** | **77** | **DRN** | **90L4** | 73 | 404 |
| **10** | 1390 | 142.27 | 16400 | 1.10 | **FAF** | **77** | **DRN** | **90L4** | 79 | 403 |
| **11** | 1270 | 130.42 | 17000 | 1.15 | **F** | **77** | **DRN** | **90L4** | 76 | 402 |
| **13** | 1120 | 114.45 | 17800 | 1.35 | **FF** | **77** | **DRN** | **90L4** | 87 | 403 |
| **13** | 1060 | 108.46* | 18100 | 1.40 | | | | | | |
| **15** | 930 | 94.93 | 18600 | 1.60 | | | | | | |
| **17** | 830 | 85.52 | 18900 | 1.80 | | | | | | |
| **19** | 735 | 75.02 | 19200 | 2.0 | | | | | | |
| **20** | 710 | 72.50 | 19200 | 2.1 | **FA** | **77** | **DRN** | **90L4** | 73 | 404 |
| **22** | 650 | 66.46 | 19400 | 2.3 | **FAF** | **77** | **DRN** | **90L4** | 79 | 403 |
| **25** | 570 | 58.32 | 19600 | 2.6 | **F** | **77** | **DRN** | **90L4** | 76 | 402 |
| **26** | 540 | 55.27 | 19600 | 2.8 | **FF** | **77** | **DRN** | **90L4** | 87 | 403 |
| **30** | 470 | 48.37 | 19700 | 3.2 | | | | | | |
| **34** | 425 | 43.58 | 19800 | 3.5 | | | | | | |
| **38** | 370 | 38.23 | 19900 | 4.0 | | | | | | |

21284997/EN – 03/2015

## $P_m$ = 1.5 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | **FA** | **77** | **DRN** | **90L4** | 71 | 404 |
| **40** | 355 | 36.58 | 19900 | 3.1 | **FAF** | **77** | **DRN** | **90L4** | 78 | 403 |
| **46** | 305 | 31.51 | 20000 | 4.5 | **F** | **77** | **DRN** | **90L4** | 75 | 402 |
| | | | | | **FF** | **77** | **DRN** | **90L4** | 86 | 403 |
| **16** | 880 | 90.59 | 9650 | 0.90 | | | | | | |
| **18** | 780 | 79.76 | 10600 | 1.05 | | | | | | |
| **22** | 660 | 67.65 | 11500 | 1.25 | **FA** | **67** | **DRN** | **90L4** | 50 | 399 |
| **24** | 595 | 61.07 | 11900 | 1.35 | **FAF** | **67** | **DRN** | **90L4** | 56 | 398 |
| **27** | 525 | 53.73 | 12300 | 1.55 | **F** | **67** | **DRN** | **90L4** | 53 | 397 |
| **29** | 495 | 50.74 | 12400 | 1.65 | **FF** | **67** | **DRN** | **90L4** | 59 | 398 |
| **34** | 420 | 43.20 | 12700 | 1.95 | | | | | | |
| **37** | 380 | 39.26 | 12900 | 2.0 | | | | | | |
| **40** | 355 | 36.30 | 13000 | 2.3 | **FA** | **67** | **DRN** | **90L4** | 49 | 399 |
| **46** | 310 | 32.08 | 13000 | 2.6 | **FAF** | **67** | **DRN** | **90L4** | 55 | 398 |
| **53** | 265 | 27.41 | 13000 | 3.0 | **F** | **67** | **DRN** | **90L4** | 52 | 397 |
| **58** | 245 | 25.13 | 13000 | 3.3 | **FF** | **67** | **DRN** | **90L4** | 58 | 398 |
| **25** | 575 | 58.97 | 9370 | 1.05 | | | | | | |
| **29** | 490 | 50.10 | 9980 | 1.20 | **FA** | **57** | **DRN** | **90L4** | 46 | 394 |
| **33** | 435 | 44.73 | 9940 | 1.35 | **FAF** | **57** | **DRN** | **90L4** | 52 | 393 |
| **38** | 370 | 38.21 | 9680 | 1.60 | **F** | **57** | **DRN** | **90L4** | 46 | 392 |
| **41** | 350 | 35.79 | 9560 | 1.70 | **FF** | **57** | **DRN** | **90L4** | 53 | 393 |
| **48** | 295 | 30.15 | 9240 | 2.0 | | | | | | |
| **40** | 355 | 36.61 | 6460 | 1.10 | **FA** | **47** | **DRN** | **90L4** | 38 | 389 |
| **43** | 335 | 34.29 | 6600 | 1.20 | **FAF** | **47** | **DRN** | **90L4** | 41 | 388 |
| **51** | 280 | 28.88 | 6460 | 1.40 | **F** | **47** | **DRN** | **90L4** | 39 | 387 |
| | | | | | **FF** | **47** | **DRN** | **90L4** | 42 | 388 |
| **47** | 300 | 30.86 | 6520 | 1.30 | | | | | | |
| **50** | 285 | 29.32 | 6480 | 1.40 | | | | | | |
| **57** | 250 | 25.72 | 6360 | 1.60 | **FA** | **47** | **DRN** | **90L4** | 38 | 389 |
| **67** | 210 | 21.82 | 6190 | 1.85 | **FAF** | **47** | **DRN** | **90L4** | 40 | 388 |
| **74** | 193 | 19.70 | 6070 | 2.1 | **F** | **47** | **DRN** | **90L4** | 38 | 387 |
| **84** | 170 | 17.33 | 5920 | 2.4 | **FF** | **47** | **DRN** | **90L4** | 42 | 388 |
| **89** | 160 | 16.36 | 5850 | 2.5 | | | | | | |
| **105** | 137 | 13.93 | 5650 | 2.9 | | | | | | |
| **71** | 200 | 20.57 | 3410 | 1.00 | | | | | | |
| **76** | 189 | 19.27 | 3410 | 1.05 | | | | | | |
| **86** | 167 | 17.03 | 3390 | 1.20 | | | | | | |
| **102** | 141 | 14.33 | 3340 | 1.40 | **FA** | **37** | **DRN** | **90L4** | 33 | 384 |
| **114** | 126 | 12.87 | 3300 | 1.60 | **FAF** | **37** | **DRN** | **90L4** | 35 | 383 |
| **132** | 109 | 11.08 | 3230 | 1.75 | **F** | **37** | **DRN** | **90L4** | 34 | 382 |
| **140** | 102 | 10.42 | 3200 | 1.80 | **FF** | **37** | **DRN** | **90L4** | 36 | 383 |
| **163** | 88 | 8.97 | 3120 | 2.00 | | | | | | |
| **182** | 79 | 8.01 | 3060 | 2.2 | | | | | | |
| **106** | 136 | 13.84 | 2090 | 0.95 | | | | | | |
| **118** | 121 | 12.35 | 2090 | 1.05 | | | | | | |
| **138** | 103 | 10.55 | 2090 | 1.25 | | | | | | |
| **148** | 97 | 9.88 | 2080 | 1.35 | | | | | | |
| **155** | 92 | 9.40 | 1990 | 1.40 | **FA** | **27** | **DRN** | **90L4** | 27 | 380 |
| **180** | 80 | 8.13 | 1970 | 1.55 | **FAF** | **27** | **DRN** | **90L4** | 28 | 379 |
| **212** | 68 | 6.91 | 1940 | 1.70 | **F** | **27** | **DRN** | **90L4** | 28 | 378 |
| **237** | 60 | 6.17 | 1920 | 1.80 | **FF** | **27** | **DRN** | **90L4** | 28 | 379 |
| **277** | 52 | 5.27 | 1880 | 1.95 | | | | | | |
| **296** | 48 | 4.93 | 1860 | 2.00 | | | | | | |
| **352** | 41 | 4.16 | 1800 | 2.1 | | | | | | |

## $P_m$ = 2.2 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | **FA** | **157R97** | **DRN** | **100LS4** | 780 | 432 |
| **1.0** | 18100 | 1441 | 99800 | 1.00 | **FAF** | **157R97** | **DRN** | **100LS4** | 840 | 432 |
| | | | | | **F** | **157R97** | **DRN** | **100LS4** | 810 | 432 |
| | | | | | **FF** | **157R97** | **DRN** | **100LS4** | 910 | 432 |

21284997/EN – 03/2015

## $P_m$ = 2.2 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **1.1** | 17300 | 1308 | 102200 | 1.05 | | | | | | |
| **1.2** | 15400 | 1169 | 107100 | 1.15 | | | | | | |
| **1.5** | 12400 | 953 | 113300 | 1.45 | | | | | | |
| **1.7** | 10900 | 845 | 115800 | 1.65 | | | | | | |
| **1.9** | 9850 | 764 | 117500 | 1.85 | **FA** | **157R97** | **DRN** | **100LS4** | 780 | 432 |
| **2.1** | 8760 | 680 | 118900 | 2.0 | **FAF** | **157R97** | **DRN** | **100LS4** | 840 | 432 |
| **2.5** | 7350 | 576 | 120000 | 2.4 | **F** | **157R97** | **DRN** | **100LS4** | 800 | 432 |
| **3.2** | 5790 | 446 | 120000 | 3.1 | **FF** | **157R97** | **DRN** | **100LS4** | 910 | 432 |
| **4.8** | 3920 | 302 | 120000 | 4.6 | | | | | | |
| **5.3** | 3520 | 273 | 120000 | 5.1 | | | | | | |
| **6.3** | 2950 | 232 | 120000 | 6.1 | | | | | | |
| **7.4** | 2500 | 197 | 120000 | 7.2 | | | | | | |
| **1.4** | 14400 | 1077 | 85700 | 0.85 | | | | | | |
| **1.6** | 12400 | 930 | 89600 | 0.95 | | | | | | |
| **1.8** | 10900 | 820 | 90000 | 1.10 | **FA** | **127R77** | **DRN** | **100LS4** | 445 | 432 |
| **2.0** | 9670 | 727 | 90000 | 1.25 | **FAF** | **127R77** | **DRN** | **100LS4** | 485 | 432 |
| **2.2** | 8680 | 648 | 90000 | 1.40 | **F** | **127R77** | **DRN** | **100LS4** | 480 | 432 |
| **2.6** | 7360 | 549 | 90000 | 1.65 | **FF** | **127R77** | **DRN** | **100LS4** | 530 | 432 |
| **2.9** | 6620 | 495 | 90000 | 1.80 | | | | | | |
| **3.4** | 5730 | 428 | 90000 | 2.1 | | | | | | |
| **2.3** | 8580 | 640 | 47300 | 0.90 | | | | | | |
| **2.6** | 7450 | 560 | 50400 | 1.05 | **FA** | **107R77** | **DRN** | **100LS4** | 295 | 432 |
| **3.0** | 6500 | 489 | 52800 | 1.20 | **FAF** | **107R77** | **DRN** | **100LS4** | 315 | 432 |
| **3.3** | 5840 | 436 | 54400 | 1.30 | **F** | **107R77** | **DRN** | **100LS4** | 310 | 432 |
| **3.9** | 4950 | 370 | 56400 | 1.55 | **FF** | **107R77** | **DRN** | **100LS4** | 340 | 432 |
| **4.4** | 4460 | 333 | 57500 | 1.70 | | | | | | |
| | | | | | **FA** | **97R57** | **DRN** | **100LS4** | 205 | 432 |
| **5.1** | 3830 | 285 | 31200 | 1.10 | **FAF** | **97R57** | **DRN** | **100LS4** | 225 | 432 |
| **5.9** | 3290 | 245 | 32600 | 1.30 | **F** | **97R57** | **DRN** | **100LS4** | 210 | 432 |
| | | | | | **FF** | **97R57** | **DRN** | **100LS4** | 245 | 432 |
| **5.7** | 3680 | 254.40* | 59100 | 2.1 | **FA** | **107** | **DRN** | **100LS4** | 255 | 419 |
| **6.7** | 3120 | 215.37 | 60200 | 2.5 | **FAF** | **107** | **DRN** | **100LS4** | 275 | 418 |
| **7.3** | 2880 | 199.31 | 60600 | 2.7 | **F** | **107** | **DRN** | **100LS4** | 275 | 417 |
| **8.1** | 2580 | 178.64 | 61100 | 3.0 | **FF** | **107** | **DRN** | **100LS4** | 300 | 418 |
| **5.2** | 4010 | 276.77 | 30700 | 1.05 | | | | | | |
| **5.7** | 3670 | 253.41 | 31700 | 1.15 | | | | | | |
| **6.5** | 3240 | 223.88 | 32700 | 1.35 | **FA** | **97** | **DRN** | **100LS4** | 180 | 414 |
| **7.6** | 2750 | 189.92 | 33900 | 1.55 | **FAF** | **97** | **DRN** | **100LS4** | 200 | 413 |
| **8.3** | 2530 | 174.87 | 34300 | 1.70 | **F** | **97** | **DRN** | **100LS4** | 190 | 412 |
| **9.3** | 2260 | 156.30 | 34900 | 1.90 | **FF** | **97** | **DRN** | **100LS4** | 220 | 413 |
| **10** | 2030 | 140.71 | 35300 | 2.1 | | | | | | |
| **11** | 1840 | 127.42 | 35700 | 2.3 | | | | | | |
| **7.4** | 2850 | 197.20 | 23500 | 1.05 | **FA** | **87** | **DRN** | **100LS4** | 115 | 409 |
| **8.1** | 2600 | 179.97 | 24400 | 1.15 | **FAF** | **87** | **DRN** | **100LS4** | 130 | 408 |
| **9.1** | 2310 | 159.61 | 25500 | 1.30 | **F** | **87** | **DRN** | **100LS4** | 120 | 407 |
| **11** | 1940 | 134.16 | 26600 | 1.55 | **FF** | **87** | **DRN** | **100LS4** | 140 | 408 |
| **12** | 1780 | 123.29 | 27100 | 1.70 | | | | | | |
| **13** | 1580 | 109.49 | 27600 | 1.90 | | | | | | |
| **15** | 1410 | 97.89 | 28000 | 2.1 | | | | | | |
| **16** | 1270 | 88.01 | 28400 | 2.4 | **FA** | **87** | **DRN** | **100LS4** | 115 | 409 |
| **19** | 1100 | 76.39 | 27700 | 2.7 | **FAF** | **87** | **DRN** | **100LS4** | 130 | 408 |
| **21** | 990 | 68.40 | 27000 | 3.0 | **F** | **87** | **DRN** | **100LS4** | 120 | 407 |
| **26** | 820 | 56.75 | 25700 | 3.6 | **FF** | **87** | **DRN** | **100LS4** | 140 | 408 |
| **29** | 725 | 50.36 | 25000 | 4.0 | | | | | | |
| **32** | 655 | 45.28 | 24300 | 4.3 | | | | | | |
| **13** | 1650 | 114.45 | 14600 | 0.90 | **FA** | **77** | **DRN** | **100LS4** | 77 | 404 |
| **13** | 1570 | 108.46* | 15200 | 0.95 | **FAF** | **77** | **DRN** | **100LS4** | 83 | 403 |
| **15** | 1370 | 94.93 | 16500 | 1.10 | **F** | **77** | **DRN** | **100LS4** | 81 | 402 |
| **17** | 1230 | 85.52 | 17200 | 1.20 | **FF** | **77** | **DRN** | **100LS4** | 91 | 403 |
| **19** | 1080 | 75.02 | 18000 | 1.40 | | | | | | |
| **22** | 960 | 66.46 | 18400 | 1.55 | **FA** | **77** | **DRN** | **100LS4** | 77 | 404 |
| **25** | 840 | 58.32 | 18800 | 1.80 | **FAF** | **77** | **DRN** | **100LS4** | 83 | 403 |
| **26** | 800 | 55.27 | 19000 | 1.85 | **F** | **77** | **DRN** | **100LS4** | 81 | 402 |
| **30** | 700 | 48.37 | 19300 | 2.1 | **FF** | **77** | **DRN** | **100LS4** | 91 | 403 |
| **33** | 630 | 43.58 | 19400 | 2.4 | | | | | | |

21284997/EN – 03/2015

## $P_m$ = 2.2 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **40** | 525 | 36.58 | 19600 | 2.1 | **FA** | **77** | **DRN** | **100LS4** | 75 | 404 |
| **46** | 455 | 31.51 | 19800 | 3.0 | **FAF** | **77** | **DRN** | **100LS4** | 82 | 403 |
| **50** | 415 | 28.75 | 19800 | 3.4 | **F** | **77** | **DRN** | **100LS4** | 79 | 402 |
| **57** | 365 | 25.50* | 19900 | 4.1 | **FF** | **77** | **DRN** | **100LS4** | 90 | 403 |
| **24** | 880 | 61.07 | 9680 | 0.95 | | | | | | |
| **27** | 775 | 53.73 | 10700 | 1.05 | **FA** | **67** | **DRN** | **100LS4** | 54 | 399 |
| **29** | 735 | 50.74 | 11000 | 1.10 | **FAF** | **67** | **DRN** | **100LS4** | 60 | 398 |
| **34** | 625 | 43.20 | 11700 | 1.30 | **F** | **67** | **DRN** | **100LS4** | 57 | 397 |
| **37** | 565 | 39.26 | 12100 | 1.35 | **FF** | **67** | **DRN** | **100LS4** | 63 | 398 |
| **43** | 490 | 34.01 | 12400 | 1.50 | | | | | | |
| **45** | 460 | 32.08 | 12600 | 1.75 | | | | | | |
| **53** | 395 | 27.41 | 12800 | 2.1 | **FA** | **67** | **DRN** | **100LS4** | 53 | 399 |
| **58** | 360 | 25.13 | 12900 | 2.2 | **FAF** | **67** | **DRN** | **100LS4** | 59 | 398 |
| **66** | 315 | 22.05 | 13000 | 2.6 | **F** | **67** | **DRN** | **100LS4** | 55 | 397 |
| **69** | 300 | 20.90* | 13000 | 2.7 | **FF** | **67** | **DRN** | **100LS4** | 62 | 398 |
| **79** | 265 | 18.29 | 13000 | 3.1 | | | | | | |
| **32** | 645 | 44.73 | 6640 | 0.95 | **FA** | **57** | **DRN** | **100LS4** | 50 | 394 |
| **38** | 550 | 38.21 | 8640 | 1.10 | **FAF** | **57** | **DRN** | **100LS4** | 55 | 393 |
| **41** | 515 | 35.79 | 8590 | 1.15 | **F** | **57** | **DRN** | **100LS4** | 50 | 392 |
| **48** | 435 | 30.15 | 8430 | 1.35 | **FF** | **57** | **DRN** | **100LS4** | 57 | 393 |
| **58** | 360 | 24.96 | 8200 | 1.60 | | | | | | |
| **68** | 305 | 21.17 | 7980 | 1.95 | **FA** | **57** | **DRN** | **100LS4** | 49 | 394 |
| **76** | 275 | 19.11 | 7820 | 2.2 | **FAF** | **57** | **DRN** | **100LS4** | 55 | 393 |
| **86** | 240 | 16.81 | 7630 | 2.5 | **F** | **57** | **DRN** | **100LS4** | 50 | 392 |
| **91** | 230 | 15.88 | 7540 | 2.6 | **FF** | **57** | **DRN** | **100LS4** | 56 | 393 |
| **56** | 370 | 25.72 | 5560 | 1.05 | | | | | | |
| **66** | 315 | 21.82 | 5510 | 1.25 | | | | | | |
| **74** | 285 | 19.70 | 5460 | 1.40 | | | | | | |
| **84** | 250 | 17.33 | 5390 | 1.60 | **FA** | **47** | **DRN** | **100LS4** | 42 | 389 |
| **89** | 235 | 16.36 | 5350 | 1.70 | **FAF** | **47** | **DRN** | **100LS4** | 44 | 388 |
| **104** | 200 | 13.93 | 5220 | 2.00 | **F** | **47** | **DRN** | **100LS4** | 42 | 387 |
| **115** | 183 | 12.66 | 5140 | 2.2 | **FF** | **47** | **DRN** | **100LS4** | 46 | 388 |
| **132** | 159 | 10.97 | 5010 | 2.5 | | | | | | |
| **162** | 130 | 8.96 | 4710 | 2.5 | | | | | | |
| **101** | 205 | 14.33 | 2800 | 0.95 | | | | | | |
| **113** | 186 | 12.87 | 2810 | 1.05 | | | | | | |
| **131** | 161 | 11.08 | 2820 | 1.20 | | | | | | |
| **139** | 151 | 10.42 | 2810 | 1.25 | | | | | | |
| **162** | 130 | 8.97 | 2790 | 1.35 | **FA** | **37** | **DRN** | **100LS4** | 37 | 384 |
| **181** | 116 | 8.01 | 2760 | 1.45 | **FAF** | **37** | **DRN** | **100LS4** | 39 | 383 |
| **215** | 98 | 6.74 | 2620 | 1.45 | **F** | **37** | **DRN** | **100LS4** | 38 | 382 |
| **240** | 88 | 6.05 | 2580 | 1.55 | **FF** | **37** | **DRN** | **100LS4** | 40 | 383 |
| **278** | 76 | 5.21 | 2530 | 1.65 | | | | | | |
| **296** | 71 | 4.90 | 2510 | 1.70 | | | | | | |
| **344** | 61 | 4.22 | 2440 | 1.80 | | | | | | |
| **385** | 55 | 3.77 | 2390 | 1.90 | | | | | | |

## $P_m$ = 3.0 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **1.2** | 21100 | 1169 | 89600 | 0.85 | | | | | | |
| **1.5** | 17100 | 953 | 102800 | 1.05 | | | | | | |
| **1.7** | 15000 | 845 | 107900 | 1.20 | | | | | | |
| **1.9** | 13500 | 764 | 111100 | 1.30 | | | | | | |
| **2.1** | 12000 | 680 | 114000 | 1.50 | **FA** | **157R97** | **DRN** | **100L4** | 790 | 432 |
| **2.5** | 10100 | 576 | 117000 | 1.75 | **FAF** | **157R97** | **DRN** | **100L4** | 850 | 432 |
| **3.3** | 7970 | 446 | 119800 | 2.3 | **F** | **157R97** | **DRN** | **100L4** | 810 | 432 |
| **4.8** | 5390 | 302 | 120000 | 3.3 | **FF** | **157R97** | **DRN** | **100L4** | 920 | 432 |
| **5.3** | 4850 | 273 | 120000 | 3.7 | | | | | | |
| **6.3** | 4080 | 232 | 120000 | 4.4 | | | | | | |
| **7.4** | 3460 | 197 | 120000 | 5.2 | | | | | | |

| $P_m$ = 3.0 kW | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | | m kg | |
| **2.0** | 13200 | 727 | 88100 | 0.90 | **FA** | **127R77** | **DRN** | **100L4** | | 455 | 432 |
| **2.2** | 11800 | 648 | 90000 | 1.00 | **FAF** | **127R77** | **DRN** | **100L4** | | 490 | 432 |
| **2.6** | 10000 | 549 | 90000 | 1.20 | **F** | **127R77** | **DRN** | **100L4** | | 490 | 432 |
| **2.9** | 9040 | 495 | 90000 | 1.35 | **FF** | **127R77** | **DRN** | **100L4** | | 530 | 432 |
| **3.3** | 7970 | 436 | 49000 | 0.95 | **FA** | **107R77** | **DRN** | **100L4** | | 300 | 432 |
| **3.9** | 6760 | 370 | 52200 | 1.15 | **FAF** | **107R77** | **DRN** | **100L4** | | 325 | 432 |
| **4.4** | 6080 | 333 | 53800 | 1.25 | **F** | **107R77** | **DRN** | **100L4** | | 320 | 432 |
| **5.0** | 5320 | 291 | 55600 | 1.45 | **FF** | **107R77** | **DRN** | **100L4** | | 345 | 432 |
| **5.7** | 5000 | 254.40* | 56300 | 1.55 | | | | | | | |
| **6.8** | 4230 | 215.37 | 57900 | 1.80 | **FA** | **107** | **DRN** | **100L4** | | 265 | 419 |
| **7.3** | 3920 | 199.31 | 58600 | 1.95 | **FAF** | **107** | **DRN** | **100L4** | | 285 | 418 |
| **8.2** | 3510 | 178.64 | 59400 | 2.2 | **F** | **107** | **DRN** | **100L4** | | 280 | 417 |
| **9.0** | 3170 | 161.28* | 60100 | 2.4 | **FF** | **107** | **DRN** | **100L4** | | 305 | 418 |
| **6.5** | 4400 | 223.88 | 29600 | 1.00 | **FA** | **97** | **DRN** | **100L4** | | 190 | 414 |
| **7.7** | 3730 | 189.92 | 31500 | 1.15 | **FAF** | **97** | **DRN** | **100L4** | | 210 | 413 |
| **8.3** | 3440 | 174.87 | 32300 | 1.25 | **F** | **97** | **DRN** | **100L4** | | 195 | 412 |
| **9.3** | 3070 | 156.30 | 33100 | 1.40 | **FF** | **97** | **DRN** | **100L4** | | 230 | 413 |
| **10** | 2760 | 140.71 | 33800 | 1.55 | **FA** | **97** | **DRN** | **100L4** | | 190 | 414 |
| **11** | 2500 | 127.42 | 34400 | 1.70 | **FAF** | **97** | **DRN** | **100L4** | | 210 | 413 |
| **13** | 2220 | 112.99 | 35000 | 1.95 | **F** | **97** | **DRN** | **100L4** | | 195 | 412 |
| **14** | 2010 | 102.16 | 35400 | 2.1 | **FF** | **97** | **DRN** | **100L4** | | 230 | 413 |
| **16** | 1760 | 89.85 | 35800 | 2.4 | | | | | | | |
| **11** | 2630 | 134.16 | 24300 | 1.15 | **FA** | **87** | **DRN** | **100L4** | | 125 | 409 |
| **12** | 2420 | 123.29 | 25100 | 1.25 | **FAF** | **87** | **DRN** | **100L4** | | 135 | 408 |
| **13** | 2150 | 109.49 | 26000 | 1.40 | **F** | **87** | **DRN** | **100L4** | | 130 | 407 |
| **15** | 1920 | 97.89 | 26700 | 1.55 | **FF** | **87** | **DRN** | **100L4** | | 145 | 408 |
| **17** | 1730 | 88.01 | 26700 | 1.75 | **FA** | **87** | **DRN** | **100L4** | | 125 | 409 |
| **19** | 1500 | 76.39 | 26100 | 2.0 | **FAF** | **87** | **DRN** | **100L4** | | 135 | 408 |
| **21** | 1340 | 68.40 | 25500 | 2.2 | **F** | **87** | **DRN** | **100L4** | | 130 | 407 |
| **26** | 1110 | 56.75 | 24600 | 2.7 | **FF** | **87** | **DRN** | **100L4** | | 145 | 408 |
| **29** | 990 | 50.36 | 23900 | 3.0 | | | | | | | |
| **17** | 1680 | 85.52 | 14400 | 0.90 | **FA** | **77** | **DRN** | **100L4** | | 84 | 404 |
| **19** | 1470 | 75.02 | 15900 | 1.00 | **FAF** | **77** | **DRN** | **100L4** | | 91 | 403 |
| **22** | 1300 | 66.46 | 16900 | 1.15 | **F** | **77** | **DRN** | **100L4** | | 88 | 402 |
| **25** | 1140 | 58.32 | 17700 | 1.30 | **FF** | **77** | **DRN** | **100L4** | | 98 | 403 |
| **26** | 1080 | 55.27 | 18000 | 1.40 | **FA** | **77** | **DRN** | **100L4** | | 84 | 404 |
| **30** | 950 | 48.37 | 18500 | 1.60 | **FAF** | **77** | **DRN** | **100L4** | | 91 | 403 |
| **33** | 850 | 43.58 | 18800 | 1.75 | **F** | **77** | **DRN** | **100L4** | | 88 | 402 |
| **38** | 750 | 38.23 | 19100 | 2.00 | **FF** | **77** | **DRN** | **100L4** | | 98 | 403 |
| **40** | 715 | 36.58 | 19200 | 1.55 | | | | | | | |
| **46** | 615 | 31.51 | 19500 | 2.2 | **FA** | **77** | **DRN** | **100L4** | | 83 | 404 |
| **51** | 565 | 28.75 | 19600 | 2.5 | **FAF** | **77** | **DRN** | **100L4** | | 89 | 403 |
| **57** | 500 | 25.50* | 19700 | 3.0 | **F** | **77** | **DRN** | **100L4** | | 86 | 402 |
| **68** | 420 | 21.43 | 19800 | 3.6 | **FF** | **77** | **DRN** | **100L4** | | 97 | 403 |
| **34** | 840 | 43.20 | 10000 | 0.95 | **FA** | **67** | **DRN** | **100L4** | | 61 | 399 |
| **37** | 770 | 39.26 | 10700 | 1.00 | **FAF** | **67** | **DRN** | **100L4** | | 67 | 398 |
| **43** | 665 | 34.01 | 11500 | 1.10 | **F** | **67** | **DRN** | **100L4** | | 64 | 397 |
| **45** | 630 | 32.08 | 11700 | 1.30 | **FF** | **67** | **DRN** | **100L4** | | 70 | 398 |
| **53** | 535 | 27.41 | 12200 | 1.50 | | | | | | | |
| **58** | 490 | 25.13 | 12400 | 1.65 | **FA** | **67** | **DRN** | **100L4** | | 60 | 399 |
| **66** | 430 | 22.05 | 12700 | 1.90 | **FAF** | **67** | **DRN** | **100L4** | | 66 | 398 |
| **70** | 410 | 20.90* | 12800 | 2.00 | **F** | **67** | **DRN** | **100L4** | | 63 | 397 |
| **80** | 355 | 18.29 | 12900 | 2.3 | **FF** | **67** | **DRN** | **100L4** | | 69 | 398 |
| **88** | 320 | 16.48 | 13000 | 2.5 | | | | | | | |
| **101** | 280 | 14.46 | 13000 | 2.9 | | | | | | | |

21284997/EN – 03/2015

## $P_m$ = 3.0 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **58** | 490 | 24.96 | 7420 | 1.15 | | | | | | |
| **69** | 415 | 21.17 | 7310 | 1.45 | | | | | | |
| **76** | 375 | 19.11 | 7220 | 1.60 | **FA** | **57** | **DRN** | **100L4** | 56 | 394 |
| **87** | 330 | 16.81 | 7100 | 1.80 | **FAF** | **57** | **DRN** | **100L4** | 62 | 393 |
| **92** | 310 | 15.88 | 7040 | 1.90 | **F** | **57** | **DRN** | **100L4** | 57 | 392 |
| **108** | 265 | 13.52 | 6850 | 2.3 | **FF** | **57** | **DRN** | **100L4** | 63 | 393 |
| **119** | 240 | 12.29 | 6730 | 2.5 | | | | | | |
| **137** | 205 | 10.64 | 6540 | 2.9 | | | | | | |
| **74** | 385 | 19.70 | 4760 | 1.05 | | | | | | |
| **84** | 340 | 17.33 | 4760 | 1.15 | | | | | | |
| **89** | 320 | 16.36 | 4760 | 1.25 | **FA** | **47** | **DRN** | **100L4** | 49 | 389 |
| **104** | 270 | 13.93 | 4720 | 1.45 | **FAF** | **47** | **DRN** | **100L4** | 51 | 388 |
| **115** | 245 | 12.66 | 4690 | 1.60 | **F** | **47** | **DRN** | **100L4** | 50 | 387 |
| **133** | 215 | 10.97 | 4620 | 1.85 | **FF** | **47** | **DRN** | **100L4** | 53 | 388 |
| **163** | 176 | 8.96 | 4350 | 1.85 | | | | | | |
| **131** | 215 | 11.08 | 2340 | 0.85 | | | | | | |
| **140** | 205 | 10.42 | 2360 | 0.90 | | | | | | |
| **162** | 176 | 8.97 | 2400 | 1.00 | | | | | | |
| **182** | 158 | 8.01 | 2410 | 1.10 | **FA** | **37** | **DRN** | **100L4** | 44 | 384 |
| **216** | 133 | 6.74 | 2290 | 1.05 | **FAF** | **37** | **DRN** | **100L4** | 46 | 383 |
| **241** | 119 | 6.05 | 2290 | 1.15 | **F** | **37** | **DRN** | **100L4** | 45 | 382 |
| **279** | 103 | 5.21 | 2280 | 1.20 | **FF** | **37** | **DRN** | **100L4** | 47 | 383 |
| **297** | 96 | 4.90 | 2270 | 1.25 | | | | | | |
| **345** | 83 | 4.22 | 2240 | 1.35 | | | | | | |
| **386** | 74 | 3.77 | 2210 | 1.40 | | | | | | |

## $P_m$ = 4.0 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **1.7** | 20100 | 845 | 93100 | 0.90 | | | | | | |
| **1.9** | 18100 | 764 | 99700 | 1.00 | | | | | | |
| **2.2** | 16100 | 680 | 105200 | 1.10 | | | | | | |
| **2.5** | 13600 | 576 | 111000 | 1.30 | **FA** | **157R97** | **DRN** | **112M4** | 800 | 432 |
| **3.3** | 10600 | 446 | 116300 | 1.70 | **FAF** | **157R97** | **DRN** | **112M4** | 860 | 432 |
| **4.8** | 7220 | 302 | 120000 | 2.5 | **F** | **157R97** | **DRN** | **112M4** | 820 | 432 |
| **5.4** | 6500 | 273 | 120000 | 2.8 | **FF** | **157R97** | **DRN** | **112M4** | 920 | 432 |
| **6.3** | 5480 | 232 | 120000 | 3.3 | | | | | | |
| **7.4** | 4650 | 197 | 120000 | 3.9 | | | | | | |
| **2.7** | 13300 | 549 | 87800 | 0.90 | **FA** | **127R77** | **DRN** | **112M4** | 460 | 432 |
| **3.0** | 12000 | 495 | 90000 | 1.00 | **FAF** | **127R77** | **DRN** | **112M4** | 500 | 432 |
| **3.4** | 10400 | 428 | 90000 | 1.15 | **F** | **127R77** | **DRN** | **112M4** | 500 | 432 |
| **3.9** | 9120 | 376 | 90000 | 1.30 | **FF** | **127R77** | **DRN** | **112M4** | 540 | 432 |
| | | | | | **FA** | **107R77** | **DRN** | **112M4** | 310 | 432 |
| **4.4** | 8090 | 333 | 48700 | 0.95 | **FAF** | **107R77** | **DRN** | **112M4** | 330 | 432 |
| **5.0** | 7070 | 291 | 51400 | 1.10 | **F** | **107R77** | **DRN** | **112M4** | 325 | 432 |
| **5.7** | 6200 | 255 | 53500 | 1.25 | **FF** | **107R77** | **DRN** | **112M4** | 355 | 432 |
| **5.8** | 6630 | 254.40* | 52500 | 1.15 | | | | | | |
| **6.8** | 5610 | 215.37 | 54900 | 1.35 | | | | | | |
| **7.4** | 5200 | 199.31 | 55900 | 1.50 | | | | | | |
| **8.2** | 4660 | 178.64 | 57000 | 1.65 | **FA** | **107** | **DRN** | **112M4** | 270 | 419 |
| **9.1** | 4200 | 161.28* | 58000 | 1.85 | **FAF** | **107** | **DRN** | **112M4** | 290 | 418 |
| **10.0** | 3820 | 146.49 | 58800 | 2.0 | **F** | **107** | **DRN** | **112M4** | 290 | 417 |
| **11** | 3390 | 129.97 | 59600 | 2.3 | **FF** | **107** | **DRN** | **112M4** | 315 | 418 |
| **12** | 3070 | 117.94 | 60200 | 2.5 | | | | | | |
| **14** | 2640 | 101.38* | 61000 | 2.9 | | | | | | |
| **8.4** | 4560 | 174.87 | 29100 | 0.95 | **FA** | **97** | **DRN** | **112M4** | 195 | 414 |
| **9.4** | 4070 | 156.30 | 30500 | 1.05 | **FAF** | **97** | **DRN** | **112M4** | 220 | 413 |
| **10** | 3670 | 140.71 | 31700 | 1.15 | **F** | **97** | **DRN** | **112M4** | 205 | 412 |
| **11** | 3320 | 127.42 | 32500 | 1.30 | **FF** | **97** | **DRN** | **112M4** | 235 | 413 |



21284997/EN – 03/2015

## $P_m$ = 4.0 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **13** | 2940 | 112.99 | 33400 | 1.45 | | | | | | |
| **14** | 2660 | 102.16 | 34100 | 1.60 | | | | | | |
| **15** | 2540 | 97.58 | 34300 | 1.70 | **FA** | **97** | **DRN** | **112M4** | 195 | 414 |
| **16** | 2340 | 89.85 | 34700 | 1.85 | **FAF** | **97** | **DRN** | **112M4** | 220 | 413 |
| **18** | 2090 | 80.31 | 35200 | 2.0 | **F** | **97** | **DRN** | **112M4** | 205 | 412 |
| **20** | 1880 | 72.29 | 35600 | 2.3 | **FF** | **97** | **DRN** | **112M4** | 235 | 413 |
| **22** | 1700 | 65.47 | 35900 | 2.5 | | | | | | |
| **13** | 2850 | 109.49 | 23500 | 1.05 | **FA** | **87** | **DRN** | **112M4** | 135 | 409 |
| **15** | 2550 | 97.89 | 24600 | 1.15 | **FAF** | **87** | **DRN** | **112M4** | 145 | 408 |
| **17** | 2290 | 88.01 | 24500 | 1.30 | **F** | **87** | **DRN** | **112M4** | 140 | 407 |
| | | | | | **FF** | **87** | **DRN** | **112M4** | 155 | 408 |
| **19** | 1990 | 76.39 | 24100 | 1.50 | | | | | | |
| **21** | 1780 | 68.40 | 23800 | 1.70 | **FA** | **87** | **DRN** | **112M4** | 135 | 409 |
| **26** | 1480 | 56.75 | 23100 | 2.0 | **FAF** | **87** | **DRN** | **112M4** | 145 | 408 |
| **29** | 1310 | 50.36 | 22600 | 2.2 | **F** | **87** | **DRN** | **112M4** | 140 | 407 |
| **32** | 1180 | 45.28 | 22200 | 2.4 | **FF** | **87** | **DRN** | **112M4** | 155 | 408 |
| **22** | 1730 | 66.46 | 13900 | 0.85 | **FA** | **77** | **DRN** | **112M4** | 93 | 404 |
| **25** | 1520 | 58.32 | 15600 | 1.00 | **FAF** | **77** | **DRN** | **112M4** | 100 | 403 |
| **26** | 1440 | 55.27 | 16100 | 1.05 | **F** | **77** | **DRN** | **112M4** | 97 | 402 |
| **30** | 1260 | 48.37 | 17100 | 1.20 | **FF** | **77** | **DRN** | **112M4** | 110 | 403 |
| **34** | 1130 | 43.58 | 17700 | 1.30 | | | | | | |
| **38** | 990 | 38.23 | 18300 | 1.50 | **FA** | **77** | **DRN** | **112M4** | 93 | 404 |
| **43** | 880 | 33.74 | 18700 | 1.70 | **FAF** | **77** | **DRN** | **112M4** | 100 | 403 |
| **49** | 780 | 29.91 | 19000 | 1.90 | **F** | **77** | **DRN** | **112M4** | 97 | 402 |
| **57** | 665 | 25.54 | 19300 | 2.2 | **FF** | **77** | **DRN** | **112M4** | 110 | 403 |
| **46** | 820 | 31.51 | 18900 | 1.70 | | | | | | |
| **51** | 750 | 28.75 | 19100 | 1.90 | **FA** | **77** | **DRN** | **112M4** | 92 | 404 |
| **57** | 665 | 25.50* | 19300 | 2.2 | **FAF** | **77** | **DRN** | **112M4** | 98 | 403 |
| **68** | 555 | 21.43 | 19600 | 2.7 | **F** | **77** | **DRN** | **112M4** | 96 | 402 |
| **74** | 510 | 19.70 | 19700 | 2.9 | **FF** | **77** | **DRN** | **112M4** | 105 | 403 |
| **53** | 715 | 27.41 | 11200 | 1.15 | | | | | | |
| **58** | 655 | 25.13 | 11600 | 1.25 | | | | | | |
| **66** | 575 | 22.05 | 12000 | 1.45 | | | | | | |
| **70** | 545 | 20.90* | 12200 | 1.50 | | | | | | |
| **80** | 475 | 18.29 | 12500 | 1.70 | | | | | | |
| **89** | 425 | 16.48 | 12700 | 1.90 | | | | | | |
| **101** | 375 | 14.46 | 12900 | 2.2 | | | | | | |
| **115** | 330 | 12.76 | 13000 | 2.5 | **FA** | **67** | **DRN** | **112M4** | 69 | 399 |
| **129** | 295 | 11.31 | 13000 | 2.8 | **FAF** | **67** | **DRN** | **112M4** | 76 | 398 |
| **152** | 250 | 9.66 | 13000 | 3.2 | **F** | **67** | **DRN** | **112M4** | 72 | 397 |
| **161** | 235 | 9.08 | 12900 | 2.2 | **FF** | **67** | **DRN** | **112M4** | 78 | 398 |
| **170** | 220 | 8.60 | 12700 | 2.5 | | | | | | |
| **194** | 196 | 7.53 | 12300 | 3.1 | | | | | | |
| **216** | 177 | 6.78 | 12000 | 3.5 | | | | | | |
| **246** | 155 | 5.95 | 11600 | 3.9 | | | | | | |
| **279** | 137 | 5.25 | 11300 | 4.3 | | | | | | |
| **314** | 121 | 4.66 | 10900 | 4.6 | | | | | | |
| **368** | 104 | 3.97 | 10500 | 4.8 | | | | | | |
| **69** | 550 | 21.17 | 6490 | 1.10 | | | | | | |
| **77** | 495 | 19.11 | 6480 | 1.20 | | | | | | |
| **87** | 435 | 16.81 | 6440 | 1.35 | | | | | | |
| **92** | 410 | 15.88 | 6420 | 1.45 | | | | | | |
| **108** | 350 | 13.52 | 6320 | 1.70 | | | | | | |
| **119** | 320 | 12.29 | 6240 | 1.85 | **FA** | **57** | **DRN** | **112M4** | 66 | 394 |
| **138** | 275 | 10.64 | 6120 | 2.2 | **FAF** | **57** | **DRN** | **112M4** | 71 | 393 |
| **157** | 240 | 9.31 | 5820 | 1.75 | **F** | **57** | **DRN** | **112M4** | 66 | 392 |
| **179** | 210 | 8.19 | 5700 | 1.95 | **FF** | **57** | **DRN** | **112M4** | 73 | 393 |
| **189** | 200 | 7.73 | 5650 | 2.1 | | | | | | |
| **222** | 172 | 6.58 | 5480 | 2.4 | | | | | | |
| **245** | 156 | 5.98 | 5380 | 2.7 | | | | | | |
| **282** | 135 | 5.18 | 5220 | 3.1 | | | | | | |

21284997/EN – 03/2015

## $P_m$ = 5.5 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **2.5** | 18900 | 576 | 97200 | 0.95 | | | | | | |
| **2.9** | 16500 | 503 | 104400 | 1.10 | | | | | | |
| **3.3** | 14800 | 446 | 108500 | 1.20 | | | | | | |
| **4.2** | 11500 | 353 | 114900 | 1.55 | **FA** | **157R97** | **DRN** | **132S4** | 810 | 432 |
| **4.8** | 10000 | 302 | 117200 | 1.80 | **FAF** | **157R97** | **DRN** | **132S4** | 870 | 432 |
| **5.4** | 9040 | 273 | 118500 | 2.00 | **F** | **157R97** | **DRN** | **132S4** | 830 | 432 |
| **6.3** | 7630 | 232 | 120000 | 2.4 | **FF** | **157R97** | **DRN** | **132S4** | 940 | 432 |
| **7.2** | 6630 | 202 | 120000 | 2.7 | | | | | | |
| **7.4** | 6470 | 197 | 120000 | 2.8 | | | | | | |
| **3.5** | 13900 | 418 | 86700 | 0.85 | | | | | | |
| **3.9** | 12400 | 374 | 89600 | 0.95 | **FA** | **127R87** | **DRN** | **132S4** | 495 | 432 |
| **4.7** | 10300 | 312 | 90000 | 1.15 | **FAF** | **127R87** | **DRN** | **132S4** | 530 | 432 |
| **5.0** | 9730 | 293 | 90000 | 1.25 | **F** | **127R87** | **DRN** | **132S4** | 530 | 432 |
| **5.6** | 8590 | 259 | 90000 | 1.40 | **FF** | **127R87** | **DRN** | **132S4** | 570 | 432 |
| **6.5** | 7410 | 223 | 90000 | 1.60 | | | | | | |
| | | | | | **FA** | **127R77** | **DRN** | **132S4** | 475 | 432 |
| **3.4** | 14300 | 428 | 85800 | 0.85 | **FAF** | **127R77** | **DRN** | **132S4** | 510 | 432 |
| **3.9** | 12600 | 376 | 89300 | 0.95 | **F** | **127R77** | **DRN** | **132S4** | 510 | 432 |
| | | | | | **FF** | **127R77** | **DRN** | **132S4** | 550 | 432 |
| **6.8** | 7740 | 215.37 | 49600 | 1.00 | **FA** | **107** | **DRN** | **132S4** | 285 | 419 |
| **7.3** | 7160 | 199.31 | 51200 | 1.05 | **FAF** | **107** | **DRN** | **132S4** | 305 | 418 |
| **8.2** | 6420 | 178.64 | 53000 | 1.20 | **F** | **107** | **DRN** | **132S4** | 300 | 417 |
| **9.1** | 5790 | 161.28* | 54500 | 1.30 | **FF** | **107** | **DRN** | **132S4** | 325 | 418 |
| **10.0** | 5260 | 146.49 | 55700 | 1.45 | | | | | | |
| **11** | 4670 | 129.97 | 57000 | 1.65 | | | | | | |
| **12** | 4230 | 117.94 | 57900 | 1.80 | **FA** | **107** | **DRN** | **132S4** | 285 | 419 |
| **14** | 3640 | 101.38* | 59100 | 2.1 | **FAF** | **107** | **DRN** | **132S4** | 305 | 418 |
| **16** | 3320 | 92.47* | 59800 | 2.3 | **F** | **107** | **DRN** | **132S4** | 300 | 417 |
| **17** | 3180 | 88.49 | 60000 | 2.4 | **FF** | **107** | **DRN** | **132S4** | 325 | 418 |
| **17** | 3010 | 83.99 | 60400 | 2.5 | | | | | | |
| | | | | | **FA** | **97** | **DRN** | **132S4** | 210 | 414 |
| **11** | 4580 | 127.42 | 29000 | 0.95 | **FAF** | **97** | **DRN** | **132S4** | 230 | 413 |
| **13** | 4060 | 112.99 | 30600 | 1.05 | **F** | **97** | **DRN** | **132S4** | 215 | 412 |
| **14** | 3670 | 102.16 | 31700 | 1.15 | **FF** | **97** | **DRN** | **132S4** | 250 | 413 |
| **15** | 3500 | 97.58 | 32100 | 1.25 | | | | | | |
| **16** | 3220 | 89.85 | 32800 | 1.35 | | | | | | |
| **17** | 3110 | 86.59 | 33100 | 1.40 | | | | | | |
| **18** | 2880 | 80.31 | 33600 | 1.50 | **FA** | **97** | **DRN** | **132S4** | 210 | 414 |
| **19** | 2710 | 75.63 | 33900 | 1.60 | **FAF** | **97** | **DRN** | **132S4** | 230 | 413 |
| **20** | 2590 | 72.29 | 34200 | 1.65 | **F** | **97** | **DRN** | **132S4** | 215 | 412 |
| **22** | 2350 | 65.47 | 34700 | 1.85 | **FF** | **97** | **DRN** | **132S4** | 250 | 413 |
| **25** | 2080 | 58.06 | 34400 | 2.1 | | | | | | |
| **28** | 1880 | 52.49 | 33700 | 2.3 | | | | | | |
| **17** | 3160 | 88.01 | 11900 | 0.95 | **FA** | **87** | **DRN** | **132S4** | 145 | 409 |
| **19** | 2740 | 76.39 | 21200 | 1.10 | **FAF** | **87** | **DRN** | **132S4** | 155 | 408 |
| **21** | 2450 | 68.40 | 21200 | 1.20 | **F** | **87** | **DRN** | **132S4** | 150 | 407 |
| **26** | 2040 | 56.75 | 21000 | 1.45 | **FF** | **87** | **DRN** | **132S4** | 165 | 408 |
| **29** | 1810 | 50.36 | 20700 | 1.60 | | | | | | |
| **32** | 1620 | 45.28 | 20500 | 1.75 | **FA** | **87** | **DRN** | **132S4** | 145 | 409 |
| **37** | 1410 | 39.30 | 20100 | 1.95 | **FAF** | **87** | **DRN** | **132S4** | 155 | 408 |
| **42** | 1260 | 35.19 | 19700 | 2.1 | **F** | **87** | **DRN** | **132S4** | 150 | 407 |
| **50** | 1040 | 29.20 | 19100 | 2.4 | **FF** | **87** | **DRN** | **132S4** | 165 | 408 |
| **43** | 1210 | 33.92 | 19600 | 2.1 | **FA** | **87** | **DRN** | **132S4** | 140 | 409 |
| **51** | 1030 | 28.78 | 19000 | 2.4 | **FAF** | **87** | **DRN** | **132S4** | 155 | 408 |
| **55** | 950 | 26.50 | 18700 | 3.2 | **F** | **87** | **DRN** | **132S4** | 145 | 407 |
| **62** | 850 | 23.68 | 18300 | 3.5 | **FF** | **87** | **DRN** | **132S4** | 160 | 408 |
| **30** | 1730 | 48.37 | 13900 | 0.85 | | | | | | |
| **34** | 1560 | 43.58 | 15300 | 0.95 | **FA** | **77** | **DRN** | **132S4** | 105 | 404 |
| **38** | 1370 | 38.23 | 16500 | 1.10 | **FAF** | **77** | **DRN** | **132S4** | 110 | 403 |
| **43** | 1210 | 33.74 | 17400 | 1.25 | **F** | **77** | **DRN** | **132S4** | 110 | 402 |
| **49** | 1070 | 29.91 | 18000 | 1.40 | **FF** | **77** | **DRN** | **132S4** | 120 | 403 |
| **57** | 910 | 25.54 | 18600 | 1.60 | | | | | | |



21284997/EN – 03/2015

## $P_m$ = 5.5 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **57** | 910 | 25.50* | 18600 | 1.65 | | | | | | |
| **68** | 770 | 21.43 | 19100 | 1.95 | | | | | | |
| **74** | 705 | 19.70 | 19200 | 2.1 | **FA** | **77** | **DRN** | **132S4** | 105 | 404 |
| **84** | 625 | 17.49 | 19400 | 2.4 | **FAF** | **77** | **DRN** | **132S4** | 110 | 403 |
| **93** | 560 | 15.64* | 19600 | 2.7 | **F** | **77** | **DRN** | **132S4** | 105 | 402 |
| **104** | 505 | 14.06 | 19200 | 3.0 | **FF** | **77** | **DRN** | **132S4** | 120 | 403 |
| **120** | 435 | 12.20 | 18500 | 3.4 | | | | | | |
| **66** | 790 | 22.05 | 10500 | 1.05 | | | | | | |
| **70** | 750 | 20.90* | 10900 | 1.10 | | | | | | |
| **80** | 655 | 18.29 | 11600 | 1.25 | | | | | | |
| **89** | 590 | 16.48 | 11900 | 1.40 | | | | | | |
| **101** | 515 | 14.46 | 12300 | 1.60 | | | | | | |
| **115** | 455 | 12.76 | 12600 | 1.80 | | | | | | |
| **129** | 405 | 11.31 | 12800 | 2.0 | **FA** | **67** | **DRN** | **132S4** | 81 | 399 |
| **151** | 345 | 9.66 | 12900 | 2.4 | **FAF** | **67** | **DRN** | **132S4** | 87 | 398 |
| **161** | 325 | 9.08 | 12400 | 1.60 | **F** | **67** | **DRN** | **132S4** | 84 | 397 |
| **170** | 305 | 8.60 | 12200 | 1.85 | **FF** | **67** | **DRN** | **132S4** | 90 | 398 |
| **194** | 270 | 7.53 | 11900 | 2.2 | | | | | | |
| **215** | 240 | 6.78 | 11600 | 2.5 | | | | | | |
| **246** | 210 | 5.95 | 11300 | 2.8 | | | | | | |
| **278** | 189 | 5.25 | 11000 | 3.1 | | | | | | |
| **314** | 167 | 4.66 | 10700 | 3.4 | | | | | | |
| **368** | 143 | 3.97 | 10300 | 3.5 | | | | | | |
| **87** | 600 | 16.81 | 5460 | 1.00 | | | | | | |
| **92** | 570 | 15.88 | 5490 | 1.05 | | | | | | |
| **108** | 485 | 13.52 | 5530 | 1.25 | | | | | | |
| **119** | 440 | 12.29 | 5530 | 1.35 | **FA** | **57** | **DRN** | **132S4** | 77 | 394 |
| **137** | 380 | 10.64 | 5500 | 1.55 | **FAF** | **57** | **DRN** | **132S4** | 83 | 393 |
| **178** | 290 | 8.19 | 5180 | 1.45 | **F** | **57** | **DRN** | **132S4** | 78 | 392 |
| **189** | 275 | 7.73 | 5150 | 1.50 | **FF** | **57** | **DRN** | **132S4** | 84 | 393 |
| **222** | 235 | 6.58 | 5060 | 1.75 | | | | | | |
| **244** | 215 | 5.98 | 4990 | 1.95 | | | | | | |
| **282** | 186 | 5.18 | 4880 | 2.2 | | | | | | |

## $P_m$ = 7.5 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **3.3** | 20200 | 446 | 93100 | 0.90 | | | | | | |
| **4.2** | 15800 | 353 | 106200 | 1.15 | | | | | | |
| **4.9** | 13600 | 302 | 111000 | 1.30 | **FA** | **157R97** | **DRN** | **132M4** | 830 | 432 |
| **5.4** | 12300 | 273 | 113500 | 1.45 | **FAF** | **157R97** | **DRN** | **132M4** | 890 | 432 |
| **6.3** | 10400 | 232 | 116600 | 1.75 | **F** | **157R97** | **DRN** | **132M4** | 850 | 432 |
| **7.3** | 9080 | 202 | 118500 | 2.00 | **FF** | **157R97** | **DRN** | **132M4** | 950 | 432 |
| **7.5** | 8840 | 197 | 118800 | 2.0 | | | | | | |
| **4.7** | 14100 | 312 | 86300 | 0.85 | | | | | | |
| **5.0** | 13200 | 293 | 88000 | 0.90 | **FA** | **127R87** | **DRN** | **132M4** | 510 | 432 |
| **5.7** | 11700 | 259 | 90000 | 1.00 | **FAF** | **127R87** | **DRN** | **132M4** | 550 | 432 |
| **6.6** | 10100 | 223 | 90000 | 1.20 | **F** | **127R87** | **DRN** | **132M4** | 550 | 432 |
| **7.4** | 8950 | 198 | 90000 | 1.35 | **FF** | **127R87** | **DRN** | **132M4** | 590 | 432 |
| **8.6** | 8330 | 170.83 | 90000 | 1.45 | **FA** | **127** | **DRN** | **132M4** | 445 | 424 |
| **9.6** | 7490 | 153.67* | 90000 | 1.60 | **FAF** | **127** | **DRN** | **132M4** | 485 | 423 |
| **12** | 6110 | 125.37 | 90000 | 1.95 | **F** | **127** | **DRN** | **132M4** | 480 | 422 |
| | | | | | **FF** | **127** | **DRN** | **132M4** | 530 | 423 |
| **8.2** | 8710 | 178.64 | 47000 | 0.90 | **FA** | **107** | **DRN** | **132M4** | 300 | 419 |
| **9.1** | 7860 | 161.28* | 49300 | 1.00 | **FAF** | **107** | **DRN** | **132M4** | 320 | 418 |
| **10** | 7140 | 146.49 | 51200 | 1.05 | **F** | **107** | **DRN** | **132M4** | 320 | 417 |
| **11** | 6340 | 129.97 | 53200 | 1.20 | **FF** | **107** | **DRN** | **132M4** | 345 | 418 |
| **12** | 5750 | 117.94 | 54600 | 1.35 | | | | | | |
| **14** | 4940 | 101.38* | 56400 | 1.55 | | | | | | |
| **16** | 4510 | 92.47* | 57400 | 1.70 | **FA** | **107** | **DRN** | **132M4** | 300 | 419 |
| **17** | 4310 | 88.49 | 57800 | 1.80 | **FAF** | **107** | **DRN** | **132M4** | 320 | 418 |
| **17** | 4090 | 83.99 | 58200 | 1.85 | **F** | **107** | **DRN** | **132M4** | 320 | 417 |
| **20** | 3630 | 74.52 | 59200 | 2.1 | **FF** | **107** | **DRN** | **132M4** | 345 | 418 |
| **22** | 3290 | 67.62 | 59800 | 2.3 | | | | | | |

21284997/EN – 03/2015

## $P_m$ = 7.5 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **15** | 4760 | 97.58 | 24600 | 0.90 | | | | | | |
| **16** | 4380 | 89.85 | 29600 | 1.00 | **FA** | **97** | **DRN** | **132M4** | 225 | 414 |
| **17** | 4220 | 86.59 | 30100 | 1.00 | **FAF** | **97** | **DRN** | **132M4** | 245 | 413 |
| **18** | 3910 | 80.31 | 31000 | 1.10 | **F** | **97** | **DRN** | **132M4** | 235 | 412 |
| **19** | 3680 | 75.63 | 31600 | 1.15 | **FF** | **97** | **DRN** | **132M4** | 265 | 413 |
| **20** | 3520 | 72.29 | 32000 | 1.20 | | | | | | |
| **22** | 3190 | 65.47 | 32200 | 1.35 | | | | | | |
| **25** | 2830 | 58.06 | 31700 | 1.50 | **FA** | **97** | **DRN** | **132M4** | 225 | 414 |
| **28** | 2560 | 52.49 | 31300 | 1.70 | **FAF** | **97** | **DRN** | **132M4** | 245 | 413 |
| **33** | 2170 | 44.49 | 30500 | 2.00 | **F** | **97** | **DRN** | **132M4** | 235 | 412 |
| **38** | 1890 | 38.86 | 29800 | 2.3 | **FF** | **97** | **DRN** | **132M4** | 265 | 413 |
| **45** | 1580 | 32.50 | 28800 | 2.7 | | | | | | |
| **34** | 2110 | 43.28 | 30400 | 1.45 | **FA** | **97** | **DRN** | **132M4** | 220 | 414 |
| **40** | 1780 | 36.64 | 29500 | 1.70 | **FAF** | **97** | **DRN** | **132M4** | 240 | 413 |
| **43** | 1650 | 33.91 | 29000 | 2.6 | **F** | **97** | **DRN** | **132M4** | 225 | 412 |
| **48** | 1480 | 30.39 | 28400 | 2.9 | **FF** | **97** | **DRN** | **132M4** | 260 | 413 |
| **26** | 2760 | 56.75 | 18100 | 1.10 | | | | | | |
| **29** | 2450 | 50.36 | 18200 | 1.20 | **FA** | **87** | **DRN** | **132M4** | 160 | 409 |
| **32** | 2200 | 45.28 | 18200 | 1.30 | **FAF** | **87** | **DRN** | **132M4** | 175 | 408 |
| **37** | 1910 | 39.30 | 18100 | 1.40 | **F** | **87** | **DRN** | **132M4** | 165 | 407 |
| **42** | 1710 | 35.19 | 17900 | 1.50 | **FF** | **87** | **DRN** | **132M4** | 185 | 408 |
| **50** | 1420 | 29.20 | 17600 | 1.75 | | | | | | |
| **51** | 1400 | 28.78 | 17500 | 1.75 | | | | | | |
| **55** | 1290 | 26.50 | 17400 | 2.3 | | | | | | |
| **62** | 1150 | 23.68 | 17100 | 2.6 | **FA** | **87** | **DRN** | **132M4** | 160 | 409 |
| **69** | 1040 | 21.32* | 16800 | 2.9 | **FAF** | **87** | **DRN** | **132M4** | 170 | 408 |
| **76** | 940 | 19.31 | 16500 | 3.2 | **F** | **87** | **DRN** | **132M4** | 165 | 407 |
| **86** | 830 | 17.12 | 16100 | 3.6 | **FF** | **87** | **DRN** | **132M4** | 180 | 408 |
| **95** | 755 | 15.48 | 15800 | 4.0 | | | | | | |
| **44** | 1640 | 33.74 | 14700 | 0.90 | **FA** | **77** | **DRN** | **132M4** | 125 | 404 |
| **49** | 1450 | 29.91 | 16000 | 1.05 | **FAF** | **77** | **DRN** | **132M4** | 130 | 403 |
| **57** | 1240 | 25.54 | 17200 | 1.15 | **F** | **77** | **DRN** | **132M4** | 125 | 402 |
| | | | | | **FF** | **77** | **DRN** | **132M4** | 135 | 403 |
| **58** | 1240 | 25.50* | 17200 | 1.20 | | | | | | |
| **68** | 1040 | 21.43 | 18100 | 1.45 | | | | | | |
| **75** | 960 | 19.70 | 18500 | 1.55 | | | | | | |
| **84** | 850 | 17.49 | 18800 | 1.75 | | | | | | |
| **94** | 760 | 15.64* | 18900 | 1.95 | | | | | | |
| **104** | 685 | 14.06 | 18500 | 2.2 | **FA** | **77** | **DRN** | **132M4** | 120 | 404 |
| **120** | 595 | 12.20 | 17900 | 2.5 | **FAF** | **77** | **DRN** | **132M4** | 130 | 403 |
| **134** | 530 | 10.93 | 17500 | 2.8 | **F** | **77** | **DRN** | **132M4** | 125 | 402 |
| **158** | 450 | 9.30 | 16400 | 2.4 | **FF** | **77** | **DRN** | **132M4** | 135 | 403 |
| **178** | 400 | 8.26 | 16000 | 2.7 | | | | | | |
| **199** | 360 | 7.39 | 15600 | 3.0 | | | | | | |
| **221** | 320 | 6.64 | 15300 | 3.3 | | | | | | |
| **255** | 280 | 5.76 | 14800 | 3.8 | | | | | | |
| **284** | 250 | 5.16 | 14400 | 4.3 | | | | | | |
| **343** | 205 | 4.28 | 13700 | 4.8 | | | | | | |

## $P_m$ = 9.2 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **4.2** | 19400 | 353 | 95600 | 0.90 | | | | | | |
| **4.9** | 16800 | 302 | 103600 | 1.05 | **FA** | **157R97** | **DRN** | **132L4** | 840 | 432 |
| **5.4** | 15100 | 273 | 107700 | 1.20 | **FAF** | **157R97** | **DRN** | **132L4** | 890 | 432 |
| **6.4** | 12800 | 232 | 112600 | 1.40 | **F** | **157R97** | **DRN** | **132L4** | 860 | 432 |
| **7.3** | 11100 | 202 | 115500 | 1.60 | **FF** | **157R97** | **DRN** | **132L4** | 960 | 432 |
| **7.5** | 10800 | 197 | 116000 | 1.65 | | | | | | |
| **5.7** | 14300 | 259 | 85800 | 0.85 | **FA** | **127R87** | **DRN** | **132L4** | 520 | 432 |
| **6.6** | 12400 | 223 | 89600 | 0.95 | **FAF** | **127R87** | **DRN** | **132L4** | 560 | 432 |
| **7.4** | 10900 | 198 | 90000 | 1.10 | **F** | **127R87** | **DRN** | **132L4** | 560 | 432 |
| | | | | | **FF** | **127R87** | **DRN** | **132L4** | 600 | 432 |

## $P_m$ = 9.2 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **8.6** | 10200 | 170.83 | 90000 | 1.20 | | | | | | |
| **9.6** | 9180 | 153.67* | 90000 | 1.30 | **FA** | **127** | **DRN** | **132L4** | 455 | 424 |
| **12** | 7490 | 125.37 | 90000 | 1.60 | **FAF** | **127** | **DRN** | **132L4** | 490 | 423 |
| **13** | 6830 | 114.34 | 90000 | 1.75 | **F** | **127** | **DRN** | **132L4** | 490 | 422 |
| **15** | 5910 | 98.95 | 90000 | 2.0 | **FF** | **127** | **DRN** | **132L4** | 540 | 423 |
| **10** | 8750 | 146.49 | 46800 | 0.90 | **FA** | **107** | **DRN** | **132L4** | 310 | 419 |
| **11** | 7760 | 129.97 | 49600 | 1.00 | **FAF** | **107** | **DRN** | **132L4** | 330 | 418 |
| **12** | 7040 | 117.94 | 51500 | 1.10 | **F** | **107** | **DRN** | **132L4** | 325 | 417 |
| **14** | 6050 | 101.38* | 53900 | 1.25 | **FF** | **107** | **DRN** | **132L4** | 355 | 418 |
| **16** | 5520 | 92.47* | 55100 | 1.40 | | | | | | |
| **18** | 5010 | 83.99 | 56300 | 1.55 | **FA** | **107** | **DRN** | **132L4** | 310 | 419 |
| **20** | 4450 | 74.52 | 57500 | 1.70 | **FAF** | **107** | **DRN** | **132L4** | 330 | 418 |
| **22** | 4040 | 67.62 | 58300 | 1.90 | **F** | **107** | **DRN** | **132L4** | 325 | 417 |
| **25** | 3470 | 58.12* | 58000 | 2.2 | **FF** | **107** | **DRN** | **132L4** | 355 | 418 |
| **29** | 3030 | 50.73 | 56500 | 2.5 | | | | | | |
| **18** | 4790 | 80.31 | 23100 | 0.90 | | | | | | |
| **19** | 4520 | 75.63 | 29200 | 0.95 | **FA** | **97** | **DRN** | **132L4** | 235 | 414 |
| **20** | 4320 | 72.29 | 29600 | 1.00 | **FAF** | **97** | **DRN** | **132L4** | 255 | 413 |
| **22** | 3910 | 65.47 | 29600 | 1.10 | **F** | **97** | **DRN** | **132L4** | 240 | 412 |
| **25** | 3460 | 58.06 | 29500 | 1.25 | **FF** | **97** | **DRN** | **132L4** | 275 | 413 |
| **28** | 3130 | 52.49 | 29300 | 1.35 | **FA** | **97** | **DRN** | **132L4** | 235 | 414 |
| **33** | 2650 | 44.49 | 28800 | 1.60 | **FAF** | **97** | **DRN** | **132L4** | 255 | 413 |
| **38** | 2320 | 38.86 | 28300 | 1.85 | **F** | **97** | **DRN** | **132L4** | 240 | 412 |
| **45** | 1940 | 32.50 | 27500 | 2.2 | **FF** | **97** | **DRN** | **132L4** | 275 | 413 |
| **43** | 2020 | 33.91 | 27700 | 2.1 | **FA** | **97** | **DRN** | **132L4** | 230 | 414 |
| **48** | 1810 | 30.39 | 27200 | 2.4 | **FAF** | **97** | **DRN** | **132L4** | 250 | 413 |
| **54** | 1630 | 27.44* | 26700 | 2.6 | **F** | **97** | **DRN** | **132L4** | 235 | 412 |
| **59** | 1480 | 24.92 | 26200 | 2.9 | **FF** | **97** | **DRN** | **132L4** | 270 | 413 |
| **29** | 3000 | 50.36 | 16000 | 1.00 | | | | | | |
| **32** | 2700 | 45.28 | 16300 | 1.05 | **FA** | **87** | **DRN** | **132L4** | 170 | 409 |
| **37** | 2340 | 39.30 | 16400 | 1.15 | **FAF** | **87** | **DRN** | **132L4** | 185 | 408 |
| **42** | 2100 | 35.19 | 16400 | 1.25 | **F** | **87** | **DRN** | **132L4** | 175 | 407 |
| **50** | 1740 | 29.20 | 16300 | 1.45 | **FF** | **87** | **DRN** | **132L4** | 190 | 408 |
| **55** | 1580 | 26.50 | 16200 | 1.90 | | | | | | |
| **62** | 1410 | 23.68 | 16000 | 2.1 | | | | | | |
| **69** | 1270 | 21.32* | 15900 | 2.4 | **FA** | **87** | **DRN** | **132L4** | 165 | 409 |
| **76** | 1150 | 19.31 | 15600 | 2.6 | **FAF** | **87** | **DRN** | **132L4** | 180 | 408 |
| **86** | 1020 | 17.12 | 15400 | 2.9 | **F** | **87** | **DRN** | **132L4** | 175 | 407 |
| **95** | 920 | 15.48 | 15100 | 3.2 | **FF** | **87** | **DRN** | **132L4** | 190 | 408 |
| **112** | 780 | 13.12* | 14600 | 3.8 | | | | | | |
| **75** | 1170 | 19.70 | 17600 | 1.25 | | | | | | |
| **84** | 1040 | 17.49 | 18100 | 1.45 | | | | | | |
| **94** | 930 | 15.64* | 18200 | 1.60 | | | | | | |
| **105** | 840 | 14.06 | 17900 | 1.80 | | | | | | |
| **120** | 725 | 12.20 | 17400 | 2.1 | | | | | | |
| **135** | 650 | 10.93 | 17100 | 2.3 | **FA** | **77** | **DRN** | **132L4** | 130 | 404 |
| **158** | 555 | 9.30 | 15900 | 1.95 | **FAF** | **77** | **DRN** | **132L4** | 135 | 403 |
| **178** | 490 | 8.26 | 15600 | 2.2 | **F** | **77** | **DRN** | **132L4** | 135 | 402 |
| **199** | 440 | 7.39 | 15200 | 2.4 | **FF** | **77** | **DRN** | **132L4** | 145 | 403 |
| **221** | 395 | 6.64 | 14900 | 2.7 | | | | | | |
| **255** | 340 | 5.76 | 14500 | 3.1 | | | | | | |
| **285** | 305 | 5.16 | 14100 | 3.5 | | | | | | |
| **343** | 255 | 4.28 | 13500 | 4.0 | | | | | | |

## $P_m$ = 11.0 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **4.9** | 20000 | 302 | 93500 | 0.90 | | | | | | |
| **5.4** | 18100 | 273 | 99800 | 1.00 | **FA** | **157R97** | **DRN** | **160M4** | 870 | 432 |
| **6.4** | 15300 | 232 | 107300 | 1.15 | **FAF** | **157R97** | **DRN** | **160M4** | 930 | 432 |
| **7.3** | 13300 | 202 | 111600 | 1.35 | **F** | **157R97** | **DRN** | **160M4** | 890 | 432 |
| **7.5** | 13000 | 197 | 112300 | 1.40 | **FF** | **157R97** | **DRN** | **160M4** | 1000 | 432 |

21284997/EN – 03/2015

## $P_m$ = 11.0 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **6.6** | 14800 | 223 | 84800 | 0.80 | **FA** | **127R87** | **DRN** | **160M4** | 550 | 432 |
| **7.5** | 13100 | 198 | 88300 | 0.90 | **FAF** | **127R87** | **DRN** | **160M4** | 590 | 432 |
| **8.9** | 11000 | 166 | 90000 | 1.10 | **F** | **127R87** | **DRN** | **160M4** | 590 | 432 |
| | | | | | **FF** | **127R87** | **DRN** | **160M4** | 630 | 432 |
| **5.5** | 19000 | 267.43 | 96900 | 0.95 | | | | | | |
| **6.8** | 15500 | 217.62* | 106900 | 1.15 | | | | | | |
| **8.3** | 12700 | 178.20* | 112800 | 1.40 | | | | | | |
| **9.0** | 11600 | 162.96 | 114800 | 1.55 | | | | | | |
| **10** | 10100 | 141.80* | 117100 | 1.80 | **FA** | **157** | **DRN** | **160M4** | 740 | 429 |
| **12** | 8920 | 125.14 | 118700 | 2.0 | **FAF** | **157** | **DRN** | **160M4** | 800 | 428 |
| **14** | 7730 | 108.49 | 120000 | 2.3 | **F** | **157** | **DRN** | **160M4** | 760 | 427 |
| **15** | 6880 | 96.53* | 120000 | 2.6 | **FF** | **157** | **DRN** | **160M4** | 870 | 428 |
| **17** | 6110 | 85.80* | 117500 | 2.9 | | | | | | |
| **19** | 5590 | 78.46 | 115100 | 3.2 | | | | | | |
| **22** | 4860 | 68.28* | 111400 | 3.7 | | | | | | |
| **8.6** | 12100 | 170.83 | 90000 | 1.00 | | | | | | |
| **9.6** | 10900 | 153.67* | 90000 | 1.10 | | | | | | |
| **12** | 8940 | 125.37 | 90000 | 1.35 | **FA** | **127** | **DRN** | **160M4** | 485 | 424 |
| **13** | 8150 | 114.34 | 90000 | 1.45 | **FAF** | **127** | **DRN** | **160M4** | 520 | 423 |
| **15** | 7050 | 98.95 | 90000 | 1.70 | **F** | **127** | **DRN** | **160M4** | 520 | 422 |
| **17** | 6220 | 87.31* | 90000 | 1.95 | **FF** | **127** | **DRN** | **160M4** | 570 | 423 |
| **20** | 5370 | 75.41* | 88300 | 2.2 | | | | | | |
| **12** | 8410 | 117.94 | 47800 | 0.90 | **FA** | **107** | **DRN** | **160M4** | 340 | 419 |
| **15** | 7220 | 101.38* | 51000 | 1.05 | **FAF** | **107** | **DRN** | **160M4** | 365 | 418 |
| **16** | 6590 | 92.47* | 52600 | 1.15 | **F** | **107** | **DRN** | **160M4** | 360 | 417 |
| | | | | | **FF** | **107** | **DRN** | **160M4** | 385 | 418 |
| **18** | 5980 | 83.99 | 54100 | 1.30 | | | | | | |
| **20** | 5310 | 74.52 | 55600 | 1.45 | **FA** | **107** | **DRN** | **160M4** | 340 | 419 |
| **22** | 4820 | 67.62 | 56700 | 1.60 | **FAF** | **107** | **DRN** | **160M4** | 365 | 418 |
| **25** | 4140 | 58.12* | 56200 | 1.85 | **F** | **107** | **DRN** | **160M4** | 360 | 417 |
| **29** | 3610 | 50.73 | 54900 | 2.1 | **FF** | **107** | **DRN** | **160M4** | 385 | 418 |
| **34** | 3060 | 43.03 | 53300 | 2.5 | | | | | | |
| **44** | 2400 | 33.79* | 50700 | 3.1 | **FA** | **107** | **DRN** | **160M4** | 330 | 419 |
| **53** | 1960 | 27.57 | 48500 | 4.0 | **FAF** | **107** | **DRN** | **160M4** | 355 | 418 |
| **59** | 1790 | 25.14 | 47500 | 4.4 | **F** | **107** | **DRN** | **160M4** | 350 | 417 |
| | | | | | **FF** | **107** | **DRN** | **160M4** | 375 | 418 |
| **22** | 4660 | 65.47 | 26900 | 0.90 | **FA** | **97** | **DRN** | **160M4** | 265 | 414 |
| **25** | 4140 | 58.06 | 27100 | 1.05 | **FAF** | **97** | **DRN** | **160M4** | 290 | 413 |
| **28** | 3740 | 52.49 | 27100 | 1.15 | **F** | **97** | **DRN** | **160M4** | 275 | 412 |
| | | | | | **FF** | **97** | **DRN** | **160M4** | 305 | 413 |
| **33** | 3170 | 44.49 | 26900 | 1.35 | **FA** | **97** | **DRN** | **160M4** | 265 | 414 |
| **38** | 2770 | 38.86 | 26700 | 1.55 | **FAF** | **97** | **DRN** | **160M4** | 290 | 413 |
| **45** | 2310 | 32.50 | 26200 | 1.85 | **F** | **97** | **DRN** | **160M4** | 275 | 412 |
| | | | | | **FF** | **97** | **DRN** | **160M4** | 305 | 413 |
| **43** | 2410 | 33.91 | 26300 | 1.80 | | | | | | |
| **48** | 2160 | 30.39 | 25900 | 2.00 | **FA** | **97** | **DRN** | **160M4** | 260 | 414 |
| **54** | 1950 | 27.44* | 25500 | 2.2 | **FAF** | **97** | **DRN** | **160M4** | 285 | 413 |
| **59** | 1770 | 24.92 | 25200 | 2.4 | **F** | **97** | **DRN** | **160M4** | 270 | 412 |
| **67** | 1570 | 22.11 | 24600 | 2.7 | **FF** | **97** | **DRN** | **160M4** | 300 | 413 |
| **37** | 2800 | 39.30 | 14600 | 0.95 | **FA** | **87** | **DRN** | **160M4** | 200 | 409 |
| **42** | 2500 | 35.19 | 14800 | 1.05 | **FAF** | **87** | **DRN** | **160M4** | 215 | 408 |
| **50** | 2080 | 29.20 | 15000 | 1.20 | **F** | **87** | **DRN** | **160M4** | 210 | 407 |
| | | | | | **FF** | **87** | **DRN** | **160M4** | 225 | 408 |
| **56** | 1880 | 26.50 | 15000 | 1.60 | | | | | | |
| **62** | 1680 | 23.68 | 15000 | 1.80 | | | | | | |
| **69** | 1520 | 21.32* | 14900 | 1.95 | **FA** | **87** | **DRN** | **160M4** | 200 | 409 |
| **76** | 1370 | 19.31 | 14800 | 2.2 | **FAF** | **87** | **DRN** | **160M4** | 210 | 408 |
| **86** | 1220 | 17.12 | 14600 | 2.5 | **F** | **87** | **DRN** | **160M4** | 205 | 407 |
| **95** | 1100 | 15.48 | 14400 | 2.7 | **FF** | **87** | **DRN** | **160M4** | 220 | 408 |
| **112** | 930 | 13.12* | 14000 | 3.2 | | | | | | |



21284997/EN – 03/2015

## $P_m$ = 11.0 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **75** | 1400 | 19.70 | 16300 | 1.05 | | | | | | |
| **84** | 1240 | 17.49 | 17200 | 1.20 | | | | | | |
| **94** | 1110 | 15.64* | 17600 | 1.35 | | | | | | |
| **105** | 1000 | 14.06 | 17300 | 1.50 | | | | | | |
| **121** | 870 | 12.20 | 16900 | 1.70 | | | | | | |
| **135** | 775 | 10.93 | 16600 | 1.90 | **FA** | **77** | **DRN** | **160M4** | 160 | 404 |
| **158** | 660 | 9.30 | 15400 | 1.65 | **FAF** | **77** | **DRN** | **160M4** | 170 | 403 |
| **178** | 585 | 8.26 | 15100 | 1.85 | **F** | **77** | **DRN** | **160M4** | 165 | 402 |
| **199** | 525 | 7.39 | 14800 | 2.0 | **FF** | **77** | **DRN** | **160M4** | 175 | 403 |
| **222** | 470 | 6.64 | 14500 | 2.3 | | | | | | |
| **256** | 410 | 5.76 | 14100 | 2.6 | | | | | | |
| **285** | 365 | 5.16 | 13800 | 2.9 | | | | | | |
| **344** | 305 | 4.28 | 13300 | 3.3 | | | | | | |

## $P_m$ = 15.0 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **6.4** | 20900 | 232 | 90200 | 0.85 | **FA** | **157R97** | **DRN** | **160L4** | 880 | 432 |
| **7.3** | 18200 | 202 | 99400 | 1.00 | **FAF** | **157R97** | **DRN** | **160L4** | 940 | 432 |
| **7.5** | 17700 | 197 | 100900 | 1.00 | **F** | **157R97** | **DRN** | **160L4** | 900 | 432 |
| | | | | | **FF** | **157R97** | **DRN** | **160L4** | 1010 | 432 |
| **6.8** | 21100 | 217.62* | 89600 | 0.85 | | | | | | |
| **8.3** | 17300 | 178.20* | 102200 | 1.05 | | | | | | |
| **9.0** | 15800 | 162.96 | 106100 | 1.15 | | | | | | |
| **10** | 13700 | 141.80* | 110800 | 1.30 | | | | | | |
| **12** | 12100 | 125.14 | 113800 | 1.50 | **FA** | **157** | **DRN** | **160L4** | 760 | 429 |
| **14** | 10500 | 108.49 | 116500 | 1.70 | **FAF** | **157** | **DRN** | **160L4** | 810 | 428 |
| **15** | 9380 | 96.53* | 115600 | 1.90 | **F** | **157** | **DRN** | **160L4** | 780 | 427 |
| **17** | 8330 | 85.80* | 113000 | 2.2 | **FF** | **157** | **DRN** | **160L4** | 880 | 428 |
| **19** | 7620 | 78.46 | 111000 | 2.4 | | | | | | |
| **22** | 6630 | 68.28* | 107800 | 2.7 | | | | | | |
| **24** | 5850 | 60.25 | 104900 | 3.1 | | | | | | |
| **12** | 12100 | 125.37 | 88900 | 1.00 | | | | | | |
| **13** | 11100 | 114.34 | 88300 | 1.10 | **FA** | **127** | **DRN** | **160L4** | 500 | 424 |
| **15** | 9610 | 98.95 | 86900 | 1.25 | **FAF** | **127** | **DRN** | **160L4** | 540 | 423 |
| **17** | 8480 | 87.31* | 85500 | 1.40 | **F** | **127** | **DRN** | **160L4** | 540 | 422 |
| **20** | 7320 | 75.41* | 83700 | 1.65 | **FF** | **127** | **DRN** | **160L4** | 580 | 423 |
| **21** | 6800 | 70.07 | 82700 | 1.75 | | | | | | |
| **16** | 8980 | 92.47* | 46200 | 0.85 | | | | | | |
| **17** | 8590 | 88.49 | 47300 | 0.90 | **FA** | **107** | **DRN** | **160L4** | 360 | 419 |
| **18** | 8160 | 83.99 | 48500 | 0.95 | **FAF** | **107** | **DRN** | **160L4** | 380 | 418 |
| **20** | 7240 | 74.52 | 51000 | 1.05 | **F** | **107** | **DRN** | **160L4** | 375 | 417 |
| **22** | 6570 | 67.62 | 52700 | 1.15 | **FF** | **107** | **DRN** | **160L4** | 400 | 418 |
| **25** | 5640 | 58.12* | 52200 | 1.35 | | | | | | |
| **29** | 4930 | 50.73 | 51400 | 1.55 | **FA** | **107** | **DRN** | **160L4** | 360 | 419 |
| **34** | 4180 | 43.03 | 50300 | 1.85 | **FAF** | **107** | **DRN** | **160L4** | 380 | 418 |
| **39** | 3650 | 37.61 | 49300 | 2.1 | **F** | **107** | **DRN** | **160L4** | 375 | 417 |
| **46** | 3090 | 31.80 | 47900 | 2.5 | **FF** | **107** | **DRN** | **160L4** | 400 | 418 |
| **44** | 3280 | 33.79* | 48400 | 2.2 | **FA** | **107** | **DRN** | **160L4** | 350 | 419 |
| **53** | 2670 | 27.57 | 46600 | 2.9 | **FAF** | **107** | **DRN** | **160L4** | 370 | 418 |
| **59** | 2440 | 25.14 | 45800 | 3.2 | **F** | **107** | **DRN** | **160L4** | 365 | 417 |
| **68** | 2110 | 21.76* | 44400 | 3.7 | **FF** | **107** | **DRN** | **160L4** | 390 | 418 |
| **33** | 4320 | 44.49 | 22900 | 1.00 | **FA** | **97** | **DRN** | **160L4** | 285 | 414 |
| **38** | 3770 | 38.86 | 23100 | 1.15 | **FAF** | **97** | **DRN** | **160L4** | 305 | 413 |
| **45** | 3150 | 32.50 | 23200 | 1.35 | **F** | **97** | **DRN** | **160L4** | 290 | 412 |
| | | | | | **FF** | **97** | **DRN** | **160L4** | 325 | 413 |

21284997/EN – 03/2015

## $P_m$ = 15.0 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **43** | 3290 | 33.91 | 23200 | 1.30 | | | | | | |
| **48** | 2950 | 30.39 | 23200 | 1.45 | | | | | | |
| **54** | 2660 | 27.44* | 23000 | 1.60 | | | | | | |
| **59** | 2420 | 24.92 | 22900 | 1.80 | **FA** | **97** | **DRN** | **160L4** | 275 | 414 |
| **67** | 2140 | 22.11 | 22600 | 2.0 | **FAF** | **97** | **DRN** | **160L4** | 300 | 413 |
| **73** | 1950 | 20.07 | 22400 | 2.2 | **F** | **97** | **DRN** | **160L4** | 285 | 412 |
| **85** | 1670 | 17.25* | 21900 | 2.6 | **FF** | **97** | **DRN** | **160L4** | 315 | 413 |
| **98** | 1460 | 15.06 | 21400 | 2.9 | | | | | | |
| **115** | 1240 | 12.77 | 20800 | 3.5 | | | | | | |
| **132** | 1080 | 11.16 | 20200 | 3.8 | | | | | | |
| **56** | 2570 | 26.50 | 12400 | 1.15 | | | | | | |
| **62** | 2300 | 23.68 | 12600 | 1.30 | | | | | | |
| **69** | 2070 | 21.32* | 12800 | 1.45 | | | | | | |
| **76** | 1870 | 19.31 | 12800 | 1.60 | | | | | | |
| **86** | 1660 | 17.12 | 12900 | 1.80 | | | | | | |
| **95** | 1500 | 15.48 | 12800 | 2.00 | | | | | | |
| **112** | 1270 | 13.12* | 12700 | 2.4 | **FA** | **87** | **DRN** | **160L4** | 215 | 409 |
| **129** | 1110 | 11.46 | 12600 | 2.7 | **FAF** | **87** | **DRN** | **160L4** | 230 | 408 |
| **154** | 930 | 9.58 | 12300 | 3.1 | **F** | **87** | **DRN** | **160L4** | 220 | 407 |
| **178** | 800 | 8.29 | 11700 | 1.90 | **FF** | **87** | **DRN** | **160L4** | 235 | 408 |
| **200** | 710 | 7.35 | 11500 | 2.1 | | | | | | |
| **222** | 645 | 6.65 | 11300 | 2.4 | | | | | | |
| **262** | 545 | 5.63 | 11000 | 2.8 | | | | | | |
| **300** | 475 | 4.92 | 10700 | 3.2 | | | | | | |
| **358** | 395 | 4.12 | 10300 | 3.6 | | | | | | |

## $P_m$ = 18.5 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | **FA** | **157R97** | **DRN** | **180M4** | 910 | 432 |
| **7.3** | 22500 | 202 | 74900 | 0.80 | **FAF** | **157R97** | **DRN** | **180M4** | 960 | 432 |
| **7.5** | 21900 | 197 | 86400 | 0.80 | **F** | **157R97** | **DRN** | **180M4** | 930 | 432 |
| | | | | | **FF** | **157R97** | **DRN** | **180M4** | 1030 | 432 |
| **8.3** | 21200 | 178.20* | 89000 | 0.85 | | | | | | |
| **9.1** | 19400 | 162.96 | 95600 | 0.90 | | | | | | |
| **10** | 16900 | 141.80* | 103200 | 1.05 | | | | | | |
| **12** | 14900 | 125.14 | 108200 | 1.20 | | | | | | |
| **14** | 12900 | 108.49 | 112400 | 1.40 | **FA** | **157** | **DRN** | **180M4** | 780 | 429 |
| **15** | 11500 | 96.53* | 111200 | 1.55 | **FAF** | **157** | **DRN** | **180M4** | 840 | 428 |
| **17** | 10200 | 85.80* | 109100 | 1.75 | **F** | **157** | **DRN** | **180M4** | 800 | 427 |
| **19** | 9370 | 78.46 | 107400 | 1.90 | **FF** | **157** | **DRN** | **180M4** | 910 | 428 |
| **22** | 8160 | 68.28* | 104700 | 2.2 | | | | | | |
| **25** | 7200 | 60.25 | 102100 | 2.5 | | | | | | |
| **28** | 6240 | 52.24 | 99200 | 2.9 | | | | | | |
| **13** | 13600 | 114.34 | 82200 | 0.90 | | | | | | |
| **15** | 11800 | 98.95 | 81600 | 1.00 | | | | | | |
| **17** | 10400 | 87.31* | 80900 | 1.15 | **FA** | **127** | **DRN** | **180M4** | 520 | 424 |
| **20** | 9010 | 75.41* | 79700 | 1.35 | **FAF** | **127** | **DRN** | **180M4** | 560 | 423 |
| **21** | 8370 | 70.07 | 79000 | 1.45 | **F** | **127** | **DRN** | **180M4** | 560 | 422 |
| **23** | 7630 | 63.91 | 78000 | 1.55 | **FF** | **127** | **DRN** | **180M4** | 600 | 423 |
| **27** | 6610 | 55.31 | 76300 | 1.80 | | | | | | |
| **30** | 5830 | 48.80 | 74800 | 2.1 | | | | | | |
| **20** | 8900 | 74.52 | 46400 | 0.85 | **FA** | **107** | **DRN** | **180M4** | 380 | 419 |
| **22** | 8080 | 67.62 | 48700 | 0.95 | **FAF** | **107** | **DRN** | **180M4** | 400 | 418 |
| **25** | 6940 | 58.12* | 48700 | 1.10 | **F** | **107** | **DRN** | **180M4** | 395 | 417 |
| **29** | 6060 | 50.73 | 48400 | 1.25 | **FF** | **107** | **DRN** | **180M4** | 425 | 418 |
| | | | | | **FA** | **107** | **DRN** | **180M4** | 380 | 419 |
| **34** | 5140 | 43.03 | 47700 | 1.50 | **FAF** | **107** | **DRN** | **180M4** | 400 | 418 |
| **39** | 4490 | 37.61 | 47000 | 1.70 | **F** | **107** | **DRN** | **180M4** | 395 | 417 |
| **46** | 3800 | 31.80 | 45900 | 2.0 | **FF** | **107** | **DRN** | **180M4** | 425 | 418 |
| **44** | 4030 | 33.79* | 46300 | 1.85 | **FA** | **107** | **DRN** | **180M4** | 370 | 419 |
| **54** | 3290 | 27.57 | 44900 | 2.4 | **FAF** | **107** | **DRN** | **180M4** | 390 | 418 |
| **59** | 3000 | 25.14 | 44200 | 2.6 | **F** | **107** | **DRN** | **180M4** | 385 | 417 |
| **68** | 2600 | 21.76* | 43100 | 3.0 | **FF** | **107** | **DRN** | **180M4** | 415 | 418 |

21284997/EN – 03/2015

## $P_m$ = 18.5 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | **FA** | **97** | **DRN** | **180M4** | 305 | 414 |
| **38** | 4640 | 38.86 | 20100 | 0.95 | **FAF** | **97** | **DRN** | **180M4** | 325 | 413 |
| **45** | 3880 | 32.50 | 20600 | 1.10 | **F** | **97** | **DRN** | **180M4** | 310 | 412 |
| | | | | | **FF** | **97** | **DRN** | **180M4** | 345 | 413 |
| **54** | 3270 | 27.44* | 20900 | 1.30 | | | | | | |
| **59** | 2970 | 24.92 | 20900 | 1.45 | | | | | | |
| **67** | 2640 | 22.11 | 20900 | 1.65 | **FA** | **97** | **DRN** | **180M4** | 300 | 414 |
| **74** | 2390 | 20.07 | 20800 | 1.80 | **FAF** | **97** | **DRN** | **180M4** | 320 | 413 |
| **86** | 2060 | 17.25* | 20500 | 2.1 | **F** | **97** | **DRN** | **180M4** | 305 | 412 |
| **98** | 1790 | 15.06 | 20200 | 2.4 | **FF** | **97** | **DRN** | **180M4** | 340 | 413 |
| **116** | 1520 | 12.77 | 19700 | 2.8 | | | | | | |
| **132** | 1330 | 11.16 | 19300 | 3.1 | | | | | | |
| **69** | 2540 | 21.32* | 10900 | 1.20 | | | | | | |
| **77** | 2300 | 19.31 | 11100 | 1.30 | | | | | | |
| **86** | 2040 | 17.12 | 11400 | 1.45 | | | | | | |
| **95** | 1850 | 15.48 | 11500 | 1.60 | | | | | | |
| **113** | 1560 | 13.12* | 11600 | 1.90 | | | | | | |
| **129** | 1360 | 11.46 | 11600 | 2.2 | **FA** | **87** | **DRN** | **180M4** | 235 | 409 |
| **154** | 1140 | 9.58 | 11500 | 2.5 | **FAF** | **87** | **DRN** | **180M4** | 250 | 408 |
| **178** | 990 | 8.29 | 10900 | 1.55 | **F** | **87** | **DRN** | **180M4** | 245 | 407 |
| **201** | 870 | 7.35 | 10800 | 1.75 | **FF** | **87** | **DRN** | **180M4** | 260 | 408 |
| **222** | 790 | 6.65 | 10700 | 1.95 | | | | | | |
| **262** | 670 | 5.63 | 10400 | 2.3 | | | | | | |
| **300** | 585 | 4.92 | 10200 | 2.6 | | | | | | |
| **359** | 490 | 4.12 | 9890 | 3.0 | | | | | | |

## $P_m$ = 22 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **10** | 20100 | 141.80* | 93200 | 0.90 | | | | | | |
| **12** | 17700 | 125.14 | 100900 | 1.00 | | | | | | |
| **14** | 15400 | 108.49 | 107100 | 1.15 | | | | | | |
| **15** | 13700 | 96.53* | 106800 | 1.30 | | | | | | |
| **17** | 12200 | 85.80* | 105200 | 1.45 | **FA** | **157** | **DRN** | **180L4** | 790 | 429 |
| **19** | 11100 | 78.46 | 103900 | 1.60 | **FAF** | **157** | **DRN** | **180L4** | 850 | 428 |
| **22** | 9710 | 68.28* | 101600 | 1.85 | **F** | **157** | **DRN** | **180L4** | 820 | 427 |
| **25** | 8570 | 60.25 | 99400 | 2.1 | **FF** | **157** | **DRN** | **180L4** | 920 | 428 |
| **28** | 7420 | 52.24 | 96800 | 2.4 | | | | | | |
| **32** | 6610 | 46.48* | 94600 | 2.7 | | | | | | |
| **37** | 5690 | 40.06 | 91700 | 3.2 | | | | | | |
| **45** | 4620 | 32.55 | 87600 | 3.9 | | | | | | |
| **15** | 14000 | 98.95 | 76400 | 0.85 | | | | | | |
| **17** | 12400 | 87.31* | 76300 | 0.95 | | | | | | |
| **20** | 10700 | 75.41* | 75700 | 1.10 | **FA** | **127** | **DRN** | **180L4** | 540 | 424 |
| **21** | 9960 | 70.07 | 75300 | 1.20 | **FAF** | **127** | **DRN** | **180L4** | 580 | 423 |
| **23** | 9080 | 63.91 | 74600 | 1.30 | **F** | **127** | **DRN** | **180L4** | 580 | 422 |
| **27** | 7860 | 55.31 | 73400 | 1.55 | **FF** | **127** | **DRN** | **180L4** | 620 | 423 |
| **30** | 6940 | 48.80 | 72200 | 1.75 | | | | | | |
| **35** | 5990 | 42.15 | 70600 | 2.0 | | | | | | |
| **25** | 8260 | 58.12* | 45200 | 0.95 | **FA** | **107** | **DRN** | **180L4** | 395 | 419 |
| **29** | 7210 | 50.73 | 45300 | 1.05 | **FAF** | **107** | **DRN** | **180L4** | 415 | 418 |
| **34** | 6120 | 43.03 | 45100 | 1.25 | **F** | **107** | **DRN** | **180L4** | 410 | 417 |
| | | | | | **FF** | **107** | **DRN** | **180L4** | 440 | 418 |
| | | | | | **FA** | **107** | **DRN** | **180L4** | 395 | 419 |
| **39** | 5340 | 37.61 | 44700 | 1.45 | **FAF** | **107** | **DRN** | **180L4** | 415 | 418 |
| **46** | 4520 | 31.80 | 44000 | 1.70 | **F** | **107** | **DRN** | **180L4** | 410 | 417 |
| | | | | | **FF** | **107** | **DRN** | **180L4** | 440 | 418 |
| **44** | 4800 | 33.79* | 44300 | 1.55 | | | | | | |
| **54** | 3920 | 27.57 | 43300 | 2.0 | **FA** | **107** | **DRN** | **180L4** | 385 | 419 |
| **59** | 3570 | 25.14 | 42700 | 2.2 | **FAF** | **107** | **DRN** | **180L4** | 405 | 418 |
| **68** | 3090 | 21.76* | 41800 | 2.5 | **F** | **107** | **DRN** | **180L4** | 400 | 417 |
| **77** | 2730 | 19.20* | 40900 | 2.9 | **FF** | **107** | **DRN** | **180L4** | 430 | 418 |

21284997/EN – 03/2015

## $P_m$ = 22 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **54** | 3900 | 27.44* | 18700 | 1.10 | | | | | | |
| **59** | 3540 | 24.92 | 18900 | 1.20 | | | | | | |
| **67** | 3140 | 22.11 | 19100 | 1.35 | **FA** | **97** | **DRN** | **180L4** | 315 | 414 |
| **74** | 2850 | 20.07 | 19200 | 1.50 | **FAF** | **97** | **DRN** | **180L4** | 335 | 413 |
| **86** | 2450 | 17.25* | 19100 | 1.75 | **F** | **97** | **DRN** | **180L4** | 320 | 412 |
| **98** | 2140 | 15.06 | 19000 | 2.0 | **FF** | **97** | **DRN** | **180L4** | 355 | 413 |
| **116** | 1810 | 12.77 | 18700 | 2.4 | | | | | | |
| **132** | 1580 | 11.16 | 18400 | 2.6 | | | | | | |
| **69** | 3030 | 21.32* | 9030 | 1.00 | | | | | | |
| **76** | 2740 | 19.31 | 9460 | 1.10 | | | | | | |
| **86** | 2430 | 17.12 | 9870 | 1.25 | | | | | | |
| **95** | 2200 | 15.48 | 10100 | 1.35 | | | | | | |
| **113** | 1860 | 13.12* | 10400 | 1.60 | | | | | | |
| **129** | 1620 | 11.46 | 10600 | 1.85 | **FA** | **87** | **DRN** | **180L4** | 255 | 409 |
| **154** | 1360 | 9.58 | 10600 | 2.1 | **FAF** | **87** | **DRN** | **180L4** | 265 | 408 |
| **178** | 1170 | 8.29 | 10100 | 1.30 | **F** | **87** | **DRN** | **180L4** | 260 | 407 |
| **201** | 1040 | 7.35 | 10100 | 1.45 | **FF** | **87** | **DRN** | **180L4** | 275 | 408 |
| **222** | 940 | 6.65 | 10000 | 1.60 | | | | | | |
| **262** | 800 | 5.63 | 9890 | 1.90 | | | | | | |
| **300** | 695 | 4.92 | 9740 | 2.2 | | | | | | |
| **359** | 585 | 4.12 | 9490 | 2.5 | | | | | | |

## $P_m$ = 30 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **14** | 21000 | 108.49 | 90100 | 0.85 | | | | | | |
| **15** | 18600 | 96.53* | 96900 | 0.95 | | | | | | |
| **17** | 16600 | 85.80* | 96400 | 1.10 | | | | | | |
| **19** | 15100 | 78.46 | 95800 | 1.20 | **FA** | **157** | **DRN** | **200L4** | 900 | 429 |
| **22** | 13200 | 68.28* | 94500 | 1.35 | **FAF** | **157** | **DRN** | **200L4** | 960 | 428 |
| **25** | 11600 | 60.25 | 93200 | 1.55 | **F** | **157** | **DRN** | **200L4** | 920 | 427 |
| **28** | 10100 | 52.24 | 91400 | 1.80 | **FF** | **157** | **DRN** | **200L4** | 1030 | 428 |
| **32** | 8990 | 46.48* | 89800 | 2.0 | | | | | | |
| **37** | 7750 | 40.06 | 87600 | 2.3 | | | | | | |
| **20** | 14500 | 75.41* | 64600 | 0.80 | | | | | | |
| **21** | 13500 | 70.07 | 65700 | 0.90 | | | | | | |
| **23** | 12300 | 63.91 | 66800 | 0.95 | | | | | | |
| **27** | 10700 | 55.31 | 66700 | 1.10 | **FA** | **127** | **DRN** | **200L4** | 650 | 424 |
| **30** | 9440 | 48.80 | 66300 | 1.25 | **FAF** | **127** | **DRN** | **200L4** | 690 | 423 |
| **35** | 8150 | 42.15 | 65500 | 1.45 | **F** | **127** | **DRN** | **200L4** | 680 | 422 |
| **40** | 7210 | 37.28 | 64600 | 1.65 | **FF** | **127** | **DRN** | **200L4** | 730 | 423 |
| **47** | 6060 | 31.33 | 63200 | 2.00 | | | | | | |
| **58** | 4890 | 25.30 | 61100 | 2.4 | | | | | | |
| **55** | 5200 | 26.86 | 61700 | 1.65 | **FA** | **127** | **DRN** | **200L4** | 640 | 424 |
| **60** | 4750 | 24.57 | 60800 | 1.80 | **FAF** | **127** | **DRN** | **200L4** | 670 | 423 |
| **69** | 4130 | 21.38 | 59300 | 2.9 | **F** | **127** | **DRN** | **200L4** | 670 | 422 |
| **78** | 3650 | 18.87 | 57900 | 3.0 | **FF** | **127** | **DRN** | **200L4** | 720 | 423 |
| **34** | 8320 | 43.03 | 39200 | 0.90 | **FA** | **107** | **DRN** | **200L4** | 500 | 419 |
| **39** | 7280 | 37.61 | 39600 | 1.05 | **FAF** | **107** | **DRN** | **200L4** | 530 | 418 |
| **47** | 6150 | 31.80 | 39700 | 1.25 | **F** | **107** | **DRN** | **200L4** | 520 | 417 |
| | | | | | **FF** | **107** | **DRN** | **200L4** | 550 | 418 |
| **54** | 5330 | 27.57 | 39500 | 1.45 | | | | | | |
| **59** | 4860 | 25.14 | 39300 | 1.60 | | | | | | |
| **68** | 4210 | 21.76* | 38800 | 1.85 | **FA** | **107** | **DRN** | **200L4** | 495 | 419 |
| **77** | 3710 | 19.20* | 38300 | 2.1 | **FAF** | **107** | **DRN** | **200L4** | 520 | 418 |
| **89** | 3200 | 16.58 | 37500 | 2.4 | **F** | **107** | **DRN** | **200L4** | 510 | 417 |
| **101** | 2830 | 14.67 | 36900 | 2.7 | **FF** | **107** | **DRN** | **200L4** | 540 | 418 |
| **120** | 2380 | 12.33 | 35800 | 2.9 | | | | | | |
| **149** | 1920 | 9.96 | 34400 | 3.4 | | | | | | |

21284997/EN – 03/2015

## $P_m$ = 30 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **67** | 4280 | 22.11 | 15100 | 1.00 | | | | | | |
| **74** | 3880 | 20.07 | 15500 | 1.10 | | | | | | |
| **86** | 3330 | 17.25* | 16000 | 1.30 | | | | | | |
| **98** | 2910 | 15.06 | 16300 | 1.50 | | | | | | |
| **116** | 2470 | 12.77 | 16400 | 1.75 | **FA** | **97** | **DRN** | **200L4** | 425 | 414 |
| **133** | 2160 | 11.16 | 16400 | 1.90 | **FAF** | **97** | **DRN** | **200L4** | 445 | 413 |
| **163** | 1750 | 9.06 | 15400 | 1.35 | **F** | **97** | **DRN** | **200L4** | 430 | 412 |
| **180** | 1590 | 8.22 | 15300 | 1.50 | **FF** | **97** | **DRN** | **200L4** | 465 | 413 |
| **209** | 1360 | 7.07 | 15100 | 1.70 | | | | | | |
| **240** | 1190 | 6.17 | 14900 | 1.90 | | | | | | |
| **283** | 1010 | 5.23 | 14600 | 2.1 | | | | | | |
| **324** | 880 | 4.57 | 14300 | 2.3 | | | | | | |

## $P_m$ = 37 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **17** | 20400 | 85.80* | 88600 | 0.90 | | | | | | |
| **19** | 18700 | 78.46 | 88700 | 0.95 | | | | | | |
| **22** | 16200 | 68.28* | 88400 | 1.10 | | | | | | |
| **25** | 14300 | 60.25 | 87800 | 1.25 | **FA** | **157** | **DRN** | **225S4** | 930 | 429 |
| **28** | 12400 | 52.24 | 86700 | 1.45 | **FAF** | **157** | **DRN** | **225S4** | 990 | 428 |
| **32** | 11000 | 46.48* | 85600 | 1.60 | **F** | **157** | **DRN** | **225S4** | 950 | 427 |
| **37** | 9550 | 40.06 | 83900 | 1.90 | **FF** | **157** | **DRN** | **225S4** | 1060 | 428 |
| **46** | 7750 | 32.55 | 81300 | 2.3 | | | | | | |
| **54** | 6580 | 27.60 | 79000 | 2.7 | | | | | | |
| **27** | 13100 | 55.31 | 59200 | 0.90 | | | | | | |
| **30** | 11600 | 48.80 | 60800 | 1.05 | **FA** | **127** | **DRN** | **225S4** | 680 | 424 |
| **35** | 10000 | 42.15 | 61100 | 1.20 | **FAF** | **127** | **DRN** | **225S4** | 720 | 423 |
| **40** | 8880 | 37.28 | 60700 | 1.35 | **F** | **127** | **DRN** | **225S4** | 720 | 422 |
| **47** | 7460 | 31.33 | 59900 | 1.60 | **FF** | **127** | **DRN** | **225S4** | 760 | 423 |
| **59** | 6030 | 25.30 | 58400 | 2.00 | | | | | | |
| **55** | 6400 | 26.86 | 58900 | 1.35 | | | | | | |
| **60** | 5850 | 24.57 | 58200 | 1.45 | | | | | | |
| **69** | 5090 | 21.38 | 57000 | 2.4 | | | | | | |
| **79** | 4490 | 18.87 | 55900 | 2.4 | **FA** | **127** | **DRN** | **225S4** | 670 | 424 |
| **91** | 3890 | 16.36 | 54500 | 2.8 | **FAF** | **127** | **DRN** | **225S4** | 710 | 423 |
| **102** | 3460 | 14.55 | 53300 | 3.2 | **F** | **127** | **DRN** | **225S4** | 700 | 422 |
| **118** | 2990 | 12.54 | 51800 | 3.3 | **FF** | **127** | **DRN** | **225S4** | 750 | 423 |
| **145** | 2420 | 10.19 | 49500 | 3.9 | | | | | | |
| **167** | 2110 | 8.86 | 47700 | 3.3 | | | | | | |
| **188** | 1870 | 7.88 | 46400 | 3.2 | | | | | | |
| **54** | 6570 | 27.57 | 36200 | 1.20 | | | | | | |
| **59** | 5990 | 25.14 | 36300 | 1.30 | | | | | | |
| **68** | 5180 | 21.76* | 36200 | 1.50 | | | | | | |
| **77** | 4570 | 19.20* | 36000 | 1.70 | | | | | | |
| **89** | 3950 | 16.58 | 35600 | 2.00 | **FA** | **107** | **DRN** | **225S4** | 530 | 419 |
| **101** | 3490 | 14.67 | 35100 | 2.2 | **FAF** | **107** | **DRN** | **225S4** | 550 | 418 |
| **120** | 2930 | 12.33 | 34300 | 2.4 | **F** | **107** | **DRN** | **225S4** | 540 | 417 |
| **149** | 2370 | 9.96 | 33200 | 2.7 | **FF** | **107** | **DRN** | **225S4** | 570 | 418 |
| **153** | 2310 | 9.69 | 32400 | 2.1 | | | | | | |
| **177** | 1990 | 8.37 | 31600 | 2.4 | | | | | | |
| **200** | 1760 | 7.40 | 31000 | 2.6 | | | | | | |
| **238** | 1480 | 6.22 | 30000 | 3.1 | | | | | | |

21284997/EN – 03/2015

## $P_m$ = 45 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **22** | 19700 | 68.28* | 81400 | 0.90 | | | | | | |
| **25** | 17400 | 60.25 | 81600 | 1.05 | | | | | | |
| **28** | 15100 | 52.24 | 81300 | 1.20 | **FA** | **157** | **DRN** | **225M4** | 930 | 429 |
| **32** | 13400 | 46.48* | 80800 | 1.35 | **FAF** | **157** | **DRN** | **225M4** | 990 | 428 |
| **37** | 11600 | 40.06 | 79800 | 1.55 | **F** | **157** | **DRN** | **225M4** | 950 | 427 |
| **46** | 9430 | 32.55 | 78000 | 1.90 | **FF** | **157** | **DRN** | **225M4** | 1060 | 428 |
| **54** | 8000 | 27.60 | 76100 | 2.2 | | | | | | |
| **30** | 14100 | 48.80 | 51600 | 0.85 | | | | | | |
| **35** | 12200 | 42.15 | 54300 | 1.00 | **FA** | **127** | **DRN** | **225M4** | 680 | 424 |
| **40** | 10800 | 37.28 | 55800 | 1.10 | **FAF** | **127** | **DRN** | **225M4** | 720 | 423 |
| **47** | 9080 | 31.33 | 56100 | 1.30 | **F** | **127** | **DRN** | **225M4** | 720 | 422 |
| **59** | 7330 | 25.30 | 55400 | 1.65 | **FF** | **127** | **DRN** | **225M4** | 760 | 423 |
| **55** | 7780 | 26.86 | 55600 | 1.10 | | | | | | |
| **60** | 7120 | 24.57 | 55200 | 1.20 | | | | | | |
| **69** | 6190 | 21.38 | 54500 | 1.95 | | | | | | |
| **79** | 5470 | 18.87 | 53600 | 2.0 | | | | | | |
| **91** | 4740 | 16.36 | 52500 | 2.3 | **FA** | **127** | **DRN** | **225M4** | 670 | 424 |
| **102** | 4210 | 14.55 | 51600 | 2.6 | **FAF** | **127** | **DRN** | **225M4** | 710 | 423 |
| **118** | 3630 | 12.54 | 50300 | 2.8 | **F** | **127** | **DRN** | **225M4** | 700 | 422 |
| **145** | 2950 | 10.19 | 48300 | 3.2 | **FF** | **127** | **DRN** | **225M4** | 750 | 423 |
| **167** | 2560 | 8.86 | 46500 | 2.7 | | | | | | |
| **188** | 2280 | 7.88 | 45400 | 2.6 | | | | | | |
| **218** | 1970 | 6.80 | 44000 | 3.6 | | | | | | |
| **268** | 1600 | 5.52 | 41900 | 3.8 | | | | | | |
| **54** | 7990 | 27.57 | 31500 | 1.00 | | | | | | |
| **59** | 7290 | 25.14 | 32600 | 1.10 | | | | | | |
| **68** | 6300 | 21.76* | 33200 | 1.25 | | | | | | |
| **77** | 5560 | 19.20* | 33300 | 1.40 | | | | | | |
| **89** | 4800 | 16.58 | 33300 | 1.65 | **FA** | **107** | **DRN** | **225M4** | 530 | 419 |
| **101** | 4250 | 14.67 | 33100 | 1.80 | **FAF** | **107** | **DRN** | **225M4** | 550 | 418 |
| **120** | 3570 | 12.33 | 32600 | 1.95 | **F** | **107** | **DRN** | **225M4** | 540 | 417 |
| **149** | 2880 | 9.96 | 31900 | 2.2 | **FF** | **107** | **DRN** | **225M4** | 570 | 418 |
| **153** | 2810 | 9.69 | 30900 | 1.75 | | | | | | |
| **177** | 2420 | 8.37 | 30400 | 2.00 | | | | | | |
| **200** | 2140 | 7.40 | 29800 | 2.1 | | | | | | |
| **238** | 1800 | 6.22 | 29000 | 2.6 | | | | | | |

## $P_m$ = 55 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **25** | 21300 | 60.25 | 73800 | 0.85 | | | | | | |
| **28** | 18500 | 52.24 | 74600 | 0.95 | **FA** | **157** | **DRN** | **250M4** | 1080 | 429 |
| **32** | 16400 | 46.48* | 74800 | 1.10 | **FAF** | **157** | **DRN** | **250M4** | 1140 | 428 |
| **37** | 14100 | 40.06 | 74700 | 1.25 | **F** | **157** | **DRN** | **250M4** | 1110 | 427 |
| **46** | 11500 | 32.55 | 73800 | 1.55 | **FF** | **157** | **DRN** | **250M4** | 1210 | 428 |
| **54** | 9780 | 27.60 | 72600 | 1.85 | | | | | | |
| **52** | 10100 | 28.60* | 72900 | 1.70 | | | | | | |
| **58** | 9010 | 25.43 | 71900 | 1.65 | **FA** | **157** | **DRN** | **250M4** | 1080 | 429 |
| **67** | 7850 | 22.16 | 70600 | 2.3 | **FAF** | **157** | **DRN** | **250M4** | 1140 | 428 |
| **75** | 7000 | 19.77 | 69400 | 2.4 | **F** | **157** | **DRN** | **250M4** | 1100 | 427 |
| **88** | 5970 | 16.85 | 67500 | 3.0 | **FF** | **157** | **DRN** | **250M4** | 1210 | 428 |
| **40** | 13200 | 37.28 | 47000 | 0.90 | **FA** | **127** | **DRN** | **250M4** | 830 | 424 |
| **47** | 11100 | 31.33 | 50000 | 1.10 | **FAF** | **127** | **DRN** | **250M4** | 870 | 423 |
| **59** | 8960 | 25.30 | 51600 | 1.35 | **F** | **127** | **DRN** | **250M4** | 870 | 422 |
| | | | | | **FF** | **127** | **DRN** | **250M4** | 910 | 423 |



21284997/EN – 03/2015

## $P_m$ = 55 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **69** | 7570 | 21.38 | 51300 | 1.60 | | | | | | |
| **79** | 6680 | 18.87 | 50800 | 1.65 | | | | | | |
| **91** | 5790 | 16.36 | 50100 | 1.90 | | | | | | |
| **102** | 5150 | 14.55 | 49400 | 2.1 | | | | | | |
| **118** | 4440 | 12.54 | 48400 | 2.2 | **FA** | **127** | **DRN** | **250M4** | 820 | 424 |
| **145** | 3610 | 10.19 | 46800 | 2.6 | **FAF** | **127** | **DRN** | **250M4** | 850 | 423 |
| **167** | 3140 | 8.86 | 45100 | 2.2 | **F** | **127** | **DRN** | **250M4** | 850 | 422 |
| **188** | 2790 | 7.88 | 44100 | 2.2 | **FF** | **127** | **DRN** | **250M4** | 900 | 423 |
| **218** | 2400 | 6.80 | 42900 | 2.9 | | | | | | |
| **268** | 1950 | 5.52 | 41000 | 3.1 | | | | | | |
| **317** | 1650 | 4.68 | 39600 | 3.6 | | | | | | |

## $P_m$ = 75 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **32** | 22400 | 46.48* | 62900 | 0.80 | **FA** | **157** | **DRN** | **280S4** | 1130 | 429 |
| **37** | 19300 | 40.06 | 64400 | 0.95 | **FAF** | **157** | **DRN** | **280S4** | 1190 | 428 |
| **46** | 15700 | 32.55 | 65400 | 1.15 | **F** | **157** | **DRN** | **280S4** | 1150 | 427 |
| **54** | 13300 | 27.60 | 65500 | 1.35 | **FF** | **157** | **DRN** | **280S4** | 1260 | 428 |
| **52** | 13800 | 28.60* | 65500 | 1.25 | | | | | | |
| **58** | 12200 | 25.43 | 65400 | 1.20 | | | | | | |
| **67** | 10700 | 22.16 | 64900 | 1.70 | **FA** | **157** | **DRN** | **280S4** | 1130 | 429 |
| **75** | 9550 | 19.77 | 64300 | 1.80 | **FAF** | **157** | **DRN** | **280S4** | 1190 | 428 |
| **88** | 8140 | 16.85 | 63200 | 2.2 | **F** | **157** | **DRN** | **280S4** | 1150 | 427 |
| **106** | 6740 | 13.96 | 61600 | 2.5 | **FF** | **157** | **DRN** | **280S4** | 1260 | 428 |
| **124** | 5750 | 11.92 | 60100 | 2.8 | | | | | | |
| | | | | | **FA** | **127** | **DRN** | **280S4** | 880 | 424 |
| **59** | 12200 | 25.30 | 40000 | 1.00 | **FAF** | **127** | **DRN** | **280S4** | 920 | 423 |
| | | | | | **F** | **127** | **DRN** | **280S4** | 910 | 422 |
| | | | | | **FF** | **127** | **DRN** | **280S4** | 960 | 423 |
| **69** | 10300 | 21.38 | 43000 | 1.15 | | | | | | |
| **79** | 9110 | 18.87 | 44400 | 1.20 | | | | | | |
| **91** | 7900 | 16.36 | 45200 | 1.40 | | | | | | |
| **102** | 7030 | 14.55 | 45000 | 1.55 | | | | | | |
| **118** | 6060 | 12.54 | 44600 | 1.65 | **FA** | **127** | **DRN** | **280S4** | 870 | 424 |
| **145** | 4920 | 10.19 | 43700 | 1.95 | **FAF** | **127** | **DRN** | **280S4** | 900 | 423 |
| **167** | 4280 | 8.86 | 42200 | 1.65 | **F** | **127** | **DRN** | **280S4** | 900 | 422 |
| **188** | 3800 | 7.88 | 41600 | 1.55 | **FF** | **127** | **DRN** | **280S4** | 950 | 423 |
| **218** | 3280 | 6.80 | 40700 | 2.1 | | | | | | |
| **268** | 2660 | 5.52 | 39300 | 2.2 | | | | | | |
| **317** | 2260 | 4.68 | 38100 | 2.6 | | | | | | |

## $P_m$ = 90 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | **FA** | **157** | **DRN** | **280M4** | 1250 | 429 |
| **46** | 18800 | 32.55 | 59100 | 0.95 | **FAF** | **157** | **DRN** | **280M4** | 1310 | 428 |
| **54** | 16000 | 27.60 | 60200 | 1.10 | **F** | **157** | **DRN** | **280M4** | 1270 | 427 |
| | | | | | **FF** | **157** | **DRN** | **280M4** | 1380 | 428 |
| **67** | 12800 | 22.16 | 60600 | 1.40 | | | | | | |
| **75** | 11400 | 19.77 | 60500 | 1.50 | **FA** | **157** | **DRN** | **280M4** | 1240 | 429 |
| **88** | 9770 | 16.85 | 59900 | 1.85 | **FAF** | **157** | **DRN** | **280M4** | 1300 | 428 |
| **106** | 8100 | 13.96 | 58900 | 2.1 | **F** | **157** | **DRN** | **280M4** | 1260 | 427 |
| **124** | 6910 | 11.92 | 57800 | 2.3 | **FF** | **157** | **DRN** | **280M4** | 1370 | 428 |
| | | | | | **FA** | **127** | **DRN** | **280M4** | 990 | 424 |
| **59** | 14600 | 25.30 | 29600 | 0.80 | **FAF** | **127** | **DRN** | **280M4** | 1030 | 423 |
| | | | | | **F** | **127** | **DRN** | **280M4** | 1030 | 422 |
| | | | | | **FF** | **127** | **DRN** | **280M4** | 1070 | 423 |

21284997/EN – 03/2015

## $P_m$ = 90 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **91** | 9490 | 16.36 | 39900 | 1.15 | | | | | | |
| **102** | 8440 | 14.55 | 41100 | 1.30 | | | | | | |
| **118** | 7270 | 12.54 | 41800 | 1.35 | | | | | | |
| **145** | 5910 | 10.19 | 41400 | 1.60 | **FA** | **127** | **DRN** | **280M4** | 980 | 424 |
| **167** | 5140 | 8.86 | 40100 | 1.35 | **FAF** | **127** | **DRN** | **280M4** | 1020 | 423 |
| **188** | 4570 | 7.88 | 39700 | 1.30 | **F** | **127** | **DRN** | **280M4** | 1020 | 422 |
| **218** | 3940 | 6.80 | 39000 | 1.80 | **FF** | **127** | **DRN** | **280M4** | 1060 | 423 |
| **268** | 3200 | 5.52 | 37900 | 1.85 | | | | | | |
| **316** | 2710 | 4.68 | 36900 | 2.2 | | | | | | |

## $P_m$ = 110 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | **FA** | **157** | **DRN** | **315S4** | 1490 | 429 |
| | | | | | **FAF** | **157** | **DRN** | **315S4** | 1550 | 428 |
| **54** | 19400 | 27.60 | 53100 | 0.90 | **F** | **157** | **DRN** | **315S4** | 1510 | 427 |
| | | | | | **FF** | **157** | **DRN** | **315S4** | 1620 | 428 |
| **67** | 15600 | 22.16 | 54900 | 1.15 | | | | | | |
| **75** | 13900 | 19.77 | 55400 | 1.20 | **FA** | **157** | **DRN** | **315S4** | 1490 | 429 |
| **88** | 11800 | 16.85 | 55600 | 1.50 | **FAF** | **157** | **DRN** | **315S4** | 1550 | 428 |
| **107** | 9850 | 13.96 | 55300 | 1.70 | **F** | **157** | **DRN** | **315S4** | 1510 | 427 |
| **125** | 8410 | 11.92 | 54700 | 1.90 | **FF** | **157** | **DRN** | **315S4** | 1610 | 428 |

## $P_m$ = 132 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **67** | 18700 | 22.16 | 48700 | 0.95 | | | | | | |
| **75** | 16700 | 19.77 | 49800 | 1.00 | **FA** | **157** | **DRN** | **315M4** | 1510 | 429 |
| **88** | 14200 | 16.85 | 50900 | 1.25 | **FAF** | **157** | **DRN** | **315M4** | 1570 | 428 |
| **107** | 11800 | 13.96 | 51400 | 1.45 | **F** | **157** | **DRN** | **315M4** | 1530 | 427 |
| **125** | 10000 | 11.92 | 51400 | 1.60 | **FF** | **157** | **DRN** | **315M4** | 1630 | 428 |

## $P_m$ = 160 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **88** | 17300 | 16.85 | 44800 | 1.05 | **FA** | **157** | **DRN** | **315L4** | 1640 | 429 |
| **106** | 14300 | 13.96 | 46400 | 1.20 | **FAF** | **157** | **DRN** | **315L4** | 1700 | 428 |
| **125** | 12200 | 11.92 | 47100 | 1.30 | **F** | **157** | **DRN** | **315L4** | 1660 | 427 |
| | | | | | **FF** | **157** | **DRN** | **315L4** | 1770 | 428 |

## $P_m$ = 200 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | **FA** | **157** | **DRN** | **315H4** | 1760 | 429 |
| | | | | | **FAF** | **157** | **DRN** | **315H4** | 1820 | 428 |
| **88** | 21600 | 16.85 | 36200 | 0.85 | **F** | **157** | **DRN** | **315H4** | 1780 | 427 |
| | | | | | **FF** | **157** | **DRN** | **315H4** | 1880 | 428 |
| | | | | | **FA** | **157** | **DRN** | **315H4** | 1760 | 429 |
| **107** | 17900 | 13.96 | 39200 | 0.95 | **FAF** | **157** | **DRN** | **315H4** | 1820 | 428 |
| **125** | 15200 | 11.92 | 41000 | 1.05 | **F** | **157** | **DRN** | **315H4** | 1780 | 427 |
| | | | | | **FF** | **157** | **DRN** | **315H4** | 1880 | 428 |

21284997/EN – 03/2015

## 9.4 F..R..DRN.. selection tables for low output speeds in Nm

| $M_{a\,max}$ = 130 Nm | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
| **0.15** | 8972 | 4500 | | | | | | |
| **0.18** | 7736 | 4500 | | | | | | |
| **0.19** | 7211 | 4500 | | | | | | |
| **0.22** | 6303 | 4500 | | | | | | |
| **0.25** | 5435 | 4500 | **FA** | **27R17** | **DR** | **63S4** | 13 | 432 |
| **0.28** | 4855 | 4500 | **FAF** | **27R17** | **DR** | **63S4** | 14 | 432 |
| **0.33** | 4243 | 4500 | **F** | **27R17** | **DR** | **63S4** | 14 | 432 |
| **0.37** | 3715 | 4500 | **FF** | **27R17** | **DR** | **63S4** | 14 | 432 |
| **0.43** | 3247 | 4500 | | | | | | |
| **0.48** | 2878 | 4500 | | | | | | |
| **0.55** | 2515 | 4500 | | | | | | |
| **0.62** | 2217 | 4500 | | | | | | |
| **0.73** | 1898 | 4500 | | | | | | |
| **0.84** | 1645 | 4500 | | | | | | |
| **0.90** | 1525 | 4500 | | | | | | |
| **1.0** | 1322 | 4500 | | | | | | |
| **1.2** | 1146 | 4500 | **FA** | **27R17** | **DR** | **63S4** | 13 | 432 |
| **1.4** | 1013 | 4500 | **FAF** | **27R17** | **DR** | **63S4** | 14 | 432 |
| **1.6** | 890 | 4500 | **F** | **27R17** | **DR** | **63S4** | 13 | 432 |
| **1.8** | 778 | 4500 | **FF** | **27R17** | **DR** | **63S4** | 14 | 432 |
| **2.0** | 682 | 4500 | | | | | | |
| **2.3** | 602 | 4500 | | | | | | |
| **2.6** | 520 | 4500 | | | | | | |
| **3.0** | 458 | 4500 | | | | | | |
| **3.5** | 397 | 4500 | | | | | | |
| **4.0** | 342 | 4500 | **FA** | **27R17** | **DR** | **63S4** | 13 | 432 |
| **4.6** | 302 | 4500 | **FAF** | **27R17** | **DR** | **63S4** | 13 | 432 |
| **5.2** | 266 | 4500 | **F** | **27R17** | **DR** | **63S4** | 13 | 432 |
| **5.8** | 236 | 4500 | **FF** | **27R17** | **DR** | **63S4** | 14 | 432 |
| **6.5** | 211 | 4500 | | | | | | |
| **7.4** | 186 | 4500 | | | | | | |
| | | | **FA** | **27R17** | **DR** | **63M4** | 13 | 432 |
| **9.3** | 142 | 4500 | **FAF** | **27R17** | **DR** | **63M4** | 13 | 432 |
| **11** | 124 | 4500 | **F** | **27R17** | **DR** | **63M4** | 13 | 432 |
| | | | **FF** | **27R17** | **DR** | **63M4** | 14 | 432 |
| | | | **FA** | **27R17** | **DR** | **63L4** | 13 | 432 |
| **12** | 109 | 4500 | **FAF** | **27R17** | **DR** | **63L4** | 14 | 432 |
| **14** | 96 | 4500 | **F** | **27R17** | **DR** | **63L4** | 14 | 432 |
| | | | **FF** | **27R17** | **DR** | **63L4** | 15 | 432 |

| $M_{a\,max}$ = 200 Nm | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
| **0.17** | 8193 | 4290 | | | | | | |
| **0.20** | 7064 | 4290 | | | | | | |
| **0.21** | 6585 | 4290 | | | | | | |
| **0.24** | 5756 | 4290 | | | | | | |
| **0.28** | 4963 | 4290 | **FA** | **37R17** | **DR** | **63S4** | 19 | 432 |
| **0.31** | 4434 | 4290 | **FAF** | **37R17** | **DR** | **63S4** | 21 | 432 |
| **0.36** | 3875 | 4290 | **F** | **37R17** | **DR** | **63S4** | 20 | 432 |
| **0.41** | 3392 | 4290 | **FF** | **37R17** | **DR** | **63S4** | 22 | 432 |
| **0.47** | 2965 | 4290 | | | | | | |
| **0.53** | 2587 | 4290 | | | | | | |
| **0.60** | 2284 | 4290 | | | | | | |
| **0.69** | 1997 | 4290 | | | | | | |

21284997/EN – 03/2015

## $M_{a\ max}$ = 200 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|
| **0.72** | 1929 | 4290 | | | | | | |
| **0.82** | 1679 | 4290 | | | | | | |
| **0.89** | 1550 | 4290 | | | | | | |
| **1.0** | 1356 | 4290 | | | | | | |
| **1.2** | 1180 | 4290 | | | | | | |
| **1.3** | 1044 | 4290 | **FA** | **37R17** | **DR** | **63S4** | 19 | 432 |
| **1.5** | 914 | 4290 | **FAF** | **37R17** | **DR** | **63S4** | 21 | 432 |
| **1.7** | 808 | 4290 | **F** | **37R17** | **DR** | **63S4** | 20 | 432 |
| **2.0** | 698 | 4290 | **FF** | **37R17** | **DR** | **63S4** | 21 | 432 |
| **2.2** | 616 | 4290 | | | | | | |
| **2.5** | 544 | 4290 | | | | | | |
| **3.0** | 466 | 4290 | | | | | | |
| **3.4** | 411 | 4290 | | | | | | |
| **3.8** | 364 | 4290 | | | | | | |
| | | | **FA** | **37R17** | **DR** | **63S4** | 19 | 432 |
| **4.2** | 326 | 4290 | **FAF** | **37R17** | **DR** | **63S4** | 20 | 432 |
| **4.8** | 285 | 4290 | **F** | **37R17** | **DR** | **63S4** | 19 | 432 |
| | | | **FF** | **37R17** | **DR** | **63S4** | 21 | 432 |
| | | | **FA** | **37R17** | **DR** | **63M4** | 19 | 432 |
| **5.3** | 250 | 4290 | **FAF** | **37R17** | **DR** | **63M4** | 20 | 432 |
| **6.0** | 219 | 4290 | **F** | **37R17** | **DR** | **63M4** | 19 | 432 |
| **7.1** | 186 | 4290 | **FF** | **37R17** | **DR** | **63M4** | 21 | 432 |
| | | | **FA** | **37R17** | **DR** | **63L4** | 20 | 432 |
| **7.8** | 167 | 4290 | **FAF** | **37R17** | **DR** | **63L4** | 21 | 432 |
| **8.9** | 145 | 4290 | **F** | **37R17** | **DR** | **63L4** | 20 | 432 |
| **10** | 129 | 4290 | **FF** | **37R17** | **DR** | **63L4** | 22 | 432 |

## $M_{a\ max}$ = 400 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|
| **0.11** | 12251 | 5920 | | | | | | |
| **0.13** | 10619 | 5920 | | | | | | |
| **0.14** | 9846 | 5920 | | | | | | |
| **0.16** | 8534 | 5920 | | | | | | |
| **0.19** | 7460 | 5920 | | | | | | |
| **0.21** | 6536 | 5920 | **FA** | **47R17** | **DR** | **63S4** | 24 | 432 |
| **0.24** | 5746 | 5920 | **FAF** | **47R17** | **DR** | **63S4** | 27 | 432 |
| **0.27** | 5022 | 5920 | **F** | **47R17** | **DR** | **63S4** | 25 | 432 |
| **0.31** | 4401 | 5920 | **FF** | **47R17** | **DR** | **63S4** | 28 | 432 |
| **0.36** | 3883 | 5920 | | | | | | |
| **0.40** | 3443 | 5920 | | | | | | |
| **0.46** | 2976 | 5920 | | | | | | |
| **0.52** | 2629 | 5920 | | | | | | |
| **0.55** | 2519 | 5920 | | | | | | |
| **0.58** | 2394 | 5920 | | | | | | |
| **0.64** | 2172 | 5920 | | | | | | |
| **0.68** | 2025 | 5920 | | | | | | |
| **0.78** | 1770 | 5920 | | | | | | |
| **0.88** | 1576 | 5920 | **FA** | **47R17** | **DR** | **63S4** | 23 | 432 |
| **1.0** | 1363 | 5920 | **FAF** | **47R17** | **DR** | **63S4** | 26 | 432 |
| **1.2** | 1192 | 5920 | **F** | **47R17** | **DR** | **63S4** | 24 | 432 |
| **1.3** | 1061 | 5920 | **FF** | **47R17** | **DR** | **63S4** | 27 | 432 |
| **1.5** | 931 | 5920 | | | | | | |
| **1.7** | 822 | 5920 | | | | | | |
| **2.0** | 706 | 5920 | | | | | | |
| **2.2** | 619 | 5920 | | | | | | |
| **2.5** | 524 | 5920 | **FA** | **47R17** | **DR** | **63M4** | 23 | 432 |
| **2.7** | 489 | 5920 | **FAF** | **47R17** | **DR** | **63M4** | 26 | 432 |
| **3.1** | 427 | 5920 | **F** | **47R17** | **DR** | **63M4** | 24 | 432 |
| **3.5** | 381 | 5920 | **FF** | **47R17** | **DR** | **63M4** | 27 | 432 |
| | | | **FA** | **47R17** | **DR** | **63L4** | 24 | 432 |
| **3.9** | 334 | 5920 | **FAF** | **47R17** | **DR** | **63L4** | 26 | 432 |
| **4.4** | 295 | 5920 | **F** | **47R17** | **DR** | **63L4** | 25 | 432 |
| **5.1** | 253 | 5920 | **FF** | **47R17** | **DR** | **63L4** | 28 | 432 |

21284997/EN – 03/2015

## $M_{a\ max}$ = 400 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|
| **6.4** | 217 | 5920 | **FA** | **47R17** | **DRS** | **71S4** | 26 | 432 |
| | | | **FAF** | **47R17** | **DRS** | **71S4** | 28 | 432 |
| **7.3** | 190 | 5920 | **F** | **47R17** | **DRS** | **71S4** | 26 | 432 |
| **7.8** | 178 | 5920 | **FF** | **47R17** | **DRS** | **71S4** | 30 | 432 |
| | | | **FA** | **47R17** | **DRS** | **71M4** | 27 | 432 |
| **9.1** | 149 | 5920 | **FAF** | **47R17** | **DRS** | **71M4** | 30 | 432 |
| **10** | 131 | 5920 | **F** | **47R17** | **DRS** | **71M4** | 28 | 432 |
| | | | **FF** | **47R17** | **DRS** | **71M4** | 31 | 432 |

## $M_{a\ max}$ = 600 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|
| **0.09** | 14832 | 9200 | | | | | | |
| **0.10** | 13604 | 9200 | | | | | | |
| **0.11** | 12602 | 9200 | | | | | | |
| **0.12** | 11252 | 9200 | | | | | | |
| **0.14** | 9986 | 9200 | | | | | | |
| **0.16** | 8787 | 9200 | **FA** | **57R37** | **DR** | **63S4** | 39 | 432 |
| **0.17** | 7908 | 9200 | **FAF** | **57R37** | **DR** | **63S4** | 45 | 432 |
| **0.20** | 6913 | 9200 | **F** | **57R37** | **DR** | **63S4** | 39 | 432 |
| **0.23** | 6030 | 9200 | **FF** | **57R37** | **DR** | **63S4** | 46 | 432 |
| **0.26** | 5289 | 9200 | | | | | | |
| **0.30** | 4654 | 9200 | | | | | | |
| **0.34** | 4060 | 9200 | | | | | | |
| **0.39** | 3564 | 9200 | | | | | | |
| **0.44** | 3161 | 9200 | | | | | | |
| **0.48** | 2854 | 9200 | | | | | | |
| **0.54** | 2576 | 9200 | | | | | | |
| **0.61** | 2266 | 9200 | | | | | | |
| **0.69** | 2012 | 9200 | | | | | | |
| **0.77** | 1791 | 9200 | **FA** | **57R37** | **DR** | **63S4** | 39 | 432 |
| **0.85** | 1617 | 9200 | **FAF** | **57R37** | **DR** | **63S4** | 44 | 432 |
| **0.97** | 1422 | 9200 | **F** | **57R37** | **DR** | **63S4** | 39 | 432 |
| **1.1** | 1243 | 9200 | **FF** | **57R37** | **DR** | **63S4** | 45 | 432 |
| **1.3** | 1066 | 9200 | | | | | | |
| **1.4** | 949 | 9200 | | | | | | |
| **1.6** | 856 | 9200 | | | | | | |
| **1.8** | 749 | 9200 | **FA** | **57R37** | **DR** | **63M4** | 39 | 432 |
| **2.0** | 658 | 9200 | **FAF** | **57R37** | **DR** | **63M4** | 44 | 432 |
| **2.4** | 549 | 9200 | **F** | **57R37** | **DR** | **63M4** | 39 | 432 |
| | | | **FF** | **57R37** | **DR** | **63M4** | 45 | 432 |
| | | | **FA** | **57R37** | **DR** | **63L4** | 39 | 432 |
| **2.7** | 483 | 9200 | **FAF** | **57R37** | **DR** | **63L4** | 45 | 432 |
| | | | **F** | **57R37** | **DR** | **63L4** | 40 | 432 |
| | | | **FF** | **57R37** | **DR** | **63L4** | 46 | 432 |
| | | | **FA** | **57R37** | **DR** | **63L4** | 39 | 432 |
| **3.0** | 426 | 9200 | **FAF** | **57R37** | **DR** | **63L4** | 45 | 432 |
| **3.4** | 382 | 9200 | **F** | **57R37** | **DR** | **63L4** | 39 | 432 |
| | | | **FF** | **57R37** | **DR** | **63L4** | 46 | 432 |
| **4.2** | 330 | 9200 | **FA** | **57R37** | **DRS** | **71S4** | 41 | 432 |
| **4.6** | 298 | 9200 | **FAF** | **57R37** | **DRS** | **71S4** | 47 | 432 |
| **5.3** | 262 | 9200 | **F** | **57R37** | **DRS** | **71S4** | 41 | 432 |
| | | | **FF** | **57R37** | **DRS** | **71S4** | 48 | 432 |
| **6.0** | 226 | 9200 | **FA** | **57R37** | **DRS** | **71M4** | 42 | 432 |
| **6.8** | 200 | 9200 | **FAF** | **57R37** | **DRS** | **71M4** | 48 | 432 |
| **8.0** | 170 | 9200 | **F** | **57R37** | **DRS** | **71M4** | 42 | 432 |
| | | | **FF** | **57R37** | **DRS** | **71M4** | 49 | 432 |
| **9.4** | 152 | 9200 | **FA** | **57R37** | **DRN** | **80M4** | 47 | 432 |
| **11** | 134 | 9200 | **FAF** | **57R37** | **DRN** | **80M4** | 52 | 432 |
| | | | **F** | **57R37** | **DRN** | **80M4** | 47 | 432 |
| | | | **FF** | **57R37** | **DRN** | **80M4** | 54 | 432 |

21284997/EN – 03/2015

**$M_{a\ max}$ = 820 Nm**

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|
| **0.07** | 19199 | 10300 | | | | | | |
| **0.08** | 17610 | 10300 | | | | | | |
| **0.09** | 14992 | 10300 | | | | | | |
| **0.11** | 12926 | 10300 | | | | | | |
| **0.12** | 11480 | 10300 | | | | | | |
| **0.14** | 10220 | 10300 | | | | | | |
| **0.15** | 8933 | 10300 | **FA** | **67R37** | **DR** | **63S4** | 43 | 432 |
| **0.17** | 7940 | 10300 | **FAF** | **67R37** | **DR** | **63S4** | 49 | 432 |
| **0.19** | 7096 | 10300 | **F** | **67R37** | **DR** | **63S4** | 46 | 432 |
| **0.23** | 6080 | 10300 | **FF** | **67R37** | **DR** | **63S4** | 52 | 432 |
| **0.26** | 5341 | 10300 | | | | | | |
| **0.29** | 4690 | 10300 | | | | | | |
| **0.34** | 4091 | 10300 | | | | | | |
| **0.39** | 3574 | 10300 | | | | | | |
| **0.44** | 3133 | 10300 | | | | | | |
| **0.50** | 2756 | 10300 | | | | | | |
| **0.57** | 2439 | 10300 | | | | | | |
| **0.41** | 3377 | 10300 | | | | | | |
| **0.47** | 2912 | 10300 | | | | | | |
| **0.51** | 2714 | 10300 | **FA** | **67R37** | **DR** | **63S4** | 42 | 432 |
| **0.58** | 2372 | 10300 | **FAF** | **67R37** | **DR** | **63S4** | 48 | 432 |
| **0.65** | 2126 | 10300 | **F** | **67R37** | **DR** | **63S4** | 45 | 432 |
| **0.85** | 1631 | 10300 | **FF** | **67R37** | **DR** | **63S4** | 51 | 432 |
| **0.96** | 1437 | 10300 | | | | | | |
| **1.1** | 1256 | 10300 | | | | | | |
| **1.2** | 1126 | 10300 | **FA** | **67R37** | **DR** | **63M4** | 42 | 432 |
| **1.3** | 984 | 10300 | **FAF** | **67R37** | **DR** | **63M4** | 48 | 432 |
| **1.5** | 864 | 10300 | **F** | **67R37** | **DR** | **63M4** | 45 | 432 |
| | | | **FF** | **67R37** | **DR** | **63M4** | 51 | 432 |
| **1.8** | 722 | 10300 | **FA** | **67R37** | **DR** | **63L4** | 43 | 432 |
| **2.0** | 634 | 10300 | **FAF** | **67R37** | **DR** | **63L4** | 49 | 432 |
| **2.4** | 539 | 10300 | **F** | **67R37** | **DR** | **63L4** | 46 | 432 |
| | | | **FF** | **67R37** | **DR** | **63L4** | 52 | 432 |
| **0.73** | 1884 | 10300 | **FA** | **67R37** | **DR** | **63S4** | 43 | 432 |
| | | | **FAF** | **67R37** | **DR** | **63S4** | 49 | 432 |
| | | | **F** | **67R37** | **DR** | **63S4** | 46 | 432 |
| | | | **FF** | **67R37** | **DR** | **63S4** | 52 | 432 |
| **2.6** | 500 | 10300 | **FA** | **67R37** | **DR** | **63L4** | 42 | 432 |
| | | | **FAF** | **67R37** | **DR** | **63L4** | 49 | 432 |
| | | | **F** | **67R37** | **DR** | **63L4** | 45 | 432 |
| | | | **FF** | **67R37** | **DR** | **63L4** | 51 | 432 |
| **3.0** | 454 | 10300 | **FA** | **67R37** | **DRS** | **71S4** | 44 | 432 |
| **3.5** | 392 | 10300 | **FAF** | **67R37** | **DRS** | **71S4** | 51 | 432 |
| | | | **F** | **67R37** | **DRS** | **71S4** | 47 | 432 |
| | | | **FF** | **67R37** | **DRS** | **71S4** | 53 | 432 |
| **4.1** | 333 | 10300 | **FA** | **67R37** | **DRS** | **71M4** | 46 | 432 |
| **4.6** | 297 | 10300 | **FAF** | **67R37** | **DRS** | **71M4** | 52 | 432 |
| **5.2** | 261 | 10300 | **F** | **67R37** | **DRS** | **71M4** | 48 | 432 |
| **5.7** | 238 | 10300 | **FF** | **67R37** | **DRS** | **71M4** | 54 | 432 |
| **7.2** | 200 | 10300 | **FA** | **67R37** | **DRN** | **80M4** | 50 | 432 |
| | | | **FAF** | **67R37** | **DRN** | **80M4** | 57 | 432 |
| | | | **F** | **67R37** | **DRN** | **80M4** | 53 | 432 |
| | | | **FF** | **67R37** | **DRN** | **80M4** | 59 | 432 |



21284997/EN – 03/2015

## $M_{a\ max}$ = 1500 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|
| **0.07** | 19180 | 15700 | | | | | | |
| **0.08** | 17593 | 15700 | | | | | | |
| **0.09** | 16128 | 15700 | | | | | | |
| **0.09** | 14978 | 15700 | | | | | | |
| **0.10** | 13731 | 15700 | | | | | | |
| **0.11** | 12049 | 15700 | | | | | | |
| **0.13** | 11035 | 15700 | | | | | | |
| **0.14** | 9683 | 15700 | **FA** | **77R37** | **DR** | **63S4** | 65 | 432 |
| **0.16** | 8464 | 15700 | **FAF** | **77R37** | **DR** | **63S4** | 72 | 432 |
| **0.18** | 7520 | 15700 | **F** | **77R37** | **DR** | **63S4** | 69 | 432 |
| **0.21** | 6580 | 15700 | **FF** | **77R37** | **DR** | **63S4** | 80 | 432 |
| **0.24** | 5808 | 15700 | | | | | | |
| **0.27** | 5026 | 15700 | | | | | | |
| **0.31** | 4435 | 15700 | | | | | | |
| **0.36** | 3832 | 15700 | | | | | | |
| **0.46** | 2978 | 15700 | | | | | | |
| **0.53** | 2613 | 15700 | | | | | | |
| **0.60** | 2284 | 15700 | | | | | | |
| **0.65** | 2029 | 15700 | **FA** | **77R37** | **DR** | **63M4** | 65 | 432 |
| | | | **FAF** | **77R37** | **DR** | **63M4** | 72 | 432 |
| | | | **F** | **77R37** | **DR** | **63M4** | 69 | 432 |
| | | | **FF** | **77R37** | **DR** | **63M4** | 80 | 432 |
| **0.76** | 1728 | 15700 | **FA** | **77R37** | **DR** | **63M4** | 65 | 432 |
| **0.86** | 1544 | 15700 | **FAF** | **77R37** | **DR** | **63M4** | 72 | 432 |
| **0.98** | 1354 | 15700 | **F** | **77R37** | **DR** | **63M4** | 69 | 432 |
| | | | **FF** | **77R37** | **DR** | **63M4** | 80 | 432 |
| **1.1** | 1200 | 15700 | **FA** | **77R37** | **DR** | **63L4** | 66 | 432 |
| **1.2** | 1053 | 15700 | **FAF** | **77R37** | **DR** | **63L4** | 72 | 432 |
| | | | **F** | **77R37** | **DR** | **63L4** | 70 | 432 |
| | | | **FF** | **77R37** | **DR** | **63L4** | 80 | 432 |
| **1.5** | 910 | 15700 | **FA** | **77R37** | **DRS** | **71S4** | 68 | 432 |
| **1.7** | 810 | 15700 | **FAF** | **77R37** | **DRS** | **71S4** | 74 | 432 |
| **1.9** | 710 | 15700 | **F** | **77R37** | **DRS** | **71S4** | 72 | 432 |
| | | | **FF** | **77R37** | **DRS** | **71S4** | 82 | 432 |
| **2.2** | 615 | 15700 | **FA** | **77R37** | **DRS** | **71M4** | 69 | 432 |
| **2.5** | 538 | 15700 | **FAF** | **77R37** | **DRS** | **71M4** | 76 | 432 |
| **2.8** | 480 | 15700 | **F** | **77R37** | **DRS** | **71M4** | 73 | 432 |
| | | | **FF** | **77R37** | **DRS** | **71M4** | 83 | 432 |
| **3.5** | 413 | 15700 | **FA** | **77R37** | **DRN** | **80M4** | 74 | 432 |
| **3.9** | 367 | 15700 | **FAF** | **77R37** | **DRN** | **80M4** | 80 | 432 |
| | | | **F** | **77R37** | **DRN** | **80M4** | 77 | 432 |
| | | | **FF** | **77R37** | **DRN** | **80M4** | 88 | 432 |
| **4.5** | 323 | 15700 | **FA** | **77R37** | **DRN** | **90S4** | 80 | 432 |
| | | | **FAF** | **77R37** | **DRN** | **90S4** | 86 | 432 |
| | | | **F** | **77R37** | **DRN** | **90S4** | 83 | 432 |
| | | | **FF** | **77R37** | **DRN** | **90S4** | 94 | 432 |

## $M_{a\ max}$ = 3000 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|
| **0.06** | 23042 | 19800 | | | | | | |
| **0.07** | 20462 | 19800 | | | | | | |
| **0.08** | 18238 | 19800 | | | | | | |
| **0.09** | 15877 | 19800 | | | | | | |
| **0.10** | 14099 | 19800 | | | | | | |
| **0.11** | 12205 | 19800 | **FA** | **87R57** | **DR** | **63S4** | 120 | 432 |
| **0.13** | 10433 | 19800 | **FAF** | **87R57** | **DR** | **63S4** | 130 | 432 |
| **0.15** | 9381 | 19800 | **F** | **87R57** | **DR** | **63S4** | 125 | 432 |
| **0.17** | 8142 | 19800 | **FF** | **87R57** | **DR** | **63S4** | 140 | 432 |
| **0.19** | 7100 | 19800 | | | | | | |
| **0.22** | 6273 | 19800 | | | | | | |
| **0.25** | 5510 | 19800 | | | | | | |
| **0.28** | 4954 | 19800 | | | | | | |

21284997/EN – 03/2015

## $M_{a\ max}$ = 3000 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|
| | | | FA | 87R57 | DR | 63M4 | 120 | 432 |
| 0.31 | 4245 | 19800 | FAF | 87R57 | DR | 63M4 | 130 | 432 |
| 0.35 | 3721 | 19800 | F | 87R57 | DR | 63M4 | 125 | 432 |
| | | | FF | 87R57 | DR | 63M4 | 140 | 432 |
| | | | FA | 87R57 | DR | 63M4 | 115 | 432 |
| 0.41 | 3244 | 19800 | FAF | 87R57 | DR | 63M4 | 130 | 432 |
| 0.46 | 2881 | 19800 | F | 87R57 | DR | 63M4 | 125 | 432 |
| | | | FF | 87R57 | DR | 63M4 | 140 | 432 |
| | | | FA | 87R57 | DR | 63L4 | 120 | 432 |
| 0.50 | 2576 | 19800 | FAF | 87R57 | DR | 63L4 | 130 | 432 |
| 0.59 | 2199 | 19800 | F | 87R57 | DR | 63L4 | 125 | 432 |
| 0.67 | 1930 | 19800 | FF | 87R57 | DR | 63L4 | 140 | 432 |
| | | | FA | 87R57 | DRS | 71S4 | 120 | 432 |
| 0.81 | 1709 | 19800 | FAF | 87R57 | DRS | 71S4 | 130 | 432 |
| 0.92 | 1493 | 19800 | F | 87R57 | DRS | 71S4 | 125 | 432 |
| | | | FF | 87R57 | DRS | 71S4 | 140 | 432 |
| 1.0 | 1300 | 19800 | FA | 87R57 | DRS | 71M4 | 120 | 432 |
| 1.2 | 1148 | 19800 | FAF | 87R57 | DRS | 71M4 | 135 | 432 |
| 1.4 | 1010 | 19800 | F | 87R57 | DRS | 71M4 | 125 | 432 |
| 1.5 | 887 | 19800 | FF | 87R57 | DRS | 71M4 | 140 | 432 |
| | | | FA | 87R57 | DRN | 80M4 | 125 | 432 |
| 1.8 | 780 | 19800 | FAF | 87R57 | DRN | 80M4 | 140 | 432 |
| 2.1 | 674 | 19800 | F | 87R57 | DRN | 80M4 | 130 | 432 |
| | | | FF | 87R57 | DRN | 80M4 | 145 | 432 |
| | | | FA | 87R57 | DRN | 90S4 | 130 | 432 |
| 2.4 | 609 | 19800 | FAF | 87R57 | DRN | 90S4 | 145 | 432 |
| 2.8 | 515 | 19800 | F | 87R57 | DRN | 90S4 | 140 | 432 |
| 3.2 | 452 | 19800 | FF | 87R57 | DRN | 90S4 | 155 | 432 |
| | | | FA | 87R57 | DRN | 90L4 | 135 | 432 |
| 4.2 | 345 | 19800 | FAF | 87R57 | DRN | 90L4 | 150 | 432 |
| | | | F | 87R57 | DRN | 90L4 | 140 | 432 |
| | | | FF | 87R57 | DRN | 90L4 | 155 | 432 |

## $M_{a\ max}$ = 4300 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|
| 0.07 | 20813 | 29900 | | | | | | |
| 0.08 | 18119 | 29900 | | | | | | |
| 0.09 | 15472 | 29900 | | | | | | |
| 0.10 | 14022 | 29900 | FA | 97R57 | DR | 63S4 | 185 | 432 |
| 0.11 | 12324 | 29900 | FAF | 97R57 | DR | 63S4 | 205 | 432 |
| 0.13 | 10838 | 29900 | F | 97R57 | DR | 63S4 | 190 | 432 |
| 0.14 | 9576 | 29900 | FF | 97R57 | DR | 63S4 | 225 | 432 |
| 0.17 | 8318 | 29900 | | | | | | |
| 0.19 | 7328 | 29900 | | | | | | |
| | | | FA | 97R57 | DR | 63M4 | 185 | 432 |
| 0.20 | 6469 | 29900 | FAF | 97R57 | DR | 63M4 | 205 | 432 |
| 0.24 | 5615 | 29900 | F | 97R57 | DR | 63M4 | 190 | 432 |
| 0.27 | 4961 | 29900 | FF | 97R57 | DR | 63M4 | 225 | 432 |
| 0.30 | 4333 | 29900 | | | | | | |
| | | | FA | 97R57 | DR | 63M4 | 185 | 432 |
| 0.34 | 3906 | 29900 | FAF | 97R57 | DR | 63M4 | 205 | 432 |
| | | | F | 97R57 | DR | 63M4 | 190 | 432 |
| | | | FF | 97R57 | DR | 63M4 | 225 | 432 |
| | | | FA | 97R57 | DR | 63L4 | 185 | 432 |
| 0.39 | 3352 | 29900 | FAF | 97R57 | DR | 63L4 | 205 | 432 |
| 0.45 | 2907 | 29900 | F | 97R57 | DR | 63L4 | 190 | 432 |
| | | | FF | 97R57 | DR | 63L4 | 225 | 432 |
| | | | FA | 97R57 | DRS | 71S4 | 185 | 432 |
| 0.54 | 2553 | 29900 | FAF | 97R57 | DRS | 71S4 | 205 | 432 |
| 0.61 | 2245 | 29900 | F | 97R57 | DRS | 71S4 | 190 | 432 |
| 0.70 | 1970 | 29900 | FF | 97R57 | DRS | 71S4 | 225 | 432 |

21284997/EN – 03/2015

## $M_{a\ max}$ = 4300 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|
| **0.79** | 1722 | 29900 | **FA** | **97R57** | **DRS** | **71M4** | 185 | 432 |
| **0.89** | 1527 | 29900 | **FAF** | **97R57** | **DRS** | **71M4** | 210 | 432 |
| **1.0** | 1327 | 29900 | **F** | **97R57** | **DRS** | **71M4** | 195 | 432 |
| | | | **FF** | **97R57** | **DRS** | **71M4** | 225 | 432 |
| | | | **FA** | **97R57** | **DRN** | **80M4** | 190 | 432 |
| **1.2** | 1171 | 29900 | **FAF** | **97R57** | **DRN** | **80M4** | 215 | 432 |
| **1.4** | 1022 | 29900 | **F** | **97R57** | **DRN** | **80M4** | 200 | 432 |
| | | | **FF** | **97R57** | **DRN** | **80M4** | 230 | 432 |
| | | | **FA** | **97R57** | **DRN** | **90S4** | 195 | 432 |
| **1.6** | 898 | 29900 | **FAF** | **97R57** | **DRN** | **90S4** | 220 | 432 |
| **1.8** | 784 | 29900 | **F** | **97R57** | **DRN** | **90S4** | 205 | 432 |
| **2.1** | 690 | 29900 | **FF** | **97R57** | **DRN** | **90S4** | 240 | 432 |
| | | | **FA** | **97R57** | **DRN** | **90L4** | 200 | 432 |
| **2.4** | 605 | 29900 | **FAF** | **97R57** | **DRN** | **90L4** | 220 | 432 |
| **2.8** | 529 | 29900 | **F** | **97R57** | **DRN** | **90L4** | 210 | 432 |
| | | | **FF** | **97R57** | **DRN** | **90L4** | 240 | 432 |
| | | | **FA** | **97R57** | **DRN** | **100LS4** | 205 | 432 |
| **3.1** | 467 | 29900 | **FAF** | **97R57** | **DRN** | **100LS4** | 225 | 432 |
| **3.6** | 406 | 29900 | **F** | **97R57** | **DRN** | **100LS4** | 210 | 432 |
| **4.0** | 363 | 29900 | **FF** | **97R57** | **DRN** | **100LS4** | 245 | 432 |
| | | | **FA** | **97R57** | **DRN** | **100L4** | 210 | 432 |
| **5.1** | 285 | 29900 | **FAF** | **97R57** | **DRN** | **100L4** | 235 | 432 |
| **6.0** | 245 | 29900 | **F** | **97R57** | **DRN** | **100L4** | 220 | 432 |
| | | | **FF** | **97R57** | **DRN** | **100L4** | 250 | 432 |

## $M_{a\ max}$ = 7680 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|
| **0.05** | 25375 | 49800 | **FA** | **107R77** | **DR** | **63S4** | 275 | 432 |
| **0.06** | 21652 | 49800 | **FAF** | **107R77** | **DR** | **63S4** | 295 | 432 |
| **0.07** | 18933 | 49800 | **F** | **107R77** | **DR** | **63S4** | 290 | 432 |
| **0.08** | 16888 | 49800 | **FF** | **107R77** | **DR** | **63S4** | 320 | 432 |
| **0.09** | 14767 | 49800 | | | | | | |
| **0.12** | 11348 | 49800 | **FA** | **107R77** | **DR** | **63M4** | 275 | 432 |
| **0.13** | 10039 | 49800 | **FAF** | **107R77** | **DR** | **63M4** | 295 | 432 |
| **0.15** | 8548 | 49800 | **F** | **107R77** | **DR** | **63M4** | 290 | 432 |
| **0.17** | 7674 | 49800 | **FF** | **107R77** | **DR** | **63M4** | 320 | 432 |
| | | | **FA** | **107R77** | **DR** | **63L4** | 275 | 432 |
| **0.19** | 6767 | 49800 | **FAF** | **107R77** | **DR** | **63L4** | 295 | 432 |
| **0.22** | 5954 | 49800 | **F** | **107R77** | **DR** | **63L4** | 290 | 432 |
| **0.25** | 5223 | 49800 | **FF** | **107R77** | **DR** | **63L4** | 320 | 432 |
| | | | **FA** | **107R77** | **DRS** | **71S4** | 275 | 432 |
| **0.30** | 4567 | 49800 | **FAF** | **107R77** | **DRS** | **71S4** | 300 | 432 |
| **0.39** | 3521 | 49800 | **F** | **107R77** | **DRS** | **71S4** | 295 | 432 |
| | | | **FF** | **107R77** | **DRS** | **71S4** | 320 | 432 |
| | | | **FA** | **107R77** | **DRS** | **71M4** | 275 | 432 |
| **0.45** | 3037 | 49800 | **FAF** | **107R77** | **DRS** | **71M4** | 300 | 432 |
| **0.49** | 2756 | 49800 | **F** | **107R77** | **DRS** | **71M4** | 295 | 432 |
| **0.57** | 2369 | 49800 | **FF** | **107R77** | **DRS** | **71M4** | 320 | 432 |
| | | | **FA** | **107R77** | **DRN** | **80M4** | 280 | 432 |
| **0.70** | 2068 | 49800 | **FAF** | **107R77** | **DRN** | **80M4** | 305 | 432 |
| **0.79** | 1826 | 49800 | **F** | **107R77** | **DRN** | **80M4** | 300 | 432 |
| | | | **FF** | **107R77** | **DRN** | **80M4** | 325 | 432 |
| | | | **FA** | **107R77** | **DRN** | **90S4** | 285 | 432 |
| **0.91** | 1597 | 49800 | **FAF** | **107R77** | **DRN** | **90S4** | 310 | 432 |
| **1.0** | 1401 | 49800 | **F** | **107R77** | **DRN** | **90S4** | 305 | 432 |
| **1.2** | 1243 | 49800 | **FF** | **107R77** | **DRN** | **90S4** | 330 | 432 |
| | | | **FA** | **107R77** | **DRN** | **90L4** | 290 | 432 |
| **1.3** | 1087 | 49800 | **FAF** | **107R77** | **DRN** | **90L4** | 310 | 432 |
| **1.5** | 950 | 49800 | **F** | **107R77** | **DRN** | **90L4** | 305 | 432 |
| | | | **FF** | **107R77** | **DRN** | **90L4** | 335 | 432 |

21284997/EN – 03/2015

## $M_{a\ max}$ = 7680 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|
| 1.7 | 834 | 49800 | FA | 107R77 | DRN | 100LS4 | 295 | 432 |
| 2.0 | 736 | 49800 | FAF | 107R77 | DRN | 100LS4 | 315 | 432 |
| 2.3 | 640 | 49800 | F | 107R77 | DRN | 100LS4 | 310 | 432 |
| | | | FF | 107R77 | DRN | 100LS4 | 340 | 432 |
| 2.6 | 560 | 49800 | FA | 107R77 | DRN | 100L4 | 300 | 432 |
| 3.0 | 489 | 49800 | FAF | 107R77 | DRN | 100L4 | 325 | 432 |
| 3.3 | 436 | 49800 | F | 107R77 | DRN | 100L4 | 320 | 432 |
| | | | FF | 107R77 | DRN | 100L4 | 345 | 432 |
| 4.0 | 370 | 49800 | FA | 107R77 | DRN | 112M4 | 310 | 432 |
| 4.4 | 333 | 49800 | FAF | 107R77 | DRN | 112M4 | 330 | 432 |
| | | | F | 107R77 | DRN | 112M4 | 325 | 432 |
| | | | FF | 107R77 | DRN | 112M4 | 355 | 432 |

## $M_{a\ max}$ = 12000 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|
| | | | FA | 127R77 | DR | 63S4 | 425 | 432 |
| 0.06 | 24478 | 90000 | FAF | 127R77 | DR | 63S4 | 465 | 432 |
| 0.06 | 22323 | 90000 | F | 127R77 | DR | 63S4 | 460 | 432 |
| | | | FF | 127R77 | DR | 63S4 | 510 | 432 |
| 0.07 | 19048 | 90000 | | | | | | |
| 0.08 | 16656 | 90000 | FA | 127R77 | DR | 63M4 | 425 | 432 |
| 0.09 | 14722 | 90000 | FAF | 127R77 | DR | 63M4 | 465 | 432 |
| 0.10 | 12912 | 90000 | F | 127R77 | DR | 63M4 | 460 | 432 |
| 0.11 | 11656 | 90000 | FF | 127R77 | DR | 63M4 | 510 | 432 |
| | | | FA | 127R77 | DR | 63L4 | 425 | 432 |
| 0.13 | 10191 | 90000 | FAF | 127R77 | DR | 63L4 | 465 | 432 |
| 0.15 | 8831 | 90000 | F | 127R77 | DR | 63L4 | 465 | 432 |
| | | | FF | 127R77 | DR | 63L4 | 510 | 432 |
| 0.18 | 7643 | 90000 | FA | 127R77 | DRS | 71S4 | 430 | 432 |
| 0.21 | 6715 | 90000 | FAF | 127R77 | DRS | 71S4 | 465 | 432 |
| 0.23 | 5925 | 90000 | F | 127R77 | DRS | 71S4 | 465 | 432 |
| | | | FF | 127R77 | DRS | 71S4 | 510 | 432 |
| 0.26 | 5153 | 90000 | FA | 127R77 | DRS | 71M4 | 430 | 432 |
| 0.30 | 4533 | 90000 | FAF | 127R77 | DRS | 71M4 | 465 | 432 |
| 0.35 | 3926 | 90000 | F | 127R77 | DRS | 71M4 | 465 | 432 |
| | | | FF | 127R77 | DRS | 71M4 | 510 | 432 |
| | | | FA | 127R77 | DRN | 80M4 | 435 | 432 |
| 0.42 | 3454 | 90000 | FAF | 127R77 | DRN | 80M4 | 470 | 432 |
| 0.48 | 3031 | 90000 | F | 127R77 | DRN | 80M4 | 470 | 432 |
| | | | FF | 127R77 | DRN | 80M4 | 520 | 432 |
| | | | FA | 127R77 | DRN | 80M4 | 435 | 432 |
| 0.54 | 2672 | 90000 | FAF | 127R77 | DRN | 80M4 | 470 | 432 |
| | | | F | 127R77 | DRN | 80M4 | 470 | 432 |
| | | | FF | 127R77 | DRN | 80M4 | 510 | 432 |
| | | | FA | 127R77 | DRN | 90S4 | 440 | 432 |
| 0.62 | 2357 | 90000 | FAF | 127R77 | DRN | 90S4 | 475 | 432 |
| 0.71 | 2038 | 90000 | F | 127R77 | DRN | 90S4 | 475 | 432 |
| | | | FF | 127R77 | DRN | 90S4 | 520 | 432 |
| 0.82 | 1784 | 90000 | FA | 127R77 | DRN | 90L4 | 440 | 432 |
| 0.91 | 1606 | 90000 | FAF | 127R77 | DRN | 90L4 | 480 | 432 |
| 1.0 | 1390 | 90000 | F | 127R77 | DRN | 90L4 | 480 | 432 |
| | | | FF | 127R77 | DRN | 90L4 | 520 | 432 |
| 1.2 | 1220 | 90000 | FA | 127R77 | DRN | 100LS4 | 445 | 432 |
| 1.4 | 1077 | 90000 | FAF | 127R77 | DRN | 100LS4 | 485 | 432 |
| 1.6 | 930 | 90000 | F | 127R77 | DRN | 100LS4 | 480 | 432 |
| | | | FF | 127R77 | DRN | 100LS4 | 530 | 432 |
| 1.8 | 820 | 90000 | FA | 127R77 | DRN | 100L4 | 455 | 432 |
| 2.0 | 727 | 90000 | FAF | 127R77 | DRN | 100L4 | 490 | 432 |
| | | | F | 127R77 | DRN | 100L4 | 490 | 432 |
| | | | FF | 127R77 | DRN | 100L4 | 530 | 432 |



21284997/EN – 03/2015

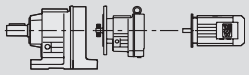
## $M_{a\ max}$ = 12000 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|
| **2.3** | 648 | 90000 | **FA** | **127R77** | **DRN** | **112M4** | 460 | 432 |
| **2.7** | 549 | 90000 | **FAF** | **127R77** | **DRN** | **112M4** | 500 | 432 |
| **3.0** | 495 | 90000 | **F** | **127R77** | **DRN** | **112M4** | 500 | 432 |
| | | | **FF** | **127R77** | **DRN** | **112M4** | 540 | 432 |
| | | | **FA** | **127R77** | **DRN** | **132S4** | 475 | 432 |
| **3.4** | 428 | 90000 | **FAF** | **127R77** | **DRN** | **132S4** | 510 | 432 |
| **3.9** | 376 | 90000 | **F** | **127R77** | **DRN** | **132S4** | 510 | 432 |
| | | | **FF** | **127R77** | **DRN** | **132S4** | 550 | 432 |
| **3.0** | 483 | 90000 | **FA** | **127R87** | **DRN** | **132S4** | 495 | 432 |
| **3.5** | 418 | 90000 | **FAF** | **127R87** | **DRN** | **132S4** | 530 | 432 |
| **3.9** | 374 | 90000 | **F** | **127R87** | **DRN** | **132S4** | 530 | 432 |
| | | | **FF** | **127R87** | **DRN** | **132S4** | 570 | 432 |
| | | | **FA** | **127R87** | **DRN** | **132M4** | 510 | 432 |
| **4.7** | 312 | 90000 | **FAF** | **127R87** | **DRN** | **132M4** | 550 | 432 |
| **5.0** | 293 | 90000 | **F** | **127R87** | **DRN** | **132M4** | 550 | 432 |
| | | | **FF** | **127R87** | **DRN** | **132M4** | 590 | 432 |
| | | | **FA** | **127R87** | **DRN** | **132L4** | 520 | 432 |
| **5.7** | 259 | 90000 | **FAF** | **127R87** | **DRN** | **132L4** | 560 | 432 |
| **6.6** | 223 | 90000 | **F** | **127R87** | **DRN** | **132L4** | 560 | 432 |
| | | | **FF** | **127R87** | **DRN** | **132L4** | 600 | 432 |
| | | | **FA** | **127R87** | **DRN** | **160M4** | 550 | 432 |
| **7.5** | 198 | 90000 | **FAF** | **127R87** | **DRN** | **160M4** | 590 | 432 |
| | | | **F** | **127R87** | **DRN** | **160M4** | 590 | 432 |
| | | | **FF** | **127R87** | **DRN** | **160M4** | 630 | 432 |

## $M_{a\ max}$ = 18000 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|
| **0.04** | 31434 | 100300 | | | | | | |
| **0.05** | 26173 | 100300 | | | | | | |
| **0.06** | 23464 | 100300 | **FA** | **157R97** | **DRS** | **71M4** | 770 | 432 |
| **0.07** | 20212 | 100300 | **FAF** | **157R97** | **DRS** | **71M4** | 830 | 432 |
| **0.08** | 17984 | 100300 | **F** | **157R97** | **DRS** | **71M4** | 790 | 432 |
| **0.08** | 16358 | 100300 | **FF** | **157R97** | **DRS** | **71M4** | 900 | 432 |
| **0.10** | 13751 | 100300 | | | | | | |
| **0.11** | 12235 | 100300 | | | | | | |
| | | | **FA** | **157R97** | **DRN** | **80M4** | 770 | 432 |
| **0.14** | 10033 | 100300 | **FAF** | **157R97** | **DRN** | **80M4** | 830 | 432 |
| **0.16** | 9021 | 100300 | **F** | **157R97** | **DRN** | **80M4** | 790 | 432 |
| **0.18** | 8026 | 100300 | **FF** | **157R97** | **DRN** | **80M4** | 900 | 432 |
| | | | **FA** | **157R97** | **DRS** | **71M4** | 770 | 432 |
| **0.19** | 7075 | 100300 | **FAF** | **157R97** | **DRS** | **71M4** | 830 | 432 |
| **0.22** | 6295 | 100300 | **F** | **157R97** | **DRS** | **71M4** | 790 | 432 |
| | | | **FF** | **157R97** | **DRS** | **71M4** | 900 | 432 |
| | | | **FA** | **157R97** | **DRN** | **80M4** | 770 | 432 |
| **0.27** | 5404 | 100300 | **FAF** | **157R97** | **DRN** | **80M4** | 830 | 432 |
| **0.30** | 4831 | 100300 | **F** | **157R97** | **DRN** | **80M4** | 790 | 432 |
| | | | **FF** | **157R97** | **DRN** | **80M4** | 900 | 432 |
| | | | **FA** | **157R97** | **DRN** | **90S4** | 780 | 432 |
| **0.35** | 4130 | 100300 | **FAF** | **157R97** | **DRN** | **90S4** | 840 | 432 |
| | | | **F** | **157R97** | **DRN** | **90S4** | 800 | 432 |
| | | | **FF** | **157R97** | **DRN** | **90S4** | 900 | 432 |
| | | | **FA** | **157R97** | **DRN** | **100LS4** | 780 | 432 |
| **0.40** | 3607 | 100300 | **FAF** | **157R97** | **DRN** | **100LS4** | 840 | 432 |
| **0.45** | 3210 | 100300 | **F** | **157R97** | **DRN** | **100LS4** | 810 | 432 |
| | | | **FF** | **157R97** | **DRN** | **100LS4** | 910 | 432 |
| | | | **FA** | **157R97** | **DRN** | **90L4** | 780 | 432 |
| **0.53** | 2780 | 100300 | **FAF** | **157R97** | **DRN** | **90L4** | 840 | 432 |
| | | | **F** | **157R97** | **DRN** | **90L4** | 800 | 432 |
| | | | **FF** | **157R97** | **DRN** | **90L4** | 910 | 432 |

21284997/EN – 03/2015

| $M_{a\ max}$ = 18000 Nm | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | i | $F_{Ra}$ [1] N |  | | | | m kg |  |
| **1.0** | 1441 | 100300 | **FA** | **157R97** | **DRN** | **100LS4** | 780 | 432 |
| | | | **FAF** | **157R97** | **DRN** | **100LS4** | 840 | 432 |
| | | | **F** | **157R97** | **DRN** | **100LS4** | 810 | 432 |
| | | | **FF** | **157R97** | **DRN** | **100LS4** | 910 | 432 |
| **0.60** | 2427 | 100300 | **FA** | **157R97** | **DRN** | **90L4** | 780 | 432 |
| **0.67** | 2185 | 100300 | **FAF** | **157R97** | **DRN** | **90L4** | 840 | 432 |
| | | | **F** | **157R97** | **DRN** | **90L4** | 800 | 432 |
| | | | **FF** | **157R97** | **DRN** | **90L4** | 900 | 432 |
| **0.75** | 1944 | 100300 | **FA** | **157R97** | **DRN** | **100LS4** | 780 | 432 |
| **0.87** | 1674 | 100300 | **FAF** | **157R97** | **DRN** | **100LS4** | 840 | 432 |
| | | | **F** | **157R97** | **DRN** | **100LS4** | 800 | 432 |
| | | | **FF** | **157R97** | **DRN** | **100LS4** | 910 | 432 |
| **1.1** | 1308 | 100300 | **FA** | **157R97** | **DRN** | **100L4** | 790 | 432 |
| **1.2** | 1169 | 100300 | **FAF** | **157R97** | **DRN** | **100L4** | 850 | 432 |
| | | | **F** | **157R97** | **DRN** | **100L4** | 810 | 432 |
| | | | **FF** | **157R97** | **DRN** | **100L4** | 920 | 432 |
| **1.5** | 953 | 100300 | **FA** | **157R97** | **DRN** | **112M4** | 800 | 432 |
| **1.7** | 845 | 100300 | **FAF** | **157R97** | **DRN** | **112M4** | 860 | 432 |
| **1.9** | 764 | 100300 | **F** | **157R97** | **DRN** | **112M4** | 820 | 432 |
| | | | **FF** | **157R97** | **DRN** | **112M4** | 920 | 432 |
| **2.2** | 680 | 100300 | **FA** | **157R97** | **DRN** | **132S4** | 810 | 432 |
| **2.5** | 576 | 100300 | **FAF** | **157R97** | **DRN** | **132S4** | 870 | 432 |
| | | | **F** | **157R97** | **DRN** | **132S4** | 830 | 432 |
| | | | **FF** | **157R97** | **DRN** | **132S4** | 940 | 432 |
| **2.9** | 503 | 100300 | **FA** | **157R97** | **DRN** | **132M4** | 830 | 432 |
| **3.3** | 446 | 100300 | **FAF** | **157R97** | **DRN** | **132M4** | 890 | 432 |
| | | | **F** | **157R97** | **DRN** | **132M4** | 850 | 432 |
| | | | **FF** | **157R97** | **DRN** | **132M4** | 950 | 432 |
| **4.2** | 353 | 100300 | **FA** | **157R97** | **DRN** | **132L4** | 840 | 432 |
| | | | **FAF** | **157R97** | **DRN** | **132L4** | 890 | 432 |
| | | | **F** | **157R97** | **DRN** | **132L4** | 860 | 432 |
| | | | **FF** | **157R97** | **DRN** | **132L4** | 960 | 432 |
| **4.9** | 302 | 100300 | **FA** | **157R97** | **DRN** | **160M4** | 870 | 432 |
| **5.4** | 273 | 100300 | **FAF** | **157R97** | **DRN** | **160M4** | 930 | 432 |
| | | | **F** | **157R97** | **DRN** | **160M4** | 890 | 432 |
| | | | **FF** | **157R97** | **DRN** | **160M4** | 1000 | 432 |
| **6.4** | 232 | 100300 | **FA** | **157R97** | **DRN** | **160L4** | 880 | 432 |
| **7.3** | 202 | 100300 | **FAF** | **157R97** | **DRN** | **160L4** | 940 | 432 |
| | | | **F** | **157R97** | **DRN** | **160L4** | 900 | 432 |
| | | | **FF** | **157R97** | **DRN** | **160L4** | 1010 | 432 |
| **7.5** | 197 | 100300 | **FA** | **157R97** | **DRN** | **180M4** | 910 | 432 |
| | | | **FAF** | **157R97** | **DRN** | **180M4** | 960 | 432 |
| | | | **F** | **157R97** | **DRN** | **180M4** | 930 | 432 |
| | | | **FF** | **157R97** | **DRN** | **180M4** | 1030 | 432 |

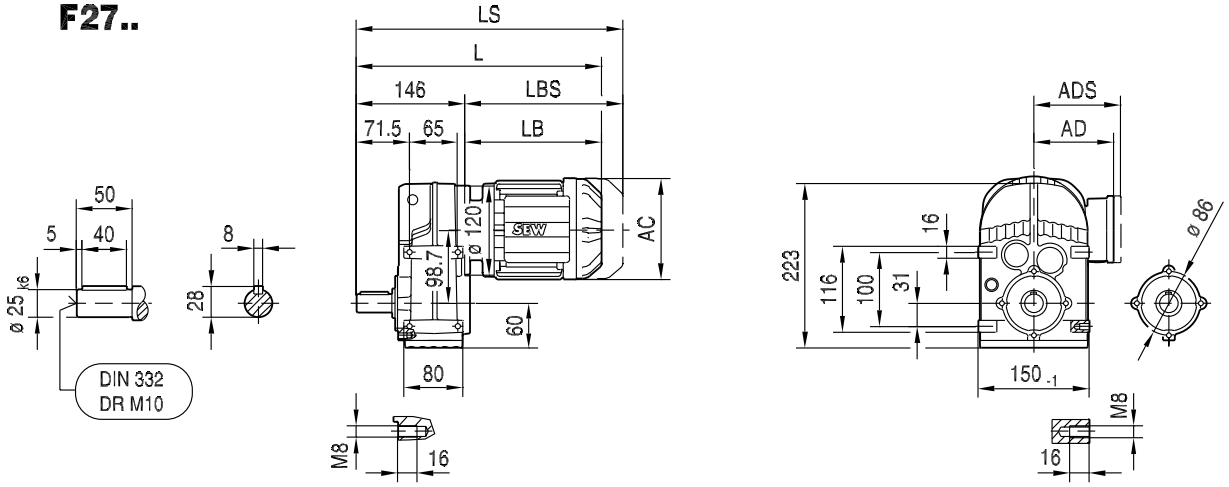


21284997/EN – 03/2015

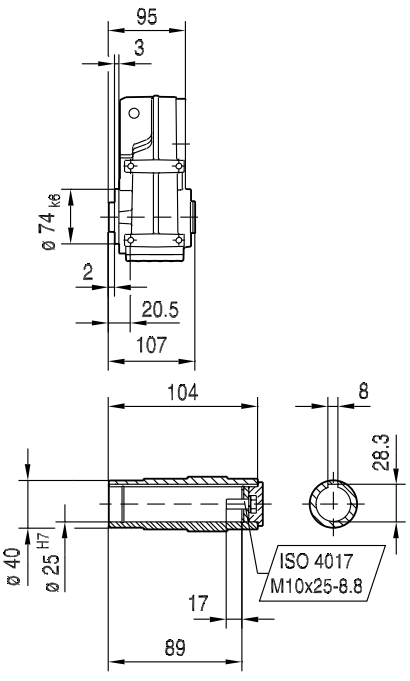
## 9.5 F..DRN.. dimension sheets in mm

42 020 00 14

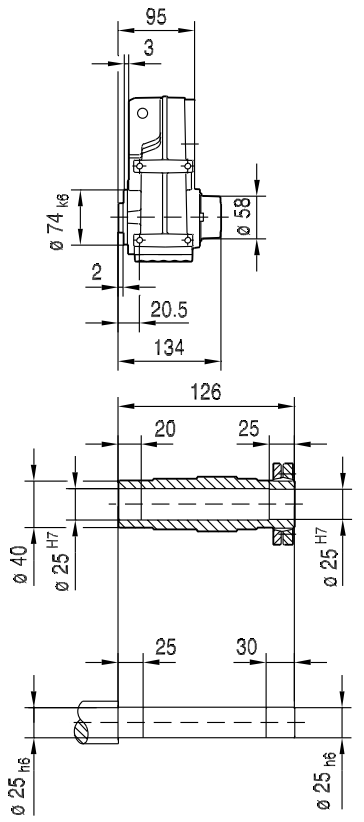
**F27..**



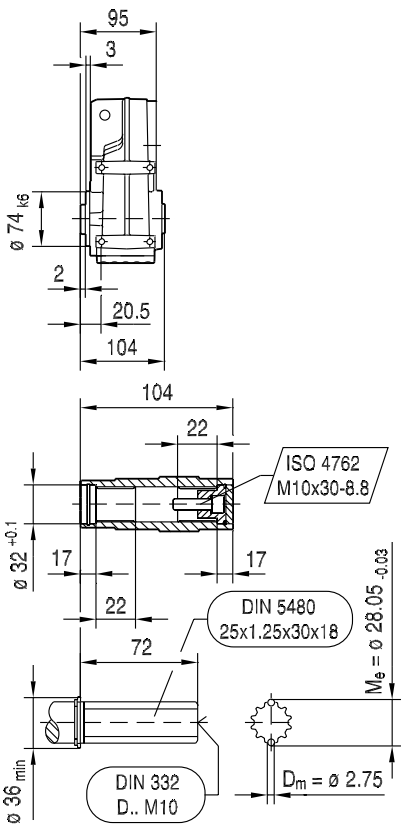

**FA27B..**




**FH27B..**
**max. DR71..**




**FV27B..**

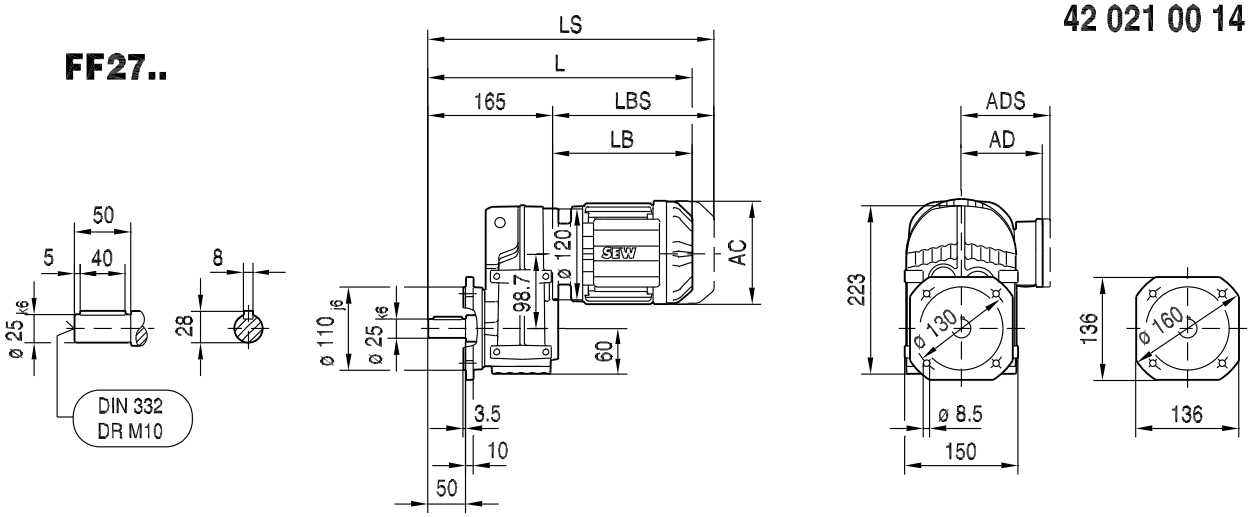



| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | | |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | | |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | | |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | | |
| **L** | 337 | 348 | 373 | 428 | 429 | 461 | | |
| **LS** | 392 | 416 | 441 | 509 | 523 | 555 | | |
| **LB** | 191 | 202 | 227 | 282 | 283 | 315 | | |
| **LBS** | 246 | 270 | 295 | 363 | 377 | 409 | | |

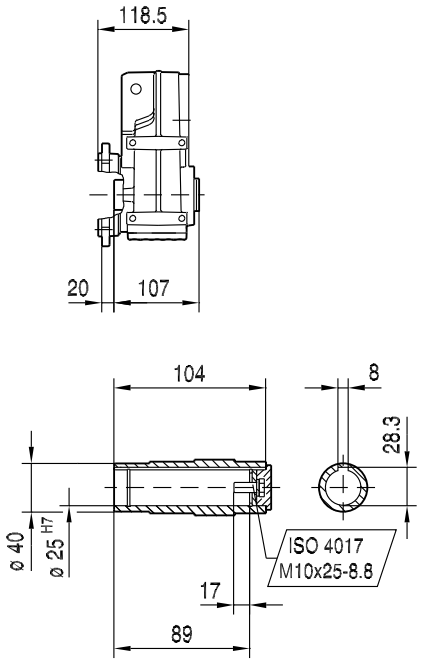
21284997/EN – 03/2015

42 021 00 14

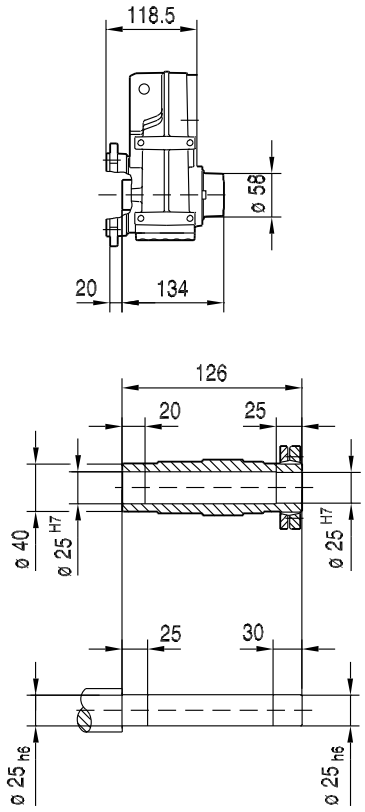
## FF27..



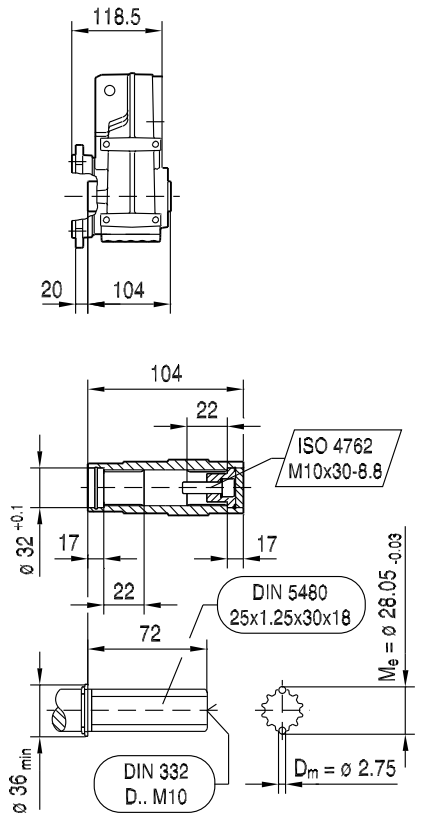

## FAF27..




## FHF27..
**max. DR71..**




## FVF27..

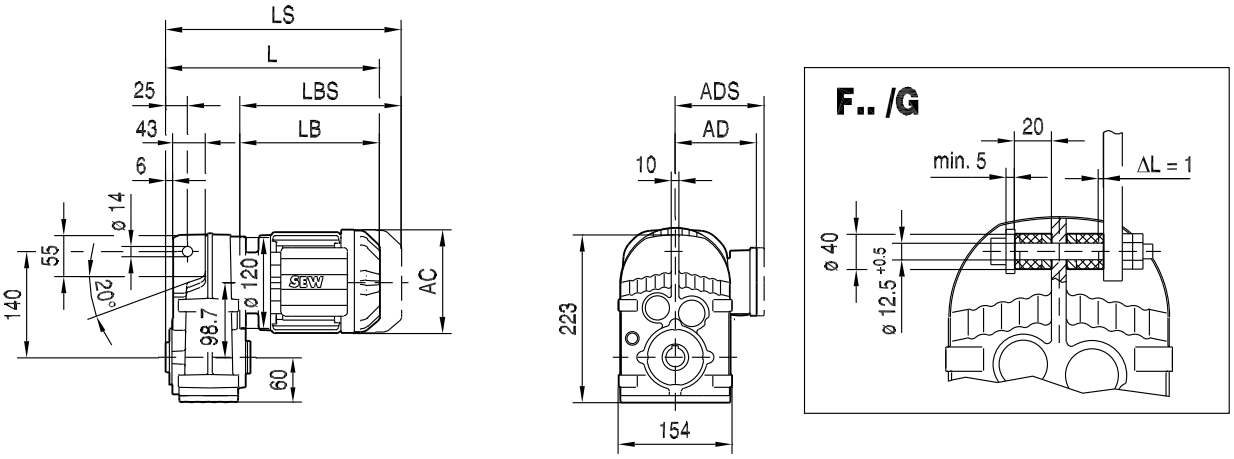



| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | | |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | | |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | | |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | | |
| **L** | 356 | 367 | 392 | 447 | 448 | 480 | | |
| **LS** | 411 | 435 | 460 | 528 | 542 | 574 | | |
| **LB** | 191 | 202 | 227 | 282 | 283 | 315 | | |
| **LBS** | 246 | 270 | 295 | 363 | 377 | 409 | | |

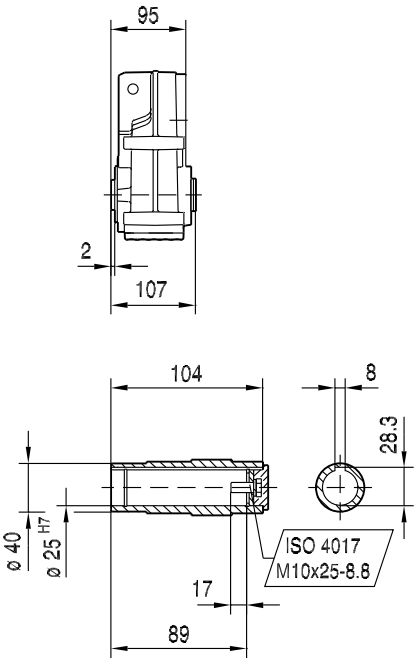
21284997/EN – 03/2015

## FA27..

42 022 00 14

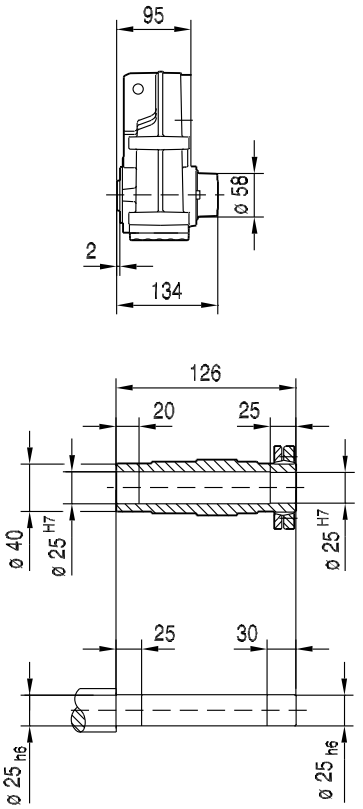



## FA27..

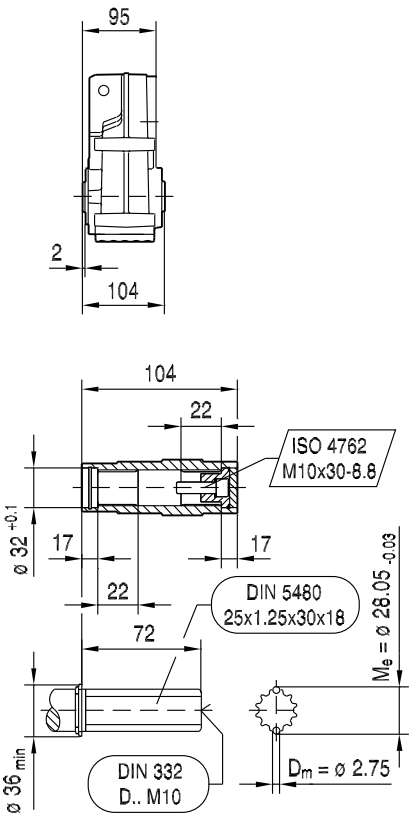



## FH27..

**max. DR71..**




## FV27..

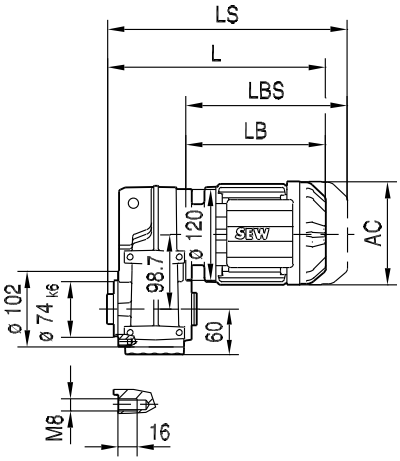


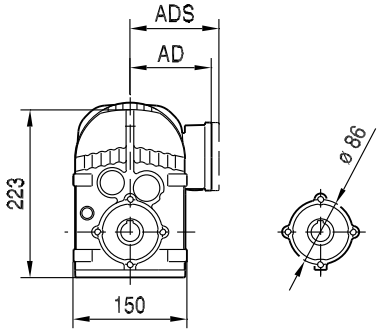

| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | | |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | | |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | | |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | | |
| **L** | 286 | 297 | 322 | 377 | 378 | 410 | | |
| **LS** | 341 | 365 | 390 | 458 | 472 | 504 | | |
| **LB** | 191 | 202 | 227 | 282 | 283 | 315 | | |
| **LBS** | 246 | 270 | 295 | 363 | 377 | 409 | | |

21284997/EN – 03/2015

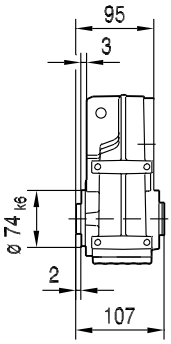
## FAZ27..

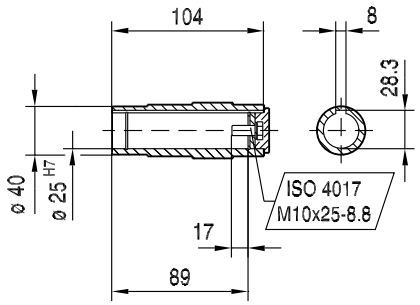
42 023 00 14



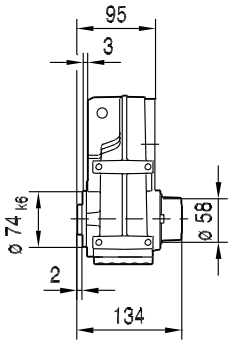

## FAZ27..

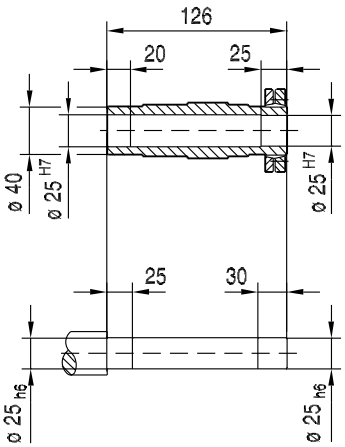


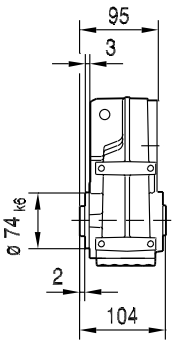

## FHZ27..

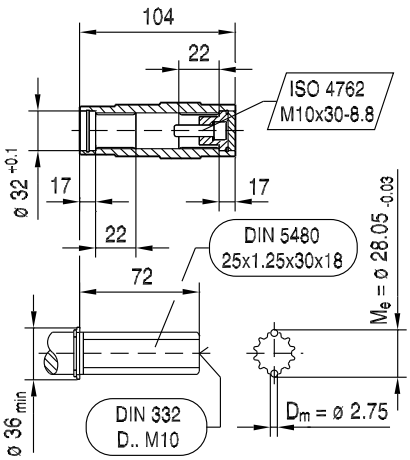
max. DR71..




## FVZ27..



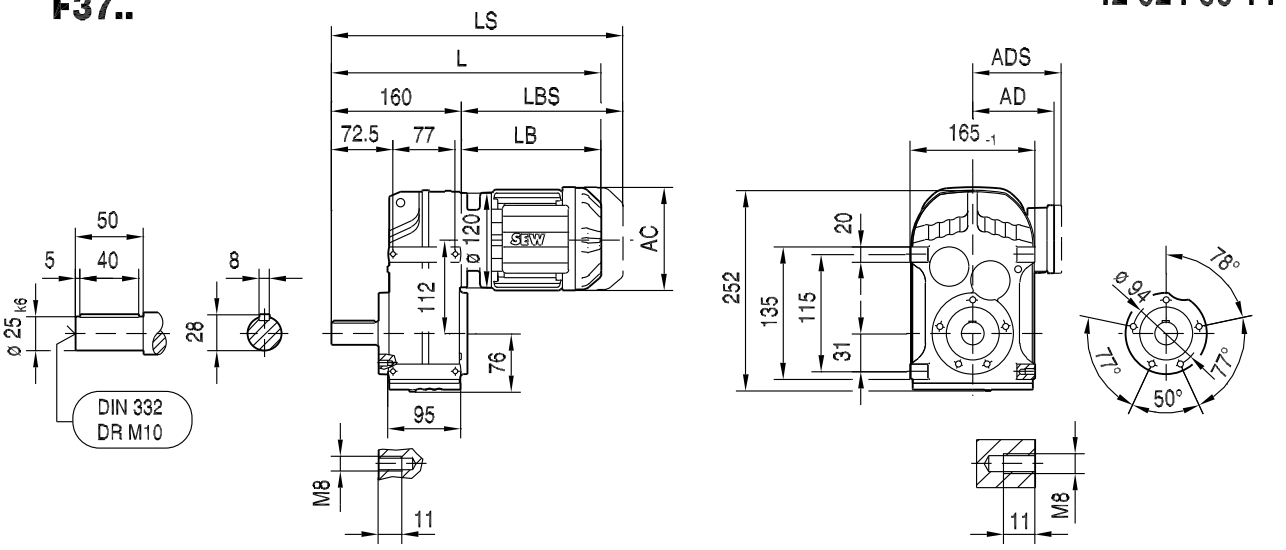




| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | | |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | | |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | | |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | | |
| **L** | 286 | 297 | 322 | 377 | 378 | 410 | | |
| **LS** | 341 | 365 | 390 | 458 | 472 | 504 | | |
| **LB** | 191 | 202 | 227 | 282 | 283 | 315 | | |
| **LBS** | 246 | 270 | 295 | 363 | 377 | 409 | | |

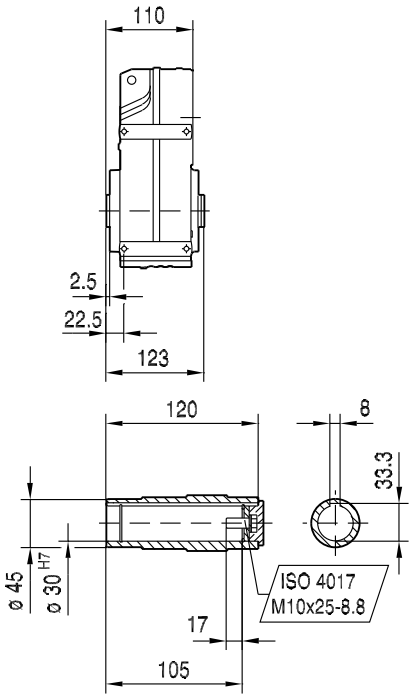
21284997/EN – 03/2015

## F37..

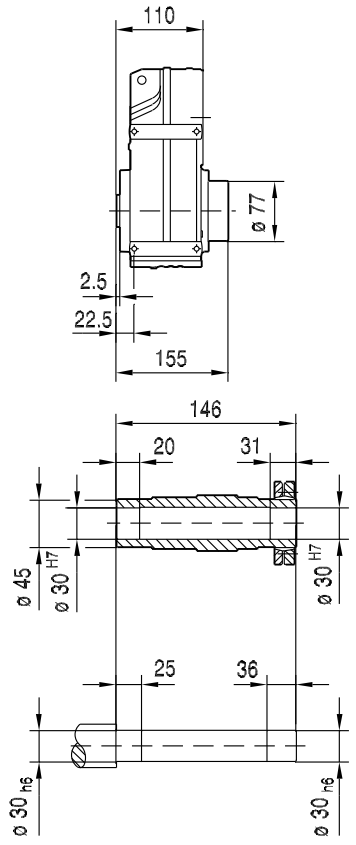
42 024 00 14



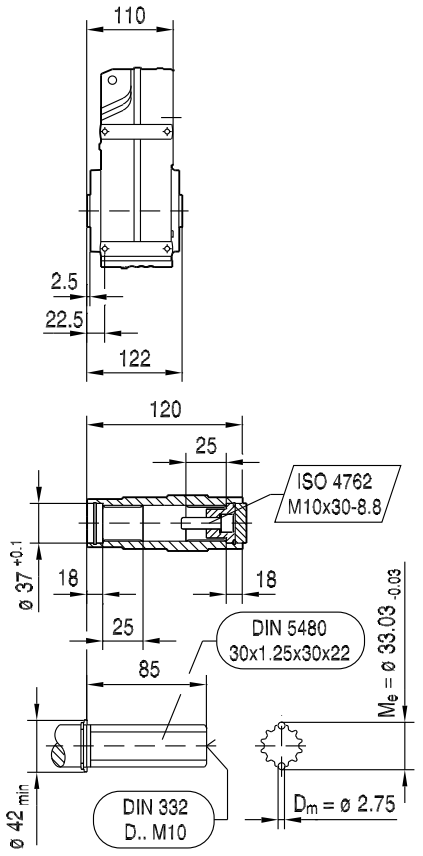

## FA37B..




## FH37B..



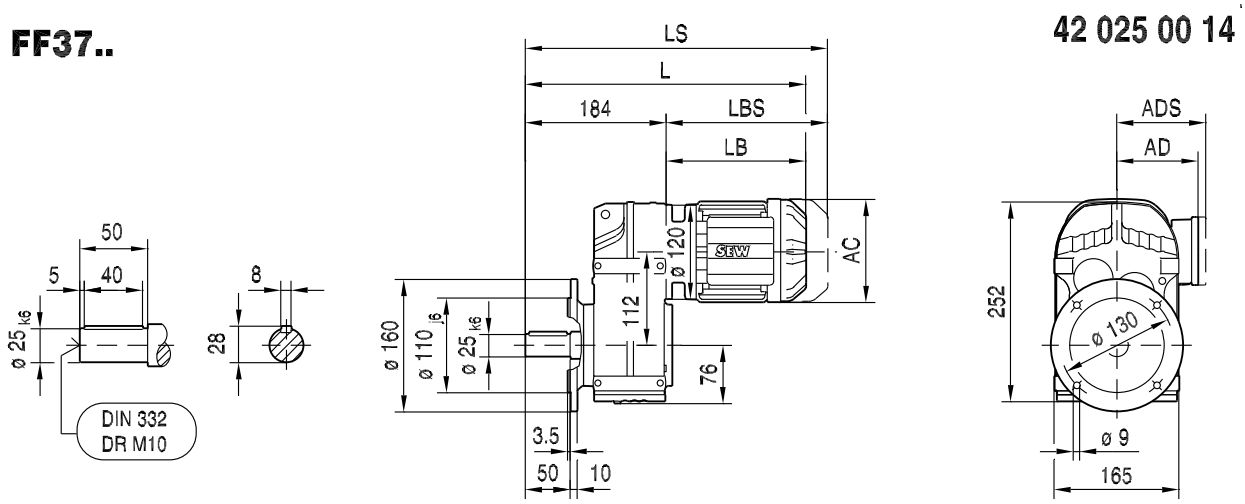

## FV37B..



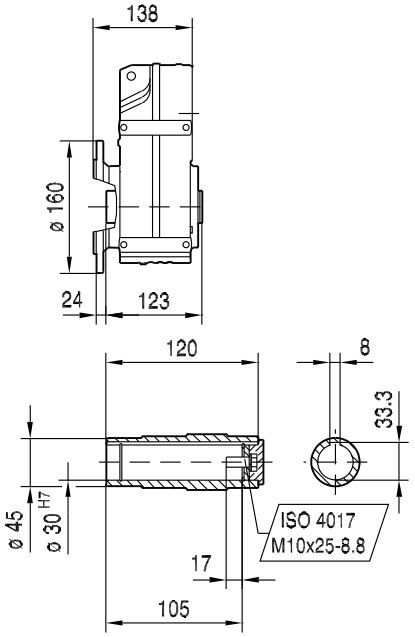

| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 |
| **L** | 351 | 362 | 387 | 442 | 443 | 475 | 474 | 524 |
| **LS** | 406 | 430 | 455 | 523 | 537 | 569 | 568 | 618 |
| **LB** | 191 | 202 | 227 | 282 | 283 | 315 | 314 | 364 |
| **LBS** | 246 | 270 | 295 | 363 | 377 | 409 | 408 | 458 |

21284997/EN – 03/2015

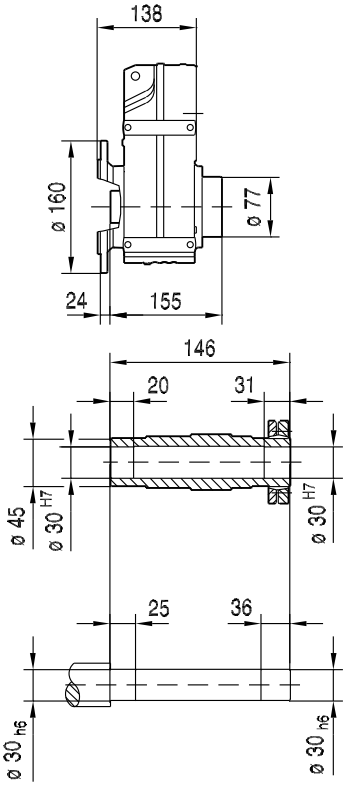
## FF37..



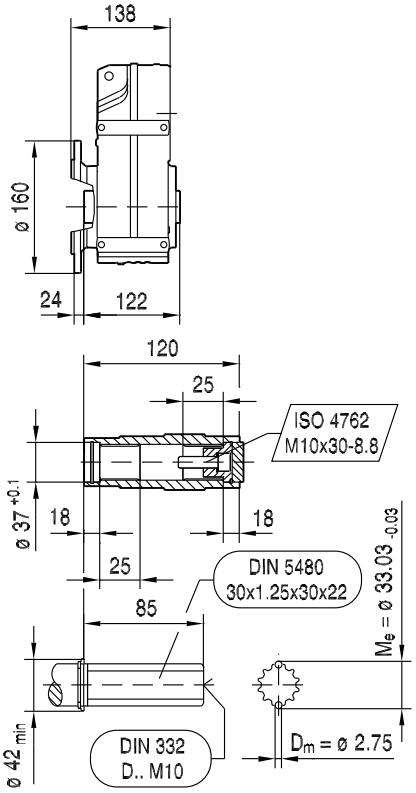

## FAF37..




## FHF37..




## FVF37..

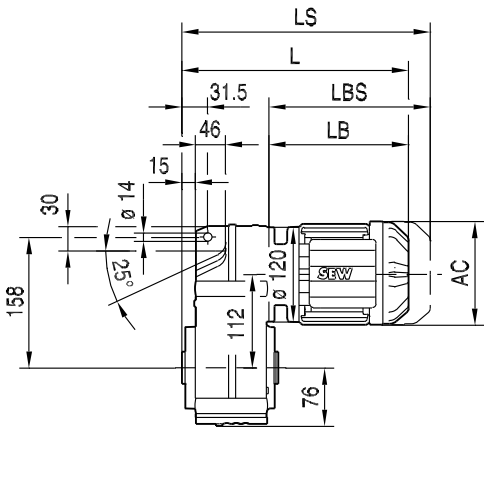



| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 |
| **L** | 375 | 386 | 411 | 466 | 467 | 499 | 498 | 548 |
| **LS** | 430 | 454 | 479 | 547 | 561 | 593 | 592 | 642 |
| **LB** | 191 | 202 | 227 | 282 | 283 | 315 | 314 | 364 |
| **LBS** | 246 | 270 | 295 | 363 | 377 | 409 | 408 | 458 |

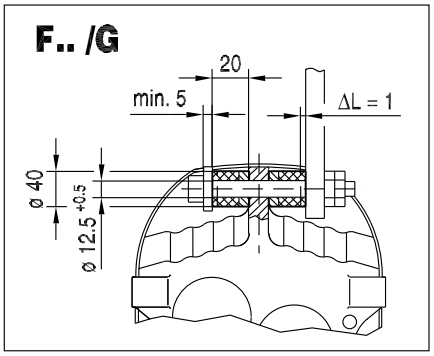
21284997/EN – 03/2015

42 026 00 14

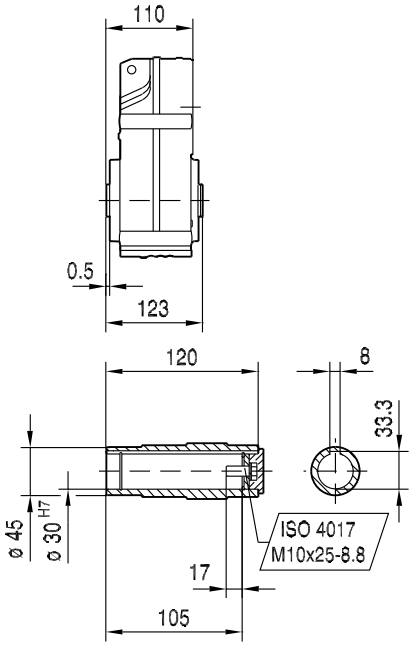
## FA37..



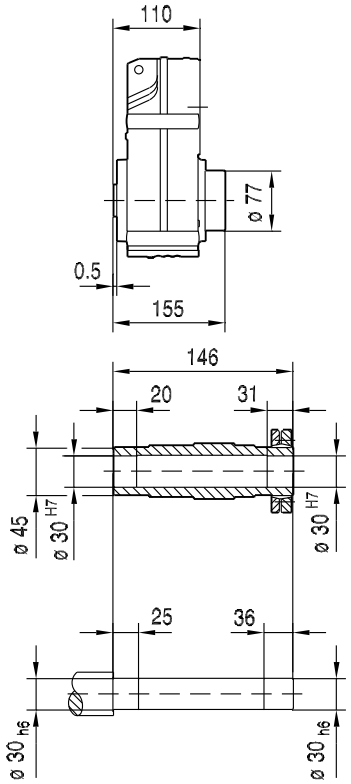

## F.. /G



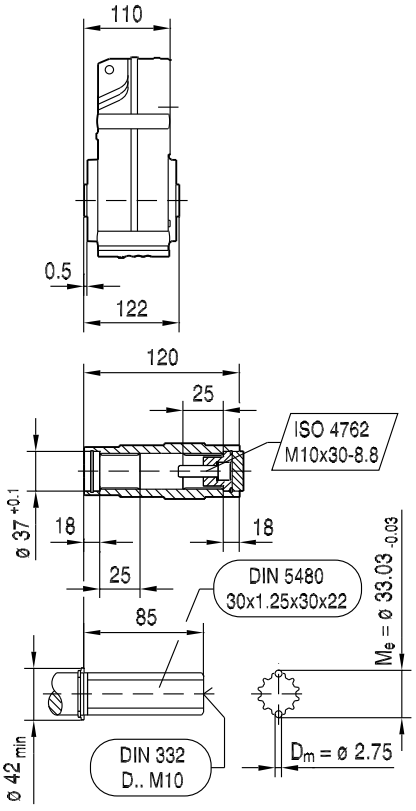

## FA37..




## FH37..




## FV37..

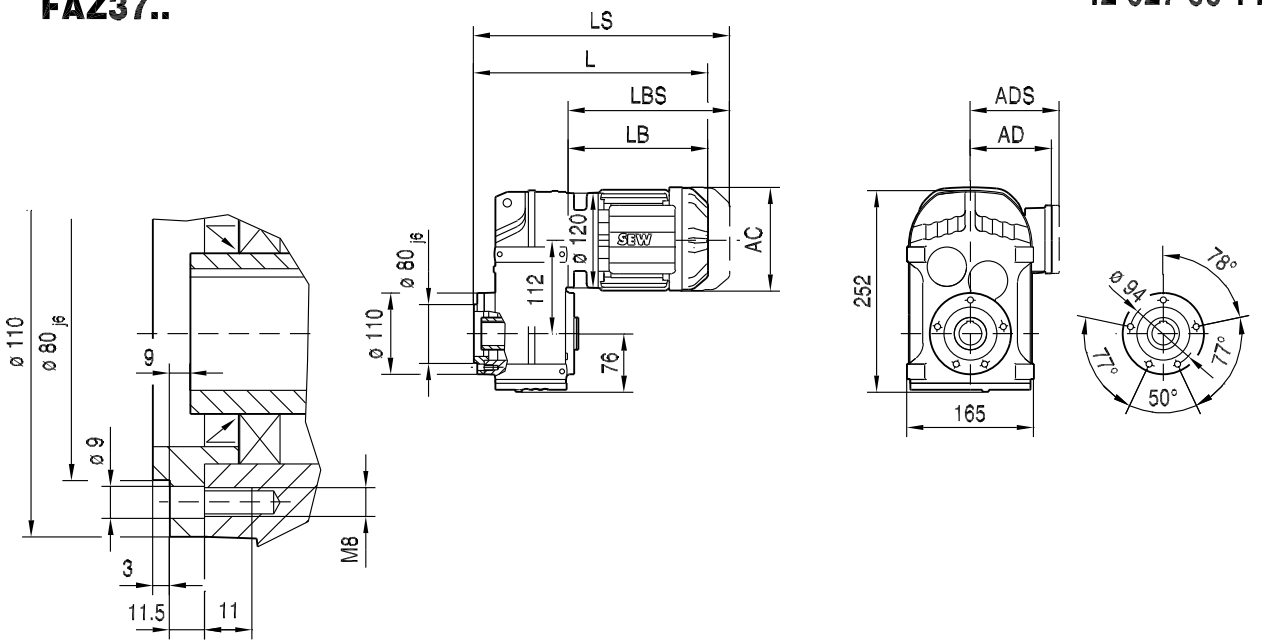



| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 |
| **L** | 301 | 312 | 337 | 392 | 393 | 425 | 424 | 474 |
| **LS** | 356 | 380 | 405 | 473 | 487 | 519 | 518 | 568 |
| **LB** | 191 | 202 | 227 | 282 | 283 | 315 | 314 | 364 |
| **LBS** | 246 | 270 | 295 | 363 | 377 | 409 | 408 | 458 |

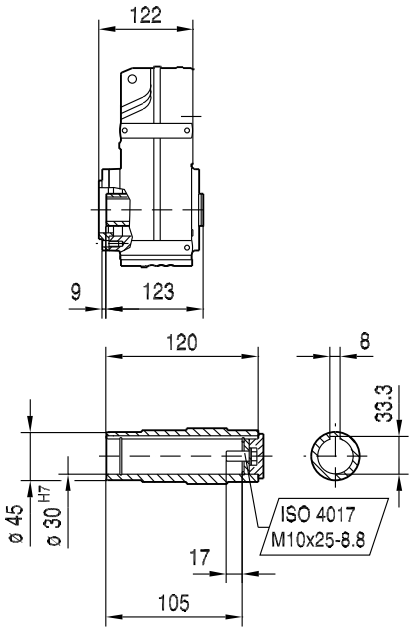
21284997/EN – 03/2015

## FAZ37..

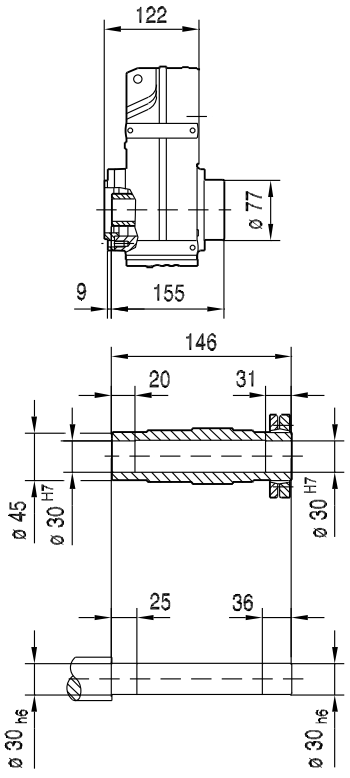
42 027 00 14



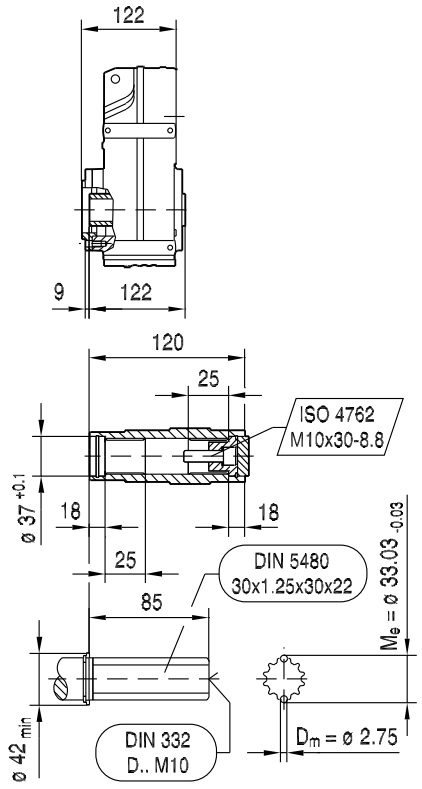

## FAZ37..




## FHZ37..




## FVZ37..

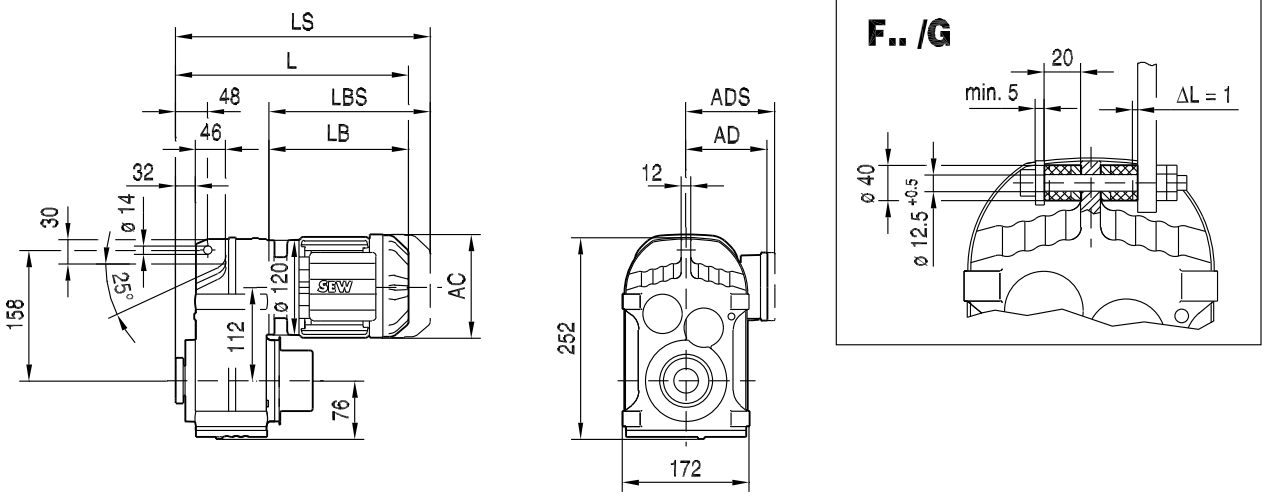


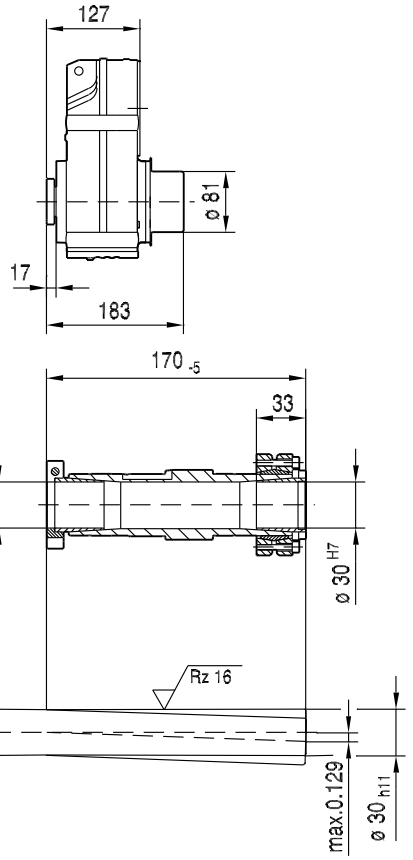

| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 |
| **L** | 313 | 324 | 349 | 404 | 405 | 437 | 436 | 486 |
| **LS** | 368 | 392 | 417 | 485 | 499 | 531 | 530 | 580 |
| **LB** | 191 | 202 | 227 | 282 | 283 | 315 | 314 | 364 |
| **LBS** | 246 | 270 | 295 | 363 | 377 | 409 | 408 | 458 |

21284997/EN – 03/2015

**FT37..**

42 028 00 14



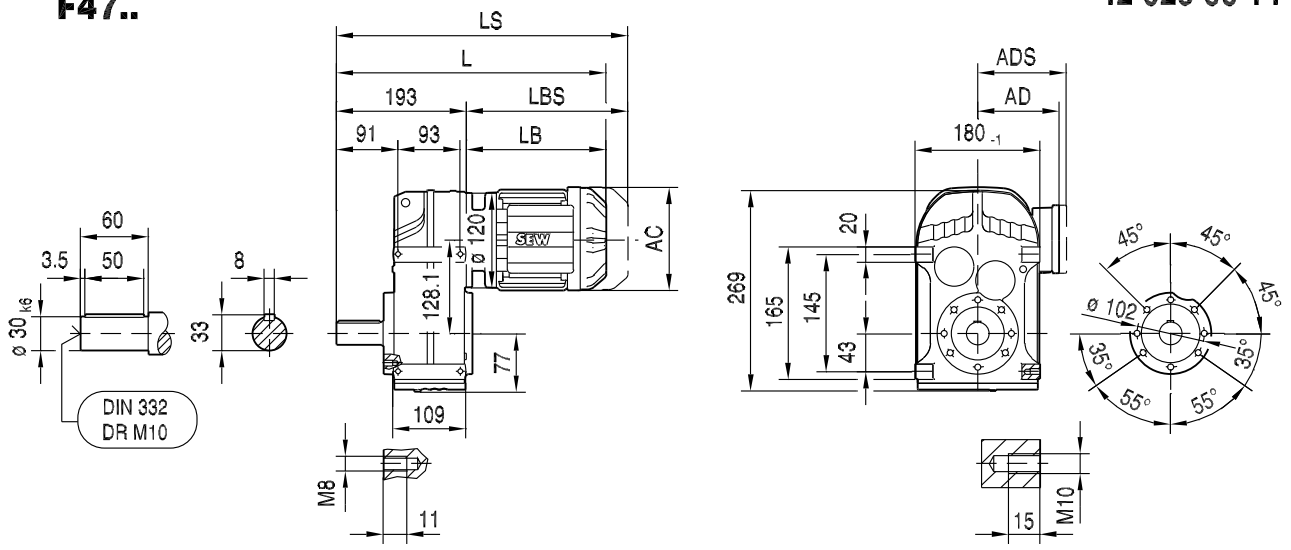




| (→ 142) | DR63.. | DR71S | DR71M | | | | | |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | | | | | |
| **AD** | 105 | 119 | 119 | | | | | |
| **ADS** | 105 | 129 | 129 | | | | | |
| **L** | 318 | 329 | 354 | | | | | |
| **LS** | 373 | 397 | 422 | | | | | |
| **LB** | 191 | 202 | 227 | | | | | |
| **LBS** | 246 | 270 | 295 | | | | | |

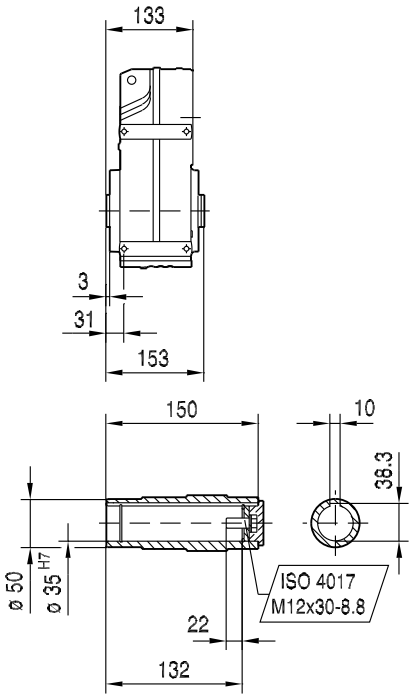
21284997/EN – 03/2015

## F47..

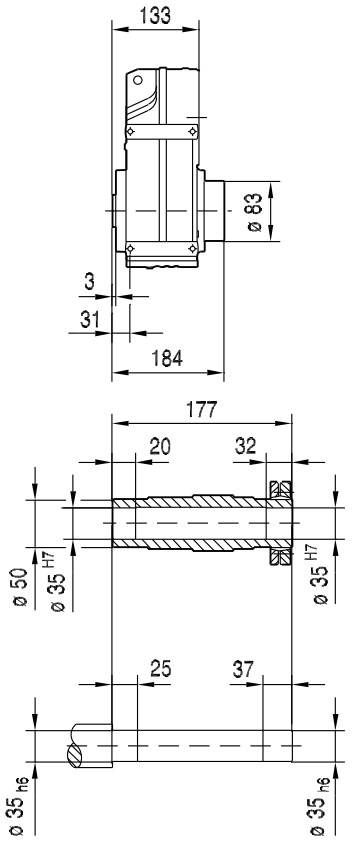
42 029 00 14



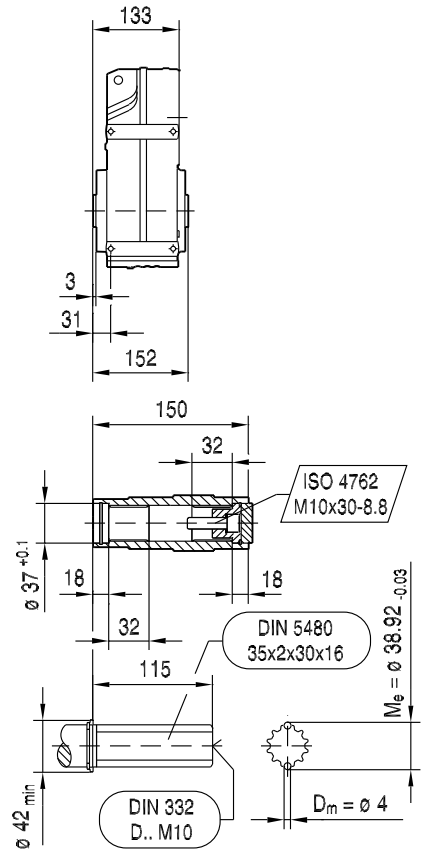

## FA47B..




## FH47B..

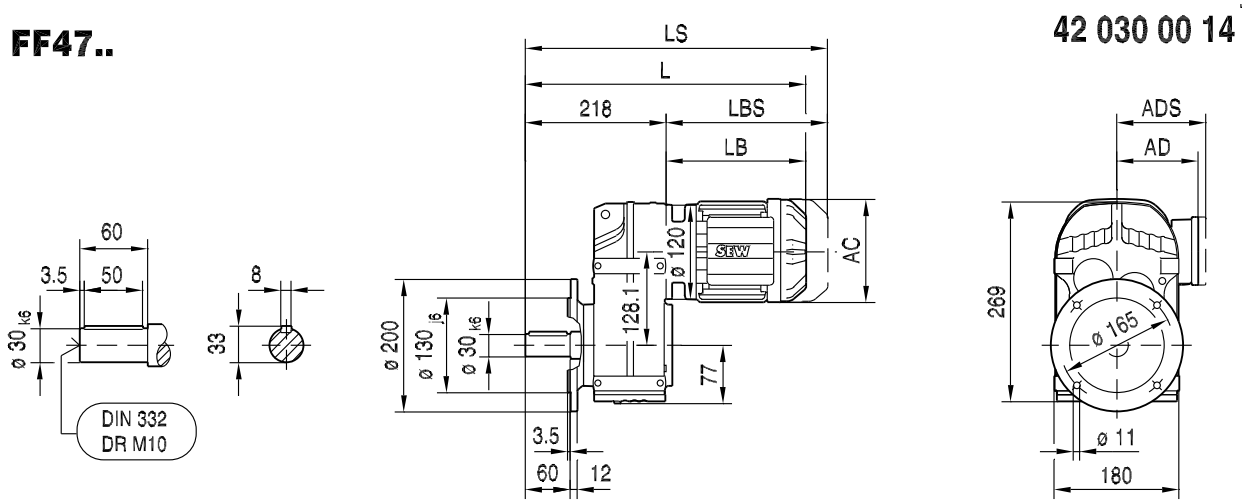



## FV47B..

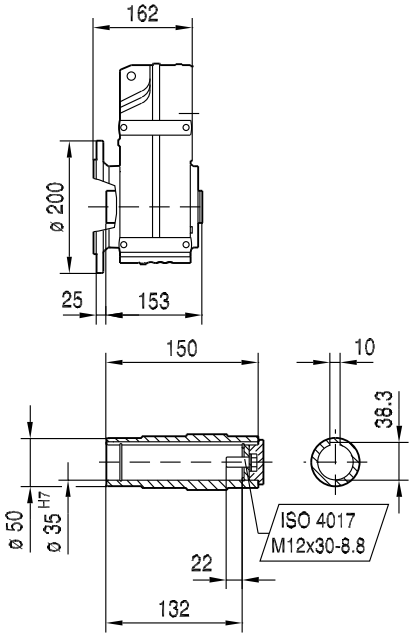



| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 |
| **L** | 384 | 395 | 420 | 475 | 476 | 508 | 507 | 557 |
| **LS** | 439 | 463 | 488 | 556 | 570 | 602 | 601 | 651 |
| **LB** | 191 | 202 | 227 | 282 | 283 | 315 | 314 | 364 |
| **LBS** | 246 | 270 | 295 | 363 | 377 | 409 | 408 | 458 |

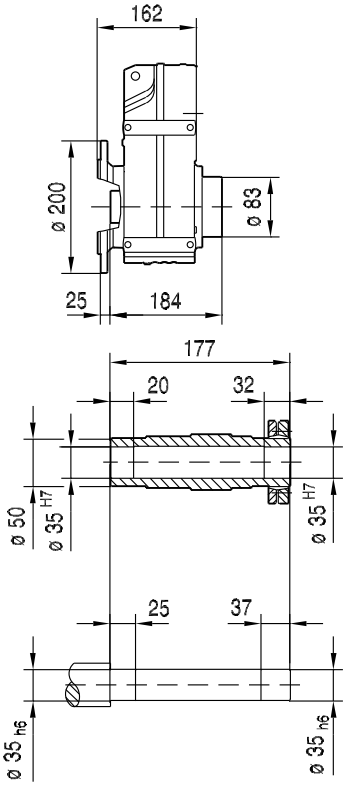
## FF47..



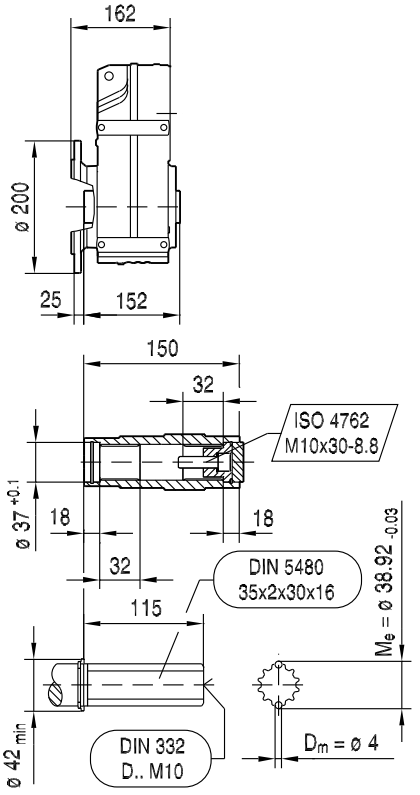

## FAF47..




## FHF47..



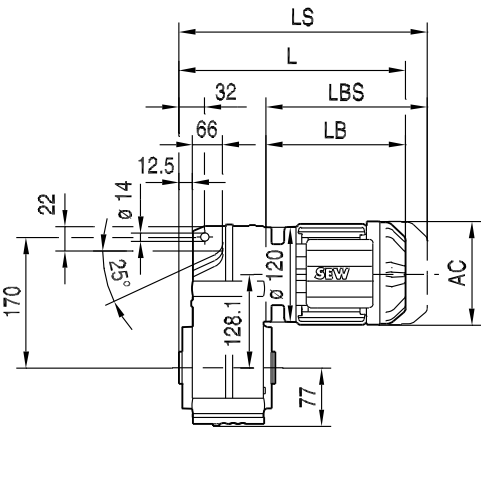

## FVF47..

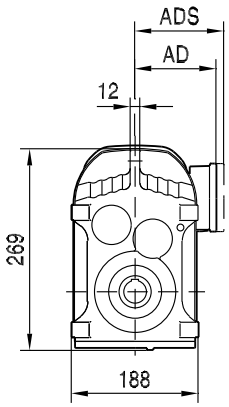



| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 |
| **L** | 409 | 420 | 445 | 500 | 501 | 533 | 532 | 582 |
| **LS** | 464 | 488 | 513 | 581 | 595 | 627 | 626 | 676 |
| **LB** | 191 | 202 | 227 | 282 | 283 | 315 | 314 | 364 |
| **LBS** | 246 | 270 | 295 | 363 | 377 | 409 | 408 | 458 |

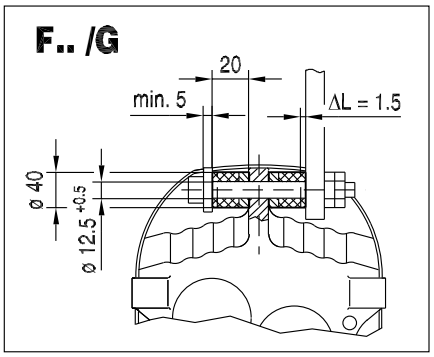
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## FA47..

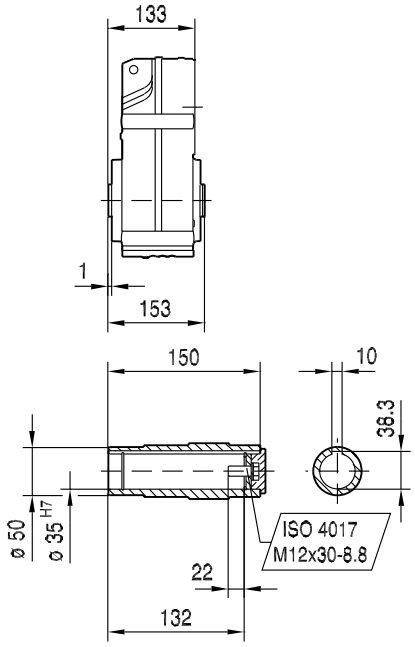


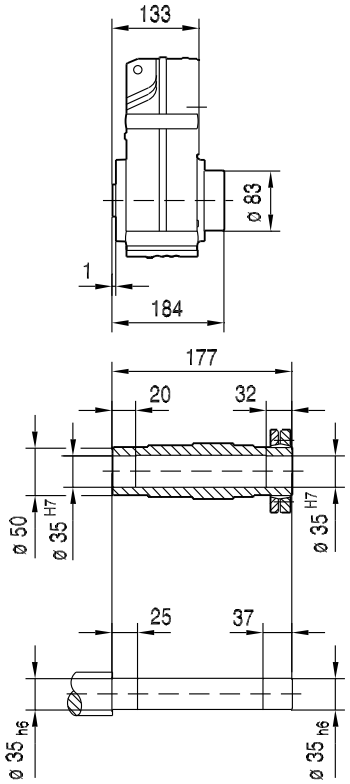

42 031 00 14



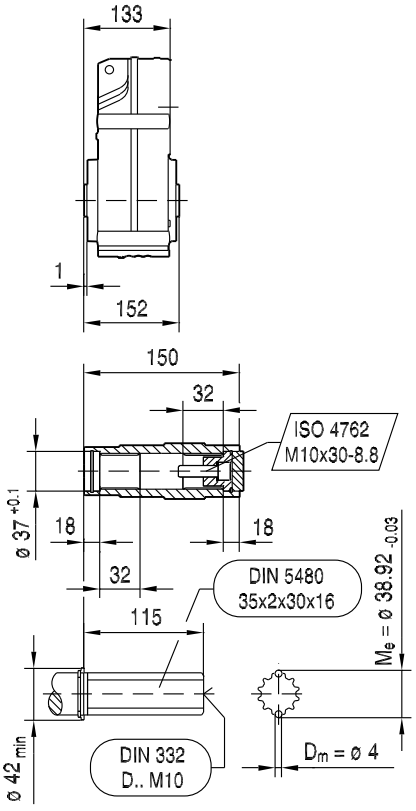

## FA47..




## FH47..




## FV47..

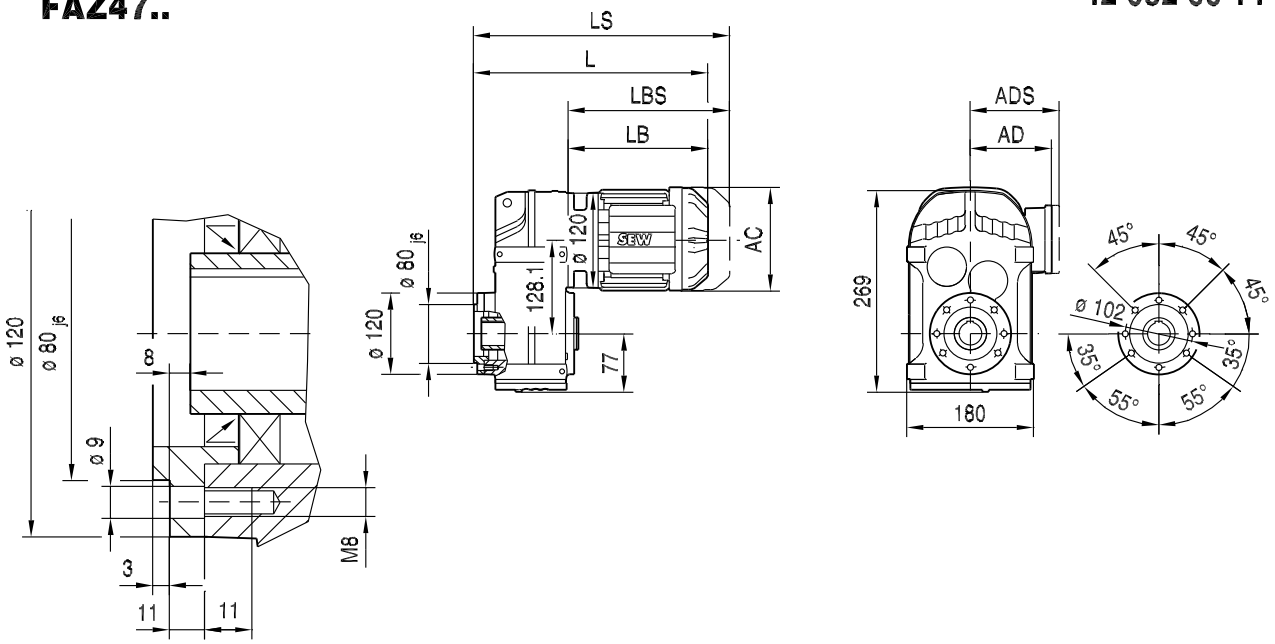



| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 |
| **L** | 324 | 335 | 360 | 415 | 416 | 448 | 447 | 497 |
| **LS** | 379 | 403 | 428 | 496 | 510 | 542 | 541 | 591 |
| **LB** | 191 | 202 | 227 | 282 | 283 | 315 | 314 | 364 |
| **LBS** | 246 | 270 | 295 | 363 | 377 | 409 | 408 | 458 |

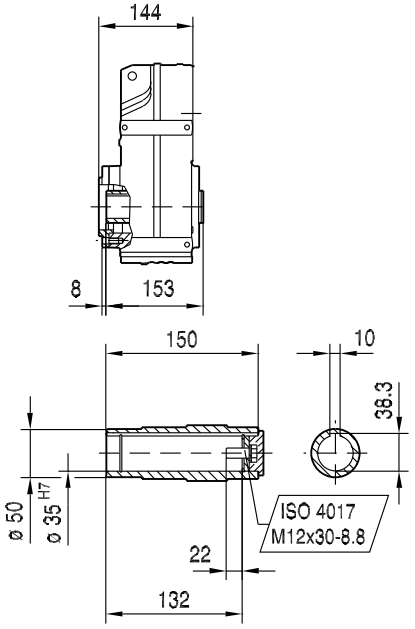
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## FAZ47..

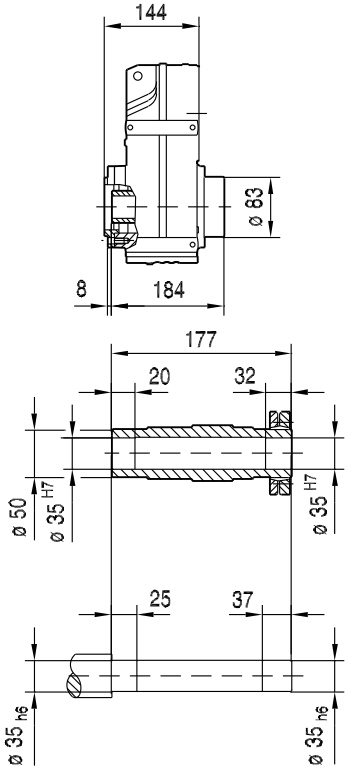
42 032 00 14



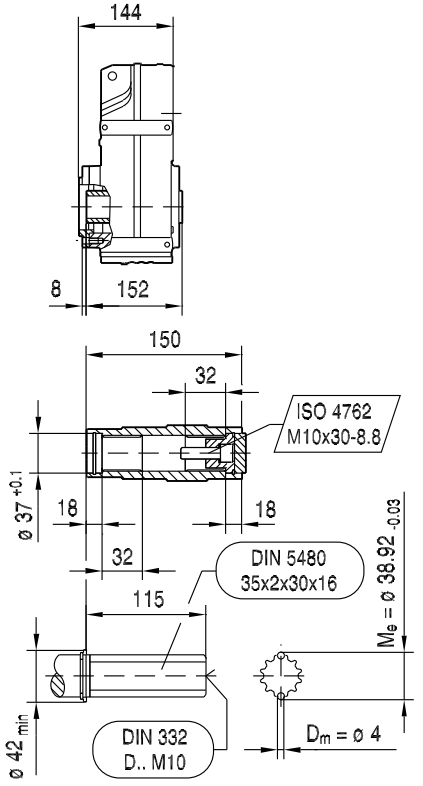

## FAZ47..




## FHZ47..




## FVZ47..

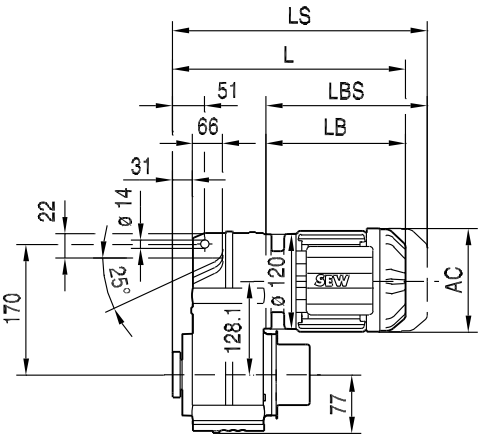


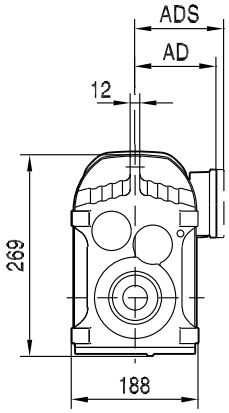

| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 |
| **L** | 335 | 346 | 371 | 426 | 427 | 459 | 458 | 508 |
| **LS** | 390 | 414 | 439 | 507 | 521 | 553 | 552 | 602 |
| **LB** | 191 | 202 | 227 | 282 | 283 | 315 | 314 | 364 |
| **LBS** | 246 | 270 | 295 | 363 | 377 | 409 | 408 | 458 |

21284997/EN – 03/2015

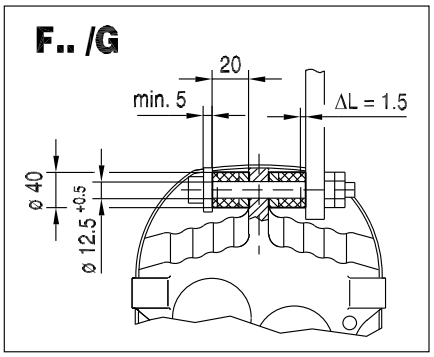
**FT47..**

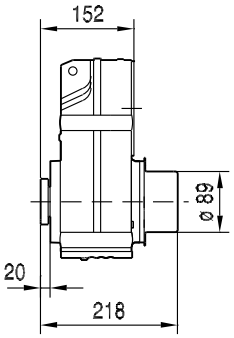
42 033 00 14

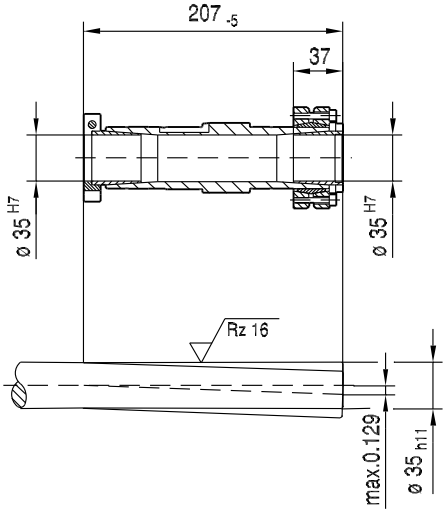


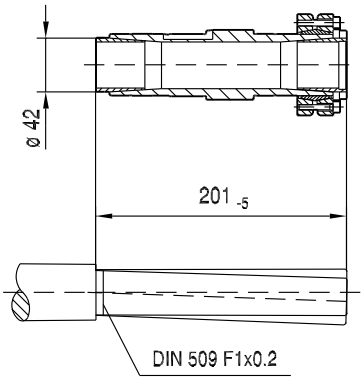




**F.. /G**



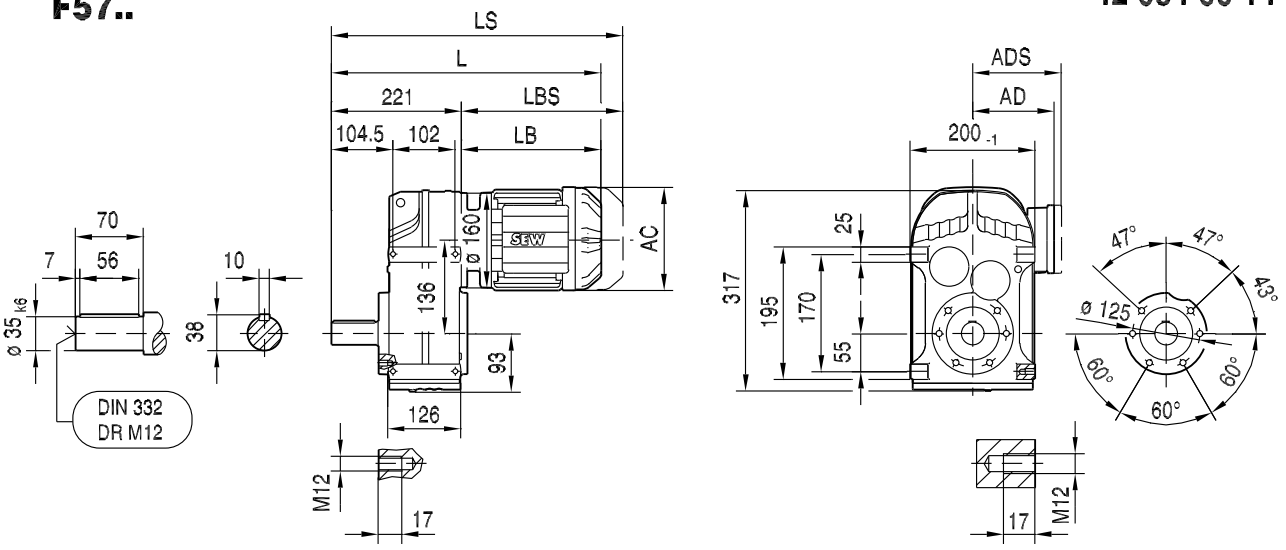




| (→ 142) | DR63.. | DR71S | DR71M | | | | | |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | | | | | |
| **AD** | 105 | 119 | 119 | | | | | |
| **ADS** | 105 | 129 | 129 | | | | | |
| **L** | 343 | 354 | 379 | | | | | |
| **LS** | 398 | 422 | 447 | | | | | |
| **LB** | 191 | 202 | 227 | | | | | |
| **LBS** | 246 | 270 | 295 | | | | | |

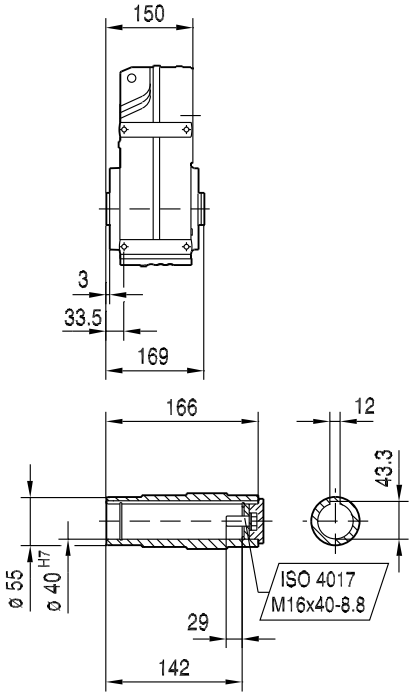
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## F57..

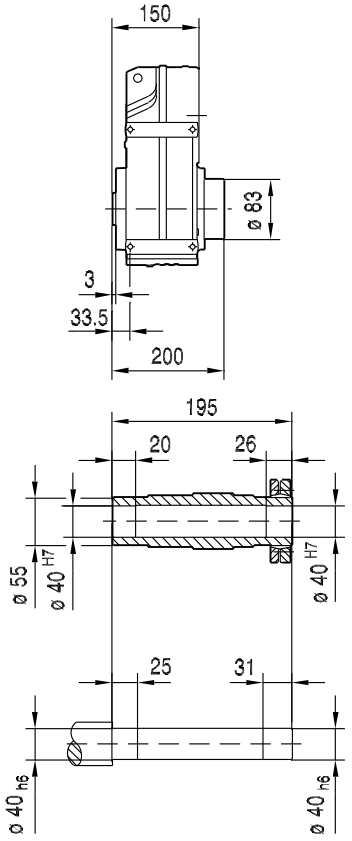
42 034 00 14



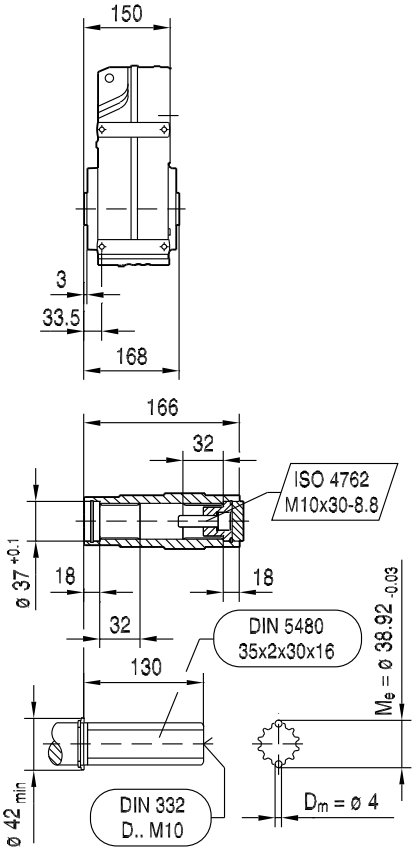

## FA57B..




## FH57B..
**max. DR100LC**



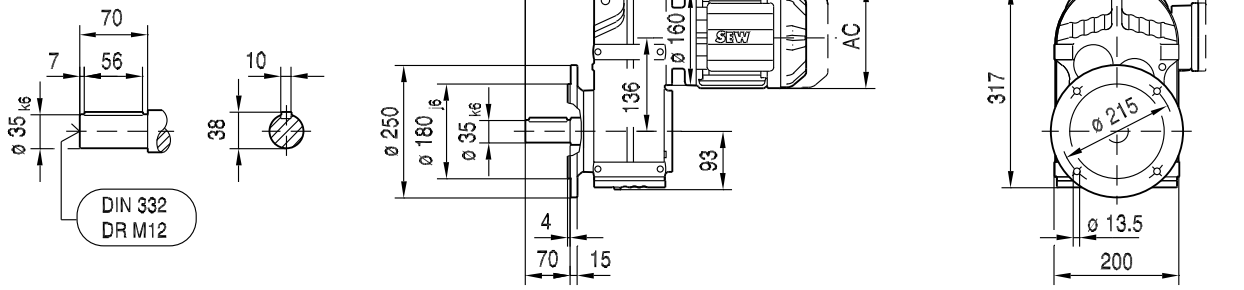

## FV57B..




| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 | 221 | 221 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 | 170 | 170 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 | 172 | 172 |
| **L** | 406 | 417 | 442 | 496 | 498 | 530 | 526 | 576 | 607 | 661 |
| **LS** | 461 | 485 | 510 | 577 | 591 | 623 | 620 | 670 | 719 | 773 |
| **LB** | 185 | 196 | 221 | 275 | 277 | 309 | 305 | 355 | 386 | 440 |
| **LBS** | 240 | 264 | 289 | 356 | 370 | 402 | 399 | 449 | 498 | 552 |

21284997/EN – 03/2015

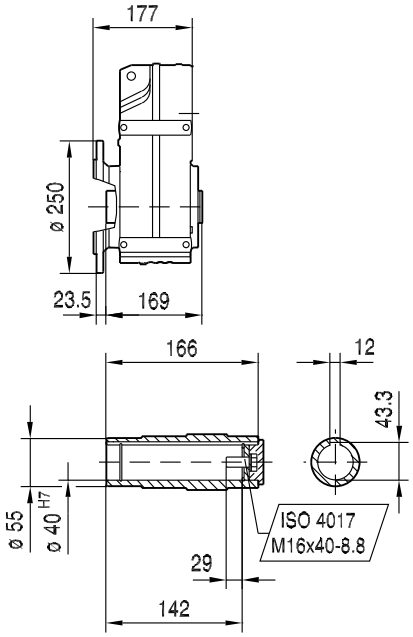
## FF57..



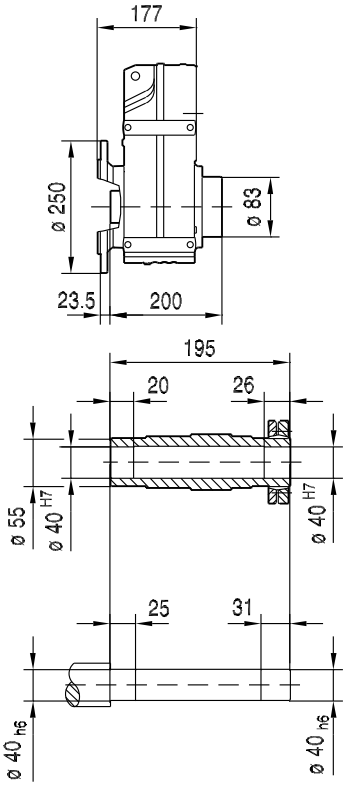

42 035 00 14



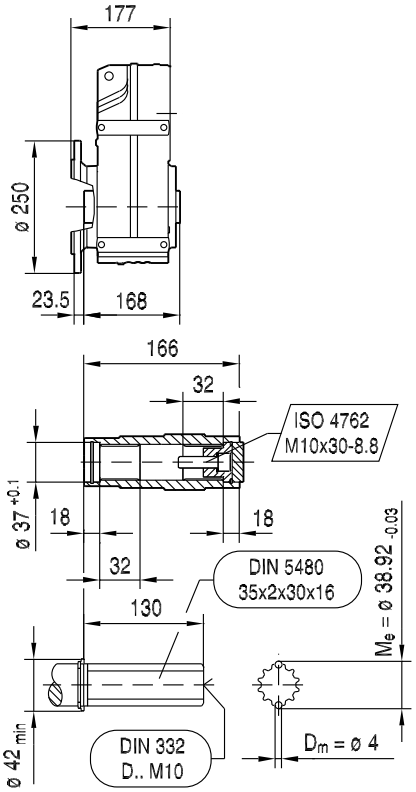

## FAF57..




## FHF57..
**max. DR100LC**



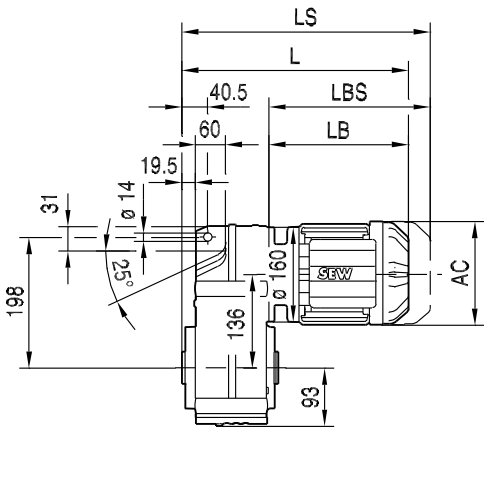

## FVF57..

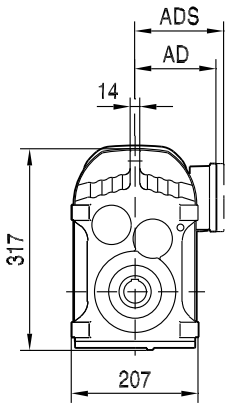



| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 | 221 | 221 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 | 170 | 170 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 | 172 | 172 |
| **L** | 428 | 439 | 464 | 518 | 520 | 552 | 548 | 598 | 629 | 683 |
| **LS** | 483 | 507 | 532 | 599 | 613 | 645 | 642 | 692 | 741 | 795 |
| **LB** | 185 | 196 | 221 | 275 | 277 | 309 | 305 | 355 | 386 | 440 |
| **LBS** | 240 | 264 | 289 | 356 | 370 | 402 | 399 | 449 | 498 | 552 |

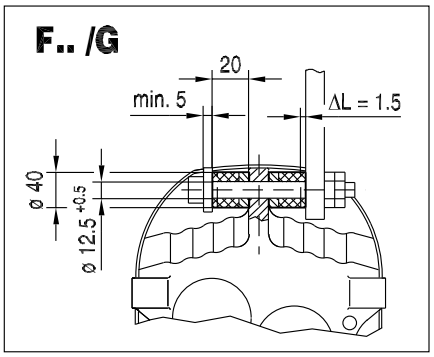
42 036 00 14

## FA57..

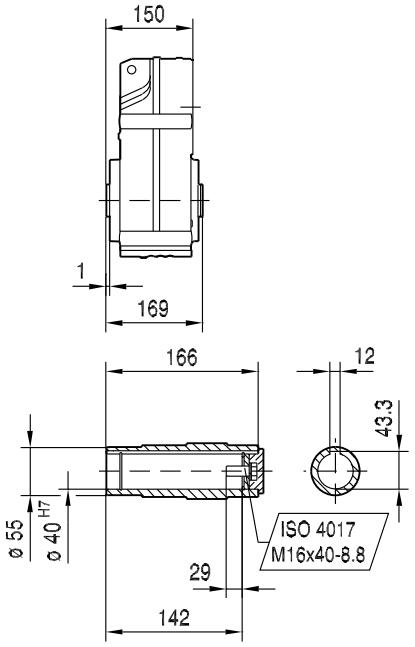


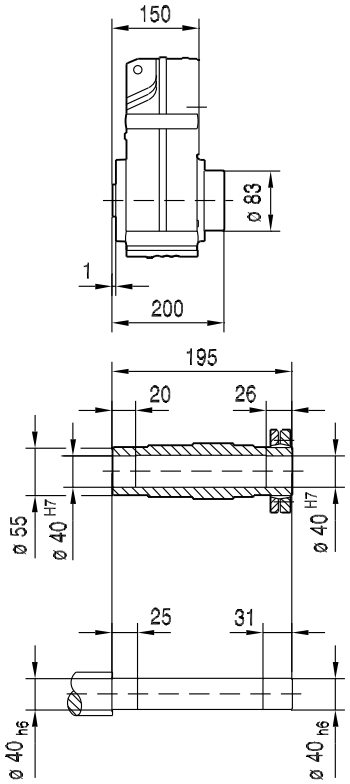

## F.. /G



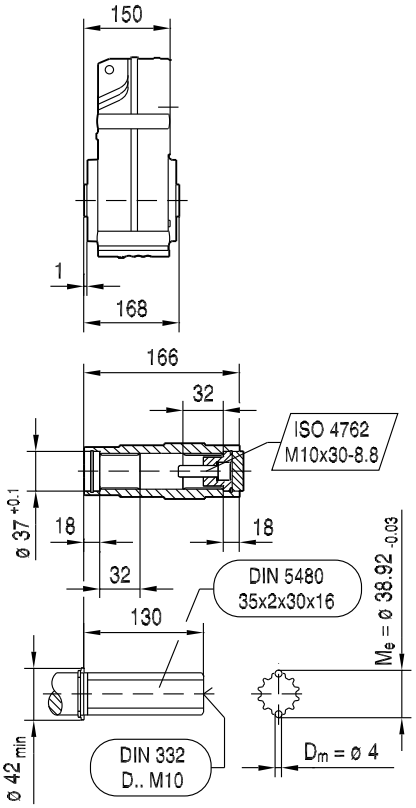

## FA57..




## FH57..
**max. DR100LC**




## FV57..

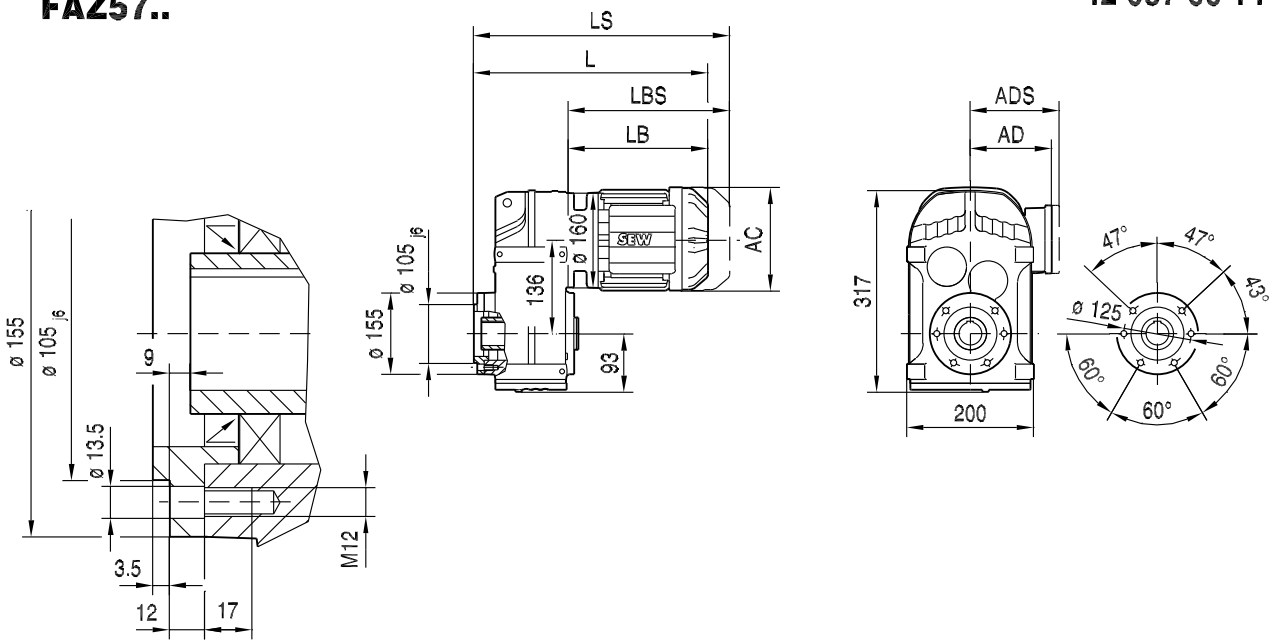



| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 | 221 | 221 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 | 170 | 170 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 | 172 | 172 |
| **L** | 335 | 346 | 371 | 425 | 427 | 459 | 455 | 505 | 536 | 590 |
| **LS** | 390 | 414 | 439 | 506 | 520 | 552 | 549 | 599 | 648 | 702 |
| **LB** | 185 | 196 | 221 | 275 | 277 | 309 | 305 | 355 | 386 | 440 |
| **LBS** | 240 | 264 | 289 | 356 | 370 | 402 | 399 | 449 | 498 | 552 |

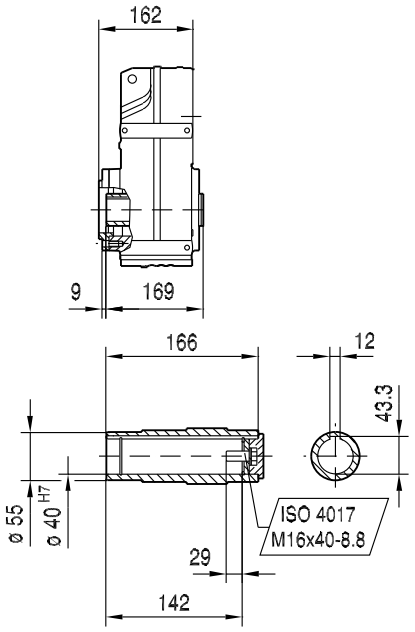
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## FAZ57..

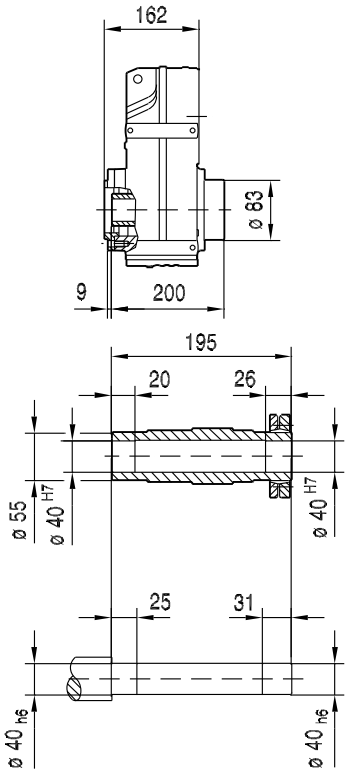
42 037 00 14



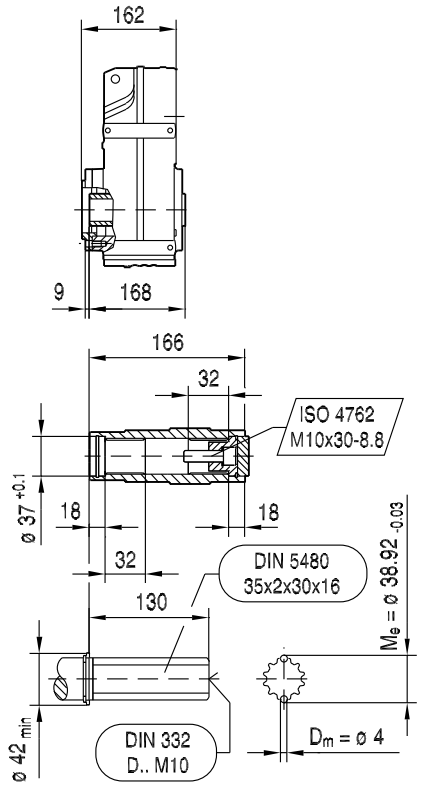

## FAZ57..




## FHZ57..
**max. DR100LC**



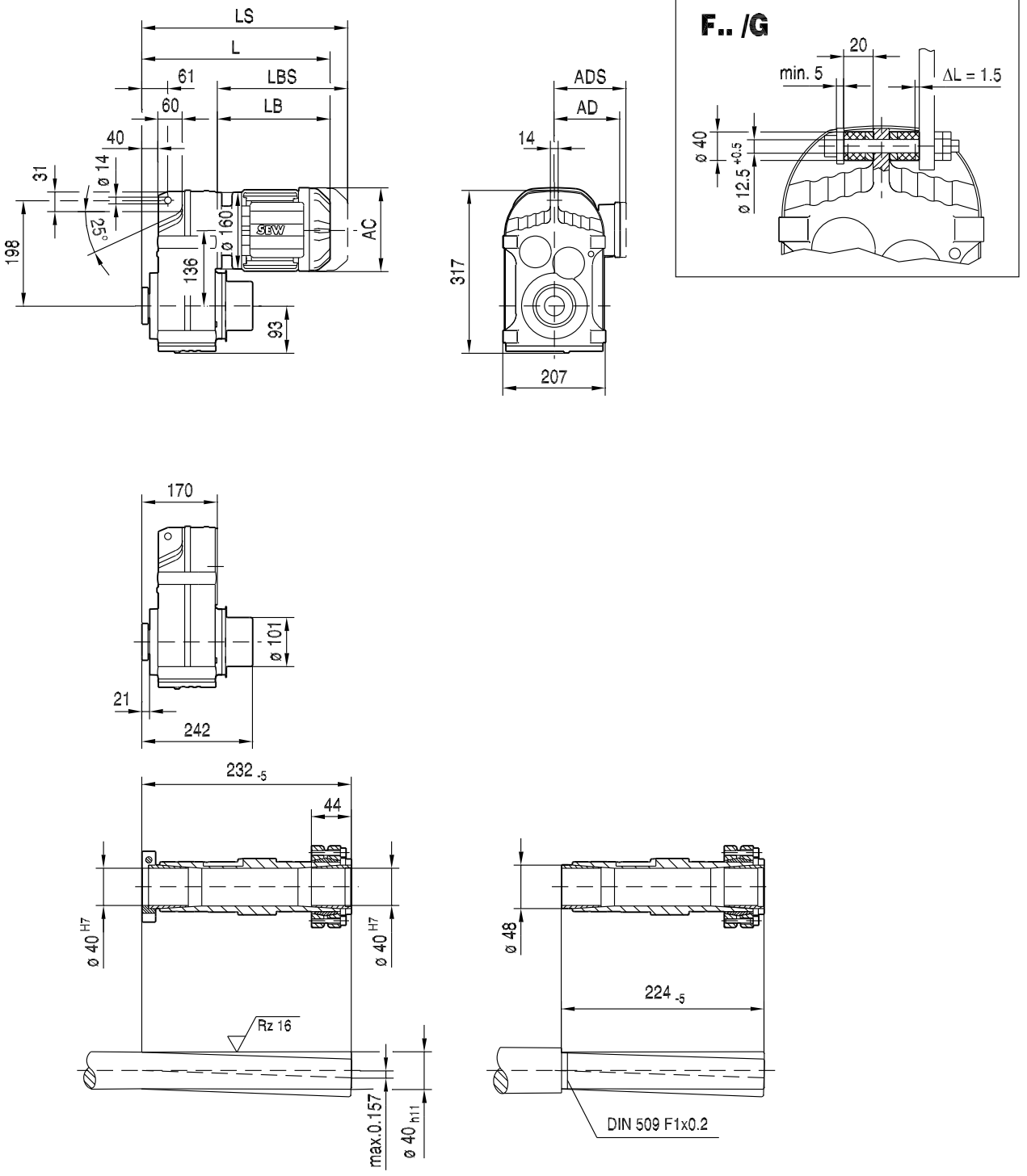

## FVZ57..




| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 | 221 | 221 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 | 170 | 170 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 | 172 | 172 |
| **L** | 347 | 358 | 383 | 437 | 439 | 471 | 467 | 517 | 548 | 602 |
| **LS** | 402 | 426 | 451 | 518 | 532 | 564 | 561 | 611 | 660 | 714 |
| **LB** | 185 | 196 | 221 | 275 | 277 | 309 | 305 | 355 | 386 | 440 |
| **LBS** | 240 | 264 | 289 | 356 | 370 | 402 | 399 | 449 | 498 | 552 |

**FT57..**

42 038 00 14

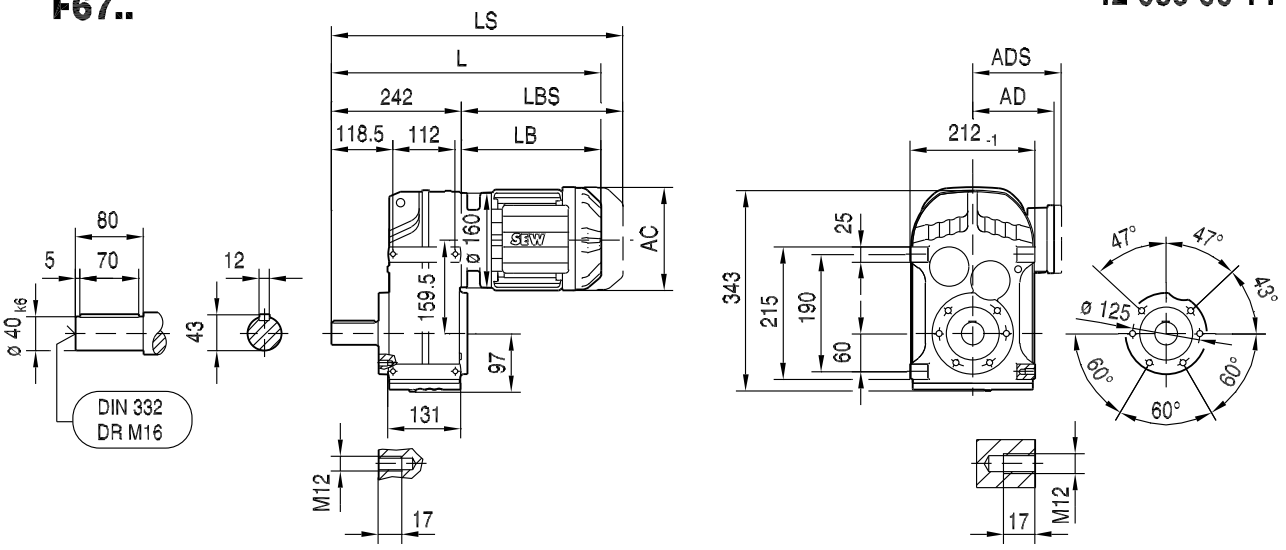



| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | | | |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | | | |
| **AD** | 105 | 119 | 119 | 128 | 140 | | | |
| **ADS** | 105 | 129 | 129 | 139 | 150 | | | |
| **L** | 355 | 366 | 391 | 445 | 447 | | | |
| **LS** | 410 | 434 | 459 | 526 | 540 | | | |
| **LB** | 185 | 196 | 221 | 275 | 277 | | | |
| **LBS** | 240 | 264 | 289 | 356 | 370 | | | |

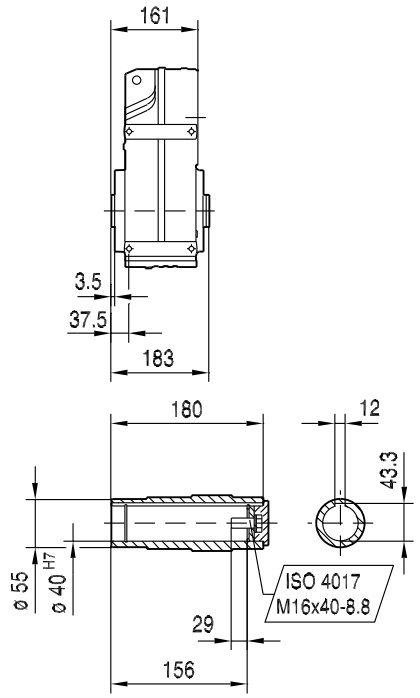
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## F67..

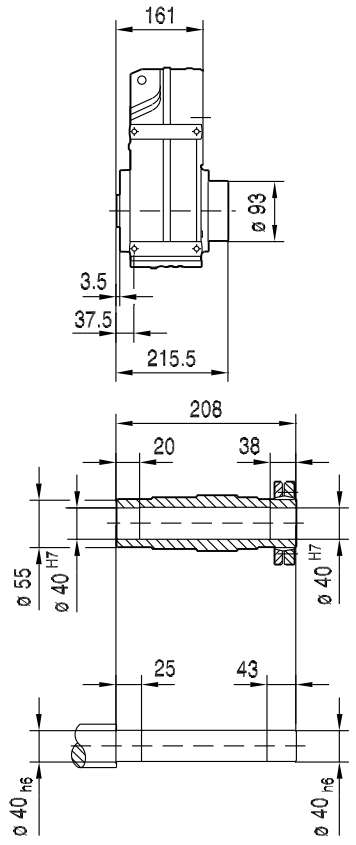
42 039 00 14



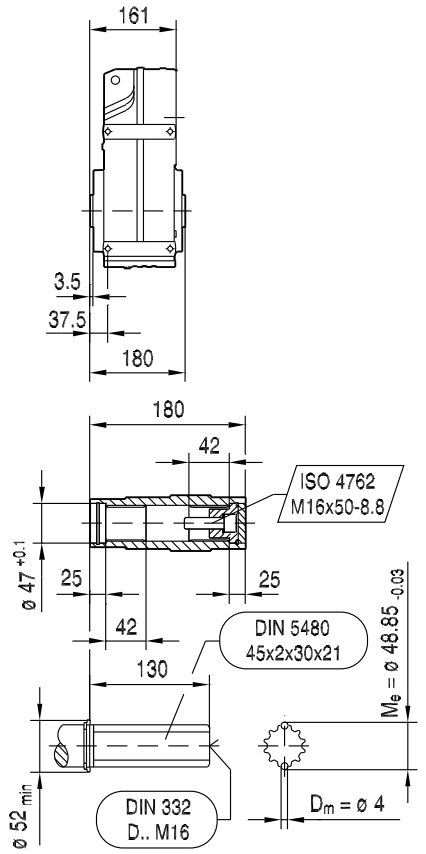

## FA67B..




## FH67B..
**max. DR132S**



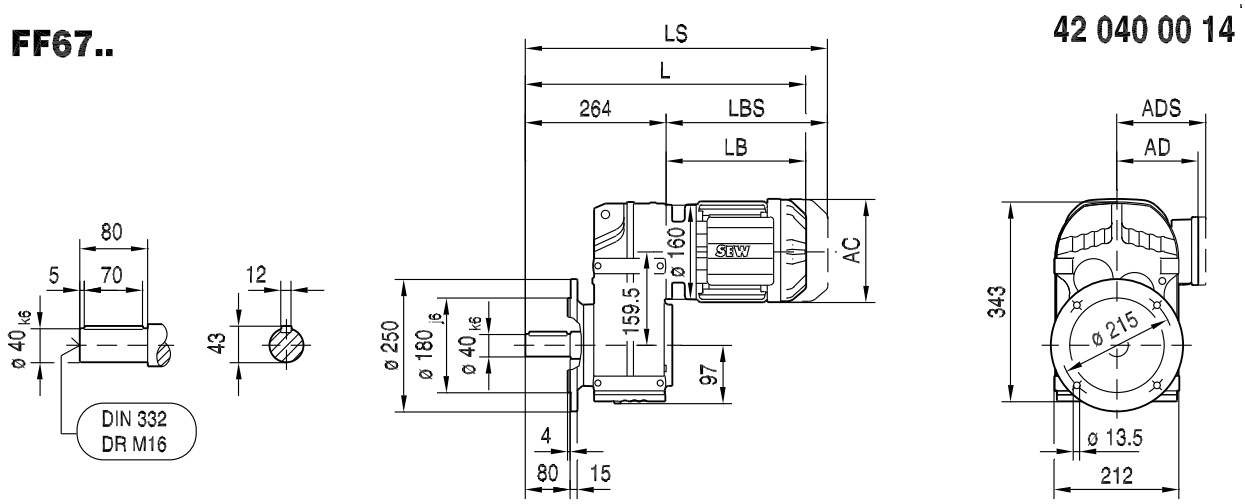

## FV67B..



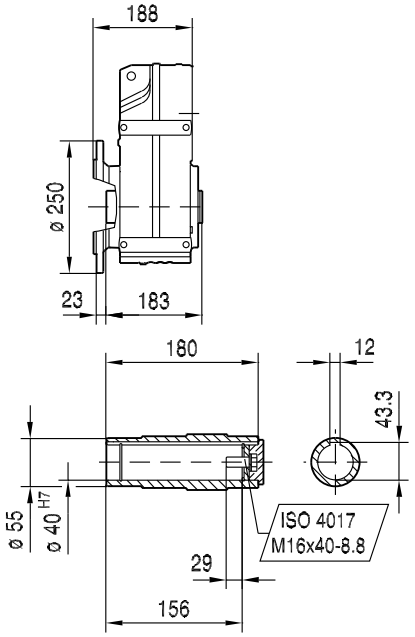

| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 | 221 | 221 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 | 170 | 170 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 | 172 | 172 |
| **L** | 427 | 438 | 463 | 517 | 519 | 551 | 547 | 597 | 628 | 682 |
| **LS** | 482 | 506 | 531 | 598 | 612 | 644 | 641 | 691 | 740 | 794 |
| **LB** | 185 | 196 | 221 | 275 | 277 | 309 | 305 | 355 | 386 | 440 |
| **LBS** | 240 | 264 | 289 | 356 | 370 | 402 | 399 | 449 | 498 | 552 |

21284997/EN – 03/2015

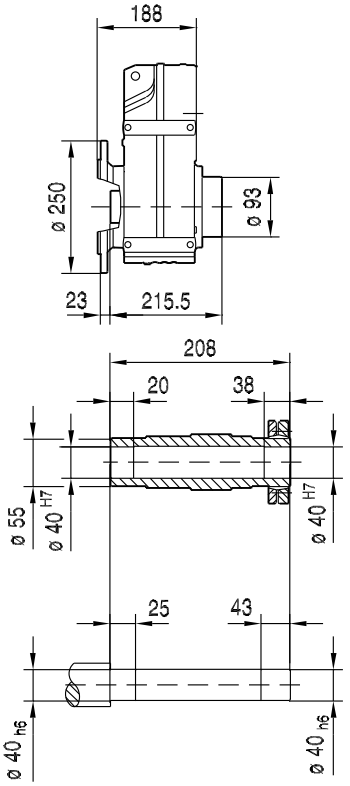
## FF67..



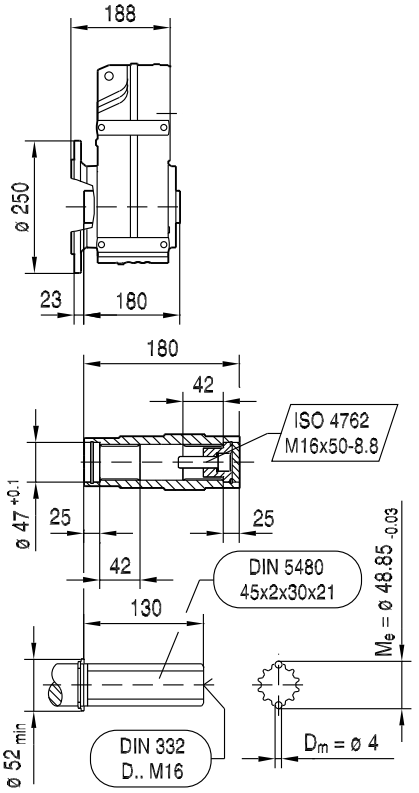

## FAF67..




## FHF67..
**max. DR132S**




## FVF67..

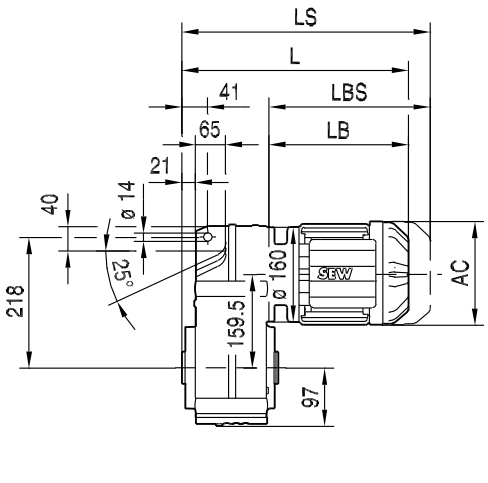


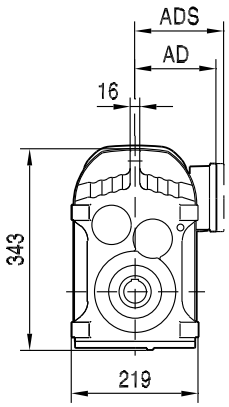

| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 | 221 | 221 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 | 170 | 170 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 | 172 | 172 |
| **L** | 449 | 460 | 485 | 539 | 541 | 573 | 569 | 619 | 650 | 704 |
| **LS** | 504 | 528 | 553 | 620 | 634 | 666 | 663 | 713 | 762 | 816 |
| **LB** | 185 | 196 | 221 | 275 | 277 | 309 | 305 | 355 | 386 | 440 |
| **LBS** | 240 | 264 | 289 | 356 | 370 | 402 | 399 | 449 | 498 | 552 |

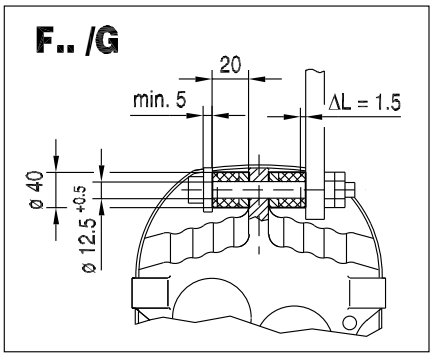
21284997/EN – 03/2015

## FA67..

42 041 00 14

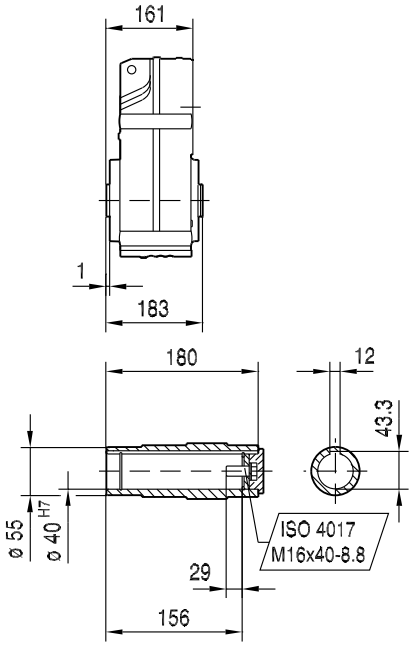


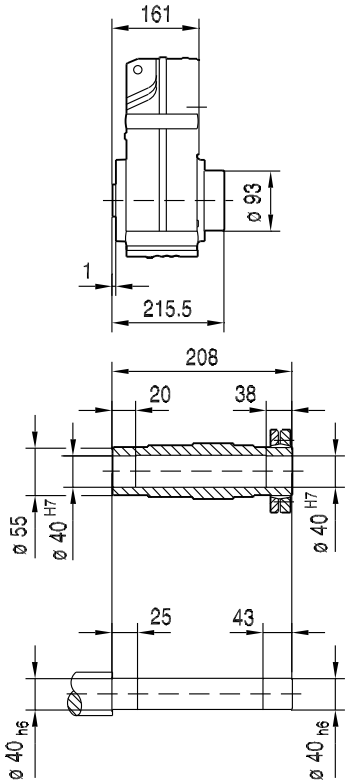





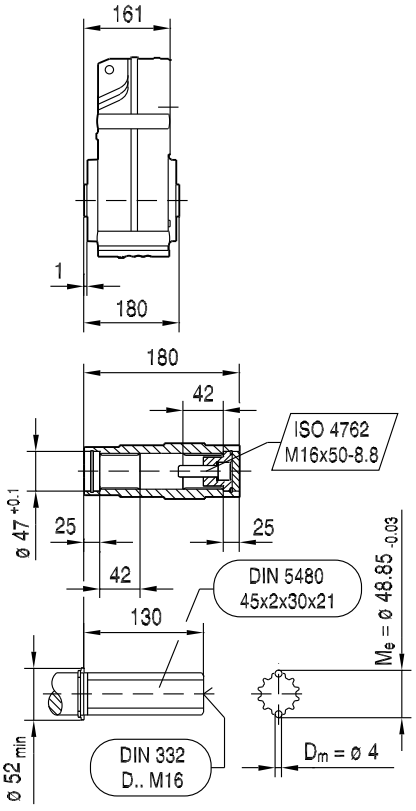

## FA67..




## FH67..
**max. DR132S**




## FV67..

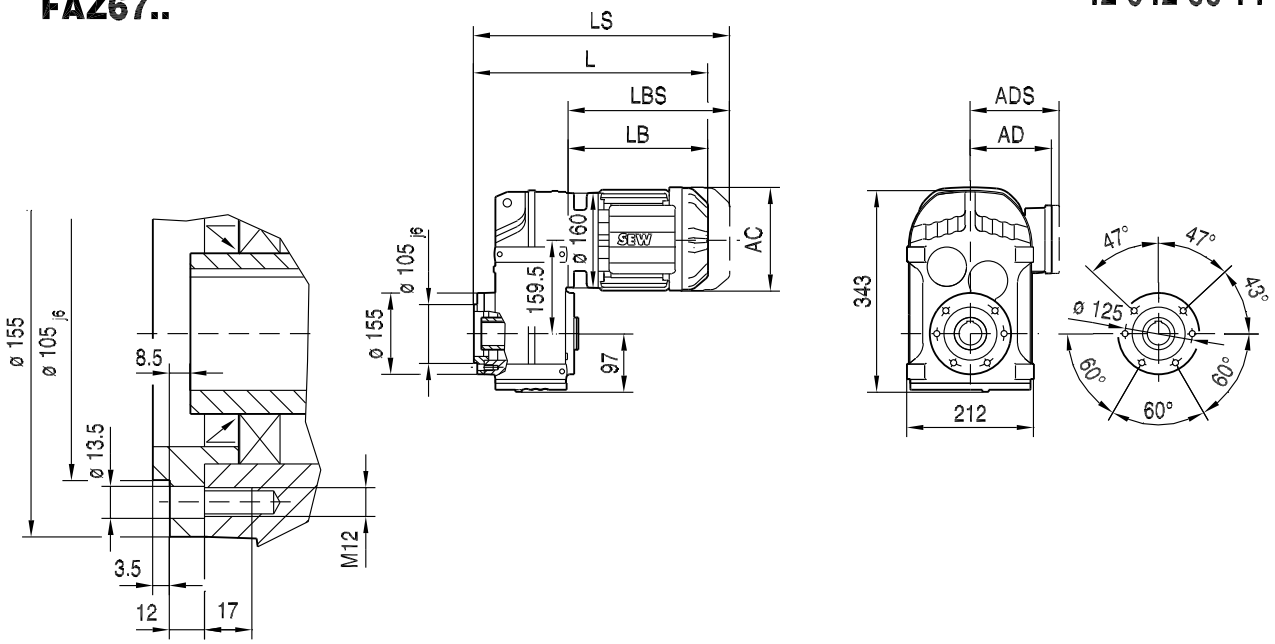



| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 | 221 | 221 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 | 170 | 170 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 | 172 | 172 |
| **L** | 346 | 357 | 382 | 436 | 438 | 470 | 466 | 516 | 547 | 601 |
| **LS** | 401 | 425 | 450 | 517 | 531 | 563 | 560 | 610 | 659 | 713 |
| **LB** | 185 | 196 | 221 | 275 | 277 | 309 | 305 | 355 | 386 | 440 |
| **LBS** | 240 | 264 | 289 | 356 | 370 | 402 | 399 | 449 | 498 | 552 |

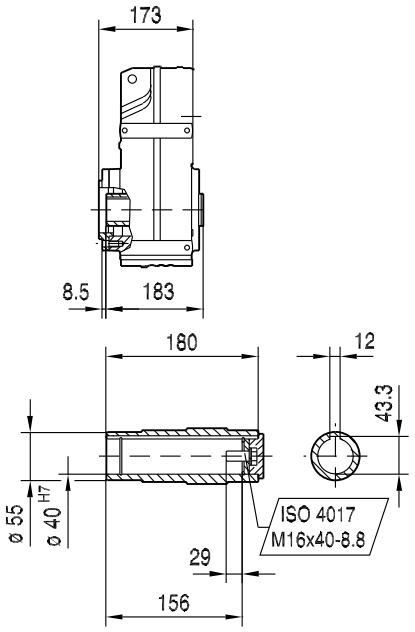
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## FAZ67..

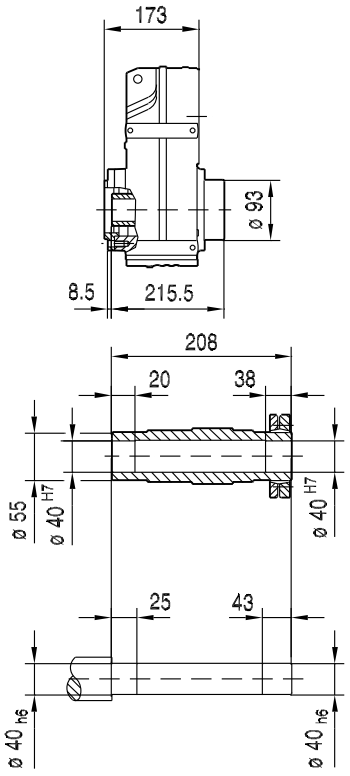
42 042 00 14



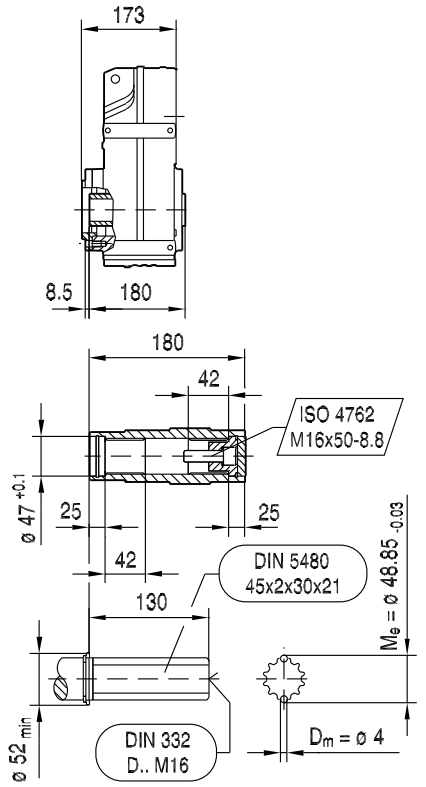

## FAZ67..




## FHZ67..
**max. DR132S**

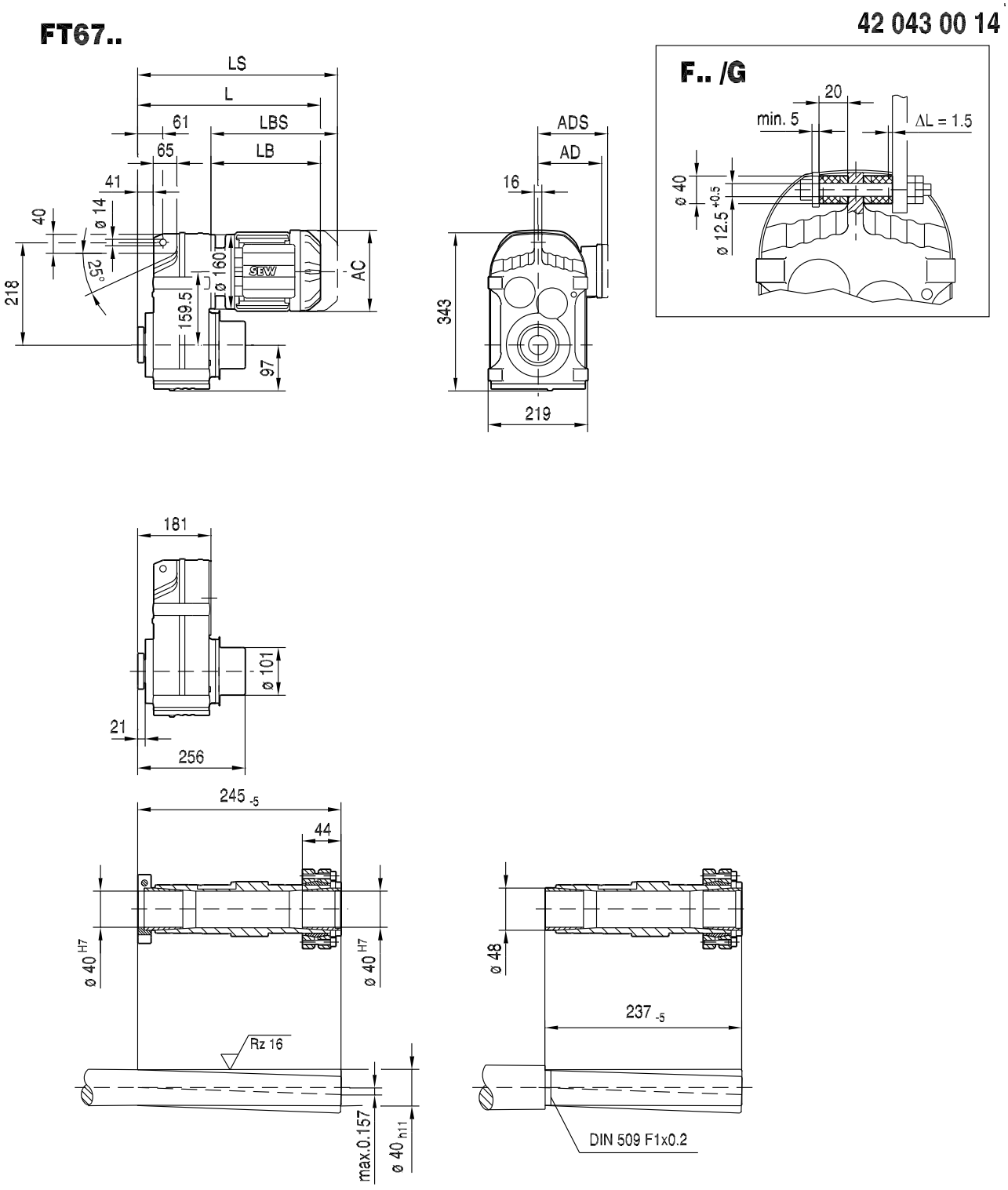



## FVZ67..




| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 | 221 | 221 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 | 170 | 170 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 | 172 | 172 |
| **L** | 358 | 369 | 394 | 448 | 450 | 482 | 478 | 528 | 559 | 613 |
| **LS** | 413 | 437 | 462 | 529 | 543 | 575 | 572 | 622 | 671 | 725 |
| **LB** | 185 | 196 | 221 | 275 | 277 | 309 | 305 | 355 | 386 | 440 |
| **LBS** | 240 | 264 | 289 | 356 | 370 | 402 | 399 | 449 | 498 | 552 |

21284997/EN – 03/2015

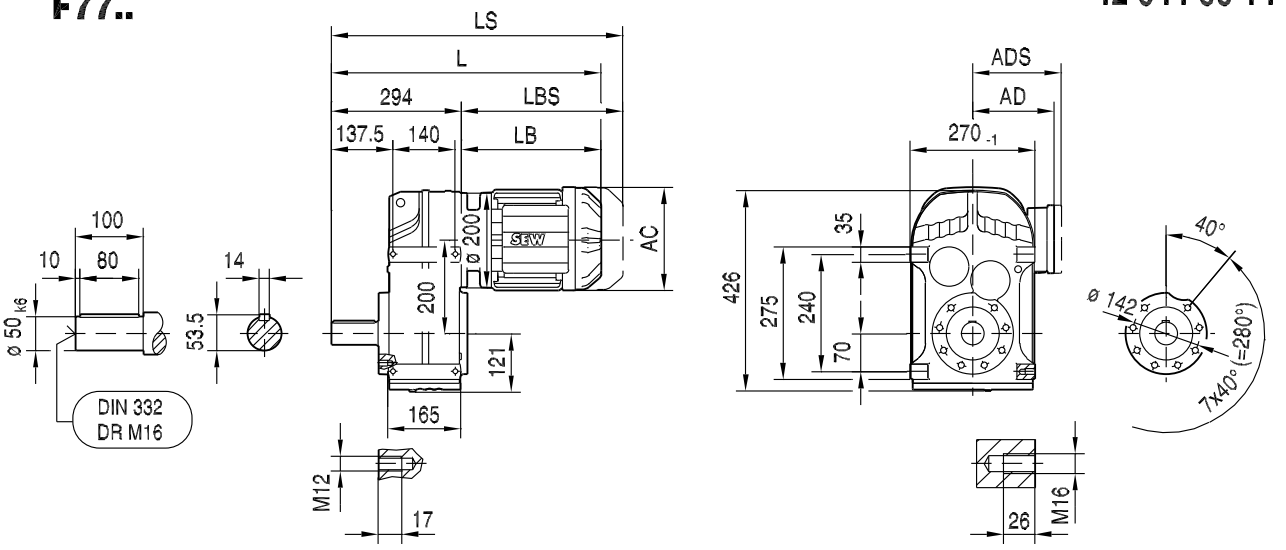



| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 |
| **L** | 366 | 377 | 402 | 456 | 458 | 490 | 486 | 536 |
| **LS** | 421 | 445 | 470 | 537 | 551 | 583 | 580 | 630 |
| **LB** | 185 | 196 | 221 | 275 | 277 | 309 | 305 | 355 |
| **LBS** | 240 | 264 | 289 | 356 | 370 | 402 | 399 | 449 |

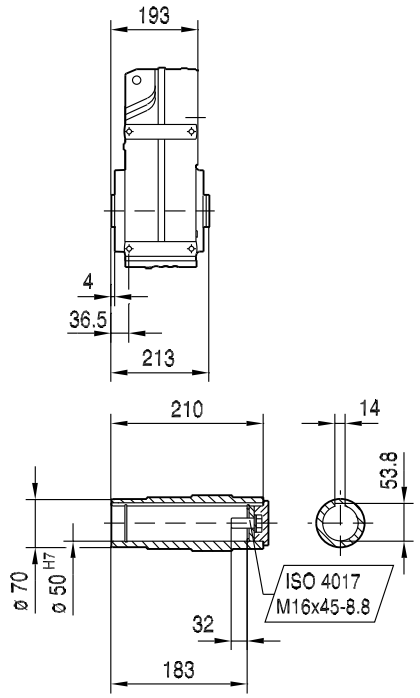
21284997/EN – 03/2015

## F77..

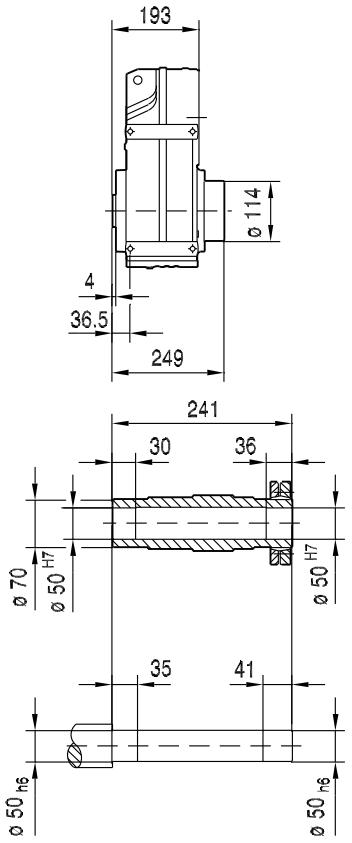
42 044 00 14



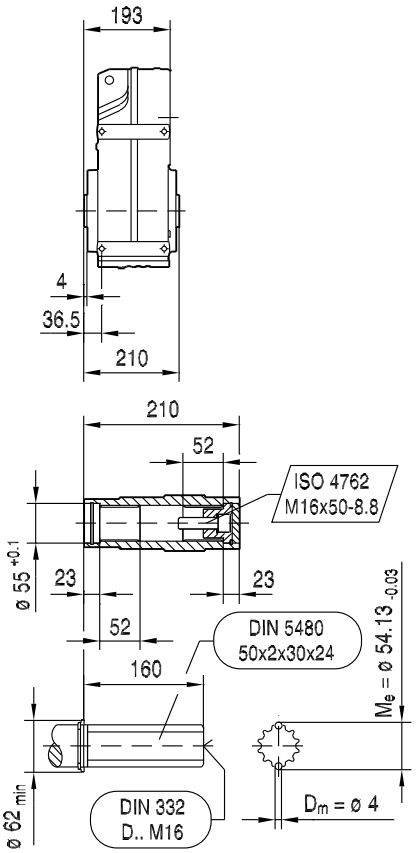

## FA77B..




## FH77B..



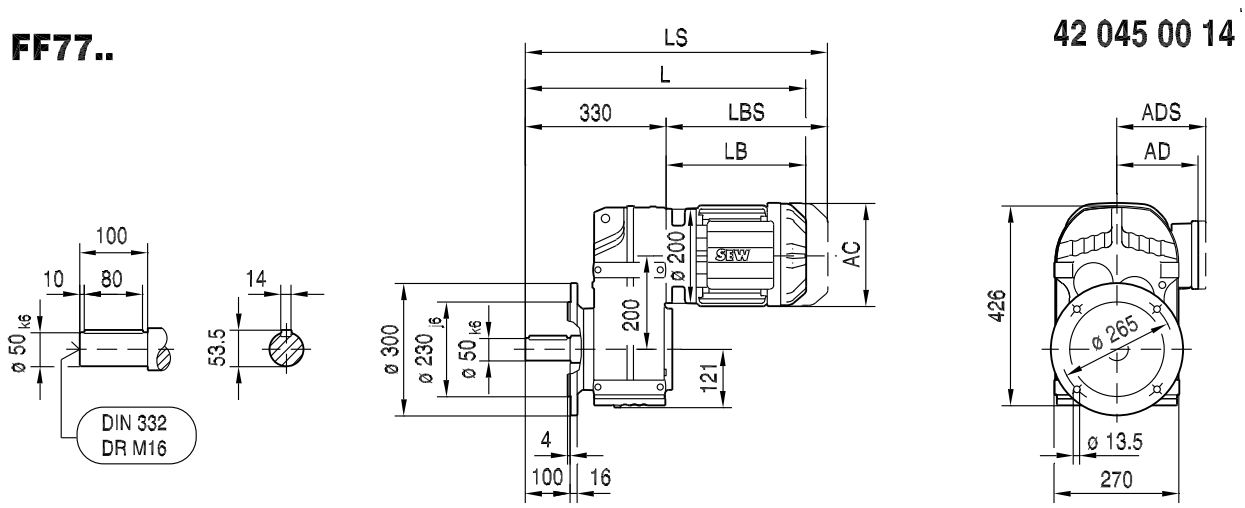

## FV77B..



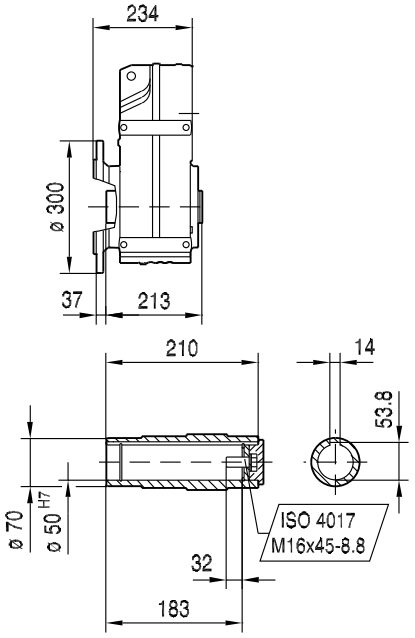

| (→ 142) | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 156 | 179 | 179 | 197 | 197 | 221 | 221 | 261 | 261 | 314 |
| **AD** | 128 | 140 | 140 | 157 | 157 | 170 | 170 | 228 | 228 | 253 |
| **ADS** | 139 | 150 | 150 | 158 | 158 | 172 | 172 | 228 | 228 | 253 |
| **L** | 562 | 564 | 596 | 592 | 642 | 673 | 723 | 741 | 767 | 833 |
| **LS** | 643 | 657 | 689 | 686 | 736 | 785 | 835 | 879 | 904 | 1022 |
| **LB** | 268 | 270 | 302 | 298 | 348 | 379 | 429 | 447 | 473 | 539 |
| **LBS** | 349 | 363 | 395 | 392 | 442 | 491 | 541 | 585 | 610 | 728 |

21284997/EN – 03/2015

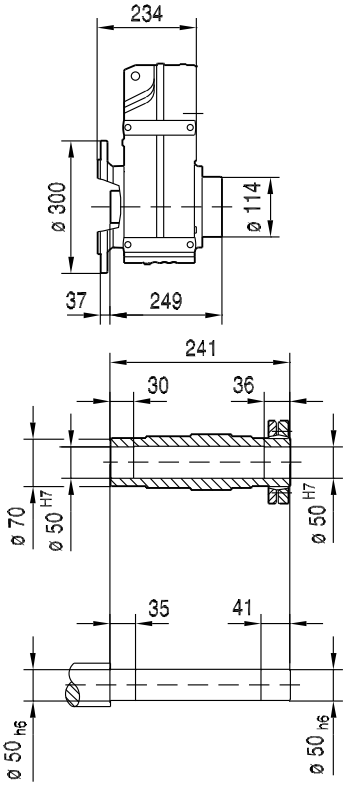
## FF77..



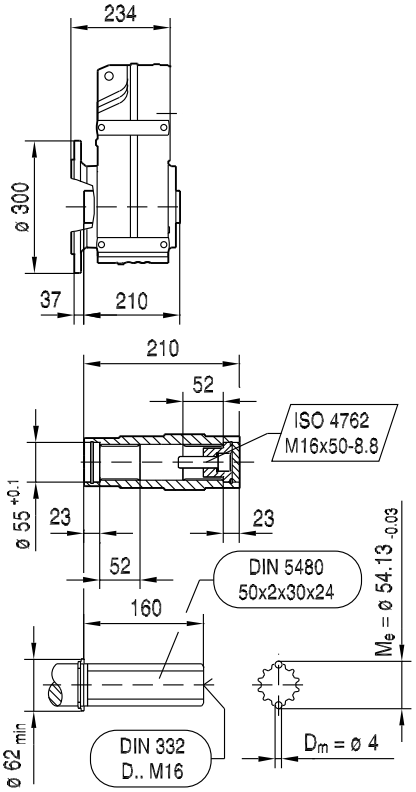

## FAF77..




## FHF77..




## FVF77..

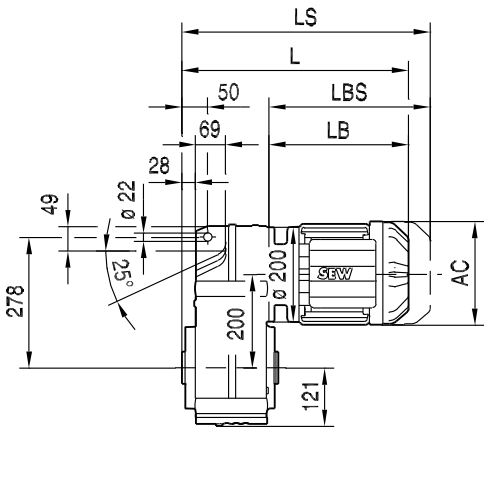


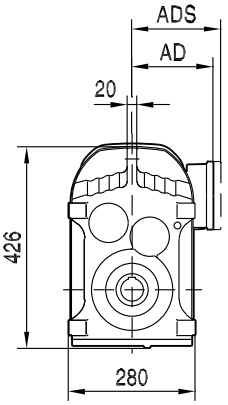

| (→ 142) | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 156 | 179 | 179 | 197 | 197 | 221 | 221 | 261 | 261 | 314 |
| **AD** | 128 | 140 | 140 | 157 | 157 | 170 | 170 | 228 | 228 | 253 |
| **ADS** | 139 | 150 | 150 | 158 | 158 | 172 | 172 | 228 | 228 | 253 |
| **L** | 598 | 600 | 632 | 628 | 678 | 709 | 759 | 777 | 803 | 869 |
| **LS** | 679 | 693 | 725 | 722 | 772 | 821 | 871 | 915 | 940 | 1058 |
| **LB** | 268 | 270 | 302 | 298 | 348 | 379 | 429 | 447 | 473 | 539 |
| **LBS** | 349 | 363 | 395 | 392 | 442 | 491 | 541 | 585 | 610 | 728 |

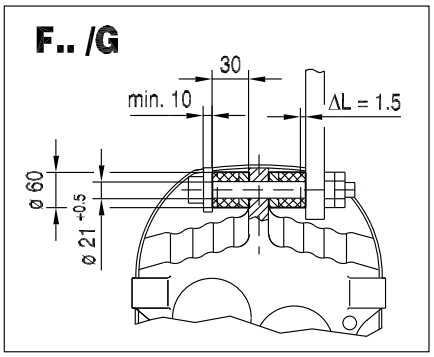
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## FA77..

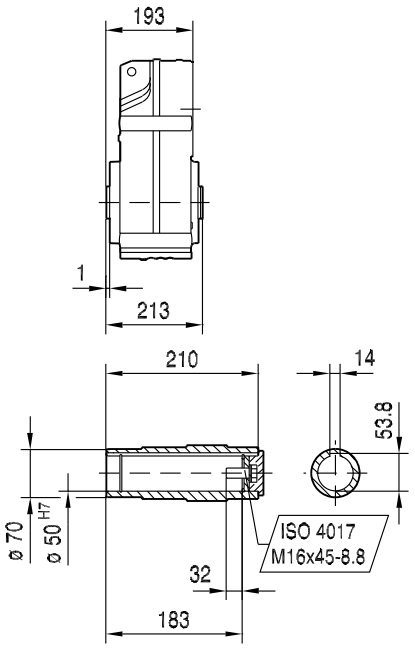
42 046 00 14



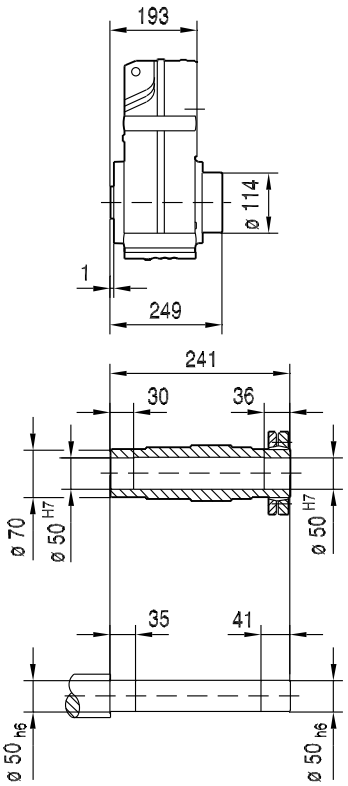



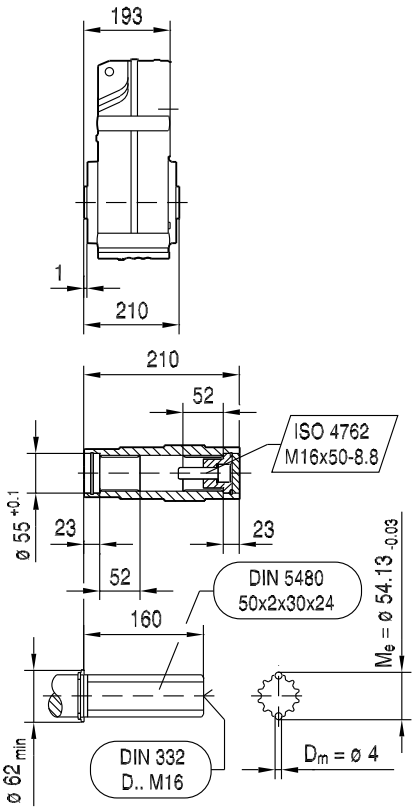

## FA77..




## FH77..




## FV77..

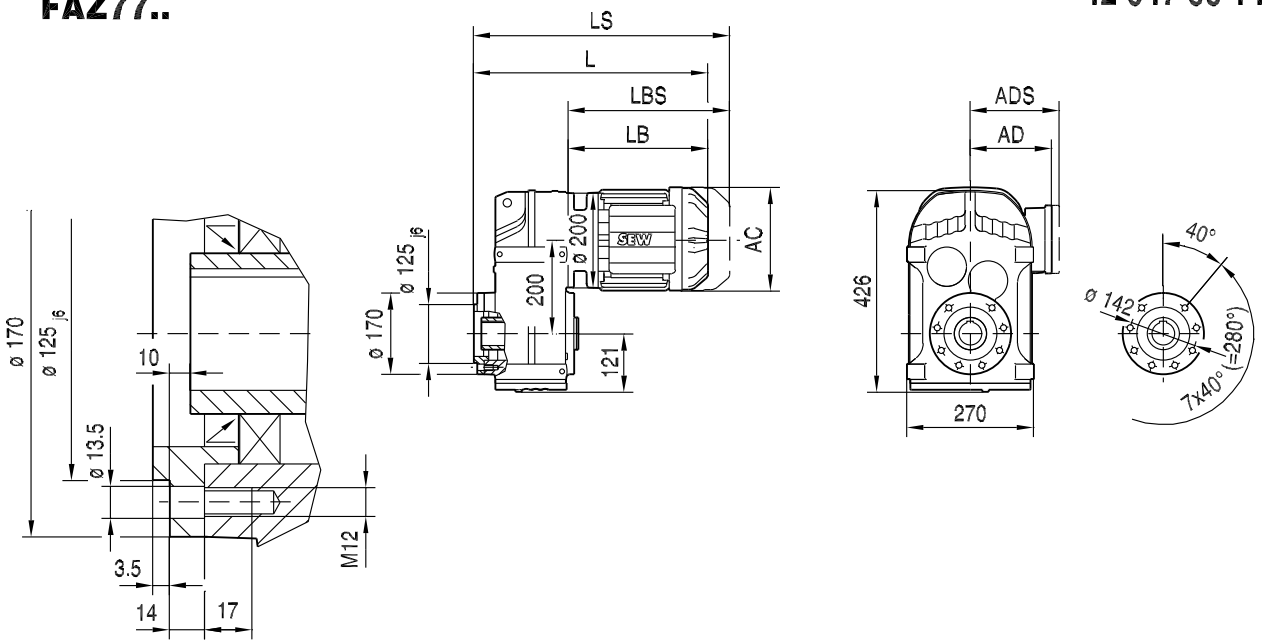



| (→ 142) | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 156 | 179 | 179 | 197 | 197 | 221 | 221 | 261 | 261 | 314 |
| **AD** | 128 | 140 | 140 | 157 | 157 | 170 | 170 | 228 | 228 | 253 |
| **ADS** | 139 | 150 | 150 | 158 | 158 | 172 | 172 | 228 | 228 | 253 |
| **L** | 461 | 463 | 495 | 491 | 541 | 572 | 622 | 640 | 666 | 732 |
| **LS** | 542 | 556 | 588 | 585 | 635 | 684 | 734 | 778 | 803 | 921 |
| **LB** | 268 | 270 | 302 | 298 | 348 | 379 | 429 | 447 | 473 | 539 |
| **LBS** | 349 | 363 | 395 | 392 | 442 | 491 | 541 | 585 | 610 | 728 |

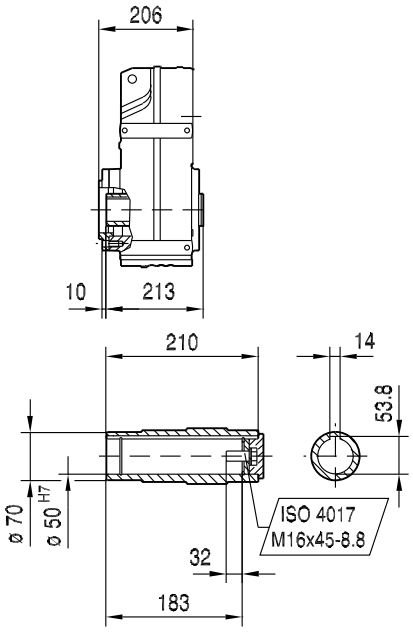
21284997/EN – 03/2015

## FAZ77..

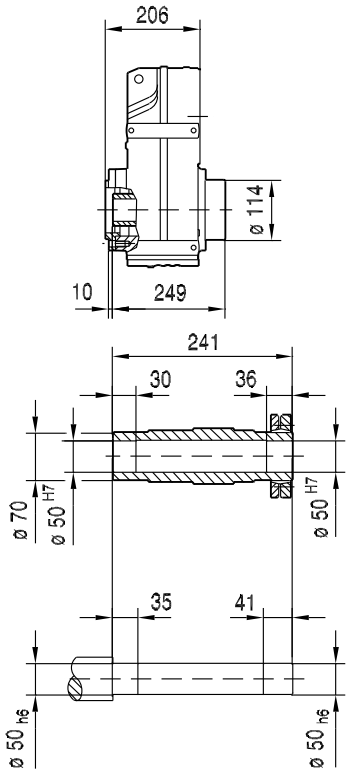
42 047 00 14



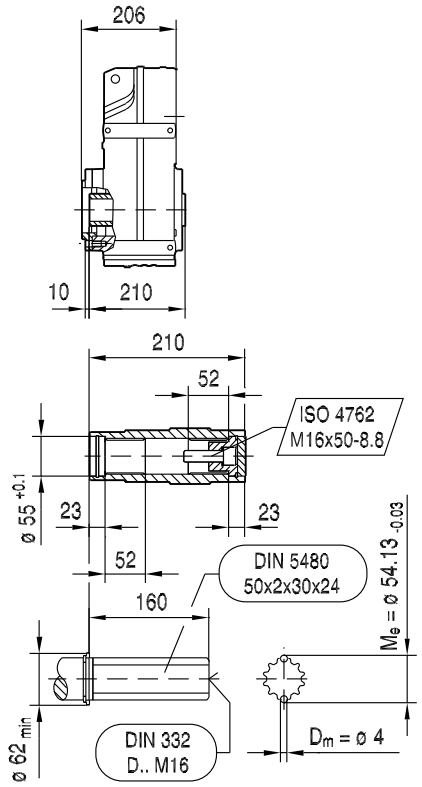

## FAZ77..




## FHZ77..




## FVZ77..

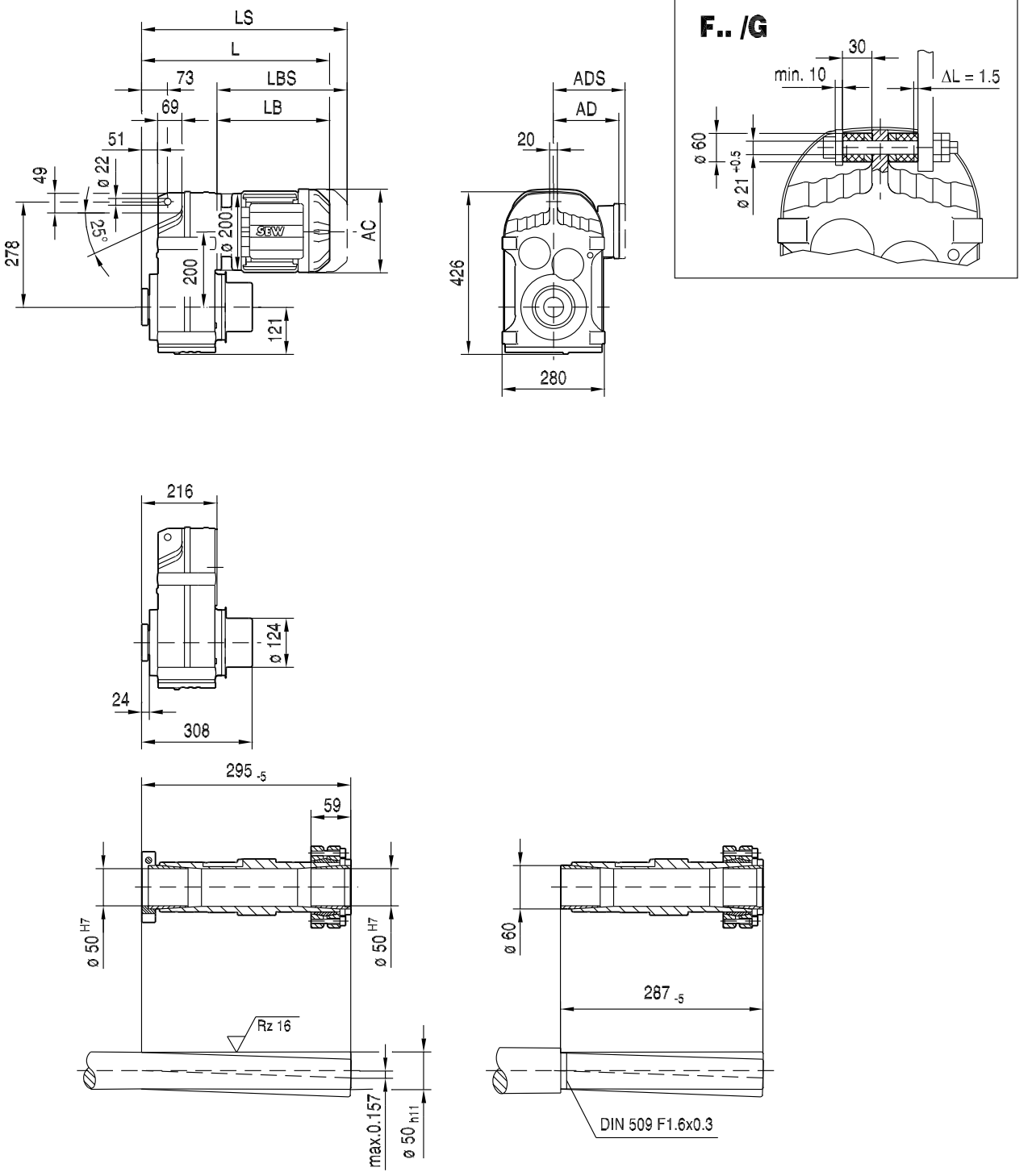



| (→ 142) | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 156 | 179 | 179 | 197 | 197 | 221 | 221 | 261 | 261 | 314 |
| **AD** | 128 | 140 | 140 | 157 | 157 | 170 | 170 | 228 | 228 | 253 |
| **ADS** | 139 | 150 | 150 | 158 | 158 | 172 | 172 | 228 | 228 | 253 |
| **L** | 474 | 476 | 508 | 504 | 554 | 585 | 635 | 653 | 679 | 745 |
| **LS** | 555 | 569 | 601 | 598 | 648 | 697 | 747 | 791 | 816 | 934 |
| **LB** | 268 | 270 | 302 | 298 | 348 | 379 | 429 | 447 | 473 | 539 |
| **LBS** | 349 | 363 | 395 | 392 | 442 | 491 | 541 | 585 | 610 | 728 |

21284997/EN – 03/2015

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**FT77..**

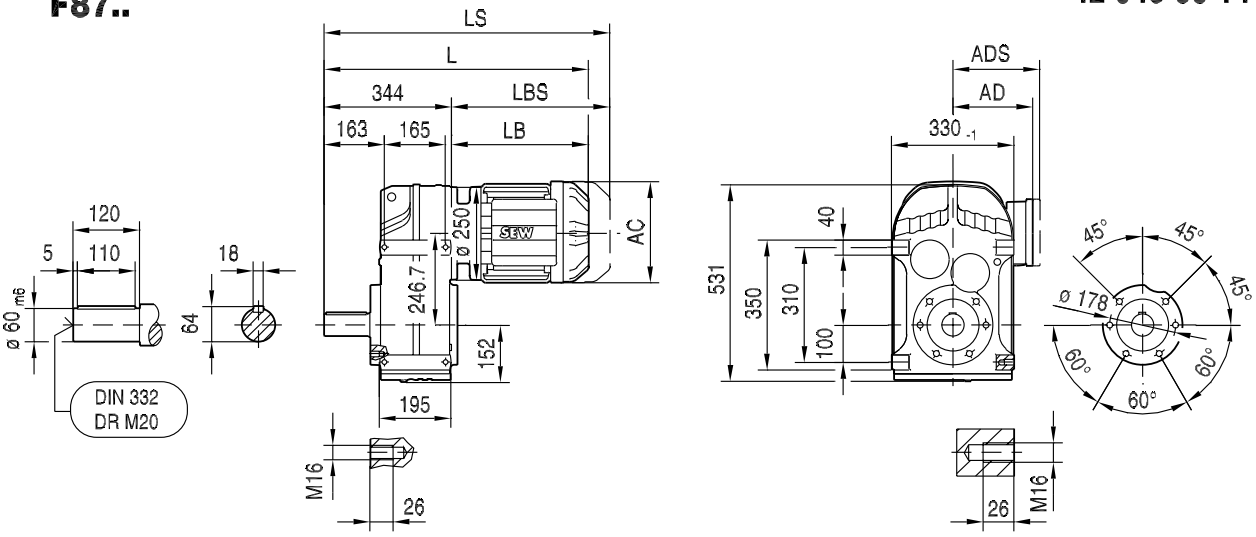



| (→ 142) | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 139 | 139 | 156 | 179 | 179 | 197 | 197 | 221 | 221 | 261 | 261 |
| **AD** | 119 | 119 | 128 | 140 | 140 | 157 | 157 | 170 | 170 | 228 | 228 |
| **ADS** | 129 | 129 | 139 | 150 | 150 | 158 | 158 | 172 | 172 | 228 | 228 |
| **L** | 405 | 430 | 484 | 486 | 518 | 514 | 564 | 595 | 645 | 663 | 689 |
| **LS** | 473 | 498 | 565 | 579 | 611 | 608 | 658 | 707 | 757 | 801 | 826 |
| **LB** | 189 | 214 | 268 | 270 | 302 | 298 | 348 | 379 | 429 | 447 | 473 |
| **LBS** | 257 | 282 | 349 | 363 | 395 | 392 | 442 | 491 | 541 | 585 | 610 |

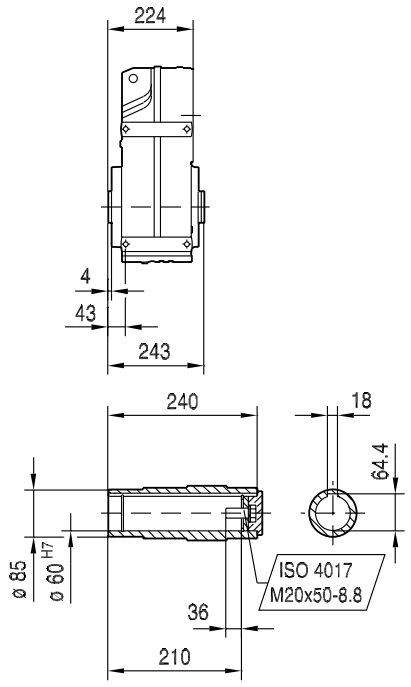
21284997/EN – 03/2015

## F87..

42 049 00 14

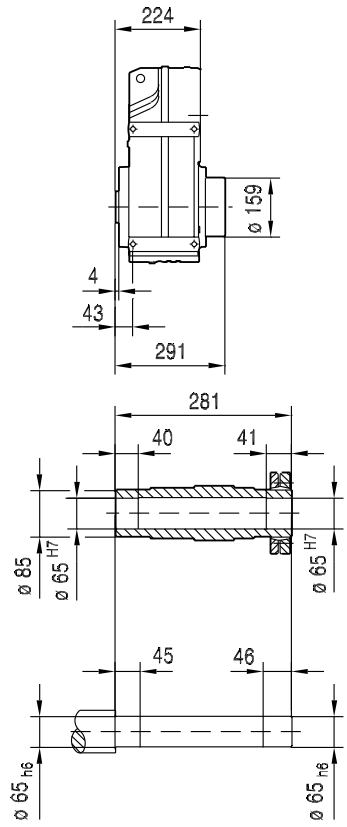



## FA87B..

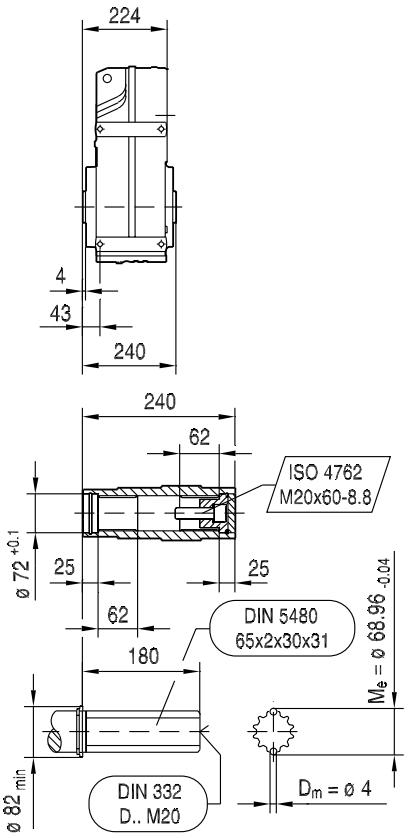



## FH87B..

FH87B/R.. → 6.3



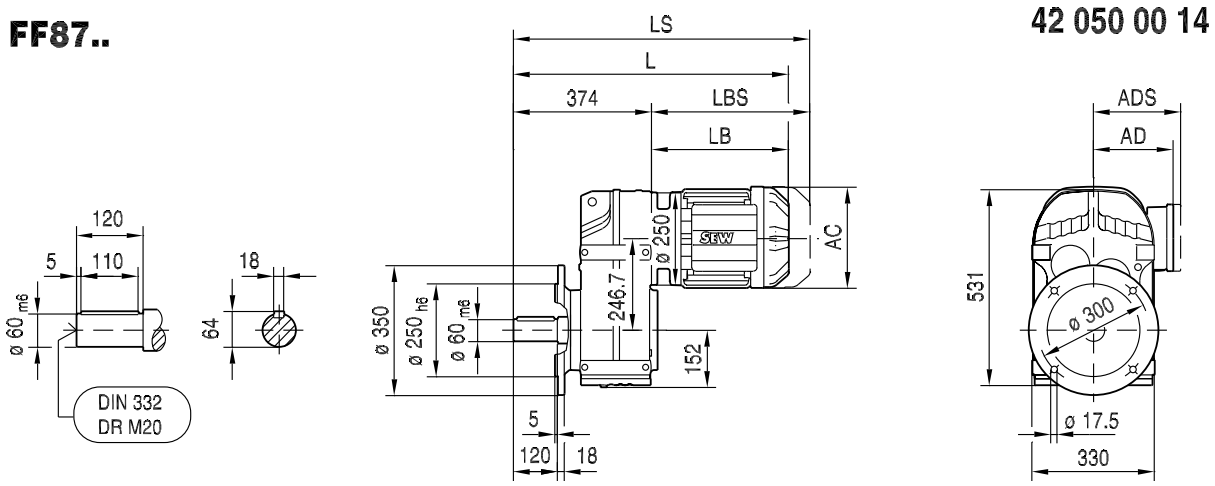

## FV87B..



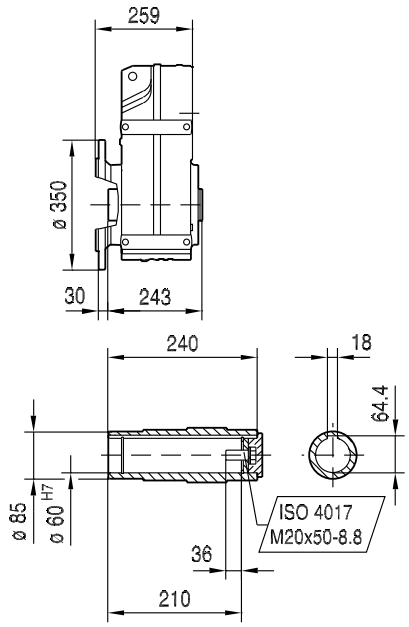

| (→ 142) | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M | DRN160L | DRN180.. |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 179 | 197 | 197 | 221 | 221 | 261 | 261 | 314 | 314 | 357 |
| **AD** | 140 | 157 | 157 | 170 | 170 | 228 | 228 | 253 | 253 | 268 |
| **ADS** | 150 | 158 | 158 | 172 | 172 | 228 | 228 | 253 | 253 | 268 |
| **L** | 641 | 637 | 687 | 718 | 768 | 786 | 812 | 878 | 878 | 901 |
| **LS** | 734 | 731 | 781 | 830 | 880 | 924 | 949 | 1067 | 1067 | 1090 |
| **LB** | 297 | 293 | 343 | 374 | 424 | 442 | 468 | 534 | 534 | 557 |
| **LBS** | 390 | 387 | 437 | 486 | 536 | 580 | 605 | 723 | 723 | 746 |

21284997/EN – 03/2015

## FF87..

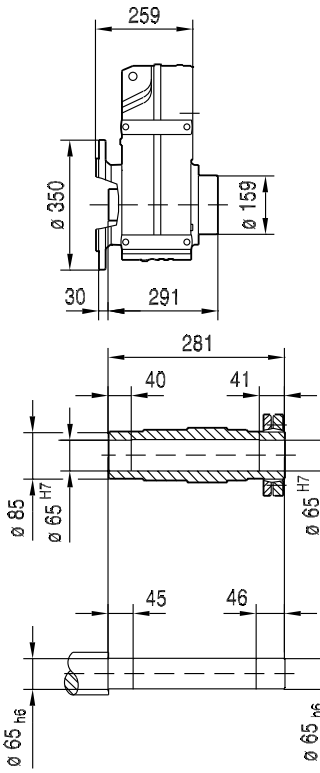



## FAF87..

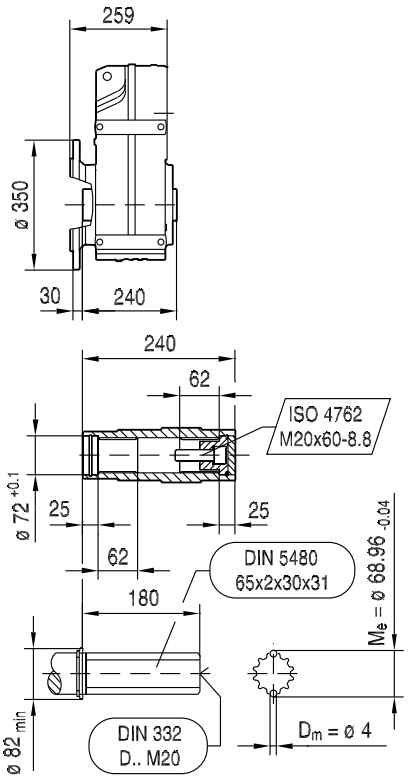



## FHF87..

FHF87/R.. → 6.3



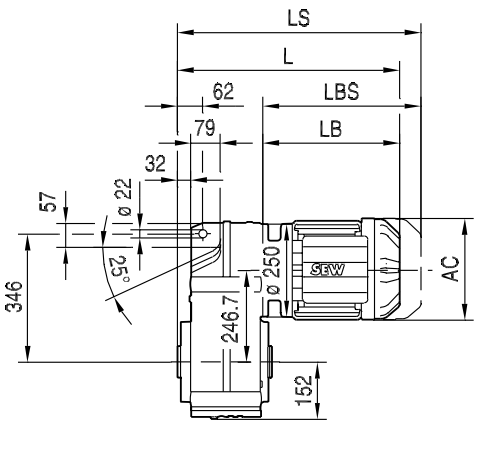

## FVF87..

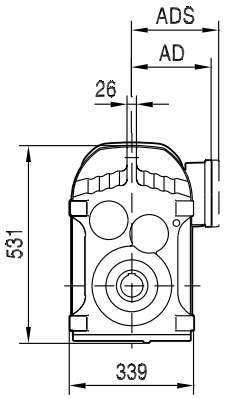



| (→ 142) | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M | DRN160L | DRN180.. |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 179 | 197 | 197 | 221 | 221 | 261 | 261 | 314 | 314 | 357 |
| **AD** | 140 | 157 | 157 | 170 | 170 | 228 | 228 | 253 | 253 | 268 |
| **ADS** | 150 | 158 | 158 | 172 | 172 | 228 | 228 | 253 | 253 | 268 |
| **L** | 671 | 667 | 717 | 748 | 798 | 816 | 842 | 908 | 908 | 931 |
| **LS** | 764 | 761 | 811 | 860 | 910 | 954 | 979 | 1097 | 1097 | 1120 |
| **LB** | 297 | 293 | 343 | 374 | 424 | 442 | 468 | 534 | 534 | 557 |
| **LBS** | 390 | 387 | 437 | 486 | 536 | 580 | 605 | 723 | 723 | 746 |

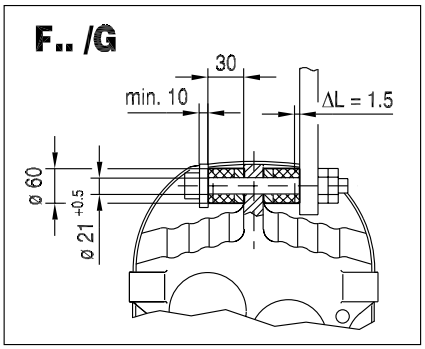
21284997/EN – 03/2015

## FA87..

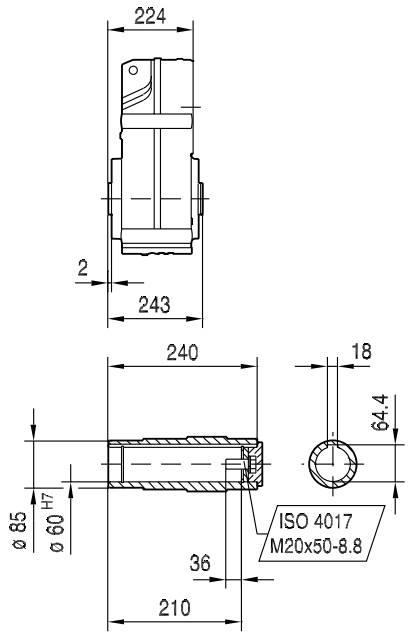



42 051 00 14

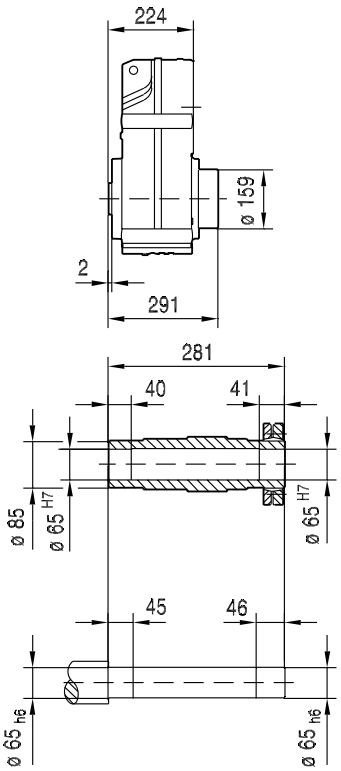



## FA87..

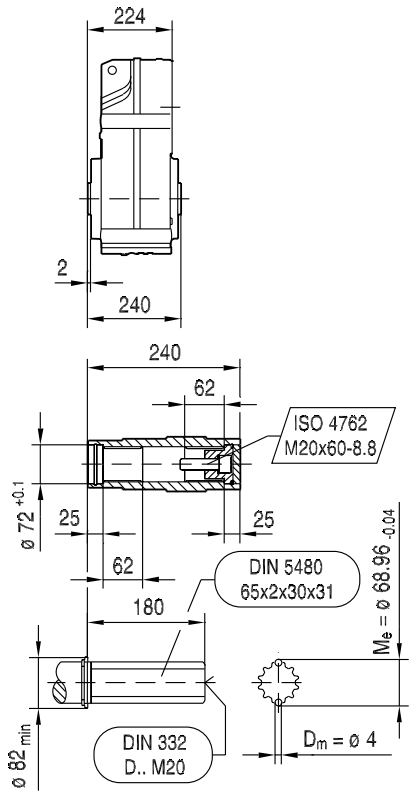



## FH87..

FH87/R.. → 6.3




## FV87..

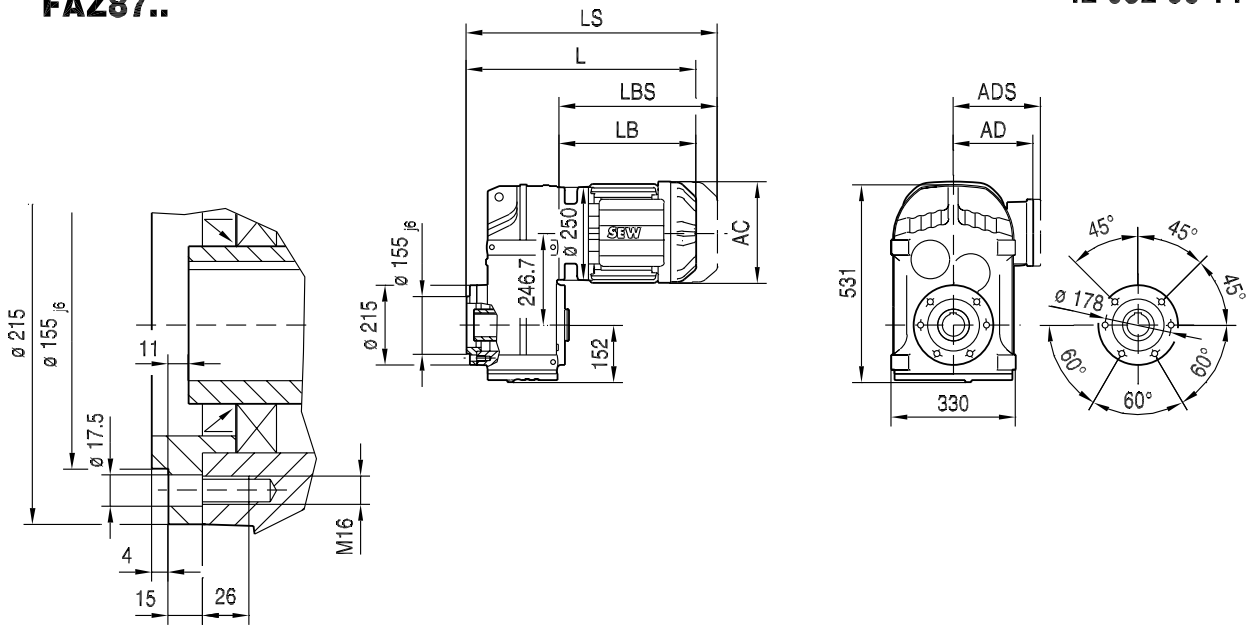



| (→ 142) | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M | DRN160L | DRN180.. |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 179 | 197 | 197 | 221 | 221 | 261 | 261 | 314 | 314 | 357 |
| **AD** | 140 | 157 | 157 | 170 | 170 | 228 | 228 | 253 | 253 | 268 |
| **ADS** | 150 | 158 | 158 | 172 | 172 | 228 | 228 | 253 | 253 | 268 |
| **L** | 521 | 517 | 567 | 598 | 648 | 666 | 692 | 758 | 758 | 781 |
| **LS** | 614 | 611 | 661 | 710 | 760 | 804 | 829 | 947 | 947 | 970 |
| **LB** | 297 | 293 | 343 | 374 | 424 | 442 | 468 | 534 | 534 | 557 |
| **LBS** | 390 | 387 | 437 | 486 | 536 | 580 | 605 | 723 | 723 | 746 |

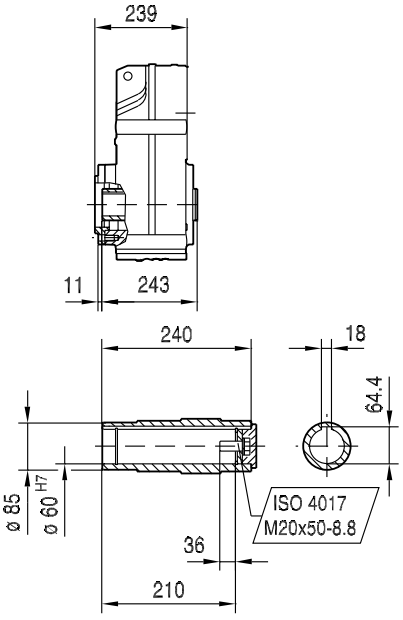
21284997/EN – 03/2015

42 052 00 14

## FAZ87..

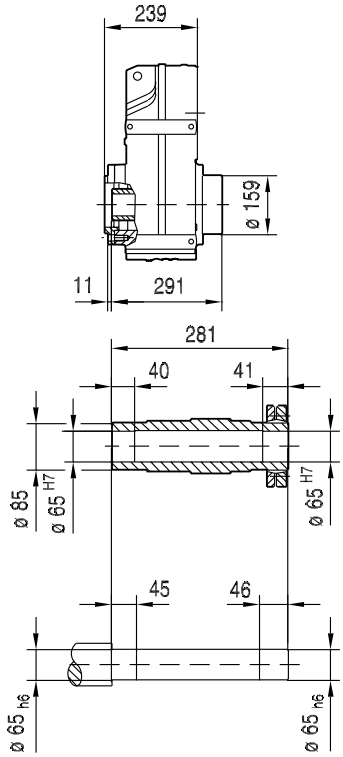



## FAZ87..

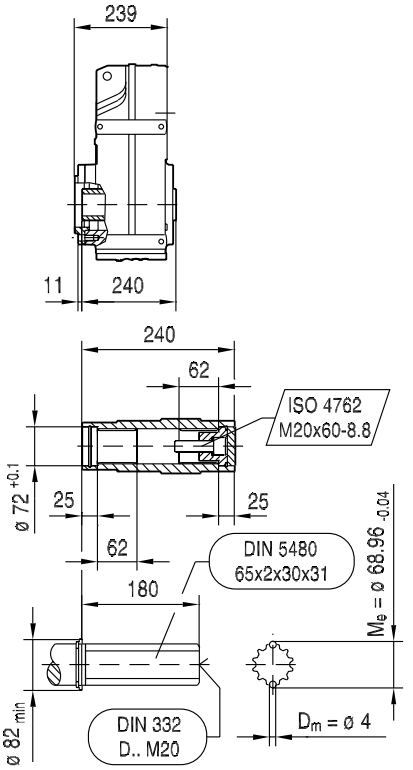



## FHZ87..

FHZ87/R.. → 6.3




## FVZ87..

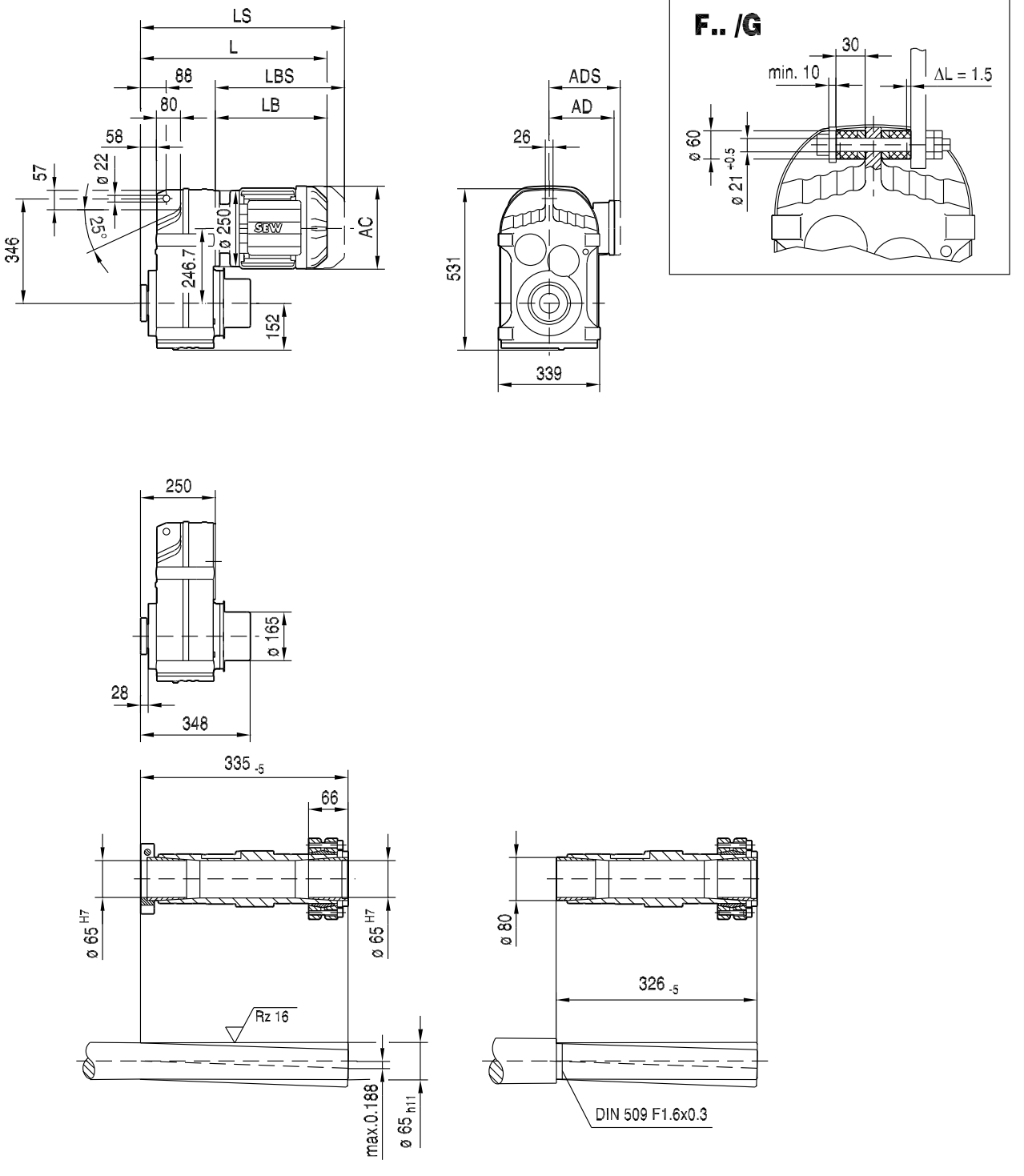



| (→ 142) | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M | DRN160L | DRN180.. |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 179 | 197 | 197 | 221 | 221 | 261 | 261 | 314 | 314 | 357 |
| **AD** | 140 | 157 | 157 | 170 | 170 | 228 | 228 | 253 | 253 | 268 |
| **ADS** | 150 | 158 | 158 | 172 | 172 | 228 | 228 | 253 | 253 | 268 |
| **L** | 536 | 532 | 582 | 613 | 663 | 681 | 707 | 773 | 773 | 796 |
| **LS** | 629 | 626 | 676 | 725 | 775 | 819 | 844 | 962 | 962 | 985 |
| **LB** | 297 | 293 | 343 | 374 | 424 | 442 | 468 | 534 | 534 | 557 |
| **LBS** | 390 | 387 | 437 | 486 | 536 | 580 | 605 | 723 | 723 | 746 |

21284997/EN – 03/2015

**FT87..**

42 053 00 14

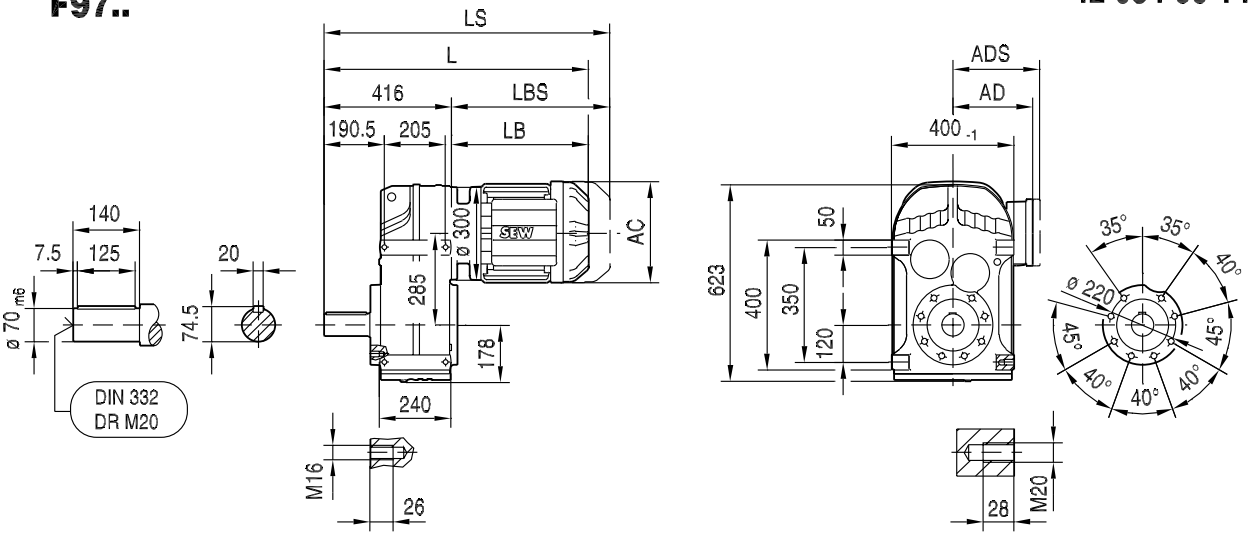



| (→ 142) | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M | DRN160L | DRN180.. |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 179 | 197 | 197 | 221 | 221 | 261 | 261 | 314 | 314 | 357 |
| **AD** | 140 | 157 | 157 | 170 | 170 | 228 | 228 | 253 | 253 | 268 |
| **ADS** | 150 | 158 | 158 | 172 | 172 | 228 | 228 | 253 | 253 | 268 |
| **L** | 547 | 543 | 593 | 624 | 674 | 692 | 718 | 784 | 784 | 807 |
| **LS** | 640 | 637 | 687 | 736 | 786 | 830 | 855 | 973 | 973 | 996 |
| **LB** | 297 | 293 | 343 | 374 | 424 | 442 | 468 | 534 | 534 | 557 |
| **LBS** | 390 | 387 | 437 | 486 | 536 | 580 | 605 | 723 | 723 | 746 |

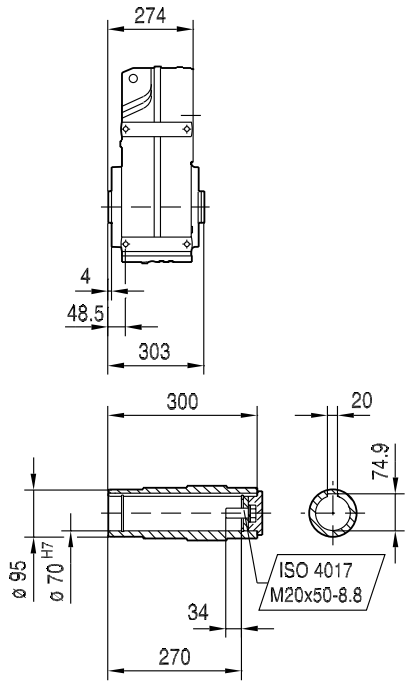
21284997/EN – 03/2015

## F97..

42 054 00 14

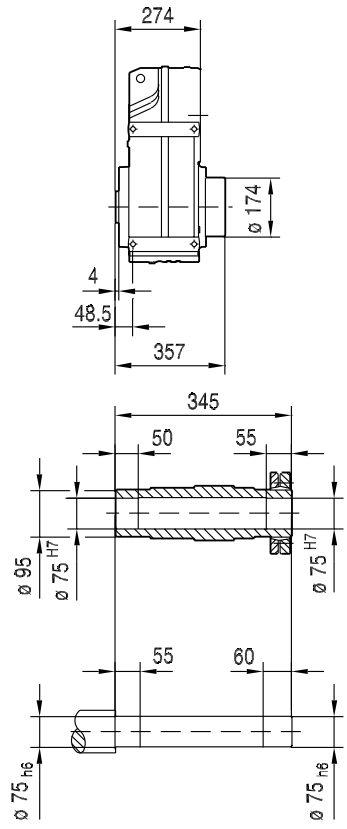



## FA97B..

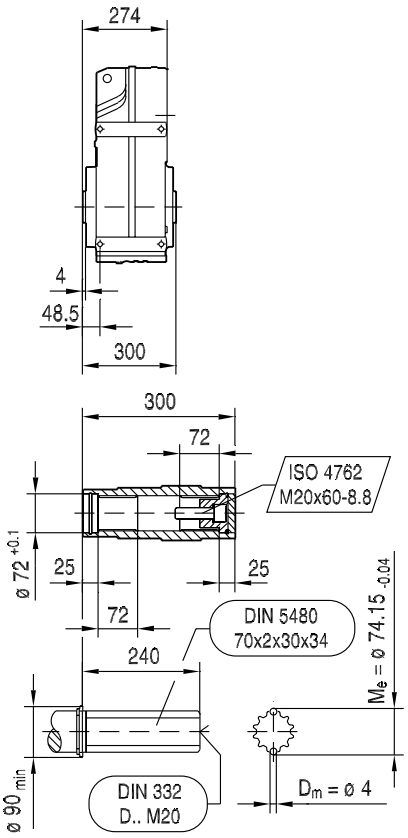



## FH97B..

FH97B/R.. → 6.3



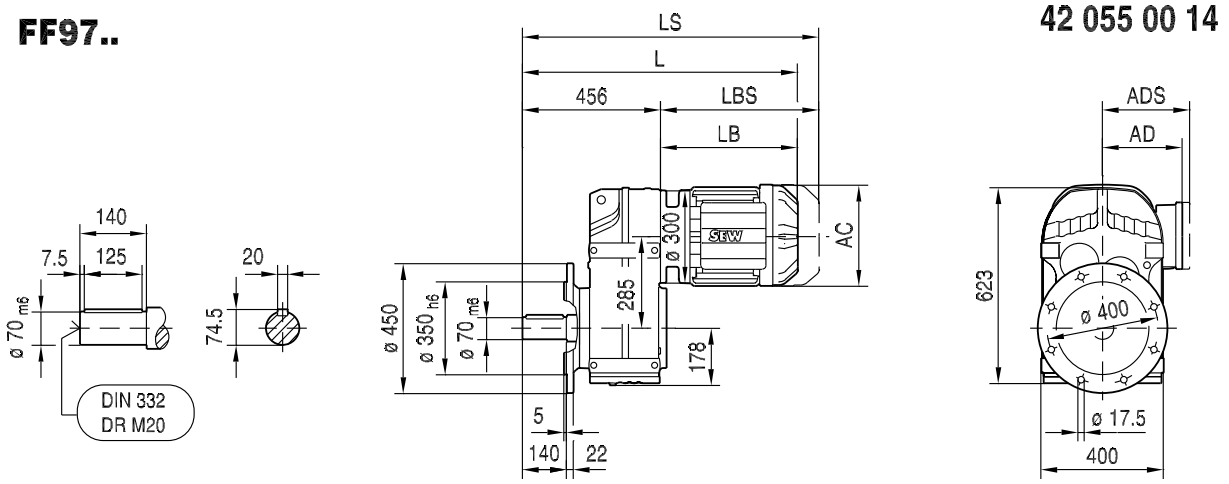

## FV97B..



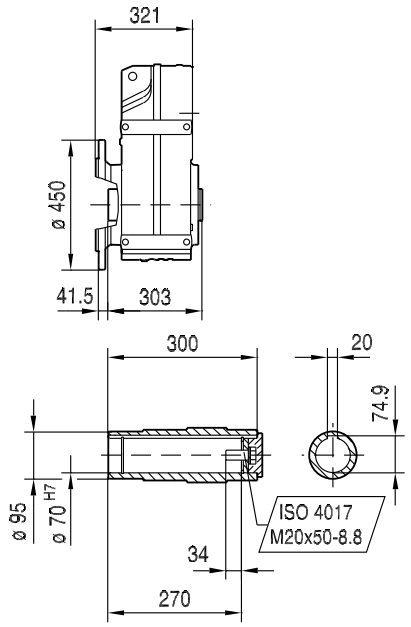

| (→ 142) | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M | DRN160L | DRN180.. | DRN200L |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 197 | 197 | 221 | 221 | 261 | 261 | 314 | 314 | 357 | 394 |
| **AD** | 157 | 157 | 170 | 170 | 228 | 228 | 253 | 253 | 268 | 283 |
| **ADS** | 158 | 158 | 172 | 172 | 228 | 228 | 253 | 253 | 268 | 283 |
| **L** | 704 | 754 | 785 | 835 | 853 | 879 | 945 | 945 | 968 | 1078 |
| **LS** | 798 | 848 | 897 | 947 | 991 | 1016 | 1134 | 1134 | 1157 | 1283 |
| **LB** | 288 | 338 | 369 | 419 | 437 | 463 | 529 | 529 | 552 | 662 |
| **LBS** | 382 | 432 | 481 | 531 | 575 | 600 | 718 | 718 | 741 | 867 |

21284997/EN – 03/2015

## FF97..

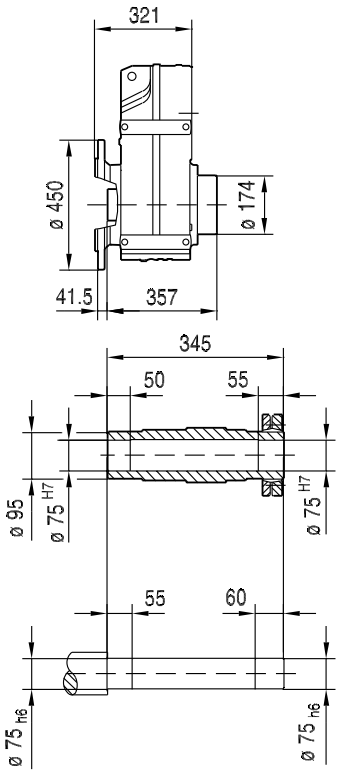



## FAF97..

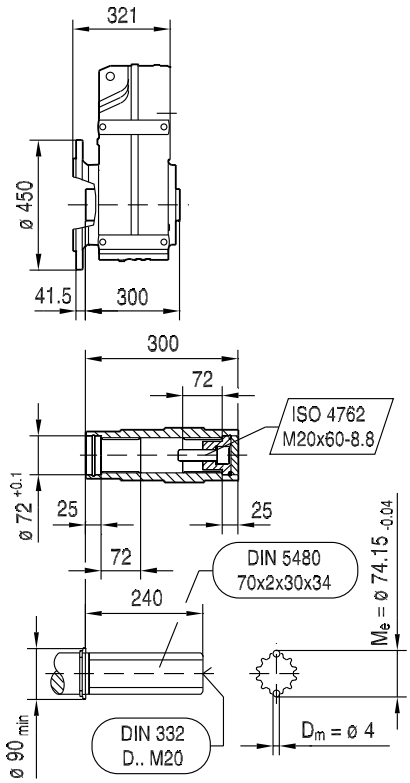



## FHF97..

**FHF97/R..** → 6.3




## FVF97..

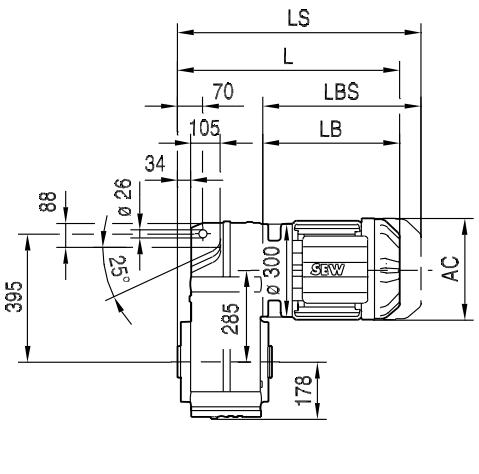


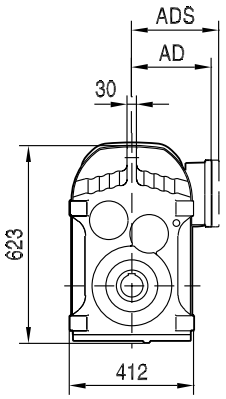

| (→ 142) | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M | DRN160L | DRN180.. | DRN200L |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 197 | 197 | 221 | 221 | 261 | 261 | 314 | 314 | 357 | 394 |
| **AD** | 157 | 157 | 170 | 170 | 228 | 228 | 253 | 253 | 268 | 283 |
| **ADS** | 158 | 158 | 172 | 172 | 228 | 228 | 253 | 253 | 268 | 283 |
| **L** | 744 | 794 | 825 | 875 | 893 | 919 | 985 | 985 | 1008 | 1118 |
| **LS** | 838 | 888 | 937 | 987 | 1031 | 1056 | 1174 | 1174 | 1197 | 1323 |
| **LB** | 288 | 338 | 369 | 419 | 437 | 463 | 529 | 529 | 552 | 662 |
| **LBS** | 382 | 432 | 481 | 531 | 575 | 600 | 718 | 718 | 741 | 867 |

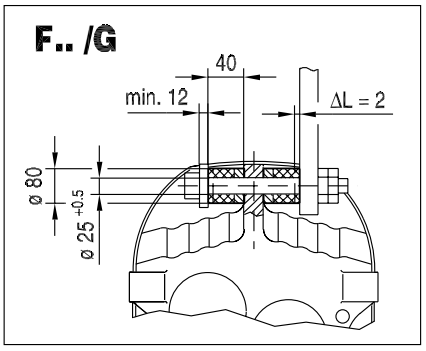
21284997/EN – 03/2015

## FA97..

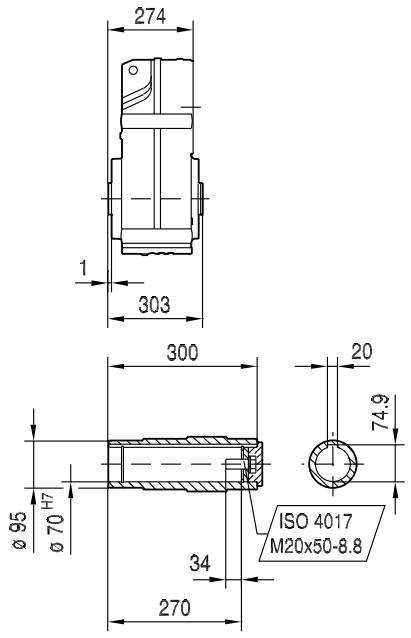
42 056 00 14



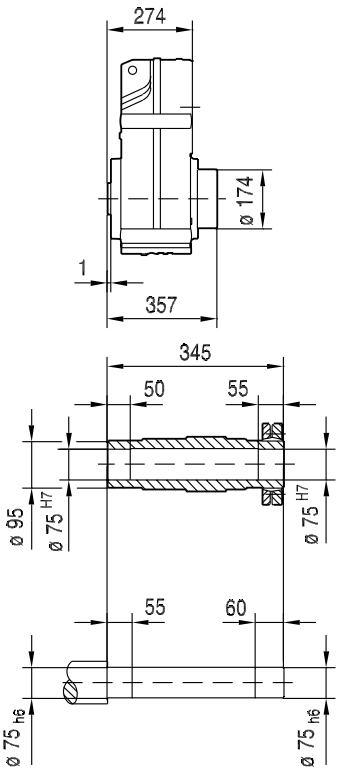




## FA97..

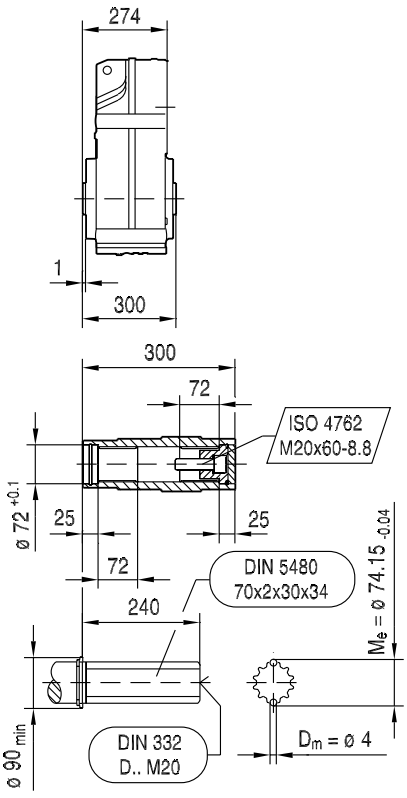



## FH97..

FH97/R.. → 6.3




## FV97..

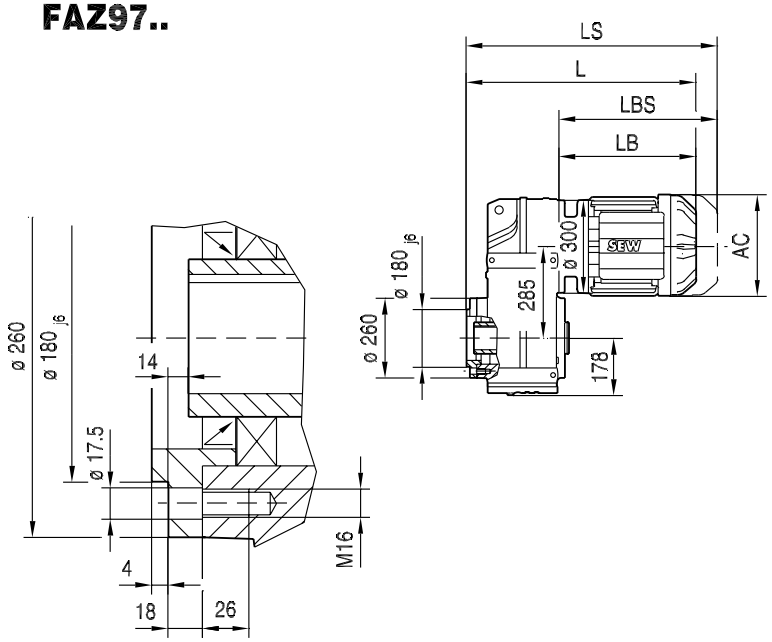


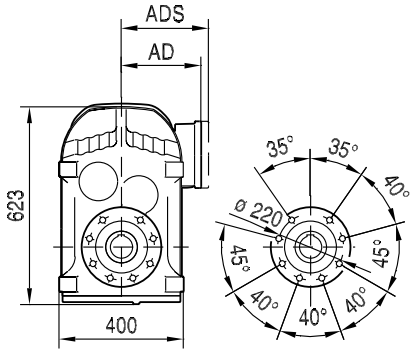

| (→ 142) | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M | DRN160L | DRN180.. | DRN200L |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 197 | 197 | 221 | 221 | 261 | 261 | 314 | 314 | 357 | 394 |
| **AD** | 157 | 157 | 170 | 170 | 228 | 228 | 253 | 253 | 268 | 283 |
| **ADS** | 158 | 158 | 172 | 172 | 228 | 228 | 253 | 253 | 268 | 283 |
| **L** | 562 | 612 | 643 | 693 | 711 | 737 | 803 | 803 | 826 | 936 |
| **LS** | 656 | 706 | 755 | 805 | 849 | 874 | 992 | 992 | 1015 | 1141 |
| **LB** | 288 | 338 | 369 | 419 | 437 | 463 | 529 | 529 | 552 | 662 |
| **LBS** | 382 | 432 | 481 | 531 | 575 | 600 | 718 | 718 | 741 | 867 |

21284997/EN – 03/2015

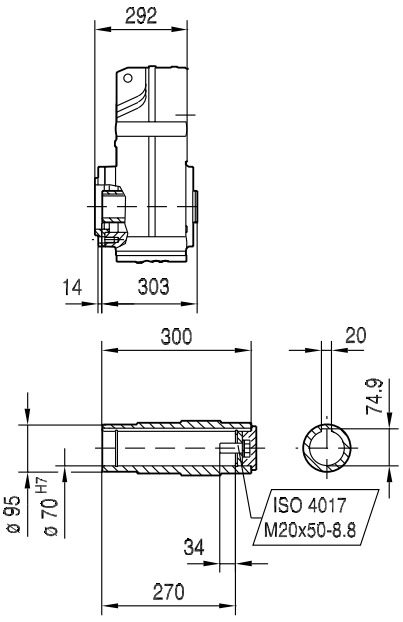
42 057 00 14

## FAZ97..



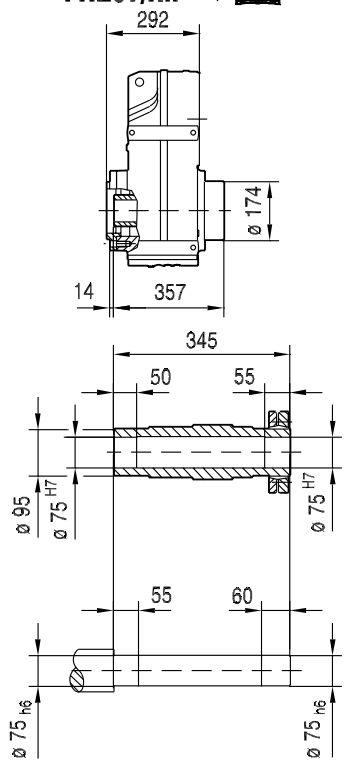




## FAZ97..

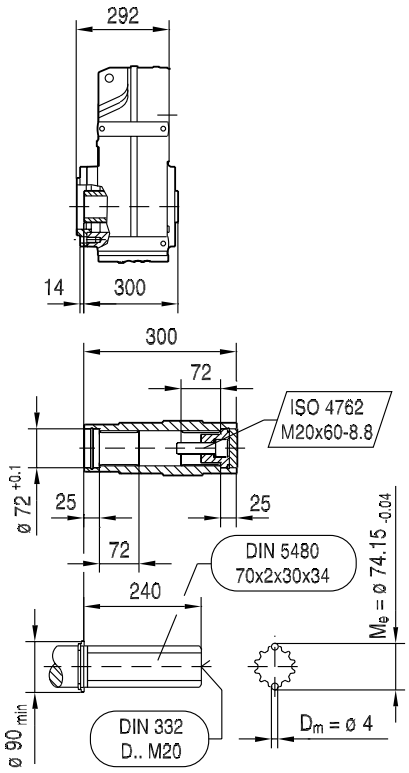



## FHZ97..

FHZ97/R.. → 6.3




## FVZ97..

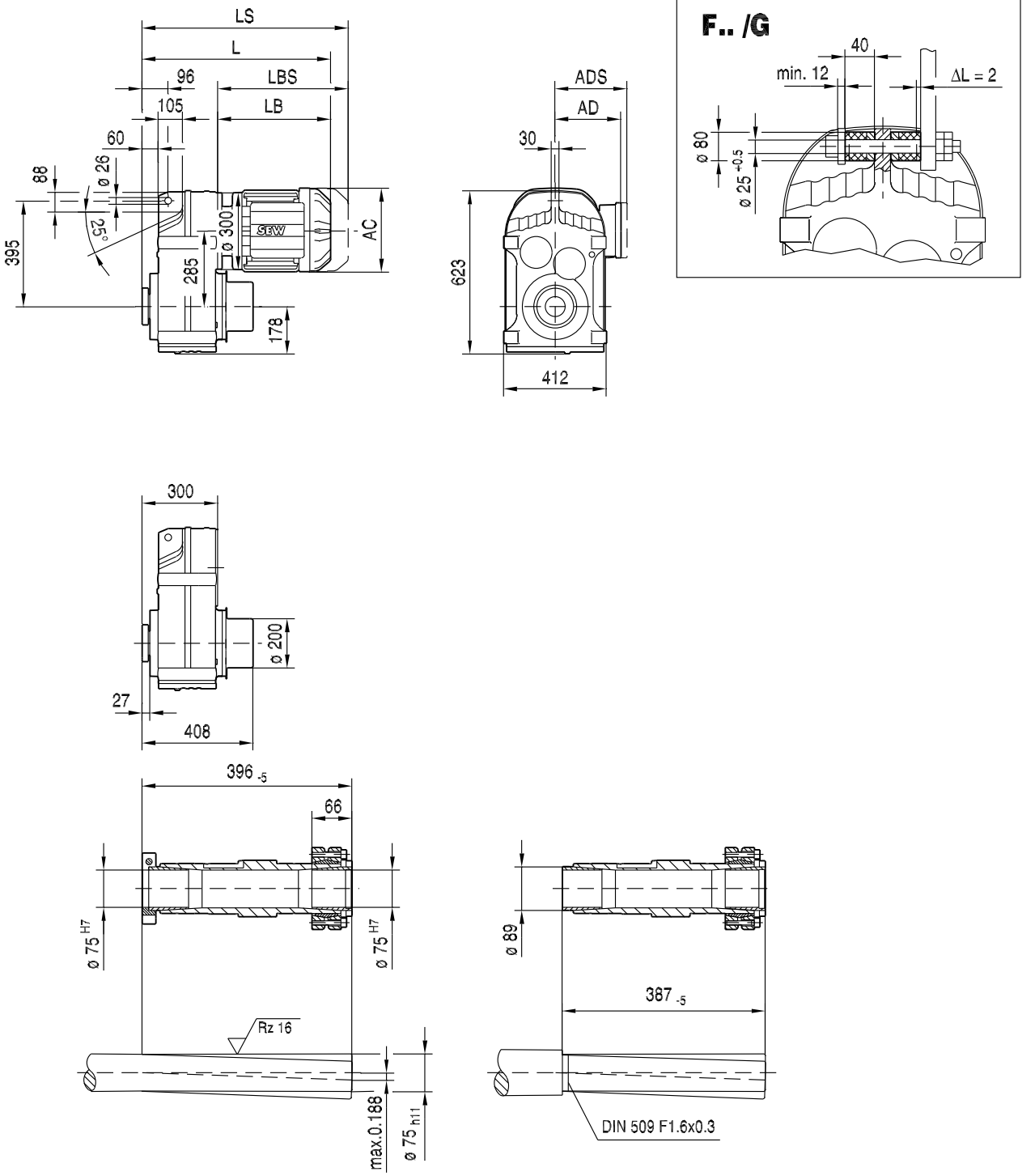



| (→ 142) | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M | DRN160L | DRN180.. | DRN200L |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 197 | 197 | 221 | 221 | 261 | 261 | 314 | 314 | 357 | 394 |
| **AD** | 157 | 157 | 170 | 170 | 228 | 228 | 253 | 253 | 268 | 283 |
| **ADS** | 158 | 158 | 172 | 172 | 228 | 228 | 253 | 253 | 268 | 283 |
| **L** | 580 | 630 | 661 | 711 | 729 | 755 | 821 | 821 | 844 | 954 |
| **LS** | 674 | 724 | 773 | 823 | 867 | 892 | 1010 | 1010 | 1033 | 1159 |
| **LB** | 288 | 338 | 369 | 419 | 437 | 463 | 529 | 529 | 552 | 662 |
| **LBS** | 382 | 432 | 481 | 531 | 575 | 600 | 718 | 718 | 741 | 867 |

21284997/EN – 03/2015

**FT97..**

42 058 00 14

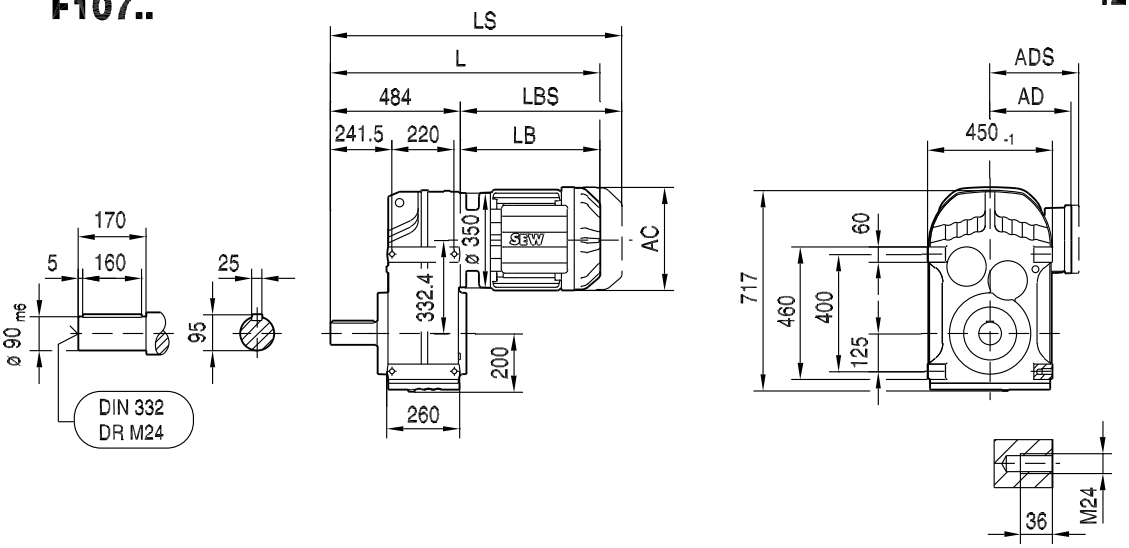



| (→ 142) | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M | DRN160L | DRN180.. |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 179 | 197 | 197 | 221 | 221 | 261 | 261 | 314 | 314 | 357 |
| **AD** | 140 | 157 | 157 | 170 | 170 | 228 | 228 | 253 | 253 | 268 |
| **ADS** | 150 | 158 | 158 | 172 | 172 | 228 | 228 | 253 | 253 | 268 |
| **L** | 592 | 588 | 638 | 669 | 719 | 737 | 763 | 829 | 829 | 852 |
| **LS** | 685 | 682 | 732 | 781 | 831 | 875 | 900 | 1018 | 1018 | 1041 |
| **LB** | 292 | 288 | 338 | 369 | 419 | 437 | 463 | 529 | 529 | 552 |
| **LBS** | 385 | 382 | 432 | 481 | 531 | 575 | 600 | 718 | 718 | 741 |

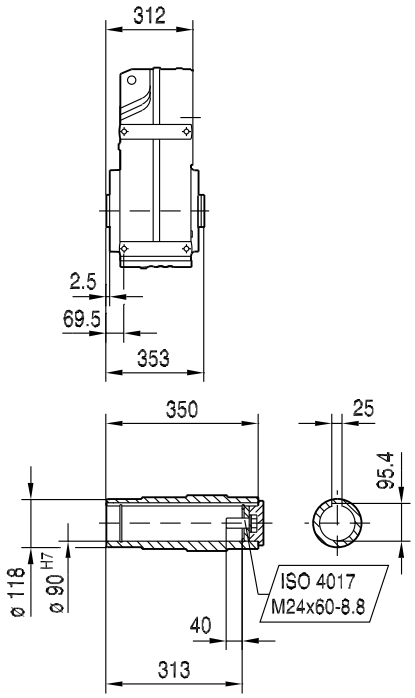
21284997/EN – 03/2015

## F107..

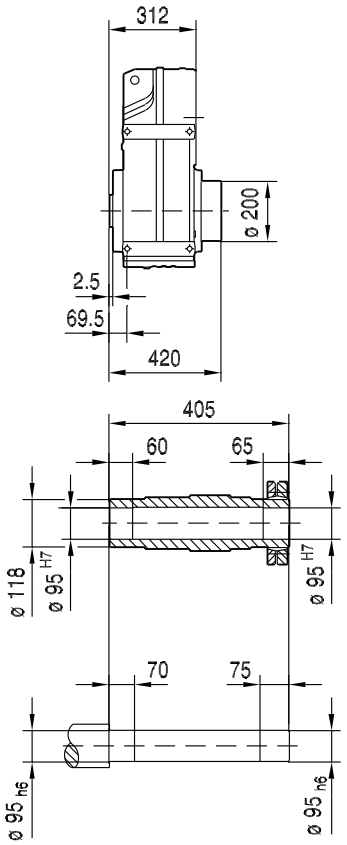
42 059 00 14



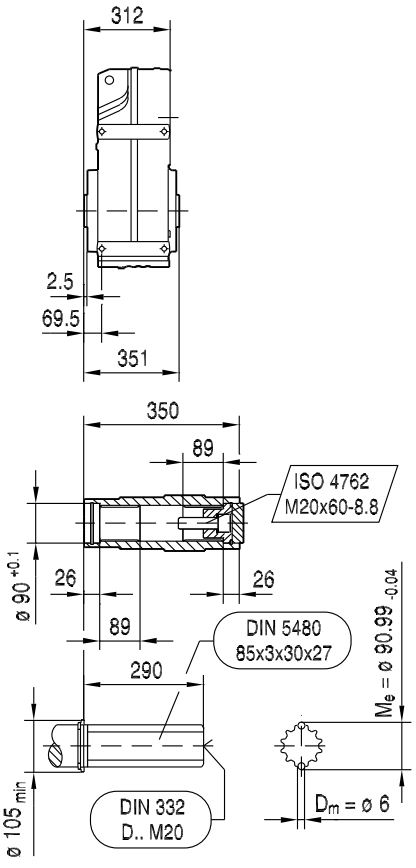

## FA107B..




## FH107B..



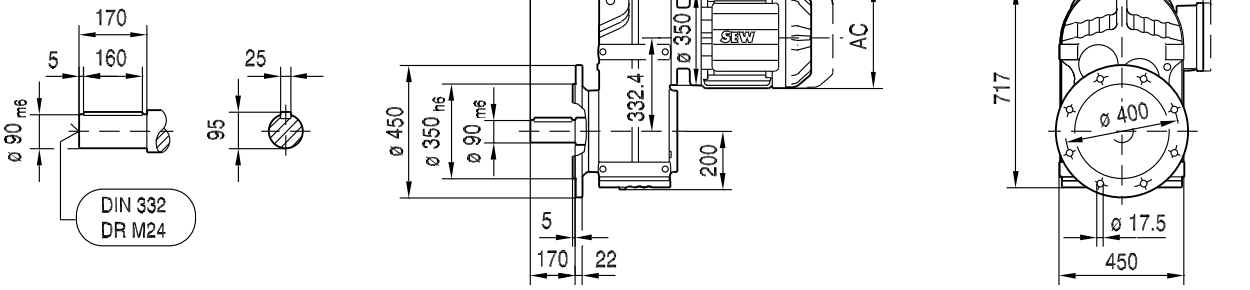

## FV107B..



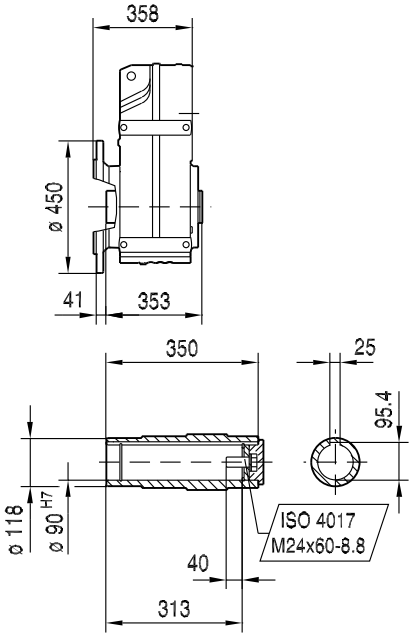

| (→ 142) | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M | DRN160L | DRN180.. | DRN200L | DRN225.. |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 197 | 221 | 221 | 261 | 261 | 314 | 314 | 357 | 394 | 434 |
| **AD** | 157 | 170 | 170 | 228 | 228 | 253 | 253 | 268 | 283 | 305 |
| **ADS** | 158 | 172 | 172 | 228 | 228 | 253 | 253 | 268 | 283 | 305 |
| **L** | 816 | 847 | 897 | 915 | 941 | 1007 | 1007 | 1030 | 1140 | 1114 |
| **LS** | 910 | 959 | 1009 | 1053 | 1078 | 1196 | 1196 | 1219 | 1345 | 1319 |
| **LB** | 332 | 363 | 413 | 431 | 457 | 523 | 523 | 546 | 656 | 630 |
| **LBS** | 426 | 475 | 525 | 569 | 594 | 712 | 712 | 735 | 861 | 835 |

21284997/EN – 03/2015

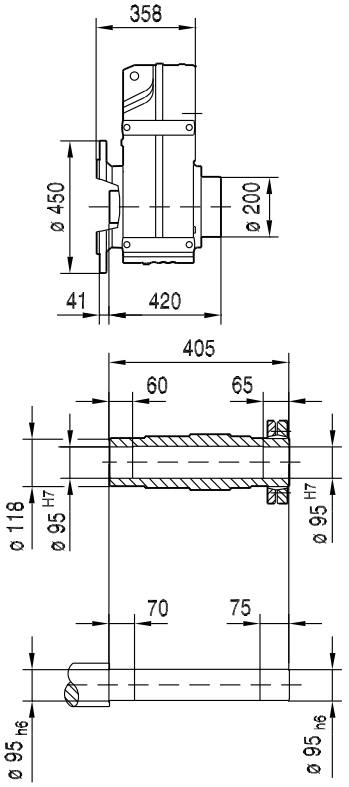
## FF107..



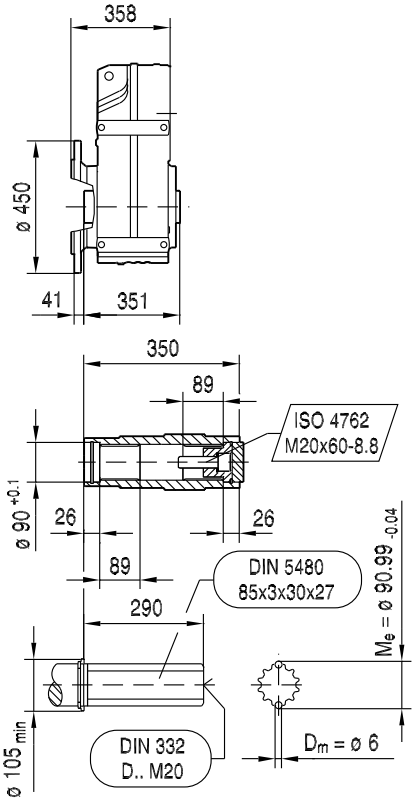

## FAF107..




## FHF107..



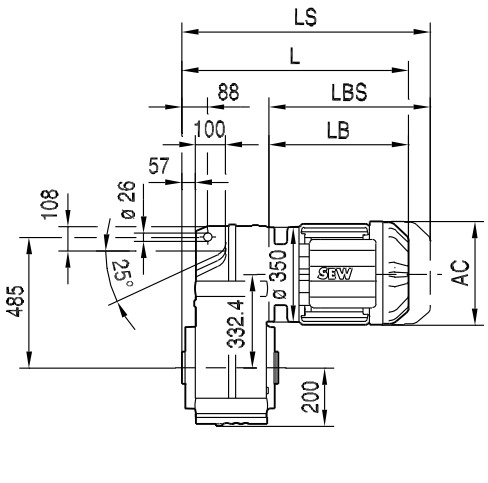

## FVF107..

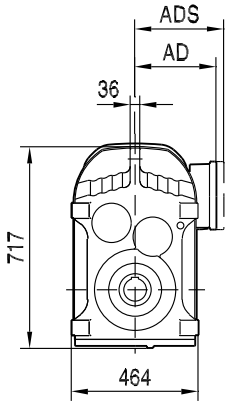



| (→ 142) | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M | DRN160L | DRN180.. | DRN200L | DRN225.. |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 197 | 221 | 221 | 261 | 261 | 314 | 314 | 357 | 394 | 434 |
| **AD** | 157 | 170 | 170 | 228 | 228 | 253 | 253 | 268 | 283 | 305 |
| **ADS** | 158 | 172 | 172 | 228 | 228 | 253 | 253 | 268 | 283 | 305 |
| **L** | 855 | 886 | 936 | 954 | 980 | 1046 | 1046 | 1069 | 1179 | 1153 |
| **LS** | 949 | 998 | 1048 | 1092 | 1117 | 1235 | 1235 | 1258 | 1384 | 1358 |
| **LB** | 332 | 363 | 413 | 431 | 457 | 523 | 523 | 546 | 656 | 630 |
| **LBS** | 426 | 475 | 525 | 569 | 594 | 712 | 712 | 735 | 861 | 835 |

21284997/EN – 03/2015

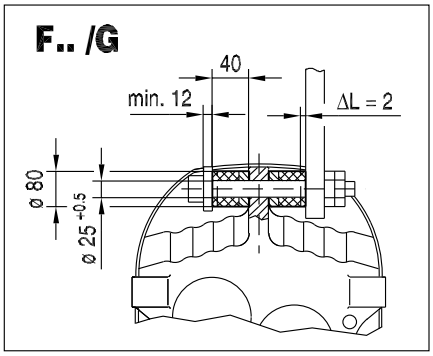
## FA107..



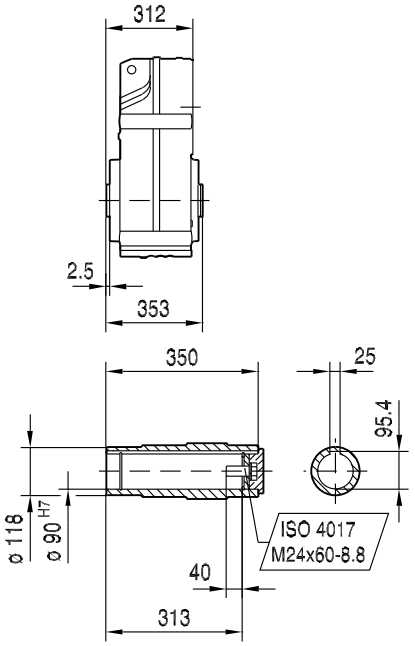




42 061 00 14

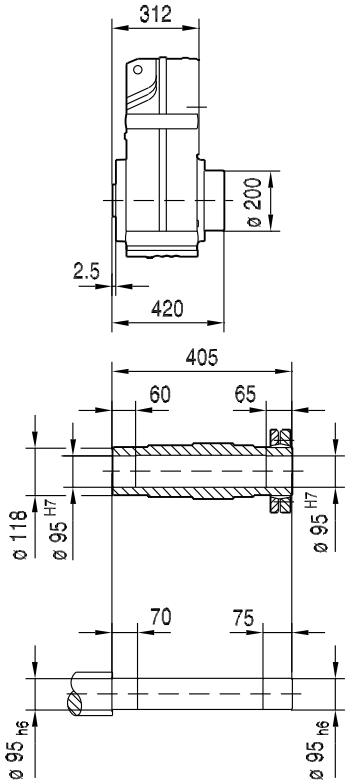
## F.. /G



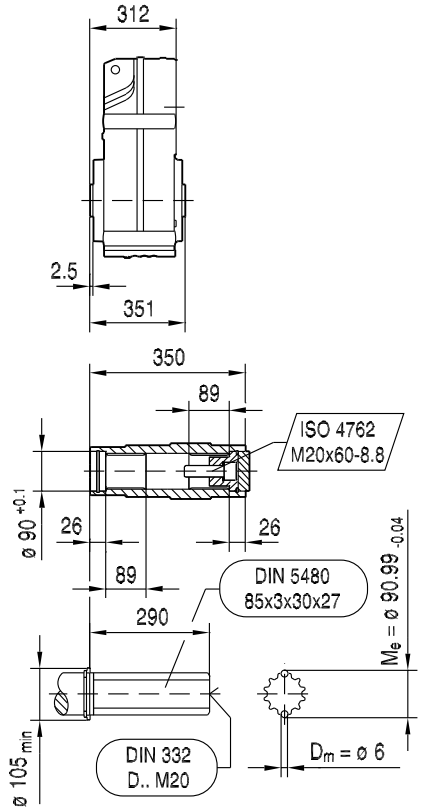

## FA107..




## FH107..




## FV107..

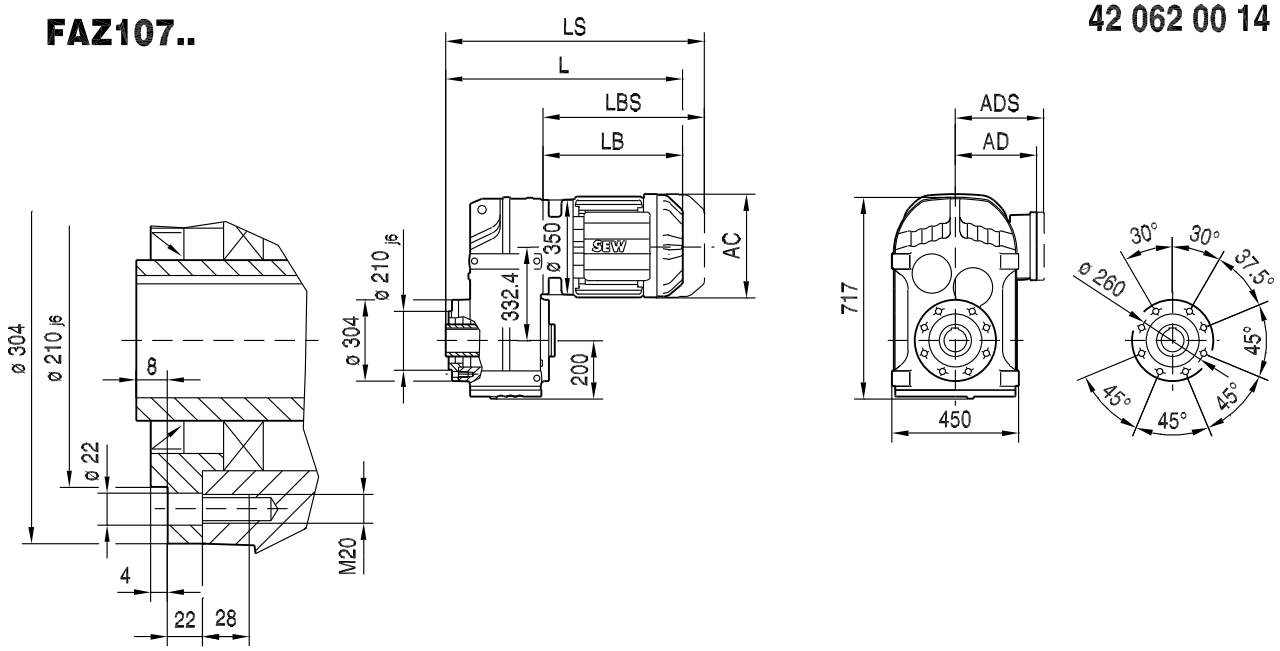



| (→ 142) | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M | DRN160L | DRN180.. | DRN200L | DRN225.. |
|---|---|---|---|---|---|---|---|---|---|---|
| AC | 197 | 221 | 221 | 261 | 261 | 314 | 314 | 357 | 394 | 434 |
| AD | 157 | 170 | 170 | 228 | 228 | 253 | 253 | 268 | 283 | 305 |
| ADS | 158 | 172 | 172 | 228 | 228 | 253 | 253 | 268 | 283 | 305 |
| L | 644 | 675 | 725 | 743 | 769 | 835 | 835 | 858 | 968 | 942 |
| LS | 738 | 787 | 837 | 881 | 906 | 1024 | 1024 | 1047 | 1173 | 1147 |
| LB | 332 | 363 | 413 | 431 | 457 | 523 | 523 | 546 | 656 | 630 |
| LBS | 426 | 475 | 525 | 569 | 594 | 712 | 712 | 735 | 861 | 835 |

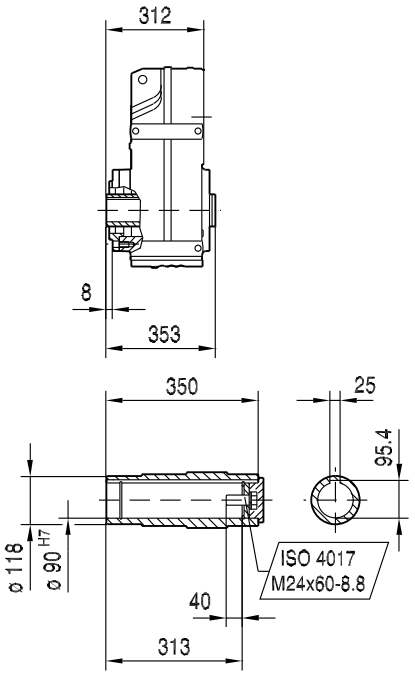
21284997/EN – 03/2015

## FAZ107..

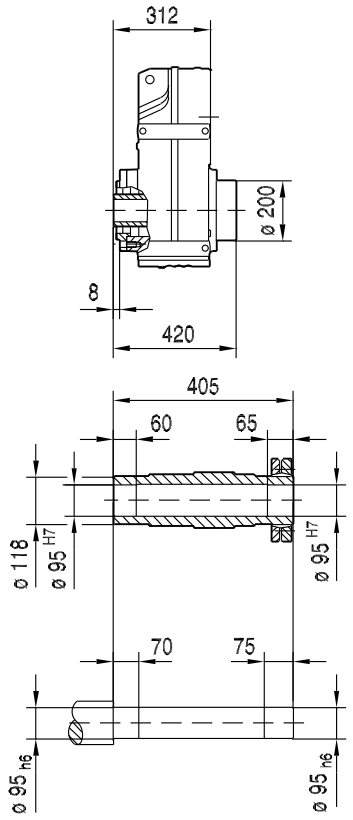
42 062 00 14



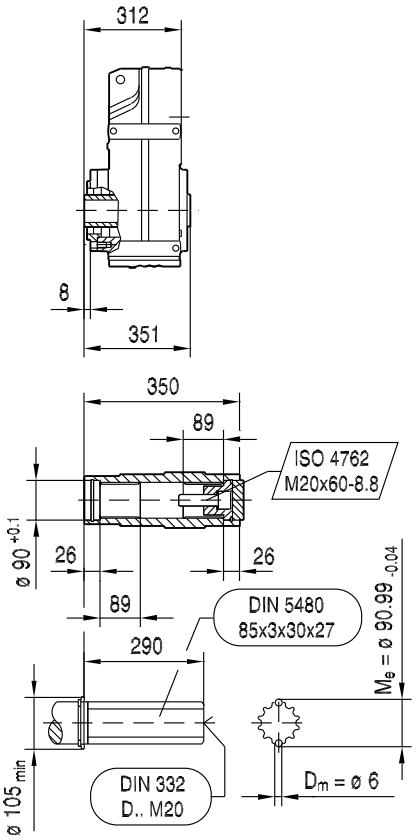

## FAZ107..




## FHZ107..




## FVZ107..

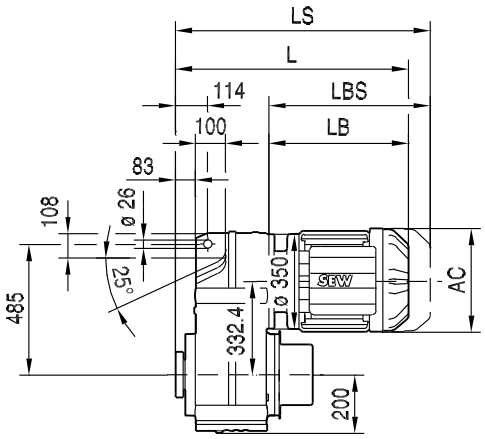


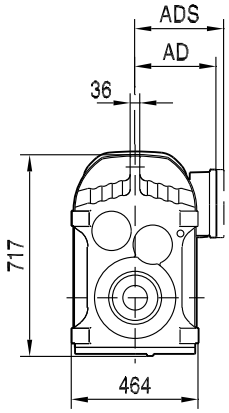

| (→ 142) | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M | DRN160L | DRN180.. | DRN200L | DRN225.. |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 197 | 221 | 221 | 261 | 261 | 314 | 314 | 357 | 394 | 434 |
| **AD** | 157 | 170 | 170 | 228 | 228 | 253 | 253 | 268 | 283 | 305 |
| **ADS** | 158 | 172 | 172 | 228 | 228 | 253 | 253 | 268 | 283 | 305 |
| **L** | 644 | 675 | 725 | 743 | 769 | 835 | 835 | 858 | 968 | 942 |
| **LS** | 738 | 787 | 837 | 881 | 906 | 1024 | 1024 | 1047 | 1173 | 1147 |
| **LB** | 332 | 363 | 413 | 431 | 457 | 523 | 523 | 546 | 656 | 630 |
| **LBS** | 426 | 475 | 525 | 569 | 594 | 712 | 712 | 735 | 861 | 835 |

21284997/EN – 03/2015

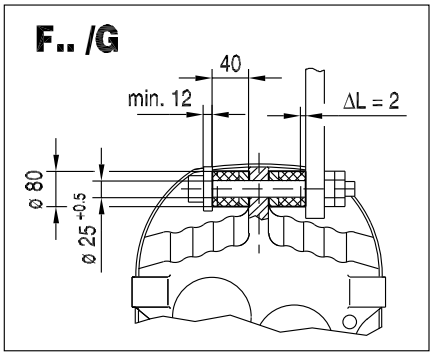
**FT107..**

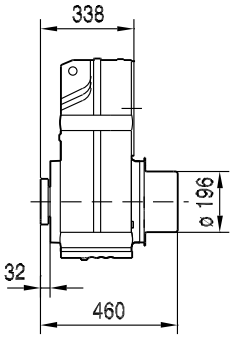
42 063 00 14

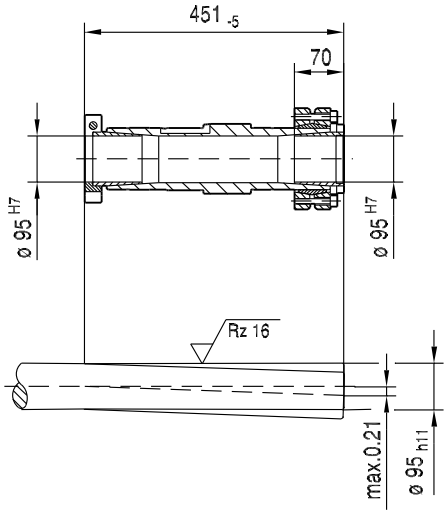


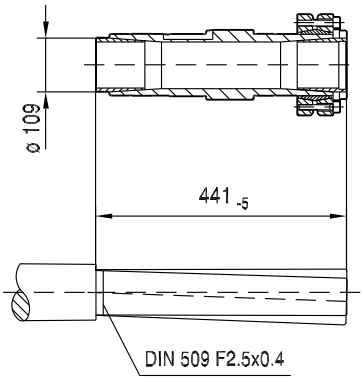




**F.. /G**



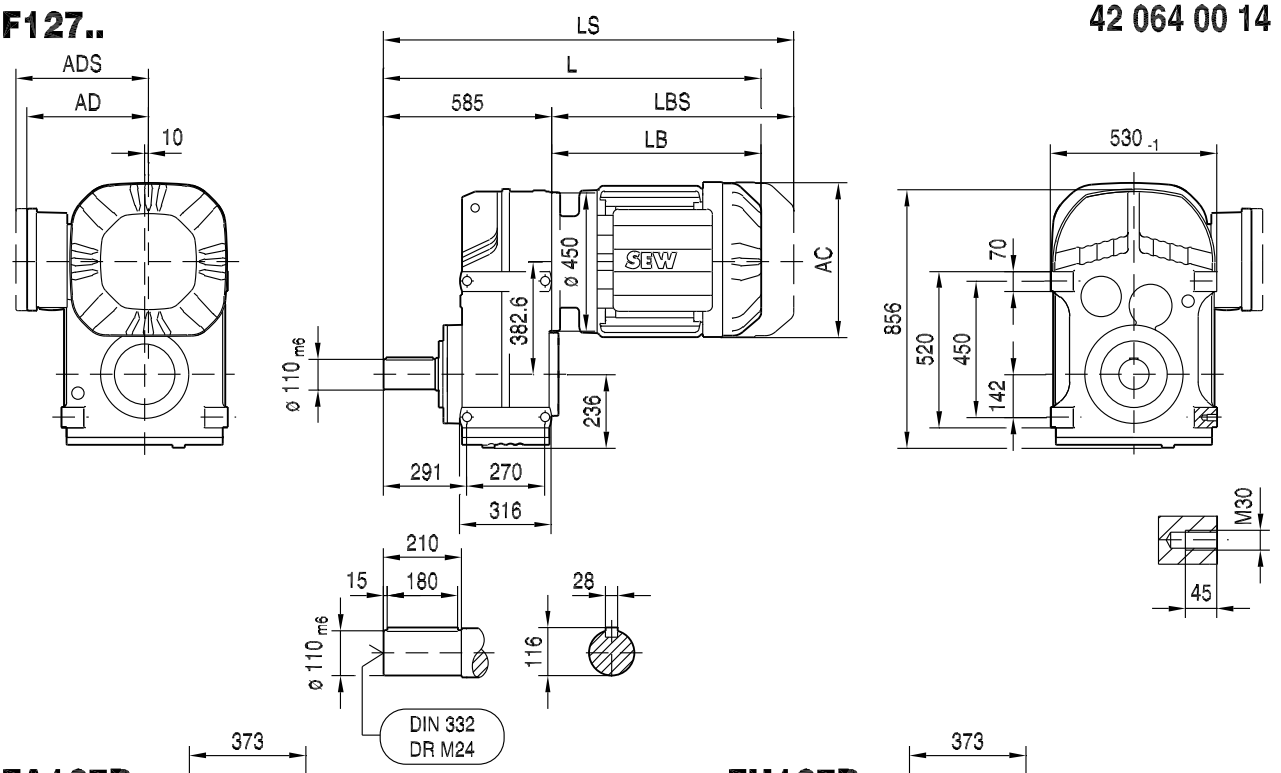



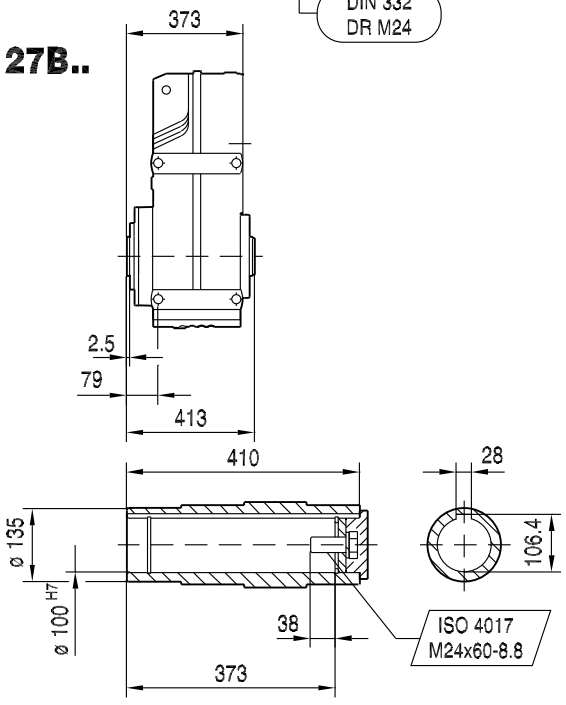

| (→ 142) | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M | DRN160L | DRN180.. | DRN200L | DRN225.. |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 197 | 221 | 221 | 261 | 261 | 314 | 314 | 357 | 394 | 434 |
| **AD** | 157 | 170 | 170 | 228 | 228 | 253 | 253 | 268 | 283 | 305 |
| **ADS** | 158 | 172 | 172 | 228 | 228 | 253 | 253 | 268 | 283 | 305 |
| **L** | 670 | 701 | 751 | 769 | 795 | 861 | 861 | 884 | 994 | 968 |
| **LS** | 764 | 813 | 863 | 907 | 932 | 1050 | 1050 | 1073 | 1199 | 1173 |
| **LB** | 332 | 363 | 413 | 431 | 457 | 523 | 523 | 546 | 656 | 630 |
| **LBS** | 426 | 475 | 525 | 569 | 594 | 712 | 712 | 735 | 861 | 835 |

**F127..**

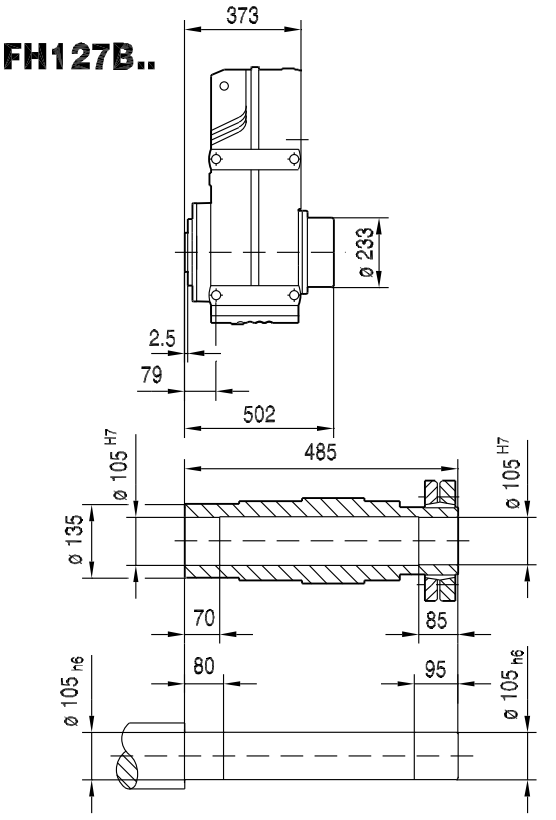
42 064 00 14




**FA127B..**




**FH127B..**

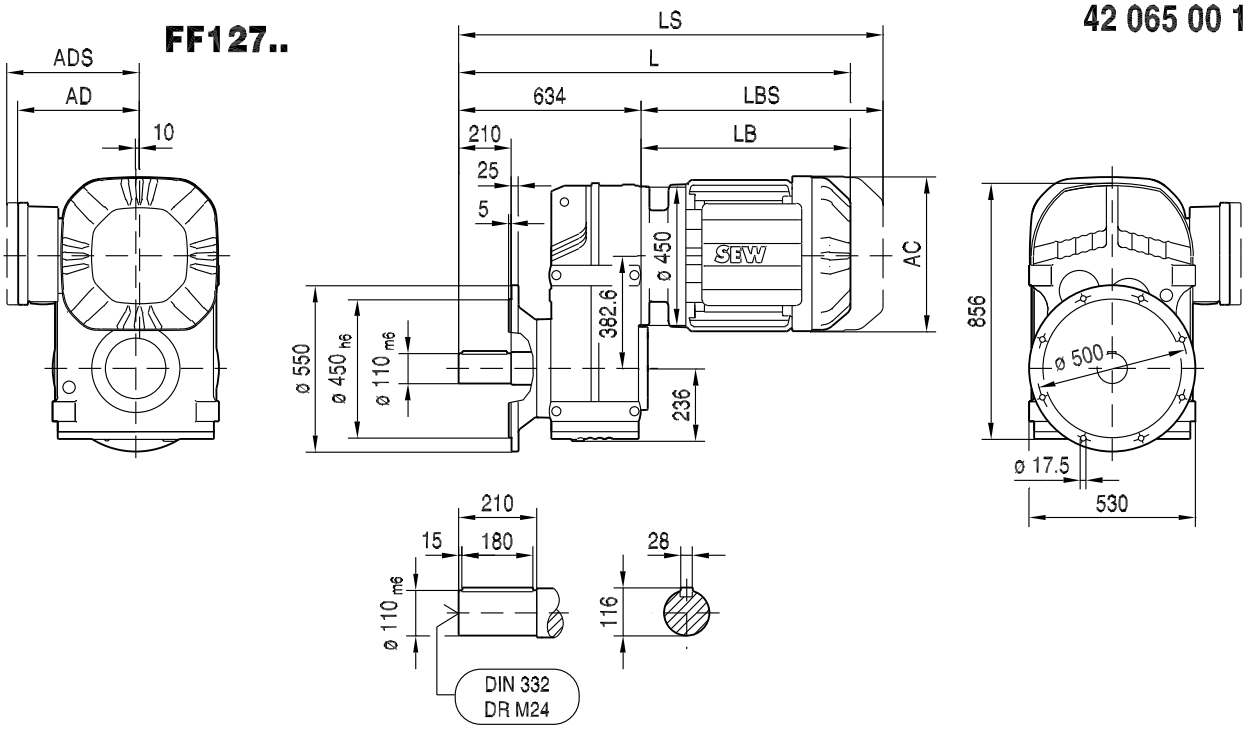



| (→ 142) | DRN132M | DRN132L | DRN160M | DRN160L | DRN180.. | DRN200L | DRN225.. | DRN250M | DRN280S | DRN280M |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 261 | 261 | 314 | 314 | 357 | 394 | 434 | 495 | 495 | 495 |
| **AD** | 228 | 228 | 253 | 253 | 268 | 283 | 305 | 394 | 394 | 394 |
| **ADS** | 228 | 228 | 253 | 253 | 268 | 283 | 305 | 394 | 394 | 394 |
| **L** | 1001 | 1027 | 1093 | 1093 | 1116 | 1226 | 1200 | 1337 | 1337 | 1432 |
| **LS** | 1139 | 1164 | 1282 | 1282 | 1305 | 1431 | 1405 | 1577 | 1577 | 1672 |
| **LB** | 416 | 442 | 508 | 508 | 531 | 641 | 615 | 752 | 752 | 847 |
| **LBS** | 554 | 579 | 697 | 697 | 720 | 846 | 820 | 992 | 992 | 1087 |

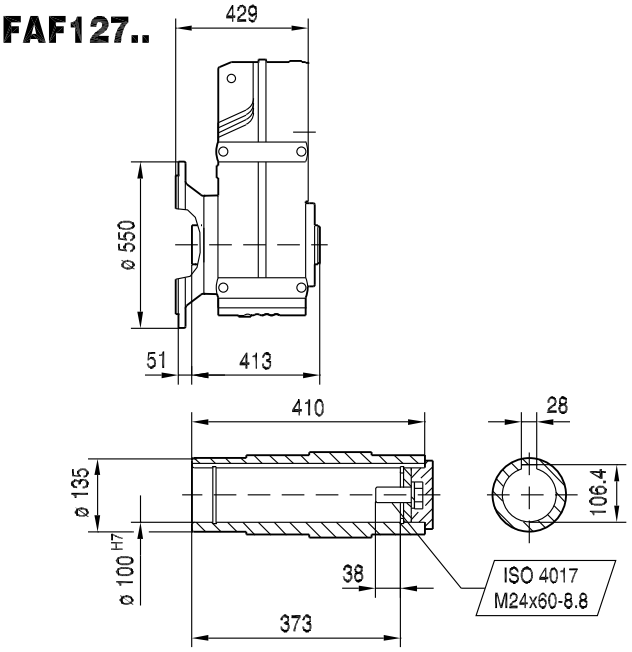
21284997/EN – 03/2015

42 065 00 14

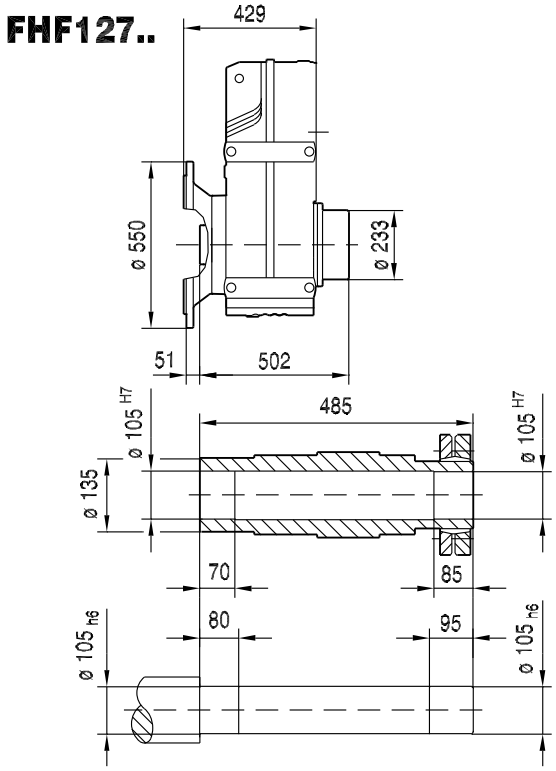
## FF127..




## FAF127..




## FHF127..

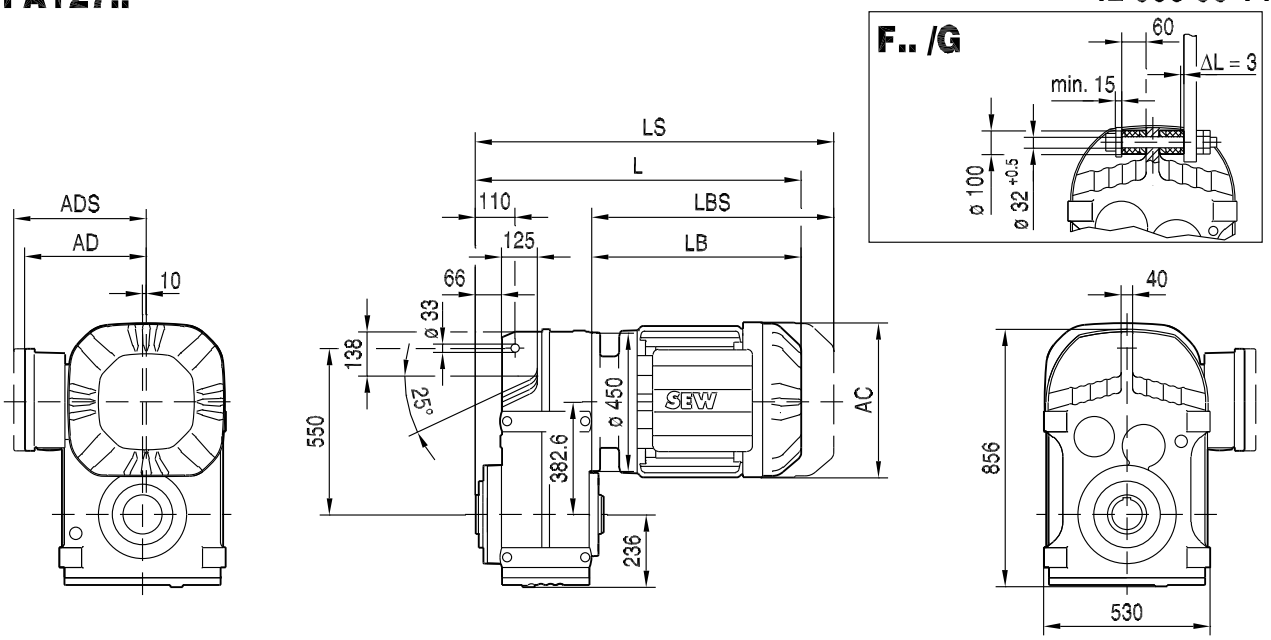



| (→ 142) | DRN132M | DRN132L | DRN160M | DRN160L | DRN180.. | DRN200L | DRN225.. | DRN250M | DRN280S | DRN280M |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 261 | 261 | 314 | 314 | 357 | 394 | 434 | 495 | 495 | 495 |
| **AD** | 228 | 228 | 253 | 253 | 268 | 283 | 305 | 394 | 394 | 394 |
| **ADS** | 228 | 228 | 253 | 253 | 268 | 283 | 305 | 394 | 394 | 394 |
| **L** | 1050 | 1076 | 1142 | 1142 | 1165 | 1275 | 1249 | 1386 | 1386 | 1481 |
| **LS** | 1188 | 1213 | 1331 | 1331 | 1354 | 1480 | 1454 | 1626 | 1626 | 1721 |
| **LB** | 416 | 442 | 508 | 508 | 531 | 641 | 615 | 752 | 752 | 847 |
| **LBS** | 554 | 579 | 697 | 697 | 720 | 846 | 820 | 992 | 992 | 1087 |

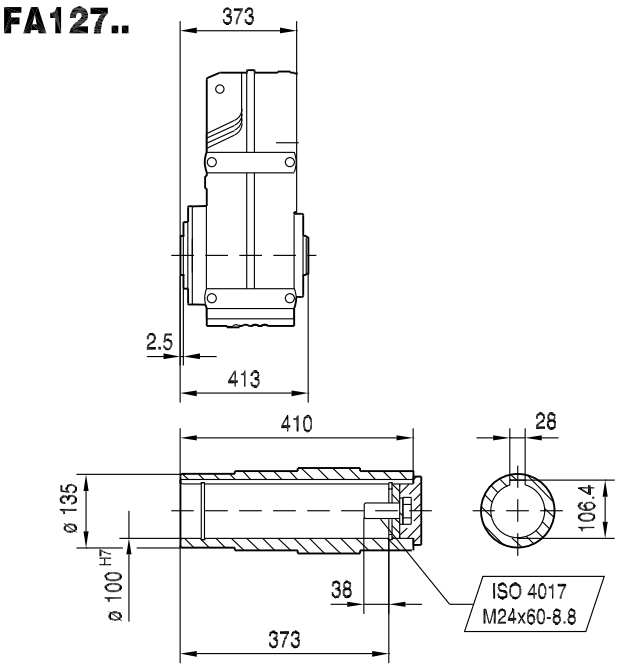
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## FA127..

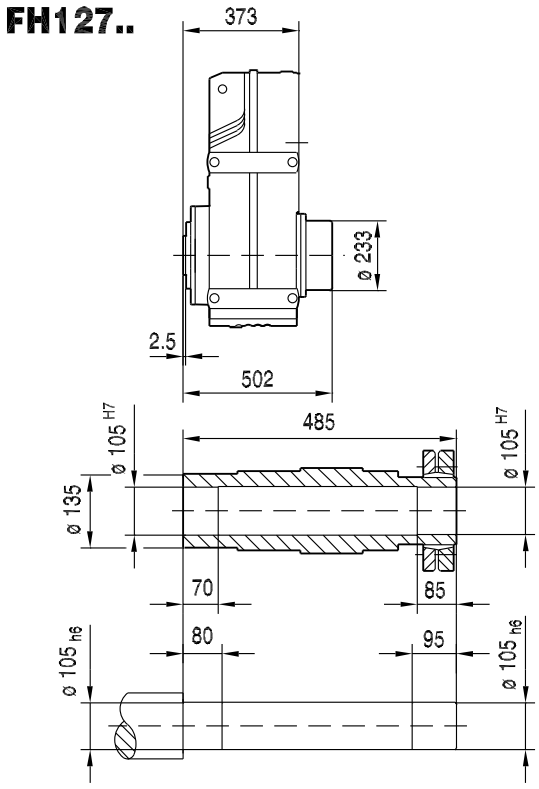
42 066 00 14




## FA127..




## FH127..

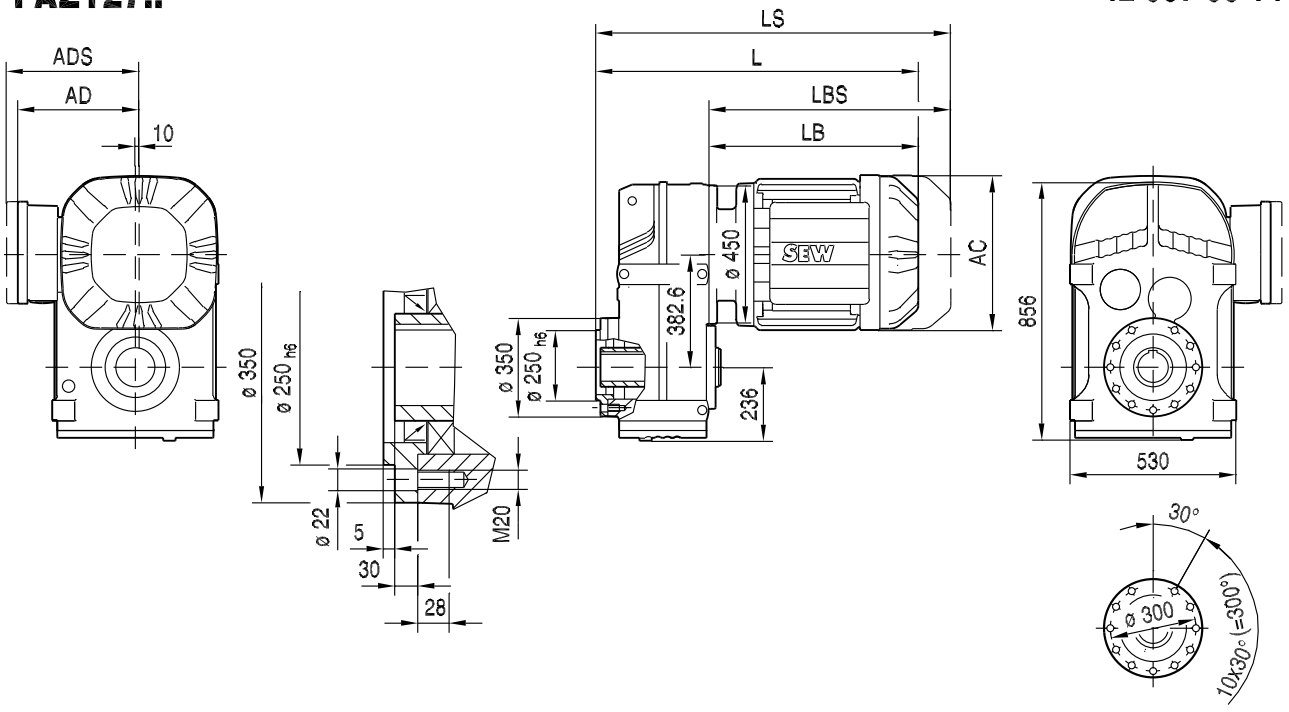



| (→ 142) | DRN132M | DRN132L | DRN160M | DRN160L | DRN180.. | DRN200L | DRN225.. | DRN250M | DRN280S | DRN280M |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 261 | 261 | 314 | 314 | 357 | 394 | 434 | 495 | 495 | 495 |
| **AD** | 228 | 228 | 253 | 253 | 268 | 283 | 305 | 394 | 394 | 394 |
| **ADS** | 228 | 228 | 253 | 253 | 268 | 283 | 305 | 394 | 394 | 394 |
| **L** | 789 | 815 | 881 | 881 | 904 | 1014 | 988 | 1125 | 1125 | 1220 |
| **LS** | 927 | 952 | 1070 | 1070 | 1093 | 1219 | 1193 | 1365 | 1365 | 1460 |
| **LB** | 416 | 442 | 508 | 508 | 531 | 641 | 615 | 752 | 752 | 847 |
| **LBS** | 554 | 579 | 697 | 697 | 720 | 846 | 820 | 992 | 992 | 1087 |

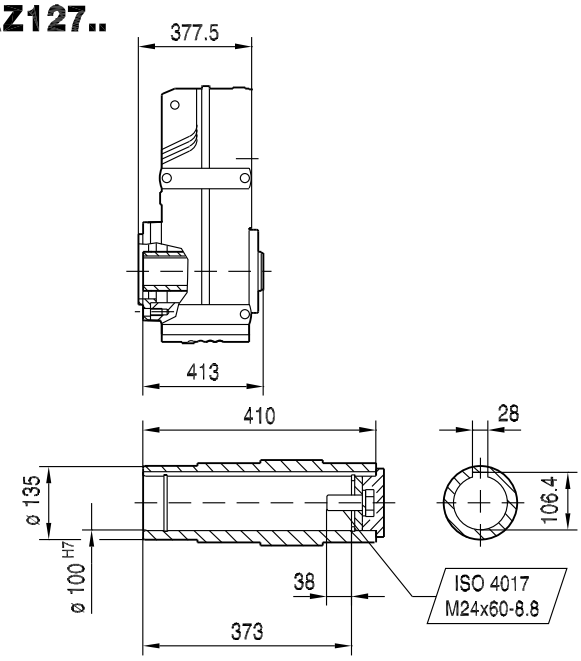
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## FAZ127..

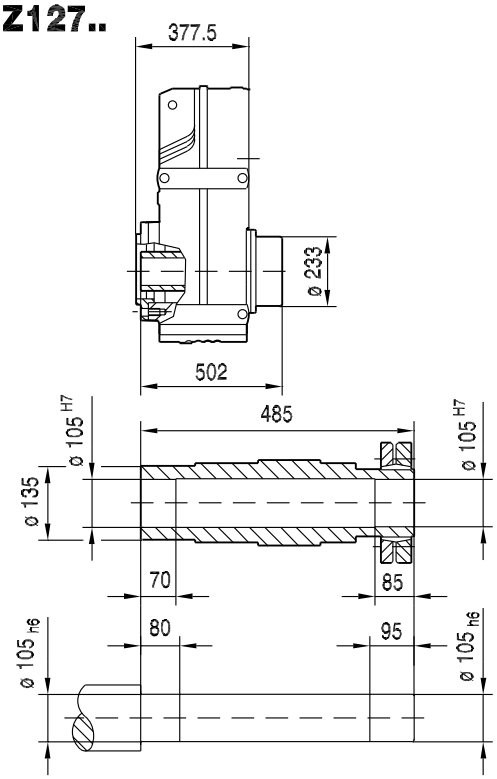
42 067 00 14




## FAZ127..




## FHZ127..

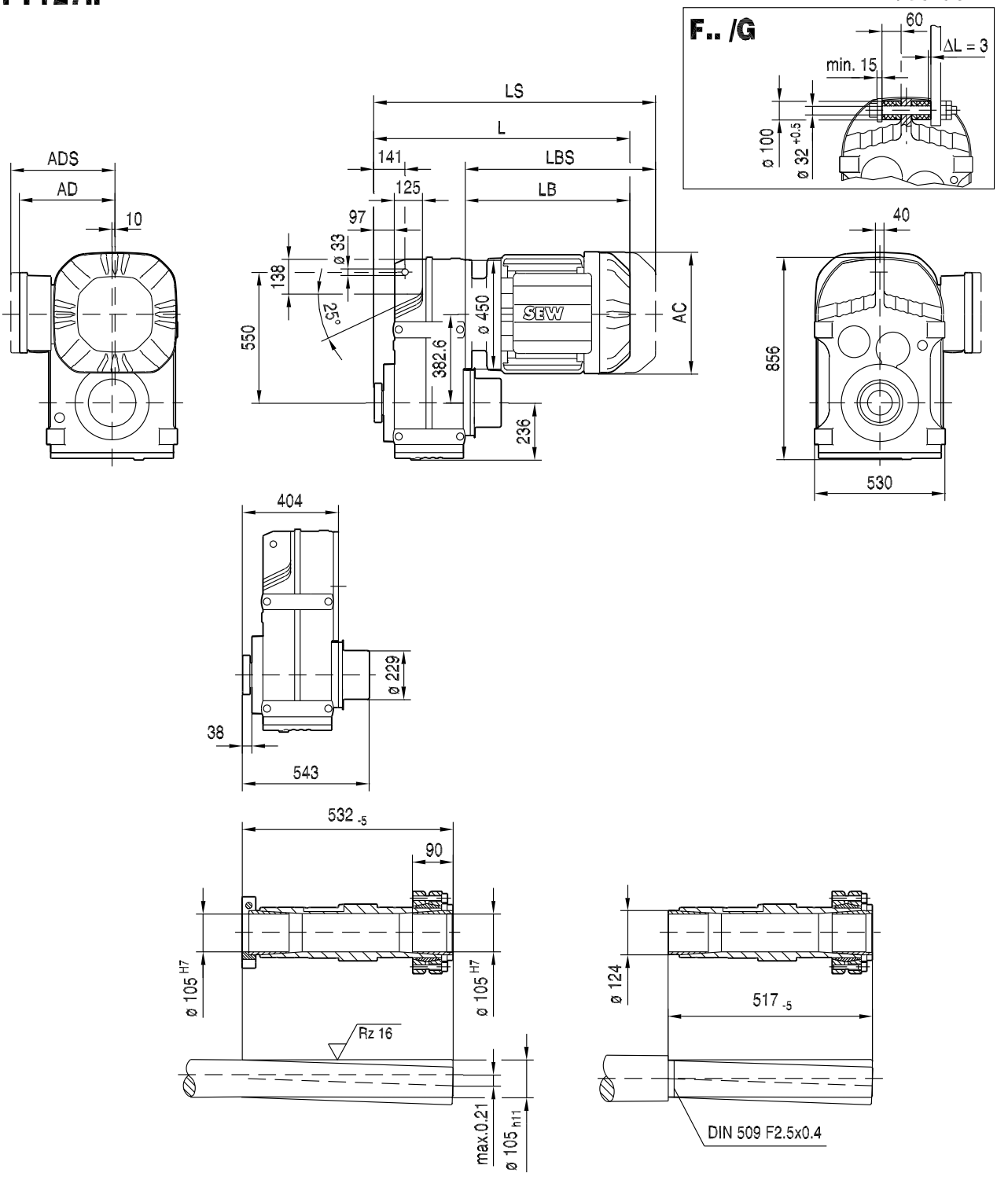



| (→ 142) | DRN132M | DRN132L | DRN160M | DRN160L | DRN180.. | DRN200L | DRN225.. | DRN250M | DRN280S | DRN280M |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 261 | 261 | 314 | 314 | 357 | 394 | 434 | 495 | 495 | 495 |
| **AD** | 228 | 228 | 253 | 253 | 268 | 283 | 305 | 394 | 394 | 394 |
| **ADS** | 228 | 228 | 253 | 253 | 268 | 283 | 305 | 394 | 394 | 394 |
| **L** | 794 | 819 | 886 | 886 | 909 | 1018 | 993 | 1130 | 1130 | 1225 |
| **LS** | 931 | 956 | 1075 | 1075 | 1098 | 1223 | 1198 | 1370 | 1370 | 1465 |
| **LB** | 416 | 442 | 508 | 508 | 531 | 641 | 615 | 752 | 752 | 847 |
| **LBS** | 554 | 579 | 697 | 697 | 720 | 846 | 820 | 992 | 992 | 1087 |

21284997/EN – 03/2015

## FT127..

42 068 00 14

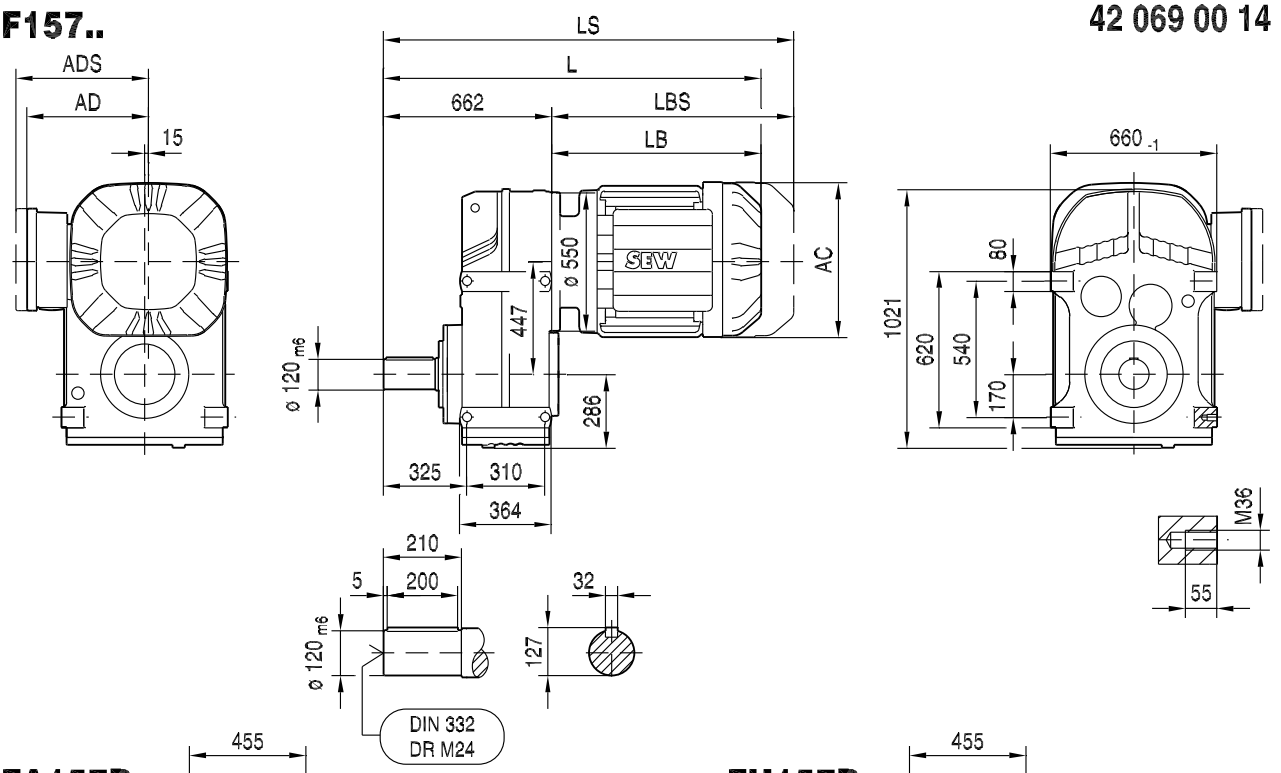



| (→ 142) | DRN132M | DRN132L | DRN160M | DRN160L | DRN180.. | DRN200L | DRN225.. | DRN250M | DRN280S | DRN280M |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 261 | 261 | 314 | 314 | 357 | 394 | 434 | 495 | 495 | 495 |
| **AD** | 228 | 228 | 253 | 253 | 268 | 283 | 305 | 394 | 394 | 394 |
| **ADS** | 228 | 228 | 253 | 253 | 268 | 283 | 305 | 394 | 394 | 394 |
| **L** | 820 | 846 | 912 | 912 | 935 | 1045 | 1019 | 1156 | 1156 | 1251 |
| **LS** | 958 | 983 | 1101 | 1101 | 1124 | 1250 | 1224 | 1396 | 1396 | 1491 |
| **LB** | 416 | 442 | 508 | 508 | 531 | 641 | 615 | 752 | 752 | 847 |
| **LBS** | 554 | 579 | 697 | 697 | 720 | 846 | 820 | 992 | 992 | 1087 |

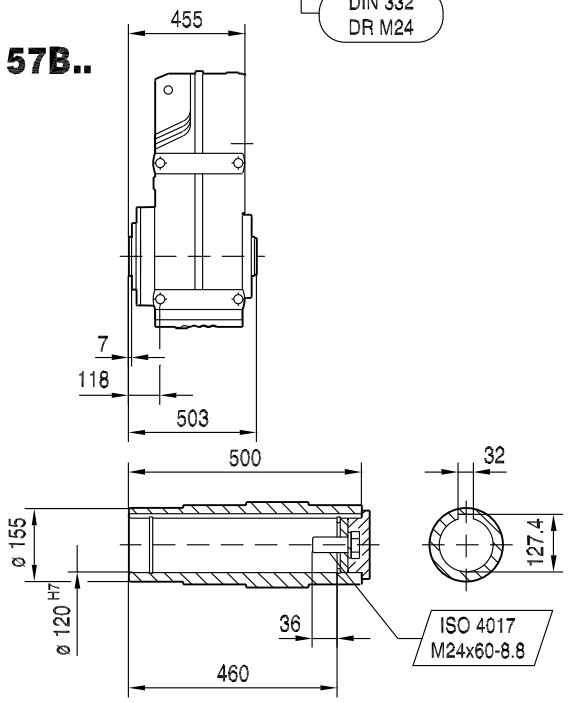
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**F157..**

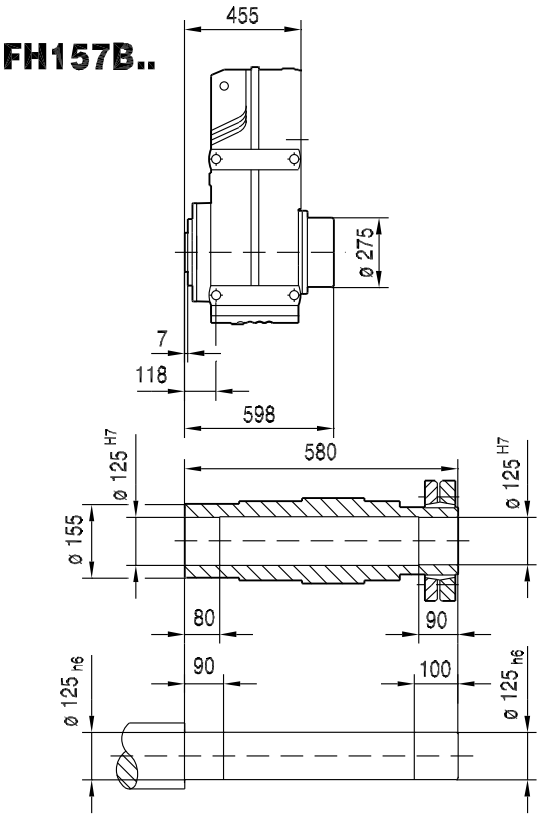
42 069 00 14




**FA157B..**




**FH157B..**

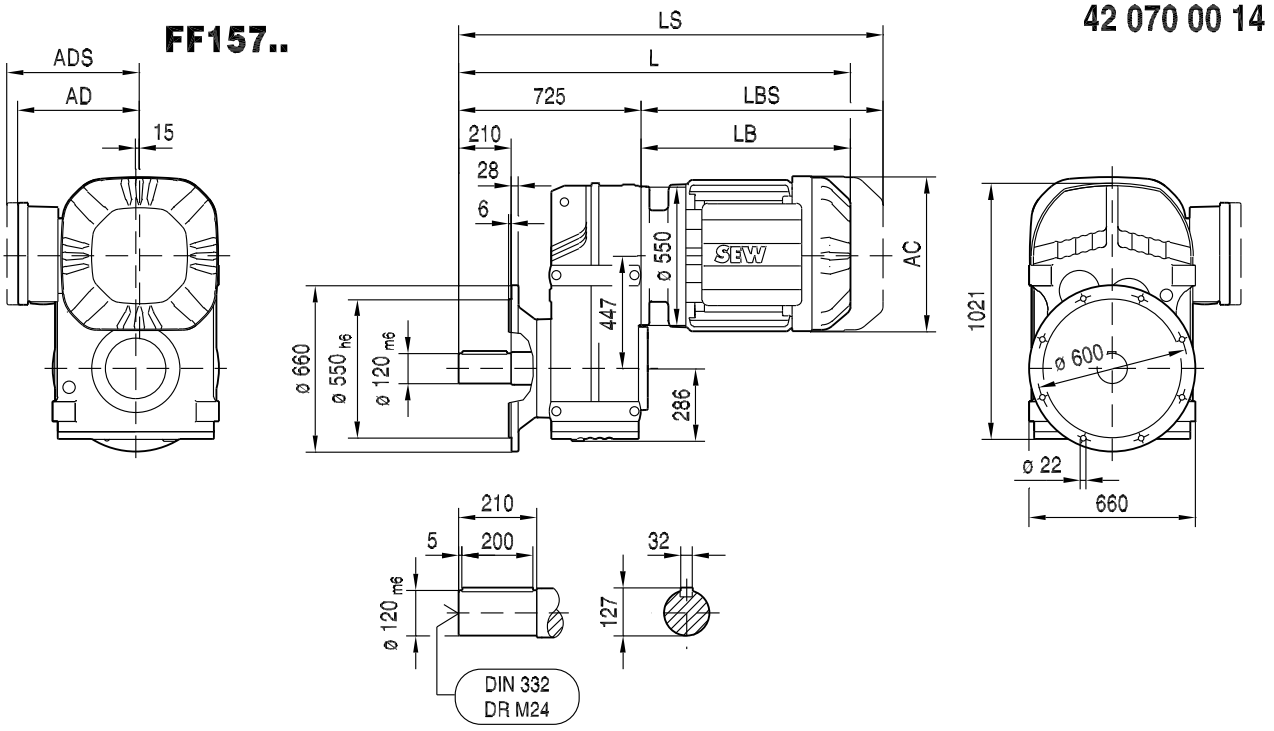



| (→ 142) | DRN160L | DRN180.. | DRN200L | DRN225.. | DRN250M | DRN280S | DRN280M | DRN315S-M | DRN315ME-H |
|---|---|---|---|---|---|---|---|---|---|
| **AC** | 314 | 357 | 394 | 434 | 495 | 495 | 495 | 624 | 624 |
| **AD** | 253 | 268 | 283 | 305 | 394 | 394 | 394 | 506 | 506 |
| **ADS** | 253 | 268 | 283 | 305 | 394 | 394 | 394 | 506 | 506 |
| **L** | 1162 | 1185 | 1295 | 1269 | 1406 | 1406 | 1501 | 1603 | 1733 |
| **LS** | 1351 | 1374 | 1500 | 1474 | 1646 | 1646 | 1741 | 1854 | 1984 |
| **LB** | 500 | 523 | 633 | 607 | 744 | 744 | 839 | 941 | 1071 |
| **LBS** | 689 | 712 | 838 | 812 | 984 | 984 | 1079 | 1192 | 1322 |

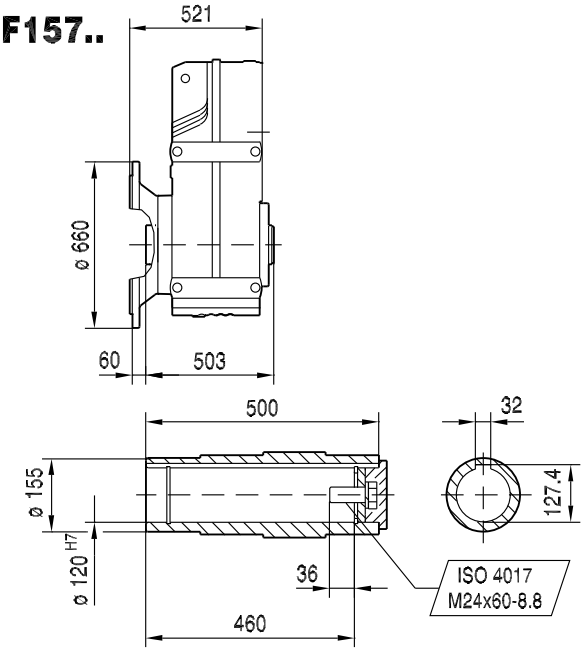
21284997/EN – 03/2015

42 070 00 14

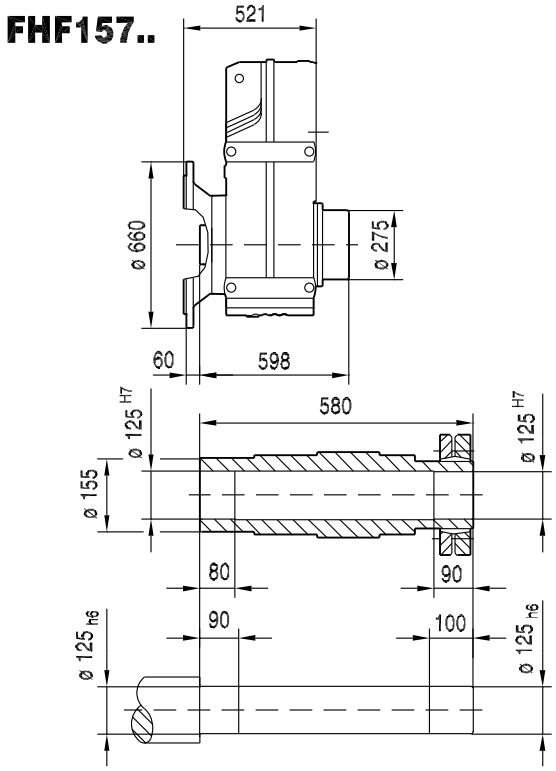
**FF157..**




**FAF157..**




**FHF157..**

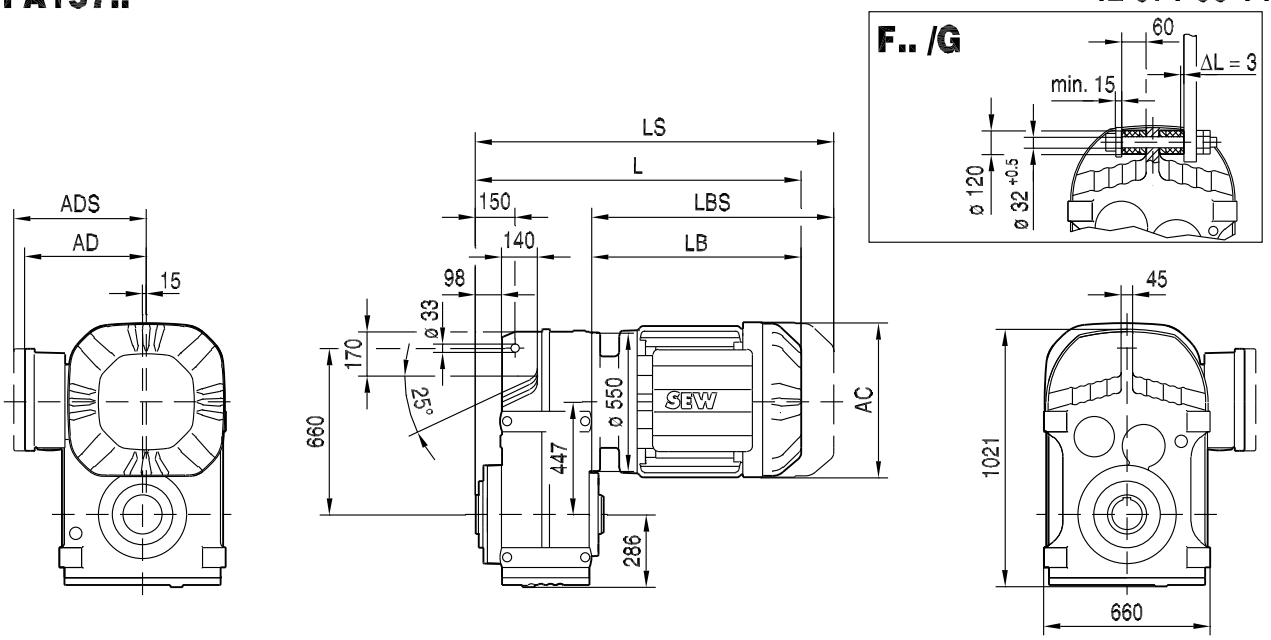



| (→ 142) | DRN160L | DRN180.. | DRN200L | DRN225.. | DRN250M | DRN280S | DRN280M | DRN315S-M | DRN315ME-H |
|---|---|---|---|---|---|---|---|---|---|
| **AC** | 314 | 357 | 394 | 434 | 495 | 495 | 495 | 624 | 624 |
| **AD** | 253 | 268 | 283 | 305 | 394 | 394 | 394 | 506 | 506 |
| **ADS** | 253 | 268 | 283 | 305 | 394 | 394 | 394 | 506 | 506 |
| **L** | 1225 | 1248 | 1358 | 1332 | 1469 | 1469 | 1564 | 1666 | 1796 |
| **LS** | 1414 | 1437 | 1563 | 1537 | 1709 | 1709 | 1804 | 1917 | 2047 |
| **LB** | 500 | 523 | 633 | 607 | 744 | 744 | 839 | 941 | 1071 |
| **LBS** | 689 | 712 | 838 | 812 | 984 | 984 | 1079 | 1192 | 1322 |

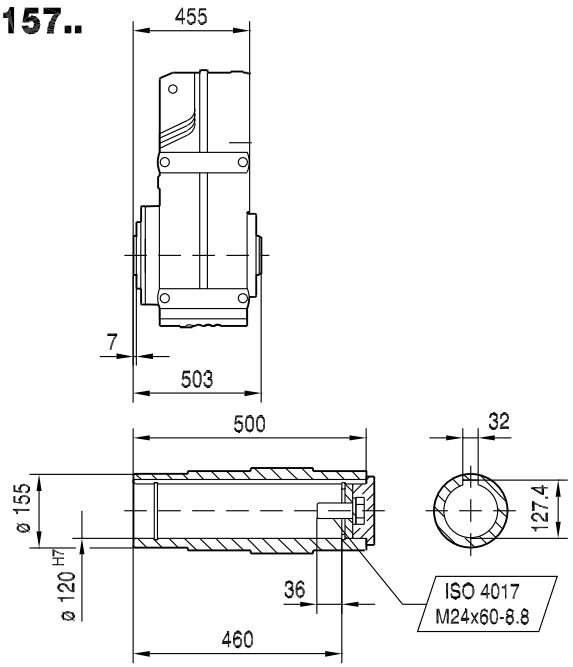
21284997/EN – 03/2015

## FA157..

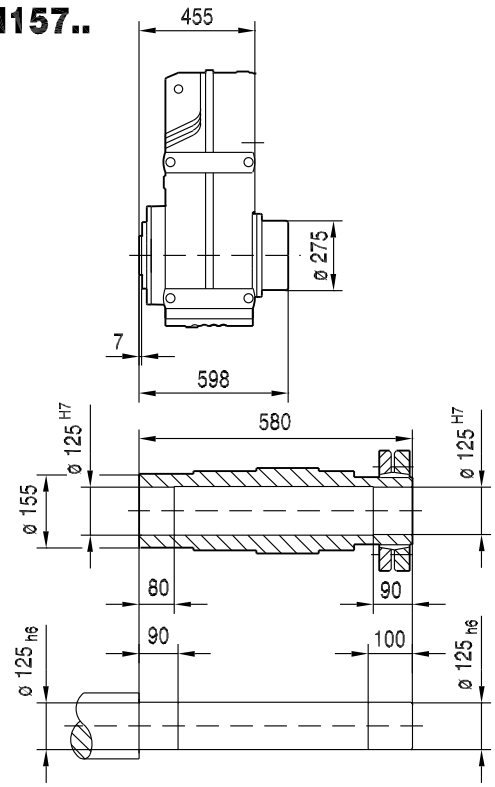
42 071 00 14




## FA157..




## FH157..

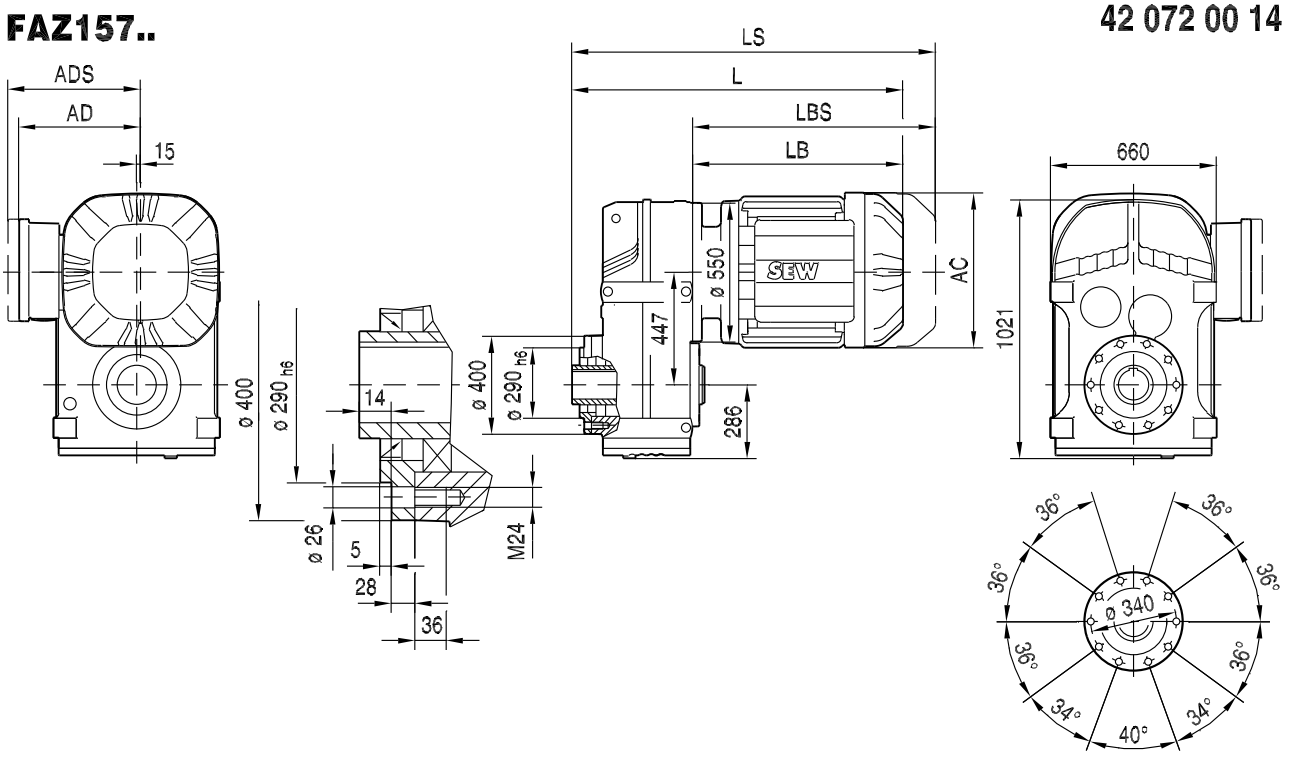



| (→ 142) | DRN160L | DRN180.. | DRN200L | DRN225.. | DRN250M | DRN280S | DRN280M | DRN315S-M | DRN315ME-H |
|---|---|---|---|---|---|---|---|---|---|
| **AC** | 314 | 357 | 394 | 434 | 495 | 495 | 495 | 624 | 624 |
| **AD** | 253 | 268 | 283 | 305 | 394 | 394 | 394 | 506 | 506 |
| **ADS** | 253 | 268 | 283 | 305 | 394 | 394 | 394 | 506 | 506 |
| **L** | 955 | 978 | 1088 | 1062 | 1199 | 1199 | 1294 | 1396 | 1526 |
| **LS** | 1144 | 1167 | 1293 | 1267 | 1439 | 1439 | 1534 | 1647 | 1777 |
| **LB** | 500 | 523 | 633 | 607 | 744 | 744 | 839 | 941 | 1071 |
| **LBS** | 689 | 712 | 838 | 812 | 984 | 984 | 1079 | 1192 | 1322 |

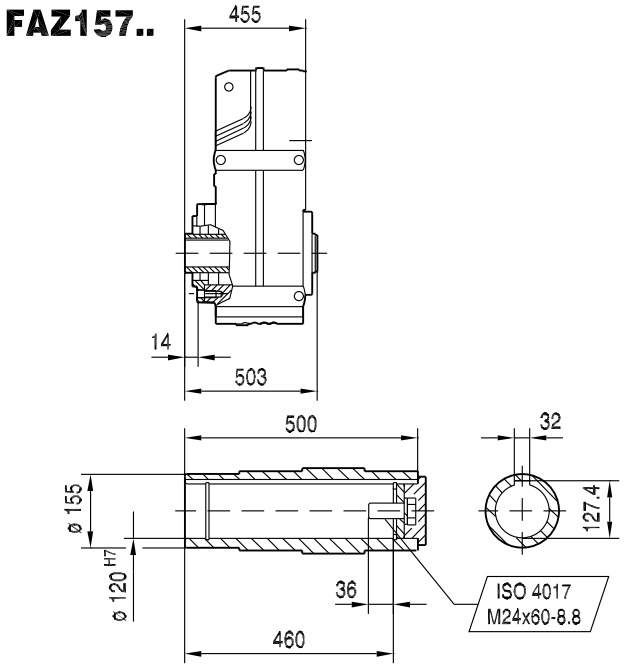
21284997/EN – 03/2015

**FAZ157..**

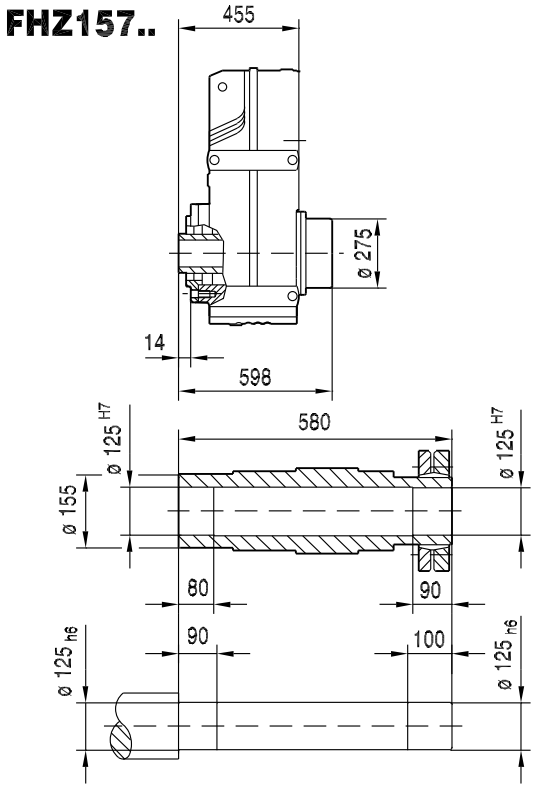
42 072 00 14




**FAZ157..**




**FHZ157..**

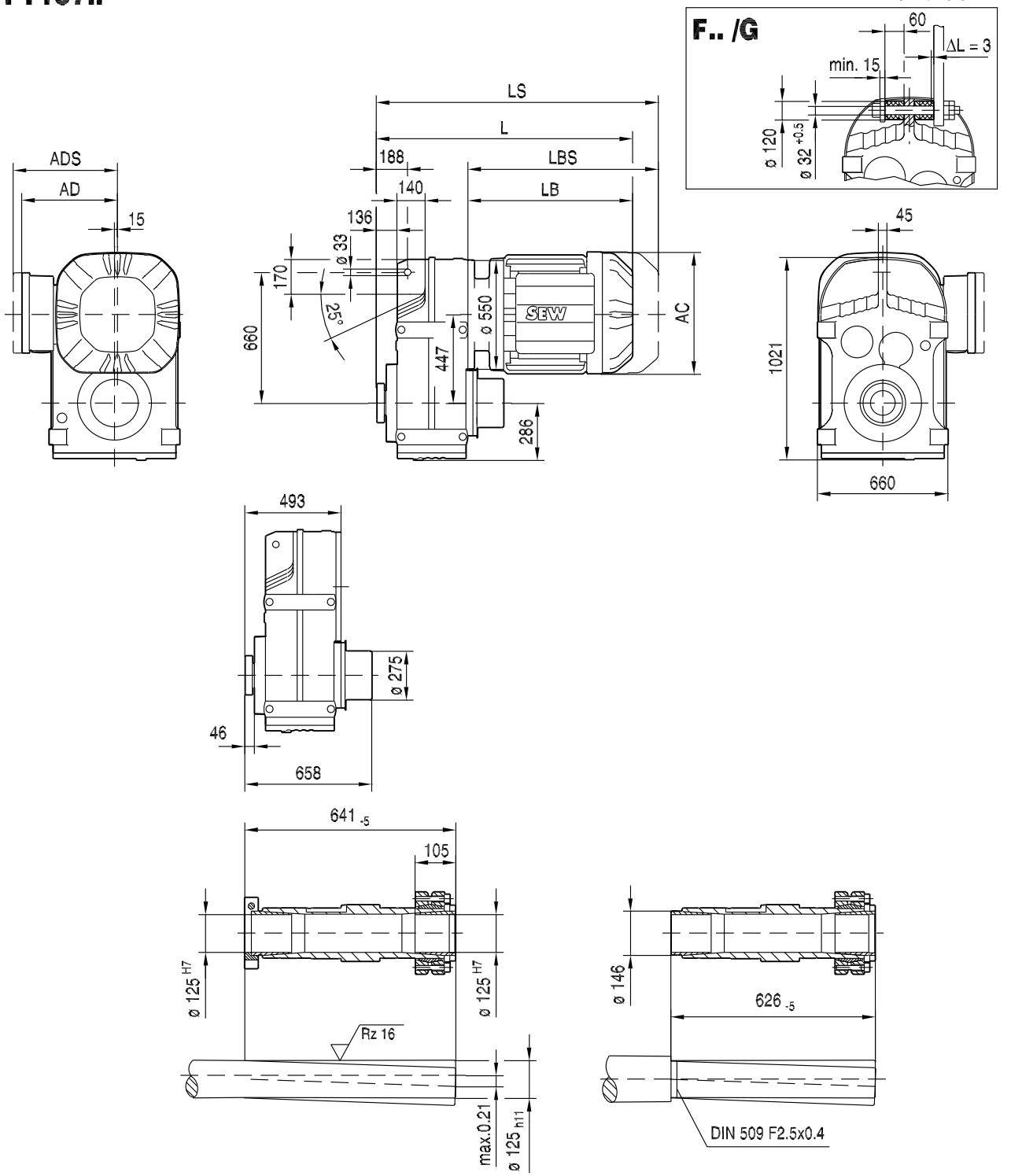



| (→ 142) | DRN160L | DRN180.. | DRN200L | DRN225.. | DRN250M | DRN280S | DRN280M | DRN315S-M | DRN315ME-H |
|---|---|---|---|---|---|---|---|---|---|
| **AC** | 314 | 357 | 394 | 434 | 495 | 495 | 495 | 624 | 624 |
| **AD** | 253 | 268 | 283 | 305 | 394 | 394 | 394 | 506 | 506 |
| **ADS** | 253 | 268 | 283 | 305 | 394 | 394 | 394 | 506 | 506 |
| **L** | 955 | 978 | 1088 | 1062 | 1199 | 1199 | 1294 | 1396 | 1526 |
| **LS** | 1144 | 1167 | 1293 | 1267 | 1439 | 1439 | 1534 | 1647 | 1777 |
| **LB** | 500 | 523 | 633 | 607 | 744 | 744 | 839 | 941 | 1071 |
| **LBS** | 689 | 712 | 838 | 812 | 984 | 984 | 1079 | 1192 | 1322 |

21284997/EN – 03/2015

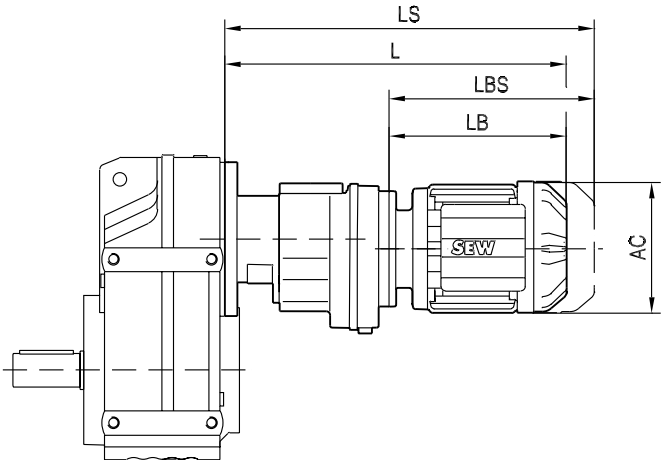
**FT157..**

42 073 00 14




| (→ 142) | DRN160L | DRN180.. | DRN200L | DRN225.. | DRN250M | DRN280S | DRN280M | DRN315S-M | DRN315ME-H |
|---|---|---|---|---|---|---|---|---|---|
| **AC** | 314 | 357 | 394 | 434 | 495 | 495 | 495 | 624 | 624 |
| **AD** | 253 | 268 | 283 | 305 | 394 | 394 | 394 | 506 | 506 |
| **ADS** | 253 | 268 | 283 | 305 | 394 | 394 | 394 | 506 | 506 |
| **L** | 993 | 1016 | 1126 | 1100 | 1237 | 1237 | 1332 | 1434 | 1564 |
| **LS** | 1182 | 1205 | 1331 | 1305 | 1477 | 1477 | 1572 | 1685 | 1815 |
| **LB** | 500 | 523 | 633 | 607 | 744 | 744 | 839 | 941 | 1071 |
| **LBS** | 689 | 712 | 838 | 812 | 984 | 984 | 1079 | 1192 | 1322 |

21284997/EN – 03/2015




42 121 00 06

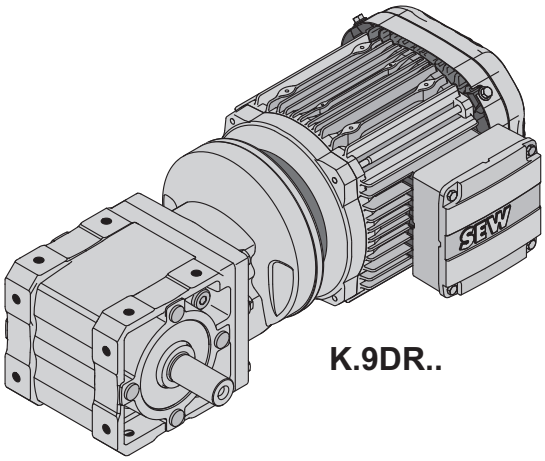
| (→ 142) | | AC | L | LS | LB | LBS |
|---|---|---|---|---|---|---|
| **F..27R17** | **DR63..** | 132 | 324 | 379 | 149 | 204 |
| **F..37R17** | **DR63..** | 132 | 324 | 379 | 149 | 204 |
| | **DR71S** | 139 | 335 | 403 | 160 | 228 |
| **F..47R17** | **DR63..** | 132 | 324 | 379 | 149 | 204 |
| | **DR71S** | 139 | 335 | 403 | 160 | 228 |
| | **DR71M** | 139 | 360 | 428 | 185 | 253 |
| **F..57R37** | **DR63..** | 132 | 356 | 411 | 191 | 246 |
| | **DR71S** | 139 | 367 | 434 | 202 | 269 |
| | **DR71M** | 139 | 392 | 459 | 227 | 294 |
| | **DRN80M** | 156 | 446 | 527 | 281 | 362 |
| **F..67R37** | **DR63..** | 132 | 356 | 411 | 191 | 246 |
| | **DR71S** | 139 | 367 | 434 | 202 | 269 |
| | **DR71M** | 139 | 392 | 459 | 227 | 294 |
| | **DRN80M** | 156 | 446 | 527 | 281 | 362 |
| | **DRN90S** | 179 | 448 | 541 | 283 | 376 |
| **F..77R37** | **DR63..** | 132 | 348 | 403 | 191 | 246 |
| | **DR71S** | 139 | 359 | 426 | 202 | 269 |
| | **DR71M** | 139 | 384 | 451 | 227 | 294 |
| | **DRN80M** | 156 | 438 | 519 | 281 | 362 |
| | **DRN90S** | 179 | 440 | 533 | 283 | 376 |
| | **DRN90L** | 179 | 472 | 565 | 315 | 408 |
| **F..87R57** | **DR63..** | 132 | 412 | 467 | 185 | 240 |
| | **DR71S** | 139 | 423 | 491 | 196 | 264 |
| | **DR71M** | 139 | 448 | 516 | 221 | 289 |
| | **DRN80M** | 156 | 502 | 583 | 275 | 356 |
| | **DRN90S** | 179 | 504 | 597 | 277 | 370 |
| | **DRN90L** | 179 | 536 | 629 | 309 | 402 |
| | **DRN100L** | 197 | 583 | 676 | 355 | 448 |
| | **DRN100LS** | 197 | 533 | 626 | 305 | 398 |
| **F..97R57** | **DR63..** | 132 | 407 | 462 | 185 | 240 |
| | **DR71S** | 139 | 418 | 486 | 196 | 264 |
| | **DR71M** | 139 | 443 | 511 | 221 | 289 |
| | **DRN80M** | 156 | 497 | 578 | 275 | 356 |
| | **DRN90S** | 179 | 499 | 592 | 277 | 370 |
| | **DRN90L** | 179 | 531 | 624 | 309 | 402 |
| | **DRN100L** | 197 | 578 | 671 | 355 | 448 |
| | **DRN100LS** | 197 | 528 | 621 | 305 | 398 |
| | **DRN112M** | 221 | 608 | 720 | 386 | 498 |

| (→ 142) | | AC | L | LS | LB | LBS |
|---|---|---|---|---|---|---|
| **F..107R77** | **DR63..** | 132 | 425 | 480 | 178 | 233 |
| | **DR71S** | 139 | 436 | 504 | 189 | 257 |
| | **DR71M** | 139 | 461 | 529 | 214 | 282 |
| | **DRN80M** | 156 | 515 | 596 | 268 | 349 |
| | **DRN90S** | 179 | 517 | 610 | 270 | 363 |
| | **DRN90L** | 179 | 549 | 642 | 302 | 395 |
| | **DRN100L** | 197 | 595 | 688 | 348 | 441 |
| | **DRN100LS** | 197 | 545 | 638 | 298 | 391 |
| | **DRN112M** | 221 | 626 | 738 | 379 | 491 |
| | **DRN132S** | 221 | 676 | 788 | 429 | 541 |
| | **DRN132M** | 261 | 692 | 831 | 445 | 584 |
| **F..127R77** | **DR63..** | 132 | 410 | 465 | 178 | 233 |
| | **DR71S** | 139 | 421 | 489 | 189 | 257 |
| | **DR71M** | 139 | 446 | 514 | 214 | 282 |
| | **DRN80M** | 156 | 500 | 581 | 268 | 349 |
| | **DRN90S** | 179 | 502 | 595 | 270 | 363 |
| | **DRN90L** | 179 | 534 | 627 | 302 | 395 |
| | **DRN100L** | 197 | 580 | 673 | 348 | 441 |
| | **DRN100LS** | 197 | 530 | 623 | 298 | 391 |
| | **DRN112M** | 221 | 611 | 723 | 379 | 491 |
| | **DRN132S** | 221 | 661 | 773 | 429 | 541 |
| **F..127R87** | **DRN132S** | 221 | 704 | 816 | 424 | 536 |
| | **DRN132M** | 261 | 720 | 859 | 440 | 579 |
| | **DRN132L** | 261 | 745 | 884 | 465 | 604 |
| | **DRN160M** | 314 | 814 | 1003 | 534 | 723 |
| | **DRN160L** | 314 | 814 | 1003 | 534 | 723 |
| **F..157R97** | **DR71M** | 139 | 529 | 597 | 204 | 272 |
| | **DRN80M** | 156 | 583 | 664 | 258 | 339 |
| | **DRN90S** | 179 | 585 | 678 | 260 | 353 |
| | **DRN90L** | 179 | 617 | 710 | 292 | 385 |
| | **DRN100L** | 197 | 663 | 756 | 338 | 431 |
| | **DRN100LS** | 197 | 613 | 706 | 288 | 381 |
| | **DRN112M** | 221 | 694 | 806 | 369 | 481 |
| | **DRN132S** | 221 | 744 | 856 | 419 | 531 |
| | **DRN132M** | 261 | 760 | 899 | 435 | 574 |
| | **DRN132L** | 261 | 785 | 924 | 460 | 599 |
| | **DRN160M** | 314 | 854 | 1043 | 529 | 718 |
| | **DRN160L** | 314 | 854 | 1043 | 529 | 718 |
| | **DRN180M** | 357 | 879 | 1068 | 554 | 743 |

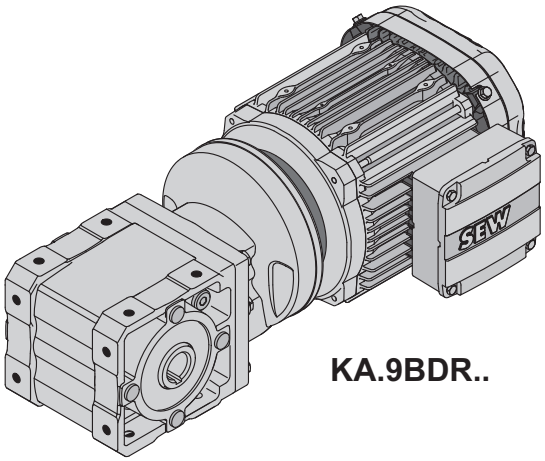
21284997/EN – 03/2015

# 10 Helical-bevel gearmotors

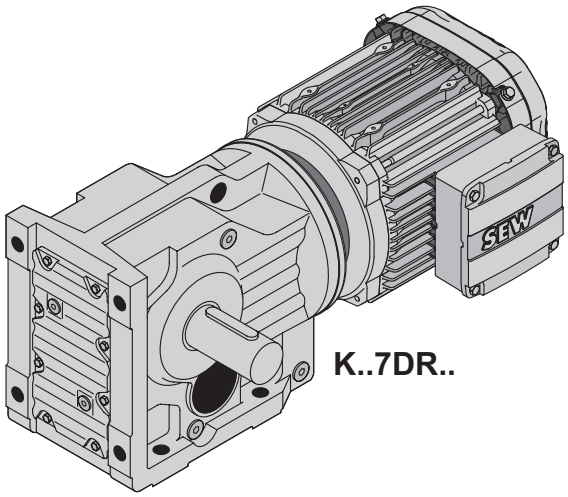
## 10.1 K..DRN.. designs



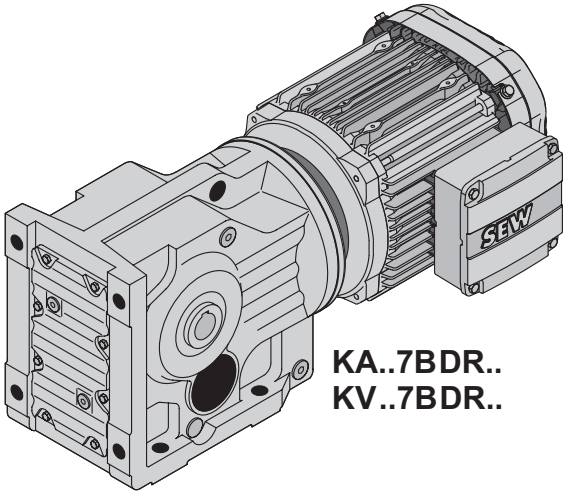
K.9DR..



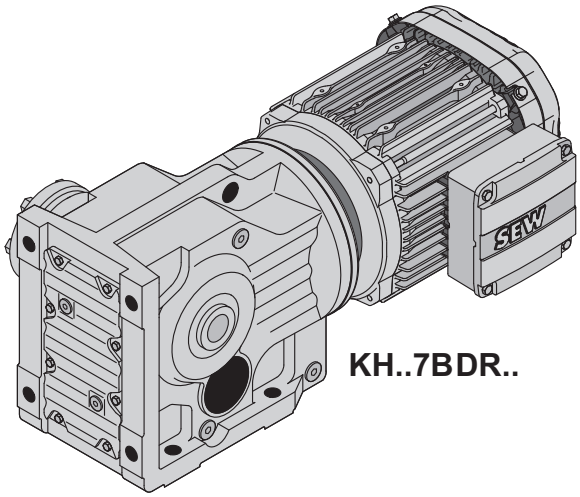
KA.9BDR..



K..7DR..



KA..7BDR..
KV..7BDR..

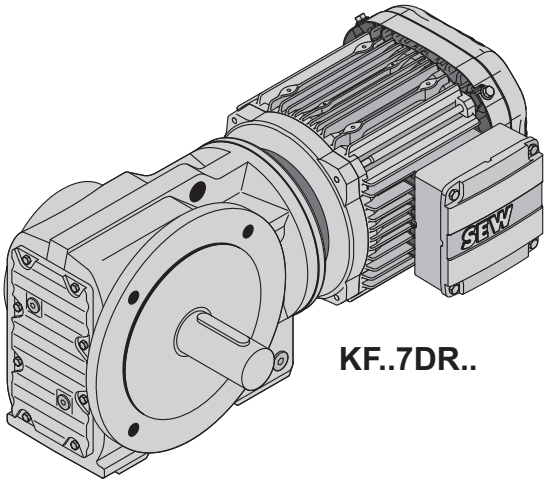


KH..7BDR..

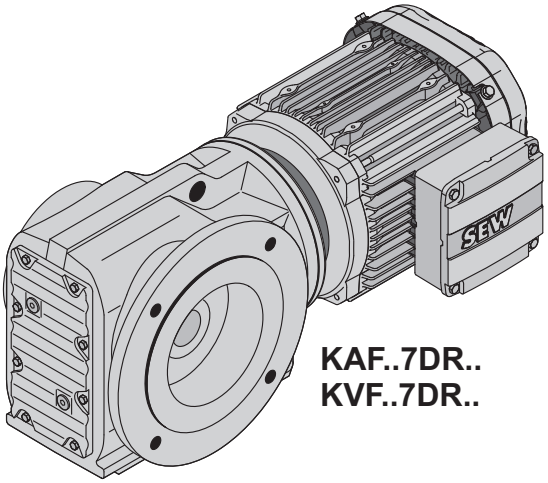
*9007207919495307*



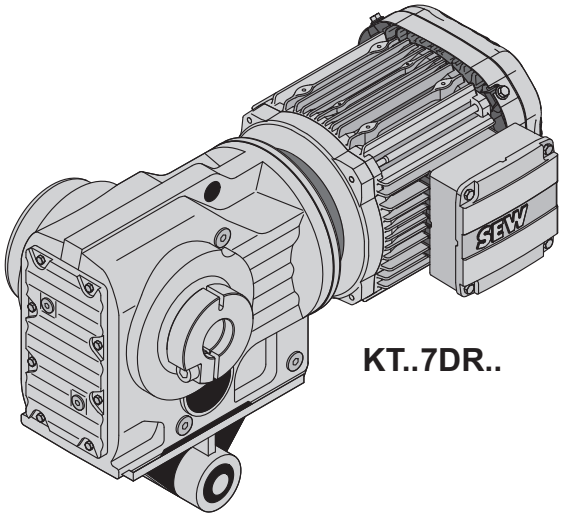
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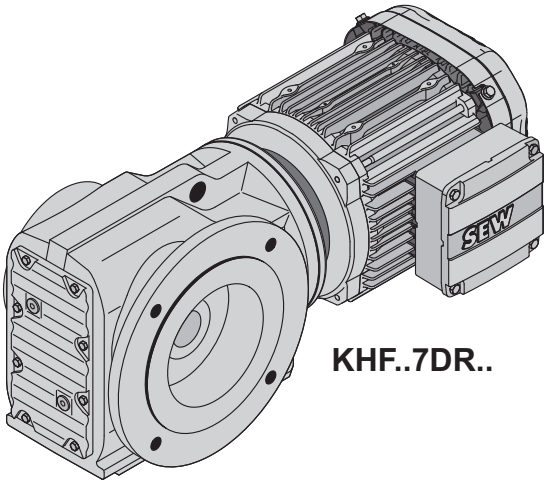
KF..7DR..



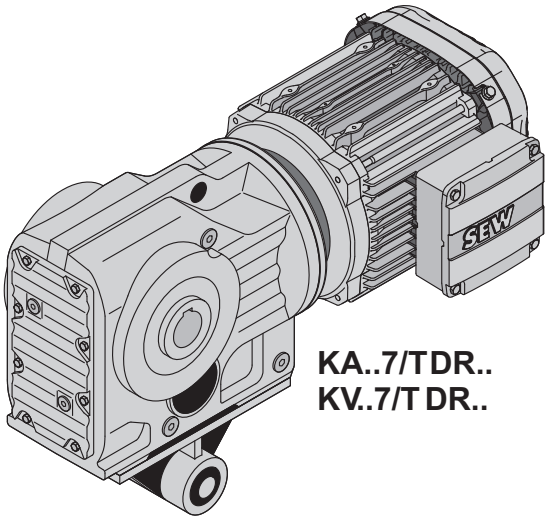
KAF..7DR..
KVF..7DR..



KT..7DR..



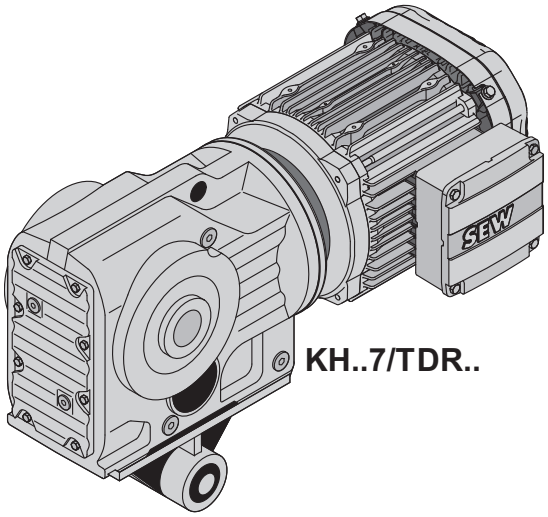
KHF..7DR..



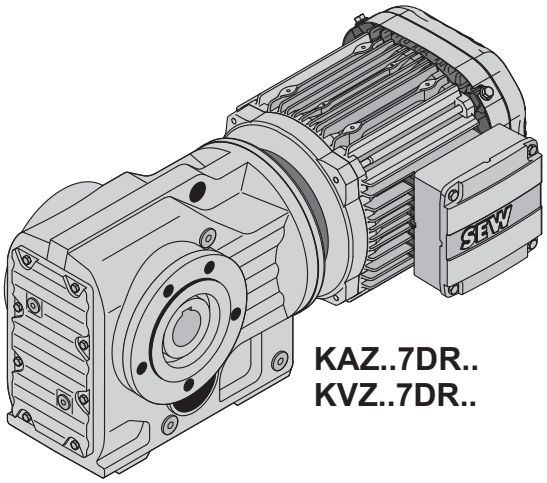
KA..7/TDR..
KV..7/T DR..

*8664756235*

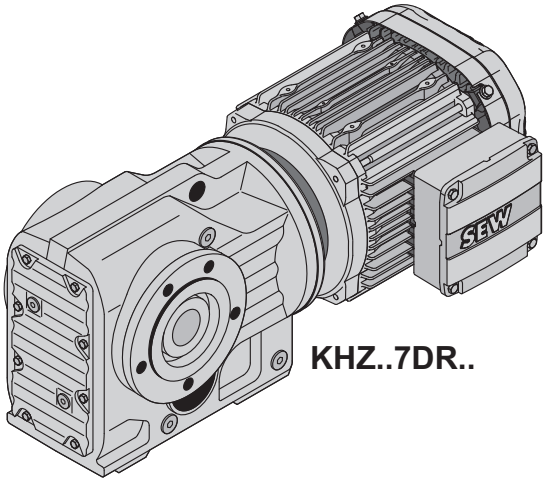
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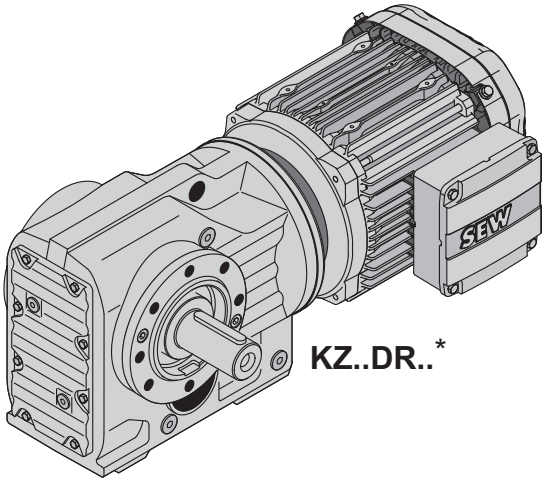

**KH..7/TDR..**




**KAZ..7DR..**
**KVZ..7DR..**




**KHZ..7DR..**




**KZ..DR..***

*18014407627437963*

*) The gear unit design KZ.. is not considered in the gearmotor dimension sheets. Contact SEW-EURODRIVE if required.



21284997/EN – 03/2015

## 10.2 K..DRN.. possible geometrical combinations

| K19, $n_e$=1400 1/min | | | | | | | 80 Nm |
|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L | DRS71S DRS71M | DRN80M DRN90S |
| | | | | | 2 | | |
| 24 | 70 | 4330 | - | 58.68 | | | |
| 26 | 70 | 4330 | - | 53.88 | | | |
| 28 | 70 | 4330 | - | 49.69 | | | |
| 31 | 69 | 4340 | - | 44.48 | | | |
| 34 | 67 | 4350 | - | 40.63 | | | |
| 41 | 64 | 4370 | - | 34.29 | | | |
| 44 | 80 | 4260 | - | 31.74 | | | |
| 48 | 61 | 4200 | - | 29.29 | | | |
| 48 | 80 | 4120 | - | 29.14 | | | |
| 52 | 60 | 4090 | - | 27.16 | | | |
| 52 | 80 | 3990 | - | 26.88 | | | |
| 58 | 80 | 3820 | - | 24.06 | | | |
| 64 | 80 | 3680 | - | 21.98 | | | |
| 75 | 80 | 3430 | - | 18.55 | | | |
| 88 | 80 | 3210 | - | 15.84 | | | |
| 95 | 80 | 3110 | - | 14.69 | | | |
| 110 | 80 | 2930 | - | 12.70 | | | |
| 118 | 79 | 2850 | - | 11.84 | | | |
| 136 | 76 | 2720 | - | 10.32 | | | |
| 146 | 63 | 2910 | - | 9.58 | | | |
| 173 | 80 | 2590 | - | 8.09 | | | |
| 203 | 80 | 2420 | - | 6.91 | | | |
| 218 | 80 | 2340 | - | 6.41 | | | |
| 253 | 80 | 2200 | - | 5.54 | | | |
| 271 | 80 | 2140 | - | 5.16 | | | |
| 311 | 80 | 2010 | - | 4.50 | | | |

| K29, $n_e$=1400 1/min | | | | | | | | | 130 Nm |
|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L | DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS |
| | | | | | | 2 | | | |
| 19 | 130 | 5020 | - | 71.93 | | | | | |
| 21 | 130 | 5020 | - | 66.25 | | | | | |
| 23 | 130 | 5020 | - | 61.28 | | | | | |
| 26 | 130 | 5020 | - | 54.89 | | | | | |
| 28 | 130 | 5020 | - | 50.35 | | | | | |
| 33 | 128 | 4790 | - | 42.87 | | | | | |
| 36 | 130 | 4720 | - | 38.90 | | | | | |
| 38 | 122 | 4560 | - | 36.96 | | | | | |
| 39 | 130 | 4560 | - | 35.83 | | | | | |
| 42 | 130 | 4410 | - | 33.15 | | | | | |
| 46 | 115 | 4250 | - | 30.11 | | | | | |
| 47 | 130 | 4210 | - | 29.69 | | | | | |
| 51 | 130 | 4060 | - | 27.23 | | | | | |
| 56 | 109 | 3980 | - | 24.91 | | | | | |
| 60 | 130 | 3790 | - | 23.19 | | | | | |

21284997/EN – 03/2015

| K29, $n_e$=1400 1/min | | | | | | | | | 130 Nm |
|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L | DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS |
| 63 | 105 | 3820 | - | 22.08 | | | | | |
| 70 | 130 | 3550 | - | 19.99 | | | | | |
| 86 | 130 | 3240 | - | 16.29 | | | | | |
| 104 | 130 | 2970 | - | 13.47 | | | | | |
| 117 | 130 | 2810 | - | 11.94 | | | | | |
| 141 | 110 | 3000 | - | 9.90 | | | | | |
| 153 | 130 | 2470 | - | 9.17 | | | | | |
| 164 | 122 | 2740 | - | 8.53 | | | | | |
| 187 | 123 | 2300 | - | 7.48 | | | | | |
| 201 | 112 | 2580 | - | 6.95 | | | | | |
| 243 | 112 | 2370 | - | 5.75 | | | | | |
| 275 | 110 | 2260 | - | 5.10 | | | | | |
| 357 | 126 | 1910 | - | 3.92 | | | | | |
| 439 | 110 | 1830 | - | 3.19 | | | | | |

| K37, $n_e$=1400 1/min | | | | | | | | 200 Nm |
|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L |
| | | | | | | 3 | | |
| 13 | 200 | 5640 | 6.8 | 106.38 | | | | |
| 14 | 200 | 5640 | 6.8 | 97.81 | | | | |
| 17 | 200 | 5640 | 6.9 | 83.69 | | | | |
| 19 | 200 | 5520 | 6.9 | 72.54 | | | | |
| 21 | 200 | 5360 | 6.9 | 67.80 | | | | |
| 24 | 200 | 5020 | 6.9 | 58.60 | | | | |
| 28 | 200 | 4660 | 7 | 49.79 | | | | |
| 31 | 200 | 4420 | 7 | 44.46 | | | | |
| 37 | 200 | 4100 | 7 | 37.97 | | | | |
| 39 | 200 | 3970 | 7.1 | 35.57 | | | | |
| 47 | 200 | 3650 | 7.1 | 29.96 | | | | |
| 49 | 200 | 3580 | 8.1 | 28.83 | | | | |
| 56 | 200 | 3330 | 8.1 | 24.99 | | | | |
| 60 | 195 | 3260 | 8.2 | 23.36 | | | | |
| 69 | 185 | 3110 | 8.3 | 20.19 | | | | |
| 82 | 180 | 2900 | 8.4 | 17.15 | | | | |
| 91 | 175 | 2780 | 8.5 | 15.31 | | | | |
| 107 | 165 | 2650 | 8.6 | 13.08 | | | | |
| 115 | 160 | 2600 | 11.9 | 12.14 | | | | |
| 133 | 160 | 2410 | 12.2 | 10.49 | | | | |
| 157 | 160 | 2200 | 12.4 | 8.91 | | | | |
| 176 | 155 | 2110 | 12.5 | 7.96 | | | | |
| 206 | 150 | 1980 | 12.8 | 6.80 | | | | |
| 220 | 145 | 1950 | 12.9 | 6.37 | | | | |
| 261 | 140 | 1810 | 13.2 | 5.36 | | | | |
| 352 | 125 | 1660 | 13 | 3.98 | | | | |



21284997/EN – 03/2015

| K37R17, $n_e$=1400 1/min | | | | | | 200 Nm |
|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M |
| | | | | | 3 3 | |
| 0.20 | 200 | 5640 | - | 6832 | | |
| 0.24 | 200 | 5640 | - | 5922 | | |
| 0.25 | 200 | 5640 | - | 5491 | | |
| 0.29 | 200 | 5640 | - | 4759 | | |
| 0.34 | 200 | 5640 | - | 4160 | | |
| 0.38 | 200 | 5640 | - | 3645 | | |
| 0.44 | 200 | 5640 | - | 3205 | | |
| 0.50 | 200 | 5640 | - | 2801 | | |
| 0.57 | 200 | 5640 | - | 2454 | | |
| 0.65 | 200 | 5640 | - | 2166 | | |
| 0.74 | 200 | 5640 | - | 1891 | | |
| 0.84 | 200 | 5640 | - | 1660 | | |
| 0.95 | 200 | 5640 | - | 1466 | | |
| 1.1 | 200 | 5640 | - | 1288 | | |
| 1.2 | 200 | 5640 | - | 1136 | | |
| | | | | | 3 2 | |
| 1.4 | 200 | 5640 | - | 996 | | |
| 1.6 | 200 | 5640 | - | 876 | | |
| 1.8 | 200 | 5640 | - | 761 | | |
| 2.1 | 200 | 5640 | - | 671 | | |
| 2.4 | 200 | 5640 | - | 585 | | |
| 2.7 | 200 | 5640 | - | 512 | | |
| 3.1 | 200 | 5640 | - | 451 | | |
| 3.5 | 200 | 5640 | - | 396 | | |
| 4.0 | 200 | 5640 | - | 346 | | |
| 4.6 | 200 | 5640 | - | 304 | | |
| 5.2 | 200 | 5640 | - | 267 | | |
| 6.0 | 200 | 5640 | - | 234 | | |
| 6.8 | 200 | 5640 | - | 205 | | |
| 7.7 | 200 | 5640 | - | 181 | | |
| 8.8 | 200 | 5640 | - | 160 | | |
| 10 | 200 | 5640 | - | 136 | | |
| 11 | 200 | 5640 | - | 127 | | |
| 13 | 200 | 5640 | - | 110 | | |
| 15 | 200 | 5640 | - | 96 | | |

| K47, $n_e$=1400 1/min | | | | | | | | 400 Nm |
|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L |
| | | | | | | 3 | | |
| 11 | 400 | 5920 | 6.4 | 131.87* | | | | |
| 12 | 400 | 5920 | 6.4 | 121.48* | | | | |
| 13 | 400 | 5920 | 6.4 | 104.37 | | | | |
| 15 | 400 | 5920 | 6.4 | 90.86 | | | | |
| 16 | 400 | 5920 | 6.4 | 85.12* | | | | |

21284997/EN – 03/2015

| K47, $n_e$=1400 1/min | | | | | | | | 400 Nm |
|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L |
| 19 | 400 | 5920 | 6.5 | 75.20* | | | | |
| 20 | 400 | 5920 | 6.5 | 69.84 | | | | |
| 22 | 400 | 5920 | 6.5 | 63.30* | | | | |
| 25 | 400 | 5920 | 6.5 | 56.83 | | | | |
| 29 | 400 | 5920 | 6.6 | 48.95* | | | | |
| 30 | 400 | 5920 | 6.6 | 46.03* | | | | |
| 35 | 400 | 5920 | 6.6 | 39.61 | | | | |
| 40 | 400 | 5920 | 6.7 | 35.39 | | | | |
| 45 | 400 | 5700 | 7.5 | 31.30 | | | | |
| 48 | 400 | 5520 | 7.5 | 29.32 | | | | |
| 54 | 400 | 5170 | 7.6 | 25.91 | | | | |
| 58 | 400 | 4970 | 7.7 | 24.06 | | | | |
| 64 | 400 | 4710 | 7.7 | 21.81 | | | | |
| 72 | 400 | 4440 | 7.7 | 19.58 | | | | |
| 83 | 380 | 4220 | 7.8 | 16.86 | | | | |
| 88 | 380 | 4080 | 7.9 | 15.86 | | | | |
| 103 | 360 | 3890 | 8 | 13.65 | | | | |
| 115 | 350 | 3720 | 8.3 | 12.19 | | | | |
| 119 | 280 | 4060 | 10.5 | 11.77 | | | | |
| 133 | 280 | 3830 | 10.6 | 10.56 | | | | |
| 154 | 280 | 3540 | 10.7 | 9.10 | | | | |
| 164 | 270 | 3500 | 10.8 | 8.56 | | | | |
| 190 | 250 | 3380 | 11 | 7.36 | | | | |
| 213 | 240 | 3270 | 11.5 | 6.58 | | | | |
| 241 | 230 | 3140 | 11.8 | 5.81 | | | | |
| 302 | 205 | 2980 | 12 | 4.64 | | | | |

| K47R37, $n_e$=1400 1/min | | | | | | | | 400 Nm |
|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L |
| | | | | | 3 | 3 | | |
| 0.14 | 400 | 5920 | - | 10138 | | | | |
| 0.16 | 400 | 5920 | - | 8534 | | | | |
| 0.18 | 400 | 5920 | - | 7662 | | | | |
| 0.21 | 400 | 5920 | - | 6826 | | | | |
| 0.23 | 400 | 5920 | - | 5983 | | | | |
| 0.27 | 400 | 5920 | - | 5159 | | | | |
| 0.30 | 400 | 5920 | - | 4601* | | | | |
| 0.36 | 400 | 5920 | - | 3940 | | | | |
| 0.40 | 400 | 5920 | - | 3477 | | | | |
| 0.46 | 400 | 5920 | - | 3043 | | | | |
| 0.51 | 400 | 5920 | - | 2733 | | | | |
| 0.59 | 400 | 5920 | - | 2354 | | | | |
| 0.68 | 400 | 5920 | - | 2063 | | | | |
| 0.77 | 400 | 5920 | - | 1819 | | | | |
| 0.88 | 400 | 5920 | - | 1586 | | | | |
| 1.0 | 400 | 5920 | - | 1388 | | | | |



21284997/EN – 03/2015

| K47R37, $n_e$=1400 1/min | | | | | | | | 400 Nm |
|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L |
| | | | | | | 3 2 | | |
| 1.1 | 400 | 5920 | - | 1222 | | | | |
| 1.3 | 400 | 5920 | - | 1097 | | | | |
| 1.5 | 400 | 5920 | - | 945 | | | | |
| 1.7 | 400 | 5920 | - | 831* | | | | |
| 1.9 | 400 | 5920 | - | 718* | | | | |
| 2.2 | 400 | 5920 | - | 639 | | | | |
| 2.5 | 400 | 5920 | - | 552 | | | | |
| 2.8 | 400 | 5920 | - | 495 | | | | |
| 3.3 | 400 | 5920 | - | 426 | | | | |
| 3.7 | 400 | 5920 | - | 375 | | | | |
| 4.3 | 400 | 5920 | - | 327 | | | | |
| 4.8 | 400 | 5920 | - | 289 | | | | |
| 5.5 | 400 | 5920 | - | 256 | | | | |
| 6.2 | 400 | 5920 | - | 225 | | | | |
| 7.1 | 400 | 5920 | - | 198 | | | | |
| 8.2 | 400 | 5920 | - | 171 | | | | |
| 9.2 | 400 | 5920 | - | 153 | | | | |
| 11 | 400 | 5920 | - | 131 | | | | |
| 12 | 400 | 5920 | - | 112 | | | | |
| 14 | 400 | 5920 | - | 99 | | | | |
| 15 | 400 | 5920 | - | 94 | | | | |

| K57, $n_e$=1400 1/min | | | | | | | | | 600 Nm |
|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M |
| | | | | | | 3 | | | |
| 9.6 | 600 | 7630 | 5.9 | 145.14* | | | | | |
| 11 | 600 | 7630 | 5.9 | 123.85 | | | | | |
| 13 | 600 | 7630 | 5.9 | 108.29 | | | | | |
| 14 | 600 | 7630 | 5.9 | 102.88* | | | | | |
| 16 | 600 | 7630 | 5.9 | 90.26* | | | | | |
| 18 | 600 | 7630 | 5.9 | 76.56* | | | | | |
| 20 | 600 | 7630 | 6 | 69.12 | | | | | |
| 23 | 600 | 7630 | 6 | 60.81* | | | | | |
| 24 | 600 | 7630 | 6 | 57.42* | | | | | |
| 29 | 600 | 7630 | 6 | 48.89 | | | | | |
| 32 | 600 | 7630 | 6.1 | 44.43 | | | | | |
| 36 | 600 | 7630 | 6.1 | 38.49 | | | | | |
| 39 | 600 | 7630 | 6.8 | 35.70 | | | | | |
| 46 | 600 | 7300 | 6.9 | 30.28 | | | | | |
| 51 | 600 | 6930 | 6.9 | 27.34 | | | | | |
| 58 | 600 | 6480 | 6.9 | 24.05 | | | | | |
| 62 | 600 | 6280 | 6.9 | 22.71 | | | | | |
| 72 | 575 | 5910 | 7 | 19.34 | | | | | |
| 80 | 555 | 5740 | 7.2 | 17.57 | | | | | |

21284997/EN – 03/2015

| K57, $n_e$=1400 1/min | | | | | | | | | 600 Nm |
|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M |
| 92 | 535 | 5430 | 7.3 | 15.22 | | | | | |
| 106 | 510 | 5190 | 7.4 | 13.25 | | | | | |
| 117 | 415 | 5150 | 9.4 | 11.92 | | | | | |
| 124 | 415 | 4990 | 9.5 | 11.26 | | | | | |
| 146 | 405 | 4650 | 9.6 | 9.59 | | | | | |
| 161 | 390 | 4520 | 10 | 8.71 | | | | | |
| 185 | 365 | 4360 | 10.2 | 7.55 | | | | | |
| 213 | 345 | 4180 | 10.4 | 6.57 | | | | | |
| 299 | 300 | 3800 | 11 | 4.69 | | | | | |

| K57R37, $n_e$=1400 1/min | | | | | | | | 600 Nm |
|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L |
| | | | | |  3  3 | | | |
| 0.12 | 600 | 7630 | - | 12169 | | | | |
| 0.13 | 600 | 7630 | - | 11162* | | | | |
| 0.15 | 600 | 7630 | - | 9503 | | | | |
| 0.16 | 600 | 7630 | - | 8547 | | | | |
| 0.19 | 600 | 7630 | - | 7277 | | | | |
| 0.22 | 600 | 7630 | - | 6478* | | | | |
| 0.25 | 600 | 7630 | - | 5662* | | | | |
| 0.28 | 600 | 7630 | - | 5033 | | | | |
| 0.32 | 600 | 7630 | - | 4340 | | | | |
| 0.36 | 600 | 7630 | - | 3854 | | | | |
| 0.41 | 600 | 7630 | - | 3390 | | | | |
| 0.48 | 600 | 7630 | - | 2924 | | | | |
| 0.54 | 600 | 7630 | - | 2593 | | | | |
| 0.62 | 600 | 7630 | - | 2249 | | | | |
| 0.70 | 600 | 7630 | - | 1986 | | | | |
| | | | | |  3  2 | | | |
| 0.80 | 600 | 7630 | - | 1743 | | | | |
| 0.91 | 600 | 7630 | - | 1539 | | | | |
| 1.0 | 600 | 7630 | - | 1354 | | | | |
| 1.2 | 600 | 7630 | - | 1174 | | | | |
| 1.4 | 600 | 7630 | - | 1036* | | | | |
| 1.5 | 600 | 7630 | - | 906* | | | | |
| 1.7 | 600 | 7630 | - | 806 | | | | |
| 2.0 | 600 | 7630 | - | 699 | | | | |
| 2.3 | 600 | 7630 | - | 615 | | | | |
| 2.6 | 600 | 7630 | - | 544* | | | | |
| 3.0 | 600 | 7630 | - | 473 | | | | |
| 3.3 | 600 | 7630 | - | 421 | | | | |
| 3.9 | 600 | 7630 | - | 362 | | | | |
| 4.4 | 600 | 7630 | - | 319 | | | | |
| 5.0 | 600 | 7630 | - | 280 | | | | |
| 5.7 | 600 | 7630 | - | 246 | | | | |



21284997/EN – 03/2015

| K57R37, $n_e$=1400 1/min | | | | | | | | 600 Nm |
|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L |
| 6.5 | 600 | 7630 | - | 215 | | | | |
| 7.3 | 600 | 7630 | - | 192 | | | | |
| 8.4 | 600 | 7630 | - | 166 | | | | |
| 9.7 | 600 | 7630 | - | 145 | | | | |
| 11 | 600 | 7630 | - | 129 | | | | |
| 13 | 600 | 7630 | - | 111 | | | | |
| 14 | 600 | 7630 | - | 97 | | | | |

| K67, $n_e$=1400 1/min | | | | | | | | | | 820 Nm |
|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M |
| | | | | | |  3 | | | | |
| 9.7 | 820 | 10300 | 6.2 | 144.79* | | | | | | |
| 11 | 820 | 10300 | 6.2 | 123.54 | | | | | | |
| 13 | 820 | 10300 | 6.1 | 108.03 | | | | | | |
| 14 | 820 | 10300 | 6.1 | 102.62 | | | | | | |
| 16 | 820 | 10300 | 6.2 | 90.04 | | | | | | |
| 18 | 820 | 10300 | 6.2 | 76.37 | | | | | | |
| 20 | 820 | 10300 | 6.2 | 68.95 | | | | | | |
| 23 | 820 | 10300 | 6.2 | 60.66 | | | | | | |
| 24 | 820 | 10300 | 6.2 | 57.28 | | | | | | |
| 29 | 820 | 10300 | 6.3 | 48.77 | | | | | | |
| 32 | 820 | 10300 | 6.3 | 44.32 | | | | | | |
| 36 | 800 | 10500 | 6.4 | 38.39 | | | | | | |
| 39 | 820 | 10300 | 7.1 | 35.62 | | | | | | |
| 46 | 820 | 10300 | 7.1 | 30.22 | | | | | | |
| 51 | 820 | 10300 | 7.1 | 27.28 | | | | | | |
| 58 | 800 | 10500 | 7.2 | 24.00 | | | | | | |
| 62 | 780 | 10700 | 7.2 | 22.66 | | | | | | |
| 73 | 760 | 10800 | 7.3 | 19.30 | | | | | | |
| 80 | 740 | 11000 | 7.5 | 17.54 | | | | | | |
| 92 | 700 | 11300 | 7.5 | 15.19 | | | | | | |
| 106 | 670 | 11500 | 7.6 | 13.22 | | | | | | |
| 112 | 530 | 12300 | 8.6 | 12.48 | | | | | | |
| 132 | 500 | 11800 | 8.8 | 10.63 | | | | | | |
| 145 | 480 | 11500 | 9.1 | 9.66 | | | | | | |
| 167 | 440 | 11100 | 9.3 | 8.37 | | | | | | |
| 192 | 420 | 10700 | 9.4 | 7.28 | | | | | | |
| 269 | 350 | 9860 | 10 | 5.20 | | | | | | |

21284997/EN – 03/2015

| K67R37, $n_e$=1400 1/min | | | | | | | | 820 Nm |
|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L |
| | | | | |  3  3 | | | |
| 0.12 | 820 | 10300 | - | 12139 | | | | |
| 0.13 | 820 | 10300 | - | 11134 | | | | |
| 0.15 | 820 | 10300 | - | 9479 | | | | |
| 0.17 | 820 | 10300 | - | 8173 | | | | |
| 0.19 | 820 | 10300 | - | 7259 | | | | |
| 0.22 | 820 | 10300 | - | 6462 | | | | |
| 0.25 | 820 | 10300 | - | 5648 | | | | |
| 0.29 | 820 | 10300 | - | 4846 | | | | |
| 0.32 | 820 | 10300 | - | 4329 | | | | |
| 0.37 | 820 | 10300 | - | 3750 | | | | |
| 0.42 | 820 | 10300 | - | 3315 | | | | |
| 0.48 | 820 | 10300 | - | 2917 | | | | |
| 0.55 | 820 | 10300 | - | 2532 | | | | |
| 0.62 | 820 | 10300 | - | 2244 | | | | |
| 0.71 | 820 | 10300 | - | 1981 | | | | |
| | | | | |  3  2 | | | |
| 0.81 | 820 | 10300 | - | 1739 | | | | |
| 0.91 | 820 | 10300 | - | 1535 | | | | |
| 1.0 | 820 | 10300 | - | 1351 | | | | |
| 1.2 | 820 | 10300 | - | 1171 | | | | |
| 1.4 | 820 | 10300 | - | 1034 | | | | |
| 1.6 | 820 | 10300 | - | 903 | | | | |
| 1.8 | 820 | 10300 | - | 793 | | | | |
| 2.0 | 820 | 10300 | - | 697 | | | | |
| 2.3 | 820 | 10300 | - | 613 | | | | |
| 2.6 | 820 | 10300 | - | 542 | | | | |
| 3.0 | 820 | 10300 | - | 471 | | | | |
| 3.3 | 820 | 10300 | - | 420 | | | | |
| 3.9 | 820 | 10300 | - | 361 | | | | |
| 4.3 | 820 | 10300 | - | 323 | | | | |
| 5.0 | 820 | 10300 | - | 279 | | | | |
| 5.7 | 820 | 10300 | - | 246 | | | | |
| 6.5 | 820 | 10300 | - | 217 | | | | |
| 7.3 | 820 | 10300 | - | 191 | | | | |
| 8.4 | 820 | 10300 | - | 166 | | | | |
| 9.7 | 820 | 10300 | - | 144 | | | | |
| 11 | 820 | 10300 | - | 122 | | | | |

| K77, $n_e$=1400 1/min | | | | | | | | | | | 1550 Nm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M | DRN132L DRN160M DRN160L |
| | | | | |  3 | | | | | | |
| 7.3 | 1450 | 16100 | 5.4 | 192.18 | | | | | | | |

21284997/EN – 03/2015

## K77, $n_e$=1400 1/min — 1550 Nm

| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M | DRN132L DRN160M DRN160L |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7.8 | 1450 | 16100 | 5.4 | 179.37 | | | | | | | |
| 9.1 | 1550 | 15400 | 5.4 | 154.02 | | | | | | | |
| 10 | 1550 | 15400 | 5.4 | 135.28 | | | | | | | |
| 11 | 1550 | 15400 | 5.4 | 128.52 | | | | | | | |
| 12 | 1550 | 15400 | 5.4 | 113.56 | | | | | | | |
| 14 | 1550 | 15400 | 5.4 | 97.05 | | | | | | | |
| 16 | 1550 | 15400 | 5.4 | 88.97 | | | | | | | |
| 18 | 1550 | 15400 | 5.4 | 78.07 | | | | | | | |
| 19 | 1550 | 15400 | 5.4 | 73.99 | | | | | | | |
| 22 | 1550 | 15400 | 5.5 | 64.75 | | | | | | | |
| 24 | 1550 | 15400 | 5.5 | 58.34 | | | | | | | |
| 27 | 1550 | 15400 | 5.5 | 51.18 | | | | | | | |
| 31 | 1550 | 15400 | 5.5 | 45.16 | | | | | | | |
| 35 | 1550 | 15400 | 5.6 | 40.04 | | | | | | | |
| 36 | 1500 | 15700 | 6 | 38.39 | | | | | | | |
| 40 | 1550 | 15400 | 6 | 35.20 | | | | | | | |
| 45 | 1550 | 15400 | 6.1 | 30.89 | | | | | | | |
| 48 | 1550 | 15400 | 6.1 | 29.27 | | | | | | | |
| 55 | 1550 | 15400 | 6.1 | 25.62 | | | | | | | |
| 61 | 1550 | 15400 | 6.3 | 23.08 | | | | | | | |
| 69 | 1500 | 15700 | 6.3 | 20.25 | | | | | | | |
| 78 | 1450 | 16100 | 6.3 | 17.87 | | | | | | | |
| 88 | 1400 | 15500 | 6.4 | 15.84 | | | | | | | |
| 104 | 1340 | 14800 | 6.5 | 13.52 | | | | | | | |
| 113 | 1000 | 15100 | 7.9 | 12.36 | | | | | | | |
| 129 | 990 | 14400 | 7.8 | 10.84 | | | | | | | |
| 146 | 940 | 13900 | 7.9 | 9.56 | | | | | | | |
| 165 | 890 | 13500 | 8.2 | 8.48 | | | | | | | |
| 193 | 820 | 13100 | 8.3 | 7.24 | | | | | | | |

## K77R37, $n_e$=1400 1/min — 1550 Nm

| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L |
|---|---|---|---|---|---|---|---|---|
| | | | | |  3  3 | | | |
| 0.09 | 1550 | 15400 | - | 15310 | | | | |
| 0.10 | 1550 | 15400 | - | 14043 | | | | |
| 0.12 | 1550 | 15400 | - | 11955 | | | | |
| 0.14 | 1550 | 15400 | - | 10217 | | | | |
| 0.16 | 1550 | 15400 | - | 8809 | | | | |
| 0.19 | 1550 | 15400 | - | 7528 | | | | |
| 0.21 | 1550 | 15400 | - | 6606 | | | | |
| 0.24 | 1550 | 15400 | - | 5774 | | | | |
| 0.28 | 1550 | 15400 | - | 5089 | | | | |
| 0.31 | 1550 | 15400 | - | 4489 | | | | |
| 0.35 | 1550 | 15400 | - | 3961 | | | | |
| 0.40 | 1550 | 15400 | - | 3485 | | | | |
| 0.48 | 1550 | 15400 | - | 2901 | | | | |

21284997/EN – 03/2015

| K77R37, $n_e$=1400 1/min | | | | | | | | 1550 Nm |
|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L |
| 0.52 | 1550 | 15400 | - | 2717 | | | | |
| 0.59 | 1550 | 15400 | - | 2370 | | | | |
| | | | | |  3 2 | | | |
| 0.68 | 1550 | 15400 | - | 2050 | | | | |
| 0.79 | 1550 | 15400 | - | 1772 | | | | |
| 0.92 | 1550 | 15400 | - | 1514 | | | | |
| 1.0 | 1550 | 15400 | - | 1388 | | | | |
| 1.1 | 1550 | 15400 | - | 1218 | | | | |
| 1.3 | 1550 | 15400 | - | 1053 | | | | |
| 1.5 | 1550 | 15400 | - | 924 | | | | |
| 1.7 | 1550 | 15400 | - | 815 | | | | |
| 2.0 | 1550 | 15400 | - | 709 | | | | |
| 2.3 | 1550 | 15400 | - | 622 | | | | |
| 2.5 | 1550 | 15400 | - | 552 | | | | |
| 2.9 | 1550 | 15400 | - | 485 | | | | |
| 3.3 | 1550 | 15400 | - | 428 | | | | |
| 3.8 | 1550 | 15400 | - | 367 | | | | |
| 4.3 | 1550 | 15400 | - | 328 | | | | |
| 4.8 | 1550 | 15400 | - | 290 | | | | |
| 5.6 | 1550 | 15400 | - | 252 | | | | |
| 6.3 | 1550 | 15400 | - | 221 | | | | |
| 7.2 | 1550 | 15400 | - | 195 | | | | |
| 8.0 | 1550 | 15400 | - | 175 | | | | |
| 9.1 | 1550 | 15400 | - | 154 | | | | |

| K87, $n_e$=1400 1/min | | | | | | | | | | | | 2700 Nm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M | DRN132L DRN160M DRN160L | DRN180M DRN180L | DRN200L |
| | | | | | | |  3 | | | | | | |
| 7.1 | 2700 | 27300 | 5.3 | 197.37 | | | | | | | | | |
| 8.0 | 2700 | 27300 | 5.3 | 174.19 | | | | | | | | | |
| 8.5 | 2700 | 27300 | 5.3 | 164.34* | | | | | | | | | |
| 9.5 | 2700 | 27300 | 5.4 | 147.32* | | | | | | | | | |
| 11 | 2700 | 27300 | 5.4 | 126.91* | | | | | | | | | |
| 12 | 2700 | 27300 | 5.4 | 115.82 | | | | | | | | | |
| 14 | 2700 | 27300 | 5.4 | 102.71* | | | | | | | | | |
| 16 | 2700 | 27300 | 5.4 | 86.34 | | | | | | | | | |
| 18 | 2700 | 27300 | 5.4 | 79.34 | | | | | | | | | |
| 20 | 2700 | 27300 | 5.4 | 70.46 | | | | | | | | | |
| 22 | 2700 | 26200 | 5.4 | 63.00* | | | | | | | | | |
| 25 | 2700 | 25000 | 5.5 | 56.64 | | | | | | | | | |
| 28 | 2700 | 23500 | 5.5 | 49.16 | | | | | | | | | |
| 32 | 2600 | 22800 | 5.5 | 44.02 | | | | | | | | | |
| 38 | 2500 | 21400 | 5.5 | 36.52* | | | | | | | | | |
| 45 | 2700 | 19200 | 6.1 | 31.39 | | | | | | | | | |
| 50 | 2600 | 18500 | 6.1 | 27.88 | | | | | | | | | |
| 56 | 2500 | 18000 | 6.1 | 24.92 | | | | | | | | | |
| 62 | 2300 | 17900 | 6.2 | 22.41 | | | | | | | | | |



21284997/EN – 03/2015

| K87, $n_e$=1400 1/min | | | | | | | | | | | | | 2700 Nm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M | DRN132L DRN160M DRN160L | DRN180M DRN180L | DRN200L |
| 72 | 2300 | 16800 | 6.3 | 19.45 | | | | | | | | | |
| 80 | 2200 | 16300 | 6.3 | 17.42 | | | | | | | | | |
| 88 | 1800 | 16000 | 6.5 | 16.00 | | | | | | | | | |
| 97 | 2100 | 15300 | 6.4 | 14.45 | | | | | | | | | |
| 111 | 2000 | 14800 | 6.5 | 12.56 | | | | | | | | | |
| 125 | 1500 | 14900 | 6.7 | 11.17 | | | | | | | | | |
| 140 | 1500 | 14200 | 6.8 | 10.00 | | | | | | | | | |
| 169 | 1400 | 13500 | 7 | 8.29 | | | | | | | | | |
| 194 | 1300 | 13200 | 7.1 | 7.21 | | | | | | | | | |

| K87R57, $n_e$=1400 1/min | | | | | | | | | | 2700 Nm |
|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M |
| | | | | | | 3 3 | | | | |
| 0.09 | 2700 | 27300 | - | 14829 | | | | | | |
| 0.11 | 2700 | 27300 | - | 13168 | | | | | | |
| 0.12 | 2700 | 27300 | - | 11737 | | | | | | |
| 0.14 | 2700 | 27300 | - | 10217 | | | | | | |
| 0.15 | 2700 | 27300 | - | 9073 | | | | | | |
| 0.18 | 2700 | 27300 | - | 7854 | | | | | | |
| 0.20 | 2700 | 27300 | - | 6832 | | | | | | |
| 0.24 | 2700 | 27300 | - | 5930 | | | | | | |
| 0.27 | 2700 | 27300 | - | 5240 | | | | | | |
| 0.31 | 2700 | 27300 | - | 4562 | | | | | | |
| 0.35 | 2700 | 27300 | - | 4037 | | | | | | |
| 0.39 | 2700 | 27300 | - | 3609 | | | | | | |
| 0.45 | 2700 | 27300 | - | 3107 | | | | | | |
| 0.51 | 2700 | 27300 | - | 2728 | | | | | | |
| 0.59 | 2700 | 27300 | - | 2371 | | | | | | |
| | | | | | | 3 2 | | | | |
| 0.67 | 2700 | 27300 | - | 2088 | | | | | | |
| 0.76 | 2700 | 27300 | - | 1854 | | | | | | |
| 0.84 | 2700 | 27300 | - | 1657 | | | | | | |
| 0.99 | 2700 | 27300 | - | 1415 | | | | | | |
| 1.1 | 2700 | 27300 | - | 1229 | | | | | | |
| 1.3 | 2700 | 27300 | - | 1078 | | | | | | |
| 1.5 | 2700 | 27300 | - | 951 | | | | | | |
| 1.7 | 2700 | 27300 | - | 837 | | | | | | |
| 1.9 | 2700 | 27300 | - | 726 | | | | | | |
| 2.2 | 2700 | 27300 | - | 638 | | | | | | |
| 2.5 | 2700 | 27300 | - | 562* | | | | | | |
| 3.0 | 2700 | 27300 | - | 474* | | | | | | |
| 3.3 | 2700 | 27300 | - | 426 | | | | | | |
| 3.8 | 2700 | 27300 | - | 373 | | | | | | |
| 4.2 | 2700 | 27300 | - | 330 | | | | | | |
| 4.8 | 2700 | 27300 | - | 294 | | | | | | |
| 5.6 | 2700 | 27300 | - | 250 | | | | | | |
| 5.9 | 2700 | 27300 | - | 236 | | | | | | |

21284997/EN – 03/2015

## K87R57, $n_e$=1400 1/min — 2700 Nm

| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M |
|---|---|---|---|---|---|---|---|---|---|---|
| 7.0 | 2700 | 27300 | - | 201 | | | | | | |
| 7.7 | 2700 | 27300 | - | 183 | | | | | | |
| 8.8 | 2700 | 27300 | - | 159 | | | | | | |
| 9.9 | 2600 | 27400 | - | 141 | | | | | | |

## K97, $n_e$=1400 1/min — 4300 Nm

| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M | DRN132L DRN160M DRN160L | DRN180M DRN180L | DRN200L DRN225S |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 3 | | | | | |
| 8.0 | 4300 | 40000 | 6.8 | 176.05* | | | | | | | | |
| 9.1 | 4300 | 40000 | 6.8 | 153.21* | | | | | | | | |
| 10.0 | 4300 | 40000 | 6.8 | 140.28 | | | | | | | | |
| 11 | 4300 | 40000 | 6.8 | 123.93* | | | | | | | | |
| 13 | 4300 | 40000 | 6.8 | 105.13 | | | | | | | | |
| 14 | 4300 | 40000 | 6.8 | 96.80 | | | | | | | | |
| 16 | 4300 | 38800 | 6.8 | 86.52 | | | | | | | | |
| 18 | 4300 | 37100 | 6.8 | 77.89* | | | | | | | | |
| 20 | 4300 | 35600 | 6.9 | 70.54 | | | | | | | | |
| 22 | 4300 | 33800 | 6.9 | 62.55 | | | | | | | | |
| 25 | 4300 | 32300 | 6.9 | 56.55 | | | | | | | | |
| 29 | 4300 | 30000 | 6.9 | 47.93* | | | | | | | | |
| 33 | 4300 | 28300 | 6.9 | 41.87 | | | | | | | | |
| 37 | 4300 | 27100 | 7.4 | 38.30 | | | | | | | | |
| 41 | 4300 | 25700 | 7.5 | 34.23 | | | | | | | | |
| 45 | 4300 | 24500 | 7.5 | 30.82 | | | | | | | | |
| 50 | 4300 | 23300 | 7.5 | 27.91 | | | | | | | | |
| 57 | 4300 | 22000 | 7.6 | 24.75 | | | | | | | | |
| 63 | 4300 | 20900 | 7.6 | 22.37 | | | | | | | | |
| 74 | 4300 | 19100 | 7.6 | 18.96 | | | | | | | | |
| 85 | 4300 | 17800 | 7.7 | 16.56 | | | | | | | | |
| 101 | 4300 | 16100 | 7.7 | 13.85 | | | | | | | | |
| 117 | 3890 | 16200 | 7.8 | 11.99 | | | | | | | | |
| 134 | 2870 | 16400 | 9.7 | 10.41 | | | | | | | | |
| 161 | 2660 | 15800 | 9.8 | 8.71 | | | | | | | | |
| 186 | 2400 | 15700 | 10 | 7.54 | | | | | | | | |

## K97R57, $n_e$=1400 1/min — 4300 Nm

| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | 3 3 | | | | |
| 0.08 | 4300 | 40000 | - | 18091 | | | | | | |
| 0.08 | 4300 | 40000 | - | 16666 | | | | | | |
| 0.09 | 4300 | 40000 | - | 14897 | | | | | | |
| 0.11 | 4300 | 40000 | - | 13182 | | | | | | |
| 0.12 | 4300 | 40000 | - | 11677 | | | | | | |
| 0.14 | 4300 | 40000 | - | 10317 | | | | | | |

| K97R57, $n_e$=1400 1/min | | | | | | | | | | 4300 Nm |
|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M |
| 0.15 | 4300 | 40000 | - | 9083 | | | | | | |
| 0.17 | 4300 | 40000 | - | 8054 | | | | | | |
| 0.20 | 4300 | 40000 | - | 6970 | | | | | | |
| 0.23 | 4300 | 40000 | - | 6027 | | | | | | |
| 0.26 | 4300 | 40000 | - | 5391 | | | | | | |
| 0.30 | 4300 | 40000 | - | 4669 | | | | | | |
| 0.34 | 4300 | 40000 | - | 4082 | | | | | | |
| 0.39 | 4300 | 40000 | - | 3583 | | | | | | |
| 0.45 | 4300 | 40000 | - | 3108* | | | | | | |
| 0.51 | 4300 | 40000 | - | 2757 | | | | | | |
| | | | | | |  3  2 | | | | |
| 0.58 | 4300 | 40000 | - | 2419 | | | | | | |
| 0.66 | 4300 | 40000 | - | 2123 | | | | | | |
| 0.75 | 4300 | 40000 | - | 1856 | | | | | | |
| 0.86 | 4300 | 40000 | - | 1625 | | | | | | |
| 0.98 | 4300 | 40000 | - | 1430 | | | | | | |
| 1.1 | 4300 | 40000 | - | 1261 | | | | | | |
| 1.3 | 4300 | 40000 | - | 1102 | | | | | | |
| 1.5 | 4300 | 40000 | - | 957 | | | | | | |
| 1.6 | 4300 | 40000 | - | 855 | | | | | | |
| 1.9 | 4300 | 40000 | - | 743 | | | | | | |
| 2.1 | 4300 | 40000 | - | 652* | | | | | | |
| 2.4 | 4300 | 40000 | - | 573 | | | | | | |
| 2.8 | 4300 | 40000 | - | 504 | | | | | | |
| 3.2 | 4300 | 40000 | - | 437 | | | | | | |
| 3.7 | 4300 | 40000 | - | 382* | | | | | | |
| 4.1 | 4300 | 40000 | - | 342* | | | | | | |
| 4.6 | 4300 | 40000 | - | 305 | | | | | | |
| 5.4 | 4300 | 40000 | - | 258 | | | | | | |
| 6.0 | 4300 | 40000 | - | 232 | | | | | | |
| 7.0 | 4300 | 40000 | - | 199 | | | | | | |

| K107, $n_e$=1400 1/min | | | | | | | | | | | 8000 Nm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DRN100LS DRN100L | DRN112M | DRN132S DRN132M | DRN132L DRN160M DRN160L | DRN180M DRN180L | DRN200L DRN225S DRN225M | DRN250M |
| | | | | | | |  3 | | | | |
| 9.8 | 8000 | 65000 | 5.7 | 143.47* | | | | | | | |
| 12 | 8000 | 61500 | 5.7 | 121.46 | | | | | | | |
| 12 | 8000 | 59300 | 5.8 | 112.41* | | | | | | | |
| 14 | 8000 | 56200 | 5.8 | 100.75 | | | | | | | |
| 15 | 8000 | 53500 | 5.8 | 90.96* | | | | | | | |
| 17 | 8000 | 50900 | 5.8 | 82.61 | | | | | | | |
| 19 | 8000 | 47900 | 5.8 | 73.30 | | | | | | | |
| 21 | 8000 | 45400 | 5.8 | 66.52* | | | | | | | |
| 24 | 8000 | 41700 | 5.8 | 57.17* | | | | | | | |
| 28 | 7840 | 39300 | 5.8 | 49.90 | | | | | | | |
| 33 | 7360 | 37900 | 5.8 | 42.33* | | | | | | | |
| 38 | 7200 | 35800 | 5.8 | 37.00* | | | | | | | |

21284997/EN – 03/2015

## K107, $n_e$=1400 1/min — 8000 Nm

| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DRN100LS DRN100L | DRN112M | DRN132S DRN132M | DRN132L DRN160M DRN160L | DRN180M DRN180L | DRN200L DRN225S DRN225M | DRN250M |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 43 | 7200 | 33200 | 6.4 | 32.69 | | | | | | | |
| 45 | 6800 | 34200 | 5.9 | 31.28* | | | | | | | |
| 48 | 7200 | 30700 | 6.5 | 29.00 | | | | | | | |
| 53 | 7200 | 28800 | 6.4 | 26.32 | | | | | | | |
| 62 | 7200 | 25800 | 6.5 | 22.62 | | | | | | | |
| 71 | 7200 | 23200 | 6.5 | 19.74 | | | | | | | |
| 84 | 7050 | 21000 | 6.5 | 16.75 | | | | | | | |
| 96 | 6890 | 19500 | 6.6 | 14.64 | | | | | | | |
| 104 | 4300 | 29200 | 8.8 | 13.43 | | | | | | | |
| 119 | 4300 | 27500 | 8.8 | 11.73 | | | | | | | |
| 141 | 4190 | 25800 | 8.9 | 9.94 | | | | | | | |
| 161 | 4070 | 24600 | 9 | 8.69 | | | | | | | |
| 190 | 3600 | 24400 | 9 | 7.35 | | | | | | | |

## K107R77, $n_e$=1400 1/min — 8000 Nm

| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M | DRN132L DRN160M DRN160L |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | 3 | 3 | | | | |
| 0.10 | 8000 | 65000 | - | 14311* | | | | | | | |
| 0.11 | 8000 | 65000 | - | 12211 | | | | | | | |
| 0.13 | 8000 | 65000 | - | 10677 | | | | | | | |
| 0.15 | 8000 | 65000 | - | 9524 | | | | | | | |
| 0.17 | 8000 | 65000 | - | 8328 | | | | | | | |
| 0.19 | 8000 | 65000 | - | 7270 | | | | | | | |
| 0.23 | 8000 | 65000 | - | 6184 | | | | | | | |
| 0.25 | 8000 | 65000 | - | 5662 | | | | | | | |
| 0.27 | 8000 | 65000 | - | 5138 | | | | | | | |
| 0.32 | 8000 | 65000 | - | 4359* | | | | | | | |
| 0.37 | 8000 | 65000 | - | 3810* | | | | | | | |
| 0.42 | 8000 | 65000 | - | 3358 | | | | | | | |
| 0.47 | 8000 | 65000 | - | 2977* | | | | | | | |
| 0.54 | 8000 | 65000 | - | 2599 | | | | | | | |
| 0.61 | 8000 | 65000 | - | 2286 | | | | | | | |
| 0.72 | 8000 | 65000 | - | 1939 | | | | | | | |
| | | | | | | 3 | 2 | | | | |
| 0.82 | 8000 | 65000 | - | 1713 | | | | | | | |
| 0.90 | 8000 | 65000 | - | 1554 | | | | | | | |
| 1.0 | 8000 | 65000 | - | 1336* | | | | | | | |
| 1.2 | 8000 | 65000 | - | 1166 | | | | | | | |
| 1.4 | 8000 | 65000 | - | 1030 | | | | | | | |
| 1.5 | 8000 | 65000 | - | 904 | | | | | | | |
| 1.8 | 8000 | 65000 | - | 793* | | | | | | | |
| 2.0 | 8000 | 65000 | - | 696* | | | | | | | |
| 2.3 | 8000 | 65000 | - | 615 | | | | | | | |
| 2.7 | 8000 | 65000 | - | 522 | | | | | | | |
| 3.0 | 8000 | 65000 | - | 461* | | | | | | | |
| 3.4 | 8000 | 65000 | - | 408* | | | | | | | |
| 3.8 | 8000 | 65000 | - | 364 | | | | | | | |



21284997/EN – 03/2015

## K107R77, $n_e$=1400 1/min — 8000 Nm

| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M | DRN132L DRN160M DRN160L |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 4.4 | 8000 | 65000 | - | 318 | | | | | | | |
| 4.9 | 8000 | 65000 | - | 286* | | | | | | | |
| 5.6 | 8000 | 65000 | - | 251 | | | | | | | |
| 6.3 | 8000 | 65000 | - | 222* | | | | | | | |
| 7.1 | 8000 | 65000 | - | 196* | | | | | | | |
| 8.0 | 7200 | 65000 | - | 174 | | | | | | | |
| 9.1 | 7200 | 65000 | - | 154 | | | | | | | |
| 10 | 7200 | 65000 | - | 140 | | | | | | | |

## K127, $n_e$=1400 1/min — 13000 Nm

| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DRN132S DRN132M | DRN132L DRN160M DRN160L | DRN180M DRN180L | DRN200L DRN225S DRN225M | DRN250M DRN280S DRN280M |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | 3 | | | |
| 9.6 | 13000 | 79200 | 5.2 | 146.07 | | | | | |
| 10 | 13000 | 79200 | 5.2 | 136.14 | | | | | |
| 11 | 13000 | 79200 | 5.2 | 122.48 | | | | | |
| 13 | 13000 | 79200 | 5.2 | 110.18 | | | | | |
| 16 | 13000 | 75100 | 5.2 | 89.89 | | | | | |
| 17 | 13000 | 72100 | 5.3 | 81.98 | | | | | |
| 20 | 13000 | 67700 | 5.3 | 70.95* | | | | | |
| 22 | 13000 | 64000 | 5.3 | 62.60 | | | | | |
| 26 | 13000 | 59800 | 5.3 | 54.07 | | | | | |
| 29 | 13000 | 56500 | 5.3 | 47.82 | | | | | |
| 35 | 13000 | 52000 | 5.3 | 40.19 | | | | | |
| 39 | 13000 | 49400 | 5.6 | 36.25 | | | | | |
| 45 | 13000 | 45900 | 5.6 | 31.37 | | | | | |
| 51 | 13000 | 43000 | 5.7 | 27.68 | | | | | |
| 59 | 13000 | 39800 | 5.7 | 23.91 | | | | | |
| 66 | 13000 | 37200 | 5.7 | 21.15 | | | | | |
| 79 | 13000 | 32600 | 5.8 | 17.77 | | | | | |
| 98 | 12100 | 31000 | 5.8 | 14.35 | | | | | |
| 109 | 8530 | 35400 | 8 | 12.79 | | | | | |
| 130 | 8000 | 33900 | 8.1 | 10.74 | | | | | |
| 161 | 7230 | 32500 | 8.1 | 8.68 | | | | | |

## K127R77, $n_e$=1400 1/min — 13000 Nm

| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M | DRN132L DRN160M DRN160L |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | 3 | 3 | | | | |
| 0.08 | 13000 | 79200 | - | 17550 | | | | | | | |
| 0.09 | 13000 | 79200 | - | 16006 | | | | | | | |
| 0.09 | 13000 | 79200 | - | 14975 | | | | | | | |
| 0.11 | 13000 | 79200 | - | 12440 | | | | | | | |
| 0.13 | 13000 | 79200 | - | 10915 | | | | | | | |
| 0.14 | 13000 | 79200 | - | 9819 | | | | | | | |
| 0.17 | 13000 | 79200 | - | 8443 | | | | | | | |

21284997/EN – 03/2015

| K127R77, $n_e$=1400 1/min | | | | | | | | | | | 13000 Nm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M | DRN132L DRN160M DRN160L |
| 0.19 | 13000 | 79200 | - | 7482 | | | | | | | |
| 0.21 | 13000 | 79200 | - | 6565 | | | | | | | |
| 0.24 | 13000 | 79200 | - | 5804 | | | | | | | |
| 0.28 | 13000 | 79200 | - | 5027 | | | | | | | |
| 0.32 | 13000 | 79200 | - | 4423 | | | | | | | |
| 0.36 | 13000 | 79200 | - | 3889 | | | | | | | |
| 0.42 | 13000 | 79200 | - | 3311 | | | | | | | |
| 0.47 | 13000 | 79200 | - | 3009 | | | | | | | |
| 0.54 | 13000 | 79200 | - | 2607 | | | | | | | |
| 0.62 | 13000 | 79200 | - | 2268 | | | | | | | |
|  | | | | | | | | | | | |
| 0.73 | 13000 | 79200 | - | 1926 | | | | | | | |
| 0.80 | 13000 | 79200 | - | 1757 | | | | | | | |
| 0.91 | 13000 | 79200 | - | 1541 | | | | | | | |
| 1.0 | 13000 | 79200 | - | 1342 | | | | | | | |
| 1.2 | 13000 | 79200 | - | 1177 | | | | | | | |
| 1.4 | 13000 | 79200 | - | 1025 | | | | | | | |
| 1.6 | 13000 | 79200 | - | 899 | | | | | | | |
| 1.8 | 13000 | 79200 | - | 790 | | | | | | | |
| 2.0 | 13000 | 79200 | - | 704 | | | | | | | |
| 2.3 | 13000 | 79200 | - | 610 | | | | | | | |
| 2.6 | 13000 | 79200 | - | 549 | | | | | | | |
| 2.9 | 13000 | 79200 | - | 477 | | | | | | | |
| 3.3 | 13000 | 79200 | - | 418 | | | | | | | |

| K127R87, $n_e$=1400 1/min | | | | | | | | | | | 13000 Nm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M | DRN132L DRN160M DRN160L | DRN180M DRN180L | DRN200L |
|  | | | | | | | | | | | | |
| 2.6 | 13000 | 79200 | - | 536 | | | | | | | | |
| 3.0 | 13000 | 79200 | - | 473 | | | | | | | | |
| 3.3 | 13000 | 79200 | - | 418 | | | | | | | | |
| 3.8 | 13000 | 79200 | - | 367 | | | | | | | | |
| 4.2 | 13000 | 79200 | - | 330 | | | | | | | | |
| 4.9 | 13000 | 79200 | - | 287 | | | | | | | | |
| 5.5 | 13000 | 79200 | - | 253 | | | | | | | | |
| 6.6 | 13000 | 79200 | - | 213 | | | | | | | | |
| 7.0 | 12000 | 79700 | - | 200 | | | | | | | | |
| 8.4 | 12000 | 79700 | - | 166 | | | | | | | | |
| 9.5 | 12000 | 79700 | - | 147 | | | | | | | | |

| K157, $n_e$=1400 1/min | | | | | | | | | | 18000 Nm |
|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DRN132L DRN160M DRN160L | DRN180M DRN180L | DRN200L DRN225S DRN225M | DRN250M DRN280S DRN280M | DRN315S DRN315M | DRN315L DRN315H |
|  | | | | | | | | | | |
| 9.3 | 18000 | 112200 | 5.2 | 150.41 | | | | | | |
| 11 | 18000 | 106500 | 5.2 | 122.39 | | | | | | |

21284997/EN – 03/2015

## K157, $n_e$=1400 1/min — 18000 Nm

| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DRN132L DRN160M DRN160L | DRN180M DRN180L | DRN200L DRN225S DRN225M | DRN250M DRN280S DRN280M | DRN315S DRN315M | DRN315L DRN315H |
|---|---|---|---|---|---|---|---|---|---|---|
| 14 | 18000 | 98000 | 5.2 | 100.22 | | | | | | |
| 15 | 18000 | 94400 | 5.2 | 91.65 | | | | | | |
| 18 | 18000 | 88900 | 5.2 | 79.75 | | | | | | |
| 20 | 18000 | 84200 | 5.2 | 70.38 | | | | | | |
| 23 | 18000 | 79000 | 5.2 | 61.02 | | | | | | |
| 26 | 18000 | 74900 | 5.2 | 54.29 | | | | | | |
| 30 | 18000 | 70000 | 5.2 | 46.79 | | | | | | |
| 37 | 18000 | 63400 | 5.3 | 38.02 | | | | | | |
| 45 | 18000 | 57500 | 5.6 | 31.30 | | | | | | |
| 51 | 18000 | 54000 | 5.6 | 27.62 | | | | | | |
| 58 | 18000 | 50000 | 5.6 | 23.95 | | | | | | |
| 66 | 18000 | 47000 | 5.6 | 21.31 | | | | | | |
| 76 | 18000 | 43200 | 5.7 | 18.37 | | | | | | |
| 94 | 18000 | 38200 | 5.8 | 14.92 | | | | | | |
| 111 | 17000 | 36600 | 5.8 | 12.65 | | | | | | |

## K157R97, $n_e$=1400 1/min — 18000 Nm

| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M | DRN132L DRN160M DRN160L | DRN180M DRN180L | DRN200L DRN225S |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 3 | 3 | | | | | |
| 0.08 | 18000 | 112200 | - | 17679 | | | | | | | | | |
| 0.09 | 18000 | 112200 | - | 15729 | | | | | | | | | |
| 0.10 | 18000 | 112200 | - | 14721 | | | | | | | | | |
| 0.11 | 18000 | 112200 | - | 13097 | | | | | | | | | |
| 0.12 | 18000 | 112200 | - | 11368 | | | | | | | | | |
| 0.14 | 18000 | 112200 | - | 10114 | | | | | | | | | |
| 0.16 | 18000 | 112200 | - | 8718 | | | | | | | | | |
| 0.18 | 18000 | 112200 | - | 7734 | | | | | | | | | |
| 0.20 | 18000 | 112200 | - | 6881 | | | | | | | | | |
| 0.24 | 18000 | 112200 | - | 5931 | | | | | | | | | |
| 0.28 | 18000 | 112200 | - | 5074 | | | | | | | | | |
| 0.31 | 18000 | 112200 | - | 4514 | | | | | | | | | |
| 0.35 | 18000 | 112200 | - | 3979 | | | | | | | | | |
| 0.40 | 18000 | 112200 | - | 3516 | | | | | | | | | |
| 0.46 | 18000 | 112200 | - | 3051 | | | | | | | | | |
| 0.54 | 18000 | 112200 | - | 2610 | | | | | | | | | |
| 0.60 | 18000 | 112200 | - | 2322 | | | | | | | | | |
| 0.69 | 18000 | 112200 | - | 2029 | | | | | | | | | |
| 0.78 | 18000 | 112200 | - | 1805 | | | | | | | | | |
| | | | | | | | 3 | 2 | | | | | |
| 0.84 | 18000 | 112200 | - | 1659 | | | | | | | | | |
| 1.0 | 18000 | 112200 | - | 1365 | | | | | | | | | |
| 1.1 | 18000 | 112200 | - | 1229* | | | | | | | | | |
| 1.3 | 18000 | 112200 | - | 1093* | | | | | | | | | |
| 1.5 | 18000 | 112200 | - | 942 | | | | | | | | | |
| 1.6 | 18000 | 112200 | - | 854 | | | | | | | | | |
| 1.9 | 18000 | 112200 | - | 756* | | | | | | | | | |
| 2.1 | 18000 | 112200 | - | 661 | | | | | | | | | |
| 2.5 | 18000 | 112200 | - | 567 | | | | | | | | | |

21284997/EN – 03/2015

## K157R97, $n_e$=1400 1/min — 18000 Nm

| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M | DRN132L DRN160M DRN160L | DRN180M DRN180L | DRN200L DRN225S |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2.8 | 18000 | 112200 | - | 504 | | | | | | | | | |
| 3.2 | 18000 | 112200 | - | 434* | | | | | | | | | |
| 3.7 | 18000 | 112200 | - | 379 | | | | | | | | | |
| 4.2 | 18000 | 112200 | - | 333 | | | | | | | | | |
| 4.8 | 18000 | 112200 | - | 291 | | | | | | | | | |

## K157R107, $n_e$=1400 1/min — 18000 Nm

| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DRN132S DRN132M | DRN132L DRN160M DRN160L | DRN180M DRN180L | DRN200L DRN225S DRN225M |
|---|---|---|---|---|---|---|---|---|
| | | | | | 3 2 | | | |
| 3.6 | 18000 | 112200 | - | 385 | | | | |
| 4.3 | 18000 | 112200 | - | 325 | | | | |
| 4.7 | 18000 | 112200 | - | 299 | | | | |
| 5.5 | 18000 | 112200 | - | 253 | | | | |
| 6.1 | 18000 | 112200 | - | 230 | | | | |
| 6.6 | 18000 | 112200 | - | 213 | | | | |
| 7.5 | 18000 | 112200 | - | 187 | | | | |
| 8.9 | 18000 | 112200 | - | 157 | | | | |
| 11 | 18000 | 106500 | - | 122 | | | | |
| 13 | 18000 | 100700 | - | 107 | | | | |

## K167, $n_e$=1400 1/min — 32000 Nm

| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DRN132L DRN160M DRN160L | DRN180M DRN180L | DRN200L DRN225S DRN225M | DRN250M DRN280S DRN280M | DRN315S DRN315M | DRN315L DRN315H |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | 3 | | | | |
| 8.5 | 32000 | 150000 | 4.5 | 164.50 | | | | | | |
| 10 | 32000 | 150000 | 4.5 | 134.99 | | | | | | |
| 13 | 32000 | 150000 | 4.5 | 109.83 | | | | | | |
| 16 | 32000 | 147200 | 4.5 | 87.86 | | | | | | |
| 18 | 32000 | 140100 | 4.5 | 78.14 | | | | | | |
| 21 | 32000 | 132000 | 4.5 | 68.07 | | | | | | |
| 23 | 32000 | 125600 | 4.5 | 60.74 | | | | | | |
| 27 | 32000 | 117000 | 4.6 | 51.77 | | | | | | |
| 33 | 32000 | 107400 | 4.6 | 42.89 | | | | | | |
| 38 | 32000 | 99700 | 4.6 | 36.61 | | | | | | |
| 43 | 32000 | 93700 | 4.8 | 32.25 | | | | | | |
| 49 | 32000 | 88600 | 4.8 | 28.77 | | | | | | |
| 57 | 32000 | 81700 | 4.9 | 24.52 | | | | | | |
| 69 | 32000 | 74000 | 4.9 | 20.32 | | | | | | |
| 81 | 32000 | 67900 | 5 | 17.34 | | | | | | |

## K167R97, $n_e$=1400 1/min — 32000 Nm

| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M | DRN132L DRN160M DRN160L | DRN180M DRN180L | DRN200L DRN225S |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 3 3 | | | | | | |
| 0.07 | 32000 | 150000 | - | 19723 | | | | | | | | | |
| 0.08 | 32000 | 150000 | - | 17406 | | | | | | | | | |

## K167R97, $n_e$=1400 1/min — 32000 Nm

| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M | DRN132L DRN160M DRN160L | DRN180M DRN180L | DRN200L DRN225S |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.09 | 32000 | 150000 | - | 15000 | | | | | | | | | |
| 0.11 | 32000 | 150000 | - | 13238 | | | | | | | | | |
| 0.12 | 32000 | 150000 | - | 11573 | | | | | | | | | |
| 0.14 | 32000 | 150000 | - | 10264 | | | | | | | | | |
| 0.16 | 32000 | 150000 | - | 8628 | | | | | | | | | |
| 0.21 | 32000 | 150000 | - | 6562 | | | | | | | | | |
| 0.26 | 32000 | 150000 | - | 5355 | | | | | | | | | |
| 0.29 | 32000 | 150000 | - | 4788 | | | | | | | | | |
| 0.34 | 32000 | 150000 | - | 4079 | | | | | | | | | |
| 0.41 | 32000 | 150000 | - | 3376 | | | | | | | | | |
| 0.51 | 32000 | 150000 | - | 2755 | | | | | | | | | |
| 0.62 | 32000 | 150000 | - | 2263 | | | | | | | | | |
| 3 2 | | | | | | | | | | | | | |
| 0.64 | 32000 | 150000 | - | 2182 | | | | | | | | | |
| 0.82 | 32000 | 150000 | - | 1704 | | | | | | | | | |
| 0.99 | 32000 | 150000 | - | 1408 | | | | | | | | | |
| 1.1 | 32000 | 150000 | - | 1296 | | | | | | | | | |
| 1.3 | 32000 | 150000 | - | 1101 | | | | | | | | | |
| 1.5 | 32000 | 150000 | - | 944 | | | | | | | | | |
| 1.7 | 32000 | 150000 | - | 843 | | | | | | | | | |
| 1.8 | 32000 | 150000 | - | 757 | | | | | | | | | |
| 2.2 | 32000 | 150000 | - | 632 | | | | | | | | | |
| 2.5 | 32000 | 150000 | - | 561 | | | | | | | | | |
| 2.9 | 32000 | 150000 | - | 481 | | | | | | | | | |
| 3.3 | 32000 | 150000 | - | 423 | | | | | | | | | |
| 3.8 | 32000 | 150000 | - | 369 | | | | | | | | | |

## K167R107, $n_e$=1400 1/min — 32000 Nm

| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DRN100LS DRN100L | DRN112M | DRN132S DRN132M | DRN132L DRN160M DRN160L | DRN180M DRN180L | DRN200L DRN225S DRN225M |
|---|---|---|---|---|---|---|---|---|---|---|
| 3 2 | | | | | | | | | | |
| 4.4 | 32000 | 150000 | - | 318 | | | | | | |
| 5.0 | 32000 | 150000 | - | 278 | | | | | | |
| 5.7 | 32000 | 150000 | - | 244 | | | | | | |
| 6.6 | 32000 | 150000 | - | 213 | | | | | | |
| 6.8 | 32000 | 150000 | - | 206 | | | | | | |
| 7.8 | 32000 | 150000 | - | 180 | | | | | | |
| 8.8 | 32000 | 150000 | - | 160 | | | | | | |
| 10 | 32000 | 150000 | - | 135 | | | | | | |
| 12 | 32000 | 150000 | - | 118 | | | | | | |

## K187, $n_e$=1400 1/min — 50000 Nm

| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DRN132L DRN160M DRN160L | DRN180M DRN180L | DRN200L DRN225S DRN225M | DRN250M DRN280S DRN280M | DRN315S DRN315M | DRN315L DRN315H |
|---|---|---|---|---|---|---|---|---|---|---|
| 3 | | | | | | | | | | |
| 7.8 | 50000 | 190000 | 3.8 | 179.86 | | | | | | |
| 8.5 | 50000 | 190000 | 3.8 | 165.21 | | | | | | |
| 9.7 | 50000 | 186200 | 3.8 | 144.59 | | | | | | |

21284997/EN – 03/2015

## K187, $n_e$=1400 1/min — 50000 Nm

| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DRN132L DRN160M DRN160L | DRN180M DRN180L | DRN200L DRN225S DRN225M | DRN250M DRN280S DRN280M | DRN315S DRN315M | DRN315L DRN315H |
|---|---|---|---|---|---|---|---|---|---|---|
| 11 | 50000 | 177700 | 3.8 | 129.69 | | | | | | |
| 12 | 50000 | 167100 | 3.8 | 112.60 | | | | | | |
| 14 | 50000 | 160100 | 3.8 | 102.16 | | | | | | |
| 16 | 50000 | 149700 | 3.8 | 88.00 | | | | | | |
| 19 | 50000 | 138100 | 3.8 | 73.96 | | | | | | |
| 22 | 50000 | 129000 | 3.8 | 64.04 | | | | | | |
| 26 | 50000 | 118100 | 3.9 | 53.36 | | | | | | |
| 31 | 50000 | 108900 | 3.9 | 45.50* | | | | | | |
| 33 | 50000 | 105200 | 4.1 | 42.51 | | | | | | |
| 36 | 50000 | 99900 | 4.1 | 38.57 | | | | | | |
| 42 | 50000 | 92200 | 4.2 | 33.23 | | | | | | |
| 50 | 50000 | 83500 | 4.2 | 27.92 | | | | | | |
| 58 | 47600 | 80500 | 4.2 | 24.18 | | | | | | |
| 69 | 43900 | 78000 | 4.3 | 20.15 | | | | | | |
| 81 | 41400 | 75000 | 4.3 | 17.18 | | | | | | |

## K187R97, $n_e$=1400 1/min — 50000 Nm

| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M | DRN132L DRN160M DRN160L | DRN180M DRN180L | DRN200L DRN225S |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 3 | 3 | | | | | |
| 0.04 | 50000 | 190000 | - | 32625 | | | | | | | | | |
| 0.05 | 50000 | 190000 | - | 27165 | | | | | | | | | |
| 0.06 | 50000 | 190000 | - | 24353 | | | | | | | | | |
| 0.07 | 50000 | 190000 | - | 19144 | | | | | | | | | |
| 0.08 | 50000 | 190000 | - | 16978 | | | | | | | | | |
| 0.10 | 50000 | 190000 | - | 14272 | | | | | | | | | |
| 0.11 | 50000 | 190000 | - | 13116 | | | | | | | | | |
| 0.12 | 50000 | 190000 | - | 11647 | | | | | | | | | |
| 0.13 | 50000 | 190000 | - | 10413 | | | | | | | | | |
| 0.15 | 50000 | 190000 | - | 9363 | | | | | | | | | |
| 0.17 | 50000 | 190000 | - | 8126 | | | | | | | | | |
| 0.19 | 50000 | 190000 | - | 7343 | | | | | | | | | |
| 0.21 | 50000 | 190000 | - | 6747 | | | | | | | | | |
| 0.23 | 50000 | 190000 | - | 5991 | | | | | | | | | |
| 0.26 | 50000 | 190000 | - | 5358 | | | | | | | | | |
| 0.29 | 50000 | 190000 | - | 4817 | | | | | | | | | |
| 0.32 | 50000 | 190000 | - | 4370 | | | | | | | | | |
| 0.50 | 50000 | 190000 | - | 2818* | | | | | | | | | |
| | | | | | | | 3 | 2 | | | | | |
| 0.39 | 50000 | 190000 | - | 3609 | | | | | | | | | |
| 0.46 | 50000 | 190000 | - | 3062 | | | | | | | | | |
| 0.56 | 50000 | 190000 | - | 2519 | | | | | | | | | |
| 0.62 | 50000 | 190000 | - | 2268 | | | | | | | | | |
| 0.68 | 50000 | 190000 | - | 2054 | | | | | | | | | |
| 0.77 | 50000 | 190000 | - | 1821 | | | | | | | | | |
| 0.87 | 50000 | 190000 | - | 1605 | | | | | | | | | |
| 1.0 | 50000 | 190000 | - | 1395 | | | | | | | | | |
| 1.2 | 50000 | 190000 | - | 1196 | | | | | | | | | |
| 1.3 | 50000 | 190000 | - | 1046 | | | | | | | | | |

21284997/EN – 03/2015

| K187R97, $n_e$=1400 1/min | | | | | | | | | | | | | 50000 Nm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M | DRN132L DRN160M DRN160L | DRN180M DRN180L | DRN200L DRN225S |
| 1.5 | 50000 | 190000 | - | 945 | | | | | | | | | |
| 1.9 | 50000 | 190000 | - | 738 | | | | | | | | | |
| 2.3 | 50000 | 190000 | - | 621 | | | | | | | | | |
| 2.7 | 50000 | 190000 | - | 527 | | | | | | | | | |

| K187R107, $n_e$=1400 1/min | | | | | | | | | | 50000 Nm |
|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DRN100LS DRN100L | DRN112M | DRN132S DRN132M | DRN132L DRN160M DRN160L | DRN180M DRN180L | DRN200L DRN225S DRN225M |
| | | | | |  3 2 | | | | | |
| 1.7 | 50000 | 190000 | - | 835 | | | | | | |
| 1.9 | 50000 | 190000 | - | 729 | | | | | | |
| 2.3 | 50000 | 190000 | - | 622 | | | | | | |
| 2.7 | 50000 | 190000 | - | 520 | | | | | | |
| 3.1 | 50000 | 190000 | - | 454 | | | | | | |
| 3.9 | 50000 | 190000 | - | 355 | | | | | | |
| 5.4 | 50000 | 190000 | - | 261 | | | | | | |
| 6.3 | 50000 | 190000 | - | 221 | | | | | | |
| 7.3 | 50000 | 190000 | - | 193 | | | | | | |
| 8.6 | 50000 | 190000 | - | 163 | | | | | | |

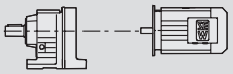
21284997/EN – 03/2015

## 10.3 K..DRN.. selection tables in kW

| $P_m$ = 0.12 kW | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
| **0.08** | 10800 | 17550 | 80300 | 1.20 | | | | | | |
| **0.09** | 9890 | 16006 | 80700 | 1.30 | | | | | | |
| **0.09** | 9260 | 14975 | 81000 | 1.40 | **K** | **127R77** | **DR** | **63S4** | 470 | 575 |
| **0.11** | 7690 | 12440 | 81600 | 1.70 | **KF** | **127R77** | **DR** | **63S4** | 510 | 575 |
| **0.13** | 6750 | 10915 | 81900 | 1.95 | **KA** | **127R77** | **DR** | **63S4** | 440 | 575 |
| **0.14** | 6070 | 9819 | 82000 | 2.1 | **KAF** | **127R77** | **DR** | **63S4** | 480 | 575 |
| **0.16** | 5180 | 8443 | 82300 | 2.5 | | | | | | |
| **0.18** | 4620 | 7482 | 82400 | 2.8 | | | | | | |
| **0.10** | 8850 | 14311 | 65000 | 0.90 | | | | | | |
| **0.11** | 7550 | 12211 | 65000 | 1.05 | | | | | | |
| **0.13** | 6600 | 10677 | 65000 | 1.20 | | | | | | |
| **0.14** | 5890 | 9524 | 65000 | 1.35 | **K** | **107R77** | **DR** | **63S4** | 310 | 575 |
| **0.17** | 5150 | 8328 | 65000 | 1.55 | **KF** | **107R77** | **DR** | **63S4** | 320 | 575 |
| **0.19** | 4490 | 7270 | 65000 | 1.80 | **KA** | **107R77** | **DR** | **63S4** | 280 | 575 |
| **0.22** | 3700 | 6184 | 65000 | 2.2 | **KAF** | **107R77** | **DR** | **63S4** | 305 | 575 |
| **0.24** | 3210 | 5662 | 65000 | 2.5 | | | | | | |
| **0.27** | 2910 | 5138 | 65000 | 2.7 | | | | | | |
| **0.32** | 2670 | 4359 | 65000 | 3.0 | | | | | | |
| **0.17** | 5460 | 8054 | 39400 | 0.80 | | | | | | |
| **0.20** | 4420 | 6970 | 40000 | 0.95 | | | | | | |
| **0.23** | 4000 | 6027 | 40000 | 1.05 | | | | | | |
| **0.26** | 3650 | 5391 | 40000 | 1.20 | **K** | **97R57** | **DR** | **63S4** | 180 | 575 |
| **0.30** | 3020 | 4669 | 40000 | 1.40 | **KF** | **97R57** | **DR** | **63S4** | 200 | 575 |
| **0.34** | 2730 | 4082 | 40000 | 1.55 | **KA** | **97R57** | **DR** | **63S4** | 160 | 575 |
| **0.39** | 2370 | 3583 | 40000 | 1.80 | **KAF** | **97R57** | **DR** | **63S4** | 185 | 575 |
| **0.44** | 2090 | 3108 | 40000 | 2.0 | | | | | | |
| **0.50** | 1770 | 2757 | 40000 | 2.4 | | | | | | |
| **0.57** | 1650 | 2419 | 40000 | 2.6 | | | | | | |
| **0.65** | 1420 | 2123 | 40000 | 3.0 | | | | | | |
| **0.74** | 1270 | 1856 | 40000 | 3.4 | **K** | **97R57** | **DR** | **63S4** | 180 | 575 |
| **0.85** | 1040 | 1625 | 40000 | 4.1 | **KF** | **97R57** | **DR** | **63S4** | 200 | 575 |
| **0.96** | 890 | 1430 | 40000 | 4.8 | **KA** | **97R57** | **DR** | **63S4** | 160 | 575 |
| **1.1** | 860 | 1261 | 40000 | 5.0 | **KAF** | **97R57** | **DR** | **63S4** | 185 | 575 |
| **1.2** | 755 | 1102 | 40000 | 5.7 | | | | | | |
| **0.26** | 3470 | 5240 | 26200 | 0.80 | | | | | | |
| **0.30** | 2890 | 4562 | 27000 | 0.95 | | | | | | |
| **0.34** | 2680 | 4037 | 27300 | 1.00 | **K** | **87R57** | **DR** | **63S4** | 120 | 575 |
| **0.38** | 2390 | 3609 | 27600 | 1.15 | **KF** | **87R57** | **DR** | **63S4** | 130 | 575 |
| **0.44** | 2060 | 3107 | 28000 | 1.30 | **KA** | **87R57** | **DR** | **63S4** | 105 | 575 |
| **0.51** | 1730 | 2728 | 28300 | 1.55 | **KAF** | **87R57** | **DR** | **63S4** | 120 | 575 |
| **0.58** | 1530 | 2371 | 28400 | 1.75 | | | | | | |
| **0.66** | 1430 | 2088 | 28500 | 1.90 | | | | | | |
| **0.74** | 1270 | 1854 | 28600 | 2.1 | | | | | | |
| **0.83** | 1130 | 1657 | 28700 | 2.4 | | | | | | |
| **0.97** | 960 | 1415 | 28800 | 2.8 | **K** | **87R57** | **DR** | **63S4** | 120 | 575 |
| **1.1** | 830 | 1229 | 28900 | 3.2 | **KF** | **87R57** | **DR** | **63S4** | 125 | 575 |
| **1.3** | 720 | 1078 | 28900 | 3.7 | **KA** | **87R57** | **DR** | **63S4** | 105 | 575 |
| **1.4** | 610 | 951 | 29000 | 4.4 | **KAF** | **87R57** | **DR** | **63S4** | 120 | 575 |
| **1.6** | 520 | 837 | 29000 | 5.2 | | | | | | |
| **1.9** | 450 | 726 | 29000 | 5.9 | | | | | | |
| | | | | | **K** | **77R37** | **DR** | **63S4** | 69 | 575 |
| **0.51** | 1840 | 2717 | 11500 | 0.85 | **KF** | **77R37** | **DR** | **63S4** | 78 | 575 |
| **0.58** | 1530 | 2370 | 15500 | 1.00 | **KA** | **77R37** | **DR** | **63S4** | 62 | 575 |
| | | | | | **KAF** | **77R37** | **DR** | **63S4** | 70 | 575 |



21284997/EN – 03/2015

| $P_m$ = 0.12 kW | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ |  | | | | m kg |  |
| **0.67** | 1430 | 2050 | 16100 | 1.10 | | | | | | |
| **0.78** | 1220 | 1772 | 17300 | 1.25 | | | | | | |
| **0.91** | 1040 | 1514 | 18100 | 1.50 | | | | | | |
| **0.99** | 960 | 1388 | 18500 | 1.60 | **K** | **77R37** | **DR** | **63S4** | 69 | 575 |
| **1.1** | 840 | 1218 | 18900 | 1.85 | **KF** | **77R37** | **DR** | **63S4** | 77 | 575 |
| **1.3** | 735 | 1053 | 19200 | 2.1 | **KA** | **77R37** | **DR** | **63S4** | 62 | 575 |
| **1.5** | 645 | 924 | 19400 | 2.4 | **KAF** | **77R37** | **DR** | **63S4** | 70 | 575 |
| **1.7** | 570 | 815 | 19600 | 2.7 | | | | | | |
| **2.0** | 445 | 709 | 19800 | 3.5 | | | | | | |
| **2.2** | 390 | 622 | 19900 | 3.9 | | | | | | |
| **1.0** | 960 | 1351 | 6940 | 0.85 | | | | | | |
| **1.2** | 820 | 1171 | 10300 | 1.00 | | | | | | |
| **1.3** | 720 | 1034 | 11100 | 1.15 | | | | | | |
| **1.5** | 600 | 903 | 11900 | 1.35 | | | | | | |
| **1.7** | 570 | 793 | 12100 | 1.45 | | | | | | |
| **2.0** | 455 | 697 | 12600 | 1.80 | | | | | | |
| **2.2** | 400 | 613 | 12800 | 2.0 | **K** | **67R37** | **DR** | **63S4** | 45 | 575 |
| **2.6** | 350 | 542 | 13000 | 2.3 | **KF** | **67R37** | **DR** | **63S4** | 51 | 575 |
| **2.9** | 325 | 471 | 13000 | 2.5 | **KA** | **67R37** | **DR** | **63S4** | 42 | 575 |
| **3.3** | 270 | 420 | 13000 | 3.0 | **KAF** | **67R37** | **DR** | **63S4** | 48 | 575 |
| **3.8** | 245 | 361 | 13000 | 3.3 | | | | | | |
| **4.3** | 215 | 323 | 13000 | 3.8 | | | | | | |
| **5.0** | 181 | 279 | 13000 | 4.5 | | | | | | |
| **5.6** | 159 | 246 | 13000 | 5.2 | | | | | | |
| **6.4** | 139 | 217 | 13000 | 5.9 | | | | | | |
| **1.5** | 605 | 906 | 7580 | 1.00 | | | | | | |
| **1.7** | 545 | 806 | 8060 | 1.10 | | | | | | |
| **2.0** | 455 | 699 | 8620 | 1.30 | | | | | | |
| **2.2** | 400 | 615 | 8870 | 1.50 | | | | | | |
| **2.5** | 350 | 544 | 9080 | 1.70 | | | | | | |
| **2.9** | 320 | 473 | 9190 | 1.85 | **K** | **57R37** | **DR** | **63S4** | 39 | 575 |
| **3.3** | 270 | 421 | 9390 | 2.2 | **KF** | **57R37** | **DR** | **63S4** | 44 | 575 |
| **3.8** | 245 | 362 | 9470 | 2.4 | **KA** | **57R37** | **DR** | **63S4** | 37 | 575 |
| **4.3** | 215 | 319 | 9570 | 2.8 | **KAF** | **57R37** | **DR** | **63S4** | 43 | 575 |
| **4.9** | 181 | 280 | 9690 | 3.3 | | | | | | |
| **5.6** | 160 | 246 | 9760 | 3.8 | | | | | | |
| **6.4** | 141 | 215 | 9810 | 4.3 | | | | | | |
| **7.2** | 126 | 192 | 9850 | 4.8 | | | | | | |
| **2.5** | 380 | 552 | 6170 | 1.05 | | | | | | |
| **2.8** | 320 | 495 | 6840 | 1.25 | **K** | **47R37** | **DR** | **63S4** | 33 | 575 |
| **3.2** | 285 | 426 | 7160 | 1.40 | **KF** | **47R37** | **DR** | **63S4** | 36 | 575 |
| **3.7** | 240 | 375 | 7510 | 1.65 | **KA** | **47R37** | **DR** | **63S4** | 32 | 575 |
| **4.2** | 225 | 327 | 7620 | 1.75 | **KAF** | **47R37** | **DR** | **63S4** | 35 | 575 |
| **4.8** | 198 | 289 | 7780 | 2.0 | | | | | | |
| **4.0** | 240 | 346 | 3540 | 0.80 | | | | | | |
| **4.5** | 205 | 304 | 5570 | 0.95 | | | | | | |
| **5.2** | 189 | 267 | 5760 | 1.05 | **K** | **37R17** | **DR** | **63S4** | 19 | 575 |
| **5.9** | 163 | 234 | 6010 | 1.20 | **KF** | **37R17** | **DR** | **63S4** | 21 | 575 |
| **6.7** | 142 | 205 | 6180 | 1.40 | **KA** | **37R17** | **DR** | **63S4** | 19 | 575 |
| **7.6** | 124 | 181 | 6300 | 1.60 | **KAF** | **37R17** | **DR** | **63S4** | 20 | 575 |
| **8.6** | 109 | 160 | 6400 | 1.85 | | | | | | |
| **10** | 91 | 136 | 6490 | 2.2 | | | | | | |
| | | | | | **K** | **67** | **DR** | **63M6** | 34 | 536 |
| **6.2** | 184 | 144.79* | 13000 | 4.4 | **KF** | **67** | **DR** | **63M6** | 40 | 537 |
| | | | | | **KA** | **67** | **DR** | **63M6** | 31 | 538 |
| | | | | | **KAF** | **67** | **DR** | **63M6** | 37 | 537 |
| **6.2** | 185 | 145.14* | 9680 | 3.2 | | | | | | |
| **7.3** | 158 | 123.85 | 9760 | 3.8 | **K** | **57** | **DR** | **63M6** | 28 | 531 |
| **8.3** | 138 | 108.29 | 9820 | 4.4 | **KF** | **57** | **DR** | **63M6** | 33 | 532 |
| **8.8** | 131 | 102.88* | 9840 | 4.6 | **KA** | **57** | **DR** | **63M6** | 26 | 533 |
| **10.0** | 115 | 90.26* | 9880 | 5.2 | **KAF** | **57** | **DR** | **63M6** | 32 | 532 |
| **12** | 98 | 76.56* | 9930 | 6.2 | | | | | | |

21284997/EN – 03/2015

## $P_m$ = 0.12 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **9.5** | 120 | 145.14* | 9870 | 5.0 | | | | | | |
| **11** | 103 | 123.85 | 9920 | 5.8 | **K** | **57** | **DR** | **63S4** | 28 | 531 |
| **13** | 90 | 108.29 | 9950 | 6.7 | **KF** | **57** | **DR** | **63S4** | 33 | 532 |
| **13** | 85 | 102.88* | 9960 | 7.0 | **KA** | **57** | **DR** | **63S4** | 26 | 533 |
| **15** | 75 | 90.26* | 9990 | 8.0 | **KAF** | **57** | **DR** | **63S4** | 32 | 532 |
| **6.8** | 168 | 131.87* | 7930 | 2.4 | **K** | **47** | **DR** | **63M6** | 22 | 526 |
| **7.4** | 155 | 121.48* | 7990 | 2.6 | **KF** | **47** | **DR** | **63M6** | 26 | 527 |
| **8.6** | 133 | 104.37 | 8070 | 3.0 | **KA** | **47** | **DR** | **63M6** | 22 | 528 |
| | | | | | **KAF** | **47** | **DR** | **63M6** | 24 | 527 |
| | | | | | **K** | **47** | **DR** | **63S4** | 22 | 526 |
| **10** | 110 | 131.87* | 8140 | 3.6 | **KF** | **47** | **DR** | **63S4** | 26 | 527 |
| **11** | 101 | 121.48* | 8170 | 4.0 | **KA** | **47** | **DR** | **63S4** | 22 | 528 |
| | | | | | **KAF** | **47** | **DR** | **63S4** | 24 | 527 |
| **8.5** | 136 | 106.38 | 6230 | 1.50 | **K** | **37** | **DR** | **63M6** | 16 | 521 |
| **9.2** | 124 | 97.81 | 6300 | 1.60 | **KF** | **37** | **DR** | **63M6** | 18 | 522 |
| **11** | 107 | 83.69 | 6410 | 1.90 | **KA** | **37** | **DR** | **63M6** | 16 | 523 |
| **12** | 92 | 72.54 | 6480 | 2.2 | **KAF** | **37** | **DR** | **63M6** | 17 | 522 |
| **13** | 88 | 106.38 | 6500 | 2.3 | | | | | | |
| **14** | 81 | 97.81 | 6530 | 2.5 | **K** | **37** | **DR** | **63S4** | 16 | 521 |
| **16** | 70 | 83.69 | 6570 | 2.9 | **KF** | **37** | **DR** | **63S4** | 18 | 522 |
| **19** | 60 | 72.54 | 6600 | 3.3 | **KA** | **37** | **DR** | **63S4** | 16 | 523 |
| **20** | 56 | 67.80 | 6610 | 3.6 | **KAF** | **37** | **DR** | **63S4** | 17 | 522 |
| **19** | 50 | 71.93 | 5220 | 2.6 | | | | | | |
| **21** | 46 | 66.25 | 5230 | 2.8 | **K** | **29** | **DR** | **63S4** | 10 | 517 |
| **23** | 42 | 61.28 | 5240 | 3.1 | **KF** | **29** | **DR** | **63S4** | 11 | 518 |
| **25** | 37 | 54.89 | 5250 | 3.5 | **KA** | **29** | **DR** | **63S4** | 9.8 | 520 |
| **27** | 34 | 50.35 | 5260 | 3.9 | **KAF** | **29** | **DR** | **63S4** | 11 | 518 |
| **32** | 28 | 42.87 | 5280 | 4.6 | | | | | | |
| **24** | 40 | 58.68 | 4500 | 1.75 | | | | | | |
| **26** | 36 | 53.88 | 4500 | 1.95 | | | | | | |
| **28** | 33 | 49.69 | 4500 | 2.1 | | | | | | |
| **31** | 29 | 44.48 | 4500 | 2.4 | | | | | | |
| **34** | 27 | 40.63 | 4500 | 2.5 | | | | | | |
| **40** | 22 | 34.29 | 4500 | 2.9 | | | | | | |
| **43** | 23 | 31.74 | 4500 | 3.5 | | | | | | |
| **47** | 18 | 29.29 | 4500 | 3.4 | | | | | | |
| **47** | 21 | 29.14 | 4500 | 3.8 | **K** | **19** | **DR** | **63S4** | 8.5 | 513 |
| **51** | 17 | 27.16 | 4500 | 3.6 | **KF** | **19** | **DR** | **63S4** | 8.8 | 514 |
| **51** | 19 | 26.88 | 4500 | 4.2 | **KA** | **19** | **DR** | **63S4** | 8.0 | 516 |
| **57** | 17 | 24.06 | 4490 | 4.7 | **KAF** | **19** | **DR** | **63S4** | 8.4 | 514 |
| **63** | 15 | 21.98 | 4360 | 5.2 | | | | | | |
| **74** | 13 | 18.55 | 4140 | 6.3 | | | | | | |
| **87** | 10 | 15.84 | 3950 | 7.6 | | | | | | |
| **94** | 9.6 | 14.69 | 3860 | 8.3 | | | | | | |
| **109** | 8.0 | 12.70 | 3680 | 10.0 | | | | | | |
| **117** | 7.3 | 11.84 | 3600 | 11 | | | | | | |
| **134** | 6.1 | 10.32 | 3450 | 12 | | | | | | |
| **144** | 6.8 | 9.58 | 3380 | 9.2 | | | | | | |

## $P_m$ = 0.18 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **0.09** | 15700 | 14975 | 74400 | 0.80 | | | | | | |
| **0.11** | 13100 | 12440 | 79100 | 1.00 | | | | | | |
| **0.12** | 11500 | 10915 | 80000 | 1.15 | | | | | | |
| **0.13** | 10300 | 9819 | 80500 | 1.25 | | | | | | |
| **0.16** | 8870 | 8443 | 81100 | 1.45 | **K** | **127R77** | **DR** | **63M4** | 470 | 575 |
| **0.18** | 7880 | 7482 | 81500 | 1.65 | **KF** | **127R77** | **DR** | **63M4** | 510 | 575 |
| **0.20** | 6910 | 6565 | 81800 | 1.90 | **KA** | **127R77** | **DR** | **63M4** | 440 | 575 |
| **0.23** | 5880 | 5804 | 82100 | 2.2 | **KAF** | **127R77** | **DR** | **63M4** | 480 | 575 |
| **0.26** | 5210 | 5027 | 82300 | 2.5 | | | | | | |
| **0.30** | 4480 | 4423 | 82400 | 2.9 | | | | | | |
| **0.34** | 3900 | 3889 | 82500 | 3.3 | | | | | | |
| **0.40** | 3240 | 3311 | 82600 | 4.0 | | | | | | |



21284997/EN – 03/2015

## $P_m$ = 0.18 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **0.16** | 8770 | 8328 | 65000 | 0.90 | | | | | | |
| **0.18** | 7660 | 7270 | 65000 | 1.05 | | | | | | |
| **0.21** | 6410 | 6184 | 65000 | 1.25 | | | | | | |
| **0.23** | 5690 | 5662 | 65000 | 1.40 | | | | | | |
| **0.26** | 5160 | 5138 | 65000 | 1.55 | **K** | **107R77** | **DR** | **63M4** | 310 | 575 |
| **0.30** | 4580 | 4359 | 65000 | 1.75 | **KF** | **107R77** | **DR** | **63M4** | 320 | 575 |
| **0.35** | 4000 | 3810 | 65000 | 2.0 | **KA** | **107R77** | **DR** | **63M4** | 280 | 575 |
| **0.39** | 3400 | 3358 | 65000 | 2.4 | **KAF** | **107R77** | **DR** | **63M4** | 305 | 575 |
| **0.44** | 3080 | 2977 | 65000 | 2.6 | | | | | | |
| **0.51** | 2690 | 2599 | 65000 | 3.0 | | | | | | |
| **0.58** | 2310 | 2286 | 65000 | 3.4 | | | | | | |
| **0.28** | 5050 | 4669 | 39800 | 0.85 | | | | | | |
| **0.32** | 4530 | 4082 | 40000 | 0.95 | **K** | **97R57** | **DR** | **63M4** | 180 | 575 |
| **0.37** | 3940 | 3583 | 40000 | 1.10 | **KF** | **97R57** | **DR** | **63M4** | 200 | 575 |
| **0.42** | 3450 | 3108 | 40000 | 1.25 | **KA** | **97R57** | **DR** | **63M4** | 160 | 575 |
| **0.48** | 2980 | 2757 | 40000 | 1.45 | **KAF** | **97R57** | **DR** | **63M4** | 185 | 575 |
| **0.55** | 2720 | 2419 | 40000 | 1.60 | | | | | | |
| **0.62** | 2360 | 2123 | 40000 | 1.80 | | | | | | |
| **0.71** | 2090 | 1856 | 40000 | 2.1 | | | | | | |
| **0.81** | 1760 | 1625 | 40000 | 2.4 | | | | | | |
| **0.92** | 1520 | 1430 | 40000 | 2.8 | **K** | **97R57** | **DR** | **63M4** | 180 | 575 |
| **1.0** | 1420 | 1261 | 40000 | 3.0 | **KF** | **97R57** | **DR** | **63M4** | 200 | 575 |
| **1.2** | 1240 | 1102 | 40000 | 3.5 | **KA** | **97R57** | **DR** | **63M4** | 160 | 575 |
| **1.4** | 1080 | 957 | 40000 | 4.0 | **KAF** | **97R57** | **DR** | **63M4** | 185 | 575 |
| **1.5** | 970 | 855 | 40000 | 4.4 | | | | | | |
| **1.8** | 770 | 743 | 40000 | 5.6 | | | | | | |
| **2.0** | 690 | 652 | 40000 | 6.2 | | | | | | |
| **0.42** | 3430 | 3107 | 26200 | 0.80 | **K** | **87R57** | **DR** | **63M4** | 120 | 575 |
| **0.48** | 2920 | 2728 | 27000 | 0.90 | **KF** | **87R57** | **DR** | **63M4** | 130 | 575 |
| **0.56** | 2560 | 2371 | 27400 | 1.05 | **KA** | **87R57** | **DR** | **63M4** | 105 | 575 |
| | | | | | **KAF** | **87R57** | **DR** | **63M4** | 120 | 575 |
| **0.63** | 2350 | 2088 | 27700 | 1.15 | | | | | | |
| **0.71** | 2080 | 1854 | 28000 | 1.30 | | | | | | |
| **0.80** | 1860 | 1657 | 28200 | 1.45 | | | | | | |
| **0.93** | 1590 | 1415 | 28400 | 1.70 | **K** | **87R57** | **DR** | **63M4** | 120 | 575 |
| **1.1** | 1380 | 1229 | 28600 | 1.95 | **KF** | **87R57** | **DR** | **63M4** | 125 | 575 |
| **1.2** | 1200 | 1078 | 28700 | 2.2 | **KA** | **87R57** | **DR** | **63M4** | 105 | 575 |
| **1.4** | 1030 | 951 | 28800 | 2.6 | **KAF** | **87R57** | **DR** | **63M4** | 120 | 575 |
| **1.6** | 890 | 837 | 28800 | 3.0 | | | | | | |
| **1.8** | 775 | 726 | 28900 | 3.5 | | | | | | |
| **0.87** | 1710 | 1514 | 14100 | 0.90 | | | | | | |
| **0.95** | 1570 | 1388 | 15200 | 1.00 | | | | | | |
| **1.1** | 1380 | 1218 | 16500 | 1.10 | | | | | | |
| **1.2** | 1200 | 1053 | 17400 | 1.30 | | | | | | |
| **1.4** | 1050 | 924 | 18100 | 1.45 | **K** | **77R37** | **DR** | **63M4** | 69 | 575 |
| **1.6** | 930 | 815 | 18600 | 1.65 | **KF** | **77R37** | **DR** | **63M4** | 77 | 575 |
| **1.9** | 760 | 709 | 19100 | 2.0 | **KA** | **77R37** | **DR** | **63M4** | 62 | 575 |
| **2.1** | 665 | 622 | 19300 | 2.3 | **KAF** | **77R37** | **DR** | **63M4** | 70 | 575 |
| **2.4** | 600 | 552 | 19500 | 2.6 | | | | | | |
| **2.7** | 525 | 485 | 19600 | 2.9 | | | | | | |
| **3.1** | 465 | 428 | 19800 | 3.3 | | | | | | |
| **3.6** | 410 | 367 | 19800 | 3.8 | | | | | | |
| **1.7** | 920 | 793 | 9240 | 0.90 | | | | | | |
| **1.9** | 760 | 697 | 10800 | 1.05 | | | | | | |
| **2.2** | 670 | 613 | 11500 | 1.20 | | | | | | |
| **2.4** | 590 | 542 | 12000 | 1.40 | **K** | **67R37** | **DR** | **63M4** | 45 | 575 |
| **2.8** | 535 | 471 | 12200 | 1.50 | **KF** | **67R37** | **DR** | **63M4** | 51 | 575 |
| **3.2** | 455 | 420 | 12600 | 1.80 | **KA** | **67R37** | **DR** | **63M4** | 42 | 575 |
| **3.6** | 405 | 361 | 12800 | 2.0 | **KAF** | **67R37** | **DR** | **63M4** | 48 | 575 |
| **4.1** | 360 | 323 | 12900 | 2.3 | | | | | | |
| **4.7** | 300 | 279 | 13000 | 2.7 | | | | | | |

21284997/EN – 03/2015

| $P_m$ = 0.18 kW | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
| **2.4** | 590 | 544 | 7690 | 1.00 | | | | | | |
| **2.8** | 535 | 473 | 8150 | 1.10 | | | | | | |
| **3.1** | 455 | 421 | 8620 | 1.30 | | | | | | |
| **3.6** | 405 | 362 | 8840 | 1.45 | **K** | **57R37** | **DR** | **63M4** | 39 | 575 |
| **4.1** | 360 | 319 | 9050 | 1.65 | **KF** | **57R37** | **DR** | **63M4** | 44 | 575 |
| **4.7** | 300 | 280 | 9270 | 1.95 | **KA** | **57R37** | **DR** | **63M4** | 37 | 575 |
| **5.4** | 265 | 246 | 9400 | 2.2 | **KAF** | **57R37** | **DR** | **63M4** | 43 | 575 |
| **6.1** | 235 | 215 | 9510 | 2.5 | | | | | | |
| **6.9** | 210 | 192 | 9600 | 2.8 | | | | | | |
| **7.9** | 182 | 166 | 9690 | 3.3 | | | | | | |
| **3.5** | 405 | 375 | 5600 | 1.00 | | | | | | |
| **4.0** | 365 | 327 | 6320 | 1.10 | | | | | | |
| **4.6** | 325 | 289 | 6800 | 1.20 | | | | | | |
| **5.2** | 275 | 256 | 7240 | 1.45 | **K** | **47R37** | **DR** | **63M4** | 33 | 575 |
| **5.9** | 250 | 225 | 7450 | 1.60 | **KF** | **47R37** | **DR** | **63M4** | 36 | 575 |
| **6.7** | 215 | 198 | 7680 | 1.85 | **KA** | **47R37** | **DR** | **63M4** | 32 | 575 |
| **7.7** | 188 | 171 | 7840 | 2.1 | **KAF** | **47R37** | **DR** | **63M4** | 35 | 575 |
| **8.6** | 168 | 153 | 7930 | 2.4 | | | | | | |
| **10** | 147 | 131 | 8020 | 2.7 | | | | | | |
| **6.4** | 230 | 205 | 4860 | 0.85 | | | | | | |
| **7.3** | 200 | 181 | 5590 | 1.00 | **K** | **37R17** | **DR** | **63M4** | 19 | 575 |
| **8.2** | 180 | 160 | 5860 | 1.10 | **KF** | **37R17** | **DR** | **63M4** | 21 | 575 |
| **9.7** | 151 | 136 | 6110 | 1.35 | **KA** | **37R17** | **DR** | **63M4** | 19 | 575 |
| **10** | 145 | 127 | 6160 | 1.40 | **KAF** | **37R17** | **DR** | **63M4** | 20 | 575 |
| **6.0** | 285 | 144.79* | 13000 | 2.9 | **K** | **67** | **DR** | **63L6** | 35 | 536 |
| **7.0** | 240 | 123.54 | 13000 | 3.4 | **KF** | **67** | **DR** | **63L6** | 40 | 537 |
| **8.0** | 210 | 108.03 | 13000 | 3.8 | **KA** | **67** | **DR** | **63L6** | 32 | 538 |
| **8.5** | 200 | 102.62 | 13000 | 4.0 | **KAF** | **67** | **DR** | **63L6** | 38 | 537 |
| | | | | | **K** | **67** | **DR** | **63M4** | 34 | 536 |
| **9.1** | 188 | 144.79* | 13000 | 4.4 | **KF** | **67** | **DR** | **63M4** | 40 | 537 |
| **11** | 161 | 123.54 | 13000 | 5.1 | **KA** | **67** | **DR** | **63M4** | 31 | 538 |
| **12** | 141 | 108.03 | 13000 | 5.8 | **KAF** | **67** | **DR** | **63M4** | 37 | 537 |
| **6.0** | 285 | 145.14* | 9340 | 2.1 | | | | | | |
| **7.0** | 240 | 123.85 | 9480 | 2.4 | **K** | **57** | **DR** | **63L6** | 29 | 531 |
| **8.0** | 210 | 108.29 | 9590 | 2.8 | **KF** | **57** | **DR** | **63L6** | 34 | 532 |
| **8.5** | 200 | 102.88* | 9620 | 3.0 | **KA** | **57** | **DR** | **63L6** | 27 | 533 |
| **9.6** | 178 | 90.26* | 9700 | 3.4 | **KAF** | **57** | **DR** | **63L6** | 32 | 532 |
| **9.1** | 189 | 145.14* | 9670 | 3.2 | | | | | | |
| **11** | 161 | 123.85 | 9750 | 3.7 | **K** | **57** | **DR** | **63M4** | 28 | 531 |
| **12** | 141 | 108.29 | 9810 | 4.3 | **KF** | **57** | **DR** | **63M4** | 33 | 532 |
| **13** | 134 | 102.88* | 9830 | 4.5 | **KA** | **57** | **DR** | **63M4** | 26 | 533 |
| **15** | 118 | 90.26* | 9880 | 5.1 | **KAF** | **57** | **DR** | **63M4** | 32 | 532 |
| **17** | 100 | 76.56* | 9920 | 6.0 | | | | | | |
| **6.6** | 260 | 131.87* | 7380 | 1.55 | | | | | | |
| **7.2** | 240 | 121.48* | 7530 | 1.65 | **K** | **47** | **DR** | **63L6** | 23 | 526 |
| **8.3** | 205 | 104.37 | 7740 | 1.95 | **KF** | **47** | **DR** | **63L6** | 26 | 527 |
| **9.6** | 180 | 90.86 | 7880 | 2.2 | **KA** | **47** | **DR** | **63L6** | 22 | 528 |
| **10** | 168 | 85.12* | 7930 | 2.4 | **KAF** | **47** | **DR** | **63L6** | 25 | 527 |
| **10** | 172 | 131.87* | 7910 | 2.3 | | | | | | |
| **11** | 158 | 121.48* | 7970 | 2.5 | **K** | **47** | **DR** | **63M4** | 22 | 526 |
| **13** | 136 | 104.37 | 8060 | 2.9 | **KF** | **47** | **DR** | **63M4** | 26 | 527 |
| **15** | 118 | 90.86 | 8120 | 3.4 | **KA** | **47** | **DR** | **63M4** | 22 | 528 |
| **16** | 111 | 85.12* | 8140 | 3.6 | **KAF** | **47** | **DR** | **63M4** | 24 | 527 |
| **8.2** | 210 | 106.38 | 5520 | 0.95 | **K** | **37** | **DR** | **63L6** | 17 | 521 |
| **8.9** | 193 | 97.81 | 5710 | 1.05 | **KF** | **37** | **DR** | **63L6** | 19 | 522 |
| **10** | 165 | 83.69 | 5990 | 1.20 | **KA** | **37** | **DR** | **63L6** | 16 | 523 |
| **12** | 143 | 72.54 | 6170 | 1.40 | **KAF** | **37** | **DR** | **63L6** | 18 | 522 |



21284997/EN – 03/2015

## $P_m$ = 0.18 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **12** | 138 | 106.38 | 6210 | 1.45 | | | | | | |
| **14** | 127 | 97.81 | 6280 | 1.55 | | | | | | |
| **16** | 109 | 83.69 | 6400 | 1.85 | | | | | | |
| **18** | 94 | 72.54 | 6470 | 2.1 | **K** | **37** | **DR** | **63M4** | 16 | 521 |
| **19** | 88 | 67.80 | 6500 | 2.3 | **KF** | **37** | **DR** | **63M4** | 18 | 522 |
| **23** | 76 | 58.60 | 6280 | 2.6 | **KA** | **37** | **DR** | **63M4** | 16 | 523 |
| **27** | 65 | 49.79 | 6010 | 3.1 | **KAF** | **37** | **DR** | **63M4** | 17 | 522 |
| **30** | 58 | 44.46 | 5830 | 3.4 | | | | | | |
| **35** | 49 | 37.97 | 5580 | 4.0 | | | | | | |
| **18** | 81 | 71.93 | 5130 | 1.60 | | | | | | |
| **20** | 74 | 66.25 | 5150 | 1.75 | | | | | | |
| **22** | 68 | 61.28 | 5160 | 1.90 | | | | | | |
| **24** | 61 | 54.89 | 5190 | 2.1 | | | | | | |
| **26** | 55 | 50.35 | 5200 | 2.4 | | | | | | |
| **31** | 46 | 42.87 | 5230 | 2.8 | **K** | **29** | **DR** | **63M4** | 10 | 517 |
| **34** | 46 | 38.90 | 5240 | 2.8 | **KF** | **29** | **DR** | **63M4** | 11 | 518 |
| **36** | 39 | 36.96 | 5250 | 3.1 | **KA** | **29** | **DR** | **63M4** | 9.8 | 520 |
| **37** | 42 | 35.83 | 5250 | 3.1 | **KAF** | **29** | **DR** | **63M4** | 11 | 518 |
| **40** | 38 | 33.15 | 5250 | 3.4 | | | | | | |
| **44** | 31 | 30.11 | 5200 | 3.7 | | | | | | |
| **44** | 34 | 29.69 | 5170 | 3.8 | | | | | | |
| **48** | 31 | 27.23 | 5050 | 4.2 | | | | | | |
| **53** | 25 | 24.91 | 4920 | 4.4 | | | | | | |
| **22** | 64 | 58.68 | 4370 | 1.10 | | | | | | |
| **24** | 59 | 53.88 | 4400 | 1.20 | | | | | | |
| **27** | 54 | 49.69 | 4430 | 1.30 | | | | | | |
| **30** | 48 | 44.48 | 4470 | 1.45 | | | | | | |
| **32** | 43 | 40.63 | 4490 | 1.55 | | | | | | |
| **38** | 36 | 34.29 | 4500 | 1.75 | | | | | | |
| **42** | 37 | 31.74 | 4500 | 2.2 | | | | | | |
| **45** | 30 | 29.29 | 4500 | 2.0 | | | | | | |
| **45** | 34 | 29.14 | 4500 | 2.4 | | | | | | |
| **49** | 28 | 27.16 | 4500 | 2.2 | **K** | **19** | **DR** | **63M4** | 8.5 | 513 |
| **49** | 31 | 26.88 | 4500 | 2.6 | **KF** | **19** | **DR** | **63M4** | 8.8 | 514 |
| **55** | 28 | 24.06 | 4450 | 2.9 | **KA** | **19** | **DR** | **63M4** | 8.0 | 516 |
| **60** | 25 | 21.98 | 4330 | 3.2 | **KAF** | **19** | **DR** | **63M4** | 8.4 | 514 |
| **71** | 21 | 18.55 | 4120 | 3.8 | | | | | | |
| **83** | 18 | 15.84 | 3940 | 4.6 | | | | | | |
| **90** | 16 | 14.69 | 3850 | 5.0 | | | | | | |
| **104** | 14 | 12.70 | 3680 | 5.8 | | | | | | |
| **111** | 13 | 11.84 | 3600 | 6.3 | | | | | | |
| **128** | 11 | 10.32 | 3460 | 7.1 | | | | | | |
| **138** | 11 | 9.58 | 3390 | 5.6 | | | | | | |
| **163** | 9.3 | 8.09 | 3220 | 8.6 | | | | | | |
| **191** | 7.8 | 6.91 | 3060 | 10 | | | | | | |

## $P_m$ = 0.25 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **0.13** | 15100 | 9819 | 75600 | 0.85 | | | | | | |
| **0.15** | 13000 | 8443 | 79200 | 1.00 | | | | | | |
| **0.17** | 11500 | 7482 | 79900 | 1.10 | | | | | | |
| **0.20** | 10100 | 6565 | 80600 | 1.30 | **K** | **127R77** | **DR** | **63L4** | 470 | 575 |
| **0.22** | 8750 | 5804 | 81200 | 1.50 | **KF** | **127R77** | **DR** | **63L4** | 510 | 575 |
| **0.26** | 7690 | 5027 | 81600 | 1.70 | **KA** | **127R77** | **DR** | **63L4** | 440 | 575 |
| **0.29** | 6660 | 4423 | 81900 | 1.95 | **KAF** | **127R77** | **DR** | **63L4** | 480 | 575 |
| **0.33** | 5820 | 3889 | 82100 | 2.2 | | | | | | |
| **0.39** | 4870 | 3311 | 82300 | 2.7 | | | | | | |

21284997/EN – 03/2015

## $P_m$ = 0.25 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **0.21** | 9460 | 6184 | 65000 | 0.85 | | | | | | |
| **0.23** | 8480 | 5662 | 65000 | 0.95 | | | | | | |
| **0.25** | 7690 | 5138 | 65000 | 1.05 | | | | | | |
| **0.30** | 6730 | 4359 | 65000 | 1.20 | **K** | **107R77** | **DR** | **63L4** | 310 | 575 |
| **0.34** | 5880 | 3810 | 65000 | 1.35 | **KF** | **107R77** | **DR** | **63L4** | 320 | 575 |
| **0.39** | 5060 | 3358 | 65000 | 1.60 | **KA** | **107R77** | **DR** | **63L4** | 285 | 575 |
| **0.44** | 4550 | 2977 | 65000 | 1.75 | **KAF** | **107R77** | **DR** | **63L4** | 305 | 575 |
| **0.50** | 3970 | 2599 | 65000 | 2.0 | | | | | | |
| **0.57** | 3440 | 2286 | 65000 | 2.3 | | | | | | |
| **0.67** | 2920 | 1939 | 65000 | 2.7 | | | | | | |
| | | | | | **K** | **107R77** | **DR** | **63L4** | 310 | 575 |
| **0.76** | 2670 | 1713 | 65000 | 3.0 | **KF** | **107R77** | **DR** | **63L4** | 320 | 575 |
| **0.84** | 2430 | 1554 | 65000 | 3.3 | **KA** | **107R77** | **DR** | **63L4** | 280 | 575 |
| **0.97** | 2080 | 1336 | 65000 | 3.8 | **KAF** | **107R77** | **DR** | **63L4** | 305 | 575 |
| | | | | | **K** | **97R57** | **DR** | **63L4** | 180 | 575 |
| **0.42** | 4980 | 3108 | 39900 | 0.85 | **KF** | **97R57** | **DR** | **63L4** | 200 | 575 |
| **0.47** | 4350 | 2757 | 40000 | 1.00 | **KA** | **97R57** | **DR** | **63L4** | 160 | 575 |
| | | | | | **KAF** | **97R57** | **DR** | **63L4** | 185 | 575 |
| **0.54** | 3920 | 2419 | 40000 | 1.10 | | | | | | |
| **0.61** | 3420 | 2123 | 40000 | 1.25 | | | | | | |
| **0.70** | 3010 | 1856 | 40000 | 1.40 | | | | | | |
| **0.80** | 2570 | 1625 | 40000 | 1.65 | **K** | **97R57** | **DR** | **63L4** | 180 | 575 |
| **0.91** | 2240 | 1430 | 40000 | 1.90 | **KF** | **97R57** | **DR** | **63L4** | 200 | 575 |
| **1.0** | 2050 | 1261 | 40000 | 2.1 | **KA** | **97R57** | **DR** | **63L4** | 160 | 575 |
| **1.2** | 1790 | 1102 | 40000 | 2.4 | **KAF** | **97R57** | **DR** | **63L4** | 185 | 575 |
| **1.4** | 1560 | 957 | 40000 | 2.7 | | | | | | |
| **1.5** | 1400 | 855 | 40000 | 3.1 | | | | | | |
| **0.62** | 3390 | 2088 | 26300 | 0.80 | | | | | | |
| **0.70** | 3010 | 1854 | 26900 | 0.90 | | | | | | |
| **0.78** | 2690 | 1657 | 27300 | 1.00 | | | | | | |
| **0.92** | 2290 | 1415 | 27800 | 1.15 | **K** | **87R57** | **DR** | **63L4** | 120 | 575 |
| **1.1** | 1990 | 1229 | 28100 | 1.35 | **KF** | **87R57** | **DR** | **63L4** | 125 | 575 |
| **1.2** | 1730 | 1078 | 28300 | 1.55 | **KA** | **87R57** | **DR** | **63L4** | 105 | 575 |
| **1.4** | 1500 | 951 | 28500 | 1.80 | **KAF** | **87R57** | **DR** | **63L4** | 120 | 575 |
| **1.6** | 1310 | 837 | 28600 | 2.1 | | | | | | |
| **1.8** | 1130 | 726 | 28700 | 2.4 | | | | | | |
| **2.0** | 1010 | 638 | 28800 | 2.7 | | | | | | |
| **1.2** | 1720 | 1053 | 14000 | 0.90 | | | | | | |
| **1.4** | 1510 | 924 | 15600 | 1.00 | | | | | | |
| **1.6** | 1330 | 815 | 16700 | 1.15 | | | | | | |
| **1.8** | 1110 | 709 | 17800 | 1.40 | | | | | | |
| **2.1** | 970 | 622 | 18400 | 1.60 | | | | | | |
| **2.4** | 870 | 552 | 18700 | 1.75 | | | | | | |
| **2.7** | 765 | 485 | 19100 | 2.0 | **K** | **77R37** | **DR** | **63L4** | 70 | 575 |
| **3.0** | 675 | 428 | 19300 | 2.3 | **KF** | **77R37** | **DR** | **63L4** | 78 | 575 |
| **3.5** | 590 | 367 | 19500 | 2.6 | **KA** | **77R37** | **DR** | **63L4** | 62 | 575 |
| **4.0** | 525 | 328 | 19600 | 2.9 | **KAF** | **77R37** | **DR** | **63L4** | 70 | 575 |
| **4.5** | 465 | 290 | 19700 | 3.3 | | | | | | |
| **5.2** | 400 | 252 | 19900 | 3.8 | | | | | | |
| **5.9** | 350 | 221 | 19900 | 4.4 | | | | | | |
| **6.7** | 310 | 195 | 20000 | 5.0 | | | | | | |
| **7.4** | 270 | 175 | 20000 | 5.6 | | | | | | |
| **2.1** | 970 | 613 | 5680 | 0.85 | | | | | | |
| **2.4** | 860 | 542 | 9920 | 0.95 | | | | | | |
| **2.8** | 775 | 471 | 10700 | 1.05 | | | | | | |
| **3.1** | 665 | 420 | 11500 | 1.25 | **K** | **67R37** | **DR** | **63L4** | 46 | 575 |
| **3.6** | 590 | 361 | 11900 | 1.40 | **KF** | **67R37** | **DR** | **63L4** | 51 | 575 |
| **4.0** | 520 | 323 | 12300 | 1.55 | **KA** | **67R37** | **DR** | **63L4** | 43 | 575 |
| **4.7** | 440 | 279 | 12600 | 1.85 | **KAF** | **67R37** | **DR** | **63L4** | 49 | 575 |
| **5.3** | 390 | 246 | 12800 | 2.1 | | | | | | |
| **6.0** | 345 | 217 | 13000 | 2.4 | | | | | | |



21284997/EN – 03/2015

## $P_m$ = 0.25 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **3.1** | 665 | 421 | 4200 | 0.90 | | | | | | |
| **3.6** | 590 | 362 | 7690 | 1.00 | | | | | | |
| **4.1** | 520 | 319 | 8260 | 1.15 | | | | | | |
| **4.6** | 440 | 280 | 8680 | 1.35 | | | | | | |
| **5.3** | 390 | 246 | 8920 | 1.55 | **K** | **57R37** | **DR** | **63L4** | 40 | 575 |
| **6.0** | 345 | 215 | 9110 | 1.75 | **KF** | **57R37** | **DR** | **63L4** | 45 | 575 |
| **6.8** | 305 | 192 | 9260 | 1.95 | **KA** | **57R37** | **DR** | **63L4** | 38 | 575 |
| **7.8** | 265 | 166 | 9410 | 2.3 | **KAF** | **57R37** | **DR** | **63L4** | 43 | 575 |
| **9.0** | 230 | 145 | 9530 | 2.6 | | | | | | |
| **10** | 210 | 129 | 9600 | 2.8 | | | | | | |
| **12** | 178 | 111 | 9700 | 3.4 | | | | | | |
| **13** | 156 | 97 | 9770 | 3.8 | | | | | | |
| **4.7** | 510 | 192.18 | 19700 | 2.8 | **K** | **77** | **DRS** | **71S6** | 62 | 541 |
| **5.0** | 475 | 179.37 | 19700 | 3.0 | **KF** | **77** | **DRS** | **71S6** | 71 | 542 |
| **5.8** | 410 | 154.02 | 19800 | 3.8 | **KA** | **77** | **DRS** | **71S6** | 55 | 543 |
| **6.6** | 360 | 135.28 | 19900 | 4.3 | **KAF** | **77** | **DRS** | **71S6** | 63 | 542 |
| **6.2** | 385 | 144.79* | 12900 | 2.1 | **K** | **67** | **DRS** | **71S6** | 36 | 536 |
| **7.2** | 325 | 123.54 | 13000 | 2.5 | **KF** | **67** | **DRS** | **71S6** | 42 | 537 |
| **8.3** | 285 | 108.03 | 13000 | 2.8 | **KA** | **67** | **DRS** | **71S6** | 34 | 538 |
| **8.7** | 270 | 102.62 | 13000 | 3.0 | **KAF** | **67** | **DRS** | **71S6** | 39 | 537 |
| **9.0** | 265 | 144.79* | 13000 | 3.1 | **K** | **67** | **DR** | **63L4** | 35 | 536 |
| **11** | 225 | 123.54 | 13000 | 3.6 | **KF** | **67** | **DR** | **63L4** | 40 | 537 |
| **12** | 198 | 108.03 | 13000 | 4.1 | **KA** | **67** | **DR** | **63L4** | 32 | 538 |
| **13** | 188 | 102.62 | 13000 | 4.4 | **KAF** | **67** | **DR** | **63L4** | 38 | 537 |
| **6.2** | 385 | 145.14* | 8940 | 1.55 | | | | | | |
| **7.2** | 330 | 123.85 | 9170 | 1.80 | **K** | **57** | **DRS** | **71S6** | 31 | 531 |
| **8.3** | 285 | 108.29 | 9330 | 2.1 | **KF** | **57** | **DRS** | **71S6** | 35 | 532 |
| **8.7** | 270 | 102.88* | 9380 | 2.2 | **KA** | **57** | **DRS** | **71S6** | 28 | 533 |
| **9.9** | 240 | 90.26* | 9500 | 2.5 | **KAF** | **57** | **DRS** | **71S6** | 34 | 532 |
| **12** | 200 | 76.56* | 9620 | 2.9 | | | | | | |
| **9.0** | 265 | 145.14* | 9410 | 2.2 | | | | | | |
| **10** | 225 | 123.85 | 9540 | 2.6 | **K** | **57** | **DR** | **63L4** | 29 | 531 |
| **12** | 199 | 108.29 | 9640 | 3.0 | **KF** | **57** | **DR** | **63L4** | 34 | 532 |
| **13** | 189 | 102.88* | 9670 | 3.2 | **KA** | **57** | **DR** | **63L4** | 27 | 533 |
| **14** | 166 | 90.26* | 9740 | 3.6 | **KAF** | **57** | **DR** | **63L4** | 32 | 532 |
| **17** | 141 | 76.56* | 9810 | 4.3 | | | | | | |
| **6.8** | 350 | 131.87* | 6540 | 1.15 | **K** | **47** | **DRS** | **71S6** | 25 | 526 |
| **7.4** | 320 | 121.48* | 6830 | 1.25 | **KF** | **47** | **DRS** | **71S6** | 28 | 527 |
| **8.6** | 275 | 104.37 | 7240 | 1.45 | **KA** | **47** | **DRS** | **71S6** | 24 | 528 |
| | | | | | **KAF** | **47** | **DRS** | **71S6** | 27 | 527 |
| | | | | | **K** | **47** | **DRS** | **71S6** | 25 | 526 |
| **9.8** | 240 | 90.86 | 7510 | 1.65 | **KF** | **47** | **DRS** | **71S6** | 28 | 527 |
| **11** | 225 | 85.12* | 7610 | 1.75 | **KA** | **47** | **DRS** | **71S6** | 24 | 528 |
| | | | | | **KAF** | **47** | **DRS** | **71S6** | 27 | 527 |
| **9.9** | 240 | 131.87* | 7510 | 1.65 | | | | | | |
| **11** | 220 | 121.48* | 7640 | 1.80 | **K** | **47** | **DR** | **63L4** | 23 | 526 |
| **12** | 192 | 104.37 | 7820 | 2.1 | **KF** | **47** | **DR** | **63L4** | 26 | 527 |
| **14** | 167 | 90.86 | 7930 | 2.4 | **KA** | **47** | **DR** | **63L4** | 22 | 528 |
| **15** | 156 | 85.12* | 7980 | 2.6 | **KAF** | **47** | **DR** | **63L4** | 25 | 527 |
| **11** | 220 | 83.69 | 5350 | 0.90 | | | | | | |
| **12** | 194 | 72.54 | 5710 | 1.05 | **K** | **37** | **DRS** | **71S6** | 19 | 521 |
| **13** | 181 | 67.80 | 5840 | 1.10 | **KF** | **37** | **DRS** | **71S6** | 21 | 522 |
| **15** | 156 | 58.60 | 6070 | 1.30 | **KA** | **37** | **DRS** | **71S6** | 18 | 523 |
| **18** | 133 | 49.79 | 6250 | 1.50 | **KAF** | **37** | **DRS** | **71S6** | 20 | 522 |

21284997/EN – 03/2015

## $P_m$ = 0.25 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **12** | 195 | 106.38 | 5690 | 1.00 | | | | | | |
| **13** | 180 | 97.81 | 5860 | 1.10 | | | | | | |
| **16** | 154 | 83.69 | 6090 | 1.30 | | | | | | |
| **18** | 133 | 72.54 | 6240 | 1.50 | | | | | | |
| **19** | 124 | 67.80 | 6220 | 1.60 | **K** | **37** | **DR** | **63L4** | 17 | 521 |
| **22** | 108 | 58.60 | 6030 | 1.85 | **KF** | **37** | **DR** | **63L4** | 19 | 522 |
| **26** | 91 | 49.79 | 5810 | 2.2 | **KA** | **37** | **DR** | **63L4** | 16 | 523 |
| **29** | 82 | 44.46 | 5650 | 2.4 | **KAF** | **37** | **DR** | **63L4** | 18 | 522 |
| **34** | 70 | 37.97 | 5430 | 2.9 | | | | | | |
| **37** | 65 | 35.57 | 5340 | 3.1 | | | | | | |
| **43** | 55 | 29.96 | 5100 | 3.6 | | | | | | |
| **45** | 53 | 28.83 | 5050 | 3.8 | | | | | | |
| **18** | 116 | 71.93 | 5020 | 1.10 | | | | | | |
| **20** | 107 | 66.25 | 5050 | 1.20 | | | | | | |
| **21** | 98 | 61.28 | 5080 | 1.30 | | | | | | |
| **24** | 88 | 54.89 | 5110 | 1.50 | | | | | | |
| **26** | 80 | 50.35 | 5130 | 1.65 | | | | | | |
| **30** | 67 | 42.87 | 5170 | 1.90 | | | | | | |
| **33** | 65 | 38.90 | 5180 | 2.00 | | | | | | |
| **35** | 57 | 36.96 | 5200 | 2.1 | **K** | **29** | **DR** | **63L4** | 11 | 517 |
| **36** | 60 | 35.83 | 5200 | 2.2 | **KF** | **29** | **DR** | **63L4** | 12 | 518 |
| **39** | 55 | 33.15 | 5210 | 2.4 | **KA** | **29** | **DR** | **63L4** | 10 | 520 |
| **43** | 46 | 30.11 | 5080 | 2.5 | **KAF** | **29** | **DR** | **63L4** | 11 | 518 |
| **44** | 49 | 29.69 | 5070 | 2.6 | | | | | | |
| **48** | 45 | 27.23 | 4950 | 2.9 | | | | | | |
| **52** | 37 | 24.91 | 4830 | 3.0 | | | | | | |
| **56** | 38 | 23.19 | 4730 | 3.4 | | | | | | |
| **59** | 32 | 22.08 | 4670 | 3.3 | | | | | | |
| **65** | 32 | 19.99 | 4540 | 4.0 | | | | | | |
| **26** | 77 | 49.69 | 4280 | 0.90 | | | | | | |
| **29** | 69 | 44.48 | 4340 | 1.00 | | | | | | |
| **32** | 63 | 40.63 | 4380 | 1.05 | | | | | | |
| **38** | 52 | 34.29 | 4440 | 1.20 | | | | | | |
| **41** | 53 | 31.74 | 4440 | 1.50 | | | | | | |
| **44** | 44 | 29.29 | 4490 | 1.40 | | | | | | |
| **45** | 49 | 29.14 | 4460 | 1.65 | | | | | | |
| **48** | 41 | 27.16 | 4450 | 1.45 | | | | | | |
| **48** | 45 | 26.88 | 4480 | 1.80 | | | | | | |
| **54** | 40 | 24.06 | 4350 | 2.0 | | | | | | |
| **59** | 36 | 21.98 | 4240 | 2.2 | **K** | **19** | **DR** | **63L4** | 9.2 | 513 |
| **70** | 30 | 18.55 | 4050 | 2.6 | **KF** | **19** | **DR** | **63L4** | 9.5 | 514 |
| **82** | 25 | 15.84 | 3870 | 3.1 | **KA** | **19** | **DR** | **63L4** | 8.7 | 516 |
| **88** | 23 | 14.69 | 3790 | 3.4 | **KAF** | **19** | **DR** | **63L4** | 9.1 | 514 |
| **102** | 20 | 12.70 | 3640 | 4.0 | | | | | | |
| **110** | 19 | 11.84 | 3560 | 4.3 | | | | | | |
| **126** | 16 | 10.32 | 3420 | 4.8 | | | | | | |
| **136** | 16 | 9.58 | 3370 | 3.9 | | | | | | |
| **161** | 13 | 8.09 | 3200 | 6.0 | | | | | | |
| **188** | 11 | 6.91 | 3050 | 7.0 | | | | | | |
| **203** | 10 | 6.41 | 2980 | 7.6 | | | | | | |
| **235** | 8.9 | 5.54 | 2840 | 9.0 | | | | | | |
| **252** | 8.3 | 5.16 | 2780 | 9.7 | | | | | | |

## $P_m$ = 0.37 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **0.18** | 16500 | 7482 | 72700 | 0.80 | | | | | | |
| **0.21** | 14500 | 6565 | 76900 | 0.90 | | | | | | |
| **0.24** | 12600 | 5804 | 79400 | 1.05 | **K** | **127R77** | **DRS** | **71S4** | 470 | 575 |
| **0.27** | 11000 | 5027 | 80200 | 1.20 | **KF** | **127R77** | **DRS** | **71S4** | 510 | 575 |
| **0.31** | 9610 | 4423 | 80800 | 1.35 | **KA** | **127R77** | **DRS** | **71S4** | 445 | 575 |
| **0.35** | 8410 | 3889 | 81300 | 1.55 | **KAF** | **127R77** | **DRS** | **71S4** | 480 | 575 |
| **0.42** | 7080 | 3311 | 81800 | 1.85 | | | | | | |

## $P_m$ = 0.37 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **0.72** | 4280 | 1926 | 82400 | 3.0 | **K** | **127R77** | **DRS** | **71S4** | 470 | 575 |
| **0.79** | 3900 | 1757 | 82500 | 3.3 | **KF** | **127R77** | **DRS** | **71S4** | 510 | 575 |
| **0.90** | 3390 | 1541 | 82600 | 3.8 | **KA** | **127R77** | **DRS** | **71S4** | 445 | 575 |
| | | | | | **KAF** | **127R77** | **DRS** | **71S4** | 480 | 575 |
| **0.36** | 8420 | 3810 | 65000 | 0.95 | | | | | | |
| **0.41** | 7290 | 3358 | 65000 | 1.10 | **K** | **107R77** | **DRS** | **71S4** | 310 | 575 |
| **0.46** | 6530 | 2977 | 65000 | 1.20 | **KF** | **107R77** | **DRS** | **71S4** | 325 | 575 |
| **0.53** | 5700 | 2599 | 65000 | 1.40 | **KA** | **107R77** | **DRS** | **71S4** | 285 | 575 |
| **0.60** | 4960 | 2286 | 65000 | 1.60 | **KAF** | **107R77** | **DRS** | **71S4** | 310 | 575 |
| **0.71** | 4210 | 1939 | 65000 | 1.90 | | | | | | |
| **0.81** | 3830 | 1713 | 65000 | 2.1 | **K** | **107R77** | **DRS** | **71S4** | 310 | 575 |
| **0.89** | 3470 | 1554 | 65000 | 2.3 | **KF** | **107R77** | **DRS** | **71S4** | 325 | 575 |
| **1.0** | 2990 | 1336 | 65000 | 2.7 | **KA** | **107R77** | **DRS** | **71S4** | 285 | 575 |
| **1.2** | 2600 | 1166 | 65000 | 3.1 | **KAF** | **107R77** | **DRS** | **71S4** | 305 | 575 |
| **0.65** | 4850 | 2123 | 40000 | 0.90 | | | | | | |
| **0.74** | 4270 | 1856 | 40000 | 1.00 | | | | | | |
| **0.85** | 3670 | 1625 | 40000 | 1.15 | | | | | | |
| **0.96** | 3200 | 1430 | 40000 | 1.35 | | | | | | |
| **1.1** | 2900 | 1261 | 40000 | 1.50 | **K** | **97R57** | **DRS** | **71S4** | 180 | 575 |
| **1.2** | 2530 | 1102 | 40000 | 1.70 | **KF** | **97R57** | **DRS** | **71S4** | 200 | 575 |
| **1.4** | 2220 | 957 | 40000 | 1.95 | **KA** | **97R57** | **DRS** | **71S4** | 160 | 575 |
| **1.6** | 1980 | 855 | 40000 | 2.2 | **KAF** | **97R57** | **DRS** | **71S4** | 185 | 575 |
| **1.9** | 1640 | 743 | 40000 | 2.6 | | | | | | |
| **2.1** | 1450 | 652 | 40000 | 3.0 | | | | | | |
| **2.4** | 1310 | 573 | 40000 | 3.3 | | | | | | |
| **0.97** | 3250 | 1415 | 26500 | 0.85 | | | | | | |
| **1.1** | 2820 | 1229 | 27100 | 0.95 | | | | | | |
| **1.3** | 2460 | 1078 | 27600 | 1.10 | | | | | | |
| **1.4** | 2140 | 951 | 27900 | 1.25 | | | | | | |
| **1.6** | 1870 | 837 | 28200 | 1.45 | **K** | **87R57** | **DRS** | **71S4** | 120 | 575 |
| **1.9** | 1620 | 726 | 28400 | 1.65 | **KF** | **87R57** | **DRS** | **71S4** | 130 | 575 |
| **2.2** | 1440 | 638 | 28500 | 1.85 | **KA** | **87R57** | **DRS** | **71S4** | 110 | 575 |
| **2.5** | 1250 | 562 | 28600 | 2.2 | **KAF** | **87R57** | **DRS** | **71S4** | 120 | 575 |
| **2.9** | 1050 | 474 | 28800 | 2.6 | | | | | | |
| **3.2** | 950 | 426 | 28800 | 2.8 | | | | | | |
| **3.7** | 830 | 373 | 28900 | 3.2 | | | | | | |
| **1.7** | 1880 | 815 | 7450 | 0.80 | | | | | | |
| **2.0** | 1590 | 709 | 15100 | 0.95 | | | | | | |
| **2.2** | 1390 | 622 | 16400 | 1.10 | | | | | | |
| **2.5** | 1250 | 552 | 17200 | 1.25 | | | | | | |
| **2.8** | 1090 | 485 | 17900 | 1.40 | | | | | | |
| **3.2** | 960 | 428 | 18400 | 1.60 | **K** | **77R37** | **DRS** | **71S4** | 72 | 575 |
| **3.8** | 840 | 367 | 18900 | 1.85 | **KF** | **77R37** | **DRS** | **71S4** | 80 | 575 |
| **4.2** | 745 | 328 | 19100 | 2.1 | **KA** | **77R37** | **DRS** | **71S4** | 64 | 575 |
| **4.8** | 665 | 290 | 19400 | 2.3 | **KAF** | **77R37** | **DRS** | **71S4** | 72 | 575 |
| **5.5** | 570 | 252 | 19600 | 2.7 | | | | | | |
| **6.2** | 500 | 221 | 19700 | 3.1 | | | | | | |
| **7.1** | 440 | 195 | 19800 | 3.5 | | | | | | |
| **7.9** | 390 | 175 | 19900 | 4.0 | | | | | | |
| **9.0** | 345 | 154 | 19900 | 4.5 | | | | | | |
| **3.3** | 940 | 420 | 8130 | 0.85 | | | | | | |
| **3.8** | 830 | 361 | 10200 | 1.00 | | | | | | |
| **4.3** | 740 | 323 | 10900 | 1.10 | | | | | | |
| **5.0** | 630 | 279 | 11700 | 1.30 | **K** | **67R37** | **DRS** | **71S4** | 48 | 575 |
| **5.6** | 555 | 246 | 12100 | 1.50 | **KF** | **67R37** | **DRS** | **71S4** | 53 | 575 |
| **6.4** | 490 | 217 | 12400 | 1.65 | **KA** | **67R37** | **DRS** | **71S4** | 45 | 575 |
| **7.2** | 430 | 191 | 12700 | 1.90 | **KAF** | **67R37** | **DRS** | **71S4** | 51 | 575 |
| **8.3** | 370 | 166 | 12900 | 2.2 | | | | | | |
| **9.6** | 325 | 144 | 13000 | 2.5 | | | | | | |
| **11** | 275 | 122 | 13000 | 2.9 | | | | | | |

21284997/EN – 03/2015

| $P_m$ = 0.37 kW | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
| **4.9** | 630 | 280 | 7350 | 0.95 | | | | | | | |
| **5.6** | 555 | 246 | 7980 | 1.10 | | | | | | | |
| **6.4** | 490 | 215 | 8460 | 1.20 | | | | | | | |
| **7.2** | 435 | 192 | 8720 | 1.40 | **K** | **57R37** | **DRS** | **71S4** | 42 | 575 |
| **8.3** | 375 | 166 | 8980 | 1.60 | **KF** | **57R37** | **DRS** | **71S4** | 47 | 575 |
| **9.6** | 330 | 145 | 9170 | 1.80 | **KA** | **57R37** | **DRS** | **71S4** | 40 | 575 |
| **11** | 295 | 129 | 9290 | 2.0 | **KAF** | **57R37** | **DRS** | **71S4** | 45 | 575 |
| **12** | 250 | 111 | 9460 | 2.4 | | | | | | | |
| **14** | 220 | 97 | 9560 | 2.7 | | | | | | | |
| | | | | | **K** | **87** | **DRS** | **71M6** | 99 | 546 |
| **4.6** | 770 | 197.37 | 28900 | 3.5 | **KF** | **87** | **DRS** | **71M6** | 110 | 547 |
| **5.2** | 680 | 174.19 | 28900 | 4.0 | **KA** | **87** | **DRS** | **71M6** | 87 | 548 |
| | | | | | **KAF** | **87** | **DRS** | **71M6** | 100 | 547 |
| **5.9** | 600 | 154.02 | 19500 | 2.6 | **K** | **77** | **DRS** | **71M6** | 64 | 541 |
| **6.7** | 525 | 135.28 | 19600 | 2.9 | **KF** | **77** | **DRS** | **71M6** | 72 | 542 |
| **7.0** | 500 | 128.52 | 19700 | 3.1 | **KA** | **77** | **DRS** | **71M6** | 56 | 543 |
| **8.0** | 440 | 113.56 | 19800 | 3.5 | **KAF** | **77** | **DRS** | **71M6** | 64 | 542 |
| | | | | | **K** | **77** | **DRS** | **71S4** | 62 | 541 |
| **7.2** | 490 | 192.18 | 19700 | 3.0 | **KF** | **77** | **DRS** | **71S4** | 71 | 542 |
| **7.7** | 455 | 179.37 | 19800 | 3.2 | **KA** | **77** | **DRS** | **71S4** | 55 | 543 |
| **9.0** | 390 | 154.02 | 19900 | 3.9 | **KAF** | **77** | **DRS** | **71S4** | 63 | 542 |
| **7.3** | 480 | 123.54 | 12500 | 1.70 | **K** | **67** | **DRS** | **71M6** | 38 | 536 |
| **8.4** | 420 | 108.03 | 12700 | 1.95 | **KF** | **67** | **DRS** | **71M6** | 43 | 537 |
| **8.8** | 400 | 102.62 | 12800 | 2.0 | **KA** | **67** | **DRS** | **71M6** | 35 | 538 |
| **10** | 350 | 90.04 | 13000 | 2.3 | **KAF** | **67** | **DRS** | **71M6** | 41 | 537 |
| **9.5** | 370 | 144.79* | 12900 | 2.2 | | | | | | |
| **11** | 315 | 123.54 | 13000 | 2.6 | **K** | **67** | **DRS** | **71S4** | 36 | 536 |
| **13** | 275 | 108.03 | 13000 | 3.0 | **KF** | **67** | **DRS** | **71S4** | 42 | 537 |
| **15** | 230 | 90.04 | 13000 | 3.6 | **KA** | **67** | **DRS** | **71S4** | 34 | 538 |
| **18** | 196 | 76.37 | 13000 | 4.2 | **KAF** | **67** | **DRS** | **71S4** | 39 | 537 |
| **7.3** | 480 | 123.85 | 8500 | 1.25 | | | | | | |
| **8.4** | 420 | 108.29 | 8780 | 1.40 | **K** | **57** | **DRS** | **71M6** | 32 | 531 |
| **8.8** | 400 | 102.88* | 8880 | 1.50 | **KF** | **57** | **DRS** | **71M6** | 37 | 532 |
| **10** | 350 | 90.26* | 9080 | 1.70 | **KA** | **57** | **DRS** | **71M6** | 30 | 533 |
| **12** | 295 | 76.56* | 9290 | 2.0 | **KAF** | **57** | **DRS** | **71M6** | 35 | 532 |
| **13** | 265 | 69.12 | 9400 | 2.2 | | | | | | |
| **9.5** | 370 | 145.14* | 9000 | 1.60 | | | | | | |
| **11** | 315 | 123.85 | 9220 | 1.90 | | | | | | |
| **13** | 275 | 108.29 | 9370 | 2.2 | **K** | **57** | **DRS** | **71S4** | 31 | 531 |
| **13** | 260 | 102.88* | 9420 | 2.3 | **KF** | **57** | **DRS** | **71S4** | 35 | 532 |
| **15** | 230 | 90.26* | 9530 | 2.6 | **KA** | **57** | **DRS** | **71S4** | 28 | 533 |
| **18** | 196 | 76.56* | 9640 | 3.1 | **KAF** | **57** | **DRS** | **71S4** | 34 | 532 |
| **20** | 177 | 69.12 | 9700 | 3.4 | | | | | | |
| **8.7** | 405 | 104.37 | 5720 | 1.00 | **K** | **47** | **DRS** | **71M6** | 26 | 526 |
| **10.0** | 350 | 90.86 | 6500 | 1.15 | **KF** | **47** | **DRS** | **71M6** | 29 | 527 |
| **11** | 330 | 85.12* | 6750 | 1.20 | **KA** | **47** | **DRS** | **71M6** | 25 | 528 |
| **12** | 290 | 75.20* | 7120 | 1.35 | **KAF** | **47** | **DRS** | **71M6** | 28 | 527 |
| | | | | | **K** | **47** | **DRS** | **71S4** | 25 | 526 |
| **10** | 335 | 131.87* | 6690 | 1.20 | **KF** | **47** | **DRS** | **71S4** | 28 | 527 |
| **11** | 310 | 121.48* | 6960 | 1.30 | **KA** | **47** | **DRS** | **71S4** | 24 | 528 |
| **13** | 265 | 104.37 | 7330 | 1.50 | **KAF** | **47** | **DRS** | **71S4** | 27 | 527 |
| **15** | 230 | 90.86 | 7580 | 1.70 | | | | | | |
| **16** | 215 | 85.12* | 7670 | 1.85 | **K** | **47** | **DRS** | **71S4** | 25 | 526 |
| **18** | 192 | 75.20* | 7810 | 2.1 | **KF** | **47** | **DRS** | **71S4** | 28 | 527 |
| **20** | 179 | 69.84 | 7880 | 2.2 | **KA** | **47** | **DRS** | **71S4** | 24 | 528 |
| **22** | 162 | 63.30* | 7960 | 2.5 | **KAF** | **47** | **DRS** | **71S4** | 27 | 527 |



21284997/EN – 03/2015

## $P_m$ = 0.37 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **14** | 250 | 97.81 | 2520 | 0.80 | | | | | | |
| **16** | 210 | 83.69 | 5470 | 0.95 | | | | | | |
| **19** | 186 | 72.54 | 5690 | 1.10 | | | | | | |
| **20** | 174 | 67.80 | 5630 | 1.15 | | | | | | |
| **24** | 150 | 58.60 | 5500 | 1.35 | | | | | | |
| **28** | 128 | 49.79 | 5350 | 1.55 | **K** | **37** | **DRS** | **71S4** | 19 | 521 |
| **31** | 114 | 44.46 | 5230 | 1.75 | **KF** | **37** | **DRS** | **71S4** | 21 | 522 |
| **36** | 97 | 37.97 | 5060 | 2.1 | **KA** | **37** | **DRS** | **71S4** | 18 | 523 |
| **39** | 91 | 35.57 | 4990 | 2.2 | **KAF** | **37** | **DRS** | **71S4** | 20 | 522 |
| **46** | 77 | 29.96 | 4800 | 2.6 | | | | | | |
| **48** | 74 | 28.83 | 4750 | 2.7 | | | | | | |
| **55** | 64 | 24.99 | 4590 | 3.1 | | | | | | |
| **59** | 60 | 23.36 | 4510 | 3.3 | | | | | | |
| **68** | 52 | 20.19 | 4350 | 3.6 | | | | | | |
| **80** | 44 | 17.15 | 4160 | 4.1 | | | | | | |
| **25** | 124 | 54.89 | 5000 | 1.05 | | | | | | |
| **27** | 113 | 50.35 | 5030 | 1.15 | | | | | | |
| **32** | 95 | 42.87 | 5080 | 1.35 | | | | | | |
| **37** | 82 | 36.96 | 4990 | 1.50 | | | | | | |
| **46** | 65 | 30.11 | 4770 | 1.75 | **K** | **29** | **DRS** | **71S4** | 13 | 517 |
| **46** | 69 | 29.69 | 4780 | 1.85 | **KF** | **29** | **DRS** | **71S4** | 14 | 518 |
| **51** | 63 | 27.23 | 4680 | 2.0 | **KA** | **29** | **DRS** | **71S4** | 12 | 520 |
| **55** | 53 | 24.91 | 4560 | 2.0 | **KAF** | **29** | **DRS** | **71S4** | 13 | 518 |
| **60** | 54 | 23.19 | 4490 | 2.4 | | | | | | |
| **62** | 46 | 22.08 | 4430 | 2.3 | | | | | | |
| **69** | 46 | 19.99 | 4320 | 2.8 | | | | | | |
| **85** | 37 | 16.29 | 4090 | 3.5 | | | | | | |
| **40** | 74 | 34.29 | 4300 | 0.85 | | | | | | |
| **47** | 63 | 29.29 | 4200 | 0.95 | | | | | | |
| **51** | 58 | 27.16 | 4140 | 1.05 | | | | | | |
| **57** | 56 | 24.06 | 4080 | 1.45 | | | | | | |
| **63** | 51 | 21.98 | 4000 | 1.55 | | | | | | |
| **74** | 43 | 18.55 | 3830 | 1.85 | | | | | | |
| **87** | 36 | 15.84 | 3680 | 2.2 | | | | | | |
| **94** | 33 | 14.69 | 3610 | 2.4 | **K** | **19** | **DRS** | **71S4** | 11 | 513 |
| **109** | 29 | 12.70 | 3470 | 2.8 | **KF** | **19** | **DRS** | **71S4** | 11 | 514 |
| **117** | 27 | 11.84 | 3410 | 3.0 | **KA** | **19** | **DRS** | **71S4** | 11 | 516 |
| **134** | 23 | 10.32 | 3280 | 3.3 | **KAF** | **19** | **DRS** | **71S4** | 11 | 514 |
| **144** | 23 | 9.58 | 3250 | 2.8 | | | | | | |
| **171** | 19 | 8.09 | 3090 | 4.2 | | | | | | |
| **200** | 16 | 6.91 | 2950 | 5.0 | | | | | | |
| **215** | 15 | 6.41 | 2880 | 5.4 | | | | | | |
| **249** | 13 | 5.54 | 2760 | 6.3 | | | | | | |
| **267** | 12 | 5.16 | 2700 | 6.8 | | | | | | |
| **307** | 10 | 4.50 | 2580 | 7.8 | | | | | | |

## $P_m$ = 0.55 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **0.08** | 55000 | 16978 | 190000 | 0.90 | | | | | | |
| **0.10** | 46200 | 14272 | 190000 | 1.10 | | | | | | |
| **0.10** | 42000 | 13116 | 190000 | 1.20 | **K** | **187R97** | **DRS** | **71M4** | 1770 | 575 |
| **0.12** | 36600 | 11647 | 190000 | 1.35 | **KH** | **187R97** | **DRS** | **71M4** | 1700 | 575 |
| **0.19** | 23700 | 7343 | 190000 | 2.1 | | | | | | |
| **0.12** | 37400 | 11573 | 150000 | 0.85 | | | | | | |
| **0.13** | 33200 | 10264 | 150000 | 0.95 | | | | | | |
| **0.16** | 27900 | 8628 | 150000 | 1.15 | **K** | **167R97** | **DRS** | **71M4** | 1190 | 575 |
| **0.21** | 21200 | 6562 | 150000 | 1.50 | **KH** | **167R97** | **DRS** | **71M4** | 1150 | 575 |
| **0.25** | 16800 | 5355 | 150000 | 1.90 | | | | | | |
| **0.33** | 13000 | 4079 | 150000 | 2.4 | | | | | | |
| **0.20** | 22200 | 6881 | 109700 | 0.80 | **K** | **157R97** | **DRS** | **71M4** | 790 | 575 |
| **0.23** | 19200 | 5931 | 111600 | 0.95 | **KF** | **157R97** | **DRS** | **71M4** | 870 | 575 |
| **0.34** | 12800 | 3979 | 114400 | 1.40 | **KA** | **157R97** | **DRS** | **71M4** | 750 | 575 |
| **0.45** | 9870 | 3051 | 115300 | 1.80 | **KAF** | **157R97** | **DRS** | **71M4** | 810 | 575 |

21284997/EN – 03/2015

## $P_m$ = 0.55 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **0.31** | 14900 | 4423 | 76100 | 0.85 | | | | | | |
| **0.35** | 13000 | 3889 | 79100 | 1.00 | **K** | **127R77** | **DRS** | **71M4** | 475 | 575 |
| **0.41** | 11000 | 3311 | 80200 | 1.20 | **KF** | **127R77** | **DRS** | **71M4** | 520 | 575 |
| **0.45** | 9990 | 3009 | 80700 | 1.30 | **KA** | **127R77** | **DRS** | **71M4** | 445 | 575 |
| **0.52** | 8580 | 2607 | 81200 | 1.50 | **KAF** | **127R77** | **DRS** | **71M4** | 485 | 575 |
| **0.71** | 6620 | 1926 | 81900 | 1.95 | | | | | | |
| **0.77** | 6040 | 1757 | 82000 | 2.2 | **K** | **127R77** | **DRS** | **71M4** | 475 | 575 |
| **0.88** | 5260 | 1541 | 82200 | 2.5 | **KF** | **127R77** | **DRS** | **71M4** | 510 | 575 |
| **1.0** | 4610 | 1342 | 82400 | 2.8 | **KA** | **127R77** | **DRS** | **71M4** | 445 | 575 |
| **1.2** | 4020 | 1177 | 82500 | 3.2 | **KAF** | **127R77** | **DRS** | **71M4** | 480 | 575 |
| **1.3** | 3520 | 1025 | 82600 | 3.7 | | | | | | |
| **0.46** | 10100 | 2977 | 65000 | 0.80 | **K** | **107R77** | **DRS** | **71M4** | 315 | 575 |
| **0.52** | 8820 | 2599 | 65000 | 0.90 | **KF** | **107R77** | **DRS** | **71M4** | 325 | 575 |
| **0.59** | 7710 | 2286 | 65000 | 1.05 | **KA** | **107R77** | **DRS** | **71M4** | 285 | 575 |
| **0.70** | 6540 | 1939 | 65000 | 1.20 | **KAF** | **107R77** | **DRS** | **71M4** | 310 | 575 |
| **0.79** | 5910 | 1713 | 65000 | 1.35 | | | | | | |
| **0.87** | 5360 | 1554 | 65000 | 1.50 | | | | | | |
| **1.0** | 4610 | 1336 | 65000 | 1.75 | | | | | | |
| **1.2** | 4020 | 1166 | 65000 | 2.00 | **K** | **107R77** | **DRS** | **71M4** | 310 | 575 |
| **1.3** | 3460 | 1030 | 65000 | 2.3 | **KF** | **107R77** | **DRS** | **71M4** | 325 | 575 |
| **1.5** | 3010 | 904 | 65000 | 2.6 | **KA** | **107R77** | **DRS** | **71M4** | 285 | 575 |
| **1.7** | 2720 | 793 | 65000 | 2.9 | **KAF** | **107R77** | **DRS** | **71M4** | 310 | 575 |
| **2.0** | 2370 | 696 | 65000 | 3.4 | | | | | | |
| **2.2** | 2050 | 615 | 65000 | 3.9 | | | | | | |
| **0.95** | 4940 | 1430 | 40000 | 0.85 | | | | | | |
| **1.1** | 4430 | 1261 | 40000 | 0.95 | | | | | | |
| **1.2** | 3870 | 1102 | 40000 | 1.10 | | | | | | |
| **1.4** | 3390 | 957 | 40000 | 1.25 | | | | | | |
| **1.6** | 3030 | 855 | 40000 | 1.40 | **K** | **97R57** | **DRS** | **71M4** | 180 | 575 |
| **1.8** | 2540 | 743 | 40000 | 1.70 | **KF** | **97R57** | **DRS** | **71M4** | 200 | 575 |
| **2.1** | 2240 | 652 | 40000 | 1.90 | **KA** | **97R57** | **DRS** | **71M4** | 165 | 575 |
| **2.4** | 2010 | 573 | 40000 | 2.1 | **KAF** | **97R57** | **DRS** | **71M4** | 190 | 575 |
| **2.7** | 1720 | 504 | 40000 | 2.5 | | | | | | |
| **3.1** | 1480 | 437 | 40000 | 2.9 | | | | | | |
| **3.6** | 1320 | 382 | 40000 | 3.3 | | | | | | |
| **4.5** | 1060 | 305 | 40000 | 4.0 | | | | | | |
| **1.4** | 3300 | 951 | 26400 | 0.80 | | | | | | |
| **1.6** | 2890 | 837 | 27000 | 0.95 | | | | | | |
| **1.9** | 2510 | 726 | 27500 | 1.10 | | | | | | |
| **2.1** | 2210 | 638 | 27800 | 1.20 | | | | | | |
| **2.4** | 1940 | 562 | 28100 | 1.40 | | | | | | |
| **2.9** | 1630 | 474 | 28400 | 1.65 | **K** | **87R57** | **DRS** | **71M4** | 120 | 575 |
| **3.2** | 1470 | 426 | 28500 | 1.85 | **KF** | **87R57** | **DRS** | **71M4** | 130 | 575 |
| **3.6** | 1290 | 373 | 28600 | 2.1 | **KA** | **87R57** | **DRS** | **71M4** | 110 | 575 |
| **4.1** | 1120 | 330 | 28700 | 2.4 | **KAF** | **87R57** | **DRS** | **71M4** | 120 | 575 |
| **4.6** | 1000 | 294 | 28800 | 2.7 | | | | | | |
| **5.4** | 870 | 250 | 28800 | 3.1 | | | | | | |
| **5.8** | 820 | 236 | 28900 | 3.3 | | | | | | |
| **6.8** | 695 | 201 | 28900 | 3.9 | | | | | | |
| **2.8** | 1680 | 485 | 14300 | 0.90 | | | | | | |
| **3.2** | 1480 | 428 | 15800 | 1.05 | | | | | | |
| **3.7** | 1280 | 367 | 17000 | 1.20 | | | | | | |
| **4.2** | 1140 | 328 | 17700 | 1.35 | **K** | **77R37** | **DRS** | **71M4** | 73 | 575 |
| **4.7** | 1010 | 290 | 18200 | 1.50 | **KF** | **77R37** | **DRS** | **71M4** | 81 | 575 |
| **5.4** | 870 | 252 | 18700 | 1.75 | **KA** | **77R37** | **DRS** | **71M4** | 65 | 575 |
| **6.2** | 770 | 221 | 19100 | 2.0 | **KAF** | **77R37** | **DRS** | **71M4** | 73 | 575 |
| **7.0** | 680 | 195 | 19300 | 2.3 | | | | | | |
| **7.8** | 600 | 175 | 19500 | 2.6 | | | | | | |
| **8.8** | 530 | 154 | 19600 | 2.9 | | | | | | |
| **4.9** | 970 | 279 | 6400 | 0.85 | | | | | | |
| **5.5** | 850 | 246 | 9990 | 0.95 | | | | | | |
| **6.2** | 760 | 217 | 10800 | 1.10 | **K** | **67R37** | **DRS** | **71M4** | 49 | 575 |
| **7.1** | 665 | 191 | 11500 | 1.25 | **KF** | **67R37** | **DRS** | **71M4** | 54 | 575 |
| **8.2** | 575 | 166 | 12000 | 1.40 | **KA** | **67R37** | **DRS** | **71M4** | 46 | 575 |
| **9.4** | 505 | 144 | 12400 | 1.60 | **KAF** | **67R37** | **DRS** | **71M4** | 52 | 575 |
| **11** | 425 | 122 | 12700 | 1.90 | | | | | | |



21284997/EN – 03/2015

| $P_m$ = 0.55 kW | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
| **7.1** | 665 | 192 | 4080 | 0.90 | | | | | | |
| **8.2** | 575 | 166 | 7800 | 1.05 | **K** | **57R37** | **DRS** | **71M4** | 43 | 575 |
| **9.4** | 505 | 145 | 8360 | 1.20 | **KF** | **57R37** | **DRS** | **71M4** | 48 | 575 |
| **11** | 455 | 129 | 8630 | 1.30 | **KA** | **57R37** | **DRS** | **71M4** | 41 | 575 |
| **12** | 385 | 111 | 8930 | 1.55 | **KAF** | **57R37** | **DRS** | **71M4** | 47 | 575 |
| **14** | 340 | 97 | 9120 | 1.75 | | | | | | |
| **4.6** | 1130 | 197.37 | 28700 | 2.4 | **K** | **87** | **DRS** | **80S6** | 100 | 546 |
| **5.2** | 990 | 174.19 | 28800 | 2.7 | **KF** | **87** | **DRS** | **80S6** | 110 | 547 |
| **5.6** | 940 | 164.34* | 28800 | 2.9 | **KA** | **87** | **DRS** | **80S6** | 90 | 548 |
| **6.2** | 840 | 147.32* | 28900 | 3.2 | **KAF** | **87** | **DRS** | **80S6** | 105 | 547 |
| **5.9** | 880 | 154.02 | 18700 | 1.75 | **K** | **77** | **DRS** | **80S6** | 66 | 541 |
| **6.8** | 775 | 135.28 | 19100 | 2.0 | **KF** | **77** | **DRS** | **80S6** | 74 | 542 |
| **7.1** | 735 | 128.52 | 19200 | 2.1 | **KA** | **77** | **DRS** | **80S6** | 59 | 543 |
| **8.1** | 650 | 113.56 | 19400 | 2.4 | **KAF** | **77** | **DRS** | **80S6** | 66 | 542 |
| **8.8** | 590 | 154.02 | 19500 | 2.6 | | | | | | |
| **10** | 520 | 135.28 | 19700 | 3.0 | **K** | **77** | **DRS** | **71M4** | 64 | 541 |
| **11** | 495 | 128.52 | 19700 | 3.1 | **KF** | **77** | **DRS** | **71M4** | 72 | 542 |
| **12** | 435 | 113.56 | 19800 | 3.5 | **KA** | **77** | **DRS** | **71M4** | 56 | 543 |
| **14** | 370 | 97.05 | 19900 | 4.1 | **KAF** | **77** | **DRS** | **71M4** | 64 | 542 |
| **7.4** | 705 | 123.54 | 11200 | 1.15 | **K** | **67** | **DRS** | **80S6** | 40 | 536 |
| **8.5** | 620 | 108.03 | 11800 | 1.30 | **KF** | **67** | **DRS** | **80S6** | 46 | 537 |
| **8.9** | 585 | 102.62 | 12000 | 1.40 | **KA** | **67** | **DRS** | **80S6** | 37 | 538 |
| **10** | 515 | 90.04 | 12300 | 1.60 | **KAF** | **67** | **DRS** | **80S6** | 43 | 537 |
| | | | | | **K** | **67** | **DRS** | **80S6** | 40 | 536 |
| **12** | 435 | 76.37 | 12700 | 1.85 | **KF** | **67** | **DRS** | **80S6** | 46 | 537 |
| | | | | | **KA** | **67** | **DRS** | **80S6** | 37 | 538 |
| | | | | | **KAF** | **67** | **DRS** | **80S6** | 43 | 537 |
| **11** | 475 | 123.54 | 12500 | 1.70 | **K** | **67** | **DRS** | **71M4** | 38 | 536 |
| **13** | 415 | 108.03 | 12800 | 1.95 | **KF** | **67** | **DRS** | **71M4** | 43 | 537 |
| **15** | 345 | 90.04 | 13000 | 2.4 | **KA** | **67** | **DRS** | **71M4** | 35 | 538 |
| **18** | 290 | 76.37 | 13000 | 2.8 | **KAF** | **67** | **DRS** | **71M4** | 41 | 537 |
| **8.4** | 620 | 108.29 | 7450 | 0.95 | | | | | | |
| **8.9** | 590 | 102.88* | 7710 | 1.00 | | | | | | |
| **10** | 515 | 90.26* | 8280 | 1.15 | **K** | **57** | **DRS** | **80S6** | 34 | 531 |
| **12** | 435 | 76.56* | 8710 | 1.35 | **KF** | **57** | **DRS** | **80S6** | 39 | 532 |
| **13** | 395 | 69.12 | 8900 | 1.50 | **KA** | **57** | **DRS** | **80S6** | 32 | 533 |
| **15** | 345 | 60.81* | 9100 | 1.70 | **KAF** | **57** | **DRS** | **80S6** | 38 | 532 |
| **16** | 325 | 57.42* | 9170 | 1.80 | | | | | | |
| **11** | 475 | 123.85 | 8520 | 1.25 | | | | | | |
| **13** | 415 | 108.29 | 8800 | 1.45 | | | | | | |
| **13** | 395 | 102.88* | 8890 | 1.50 | **K** | **57** | **DRS** | **71M4** | 32 | 531 |
| **15** | 345 | 90.26* | 9100 | 1.70 | **KF** | **57** | **DRS** | **71M4** | 37 | 532 |
| **18** | 295 | 76.56* | 9300 | 2.0 | **KA** | **57** | **DRS** | **71M4** | 30 | 533 |
| **20** | 265 | 69.12 | 9410 | 2.2 | **KAF** | **57** | **DRS** | **71M4** | 35 | 532 |
| **22** | 230 | 60.81* | 9520 | 2.6 | | | | | | |
| **24** | 220 | 57.42* | 9560 | 2.7 | | | | | | |
| **13** | 400 | 104.37 | 5880 | 1.00 | | | | | | |
| **15** | 350 | 90.86 | 6550 | 1.15 | **K** | **47** | **DRS** | **71M4** | 26 | 526 |
| **16** | 325 | 85.12* | 6790 | 1.20 | **KF** | **47** | **DRS** | **71M4** | 29 | 527 |
| **18** | 290 | 75.20* | 7140 | 1.40 | **KA** | **47** | **DRS** | **71M4** | 25 | 528 |
| **19** | 265 | 69.84 | 7310 | 1.50 | **KAF** | **47** | **DRS** | **71M4** | 28 | 527 |
| **21** | 240 | 63.30* | 7500 | 1.65 | **K** | **47** | **DRS** | **71M4** | 26 | 526 |
| **24** | 215 | 56.83 | 7660 | 1.80 | **KF** | **47** | **DRS** | **71M4** | 29 | 527 |
| **28** | 189 | 48.95* | 7830 | 2.1 | **KA** | **47** | **DRS** | **71M4** | 25 | 528 |
| **30** | 178 | 46.03* | 7880 | 2.2 | **KAF** | **47** | **DRS** | **71M4** | 28 | 527 |

21284997/EN – 03/2015

## $P_m$ = 0.55 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **23** | 225 | 58.60 | 4840 | 0.90 | | | | | | |
| **27** | 192 | 49.79 | 4790 | 1.05 | | | | | | |
| **31** | 172 | 44.46 | 4740 | 1.15 | | | | | | |
| **36** | 147 | 37.97 | 4640 | 1.35 | | | | | | |
| **38** | 137 | 35.57 | 4600 | 1.45 | | | | | | |
| **45** | 116 | 29.96 | 4470 | 1.75 | **K** | **37** | **DRS** | **71M4** | 20 | 521 |
| **47** | 111 | 28.83 | 4440 | 1.80 | **KF** | **37** | **DRS** | **71M4** | 22 | 522 |
| **54** | 96 | 24.99 | 4320 | 2.1 | **KA** | **37** | **DRS** | **71M4** | 20 | 523 |
| **58** | 90 | 23.36 | 4260 | 2.2 | **KAF** | **37** | **DRS** | **71M4** | 21 | 522 |
| **67** | 78 | 20.19 | 4130 | 2.4 | | | | | | |
| **79** | 66 | 17.15 | 3980 | 2.7 | | | | | | |
| **89** | 59 | 15.31 | 3880 | 3.0 | | | | | | |
| **104** | 51 | 13.08 | 3730 | 3.3 | | | | | | |
| **112** | 47 | 12.14 | 3660 | 3.4 | | | | | | |
| **130** | 41 | 10.49 | 3520 | 4.0 | | | | | | |
| **32** | 146 | 42.87 | 4670 | 0.85 | | | | | | |
| **37** | 126 | 36.96 | 4580 | 0.95 | | | | | | |
| **45** | 101 | 30.11 | 4440 | 1.15 | | | | | | |
| **46** | 106 | 29.69 | 4480 | 1.20 | | | | | | |
| **50** | 97 | 27.23 | 4400 | 1.35 | | | | | | |
| **55** | 83 | 24.91 | 4290 | 1.30 | **K** | **29** | **DRS** | **71M4** | 14 | 517 |
| **59** | 82 | 23.19 | 4260 | 1.60 | **KF** | **29** | **DRS** | **71M4** | 15 | 518 |
| **62** | 73 | 22.08 | 4190 | 1.45 | **KA** | **29** | **DRS** | **71M4** | 14 | 520 |
| **68** | 70 | 19.99 | 4120 | 1.85 | **KAF** | **29** | **DRS** | **71M4** | 14 | 518 |
| **84** | 57 | 16.29 | 3930 | 2.3 | | | | | | |
| **101** | 46 | 13.47 | 3750 | 2.8 | | | | | | |
| **114** | 41 | 11.94 | 3640 | 3.2 | | | | | | |
| **137** | 36 | 9.90 | 3520 | 3.1 | | | | | | |
| **159** | 31 | 8.53 | 3380 | 4.0 | | | | | | |
| **57** | 85 | 24.06 | 3800 | 0.95 | | | | | | |
| **62** | 78 | 21.98 | 3740 | 1.05 | | | | | | |
| **73** | 65 | 18.55 | 3620 | 1.20 | | | | | | |
| **86** | 56 | 15.84 | 3500 | 1.45 | | | | | | |
| **93** | 51 | 14.69 | 3440 | 1.55 | | | | | | |
| **107** | 44 | 12.70 | 3330 | 1.80 | **K** | **19** | **DRS** | **71M4** | 12 | 513 |
| **115** | 41 | 11.84 | 3280 | 1.95 | **KF** | **19** | **DRS** | **71M4** | 13 | 514 |
| **132** | 36 | 10.32 | 3170 | 2.1 | **KA** | **19** | **DRS** | **71M4** | 12 | 516 |
| **142** | 35 | 9.58 | 3170 | 1.80 | **KAF** | **19** | **DRS** | **71M4** | 12 | 514 |
| **168** | 29 | 8.09 | 3020 | 2.8 | | | | | | |
| **197** | 25 | 6.91 | 2890 | 3.2 | | | | | | |
| **212** | 23 | 6.41 | 2830 | 3.5 | | | | | | |
| **246** | 20 | 5.54 | 2710 | 4.1 | | | | | | |
| **263** | 18 | 5.16 | 2660 | 4.4 | | | | | | |
| **302** | 16 | 4.50 | 2550 | 5.1 | | | | | | |

## $P_m$ = 0.75 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **0.11** | 55300 | 13116 | 190000 | 0.90 | | | | | | |
| **0.12** | 48400 | 11647 | 190000 | 1.05 | | | | | | |
| **0.20** | 31200 | 7343 | 190000 | 1.60 | **K** | **187R97** | **DRN** | **80M4** | 1770 | 575 |
| **0.21** | 28400 | 6747 | 190000 | 1.75 | **KH** | **187R97** | **DRN** | **80M4** | 1700 | 575 |
| **0.24** | 24900 | 5991 | 190000 | 2.0 | | | | | | |
| **0.17** | 36600 | 8628 | 150000 | 0.85 | | | | | | |
| **0.22** | 27900 | 6562 | 150000 | 1.15 | | | | | | |
| **0.27** | 22200 | 5355 | 150000 | 1.45 | **K** | **167R97** | **DRN** | **80M4** | 1190 | 575 |
| **0.35** | 17200 | 4079 | 150000 | 1.85 | **KH** | **167R97** | **DRN** | **80M4** | 1150 | 575 |
| **0.43** | 14300 | 3376 | 150000 | 2.2 | | | | | | |
| | | | | | **K** | **157R97** | **DRN** | **80M4** | 800 | 575 |
| **0.36** | 16900 | 3979 | 112700 | 1.05 | **KF** | **157R97** | **DRN** | **80M4** | 870 | 575 |
| **0.47** | 12900 | 3051 | 114400 | 1.40 | **KA** | **157R97** | **DRN** | **80M4** | 760 | 575 |
| | | | | | **KAF** | **157R97** | **DRN** | **80M4** | 820 | 575 |

## $P_m$ = 0.75 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | **K** | **157R97** | **DRN** | **80M4** | 790 | 575 |
| **0.87** | 7130 | 1659 | 116000 | 2.5 | **KF** | **157R97** | **DRN** | **80M4** | 870 | 575 |
| **1.0** | 5740 | 1365 | 116200 | 3.1 | **KA** | **157R97** | **DRN** | **80M4** | 760 | 575 |
| | | | | | **KAF** | **157R97** | **DRN** | **80M4** | 810 | 575 |
| | | | | | **K** | **127R77** | **DRN** | **80M4** | 480 | 575 |
| **0.43** | 14400 | 3311 | 77100 | 0.90 | **KF** | **127R77** | **DRN** | **80M4** | 520 | 575 |
| **0.48** | 13000 | 3009 | 79100 | 1.00 | **KA** | **127R77** | **DRN** | **80M4** | 450 | 575 |
| **0.55** | 11200 | 2607 | 80100 | 1.15 | **KAF** | **127R77** | **DRN** | **80M4** | 490 | 575 |
| **0.75** | 8610 | 1926 | 81200 | 1.50 | | | | | | |
| **0.82** | 7860 | 1757 | 81500 | 1.65 | | | | | | |
| | | | | | **K** | **127R77** | **DRN** | **80M4** | 475 | 575 |
| **0.93** | 6860 | 1541 | 81800 | 1.90 | **KF** | **127R77** | **DRN** | **80M4** | 520 | 575 |
| **1.1** | 6000 | 1342 | 82100 | 2.2 | **KA** | **127R77** | **DRN** | **80M4** | 450 | 575 |
| **1.2** | 5240 | 1177 | 82200 | 2.5 | **KAF** | **127R77** | **DRN** | **80M4** | 485 | 575 |
| **1.4** | 4580 | 1025 | 82400 | 2.8 | | | | | | |
| **1.6** | 4000 | 899 | 82500 | 3.2 | | | | | | |
| **0.84** | 7690 | 1713 | 65000 | 1.05 | | | | | | |
| **0.93** | 6980 | 1554 | 65000 | 1.15 | | | | | | |
| **1.1** | 5990 | 1336 | 65000 | 1.35 | | | | | | |
| **1.2** | 5230 | 1166 | 65000 | 1.55 | **K** | **107R77** | **DRN** | **80M4** | 315 | 575 |
| **1.4** | 4530 | 1030 | 65000 | 1.75 | **KF** | **107R77** | **DRN** | **80M4** | 330 | 575 |
| **1.6** | 3940 | 904 | 65000 | 2.0 | **KA** | **107R77** | **DRN** | **80M4** | 290 | 575 |
| **1.8** | 3540 | 793 | 65000 | 2.3 | **KAF** | **107R77** | **DRN** | **80M4** | 315 | 575 |
| **2.1** | 3090 | 696 | 65000 | 2.6 | | | | | | |
| **2.3** | 2680 | 615 | 65000 | 3.0 | | | | | | |
| **1.3** | 5010 | 1102 | 39900 | 0.85 | | | | | | |
| **1.5** | 4400 | 957 | 40000 | 1.00 | | | | | | |
| **1.7** | 3930 | 855 | 40000 | 1.10 | | | | | | |
| **1.9** | 3310 | 743 | 40000 | 1.30 | | | | | | |
| **2.2** | 2920 | 652 | 40000 | 1.45 | | | | | | |
| **2.5** | 2610 | 573 | 40000 | 1.65 | **K** | **97R57** | **DRN** | **80M4** | 185 | 575 |
| **2.9** | 2240 | 504 | 40000 | 1.90 | **KF** | **97R57** | **DRN** | **80M4** | 205 | 575 |
| **3.3** | 1930 | 437 | 40000 | 2.2 | **KA** | **97R57** | **DRN** | **80M4** | 170 | 575 |
| **3.8** | 1710 | 382 | 40000 | 2.5 | **KAF** | **97R57** | **DRN** | **80M4** | 195 | 575 |
| **4.7** | 1380 | 305 | 40000 | 3.1 | | | | | | |
| **5.6** | 1160 | 258 | 40000 | 3.7 | | | | | | |
| **6.2** | 1050 | 232 | 40000 | 4.1 | | | | | | |
| **7.2** | 890 | 199 | 40000 | 4.8 | | | | | | |
| **2.0** | 3260 | 726 | 26500 | 0.85 | | | | | | |
| **2.3** | 2870 | 638 | 27100 | 0.95 | | | | | | |
| **2.6** | 2520 | 562 | 27500 | 1.05 | | | | | | |
| **3.0** | 2120 | 474 | 27900 | 1.25 | | | | | | |
| **3.4** | 1910 | 426 | 28100 | 1.40 | **K** | **87R57** | **DRN** | **80M4** | 125 | 575 |
| **3.9** | 1680 | 373 | 28300 | 1.60 | **KF** | **87R57** | **DRN** | **80M4** | 135 | 575 |
| **4.4** | 1460 | 330 | 28500 | 1.85 | **KA** | **87R57** | **DRN** | **80M4** | 115 | 575 |
| **4.9** | 1310 | 294 | 28600 | 2.1 | **KAF** | **87R57** | **DRN** | **80M4** | 125 | 575 |
| **5.8** | 1130 | 250 | 28700 | 2.4 | | | | | | |
| **6.1** | 1070 | 236 | 28700 | 2.5 | | | | | | |
| **7.2** | 900 | 201 | 28800 | 3.0 | | | | | | |
| **3.9** | 1660 | 367 | 14500 | 0.95 | | | | | | |
| **4.4** | 1480 | 328 | 15800 | 1.05 | **K** | **77R37** | **DRN** | **80M4** | 78 | 575 |
| **5.0** | 1310 | 290 | 16800 | 1.20 | **KF** | **77R37** | **DRN** | **80M4** | 86 | 575 |
| **5.7** | 1130 | 252 | 17700 | 1.35 | **KA** | **77R37** | **DRN** | **80M4** | 70 | 575 |
| **6.5** | 1000 | 221 | 18300 | 1.55 | **KAF** | **77R37** | **DRN** | **80M4** | 78 | 575 |
| **7.3** | 980 | 197.37 | 28800 | 2.8 | **K** | **87** | **DRN** | **80M4** | 105 | 546 |
| **8.3** | 860 | 174.19 | 28800 | 3.1 | **KF** | **87** | **DRN** | **80M4** | 115 | 547 |
| **8.8** | 810 | 164.34* | 28900 | 3.3 | **KA** | **87** | **DRN** | **80M4** | 92 | 548 |
| **9.8** | 730 | 147.32* | 28900 | 3.7 | **KAF** | **87** | **DRN** | **80M4** | 105 | 547 |
| **9.4** | 765 | 154.02 | 19100 | 2.0 | | | | | | |
| **11** | 670 | 135.28 | 19300 | 2.3 | **K** | **77** | **DRN** | **80M4** | 68 | 541 |
| **11** | 635 | 128.52 | 19400 | 2.4 | **KF** | **77** | **DRN** | **80M4** | 77 | 542 |
| **13** | 560 | 113.56 | 19600 | 2.7 | **KA** | **77** | **DRN** | **80M4** | 61 | 543 |
| **15** | 480 | 97.05 | 19700 | 3.2 | **KAF** | **77** | **DRN** | **80M4** | 69 | 542 |
| | | | | | **K** | **67** | **DRN** | **80M4** | 43 | 536 |
| **12** | 610 | 123.54 | 11800 | 1.35 | **KF** | **67** | **DRN** | **80M4** | 48 | 537 |
| **13** | 535 | 108.03 | 12200 | 1.55 | **KA** | **67** | **DRN** | **80M4** | 40 | 538 |
| **16** | 445 | 90.04 | 12600 | 1.85 | **KAF** | **67** | **DRN** | **80M4** | 46 | 537 |

21284997/EN – 03/2015

## $P_m$ = 0.75 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **19** | 375 | 76.37 | 12900 | 2.2 | **K** | **67** | **DRN** | **80M4** | 43 | 536 |
| **21** | 340 | 68.95 | 13000 | 2.4 | **KF** | **67** | **DRN** | **80M4** | 48 | 537 |
| **24** | 300 | 60.66 | 13000 | 2.7 | **KA** | **67** | **DRN** | **80M4** | 40 | 538 |
| **25** | 280 | 57.28 | 13000 | 2.9 | **KAF** | **67** | **DRN** | **80M4** | 46 | 537 |
| **12** | 615 | 123.85 | 7500 | 0.95 | | | | | | |
| **13** | 535 | 108.29 | 8120 | 1.10 | | | | | | |
| **14** | 510 | 102.88* | 8330 | 1.15 | | | | | | |
| **16** | 445 | 90.26* | 8660 | 1.35 | **K** | **57** | **DRN** | **80M4** | 37 | 531 |
| **19** | 380 | 76.56* | 8960 | 1.60 | **KF** | **57** | **DRN** | **80M4** | 41 | 532 |
| **21** | 340 | 69.12 | 9120 | 1.75 | **KA** | **57** | **DRN** | **80M4** | 35 | 533 |
| **24** | 300 | 60.81* | 9280 | 2.00 | **KAF** | **57** | **DRN** | **80M4** | 40 | 532 |
| **25** | 285 | 57.42* | 9340 | 2.1 | | | | | | |
| **29** | 240 | 48.89 | 9490 | 2.5 | | | | | | |
| **32** | 220 | 44.43 | 9560 | 2.7 | | | | | | |
| **19** | 370 | 75.20* | 6270 | 1.05 | **K** | **47** | **DRN** | **80M4** | 31 | 526 |
| **21** | 345 | 69.84 | 6590 | 1.15 | **KF** | **47** | **DRN** | **80M4** | 34 | 527 |
| **23** | 310 | 63.30* | 6920 | 1.25 | **KA** | **47** | **DRN** | **80M4** | 30 | 528 |
| | | | | | **KAF** | **47** | **DRN** | **80M4** | 33 | 527 |
| **25** | 280 | 56.83 | 7210 | 1.40 | | | | | | |
| **29** | 240 | 48.95* | 7500 | 1.65 | **K** | **47** | **DRN** | **80M4** | 31 | 526 |
| **31** | 225 | 46.03* | 7600 | 1.75 | **KF** | **47** | **DRN** | **80M4** | 34 | 527 |
| **36** | 197 | 39.61 | 7790 | 2.0 | **KA** | **47** | **DRN** | **80M4** | 30 | 528 |
| **41** | 176 | 35.39 | 7690 | 2.3 | **KAF** | **47** | **DRN** | **80M4** | 33 | 527 |
| **46** | 156 | 31.30 | 7480 | 2.6 | | | | | | |
| **32** | 220 | 44.46 | 4170 | 0.90 | | | | | | |
| **38** | 189 | 37.97 | 4140 | 1.05 | | | | | | |
| **40** | 177 | 35.57 | 4130 | 1.15 | | | | | | |
| **48** | 149 | 29.96 | 4060 | 1.35 | | | | | | |
| **50** | 143 | 28.83 | 4040 | 1.40 | | | | | | |
| **58** | 124 | 24.99 | 3970 | 1.60 | | | | | | |
| **62** | 116 | 23.36 | 3930 | 1.70 | **K** | **37** | **DRN** | **80M4** | 24 | 521 |
| **71** | 100 | 20.19 | 3840 | 1.85 | **KF** | **37** | **DRN** | **80M4** | 27 | 522 |
| **84** | 85 | 17.15 | 3720 | 2.1 | **KA** | **37** | **DRN** | **80M4** | 24 | 523 |
| **94** | 76 | 15.31 | 3640 | 2.3 | **KAF** | **37** | **DRN** | **80M4** | 26 | 522 |
| **110** | 65 | 13.08 | 3520 | 2.5 | | | | | | |
| **119** | 60 | 12.14 | 3460 | 2.6 | | | | | | |
| **137** | 52 | 10.49 | 3340 | 3.1 | | | | | | |
| **162** | 44 | 8.91 | 3210 | 3.6 | | | | | | |
| **181** | 40 | 7.96 | 3120 | 3.9 | | | | | | |
| **48** | 132 | 30.11 | 4030 | 0.85 | | | | | | |
| **58** | 108 | 24.91 | 3940 | 1.00 | | | | | | |
| **62** | 107 | 23.19 | 3950 | 1.20 | | | | | | |
| **65** | 95 | 22.08 | 3870 | 1.10 | | | | | | |
| **72** | 92 | 19.99 | 3850 | 1.40 | | | | | | |
| **88** | 74 | 16.29 | 3700 | 1.75 | **K** | **29** | **DRN** | **80M4** | 19 | 517 |
| **107** | 61 | 13.47 | 3550 | 2.1 | **KF** | **29** | **DRN** | **80M4** | 20 | 518 |
| **121** | 53 | 11.94 | 3450 | 2.4 | **KA** | **29** | **DRN** | **80M4** | 18 | 520 |
| **146** | 46 | 9.90 | 3380 | 2.4 | **KAF** | **29** | **DRN** | **80M4** | 19 | 518 |
| **157** | 40 | 9.17 | 3240 | 3.2 | | | | | | |
| **169** | 40 | 8.53 | 3250 | 3.1 | | | | | | |
| **193** | 32 | 7.48 | 3070 | 3.8 | | | | | | |
| **207** | 32 | 6.95 | 3070 | 3.5 | | | | | | |
| **78** | 85 | 18.55 | 3340 | 0.95 | | | | | | |
| **91** | 72 | 15.84 | 3260 | 1.10 | | | | | | |
| **98** | 67 | 14.69 | 3210 | 1.20 | | | | | | |
| **113** | 57 | 12.70 | 3120 | 1.40 | | | | | | |
| **122** | 53 | 11.84 | 3080 | 1.50 | **K** | **19** | **DRN** | **80M4** | 17 | 513 |
| **140** | 46 | 10.32 | 2990 | 1.65 | **KF** | **19** | **DRN** | **80M4** | 17 | 514 |
| **178** | 38 | 8.09 | 2890 | 2.1 | **KA** | **19** | **DRN** | **80M4** | 16 | 516 |
| **208** | 32 | 6.91 | 2780 | 2.5 | **KAF** | **19** | **DRN** | **80M4** | 17 | 514 |
| **225** | 30 | 6.41 | 2720 | 2.7 | | | | | | |
| **260** | 26 | 5.54 | 2610 | 3.1 | | | | | | |
| **279** | 24 | 5.16 | 2560 | 3.4 | | | | | | |
| **320** | 21 | 4.50 | 2460 | 3.9 | | | | | | |



21284997/EN – 03/2015

## $P_m$ = 1.1 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **0.16** | 57100 | 9363 | 190000 | 0.85 | | | | | | |
| **0.18** | 48800 | 8126 | 190000 | 1.00 | | | | | | |
| **0.20** | 46400 | 7343 | 190000 | 1.10 | | | | | | |
| **0.22** | 42400 | 6747 | 190000 | 1.20 | **K** | **187R97** | **DRN** | **90S4** | 1780 | 575 |
| **0.24** | 37300 | 5991 | 190000 | 1.35 | **KH** | **187R97** | **DRN** | **90S4** | 1710 | 575 |
| **0.27** | 33000 | 5358 | 190000 | 1.50 | | | | | | |
| **0.30** | 29400 | 4817 | 190000 | 1.70 | | | | | | |
| **0.33** | 26600 | 4370 | 190000 | 1.85 | | | | | | |
| **0.27** | 33300 | 5355 | 150000 | 0.95 | | | | | | |
| **0.30** | 29500 | 4788 | 150000 | 1.10 | | | | | | |
| **0.36** | 25600 | 4079 | 150000 | 1.25 | **K** | **167R97** | **DRN** | **90S4** | 1190 | 575 |
| **0.43** | 21300 | 3376 | 150000 | 1.50 | **KH** | **167R97** | **DRN** | **90S4** | 1160 | 575 |
| **0.53** | 17100 | 2755 | 150000 | 1.85 | | | | | | |
| **0.67** | 13900 | 2182 | 150000 | 2.3 | | | | | | |
| **0.85** | 10800 | 1704 | 150000 | 3.0 | **K** | **167R97** | **DRN** | **90S4** | 1190 | 575 |
| **1.0** | 9000 | 1408 | 150000 | 3.6 | **KH** | **167R97** | **DRN** | **90S4** | 1150 | 575 |
| **1.1** | 8240 | 1296 | 150000 | 3.9 | | | | | | |
| **0.41** | 21600 | 3516 | 110100 | 0.85 | **K** | **157R97** | **DRN** | **90S4** | 800 | 575 |
| **0.48** | 19200 | 3051 | 111500 | 0.95 | **KF** | **157R97** | **DRN** | **90S4** | 880 | 575 |
| **0.56** | 15900 | 2610 | 113200 | 1.15 | **KA** | **157R97** | **DRN** | **90S4** | 760 | 575 |
| **0.63** | 14100 | 2322 | 113900 | 1.25 | **KAF** | **157R97** | **DRN** | **90S4** | 820 | 575 |
| **0.88** | 10600 | 1659 | 115100 | 1.70 | | | | | | |
| **1.1** | 8600 | 1365 | 115600 | 2.1 | **K** | **157R97** | **DRN** | **90S4** | 800 | 575 |
| **1.2** | 7670 | 1229 | 115900 | 2.4 | **KF** | **157R97** | **DRN** | **90S4** | 880 | 575 |
| **1.3** | 6820 | 1093 | 116000 | 2.6 | **KA** | **157R97** | **DRN** | **90S4** | 760 | 575 |
| **1.5** | 5880 | 942 | 116200 | 3.1 | **KAF** | **157R97** | **DRN** | **90S4** | 820 | 575 |
| **1.7** | 5270 | 854 | 116300 | 3.4 | | | | | | |
| **0.76** | 12600 | 1926 | 79400 | 1.05 | | | | | | |
| **0.83** | 11500 | 1757 | 80000 | 1.15 | | | | | | |
| **0.94** | 10000 | 1541 | 80600 | 1.30 | | | | | | |
| **1.1** | 8810 | 1342 | 81200 | 1.45 | | | | | | |
| **1.2** | 7700 | 1177 | 81600 | 1.70 | **K** | **127R77** | **DRN** | **90S4** | 480 | 575 |
| **1.4** | 6730 | 1025 | 81900 | 1.95 | **KF** | **127R77** | **DRN** | **90S4** | 520 | 575 |
| **1.6** | 5880 | 899 | 82100 | 2.2 | **KA** | **127R77** | **DRN** | **90S4** | 455 | 575 |
| **1.8** | 5060 | 790 | 82300 | 2.6 | **KAF** | **127R77** | **DRN** | **90S4** | 490 | 575 |
| **2.1** | 4580 | 704 | 82400 | 2.8 | | | | | | |
| **2.4** | 3940 | 610 | 82500 | 3.3 | | | | | | |
| **2.6** | 3560 | 549 | 82600 | 3.6 | | | | | | |
| **3.0** | 3060 | 477 | 82600 | 4.2 | | | | | | |
| **1.2** | 7680 | 1166 | 65000 | 1.05 | | | | | | |
| **1.4** | 6680 | 1030 | 65000 | 1.20 | | | | | | |
| **1.6** | 5840 | 904 | 65000 | 1.35 | | | | | | |
| **1.8** | 5200 | 793 | 65000 | 1.55 | | | | | | |
| **2.1** | 4550 | 696 | 65000 | 1.75 | **K** | **107R77** | **DRN** | **90S4** | 320 | 575 |
| **2.4** | 3970 | 615 | 65000 | 2.0 | **KF** | **107R77** | **DRN** | **90S4** | 335 | 575 |
| **2.8** | 3370 | 522 | 65000 | 2.4 | **KA** | **107R77** | **DRN** | **90S4** | 295 | 575 |
| **3.2** | 2960 | 461 | 65000 | 2.7 | **KAF** | **107R77** | **DRN** | **90S4** | 320 | 575 |
| **3.6** | 2610 | 408 | 65000 | 3.1 | | | | | | |
| **4.0** | 2360 | 364 | 65000 | 3.4 | | | | | | |
| **4.6** | 2070 | 318 | 65000 | 3.9 | | | | | | |
| **2.0** | 4870 | 743 | 40000 | 0.90 | | | | | | |
| **2.2** | 4280 | 652 | 40000 | 1.00 | | | | | | |
| **2.5** | 3830 | 573 | 40000 | 1.10 | **K** | **97R57** | **DRN** | **90S4** | 195 | 575 |
| **2.9** | 3300 | 504 | 40000 | 1.30 | **KF** | **97R57** | **DRN** | **90S4** | 215 | 575 |
| **3.3** | 2840 | 437 | 40000 | 1.50 | **KA** | **97R57** | **DRN** | **90S4** | 175 | 575 |
| **3.8** | 2510 | 382 | 40000 | 1.70 | **KAF** | **97R57** | **DRN** | **90S4** | 200 | 575 |
| **4.2** | 2220 | 342 | 40000 | 1.95 | | | | | | |
| **3.1** | 3120 | 474 | 26700 | 0.85 | | | | | | |
| **3.4** | 2800 | 426 | 27200 | 0.95 | | | | | | |
| **3.9** | 2470 | 373 | 27600 | 1.10 | **K** | **87R57** | **DRN** | **90S4** | 130 | 575 |
| **4.4** | 2160 | 330 | 27900 | 1.25 | **KF** | **87R57** | **DRN** | **90S4** | 140 | 575 |
| **5.0** | 1930 | 294 | 28100 | 1.40 | **KA** | **87R57** | **DRN** | **90S4** | 120 | 575 |
| **5.8** | 1660 | 250 | 28300 | 1.60 | **KAF** | **87R57** | **DRN** | **90S4** | 135 | 575 |
| **6.2** | 1570 | 236 | 28400 | 1.70 | | | | | | |
| **7.2** | 1330 | 201 | 28600 | 2.0 | | | | | | |

21284997/EN – 03/2015

## $P_m$ = 1.1 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **8.3** | 1270 | 176.05* | 40000 | 3.4 | **K** | **97** | **DRN** | **90S4** | 170 | 551 |
| **9.5** | 1100 | 153.21* | 40000 | 3.9 | **KF** | **97** | **DRN** | **90S4** | 190 | 552 |
| **10** | 1010 | 140.28 | 40000 | 4.2 | **KA** | **97** | **DRN** | **90S4** | 150 | 553 |
| | | | | | **KAF** | **97** | **DRN** | **90S4** | 175 | 552 |
| **8.4** | 1250 | 174.19 | 28600 | 2.2 | | | | | | |
| **8.8** | 1180 | 164.34* | 28700 | 2.3 | **K** | **87** | **DRN** | **90S4** | 110 | 546 |
| **9.9** | 1060 | 147.32* | 28800 | 2.5 | **KF** | **87** | **DRN** | **90S4** | 120 | 547 |
| **11** | 910 | 126.91* | 28800 | 3.0 | **KA** | **87** | **DRN** | **90S4** | 97 | 548 |
| **13** | 830 | 115.82 | 28900 | 3.2 | **KAF** | **87** | **DRN** | **90S4** | 110 | 547 |
| **11** | 970 | 135.28 | 18400 | 1.60 | **K** | **77** | **DRN** | **90S4** | 73 | 541 |
| **11** | 920 | 128.52 | 18600 | 1.65 | **KF** | **77** | **DRN** | **90S4** | 82 | 542 |
| **13** | 810 | 113.56 | 18900 | 1.90 | **KA** | **77** | **DRN** | **90S4** | 66 | 543 |
| | | | | | **KAF** | **77** | **DRN** | **90S4** | 74 | 542 |
| **15** | 700 | 97.05 | 19300 | 2.2 | **K** | **77** | **DRN** | **90S4** | 73 | 541 |
| **16** | 640 | 88.97 | 19400 | 2.4 | **KF** | **77** | **DRN** | **90S4** | 82 | 542 |
| **19** | 560 | 78.07 | 19600 | 2.8 | **KA** | **77** | **DRN** | **90S4** | 66 | 543 |
| **20** | 530 | 73.99 | 19600 | 2.9 | **KAF** | **77** | **DRN** | **90S4** | 74 | 542 |
| **13** | 775 | 108.03 | 10700 | 1.05 | | | | | | |
| **14** | 740 | 102.62 | 11000 | 1.10 | **K** | **67** | **DRN** | **90S4** | 49 | 536 |
| **16** | 650 | 90.04 | 11600 | 1.25 | **KF** | **67** | **DRN** | **90S4** | 54 | 537 |
| **19** | 550 | 76.37 | 12200 | 1.50 | **KA** | **67** | **DRN** | **90S4** | 46 | 538 |
| **21** | 495 | 68.95 | 12400 | 1.65 | **KAF** | **67** | **DRN** | **90S4** | 52 | 537 |
| **24** | 435 | 60.66 | 12700 | 1.85 | | | | | | |
| **25** | 410 | 57.28 | 12800 | 2.00 | **K** | **67** | **DRN** | **90S4** | 49 | 536 |
| **30** | 350 | 48.77 | 13000 | 2.3 | **KF** | **67** | **DRN** | **90S4** | 54 | 537 |
| **33** | 315 | 44.32 | 13000 | 2.6 | **KA** | **67** | **DRN** | **90S4** | 46 | 538 |
| **38** | 275 | 38.39 | 13000 | 2.9 | **KAF** | **67** | **DRN** | **90S4** | 52 | 537 |
| **16** | 650 | 90.26* | 6280 | 0.90 | | | | | | |
| **19** | 550 | 76.56* | 8010 | 1.10 | | | | | | |
| **21** | 495 | 69.12 | 8420 | 1.20 | **K** | **57** | **DRN** | **90S4** | 43 | 531 |
| **24** | 435 | 60.81* | 8710 | 1.35 | **KF** | **57** | **DRN** | **90S4** | 48 | 532 |
| **25** | 410 | 57.42* | 8820 | 1.45 | **KA** | **57** | **DRN** | **90S4** | 41 | 533 |
| **30** | 350 | 48.89 | 9080 | 1.70 | **KAF** | **57** | **DRN** | **90S4** | 47 | 532 |
| **33** | 320 | 44.43 | 9210 | 1.85 | | | | | | |
| **38** | 275 | 38.49 | 9370 | 2.2 | | | | | | |
| **41** | 255 | 35.70 | 9440 | 2.3 | | | | | | |
| **48** | 215 | 30.28 | 9570 | 2.7 | | | | | | |
| **53** | 197 | 27.34 | 9430 | 3.0 | | | | | | |
| **60** | 174 | 24.05 | 9130 | 3.5 | | | | | | |
| **64** | 164 | 22.71 | 9000 | 3.7 | | | | | | |
| **75** | 140 | 19.34 | 8640 | 4.1 | | | | | | |
| **83** | 127 | 17.57 | 8420 | 4.4 | **K** | **57** | **DRN** | **90S4** | 43 | 531 |
| **96** | 110 | 15.22 | 8100 | 4.9 | **KF** | **57** | **DRN** | **90S4** | 48 | 532 |
| **110** | 96 | 13.25 | 7790 | 5.3 | **KA** | **57** | **DRN** | **90S4** | 41 | 533 |
| **122** | 86 | 11.92 | 7490 | 4.8 | **KAF** | **57** | **DRN** | **90S4** | 47 | 532 |
| **129** | 81 | 11.26 | 7370 | 5.1 | | | | | | |
| **152** | 69 | 9.59 | 7040 | 5.8 | | | | | | |
| **167** | 63 | 8.71 | 6850 | 6.2 | | | | | | |
| **193** | 54 | 7.55 | 6570 | 6.7 | | | | | | |
| **222** | 47 | 6.57 | 6310 | 7.3 | | | | | | |
| **310** | 34 | 4.69 | 5700 | 8.9 | | | | | | |
| **26** | 410 | 56.83 | 5430 | 0.95 | **K** | **47** | **DRN** | **90S4** | 37 | 526 |
| **30** | 350 | 48.95* | 6520 | 1.15 | **KF** | **47** | **DRN** | **90S4** | 40 | 527 |
| **32** | 330 | 46.03* | 6750 | 1.20 | **KA** | **47** | **DRN** | **90S4** | 36 | 528 |
| | | | | | **KAF** | **47** | **DRN** | **90S4** | 39 | 527 |
| **37** | 285 | 39.61 | 7160 | 1.40 | | | | | | |
| **41** | 255 | 35.39 | 7050 | 1.55 | | | | | | |
| **46** | 225 | 31.30 | 6920 | 1.75 | **K** | **47** | **DRN** | **90S4** | 37 | 526 |
| **50** | 210 | 29.32 | 6840 | 1.90 | **KF** | **47** | **DRN** | **90S4** | 40 | 527 |
| **56** | 187 | 25.91 | 6690 | 2.1 | **KA** | **47** | **DRN** | **90S4** | 36 | 528 |
| **67** | 157 | 21.81 | 6460 | 2.5 | **KAF** | **47** | **DRN** | **90S4** | 39 | 527 |
| **74** | 141 | 19.58 | 6310 | 2.8 | | | | | | |



21284997/EN – 03/2015

## $P_m$ = 1.1 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **49** | 215 | 29.96 | 3430 | 0.90 | | | | | | |
| **58** | 180 | 24.99 | 3440 | 1.10 | | | | | | |
| **62** | 169 | 23.36 | 3430 | 1.15 | | | | | | |
| **72** | 146 | 20.19 | 3410 | 1.25 | | | | | | |
| **85** | 124 | 17.15 | 3360 | 1.45 | | | | | | |
| **95** | 111 | 15.31 | 3310 | 1.60 | **K** | **37** | **DRN** | **90S4** | 30 | 521 |
| **111** | 94 | 13.08 | 3240 | 1.75 | **KF** | **37** | **DRN** | **90S4** | 33 | 522 |
| **120** | 88 | 12.14 | 3200 | 1.85 | **KA** | **37** | **DRN** | **90S4** | 30 | 523 |
| **139** | 76 | 10.49 | 3120 | 2.1 | **KAF** | **37** | **DRN** | **90S4** | 32 | 522 |
| **163** | 64 | 8.91 | 3020 | 2.5 | | | | | | |
| **183** | 57 | 7.96 | 2950 | 2.7 | | | | | | |
| **214** | 49 | 6.80 | 2850 | 3.1 | | | | | | |
| **229** | 46 | 6.37 | 2800 | 3.2 | | | | | | |
| **271** | 39 | 5.36 | 2690 | 3.6 | | | | | | |
| **366** | 29 | 3.98 | 2490 | 4.4 | | | | | | |
| **63** | 156 | 23.19 | 3490 | 0.85 | | | | | | |
| **73** | 134 | 19.99 | 3450 | 0.95 | | | | | | |
| **89** | 109 | 16.29 | 3370 | 1.20 | | | | | | |
| **108** | 89 | 13.47 | 3280 | 1.45 | | | | | | |
| **122** | 79 | 11.94 | 3210 | 1.65 | **K** | **29** | **DRN** | **90S4** | 25 | 517 |
| **147** | 68 | 9.90 | 3230 | 1.60 | **KF** | **29** | **DRN** | **90S4** | 26 | 518 |
| **159** | 60 | 9.17 | 3050 | 2.2 | **KA** | **29** | **DRN** | **90S4** | 24 | 520 |
| **171** | 58 | 8.53 | 3120 | 2.1 | **KAF** | **29** | **DRN** | **90S4** | 25 | 518 |
| **195** | 48 | 7.48 | 2920 | 2.6 | | | | | | |
| **209** | 47 | 6.95 | 2960 | 2.4 | | | | | | |
| **253** | 39 | 5.75 | 2810 | 2.9 | | | | | | |
| **285** | 34 | 5.10 | 2720 | 3.2 | | | | | | |
| **115** | 84 | 12.70 | 2840 | 0.95 | | | | | | |
| **123** | 78 | 11.84 | 2810 | 1.00 | | | | | | |
| **141** | 68 | 10.32 | 2750 | 1.10 | | | | | | |
| **180** | 55 | 8.09 | 2740 | 1.45 | **K** | **19** | **DRN** | **90S4** | 23 | 513 |
| **211** | 47 | 6.91 | 2650 | 1.70 | **KF** | **19** | **DRN** | **90S4** | 23 | 514 |
| **227** | 43 | 6.41 | 2600 | 1.85 | **KA** | **19** | **DRN** | **90S4** | 22 | 516 |
| **263** | 37 | 5.54 | 2510 | 2.1 | **KAF** | **19** | **DRN** | **90S4** | 23 | 514 |
| **282** | 35 | 5.16 | 2460 | 2.3 | | | | | | |
| **323** | 30 | 4.50 | 2380 | 2.6 | | | | | | |

## $P_m$ = 1.5 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **0.22** | 58500 | 6747 | 190000 | 0.85 | | | | | | |
| **0.24** | 51600 | 5991 | 190000 | 0.95 | | | | | | |
| **0.27** | 45800 | 5358 | 190000 | 1.10 | **K** | **187R97** | **DRN** | **90L4** | 1780 | 575 |
| **0.30** | 40800 | 4817 | 190000 | 1.20 | **KH** | **187R97** | **DRN** | **90L4** | 1710 | 575 |
| **0.33** | 37100 | 4370 | 190000 | 1.35 | | | | | | |
| **0.40** | 31800 | 3609 | 190000 | 1.55 | | | | | | |
| **0.48** | 26900 | 3062 | 190000 | 1.85 | **K** | **187R97** | **DRN** | **90L4** | 1780 | 575 |
| **0.58** | 21900 | 2519 | 190000 | 2.3 | **KH** | **187R97** | **DRN** | **90L4** | 1710 | 575 |
| **0.64** | 19600 | 2268 | 190000 | 2.6 | | | | | | |
| **0.36** | 35300 | 4079 | 150000 | 0.90 | | | | | | |
| **0.43** | 29300 | 3376 | 150000 | 1.10 | **K** | **167R97** | **DRN** | **90L4** | 1200 | 575 |
| **0.53** | 23700 | 2755 | 150000 | 1.35 | **KH** | **167R97** | **DRN** | **90L4** | 1160 | 575 |
| **0.67** | 19200 | 2182 | 150000 | 1.65 | | | | | | |
| **0.86** | 14900 | 1704 | 150000 | 2.1 | **K** | **167R97** | **DRN** | **90L4** | 1190 | 575 |
| **1.0** | 12400 | 1408 | 150000 | 2.6 | **KH** | **167R97** | **DRN** | **90L4** | 1160 | 575 |
| **1.1** | 11300 | 1296 | 150000 | 2.8 | | | | | | |
| | | | | | **K** | **157R97** | **DRN** | **90L4** | 800 | 575 |
| **0.63** | 19700 | 2322 | 111300 | 0.90 | **KF** | **157R97** | **DRN** | **90L4** | 880 | 575 |
| | | | | | **KA** | **157R97** | **DRN** | **90L4** | 770 | 575 |
| | | | | | **KAF** | **157R97** | **DRN** | **90L4** | 830 | 575 |

21284997/EN – 03/2015

## $P_m$ = 1.5 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **0.88** | 14600 | 1659 | 113700 | 1.25 | | | | | | |
| **1.1** | 11900 | 1365 | 114700 | 1.50 | | | | | | |
| **1.2** | 10600 | 1229 | 115100 | 1.70 | **K** | **157R97** | **DRN** | **90L4** | 800 | 575 |
| **1.3** | 9460 | 1093 | 115400 | 1.90 | **KF** | **157R97** | **DRN** | **90L4** | 880 | 575 |
| **1.6** | 8150 | 942 | 115700 | 2.2 | **KA** | **157R97** | **DRN** | **90L4** | 760 | 575 |
| **1.7** | 7330 | 854 | 115900 | 2.4 | **KAF** | **157R97** | **DRN** | **90L4** | 820 | 575 |
| **2.6** | 4810 | 567 | 116300 | 3.7 | | | | | | |
| **2.9** | 4280 | 504 | 116400 | 4.2 | | | | | | |
| | | | | | **K** | **127R87** | **DRN** | **90L4** | 510 | 575 |
| **2.7** | 4640 | 536 | 82400 | 2.8 | **KF** | **127R87** | **DRN** | **90L4** | 550 | 575 |
| **3.5** | 3660 | 418 | 82600 | 3.6 | **KA** | **127R87** | **DRN** | **90L4** | 480 | 575 |
| **4.0** | 3220 | 367 | 82600 | 4.0 | **KAF** | **127R87** | **DRN** | **90L4** | 520 | 575 |
| **0.83** | 15700 | 1757 | 74400 | 0.80 | | | | | | |
| **0.95** | 13800 | 1541 | 78300 | 0.95 | | | | | | |
| **1.1** | 12000 | 1342 | 79700 | 1.10 | | | | | | |
| **1.2** | 10500 | 1177 | 80400 | 1.25 | | | | | | |
| **1.4** | 9200 | 1025 | 81000 | 1.40 | **K** | **127R77** | **DRN** | **90L4** | 485 | 575 |
| **1.6** | 8050 | 899 | 81400 | 1.60 | **KF** | **127R77** | **DRN** | **90L4** | 530 | 575 |
| **1.8** | 6970 | 790 | 81800 | 1.85 | **KA** | **127R77** | **DRN** | **90L4** | 455 | 575 |
| **2.1** | 6280 | 704 | 82000 | 2.1 | **KAF** | **127R77** | **DRN** | **90L4** | 495 | 575 |
| **2.4** | 5420 | 610 | 82200 | 2.4 | | | | | | |
| **2.7** | 4890 | 549 | 82300 | 2.7 | | | | | | |
| **3.1** | 4210 | 477 | 82500 | 3.1 | | | | | | |
| **3.5** | 3720 | 418 | 82500 | 3.5 | | | | | | |
| **1.4** | 9170 | 1030 | 65000 | 0.85 | | | | | | |
| **1.6** | 8020 | 904 | 65000 | 1.00 | | | | | | |
| **1.8** | 7120 | 793 | 65000 | 1.10 | | | | | | |
| **2.1** | 6230 | 696 | 65000 | 1.30 | **K** | **107R77** | **DRN** | **90L4** | 325 | 575 |
| **2.4** | 5460 | 615 | 65000 | 1.45 | **KF** | **107R77** | **DRN** | **90L4** | 335 | 575 |
| **2.8** | 4630 | 522 | 65000 | 1.75 | **KA** | **107R77** | **DRN** | **90L4** | 300 | 575 |
| **3.2** | 4070 | 461 | 65000 | 1.95 | **KAF** | **107R77** | **DRN** | **90L4** | 320 | 575 |
| **3.6** | 3600 | 408 | 65000 | 2.2 | | | | | | |
| **4.0** | 3240 | 364 | 65000 | 2.5 | | | | | | |
| **4.6** | 2830 | 318 | 65000 | 2.8 | | | | | | |
| **2.6** | 5220 | 573 | 39600 | 0.80 | | | | | | |
| **2.9** | 4510 | 504 | 40000 | 0.95 | | | | | | |
| **3.4** | 3900 | 437 | 40000 | 1.10 | | | | | | |
| **3.8** | 3440 | 382 | 40000 | 1.25 | **K** | **97R57** | **DRN** | **90L4** | 195 | 575 |
| **4.3** | 3040 | 342 | 40000 | 1.40 | **KF** | **97R57** | **DRN** | **90L4** | 215 | 575 |
| **4.8** | 2770 | 305 | 40000 | 1.55 | **KA** | **97R57** | **DRN** | **90L4** | 180 | 575 |
| **5.7** | 2340 | 258 | 40000 | 1.85 | **KAF** | **97R57** | **DRN** | **90L4** | 205 | 575 |
| **6.3** | 2100 | 232 | 40000 | 2.0 | | | | | | |
| **7.3** | 1800 | 199 | 40000 | 2.4 | | | | | | |
| **4.4** | 2950 | 330 | 27000 | 0.90 | | | | | | |
| **5.0** | 2650 | 294 | 27400 | 1.00 | **K** | **87R57** | **DRN** | **90L4** | 135 | 575 |
| **5.8** | 2270 | 250 | 27800 | 1.20 | **KF** | **87R57** | **DRN** | **90L4** | 145 | 575 |
| **6.2** | 2140 | 236 | 27900 | 1.25 | **KA** | **87R57** | **DRN** | **90L4** | 125 | 575 |
| **7.3** | 1820 | 201 | 28200 | 1.50 | **KAF** | **87R57** | **DRN** | **90L4** | 135 | 575 |
| **8.0** | 1650 | 183 | 28400 | 1.65 | | | | | | |
| **8.3** | 1720 | 176.05* | 40000 | 2.5 | **K** | **97** | **DRN** | **90L4** | 170 | 551 |
| **9.5** | 1500 | 153.21* | 40000 | 2.9 | **KF** | **97** | **DRN** | **90L4** | 190 | 552 |
| **10** | 1370 | 140.28 | 40000 | 3.1 | **KA** | **97** | **DRN** | **90L4** | 155 | 553 |
| **12** | 1210 | 123.93* | 40000 | 3.5 | **KAF** | **97** | **DRN** | **90L4** | 180 | 552 |
| **8.4** | 1700 | 174.19 | 28300 | 1.60 | | | | | | |
| **8.9** | 1610 | 164.34* | 28400 | 1.70 | | | | | | |
| **9.9** | 1440 | 147.32* | 28500 | 1.85 | **K** | **87** | **DRN** | **90L4** | 110 | 546 |
| **12** | 1240 | 126.91* | 28600 | 2.2 | **KF** | **87** | **DRN** | **90L4** | 120 | 547 |
| **13** | 1130 | 115.82 | 28700 | 2.4 | **KA** | **87** | **DRN** | **90L4** | 100 | 548 |
| **14** | 1000 | 102.71* | 28800 | 2.7 | **KAF** | **87** | **DRN** | **90L4** | 115 | 547 |
| **17** | 840 | 86.34 | 28900 | 3.2 | | | | | | |
| **11** | 1320 | 135.28 | 16800 | 1.15 | | | | | | |
| **11** | 1260 | 128.52 | 17100 | 1.25 | **K** | **77** | **DRN** | **90L4** | 77 | 541 |
| **13** | 1110 | 113.56 | 17800 | 1.40 | **KF** | **77** | **DRN** | **90L4** | 85 | 542 |
| **15** | 950 | 97.05 | 18500 | 1.65 | **KA** | **77** | **DRN** | **90L4** | 69 | 543 |
| **16** | 870 | 88.97 | 18800 | 1.80 | **KAF** | **77** | **DRN** | **90L4** | 77 | 542 |



21284997/EN – 03/2015

## $P_m$ = 1.5 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **19** | 765 | 78.07 | 19100 | 2.0 | | | | | | |
| **20** | 725 | 73.99 | 19200 | 2.1 | | | | | | |
| **23** | 630 | 64.75 | 19400 | 2.4 | **K** | **77** | **DRN** | **90L4** | 77 | 541 |
| **25** | 570 | 58.34 | 19600 | 2.7 | **KF** | **77** | **DRN** | **90L4** | 85 | 542 |
| **29** | 500 | 51.18 | 19700 | 3.1 | **KA** | **77** | **DRN** | **90L4** | 69 | 543 |
| **32** | 440 | 45.16 | 19800 | 3.5 | **KAF** | **77** | **DRN** | **90L4** | 77 | 542 |
| **36** | 390 | 40.04 | 19900 | 4.0 | | | | | | |
| **16** | 880 | 90.04 | 9710 | 0.95 | | | | | | |
| **19** | 745 | 76.37 | 10900 | 1.10 | **K** | **67** | **DRN** | **90L4** | 52 | 536 |
| **21** | 675 | 68.95 | 11400 | 1.20 | **KF** | **67** | **DRN** | **90L4** | 58 | 537 |
| **24** | 590 | 60.66 | 11900 | 1.40 | **KA** | **67** | **DRN** | **90L4** | 49 | 538 |
| **26** | 560 | 57.28 | 12100 | 1.45 | **KAF** | **67** | **DRN** | **90L4** | 55 | 537 |
| **30** | 475 | 48.77 | 12500 | 1.70 | | | | | | |
| **33** | 430 | 44.32 | 12700 | 1.90 | | | | | | |
| **38** | 375 | 38.39 | 12900 | 2.1 | **K** | **67** | **DRN** | **90L4** | 52 | 536 |
| **41** | 345 | 35.62 | 13000 | 2.4 | **KF** | **67** | **DRN** | **90L4** | 58 | 537 |
| **48** | 295 | 30.22 | 13000 | 2.8 | **KA** | **67** | **DRN** | **90L4** | 49 | 538 |
| **54** | 265 | 27.28 | 13000 | 3.1 | **KAF** | **67** | **DRN** | **90L4** | 55 | 537 |
| **61** | 235 | 24.00 | 13000 | 3.4 | | | | | | |
| **24** | 595 | 60.81* | 7660 | 1.00 | **K** | **57** | **DRN** | **90L4** | 46 | 531 |
| **25** | 560 | 57.42* | 7930 | 1.05 | **KF** | **57** | **DRN** | **90L4** | 51 | 532 |
| **30** | 475 | 48.89 | 8520 | 1.25 | **KA** | **57** | **DRN** | **90L4** | 44 | 533 |
| **33** | 435 | 44.43 | 8720 | 1.40 | **KAF** | **57** | **DRN** | **90L4** | 50 | 532 |
| **38** | 375 | 38.49 | 8980 | 1.60 | | | | | | |
| **41** | 350 | 35.70 | 9090 | 1.70 | | | | | | |
| **48** | 295 | 30.28 | 9130 | 2.0 | **K** | **57** | **DRN** | **90L4** | 46 | 531 |
| **53** | 265 | 27.34 | 8950 | 2.2 | **KF** | **57** | **DRN** | **90L4** | 51 | 532 |
| **61** | 235 | 24.05 | 8710 | 2.5 | **KA** | **57** | **DRN** | **90L4** | 44 | 533 |
| **64** | 220 | 22.71 | 8600 | 2.7 | **KAF** | **57** | **DRN** | **90L4** | 50 | 532 |
| **76** | 190 | 19.34 | 8300 | 3.0 | | | | | | |
| | | | | | **K** | **47** | **DRN** | **90L4** | 40 | 526 |
| **37** | 385 | 39.61 | 6080 | 1.05 | **KF** | **47** | **DRN** | **90L4** | 44 | 527 |
| **41** | 345 | 35.39 | 6340 | 1.15 | **KA** | **47** | **DRN** | **90L4** | 39 | 528 |
| **47** | 305 | 31.30 | 6290 | 1.30 | **KAF** | **47** | **DRN** | **90L4** | 42 | 527 |
| **50** | 285 | 29.32 | 6250 | 1.40 | | | | | | |
| **56** | 250 | 25.91 | 6160 | 1.55 | | | | | | |
| **67** | 210 | 21.81 | 6020 | 1.85 | | | | | | |
| **75** | 192 | 19.58 | 5920 | 2.1 | **K** | **47** | **DRN** | **90L4** | 40 | 526 |
| **87** | 165 | 16.86 | 5760 | 2.3 | **KF** | **47** | **DRN** | **90L4** | 44 | 527 |
| **92** | 155 | 15.86 | 5690 | 2.4 | **KA** | **47** | **DRN** | **90L4** | 39 | 528 |
| **107** | 134 | 13.65 | 5520 | 2.7 | **KAF** | **47** | **DRN** | **90L4** | 42 | 527 |
| **120** | 120 | 12.19 | 5390 | 2.9 | | | | | | |
| **124** | 115 | 11.77 | 5300 | 2.4 | | | | | | |
| **63** | 225 | 23.36 | 2880 | 0.85 | | | | | | |
| **72** | 198 | 20.19 | 2920 | 0.95 | | | | | | |
| **85** | 168 | 17.15 | 2950 | 1.05 | | | | | | |
| **95** | 150 | 15.31 | 2940 | 1.15 | | | | | | |
| **112** | 128 | 13.08 | 2920 | 1.30 | | | | | | |
| **120** | 119 | 12.14 | 2910 | 1.35 | **K** | **37** | **DRN** | **90L4** | 33 | 521 |
| **139** | 103 | 10.49 | 2870 | 1.55 | **KF** | **37** | **DRN** | **90L4** | 36 | 522 |
| **164** | 87 | 8.91 | 2810 | 1.85 | **KA** | **37** | **DRN** | **90L4** | 33 | 523 |
| **184** | 78 | 7.96 | 2760 | 2.00 | **KAF** | **37** | **DRN** | **90L4** | 35 | 522 |
| **215** | 67 | 6.80 | 2680 | 2.2 | | | | | | |
| **229** | 62 | 6.37 | 2650 | 2.3 | | | | | | |
| **272** | 53 | 5.36 | 2560 | 2.7 | | | | | | |
| **367** | 39 | 3.98 | 2400 | 3.2 | | | | | | |

21284997/EN – 03/2015

## $P_m$ = 1.5 kW

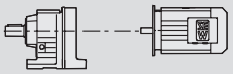
| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **90** | 149 | 16.29 | 3010 | 0.85 | | | | | | |
| **108** | 122 | 13.47 | 2980 | 1.05 | | | | | | |
| **122** | 108 | 11.94 | 2940 | 1.20 | | | | | | |
| **159** | 82 | 9.17 | 2850 | 1.60 | | | | | | |
| **171** | 80 | 8.53 | 2970 | 1.55 | **K** | **29** | **DRN** | **90L4** | 28 | 517 |
| **195** | 67 | 7.48 | 2750 | 1.85 | **KF** | **29** | **DRN** | **90L4** | 29 | 518 |
| **210** | 65 | 6.95 | 2840 | 1.75 | **KA** | **29** | **DRN** | **90L4** | 27 | 520 |
| **254** | 53 | 5.75 | 2710 | 2.1 | **KAF** | **29** | **DRN** | **90L4** | 28 | 518 |
| **287** | 47 | 5.10 | 2630 | 2.3 | | | | | | |
| **373** | 36 | 3.92 | 2460 | 3.5 | | | | | | |
| **458** | 29 | 3.19 | 2330 | 3.8 | | | | | | |

## $P_m$ = 2.2 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **0.33** | 56000 | 4370 | 190000 | 0.90 | **K** | **187R97** | **DRN** | **100LS4** | 1780 | 575 |
| **0.51** | 35200 | 2818 | 190000 | 1.40 | **KH** | **187R97** | **DRN** | **100LS4** | 1720 | 575 |
| **0.40** | 47600 | 3609 | 190000 | 1.05 | | | | | | |
| **0.47** | 40300 | 3062 | 190000 | 1.25 | | | | | | |
| **0.58** | 32900 | 2519 | 190000 | 1.50 | | | | | | |
| **0.64** | 29500 | 2268 | 190000 | 1.70 | **K** | **187R97** | **DRN** | **100LS4** | 1780 | 575 |
| **0.71** | 26600 | 2054 | 190000 | 1.90 | **KH** | **187R97** | **DRN** | **100LS4** | 1710 | 575 |
| **0.80** | 23400 | 1821 | 190000 | 2.1 | | | | | | |
| **0.90** | 20800 | 1605 | 190000 | 2.4 | | | | | | |
| **0.53** | 35600 | 2755 | 150000 | 0.90 | **K** | **167R97** | **DRN** | **100LS4** | 1200 | 575 |
| **0.64** | 28600 | 2263 | 150000 | 1.10 | **KH** | **167R97** | **DRN** | **100LS4** | 1160 | 575 |
| **0.66** | 28800 | 2182 | 150000 | 1.10 | | | | | | |
| **0.85** | 22400 | 1704 | 150000 | 1.45 | | | | | | |
| **1.0** | 18500 | 1408 | 150000 | 1.70 | **K** | **167R97** | **DRN** | **100LS4** | 1200 | 575 |
| **1.1** | 17000 | 1296 | 150000 | 1.90 | **KH** | **167R97** | **DRN** | **100LS4** | 1160 | 575 |
| **1.3** | 14100 | 1101 | 150000 | 2.3 | | | | | | |
| **1.5** | 12200 | 944 | 150000 | 2.6 | | | | | | |
| **0.87** | 21800 | 1659 | 110000 | 0.80 | | | | | | |
| **1.1** | 17800 | 1365 | 112300 | 1.00 | | | | | | |
| **1.2** | 16000 | 1229 | 113100 | 1.10 | **K** | **157R97** | **DRN** | **100LS4** | 800 | 575 |
| **1.3** | 14200 | 1093 | 113900 | 1.25 | **KF** | **157R97** | **DRN** | **100LS4** | 880 | 575 |
| **1.5** | 12200 | 942 | 114600 | 1.45 | **KA** | **157R97** | **DRN** | **100LS4** | 770 | 575 |
| **1.7** | 11000 | 854 | 115000 | 1.65 | **KAF** | **157R97** | **DRN** | **100LS4** | 830 | 575 |
| **1.9** | 9570 | 756 | 115400 | 1.90 | | | | | | |
| **2.7** | 6980 | 536 | 81800 | 1.85 | | | | | | |
| **3.1** | 6110 | 473 | 82000 | 2.1 | **K** | **127R87** | **DRN** | **100LS4** | 510 | 575 |
| **3.5** | 5500 | 418 | 82200 | 2.4 | **KF** | **127R87** | **DRN** | **100LS4** | 550 | 575 |
| **4.0** | 4830 | 367 | 82300 | 2.7 | **KA** | **127R87** | **DRN** | **100LS4** | 480 | 575 |
| **4.4** | 4320 | 330 | 82400 | 3.0 | **KAF** | **127R87** | **DRN** | **100LS4** | 520 | 575 |
| **1.4** | 13600 | 1025 | 78600 | 0.95 | | | | | | |
| **1.6** | 11900 | 899 | 79700 | 1.10 | | | | | | |
| **1.8** | 10400 | 790 | 80500 | 1.25 | **K** | **127R77** | **DRN** | **100LS4** | 490 | 575 |
| **2.1** | 9360 | 704 | 80900 | 1.40 | **KF** | **127R77** | **DRN** | **100LS4** | 530 | 575 |
| **2.4** | 8090 | 610 | 81400 | 1.60 | **KA** | **127R77** | **DRN** | **100LS4** | 460 | 575 |
| **2.6** | 7290 | 549 | 81700 | 1.80 | **KAF** | **127R77** | **DRN** | **100LS4** | 500 | 575 |
| **3.0** | 6300 | 477 | 82000 | 2.1 | | | | | | |
| **3.5** | 5550 | 418 | 82200 | 2.3 | | | | | | |
| **2.4** | 8150 | 615 | 65000 | 1.00 | | | | | | |
| **2.8** | 6910 | 522 | 65000 | 1.15 | | | | | | |
| **3.2** | 6080 | 461 | 65000 | 1.30 | **K** | **107R77** | **DRN** | **100LS4** | 330 | 575 |
| **3.6** | 5380 | 408 | 65000 | 1.50 | **KF** | **107R77** | **DRN** | **100LS4** | 340 | 575 |
| **4.0** | 4830 | 364 | 65000 | 1.65 | **KA** | **107R77** | **DRN** | **100LS4** | 300 | 575 |
| **4.6** | 4220 | 318 | 65000 | 1.90 | **KAF** | **107R77** | **DRN** | **100LS4** | 325 | 575 |
| **5.1** | 3800 | 286 | 65000 | 2.1 | | | | | | |
| **5.8** | 3330 | 251 | 65000 | 2.4 | | | | | | |



21284997/EN – 03/2015

| $P_m$ = 2.2 kW | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ |  | | | | m kg | |
| **3.8** | 5110 | 382 | 39800 | 0.85 | | | | | | |
| **4.2** | 4540 | 342 | 40000 | 0.95 | **K** | **97R57** | **DRN** | **100LS4** | 200 | 575 |
| **4.8** | 4120 | 305 | 40000 | 1.05 | **KF** | **97R57** | **DRN** | **100LS4** | 220 | 575 |
| **5.6** | 3470 | 258 | 40000 | 1.25 | **KA** | **97R57** | **DRN** | **100LS4** | 180 | 575 |
| **6.2** | 3130 | 232 | 40000 | 1.35 | **KAF** | **97R57** | **DRN** | **100LS4** | 205 | 575 |
| **7.3** | 2680 | 199 | 40000 | 1.60 | | | | | | |
| **8.2** | 2550 | 176.05* | 40000 | 1.70 | **K** | **97** | **DRN** | **100LS4** | 175 | 551 |
| **9.5** | 2210 | 153.21* | 40000 | 1.95 | **KF** | **97** | **DRN** | **100LS4** | 195 | 552 |
| **10** | 2030 | 140.28 | 40000 | 2.1 | **KA** | **97** | **DRN** | **100LS4** | 160 | 553 |
| **12** | 1790 | 123.93* | 40000 | 2.4 | **KAF** | **97** | **DRN** | **100LS4** | 185 | 552 |
| | | | | | **K** | **97** | **DRN** | **100LS4** | 175 | 551 |
| **14** | 1520 | 105.13 | 40000 | 2.8 | **KF** | **97** | **DRN** | **100LS4** | 195 | 552 |
| **15** | 1400 | 96.80 | 40000 | 3.1 | **KA** | **97** | **DRN** | **100LS4** | 160 | 553 |
| | | | | | **KAF** | **97** | **DRN** | **100LS4** | 185 | 552 |
| **9.8** | 2130 | 147.32* | 27900 | 1.25 | **K** | **87** | **DRN** | **100LS4** | 115 | 546 |
| **11** | 1830 | 126.91* | 28200 | 1.45 | **KF** | **87** | **DRN** | **100LS4** | 125 | 547 |
| **13** | 1670 | 115.82 | 28300 | 1.60 | **KA** | **87** | **DRN** | **100LS4** | 105 | 548 |
| | | | | | **KAF** | **87** | **DRN** | **100LS4** | 120 | 547 |
| **14** | 1480 | 102.71* | 28500 | 1.80 | | | | | | |
| **17** | 1250 | 86.34 | 28600 | 2.2 | **K** | **87** | **DRN** | **100LS4** | 115 | 546 |
| **18** | 1140 | 79.34 | 28700 | 2.4 | **KF** | **87** | **DRN** | **100LS4** | 125 | 547 |
| **21** | 1020 | 70.46 | 28800 | 2.6 | **KA** | **87** | **DRN** | **100LS4** | 105 | 548 |
| **23** | 910 | 63.00* | 28800 | 3.0 | **KAF** | **87** | **DRN** | **100LS4** | 120 | 547 |
| **13** | 1640 | 113.56 | 14700 | 0.95 | | | | | | |
| **15** | 1400 | 97.05 | 16300 | 1.10 | **K** | **77** | **DRN** | **100LS4** | 81 | 541 |
| **16** | 1280 | 88.97 | 17000 | 1.20 | **KF** | **77** | **DRN** | **100LS4** | 89 | 542 |
| **19** | 1130 | 78.07 | 17800 | 1.35 | **KA** | **77** | **DRN** | **100LS4** | 73 | 543 |
| **20** | 1070 | 73.99 | 18000 | 1.45 | **KAF** | **77** | **DRN** | **100LS4** | 81 | 542 |
| **22** | 930 | 64.75 | 18500 | 1.65 | | | | | | |
| **25** | 840 | 58.34 | 18800 | 1.85 | | | | | | |
| **28** | 740 | 51.18 | 19200 | 2.1 | | | | | | |
| **32** | 650 | 45.16 | 19400 | 2.4 | **K** | **77** | **DRN** | **100LS4** | 81 | 541 |
| **36** | 580 | 40.04 | 19500 | 2.7 | **KF** | **77** | **DRN** | **100LS4** | 89 | 542 |
| **41** | 505 | 35.20 | 19700 | 3.0 | **KA** | **77** | **DRN** | **100LS4** | 73 | 543 |
| **47** | 445 | 30.89 | 19800 | 3.5 | **KAF** | **77** | **DRN** | **100LS4** | 81 | 542 |
| **50** | 420 | 29.27 | 19800 | 3.7 | | | | | | |
| **57** | 370 | 25.62 | 19900 | 4.2 | | | | | | |
| **24** | 870 | 60.66 | 9750 | 0.95 | | | | | | |
| **25** | 820 | 57.28 | 10200 | 1.00 | | | | | | |
| **30** | 705 | 48.77 | 11200 | 1.15 | **K** | **67** | **DRN** | **100LS4** | 56 | 536 |
| **33** | 640 | 44.32 | 11600 | 1.30 | **KF** | **67** | **DRN** | **100LS4** | 61 | 537 |
| **38** | 555 | 38.39 | 12100 | 1.45 | **KA** | **67** | **DRN** | **100LS4** | 53 | 538 |
| **41** | 515 | 35.62 | 12300 | 1.60 | **KAF** | **67** | **DRN** | **100LS4** | 59 | 537 |
| **48** | 435 | 30.22 | 12700 | 1.85 | | | | | | |
| **53** | 395 | 27.28 | 12800 | 2.1 | | | | | | |
| **60** | 345 | 24.00 | 13000 | 2.3 | | | | | | |
| **64** | 325 | 22.66 | 13000 | 2.4 | | | | | | |
| **75** | 275 | 19.30 | 13000 | 2.7 | | | | | | |
| **83** | 250 | 17.54 | 13000 | 2.9 | | | | | | |
| **95** | 220 | 15.19 | 13000 | 3.2 | **K** | **67** | **DRN** | **100LS4** | 56 | 536 |
| **110** | 191 | 13.22 | 13000 | 3.5 | **KF** | **67** | **DRN** | **100LS4** | 61 | 537 |
| **116** | 181 | 12.48 | 13000 | 2.9 | **KA** | **67** | **DRN** | **100LS4** | 53 | 538 |
| **136** | 154 | 10.63 | 13000 | 3.2 | **KAF** | **67** | **DRN** | **100LS4** | 59 | 537 |
| **150** | 140 | 9.66 | 13000 | 3.4 | | | | | | |
| **173** | 121 | 8.37 | 13000 | 3.6 | | | | | | |
| **199** | 105 | 7.28 | 12700 | 4.0 | | | | | | |
| **279** | 75 | 5.20 | 11600 | 4.6 | | | | | | |
| **33** | 640 | 44.43 | 7040 | 0.95 | **K** | **57** | **DRN** | **100LS4** | 50 | 531 |
| **38** | 555 | 38.49 | 7970 | 1.10 | **KF** | **57** | **DRN** | **100LS4** | 55 | 532 |
| **41** | 515 | 35.70 | 8290 | 1.15 | **KA** | **57** | **DRN** | **100LS4** | 48 | 533 |
| **48** | 435 | 30.28 | 8230 | 1.35 | **KAF** | **57** | **DRN** | **100LS4** | 54 | 532 |

21284997/EN – 03/2015

## $P_m$ = 2.2 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **53** | 395 | 27.34 | 8140 | 1.50 | | | | | | |
| **60** | 345 | 24.05 | 8000 | 1.70 | | | | | | |
| **64** | 325 | 22.71 | 7930 | 1.80 | | | | | | |
| **75** | 280 | 19.34 | 7730 | 2.0 | **K** | **57** | **DRN** | **100LS4** | 50 | 531 |
| **83** | 250 | 17.57 | 7590 | 2.2 | **KF** | **57** | **DRN** | **100LS4** | 55 | 532 |
| **95** | 220 | 15.22 | 7380 | 2.4 | **KA** | **57** | **DRN** | **100LS4** | 48 | 533 |
| **109** | 192 | 13.25 | 7170 | 2.7 | **KAF** | **57** | **DRN** | **100LS4** | 54 | 532 |
| **122** | 173 | 11.92 | 6850 | 2.4 | | | | | | |
| **129** | 163 | 11.26 | 6770 | 2.5 | | | | | | |
| **56** | 375 | 25.91 | 5260 | 1.05 | **K** | **47** | **DRN** | **100LS4** | 44 | 526 |
| **66** | 315 | 21.81 | 5260 | 1.25 | **KF** | **47** | **DRN** | **100LS4** | 47 | 527 |
| **74** | 280 | 19.58 | 5240 | 1.40 | **KA** | **47** | **DRN** | **100LS4** | 43 | 528 |
| | | | | | **KAF** | **47** | **DRN** | **100LS4** | 46 | 527 |
| **86** | 240 | 16.86 | 5180 | 1.55 | | | | | | |
| **91** | 225 | 15.86 | 5140 | 1.65 | | | | | | |
| **106** | 198 | 13.65 | 5050 | 1.80 | **K** | **47** | **DRN** | **100LS4** | 44 | 526 |
| **119** | 177 | 12.19 | 4970 | 2.00 | **KF** | **47** | **DRN** | **100LS4** | 47 | 527 |
| **123** | 170 | 11.77 | 4870 | 1.65 | **KA** | **47** | **DRN** | **100LS4** | 43 | 528 |
| **137** | 153 | 10.56 | 4790 | 1.85 | **KAF** | **47** | **DRN** | **100LS4** | 46 | 527 |
| **159** | 132 | 9.10 | 4660 | 2.1 | | | | | | |
| **111** | 190 | 13.08 | 2380 | 0.85 | | | | | | |
| **138** | 152 | 10.49 | 2430 | 1.05 | | | | | | |
| **163** | 129 | 8.91 | 2440 | 1.25 | **K** | **37** | **DRN** | **100LS4** | 37 | 521 |
| **182** | 115 | 7.96 | 2430 | 1.35 | **KF** | **37** | **DRN** | **100LS4** | 40 | 522 |
| **213** | 98 | 6.80 | 2400 | 1.50 | **KA** | **37** | **DRN** | **100LS4** | 37 | 523 |
| **228** | 92 | 6.37 | 2390 | 1.55 | **KAF** | **37** | **DRN** | **100LS4** | 39 | 522 |
| **270** | 78 | 5.36 | 2340 | 1.80 | | | | | | |
| **364** | 58 | 3.98 | 2240 | 2.2 | | | | | | |

## $P_m$ = 3.0 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **0.52** | 48700 | 2818 | 190000 | 1.05 | **K** | **187R97** | **DRN** | **100L4** | 1790 | 575 |
| | | | | | **KH** | **187R97** | **DRN** | **100L4** | 1720 | 575 |
| **0.48** | 55100 | 3062 | 190000 | 0.90 | | | | | | |
| **0.58** | 45100 | 2519 | 190000 | 1.10 | | | | | | |
| **0.64** | 40500 | 2268 | 190000 | 1.25 | | | | | | |
| **0.71** | 36500 | 2054 | 190000 | 1.35 | **K** | **187R97** | **DRN** | **100L4** | 1790 | 575 |
| **0.80** | 32200 | 1821 | 190000 | 1.55 | **KH** | **187R97** | **DRN** | **100L4** | 1720 | 575 |
| **0.91** | 28500 | 1605 | 190000 | 1.75 | | | | | | |
| **1.0** | 24400 | 1395 | 190000 | 2.0 | | | | | | |
| **1.2** | 21100 | 1196 | 190000 | 2.4 | | | | | | |
| **0.85** | 30600 | 1704 | 150000 | 1.05 | | | | | | |
| **1.0** | 25300 | 1408 | 150000 | 1.25 | | | | | | |
| **1.1** | 23300 | 1296 | 150000 | 1.35 | | | | | | |
| **1.3** | 19500 | 1101 | 150000 | 1.65 | **K** | **167R97** | **DRN** | **100L4** | 1210 | 575 |
| **1.5** | 16800 | 944 | 150000 | 1.90 | **KH** | **167R97** | **DRN** | **100L4** | 1170 | 575 |
| **1.7** | 14700 | 843 | 150000 | 2.2 | | | | | | |
| **1.9** | 13300 | 757 | 150000 | 2.4 | | | | | | |
| **1.2** | 21900 | 1229 | 109900 | 0.80 | | | | | | |
| **1.3** | 19500 | 1093 | 111400 | 0.90 | | | | | | |
| **1.5** | 16800 | 942 | 112800 | 1.05 | **K** | **157R97** | **DRN** | **100L4** | 810 | 575 |
| **1.7** | 15200 | 854 | 113500 | 1.20 | **KF** | **157R97** | **DRN** | **100L4** | 890 | 575 |
| **1.9** | 13200 | 756 | 114300 | 1.35 | **KA** | **157R97** | **DRN** | **100L4** | 780 | 575 |
| **2.6** | 10000 | 567 | 115300 | 1.80 | **KAF** | **157R97** | **DRN** | **100L4** | 830 | 575 |
| **2.9** | 8930 | 504 | 115600 | 2.0 | | | | | | |
| **2.7** | 9580 | 536 | 80900 | 1.35 | | | | | | |
| **3.1** | 8400 | 473 | 81300 | 1.55 | **K** | **127R87** | **DRN** | **100L4** | 520 | 575 |
| **3.5** | 7550 | 418 | 81600 | 1.70 | **KF** | **127R87** | **DRN** | **100L4** | 560 | 575 |
| **4.0** | 6610 | 367 | 81900 | 1.95 | **KA** | **127R87** | **DRN** | **100L4** | 490 | 575 |
| **4.4** | 5920 | 330 | 82100 | 2.2 | **KAF** | **127R87** | **DRN** | **100L4** | 530 | 575 |
| **5.1** | 5080 | 287 | 82300 | 2.6 | | | | | | |



21284997/EN – 03/2015

## $P_m$ = 3.0 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **1.8** | 14200 | 790 | 77400 | 0.90 | | | | | | |
| **2.1** | 12700 | 704 | 79300 | 1.00 | **K** | **127R77** | **DRN** | **100L4** | 495 | 575 |
| **2.4** | 11000 | 610 | 80200 | 1.20 | **KF** | **127R77** | **DRN** | **100L4** | 540 | 575 |
| **2.6** | 9950 | 549 | 80700 | 1.30 | **KA** | **127R77** | **DRN** | **100L4** | 470 | 575 |
| **3.0** | 8610 | 477 | 81200 | 1.50 | **KAF** | **127R77** | **DRN** | **100L4** | 510 | 575 |
| **3.5** | 7580 | 418 | 81600 | 1.70 | | | | | | |
| **3.2** | 8310 | 461 | 65000 | 0.95 | | | | | | |
| **3.6** | 7360 | 408 | 65000 | 1.10 | | | | | | |
| **4.0** | 6590 | 364 | 65000 | 1.20 | | | | | | |
| **4.6** | 5760 | 318 | 65000 | 1.40 | | | | | | |
| **5.1** | 5190 | 286 | 65000 | 1.55 | **K** | **107R77** | **DRN** | **100L4** | 335 | 575 |
| **5.8** | 4540 | 251 | 65000 | 1.75 | **KF** | **107R77** | **DRN** | **100L4** | 350 | 575 |
| **6.6** | 4000 | 222 | 65000 | 2.0 | **KA** | **107R77** | **DRN** | **100L4** | 310 | 575 |
| **7.4** | 3540 | 196 | 65000 | 2.3 | **KAF** | **107R77** | **DRN** | **100L4** | 335 | 575 |
| **8.4** | 3170 | 174 | 65000 | 2.3 | | | | | | |
| **9.4** | 2800 | 154 | 65000 | 2.6 | | | | | | |
| **10** | 2540 | 140 | 65000 | 2.8 | | | | | | |
| **5.6** | 4730 | 258 | 40000 | 0.90 | **K** | **97R57** | **DRN** | **100L4** | 205 | 575 |
| **6.3** | 4260 | 232 | 40000 | 1.00 | **KF** | **97R57** | **DRN** | **100L4** | 225 | 575 |
| **7.3** | 3660 | 199 | 40000 | 1.15 | **KA** | **97R57** | **DRN** | **100L4** | 190 | 575 |
| | | | | | **KAF** | **97R57** | **DRN** | **100L4** | 215 | 575 |
| | | | | | **K** | **107** | **DRN** | **100L4** | 300 | 556 |
| **10** | 2820 | 143.47* | 65000 | 2.8 | **KF** | **107** | **DRN** | **100L4** | 310 | 557 |
| **12** | 2380 | 121.46 | 65000 | 3.4 | **KA** | **107** | **DRN** | **100L4** | 270 | 558 |
| | | | | | **KAF** | **107** | **DRN** | **100L4** | 295 | 557 |
| **8.3** | 3460 | 176.05* | 40000 | 1.25 | **K** | **97** | **DRN** | **100L4** | 185 | 551 |
| **9.5** | 3010 | 153.21* | 40000 | 1.45 | **KF** | **97** | **DRN** | **100L4** | 205 | 552 |
| **10** | 2760 | 140.28 | 40000 | 1.55 | **KA** | **97** | **DRN** | **100L4** | 165 | 553 |
| **12** | 2430 | 123.93* | 40000 | 1.75 | **KAF** | **97** | **DRN** | **100L4** | 190 | 552 |
| **14** | 2060 | 105.13 | 40000 | 2.1 | | | | | | |
| **15** | 1900 | 96.80 | 40000 | 2.3 | | | | | | |
| **17** | 1700 | 86.52 | 40000 | 2.5 | **K** | **97** | **DRN** | **100L4** | 185 | 551 |
| **19** | 1530 | 77.89* | 40000 | 2.8 | **KF** | **97** | **DRN** | **100L4** | 205 | 552 |
| **21** | 1380 | 70.54 | 40000 | 3.1 | **KA** | **97** | **DRN** | **100L4** | 165 | 553 |
| **23** | 1230 | 62.55 | 40000 | 3.5 | **KAF** | **97** | **DRN** | **100L4** | 190 | 552 |
| **26** | 1110 | 56.55 | 40000 | 3.9 | | | | | | |
| **9.9** | 2890 | 147.32* | 27000 | 0.95 | **K** | **87** | **DRN** | **100L4** | 125 | 546 |
| **11** | 2490 | 126.91* | 27500 | 1.10 | **KF** | **87** | **DRN** | **100L4** | 135 | 547 |
| **13** | 2270 | 115.82 | 27800 | 1.20 | **KA** | **87** | **DRN** | **100L4** | 110 | 548 |
| **14** | 2020 | 102.71* | 28000 | 1.35 | **KAF** | **87** | **DRN** | **100L4** | 125 | 547 |
| **17** | 1690 | 86.34 | 28300 | 1.60 | | | | | | |
| **18** | 1560 | 79.34 | 28400 | 1.75 | | | | | | |
| **21** | 1380 | 70.46 | 28600 | 1.95 | **K** | **87** | **DRN** | **100L4** | 125 | 546 |
| **23** | 1230 | 63.00* | 28600 | 2.2 | **KF** | **87** | **DRN** | **100L4** | 135 | 547 |
| **26** | 1110 | 56.64 | 28700 | 2.4 | **KA** | **87** | **DRN** | **100L4** | 110 | 548 |
| **30** | 960 | 49.16 | 28800 | 2.8 | **KAF** | **87** | **DRN** | **100L4** | 125 | 547 |
| **33** | 860 | 44.02 | 28800 | 3.0 | | | | | | |
| **40** | 715 | 36.52* | 28200 | 3.5 | | | | | | |
| **16** | 1750 | 88.97 | 13800 | 0.90 | | | | | | |
| **19** | 1530 | 78.07 | 15500 | 1.00 | **K** | **77** | **DRN** | **100L4** | 88 | 541 |
| **20** | 1450 | 73.99 | 16000 | 1.05 | **KF** | **77** | **DRN** | **100L4** | 96 | 542 |
| **22** | 1270 | 64.75 | 17100 | 1.20 | **KA** | **77** | **DRN** | **100L4** | 80 | 543 |
| **25** | 1140 | 58.34 | 17700 | 1.35 | **KAF** | **77** | **DRN** | **100L4** | 88 | 542 |
| **28** | 1000 | 51.18 | 18300 | 1.55 | | | | | | |
| **32** | 880 | 45.16 | 18700 | 1.75 | **K** | **77** | **DRN** | **100L4** | 88 | 541 |
| **36** | 785 | 40.04 | 19000 | 1.95 | **KF** | **77** | **DRN** | **100L4** | 96 | 542 |
| **41** | 690 | 35.20 | 19300 | 2.2 | **KA** | **77** | **DRN** | **100L4** | 80 | 543 |
| **47** | 605 | 30.89 | 19500 | 2.6 | **KAF** | **77** | **DRN** | **100L4** | 88 | 542 |
| **33** | 870 | 44.32 | 9820 | 0.95 | | | | | | |
| **38** | 755 | 38.39 | 10900 | 1.05 | **K** | **67** | **DRN** | **100L4** | 63 | 536 |
| **41** | 700 | 35.62 | 11300 | 1.15 | **KF** | **67** | **DRN** | **100L4** | 69 | 537 |
| **48** | 590 | 30.22 | 11900 | 1.40 | **KA** | **67** | **DRN** | **100L4** | 60 | 538 |
| **53** | 535 | 27.28 | 12200 | 1.55 | **KAF** | **67** | **DRN** | **100L4** | 66 | 537 |
| **61** | 470 | 24.00 | 12500 | 1.70 | | | | | | |

21284997/EN – 03/2015

## $P_m$ = 3.0 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **64** | 445 | 22.66 | 12600 | 1.75 | | | | | | |
| **75** | 375 | 19.30 | 12900 | 2.0 | | | | | | |
| **83** | 340 | 17.54 | 13000 | 2.2 | **K** | **67** | **DRN** | **100L4** | 63 | 536 |
| **96** | 295 | 15.19 | 13000 | 2.3 | **KF** | **67** | **DRN** | **100L4** | 69 | 537 |
| **110** | 260 | 13.22 | 13000 | 2.6 | **KA** | **67** | **DRN** | **100L4** | 60 | 538 |
| **117** | 245 | 12.48 | 13000 | 2.2 | **KAF** | **67** | **DRN** | **100L4** | 66 | 537 |
| **137** | 205 | 10.63 | 13000 | 2.4 | | | | | | |
| **151** | 190 | 9.66 | 13000 | 2.5 | | | | | | |
| **48** | 595 | 30.28 | 7190 | 1.00 | **K** | **57** | **DRN** | **100L4** | 57 | 531 |
| **53** | 535 | 27.34 | 7190 | 1.10 | **KF** | **57** | **DRN** | **100L4** | 62 | 532 |
| **61** | 470 | 24.05 | 7170 | 1.25 | **KA** | **57** | **DRN** | **100L4** | 55 | 533 |
| | | | | | **KAF** | **57** | **DRN** | **100L4** | 61 | 532 |
| **64** | 445 | 22.71 | 7150 | 1.35 | | | | | | |
| **75** | 380 | 19.34 | 7060 | 1.50 | | | | | | |
| **83** | 345 | 17.57 | 6980 | 1.60 | | | | | | |
| **96** | 295 | 15.22 | 6860 | 1.80 | | | | | | |
| **110** | 260 | 13.25 | 6710 | 1.95 | **K** | **57** | **DRN** | **100L4** | 57 | 531 |
| **122** | 230 | 11.92 | 6380 | 1.75 | **KF** | **57** | **DRN** | **100L4** | 62 | 532 |
| **129** | 220 | 11.26 | 6330 | 1.85 | **KA** | **57** | **DRN** | **100L4** | 55 | 533 |
| **152** | 189 | 9.59 | 6160 | 2.2 | **KAF** | **57** | **DRN** | **100L4** | 61 | 532 |
| **167** | 171 | 8.71 | 6040 | 2.3 | | | | | | |
| **193** | 148 | 7.55 | 5870 | 2.5 | | | | | | |
| **222** | 129 | 6.57 | 5700 | 2.7 | | | | | | |
| **310** | 92 | 4.69 | 5270 | 3.2 | | | | | | |
| **74** | 385 | 19.58 | 4450 | 1.05 | **K** | **47** | **DRN** | **100L4** | 51 | 526 |
| **86** | 330 | 16.86 | 4500 | 1.15 | **KF** | **47** | **DRN** | **100L4** | 55 | 527 |
| **92** | 310 | 15.86 | 4510 | 1.20 | **KA** | **47** | **DRN** | **100L4** | 50 | 528 |
| | | | | | **KAF** | **47** | **DRN** | **100L4** | 53 | 527 |
| **107** | 265 | 13.65 | 4500 | 1.35 | | | | | | |
| **119** | 235 | 12.19 | 4480 | 1.45 | | | | | | |
| **124** | 230 | 11.77 | 4360 | 1.20 | | | | | | |
| **138** | 205 | 10.56 | 4340 | 1.35 | **K** | **47** | **DRN** | **100L4** | 51 | 526 |
| **160** | 179 | 9.10 | 4280 | 1.55 | **KF** | **47** | **DRN** | **100L4** | 55 | 527 |
| **170** | 168 | 8.56 | 4250 | 1.60 | **KA** | **47** | **DRN** | **100L4** | 50 | 528 |
| **198** | 145 | 7.36 | 4160 | 1.75 | **KAF** | **47** | **DRN** | **100L4** | 53 | 527 |
| **221** | 129 | 6.58 | 4090 | 1.85 | | | | | | |
| **250** | 114 | 5.81 | 4000 | 2.0 | | | | | | |
| **314** | 91 | 4.64 | 3830 | 2.2 | | | | | | |
| **163** | 175 | 8.91 | 2020 | 0.90 | | | | | | |
| **183** | 157 | 7.96 | 2050 | 1.00 | **K** | **37** | **DRN** | **100L4** | 45 | 521 |
| **214** | 134 | 6.80 | 2080 | 1.10 | **KF** | **37** | **DRN** | **100L4** | 47 | 522 |
| **229** | 125 | 6.37 | 2090 | 1.15 | **KA** | **37** | **DRN** | **100L4** | 44 | 523 |
| **271** | 106 | 5.36 | 2090 | 1.35 | **KAF** | **37** | **DRN** | **100L4** | 46 | 522 |
| **366** | 78 | 3.98 | 2040 | 1.60 | | | | | | |

## $P_m$ = 4.0 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **1.8** | 19400 | 835 | 190000 | 2.6 | **K** | **187R107** | **DRN** | **112M4** | 1840 | 575 |
| **2.8** | 12200 | 520 | 190000 | 4.1 | **KH** | **187R107** | **DRN** | **112M4** | 1780 | 575 |
| **0.58** | 60200 | 2519 | 190000 | 0.85 | | | | | | |
| **0.65** | 54100 | 2268 | 190000 | 0.90 | | | | | | |
| **0.71** | 48800 | 2054 | 190000 | 1.00 | | | | | | |
| **0.80** | 43100 | 1821 | 190000 | 1.15 | | | | | | |
| **0.91** | 38200 | 1605 | 190000 | 1.30 | **K** | **187R97** | **DRN** | **112M4** | 1800 | 575 |
| **1.0** | 32700 | 1395 | 190000 | 1.55 | **KH** | **187R97** | **DRN** | **112M4** | 1730 | 575 |
| **1.2** | 28300 | 1196 | 190000 | 1.75 | | | | | | |
| **1.4** | 24700 | 1046 | 190000 | 2.0 | | | | | | |
| **1.6** | 22300 | 945 | 190000 | 2.2 | | | | | | |

## $P_m$ = 4.0 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **1.0** | 33800 | 1408 | 150000 | 0.95 | | | | | | |
| **1.1** | 31000 | 1296 | 150000 | 1.05 | | | | | | |
| **1.3** | 26100 | 1101 | 150000 | 1.25 | | | | | | |
| **1.6** | 22400 | 944 | 150000 | 1.40 | **K** | **167R97** | **DRN** | **112M4** | 1210 | 575 |
| **1.7** | 19800 | 843 | 150000 | 1.60 | **KH** | **167R97** | **DRN** | **112M4** | 1180 | 575 |
| **1.9** | 17800 | 757 | 150000 | 1.80 | | | | | | |
| **2.3** | 14900 | 632 | 150000 | 2.1 | | | | | | |
| **1.7** | 20300 | 854 | 110900 | 0.90 | | | | | | |
| **1.9** | 17700 | 756 | 112300 | 1.00 | **K** | **157R97** | **DRN** | **112M4** | 820 | 575 |
| **2.6** | 13400 | 567 | 114200 | 1.35 | **KF** | **157R97** | **DRN** | **112M4** | 900 | 575 |
| **2.9** | 11900 | 504 | 114700 | 1.50 | **KA** | **157R97** | **DRN** | **112M4** | 780 | 575 |
| **3.4** | 10100 | 434 | 115200 | 1.75 | **KAF** | **157R97** | **DRN** | **112M4** | 840 | 575 |
| **2.7** | 12700 | 536 | 79300 | 1.00 | | | | | | |
| **3.1** | 11200 | 473 | 80100 | 1.15 | | | | | | |
| **3.5** | 10000 | 418 | 80600 | 1.30 | **K** | **127R87** | **DRN** | **112M4** | 530 | 575 |
| **4.0** | 8810 | 367 | 81200 | 1.50 | **KF** | **127R87** | **DRN** | **112M4** | 570 | 575 |
| **4.4** | 7900 | 330 | 81500 | 1.65 | **KA** | **127R87** | **DRN** | **112M4** | 500 | 575 |
| **5.1** | 6800 | 287 | 81800 | 1.90 | **KAF** | **127R87** | **DRN** | **112M4** | 540 | 575 |
| **5.8** | 6010 | 253 | 82100 | 2.2 | | | | | | |
| **2.4** | 14700 | 610 | 76600 | 0.90 | **K** | **127R77** | **DRN** | **112M4** | 510 | 575 |
| **2.7** | 13200 | 549 | 79000 | 1.00 | **KF** | **127R77** | **DRN** | **112M4** | 550 | 575 |
| **3.1** | 11400 | 477 | 80000 | 1.15 | **KA** | **127R77** | **DRN** | **112M4** | 480 | 575 |
| **3.5** | 10000 | 418 | 80600 | 1.30 | **KAF** | **127R77** | **DRN** | **112M4** | 520 | 575 |
| **4.0** | 8770 | 364 | 65000 | 0.90 | | | | | | |
| **4.6** | 7670 | 318 | 65000 | 1.05 | | | | | | |
| **5.1** | 6900 | 286 | 65000 | 1.15 | | | | | | |
| **5.8** | 6050 | 251 | 65000 | 1.30 | **K** | **107R77** | **DRN** | **112M4** | 345 | 575 |
| **6.6** | 5330 | 222 | 65000 | 1.50 | **KF** | **107R77** | **DRN** | **112M4** | 360 | 575 |
| **7.4** | 4720 | 196 | 65000 | 1.70 | **KA** | **107R77** | **DRN** | **112M4** | 320 | 575 |
| **8.4** | 4220 | 174 | 65000 | 1.70 | **KAF** | **107R77** | **DRN** | **112M4** | 340 | 575 |
| **9.5** | 3730 | 154 | 65000 | 1.95 | | | | | | |
| **10** | 3390 | 140 | 65000 | 2.1 | | | | | | |
| | | | | | **K** | **97R57** | **DRN** | **112M4** | 215 | 575 |
| **7.3** | 4860 | 199 | 40000 | 0.90 | **KF** | **97R57** | **DRN** | **112M4** | 235 | 575 |
| | | | | | **KA** | **97R57** | **DRN** | **112M4** | 200 | 575 |
| | | | | | **KAF** | **97R57** | **DRN** | **112M4** | 225 | 575 |
| **10** | 3740 | 143.47* | 65000 | 2.1 | | | | | | |
| **12** | 3160 | 121.46 | 65000 | 2.5 | | | | | | |
| **13** | 2930 | 112.41* | 65000 | 2.7 | **K** | **107** | **DRN** | **112M4** | 305 | 556 |
| **15** | 2620 | 100.75 | 65000 | 3.0 | **KF** | **107** | **DRN** | **112M4** | 320 | 557 |
| **16** | 2370 | 90.96* | 65000 | 3.4 | **KA** | **107** | **DRN** | **112M4** | 280 | 558 |
| **18** | 2150 | 82.61 | 65000 | 3.7 | **KAF** | **107** | **DRN** | **112M4** | 305 | 557 |
| **20** | 1910 | 73.30 | 65000 | 4.2 | | | | | | |
| | | | | | **K** | **97** | **DRN** | **112M4** | 190 | 551 |
| **9.6** | 3990 | 153.21* | 40000 | 1.10 | **KF** | **97** | **DRN** | **112M4** | 210 | 552 |
| **10** | 3660 | 140.28 | 40000 | 1.15 | **KA** | **97** | **DRN** | **112M4** | 175 | 553 |
| **12** | 3230 | 123.93* | 40000 | 1.35 | **KAF** | **97** | **DRN** | **112M4** | 200 | 552 |
| **14** | 2740 | 105.13 | 40000 | 1.55 | | | | | | |
| **15** | 2520 | 96.80 | 40000 | 1.70 | **K** | **97** | **DRN** | **112M4** | 190 | 551 |
| **17** | 2250 | 86.52 | 40000 | 1.90 | **KF** | **97** | **DRN** | **112M4** | 210 | 552 |
| **19** | 2030 | 77.89* | 40000 | 2.1 | **KA** | **97** | **DRN** | **112M4** | 175 | 553 |
| **21** | 1840 | 70.54 | 40000 | 2.3 | **KAF** | **97** | **DRN** | **112M4** | 200 | 552 |
| **13** | 3020 | 115.82 | 26900 | 0.90 | **K** | **87** | **DRN** | **112M4** | 135 | 546 |
| **14** | 2670 | 102.71* | 27300 | 1.00 | **KF** | **87** | **DRN** | **112M4** | 140 | 547 |
| **17** | 2250 | 86.34 | 27800 | 1.20 | **KA** | **87** | **DRN** | **112M4** | 120 | 548 |
| **18** | 2070 | 79.34 | 28000 | 1.30 | **KAF** | **87** | **DRN** | **112M4** | 135 | 547 |
| **21** | 1830 | 70.46 | 28200 | 1.45 | | | | | | |
| **23** | 1640 | 63.00* | 28400 | 1.65 | **K** | **87** | **DRN** | **112M4** | 135 | 546 |
| **26** | 1470 | 56.64 | 28500 | 1.85 | **KF** | **87** | **DRN** | **112M4** | 140 | 547 |
| **30** | 1280 | 49.16 | 28600 | 2.1 | **KA** | **87** | **DRN** | **112M4** | 120 | 548 |
| **33** | 1140 | 44.02 | 28200 | 2.3 | **KAF** | **87** | **DRN** | **112M4** | 135 | 547 |
| **40** | 950 | 36.52* | 27200 | 2.6 | | | | | | |

21284997/EN – 03/2015

## $P_m$ = 4.0 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **23** | 1680 | 64.75 | 14300 | 0.90 | | | | | | |
| **25** | 1520 | 58.34 | 15600 | 1.00 | **K** | **77** | **DRN** | **112M4** | 97 | 541 |
| **29** | 1330 | 51.18 | 16700 | 1.15 | **KF** | **77** | **DRN** | **112M4** | 105 | 542 |
| **32** | 1170 | 45.16 | 17500 | 1.30 | **KA** | **77** | **DRN** | **112M4** | 90 | 543 |
| **37** | 1040 | 40.04 | 18100 | 1.50 | **KAF** | **77** | **DRN** | **112M4** | 98 | 542 |
| **38** | 1000 | 38.39 | 18300 | 1.50 | | | | | | |
| **42** | 910 | 35.20 | 18600 | 1.70 | | | | | | |
| **47** | 800 | 30.89 | 19000 | 1.90 | **K** | **77** | **DRN** | **112M4** | 97 | 541 |
| **50** | 760 | 29.27 | 19100 | 2.0 | **KF** | **77** | **DRN** | **112M4** | 105 | 542 |
| **57** | 665 | 25.62 | 19300 | 2.3 | **KA** | **77** | **DRN** | **112M4** | 90 | 543 |
| **63** | 600 | 23.08 | 19500 | 2.6 | **KAF** | **77** | **DRN** | **112M4** | 98 | 542 |
| **72** | 525 | 20.25 | 19600 | 2.8 | | | | | | |
| **48** | 785 | 30.22 | 10600 | 1.05 | **K** | **67** | **DRN** | **112M4** | 72 | 536 |
| **54** | 710 | 27.28 | 11200 | 1.15 | **KF** | **67** | **DRN** | **112M4** | 78 | 537 |
| **61** | 625 | 24.00 | 11700 | 1.30 | **KA** | **67** | **DRN** | **112M4** | 70 | 538 |
| **65** | 590 | 22.66 | 11900 | 1.30 | **KAF** | **67** | **DRN** | **112M4** | 76 | 537 |
| **76** | 500 | 19.30 | 12400 | 1.50 | | | | | | |
| **84** | 455 | 17.54 | 12600 | 1.60 | | | | | | |
| **96** | 395 | 15.19 | 12800 | 1.75 | | | | | | |
| **111** | 340 | 13.22 | 13000 | 1.95 | **K** | **67** | **DRN** | **112M4** | 72 | 536 |
| **117** | 325 | 12.48 | 13000 | 1.65 | **KF** | **67** | **DRN** | **112M4** | 78 | 537 |
| **138** | 275 | 10.63 | 13000 | 1.80 | **KA** | **67** | **DRN** | **112M4** | 70 | 538 |
| **152** | 250 | 9.66 | 12800 | 1.90 | **KAF** | **67** | **DRN** | **112M4** | 76 | 537 |
| **175** | 215 | 8.37 | 12400 | 2.0 | | | | | | |
| **201** | 190 | 7.28 | 12000 | 2.2 | | | | | | |
| **282** | 136 | 5.20 | 11100 | 2.6 | | | | | | |
| **61** | 625 | 24.05 | 6140 | 0.95 | | | | | | |
| **64** | 590 | 22.71 | 6180 | 1.00 | | | | | | |
| **76** | 500 | 19.34 | 6230 | 1.15 | | | | | | |
| **83** | 455 | 17.57 | 6230 | 1.20 | | | | | | |
| **96** | 395 | 15.22 | 6200 | 1.35 | | | | | | |
| **110** | 345 | 13.25 | 6140 | 1.50 | **K** | **57** | **DRN** | **112M4** | 67 | 531 |
| **123** | 310 | 11.92 | 5800 | 1.35 | **KF** | **57** | **DRN** | **112M4** | 71 | 532 |
| **130** | 290 | 11.26 | 5780 | 1.40 | **KA** | **57** | **DRN** | **112M4** | 65 | 533 |
| **153** | 250 | 9.59 | 5680 | 1.60 | **KAF** | **57** | **DRN** | **112M4** | 70 | 532 |
| **168** | 225 | 8.71 | 5620 | 1.70 | | | | | | |
| **194** | 197 | 7.55 | 5500 | 1.85 | | | | | | |
| **223** | 171 | 6.57 | 5380 | 2.0 | | | | | | |
| **312** | 122 | 4.69 | 5030 | 2.4 | | | | | | |

## $P_m$ = 5.5 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **0.80** | 59900 | 1821 | 190000 | 0.85 | | | | | | |
| **0.91** | 52900 | 1605 | 190000 | 0.95 | | | | | | |
| **1.0** | 45600 | 1395 | 190000 | 1.10 | | | | | | |
| **1.2** | 39300 | 1196 | 190000 | 1.25 | **K** | **187R97** | **DRN** | **132S4** | 1810 | 575 |
| **1.4** | 34400 | 1046 | 190000 | 1.45 | **KH** | **187R97** | **DRN** | **132S4** | 1740 | 575 |
| **1.6** | 31000 | 945 | 190000 | 1.60 | | | | | | |
| **2.0** | 24200 | 738 | 190000 | 2.1 | | | | | | |
| **2.4** | 20300 | 621 | 190000 | 2.4 | | | | | | |
| **1.3** | 36200 | 1101 | 150000 | 0.90 | | | | | | |
| **1.6** | 31100 | 944 | 150000 | 1.05 | | | | | | |
| **1.7** | 27500 | 843 | 150000 | 1.15 | | | | | | |
| **1.9** | 24800 | 757 | 150000 | 1.30 | **K** | **167R97** | **DRN** | **132S4** | 1230 | 575 |
| **2.3** | 20800 | 632 | 150000 | 1.55 | **KH** | **167R97** | **DRN** | **132S4** | 1190 | 575 |
| **2.6** | 18200 | 561 | 150000 | 1.75 | | | | | | |
| **3.0** | 15800 | 481 | 150000 | 2.0 | | | | | | |
| **3.4** | 13700 | 423 | 150000 | 2.3 | | | | | | |



21284997/EN – 03/2015

| $P_m$ = 5.5 kW | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | | m kg | |
| 2.2 | 21500 | 661 | 110200 | 0.85 | | | | | | | |
| 2.6 | 18600 | 567 | 111900 | 0.95 | K | 157R97 | DRN | 132S4 | | 830 | 575 |
| 2.9 | 16500 | 504 | 112900 | 1.10 | KF | 157R97 | DRN | 132S4 | | 910 | 575 |
| 3.4 | 14100 | 434 | 113900 | 1.25 | KA | 157R97 | DRN | 132S4 | | 800 | 575 |
| 3.8 | 12300 | 379 | 114600 | 1.45 | KAF | 157R97 | DRN | 132S4 | | 850 | 575 |
| 4.4 | 10800 | 333 | 115000 | 1.65 | | | | | | | |
| 3.5 | 13900 | 418 | 78000 | 0.95 | | | | | | | |
| 4.0 | 12100 | 367 | 79600 | 1.05 | | | | | | | |
| 4.4 | 10900 | 330 | 80200 | 1.20 | | | | | | | |
| 5.1 | 9440 | 287 | 80900 | 1.40 | K | 127R87 | DRN | 132S4 | | 540 | 575 |
| 5.8 | 8350 | 253 | 81300 | 1.55 | KF | 127R87 | DRN | 132S4 | | 580 | 575 |
| 6.9 | 7010 | 213 | 81800 | 1.85 | KA | 127R87 | DRN | 132S4 | | 510 | 575 |
| 7.3 | 6680 | 200 | 81900 | 1.80 | KAF | 127R87 | DRN | 132S4 | | 550 | 575 |
| 8.8 | 5530 | 166 | 82200 | 2.2 | | | | | | | |
| 10.0 | 4880 | 147 | 82300 | 2.5 | | | | | | | |
| 6.6 | 7370 | 222 | 65000 | 1.10 | | | | | | | |
| 7.4 | 6530 | 196 | 65000 | 1.20 | K | 107R77 | DRN | 132S4 | | 355 | 575 |
| 8.4 | 5830 | 174 | 65000 | 1.25 | KF | 107R77 | DRN | 132S4 | | 370 | 575 |
| 9.5 | 5170 | 154 | 65000 | 1.40 | KA | 107R77 | DRN | 132S4 | | 330 | 575 |
| 10 | 4690 | 140 | 65000 | 1.55 | KAF | 107R77 | DRN | 132S4 | | 355 | 575 |
| 10 | 5150 | 143.47* | 65000 | 1.55 | | | | | | | |
| 12 | 4360 | 121.46 | 65000 | 1.85 | K | 107 | DRN | 132S4 | | 315 | 556 |
| 13 | 4040 | 112.41* | 65000 | 2.00 | KF | 107 | DRN | 132S4 | | 330 | 557 |
| 14 | 3620 | 100.75 | 65000 | 2.2 | KA | 107 | DRN | 132S4 | | 290 | 558 |
| 16 | 3260 | 90.96* | 65000 | 2.4 | KAF | 107 | DRN | 132S4 | | 315 | 557 |
| 18 | 2960 | 82.61 | 65000 | 2.7 | | | | | | | |
| 12 | 4450 | 123.93* | 40000 | 0.95 | K | 97 | DRN | 132S4 | | 205 | 551 |
| 14 | 3770 | 105.13 | 40000 | 1.15 | KF | 97 | DRN | 132S4 | | 225 | 552 |
| 15 | 3470 | 96.80 | 40000 | 1.25 | KA | 97 | DRN | 132S4 | | 185 | 553 |
| 17 | 3110 | 86.52 | 40000 | 1.40 | KAF | 97 | DRN | 132S4 | | 210 | 552 |
| 19 | 2800 | 77.89* | 40000 | 1.55 | | | | | | | |
| 21 | 2530 | 70.54 | 40000 | 1.70 | K | 97 | DRN | 132S4 | | 205 | 551 |
| 23 | 2240 | 62.55 | 40000 | 1.90 | KF | 97 | DRN | 132S4 | | 225 | 552 |
| 26 | 2030 | 56.55 | 39600 | 2.1 | KA | 97 | DRN | 132S4 | | 185 | 553 |
| 30 | 1720 | 47.93* | 38400 | 2.5 | KAF | 97 | DRN | 132S4 | | 210 | 552 |
| 17 | 3100 | 86.34 | 26700 | 0.85 | | | | | | | |
| 18 | 2850 | 79.34 | 27100 | 0.95 | K | 87 | DRN | 132S4 | | 145 | 546 |
| 21 | 2530 | 70.46 | 27500 | 1.05 | KF | 87 | DRN | 132S4 | | 155 | 547 |
| 23 | 2260 | 63.00* | 27400 | 1.20 | KA | 87 | DRN | 132S4 | | 130 | 548 |
| 26 | 2030 | 56.64 | 27200 | 1.35 | KAF | 87 | DRN | 132S4 | | 145 | 547 |
| 30 | 1760 | 49.16 | 26800 | 1.55 | | | | | | | |
| 33 | 1580 | 44.02 | 26400 | 1.65 | K | 87 | DRN | 132S4 | | 145 | 546 |
| 40 | 1310 | 36.52* | 25700 | 1.90 | KF | 87 | DRN | 132S4 | | 155 | 547 |
| 47 | 1120 | 31.39 | 25100 | 2.4 | KA | 87 | DRN | 132S4 | | 130 | 548 |
| 52 | 1000 | 27.88 | 24600 | 2.6 | KAF | 87 | DRN | 132S4 | | 145 | 547 |
| 32 | 1620 | 45.16 | 14800 | 0.95 | | | | | | | |
| 36 | 1430 | 40.04 | 16100 | 1.10 | K | 77 | DRN | 132S4 | | 110 | 541 |
| 47 | 1110 | 30.89 | 17900 | 1.40 | KF | 77 | DRN | 132S4 | | 115 | 542 |
| 50 | 1050 | 29.27 | 18100 | 1.45 | KA | 77 | DRN | 132S4 | | 100 | 543 |
| 57 | 920 | 25.62 | 18600 | 1.70 | KAF | 77 | DRN | 132S4 | | 110 | 542 |
| 63 | 820 | 23.08 | 18900 | 1.85 | | | | | | | |
| 72 | 725 | 20.25 | 19200 | 2.1 | | | | | | | |
| 82 | 640 | 17.87 | 19400 | 2.3 | K | 77 | DRN | 132S4 | | 110 | 541 |
| 92 | 565 | 15.84 | 19100 | 2.5 | KF | 77 | DRN | 132S4 | | 115 | 542 |
| 108 | 485 | 13.52 | 18500 | 2.8 | KA | 77 | DRN | 132S4 | | 100 | 543 |
| 118 | 440 | 12.36 | 17800 | 2.2 | KAF | 77 | DRN | 132S4 | | 110 | 542 |
| 135 | 385 | 10.84 | 17400 | 2.5 | | | | | | | |
| 61 | 860 | 24.00 | 9910 | 0.95 | | | | | | | |
| 64 | 810 | 22.66 | 10400 | 0.95 | K | 67 | DRN | 132S4 | | 84 | 536 |
| 76 | 690 | 19.30 | 11300 | 1.10 | KF | 67 | DRN | 132S4 | | 90 | 537 |
| 83 | 630 | 17.54 | 11700 | 1.15 | KA | 67 | DRN | 132S4 | | 81 | 538 |
| 96 | 545 | 15.19 | 12200 | 1.30 | KAF | 67 | DRN | 132S4 | | 87 | 537 |
| 111 | 475 | 13.22 | 12500 | 1.40 | | | | | | | |

21284997/EN – 03/2015

## $P_m$ = 5.5 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **117** | 445 | 12.48 | 12600 | 1.20 | | | | | | |
| **137** | 380 | 10.63 | 12400 | 1.30 | **K** | **67** | **DRN** | **132S4** | 84 | 536 |
| **151** | 345 | 9.66 | 12200 | 1.40 | **KF** | **67** | **DRN** | **132S4** | 90 | 537 |
| **175** | 300 | 8.37 | 11900 | 1.45 | **KA** | **67** | **DRN** | **132S4** | 81 | 538 |
| **201** | 260 | 7.28 | 11600 | 1.60 | **KAF** | **67** | **DRN** | **132S4** | 87 | 537 |
| **281** | 187 | 5.20 | 10800 | 1.85 | | | | | | |

## $P_m$ = 7.5 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **1.8** | 37100 | 835 | 190000 | 1.35 | | | | | | |
| **2.0** | 32200 | 729 | 190000 | 1.55 | **K** | **187R107** | **DRN** | **132M4** | 1870 | 575 |
| **2.4** | 27500 | 622 | 190000 | 1.80 | **KH** | **187R107** | **DRN** | **132M4** | 1810 | 575 |
| **1.2** | 53700 | 1196 | 190000 | 0.95 | | | | | | |
| **1.4** | 46900 | 1046 | 190000 | 1.05 | | | | | | |
| **1.6** | 42300 | 945 | 190000 | 1.20 | **K** | **187R97** | **DRN** | **132M4** | 1830 | 575 |
| **2.0** | 33100 | 738 | 190000 | 1.50 | **KH** | **187R97** | **DRN** | **132M4** | 1760 | 575 |
| **2.4** | 27800 | 621 | 190000 | 1.80 | | | | | | |
| **2.8** | 23500 | 527 | 190000 | 2.1 | | | | | | |
| **1.7** | 37700 | 843 | 150000 | 0.85 | | | | | | |
| **1.9** | 33900 | 757 | 150000 | 0.95 | | | | | | |
| **2.3** | 28300 | 632 | 150000 | 1.15 | | | | | | |
| **2.6** | 24900 | 561 | 150000 | 1.30 | **K** | **167R97** | **DRN** | **132M4** | 1240 | 575 |
| **3.0** | 21500 | 481 | 150000 | 1.50 | **KH** | **167R97** | **DRN** | **132M4** | 1210 | 575 |
| **3.5** | 18800 | 423 | 150000 | 1.70 | | | | | | |
| **4.0** | 16400 | 369 | 150000 | 1.95 | | | | | | |
| **3.4** | 19300 | 434 | 111500 | 0.95 | **K** | **157R97** | **DRN** | **132M4** | 850 | 575 |
| **3.9** | 16800 | 379 | 112700 | 1.05 | **KF** | **157R97** | **DRN** | **132M4** | 930 | 575 |
| **4.4** | 14800 | 333 | 113600 | 1.20 | **KA** | **157R97** | **DRN** | **132M4** | 810 | 575 |
| **5.0** | 12900 | 291 | 114400 | 1.40 | **KAF** | **157R97** | **DRN** | **132M4** | 870 | 575 |
| **4.4** | 14900 | 330 | 76200 | 0.85 | | | | | | |
| **5.1** | 12800 | 287 | 79300 | 1.00 | | | | | | |
| **5.8** | 11300 | 253 | 80000 | 1.15 | **K** | **127R87** | **DRN** | **132M4** | 560 | 575 |
| **6.9** | 9570 | 213 | 80900 | 1.35 | **KF** | **127R87** | **DRN** | **132M4** | 600 | 575 |
| **7.3** | 9110 | 200 | 81000 | 1.30 | **KA** | **127R87** | **DRN** | **132M4** | 530 | 575 |
| **8.8** | 7540 | 166 | 81600 | 1.60 | **KAF** | **127R87** | **DRN** | **132M4** | 560 | 575 |
| **10** | 6650 | 147 | 81900 | 1.80 | | | | | | |
| **10** | 7120 | 146.07 | 81700 | 1.80 | | | | | | |
| **11** | 6640 | 136.14 | 81900 | 1.95 | | | | | | |
| **12** | 5970 | 122.48 | 82100 | 2.2 | **K** | **127** | **DRN** | **132M4** | 490 | 561 |
| **13** | 5370 | 110.18 | 82200 | 2.4 | **KF** | **127** | **DRN** | **132M4** | 530 | 562 |
| **16** | 4380 | 89.89 | 82400 | 3.0 | **KA** | **127** | **DRN** | **132M4** | 460 | 563 |
| **18** | 3990 | 81.98 | 82500 | 3.2 | **KAF** | **127** | **DRN** | **132M4** | 500 | 562 |
| **21** | 3460 | 70.95* | 82600 | 3.8 | | | | | | |
| **10** | 6990 | 143.47* | 65000 | 1.15 | **K** | **107** | **DRN** | **132M4** | 335 | 556 |
| **12** | 5920 | 121.46 | 65000 | 1.35 | **KF** | **107** | **DRN** | **132M4** | 350 | 557 |
| **13** | 5480 | 112.41* | 65000 | 1.45 | **KA** | **107** | **DRN** | **132M4** | 310 | 558 |
| | | | | | **KAF** | **107** | **DRN** | **132M4** | 330 | 557 |
| **15** | 4910 | 100.75 | 65000 | 1.65 | | | | | | |
| **16** | 4430 | 90.96* | 64000 | 1.80 | | | | | | |
| **18** | 4030 | 82.61 | 63000 | 2.00 | | | | | | |
| **20** | 3570 | 73.30 | 61700 | 2.2 | **K** | **107** | **DRN** | **132M4** | 335 | 556 |
| **22** | 3240 | 66.52* | 60600 | 2.5 | **KF** | **107** | **DRN** | **132M4** | 350 | 557 |
| **26** | 2780 | 57.17* | 58800 | 2.9 | **KA** | **107** | **DRN** | **132M4** | 310 | 558 |
| **29** | 2430 | 49.90 | 57100 | 3.2 | **KAF** | **107** | **DRN** | **132M4** | 330 | 557 |
| **35** | 2060 | 42.33* | 55100 | 3.6 | | | | | | |
| **40** | 1800 | 37.00* | 53500 | 4.0 | | | | | | |
| **15** | 4720 | 96.80 | 38400 | 0.90 | | | | | | |
| **17** | 4220 | 86.52 | 38300 | 1.00 | **K** | **97** | **DRN** | **132M4** | 220 | 551 |
| **19** | 3800 | 77.89* | 38100 | 1.15 | **KF** | **97** | **DRN** | **132M4** | 240 | 552 |
| **21** | 3440 | 70.54 | 37800 | 1.25 | **KA** | **97** | **DRN** | **132M4** | 205 | 553 |
| **23** | 3050 | 62.55 | 37400 | 1.40 | **KAF** | **97** | **DRN** | **132M4** | 230 | 552 |



21284997/EN – 03/2015

## $P_m$ = 7.5 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **26** | 2750 | 56.55 | 37000 | 1.55 | | | | | | |
| **31** | 2330 | 47.93* | 36200 | 1.85 | **K** | **97** | **DRN** | **132M4** | 220 | 551 |
| **35** | 2040 | 41.87 | 35500 | 2.1 | **KF** | **97** | **DRN** | **132M4** | 240 | 552 |
| **38** | 1860 | 38.30 | 35000 | 2.3 | **KA** | **97** | **DRN** | **132M4** | 205 | 553 |
| **43** | 1660 | 34.23 | 34300 | 2.6 | **KAF** | **97** | **DRN** | **132M4** | 230 | 552 |
| **23** | 3070 | 63.00* | 24100 | 0.90 | | | | | | |
| **26** | 2760 | 56.64 | 24200 | 1.00 | **K** | **87** | **DRN** | **132M4** | 160 | 546 |
| **30** | 2390 | 49.16 | 24200 | 1.15 | **KF** | **87** | **DRN** | **132M4** | 170 | 547 |
| **33** | 2140 | 44.02 | 24100 | 1.20 | **KA** | **87** | **DRN** | **132M4** | 150 | 548 |
| **40** | 1780 | 36.52* | 23800 | 1.40 | **KAF** | **87** | **DRN** | **132M4** | 165 | 547 |
| **47** | 1530 | 31.39 | 23400 | 1.75 | | | | | | |
| **53** | 1350 | 27.88 | 23100 | 1.90 | | | | | | |
| **59** | 1210 | 24.92 | 22700 | 2.1 | **K** | **87** | **DRN** | **132M4** | 160 | 546 |
| **66** | 1090 | 22.41 | 22400 | 2.1 | **KF** | **87** | **DRN** | **132M4** | 170 | 547 |
| **75** | 940 | 19.45 | 21800 | 2.4 | **KA** | **87** | **DRN** | **132M4** | 150 | 548 |
| **84** | 840 | 17.42 | 21400 | 2.6 | **KAF** | **87** | **DRN** | **132M4** | 165 | 547 |
| **92** | 780 | 16.00 | 20500 | 2.3 | | | | | | |
| **102** | 700 | 14.45 | 20600 | 3.0 | | | | | | |
| **48** | 1500 | 30.89 | 15700 | 1.05 | | | | | | |
| **50** | 1420 | 29.27 | 16200 | 1.10 | **K** | **77** | **DRN** | **132M4** | 125 | 541 |
| **57** | 1240 | 25.62 | 17200 | 1.25 | **KF** | **77** | **DRN** | **132M4** | 135 | 542 |
| **64** | 1120 | 23.08 | 17800 | 1.40 | **KA** | **77** | **DRN** | **132M4** | 120 | 543 |
| **73** | 980 | 20.25 | 18400 | 1.50 | **KAF** | **77** | **DRN** | **132M4** | 125 | 542 |
| **82** | 870 | 17.87 | 18500 | 1.65 | | | | | | |
| **93** | 770 | 15.84 | 18200 | 1.80 | | | | | | |
| **109** | 655 | 13.52 | 17700 | 2.0 | **K** | **77** | **DRN** | **132M4** | 125 | 541 |
| **119** | 600 | 12.36 | 17000 | 1.65 | **KF** | **77** | **DRN** | **132M4** | 135 | 542 |
| **135** | 525 | 10.84 | 16600 | 1.85 | **KA** | **77** | **DRN** | **132M4** | 120 | 543 |
| **154** | 465 | 9.56 | 16200 | 2.0 | **KAF** | **77** | **DRN** | **132M4** | 125 | 542 |
| **173** | 410 | 8.48 | 15800 | 2.2 | | | | | | |
| **203** | 350 | 7.24 | 15300 | 2.3 | | | | | | |

## $P_m$ = 9.2 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **1.8** | 45700 | 835 | 190000 | 1.10 | | | | | | |
| **2.0** | 39700 | 729 | 190000 | 1.25 | **K** | **187R107** | **DRN** | **132L4** | 1880 | 575 |
| **2.4** | 33900 | 622 | 190000 | 1.45 | **KH** | **187R107** | **DRN** | **132L4** | 1810 | 575 |
| **2.8** | 28700 | 520 | 190000 | 1.75 | | | | | | |
| **3.2** | 25000 | 454 | 190000 | 2.0 | | | | | | |
| **1.4** | 57600 | 1046 | 190000 | 0.85 | | | | | | |
| **1.6** | 52000 | 945 | 190000 | 0.95 | | | | | | |
| **2.0** | 40600 | 738 | 190000 | 1.25 | **K** | **187R97** | **DRN** | **132L4** | 1830 | 575 |
| **2.4** | 34100 | 621 | 190000 | 1.45 | **KH** | **187R97** | **DRN** | **132L4** | 1770 | 575 |
| **2.8** | 28900 | 527 | 190000 | 1.75 | | | | | | |
| **4.6** | 17500 | 318 | 150000 | 1.80 | | | | | | |
| **5.3** | 15200 | 278 | 150000 | 2.1 | | | | | | |
| **6.0** | 13200 | 244 | 150000 | 2.4 | **K** | **167R107** | **DRN** | **132L4** | 1300 | 575 |
| **6.9** | 11500 | 213 | 150000 | 2.8 | **KH** | **167R107** | **DRN** | **132L4** | 1260 | 575 |
| **7.1** | 11200 | 206 | 150000 | 2.8 | | | | | | |
| **2.3** | 34800 | 632 | 150000 | 0.90 | | | | | | |
| **2.6** | 30700 | 561 | 150000 | 1.05 | | | | | | |
| **3.1** | 26500 | 481 | 150000 | 1.20 | **K** | **167R97** | **DRN** | **132L4** | 1250 | 575 |
| **3.5** | 23100 | 423 | 150000 | 1.40 | **KH** | **167R97** | **DRN** | **132L4** | 1210 | 575 |
| **4.0** | 20200 | 369 | 150000 | 1.60 | | | | | | |
| **3.8** | 20800 | 385 | 110600 | 0.85 | | | | | | |
| **4.5** | 17400 | 325 | 112500 | 1.05 | **K** | **157R107** | **DRN** | **132L4** | 910 | 575 |
| **4.9** | 16200 | 299 | 113000 | 1.10 | **KF** | **157R107** | **DRN** | **132L4** | 980 | 575 |
| **5.8** | 13700 | 253 | 114100 | 1.30 | **KA** | **157R107** | **DRN** | **132L4** | 870 | 575 |
| **6.4** | 12300 | 230 | 114600 | 1.45 | **KAF** | **157R107** | **DRN** | **132L4** | 930 | 575 |

21284997/EN – 03/2015

## $P_m$ = 9.2 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **3.9** | 20700 | 379 | 110700 | 0.85 | **K** | **157R97** | **DRN** | **132L4** | 860 | 575 |
| **4.4** | 18200 | 333 | 112000 | 1.00 | **KF** | **157R97** | **DRN** | **132L4** | 940 | 575 |
| **5.0** | 15900 | 291 | 113200 | 1.15 | **KA** | **157R97** | **DRN** | **132L4** | 820 | 575 |
| | | | | | **KAF** | **157R97** | **DRN** | **132L4** | 880 | 575 |
| **5.8** | 13900 | 253 | 78000 | 0.95 | | | | | | |
| **6.9** | 11700 | 213 | 79900 | 1.10 | **K** | **127R87** | **DRN** | **132L4** | 560 | 575 |
| **7.3** | 11100 | 200 | 80100 | 1.05 | **KF** | **127R87** | **DRN** | **132L4** | 610 | 575 |
| **8.8** | 9260 | 166 | 81000 | 1.30 | **KA** | **127R87** | **DRN** | **132L4** | 540 | 575 |
| **10** | 8170 | 147 | 81400 | 1.45 | **KAF** | **127R87** | **DRN** | **132L4** | 570 | 575 |
| **11** | 8130 | 136.14 | 81400 | 1.60 | | | | | | |
| **12** | 7320 | 122.48 | 81700 | 1.80 | **K** | **127** | **DRN** | **132L4** | 500 | 561 |
| **13** | 6580 | 110.18 | 81900 | 1.95 | **KF** | **127** | **DRN** | **132L4** | 540 | 562 |
| **16** | 5370 | 89.89 | 82200 | 2.4 | **KA** | **127** | **DRN** | **132L4** | 470 | 563 |
| **18** | 4890 | 81.98 | 82300 | 2.6 | **KAF** | **127** | **DRN** | **132L4** | 510 | 562 |
| **13** | 6710 | 112.41* | 62300 | 1.20 | **K** | **107** | **DRN** | **132L4** | 345 | 556 |
| **15** | 6020 | 100.75 | 61700 | 1.35 | **KF** | **107** | **DRN** | **132L4** | 355 | 557 |
| **16** | 5430 | 90.96* | 61000 | 1.45 | **KA** | **107** | **DRN** | **132L4** | 315 | 558 |
| | | | | | **KAF** | **107** | **DRN** | **132L4** | 340 | 557 |
| **18** | 4930 | 82.61 | 60300 | 1.60 | | | | | | |
| **20** | 4380 | 73.30 | 59300 | 1.85 | **K** | **107** | **DRN** | **132L4** | 345 | 556 |
| **22** | 3970 | 66.52* | 58400 | 2.0 | **KF** | **107** | **DRN** | **132L4** | 355 | 557 |
| **26** | 3410 | 57.17* | 56900 | 2.3 | **KA** | **107** | **DRN** | **132L4** | 315 | 558 |
| **29** | 2980 | 49.90 | 55500 | 2.6 | **KAF** | **107** | **DRN** | **132L4** | 340 | 557 |
| **35** | 2520 | 42.33* | 53700 | 2.9 | | | | | | |
| **19** | 4650 | 77.89* | 35100 | 0.90 | **K** | **97** | **DRN** | **132L4** | 230 | 551 |
| **21** | 4210 | 70.54 | 35100 | 1.00 | **KF** | **97** | **DRN** | **132L4** | 250 | 552 |
| **24** | 3730 | 62.55 | 35000 | 1.15 | **KA** | **97** | **DRN** | **132L4** | 210 | 553 |
| **26** | 3370 | 56.55 | 34800 | 1.25 | **KAF** | **97** | **DRN** | **132L4** | 235 | 552 |
| **31** | 2860 | 47.93* | 34400 | 1.50 | | | | | | |
| **35** | 2500 | 41.87 | 33900 | 1.70 | | | | | | |
| **38** | 2280 | 38.30 | 33500 | 1.90 | **K** | **97** | **DRN** | **132L4** | 230 | 551 |
| **43** | 2040 | 34.23 | 33000 | 2.1 | **KF** | **97** | **DRN** | **132L4** | 250 | 552 |
| **48** | 1840 | 30.82 | 32400 | 2.3 | **KA** | **97** | **DRN** | **132L4** | 210 | 553 |
| **53** | 1660 | 27.91 | 31900 | 2.6 | **KAF** | **97** | **DRN** | **132L4** | 235 | 552 |
| **59** | 1470 | 24.75 | 31200 | 2.9 | | | | | | |
| **30** | 2930 | 49.16 | 22000 | 0.90 | **K** | **87** | **DRN** | **132L4** | 170 | 546 |
| **33** | 2630 | 44.02 | 22200 | 1.00 | **KF** | **87** | **DRN** | **132L4** | 180 | 547 |
| **40** | 2180 | 36.52* | 22200 | 1.15 | **KA** | **87** | **DRN** | **132L4** | 160 | 548 |
| **47** | 1870 | 31.39 | 22000 | 1.45 | **KAF** | **87** | **DRN** | **132L4** | 170 | 547 |
| **53** | 1660 | 27.88 | 21900 | 1.55 | | | | | | |
| **59** | 1480 | 24.92 | 21600 | 1.70 | | | | | | |
| **66** | 1330 | 22.41 | 21400 | 1.70 | | | | | | |
| **76** | 1160 | 19.45 | 21000 | 2.00 | **K** | **87** | **DRN** | **132L4** | 170 | 546 |
| **84** | 1040 | 17.42 | 20600 | 2.1 | **KF** | **87** | **DRN** | **132L4** | 180 | 547 |
| **92** | 950 | 16.00 | 19700 | 1.90 | **KA** | **87** | **DRN** | **132L4** | 160 | 548 |
| **102** | 860 | 14.45 | 20000 | 2.4 | **KAF** | **87** | **DRN** | **132L4** | 170 | 547 |
| **117** | 750 | 12.56 | 19500 | 2.7 | | | | | | |
| **132** | 665 | 11.17 | 18500 | 2.2 | | | | | | |
| **147** | 595 | 10.00 | 18200 | 2.5 | | | | | | |
| **64** | 1370 | 23.08 | 16500 | 1.10 | **K** | **77** | **DRN** | **132L4** | 135 | 541 |
| **73** | 1200 | 20.25 | 17400 | 1.25 | **KF** | **77** | **DRN** | **132L4** | 145 | 542 |
| **82** | 1060 | 17.87 | 17600 | 1.35 | **KA** | **77** | **DRN** | **132L4** | 125 | 543 |
| **93** | 940 | 15.84 | 17300 | 1.50 | **KAF** | **77** | **DRN** | **132L4** | 135 | 542 |
| **109** | 800 | 13.52 | 17000 | 1.65 | | | | | | |
| **119** | 735 | 12.36 | 16200 | 1.35 | **K** | **77** | **DRN** | **132L4** | 135 | 541 |
| **136** | 645 | 10.84 | 15900 | 1.55 | **KF** | **77** | **DRN** | **132L4** | 145 | 542 |
| **154** | 570 | 9.56 | 15600 | 1.65 | **KA** | **77** | **DRN** | **132L4** | 125 | 543 |
| **173** | 505 | 8.48 | 15300 | 1.75 | **KAF** | **77** | **DRN** | **132L4** | 135 | 542 |
| **203** | 430 | 7.24 | 14900 | 1.90 | | | | | | |



21284997/EN – 03/2015

## $P_m$ = 11.0 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **1.8** | 54700 | 835 | 190000 | 0.90 | | | | | | |
| **2.0** | 47600 | 729 | 190000 | 1.05 | | | | | | |
| **2.4** | 40600 | 622 | 190000 | 1.25 | **K** | **187R107** | **DRN** | **160M4** | 1910 | 575 |
| **2.8** | 34400 | 520 | 190000 | 1.45 | **KH** | **187R107** | **DRN** | **160M4** | 1850 | 575 |
| **3.2** | 29900 | 454 | 190000 | 1.65 | | | | | | |
| **4.1** | 23100 | 355 | 190000 | 2.2 | | | | | | |
| **2.0** | 48600 | 738 | 190000 | 1.05 | | | | | | |
| **2.4** | 40800 | 621 | 190000 | 1.20 | **K** | **187R97** | **DRN** | **160M4** | 1870 | 575 |
| **2.8** | 34500 | 527 | 190000 | 1.45 | **KH** | **187R97** | **DRN** | **160M4** | 1800 | 575 |
| **4.6** | 21000 | 318 | 150000 | 1.50 | | | | | | |
| **5.3** | 18300 | 278 | 150000 | 1.75 | | | | | | |
| **6.0** | 15800 | 244 | 150000 | 2.0 | **K** | **167R107** | **DRN** | **160M4** | 1330 | 575 |
| **6.9** | 13800 | 213 | 150000 | 2.3 | **KH** | **167R107** | **DRN** | **160M4** | 1290 | 575 |
| **7.2** | 13400 | 206 | 150000 | 2.4 | | | | | | |
| **2.6** | 36700 | 561 | 150000 | 0.85 | | | | | | |
| **3.1** | 31600 | 481 | 150000 | 1.00 | **K** | **167R97** | **DRN** | **160M4** | 1280 | 575 |
| **3.5** | 27700 | 423 | 150000 | 1.15 | **KH** | **167R97** | **DRN** | **160M4** | 1250 | 575 |
| **4.0** | 24200 | 369 | 150000 | 1.30 | | | | | | |
| | | | | | **K** | **157R97** | **DRN** | **160M4** | 890 | 575 |
| **4.4** | 21800 | 333 | 110000 | 0.80 | **KF** | **157R97** | **DRN** | **160M4** | 970 | 575 |
| **5.1** | 19000 | 291 | 111600 | 0.95 | **KA** | **157R97** | **DRN** | **160M4** | 850 | 575 |
| | | | | | **KAF** | **157R97** | **DRN** | **160M4** | 910 | 575 |
| **6.9** | 14000 | 213 | 77900 | 0.95 | **K** | **127R87** | **DRN** | **160M4** | 600 | 575 |
| **7.4** | 13300 | 200 | 79000 | 0.90 | **KF** | **127R87** | **DRN** | **160M4** | 640 | 575 |
| **8.9** | 11000 | 166 | 80200 | 1.10 | **KA** | **127R87** | **DRN** | **160M4** | 570 | 575 |
| **10** | 9770 | 147 | 80800 | 1.25 | **KAF** | **127R87** | **DRN** | **160M4** | 610 | 575 |
| **9.0** | 11700 | 164.50 | 150000 | 2.7 | **K** | **167** | **DRN** | **160M4** | 1160 | 571 |
| **11** | 9620 | 134.99 | 150000 | 3.3 | **KH** | **167** | **DRN** | **160M4** | 1120 | 572 |
| **9.8** | 10700 | 150.41 | 115100 | 1.70 | **K** | **157** | **DRN** | **160M4** | 760 | 566 |
| **12** | 8720 | 122.39 | 115600 | 2.1 | **KF** | **157** | **DRN** | **160M4** | 840 | 567 |
| **15** | 7140 | 100.22 | 116000 | 2.5 | **KA** | **157** | **DRN** | **160M4** | 730 | 568 |
| **16** | 6530 | 91.65 | 116100 | 2.8 | **KAF** | **157** | **DRN** | **160M4** | 780 | 567 |
| **11** | 9700 | 136.14 | 80800 | 1.35 | | | | | | |
| **12** | 8730 | 122.48 | 81200 | 1.50 | **K** | **127** | **DRN** | **160M4** | 530 | 561 |
| **13** | 7850 | 110.18 | 81500 | 1.65 | **KF** | **127** | **DRN** | **160M4** | 570 | 562 |
| **16** | 6410 | 89.89 | 82000 | 2.0 | **KA** | **127** | **DRN** | **160M4** | 500 | 563 |
| **18** | 5840 | 81.98 | 82100 | 2.2 | **KAF** | **127** | **DRN** | **160M4** | 540 | 562 |
| **21** | 5050 | 70.95* | 82300 | 2.6 | | | | | | |
| **13** | 8010 | 112.41* | 57800 | 1.00 | **K** | **107** | **DRN** | **160M4** | 375 | 556 |
| **15** | 7180 | 100.75 | 58200 | 1.10 | **KF** | **107** | **DRN** | **160M4** | 390 | 557 |
| **16** | 6480 | 90.96* | 57900 | 1.25 | **KA** | **107** | **DRN** | **160M4** | 350 | 558 |
| **18** | 5890 | 82.61 | 57400 | 1.35 | **KAF** | **107** | **DRN** | **160M4** | 375 | 557 |
| **20** | 5220 | 73.30 | 56700 | 1.55 | | | | | | |
| **22** | 4740 | 66.52* | 56100 | 1.70 | **K** | **107** | **DRN** | **160M4** | 375 | 556 |
| **26** | 4070 | 57.17* | 54900 | 1.95 | **KF** | **107** | **DRN** | **160M4** | 390 | 557 |
| **30** | 3550 | 49.90 | 53800 | 2.2 | **KA** | **107** | **DRN** | **160M4** | 350 | 558 |
| **35** | 3010 | 42.33* | 52300 | 2.4 | **KAF** | **107** | **DRN** | **160M4** | 375 | 557 |
| **40** | 2630 | 37.00* | 51000 | 2.7 | | | | | | |
| **21** | 5030 | 70.54 | 32300 | 0.85 | **K** | **97** | **DRN** | **160M4** | 265 | 551 |
| **24** | 4460 | 62.55 | 32500 | 0.95 | **KF** | **97** | **DRN** | **160M4** | 285 | 552 |
| **26** | 4030 | 56.55 | 32500 | 1.05 | **KA** | **97** | **DRN** | **160M4** | 245 | 553 |
| **31** | 3410 | 47.93* | 32400 | 1.25 | **KAF** | **97** | **DRN** | **160M4** | 270 | 552 |
| **35** | 2980 | 41.87 | 32200 | 1.45 | | | | | | |
| **38** | 2730 | 38.30 | 31900 | 1.55 | | | | | | |
| **43** | 2440 | 34.23 | 31600 | 1.75 | **K** | **97** | **DRN** | **160M4** | 265 | 551 |
| **48** | 2190 | 30.82 | 31200 | 1.95 | **KF** | **97** | **DRN** | **160M4** | 285 | 552 |
| **53** | 1980 | 27.91 | 30700 | 2.2 | **KA** | **97** | **DRN** | **160M4** | 245 | 553 |
| **60** | 1760 | 24.75 | 30200 | 2.4 | **KAF** | **97** | **DRN** | **160M4** | 270 | 552 |
| **66** | 1590 | 22.37 | 29700 | 2.7 | | | | | | |
| **33** | 3130 | 44.02 | 20100 | 0.85 | | | | | | |
| **40** | 2600 | 36.52* | 20500 | 0.95 | **K** | **87** | **DRN** | **160M4** | 205 | 546 |
| **47** | 2230 | 31.39 | 20600 | 1.20 | **KF** | **87** | **DRN** | **160M4** | 210 | 547 |
| **53** | 1980 | 27.88 | 20500 | 1.30 | **KA** | **87** | **DRN** | **160M4** | 190 | 548 |
| **59** | 1770 | 24.92 | 20400 | 1.40 | **KAF** | **87** | **DRN** | **160M4** | 205 | 547 |

21284997/EN – 03/2015

## $P_m$ = 11.0 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **66** | 1590 | 22.41 | 20300 | 1.45 | | | | | | |
| **76** | 1380 | 19.45 | 20000 | 1.65 | | | | | | |
| **85** | 1240 | 17.42 | 19800 | 1.75 | | | | | | |
| **92** | 1140 | 16.00 | 18800 | 1.60 | **K** | **87** | **DRN** | **160M4** | 205 | 546 |
| **102** | 1030 | 14.45 | 19300 | 2.0 | **KF** | **87** | **DRN** | **160M4** | 210 | 547 |
| **117** | 890 | 12.56 | 18900 | 2.2 | **KA** | **87** | **DRN** | **160M4** | 190 | 548 |
| **132** | 795 | 11.17 | 17900 | 1.90 | **KAF** | **87** | **DRN** | **160M4** | 205 | 547 |
| **147** | 710 | 10.00 | 17600 | 2.1 | | | | | | |
| **178** | 590 | 8.29 | 17000 | 2.4 | | | | | | |
| **204** | 510 | 7.21 | 16600 | 2.5 | | | | | | |
| **64** | 1640 | 23.08 | 14700 | 0.95 | | | | | | |
| **73** | 1440 | 20.25 | 16100 | 1.05 | | | | | | |
| **82** | 1270 | 17.87 | 16600 | 1.15 | | | | | | |
| **93** | 1120 | 15.84 | 16500 | 1.25 | **K** | **77** | **DRN** | **160M4** | 165 | 541 |
| **109** | 960 | 13.52 | 16200 | 1.40 | **KF** | **77** | **DRN** | **160M4** | 175 | 542 |
| **119** | 880 | 12.36 | 15500 | 1.15 | **KA** | **77** | **DRN** | **160M4** | 160 | 543 |
| **136** | 770 | 10.84 | 15300 | 1.30 | **KAF** | **77** | **DRN** | **160M4** | 165 | 542 |
| **154** | 680 | 9.56 | 15000 | 1.40 | | | | | | |
| **174** | 600 | 8.48 | 14800 | 1.45 | | | | | | |
| **203** | 515 | 7.24 | 14400 | 1.60 | | | | | | |

## $P_m$ = 15.0 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **2.4** | 55600 | 622 | 190000 | 0.90 | | | | | | |
| **2.8** | 47100 | 520 | 190000 | 1.05 | **K** | **187R107** | **DRN** | **160L4** | 1930 | 575 |
| **3.2** | 41000 | 454 | 190000 | 1.20 | **KH** | **187R107** | **DRN** | **160L4** | 1860 | 575 |
| **4.2** | 31700 | 355 | 190000 | 1.60 | | | | | | |
| **5.6** | 23500 | 261 | 190000 | 2.1 | | | | | | |
| **4.6** | 28800 | 318 | 150000 | 1.10 | | | | | | |
| **5.3** | 25000 | 278 | 150000 | 1.30 | | | | | | |
| **6.0** | 21700 | 244 | 150000 | 1.45 | **K** | **167R107** | **DRN** | **160L4** | 1350 | 575 |
| **6.9** | 18900 | 213 | 150000 | 1.70 | **KH** | **167R107** | **DRN** | **160L4** | 1310 | 575 |
| **7.2** | 18400 | 206 | 150000 | 1.75 | | | | | | |
| **8.2** | 15900 | 180 | 150000 | 2.0 | | | | | | |
| **9.2** | 14400 | 160 | 150000 | 2.2 | | | | | | |
| **6.4** | 20400 | 230 | 110900 | 0.90 | | | | | | |
| **6.9** | 19100 | 213 | 111600 | 0.95 | **K** | **157R107** | **DRN** | **160L4** | 950 | 575 |
| **7.9** | 16500 | 187 | 112900 | 1.10 | **KF** | **157R107** | **DRN** | **160L4** | 1030 | 575 |
| **9.4** | 14000 | 157 | 113900 | 1.30 | **KA** | **157R107** | **DRN** | **160L4** | 920 | 575 |
| **12** | 11000 | 122 | 115000 | 1.65 | **KAF** | **157R107** | **DRN** | **160L4** | 980 | 575 |
| **14** | 9610 | 107 | 115400 | 1.85 | | | | | | |
| **9.0** | 15900 | 164.50 | 150000 | 2.0 | **K** | **167** | **DRN** | **160L4** | 1170 | 571 |
| **11** | 13100 | 134.99 | 150000 | 2.4 | **KH** | **167** | **DRN** | **160L4** | 1130 | 572 |
| **9.8** | 14600 | 150.41 | 113700 | 1.25 | | | | | | |
| **12** | 11800 | 122.39 | 114700 | 1.50 | **K** | **157** | **DRN** | **160L4** | 780 | 566 |
| **15** | 9730 | 100.22 | 114000 | 1.85 | **KF** | **157** | **DRN** | **160L4** | 860 | 567 |
| **16** | 8900 | 91.65 | 112300 | 2.0 | **KA** | **157** | **DRN** | **160L4** | 740 | 568 |
| **18** | 7750 | 79.75 | 109400 | 2.3 | **KAF** | **157** | **DRN** | **160L4** | 800 | 567 |
| **11** | 13200 | 136.14 | 79000 | 1.00 | **K** | **127** | **DRN** | **160L4** | 550 | 561 |
| **12** | 11900 | 122.48 | 79800 | 1.10 | **KF** | **127** | **DRN** | **160L4** | 590 | 562 |
| **13** | 10700 | 110.18 | 80400 | 1.20 | **KA** | **127** | **DRN** | **160L4** | 520 | 563 |
| | | | | | **KAF** | **127** | **DRN** | **160L4** | 560 | 562 |
| **16** | 8730 | 89.89 | 81200 | 1.50 | | | | | | |
| **18** | 7960 | 81.98 | 81500 | 1.65 | **K** | **127** | **DRN** | **160L4** | 550 | 561 |
| **21** | 6890 | 70.95* | 81400 | 1.90 | **KF** | **127** | **DRN** | **160L4** | 590 | 562 |
| **24** | 6080 | 62.60 | 79800 | 2.1 | **KA** | **127** | **DRN** | **160L4** | 520 | 563 |
| **27** | 5250 | 54.07 | 77800 | 2.5 | **KAF** | **127** | **DRN** | **160L4** | 560 | 562 |
| **31** | 4640 | 47.82 | 76100 | 2.8 | | | | | | |
| **16** | 8830 | 90.96* | 48300 | 0.90 | **K** | **107** | **DRN** | **160L4** | 395 | 556 |
| **18** | 8020 | 82.61 | 49500 | 1.00 | **KF** | **107** | **DRN** | **160L4** | 405 | 557 |
| **20** | 7120 | 73.30 | 50500 | 1.10 | **KA** | **107** | **DRN** | **160L4** | 365 | 558 |
| **22** | 6460 | 66.52* | 51000 | 1.25 | **KAF** | **107** | **DRN** | **160L4** | 390 | 557 |



21284997/EN – 03/2015

## $P_m$ = 15.0 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **26** | 5550 | 57.17* | 50600 | 1.45 | | | | | | |
| **30** | 4840 | 49.90 | 50000 | 1.60 | | | | | | |
| **35** | 4110 | 42.33* | 49000 | 1.80 | **K** | **107** | **DRN** | **160L4** | 395 | 556 |
| **40** | 3590 | 37.00* | 48100 | 2.0 | **KF** | **107** | **DRN** | **160L4** | 405 | 557 |
| **45** | 3170 | 32.69 | 47200 | 2.3 | **KA** | **107** | **DRN** | **160L4** | 365 | 558 |
| **47** | 3030 | 31.28* | 46900 | 2.2 | **KAF** | **107** | **DRN** | **160L4** | 390 | 557 |
| **51** | 2810 | 29.00 | 46300 | 2.6 | | | | | | |
| **31** | 4650 | 47.93* | 28100 | 0.90 | | | | | | |
| **35** | 4060 | 41.87 | 28400 | 1.05 | **K** | **97** | **DRN** | **160L4** | 280 | 551 |
| **38** | 3720 | 38.30 | 28500 | 1.15 | **KF** | **97** | **DRN** | **160L4** | 300 | 552 |
| **43** | 3320 | 34.23 | 28500 | 1.30 | **KA** | **97** | **DRN** | **160L4** | 260 | 553 |
| **48** | 2990 | 30.82 | 28400 | 1.45 | **KAF** | **97** | **DRN** | **160L4** | 285 | 552 |
| **53** | 2710 | 27.91 | 28200 | 1.60 | | | | | | |
| **60** | 2400 | 24.75 | 28000 | 1.80 | **K** | **97** | **DRN** | **160L4** | 280 | 551 |
| **66** | 2170 | 22.37 | 27700 | 2.00 | **KF** | **97** | **DRN** | **160L4** | 300 | 552 |
| **78** | 1840 | 18.96 | 27100 | 2.3 | **KA** | **97** | **DRN** | **160L4** | 260 | 553 |
| **89** | 1600 | 16.56 | 26600 | 2.7 | **KAF** | **97** | **DRN** | **160L4** | 285 | 552 |
| **47** | 3040 | 31.39 | 17300 | 0.90 | | | | | | |
| **53** | 2700 | 27.88 | 17600 | 0.95 | **K** | **87** | **DRN** | **160L4** | 220 | 546 |
| **59** | 2420 | 24.92 | 17900 | 1.05 | **KF** | **87** | **DRN** | **160L4** | 230 | 547 |
| **66** | 2170 | 22.41 | 18000 | 1.05 | **KA** | **87** | **DRN** | **160L4** | 205 | 548 |
| **76** | 1880 | 19.45 | 18000 | 1.20 | **KAF** | **87** | **DRN** | **160L4** | 220 | 547 |
| **85** | 1690 | 17.42 | 18000 | 1.30 | | | | | | |
| **92** | 1550 | 16.00 | 16800 | 1.15 | | | | | | |
| **102** | 1400 | 14.45 | 17800 | 1.50 | **K** | **87** | **DRN** | **160L4** | 220 | 546 |
| **117** | 1220 | 12.56 | 17600 | 1.65 | **KF** | **87** | **DRN** | **160L4** | 230 | 547 |
| **132** | 1080 | 11.17 | 16600 | 1.40 | **KA** | **87** | **DRN** | **160L4** | 205 | 548 |
| **147** | 970 | 10.00 | 16400 | 1.55 | **KAF** | **87** | **DRN** | **160L4** | 220 | 547 |
| **178** | 800 | 8.29 | 16000 | 1.75 | | | | | | |
| **204** | 700 | 7.21 | 15700 | 1.85 | | | | | | |

## $P_m$ = 18.5 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **2.8** | 58000 | 520 | 190000 | 0.85 | | | | | | |
| **3.3** | 50500 | 454 | 190000 | 1.00 | | | | | | |
| **4.2** | 39100 | 355 | 190000 | 1.30 | **K** | **187R107** | **DRN** | **180M4** | 1950 | 575 |
| **5.7** | 29000 | 261 | 190000 | 1.70 | **KH** | **187R107** | **DRN** | **180M4** | 1880 | 575 |
| **6.7** | 24600 | 221 | 190000 | 2.0 | | | | | | |
| **4.6** | 35500 | 318 | 150000 | 0.90 | | | | | | |
| **5.3** | 30900 | 278 | 150000 | 1.05 | | | | | | |
| **6.1** | 26800 | 244 | 150000 | 1.20 | | | | | | |
| **6.9** | 23400 | 213 | 150000 | 1.35 | | | | | | |
| **7.2** | 22800 | 206 | 150000 | 1.40 | **K** | **167R107** | **DRN** | **180M4** | 1370 | 575 |
| **8.2** | 19700 | 180 | 150000 | 1.60 | **KH** | **167R107** | **DRN** | **180M4** | 1330 | 575 |
| **9.3** | 17700 | 160 | 150000 | 1.80 | | | | | | |
| **11** | 15000 | 135 | 150000 | 2.1 | | | | | | |
| **12** | 13100 | 118 | 150000 | 2.4 | | | | | | |
| **7.9** | 20400 | 187 | 110800 | 0.90 | **K** | **157R107** | **DRN** | **180M4** | 980 | 575 |
| **9.4** | 17300 | 157 | 112500 | 1.05 | **KF** | **157R107** | **DRN** | **180M4** | 1050 | 575 |
| **12** | 13600 | 122 | 113800 | 1.30 | **KA** | **157R107** | **DRN** | **180M4** | 940 | 575 |
| **14** | 11800 | 107 | 111900 | 1.50 | **KAF** | **157R107** | **DRN** | **180M4** | 1000 | 575 |
| **8.2** | 21400 | 179.86 | 190000 | 2.3 | | | | | | |
| **9.0** | 19700 | 165.21 | 190000 | 2.5 | **K** | **187** | **DRN** | **180M4** | 1780 | 573 |
| **10** | 17200 | 144.59 | 190000 | 2.9 | **KH** | **187** | **DRN** | **180M4** | 1710 | 574 |
| **11** | 15500 | 129.69 | 190000 | 3.2 | | | | | | |
| **11** | 16100 | 134.99 | 150000 | 2.00 | | | | | | |
| **13** | 13100 | 109.83 | 150000 | 2.4 | **K** | **167** | **DRN** | **180M4** | 1200 | 571 |
| **17** | 10500 | 87.86 | 150000 | 3.0 | **KH** | **167** | **DRN** | **180M4** | 1160 | 572 |

21284997/EN – 03/2015

## $P_m$ = 18.5 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **12** | 14600 | 122.39 | 111500 | 1.25 | | | | | | |
| **15** | 11900 | 100.22 | 109000 | 1.50 | | | | | | |
| **16** | 10900 | 91.65 | 107700 | 1.65 | | | | | | |
| **19** | 9530 | 79.75 | 105400 | 1.90 | **K** | **157** | **DRN** | **180M4** | 800 | 566 |
| **21** | 8410 | 70.38 | 103200 | 2.1 | **KF** | **157** | **DRN** | **180M4** | 880 | 567 |
| **24** | 7290 | 61.02 | 100600 | 2.5 | **KA** | **157** | **DRN** | **180M4** | 770 | 568 |
| **27** | 6480 | 54.29 | 98300 | 2.8 | **KAF** | **157** | **DRN** | **180M4** | 820 | 567 |
| **32** | 5590 | 46.79 | 95400 | 3.2 | | | | | | |
| **39** | 4540 | 38.02 | 91200 | 4.0 | | | | | | |
| **13** | 13100 | 110.18 | 79100 | 1.00 | **K** | **127** | **DRN** | **180M4** | 570 | 561 |
| **16** | 10700 | 89.89 | 79000 | 1.20 | **KF** | **127** | **DRN** | **180M4** | 610 | 562 |
| **18** | 9790 | 81.98 | 78500 | 1.35 | **KA** | **127** | **DRN** | **180M4** | 540 | 563 |
| | | | | | **KAF** | **127** | **DRN** | **180M4** | 580 | 562 |
| **21** | 8480 | 70.95* | 77400 | 1.55 | | | | | | |
| **24** | 7480 | 62.60 | 76300 | 1.75 | | | | | | |
| **27** | 6460 | 54.07 | 74700 | 2.0 | **K** | **127** | **DRN** | **180M4** | 570 | 561 |
| **31** | 5710 | 47.82 | 73300 | 2.3 | **KF** | **127** | **DRN** | **180M4** | 610 | 562 |
| **37** | 4800 | 40.19 | 71100 | 2.7 | **KA** | **127** | **DRN** | **180M4** | 540 | 563 |
| **41** | 4330 | 36.25 | 69800 | 3.0 | **KAF** | **127** | **DRN** | **180M4** | 580 | 562 |
| **47** | 3740 | 31.37 | 67800 | 3.5 | | | | | | |
| **53** | 3300 | 27.68 | 66100 | 3.9 | | | | | | |
| **20** | 8760 | 73.30 | 42900 | 0.90 | **K** | **107** | **DRN** | **180M4** | 415 | 556 |
| **22** | 7950 | 66.52* | 44300 | 1.00 | **KF** | **107** | **DRN** | **180M4** | 425 | 557 |
| **26** | 6830 | 57.17* | 45800 | 1.15 | **KA** | **107** | **DRN** | **180M4** | 385 | 558 |
| **30** | 5960 | 49.90 | 46600 | 1.30 | **KAF** | **107** | **DRN** | **180M4** | 410 | 557 |
| **35** | 5050 | 42.33* | 46200 | 1.45 | | | | | | |
| **40** | 4420 | 37.00* | 45700 | 1.65 | | | | | | |
| **45** | 3900 | 32.69 | 45000 | 1.85 | | | | | | |
| **47** | 3730 | 31.28* | 44800 | 1.80 | **K** | **107** | **DRN** | **180M4** | 415 | 556 |
| **51** | 3460 | 29.00 | 44300 | 2.1 | **KF** | **107** | **DRN** | **180M4** | 425 | 557 |
| **56** | 3140 | 26.32 | 43700 | 2.3 | **KA** | **107** | **DRN** | **180M4** | 385 | 558 |
| **65** | 2700 | 22.62 | 42700 | 2.7 | **KAF** | **107** | **DRN** | **180M4** | 410 | 557 |
| **75** | 2350 | 19.74 | 41700 | 3.0 | | | | | | |
| **88** | 2000 | 16.75 | 40400 | 3.5 | | | | | | |
| **35** | 5000 | 41.87 | 25100 | 0.85 | **K** | **97** | **DRN** | **180M4** | 300 | 551 |
| **48** | 3680 | 30.82 | 26000 | 1.15 | **KF** | **97** | **DRN** | **180M4** | 320 | 552 |
| **53** | 3330 | 27.91 | 26000 | 1.30 | **KA** | **97** | **DRN** | **180M4** | 280 | 553 |
| **60** | 2950 | 24.75 | 26000 | 1.45 | **KAF** | **97** | **DRN** | **180M4** | 305 | 552 |
| **66** | 2670 | 22.37 | 25900 | 1.60 | **K** | **97** | **DRN** | **180M4** | 300 | 551 |
| **78** | 2260 | 18.96 | 25600 | 1.90 | **KF** | **97** | **DRN** | **180M4** | 320 | 552 |
| **89** | 1970 | 16.56 | 25300 | 2.2 | **KA** | **97** | **DRN** | **180M4** | 280 | 553 |
| **107** | 1650 | 13.85 | 24700 | 2.6 | **KAF** | **97** | **DRN** | **180M4** | 305 | 552 |
| **123** | 1430 | 11.99 | 24200 | 2.7 | | | | | | |
| **59** | 2970 | 24.92 | 15600 | 0.85 | | | | | | |
| **66** | 2670 | 22.41 | 15900 | 0.85 | | | | | | |
| **76** | 2320 | 19.45 | 16200 | 1.00 | | | | | | |
| **85** | 2080 | 17.42 | 16400 | 1.05 | **K** | **87** | **DRN** | **180M4** | 240 | 546 |
| **102** | 1720 | 14.45 | 16500 | 1.20 | **KF** | **87** | **DRN** | **180M4** | 250 | 547 |
| **118** | 1500 | 12.56 | 16400 | 1.35 | **KA** | **87** | **DRN** | **180M4** | 230 | 548 |
| **132** | 1330 | 11.17 | 15400 | 1.10 | **KAF** | **87** | **DRN** | **180M4** | 240 | 547 |
| **148** | 1190 | 10.00 | 15300 | 1.25 | | | | | | |
| **178** | 990 | 8.29 | 15100 | 1.40 | | | | | | |
| **205** | 860 | 7.21 | 14900 | 1.50 | | | | | | |

## $P_m$ = 22 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **3.2** | 60300 | 454 | 190000 | 0.85 | | | | | | |
| **4.2** | 46600 | 355 | 190000 | 1.05 | | | | | | |
| **5.7** | 34600 | 261 | 190000 | 1.45 | **K** | **187R107** | **DRN** | **180L4** | 1970 | 575 |
| **6.7** | 29300 | 221 | 190000 | 1.70 | **KH** | **187R107** | **DRN** | **180L4** | 1900 | 575 |
| **7.6** | 25600 | 193 | 190000 | 1.95 | | | | | | |
| **9.0** | 21500 | 163 | 190000 | 2.3 | | | | | | |



21284997/EN – 03/2015

## $P_m$ = 22 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **5.3** | 36800 | 278 | 150000 | 0.85 | | | | | | |
| **6.1** | 32000 | 244 | 150000 | 1.00 | | | | | | |
| **6.9** | 27900 | 213 | 150000 | 1.15 | | | | | | |
| **7.2** | 27200 | 206 | 150000 | 1.15 | **K** | **167R107** | **DRN** | **180L4** | 1380 | 575 |
| **8.2** | 23500 | 180 | 150000 | 1.35 | **KH** | **167R107** | **DRN** | **180L4** | 1350 | 575 |
| **9.2** | 21200 | 160 | 150000 | 1.50 | | | | | | |
| **11** | 17900 | 135 | 150000 | 1.80 | | | | | | |
| **12** | 15600 | 118 | 150000 | 2.0 | | | | | | |
| **9.4** | 20700 | 157 | 109400 | 0.85 | **K** | **157R107** | **DRN** | **180L4** | 990 | 575 |
| **12** | 16200 | 122 | 108100 | 1.10 | **KF** | **157R107** | **DRN** | **180L4** | 1070 | 575 |
| **14** | 14100 | 107 | 106900 | 1.25 | **KA** | **157R107** | **DRN** | **180L4** | 950 | 575 |
| | | | | | **KAF** | **157R107** | **DRN** | **180L4** | 1010 | 575 |
| **8.2** | 25500 | 179.86 | 190000 | 1.95 | | | | | | |
| **8.9** | 23400 | 165.21 | 190000 | 2.1 | **K** | **187** | **DRN** | **180L4** | 1790 | 573 |
| **10** | 20500 | 144.59 | 190000 | 2.4 | **KH** | **187** | **DRN** | **180L4** | 1730 | 574 |
| **11** | 18400 | 129.69 | 190000 | 2.7 | | | | | | |
| **11** | 19100 | 134.99 | 150000 | 1.65 | | | | | | |
| **13** | 15600 | 109.83 | 150000 | 2.0 | **K** | **167** | **DRN** | **180L4** | 1210 | 571 |
| **17** | 12400 | 87.86 | 150000 | 2.6 | **KH** | **167** | **DRN** | **180L4** | 1170 | 572 |
| **19** | 11100 | 78.14 | 150000 | 2.9 | | | | | | |
| **12** | 17400 | 122.39 | 105500 | 1.05 | | | | | | |
| **15** | 14200 | 100.22 | 104000 | 1.25 | | | | | | |
| **16** | 13000 | 91.65 | 103100 | 1.40 | | | | | | |
| **19** | 11300 | 79.75 | 101500 | 1.60 | **K** | **157** | **DRN** | **180L4** | 820 | 566 |
| **21** | 10000 | 70.38 | 99700 | 1.80 | **KF** | **157** | **DRN** | **180L4** | 900 | 567 |
| **24** | 8670 | 61.02 | 97500 | 2.1 | **KA** | **157** | **DRN** | **180L4** | 780 | 568 |
| **27** | 7720 | 54.29 | 95600 | 2.3 | **KAF** | **157** | **DRN** | **180L4** | 840 | 567 |
| **32** | 6650 | 46.79 | 93100 | 2.7 | | | | | | |
| **39** | 5400 | 38.02 | 89300 | 3.3 | | | | | | |
| **16** | 12700 | 89.89 | 73900 | 1.00 | **K** | **127** | **DRN** | **180L4** | 580 | 561 |
| **18** | 11600 | 81.98 | 73800 | 1.10 | **KF** | **127** | **DRN** | **180L4** | 630 | 562 |
| **21** | 10000 | 70.95* | 73400 | 1.30 | **KA** | **127** | **DRN** | **180L4** | 560 | 563 |
| **24** | 8900 | 62.60 | 72700 | 1.45 | **KAF** | **127** | **DRN** | **180L4** | 590 | 562 |
| **27** | 7690 | 54.07 | 71700 | 1.70 | | | | | | |
| **31** | 6800 | 47.82 | 70600 | 1.90 | | | | | | |
| **37** | 5710 | 40.19 | 68900 | 2.3 | **K** | **127** | **DRN** | **180L4** | 580 | 561 |
| **41** | 5150 | 36.25 | 67700 | 2.5 | **KF** | **127** | **DRN** | **180L4** | 630 | 562 |
| **47** | 4460 | 31.37 | 66100 | 2.9 | **KA** | **127** | **DRN** | **180L4** | 560 | 563 |
| **53** | 3930 | 27.68 | 64500 | 3.3 | **KAF** | **127** | **DRN** | **180L4** | 590 | 562 |
| **62** | 3390 | 23.91 | 62700 | 3.8 | | | | | | |
| **70** | 3000 | 21.15 | 61100 | 4.3 | | | | | | |
| **26** | 8130 | 57.17* | 39800 | 1.00 | **K** | **107** | **DRN** | **180L4** | 430 | 556 |
| **30** | 7090 | 49.90 | 41600 | 1.10 | **KF** | **107** | **DRN** | **180L4** | 440 | 557 |
| **35** | 6020 | 42.33* | 42900 | 1.20 | **KA** | **107** | **DRN** | **180L4** | 400 | 558 |
| | | | | | **KAF** | **107** | **DRN** | **180L4** | 425 | 557 |
| **40** | 5260 | 37.00* | 43200 | 1.35 | | | | | | |
| **45** | 4640 | 32.69 | 42900 | 1.55 | | | | | | |
| **47** | 4440 | 31.28* | 42700 | 1.55 | | | | | | |
| **51** | 4120 | 29.00 | 42400 | 1.75 | | | | | | |
| **56** | 3740 | 26.32 | 42000 | 1.90 | **K** | **107** | **DRN** | **180L4** | 430 | 556 |
| **65** | 3210 | 22.62 | 41200 | 2.2 | **KF** | **107** | **DRN** | **180L4** | 440 | 557 |
| **75** | 2800 | 19.74 | 40300 | 2.6 | **KA** | **107** | **DRN** | **180L4** | 400 | 558 |
| **88** | 2380 | 16.75 | 39300 | 3.0 | **KAF** | **107** | **DRN** | **180L4** | 425 | 557 |
| **101** | 2080 | 14.64 | 38300 | 3.3 | | | | | | |
| **110** | 1910 | 13.43 | 36700 | 2.2 | | | | | | |
| **126** | 1660 | 11.73 | 35800 | 2.6 | | | | | | |
| **149** | 1410 | 9.94 | 34700 | 3.0 | | | | | | |
| **48** | 4380 | 30.82 | 23500 | 1.00 | **K** | **97** | **DRN** | **180L4** | 315 | 551 |
| **53** | 3960 | 27.91 | 23800 | 1.10 | **KF** | **97** | **DRN** | **180L4** | 335 | 552 |
| **60** | 3510 | 24.75 | 24100 | 1.20 | **KA** | **97** | **DRN** | **180L4** | 300 | 553 |
| **66** | 3180 | 22.37 | 24200 | 1.35 | **KAF** | **97** | **DRN** | **180L4** | 325 | 552 |

21284997/EN – 03/2015

## $P_m$ = 22 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **78** | 2690 | 18.96 | 24100 | 1.60 | | | | | | |
| **89** | 2350 | 16.56 | 24000 | 1.85 | **K** | **97** | **DRN** | **180L4** | 315 | 551 |
| **107** | 1960 | 13.85 | 23700 | 2.2 | **KF** | **97** | **DRN** | **180L4** | 335 | 552 |
| **123** | 1700 | 11.99 | 23300 | 2.3 | **KA** | **97** | **DRN** | **180L4** | 300 | 553 |
| **142** | 1480 | 10.41 | 21800 | 1.95 | **KAF** | **97** | **DRN** | **180L4** | 325 | 552 |
| **170** | 1230 | 8.71 | 21300 | 2.2 | | | | | | |
| **76** | 2760 | 19.45 | 14500 | 0.85 | | | | | | |
| **85** | 2470 | 17.42 | 14800 | 0.90 | | | | | | |
| **102** | 2050 | 14.45 | 15200 | 1.00 | **K** | **87** | **DRN** | **180L4** | 255 | 546 |
| **118** | 1780 | 12.56 | 15300 | 1.10 | **KF** | **87** | **DRN** | **180L4** | 265 | 547 |
| **132** | 1580 | 11.17 | 14200 | 0.95 | **KA** | **87** | **DRN** | **180L4** | 245 | 548 |
| **148** | 1420 | 10.00 | 14300 | 1.05 | **KAF** | **87** | **DRN** | **180L4** | 255 | 547 |
| **178** | 1170 | 8.29 | 14300 | 1.20 | | | | | | |
| **205** | 1020 | 7.21 | 14200 | 1.25 | | | | | | |

## $P_m$ = 30 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **5.7** | 47300 | 261 | 190000 | 1.05 | | | | | | |
| **6.7** | 40000 | 221 | 190000 | 1.25 | **K** | **187R107** | **DRN** | **200L4** | 2080 | 575 |
| **7.6** | 34900 | 193 | 190000 | 1.45 | **KH** | **187R107** | **DRN** | **200L4** | 2010 | 575 |
| **9.0** | 29500 | 163 | 190000 | 1.70 | | | | | | |
| **6.9** | 38100 | 213 | 150000 | 0.85 | | | | | | |
| **7.2** | 37200 | 206 | 150000 | 0.85 | | | | | | |
| **8.2** | 32100 | 180 | 150000 | 1.00 | **K** | **167R107** | **DRN** | **200L4** | 1490 | 575 |
| **9.3** | 28900 | 160 | 150000 | 1.10 | **KH** | **167R107** | **DRN** | **200L4** | 1460 | 575 |
| **11** | 24500 | 135 | 150000 | 1.30 | | | | | | |
| **13** | 21300 | 118 | 150000 | 1.50 | | | | | | |
| **8.2** | 34800 | 179.86 | 190000 | 1.45 | | | | | | |
| **9.0** | 31900 | 165.21 | 190000 | 1.55 | | | | | | |
| **10** | 27900 | 144.59 | 190000 | 1.80 | | | | | | |
| **11** | 25100 | 129.69 | 190000 | 2.00 | **K** | **187** | **DRN** | **200L4** | 1900 | 573 |
| **13** | 21700 | 112.60 | 190000 | 2.3 | **KH** | **187** | **DRN** | **200L4** | 1830 | 574 |
| **14** | 19700 | 102.16 | 190000 | 2.5 | | | | | | |
| **17** | 17000 | 88.00 | 190000 | 2.9 | | | | | | |
| **13** | 21200 | 109.83 | 150000 | 1.50 | | | | | | |
| **17** | 17000 | 87.86 | 150000 | 1.90 | | | | | | |
| **19** | 15100 | 78.14 | 150000 | 2.1 | **K** | **167** | **DRN** | **200L4** | 1320 | 571 |
| **22** | 13100 | 68.07 | 150000 | 2.4 | **KH** | **167** | **DRN** | **200L4** | 1280 | 572 |
| **24** | 11700 | 60.74 | 150000 | 2.7 | | | | | | |
| **15** | 19400 | 100.22 | 92700 | 0.95 | | | | | | |
| **16** | 17700 | 91.65 | 92700 | 1.00 | | | | | | |
| **19** | 15400 | 79.75 | 92400 | 1.15 | | | | | | |
| **21** | 13600 | 70.38 | 91700 | 1.30 | **K** | **157** | **DRN** | **200L4** | 930 | 566 |
| **24** | 11800 | 61.02 | 90600 | 1.50 | **KF** | **157** | **DRN** | **200L4** | 1000 | 567 |
| **27** | 10500 | 54.29 | 89500 | 1.70 | **KA** | **157** | **DRN** | **200L4** | 890 | 568 |
| **32** | 9050 | 46.79 | 87700 | 2.00 | **KAF** | **157** | **DRN** | **200L4** | 950 | 567 |
| **39** | 7350 | 38.02 | 85000 | 2.4 | | | | | | |
| **47** | 6050 | 31.30 | 82100 | 3.0 | | | | | | |
| **21** | 13700 | 70.95* | 64200 | 0.95 | | | | | | |
| **24** | 12100 | 62.60 | 64600 | 1.05 | | | | | | |
| **27** | 10400 | 54.07 | 64700 | 1.25 | | | | | | |
| **31** | 9250 | 47.82 | 64400 | 1.40 | **K** | **127** | **DRN** | **200L4** | 690 | 561 |
| **37** | 7770 | 40.19 | 63700 | 1.65 | **KF** | **127** | **DRN** | **200L4** | 730 | 562 |
| **41** | 7010 | 36.25 | 63000 | 1.85 | **KA** | **127** | **DRN** | **200L4** | 660 | 563 |
| **47** | 6070 | 31.37 | 62000 | 2.1 | **KAF** | **127** | **DRN** | **200L4** | 700 | 562 |
| **53** | 5350 | 27.68 | 60900 | 2.4 | | | | | | |
| **62** | 4620 | 23.91 | 59600 | 2.8 | | | | | | |
| **35** | 8190 | 42.33* | 32500 | 0.90 | **K** | **107** | **DRN** | **200L4** | 540 | 556 |
| **40** | 7160 | 37.00* | 34800 | 1.00 | **KF** | **107** | **DRN** | **200L4** | 550 | 557 |
| **47** | 6050 | 31.28* | 36600 | 1.10 | **KA** | **107** | **DRN** | **200L4** | 510 | 558 |
| | | | | | **KAF** | **107** | **DRN** | **200L4** | 540 | 557 |



21284997/EN – 03/2015

## $P_m$ = 30 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **51** | 5610 | 29.00 | 37200 | 1.30 | | | | | | |
| **56** | 5090 | 26.32 | 37700 | 1.40 | | | | | | |
| **65** | 4370 | 22.62 | 37700 | 1.65 | | | | | | |
| **75** | 3820 | 19.74 | 37300 | 1.90 | **K** | **107** | **DRN** | **200L4** | 540 | 556 |
| **88** | 3240 | 16.75 | 36700 | 2.2 | **KF** | **107** | **DRN** | **200L4** | 550 | 557 |
| **101** | 2830 | 14.64 | 36100 | 2.4 | **KA** | **107** | **DRN** | **200L4** | 510 | 558 |
| **110** | 2590 | 13.43 | 34300 | 1.65 | **KAF** | **107** | **DRN** | **200L4** | 540 | 557 |
| **126** | 2260 | 11.73 | 33700 | 1.90 | | | | | | |
| **149** | 1920 | 9.94 | 32900 | 2.2 | | | | | | |
| **170** | 1680 | 8.69 | 32200 | 2.4 | | | | | | |
| **60** | 4780 | 24.75 | 19600 | 0.90 | | | | | | |
| **66** | 4320 | 22.37 | 20200 | 1.00 | | | | | | |
| **78** | 3660 | 18.96 | 20700 | 1.15 | **K** | **97** | **DRN** | **200L4** | 425 | 551 |
| **89** | 3200 | 16.56 | 21000 | 1.35 | **KF** | **97** | **DRN** | **200L4** | 445 | 552 |
| **107** | 2680 | 13.85 | 21200 | 1.60 | **KA** | **97** | **DRN** | **200L4** | 405 | 553 |
| **123** | 2320 | 11.99 | 21100 | 1.70 | **KAF** | **97** | **DRN** | **200L4** | 430 | 552 |
| **142** | 2010 | 10.41 | 19500 | 1.40 | | | | | | |
| **170** | 1680 | 8.71 | 19400 | 1.60 | | | | | | |

## $P_m$ = 37 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **5.7** | 58300 | 261 | 190000 | 0.85 | | | | | | |
| **6.7** | 49400 | 221 | 190000 | 1.00 | **K** | **187R107** | **DRN** | **225S4** | 2110 | 575 |
| **7.7** | 43100 | 193 | 190000 | 1.15 | **KH** | **187R107** | **DRN** | **225S4** | 2040 | 575 |
| **9.1** | 36400 | 163 | 190000 | 1.35 | | | | | | |
| **8.2** | 39700 | 180 | 150000 | 0.80 | | | | | | |
| **9.3** | 35600 | 160 | 150000 | 0.90 | **K** | **167R107** | **DRN** | **225S4** | 1530 | 575 |
| **11** | 30200 | 135 | 150000 | 1.05 | **KH** | **167R107** | **DRN** | **225S4** | 1490 | 575 |
| **13** | 26400 | 118 | 150000 | 1.20 | | | | | | |
| **8.2** | 42800 | 179.86 | 190000 | 1.15 | | | | | | |
| **9.0** | 39300 | 165.21 | 190000 | 1.25 | | | | | | |
| **10** | 34400 | 144.59 | 190000 | 1.45 | | | | | | |
| **11** | 30900 | 129.69 | 190000 | 1.60 | **K** | **187** | **DRN** | **225S4** | 1930 | 573 |
| **13** | 26800 | 112.60 | 190000 | 1.85 | **KH** | **187** | **DRN** | **225S4** | 1870 | 574 |
| **15** | 24300 | 102.16 | 190000 | 2.0 | | | | | | |
| **17** | 20900 | 88.00 | 190000 | 2.4 | | | | | | |
| **13** | 26100 | 109.83 | 150000 | 1.20 | | | | | | |
| **17** | 20900 | 87.86 | 150000 | 1.55 | | | | | | |
| **19** | 18600 | 78.14 | 150000 | 1.70 | **K** | **167** | **DRN** | **225S4** | 1350 | 571 |
| **22** | 16200 | 68.07 | 150000 | 1.95 | **KH** | **167** | **DRN** | **225S4** | 1310 | 572 |
| **24** | 14400 | 60.74 | 150000 | 2.2 | | | | | | |
| **29** | 12300 | 51.77 | 150000 | 2.6 | | | | | | |
| | | | | | **K** | **157** | **DRN** | **225S4** | 960 | 566 |
| **16** | 21800 | 91.65 | 83700 | 0.80 | **KF** | **157** | **DRN** | **225S4** | 1040 | 567 |
| **19** | 19000 | 79.75 | 84500 | 0.95 | **KA** | **157** | **DRN** | **225S4** | 920 | 568 |
| | | | | | **KAF** | **157** | **DRN** | **225S4** | 980 | 567 |
| **21** | 16700 | 70.38 | 84800 | 1.05 | | | | | | |
| **24** | 14500 | 61.02 | 84600 | 1.25 | **K** | **157** | **DRN** | **225S4** | 960 | 566 |
| **27** | 12900 | 54.29 | 84100 | 1.40 | **KF** | **157** | **DRN** | **225S4** | 1040 | 567 |
| **32** | 11100 | 46.79 | 83100 | 1.60 | **KA** | **157** | **DRN** | **225S4** | 920 | 568 |
| **39** | 9060 | 38.02 | 81200 | 2.00 | **KAF** | **157** | **DRN** | **225S4** | 980 | 567 |
| **47** | 7460 | 31.30 | 79000 | 2.4 | | | | | | |
| **24** | 14900 | 62.60 | 57500 | 0.85 | **K** | **127** | **DRN** | **225S4** | 720 | 561 |
| **27** | 12800 | 54.07 | 58600 | 1.00 | **KF** | **127** | **DRN** | **225S4** | 770 | 562 |
| **31** | 11400 | 47.82 | 59000 | 1.15 | **KA** | **127** | **DRN** | **225S4** | 700 | 563 |
| **37** | 9580 | 40.19 | 59100 | 1.35 | **KAF** | **127** | **DRN** | **225S4** | 730 | 562 |

21284997/EN – 03/2015

## $P_m$ = 37 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **41** | 8640 | 36.25 | 58900 | 1.50 | | | | | | |
| **47** | 7470 | 31.37 | 58400 | 1.75 | | | | | | |
| **54** | 6590 | 27.68 | 57800 | 1.95 | | | | | | |
| **62** | 5690 | 23.91 | 56800 | 2.3 | **K** | **127** | **DRN** | **225S4** | 720 | 561 |
| **70** | 5040 | 21.15 | 55900 | 2.6 | **KF** | **127** | **DRN** | **225S4** | 770 | 562 |
| **83** | 4230 | 17.77 | 54500 | 3.1 | **KA** | **127** | **DRN** | **225S4** | 700 | 563 |
| **103** | 3420 | 14.35 | 52500 | 3.5 | **KAF** | **127** | **DRN** | **225S4** | 730 | 562 |
| **116** | 3040 | 12.79 | 50200 | 2.8 | | | | | | |
| **138** | 2560 | 10.74 | 48600 | 3.1 | | | | | | |
| **171** | 2060 | 8.68 | 46500 | 3.5 | | | | | | |
| **40** | 8820 | 37.00* | 26000 | 0.80 | | | | | | |
| **47** | 7450 | 31.28* | 29800 | 0.90 | | | | | | |
| **51** | 6910 | 29.00 | 31100 | 1.05 | | | | | | |
| **56** | 6270 | 26.32 | 32300 | 1.15 | | | | | | |
| **66** | 5390 | 22.62 | 33700 | 1.35 | **K** | **107** | **DRN** | **225S4** | 570 | 556 |
| **75** | 4700 | 19.74 | 34400 | 1.55 | **KF** | **107** | **DRN** | **225S4** | 580 | 557 |
| **89** | 3990 | 16.75 | 34500 | 1.75 | **KA** | **107** | **DRN** | **225S4** | 540 | 558 |
| **101** | 3480 | 14.64 | 34100 | 1.95 | **KAF** | **107** | **DRN** | **225S4** | 570 | 557 |
| **110** | 3200 | 13.43 | 32300 | 1.35 | | | | | | |
| **126** | 2790 | 11.73 | 31900 | 1.55 | | | | | | |
| **149** | 2370 | 9.94 | 31400 | 1.75 | | | | | | |
| **171** | 2070 | 8.69 | 30800 | 1.95 | | | | | | |

## $P_m$ = 45 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **6.7** | 60200 | 221 | 190000 | 0.85 | | | | | | |
| **7.7** | 52500 | 193 | 190000 | 0.95 | **K** | **187R107** | **DRN** | **225M4** | 2110 | 575 |
| **9.1** | 44300 | 163 | 190000 | 1.15 | **KH** | **187R107** | **DRN** | **225M4** | 2040 | 575 |
| **11** | 36800 | 135 | 150000 | 0.85 | **K** | **167R107** | **DRN** | **225M4** | 1530 | 575 |
| **13** | 32100 | 118 | 150000 | 1.00 | **KH** | **167R107** | **DRN** | **225M4** | 1490 | 575 |
| **8.2** | 52100 | 179.86 | 190000 | 0.95 | | | | | | |
| **9.0** | 47900 | 165.21 | 190000 | 1.05 | | | | | | |
| **10** | 41900 | 144.59 | 190000 | 1.20 | | | | | | |
| **11** | 37600 | 129.69 | 190000 | 1.35 | **K** | **187** | **DRN** | **225M4** | 1930 | 573 |
| **13** | 32600 | 112.60 | 189800 | 1.55 | **KH** | **187** | **DRN** | **225M4** | 1870 | 574 |
| **15** | 29600 | 102.16 | 187600 | 1.70 | | | | | | |
| **17** | 25500 | 88.00 | 183700 | 1.95 | | | | | | |
| **20** | 21400 | 73.96 | 178700 | 2.3 | | | | | | |
| **13** | 31800 | 109.83 | 150000 | 1.00 | | | | | | |
| **17** | 25400 | 87.86 | 150000 | 1.25 | | | | | | |
| **19** | 22600 | 78.14 | 150000 | 1.40 | | | | | | |
| **22** | 19700 | 68.07 | 150000 | 1.60 | **K** | **167** | **DRN** | **225M4** | 1350 | 571 |
| **24** | 17600 | 60.74 | 148900 | 1.80 | **KH** | **167** | **DRN** | **225M4** | 1310 | 572 |
| **29** | 15000 | 51.77 | 145100 | 2.1 | | | | | | |
| **35** | 12400 | 42.89 | 140400 | 2.6 | | | | | | |
| **21** | 20400 | 70.38 | 76800 | 0.90 | | | | | | |
| **24** | 17600 | 61.02 | 77700 | 1.00 | | | | | | |
| **27** | 15700 | 54.29 | 77900 | 1.15 | | | | | | |
| **32** | 13500 | 46.79 | 77800 | 1.35 | **K** | **157** | **DRN** | **225M4** | 960 | 566 |
| **39** | 11000 | 38.02 | 76900 | 1.65 | **KF** | **157** | **DRN** | **225M4** | 1040 | 567 |
| **47** | 9070 | 31.30 | 75400 | 2.00 | **KA** | **157** | **DRN** | **225M4** | 920 | 568 |
| **54** | 8000 | 27.62 | 74300 | 2.2 | **KAF** | **157** | **DRN** | **225M4** | 980 | 567 |
| **62** | 6940 | 23.95 | 72700 | 2.6 | | | | | | |
| **70** | 6170 | 21.31 | 71400 | 2.9 | | | | | | |
| **81** | 5320 | 18.37 | 69600 | 3.4 | | | | | | |
| **31** | 13800 | 47.82 | 52800 | 0.95 | **K** | **127** | **DRN** | **225M4** | 720 | 561 |
| **37** | 11600 | 40.19 | 53900 | 1.10 | **KF** | **127** | **DRN** | **225M4** | 770 | 562 |
| **41** | 10500 | 36.25 | 54300 | 1.25 | **KA** | **127** | **DRN** | **225M4** | 700 | 563 |
| | | | | | **KAF** | **127** | **DRN** | **225M4** | 730 | 562 |



21284997/EN – 03/2015

## $P_m$ = 45 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **47** | 9090 | 31.37 | 54400 | 1.45 | | | | | | |
| **54** | 8020 | 27.68 | 54200 | 1.60 | | | | | | |
| **62** | 6930 | 23.91 | 53800 | 1.90 | | | | | | |
| **70** | 6120 | 21.15 | 53200 | 2.1 | **K** | **127** | **DRN** | **225M4** | 720 | 561 |
| **83** | 5150 | 17.77 | 52200 | 2.5 | **KF** | **127** | **DRN** | **225M4** | 770 | 562 |
| **103** | 4160 | 14.35 | 50600 | 2.9 | **KA** | **127** | **DRN** | **225M4** | 700 | 563 |
| **116** | 3700 | 12.79 | 48300 | 2.3 | **KAF** | **127** | **DRN** | **225M4** | 730 | 562 |
| **138** | 3110 | 10.74 | 47000 | 2.6 | | | | | | |
| **171** | 2510 | 8.68 | 45200 | 2.9 | | | | | | |
| **51** | 8400 | 29.00 | 23000 | 0.85 | **K** | **107** | **DRN** | **225M4** | 570 | 556 |
| **56** | 7620 | 26.32 | 25400 | 0.95 | **KF** | **107** | **DRN** | **225M4** | 580 | 557 |
| **66** | 6550 | 22.62 | 28100 | 1.10 | **KA** | **107** | **DRN** | **225M4** | 540 | 558 |
| **75** | 5720 | 19.74 | 29800 | 1.25 | **KAF** | **107** | **DRN** | **225M4** | 570 | 557 |
| **89** | 4850 | 16.75 | 31100 | 1.45 | | | | | | |
| **101** | 4240 | 14.64 | 31700 | 1.60 | **K** | **107** | **DRN** | **225M4** | 570 | 556 |
| **110** | 3890 | 13.43 | 29900 | 1.10 | **KF** | **107** | **DRN** | **225M4** | 580 | 557 |
| **126** | 3390 | 11.73 | 29900 | 1.25 | **KA** | **107** | **DRN** | **225M4** | 540 | 558 |
| **149** | 2880 | 9.94 | 29600 | 1.45 | **KAF** | **107** | **DRN** | **225M4** | 570 | 557 |
| **171** | 2510 | 8.69 | 29300 | 1.60 | | | | | | |

## $P_m$ = 55 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **10** | 51200 | 144.59 | 179800 | 1.00 | | | | | | |
| **11** | 45900 | 129.69 | 179600 | 1.10 | | | | | | |
| **13** | 39900 | 112.60 | 178600 | 1.25 | | | | | | |
| **15** | 36200 | 102.16 | 177400 | 1.40 | **K** | **187** | **DRN** | **250M4** | 2080 | 573 |
| **17** | 31100 | 88.00 | 174900 | 1.60 | **KH** | **187** | **DRN** | **250M4** | 2020 | 574 |
| **20** | 26200 | 73.96 | 171300 | 1.90 | | | | | | |
| **23** | 22600 | 64.04 | 167800 | 2.2 | | | | | | |
| **17** | 31100 | 87.86 | 145300 | 1.05 | | | | | | |
| **19** | 27600 | 78.14 | 144600 | 1.15 | | | | | | |
| **22** | 24100 | 68.07 | 143200 | 1.35 | | | | | | |
| **24** | 21500 | 60.74 | 141700 | 1.50 | **K** | **167** | **DRN** | **250M4** | 1500 | 571 |
| **29** | 18300 | 51.77 | 139000 | 1.75 | **KH** | **167** | **DRN** | **250M4** | 1460 | 572 |
| **35** | 15200 | 42.89 | 135300 | 2.1 | | | | | | |
| **40** | 12900 | 36.61 | 131800 | 2.5 | | | | | | |
| **24** | 21600 | 61.02 | 69100 | 0.85 | | | | | | |
| **27** | 19200 | 54.29 | 70300 | 0.95 | | | | | | |
| **32** | 16500 | 46.79 | 71200 | 1.10 | | | | | | |
| **39** | 13400 | 38.02 | 71500 | 1.35 | | | | | | |
| **47** | 11000 | 31.30 | 71000 | 1.60 | **K** | **157** | **DRN** | **250M4** | 1110 | 566 |
| **54** | 9780 | 27.62 | 70400 | 1.85 | **KF** | **157** | **DRN** | **250M4** | 1190 | 567 |
| **62** | 8480 | 23.95 | 69400 | 2.1 | **KA** | **157** | **DRN** | **250M4** | 1070 | 568 |
| **70** | 7550 | 21.31 | 68400 | 2.4 | **KAF** | **157** | **DRN** | **250M4** | 1130 | 567 |
| **81** | 6500 | 18.37 | 67000 | 2.8 | | | | | | |
| **99** | 5280 | 14.92 | 64700 | 3.4 | | | | | | |
| **117** | 4480 | 12.65 | 62800 | 3.8 | | | | | | |
| **37** | 14200 | 40.19 | 47400 | 0.90 | **K** | **127** | **DRN** | **250M4** | 870 | 561 |
| **47** | 11100 | 31.37 | 49300 | 1.15 | **KF** | **127** | **DRN** | **250M4** | 920 | 562 |
| **54** | 9800 | 27.68 | 49700 | 1.35 | **KA** | **127** | **DRN** | **250M4** | 850 | 563 |
| | | | | | **KAF** | **127** | **DRN** | **250M4** | 880 | 562 |
| **62** | 8470 | 23.91 | 49900 | 1.55 | | | | | | |
| **70** | 7490 | 21.15 | 49800 | 1.75 | | | | | | |
| **83** | 6290 | 17.77 | 49300 | 2.1 | **K** | **127** | **DRN** | **250M4** | 870 | 561 |
| **103** | 5080 | 14.35 | 48300 | 2.4 | **KF** | **127** | **DRN** | **250M4** | 920 | 562 |
| **116** | 4530 | 12.79 | 45900 | 1.90 | **KA** | **127** | **DRN** | **250M4** | 850 | 563 |
| **138** | 3800 | 10.74 | 45000 | 2.1 | **KAF** | **127** | **DRN** | **250M4** | 880 | 562 |
| **171** | 3070 | 8.68 | 43600 | 2.4 | | | | | | |

21284997/EN – 03/2015

## $P_m$ = 75 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **11** | 62600 | 129.69 | 153800 | 0.80 | | | | | | |
| **13** | 54400 | 112.60 | 156200 | 0.90 | | | | | | |
| **15** | 49300 | 102.16 | 157000 | 1.00 | | | | | | |
| **17** | 42500 | 88.00 | 157400 | 1.20 | **K** | **187** | **DRN** | **280S4** | 2130 | 573 |
| **20** | 35700 | 73.96 | 156500 | 1.40 | **KH** | **187** | **DRN** | **280S4** | 2070 | 574 |
| **23** | 30900 | 64.04 | 155000 | 1.60 | | | | | | |
| **28** | 25700 | 53.36 | 152200 | 1.95 | | | | | | |
| **33** | 21900 | 45.50* | 149100 | 2.3 | | | | | | |
| **19** | 37700 | 78.14 | 126200 | 0.85 | | | | | | |
| **22** | 32800 | 68.07 | 127200 | 0.95 | | | | | | |
| **24** | 29300 | 60.74 | 127300 | 1.10 | | | | | | |
| **29** | 25000 | 51.77 | 126800 | 1.30 | | | | | | |
| **35** | 20700 | 42.89 | 125200 | 1.55 | **K** | **167** | **DRN** | **280S4** | 1550 | 571 |
| **40** | 17600 | 36.61 | 123200 | 1.80 | **KH** | **167** | **DRN** | **280S4** | 1510 | 572 |
| **46** | 15500 | 32.25 | 121200 | 2.0 | | | | | | |
| **52** | 13900 | 28.77 | 119300 | 2.3 | | | | | | |
| **60** | 11800 | 24.52 | 116300 | 2.7 | | | | | | |
| **39** | 18300 | 38.02 | 60800 | 1.00 | | | | | | |
| **47** | 15100 | 31.30 | 62200 | 1.20 | | | | | | |
| **54** | 13300 | 27.62 | 62600 | 1.35 | **K** | **157** | **DRN** | **280S4** | 1160 | 566 |
| **62** | 11500 | 23.95 | 62600 | 1.55 | **KF** | **157** | **DRN** | **280S4** | 1240 | 567 |
| **70** | 10200 | 21.31 | 62400 | 1.75 | **KA** | **157** | **DRN** | **280S4** | 1120 | 568 |
| **81** | 8870 | 18.37 | 61800 | 2.0 | **KAF** | **157** | **DRN** | **280S4** | 1180 | 567 |
| **99** | 7210 | 14.92 | 60500 | 2.5 | | | | | | |
| **117** | 6110 | 12.65 | 59200 | 2.8 | | | | | | |
| **47** | 15100 | 31.37 | 38000 | 0.85 | | | | | | |
| **54** | 13300 | 27.68 | 40800 | 0.95 | | | | | | |
| **62** | 11500 | 23.91 | 42200 | 1.15 | | | | | | |
| **70** | 10200 | 21.15 | 43000 | 1.25 | **K** | **127** | **DRN** | **280S4** | 920 | 561 |
| **83** | 8580 | 17.77 | 43600 | 1.50 | **KF** | **127** | **DRN** | **280S4** | 960 | 562 |
| **103** | 6930 | 14.35 | 43700 | 1.75 | **KA** | **127** | **DRN** | **280S4** | 890 | 563 |
| **116** | 6170 | 12.79 | 41100 | 1.40 | **KAF** | **127** | **DRN** | **280S4** | 930 | 562 |
| **138** | 5190 | 10.74 | 41000 | 1.55 | | | | | | |
| **171** | 4190 | 8.68 | 40400 | 1.70 | | | | | | |

## $P_m$ = 90 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **14** | 59200 | 102.16 | 141700 | 0.85 | | | | | | |
| **17** | 51000 | 88.00 | 144200 | 1.00 | | | | | | |
| **20** | 42900 | 73.96 | 145500 | 1.15 | | | | | | |
| **23** | 37100 | 64.04 | 145400 | 1.35 | **K** | **187** | **DRN** | **280M4** | 2250 | 573 |
| **28** | 30900 | 53.36 | 144200 | 1.60 | **KH** | **187** | **DRN** | **280M4** | 2180 | 574 |
| **33** | 26400 | 45.50* | 142300 | 1.90 | | | | | | |
| **35** | 24600 | 42.51 | 141300 | 2.0 | | | | | | |
| **38** | 22300 | 38.57 | 139700 | 2.2 | | | | | | |
| **22** | 39500 | 68.07 | 115100 | 0.80 | | | | | | |
| **24** | 35200 | 60.74 | 116600 | 0.90 | | | | | | |
| **29** | 30000 | 51.77 | 117600 | 1.05 | | | | | | |
| **35** | 24800 | 42.89 | 117600 | 1.30 | | | | | | |
| **40** | 21200 | 36.61 | 116700 | 1.50 | **K** | **167** | **DRN** | **280M4** | 1670 | 571 |
| **46** | 18700 | 32.25 | 115500 | 1.70 | **KH** | **167** | **DRN** | **280M4** | 1630 | 572 |
| **51** | 16600 | 28.77 | 114200 | 1.90 | | | | | | |
| **60** | 14200 | 24.52 | 111900 | 2.2 | | | | | | |
| **73** | 11700 | 20.32 | 108800 | 2.7 | | | | | | |
| **85** | 10000 | 17.34 | 105900 | 3.2 | | | | | | |
| **39** | 22000 | 38.02 | 52700 | 0.80 | | | | | | |
| **62** | 13800 | 23.95 | 57500 | 1.30 | **K** | **157** | **DRN** | **280M4** | 1270 | 566 |
| **70** | 12300 | 21.31 | 57900 | 1.45 | **KF** | **157** | **DRN** | **280M4** | 1350 | 567 |
| **81** | 10600 | 18.37 | 57900 | 1.70 | **KA** | **157** | **DRN** | **280M4** | 1230 | 568 |
| **99** | 8650 | 14.92 | 57400 | 2.1 | **KAF** | **157** | **DRN** | **280M4** | 1290 | 567 |
| **117** | 7340 | 12.65 | 56600 | 2.3 | | | | | | |



21284997/EN – 03/2015

## $P_m$ = 90 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **62** | 13800 | 23.91 | 35500 | 0.95 | | | | | | |
| **70** | 12200 | 21.15 | 37800 | 1.05 | | | | | | |
| **83** | 10300 | 17.77 | 39200 | 1.25 | **K** | **127** | **DRN** | **280M4** | 1040 | 561 |
| **103** | 8320 | 14.35 | 40200 | 1.45 | **KF** | **127** | **DRN** | **280M4** | 1080 | 562 |
| **116** | 7410 | 12.79 | 37600 | 1.15 | **KA** | **127** | **DRN** | **280M4** | 1010 | 563 |
| **138** | 6230 | 10.74 | 38000 | 1.30 | **KAF** | **127** | **DRN** | **280M4** | 1050 | 562 |
| **171** | 5030 | 8.68 | 38000 | 1.45 | | | | | | |

## $P_m$ = 110 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **17** | 62100 | 88.00 | 126800 | 0.80 | | | | | | |
| **20** | 52200 | 73.96 | 130800 | 0.95 | | | | | | |
| **23** | 45200 | 64.04 | 132700 | 1.10 | | | | | | |
| **28** | 37600 | 53.36 | 133600 | 1.35 | | | | | | |
| **33** | 32100 | 45.50* | 133200 | 1.55 | **K** | **187** | **DRN** | **315S4** | 2490 | 573 |
| **35** | 30000 | 42.51 | 132800 | 1.65 | **KH** | **187** | **DRN** | **315S4** | 2420 | 574 |
| **39** | 27200 | 38.57 | 131900 | 1.85 | | | | | | |
| **45** | 23400 | 33.23 | 130200 | 2.1 | | | | | | |
| **53** | 19700 | 27.92 | 127500 | 2.5 | | | | | | |
| **29** | 36500 | 51.77 | 105500 | 0.90 | | | | | | |
| **35** | 30200 | 42.89 | 107500 | 1.05 | | | | | | |
| **41** | 25800 | 36.61 | 108100 | 1.25 | | | | | | |
| **46** | 22700 | 32.25 | 107900 | 1.40 | **K** | **167** | **DRN** | **315S4** | 1910 | 571 |
| **52** | 20300 | 28.77 | 107400 | 1.60 | **KH** | **167** | **DRN** | **315S4** | 1870 | 572 |
| **61** | 17300 | 24.52 | 106100 | 1.85 | | | | | | |
| **73** | 14300 | 20.32 | 104000 | 2.2 | | | | | | |
| **86** | 12200 | 17.34 | 101800 | 2.6 | | | | | | |
| **62** | 16900 | 23.95 | 50800 | 1.05 | | | | | | |
| **70** | 15000 | 21.31 | 51900 | 1.20 | **K** | **157** | **DRN** | **315S4** | 1520 | 566 |
| **81** | 12900 | 18.37 | 52700 | 1.40 | **KF** | **157** | **DRN** | **315S4** | 1590 | 567 |
| **100** | 10500 | 14.92 | 53200 | 1.70 | **KA** | **157** | **DRN** | **315S4** | 1480 | 568 |
| **118** | 8930 | 12.65 | 53000 | 1.90 | **KAF** | **157** | **DRN** | **315S4** | 1540 | 567 |

## $P_m$ = 132 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **20** | 62600 | 73.96 | 114700 | 0.80 | | | | | | |
| **23** | 54200 | 64.04 | 118700 | 0.90 | | | | | | |
| **28** | 45200 | 53.36 | 121900 | 1.10 | | | | | | |
| **33** | 38500 | 45.50* | 123300 | 1.30 | | | | | | |
| **35** | 36000 | 42.51 | 123500 | 1.40 | | | | | | |
| **39** | 32600 | 38.57 | 123500 | 1.55 | **K** | **187** | **DRN** | **315M4** | 2510 | 573 |
| **45** | 28100 | 33.23 | 122900 | 1.80 | **KH** | **187** | **DRN** | **315M4** | 2450 | 574 |
| **53** | 23600 | 27.92 | 121400 | 2.1 | | | | | | |
| **62** | 20400 | 24.18 | 119600 | 2.3 | | | | | | |
| **74** | 17000 | 20.15 | 116800 | 2.6 | | | | | | |
| **87** | 14500 | 17.18 | 114000 | 2.8 | | | | | | |
| **35** | 36300 | 42.89 | 96400 | 0.90 | | | | | | |
| **41** | 31000 | 36.61 | 98600 | 1.05 | | | | | | |
| **46** | 27300 | 32.25 | 99600 | 1.15 | | | | | | |
| **52** | 24300 | 28.77 | 99900 | 1.30 | **K** | **167** | **DRN** | **315M4** | 1930 | 571 |
| **61** | 20700 | 24.52 | 99800 | 1.55 | **KH** | **167** | **DRN** | **315M4** | 1890 | 572 |
| **73** | 17200 | 20.32 | 98700 | 1.85 | | | | | | |
| **86** | 14600 | 17.34 | 97300 | 2.2 | | | | | | |
| **62** | 20200 | 23.95 | 43400 | 0.90 | **K** | **157** | **DRN** | **315M4** | 1540 | 566 |
| **70** | 18000 | 21.31 | 45300 | 1.00 | **KF** | **157** | **DRN** | **315M4** | 1610 | 567 |
| **81** | 15500 | 18.37 | 47000 | 1.15 | **KA** | **157** | **DRN** | **315M4** | 1500 | 568 |
| **100** | 12600 | 14.92 | 48500 | 1.40 | **KAF** | **157** | **DRN** | **315M4** | 1560 | 567 |
| **118** | 10700 | 12.65 | 49100 | 1.60 | | | | | | |

21284997/EN – 03/2015

## $P_m$ = 160 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **28** | 54800 | 53.36 | 107100 | 0.90 | | | | | | |
| **33** | 46700 | 45.50* | 110600 | 1.05 | | | | | | |
| **45** | 34100 | 33.23 | 113700 | 1.45 | | | | | | |
| **53** | 28700 | 27.92 | 113600 | 1.75 | **K** | **187** | **DRN** | **315L4** | 2640 | 573 |
| **61** | 24800 | 24.18 | 112900 | 1.90 | **KH** | **187** | **DRN** | **315L4** | 2580 | 574 |
| **74** | 20700 | 20.15 | 111200 | 2.1 | | | | | | |
| **86** | 17600 | 17.18 | 109300 | 2.3 | | | | | | |
| **41** | 37600 | 36.61 | 86500 | 0.85 | | | | | | |
| **61** | 25200 | 24.52 | 91700 | 1.25 | **K** | **167** | **DRN** | **315L4** | 2060 | 571 |
| **73** | 20800 | 20.32 | 92000 | 1.55 | **KH** | **167** | **DRN** | **315L4** | 2020 | 572 |
| **86** | 17800 | 17.34 | 91600 | 1.80 | | | | | | |
| | | | | | **K** | **157** | **DRN** | **315L4** | 1670 | 566 |
| **81** | 18800 | 18.37 | 39800 | 0.95 | **KF** | **157** | **DRN** | **315L4** | 1750 | 567 |
| **100** | 15300 | 14.92 | 42600 | 1.15 | **KA** | **157** | **DRN** | **315L4** | 1630 | 568 |
| **117** | 13000 | 12.65 | 44100 | 1.30 | **KAF** | **157** | **DRN** | **315L4** | 1690 | 567 |

## $P_m$ = 200 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **33** | 58300 | 45.50* | 92600 | 0.85 | **K** | **187** | **DRN** | **315H4** | 2760 | 573 |
| | | | | | **KH** | **187** | **DRN** | **315H4** | 2700 | 574 |
| **45** | 42600 | 33.23 | 100500 | 1.15 | **K** | **187** | **DRN** | **315H4** | 2760 | 573 |
| | | | | | **KH** | **187** | **DRN** | **315H4** | 2700 | 574 |
| **53** | 35800 | 27.92 | 102500 | 1.40 | | | | | | |
| **62** | 31000 | 24.18 | 103300 | 1.55 | **K** | **187** | **DRN** | **315H4** | 2760 | 573 |
| **74** | 25800 | 20.15 | 103200 | 1.70 | **KH** | **187** | **DRN** | **315H4** | 2700 | 574 |
| **87** | 22000 | 17.18 | 102400 | 1.90 | | | | | | |
| **61** | 31400 | 24.52 | 80200 | 1.00 | **K** | **167** | **DRN** | **315H4** | 2180 | 571 |
| | | | | | **KH** | **167** | **DRN** | **315H4** | 2140 | 572 |
| **73** | 26000 | 20.32 | 82500 | 1.25 | **K** | **167** | **DRN** | **315H4** | 2180 | 571 |
| **86** | 22200 | 17.34 | 83400 | 1.45 | **KH** | **167** | **DRN** | **315H4** | 2140 | 572 |
| | | | | | **K** | **157** | **DRN** | **315H4** | 1790 | 566 |
| **100** | 19100 | 14.92 | 34300 | 0.95 | **KF** | **157** | **DRN** | **315H4** | 1860 | 567 |
| **118** | 16200 | 12.65 | 37000 | 1.05 | **KA** | **157** | **DRN** | **315H4** | 1750 | 568 |
| | | | | | **KAF** | **157** | **DRN** | **315H4** | 1810 | 567 |



21284997/EN – 03/2015

## 10.4 K..R..DRN.. selection tables for low output speeds in Nm

**$M_{a\ max}$ = 200 Nm**

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|
| **0.20** | 6832 | 5640 | | | | | | |
| **0.23** | 5922 | 5640 | | | | | | |
| **0.25** | 5491 | 5640 | | | | | | |
| **0.29** | 4759 | 5640 | | | | | | |
| **0.33** | 4160 | 5640 | | | | | | |
| **0.38** | 3645 | 5640 | | | | | | |
| **0.43** | 3205 | 5640 | **K** | **37R17** | **DR** | **63S4** | 19 | 575 |
| **0.49** | 2801 | 5640 | **KF** | **37R17** | **DR** | **63S4** | 22 | 575 |
| **0.56** | 2454 | 5640 | **KA** | **37R17** | **DR** | **63S4** | 19 | 575 |
| **0.64** | 2166 | 5640 | **KAF** | **37R17** | **DR** | **63S4** | 21 | 575 |
| **0.73** | 1891 | 5640 | | | | | | |
| **0.83** | 1660 | 5640 | | | | | | |
| **0.94** | 1466 | 5640 | | | | | | |
| **1.1** | 1288 | 5640 | | | | | | |
| **1.2** | 1136 | 5640 | | | | | | |
| **1.4** | 996 | 5640 | | | | | | |
| **1.6** | 876 | 5640 | | | | | | |
| **1.8** | 761 | 5640 | | | | | | |
| **2.1** | 671 | 5640 | **K** | **37R17** | **DR** | **63S4** | 19 | 575 |
| **2.4** | 585 | 5640 | **KF** | **37R17** | **DR** | **63S4** | 21 | 575 |
| **2.7** | 512 | 5640 | **KA** | **37R17** | **DR** | **63S4** | 19 | 575 |
| **3.1** | 451 | 5640 | **KAF** | **37R17** | **DR** | **63S4** | 20 | 575 |
| **3.5** | 396 | 5640 | | | | | | |
| **4.0** | 346 | 5640 | | | | | | |
| **4.5** | 304 | 5640 | | | | | | |
| **4.9** | 267 | 5640 | **K** | **37R17** | **DR** | **63M4** | 19 | 575 |
| **5.6** | 234 | 5640 | **KF** | **37R17** | **DR** | **63M4** | 21 | 575 |
| **6.4** | 205 | 5640 | **KA** | **37R17** | **DR** | **63M4** | 19 | 575 |
| **7.3** | 181 | 5640 | **KAF** | **37R17** | **DR** | **63M4** | 20 | 575 |
| | | | **K** | **37R17** | **DR** | **63L4** | 20 | 575 |
| **8.1** | 160 | 5640 | **KF** | **37R17** | **DR** | **63L4** | 22 | 575 |
| **9.5** | 136 | 5640 | **KA** | **37R17** | **DR** | **63L4** | 19 | 575 |
| **10** | 127 | 5640 | **KAF** | **37R17** | **DR** | **63L4** | 21 | 575 |
| | | | **K** | **37R17** | **DRS** | **71S4** | 21 | 575 |
| **12** | 110 | 5640 | **KF** | **37R17** | **DRS** | **71S4** | 24 | 575 |
| **14** | 96 | 5640 | **KA** | **37R17** | **DRS** | **71S4** | 21 | 575 |
| | | | **KAF** | **37R17** | **DRS** | **71S4** | 23 | 575 |

**$M_{a\ max}$ = 400 Nm**

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|
| **0.14** | 10138 | 5920 | | | | | | |
| **0.16** | 8534 | 5920 | | | | | | |
| **0.18** | 7662 | 5920 | | | | | | |
| **0.20** | 6826 | 5920 | | | | | | |
| **0.23** | 5983 | 5920 | | | | | | |
| **0.27** | 5159 | 5920 | | | | | | |
| **0.30** | 4601 | 5920 | **K** | **47R37** | **DR** | **63S4** | 34 | 575 |
| **0.35** | 3940 | 5920 | **KF** | **47R37** | **DR** | **63S4** | 37 | 575 |
| **0.40** | 3477 | 5920 | **KA** | **47R37** | **DR** | **63S4** | 33 | 575 |
| **0.45** | 3043 | 5920 | **KAF** | **47R37** | **DR** | **63S4** | 36 | 575 |
| **0.51** | 2733 | 5920 | | | | | | |
| **0.59** | 2354 | 5920 | | | | | | |
| **0.67** | 2063 | 5920 | | | | | | |
| **0.76** | 1819 | 5920 | | | | | | |
| **0.87** | 1586 | 5920 | | | | | | |
| **0.99** | 1388 | 5920 | | | | | | |

21284997/EN – 03/2015

## $M_{a\ max}$ = 400 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|
| **1.1** | 1222 | 5920 | | | | | | |
| **1.3** | 1097 | 5920 | **K** | **47R37** | **DR** | **63S4** | 33 | 575 |
| **1.5** | 945 | 5920 | **KF** | **47R37** | **DR** | **63S4** | 36 | 575 |
| **1.7** | 831 | 5920 | **KA** | **47R37** | **DR** | **63S4** | 32 | 575 |
| **1.9** | 718 | 5920 | **KAF** | **47R37** | **DR** | **63S4** | 35 | 575 |
| **2.2** | 639 | 5920 | | | | | | |
| **2.4** | 552 | 5920 | **K** | **47R37** | **DR** | **63M4** | 33 | 575 |
| **2.7** | 495 | 5920 | **KF** | **47R37** | **DR** | **63M4** | 36 | 575 |
| **3.1** | 426 | 5920 | **KA** | **47R37** | **DR** | **63M4** | 32 | 575 |
| **3.5** | 375 | 5920 | **KAF** | **47R37** | **DR** | **63M4** | 35 | 575 |
| **4.0** | 327 | 5920 | **K** | **47R37** | **DR** | **63L4** | 34 | 575 |
| **4.5** | 289 | 5920 | **KF** | **47R37** | **DR** | **63L4** | 37 | 575 |
| **5.1** | 256 | 5920 | **KA** | **47R37** | **DR** | **63L4** | 33 | 575 |
| | | | **KAF** | **47R37** | **DR** | **63L4** | 36 | 575 |
| | | | **K** | **47R37** | **DRS** | **71S4** | 36 | 575 |
| **6.2** | 225 | 5920 | **KF** | **47R37** | **DRS** | **71S4** | 39 | 575 |
| **7.0** | 198 | 5920 | **KA** | **47R37** | **DRS** | **71S4** | 35 | 575 |
| | | | **KAF** | **47R37** | **DRS** | **71S4** | 38 | 575 |
| **8.0** | 171 | 5920 | **K** | **47R37** | **DRS** | **71M4** | 37 | 575 |
| **8.9** | 153 | 5920 | **KF** | **47R37** | **DRS** | **71M4** | 40 | 575 |
| **10** | 131 | 5920 | **KA** | **47R37** | **DRS** | **71M4** | 36 | 575 |
| | | | **KAF** | **47R37** | **DRS** | **71M4** | 39 | 575 |

## $M_{a\ max}$ = 600 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|
| **0.11** | 12169 | 7630 | | | | | | |
| **0.12** | 11162 | 7630 | | | | | | |
| **0.15** | 9503 | 7630 | | | | | | |
| **0.16** | 8547 | 7630 | | | | | | |
| **0.19** | 7277 | 7630 | | | | | | |
| **0.21** | 6478 | 7630 | | | | | | |
| **0.24** | 5662 | 7630 | **K** | **57R37** | **DR** | **63S4** | 39 | 575 |
| **0.27** | 5033 | 7630 | **KF** | **57R37** | **DR** | **63S4** | 44 | 575 |
| **0.32** | 4340 | 7630 | **KA** | **57R37** | **DR** | **63S4** | 37 | 575 |
| **0.36** | 3854 | 7630 | **KAF** | **57R37** | **DR** | **63S4** | 43 | 575 |
| **0.41** | 3390 | 7630 | | | | | | |
| **0.47** | 2924 | 7630 | | | | | | |
| **0.53** | 2593 | 7630 | | | | | | |
| **0.61** | 2249 | 7630 | | | | | | |
| **0.70** | 1986 | 7630 | | | | | | |
| **0.79** | 1743 | 7630 | | | | | | |
| **0.90** | 1539 | 7630 | **K** | **57R37** | **DR** | **63S4** | 39 | 575 |
| **1.0** | 1354 | 7630 | **KF** | **57R37** | **DR** | **63S4** | 44 | 575 |
| **1.2** | 1174 | 7630 | **KA** | **57R37** | **DR** | **63S4** | 37 | 575 |
| **1.3** | 1036 | 7630 | **KAF** | **57R37** | **DR** | **63S4** | 43 | 575 |
| **1.5** | 906 | 7630 | | | | | | |
| **1.6** | 806 | 7630 | **K** | **57R37** | **DR** | **63M4** | 39 | 575 |
| **1.9** | 699 | 7630 | **KF** | **57R37** | **DR** | **63M4** | 44 | 575 |
| **2.2** | 615 | 7630 | **KA** | **57R37** | **DR** | **63M4** | 37 | 575 |
| | | | **KAF** | **57R37** | **DR** | **63M4** | 43 | 575 |
| **2.4** | 544 | 7630 | **K** | **57R37** | **DR** | **63L4** | 40 | 575 |
| **2.8** | 473 | 7630 | **KF** | **57R37** | **DR** | **63L4** | 45 | 575 |
| **3.1** | 421 | 7630 | **KA** | **57R37** | **DR** | **63L4** | 38 | 575 |
| | | | **KAF** | **57R37** | **DR** | **63L4** | 43 | 575 |
| **3.8** | 362 | 7630 | **K** | **57R37** | **DRS** | **71S4** | 42 | 575 |
| **4.3** | 319 | 7630 | **KF** | **57R37** | **DRS** | **71S4** | 47 | 575 |
| **4.9** | 280 | 7630 | **KA** | **57R37** | **DRS** | **71S4** | 40 | 575 |
| | | | **KAF** | **57R37** | **DRS** | **71S4** | 45 | 575 |
| **5.5** | 246 | 7630 | **K** | **57R37** | **DRS** | **71M4** | 43 | 575 |
| **6.3** | 215 | 7630 | **KF** | **57R37** | **DRS** | **71M4** | 48 | 575 |
| **7.1** | 192 | 7630 | **KA** | **57R37** | **DRS** | **71M4** | 41 | 575 |
| | | | **KAF** | **57R37** | **DRS** | **71M4** | 47 | 575 |

## $M_{a\ max}$ = 600 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|
| | | | K | 57R37 | DRN | 80M4 | 48 | 575 |
| 8.7 | 166 | 7630 | KF | 57R37 | DRN | 80M4 | 52 | 575 |
| 10.0 | 145 | 7630 | KA | 57R37 | DRN | 80M4 | 45 | 575 |
| | | | KAF | 57R37 | DRN | 80M4 | 51 | 575 |
| | | | K | 57R37 | DRN | 90S4 | 53 | 575 |
| 11 | 129 | 7630 | KF | 57R37 | DRN | 90S4 | 58 | 575 |
| 13 | 111 | 7630 | KA | 57R37 | DRN | 90S4 | 51 | 575 |
| 15 | 97 | 7630 | KAF | 57R37 | DRN | 90S4 | 57 | 575 |

## $M_{a\ max}$ = 820 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|
| 0.11 | 12139 | 10300 | | | | | | |
| 0.12 | 11134 | 10300 | | | | | | |
| 0.15 | 9479 | 10300 | | | | | | |
| 0.17 | 8173 | 10300 | | | | | | |
| 0.19 | 7259 | 10300 | | | | | | |
| 0.21 | 6462 | 10300 | | | | | | |
| 0.24 | 5648 | 10300 | K | 67R37 | DR | 63S4 | 45 | 575 |
| 0.28 | 4846 | 10300 | KF | 67R37 | DR | 63S4 | 51 | 575 |
| 0.32 | 4329 | 10300 | KA | 67R37 | DR | 63S4 | 43 | 575 |
| 0.37 | 3750 | 10300 | KAF | 67R37 | DR | 63S4 | 48 | 575 |
| 0.42 | 3315 | 10300 | | | | | | |
| 0.47 | 2917 | 10300 | | | | | | |
| 0.55 | 2532 | 10300 | | | | | | |
| 0.62 | 2244 | 10300 | | | | | | |
| 0.70 | 1981 | 10300 | | | | | | |
| | | | K | 67R37 | DR | 63S4 | 45 | 575 |
| 0.79 | 1739 | 10300 | KF | 67R37 | DR | 63S4 | 51 | 575 |
| 0.90 | 1535 | 10300 | KA | 67R37 | DR | 63S4 | 42 | 575 |
| 1.0 | 1351 | 10300 | KAF | 67R37 | DR | 63S4 | 48 | 575 |
| 1.2 | 1171 | 10300 | | | | | | |
| | | | K | 67R37 | DR | 63M4 | 45 | 575 |
| 1.3 | 1034 | 10300 | KF | 67R37 | DR | 63M4 | 51 | 575 |
| 1.5 | 903 | 10300 | KA | 67R37 | DR | 63M4 | 42 | 575 |
| 1.7 | 793 | 10300 | KAF | 67R37 | DR | 63M4 | 48 | 575 |
| | | | K | 67R37 | DR | 63L4 | 46 | 575 |
| 1.9 | 697 | 10300 | KF | 67R37 | DR | 63L4 | 51 | 575 |
| 2.1 | 613 | 10300 | KA | 67R37 | DR | 63L4 | 43 | 575 |
| 2.4 | 542 | 10300 | KAF | 67R37 | DR | 63L4 | 49 | 575 |
| | | | K | 67R37 | DRS | 71S4 | 48 | 575 |
| 2.9 | 471 | 10300 | KF | 67R37 | DRS | 71S4 | 53 | 575 |
| 3.3 | 420 | 10300 | KA | 67R37 | DRS | 71S4 | 45 | 575 |
| 3.8 | 361 | 10300 | KAF | 67R37 | DRS | 71S4 | 51 | 575 |
| | | | K | 67R37 | DRS | 71M4 | 49 | 575 |
| 4.2 | 323 | 10300 | KF | 67R37 | DRS | 71M4 | 54 | 575 |
| 4.9 | 279 | 10300 | KA | 67R37 | DRS | 71M4 | 46 | 575 |
| 5.5 | 246 | 10300 | KAF | 67R37 | DRS | 71M4 | 52 | 575 |
| | | | K | 67R37 | DRN | 80M4 | 53 | 575 |
| 6.6 | 217 | 10300 | KF | 67R37 | DRN | 80M4 | 59 | 575 |
| 7.5 | 191 | 10300 | KA | 67R37 | DRN | 80M4 | 51 | 575 |
| | | | KAF | 67R37 | DRN | 80M4 | 56 | 575 |

21284997/EN – 03/2015

## $M_{a\ max}$ = 1550 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|
| **0.09** | 15310 | 15400 | | | | | | |
| **0.10** | 14043 | 15400 | | | | | | |
| **0.12** | 11955 | 15400 | | | | | | |
| **0.14** | 10217 | 15400 | | | | | | |
| **0.16** | 8809 | 15400 | | | | | | |
| **0.18** | 7528 | 15400 | **K** | **77R37** | **DR** | **63S4** | 69 | 575 |
| **0.21** | 6606 | 15400 | **KF** | **77R37** | **DR** | **63S4** | 78 | 575 |
| **0.24** | 5774 | 15400 | **KA** | **77R37** | **DR** | **63S4** | 62 | 575 |
| **0.27** | 5089 | 15400 | **KAF** | **77R37** | **DR** | **63S4** | 70 | 575 |
| **0.31** | 4489 | 15400 | | | | | | |
| **0.35** | 3961 | 15400 | | | | | | |
| **0.40** | 3485 | 15400 | | | | | | |
| **0.48** | 2901 | 15400 | | | | | | |
| **0.51** | 2717 | 15400 | | | | | | |
| **0.56** | 2370 | 15400 | **K** | **77R37** | **DR** | **63M4** | 69 | 575 |
| | | | **KF** | **77R37** | **DR** | **63M4** | 78 | 575 |
| | | | **KA** | **77R37** | **DR** | **63M4** | 62 | 575 |
| | | | **KAF** | **77R37** | **DR** | **63M4** | 70 | 575 |
| **0.64** | 2050 | 15400 | **K** | **77R37** | **DR** | **63M4** | 69 | 575 |
| **0.75** | 1772 | 15400 | **KF** | **77R37** | **DR** | **63M4** | 77 | 575 |
| **0.87** | 1514 | 15400 | **KA** | **77R37** | **DR** | **63M4** | 62 | 575 |
| **0.95** | 1388 | 15400 | **KAF** | **77R37** | **DR** | **63M4** | 70 | 575 |
| **1.1** | 1218 | 15400 | **K** | **77R37** | **DR** | **63L4** | 70 | 575 |
| **1.2** | 1053 | 15400 | **KF** | **77R37** | **DR** | **63L4** | 78 | 575 |
| | | | **KA** | **77R37** | **DR** | **63L4** | 62 | 575 |
| | | | **KAF** | **77R37** | **DR** | **63L4** | 70 | 575 |
| **1.5** | 924 | 15400 | **K** | **77R37** | **DRS** | **71S4** | 72 | 575 |
| **1.7** | 815 | 15400 | **KF** | **77R37** | **DRS** | **71S4** | 80 | 575 |
| **2.0** | 709 | 15400 | **KA** | **77R37** | **DRS** | **71S4** | 64 | 575 |
| | | | **KAF** | **77R37** | **DRS** | **71S4** | 72 | 575 |
| **2.2** | 622 | 15400 | **K** | **77R37** | **DRS** | **71M4** | 73 | 575 |
| **2.5** | 552 | 15400 | **KF** | **77R37** | **DRS** | **71M4** | 81 | 575 |
| **2.8** | 485 | 15400 | **KA** | **77R37** | **DRS** | **71M4** | 65 | 575 |
| | | | **KAF** | **77R37** | **DRS** | **71M4** | 73 | 575 |
| **3.4** | 428 | 15400 | **K** | **77R37** | **DRN** | **80M4** | 78 | 575 |
| **3.9** | 367 | 15400 | **KF** | **77R37** | **DRN** | **80M4** | 86 | 575 |
| | | | **KA** | **77R37** | **DRN** | **80M4** | 70 | 575 |
| | | | **KAF** | **77R37** | **DRN** | **80M4** | 78 | 575 |
| **4.4** | 328 | 15400 | **K** | **77R37** | **DRN** | **90S4** | 83 | 575 |
| **5.0** | 290 | 15400 | **KF** | **77R37** | **DRN** | **90S4** | 92 | 575 |
| **5.8** | 252 | 15400 | **KA** | **77R37** | **DRN** | **90S4** | 76 | 575 |
| | | | **KAF** | **77R37** | **DRN** | **90S4** | 84 | 575 |

## $M_{a\ max}$ = 2700 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|
| **0.09** | 14829 | 27300 | | | | | | |
| **0.10** | 13168 | 27300 | | | | | | |
| **0.12** | 11737 | 27300 | | | | | | |
| **0.14** | 10217 | 27300 | **K** | **87R57** | **DR** | **63S4** | 120 | 575 |
| **0.15** | 9073 | 27300 | **KF** | **87R57** | **DR** | **63S4** | 130 | 575 |
| **0.18** | 7854 | 27300 | **KA** | **87R57** | **DR** | **63S4** | 105 | 575 |
| **0.20** | 6832 | 27300 | **KAF** | **87R57** | **DR** | **63S4** | 120 | 575 |
| **0.23** | 5930 | 27300 | | | | | | |
| **0.26** | 5240 | 27300 | | | | | | |
| **0.30** | 4562 | 27300 | | | | | | |
| **0.33** | 4037 | 27300 | **K** | **87R57** | **DR** | **63M4** | 120 | 575 |
| **0.37** | 3609 | 27300 | **KF** | **87R57** | **DR** | **63M4** | 130 | 575 |
| **0.42** | 3107 | 27300 | **KA** | **87R57** | **DR** | **63M4** | 105 | 575 |
| **0.48** | 2728 | 27300 | **KAF** | **87R57** | **DR** | **63M4** | 120 | 575 |

## $M_{a\ max}$ = 2700 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|
| 0.55 | 2371 | 27300 | K | 87R57 | DR | 63L4 | 120 | 575 |
| | | | KF | 87R57 | DR | 63L4 | 130 | 575 |
| | | | KA | 87R57 | DR | 63L4 | 105 | 575 |
| | | | KAF | 87R57 | DR | 63L4 | 120 | 575 |
| 0.62 | 2088 | 27300 | K | 87R57 | DR | 63L4 | 120 | 575 |
| 0.70 | 1854 | 27300 | KF | 87R57 | DR | 63L4 | 130 | 575 |
| | | | KA | 87R57 | DR | 63L4 | 105 | 575 |
| | | | KAF | 87R57 | DR | 63L4 | 120 | 575 |
| 0.83 | 1657 | 27300 | K | 87R57 | DRS | 71S4 | 120 | 575 |
| 0.97 | 1415 | 27300 | KF | 87R57 | DRS | 71S4 | 130 | 575 |
| 1.1 | 1229 | 27300 | KA | 87R57 | DRS | 71S4 | 110 | 575 |
| | | | KAF | 87R57 | DRS | 71S4 | 120 | 575 |
| 1.3 | 1078 | 27300 | K | 87R57 | DRS | 71M4 | 120 | 575 |
| 1.4 | 951 | 27300 | KF | 87R57 | DRS | 71M4 | 130 | 575 |
| 1.6 | 837 | 27300 | KA | 87R57 | DRS | 71M4 | 110 | 575 |
| | | | KAF | 87R57 | DRS | 71M4 | 120 | 575 |
| 2.0 | 726 | 27300 | K | 87R57 | DRN | 80M4 | 125 | 575 |
| 2.3 | 638 | 27300 | KF | 87R57 | DRN | 80M4 | 135 | 575 |
| | | | KA | 87R57 | DRN | 80M4 | 115 | 575 |
| | | | KAF | 87R57 | DRN | 80M4 | 125 | 575 |
| 2.6 | 562 | 27300 | K | 87R57 | DRN | 90S4 | 130 | 575 |
| 3.1 | 474 | 27300 | KF | 87R57 | DRN | 90S4 | 140 | 575 |
| 3.4 | 426 | 27300 | KA | 87R57 | DRN | 90S4 | 120 | 575 |
| | | | KAF | 87R57 | DRN | 90S4 | 135 | 575 |
| 3.9 | 373 | 27300 | K | 87R57 | DRN | 90L4 | 135 | 575 |
| 4.4 | 330 | 27300 | KF | 87R57 | DRN | 90L4 | 145 | 575 |
| | | | KA | 87R57 | DRN | 90L4 | 125 | 575 |
| | | | KAF | 87R57 | DRN | 90L4 | 135 | 575 |
| 4.9 | 294 | 27300 | K | 87R57 | DRN | 100LS4 | 140 | 575 |
| 5.8 | 250 | 27300 | KF | 87R57 | DRN | 100LS4 | 150 | 575 |
| 6.1 | 236 | 27300 | KA | 87R57 | DRN | 100LS4 | 125 | 575 |
| 7.2 | 201 | 27300 | KAF | 87R57 | DRN | 100LS4 | 140 | 575 |

## $M_{a\ max}$ = 4300 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|
| 0.08 | 18091 | 40000 | | | | | | |
| 0.08 | 16666 | 40000 | | | | | | |
| 0.09 | 14897 | 40000 | | | | | | |
| 0.10 | 13182 | 40000 | K | 97R57 | DR | 63S4 | 180 | 575 |
| 0.12 | 11677 | 40000 | KF | 97R57 | DR | 63S4 | 200 | 575 |
| 0.13 | 10317 | 40000 | KA | 97R57 | DR | 63S4 | 160 | 575 |
| 0.15 | 9083 | 40000 | KAF | 97R57 | DR | 63S4 | 185 | 575 |
| 0.17 | 8054 | 40000 | | | | | | |
| 0.20 | 6970 | 40000 | | | | | | |
| 0.22 | 6027 | 40000 | K | 97R57 | DR | 63M4 | 180 | 575 |
| 0.24 | 5391 | 40000 | KF | 97R57 | DR | 63M4 | 200 | 575 |
| 0.28 | 4669 | 40000 | KA | 97R57 | DR | 63M4 | 160 | 575 |
| 0.32 | 4082 | 40000 | KAF | 97R57 | DR | 63M4 | 185 | 575 |
| 0.36 | 3583 | 40000 | K | 97R57 | DR | 63L4 | 180 | 575 |
| 0.42 | 3108 | 40000 | KF | 97R57 | DR | 63L4 | 200 | 575 |
| 0.47 | 2757 | 40000 | KA | 97R57 | DR | 63L4 | 160 | 575 |
| | | | KAF | 97R57 | DR | 63L4 | 185 | 575 |
| 0.57 | 2419 | 40000 | K | 97R57 | DRS | 71S4 | 180 | 575 |
| 0.65 | 2123 | 40000 | KF | 97R57 | DRS | 71S4 | 200 | 575 |
| | | | KA | 97R57 | DRS | 71S4 | 165 | 575 |
| | | | KAF | 97R57 | DRS | 71S4 | 185 | 575 |
| 0.73 | 1856 | 40000 | K | 97R57 | DRS | 71M4 | 180 | 575 |
| 0.84 | 1625 | 40000 | KF | 97R57 | DRS | 71M4 | 200 | 575 |
| 0.95 | 1430 | 40000 | KA | 97R57 | DRS | 71M4 | 165 | 575 |
| 1.1 | 1261 | 40000 | KAF | 97R57 | DRS | 71M4 | 190 | 575 |

21284997/EN – 03/2015

## $M_{a\ max}$ = 4300 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|
| | | | K | 97R57 | DRN | 80M4 | 185 | 575 |
| 1.3 | 1102 | 40000 | KF | 97R57 | DRN | 80M4 | 205 | 575 |
| 1.5 | 957 | 40000 | KA | 97R57 | DRN | 80M4 | 170 | 575 |
| | | | KAF | 97R57 | DRN | 80M4 | 195 | 575 |
| | | | K | 97R57 | DRN | 90S4 | 195 | 575 |
| 1.7 | 855 | 40000 | KF | 97R57 | DRN | 90S4 | 215 | 575 |
| 2.0 | 743 | 40000 | KA | 97R57 | DRN | 90S4 | 175 | 575 |
| | | | KAF | 97R57 | DRN | 90S4 | 200 | 575 |
| | | | K | 97R57 | DRN | 90L4 | 195 | 575 |
| 2.2 | 652 | 40000 | KF | 97R57 | DRN | 90L4 | 215 | 575 |
| 2.6 | 573 | 40000 | KA | 97R57 | DRN | 90L4 | 180 | 575 |
| 2.9 | 504 | 40000 | KAF | 97R57 | DRN | 90L4 | 205 | 575 |
| | | | K | 97R57 | DRN | 100LS4 | 200 | 575 |
| 3.3 | 437 | 40000 | KF | 97R57 | DRN | 100LS4 | 220 | 575 |
| 3.8 | 382 | 40000 | KA | 97R57 | DRN | 100LS4 | 180 | 575 |
| 4.2 | 342 | 40000 | KAF | 97R57 | DRN | 100LS4 | 205 | 575 |
| | | | K | 97R57 | DRN | 100L4 | 205 | 575 |
| 4.8 | 305 | 40000 | KF | 97R57 | DRN | 100L4 | 225 | 575 |
| 5.6 | 258 | 40000 | KA | 97R57 | DRN | 100L4 | 190 | 575 |
| | | | KAF | 97R57 | DRN | 100L4 | 215 | 575 |
| | | | K | 97R57 | DRN | 112M4 | 215 | 575 |
| 6.3 | 232 | 40000 | KF | 97R57 | DRN | 112M4 | 235 | 575 |
| 7.3 | 199 | 40000 | KA | 97R57 | DRN | 112M4 | 200 | 575 |
| | | | KAF | 97R57 | DRN | 112M4 | 225 | 575 |

## $M_{a\ max}$ = 8000 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|
| | | | K | 107R77 | DR | 63S4 | 310 | 575 |
| 0.10 | 14311 | 65000 | KF | 107R77 | DR | 63S4 | 320 | 575 |
| | | | KA | 107R77 | DR | 63S4 | 280 | 575 |
| | | | KAF | 107R77 | DR | 63S4 | 305 | 575 |
| 0.11 | 12211 | 65000 | K | 107R77 | DR | 63M4 | 310 | 575 |
| 0.12 | 10677 | 65000 | KF | 107R77 | DR | 63M4 | 320 | 575 |
| 0.14 | 9524 | 65000 | KA | 107R77 | DR | 63M4 | 280 | 575 |
| 0.16 | 8328 | 65000 | KAF | 107R77 | DR | 63M4 | 305 | 575 |
| | | | K | 107R77 | DR | 63L4 | 310 | 575 |
| 0.18 | 7270 | 65000 | KF | 107R77 | DR | 63L4 | 320 | 575 |
| 0.21 | 6184 | 65000 | KA | 107R77 | DR | 63L4 | 285 | 575 |
| 0.23 | 5662 | 65000 | KAF | 107R77 | DR | 63L4 | 305 | 575 |
| | | | K | 107R77 | DRS | 71S4 | 310 | 575 |
| 0.27 | 5138 | 65000 | KF | 107R77 | DRS | 71S4 | 325 | 575 |
| 0.32 | 4359 | 65000 | KA | 107R77 | DRS | 71S4 | 285 | 575 |
| 0.36 | 3810 | 65000 | KAF | 107R77 | DRS | 71S4 | 310 | 575 |
| | | | K | 107R77 | DRS | 71M4 | 315 | 575 |
| 0.41 | 3358 | 65000 | KF | 107R77 | DRS | 71M4 | 325 | 575 |
| 0.46 | 2977 | 65000 | KA | 107R77 | DRS | 71M4 | 285 | 575 |
| 0.52 | 2599 | 65000 | KAF | 107R77 | DRS | 71M4 | 310 | 575 |
| | | | K | 107R77 | DRN | 80M4 | 320 | 575 |
| 0.63 | 2286 | 65000 | KF | 107R77 | DRN | 80M4 | 330 | 575 |
| 0.74 | 1939 | 65000 | KA | 107R77 | DRN | 80M4 | 290 | 575 |
| | | | KAF | 107R77 | DRN | 80M4 | 315 | 575 |
| | | | K | 107R77 | DRN | 90S4 | 320 | 575 |
| 0.85 | 1713 | 65000 | KF | 107R77 | DRN | 90S4 | 335 | 575 |
| 0.94 | 1554 | 65000 | KA | 107R77 | DRN | 90S4 | 295 | 575 |
| 1.1 | 1336 | 65000 | KAF | 107R77 | DRN | 90S4 | 320 | 575 |
| | | | K | 107R77 | DRN | 90L4 | 325 | 575 |
| 1.2 | 1166 | 65000 | KF | 107R77 | DRN | 90L4 | 335 | 575 |
| 1.4 | 1030 | 65000 | KA | 107R77 | DRN | 90L4 | 300 | 575 |
| 1.6 | 904 | 65000 | KAF | 107R77 | DRN | 90L4 | 320 | 575 |

## $M_{a\ max}$ = 8000 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|
| 1.8 | 793 | 65000 | K | 107R77 | DRN | 100LS4 | 330 | 575 |
| | | | KF | 107R77 | DRN | 100LS4 | 340 | 575 |
| 2.1 | 696 | 65000 | KA | 107R77 | DRN | 100LS4 | 300 | 575 |
| 2.4 | 615 | 65000 | KAF | 107R77 | DRN | 100LS4 | 325 | 575 |
| | | | K | 107R77 | DRN | 100L4 | 335 | 575 |
| 2.8 | 522 | 65000 | KF | 107R77 | DRN | 100L4 | 350 | 575 |
| 3.2 | 461 | 65000 | KA | 107R77 | DRN | 100L4 | 310 | 575 |
| | | | KAF | 107R77 | DRN | 100L4 | 335 | 575 |
| | | | K | 107R77 | DRN | 112M4 | 345 | 575 |
| 3.6 | 408 | 65000 | KF | 107R77 | DRN | 112M4 | 360 | 575 |
| 4.0 | 364 | 65000 | KA | 107R77 | DRN | 112M4 | 320 | 575 |
| | | | KAF | 107R77 | DRN | 112M4 | 340 | 575 |
| | | | K | 107R77 | DRN | 132S4 | 355 | 575 |
| 4.6 | 318 | 65000 | KF | 107R77 | DRN | 132S4 | 370 | 575 |
| 5.1 | 286 | 65000 | KA | 107R77 | DRN | 132S4 | 330 | 575 |
| 5.8 | 251 | 65000 | KAF | 107R77 | DRN | 132S4 | 355 | 575 |

## $M_{a\ max}$ = 13000 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|
| 0.08 | 17550 | 79200 | K | 127R77 | DR | 63M4 | 470 | 575 |
| 0.08 | 16006 | 79200 | KF | 127R77 | DR | 63M4 | 510 | 575 |
| 0.09 | 14975 | 79200 | KA | 127R77 | DR | 63M4 | 440 | 575 |
| 0.11 | 12440 | 79200 | KAF | 127R77 | DR | 63M4 | 480 | 575 |
| | | | K | 127R77 | DR | 63L4 | 470 | 575 |
| 0.12 | 10915 | 79200 | KF | 127R77 | DR | 63L4 | 510 | 575 |
| 0.13 | 9819 | 79200 | KA | 127R77 | DR | 63L4 | 440 | 575 |
| 0.15 | 8443 | 79200 | KAF | 127R77 | DR | 63L4 | 480 | 575 |
| | | | K | 127R77 | DRS | 71S4 | 470 | 575 |
| 0.18 | 7482 | 79200 | KF | 127R77 | DRS | 71S4 | 510 | 575 |
| 0.21 | 6565 | 79200 | KA | 127R77 | DRS | 71S4 | 445 | 575 |
| | | | KAF | 127R77 | DRS | 71S4 | 480 | 575 |
| 0.23 | 5804 | 79200 | K | 127R77 | DRS | 71M4 | 475 | 575 |
| 0.27 | 5027 | 79200 | KF | 127R77 | DRS | 71M4 | 520 | 575 |
| 0.31 | 4423 | 79200 | KA | 127R77 | DRS | 71M4 | 445 | 575 |
| 0.35 | 3889 | 79200 | KAF | 127R77 | DRS | 71M4 | 485 | 575 |
| | | | K | 127R77 | DRN | 80M4 | 480 | 575 |
| 0.43 | 3311 | 79200 | KF | 127R77 | DRN | 80M4 | 520 | 575 |
| 0.48 | 3009 | 79200 | KA | 127R77 | DRN | 80M4 | 450 | 575 |
| | | | KAF | 127R77 | DRN | 80M4 | 490 | 575 |
| | | | K | 127R77 | DRN | 90S4 | 485 | 575 |
| 0.56 | 2607 | 79200 | KF | 127R77 | DRN | 90S4 | 530 | 575 |
| 0.64 | 2268 | 79200 | KA | 127R77 | DRN | 90S4 | 455 | 575 |
| | | | KAF | 127R77 | DRN | 90S4 | 495 | 575 |
| 0.76 | 1926 | 79200 | K | 127R77 | DRN | 90L4 | 485 | 575 |
| 0.83 | 1757 | 79200 | KF | 127R77 | DRN | 90L4 | 530 | 575 |
| 0.95 | 1541 | 79200 | KA | 127R77 | DRN | 90L4 | 455 | 575 |
| | | | KAF | 127R77 | DRN | 90L4 | 495 | 575 |
| 1.1 | 1342 | 79200 | K | 127R77 | DRN | 100LS4 | 490 | 575 |
| 1.2 | 1177 | 79200 | KF | 127R77 | DRN | 100LS4 | 530 | 575 |
| 1.4 | 1025 | 79200 | KA | 127R77 | DRN | 100LS4 | 460 | 575 |
| | | | KAF | 127R77 | DRN | 100LS4 | 500 | 575 |
| | | | K | 127R77 | DRN | 100L4 | 495 | 575 |
| 1.6 | 899 | 79200 | KF | 127R77 | DRN | 100L4 | 540 | 575 |
| 1.8 | 790 | 79200 | KA | 127R77 | DRN | 100L4 | 470 | 575 |
| | | | KAF | 127R77 | DRN | 100L4 | 510 | 575 |
| | | | K | 127R77 | DRN | 112M4 | 510 | 575 |
| 2.1 | 704 | 79200 | KF | 127R77 | DRN | 112M4 | 550 | 575 |
| 2.4 | 610 | 79200 | KA | 127R77 | DRN | 112M4 | 480 | 575 |
| 2.7 | 549 | 79200 | KAF | 127R77 | DRN | 112M4 | 520 | 575 |

21284997/EN – 03/2015

## $M_{a\ max}$ = 13000 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|
| | | | **K** | **127R77** | **DRN** | **132S4** | | 520 | 575 |
| **3.1** | 477 | 79200 | **KF** | **127R77** | **DRN** | **132S4** | | 560 | 575 |
| **3.5** | 418 | 79200 | **KA** | **127R77** | **DRN** | **132S4** | | 490 | 575 |
| | | | **KAF** | **127R77** | **DRN** | **132S4** | | 530 | 575 |
| | | | **K** | **127R87** | **DRN** | **132S4** | | 540 | 575 |
| **2.7** | 536 | 79200 | **KF** | **127R87** | **DRN** | **132S4** | | 580 | 575 |
| **3.1** | 473 | 79200 | **KA** | **127R87** | **DRN** | **132S4** | | 510 | 575 |
| **3.5** | 418 | 79200 | **KAF** | **127R87** | **DRN** | **132S4** | | 550 | 575 |
| | | | **K** | **127R87** | **DRN** | **132M4** | | 560 | 575 |
| **4.0** | 367 | 79200 | **KF** | **127R87** | **DRN** | **132M4** | | 600 | 575 |
| **4.4** | 330 | 79200 | **KA** | **127R87** | **DRN** | **132M4** | | 530 | 575 |
| | | | **KAF** | **127R87** | **DRN** | **132M4** | | 560 | 575 |
| | | | **K** | **127R87** | **DRN** | **132L4** | | 560 | 575 |
| **5.1** | 287 | 79200 | **KF** | **127R87** | **DRN** | **132L4** | | 610 | 575 |
| **5.8** | 253 | 79200 | **KA** | **127R87** | **DRN** | **132L4** | | 540 | 575 |
| | | | **KAF** | **127R87** | **DRN** | **132L4** | | 570 | 575 |

## $M_{a\ max}$ = 18000 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|
| **0.08** | 17679 | 112200 | | | | | | | |
| **0.09** | 15729 | 112200 | | | | | | | |
| **0.09** | 14721 | 112200 | **K** | **157R97** | **DRS** | **71M4** | | 790 | 575 |
| **0.10** | 13097 | 112200 | **KF** | **157R97** | **DRS** | **71M4** | | 870 | 575 |
| **0.12** | 11368 | 112200 | **KA** | **157R97** | **DRS** | **71M4** | | 750 | 575 |
| **0.13** | 10114 | 112200 | **KAF** | **157R97** | **DRS** | **71M4** | | 810 | 575 |
| **0.16** | 8718 | 112200 | | | | | | | |
| **0.18** | 7734 | 112200 | | | | | | | |
| | | | **K** | **157R97** | **DRN** | **80M4** | | 800 | 575 |
| **0.28** | 5074 | 112200 | **KF** | **157R97** | **DRN** | **80M4** | | 870 | 575 |
| **0.32** | 4514 | 112200 | **KA** | **157R97** | **DRN** | **80M4** | | 760 | 575 |
| | | | **KAF** | **157R97** | **DRN** | **80M4** | | 820 | 575 |
| | | | **K** | **157R97** | **DRN** | **90S4** | | 800 | 575 |
| **0.37** | 3979 | 112200 | **KF** | **157R97** | **DRN** | **90S4** | | 880 | 575 |
| **0.41** | 3516 | 112200 | **KA** | **157R97** | **DRN** | **90S4** | | 760 | 575 |
| **0.48** | 3051 | 112200 | **KAF** | **157R97** | **DRN** | **90S4** | | 820 | 575 |
| | | | **K** | **157R97** | **DRN** | **90L4** | | 800 | 575 |
| **0.56** | 2610 | 112200 | **KF** | **157R97** | **DRN** | **90L4** | | 880 | 575 |
| **0.63** | 2322 | 112200 | **KA** | **157R97** | **DRN** | **90L4** | | 770 | 575 |
| | | | **KAF** | **157R97** | **DRN** | **90L4** | | 830 | 575 |
| | | | **K** | **157R97** | **DRN** | **100LS4** | | 810 | 575 |
| **0.71** | 2029 | 112200 | **KF** | **157R97** | **DRN** | **100LS4** | | 890 | 575 |
| **0.80** | 1805 | 112200 | **KA** | **157R97** | **DRN** | **100LS4** | | 770 | 575 |
| | | | **KAF** | **157R97** | **DRN** | **100LS4** | | 830 | 575 |
| | | | **K** | **157R97** | **DRN** | **100LS4** | | 800 | 575 |
| **0.87** | 1659 | 112200 | **KF** | **157R97** | **DRN** | **100LS4** | | 880 | 575 |
| | | | **KA** | **157R97** | **DRN** | **100LS4** | | 770 | 575 |
| | | | **KAF** | **157R97** | **DRN** | **100LS4** | | 830 | 575 |
| | | | **K** | **157R97** | **DRN** | **100L4** | | 810 | 575 |
| **1.1** | 1365 | 112200 | **KF** | **157R97** | **DRN** | **100L4** | | 890 | 575 |
| **1.2** | 1229 | 112200 | **KA** | **157R97** | **DRN** | **100L4** | | 780 | 575 |
| **1.3** | 1093 | 112200 | **KAF** | **157R97** | **DRN** | **100L4** | | 830 | 575 |
| | | | **K** | **157R97** | **DRN** | **112M4** | | 820 | 575 |
| **1.6** | 942 | 112200 | **KF** | **157R97** | **DRN** | **112M4** | | 900 | 575 |
| **1.7** | 854 | 112200 | **KA** | **157R97** | **DRN** | **112M4** | | 780 | 575 |
| | | | **KAF** | **157R97** | **DRN** | **112M4** | | 840 | 575 |
| | | | **K** | **157R97** | **DRN** | **132S4** | | 830 | 575 |
| **1.9** | 756 | 112200 | **KF** | **157R97** | **DRN** | **132S4** | | 910 | 575 |
| **2.2** | 661 | 112200 | **KA** | **157R97** | **DRN** | **132S4** | | 800 | 575 |
| **2.6** | 567 | 112200 | **KAF** | **157R97** | **DRN** | **132S4** | | 850 | 575 |



21284997/EN – 03/2015

## $M_{a\ max}$ = 18000 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|
| | | | K | 157R97 | DRN | 132M4 | 850 | 575 |
| 2.9 | 504 | 112200 | KF | 157R97 | DRN | 132M4 | 930 | 575 |
| 3.4 | 434 | 112200 | KA | 157R97 | DRN | 132M4 | 810 | 575 |
| | | | KAF | 157R97 | DRN | 132M4 | 870 | 575 |
| | | | K | 157R97 | DRN | 132L4 | 860 | 575 |
| 3.9 | 379 | 112200 | KF | 157R97 | DRN | 132L4 | 940 | 575 |
| 4.4 | 333 | 112200 | KA | 157R97 | DRN | 132L4 | 820 | 575 |
| | | | KAF | 157R97 | DRN | 132L4 | 880 | 575 |
| | | | K | 157R97 | DRN | 160M4 | 890 | 575 |
| 5.1 | 291 | 112200 | KF | 157R97 | DRN | 160M4 | 970 | 575 |
| | | | KA | 157R97 | DRN | 160M4 | 850 | 575 |
| | | | KAF | 157R97 | DRN | 160M4 | 910 | 575 |
| | | | K | 157R107 | DRN | 132L4 | 910 | 575 |
| 3.8 | 385 | 112200 | KF | 157R107 | DRN | 132L4 | 980 | 575 |
| | | | KA | 157R107 | DRN | 132L4 | 870 | 575 |
| | | | KAF | 157R107 | DRN | 132L4 | 930 | 575 |
| | | | K | 157R107 | DRN | 160M4 | 940 | 575 |
| 4.5 | 325 | 112200 | KF | 157R107 | DRN | 160M4 | 1020 | 575 |
| 4.9 | 299 | 112200 | KA | 157R107 | DRN | 160M4 | 900 | 575 |
| | | | KAF | 157R107 | DRN | 160M4 | 960 | 575 |
| | | | K | 157R107 | DRN | 160L4 | 950 | 575 |
| 5.8 | 253 | 112200 | KF | 157R107 | DRN | 160L4 | 1030 | 575 |
| 6.4 | 230 | 112200 | KA | 157R107 | DRN | 160L4 | 920 | 575 |
| 6.9 | 213 | 112200 | KAF | 157R107 | DRN | 160L4 | 980 | 575 |

## $M_{a\ max}$ = 32000 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|
| 0.07 | 19723 | 150000 | | | | | | |
| 0.08 | 17406 | 150000 | | | | | | |
| 0.09 | 15000 | 150000 | K | 167R97 | DRS | 71M4 | 1190 | 575 |
| 0.10 | 13238 | 150000 | KH | 167R97 | DRS | 71M4 | 1150 | 575 |
| 0.12 | 11573 | 150000 | | | | | | |
| 0.13 | 10264 | 150000 | | | | | | |
| | | | K | 167R97 | DRN | 80M4 | 1190 | 575 |
| 0.17 | 8628 | 150000 | KH | 167R97 | DRN | 80M4 | 1150 | 575 |
| | | | K | 167R97 | DRN | 90S4 | 1190 | 575 |
| 0.22 | 6562 | 150000 | KH | 167R97 | DRN | 90S4 | 1160 | 575 |
| 0.27 | 5355 | 150000 | | | | | | |
| | | | K | 167R97 | DRN | 90L4 | 1200 | 575 |
| 0.31 | 4788 | 150000 | KH | 167R97 | DRN | 90L4 | 1160 | 575 |
| 0.36 | 4079 | 150000 | | | | | | |
| | | | K | 167R97 | DRN | 100LS4 | 1200 | 575 |
| 0.43 | 3376 | 150000 | KH | 167R97 | DRN | 100LS4 | 1160 | 575 |
| 0.53 | 2755 | 150000 | | | | | | |
| | | | K | 167R97 | DRN | 100L4 | 1210 | 575 |
| 0.64 | 2263 | 150000 | KH | 167R97 | DRN | 100L4 | 1170 | 575 |
| | | | K | 167R97 | DRN | 100L4 | 1210 | 575 |
| 0.67 | 2182 | 150000 | KH | 167R97 | DRN | 100L4 | 1170 | 575 |
| | | | K | 167R97 | DRN | 112M4 | 1210 | 575 |
| 0.86 | 1704 | 150000 | KH | 167R97 | DRN | 112M4 | 1180 | 575 |
| 1.0 | 1408 | 150000 | | | | | | |
| | | | K | 167R97 | DRN | 132S4 | 1230 | 575 |
| 1.1 | 1296 | 150000 | KH | 167R97 | DRN | 132S4 | 1190 | 575 |
| 1.3 | 1101 | 150000 | | | | | | |
| 1.6 | 944 | 150000 | | | | | | |
| | | | K | 167R97 | DRN | 132M4 | 1240 | 575 |
| 1.7 | 843 | 150000 | KH | 167R97 | DRN | 132M4 | 1210 | 575 |
| 1.9 | 757 | 150000 | | | | | | |
| | | | K | 167R97 | DRN | 132L4 | 1250 | 575 |
| 2.3 | 632 | 150000 | KH | 167R97 | DRN | 132L4 | 1210 | 575 |
| | | | K | 167R97 | DRN | 160M4 | 1280 | 575 |
| 2.6 | 561 | 150000 | KH | 167R97 | DRN | 160M4 | 1250 | 575 |
| 3.1 | 481 | 150000 | | | | | | |
| | | | K | 167R97 | DRN | 160L4 | 1300 | 575 |
| 3.5 | 423 | 150000 | KH | 167R97 | DRN | 160L4 | 1260 | 575 |
| 4.0 | 369 | 150000 | | | | | | |

21284997/EN – 03/2015

## $M_{a\ max}$ = 32000 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|
| **4.6** | 318 | 150000 | **K** | **167R107** | **DRN** | **180M4** | | 1370 | 575 |
| | | | **KH** | **167R107** | **DRN** | **180M4** | | 1330 | 575 |
| **5.3** | 278 | 150000 | **K** | **167R107** | **DRN** | **180L4** | | 1380 | 575 |
| **6.1** | 244 | 150000 | **KH** | **167R107** | **DRN** | **180L4** | | 1350 | 575 |
| **6.9** | 213 | 150000 | | | | | | | |
| **7.2** | 206 | 150000 | **K** | **167R107** | **DRN** | **200L4** | | 1490 | 575 |
| **8.2** | 180 | 150000 | **KH** | **167R107** | **DRN** | **200L4** | | 1460 | 575 |
| **9.3** | 160 | 150000 | **K** | **167R107** | **DRN** | **225S4** | | 1530 | 575 |
| | | | **KH** | **167R107** | **DRN** | **225S4** | | 1490 | 575 |
| **11** | 135 | 150000 | **K** | **167R107** | **DRN** | **225M4** | | 1530 | 575 |
| **13** | 118 | 150000 | **KH** | **167R107** | **DRN** | **225M4** | | 1490 | 575 |

## $M_{a\ max}$ = 50000 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|
| **0.04** | 32625 | 190000 | | | | | | | |
| **0.05** | 27165 | 190000 | | | | | | | |
| **0.06** | 24353 | 190000 | **K** | **187R97** | **DRS** | **71M4** | | 1770 | 575 |
| **0.07** | 19144 | 190000 | **KH** | **187R97** | **DRS** | **71M4** | | 1700 | 575 |
| **0.08** | 16978 | 190000 | | | | | | | |
| **0.10** | 14272 | 190000 | **K** | **187R97** | **DRN** | **80M4** | | 1770 | 575 |
| **0.11** | 13116 | 190000 | **KH** | **187R97** | **DRN** | **80M4** | | 1700 | 575 |
| **0.12** | 11647 | 190000 | | | | | | | |
| **0.14** | 10413 | 190000 | **K** | **187R97** | **DRN** | **90S4** | | 1780 | 575 |
| **0.16** | 9363 | 190000 | **KH** | **187R97** | **DRN** | **90S4** | | 1710 | 575 |
| **0.18** | 8126 | 190000 | | | | | | | |
| **0.20** | 7343 | 190000 | **K** | **187R97** | **DRN** | **90L4** | | 1780 | 575 |
| **0.22** | 6747 | 190000 | **KH** | **187R97** | **DRN** | **90L4** | | 1710 | 575 |
| **0.24** | 5991 | 190000 | | | | | | | |
| **0.27** | 5358 | 190000 | | | | | | | |
| **0.30** | 4817 | 190000 | **K** | **187R97** | **DRN** | **100LS4** | | 1780 | 575 |
| **0.33** | 4370 | 190000 | **KH** | **187R97** | **DRN** | **100LS4** | | 1720 | 575 |
| **0.40** | 3609 | 190000 | **K** | **187R97** | **DRN** | **100L4** | | 1790 | 575 |
| **0.48** | 3062 | 190000 | **KH** | **187R97** | **DRN** | **100L4** | | 1720 | 575 |
| **0.58** | 2519 | 190000 | **K** | **187R97** | **DRN** | **112M4** | | 1800 | 575 |
| **0.65** | 2268 | 190000 | **KH** | **187R97** | **DRN** | **112M4** | | 1730 | 575 |
| **0.71** | 2054 | 190000 | | | | | | | |
| **0.80** | 1821 | 190000 | **K** | **187R97** | **DRN** | **132S4** | | 1810 | 575 |
| **0.91** | 1605 | 190000 | **KH** | **187R97** | **DRN** | **132S4** | | 1740 | 575 |
| **1.0** | 1395 | 190000 | **K** | **187R97** | **DRN** | **132M4** | | 1830 | 575 |
| **1.2** | 1196 | 190000 | **KH** | **187R97** | **DRN** | **132M4** | | 1760 | 575 |
| **1.4** | 1046 | 190000 | **K** | **187R97** | **DRN** | **132L4** | | 1830 | 575 |
| **1.6** | 945 | 190000 | **KH** | **187R97** | **DRN** | **132L4** | | 1770 | 575 |
| **2.0** | 738 | 190000 | **K** | **187R97** | **DRN** | **160L4** | | 1880 | 575 |
| **2.4** | 621 | 190000 | **KH** | **187R97** | **DRN** | **160L4** | | 1820 | 575 |
| **2.8** | 527 | 190000 | **K** | **187R97** | **DRN** | **180M4** | | 1900 | 575 |
| | | | **KH** | **187R97** | **DRN** | **180M4** | | 1840 | 575 |
| **1.8** | 835 | 190000 | **K** | **187R107** | **DRN** | **160M4** | | 1910 | 575 |
| | | | **KH** | **187R107** | **DRN** | **160M4** | | 1850 | 575 |
| **2.0** | 729 | 190000 | **K** | **187R107** | **DRN** | **160L4** | | 1930 | 575 |
| **2.4** | 622 | 190000 | **KH** | **187R107** | **DRN** | **160L4** | | 1860 | 575 |
| **2.8** | 520 | 190000 | **K** | **187R107** | **DRN** | **180M4** | | 1950 | 575 |
| **3.3** | 454 | 190000 | **KH** | **187R107** | **DRN** | **180M4** | | 1880 | 575 |
| **4.2** | 355 | 190000 | **K** | **187R107** | **DRN** | **200L4** | | 2080 | 575 |
| | | | **KH** | **187R107** | **DRN** | **200L4** | | 2010 | 575 |
| **5.7** | 261 | 190000 | **K** | **187R107** | **DRN** | **225S4** | | 2110 | 575 |
| | | | **KH** | **187R107** | **DRN** | **225S4** | | 2040 | 575 |



21284997/EN – 03/2015

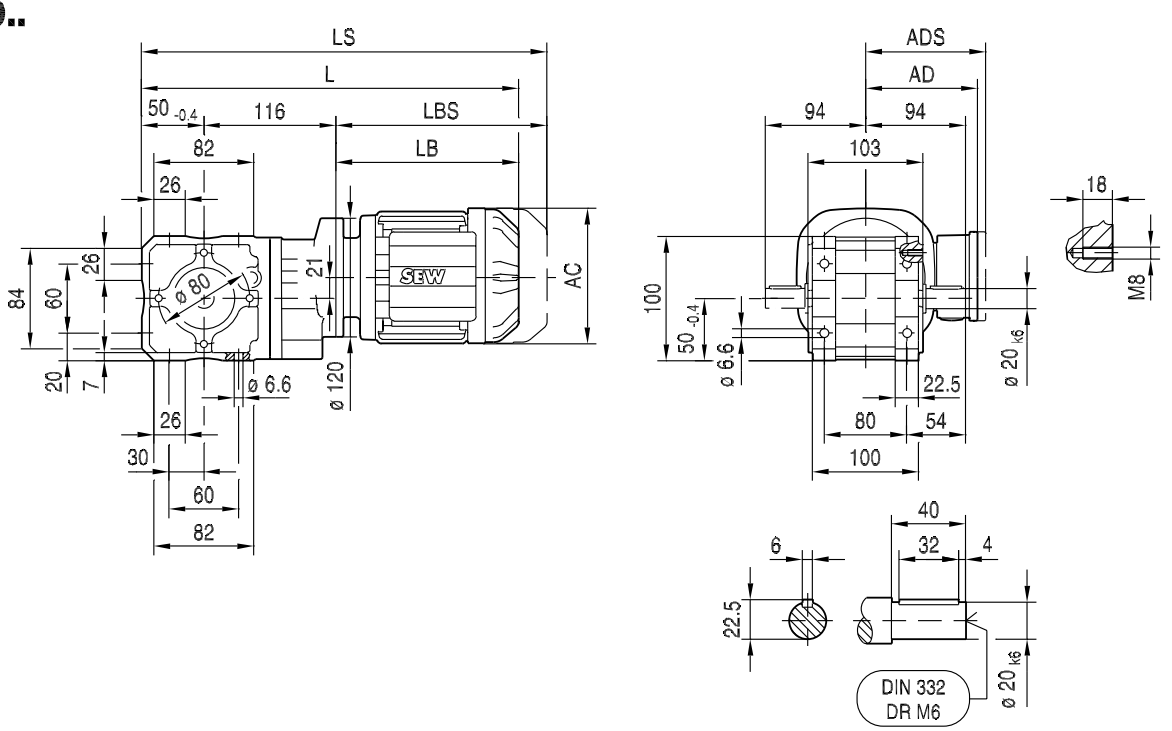
| $M_{a\ max}$ = 50000 Nm | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
| **6.7** | 221 | 190000 | **K** | **187R107** | **DRN** | **225M4** | 2110 | 575 |
| **7.7** | 193 | 190000 | **KH** | **187R107** | **DRN** | **225M4** | 2040 | 575 |

21284997/EN – 03/2015

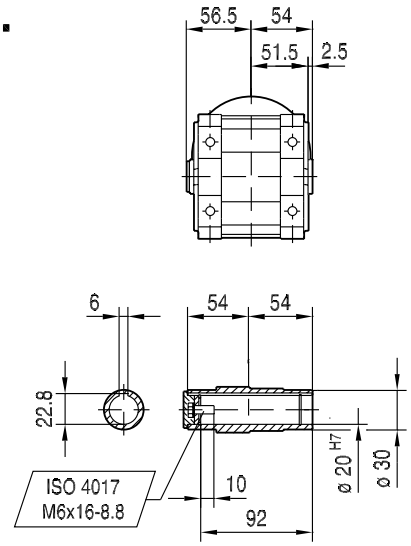
## 10.5 K..DRN.. dimension sheets in mm

33 029 00 14

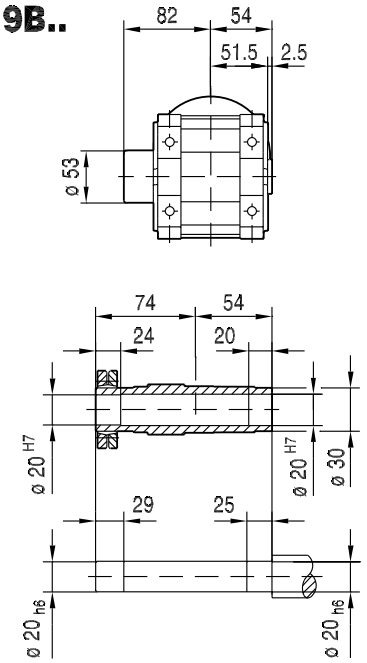
**K19..**




**KA19B..**



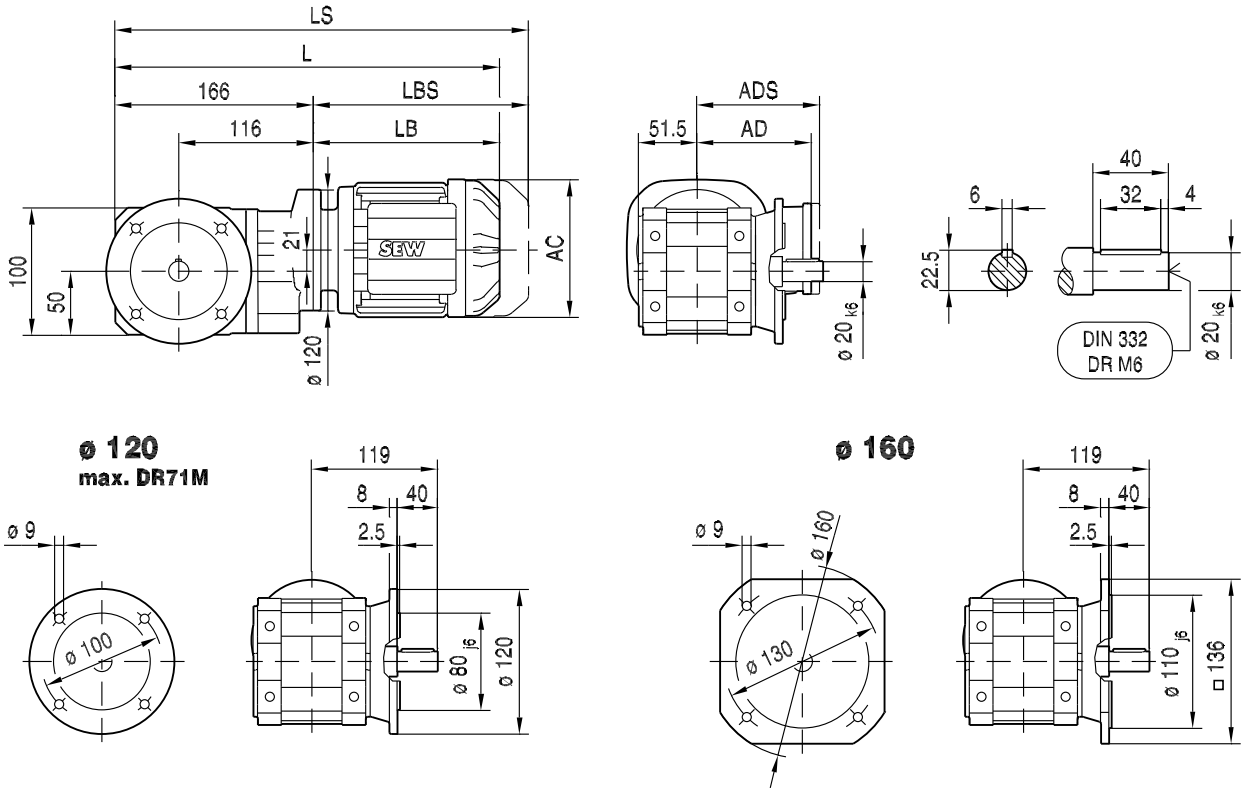

**KH19B..**



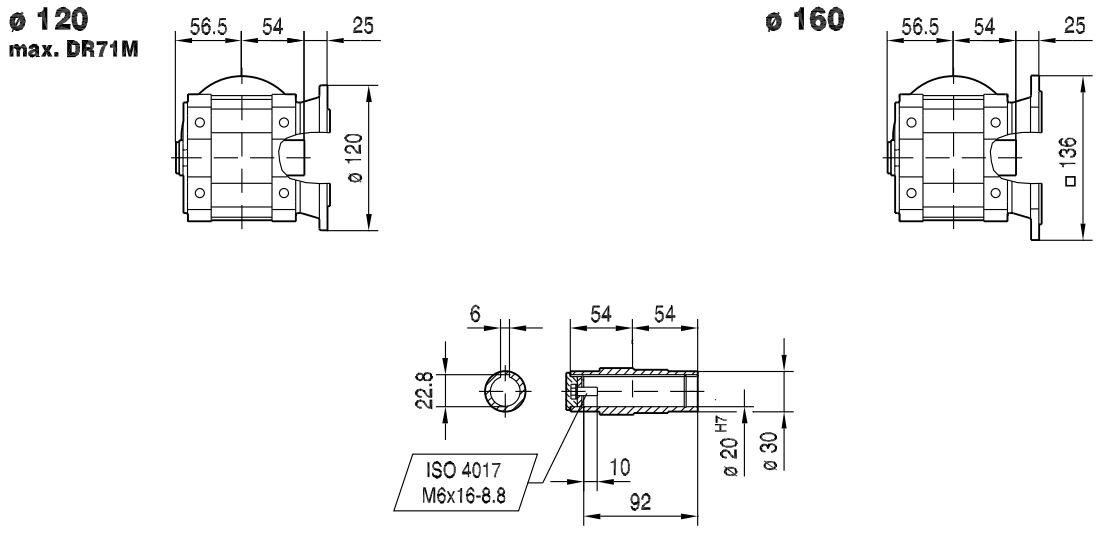

| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | | | |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | | | |
| **AD** | 105 | 119 | 119 | 128 | 140 | | | |
| **ADS** | 105 | 129 | 129 | 139 | 150 | | | |
| **L** | 357 | 368 | 393 | 448 | 449 | | | |
| **LS** | 412 | 436 | 461 | 529 | 543 | | | |
| **LB** | 191 | 202 | 227 | 282 | 283 | | | |
| **LBS** | 246 | 270 | 295 | 363 | 377 | | | |

33 030 00 14

## KF19B..




## KAF19B..

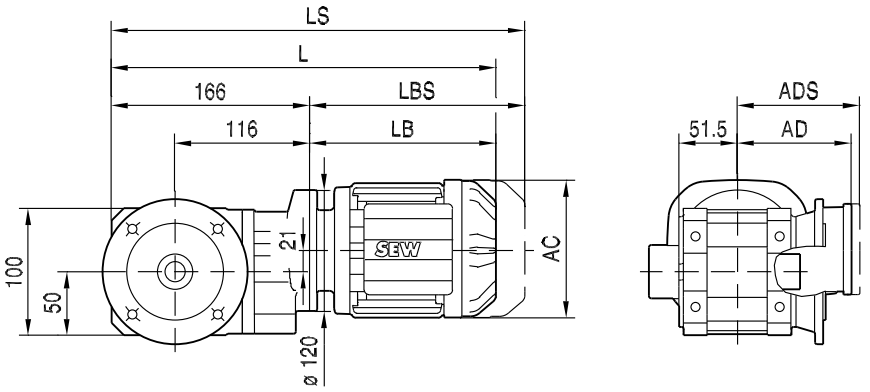



| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | | | |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | | | |
| **AD** | 105 | 119 | 119 | 128 | 140 | | | |
| **ADS** | 105 | 129 | 129 | 139 | 150 | | | |
| **L** | 357 | 368 | 393 | 448 | 449 | | | |
| **LS** | 412 | 436 | 461 | 529 | 543 | | | |
| **LB** | 191 | 202 | 227 | 282 | 283 | | | |
| **LBS** | 246 | 270 | 295 | 363 | 377 | | | |

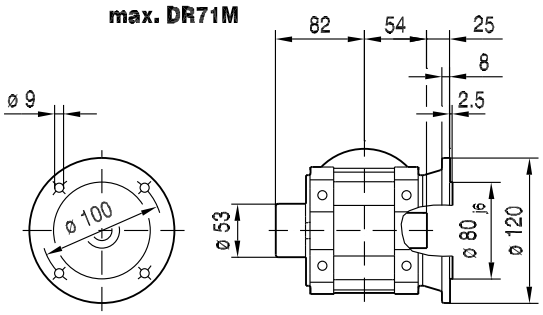
21284997/EN – 03/2015

33 031 00 14

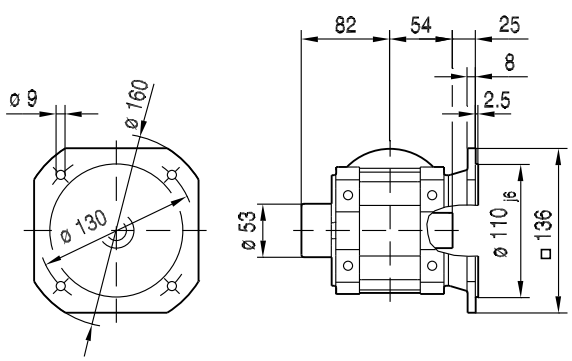
## KHF19B..

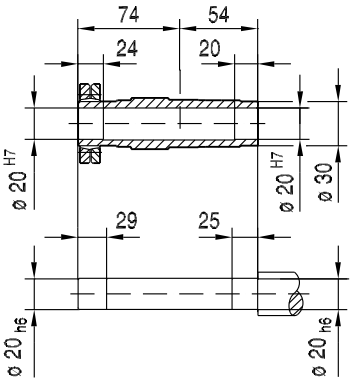



**ø 120**
**max. DR71M**




**ø 160**



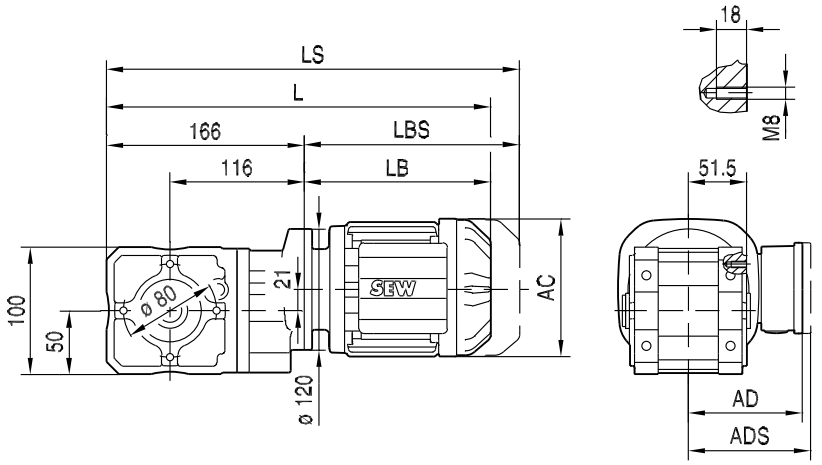



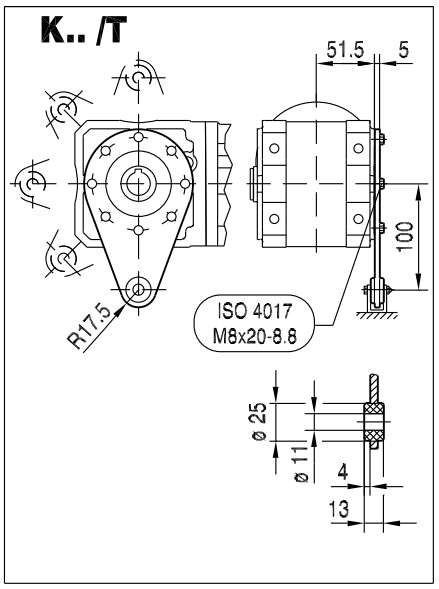

| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | | | |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | | | |
| **AD** | 105 | 119 | 119 | 128 | 140 | | | |
| **ADS** | 105 | 129 | 129 | 139 | 150 | | | |
| **L** | 357 | 368 | 393 | 448 | 449 | | | |
| **LS** | 412 | 436 | 461 | 529 | 543 | | | |
| **LB** | 191 | 202 | 227 | 282 | 283 | | | |
| **LBS** | 246 | 270 | 295 | 363 | 377 | | | |

21284997/EN – 03/2015

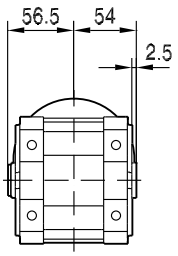
33 032 00 14

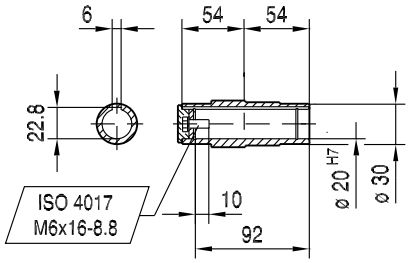
## KA19B..



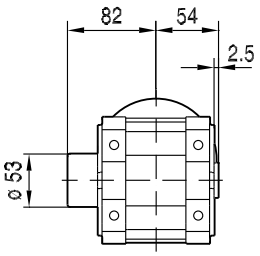



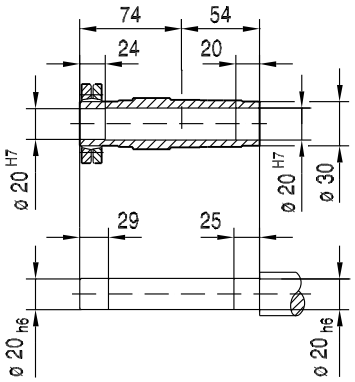

## KA19B..




## KH19B..



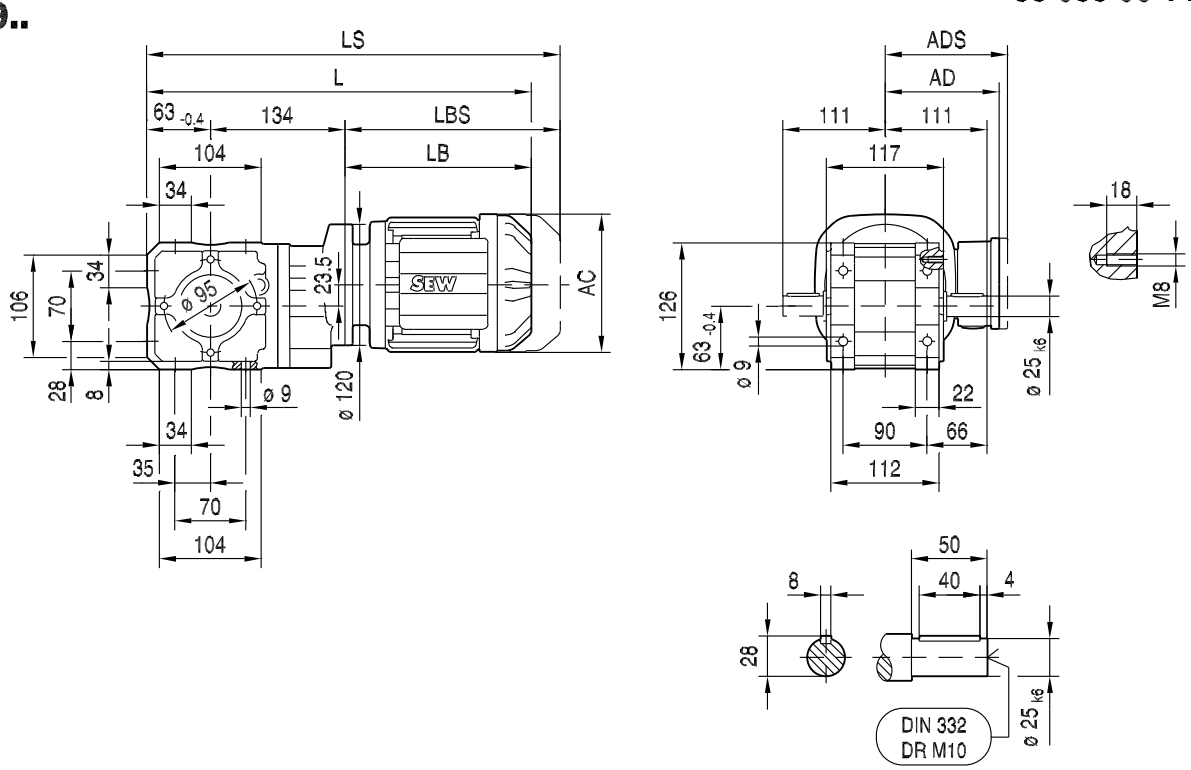




| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | | | |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | | | |
| **AD** | 105 | 119 | 119 | 128 | 140 | | | |
| **ADS** | 105 | 129 | 129 | 139 | 150 | | | |
| **L** | 357 | 368 | 393 | 448 | 449 | | | |
| **LS** | 412 | 436 | 461 | 529 | 543 | | | |
| **LB** | 191 | 202 | 227 | 282 | 283 | | | |
| **LBS** | 246 | 270 | 295 | 363 | 377 | | | |

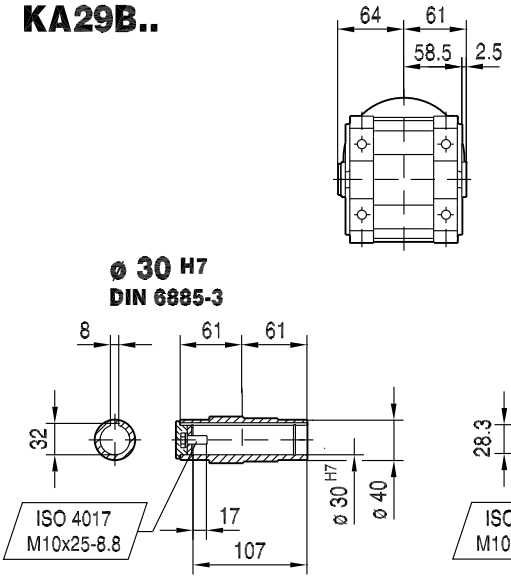
21284997/EN – 03/2015

33 033 00 14

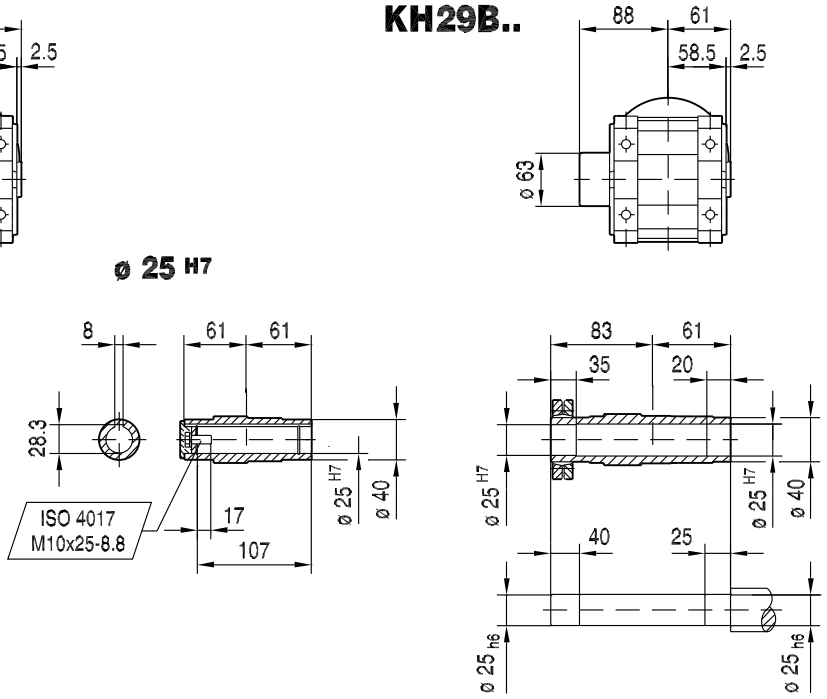
## K29..




## KA29B..




## KH29B..

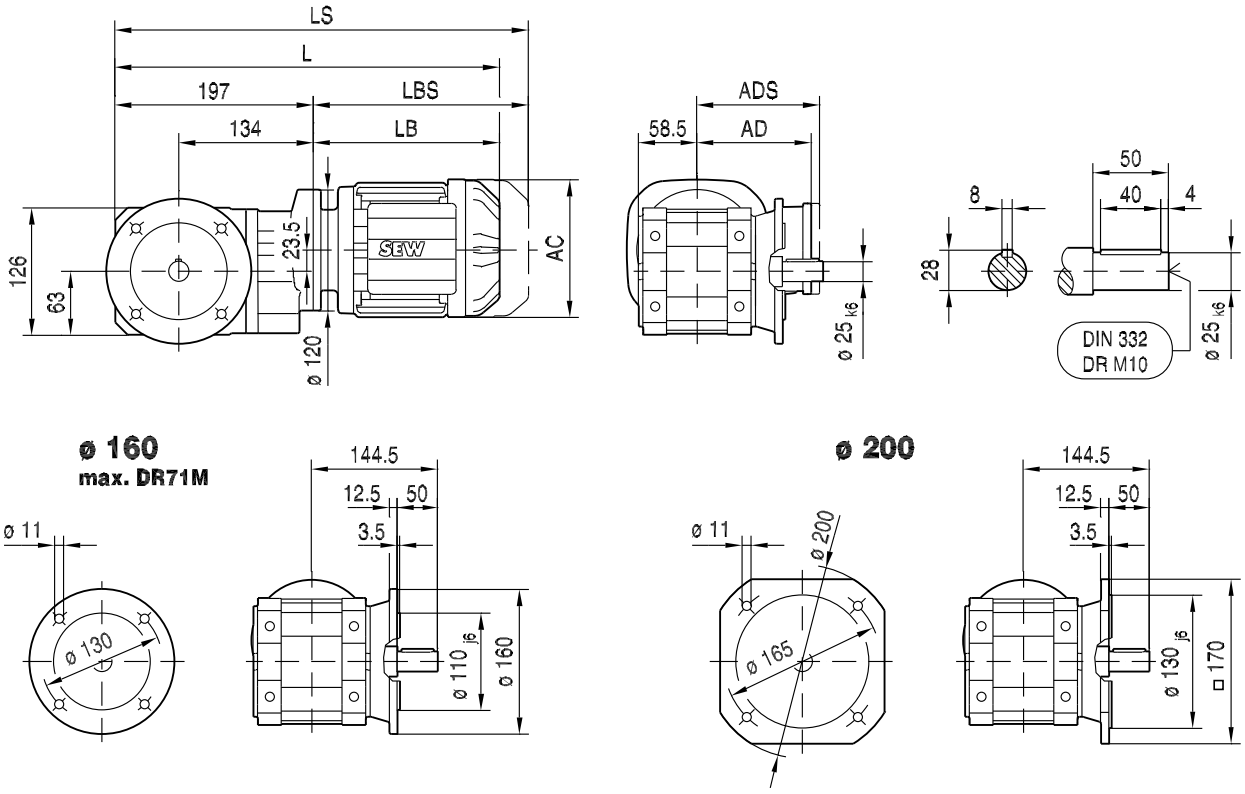



| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | | |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | | |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | | |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | | |
| **L** | 388 | 399 | 424 | 479 | 480 | 512 | | |
| **LS** | 443 | 467 | 492 | 560 | 574 | 606 | | |
| **LB** | 191 | 202 | 227 | 282 | 283 | 315 | | |
| **LBS** | 246 | 270 | 295 | 363 | 377 | 409 | | |

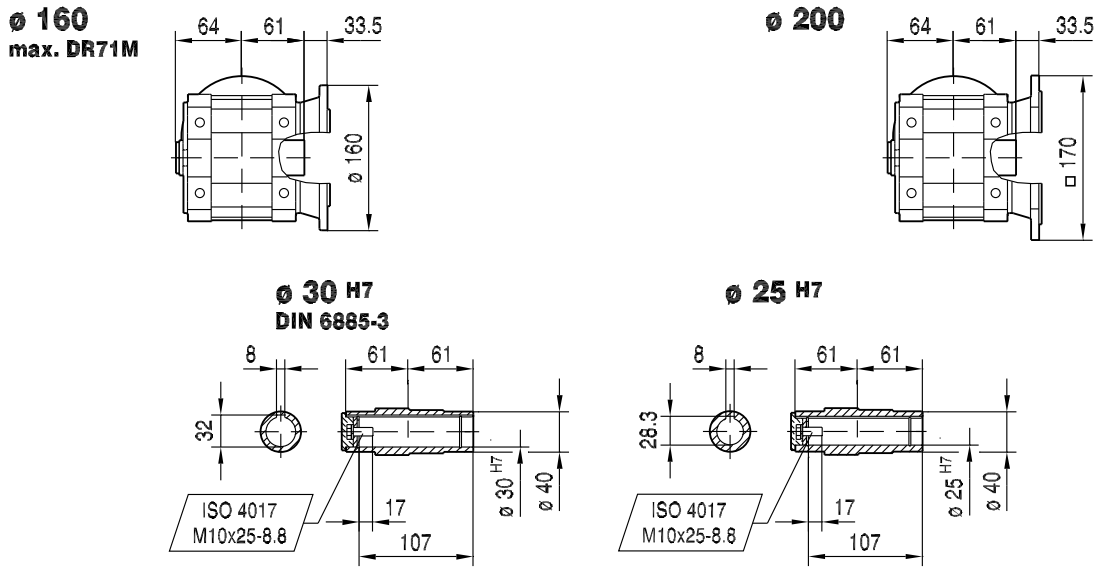
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33 034 00 14

## KF29B..




## KAF29B..

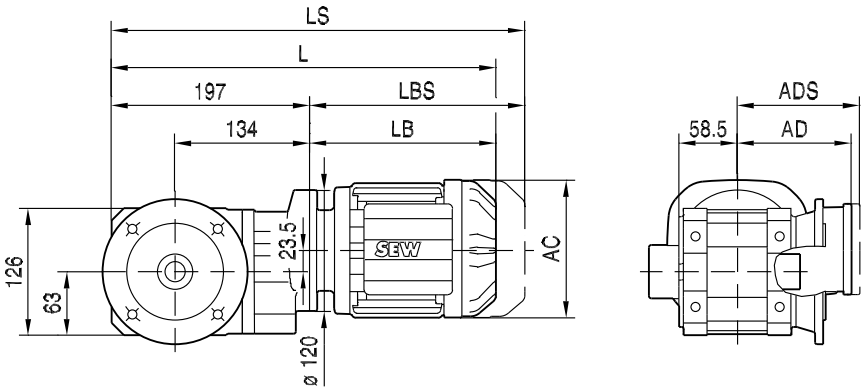



| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | | |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | | |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | | |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | | |
| **L** | 388 | 399 | 424 | 479 | 480 | 512 | | |
| **LS** | 443 | 467 | 492 | 560 | 574 | 606 | | |
| **LB** | 191 | 202 | 227 | 282 | 283 | 315 | | |
| **LBS** | 246 | 270 | 295 | 363 | 377 | 409 | | |

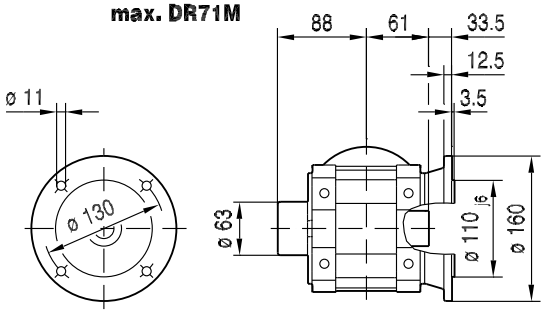
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33 035 00 14

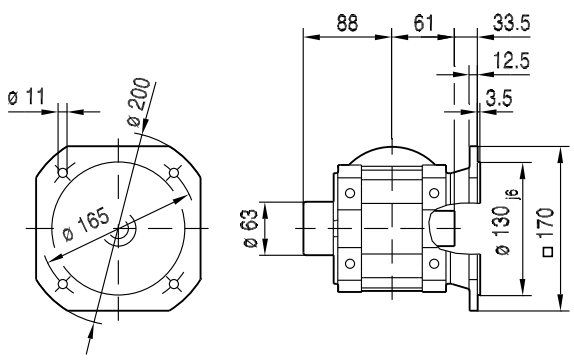
## KHF29B..

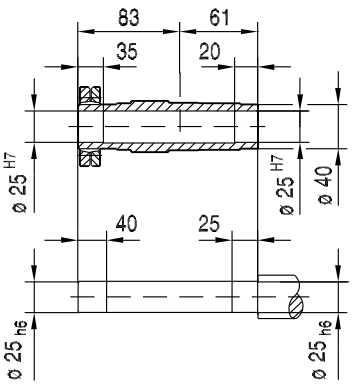



**ø 160**
**max. DR71M**




**ø 200**



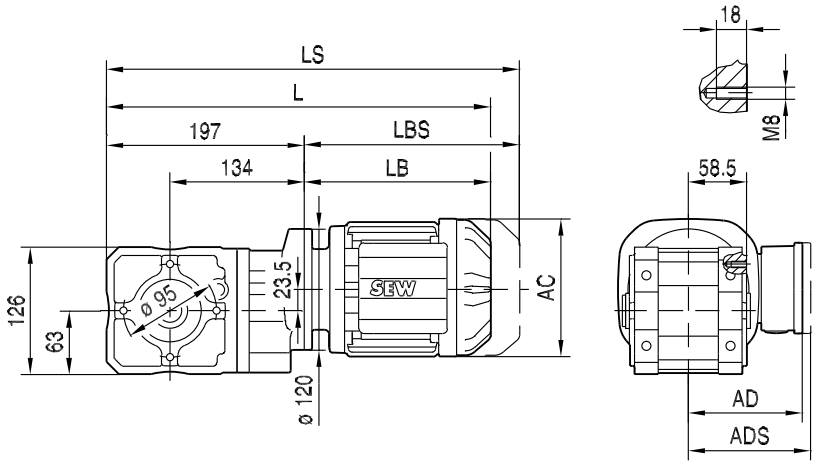




| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | | |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | | |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | | |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | | |
| **L** | 388 | 399 | 424 | 479 | 480 | 512 | | |
| **LS** | 443 | 467 | 492 | 560 | 574 | 606 | | |
| **LB** | 191 | 202 | 227 | 282 | 283 | 315 | | |
| **LBS** | 246 | 270 | 295 | 363 | 377 | 409 | | |

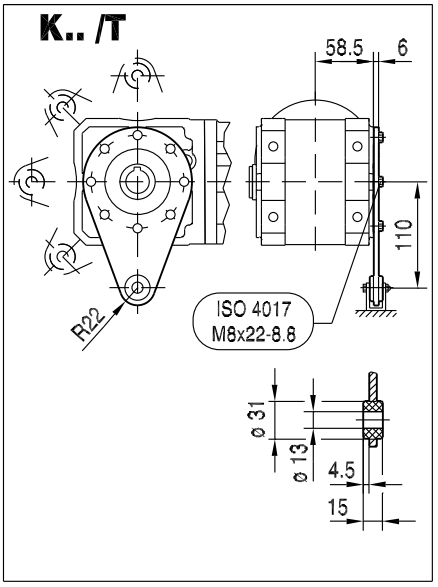
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33 036 00 14

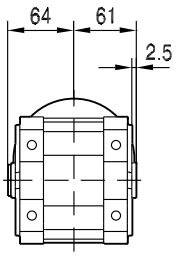
## KA29B..



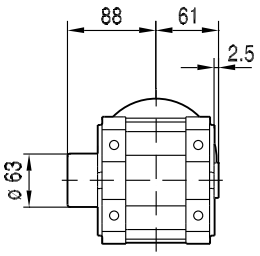

## K.. /T



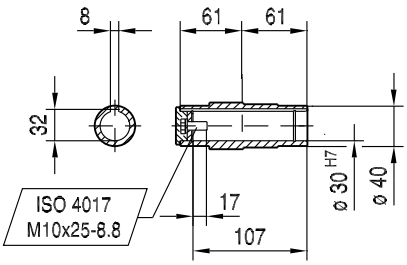

## KA29B..



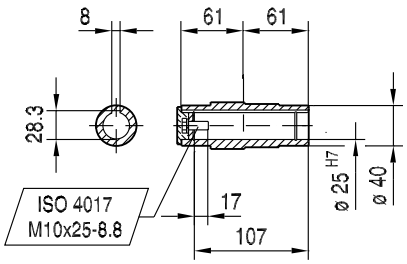

## KH29B..

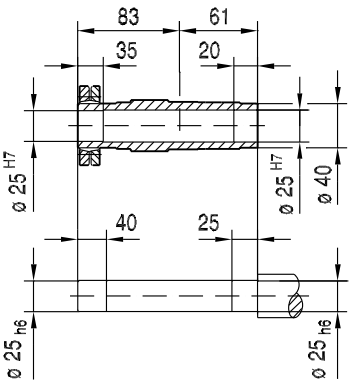



**ø 30 H7**
**DIN 6885-3**




**ø 25 H7**



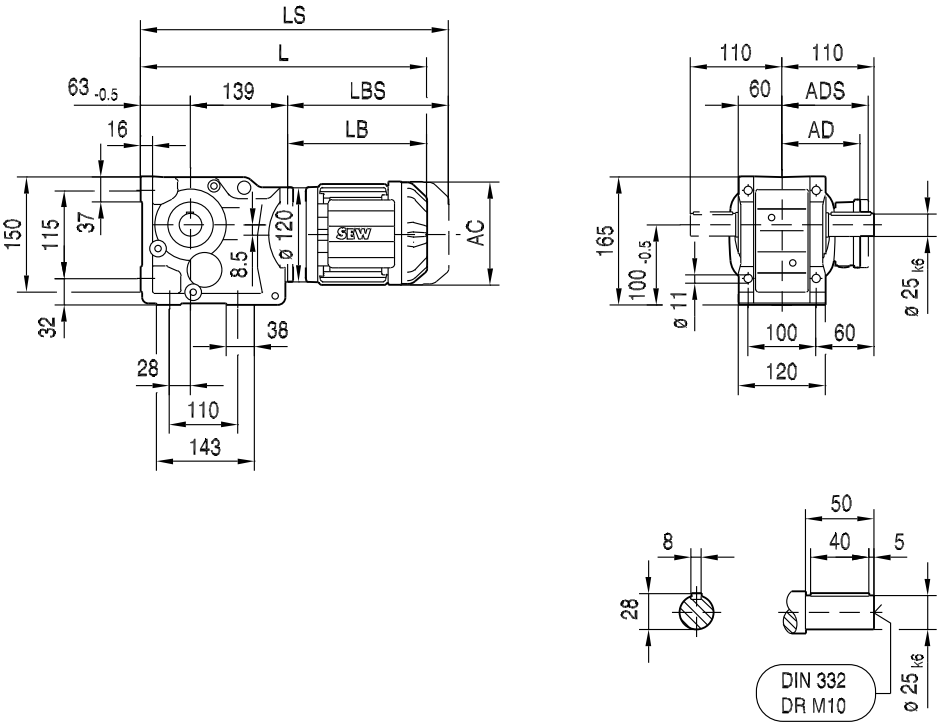




| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | | |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | | |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | | |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | | |
| **L** | 388 | 399 | 424 | 479 | 480 | 512 | | |
| **LS** | 443 | 467 | 492 | 560 | 574 | 606 | | |
| **LB** | 191 | 202 | 227 | 282 | 283 | 315 | | |
| **LBS** | 246 | 270 | 295 | 363 | 377 | 409 | | |

21284997/EN – 03/2015

33 037 00 14

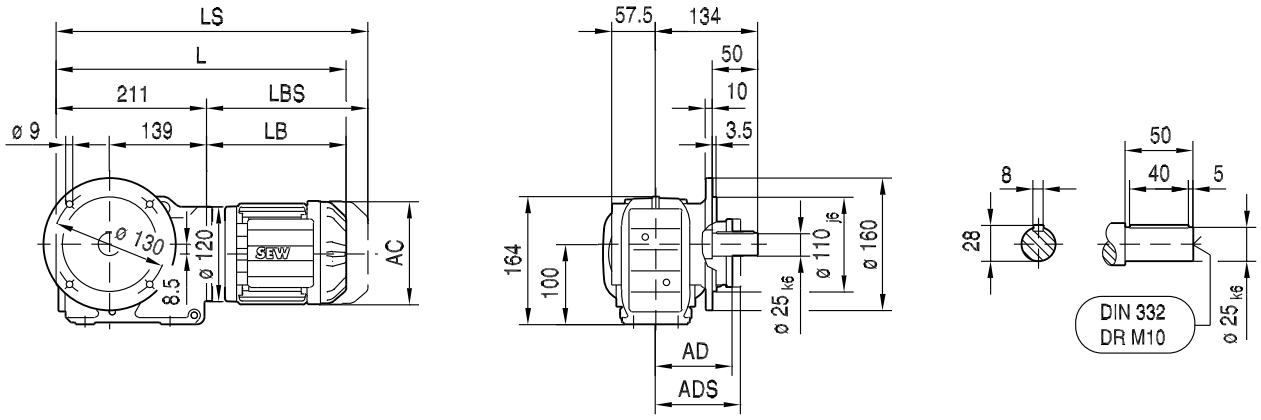
## K37..



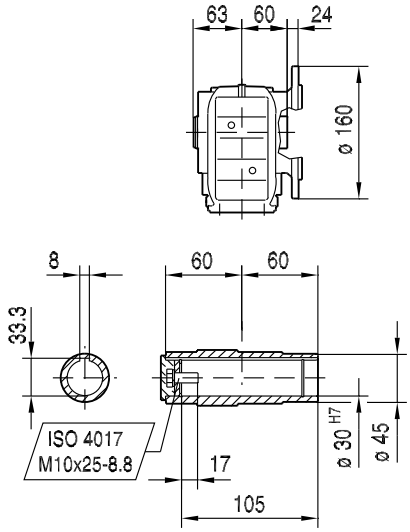

| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 |
| **L** | 393 | 404 | 429 | 484 | 485 | 517 | 516 | 566 |
| **LS** | 448 | 472 | 497 | 565 | 579 | 611 | 610 | 660 |
| **LB** | 191 | 202 | 227 | 282 | 283 | 315 | 314 | 364 |
| **LBS** | 246 | 270 | 295 | 363 | 377 | 409 | 408 | 458 |

## KF37..

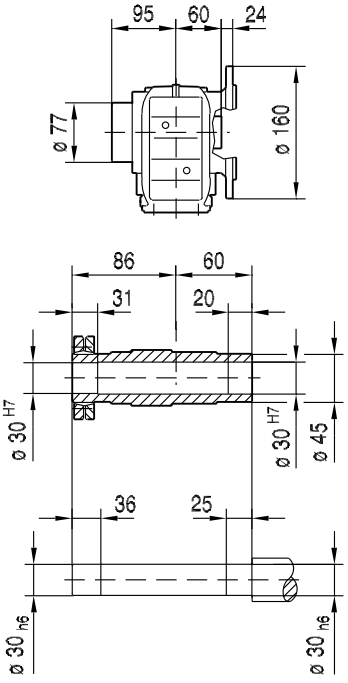
33 038 00 14



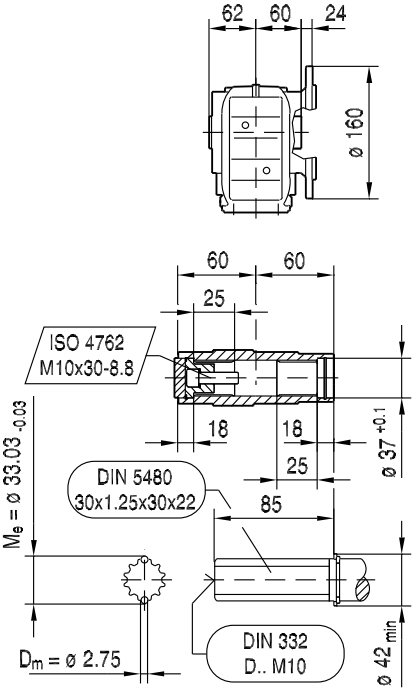

## KAF37..




## KHF37..




## KVF37..

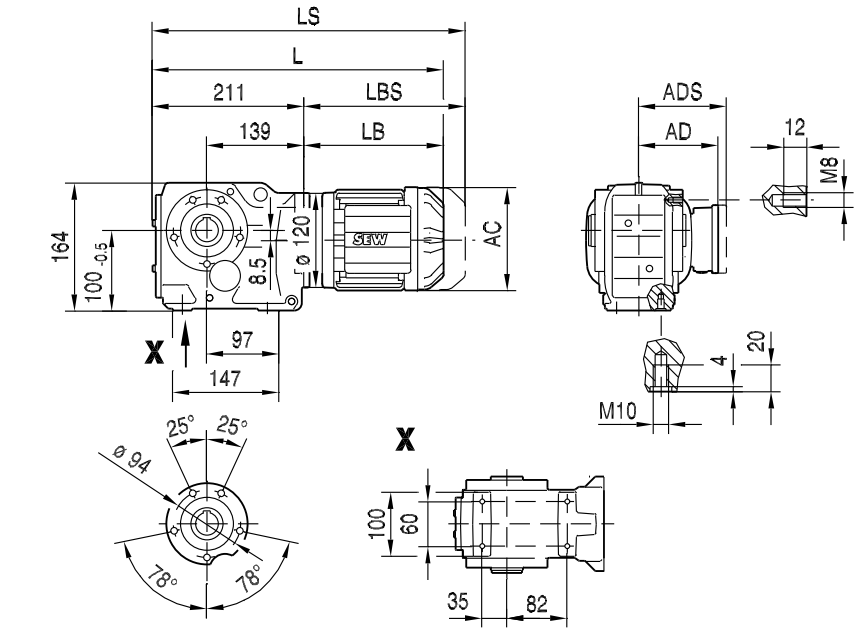


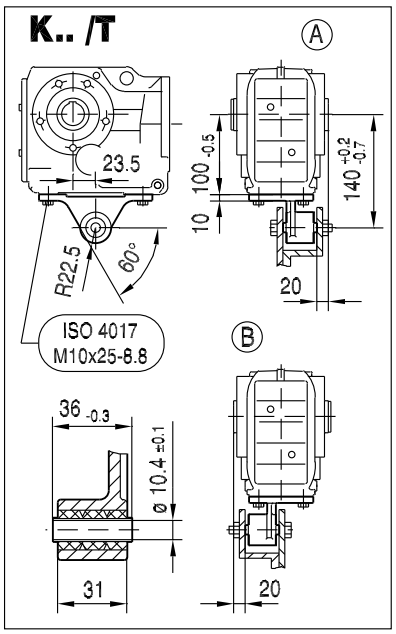

| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 |
| **L** | 402 | 413 | 438 | 493 | 494 | 526 | 525 | 575 |
| **LS** | 457 | 481 | 506 | 574 | 588 | 620 | 619 | 669 |
| **LB** | 191 | 202 | 227 | 282 | 283 | 315 | 314 | 364 |
| **LBS** | 246 | 270 | 295 | 363 | 377 | 409 | 408 | 458 |

21284997/EN – 03/2015

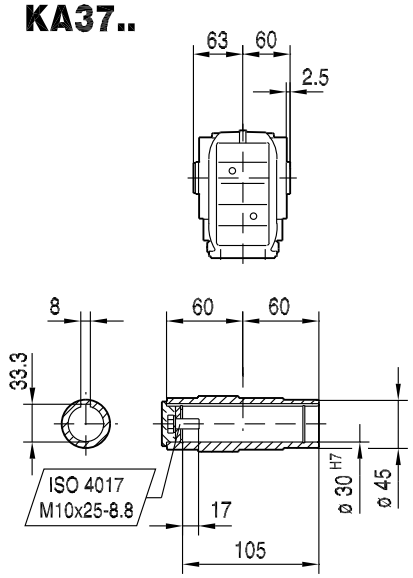
33 039 00 14

## KA37..

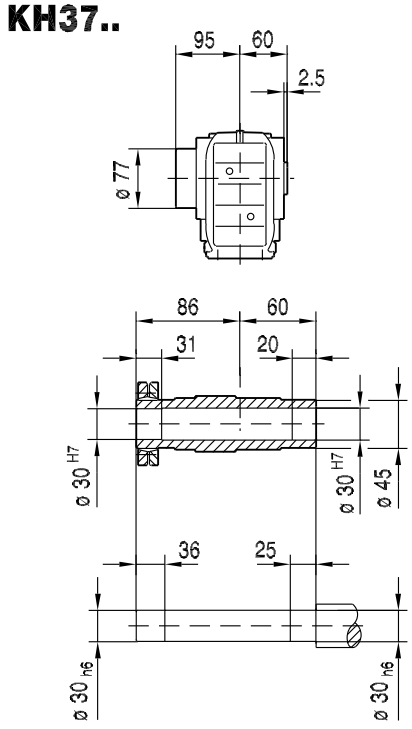


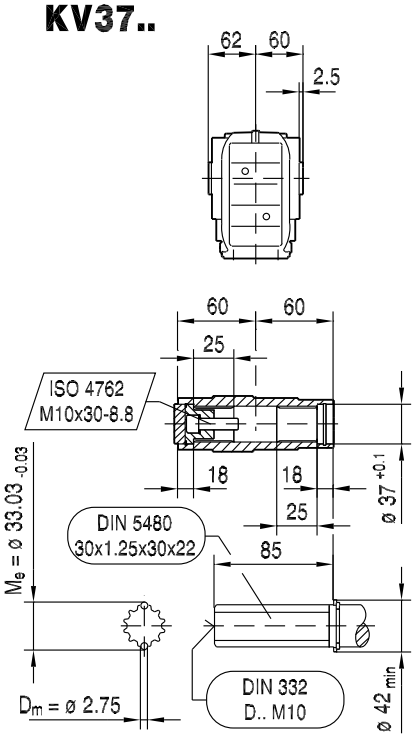

## KA37..




## KH37..




## KV37..

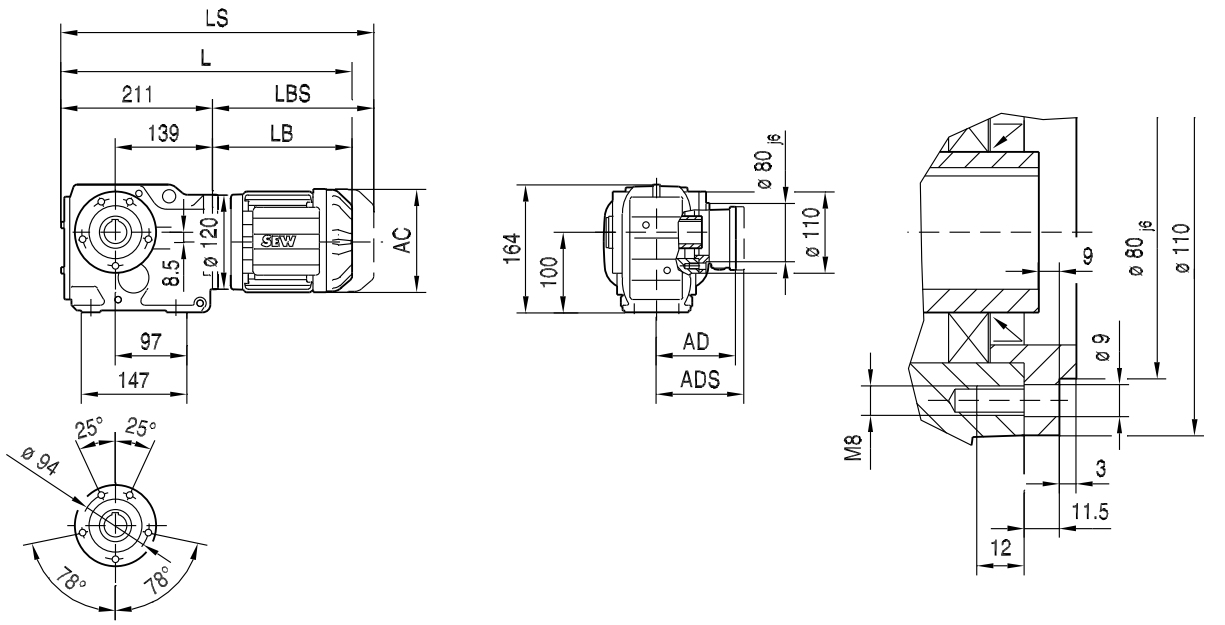



| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 |
| **L** | 402 | 413 | 438 | 493 | 494 | 526 | 525 | 575 |
| **LS** | 457 | 481 | 506 | 574 | 588 | 620 | 619 | 669 |
| **LB** | 191 | 202 | 227 | 282 | 283 | 315 | 314 | 364 |
| **LBS** | 246 | 270 | 295 | 363 | 377 | 409 | 408 | 458 |

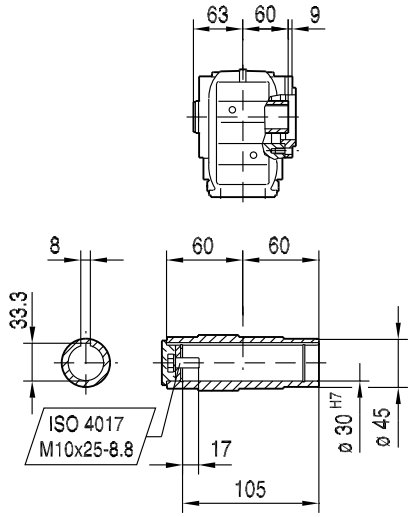
21284997/EN – 03/2015

33 040 00 14

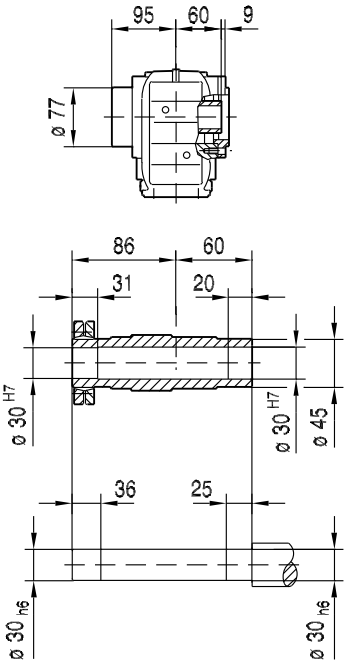
## KAZ37..



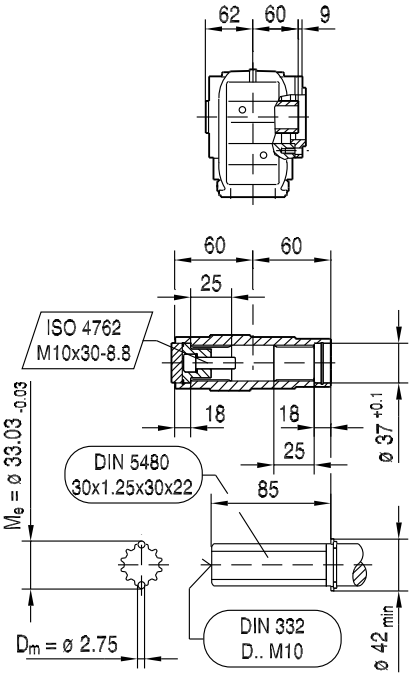

## KAZ37..




## KHZ37..




## KVZ37..

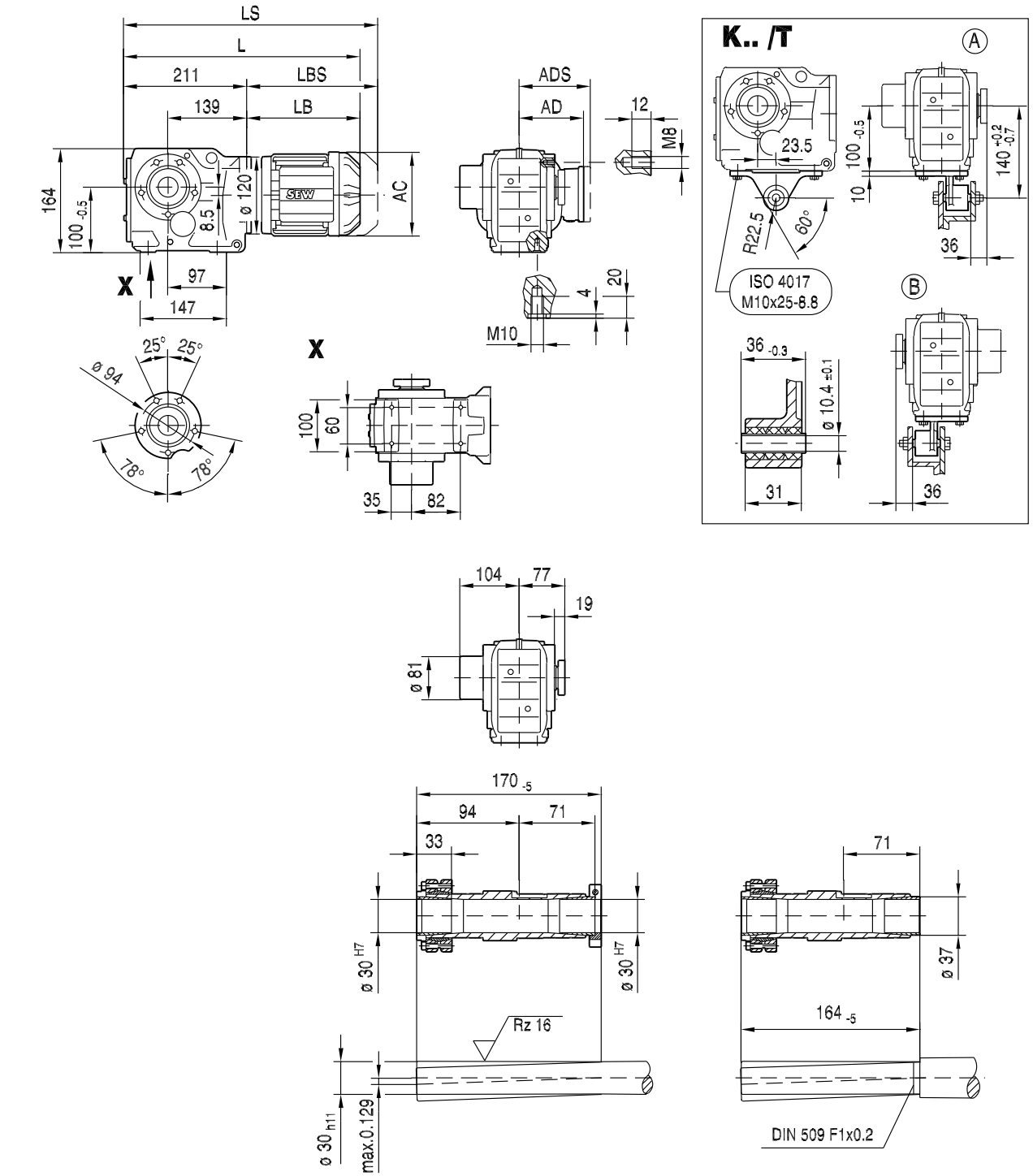



| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 |
| **L** | 402 | 413 | 438 | 493 | 494 | 526 | 525 | 575 |
| **LS** | 457 | 481 | 506 | 574 | 588 | 620 | 619 | 669 |
| **LB** | 191 | 202 | 227 | 282 | 283 | 315 | 314 | 364 |
| **LBS** | 246 | 270 | 295 | 363 | 377 | 409 | 408 | 458 |

21284997/EN – 03/2015

## KT37..

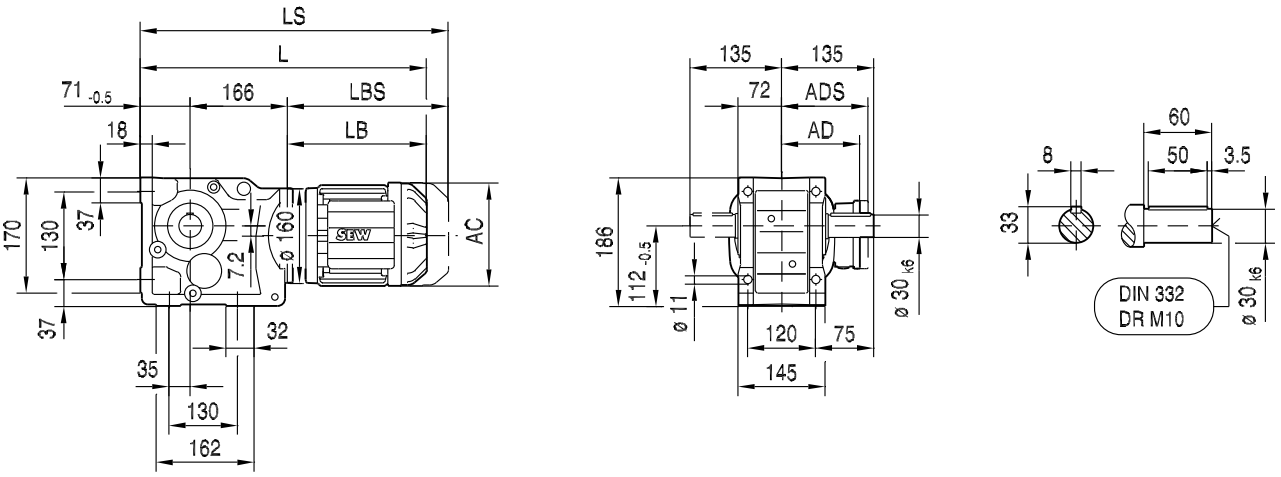
33 041 00 14



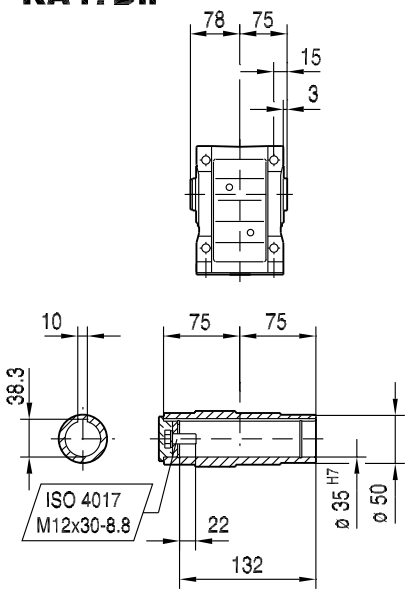

| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 |
| **L** | 402 | 413 | 438 | 493 | 494 | 526 | 525 | 575 |
| **LS** | 457 | 481 | 506 | 574 | 588 | 620 | 619 | 669 |
| **LB** | 191 | 202 | 227 | 282 | 283 | 315 | 314 | 364 |
| **LBS** | 246 | 270 | 295 | 363 | 377 | 409 | 408 | 458 |

33 042 00 14

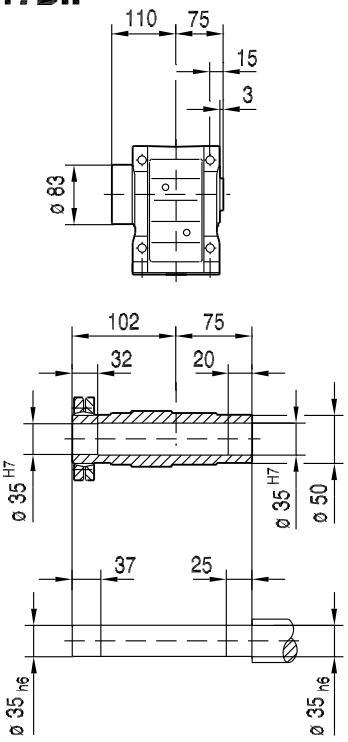
## K47..



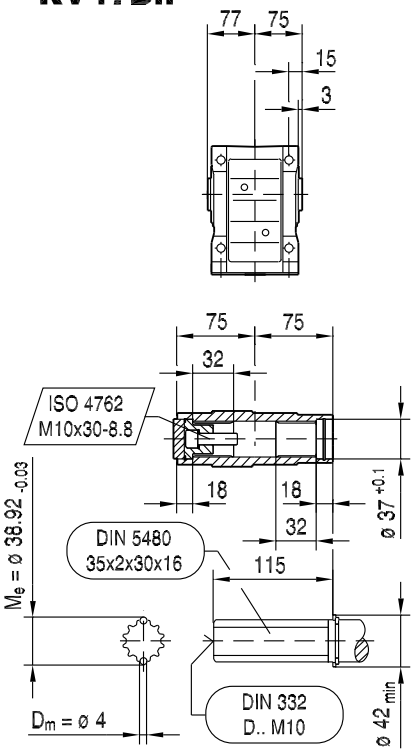

## KA47B..




## KH47B..




## KV47B..

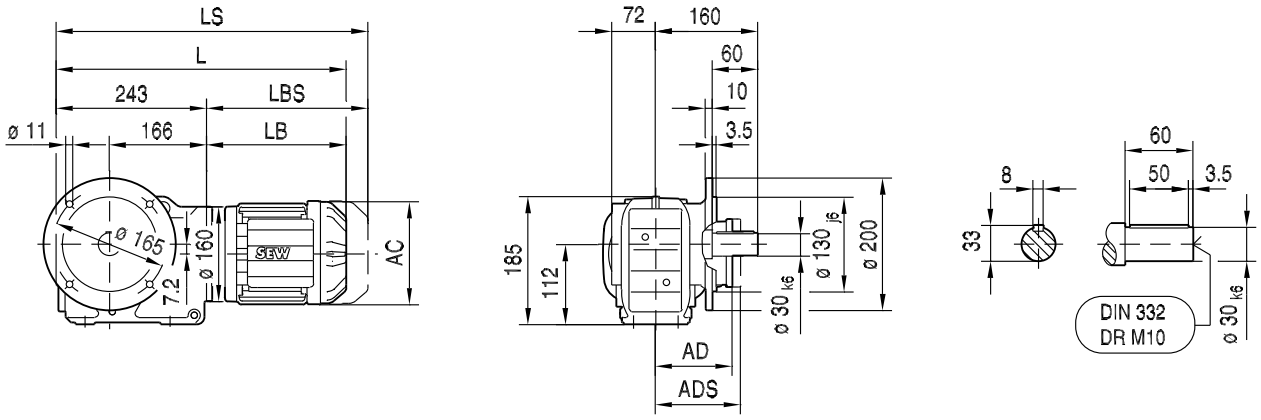



| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 |
| **L** | 422 | 433 | 458 | 512 | 514 | 546 | 542 | 592 |
| **LS** | 477 | 501 | 526 | 593 | 607 | 639 | 636 | 686 |
| **LB** | 185 | 196 | 221 | 275 | 277 | 309 | 305 | 355 |
| **LBS** | 240 | 264 | 289 | 356 | 370 | 402 | 399 | 449 |

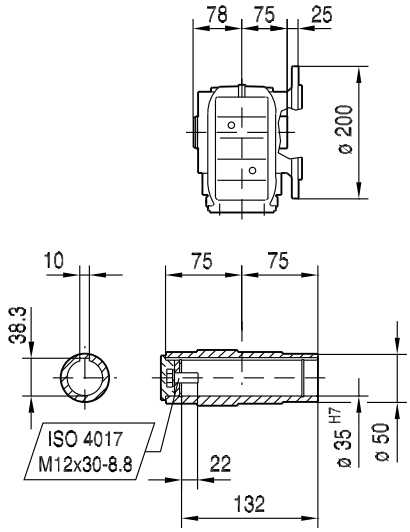
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## KF47..

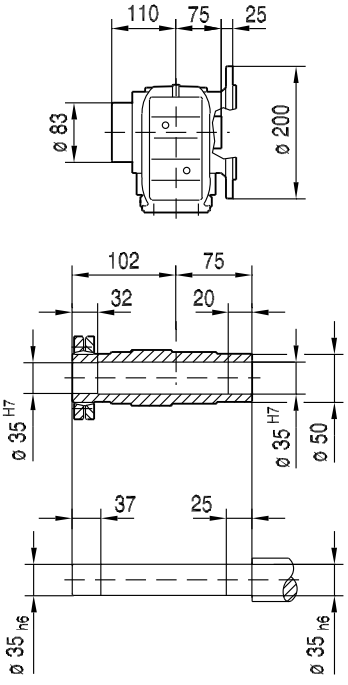
33 043 00 14



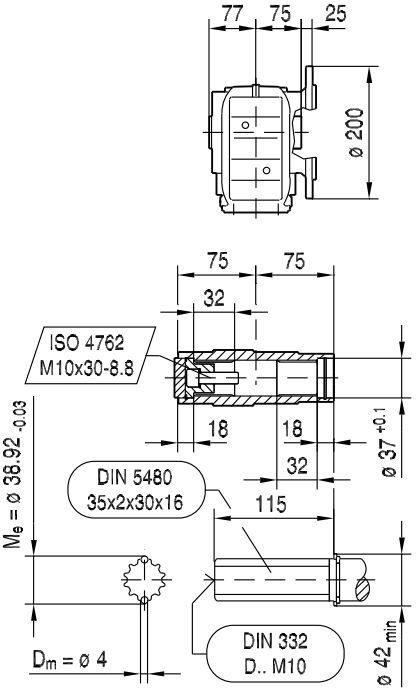

## KAF47..




## KHF47..




## KVF47..

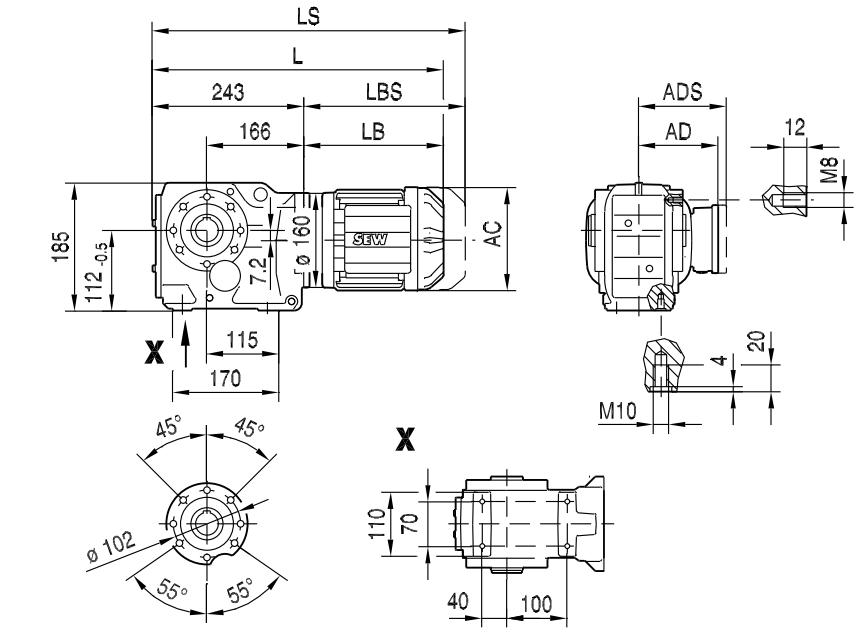


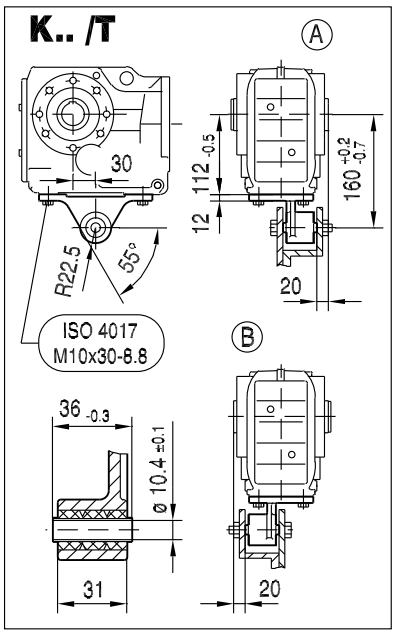

| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 |
| **L** | 428 | 439 | 464 | 518 | 520 | 552 | 548 | 598 |
| **LS** | 483 | 507 | 532 | 599 | 613 | 645 | 642 | 692 |
| **LB** | 185 | 196 | 221 | 275 | 277 | 309 | 305 | 355 |
| **LBS** | 240 | 264 | 289 | 356 | 370 | 402 | 399 | 449 |

21284997/EN – 03/2015

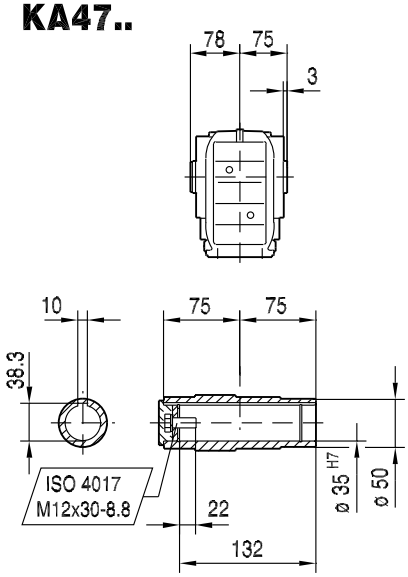
33 044 00 14

## KA47..

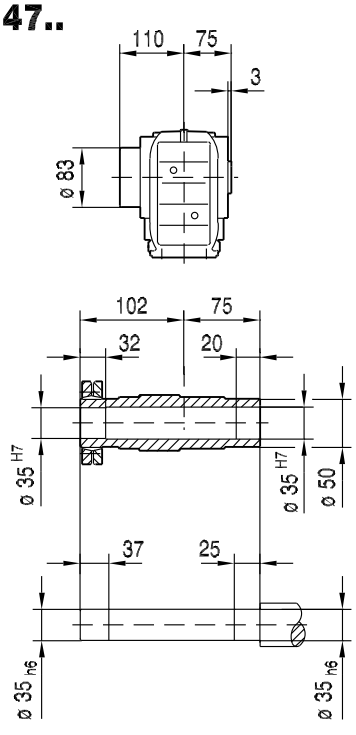


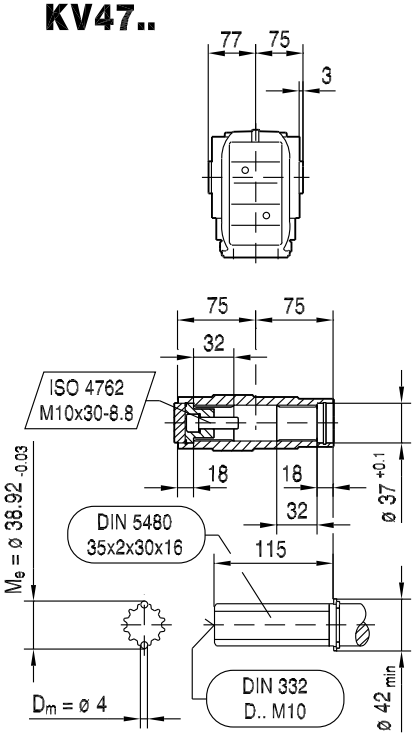

## KA47..




## KH47..




## KV47..

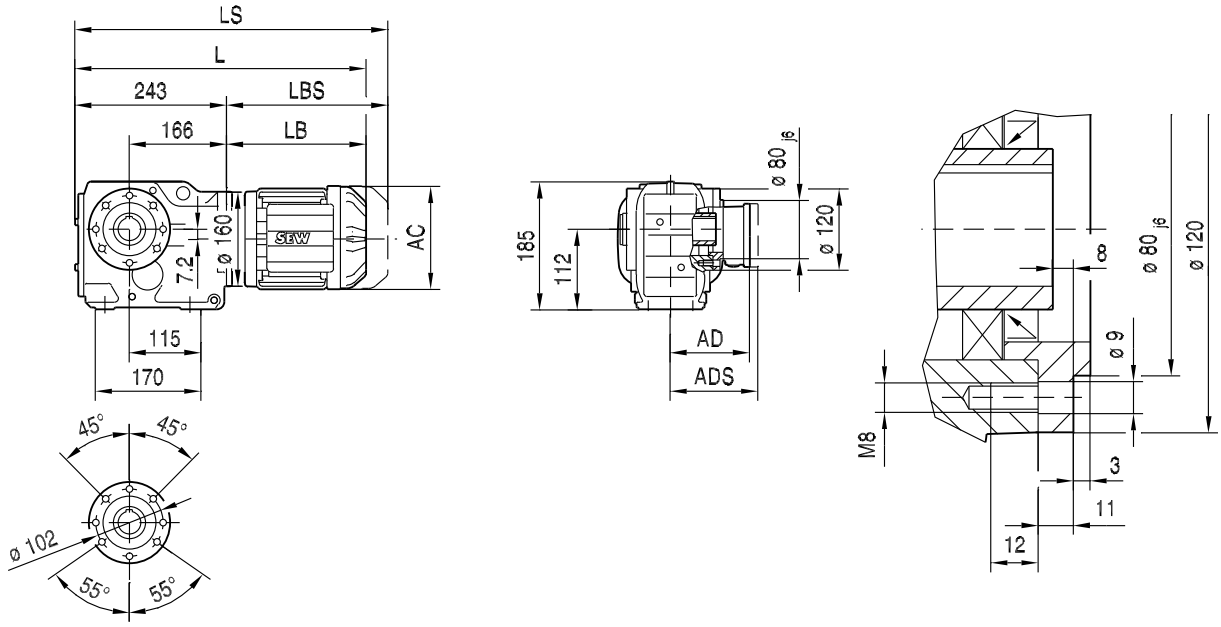



| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 |
| **L** | 428 | 439 | 464 | 518 | 520 | 552 | 548 | 598 |
| **LS** | 483 | 507 | 532 | 599 | 613 | 645 | 642 | 692 |
| **LB** | 185 | 196 | 221 | 275 | 277 | 309 | 305 | 355 |
| **LBS** | 240 | 264 | 289 | 356 | 370 | 402 | 399 | 449 |

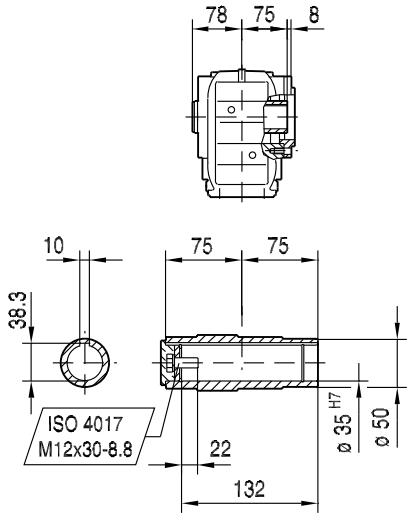
21284997/EN – 03/2015

33 045 00 14

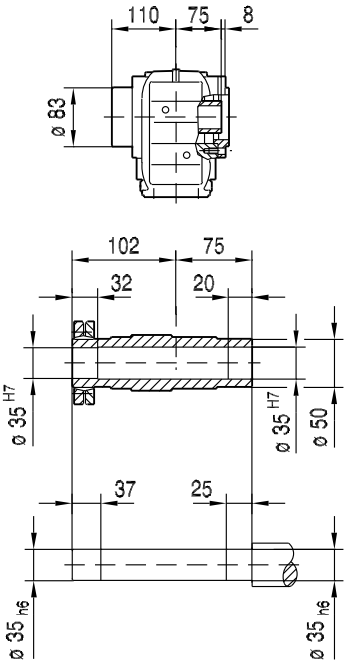
## KAZ47..



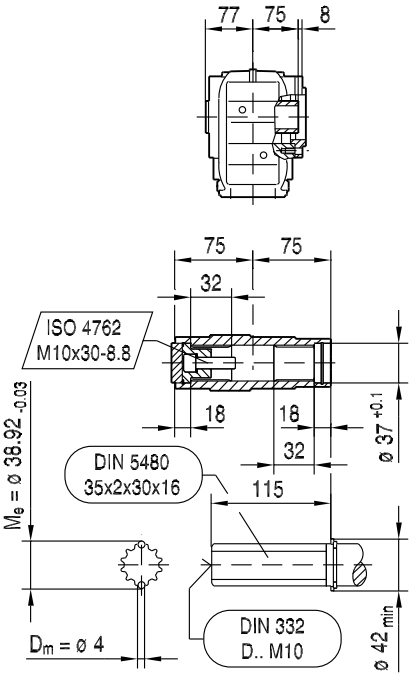

## KAZ47..




## KHZ47..




## KVZ47..

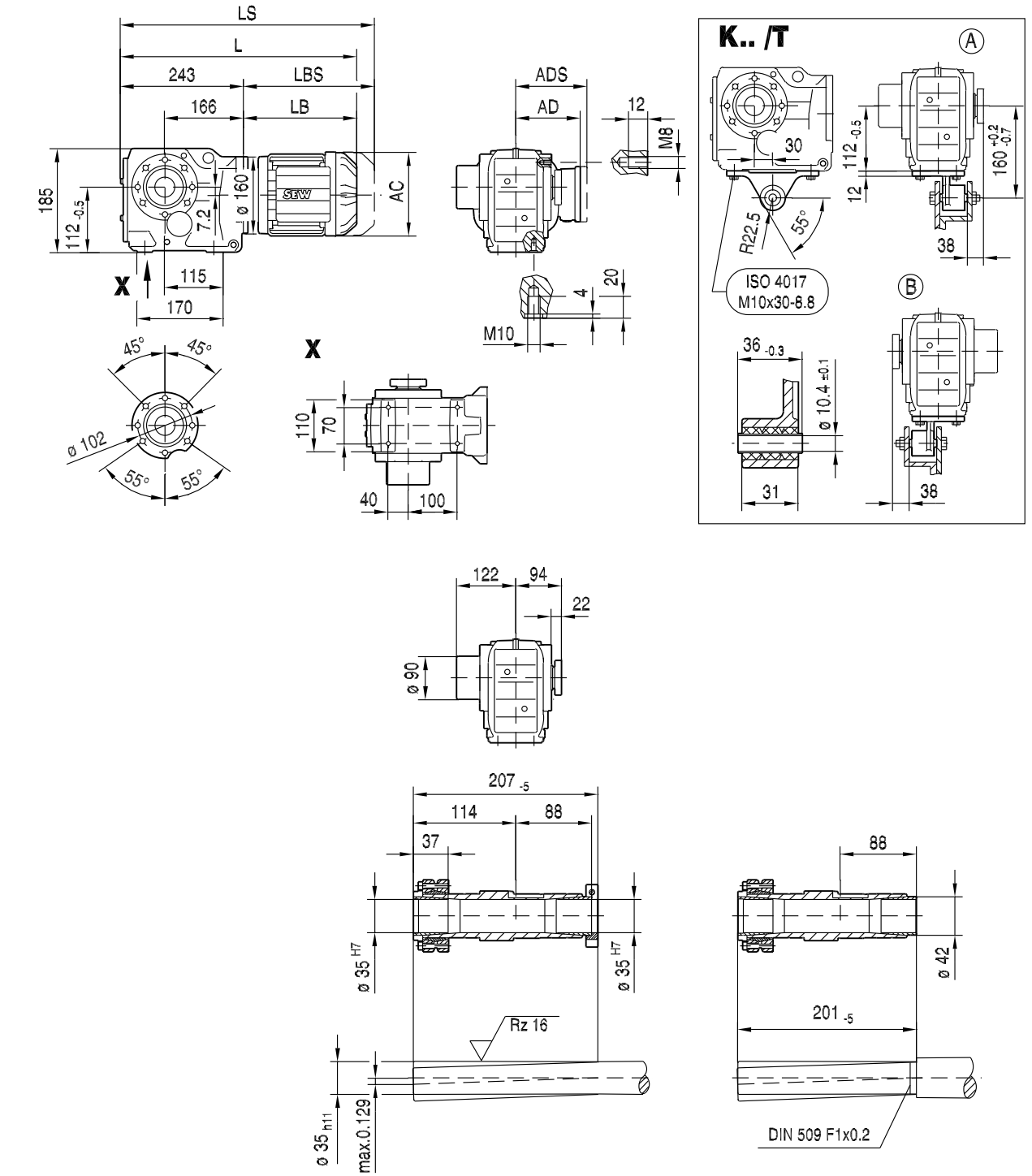



| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 |
| **L** | 428 | 439 | 464 | 518 | 520 | 552 | 548 | 598 |
| **LS** | 483 | 507 | 532 | 599 | 613 | 645 | 642 | 692 |
| **LB** | 185 | 196 | 221 | 275 | 277 | 309 | 305 | 355 |
| **LBS** | 240 | 264 | 289 | 356 | 370 | 402 | 399 | 449 |

21284997/EN – 03/2015

## KT47..

33 046 00 14

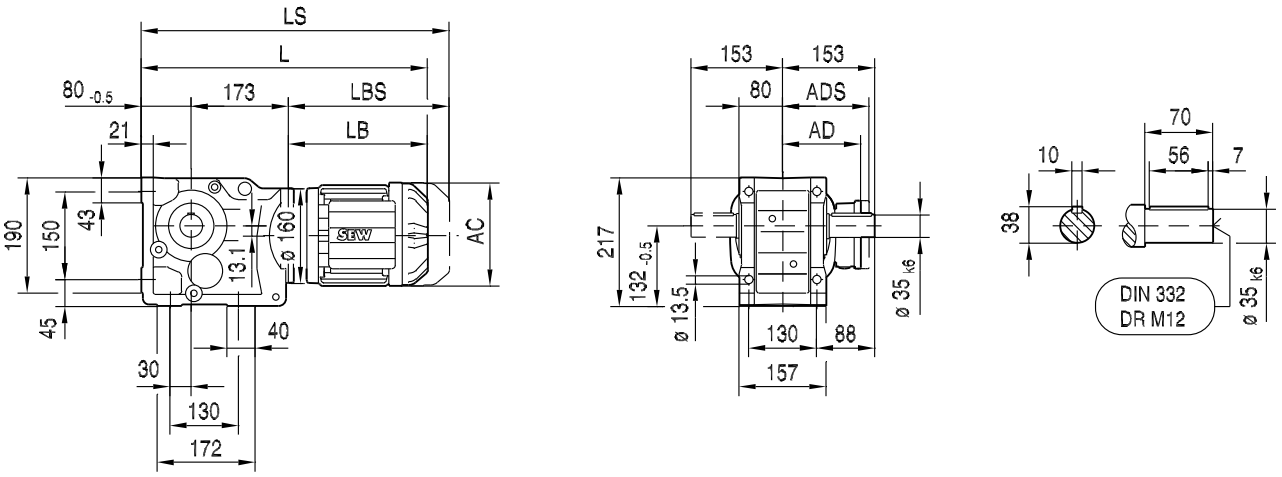



| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 |
| **L** | 428 | 439 | 464 | 518 | 520 | 552 | 548 | 598 |
| **LS** | 483 | 507 | 532 | 599 | 613 | 645 | 642 | 692 |
| **LB** | 185 | 196 | 221 | 275 | 277 | 309 | 305 | 355 |
| **LBS** | 240 | 264 | 289 | 356 | 370 | 402 | 399 | 449 |

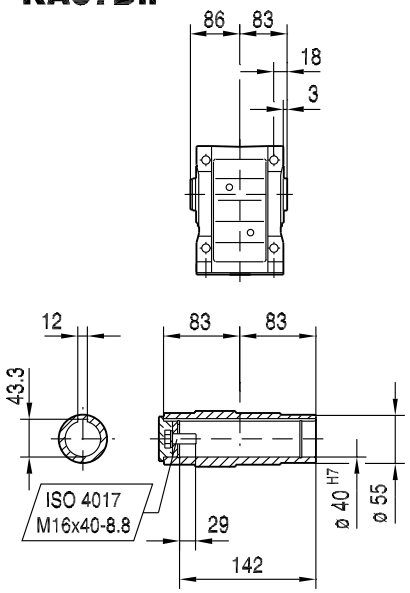
21284997/EN – 03/2015

33 047 00 14

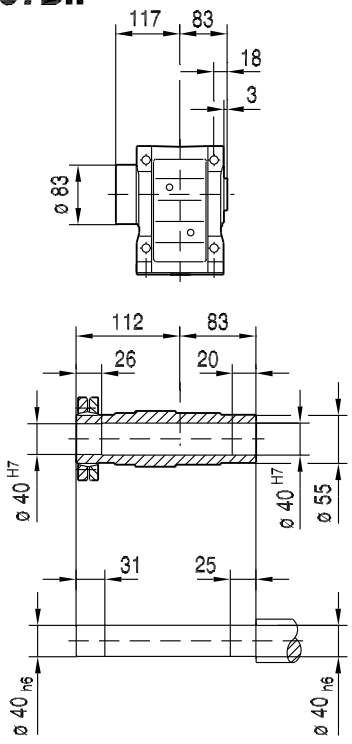
## K57..



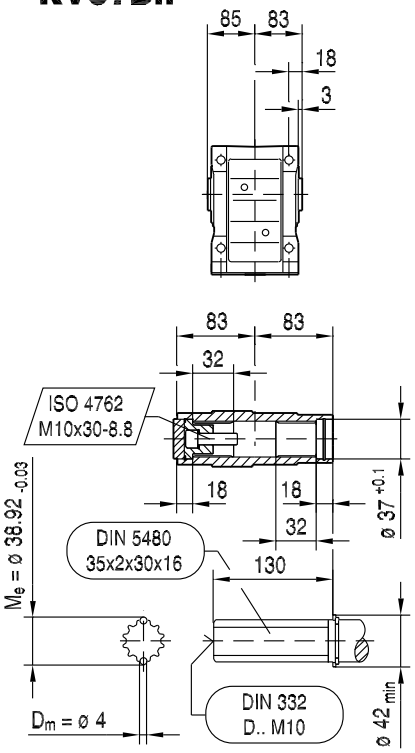

## KA57B..




## KH57B..




## KV57B..

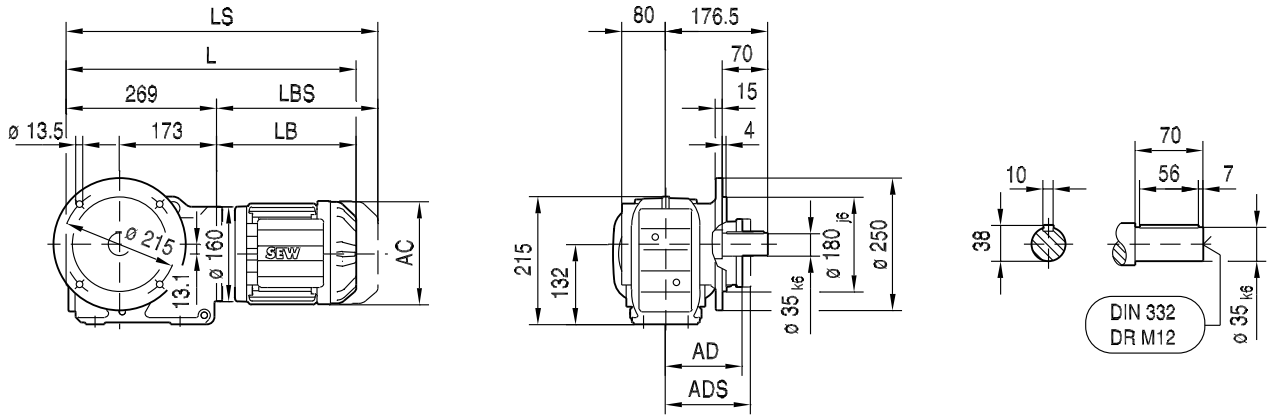



| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M |
|---|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 | 221 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 | 170 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 | 172 |
| **L** | 438 | 449 | 474 | 528 | 530 | 562 | 558 | 608 | 639 |
| **LS** | 493 | 517 | 542 | 609 | 623 | 655 | 652 | 702 | 751 |
| **LB** | 185 | 196 | 221 | 275 | 277 | 309 | 305 | 355 | 386 |
| **LBS** | 240 | 264 | 289 | 356 | 370 | 402 | 399 | 449 | 498 |

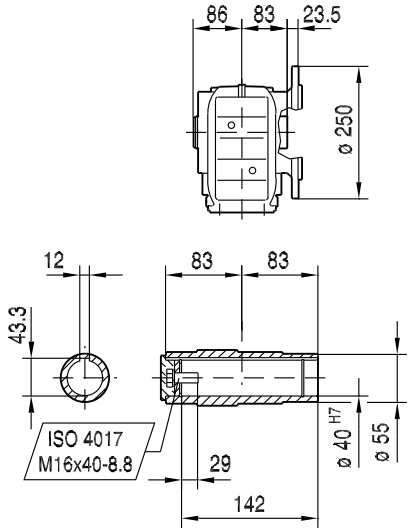
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33 048 00 14

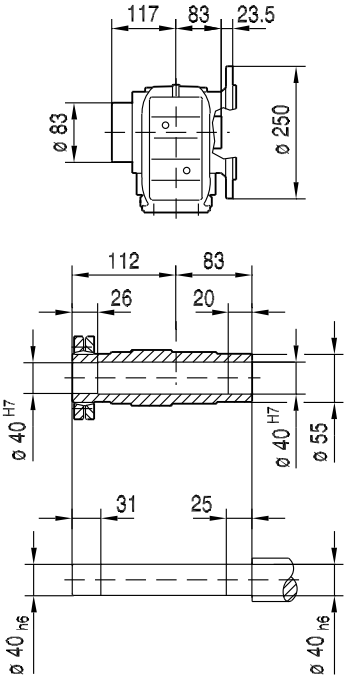
## KF57..



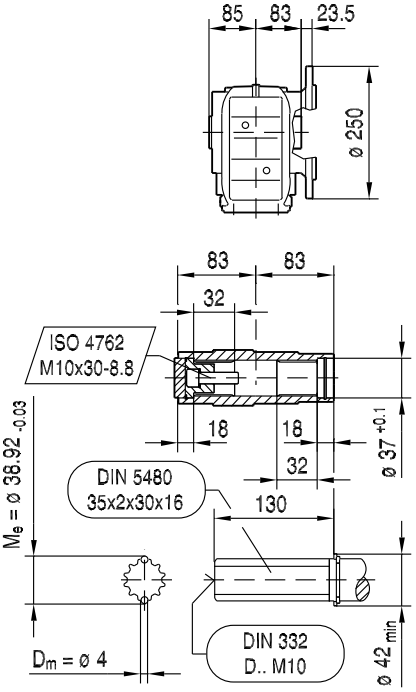

## KAF57..




## KHF57..




## KVF57..

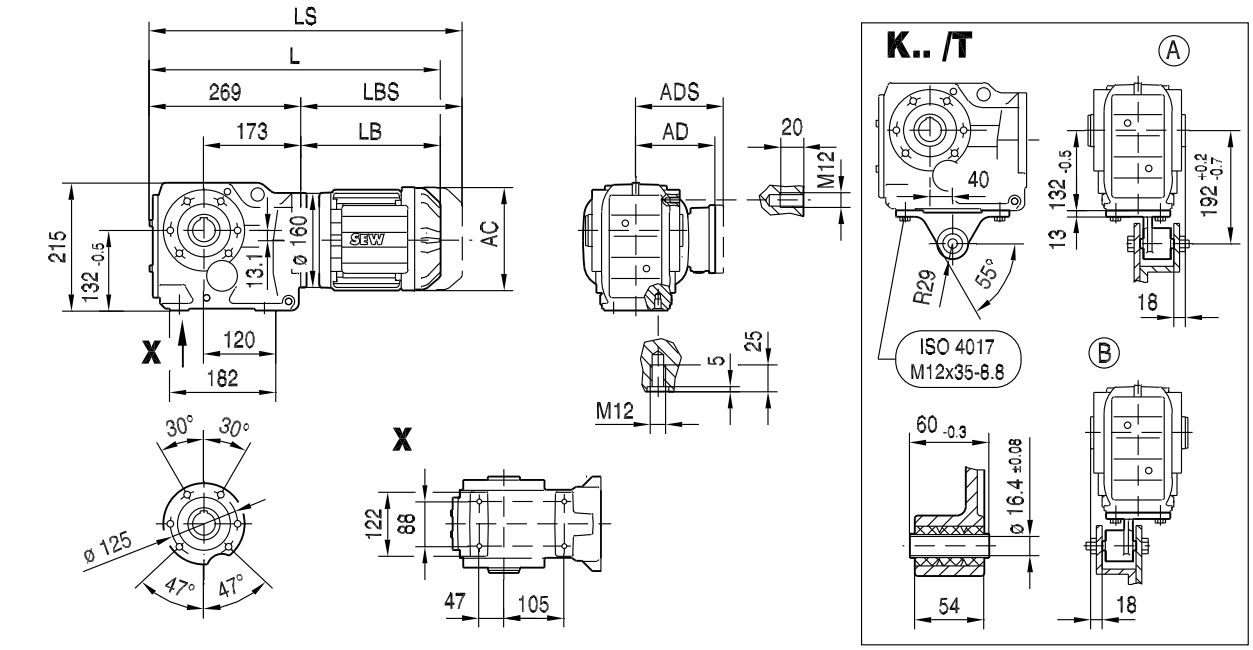



| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M |
|---|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 | 221 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 | 170 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 | 172 |
| **L** | 454 | 465 | 490 | 544 | 546 | 578 | 574 | 624 | 655 |
| **LS** | 509 | 533 | 558 | 625 | 639 | 671 | 668 | 718 | 767 |
| **LB** | 185 | 196 | 221 | 275 | 277 | 309 | 305 | 355 | 386 |
| **LBS** | 240 | 264 | 289 | 356 | 370 | 402 | 399 | 449 | 498 |

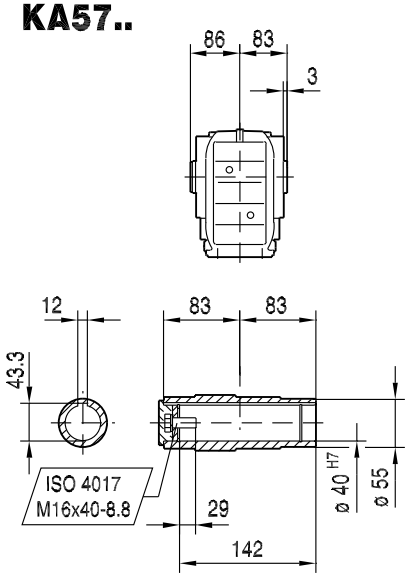
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33 049 00 14

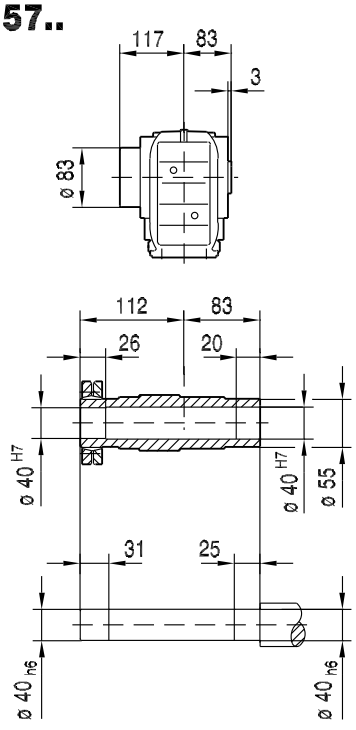
## KA57..



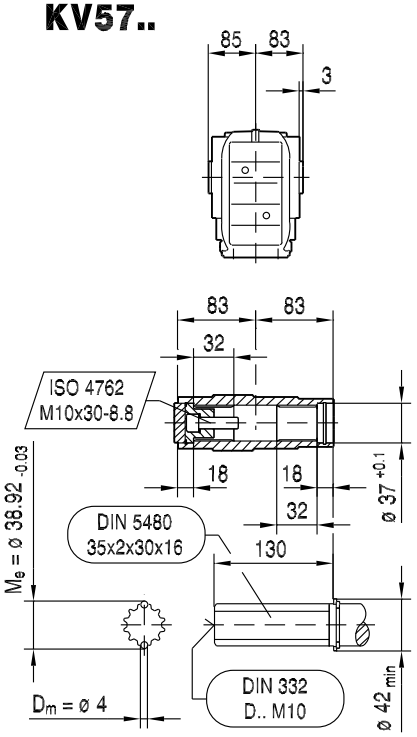

## KA57..




## KH57..



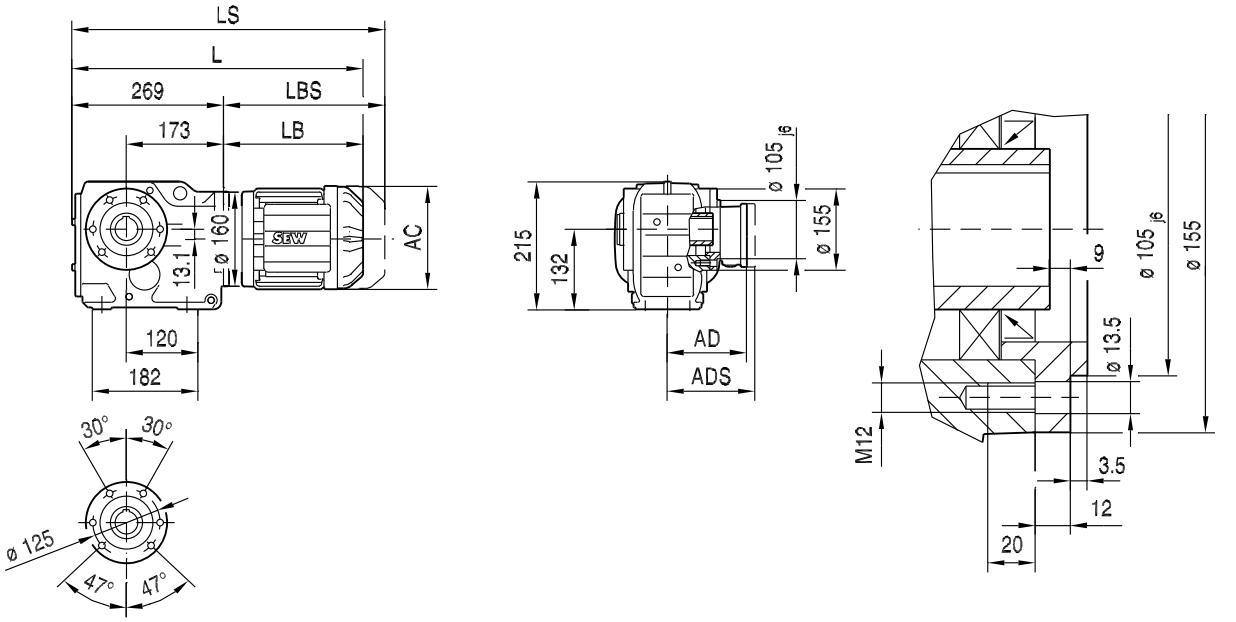

## KV57..



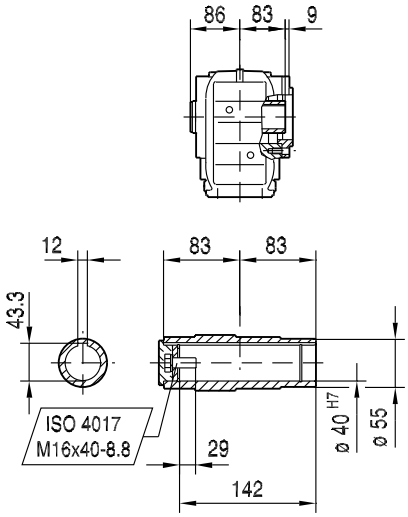

| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M |
|---|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 | 221 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 | 170 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 | 172 |
| **L** | 454 | 465 | 490 | 544 | 546 | 578 | 574 | 624 | 655 |
| **LS** | 509 | 533 | 558 | 625 | 639 | 671 | 668 | 718 | 767 |
| **LB** | 185 | 196 | 221 | 275 | 277 | 309 | 305 | 355 | 386 |
| **LBS** | 240 | 264 | 289 | 356 | 370 | 402 | 399 | 449 | 498 |

33 050 00 14

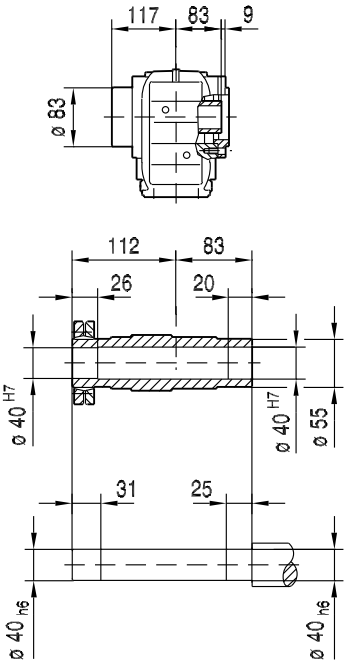
## KAZ57..



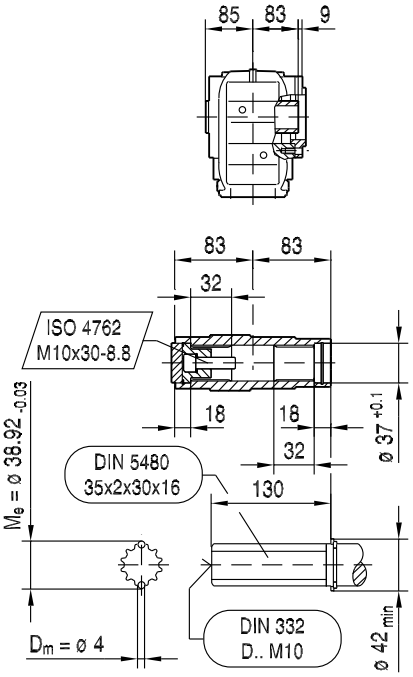

## KAZ57..




## KHZ57..




## KVZ57..

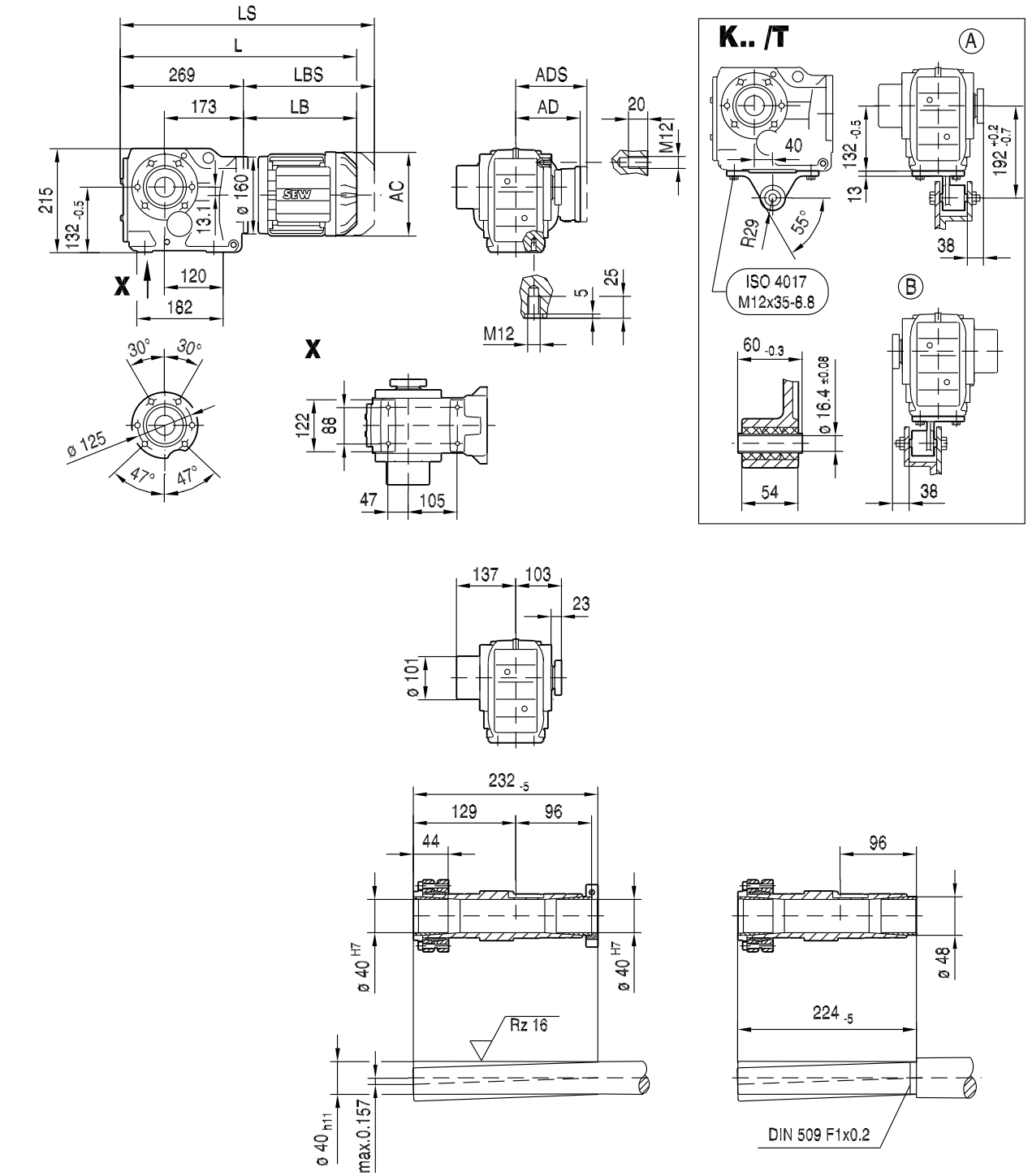



| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M |
|---|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 | 221 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 | 170 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 | 172 |
| **L** | 454 | 465 | 490 | 544 | 546 | 578 | 574 | 624 | 655 |
| **LS** | 509 | 533 | 558 | 625 | 639 | 671 | 668 | 718 | 767 |
| **LB** | 185 | 196 | 221 | 275 | 277 | 309 | 305 | 355 | 386 |
| **LBS** | 240 | 264 | 289 | 356 | 370 | 402 | 399 | 449 | 498 |

21284997/EN – 03/2015

## KT57..

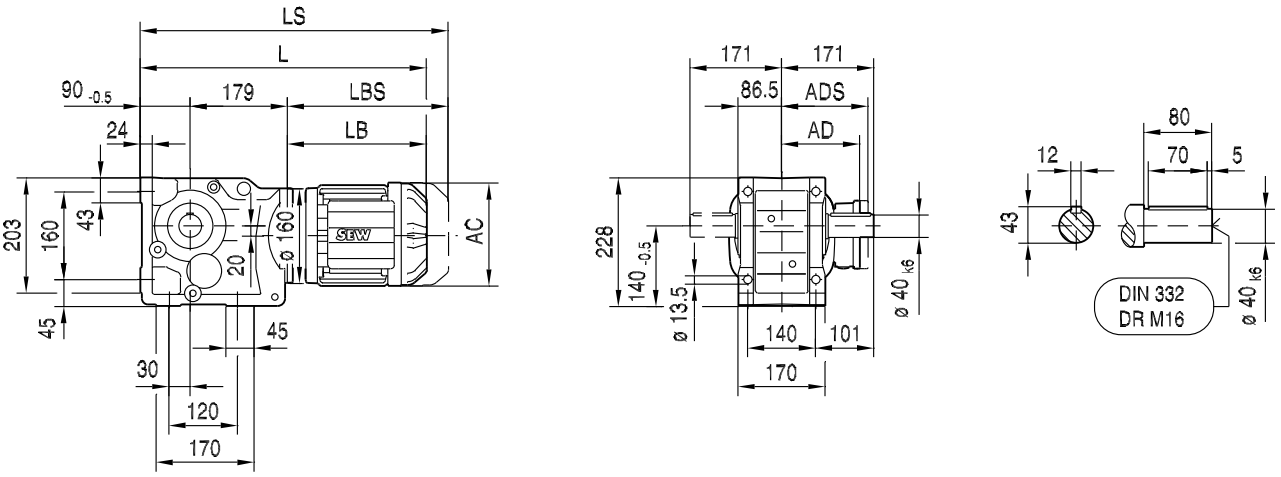
33 051 00 14



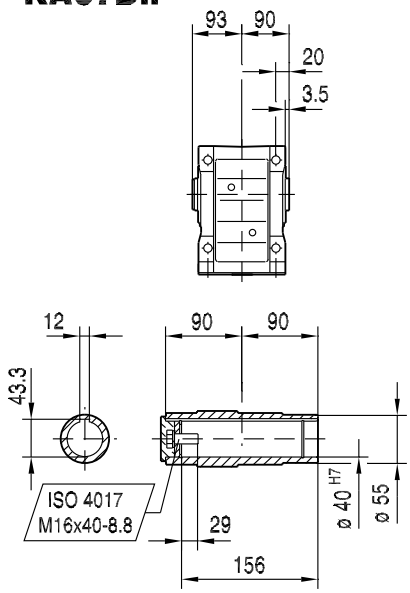

| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M |
|---|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 | 221 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 | 170 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 | 172 |
| **L** | 454 | 465 | 490 | 544 | 546 | 578 | 574 | 624 | 655 |
| **LS** | 509 | 533 | 558 | 625 | 639 | 671 | 668 | 718 | 767 |
| **LB** | 185 | 196 | 221 | 275 | 277 | 309 | 305 | 355 | 386 |
| **LBS** | 240 | 264 | 289 | 356 | 370 | 402 | 399 | 449 | 498 |

33 052 00 14

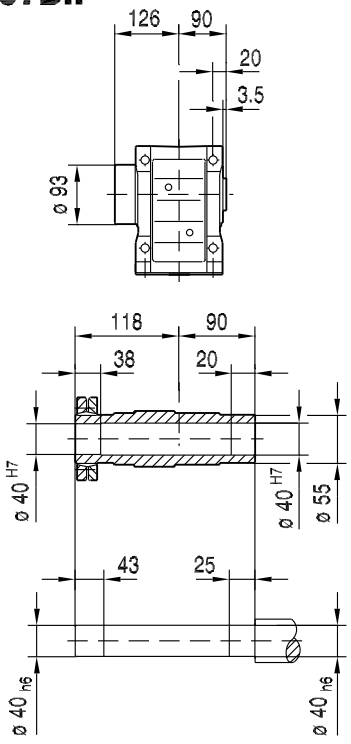
## K67..



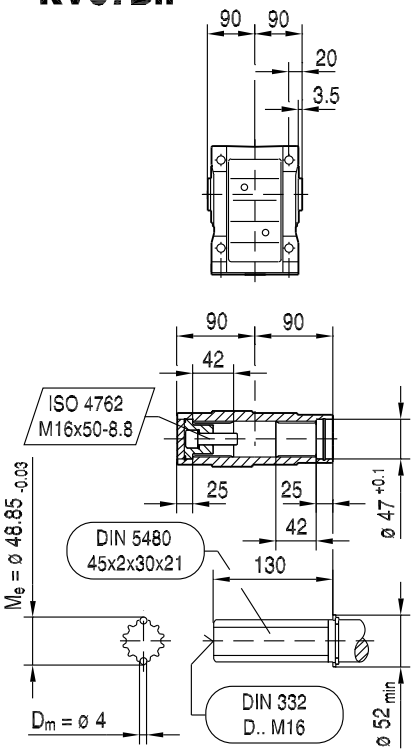

## KA67B..




## KH67B..




## KV67B..

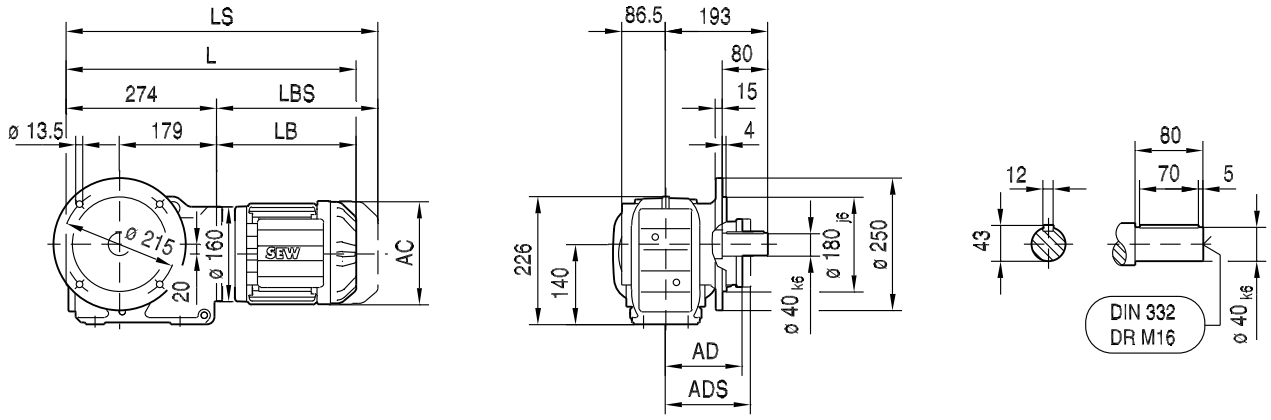



| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 | 221 | 221 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 | 170 | 170 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 | 172 | 172 |
| **L** | 454 | 465 | 490 | 544 | 546 | 578 | 574 | 624 | 655 | 709 |
| **LS** | 509 | 533 | 558 | 625 | 639 | 671 | 668 | 718 | 767 | 821 |
| **LB** | 185 | 196 | 221 | 275 | 277 | 309 | 305 | 355 | 386 | 440 |
| **LBS** | 240 | 264 | 289 | 356 | 370 | 402 | 399 | 449 | 498 | 552 |

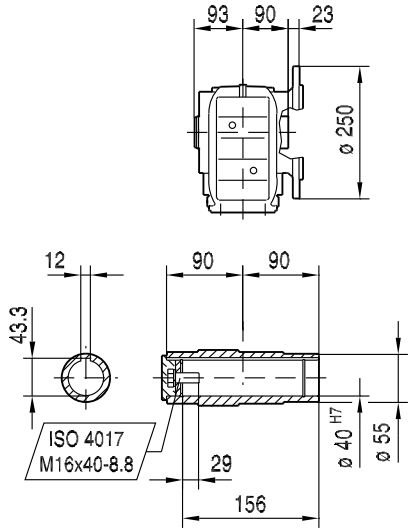
21284997/EN – 03/2015

33 053 00 14

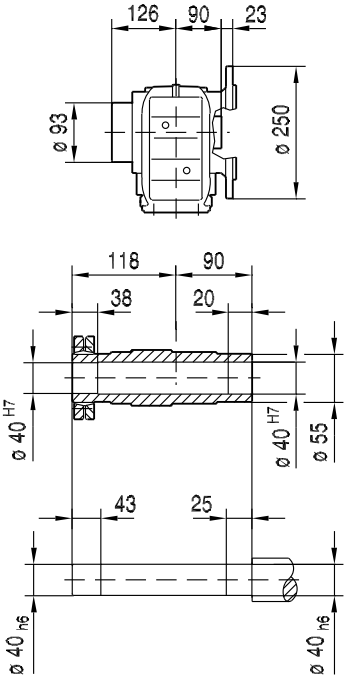
## KF67..



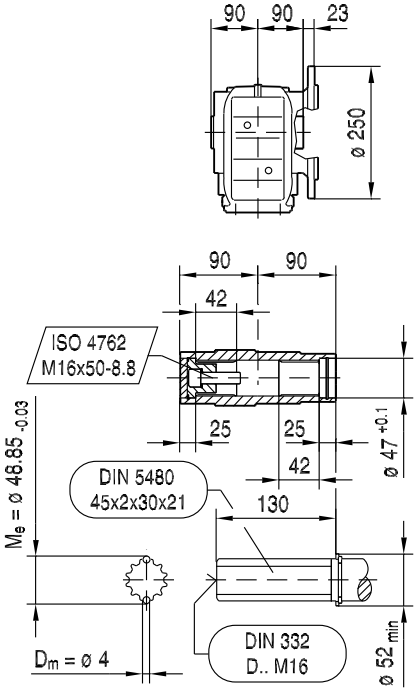

## KAF67..




## KHF67..



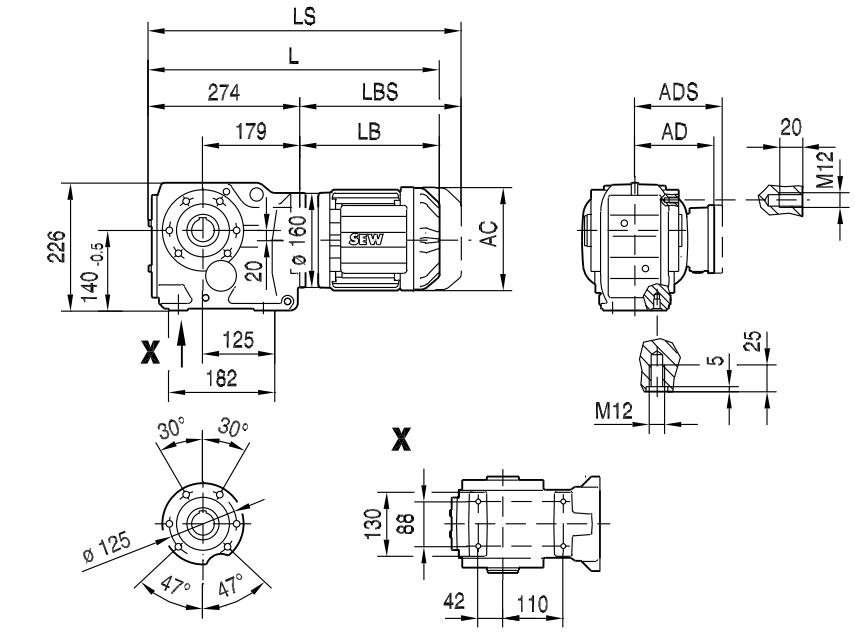

## KVF67..

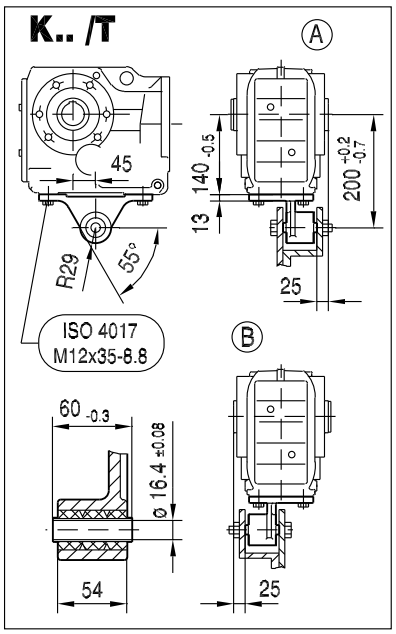



| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 | 221 | 221 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 | 170 | 170 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 | 172 | 172 |
| **L** | 459 | 470 | 495 | 549 | 551 | 583 | 579 | 629 | 660 | 714 |
| **LS** | 514 | 538 | 563 | 630 | 644 | 676 | 673 | 723 | 772 | 826 |
| **LB** | 185 | 196 | 221 | 275 | 277 | 309 | 305 | 355 | 386 | 440 |
| **LBS** | 240 | 264 | 289 | 356 | 370 | 402 | 399 | 449 | 498 | 552 |

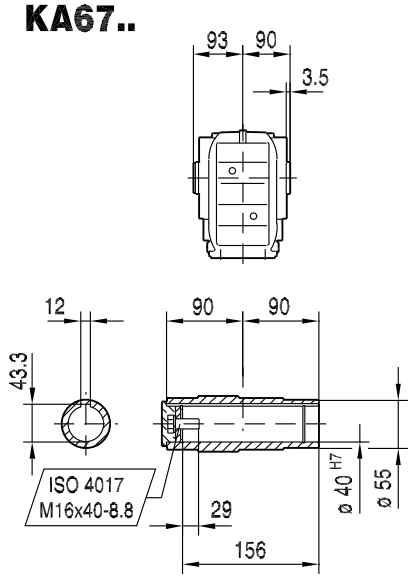
33 054 00 14

## KA67..

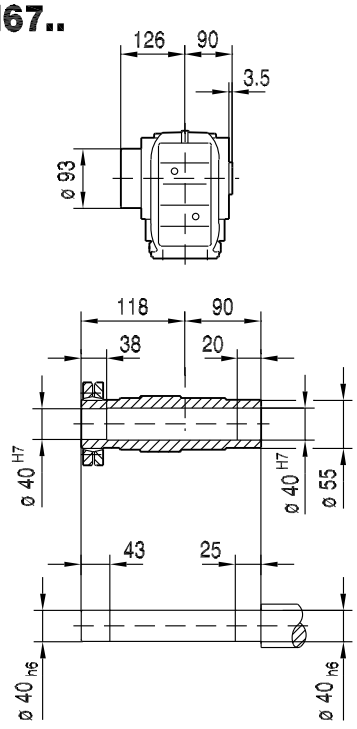


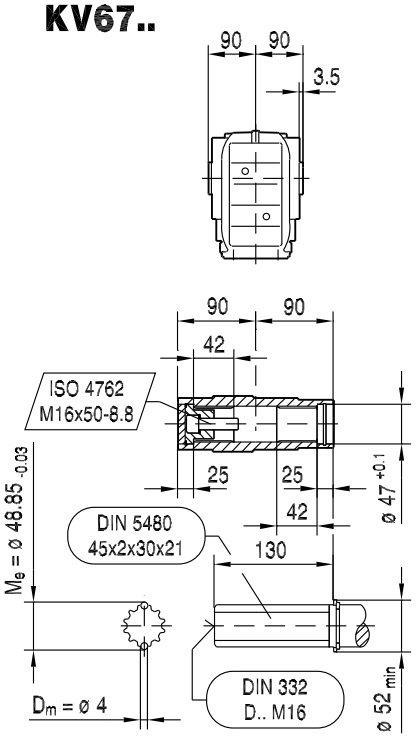

## KA67..




## KH67..




## KV67..

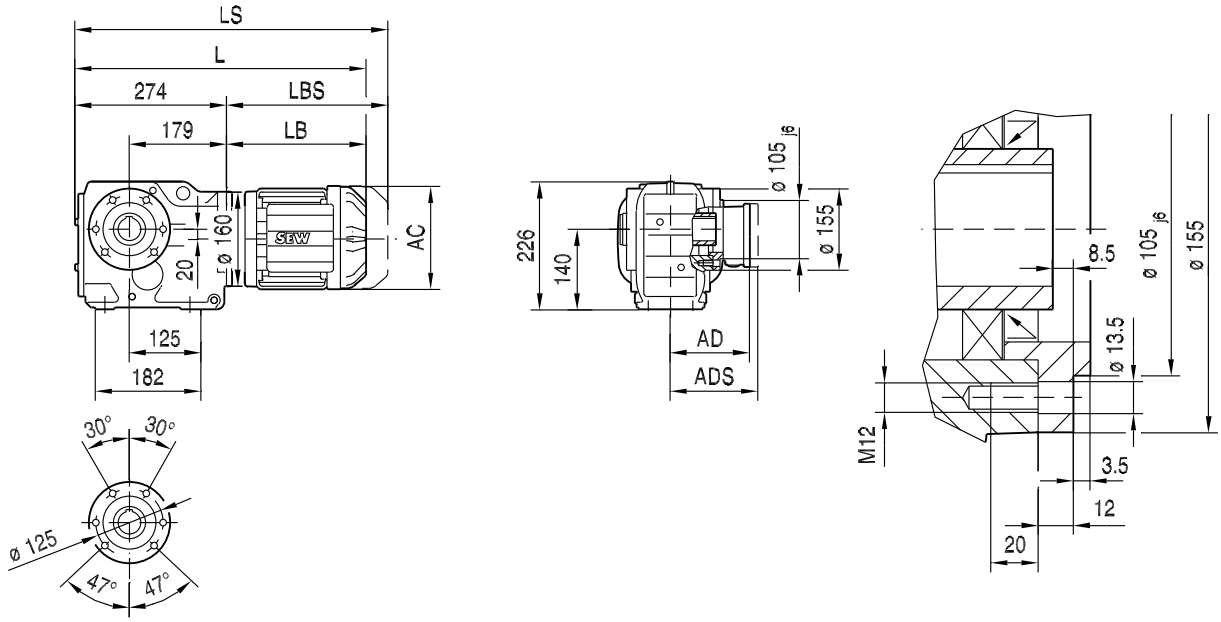



| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 | 221 | 221 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 | 170 | 170 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 | 172 | 172 |
| **L** | 459 | 470 | 495 | 549 | 551 | 583 | 579 | 629 | 660 | 714 |
| **LS** | 514 | 538 | 563 | 630 | 644 | 676 | 673 | 723 | 772 | 826 |
| **LB** | 185 | 196 | 221 | 275 | 277 | 309 | 305 | 355 | 386 | 440 |
| **LBS** | 240 | 264 | 289 | 356 | 370 | 402 | 399 | 449 | 498 | 552 |

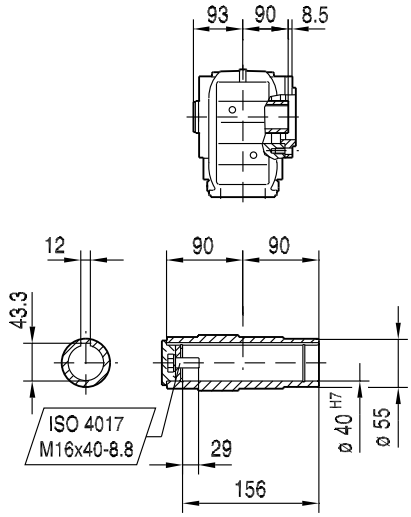
21284997/EN – 03/2015

33 055 00 14

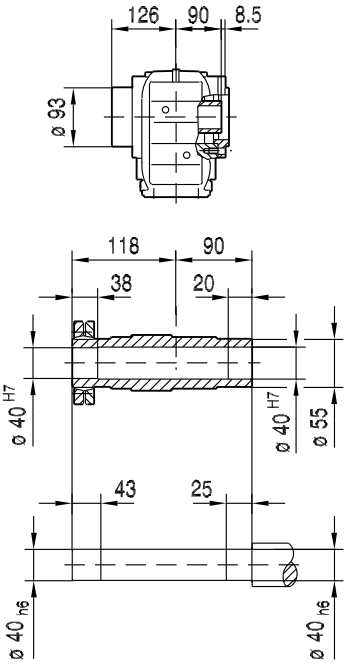
## KAZ67..



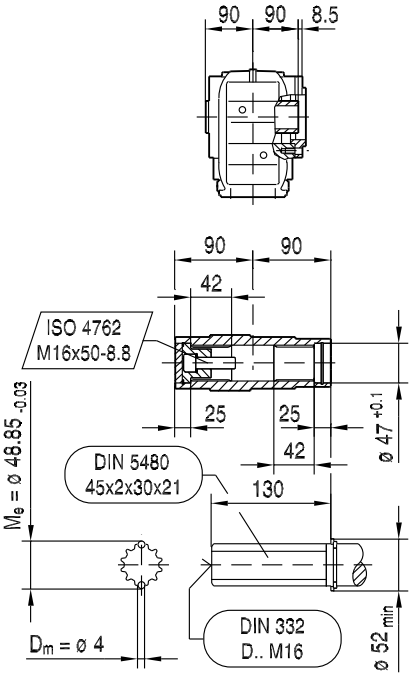

## KAZ67..




## KHZ67..



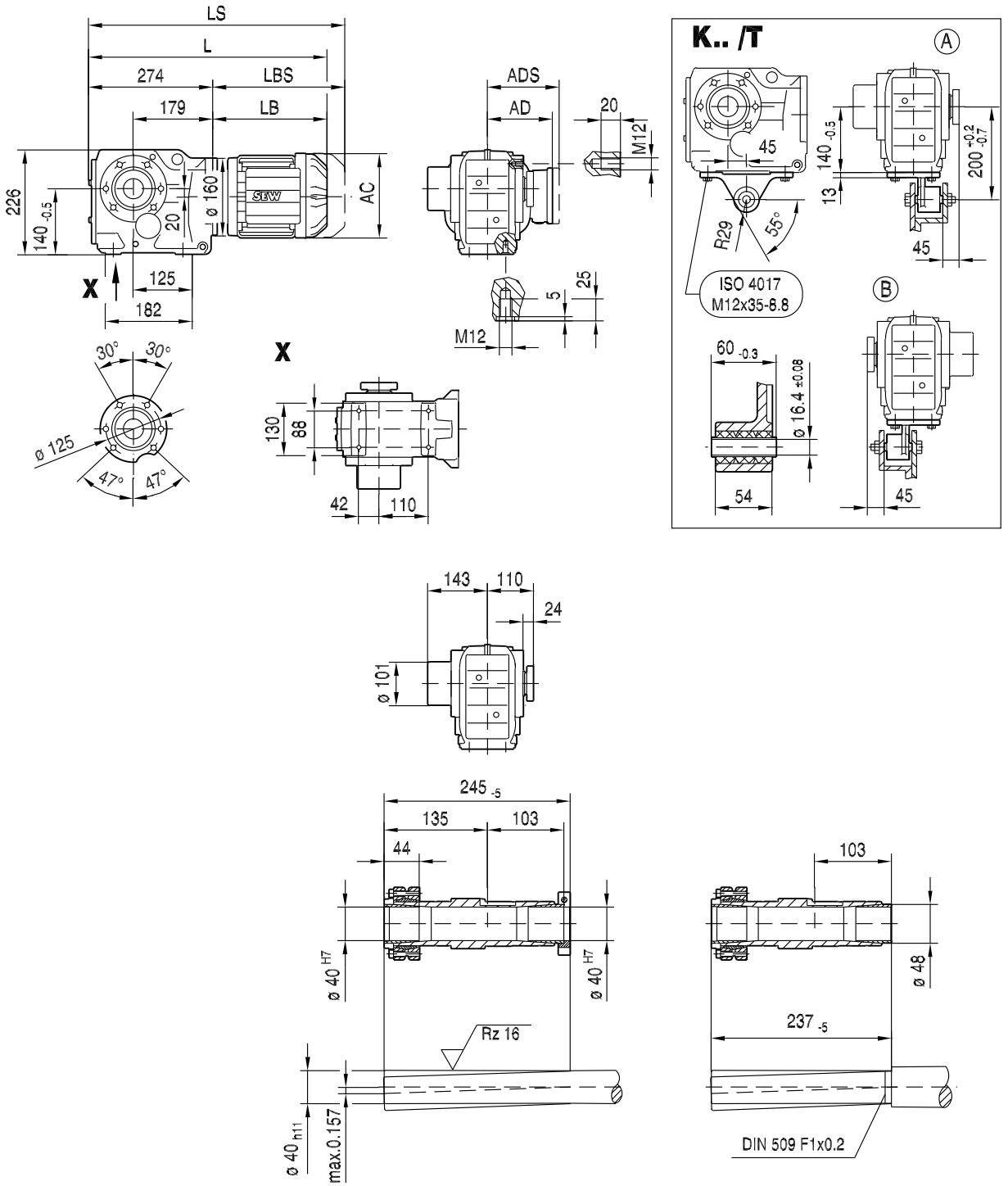

## KVZ67..




| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 | 221 | 221 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 | 170 | 170 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 | 172 | 172 |
| **L** | 459 | 470 | 495 | 549 | 551 | 583 | 579 | 629 | 660 | 714 |
| **LS** | 514 | 538 | 563 | 630 | 644 | 676 | 673 | 723 | 772 | 826 |
| **LB** | 185 | 196 | 221 | 275 | 277 | 309 | 305 | 355 | 386 | 440 |
| **LBS** | 240 | 264 | 289 | 356 | 370 | 402 | 399 | 449 | 498 | 552 |

33 056 00 14

## KT67..

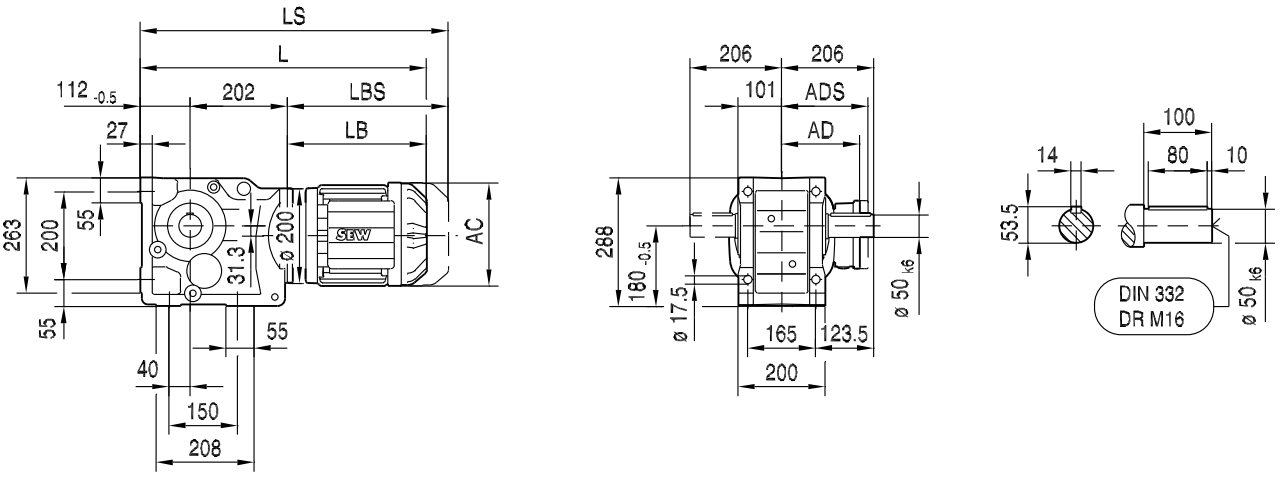



| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 | 221 | 221 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 | 170 | 170 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 | 172 | 172 |
| **L** | 459 | 470 | 495 | 549 | 551 | 583 | 579 | 629 | 660 | 714 |
| **LS** | 514 | 538 | 563 | 630 | 644 | 676 | 673 | 723 | 772 | 826 |
| **LB** | 185 | 196 | 221 | 275 | 277 | 309 | 305 | 355 | 386 | 440 |
| **LBS** | 240 | 264 | 289 | 356 | 370 | 402 | 399 | 449 | 498 | 552 |

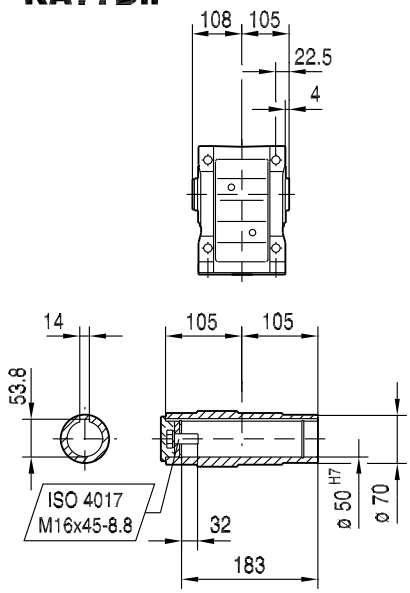
21284997/EN – 03/2015

33 057 00 14

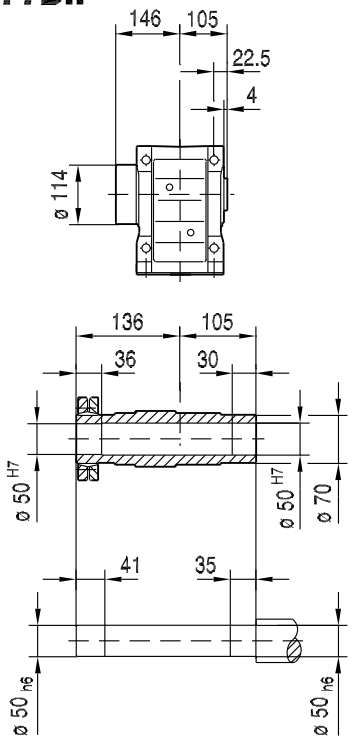
## K77..



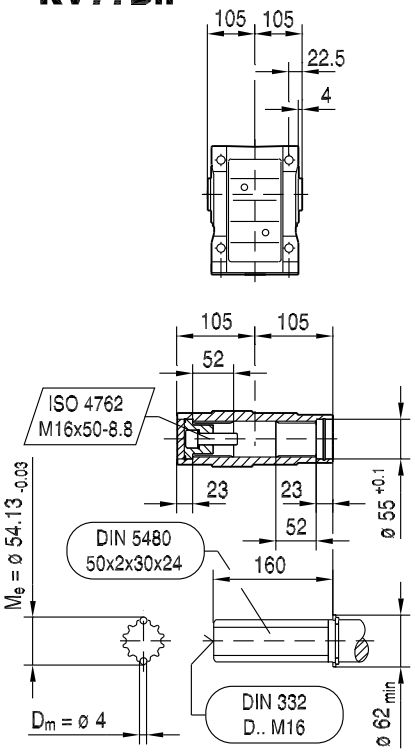

## KA77B..




## KH77B..




## KV77B..

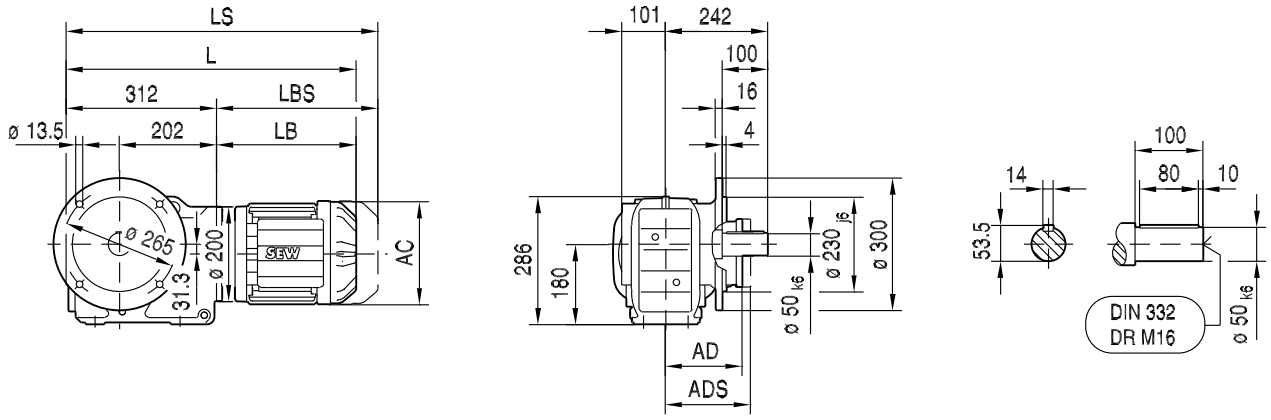



| (→ 142) | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 156 | 179 | 179 | 197 | 197 | 221 | 221 | 261 | 261 | 314 |
| **AD** | 128 | 140 | 140 | 157 | 157 | 170 | 170 | 228 | 228 | 253 |
| **ADS** | 139 | 150 | 150 | 158 | 158 | 172 | 172 | 228 | 228 | 253 |
| **L** | 582 | 584 | 616 | 612 | 662 | 693 | 743 | 761 | 787 | 853 |
| **LS** | 663 | 677 | 709 | 706 | 756 | 805 | 855 | 899 | 924 | 1042 |
| **LB** | 268 | 270 | 302 | 298 | 348 | 379 | 429 | 447 | 473 | 539 |
| **LBS** | 349 | 363 | 395 | 392 | 442 | 491 | 541 | 585 | 610 | 728 |

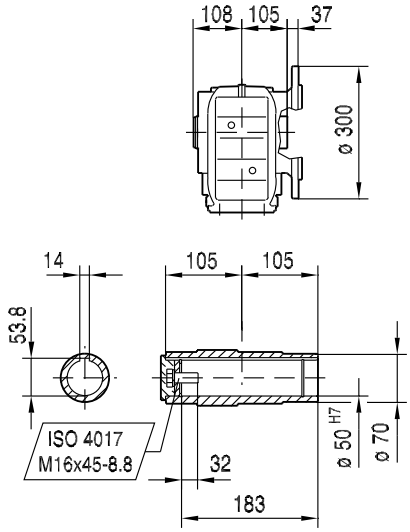
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## KF77..

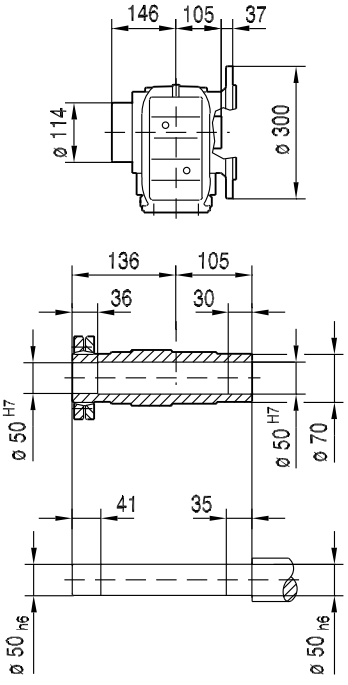
33 058 00 14



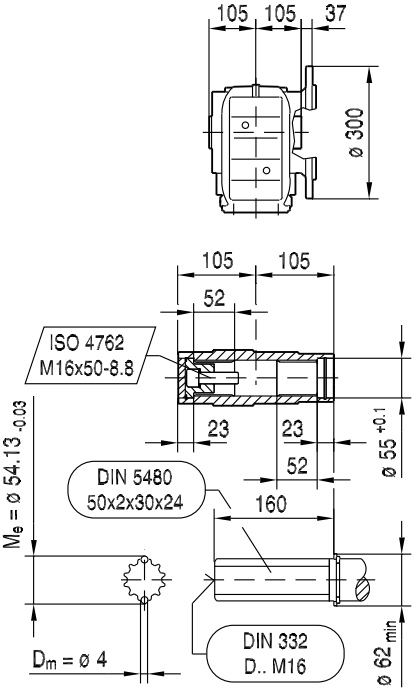

## KAF77..




## KHF77..




## KVF77..

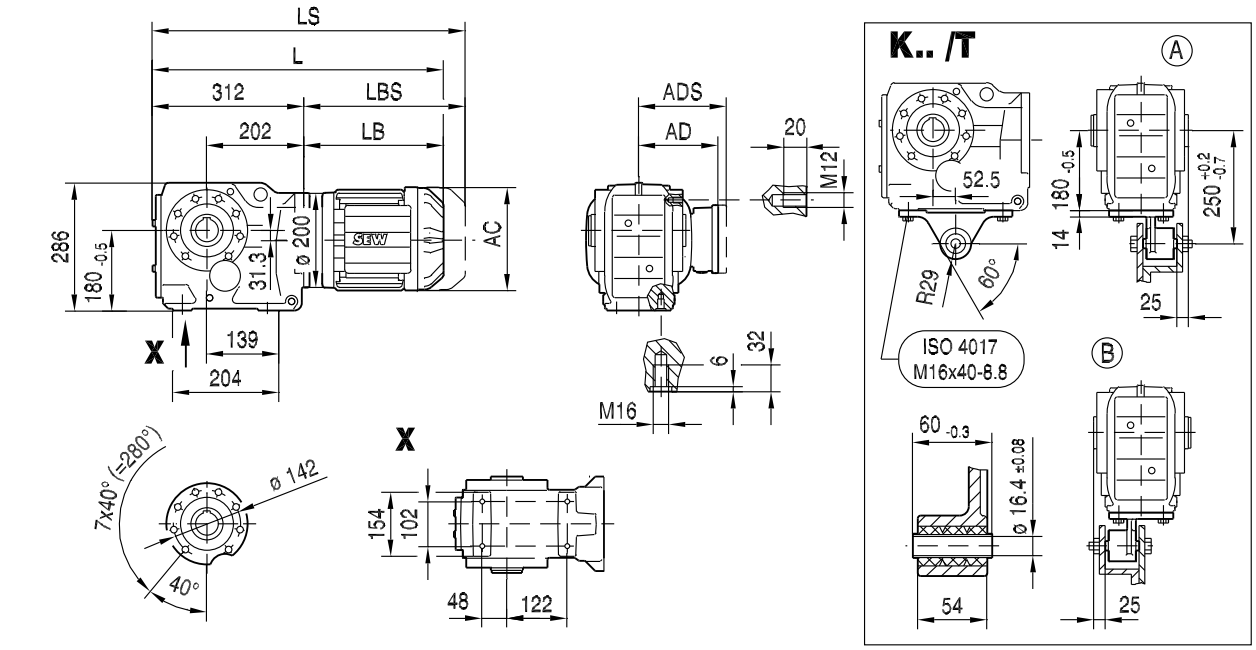



| (→ 142) | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 156 | 179 | 179 | 197 | 197 | 221 | 221 | 261 | 261 | 314 |
| **AD** | 128 | 140 | 140 | 157 | 157 | 170 | 170 | 228 | 228 | 253 |
| **ADS** | 139 | 150 | 150 | 158 | 158 | 172 | 172 | 228 | 228 | 253 |
| **L** | 580 | 582 | 614 | 610 | 660 | 691 | 741 | 759 | 785 | 851 |
| **LS** | 661 | 675 | 707 | 704 | 754 | 803 | 853 | 897 | 922 | 1040 |
| **LB** | 268 | 270 | 302 | 298 | 348 | 379 | 429 | 447 | 473 | 539 |
| **LBS** | 349 | 363 | 395 | 392 | 442 | 491 | 541 | 585 | 610 | 728 |

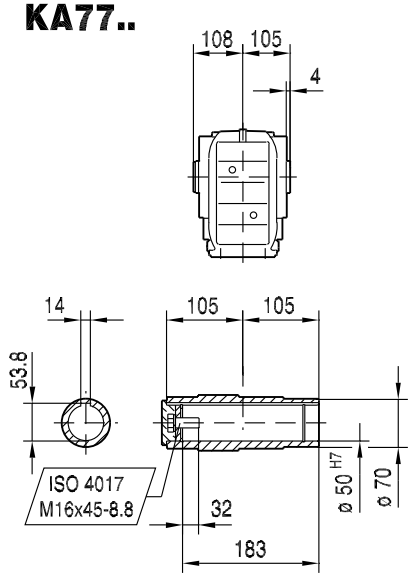
21284997/EN – 03/2015

33 059 00 14

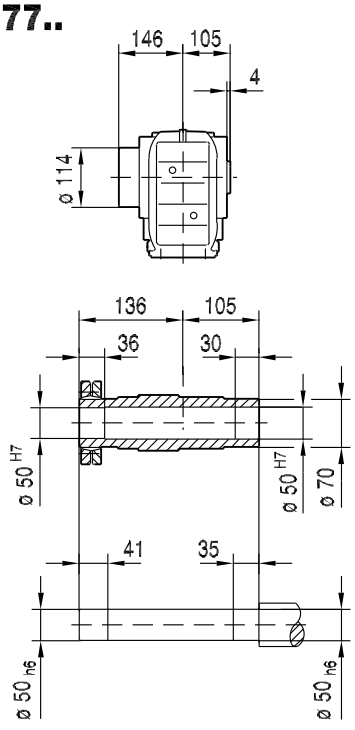
## KA77..



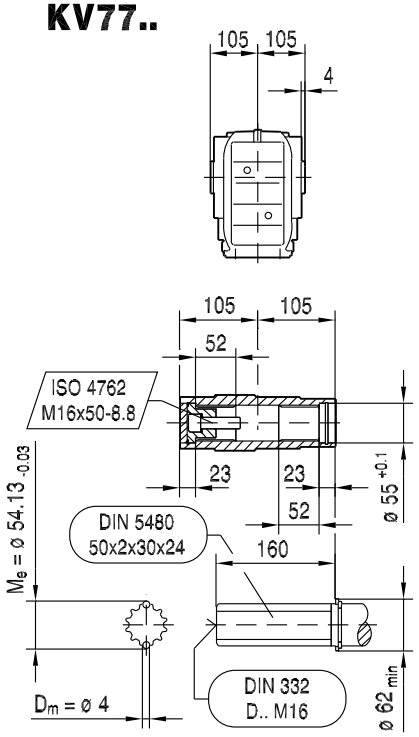

## KA77..




## KH77..



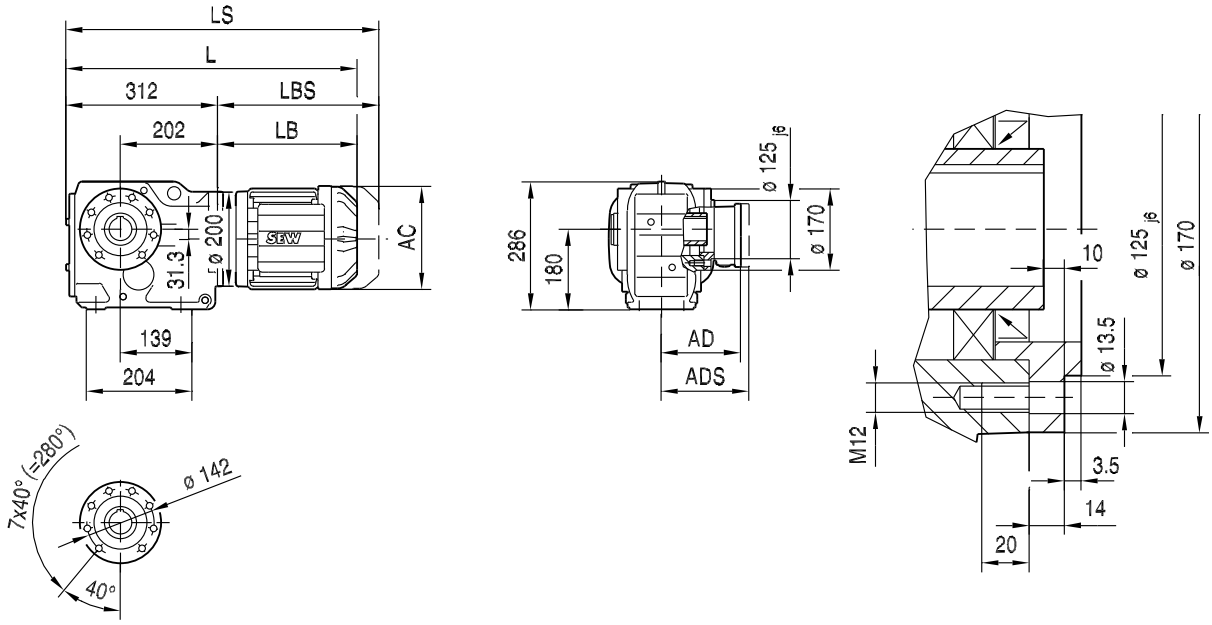

## KV77..



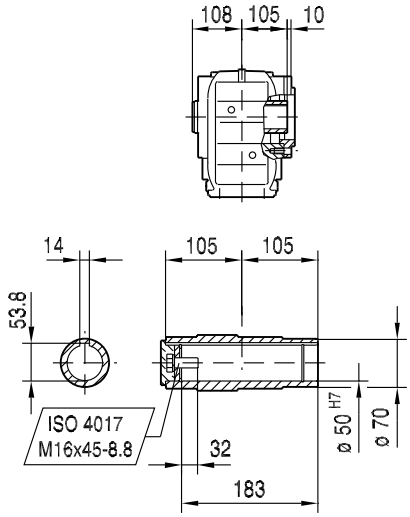

| (→ 142) | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 156 | 179 | 179 | 197 | 197 | 221 | 221 | 261 | 261 | 314 |
| **AD** | 128 | 140 | 140 | 157 | 157 | 170 | 170 | 228 | 228 | 253 |
| **ADS** | 139 | 150 | 150 | 158 | 158 | 172 | 172 | 228 | 228 | 253 |
| **L** | 580 | 582 | 614 | 610 | 660 | 691 | 741 | 759 | 785 | 851 |
| **LS** | 661 | 675 | 707 | 704 | 754 | 803 | 853 | 897 | 922 | 1040 |
| **LB** | 268 | 270 | 302 | 298 | 348 | 379 | 429 | 447 | 473 | 539 |
| **LBS** | 349 | 363 | 395 | 392 | 442 | 491 | 541 | 585 | 610 | 728 |

33 060 00 14

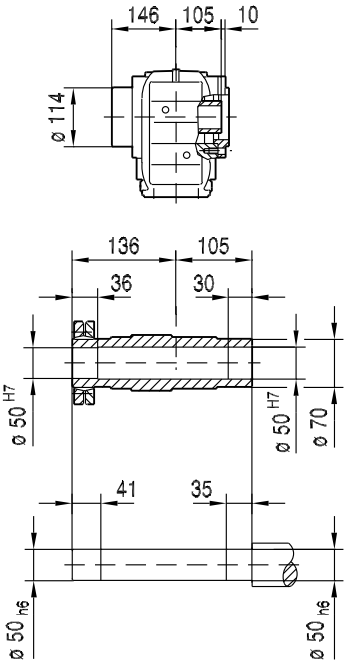
## KAZ77..



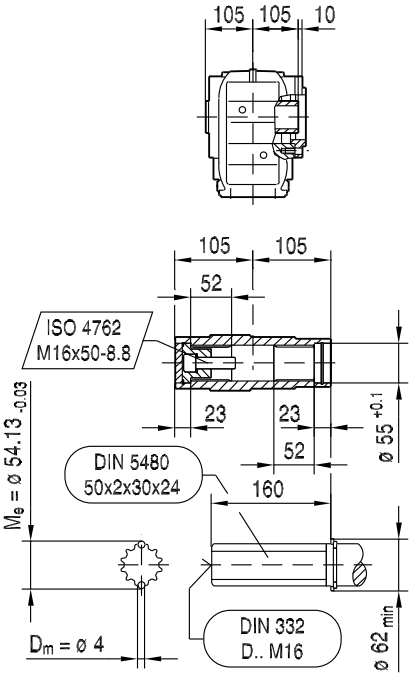

## KAZ77..




## KHZ77..




## KVZ77..

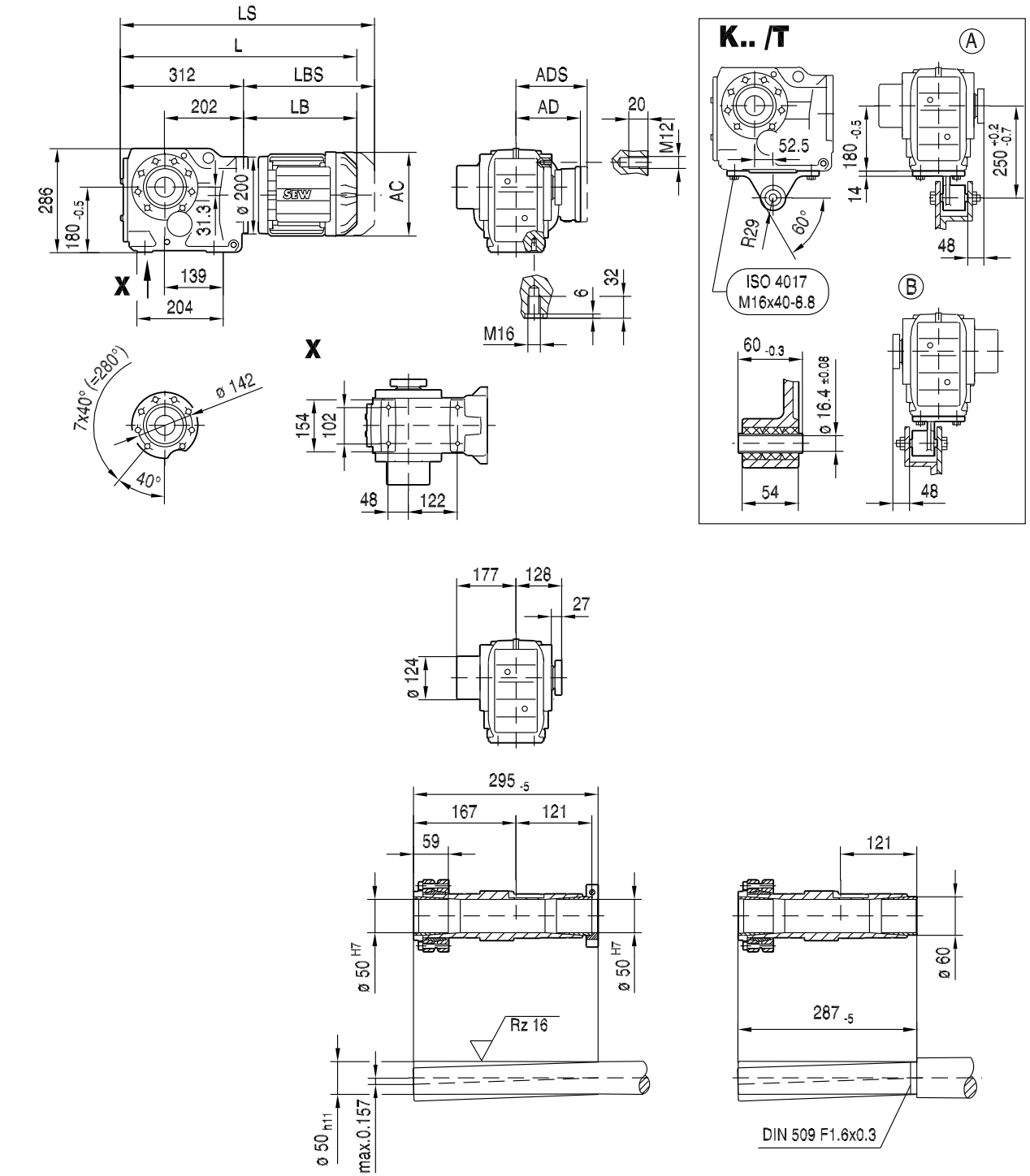



| (→ 142) | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 156 | 179 | 179 | 197 | 197 | 221 | 221 | 261 | 261 | 314 |
| **AD** | 128 | 140 | 140 | 157 | 157 | 170 | 170 | 228 | 228 | 253 |
| **ADS** | 139 | 150 | 150 | 158 | 158 | 172 | 172 | 228 | 228 | 253 |
| **L** | 580 | 582 | 614 | 610 | 660 | 691 | 741 | 759 | 785 | 851 |
| **LS** | 661 | 675 | 707 | 704 | 754 | 803 | 853 | 897 | 922 | 1040 |
| **LB** | 268 | 270 | 302 | 298 | 348 | 379 | 429 | 447 | 473 | 539 |
| **LBS** | 349 | 363 | 395 | 392 | 442 | 491 | 541 | 585 | 610 | 728 |

21284997/EN – 03/2015

33 061 00 14

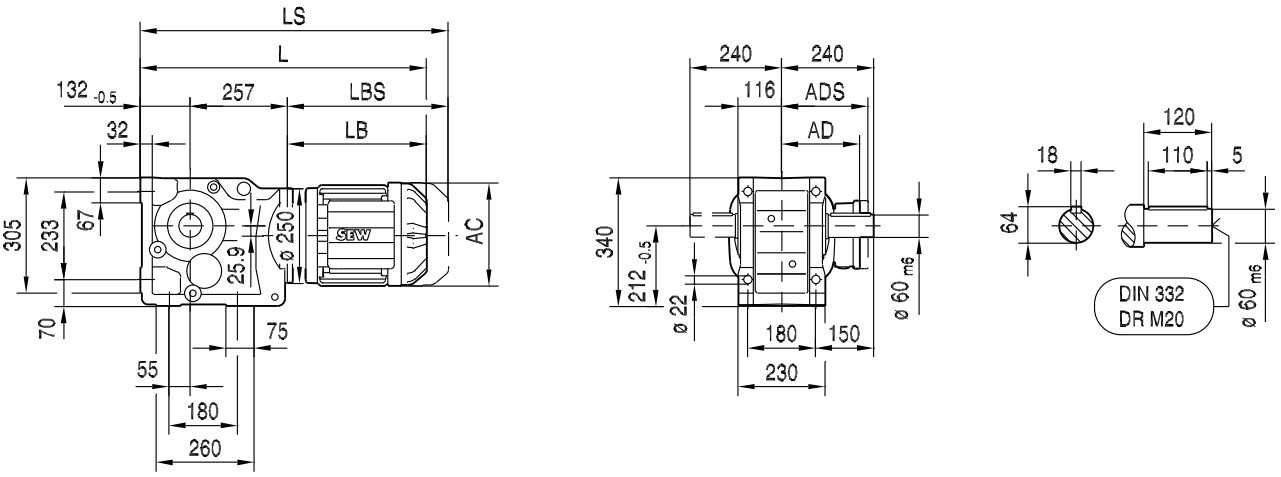
## KT77..



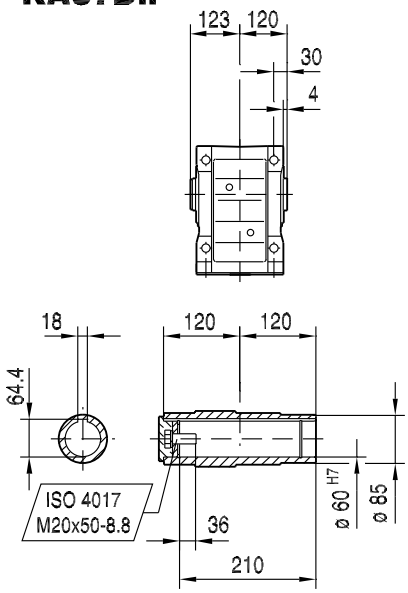

| (→ 142) | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 156 | 179 | 179 | 197 | 197 | 221 | 221 | 261 | 261 | 314 |
| **AD** | 128 | 140 | 140 | 157 | 157 | 170 | 170 | 228 | 228 | 253 |
| **ADS** | 139 | 150 | 150 | 158 | 158 | 172 | 172 | 228 | 228 | 253 |
| **L** | 580 | 582 | 614 | 610 | 660 | 691 | 741 | 759 | 785 | 851 |
| **LS** | 661 | 675 | 707 | 704 | 754 | 803 | 853 | 897 | 922 | 1040 |
| **LB** | 268 | 270 | 302 | 298 | 348 | 379 | 429 | 447 | 473 | 539 |
| **LBS** | 349 | 363 | 395 | 392 | 442 | 491 | 541 | 585 | 610 | 728 |

33 062 00 14

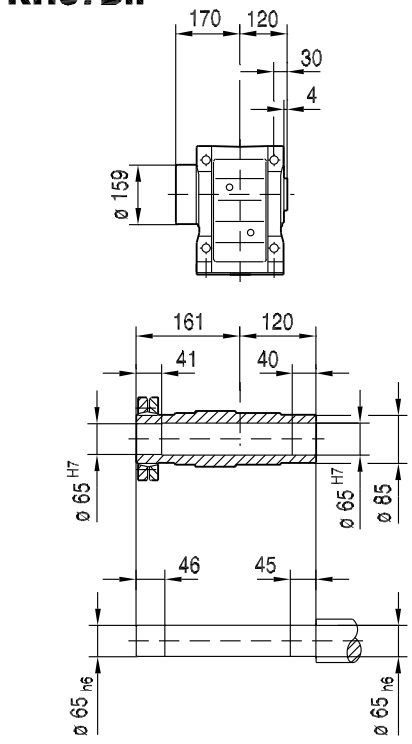
## K87..



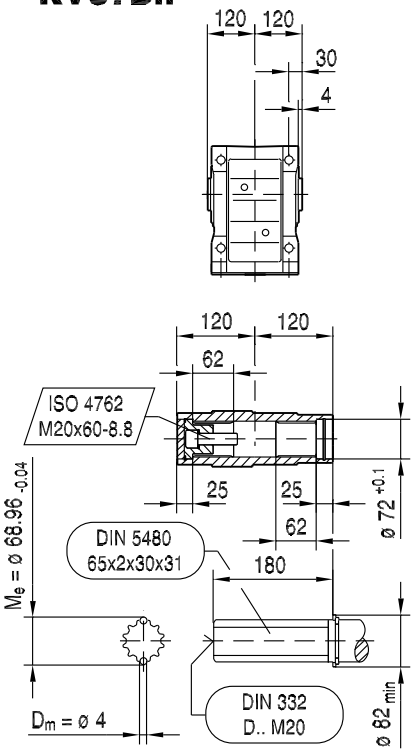

## KA87B..




## KH87B..




## KV87B..

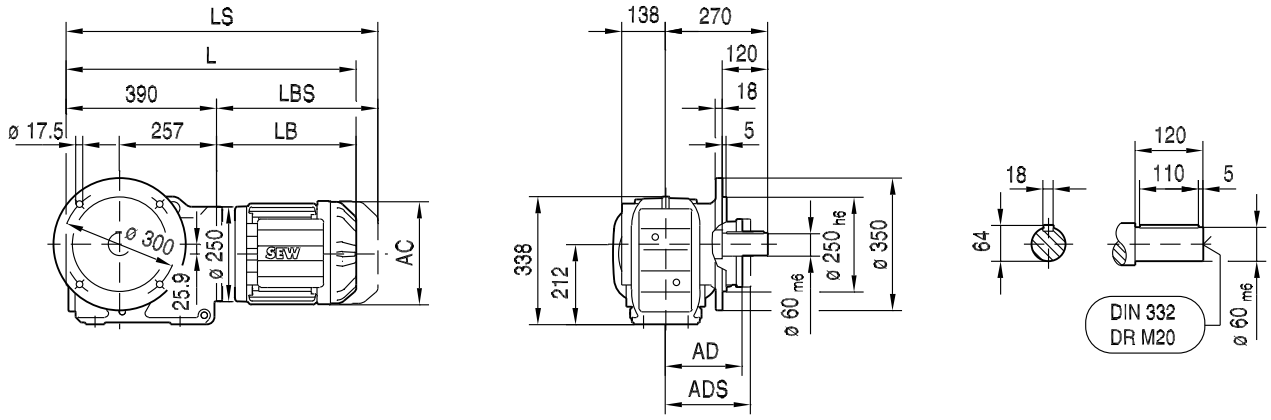



| (→ 142) | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M | DRN160L | DRN180.. |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 179 | 197 | 197 | 221 | 221 | 261 | 261 | 314 | 314 | 357 |
| **AD** | 140 | 157 | 157 | 170 | 170 | 228 | 228 | 253 | 253 | 268 |
| **ADS** | 150 | 158 | 158 | 172 | 172 | 228 | 228 | 253 | 253 | 268 |
| **L** | 686 | 682 | 732 | 763 | 813 | 831 | 857 | 923 | 923 | 946 |
| **LS** | 779 | 776 | 826 | 875 | 925 | 969 | 994 | 1112 | 1112 | 1135 |
| **LB** | 297 | 293 | 343 | 374 | 424 | 442 | 468 | 534 | 534 | 557 |
| **LBS** | 390 | 387 | 437 | 486 | 536 | 580 | 605 | 723 | 723 | 746 |

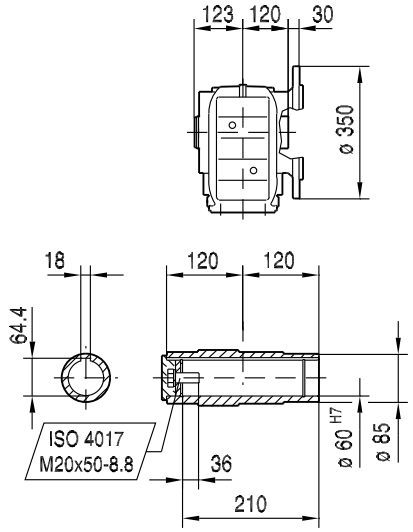
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33 063 00 14

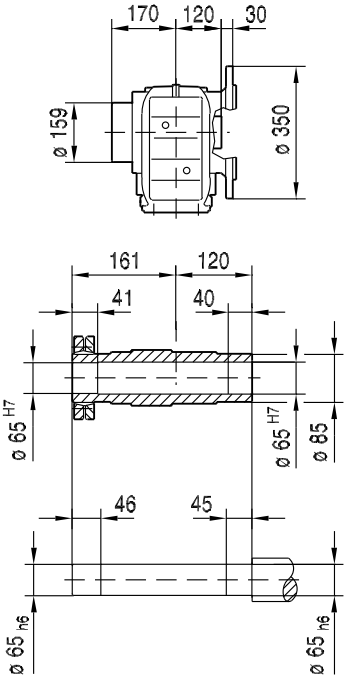
## KF87..



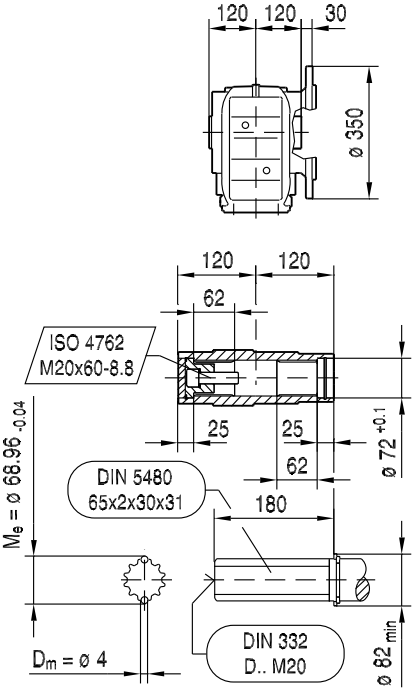

## KAF87..




## KHF87..



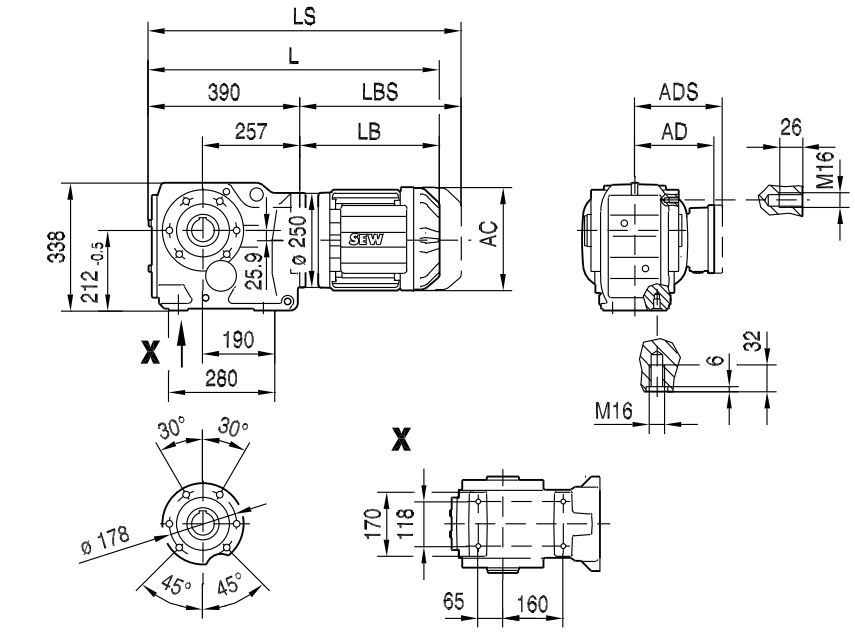

## KVF87..

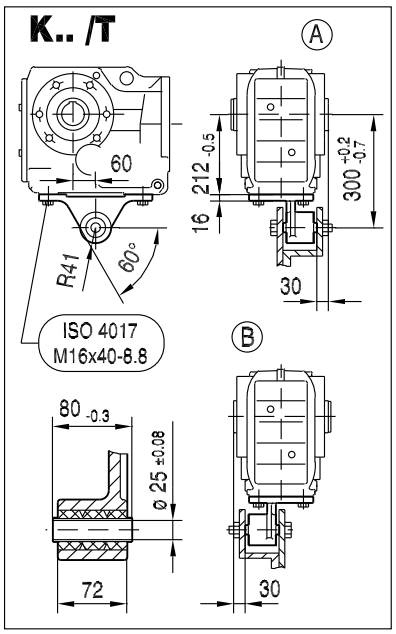



| (→ 142) | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M | DRN160L | DRN180.. |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 179 | 197 | 197 | 221 | 221 | 261 | 261 | 314 | 314 | 357 |
| **AD** | 140 | 157 | 157 | 170 | 170 | 228 | 228 | 253 | 253 | 268 |
| **ADS** | 150 | 158 | 158 | 172 | 172 | 228 | 228 | 253 | 253 | 268 |
| **L** | 687 | 683 | 733 | 764 | 814 | 832 | 858 | 924 | 924 | 947 |
| **LS** | 780 | 777 | 827 | 876 | 926 | 970 | 995 | 1113 | 1113 | 1136 |
| **LB** | 297 | 293 | 343 | 374 | 424 | 442 | 468 | 534 | 534 | 557 |
| **LBS** | 390 | 387 | 437 | 486 | 536 | 580 | 605 | 723 | 723 | 746 |

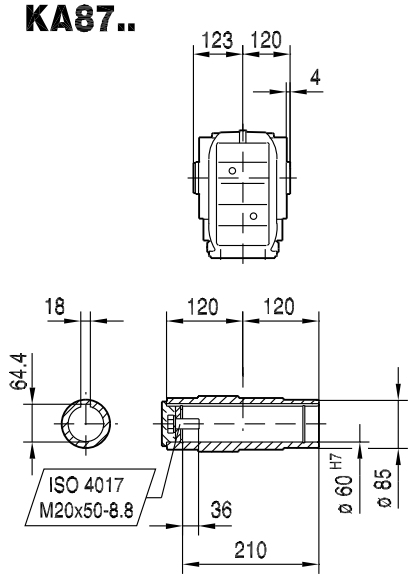
33 064 00 14

## KA87..

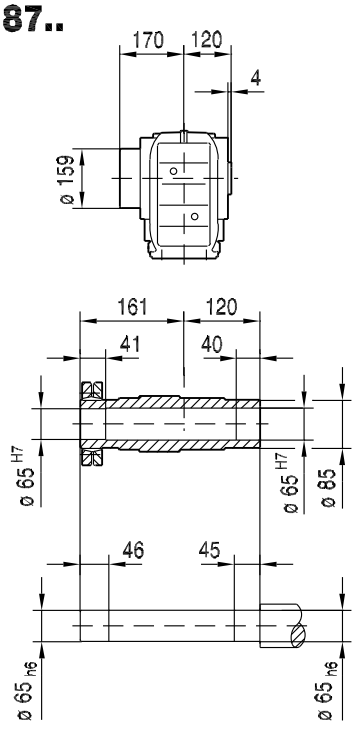


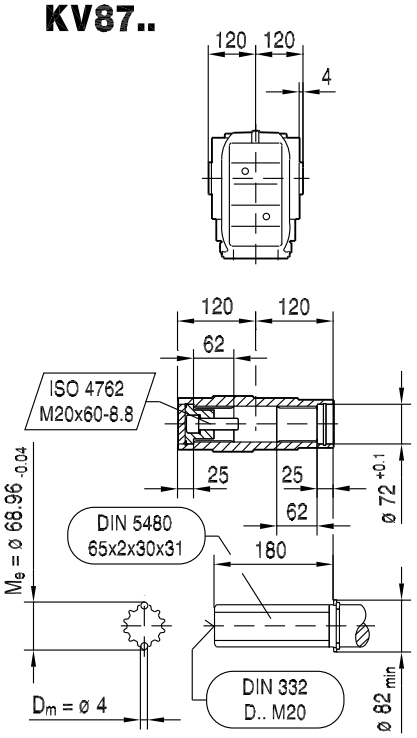

## KA87..




## KH87..




## KV87..

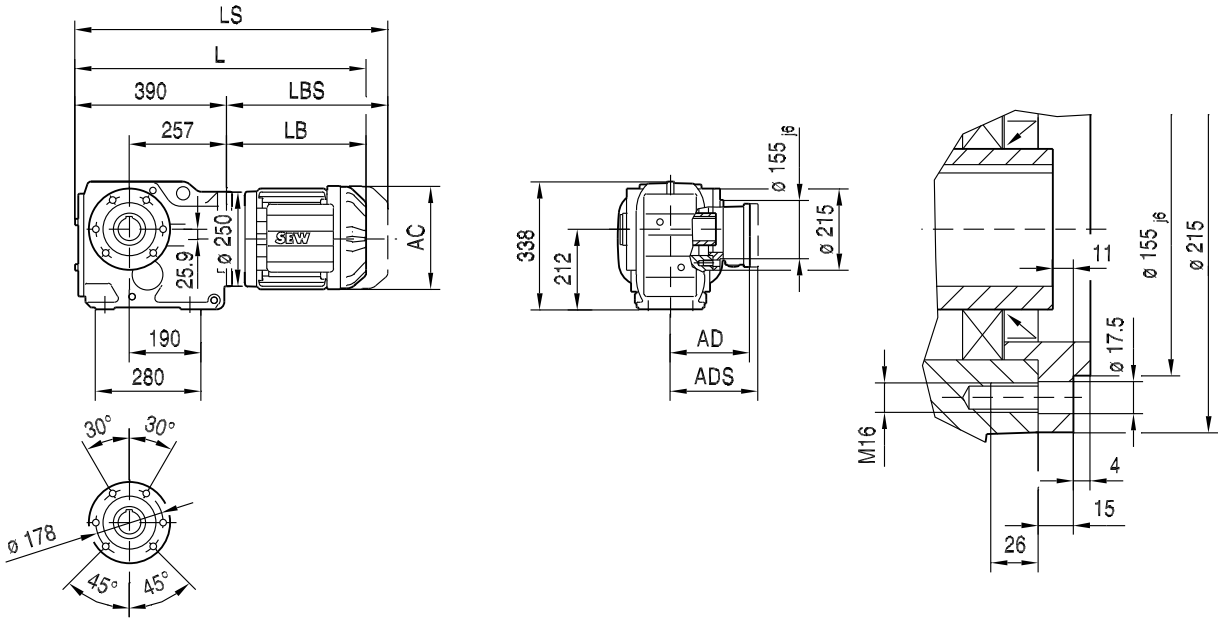



| (→ 142) | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M | DRN160L | DRN180.. |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 179 | 197 | 197 | 221 | 221 | 261 | 261 | 314 | 314 | 357 |
| **AD** | 140 | 157 | 157 | 170 | 170 | 228 | 228 | 253 | 253 | 268 |
| **ADS** | 150 | 158 | 158 | 172 | 172 | 228 | 228 | 253 | 253 | 268 |
| **L** | 687 | 683 | 733 | 764 | 814 | 832 | 858 | 924 | 924 | 947 |
| **LS** | 780 | 777 | 827 | 876 | 926 | 970 | 995 | 1113 | 1113 | 1136 |
| **LB** | 297 | 293 | 343 | 374 | 424 | 442 | 468 | 534 | 534 | 557 |
| **LBS** | 390 | 387 | 437 | 486 | 536 | 580 | 605 | 723 | 723 | 746 |

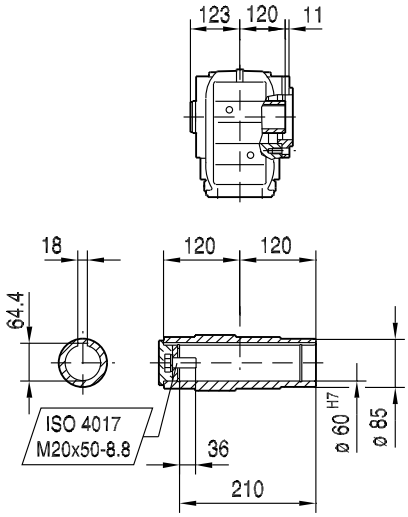
21284997/EN – 03/2015

33 065 00 14

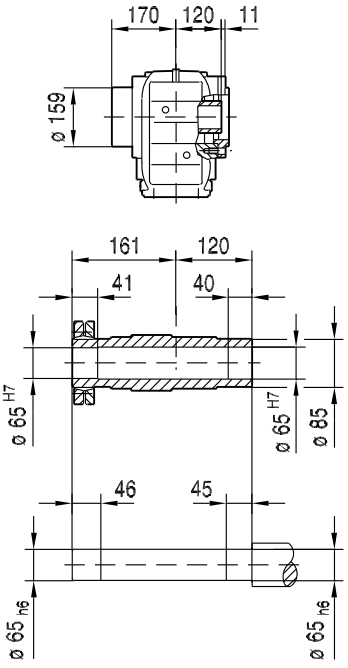
## KAZ87..



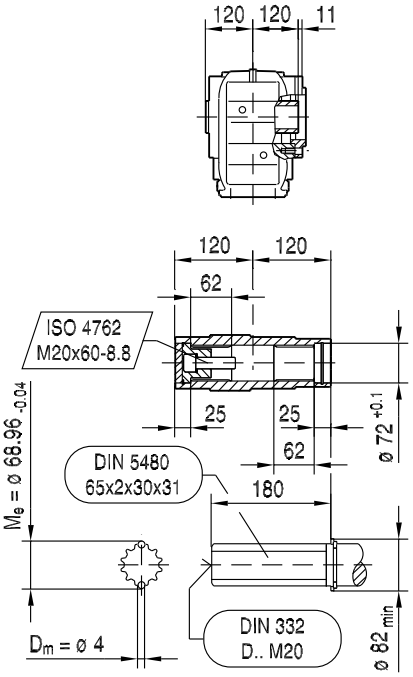

## KAZ87..




## KHZ87..



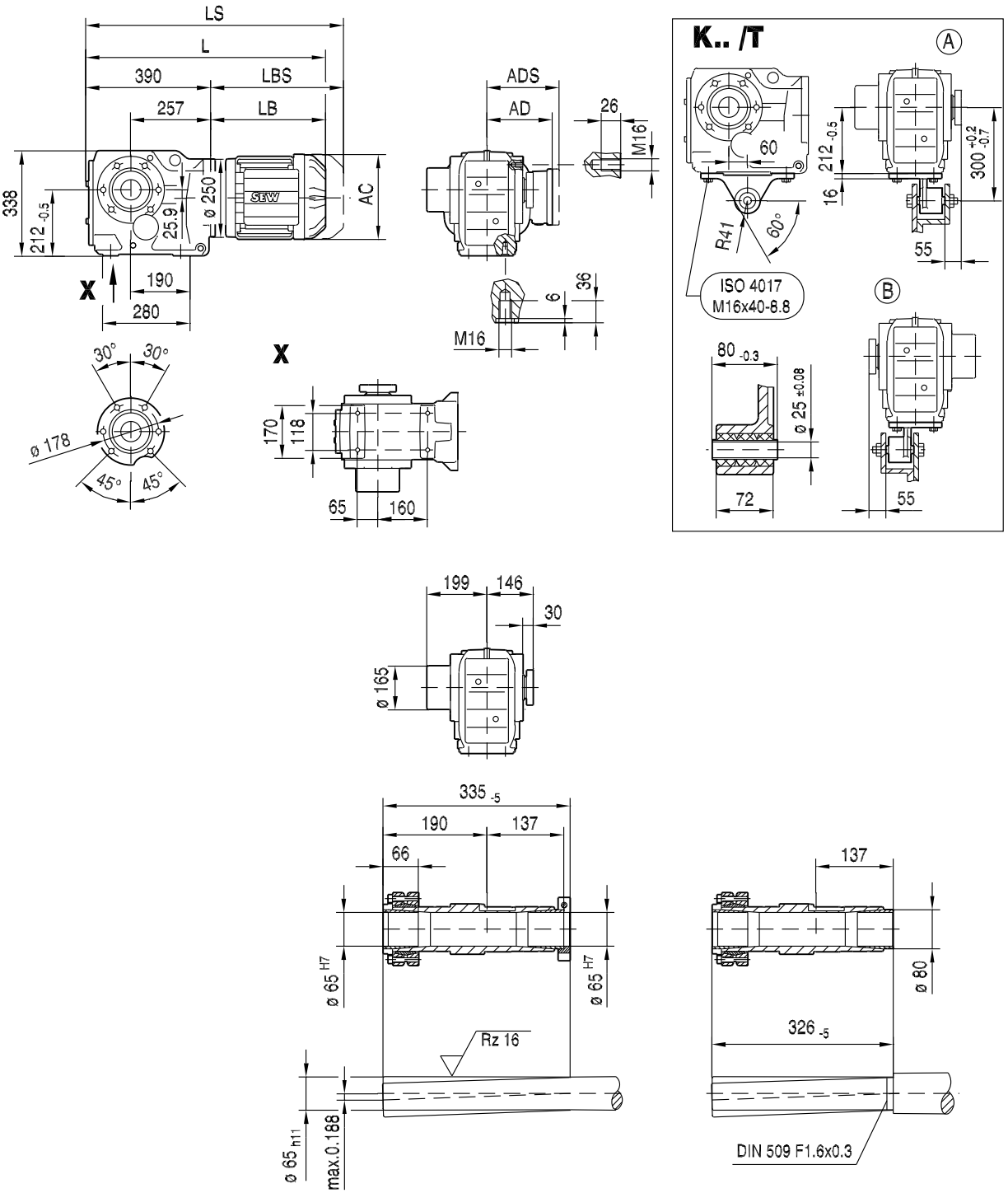

## KVZ87..




| (→ 142) | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M | DRN160L | DRN180.. |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 179 | 197 | 197 | 221 | 221 | 261 | 261 | 314 | 314 | 357 |
| **AD** | 140 | 157 | 157 | 170 | 170 | 228 | 228 | 253 | 253 | 268 |
| **ADS** | 150 | 158 | 158 | 172 | 172 | 228 | 228 | 253 | 253 | 268 |
| **L** | 687 | 683 | 733 | 764 | 814 | 832 | 858 | 924 | 924 | 947 |
| **LS** | 780 | 777 | 827 | 876 | 926 | 970 | 995 | 1113 | 1113 | 1136 |
| **LB** | 297 | 293 | 343 | 374 | 424 | 442 | 468 | 534 | 534 | 557 |
| **LBS** | 390 | 387 | 437 | 486 | 536 | 580 | 605 | 723 | 723 | 746 |

33 066 00 14

## KT87..

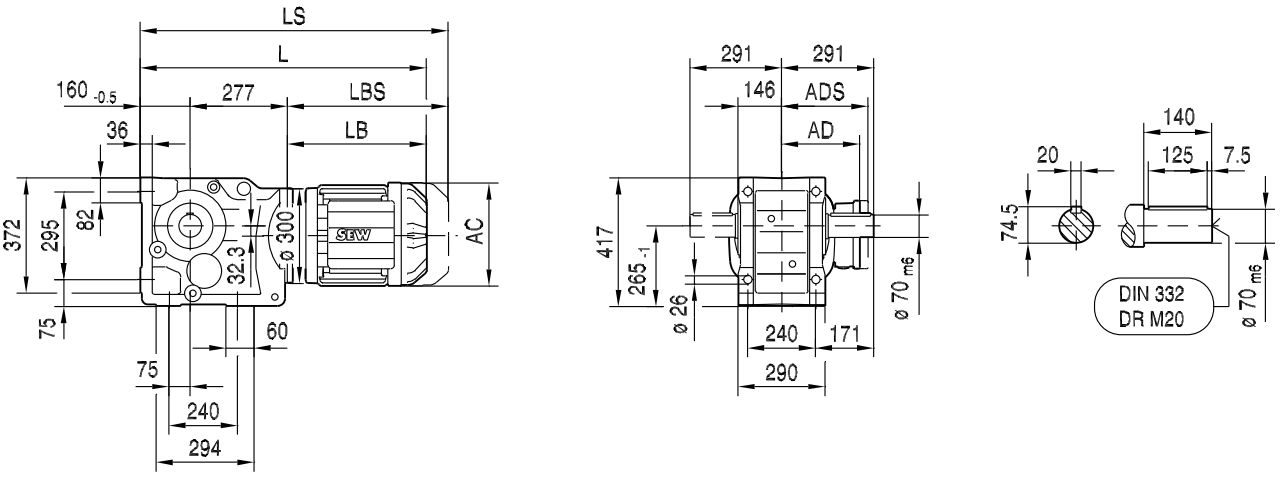



| (→ 142) | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M | DRN160L | DRN180.. |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 179 | 197 | 197 | 221 | 221 | 261 | 261 | 314 | 314 | 357 |
| **AD** | 140 | 157 | 157 | 170 | 170 | 228 | 228 | 253 | 253 | 268 |
| **ADS** | 150 | 158 | 158 | 172 | 172 | 228 | 228 | 253 | 253 | 268 |
| **L** | 687 | 683 | 733 | 764 | 814 | 832 | 858 | 924 | 924 | 947 |
| **LS** | 780 | 777 | 827 | 876 | 926 | 970 | 995 | 1113 | 1113 | 1136 |
| **LB** | 297 | 293 | 343 | 374 | 424 | 442 | 468 | 534 | 534 | 557 |
| **LBS** | 390 | 387 | 437 | 486 | 536 | 580 | 605 | 723 | 723 | 746 |

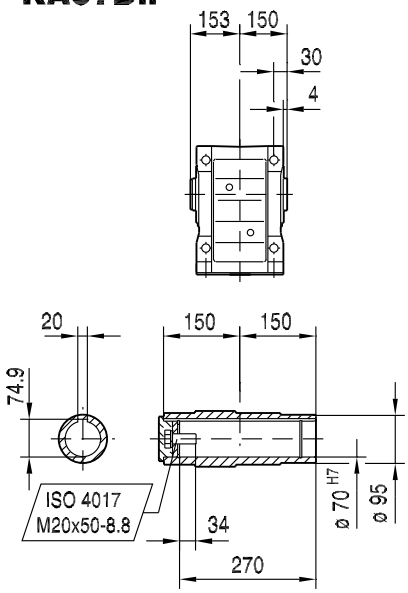
21284997/EN – 03/2015

33 067 00 14

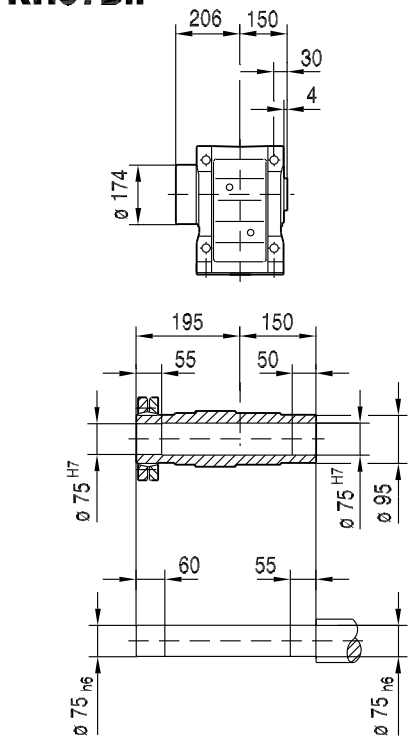
## K97..



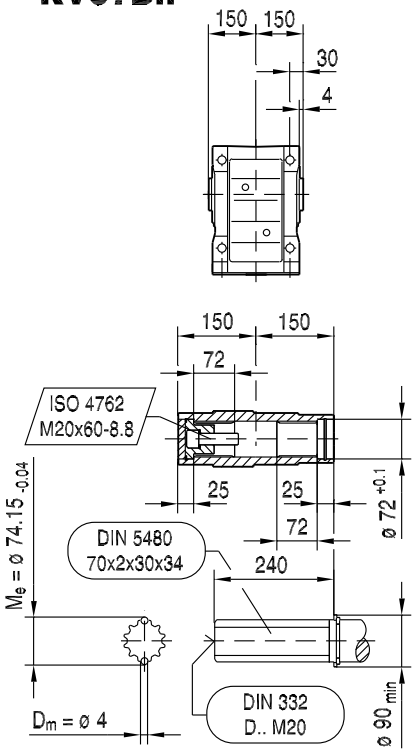

## KA97B..




## KH97B..




## KV97B..

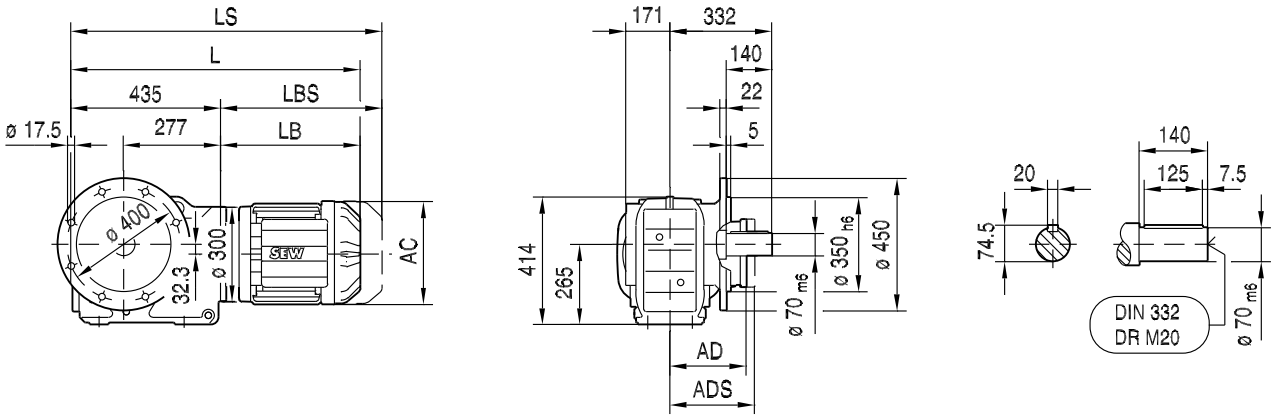



| (→ 142) | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M | DRN160L | DRN180.. | DRN200L |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 197 | 197 | 221 | 221 | 261 | 261 | 314 | 314 | 357 | 394 |
| **AD** | 157 | 157 | 170 | 170 | 228 | 228 | 253 | 253 | 268 | 283 |
| **ADS** | 158 | 158 | 172 | 172 | 228 | 228 | 253 | 253 | 268 | 283 |
| **L** | 725 | 775 | 806 | 856 | 874 | 900 | 966 | 966 | 989 | 1099 |
| **LS** | 819 | 869 | 918 | 968 | 1012 | 1037 | 1155 | 1155 | 1178 | 1304 |
| **LB** | 288 | 338 | 369 | 419 | 437 | 463 | 529 | 529 | 552 | 662 |
| **LBS** | 382 | 432 | 481 | 531 | 575 | 600 | 718 | 718 | 741 | 867 |

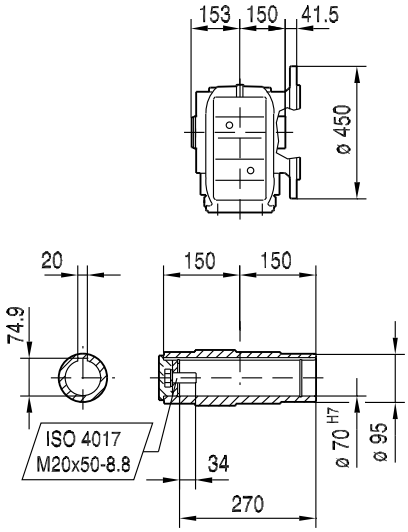
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## KF97..

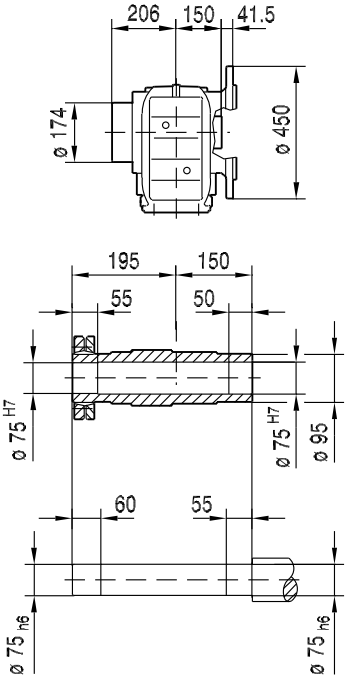
33 068 00 14



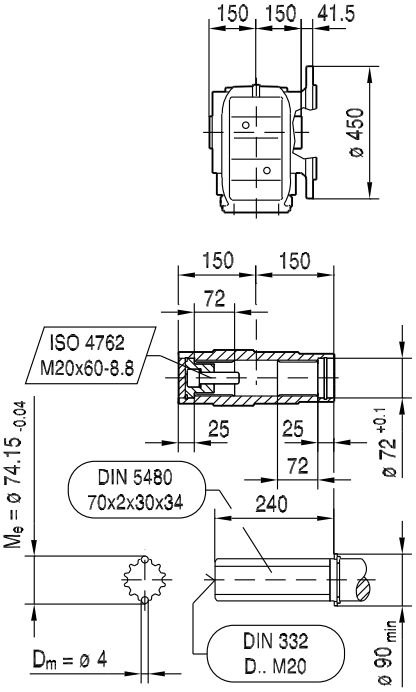

## KAF97..




## KHF97..




## KVF97..

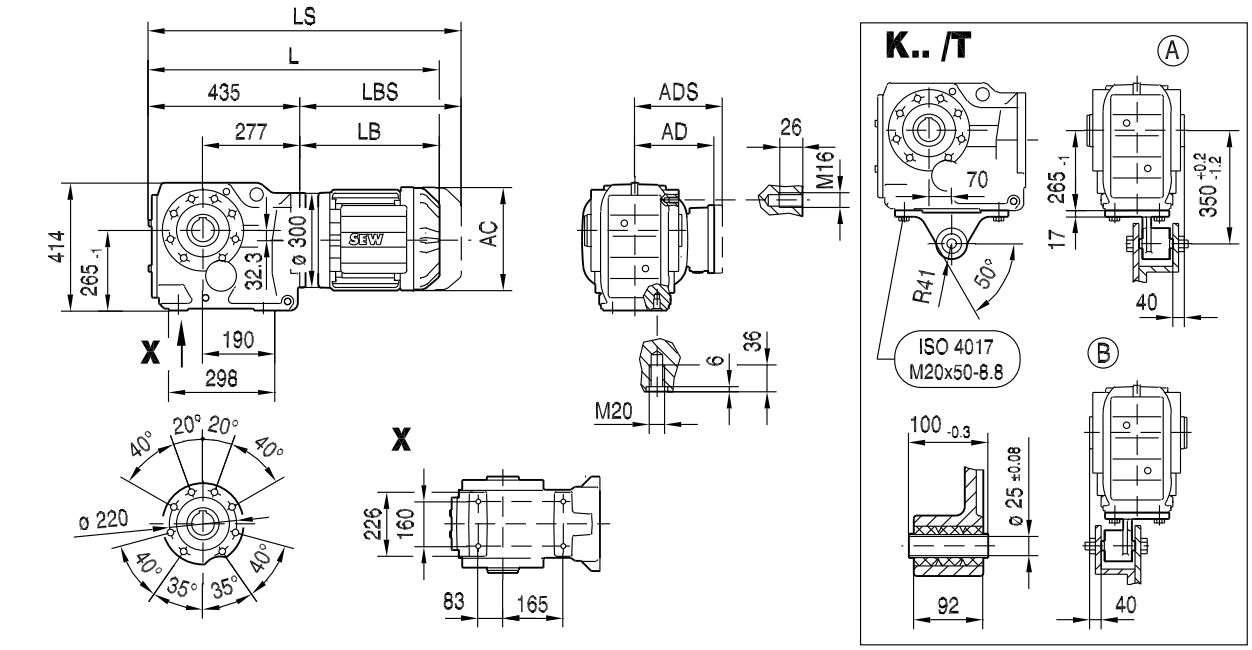



| (→ 142) | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M | DRN160L | DRN180.. | DRN200L |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 197 | 197 | 221 | 221 | 261 | 261 | 314 | 314 | 357 | 394 |
| **AD** | 157 | 157 | 170 | 170 | 228 | 228 | 253 | 253 | 268 | 283 |
| **ADS** | 158 | 158 | 172 | 172 | 228 | 228 | 253 | 253 | 268 | 283 |
| **L** | 723 | 773 | 804 | 854 | 872 | 898 | 964 | 964 | 987 | 1097 |
| **LS** | 817 | 867 | 916 | 966 | 1010 | 1035 | 1153 | 1153 | 1176 | 1302 |
| **LB** | 288 | 338 | 369 | 419 | 437 | 463 | 529 | 529 | 552 | 662 |
| **LBS** | 382 | 432 | 481 | 531 | 575 | 600 | 718 | 718 | 741 | 867 |

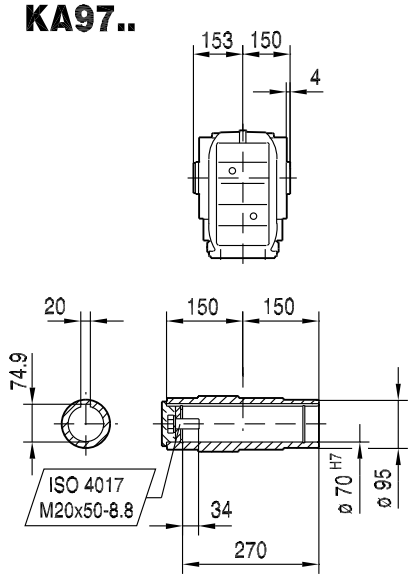
21284997/EN – 03/2015

33 069 00 14

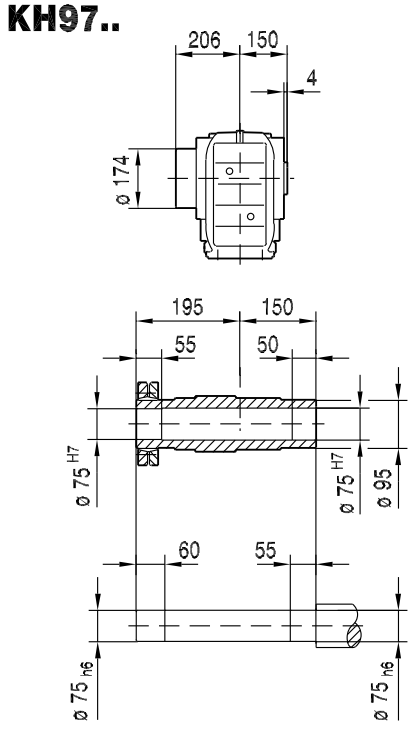
## KA97..



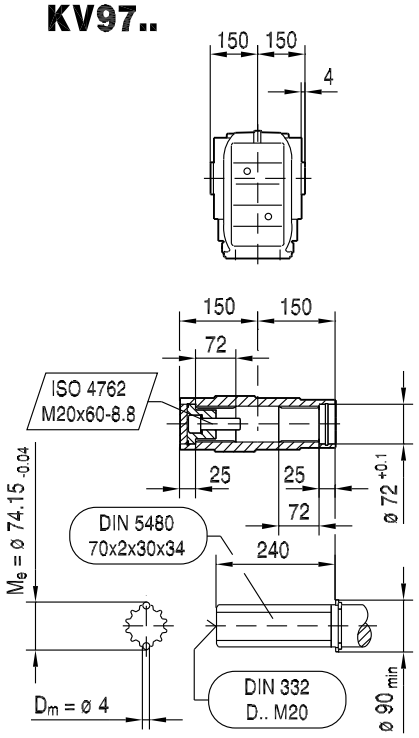

## KA97..




## KH97..



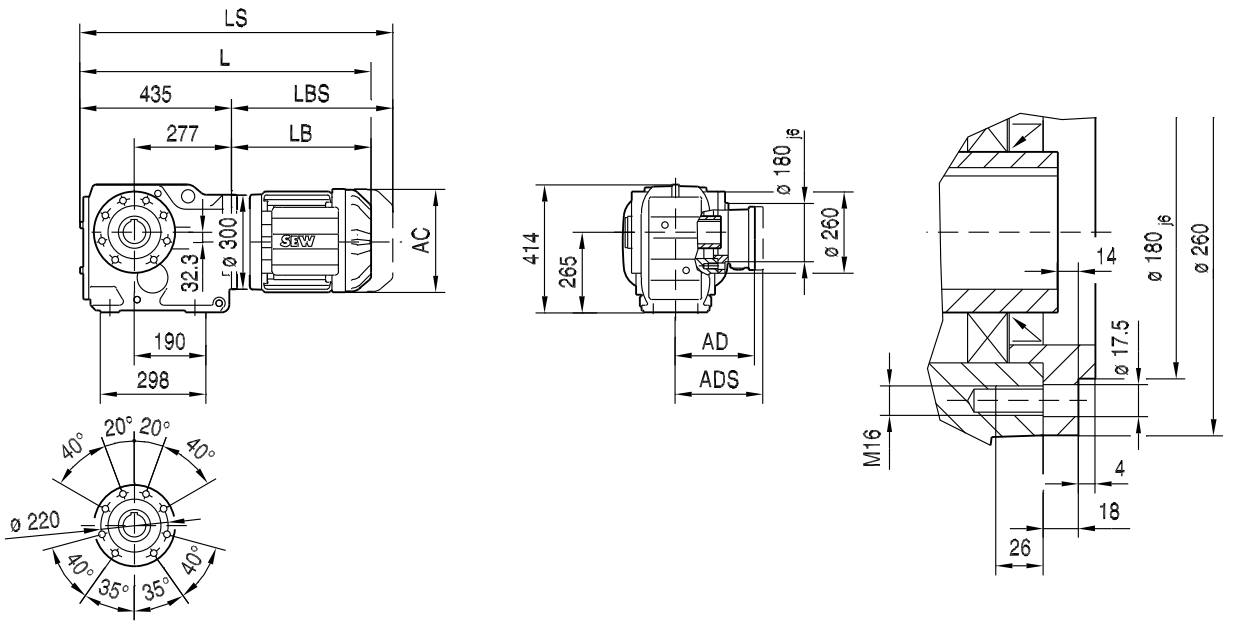

## KV97..



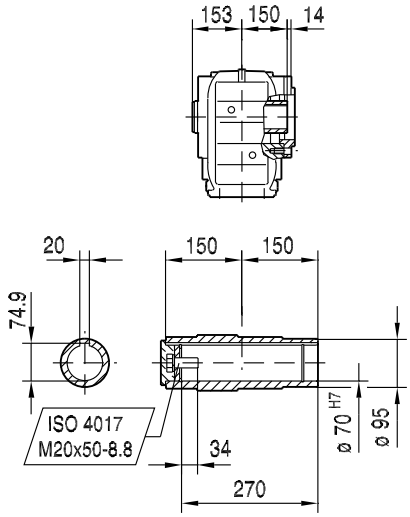

| (→ 142) | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M | DRN160L | DRN180.. | DRN200L |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 197 | 197 | 221 | 221 | 261 | 261 | 314 | 314 | 357 | 394 |
| **AD** | 157 | 157 | 170 | 170 | 228 | 228 | 253 | 253 | 268 | 283 |
| **ADS** | 158 | 158 | 172 | 172 | 228 | 228 | 253 | 253 | 268 | 283 |
| **L** | 723 | 773 | 804 | 854 | 872 | 898 | 964 | 964 | 987 | 1097 |
| **LS** | 817 | 867 | 916 | 966 | 1010 | 1035 | 1153 | 1153 | 1176 | 1302 |
| **LB** | 288 | 338 | 369 | 419 | 437 | 463 | 529 | 529 | 552 | 662 |
| **LBS** | 382 | 432 | 481 | 531 | 575 | 600 | 718 | 718 | 741 | 867 |

33 070 00 14

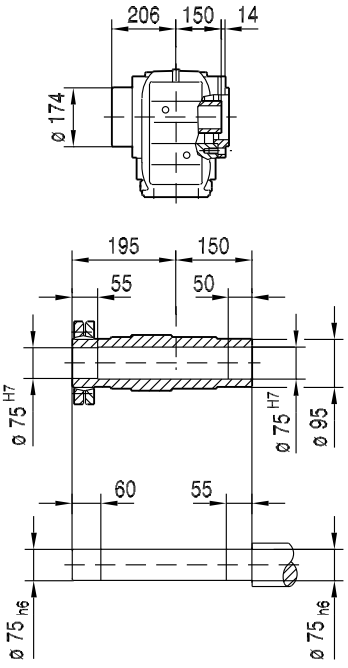
## KAZ97..



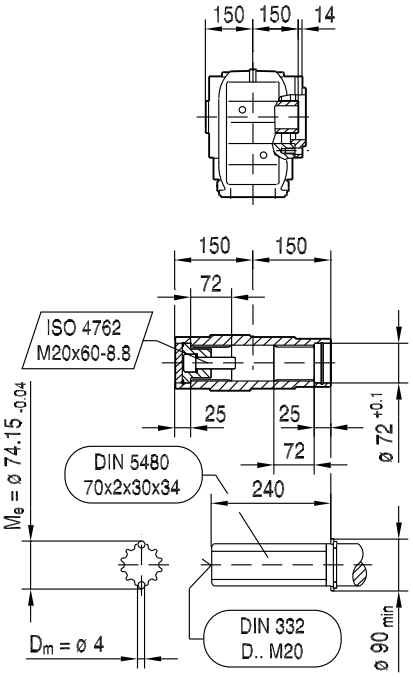

## KAZ97..




## KHZ97..




## KVZ97..

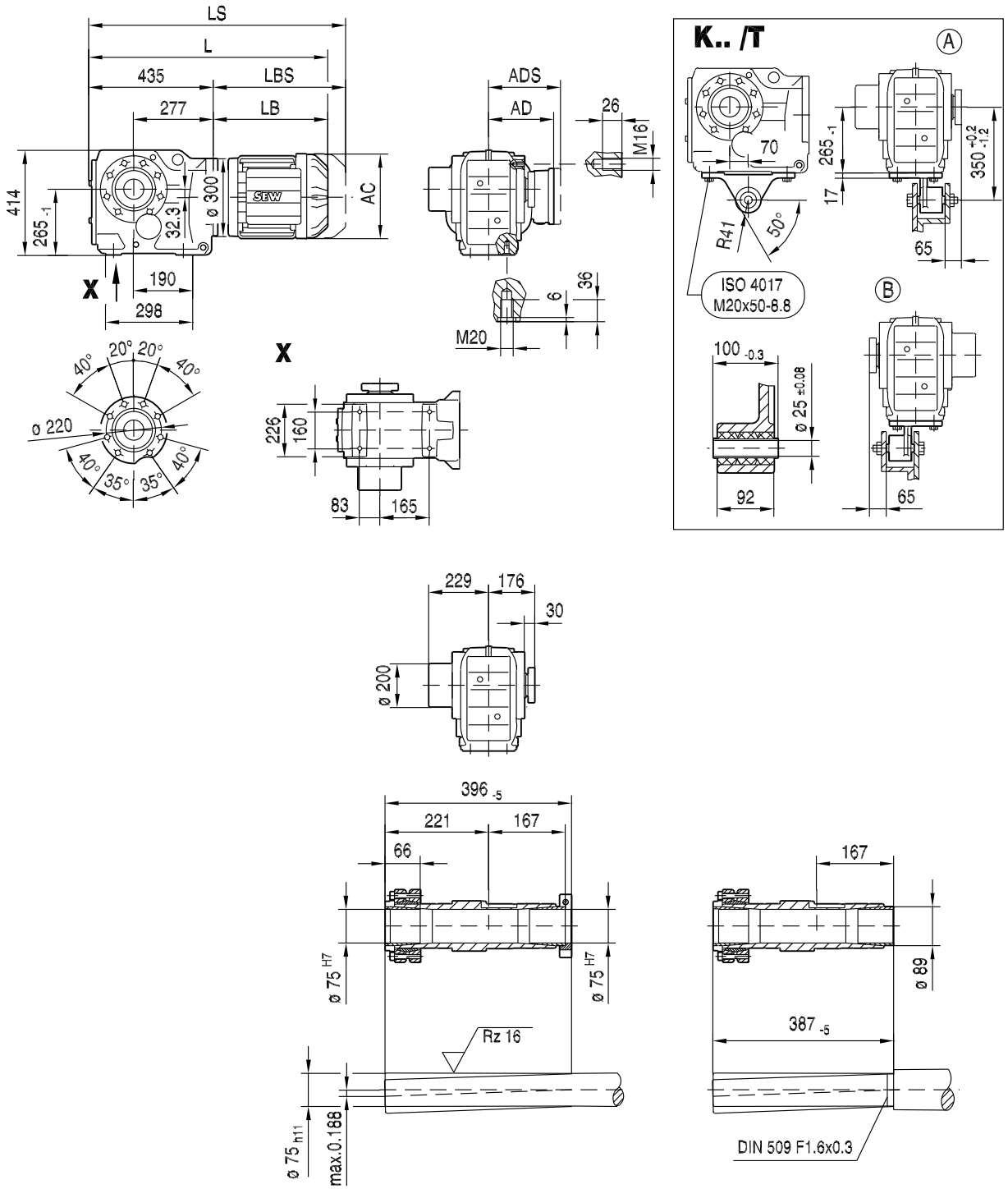



| (→ 142) | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M | DRN160L | DRN180.. | DRN200L |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 197 | 197 | 221 | 221 | 261 | 261 | 314 | 314 | 357 | 394 |
| **AD** | 157 | 157 | 170 | 170 | 228 | 228 | 253 | 253 | 268 | 283 |
| **ADS** | 158 | 158 | 172 | 172 | 228 | 228 | 253 | 253 | 268 | 283 |
| **L** | 723 | 773 | 804 | 854 | 872 | 898 | 964 | 964 | 987 | 1097 |
| **LS** | 817 | 867 | 916 | 966 | 1010 | 1035 | 1153 | 1153 | 1176 | 1302 |
| **LB** | 288 | 338 | 369 | 419 | 437 | 463 | 529 | 529 | 552 | 662 |
| **LBS** | 382 | 432 | 481 | 531 | 575 | 600 | 718 | 718 | 741 | 867 |

21284997/EN – 03/2015

33 071 00 14

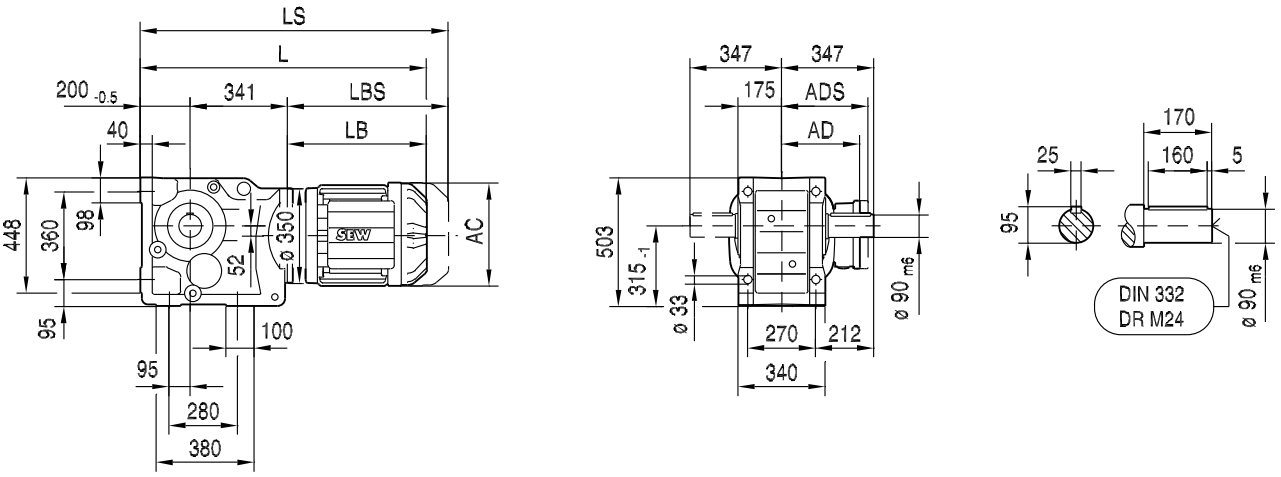
## KT97..



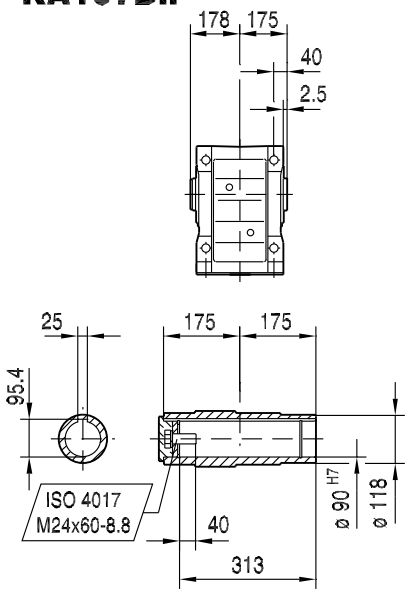

| (→ 142) | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M | DRN160L | DRN180.. | DRN200L |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 197 | 197 | 221 | 221 | 261 | 261 | 314 | 314 | 357 | 394 |
| **AD** | 157 | 157 | 170 | 170 | 228 | 228 | 253 | 253 | 268 | 283 |
| **ADS** | 158 | 158 | 172 | 172 | 228 | 228 | 253 | 253 | 268 | 283 |
| **L** | 723 | 773 | 804 | 854 | 872 | 898 | 964 | 964 | 987 | 1097 |
| **LS** | 817 | 867 | 916 | 966 | 1010 | 1035 | 1153 | 1153 | 1176 | 1302 |
| **LB** | 288 | 338 | 369 | 419 | 437 | 463 | 529 | 529 | 552 | 662 |
| **LBS** | 382 | 432 | 481 | 531 | 575 | 600 | 718 | 718 | 741 | 867 |

33 072 00 14

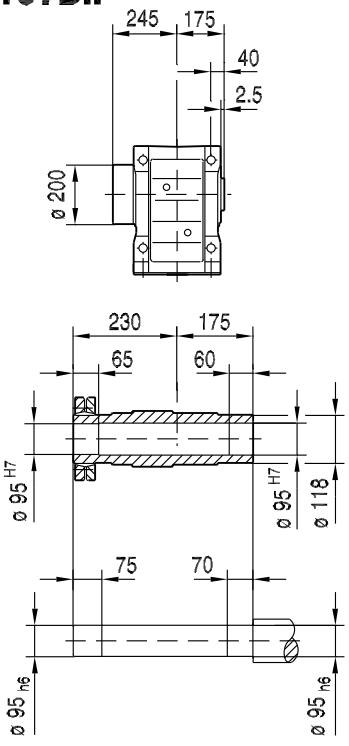
## K107..



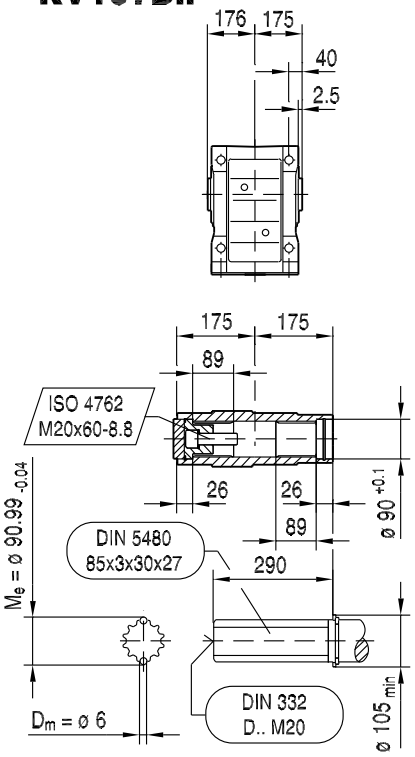

## KA107B..




## KH107B..




## KV107B..

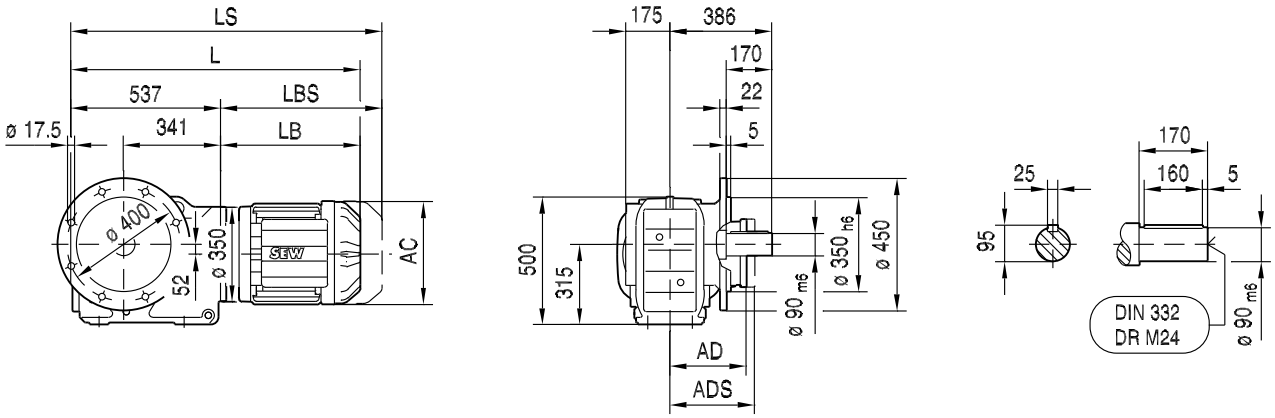



| (→ 142) | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M | DRN160L | DRN180.. | DRN200L | DRN225.. |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 197 | 221 | 221 | 261 | 261 | 314 | 314 | 357 | 394 | 434 |
| **AD** | 157 | 170 | 170 | 228 | 228 | 253 | 253 | 268 | 283 | 305 |
| **ADS** | 158 | 172 | 172 | 228 | 228 | 253 | 253 | 268 | 283 | 305 |
| **L** | 873 | 904 | 954 | 972 | 998 | 1064 | 1064 | 1087 | 1197 | 1171 |
| **LS** | 967 | 1016 | 1066 | 1110 | 1135 | 1253 | 1253 | 1276 | 1402 | 1376 |
| **LB** | 332 | 363 | 413 | 431 | 457 | 523 | 523 | 546 | 656 | 630 |
| **LBS** | 426 | 475 | 525 | 569 | 594 | 712 | 712 | 735 | 861 | 835 |

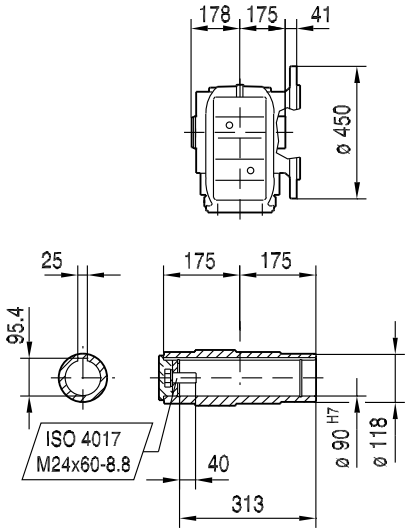
21284997/EN – 03/2015

33 073 00 14

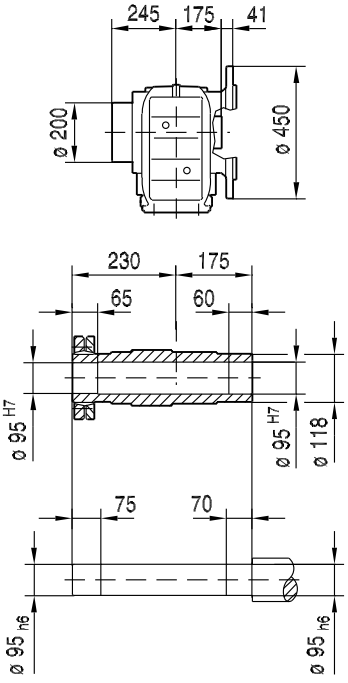
## KF107..



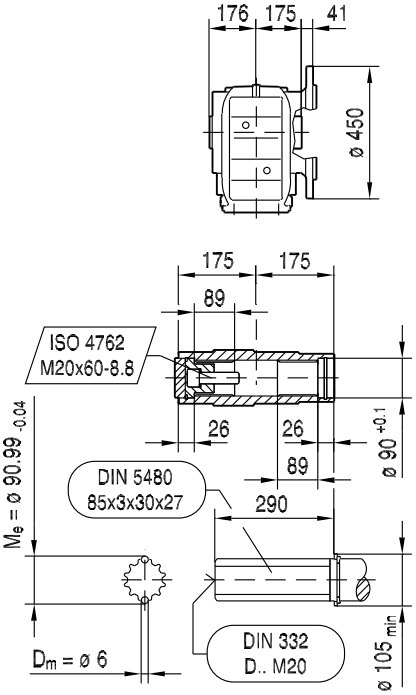

## KAF107..




## KHF107..



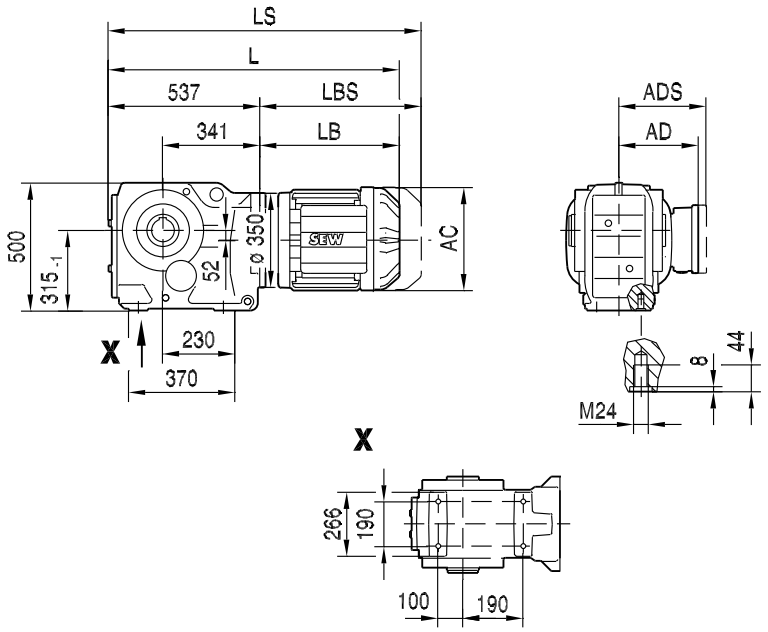

## KVF107..

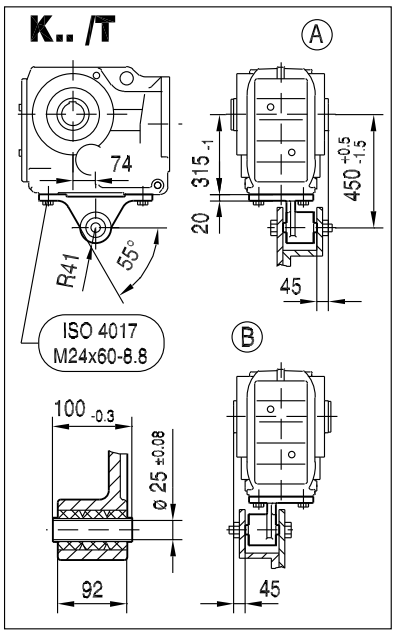



| (→ 142) | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M | DRN160L | DRN180.. | DRN200L | DRN225.. |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 197 | 221 | 221 | 261 | 261 | 314 | 314 | 357 | 394 | 434 |
| **AD** | 157 | 170 | 170 | 228 | 228 | 253 | 253 | 268 | 283 | 305 |
| **ADS** | 158 | 172 | 172 | 228 | 228 | 253 | 253 | 268 | 283 | 305 |
| **L** | 869 | 900 | 950 | 968 | 994 | 1060 | 1060 | 1083 | 1193 | 1167 |
| **LS** | 963 | 1012 | 1062 | 1106 | 1131 | 1249 | 1249 | 1272 | 1398 | 1372 |
| **LB** | 332 | 363 | 413 | 431 | 457 | 523 | 523 | 546 | 656 | 630 |
| **LBS** | 426 | 475 | 525 | 569 | 594 | 712 | 712 | 735 | 861 | 835 |

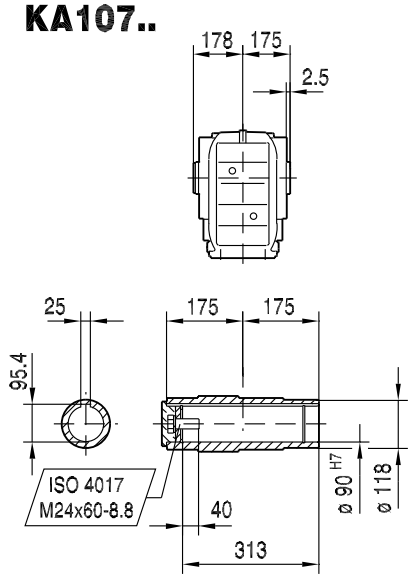
33 074 00 14

## KA107..

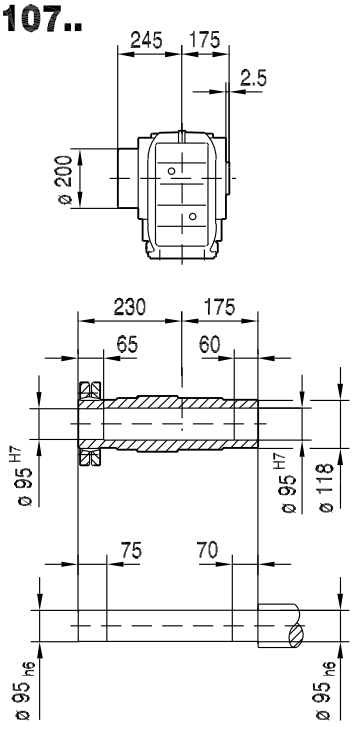


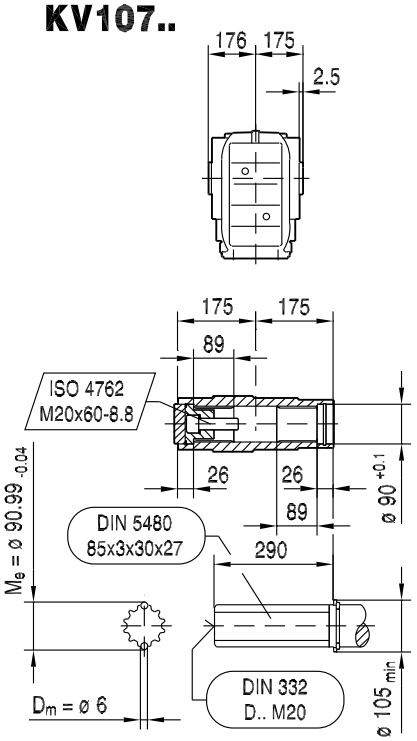

## KA107..




## KH107..




## KV107..

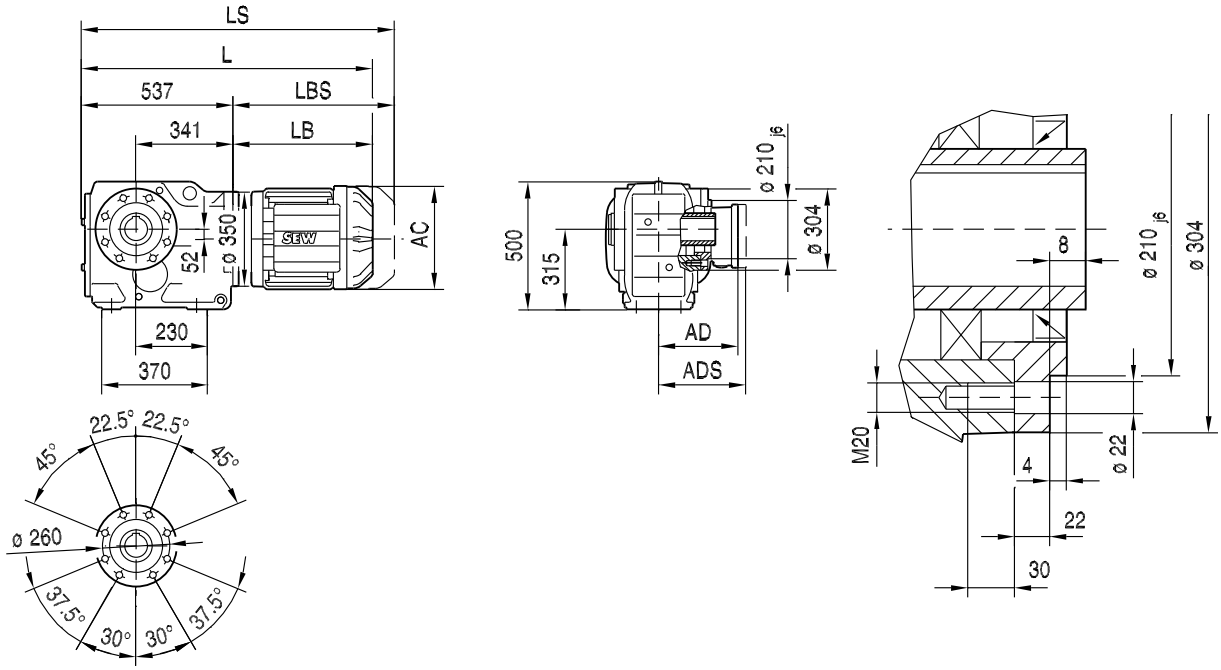



| (→ 142) | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M | DRN160L | DRN180.. | DRN200L | DRN225.. |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 197 | 221 | 221 | 261 | 261 | 314 | 314 | 357 | 394 | 434 |
| **AD** | 157 | 170 | 170 | 228 | 228 | 253 | 253 | 268 | 283 | 305 |
| **ADS** | 158 | 172 | 172 | 228 | 228 | 253 | 253 | 268 | 283 | 305 |
| **L** | 869 | 900 | 950 | 968 | 994 | 1060 | 1060 | 1083 | 1193 | 1167 |
| **LS** | 963 | 1012 | 1062 | 1106 | 1131 | 1249 | 1249 | 1272 | 1398 | 1372 |
| **LB** | 332 | 363 | 413 | 431 | 457 | 523 | 523 | 546 | 656 | 630 |
| **LBS** | 426 | 475 | 525 | 569 | 594 | 712 | 712 | 735 | 861 | 835 |

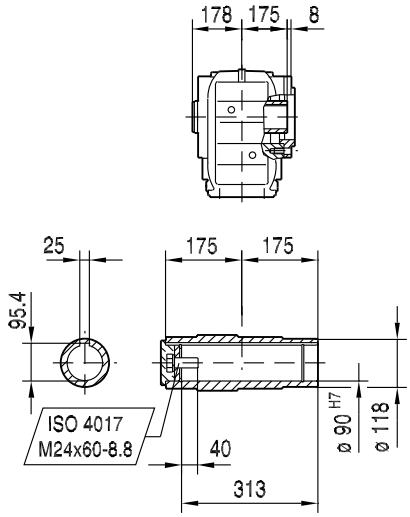
21284997/EN – 03/2015

33 075 00 14

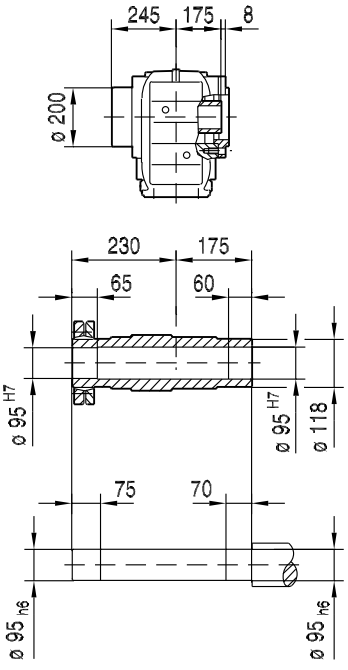
## KAZ107..



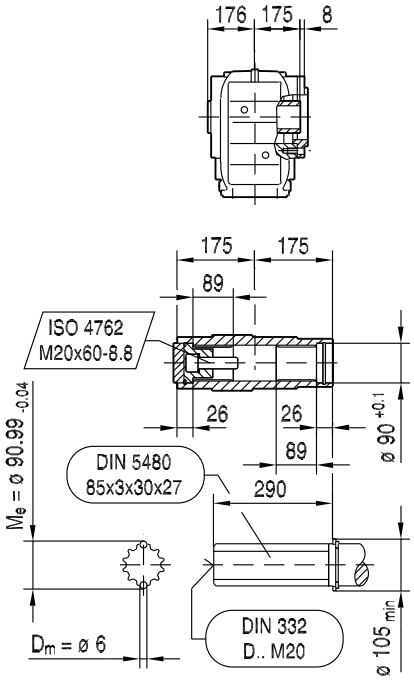

## KAZ107..




## KHZ107..



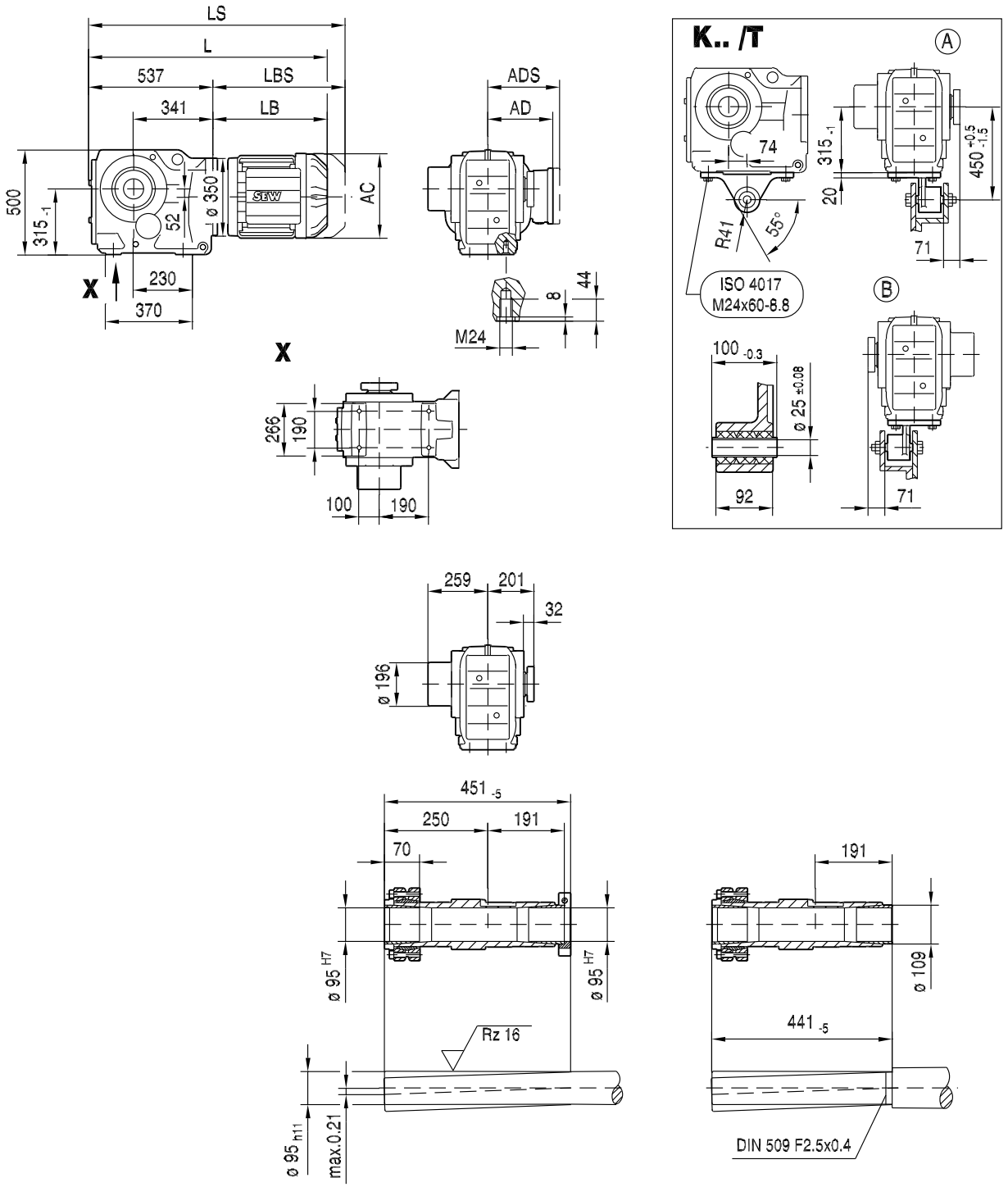

## KVZ107..




| (→ 142) | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M | DRN160L | DRN180.. | DRN200L | DRN225.. |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 197 | 221 | 221 | 261 | 261 | 314 | 314 | 357 | 394 | 434 |
| **AD** | 157 | 170 | 170 | 228 | 228 | 253 | 253 | 268 | 283 | 305 |
| **ADS** | 158 | 172 | 172 | 228 | 228 | 253 | 253 | 268 | 283 | 305 |
| **L** | 869 | 900 | 950 | 968 | 994 | 1060 | 1060 | 1083 | 1193 | 1167 |
| **LS** | 963 | 1012 | 1062 | 1106 | 1131 | 1249 | 1249 | 1272 | 1398 | 1372 |
| **LB** | 332 | 363 | 413 | 431 | 457 | 523 | 523 | 546 | 656 | 630 |
| **LBS** | 426 | 475 | 525 | 569 | 594 | 712 | 712 | 735 | 861 | 835 |

**KT107..**

33 076 00 14

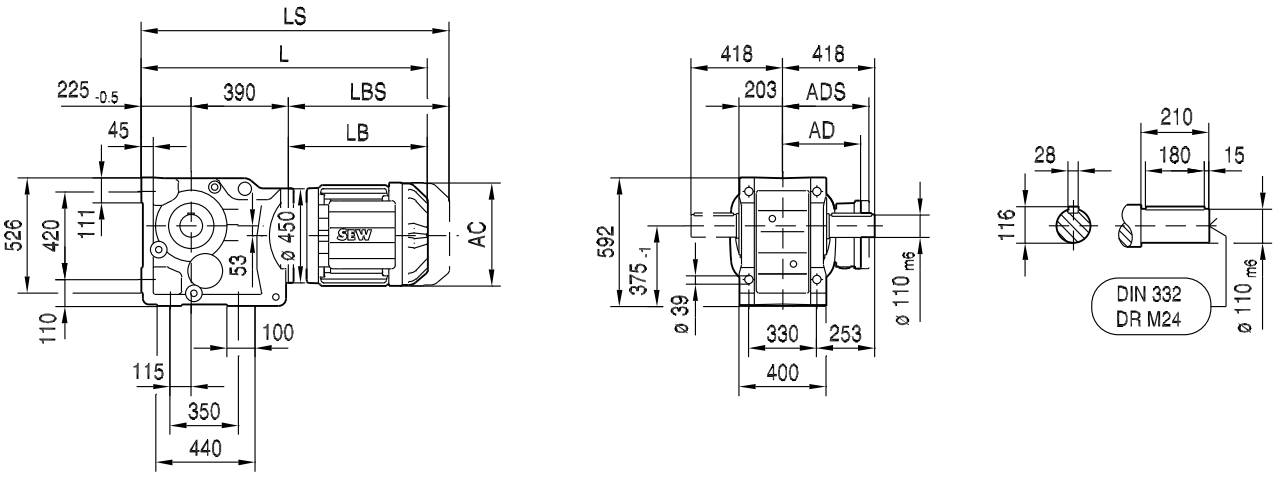



| (→ 142) | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M | DRN160L | DRN180.. | DRN200L | DRN225.. |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 197 | 221 | 221 | 261 | 261 | 314 | 314 | 357 | 394 | 434 |
| **AD** | 157 | 170 | 170 | 228 | 228 | 253 | 253 | 268 | 283 | 305 |
| **ADS** | 158 | 172 | 172 | 228 | 228 | 253 | 253 | 268 | 283 | 305 |
| **L** | 869 | 900 | 950 | 968 | 994 | 1060 | 1060 | 1083 | 1193 | 1167 |
| **LS** | 963 | 1012 | 1062 | 1106 | 1131 | 1249 | 1249 | 1272 | 1398 | 1372 |
| **LB** | 332 | 363 | 413 | 431 | 457 | 523 | 523 | 546 | 656 | 630 |
| **LBS** | 426 | 475 | 525 | 569 | 594 | 712 | 712 | 735 | 861 | 835 |

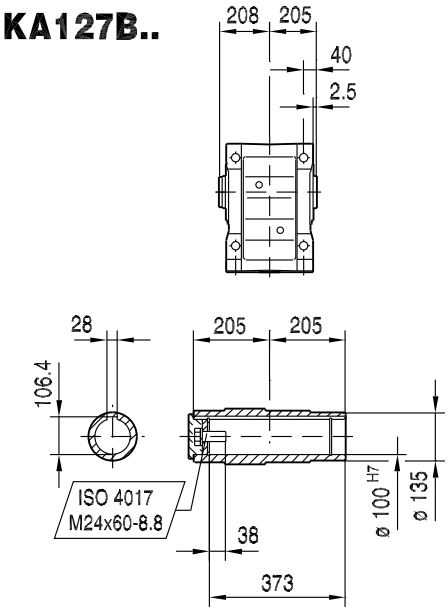
21284997/EN – 03/2015

33 077 00 14

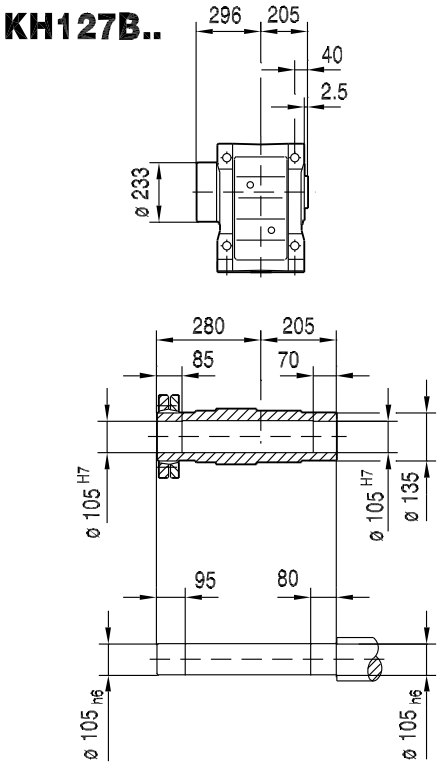
## K127..




## KA127B..



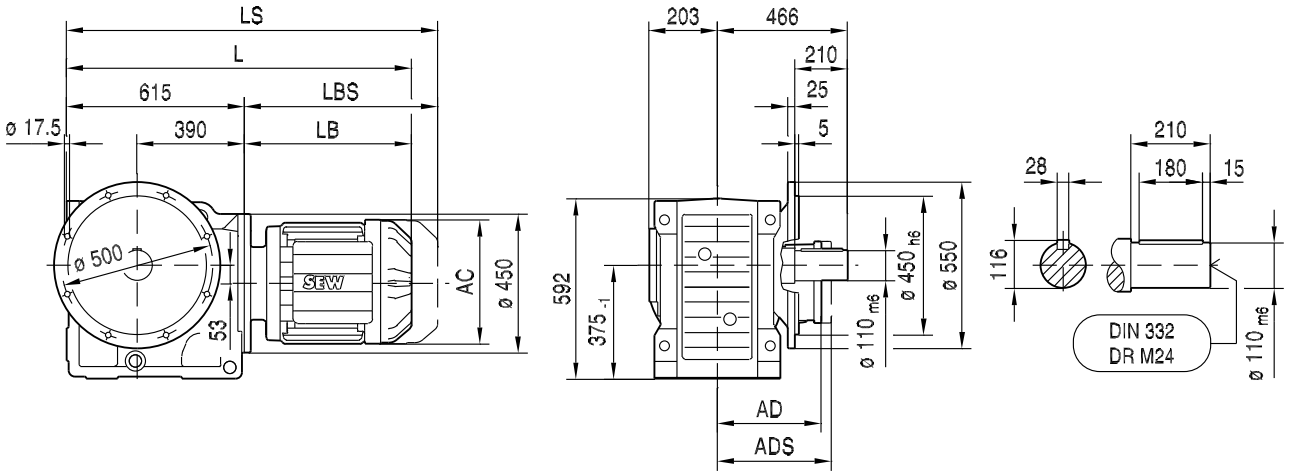

## KH127B..



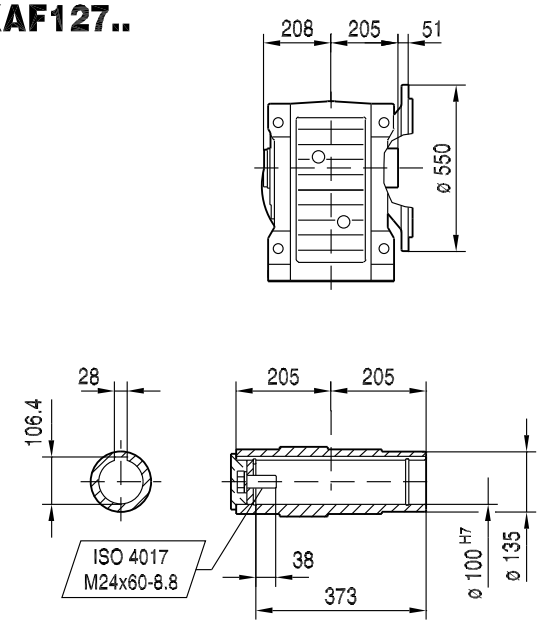

| (→ 142) | DRN132M | DRN132L | DRN160M | DRN160L | DRN180.. | DRN200L | DRN225.. | DRN250M | DRN280S | DRN280M |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 261 | 261 | 314 | 314 | 357 | 394 | 434 | 495 | 495 | 495 |
| **AD** | 228 | 228 | 253 | 253 | 268 | 283 | 305 | 394 | 394 | 394 |
| **ADS** | 228 | 228 | 253 | 253 | 268 | 283 | 305 | 394 | 394 | 394 |
| **L** | 1031 | 1057 | 1123 | 1123 | 1146 | 1256 | 1230 | 1367 | 1367 | 1462 |
| **LS** | 1169 | 1194 | 1312 | 1312 | 1335 | 1461 | 1435 | 1607 | 1607 | 1702 |
| **LB** | 416 | 442 | 508 | 508 | 531 | 641 | 615 | 752 | 752 | 847 |
| **LBS** | 554 | 579 | 697 | 697 | 720 | 846 | 820 | 992 | 992 | 1087 |

33 078 00 14

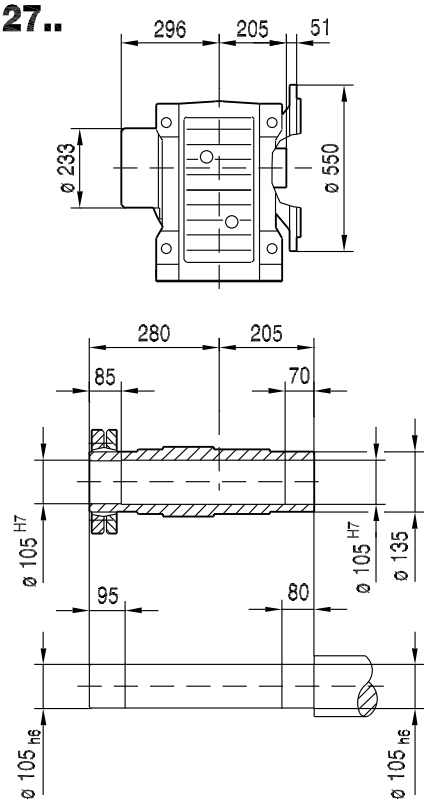
## KF127..




## KAF127..




## KHF127..

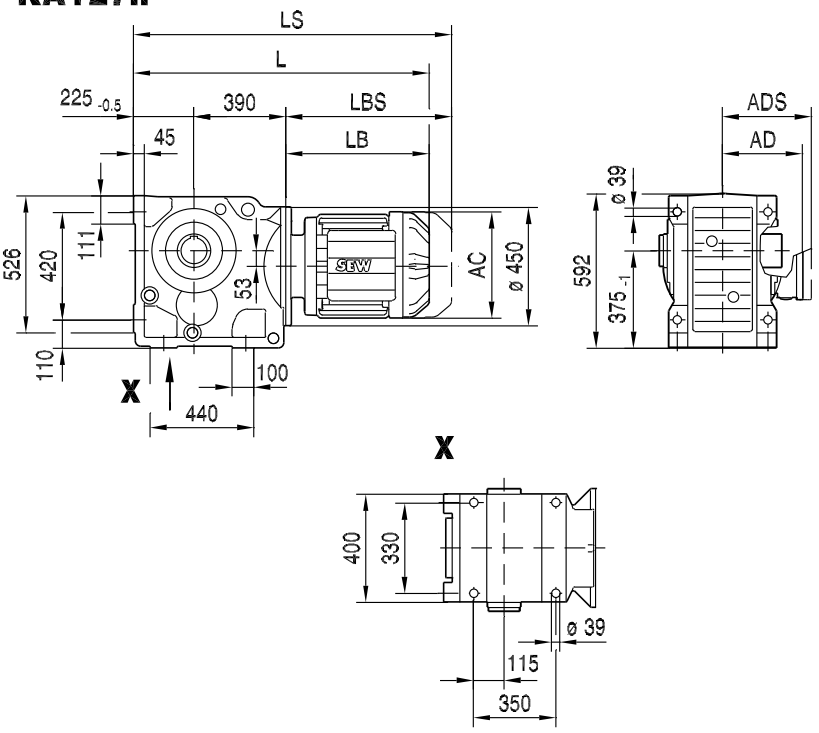



| (→ 142) | DRN132M | DRN132L | DRN160M | DRN160L | DRN180.. | DRN200L | DRN225.. | DRN250M | DRN280S | DRN280M |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 261 | 261 | 314 | 314 | 357 | 394 | 434 | 495 | 495 | 495 |
| **AD** | 228 | 228 | 253 | 253 | 268 | 283 | 305 | 394 | 394 | 394 |
| **ADS** | 228 | 228 | 253 | 253 | 268 | 283 | 305 | 394 | 394 | 394 |
| **L** | 1031 | 1057 | 1123 | 1123 | 1146 | 1256 | 1230 | 1367 | 1367 | 1462 |
| **LS** | 1169 | 1194 | 1312 | 1312 | 1335 | 1461 | 1435 | 1607 | 1607 | 1702 |
| **LB** | 416 | 442 | 508 | 508 | 531 | 641 | 615 | 752 | 752 | 847 |
| **LBS** | 554 | 579 | 697 | 697 | 720 | 846 | 820 | 992 | 992 | 1087 |

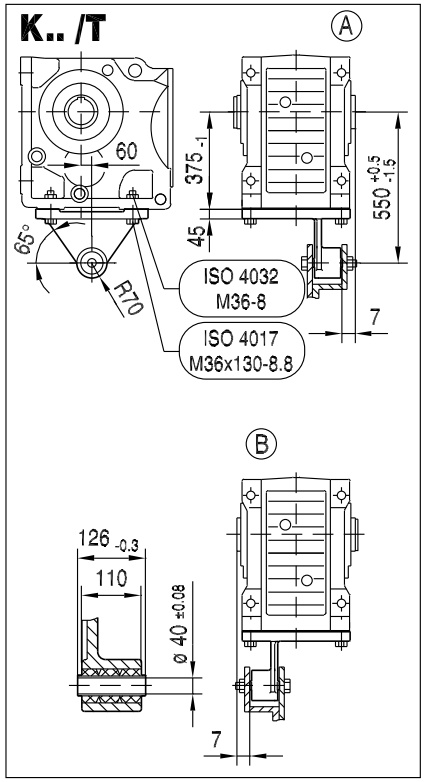
21284997/EN – 03/2015

33 079 00 14

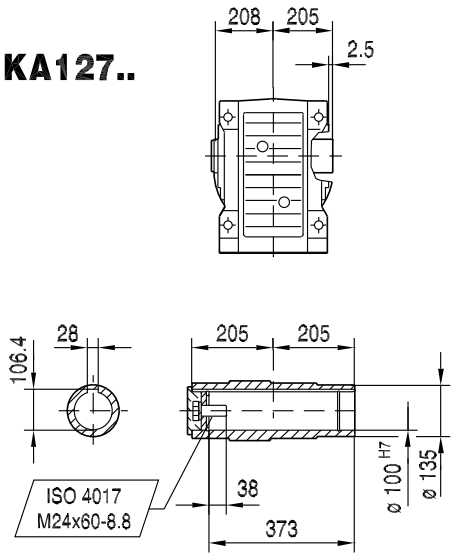
**KA127..**



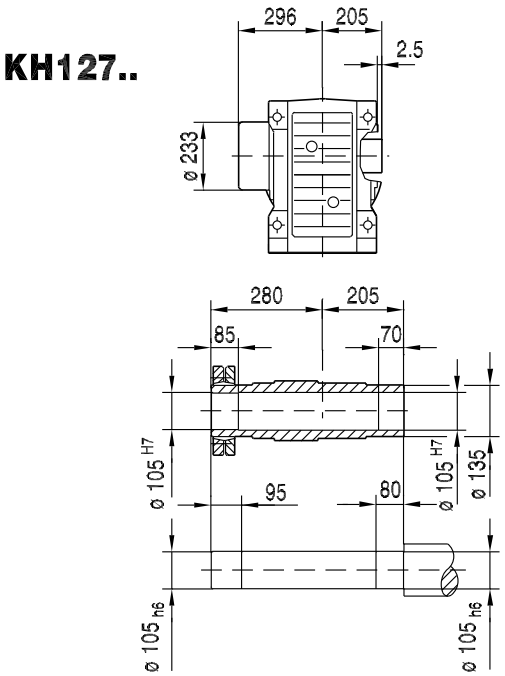

**K.. /T**




**KA127..**



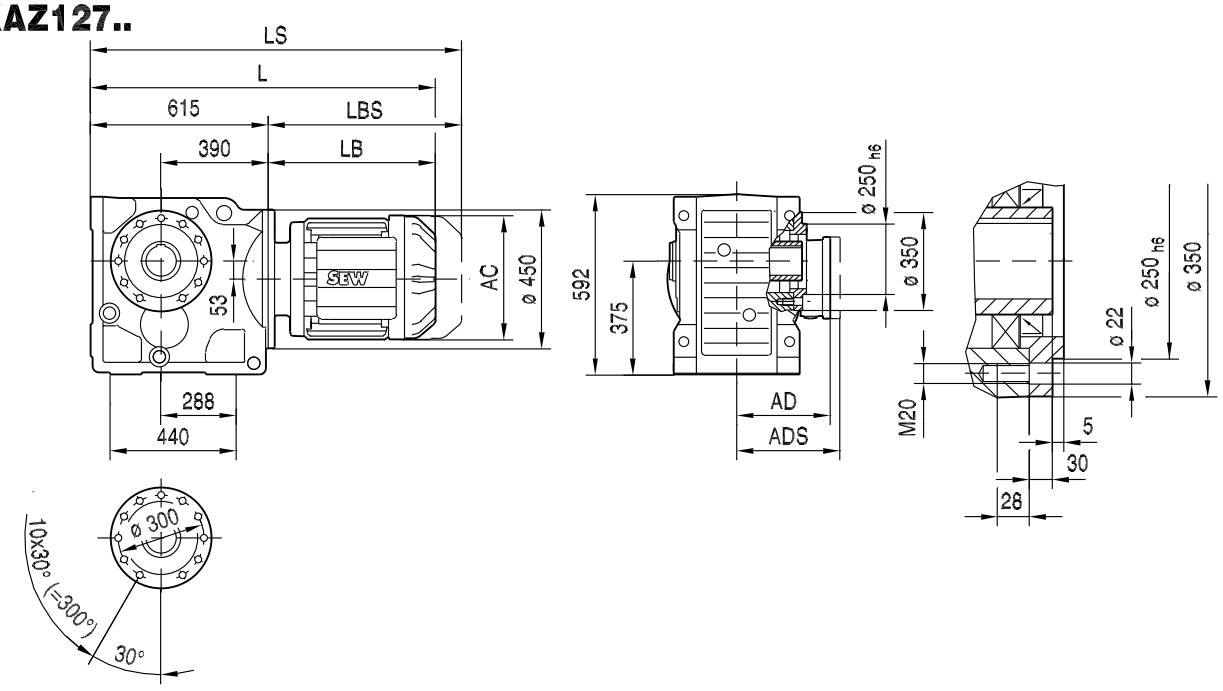

**KH127..**



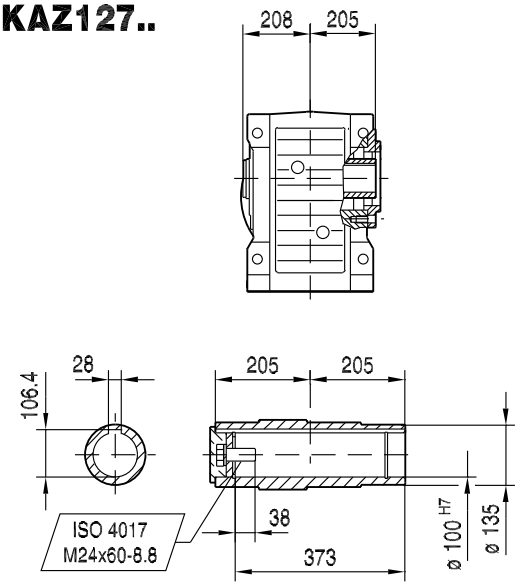

| (→ 142) | DRN132M | DRN132L | DRN160M | DRN160L | DRN180.. | DRN200L | DRN225.. | DRN250M | DRN280S | DRN280M |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 261 | 261 | 314 | 314 | 357 | 394 | 434 | 495 | 495 | 495 |
| **AD** | 228 | 228 | 253 | 253 | 268 | 283 | 305 | 394 | 394 | 394 |
| **ADS** | 228 | 228 | 253 | 253 | 268 | 283 | 305 | 394 | 394 | 394 |
| **L** | 1031 | 1057 | 1123 | 1123 | 1146 | 1256 | 1230 | 1367 | 1367 | 1462 |
| **LS** | 1169 | 1194 | 1312 | 1312 | 1335 | 1461 | 1435 | 1607 | 1607 | 1702 |
| **LB** | 416 | 442 | 508 | 508 | 531 | 641 | 615 | 752 | 752 | 847 |
| **LBS** | 554 | 579 | 697 | 697 | 720 | 846 | 820 | 992 | 992 | 1087 |

33 080 00 14

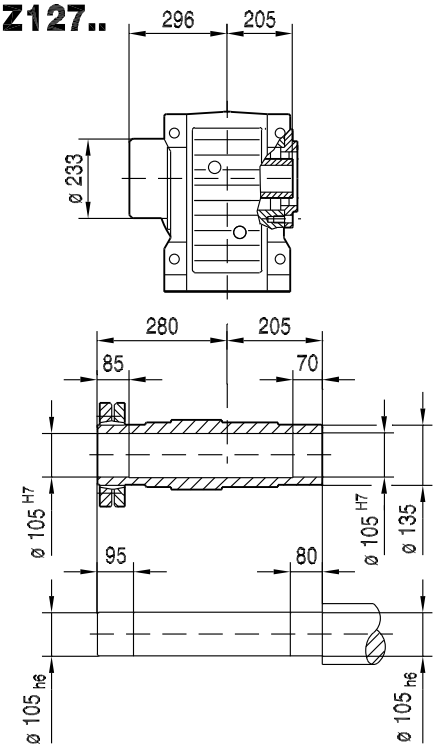
## KAZ127..




## KAZ127..



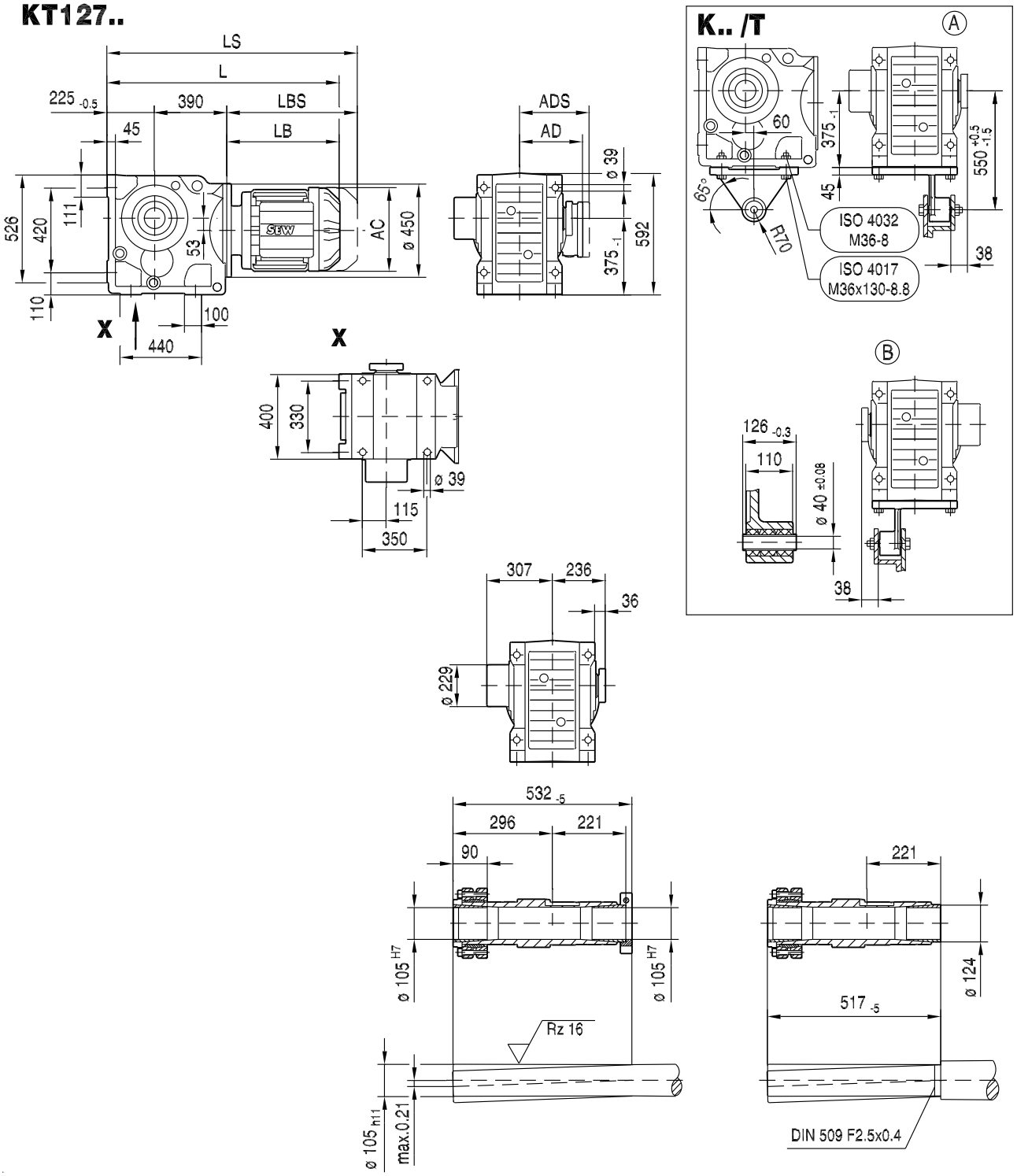

## KHZ127..




| (→ 142) | DRN132M | DRN132L | DRN160M | DRN160L | DRN180.. | DRN200L | DRN225.. | DRN250M | DRN280S | DRN280M |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 261 | 261 | 314 | 314 | 357 | 394 | 434 | 495 | 495 | 495 |
| **AD** | 228 | 228 | 253 | 253 | 268 | 283 | 305 | 394 | 394 | 394 |
| **ADS** | 228 | 228 | 253 | 253 | 268 | 283 | 305 | 394 | 394 | 394 |
| **L** | 1031 | 1057 | 1123 | 1123 | 1146 | 1256 | 1230 | 1367 | 1367 | 1462 |
| **LS** | 1169 | 1194 | 1312 | 1312 | 1335 | 1461 | 1435 | 1607 | 1607 | 1702 |
| **LB** | 416 | 442 | 508 | 508 | 531 | 641 | 615 | 752 | 752 | 847 |
| **LBS** | 554 | 579 | 697 | 697 | 720 | 846 | 820 | 992 | 992 | 1087 |

21284997/EN – 03/2015

33 081 00 14

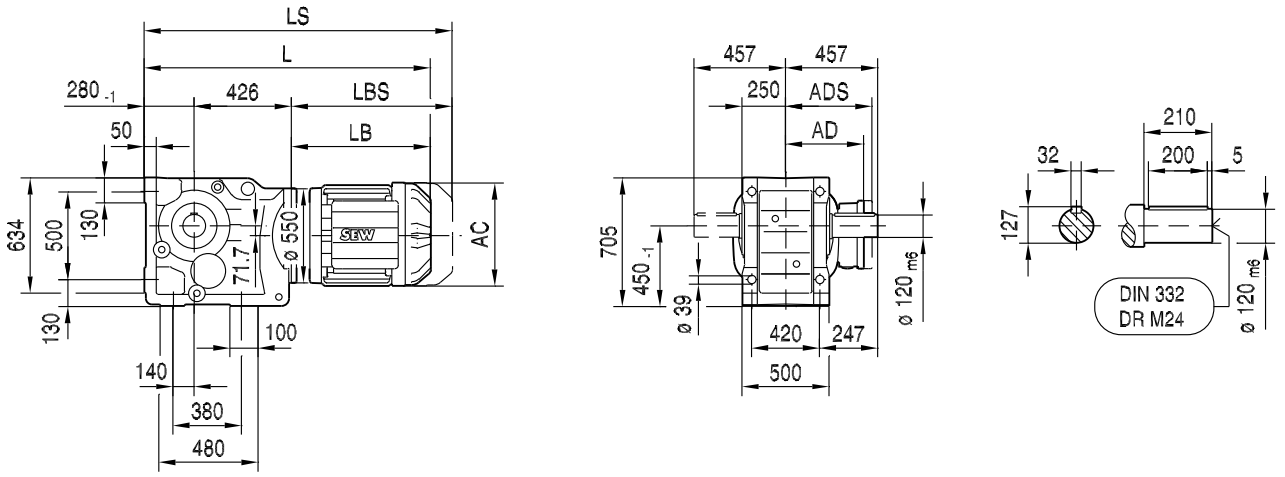



| (→ 142) | DRN132M | DRN132L | DRN160M | DRN160L | DRN180.. | DRN200L | DRN225.. | DRN250M | DRN280S | DRN280M |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 261 | 261 | 314 | 314 | 357 | 394 | 434 | 495 | 495 | 495 |
| **AD** | 228 | 228 | 253 | 253 | 268 | 283 | 305 | 394 | 394 | 394 |
| **ADS** | 228 | 228 | 253 | 253 | 268 | 283 | 305 | 394 | 394 | 394 |
| **L** | 1031 | 1057 | 1123 | 1123 | 1146 | 1256 | 1230 | 1367 | 1367 | 1462 |
| **LS** | 1169 | 1194 | 1312 | 1312 | 1335 | 1461 | 1435 | 1607 | 1607 | 1702 |
| **LB** | 416 | 442 | 508 | 508 | 531 | 641 | 615 | 752 | 752 | 847 |
| **LBS** | 554 | 579 | 697 | 697 | 720 | 846 | 820 | 992 | 992 | 1087 |

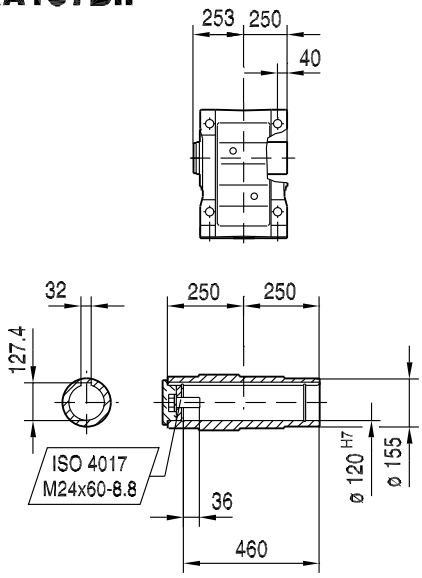
21284997/EN – 03/2015

33 082 00 14

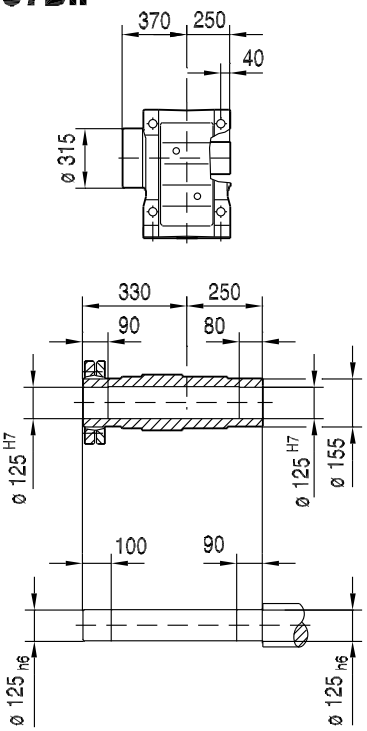
## K157..




## KA157B..




## KH157B..

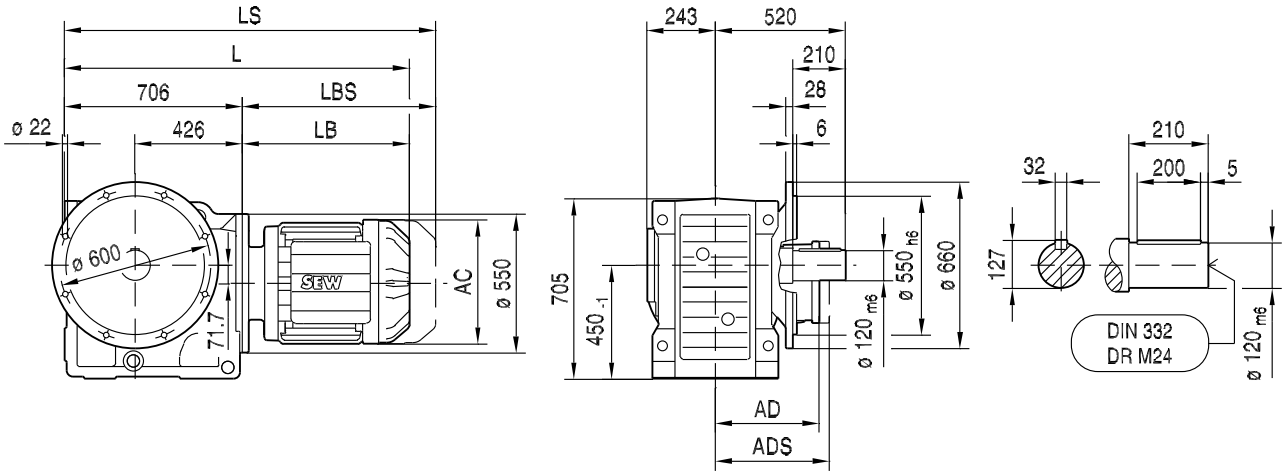



| (→ 142) | DRN160L | DRN180.. | DRN200L | DRN225.. | DRN250M | DRN280S | DRN280M | DRN315S-M | DRN315ME-H |
|---|---|---|---|---|---|---|---|---|---|
| **AC** | 314 | 357 | 394 | 434 | 495 | 495 | 495 | 624 | 624 |
| **AD** | 253 | 268 | 283 | 305 | 394 | 394 | 394 | 506 | 506 |
| **ADS** | 253 | 268 | 283 | 305 | 394 | 394 | 394 | 506 | 506 |
| **L** | 1206 | 1229 | 1339 | 1313 | 1450 | 1450 | 1545 | 1647 | 1777 |
| **LS** | 1395 | 1418 | 1544 | 1518 | 1690 | 1690 | 1785 | 1898 | 2028 |
| **LB** | 500 | 523 | 633 | 607 | 744 | 744 | 839 | 941 | 1071 |
| **LBS** | 689 | 712 | 838 | 812 | 984 | 984 | 1079 | 1192 | 1322 |

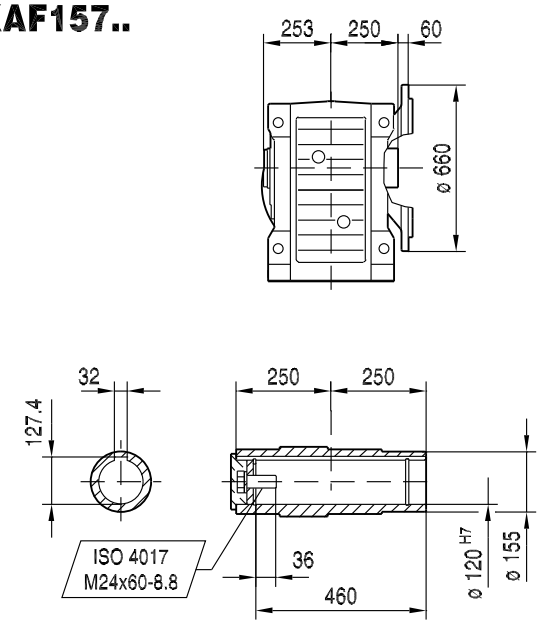
21284997/EN – 03/2015

33 083 00 14

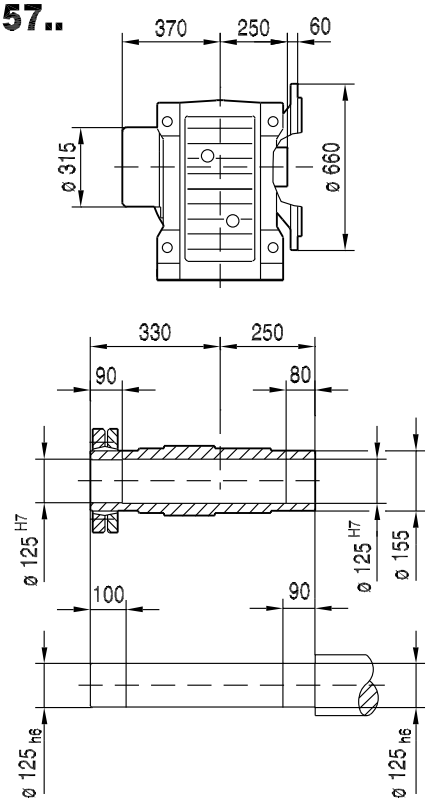
## KF157..




## KAF157..




## KHF157..

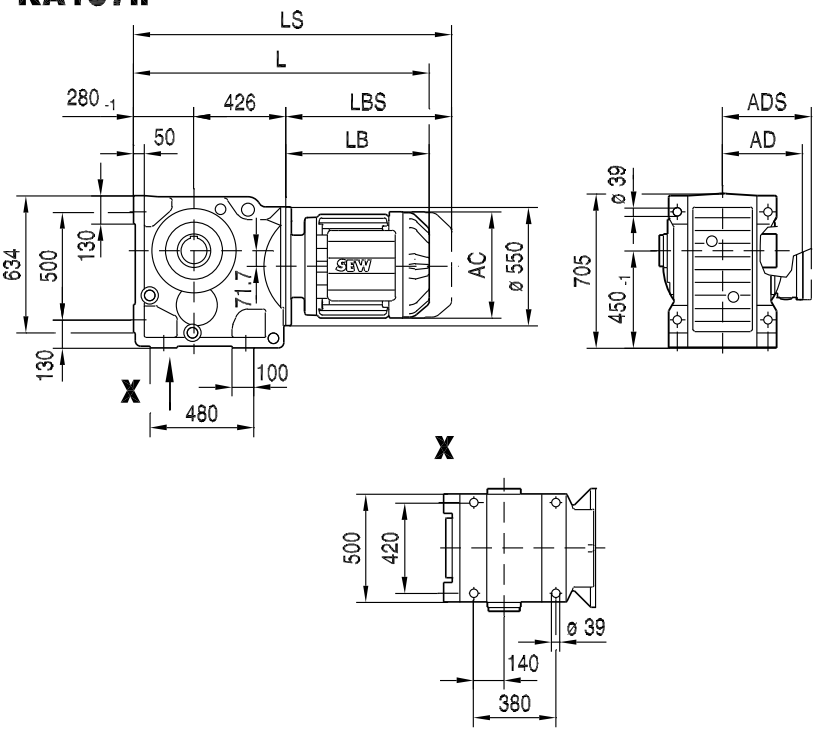



| (→ 142) | DRN160L | DRN180.. | DRN200L | DRN225.. | DRN250M | DRN280S | DRN280M | DRN315S-M | DRN315ME-H |
|---|---|---|---|---|---|---|---|---|---|
| **AC** | 314 | 357 | 394 | 434 | 495 | 495 | 495 | 624 | 624 |
| **AD** | 253 | 268 | 283 | 305 | 394 | 394 | 394 | 506 | 506 |
| **ADS** | 253 | 268 | 283 | 305 | 394 | 394 | 394 | 506 | 506 |
| **L** | 1206 | 1229 | 1339 | 1313 | 1450 | 1450 | 1545 | 1647 | 1777 |
| **LS** | 1395 | 1418 | 1544 | 1518 | 1690 | 1690 | 1785 | 1898 | 2028 |
| **LB** | 500 | 523 | 633 | 607 | 744 | 744 | 839 | 941 | 1071 |
| **LBS** | 689 | 712 | 838 | 812 | 984 | 984 | 1079 | 1192 | 1322 |

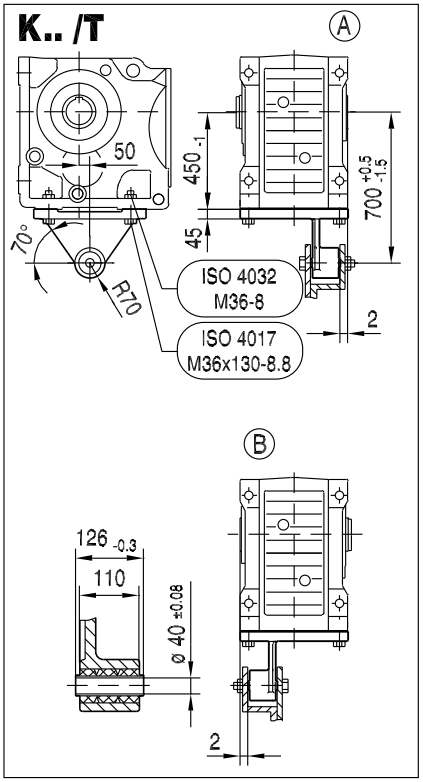
21284997/EN – 03/2015

33 084 00 14

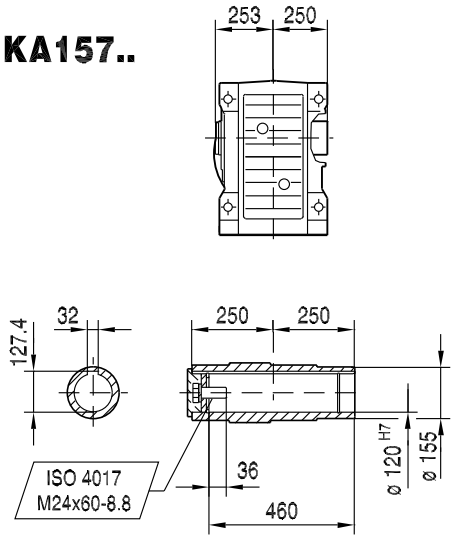
## KA157..



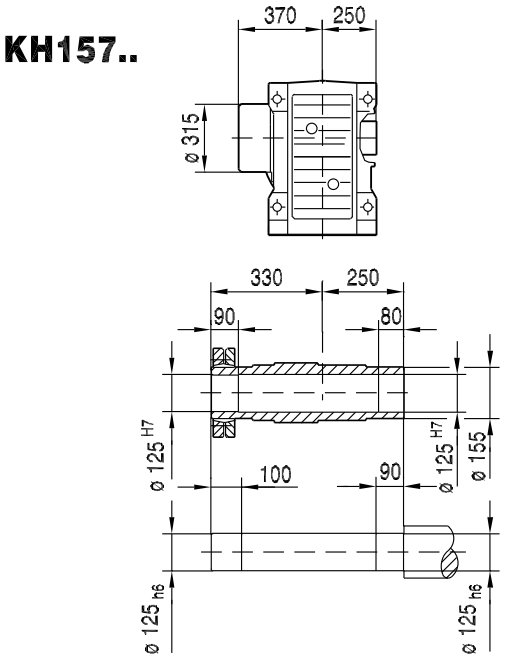

## K.. /T




## KA157..




## KH157..

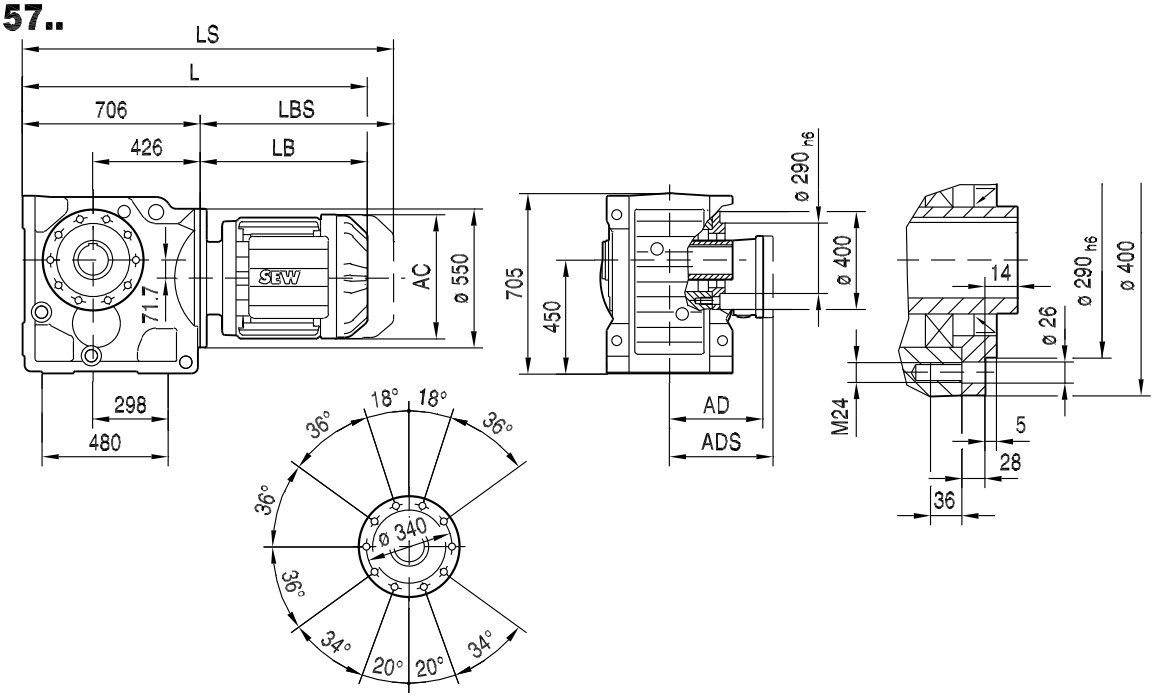



| (→ 142) | DRN160L | DRN180.. | DRN200L | DRN225.. | DRN250M | DRN280S | DRN280M | DRN315S-M | DRN315ME-H |
|---|---|---|---|---|---|---|---|---|---|
| **AC** | 314 | 357 | 394 | 434 | 495 | 495 | 495 | 624 | 624 |
| **AD** | 253 | 268 | 283 | 305 | 394 | 394 | 394 | 506 | 506 |
| **ADS** | 253 | 268 | 283 | 305 | 394 | 394 | 394 | 506 | 506 |
| **L** | 1206 | 1229 | 1339 | 1313 | 1450 | 1450 | 1545 | 1647 | 1777 |
| **LS** | 1395 | 1418 | 1544 | 1518 | 1690 | 1690 | 1785 | 1898 | 2028 |
| **LB** | 500 | 523 | 633 | 607 | 744 | 744 | 839 | 941 | 1071 |
| **LBS** | 689 | 712 | 838 | 812 | 984 | 984 | 1079 | 1192 | 1322 |

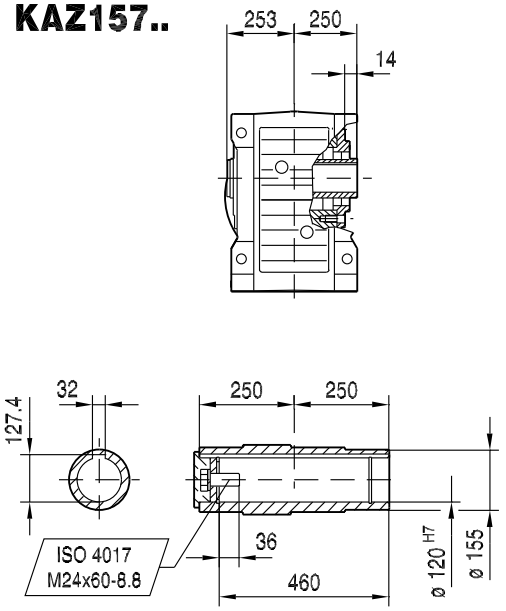
21284997/EN – 03/2015

33 085 00 14

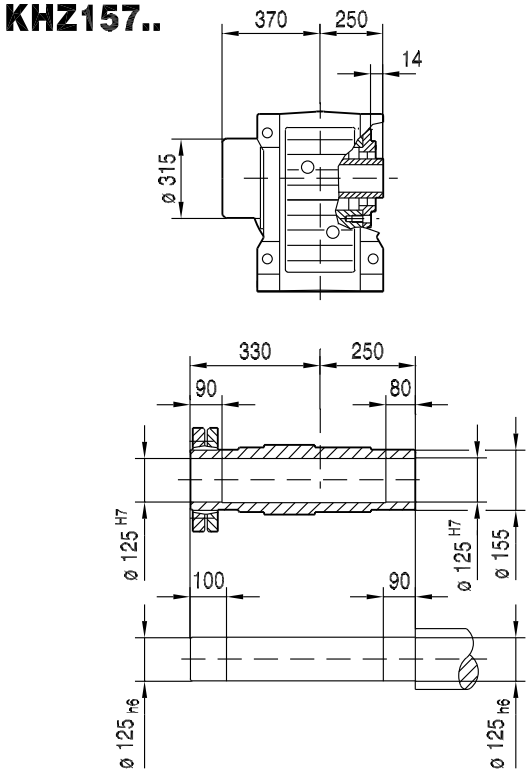
## KAZ157..




## KAZ157..

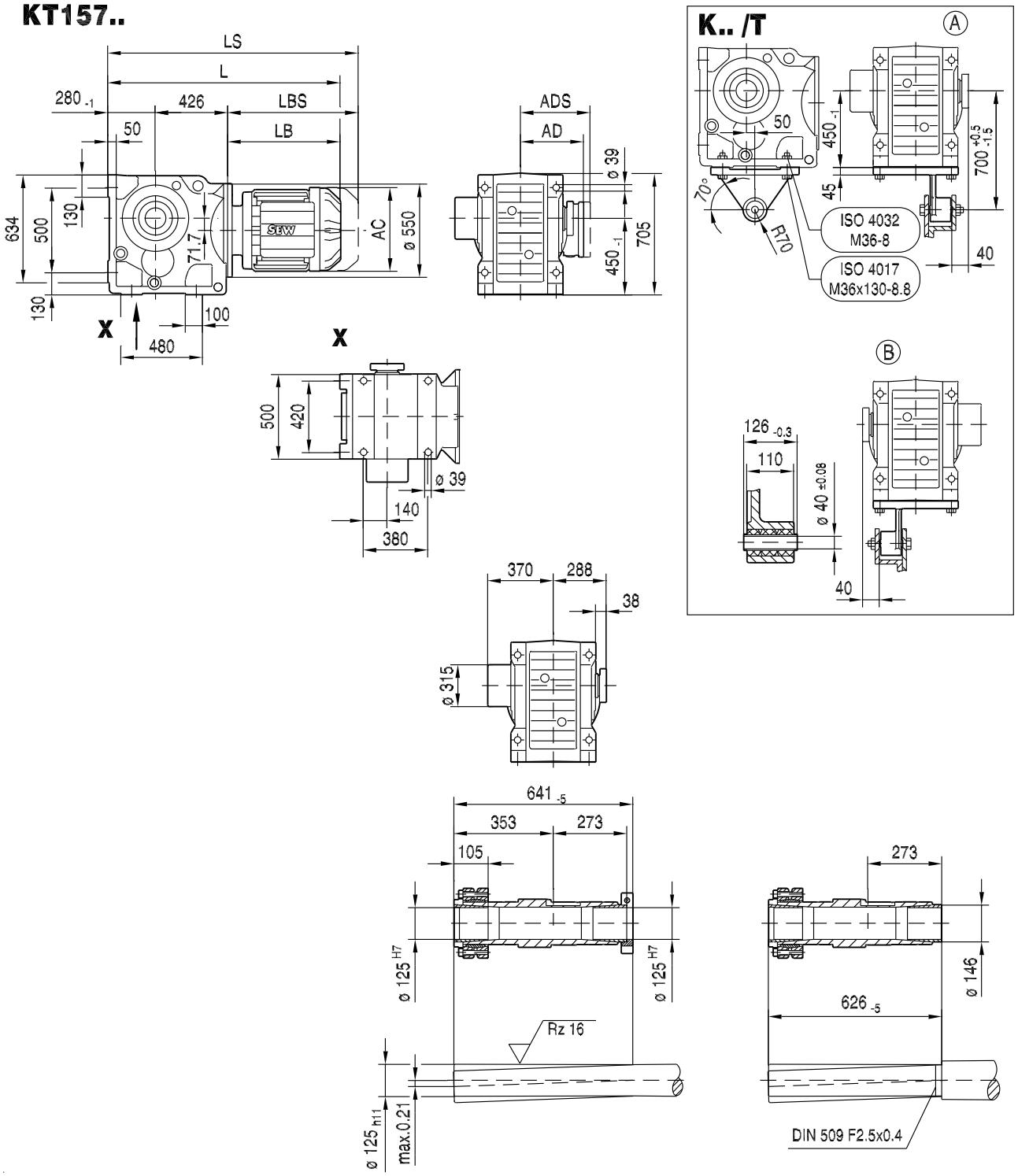



## KHZ157..




| (→ 142) | DRN160L | DRN180.. | DRN200L | DRN225.. | DRN250M | DRN280S | DRN280M | DRN315S-M | DRN315ME-H |
|---|---|---|---|---|---|---|---|---|---|
| **AC** | 314 | 357 | 394 | 434 | 495 | 495 | 495 | 624 | 624 |
| **AD** | 253 | 268 | 283 | 305 | 394 | 394 | 394 | 506 | 506 |
| **ADS** | 253 | 268 | 283 | 305 | 394 | 394 | 394 | 506 | 506 |
| **L** | 1206 | 1229 | 1339 | 1313 | 1450 | 1450 | 1545 | 1647 | 1777 |
| **LS** | 1395 | 1418 | 1544 | 1518 | 1690 | 1690 | 1785 | 1898 | 2028 |
| **LB** | 500 | 523 | 633 | 607 | 744 | 744 | 839 | 941 | 1071 |
| **LBS** | 689 | 712 | 838 | 812 | 984 | 984 | 1079 | 1192 | 1322 |

33 086 00 14

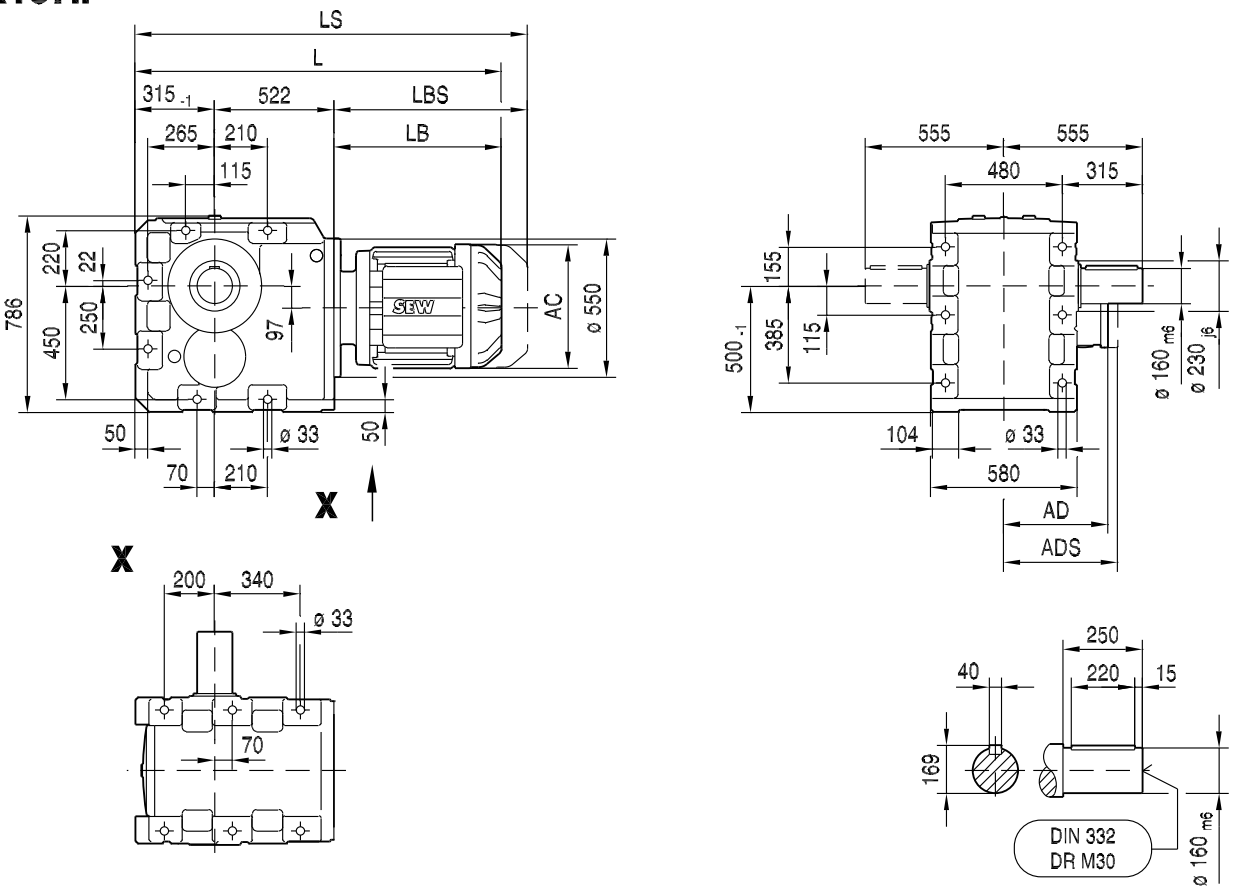



| (→ 142) | DRN160L | DRN180.. | DRN200L | DRN225.. | DRN250M | DRN280S | DRN280M | DRN315S-M | DRN315ME-H |
|---|---|---|---|---|---|---|---|---|---|
| **AC** | 314 | 357 | 394 | 434 | 495 | 495 | 495 | 624 | 624 |
| **AD** | 253 | 268 | 283 | 305 | 394 | 394 | 394 | 506 | 506 |
| **ADS** | 253 | 268 | 283 | 305 | 394 | 394 | 394 | 506 | 506 |
| **L** | 1206 | 1229 | 1339 | 1313 | 1450 | 1450 | 1545 | 1647 | 1777 |
| **LS** | 1395 | 1418 | 1544 | 1518 | 1690 | 1690 | 1785 | 1898 | 2028 |
| **LB** | 500 | 523 | 633 | 607 | 744 | 744 | 839 | 941 | 1071 |
| **LBS** | 689 | 712 | 838 | 812 | 984 | 984 | 1079 | 1192 | 1322 |

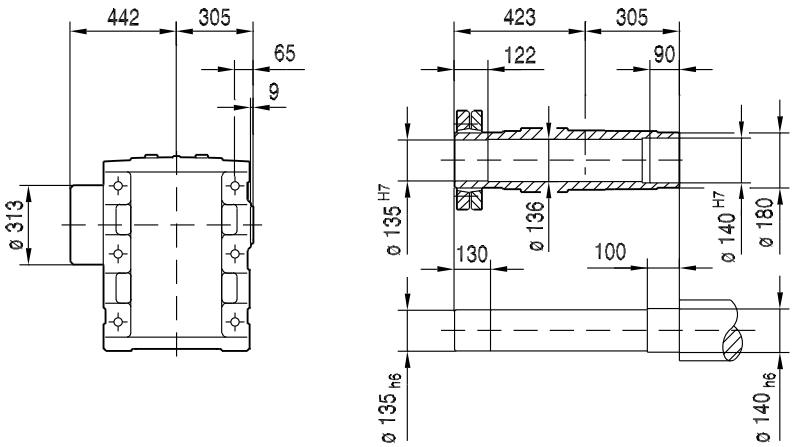
21284997/EN – 03/2015

33 087 00 14

## K167..




## KH167B..

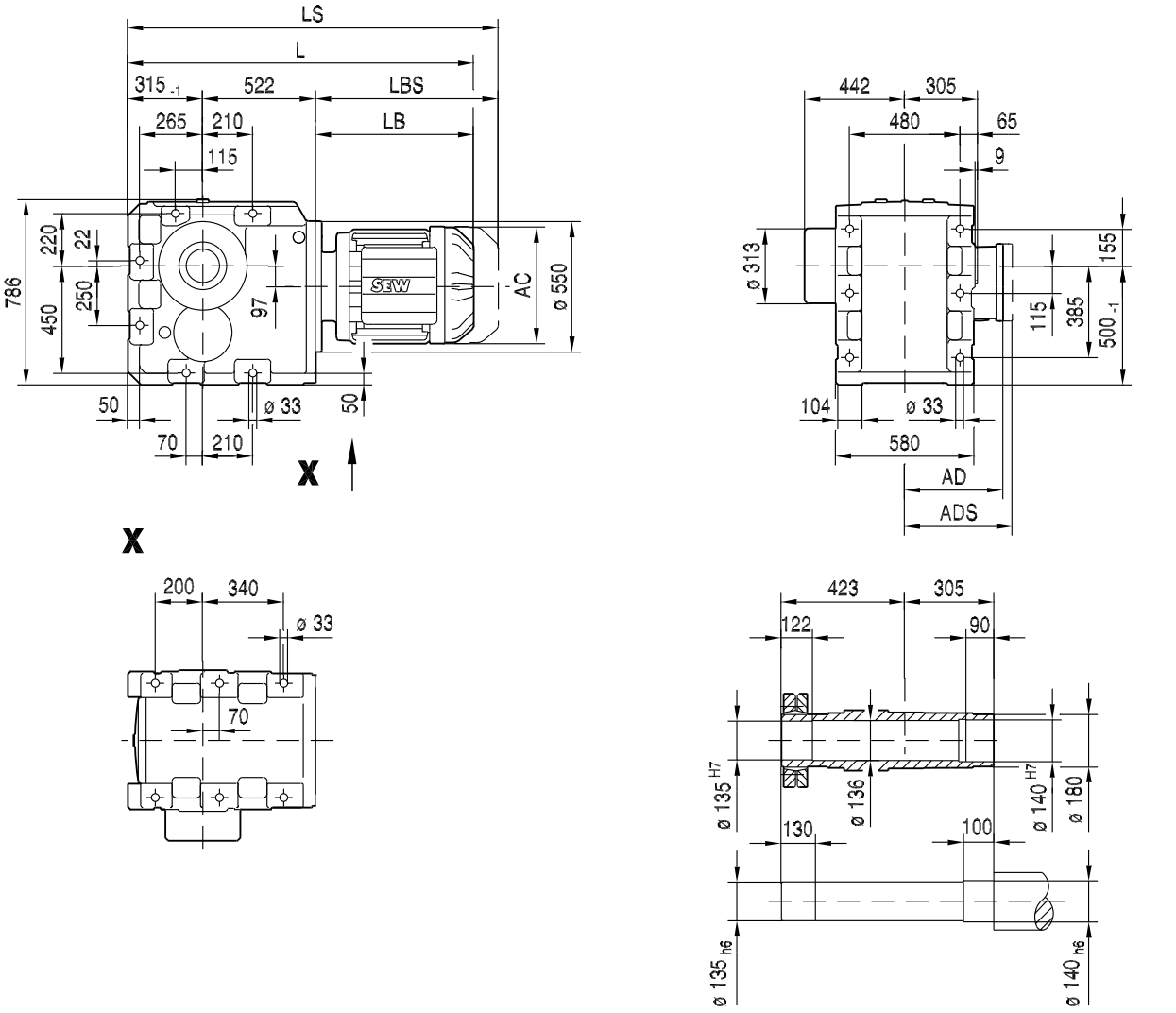



| (→ 142) | DRN160L | DRN180.. | DRN200L | DRN225.. | DRN250M | DRN280S | DRN280M | DRN315S-M | DRN315ME-H |
|---|---|---|---|---|---|---|---|---|---|
| AC | 314 | 357 | 394 | 434 | 495 | 495 | 495 | 624 | 624 |
| AD | 253 | 268 | 283 | 305 | 394 | 394 | 394 | 506 | 506 |
| ADS | 253 | 268 | 283 | 305 | 394 | 394 | 394 | 506 | 506 |
| L | 1337 | 1360 | 1470 | 1444 | 1581 | 1581 | 1676 | 1778 | 1908 |
| LS | 1526 | 1549 | 1675 | 1649 | 1821 | 1821 | 1916 | 2029 | 2159 |
| LB | 500 | 523 | 633 | 607 | 744 | 744 | 839 | 941 | 1071 |
| LBS | 689 | 712 | 838 | 812 | 984 | 984 | 1079 | 1192 | 1322 |

21284997/EN – 03/2015

33 088 00 14

## KH167..

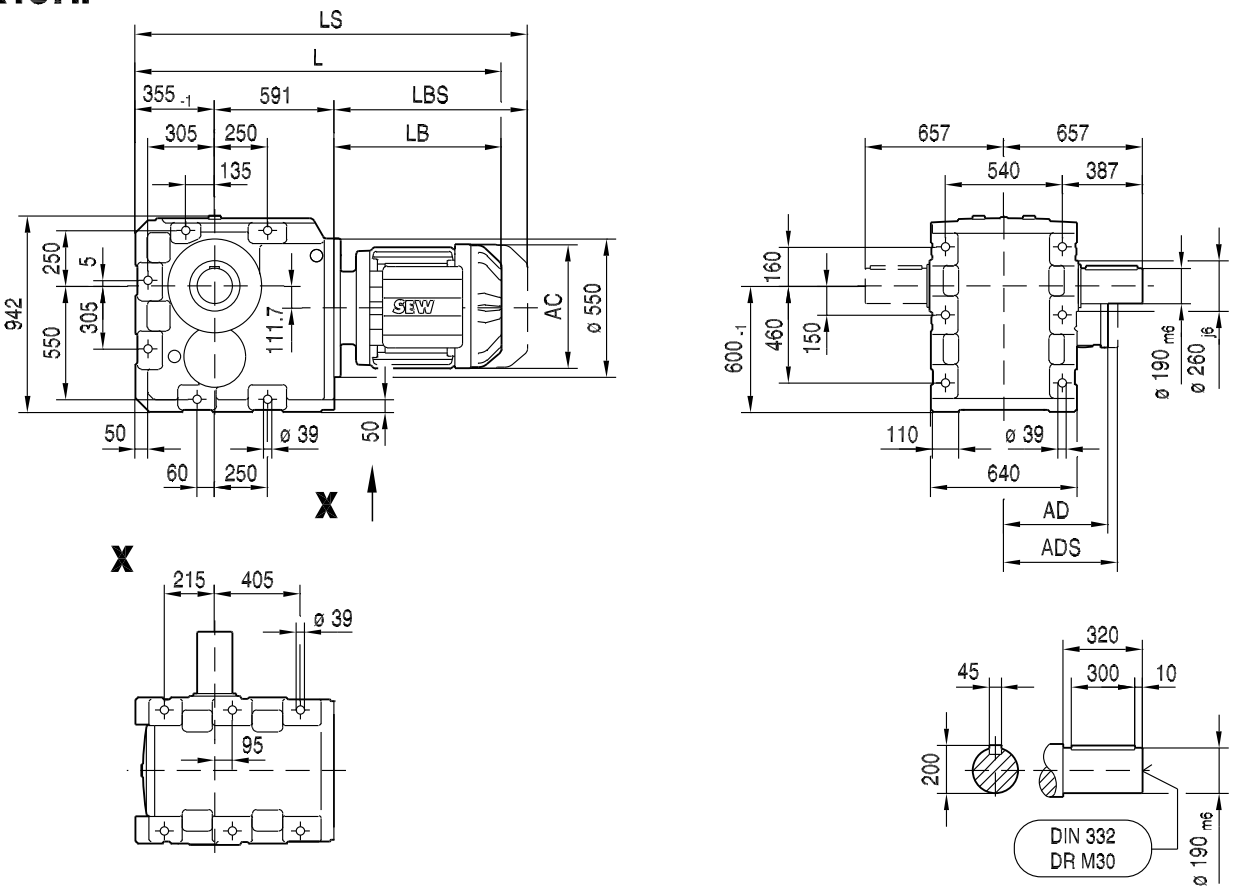



| (→ 142) | DRN160L | DRN180.. | DRN200L | DRN225.. | DRN250M | DRN280S | DRN280M | DRN315S-M | DRN315ME-H |
|---|---|---|---|---|---|---|---|---|---|
| **AC** | 314 | 357 | 394 | 434 | 495 | 495 | 495 | 624 | 624 |
| **AD** | 253 | 268 | 283 | 305 | 394 | 394 | 394 | 506 | 506 |
| **ADS** | 253 | 268 | 283 | 305 | 394 | 394 | 394 | 506 | 506 |
| **L** | 1337 | 1360 | 1470 | 1444 | 1581 | 1581 | 1676 | 1778 | 1908 |
| **LS** | 1526 | 1549 | 1675 | 1649 | 1821 | 1821 | 1916 | 2029 | 2159 |
| **LB** | 500 | 523 | 633 | 607 | 744 | 744 | 839 | 941 | 1071 |
| **LBS** | 689 | 712 | 838 | 812 | 984 | 984 | 1079 | 1192 | 1322 |

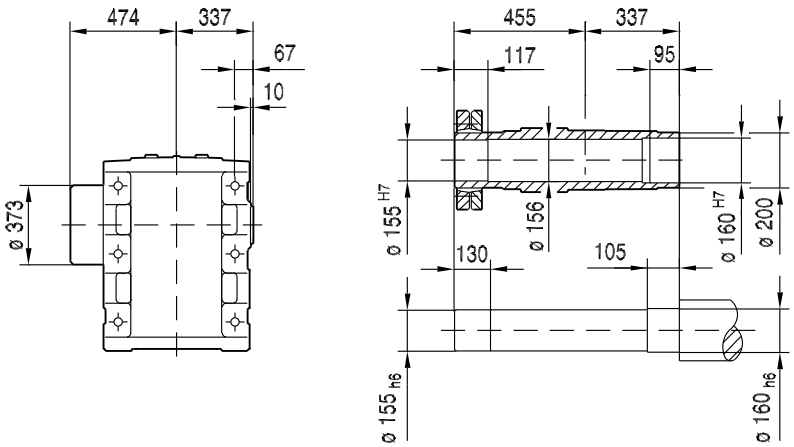
21284997/EN – 03/2015

33 089 00 14

## K187..



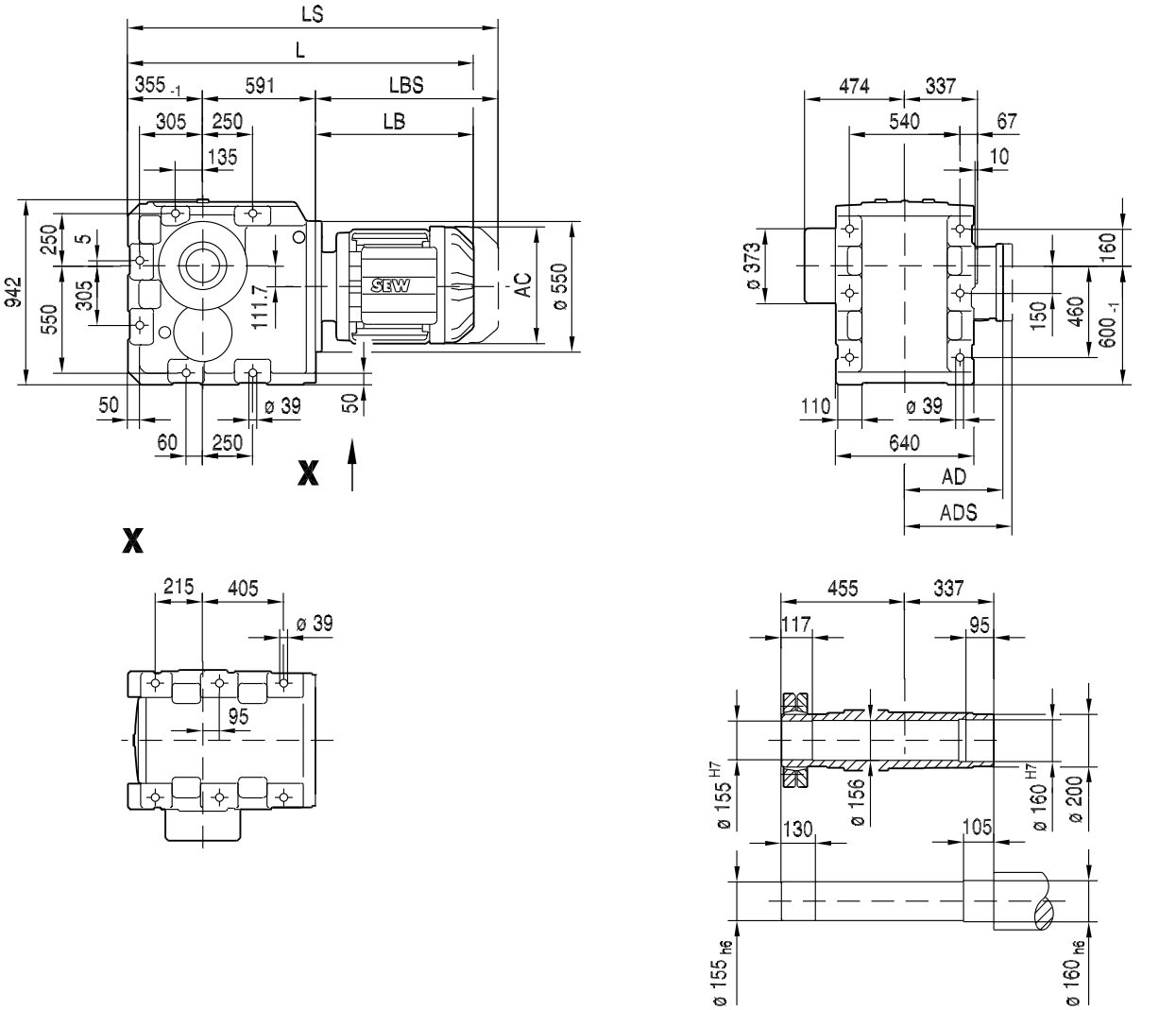

## KH187B..




| (→ 142) | DRN180.. | DRN200L | DRN225.. | DRN250M | DRN280S | DRN280M | DRN315S-M | DRN315ME-H |
|---|---|---|---|---|---|---|---|---|
| **AC** | 357 | 394 | 434 | 495 | 495 | 495 | 624 | 624 |
| **AD** | 268 | 283 | 305 | 394 | 394 | 394 | 506 | 506 |
| **ADS** | 268 | 283 | 305 | 394 | 394 | 394 | 506 | 506 |
| **L** | 1469 | 1579 | 1553 | 1690 | 1690 | 1785 | 1887 | 2017 |
| **LS** | 1658 | 1784 | 1758 | 1930 | 1930 | 2025 | 2138 | 2268 |
| **LB** | 523 | 633 | 607 | 744 | 744 | 839 | 941 | 1071 |
| **LBS** | 712 | 838 | 812 | 984 | 984 | 1079 | 1192 | 1322 |

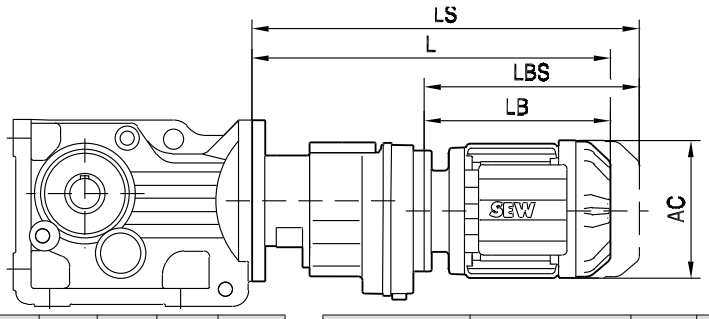
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## KH187..




| (→ 142) | DRN180.. | DRN200L | DRN225.. | DRN250M | DRN280S | DRN280M | DRN315S-M | DRN315ME-H |
|---|---|---|---|---|---|---|---|---|
| **AC** | 357 | 394 | 434 | 495 | 495 | 495 | 624 | 624 |
| **AD** | 268 | 283 | 305 | 394 | 394 | 394 | 506 | 506 |
| **ADS** | 268 | 283 | 305 | 394 | 394 | 394 | 506 | 506 |
| **L** | 1469 | 1579 | 1553 | 1690 | 1690 | 1785 | 1887 | 2017 |
| **LS** | 1658 | 1784 | 1758 | 1930 | 1930 | 2025 | 2138 | 2268 |
| **LB** | 523 | 633 | 607 | 744 | 744 | 839 | 941 | 1071 |
| **LBS** | 712 | 838 | 812 | 984 | 984 | 1079 | 1192 | 1322 |

21284997/EN – 03/2015




33 133 00 06

| (→ 142) | | AC | L | LS | LB | LBS |
|---|---|---|---|---|---|---|
| **K..37R17** | **DR63..** | 132 | 324 | 379 | 149 | 204 |
| | **DR71S** | 139 | 335 | 403 | 160 | 228 |
| **K..47R37** | **DR63..** | 132 | 356 | 411 | 191 | 246 |
| | **DR71S** | 139 | 367 | 434 | 202 | 269 |
| | **DR71M** | 139 | 392 | 459 | 227 | 294 |
| | **DRN80M** | 156 | 446 | 527 | 281 | 362 |
| **K..57R37** | **DR63..** | 132 | 356 | 411 | 191 | 246 |
| | **DR71S** | 139 | 367 | 434 | 202 | 269 |
| | **DR71M** | 139 | 392 | 459 | 227 | 294 |
| | **DRN80M** | 156 | 446 | 527 | 281 | 362 |
| | **DRN90S** | 179 | 448 | 541 | 283 | 376 |
| **K..67R37** | **DR63..** | 132 | 356 | 411 | 191 | 246 |
| | **DR71S** | 139 | 367 | 434 | 202 | 269 |
| | **DR71M** | 139 | 392 | 459 | 227 | 294 |
| | **DRN80M** | 156 | 446 | 527 | 281 | 362 |
| | **DRN90S** | 179 | 448 | 541 | 283 | 376 |
| **K..77R37** | **DR63..** | 132 | 348 | 403 | 191 | 246 |
| | **DR71S** | 139 | 359 | 426 | 202 | 269 |
| | **DR71M** | 139 | 384 | 451 | 227 | 294 |
| | **DRN80M** | 156 | 438 | 519 | 281 | 362 |
| | **DRN90S** | 179 | 440 | 533 | 283 | 376 |
| | **DRN90L** | 179 | 472 | 565 | 315 | 408 |
| | **DRN100LS** | 197 | 471 | 564 | 314 | 407 |
| **K..87R57** | **DR63..** | 132 | 412 | 467 | 185 | 240 |
| | **DR71S** | 139 | 423 | 491 | 196 | 264 |
| | **DR71M** | 139 | 448 | 516 | 221 | 289 |
| | **DRN80M** | 156 | 502 | 583 | 275 | 356 |
| | **DRN90S** | 179 | 504 | 597 | 277 | 370 |
| | **DRN90L** | 179 | 536 | 629 | 309 | 402 |
| | **DRN100L** | 197 | 583 | 676 | 355 | 448 |
| | **DRN100LS** | 197 | 533 | 626 | 305 | 398 |
| | **DRN112M** | 221 | 613 | 725 | 386 | 498 |
| **K..97R57** | **DR63..** | 132 | 407 | 462 | 185 | 240 |
| | **DR71S** | 139 | 418 | 486 | 196 | 264 |
| | **DR71M** | 139 | 443 | 511 | 221 | 289 |
| | **DRN80M** | 156 | 497 | 578 | 275 | 356 |
| | **DRN90S** | 179 | 499 | 592 | 277 | 370 |
| | **DRN90L** | 179 | 531 | 624 | 309 | 402 |
| | **DRN100L** | 197 | 578 | 671 | 355 | 448 |
| | **DRN100LS** | 197 | 528 | 621 | 305 | 398 |
| | **DRN112M** | 221 | 608 | 720 | 386 | 498 |

| (→ 142) | | AC | L | LS | LB | LBS |
|---|---|---|---|---|---|---|
| **K..107R77** | **DR63..** | 132 | 425 | 480 | 178 | 233 |
| | **DR71S** | 139 | 436 | 504 | 189 | 257 |
| | **DR71M** | 139 | 461 | 529 | 214 | 282 |
| | **DRN80M** | 156 | 515 | 596 | 268 | 349 |
| | **DRN90S** | 179 | 517 | 610 | 270 | 363 |
| | **DRN90L** | 179 | 549 | 642 | 302 | 395 |
| | **DRN100L** | 197 | 595 | 688 | 348 | 441 |
| | **DRN100LS** | 197 | 545 | 638 | 298 | 391 |
| | **DRN112M** | 221 | 626 | 738 | 379 | 491 |
| | **DRN132S** | 221 | 676 | 788 | 429 | 541 |
| | **DRN132M** | 261 | 692 | 831 | 445 | 584 |
| | **DRN132L** | 261 | 717 | 856 | 470 | 609 |
| **K..127R77** | **DR63..** | 132 | 410 | 465 | 178 | 233 |
| | **DR71S** | 139 | 421 | 489 | 189 | 257 |
| | **DR71M** | 139 | 446 | 514 | 214 | 282 |
| | **DRN80M** | 156 | 500 | 581 | 268 | 349 |
| | **DRN90S** | 179 | 502 | 595 | 270 | 363 |
| | **DRN90L** | 179 | 534 | 627 | 302 | 395 |
| | **DRN100L** | 197 | 580 | 673 | 348 | 441 |
| | **DRN100LS** | 197 | 530 | 623 | 298 | 391 |
| | **DRN112M** | 221 | 611 | 723 | 379 | 491 |
| | **DRN132S** | 221 | 661 | 773 | 429 | 541 |
| **K..127R87** | **DRN90L** | 179 | 577 | 670 | 297 | 390 |
| | **DRN100L** | 197 | 623 | 716 | 343 | 436 |
| | **DRN100LS** | 197 | 573 | 666 | 293 | 386 |
| | **DRN112M** | 221 | 654 | 766 | 374 | 486 |
| | **DRN132S** | 221 | 704 | 816 | 424 | 536 |
| | **DRN132M** | 261 | 720 | 859 | 440 | 579 |
| | **DRN132L** | 261 | 745 | 884 | 465 | 604 |
| | **DRN160M** | 314 | 814 | 1003 | 534 | 723 |
| | **DRN160L** | 314 | 814 | 1003 | 534 | 723 |

Die Tabelle wird auf der Folgeseite fortgesetzt.



21284997/EN – 03/2015

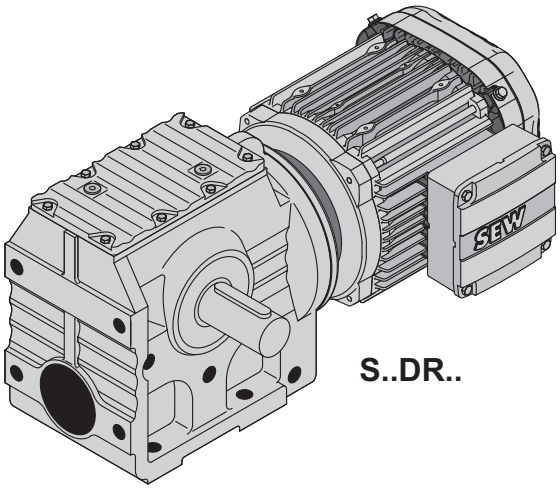
| (→ 142) | | AC | L | LS | LB | LBS |
|---|---|---|---|---|---|---|
| **K..157R97** | **DR71M** | 139 | 529 | 597 | 204 | 272 |
| | **DRN80M** | 156 | 583 | 664 | 258 | 339 |
| | **DRN90S** | 179 | 585 | 678 | 260 | 353 |
| | **DRN90L** | 179 | 617 | 710 | 292 | 385 |
| | **DRN100L** | 197 | 663 | 756 | 338 | 431 |
| | **DRN100LS** | 197 | 613 | 706 | 288 | 381 |
| | **DRN112M** | 221 | 694 | 806 | 369 | 481 |
| | **DRN132S** | 221 | 744 | 856 | 419 | 531 |
| | **DRN132M** | 261 | 760 | 899 | 435 | 574 |
| | **DRN132L** | 261 | 785 | 924 | 460 | 599 |
| | **DRN160M** | 314 | 854 | 1043 | 529 | 718 |
| **K..167R97** | **DR71M** | 139 | 529 | 597 | 204 | 272 |
| | **DRN80M** | 156 | 583 | 664 | 258 | 339 |
| | **DRN90S** | 179 | 585 | 678 | 260 | 353 |
| | **DRN90L** | 179 | 617 | 710 | 292 | 385 |
| | **DRN100L** | 197 | 663 | 756 | 338 | 431 |
| | **DRN100LS** | 197 | 613 | 706 | 288 | 381 |
| | **DRN112M** | 221 | 694 | 806 | 369 | 481 |
| | **DRN132S** | 221 | 744 | 856 | 419 | 531 |
| | **DRN132M** | 261 | 760 | 899 | 435 | 574 |
| | **DRN132L** | 261 | 785 | 924 | 460 | 599 |
| | **DRN160M** | 314 | 854 | 1043 | 529 | 718 |
| | **DRN160L** | 314 | 854 | 1043 | 529 | 718 |
| **K..187R97** | **DR71M** | 139 | 529 | 597 | 204 | 272 |
| | **DRN80M** | 156 | 583 | 664 | 258 | 339 |
| | **DRN90S** | 179 | 585 | 678 | 260 | 353 |
| | **DRN90L** | 179 | 617 | 710 | 292 | 385 |
| | **DRN100L** | 197 | 663 | 756 | 338 | 431 |
| | **DRN100LS** | 197 | 613 | 706 | 288 | 381 |
| | **DRN112M** | 221 | 694 | 806 | 369 | 481 |
| | **DRN132S** | 221 | 744 | 856 | 419 | 531 |
| | **DRN132M** | 261 | 760 | 899 | 435 | 574 |
| | **DRN132L** | 261 | 785 | 924 | 460 | 599 |
| **K..157R107** | **DRN132L** | 261 | 836 | 975 | 454 | 593 |
| | **DRN160M** | 314 | 905 | 1094 | 523 | 712 |
| | **DRN160L** | 314 | 905 | 1094 | 523 | 712 |
| | **DRN180M** | 357 | 930 | 1119 | 548 | 737 |
| | **DRN180L** | 357 | 930 | 1119 | 548 | 737 |
| | **DRN200L** | 394 | 1038 | 1243 | 656 | 861 |
| **K..167R107** | **DRN132L** | 261 | 836 | 975 | 454 | 593 |
| | **DRN160M** | 314 | 905 | 1094 | 523 | 712 |
| | **DRN160L** | 314 | 905 | 1094 | 523 | 712 |
| | **DRN180M** | 357 | 930 | 1119 | 548 | 737 |
| | **DRN180L** | 357 | 930 | 1119 | 548 | 737 |
| | **DRN200L** | 394 | 1038 | 1243 | 656 | 861 |
| | **DRN225S** | 434 | 993 | 1198 | 611 | 816 |
| | **DRN225M** | 434 | 1083 | 1288 | 701 | 906 |

| (→ 142) | | AC | L | LS | LB | LBS |
|---|---|---|---|---|---|---|
| **K..187R107** | **DRN112M** | 221 | 745 | 857 | 363 | 475 |
| | **DRN132M** | 261 | 811 | 950 | 429 | 568 |
| | **DRN132L** | 261 | 836 | 975 | 454 | 593 |
| | **DRN160M** | 314 | 905 | 1094 | 523 | 712 |
| | **DRN160L** | 314 | 905 | 1094 | 523 | 712 |
| | **DRN180M** | 357 | 930 | 1119 | 548 | 737 |
| | **DRN180L** | 357 | 930 | 1119 | 548 | 737 |
| | **DRN200L** | 394 | 1038 | 1243 | 656 | 861 |
| | **DRN225S** | 434 | 993 | 1198 | 611 | 816 |
| | **DRN225M** | 434 | 1083 | 1288 | 701 | 906 |
| | **DRN250M** | 495 | 1149 | 1389 | 767 | 1007 |

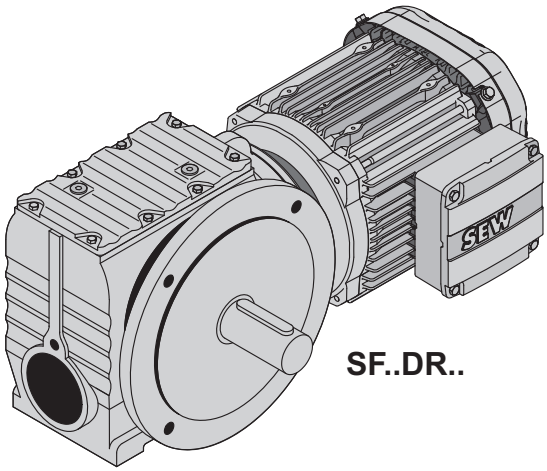
21284997/EN – 03/2015

# 11 Helical-worm gearmotors

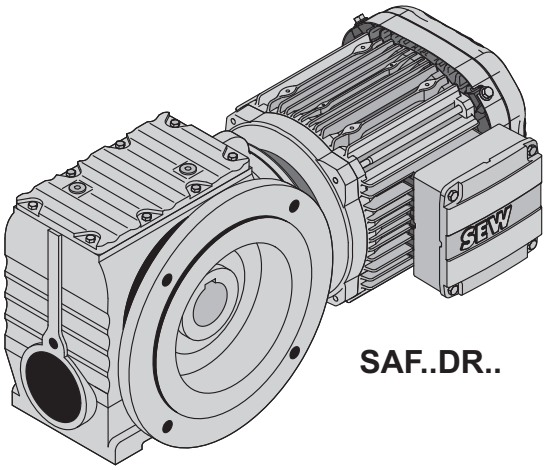
## 11.1 S..DRN.. designs



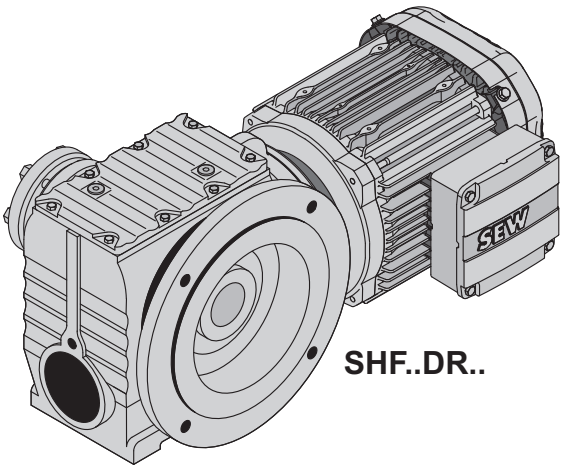
S..DR..



SF..DR..



SAF..DR..

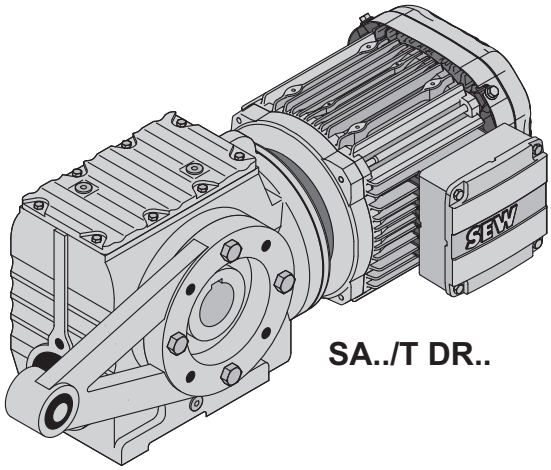


SHF..DR..

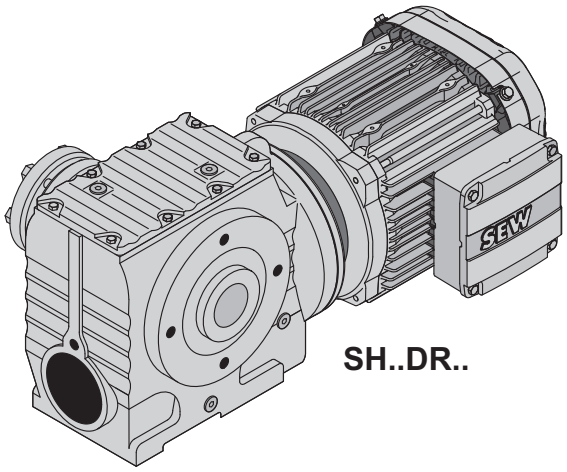
*8664873611*



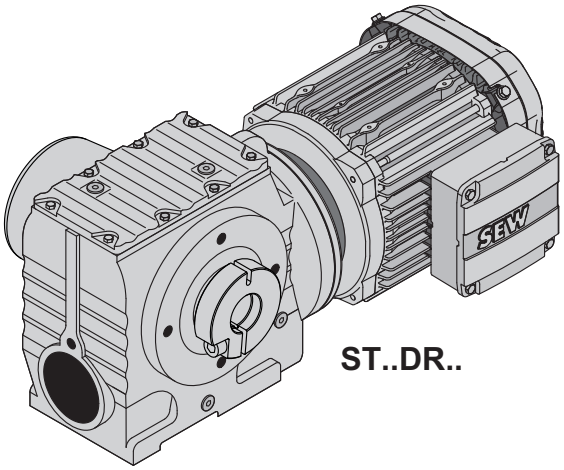
21284997/EN – 03/2015



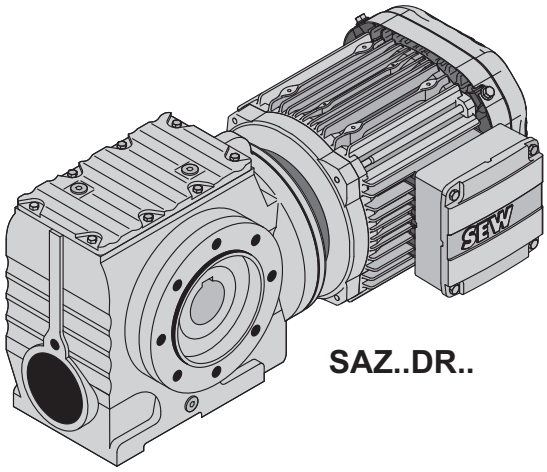
SA../T DR..



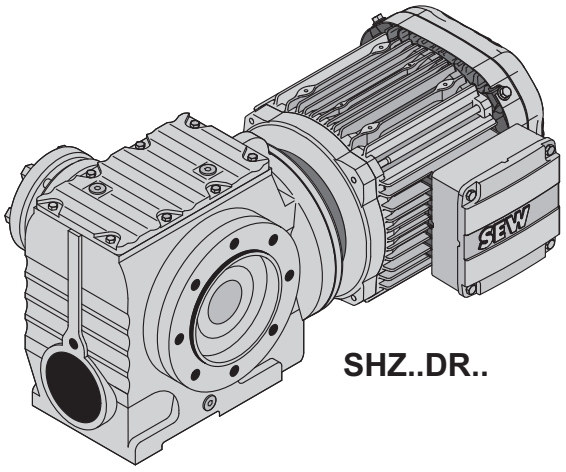
SH..DR..



ST..DR..



SAZ..DR..



SHZ..DR..

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21284997/EN – 03/2015

## 11.2 Possible geometrical combinations of S..DRN..

| S37, $n_e$=1400 1/min | | | | | | | 92 Nm |
|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L |
| | | | | | 2 | | |
| 8.9 | 92 | 3000 | - | 157.43 | | | |
| 9.7 | 92 | 3000 | - | 144.40* | | | |
| 11 | 91 | 3000 | - | 122.94 | | | |
| 13 | 88 | 3000 | - | 106.00* | | | |
| 14 | 87 | 3000 | - | 98.80* | | | |
| 16 | 86 | 3000 | - | 86.36 | | | |
| 17 | 85 | 3000 | - | 80.96 | | | |
| 20 | 84 | 3000 | - | 71.44* | | | |
| 22 | 82 | 3000 | - | 63.33 | | | |
| 25 | 81 | 3000 | - | 55.93 | | | |
| 26 | 80 | 3000 | - | 53.83 | | | |
| 27 | 81 | 3000 | - | 51.30* | | | |
| 32 | 81 | 3000 | - | 43.68 | | | |
| 37 | 79 | 3000 | - | 37.66 | | | |
| 40 | 78 | 3000 | - | 35.10* | | | |
| 46 | 76 | 2860 | - | 30.68 | | | |
| 49 | 75 | 2800 | - | 28.76 | | | |
| 55 | 74 | 2660 | - | 25.38* | | | |
| 62 | 73 | 2530 | - | 22.50* | | | |
| 70 | 52 | 2470 | - | 19.89 | | | |
| 73 | 71 | 2380 | - | 19.13* | | | |
| 77 | 52 | 2380 | - | 18.24* | | | |
| 90 | 50 | 2240 | - | 15.53 | | | |
| 105 | 49 | 2110 | - | 13.39 | | | |
| 112 | 48 | 2060 | - | 12.48* | | | |
| 128 | 48 | 1940 | - | 10.91 | | | |
| 137 | 47 | 1900 | - | 10.23 | | | |
| 155 | 46 | 1810 | - | 9.02* | | | |
| 175 | 45 | 1730 | - | 8.00* | | | |
| 206 | 43 | 1630 | - | 6.80* | | | |
| 221 | 35 | 1670 | - | 6.33 | | | |
| 260 | 34 | 1570 | - | 5.38 | | | |
| 288 | 33 | 1520 | - | 4.86* | | | |
| 353 | 32 | 1400 | - | 3.97 | | | |

| S37R17, $n_e$=1400 1/min | | | | | | 92 Nm |
|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M |
| | | | | | 2 3 | |
| 0.14 | 92 | 3000 | - | 10037 | | |
| 0.16 | 92 | 3000 | - | 8654 | | |
| 0.17 | 92 | 3000 | - | 8066 | | |
| 0.20 | 92 | 3000 | - | 7051 | | |

| S37R17, $n_e$=1400 1/min | | | | | | 92 Nm |
|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M |
| 0.23 | 92 | 3000 | - | 6079 | | |
| 0.26 | 92 | 3000 | - | 5431 | | |
| 0.29 | 92 | 3000 | - | 4747 | | |
| 0.34 | 92 | 3000 | - | 4155 | | |
| 0.39 | 92 | 3000 | - | 3632 | | |
| 0.49 | 92 | 3000 | - | 2866 | | |
| 0.57 | 92 | 3000 | - | 2471 | | |
| 0.65 | 92 | 3000 | - | 2160 | | |
| 0.74 | 92 | 3000 | - | 1887 | | |
| 0.84 | 92 | 3000 | - | 1665 | | |
| 0.96 | 92 | 3000 | - | 1456 | | |
| 1.1 | 92 | 3000 | - | 1271 | | |
| 1.2 | 92 | 3000 | - | 1121 | | |
| 1.4 | 92 | 3000 | - | 994 | | |
| 1.6 | 92 | 3000 | - | 869 | | |
|  2 2 | | | | | | |
| 1.8 | 92 | 3000 | - | 774 | | |
| 2.1 | 92 | 3000 | - | 666 | | |
| 2.3 | 92 | 3000 | - | 596 | | |
| 2.7 | 92 | 3000 | - | 521 | | |
| 3.1 | 92 | 3000 | - | 456 | | |
| 3.5 | 92 | 3000 | - | 398 | | |
| 4.0 | 92 | 3000 | - | 351 | | |
| 4.6 | 92 | 3000 | - | 303 | | |
| 5.3 | 92 | 3000 | - | 265 | | |
| 6.0 | 92 | 3000 | - | 232 | | |
| 6.9 | 92 | 3000 | - | 202 | | |
| 7.8 | 92 | 3000 | - | 179 | | |
| 8.9 | 92 | 3000 | - | 158 | | |
| 9.7 | 92 | 3000 | - | 144 | | |
| 12 | 92 | 3000 | - | 118 | | |
| 13 | 92 | 3000 | - | 110* | | |

| S47, $n_e$=1400 1/min | | | | | | | | 170 Nm |
|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L |
|  2 | | | | | | | | |
| 7.0 | 170 | 5340 | - | 201.00* | | | | |
| 7.6 | 170 | 5340 | - | 184.80* | | | | |
| 8.9 | 170 | 5340 | - | 158.12 | | | | |
| 10 | 168 | 5350 | - | 137.05 | | | | |
| 11 | 168 | 5350 | - | 128.10* | | | | |
| 13 | 168 | 5350 | - | 110.73 | | | | |
| 15 | 168 | 5350 | - | 94.08* | | | | |
| 17 | 167 | 5360 | - | 84.00* | | | | |
| 20 | 167 | 5360 | - | 71.75* | | | | |

21284997/EN – 03/2015

## S47, $n_e$=1400 1/min — 170 Nm

| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L |
|---|---|---|---|---|---|---|---|---|
| 20 | 155 | 5370 | - | 69.39 | | | | |
| 21 | 167 | 5360 | - | 67.20* | | | | |
| 22 | 155 | 5370 | - | 63.80* | | | | |
| 25 | 165 | 5320 | - | 56.61 | | | | |
| 26 | 155 | 5150 | - | 54.59 | | | | |
| 30 | 155 | 4850 | - | 47.32 | | | | |
| 32 | 155 | 4710 | - | 44.22* | | | | |
| 37 | 155 | 4420 | - | 38.23 | | | | |
| 43 | 155 | 4120 | - | 32.48* | | | | |
| 48 | 155 | 3920 | - | 29.00* | | | | |
| 57 | 155 | 3650 | - | 24.77 | | | | |
| 60 | 152 | 3570 | - | 23.20* | | | | |
| 69 | 110 | 3370 | - | 20.33 | | | | |
| 72 | 144 | 3370 | - | 19.54 | | | | |
| 79 | 110 | 3160 | - | 17.62 | | | | |
| 85 | 110 | 3060 | - | 16.47* | | | | |
| 98 | 110 | 2850 | - | 14.24 | | | | |
| 116 | 109 | 2650 | - | 12.10* | | | | |
| 130 | 109 | 2500 | - | 10.80* | | | | |
| 152 | 109 | 2310 | - | 9.23* | | | | |
| 162 | 109 | 2230 | - | 8.64* | | | | |
| 192 | 103 | 2110 | - | 7.28 | | | | |
| 205 | 78 | 2300 | - | 6.83 | | | | |
| 219 | 76 | 2260 | - | 6.40* | | | | |
| 260 | 74 | 2110 | - | 5.39 | | | | |
| 294 | 72 | 2010 | - | 4.76 | | | | |
| 350 | 61 | 1980 | - | 4.00* | | | | |

## S47R17, $n_e$=1400 1/min — 185 Nm

| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M |
|---|---|---|---|---|---|---|
| | | | | |  2 3 | |
| 0.11 | 185 | 5250 | - | 12909 | | |
| 0.13 | 185 | 5250 | - | 11189 | | |
| 0.13 | 185 | 5250 | - | 10374 | | |
| 0.16 | 185 | 5250 | - | 8992 | | |
| 0.18 | 185 | 5250 | - | 7860 | | |
| 0.20 | 185 | 5250 | - | 6887 | | |
| 0.23 | 185 | 5250 | - | 6055 | | |
| 0.26 | 185 | 5250 | - | 5292 | | |
| 0.30 | 185 | 5250 | - | 4637 | | |
| 0.34 | 185 | 5250 | - | 4092 | | |
| 0.39 | 185 | 5200 | - | 3582 | | |
| 0.45 | 185 | 5200 | - | 3131 | | |
| 0.52 | 185 | 5200 | - | 2714 | | |
| 0.58 | 185 | 5200 | - | 2412 | | |
| 0.66 | 185 | 5200 | - | 2131 | | |



21284997/EN – 03/2015

| S47R17, $n_e$=1400 1/min | | | | | | 185 Nm |
|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M |
| 0.75 | 185 | 5200 | - | 1863 | | |
| 0.84 | 185 | 5200 | - | 1663 | | |
| 0.98 | 185 | 5200 | - | 1435 | | |
| 1.1 | 185 | 5200 | - | 1254 | | |
| 1.2 | 185 | 5200 | - | 1120 | | |
| 1.3 | 185 | 5200 | - | 1083 | | |
| 1.5 | 183 | 5210 | - | 956 | | |
| | | | | | 2 2 | |
| 1.5 | 185 | 5200 | - | 965 | | |
| 1.6 | 185 | 5200 | - | 865 | | |
| 1.9 | 185 | 5200 | - | 750 | | |
| 2.1 | 185 | 5200 | - | 655 | | |
| 2.4 | 185 | 5200 | - | 574 | | |
| 2.8 | 185 | 5200 | - | 506 | | |
| 3.2 | 185 | 5200 | - | 438 | | |
| 3.6 | 185 | 5200 | - | 388 | | |
| 4.2 | 185 | 5200 | - | 336 | | |
| 4.8 | 185 | 5200 | - | 294 | | |
| 5.4 | 185 | 5260 | - | 257* | | |
| 6.1 | 185 | 5200 | - | 229 | | |
| 7.0 | 185 | 5200 | - | 200 | | |
| 7.5 | 185 | 5200 | - | 187 | | |
| 8.5 | 185 | 5200 | - | 165 | | |
| 9.5 | 185 | 5200 | - | 148 | | |
| 11 | 185 | 5200 | - | 131 | | |

| S57, $n_e$=1400 1/min | | | | | | | | 295 Nm |
|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L |
| | | | | | | 2 | | |
| 7.0 | 295 | 7130 | - | 201.00* | | | | |
| 7.6 | 295 | 7130 | - | 184.80* | | | | |
| 8.9 | 295 | 7130 | - | 158.12 | | | | |
| 10 | 295 | 7130 | - | 137.05 | | | | |
| 11 | 295 | 7130 | - | 128.10* | | | | |
| 13 | 295 | 7130 | - | 110.73 | | | | |
| 15 | 295 | 7130 | - | 94.08* | | | | |
| 17 | 295 | 7130 | - | 84.00* | | | | |
| 20 | 290 | 7170 | - | 71.75* | | | | |
| 20 | 245 | 7520 | - | 69.39 | | | | |
| 21 | 285 | 7220 | - | 67.20* | | | | |
| 22 | 245 | 7520 | - | 63.80* | | | | |
| 25 | 265 | 7370 | - | 56.61 | | | | |
| 26 | 245 | 7520 | - | 54.59 | | | | |
| 30 | 245 | 7520 | - | 47.32 | | | | |
| 32 | 245 | 7520 | - | 44.22* | | | | |

21284997/EN – 03/2015

| S57, $n_e$=1400 1/min | | | | | | | | 295 Nm |
|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L |
| 37 | 245 | 7320 | - | 38.23 | | | | |
| 43 | 245 | 6840 | - | 32.48* | | | | |
| 48 | 245 | 6520 | - | 29.00* | | | | |
| 57 | 245 | 6100 | - | 24.77 | | | | |
| 60 | 245 | 5930 | - | 23.20* | | | | |
| 69 | 168 | 5690 | - | 20.33 | | | | |
| 72 | 215 | 5720 | - | 19.54 | | | | |
| 79 | 168 | 5350 | - | 17.62 | | | | |
| 85 | 168 | 5200 | - | 16.47* | | | | |
| 98 | 169 | 4860 | - | 14.24 | | | | |
| 116 | 169 | 4520 | - | 12.10* | | | | |
| 130 | 169 | 4290 | - | 10.80* | | | | |
| 152 | 169 | 3990 | - | 9.23* | | | | |
| 162 | 166 | 3900 | - | 8.64* | | | | |
| 192 | 146 | 3790 | - | 7.28 | | | | |
| 205 | 100 | 4100 | - | 6.83 | | | | |
| 219 | 98 | 4010 | - | 6.40* | | | | |
| 260 | 95 | 3760 | - | 5.39 | | | | |
| 294 | 93 | 3590 | - | 4.76 | | | | |
| 350 | 88 | 3380 | - | 4.00* | | | | |

| S57R17, $n_e$=1400 1/min | | | | | | 330 Nm |
|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M |
| | | | | |  2 3 | |
| 0.11 | 330 | 6800 | - | 12909 | | |
| 0.13 | 330 | 6800 | - | 11189 | | |
| 0.13 | 330 | 6800 | - | 10374 | | |
| 0.16 | 330 | 6800 | - | 8992 | | |
| 0.18 | 330 | 6800 | - | 7860 | | |
| 0.20 | 330 | 6800 | - | 6887 | | |
| 0.23 | 330 | 6800 | - | 6055 | | |
| 0.26 | 330 | 6800 | - | 5292 | | |
| 0.30 | 330 | 6800 | - | 4637 | | |
| 0.34 | 330 | 6800 | - | 4092 | | |
| 0.39 | 330 | 6800 | - | 3628 | | |
| 0.45 | 300 | 7080 | - | 3131 | | |
| 0.52 | 300 | 7080 | - | 2714 | | |
| 0.58 | 300 | 7080 | - | 2412 | | |
| 0.66 | 300 | 7080 | - | 2131 | | |
| 0.75 | 300 | 7080 | - | 1863 | | |
| 0.84 | 300 | 7080 | - | 1663 | | |
| 0.98 | 300 | 7080 | - | 1435 | | |
| 1.1 | 300 | 7080 | - | 1254 | | |
| 1.3 | 300 | 7080 | - | 1083 | | |

21284997/EN – 03/2015

| S57R17, $n_e$=1400 1/min | | | | | | 330 Nm |
|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M |
| | | | | | 2 2 | |
| 1.5 | 300 | 7080 | - | 965 | | |
| 1.6 | 300 | 7080 | - | 865 | | |
| 1.9 | 300 | 7080 | - | 750 | | |
| 2.1 | 300 | 7080 | - | 655 | | |
| 2.4 | 300 | 7080 | - | 574 | | |
| 2.8 | 300 | 7080 | - | 506 | | |
| 3.2 | 300 | 7080 | - | 438 | | |
| 3.6 | 300 | 7080 | - | 388 | | |
| 4.2 | 300 | 7080 | - | 336 | | |
| 4.8 | 300 | 7080 | - | 294 | | |
| 5.2 | 300 | 7080 | - | 269 | | |
| 6.1 | 300 | 7080 | - | 229 | | |
| 6.9 | 300 | 7080 | - | 204 | | |
| 7.5 | 300 | 7080 | - | 187 | | |
| 8.5 | 300 | 7080 | - | 165 | | |
| 11 | 300 | 7080 | - | 131 | | |

| S67, $n_e$=1400 1/min | | | | | | | | | | 520 Nm |
|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M |
| | | | | | | 2 | | | | |
| 6.4 | 520 | 8680 | - | 217.41 | | | | | | |
| 7.4 | 520 | 8680 | - | 190.11 | | | | | | |
| 7.8 | 520 | 8680 | - | 180.60* | | | | | | |
| 8.8 | 520 | 8680 | - | 158.45 | | | | | | |
| 10 | 520 | 8680 | - | 134.40* | | | | | | |
| 12 | 520 | 8680 | - | 121.33 | | | | | | |
| 13 | 520 | 8680 | - | 106.75* | | | | | | |
| 14 | 520 | 8680 | - | 100.80* | | | | | | |
| 16 | 520 | 8680 | - | 85.83 | | | | | | |
| 18 | 520 | 8680 | - | 78.00* | | | | | | |
| 19 | 480 | 9020 | - | 75.06 | | | | | | |
| 21 | 520 | 8680 | - | 67.57 | | | | | | |
| 21 | 480 | 9020 | - | 65.63 | | | | | | |
| 22 | 480 | 9020 | - | 62.35* | | | | | | |
| 24 | 500 | 8850 | - | 58.80* | | | | | | |
| 26 | 480 | 8670 | - | 54.70 | | | | | | |
| 30 | 480 | 8060 | - | 46.40* | | | | | | |
| 33 | 480 | 7690 | - | 41.89 | | | | | | |
| 38 | 480 | 7250 | - | 36.85 | | | | | | |
| 40 | 480 | 7060 | - | 34.80* | | | | | | |
| 47 | 480 | 6540 | - | 29.63 | | | | | | |
| 52 | 480 | 6240 | - | 26.93 | | | | | | |
| 57 | 340 | 6040 | - | 24.44 | | | | | | |
| 60 | 480 | 5810 | - | 23.33 | | | | | | |

21284997/EN – 03/2015

| S67, $n_e$=1400 1/min | | | | | | | | | | 520 Nm |
|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M |
| 60 | 340 | 5890 | - | 23.22* | | | | | | |
| 69 | 340 | 5520 | - | 20.37 | | | | | | |
| 69 | 425 | 5760 | - | 20.30* | | | | | | |
| 81 | 340 | 5080 | - | 17.28* | | | | | | |
| 90 | 340 | 4820 | - | 15.60* | | | | | | |
| 102 | 340 | 4510 | - | 13.73* | | | | | | |
| 108 | 340 | 4310 | - | 12.96* | | | | | | |
| 127 | 340 | 3660 | - | 11.03 | | | | | | |
| 140 | 340 | 3290 | - | 10.03 | | | | | | |
| 161 | 335 | 2860 | - | 8.69 | | | | | | |
| 185 | 295 | 3220 | - | 7.56* | | | | | | |

| S67R37, $n_e$=1400 1/min | | | | | | | | 570 Nm |
|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L |
| | | | | | 2 3 | | | |
| 0.07 | 570 | 8190 | - | 21362* | | | | |
| 0.07 | 570 | 8190 | - | 19594* | | | | |
| 0.08 | 570 | 8190 | - | 18120* | | | | |
| 0.08 | 570 | 8190 | - | 16682 | | | | |
| 0.10 | 570 | 8190 | - | 14383 | | | | |
| 0.11 | 570 | 8190 | - | 12774 | | | | |
| 0.13 | 570 | 8190 | - | 11013 | | | | |
| 0.14 | 570 | 8190 | - | 9694* | | | | |
| 0.16 | 570 | 8190 | - | 8529* | | | | |
| 0.19 | 570 | 8190 | - | 7455* | | | | |
| 0.21 | 570 | 8190 | - | 6531 | | | | |
| 0.24 | 570 | 8190 | - | 5759 | | | | |
| 0.28 | 570 | 8190 | - | 4965 | | | | |
| 0.32 | 570 | 8190 | - | 4410 | | | | |
| 0.36 | 570 | 8190 | - | 3880 | | | | |
| 0.41 | 570 | 8190 | - | 3432 | | | | |
| 0.48 | 570 | 8190 | - | 2944* | | | | |
| 0.53 | 570 | 8190 | - | 2630 | | | | |
| 0.61 | 570 | 8190 | - | 2279 | | | | |
| 0.70 | 570 | 8190 | - | 2014 | | | | |
| 0.79 | 570 | 8190 | - | 1772 | | | | |
| 0.90 | 570 | 8190 | - | 1559 | | | | |
| 1.0 | 570 | 8190 | - | 1363 | | | | |
| 1.2 | 570 | 8190 | - | 1194 | | | | |
| 1.3 | 570 | 8190 | - | 1045 | | | | |
| 1.5 | 570 | 8190 | - | 914 | | | | |
| | | | | | 2 2 | | | |
| 1.7 | 570 | 8190 | - | 809 | | | | |
| 2.0 | 570 | 8190 | - | 712 | | | | |
| 2.3 | 570 | 8190 | - | 615 | | | | |



21284997/EN – 03/2015

| S67R37, $n_e$=1400 1/min | | | | | | | | 570 Nm |
|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L |
| 2.6 | 570 | 8190 | - | 543 | | | | |
| 3.0 | 570 | 8190 | - | 469 | | | | |
| 3.3 | 570 | 8190 | - | 424 | | | | |
| 3.8 | 570 | 8190 | - | 365 | | | | |
| 4.4 | 570 | 8190 | - | 319 | | | | |
| 5.0 | 570 | 8190 | - | 281 | | | | |
| 5.7 | 570 | 8190 | - | 246 | | | | |
| 6.3 | 570 | 8190 | - | 221 | | | | |
| 7.1 | 570 | 8190 | - | 198 | | | | |
| 8.3 | 570 | 8190 | - | 168 | | | | |
| 9.0 | 570 | 8190 | - | 156 | | | | |

| S77, $n_e$=1400 1/min | | | | | | | | | | | 1270 Nm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M | DRN132L DRN160M DRN160L |
| | | | | | |  2 | | | | | |
| 5.5 | 1270 | 11700 | - | 256.47 | | | | | | | |
| 6.2 | 1270 | 11700 | - | 225.26 | | | | | | | |
| 6.5 | 1270 | 11700 | - | 214.00* | | | | | | | |
| 7.4 | 1270 | 11700 | - | 189.09 | | | | | | | |
| 8.7 | 1260 | 11800 | - | 161.60* | | | | | | | |
| 9.4 | 1240 | 12000 | - | 148.15 | | | | | | | |
| 11 | 1210 | 12200 | - | 130.00* | | | | | | | |
| 11 | 1200 | 12300 | - | 123.20* | | | | | | | |
| 13 | 1170 | 12600 | - | 107.83 | | | | | | | |
| 14 | 1140 | 12800 | - | 97.14 | | | | | | | |
| 16 | 1100 | 13100 | - | 85.22 | | | | | | | |
| 19 | 1070 | 12800 | - | 75.20* | | | | | | | |
| 19 | 1100 | 11900 | - | 75.09 | | | | | | | |
| 20 | 1100 | 11600 | - | 71.33 | | | | | | | |
| 21 | 1040 | 12300 | - | 66.67 | | | | | | | |
| 22 | 1100 | 10900 | - | 63.03 | | | | | | | |
| 25 | 990 | 11600 | - | 56.92 | | | | | | | |
| 26 | 1100 | 10100 | - | 53.87 | | | | | | | |
| 28 | 1100 | 9650 | - | 49.38 | | | | | | | |
| 32 | 1100 | 9010 | - | 43.33 | | | | | | | |
| 34 | 1100 | 8750 | - | 41.07 | | | | | | | |
| 39 | 1100 | 8140 | - | 35.94 | | | | | | | |
| 43 | 1090 | 7720 | - | 32.38 | | | | | | | |
| 49 | 1050 | 7370 | - | 28.41 | | | | | | | |
| 56 | 1020 | 7010 | - | 25.07 | | | | | | | |
| 61 | 705 | 5960 | - | 22.89 | | | | | | | |
| 63 | 980 | 6740 | - | 22.22 | | | | | | | |
| 67 | 705 | 5380 | - | 20.99 | | | | | | | |
| 74 | 930 | 6390 | - | 18.97 | | | | | | | |
| 76 | 705 | 4550 | - | 18.42 | | | | | | | |
| 80 | 710 | 4120 | - | 17.45 | | | | | | | |

21284997/EN – 03/2015

| S77, $n_e$=1400 1/min | | | | | | | | | | | 1270 Nm |
|---|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M | DRN132L DRN160M DRN160L |
| 92 | 710 | 3320 | - | 15.28 | | | | | | | |
| 102 | 710 | 2710 | - | 13.76 | | | | | | | |
| 116 | 720 | 1800 | - | 12.07 | | | | | | | |
| 131 | 720 | 1130 | - | 10.65 | | | | | | | |
| 148 | 725 | 415 | - | 9.44 | | | | | | | |
| 174 | 680 | 440 | - | 8.06 | | | | | | | |

| S77R37, $n_e$=1400 1/min | | | | | | | | 1270 Nm |
|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L |
| | | | | | 2 | 3 | | |
| 0.05 | 1270 | 11700 | - | 25493 | | | | |
| 0.06 | 1270 | 11700 | - | 21787 | | | | |
| 0.07 | 1270 | 11700 | - | 19907 | | | | |
| 0.08 | 1270 | 11700 | - | 17013 | | | | |
| 0.10 | 1270 | 11700 | - | 14668 | | | | |
| 0.11 | 1270 | 11700 | - | 13110 | | | | |
| 0.12 | 1270 | 11700 | - | 11569 | | | | |
| 0.14 | 1270 | 11700 | - | 9887 | | | | |
| 0.16 | 1270 | 11700 | - | 8817 | | | | |
| 0.18 | 1270 | 11700 | - | 7735 | | | | |
| 0.21 | 1270 | 11700 | - | 6735 | | | | |
| 0.24 | 1270 | 11700 | - | 5943 | | | | |
| 0.27 | 1270 | 11700 | - | 5214 | | | | |
| 0.30 | 1270 | 11700 | - | 4618 | | | | |
| 0.35 | 1270 | 11700 | - | 3992 | | | | |
| 0.40 | 1270 | 11700 | - | 3540 | | | | |
| 0.45 | 1270 | 11700 | - | 3098 | | | | |
| 0.51 | 1240 | 12000 | - | 2753 | | | | |
| 0.59 | 1240 | 12000 | - | 2374 | | | | |
| 0.67 | 1240 | 12000 | - | 2083 | | | | |
| 0.77 | 1240 | 12000 | - | 1813 | | | | |
| 0.80 | 1240 | 12000 | - | 1745 | | | | |
| 0.88 | 1240 | 12000 | - | 1600 | | | | |
| 1.00 | 1240 | 12000 | - | 1404 | | | | |
| 1.1 | 1240 | 12000 | - | 1245 | | | | |
| | | | | | 2 | 2 | | |
| 1.3 | 1240 | 12000 | - | 1100 | | | | |
| 1.5 | 1240 | 12000 | - | 954 | | | | |
| 1.7 | 1240 | 12000 | - | 837 | | | | |
| 2.0 | 1240 | 12000 | - | 714 | | | | |
| 2.2 | 1240 | 12000 | - | 637 | | | | |
| 2.4 | 1240 | 12000 | - | 574 | | | | |
| 2.8 | 1240 | 12000 | - | 499 | | | | |
| 3.2 | 1240 | 12000 | - | 438 | | | | |
| 3.6 | 1240 | 12000 | - | 389 | | | | |



21284997/EN – 03/2015

| S77R37, $n_e$=1400 1/min | | | | | | | | 1270 Nm |
|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L |
| 4.3 | 1240 | 12000 | - | 327 | | | | |
| 4.8 | 1240 | 12000 | - | 289 | | | | |
| 5.6 | 1240 | 12000 | - | 250 | | | | |
| 6.4 | 1240 | 12000 | - | 219 | | | | |

| S87, $n_e$=1400 1/min | | | | | | | | | | | | 2280 Nm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M | DRN132L DRN160M DRN160L | DRN180M DRN180L |
| | | | | | | | 2 | | | | | |
| 4.9 | 2280 | 27900 | - | 288.00* | | | | | | | | |
| 5.4 | 2280 | 27900 | - | 258.18 | | | | | | | | |
| 6.3 | 2280 | 27900 | - | 222.40* | | | | | | | | |
| 6.9 | 2260 | 28000 | - | 202.96 | | | | | | | | |
| 7.8 | 2210 | 28100 | - | 180.00* | | | | | | | | |
| 9.3 | 2150 | 28200 | - | 151.30 | | | | | | | | |
| 10 | 2100 | 28300 | - | 139.05 | | | | | | | | |
| 11 | 2060 | 28300 | - | 123.48 | | | | | | | | |
| 13 | 2000 | 28400 | - | 110.40* | | | | | | | | |
| 14 | 1960 | 28500 | - | 99.26 | | | | | | | | |
| 15 | 1510 | 29100 | - | 91.20* | | | | | | | | |
| 16 | 1880 | 28600 | - | 86.15 | | | | | | | | |
| 17 | 1600 | 29000 | - | 81.76 | | | | | | | | |
| 18 | 1820 | 28700 | - | 77.14 | | | | | | | | |
| 20 | 1600 | 29000 | - | 70.43 | | | | | | | | |
| 22 | 1600 | 29000 | - | 64.27 | | | | | | | | |
| 22 | 1700 | 28900 | - | 64.00* | | | | | | | | |
| 25 | 1600 | 29000 | - | 57.00* | | | | | | | | |
| 29 | 1600 | 29000 | - | 47.91 | | | | | | | | |
| 32 | 1600 | 29000 | - | 44.03 | | | | | | | | |
| 36 | 1600 | 28200 | - | 39.10 | | | | | | | | |
| 40 | 1600 | 27100 | - | 34.96* | | | | | | | | |
| 45 | 1600 | 26000 | - | 31.43 | | | | | | | | |
| 51 | 1600 | 24700 | - | 27.28 | | | | | | | | |
| 55 | 1240 | 23400 | - | 25.50* | | | | | | | | |
| 57 | 1600 | 23700 | - | 24.43 | | | | | | | | |
| 65 | 1240 | 21800 | - | 21.43 | | | | | | | | |
| 69 | 1600 | 22100 | - | 20.27 | | | | | | | | |
| 71 | 1240 | 21100 | - | 19.70 | | | | | | | | |
| 80 | 1240 | 20200 | - | 17.49 | | | | | | | | |
| 90 | 1240 | 19300 | - | 15.64* | | | | | | | | |
| 100 | 1240 | 18500 | - | 14.06 | | | | | | | | |
| 115 | 1240 | 17400 | - | 12.21 | | | | | | | | |
| 128 | 1240 | 16400 | - | 10.93 | | | | | | | | |
| 154 | 1140 | 15900 | - | 9.07 | | | | | | | | |
| 178 | 1010 | 15700 | - | 7.88 | | | | | | | | |

21284997/EN – 03/2015

| S87R57, $n_e$=1400 1/min | | | | | | | | | | 2500 Nm |
|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M |
| | | | | |  2  3 | | | | | |
| 0.05 | 2500 | 27500 | - | 25987 | | | | | | |
| 0.06 | 2500 | 27500 | - | 23940 | | | | | | |
| 0.07 | 2500 | 27500 | - | 20568 | | | | | | |
| 0.08 | 2500 | 27500 | - | 18265 | | | | | | |
| 0.08 | 2500 | 27500 | - | 16774 | | | | | | |
| 0.09 | 2500 | 27500 | - | 14820 | | | | | | |
| 0.11 | 2500 | 27500 | - | 13160 | | | | | | |
| 0.12 | 2500 | 27500 | - | 11200 | | | | | | |
| 0.14 | 2500 | 27500 | - | 9904 | | | | | | |
| 0.16 | 2500 | 27500 | - | 8549 | | | | | | |
| 0.18 | 2500 | 27500 | - | 7643 | | | | | | |
| 0.21 | 2500 | 27500 | - | 6706 | | | | | | |
| 0.24 | 2500 | 27500 | - | 5875 | | | | | | |
| 0.27 | 2500 | 27500 | - | 5187 | | | | | | |
| 0.30 | 2500 | 27500 | - | 4606 | | | | | | |
| 0.36 | 2500 | 27500 | - | 3872 | | | | | | |
| | | | | |  2  2 | | | | | |
| 0.40 | 2500 | 27500 | - | 3475 | | | | | | |
| 0.48 | 2500 | 27500 | - | 2905 | | | | | | |
| 0.54 | 2500 | 27500 | - | 2586 | | | | | | |
| 0.60 | 2500 | 27500 | - | 2335 | | | | | | |
| 0.68 | 2500 | 27500 | - | 2054 | | | | | | |
| 0.77 | 2500 | 27500 | - | 1824 | | | | | | |
| 0.86 | 2500 | 27500 | - | 1631* | | | | | | |
| 1.1 | 2500 | 27500 | - | 1332 | | | | | | |
| 1.2 | 2500 | 27500 | - | 1191 | | | | | | |
| 1.4 | 2500 | 27500 | - | 1032* | | | | | | |
| 1.5 | 2500 | 27500 | - | 930 | | | | | | |
| 1.7 | 2500 | 27500 | - | 831 | | | | | | |
| 1.9 | 2500 | 27500 | - | 719 | | | | | | |
| 2.2 | 2500 | 27500 | - | 624 | | | | | | |
| 2.5 | 2500 | 27500 | - | 558 | | | | | | |
| 2.9 | 2500 | 27500 | - | 485 | | | | | | |
| 3.2 | 2450 | 27600 | - | 435 | | | | | | |
| 3.7 | 2450 | 27600 | - | 378 | | | | | | |
| 4.3 | 2400 | 27700 | - | 323 | | | | | | |
| 5.0 | 2400 | 27700 | - | 281 | | | | | | |
| 5.5 | 1980 | 28400 | - | 255 | | | | | | |
| 6.3 | 1980 | 28400 | - | 222 | | | | | | |
| 6.8 | 1980 | 28400 | - | 205 | | | | | | |



21284997/EN – 03/2015

| S97, $n_e$=1400 1/min | | | | | | | | | | | | | 4000 Nm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M | DRN132L DRN160M DRN160L | DRN180M DRN180L | DRN200L DRN225S |
| | | | | |  2 | | | | | | | | |
| 4.9 | 4000 | 33200 | - | 286.40* | | | | | | | | | |
| 5.3 | 4000 | 33200 | - | 262.22 | | | | | | | | | |
| 6.0 | 4000 | 33200 | - | 231.67 | | | | | | | | | |
| 7.1 | 4000 | 33200 | - | 196.52 | | | | | | | | | |
| 7.7 | 3920 | 33400 | - | 180.95 | | | | | | | | | |
| 8.7 | 3840 | 33500 | - | 161.74 | | | | | | | | | |
| 9.6 | 3730 | 33700 | - | 145.60* | | | | | | | | | |
| 11 | 3650 | 33900 | - | 131.85 | | | | | | | | | |
| 12 | 3510 | 34100 | - | 116.92 | | | | | | | | | |
| 13 | 3440 | 34300 | - | 105.71 | | | | | | | | | |
| 16 | 3240 | 34600 | - | 89.60* | | | | | | | | | |
| 17 | 3230 | 34600 | - | 80.85 | | | | | | | | | |
| 18 | 3080 | 34800 | - | 78.26 | | | | | | | | | |
| 20 | 3300 | 34500 | - | 71.43 | | | | | | | | | |
| 21 | 2900 | 35100 | - | 65.45 | | | | | | | | | |
| 23 | 3300 | 34500 | - | 60.59 | | | | | | | | | |
| 25 | 3300 | 34500 | - | 55.79 | | | | | | | | | |
| 28 | 3300 | 34500 | - | 49.87 | | | | | | | | | |
| 31 | 3300 | 34100 | - | 44.89 | | | | | | | | | |
| 34 | 3300 | 32800 | - | 40.65 | | | | | | | | | |
| 39 | 3300 | 31300 | - | 36.05 | | | | | | | | | |
| 43 | 3200 | 30400 | - | 32.60 | | | | | | | | | |
| 51 | 3010 | 29000 | - | 27.63 | | | | | | | | | |
| 53 | 2600 | 26100 | - | 26.39 | | | | | | | | | |
| 58 | 2870 | 28000 | - | 24.13 | | | | | | | | | |
| 59 | 2600 | 24500 | - | 23.59 | | | | | | | | | |
| 66 | 2600 | 22800 | - | 21.23 | | | | | | | | | |
| 73 | 2600 | 21200 | - | 19.23 | | | | | | | | | |
| 82 | 2570 | 19700 | - | 17.05 | | | | | | | | | |
| 91 | 2470 | 19400 | - | 15.42 | | | | | | | | | |
| 107 | 2330 | 18800 | - | 13.07 | | | | | | | | | |
| 123 | 2210 | 18400 | - | 11.41 | | | | | | | | | |
| 147 | 2040 | 18200 | - | 9.55 | | | | | | | | | |
| 169 | 1770 | 18800 | - | 8.26 | | | | | | | | | |

| S97R57, $n_e$=1400 1/min | | | | | | | | | | 4200 Nm |
|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M |
| | | | | |  2 3 | | | | | |
| 0.04 | 4200 | 32800 | - | 33818 | | | | | | |
| 0.04 | 4200 | 32800 | - | 31154 | | | | | | |
| 0.05 | 4200 | 32800 | - | 27847 | | | | | | |
| 0.06 | 4200 | 32800 | - | 24641 | | | | | | |
| 0.07 | 4200 | 32800 | - | 21537 | | | | | | |
| 0.07 | 4200 | 32800 | - | 18749* | | | | | | |

21284997/EN – 03/2015

| S97R57, $n_e$=1400 1/min | | | | | | | | | | 4200 Nm |
|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M | DRN132S DRN132M |
| 0.09 | 4200 | 32800 | - | 16233 | | | | | | |
| 0.10 | 4200 | 32800 | - | 14576 | | | | | | |
| 0.11 | 4200 | 32800 | - | 12752 | | | | | | |
| 0.12 | 4200 | 32800 | - | 11267 | | | | | | |
| 0.14 | 4200 | 32800 | - | 10078 | | | | | | |
| 0.16 | 4200 | 32800 | - | 8608 | | | | | | |
| 0.19 | 4200 | 32800 | - | 7554 | | | | | | |
| 0.21 | 4200 | 31300 | - | 6640 | | | | | | |
| 0.24 | 4200 | 31300 | - | 5780* | | | | | | |
| 0.28 | 4200 | 31300 | - | 4937 | | | | | | |
| 0.32 | 4200 | 31300 | - | 4444 | | | | | | |
| 0.35 | 4200 | 31300 | - | 4017 | | | | | | |
| 0.41 | 4200 | 31300 | - | 3453 | | | | | | |
| 0.45 | 4200 | 31300 | - | 3108 | | | | | | |
| 0.53 | 4200 | 31300 | - | 2654 | | | | | | |
| 0.60 | 4200 | 31300 | - | 2329 | | | | | | |
| 0.67 | 4200 | 31300 | - | 2081 | | | | | | |
| 0.75 | 4200 | 31300 | - | 1860 | | | | | | |
| 0.89 | 4200 | 31300 | - | 1574* | | | | | | |
|  | | | | | | | | | | |
| 1.0 | 4200 | 31300 | - | 1394 | | | | | | |
| 1.1 | 4200 | 31300 | - | 1223 | | | | | | |
| 1.3 | 4200 | 31300 | - | 1070 | | | | | | |
| 1.5 | 4200 | 31300 | - | 928 | | | | | | |
| 1.7 | 4200 | 31300 | - | 824 | | | | | | |
| 2.0 | 4200 | 32800 | - | 714 | | | | | | |
| 2.2 | 4200 | 31300 | - | 626* | | | | | | |
| 2.6 | 4200 | 31300 | - | 538 | | | | | | |
| 2.9 | 4200 | 31400 | - | 484* | | | | | | |
| 3.3 | 4200 | 31400 | - | 420 | | | | | | |
| 3.7 | 4200 | 31400 | - | 376 | | | | | | |
| 4.3 | 4200 | 31500 | - | 327 | | | | | | |
| 4.9 | 4200 | 31500 | - | 287 | | | | | | |
| 5.6 | 4200 | 31500 | - | 252 | | | | | | |
| 6.4 | 4200 | 31600 | - | 219 | | | | | | |
| 6.8 | 4200 | 31600 | - | 205 | | | | | | |



21284997/EN – 03/2015

## 11.3 S..DRN.. selection tables in kW

### $P_m$ = 0.12 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **0.12** | 4740 | 11267 | 25100 | 0.90 | **S** | **97R57** | **DR** | **63S4** | 170 | 653 |
| **0.14** | 4330 | 10078 | 32500 | 0.95 | **SF** | **97R57** | **DR** | **63S4** | 200 | 653 |
| **0.16** | 3590 | 8608 | 34000 | 1.15 | **SA** | **97R57** | **DR** | **63S4** | 160 | 653 |
| **0.18** | 3180 | 7554 | 34700 | 1.30 | **SAF** | **97R57** | **DR** | **63S4** | 190 | 653 |
| **0.21** | 2690 | 6706 | 27100 | 0.95 | | | | | | |
| **0.23** | 2400 | 5875 | 27700 | 1.05 | **S** | **87R57** | **DR** | **63S4** | 110 | 653 |
| **0.27** | 1980 | 5187 | 28500 | 1.25 | **SF** | **87R57** | **DR** | **63S4** | 130 | 653 |
| **0.30** | 1760 | 4606 | 28800 | 1.40 | **SA** | **87R57** | **DR** | **63S4** | 105 | 653 |
| **0.36** | 1460 | 3872 | 29200 | 1.70 | **SAF** | **87R57** | **DR** | **63S4** | 120 | 653 |
| **0.39** | 1370 | 3540 | 7240 | 0.90 | | | | | | |
| **0.45** | 1200 | 3098 | 12300 | 1.05 | | | | | | |
| **0.58** | 1320 | 2374 | 10600 | 0.95 | | | | | | |
| **0.66** | 1160 | 2083 | 12600 | 1.05 | **S** | **77R37** | **DR** | **63S4** | 59 | 653 |
| **0.76** | 980 | 1813 | 13900 | 1.25 | **SF** | **77R37** | **DR** | **63S4** | 68 | 653 |
| **0.79** | 930 | 1745 | 14200 | 1.30 | **SA** | **77R37** | **DR** | **63S4** | 58 | 653 |
| **0.86** | 860 | 1600 | 14600 | 1.45 | **SAF** | **77R37** | **DR** | **63S4** | 65 | 653 |
| **0.98** | 755 | 1404 | 15100 | 1.65 | | | | | | |
| **1.1** | 660 | 1245 | 15500 | 1.90 | | | | | | |
| **1.2** | 585 | 1194 | 7990 | 0.95 | **S** | **67R37** | **DR** | **63S4** | 39 | 653 |
| **1.3** | 530 | 1045 | 8560 | 1.05 | **SF** | **67R37** | **DR** | **63S4** | 46 | 653 |
| **1.5** | 455 | 914 | 9180 | 1.25 | **SA** | **67R37** | **DR** | **63S4** | 40 | 653 |
| | | | | | **SAF** | **67R37** | **DR** | **63S4** | 45 | 653 |
| **1.7** | 415 | 809 | 9460 | 1.35 | | | | | | |
| **1.9** | 365 | 712 | 9780 | 1.55 | | | | | | |
| **2.2** | 305 | 615 | 10100 | 1.85 | **S** | **67R37** | **DR** | **63S4** | 39 | 653 |
| **2.5** | 275 | 543 | 10200 | 2.1 | **SF** | **67R37** | **DR** | **63S4** | 46 | 653 |
| **2.9** | 225 | 469 | 10400 | 2.5 | **SA** | **67R37** | **DR** | **63S4** | 40 | 653 |
| **3.3** | 200 | 424 | 10500 | 2.8 | **SAF** | **67R37** | **DR** | **63S4** | 45 | 653 |
| **3.8** | 187 | 365 | 10500 | 3.0 | | | | | | |
| **2.1** | 325 | 655 | 6800 | 0.90 | | | | | | |
| **2.4** | 285 | 574 | 7200 | 1.05 | | | | | | |
| **2.7** | 250 | 506 | 7480 | 1.20 | **S** | **57R17** | **DR** | **63S4** | 20 | 653 |
| **3.2** | 215 | 438 | 7700 | 1.40 | **SF** | **57R17** | **DR** | **63S4** | 24 | 653 |
| **3.6** | 189 | 388 | 7850 | 1.60 | **SA** | **57R17** | **DR** | **63S4** | 20 | 653 |
| **4.1** | 169 | 336 | 7950 | 1.80 | **SAF** | **57R17** | **DR** | **63S4** | 23 | 653 |
| **4.7** | 145 | 294 | 8050 | 2.1 | | | | | | |
| **5.1** | 139 | 269 | 8070 | 2.2 | | | | | | |
| **3.2** | 215 | 438 | 5010 | 0.85 | | | | | | |
| **3.6** | 189 | 388 | 5170 | 1.00 | | | | | | |
| **4.1** | 168 | 336 | 5290 | 1.10 | **S** | **47R17** | **DR** | **63S4** | 17 | 653 |
| **4.7** | 143 | 294 | 5420 | 1.30 | **SF** | **47R17** | **DR** | **63S4** | 20 | 653 |
| **5.4** | 98 | 257 | 5660 | 1.90 | **SA** | **47R17** | **DR** | **63S4** | 18 | 653 |
| **6.0** | 118 | 229 | 5550 | 1.55 | **SAF** | **47R17** | **DR** | **63S4** | 19 | 653 |
| **6.9** | 102 | 200 | 5610 | 1.80 | | | | | | |
| **7.4** | 96 | 187 | 5640 | 1.95 | | | | | | |
| **6.8** | 103 | 202 | 3000 | 0.90 | | | | | | |
| **7.7** | 91 | 179 | 3000 | 1.00 | **S** | **37R17** | **DR** | **63S4** | 14 | 653 |
| **8.7** | 82 | 158 | 3000 | 1.15 | **SF** | **37R17** | **DR** | **63S4** | 15 | 653 |
| **9.6** | 75 | 144 | 3000 | 1.20 | **SA** | **37R17** | **DR** | **63S4** | 13 | 653 |
| **12** | 61 | 118 | 3000 | 1.50 | **SAF** | **37R17** | **DR** | **63S4** | 15 | 653 |
| **13** | 57 | 110 | 3000 | 1.60 | | | | | | |
| **4.5** | 143 | 201.00* | 8050 | 2.1 | **S** | **57** | **DR** | **63M6** | 17 | 628 |
| **4.9** | 133 | 184.80* | 8090 | 2.2 | **SF** | **57** | **DR** | **63M6** | 21 | 629 |
| **5.7** | 116 | 158.12 | 8140 | 2.5 | **SA** | **57** | **DR** | **63M6** | 17 | 630 |
| **6.6** | 103 | 137.05 | 8180 | 2.9 | **SAF** | **57** | **DR** | **63M6** | 20 | 629 |
| **4.5** | 138 | 201.00* | 5490 | 1.30 | | | | | | |
| **4.9** | 129 | 184.80* | 5540 | 1.40 | **S** | **47** | **DR** | **63M6** | 14 | 623 |
| **5.7** | 112 | 158.12 | 5610 | 1.55 | **SF** | **47** | **DR** | **63M6** | 17 | 624 |
| **6.6** | 99 | 137.05 | 5660 | 1.75 | **SA** | **47** | **DR** | **63M6** | 15 | 625 |
| **7.0** | 93 | 128.10* | 5680 | 1.85 | **SAF** | **47** | **DR** | **63M6** | 16 | 624 |

21284997/EN – 03/2015

## $P_m$ = 0.12 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **6.9** | 95 | 201.00* | 5680 | 1.80 | | | | | | |
| **7.5** | 89 | 184.80* | 5700 | 1.90 | **S** | **47** | **DR** | **63S4** | 14 | 623 |
| **8.7** | 77 | 158.12 | 5740 | 2.2 | **SF** | **47** | **DR** | **63S4** | 17 | 624 |
| **10** | 68 | 137.05 | 5780 | 2.5 | **SA** | **47** | **DR** | **63S4** | 15 | 625 |
| **11** | 64 | 128.10* | 5790 | 2.6 | **SAF** | **47** | **DR** | **63S4** | 16 | 624 |
| **12** | 57 | 110.73 | 5810 | 3.0 | | | | | | |
| **5.7** | 107 | 157.43 | 3000 | 0.85 | | | | | | |
| **6.2** | 99 | 144.40* | 3000 | 0.95 | **S** | **37** | **DR** | **63M6** | 11 | 619 |
| **7.3** | 86 | 122.94 | 3000 | 1.05 | **SF** | **37** | **DR** | **63M6** | 12 | 620 |
| **8.5** | 76 | 106.00* | 3000 | 1.20 | **SA** | **37** | **DR** | **63M6** | 10 | 621 |
| **9.1** | 71 | 98.80* | 3000 | 1.30 | **SAF** | **37** | **DR** | **63M6** | 12 | 620 |
| **10** | 64 | 86.36 | 3000 | 1.45 | | | | | | |
| **8.8** | 74 | 157.43 | 3000 | 1.25 | | | | | | |
| **9.6** | 68 | 144.40* | 3000 | 1.35 | | | | | | |
| **11** | 60 | 122.94 | 3000 | 1.55 | **S** | **37** | **DR** | **63S4** | 11 | 619 |
| **13** | 52 | 106.00* | 3000 | 1.70 | **SF** | **37** | **DR** | **63S4** | 12 | 620 |
| **14** | 49 | 98.80* | 3000 | 1.75 | **SA** | **37** | **DR** | **63S4** | 10 | 621 |
| **16** | 44 | 86.36 | 3000 | 1.95 | **SAF** | **37** | **DR** | **63S4** | 12 | 620 |
| **17** | 41 | 80.96 | 3000 | 2.1 | | | | | | |
| **19** | 37 | 71.44* | 3000 | 2.3 | | | | | | |
| **22** | 33 | 63.33 | 3000 | 2.5 | | | | | | |
| **25** | 35 | 55.93 | 3000 | 2.3 | | | | | | |
| **27** | 33 | 51.30* | 3000 | 2.5 | | | | | | |
| **32** | 28 | 43.68 | 3000 | 2.9 | | | | | | |
| **37** | 24 | 37.66 | 3000 | 3.2 | **S** | **37** | **DR** | **63S4** | 11 | 619 |
| **39** | 23 | 35.10* | 3000 | 3.4 | **SF** | **37** | **DR** | **63S4** | 12 | 620 |
| **45** | 20 | 30.68 | 3000 | 3.7 | **SA** | **37** | **DR** | **63S4** | 10 | 621 |
| **48** | 19 | 28.76 | 3000 | 3.9 | **SAF** | **37** | **DR** | **63S4** | 12 | 620 |
| **54** | 17 | 25.38* | 3000 | 4.4 | | | | | | |
| **61** | 15 | 22.50* | 3000 | 4.8 | | | | | | |
| **69** | 14 | 19.89 | 3000 | 3.6 | | | | | | |
| **76** | 13 | 18.24* | 3000 | 3.9 | | | | | | |
| **89** | 11 | 15.53 | 2870 | 4.4 | | | | | | |

## $P_m$ = 0.18 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | **S** | **87R57** | **DR** | **63M4** | 110 | 653 |
| **0.29** | 3010 | 4606 | 19200 | 0.85 | **SF** | **87R57** | **DR** | **63M4** | 130 | 653 |
| **0.34** | 2510 | 3872 | 27500 | 1.00 | **SA** | **87R57** | **DR** | **63M4** | 105 | 653 |
| | | | | | **SAF** | **87R57** | **DR** | **63M4** | 120 | 653 |
| **0.38** | 2420 | 3475 | 27700 | 1.05 | | | | | | |
| **0.45** | 2030 | 2905 | 28400 | 1.25 | | | | | | |
| **0.51** | 1760 | 2586 | 28800 | 1.40 | **S** | **87R57** | **DR** | **63M4** | 105 | 653 |
| **0.57** | 1570 | 2335 | 29100 | 1.60 | **SF** | **87R57** | **DR** | **63M4** | 130 | 653 |
| **0.64** | 1360 | 2054 | 29300 | 1.85 | **SA** | **87R57** | **DR** | **63M4** | 105 | 653 |
| **0.72** | 1200 | 1824 | 29500 | 2.1 | **SAF** | **87R57** | **DR** | **63M4** | 120 | 653 |
| **0.81** | 1080 | 1631 | 29600 | 2.3 | | | | | | |
| | | | | | **S** | **77R37** | **DR** | **63M4** | 59 | 653 |
| **0.94** | 1240 | 1404 | 11900 | 1.00 | **SF** | **77R37** | **DR** | **63M4** | 68 | 653 |
| **1.1** | 1090 | 1245 | 13200 | 1.15 | **SA** | **77R37** | **DR** | **63M4** | 58 | 653 |
| | | | | | **SAF** | **77R37** | **DR** | **63M4** | 65 | 653 |
| **1.2** | 1020 | 1100 | 13700 | 1.20 | | | | | | |
| **1.4** | 870 | 954 | 14500 | 1.40 | **S** | **77R37** | **DR** | **63M4** | 58 | 653 |
| **1.6** | 770 | 837 | 15000 | 1.60 | **SF** | **77R37** | **DR** | **63M4** | 68 | 653 |
| **1.8** | 640 | 714 | 15600 | 1.95 | **SA** | **77R37** | **DR** | **63M4** | 58 | 653 |
| **2.1** | 565 | 637 | 15800 | 2.2 | **SAF** | **77R37** | **DR** | **63M4** | 65 | 653 |
| **2.3** | 515 | 574 | 16000 | 2.4 | | | | | | |
| **1.9** | 600 | 712 | 7860 | 0.95 | | | | | | |
| **2.2** | 505 | 615 | 8800 | 1.15 | **S** | **67R37** | **DR** | **63M4** | 39 | 653 |
| **2.4** | 450 | 543 | 9230 | 1.25 | **SF** | **67R37** | **DR** | **63M4** | 46 | 653 |
| **2.8** | 375 | 469 | 9720 | 1.50 | **SA** | **67R37** | **DR** | **63M4** | 40 | 653 |
| **3.1** | 340 | 424 | 9930 | 1.65 | **SAF** | **67R37** | **DR** | **63M4** | 45 | 653 |
| **3.6** | 305 | 365 | 10100 | 1.85 | | | | | | |



21284997/EN – 03/2015

| $P_m$ = 0.18 kW | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
| **3.0** | 355 | 438 | 6520 | 0.85 | | | | | | |
| **3.4** | 310 | 388 | 6970 | 0.95 | | | | | | |
| **3.9** | 275 | 336 | 7290 | 1.10 | **S** | **57R17** | **DR** | **63M4** | 20 | 653 |
| **4.5** | 235 | 294 | 7560 | 1.25 | **SF** | **57R17** | **DR** | **63M4** | 24 | 653 |
| **4.9** | 225 | 269 | 7650 | 1.35 | **SA** | **57R17** | **DR** | **63M4** | 20 | 653 |
| **5.8** | 193 | 229 | 7830 | 1.55 | **SAF** | **57R17** | **DR** | **63M4** | 23 | 653 |
| **6.5** | 174 | 204 | 7920 | 1.75 | | | | | | |
| **7.0** | 159 | 187 | 7990 | 1.90 | | | | | | |
| **4.5** | 235 | 294 | 4480 | 0.80 | | | | | | |
| **5.1** | 162 | 257 | 5380 | 1.15 | | | | | | |
| **5.8** | 190 | 229 | 5170 | 0.95 | **S** | **47R17** | **DR** | **63M4** | 17 | 653 |
| **6.6** | 167 | 200 | 5300 | 1.10 | **SF** | **47R17** | **DR** | **63M4** | 20 | 653 |
| **7.0** | 156 | 187 | 5360 | 1.20 | **SA** | **47R17** | **DR** | **63M4** | 18 | 653 |
| **8.0** | 138 | 165 | 5450 | 1.35 | **SAF** | **47R17** | **DR** | **63M4** | 19 | 653 |
| **9.0** | 124 | 148 | 5520 | 1.50 | | | | | | |
| **10** | 110 | 131 | 5580 | 1.70 | | | | | | |
| **4.0** | 250 | 217.41 | 10300 | 2.2 | **S** | **67** | **DR** | **63L6** | 29 | 633 |
| **4.6** | 220 | 190.11 | 10400 | 2.5 | **SF** | **67** | **DR** | **63L6** | 35 | 634 |
| **4.8** | 210 | 180.60* | 10400 | 2.6 | **SA** | **67** | **DR** | **63L6** | 30 | 635 |
| | | | | | **SAF** | **67** | **DR** | **63L6** | 34 | 634 |
| **4.3** | 220 | 201.00* | 7670 | 1.35 | **S** | **57** | **DR** | **63L6** | 18 | 628 |
| **4.7** | 205 | 184.80* | 7760 | 1.45 | **SF** | **57** | **DR** | **63L6** | 22 | 629 |
| **5.5** | 180 | 158.12 | 7900 | 1.65 | **SA** | **57** | **DR** | **63L6** | 18 | 630 |
| **6.4** | 158 | 137.05 | 7990 | 1.85 | **SAF** | **57** | **DR** | **63L6** | 21 | 629 |
| **6.6** | 154 | 201.00* | 8010 | 1.90 | **S** | **57** | **DR** | **63M4** | 17 | 628 |
| **7.1** | 143 | 184.80* | 8050 | 2.1 | **SF** | **57** | **DR** | **63M4** | 21 | 629 |
| **8.4** | 125 | 158.12 | 8120 | 2.4 | **SA** | **57** | **DR** | **63M4** | 17 | 630 |
| **9.6** | 110 | 137.05 | 8160 | 2.7 | **SAF** | **57** | **DR** | **63M4** | 20 | 629 |
| **4.3** | 210 | 201.00* | 5090 | 0.85 | | | | | | |
| **4.7** | 199 | 184.80* | 5180 | 0.90 | **S** | **47** | **DR** | **63L6** | 14 | 623 |
| **5.5** | 173 | 158.12 | 5320 | 1.00 | **SF** | **47** | **DR** | **63L6** | 18 | 624 |
| **6.4** | 153 | 137.05 | 5420 | 1.10 | **SA** | **47** | **DR** | **63L6** | 15 | 625 |
| **6.8** | 144 | 128.10* | 5460 | 1.20 | **SAF** | **47** | **DR** | **63L6** | 17 | 624 |
| **6.6** | 149 | 201.00* | 5440 | 1.15 | | | | | | |
| **7.1** | 138 | 184.80* | 5490 | 1.25 | | | | | | |
| **8.4** | 121 | 158.12 | 5570 | 1.40 | | | | | | |
| **9.6** | 106 | 137.05 | 5630 | 1.60 | **S** | **47** | **DR** | **63M4** | 14 | 623 |
| **10** | 100 | 128.10* | 5660 | 1.65 | **SF** | **47** | **DR** | **63M4** | 17 | 624 |
| **12** | 88 | 110.73 | 5700 | 1.90 | **SA** | **47** | **DR** | **63M4** | 15 | 625 |
| **14** | 77 | 94.08* | 5750 | 2.2 | **SAF** | **47** | **DR** | **63M4** | 16 | 624 |
| **16** | 69 | 84.00* | 5770 | 2.4 | | | | | | |
| **18** | 60 | 71.75* | 5800 | 2.8 | | | | | | |
| **19** | 69 | 69.39 | 5750 | 2.2 | | | | | | |
| **8.4** | 115 | 157.43 | 3000 | 0.80 | | | | | | |
| **9.1** | 107 | 144.40* | 3000 | 0.85 | | | | | | |
| **11** | 93 | 122.94 | 3000 | 1.00 | **S** | **37** | **DR** | **63M4** | 11 | 619 |
| **12** | 82 | 106.00* | 3000 | 1.10 | **SF** | **37** | **DR** | **63M4** | 12 | 620 |
| **13** | 77 | 98.80* | 3000 | 1.15 | **SA** | **37** | **DR** | **63M4** | 10 | 621 |
| **15** | 68 | 86.36 | 3000 | 1.25 | **SAF** | **37** | **DR** | **63M4** | 12 | 620 |
| **16** | 64 | 80.96 | 3000 | 1.30 | | | | | | |

21284997/EN – 03/2015

## $P_m$ = 0.18 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **18** | 58 | 71.44* | 3000 | 1.45 | | | | | | |
| **21** | 52 | 63.33 | 3000 | 1.60 | | | | | | |
| **24** | 55 | 55.93 | 3000 | 1.45 | | | | | | |
| **26** | 51 | 51.30* | 3000 | 1.60 | | | | | | |
| **30** | 44 | 43.68 | 3000 | 1.85 | | | | | | |
| **35** | 38 | 37.66 | 3000 | 2.1 | | | | | | |
| **38** | 36 | 35.10* | 3000 | 2.2 | | | | | | |
| **43** | 32 | 30.68 | 3000 | 2.4 | **S** | **37** | **DR** | **63M4** | 11 | 619 |
| **46** | 30 | 28.76 | 3000 | 2.5 | **SF** | **37** | **DR** | **63M4** | 12 | 620 |
| **52** | 26 | 25.38* | 3000 | 2.8 | **SA** | **37** | **DR** | **63M4** | 10 | 621 |
| **59** | 24 | 22.50* | 3000 | 3.1 | **SAF** | **37** | **DR** | **63M4** | 12 | 620 |
| **66** | 22 | 19.89 | 3000 | 2.3 | | | | | | |
| **72** | 21 | 18.24* | 2940 | 2.5 | | | | | | |
| **85** | 18 | 15.53 | 2810 | 2.8 | | | | | | |
| **99** | 15 | 13.39 | 2700 | 3.2 | | | | | | |
| **106** | 14 | 12.48* | 2650 | 3.4 | | | | | | |
| **121** | 13 | 10.91 | 2550 | 3.8 | | | | | | |
| **129** | 12 | 10.23 | 2500 | 4.0 | | | | | | |

## $P_m$ = 0.25 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **0.45** | 2930 | 2905 | 22200 | 0.85 | | | | | | |
| **0.50** | 2560 | 2586 | 27400 | 1.00 | | | | | | |
| **0.56** | 2290 | 2335 | 27900 | 1.10 | **S** | **87R57** | **DR** | **63L4** | 110 | 653 |
| **0.63** | 1990 | 2054 | 28400 | 1.25 | **SF** | **87R57** | **DR** | **63L4** | 130 | 653 |
| **0.71** | 1770 | 1824 | 28800 | 1.40 | **SA** | **87R57** | **DR** | **63L4** | 105 | 653 |
| **0.80** | 1580 | 1631 | 29100 | 1.60 | **SAF** | **87R57** | **DR** | **63L4** | 120 | 653 |
| **1.4** | 930 | 930 | 29700 | 2.7 | | | | | | |
| **1.4** | 1250 | 954 | 11800 | 1.00 | | | | | | |
| **1.6** | 1100 | 837 | 13100 | 1.10 | **S** | **77R37** | **DR** | **63L4** | 59 | 653 |
| **1.8** | 920 | 714 | 14200 | 1.35 | **SF** | **77R37** | **DR** | **63L4** | 69 | 653 |
| **2.0** | 820 | 637 | 14800 | 1.50 | **SA** | **77R37** | **DR** | **63L4** | 59 | 653 |
| **2.3** | 745 | 574 | 15200 | 1.65 | **SAF** | **77R37** | **DR** | **63L4** | 65 | 653 |
| **2.6** | 635 | 499 | 15600 | 1.95 | | | | | | |
| **2.4** | 650 | 543 | 6280 | 0.85 | | | | | | |
| **2.8** | 550 | 469 | 8390 | 1.05 | **S** | **67R37** | **DR** | **63L4** | 40 | 653 |
| **3.1** | 495 | 424 | 8880 | 1.15 | **SF** | **67R37** | **DR** | **63L4** | 46 | 653 |
| **3.6** | 440 | 365 | 9320 | 1.30 | **SA** | **67R37** | **DR** | **63L4** | 41 | 653 |
| **4.1** | 380 | 319 | 9700 | 1.50 | **SAF** | **67R37** | **DR** | **63L4** | 45 | 653 |
| **4.6** | 335 | 281 | 9960 | 1.70 | | | | | | |
| **4.4** | 340 | 294 | 6640 | 0.85 | | | | | | |
| **4.8** | 320 | 269 | 6870 | 0.95 | | | | | | |
| **5.7** | 275 | 229 | 7280 | 1.10 | **S** | **57R17** | **DR** | **63L4** | 21 | 653 |
| **6.4** | 245 | 204 | 7490 | 1.20 | **SF** | **57R17** | **DR** | **63L4** | 25 | 653 |
| **6.9** | 225 | 187 | 7630 | 1.30 | **SA** | **57R17** | **DR** | **63L4** | 21 | 653 |
| **7.9** | 200 | 165 | 7780 | 1.50 | **SAF** | **57R17** | **DR** | **63L4** | 24 | 653 |
| **9.9** | 162 | 131 | 7980 | 1.85 | | | | | | |
| **4.1** | 340 | 217.41 | 9920 | 1.65 | **S** | **67** | **DRS** | **71S6** | 31 | 633 |
| **4.7** | 300 | 190.11 | 10100 | 1.85 | **SF** | **67** | **DRS** | **71S6** | 37 | 634 |
| **5.0** | 290 | 180.60* | 10200 | 1.90 | **SA** | **67** | **DRS** | **71S6** | 32 | 635 |
| **5.6** | 255 | 158.45 | 10300 | 2.1 | **SAF** | **67** | **DRS** | **71S6** | 36 | 634 |
| **6.0** | 245 | 217.41 | 10300 | 2.1 | | | | | | |
| **6.8** | 215 | 190.11 | 10400 | 2.4 | | | | | | |
| **7.2** | 205 | 180.60* | 10500 | 2.5 | **S** | **67** | **DR** | **63L4** | 29 | 633 |
| **8.2** | 187 | 158.45 | 10500 | 2.8 | **SF** | **67** | **DR** | **63L4** | 35 | 634 |
| **9.7** | 161 | 134.40* | 10600 | 3.2 | **SA** | **67** | **DR** | **63L4** | 30 | 635 |
| **11** | 147 | 121.33 | 10600 | 3.5 | **SAF** | **67** | **DR** | **63L4** | 34 | 634 |
| **12** | 131 | 106.75* | 10700 | 4.0 | | | | | | |
| **4.4** | 300 | 201.00* | 7080 | 1.00 | **S** | **57** | **DRS** | **71S6** | 20 | 628 |
| **4.8** | 275 | 184.80* | 7270 | 1.10 | **SF** | **57** | **DRS** | **71S6** | 24 | 629 |
| **5.7** | 240 | 158.12 | 7530 | 1.20 | **SA** | **57** | **DRS** | **71S6** | 20 | 630 |
| **6.5** | 210 | 137.05 | 7710 | 1.35 | **SAF** | **57** | **DRS** | **71S6** | 23 | 629 |
| **7.0** | 200 | 128.10* | 7780 | 1.45 | | | | | | |



21284997/EN – 03/2015

| $P_m$ = 0.25 kW | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | | m kg | |
| **6.5** | 215 | 201.00* | 7700 | 1.35 | | | | | | | |
| **7.0** | 200 | 184.80* | 7790 | 1.45 | | | | | | | |
| **8.2** | 176 | 158.12 | 7920 | 1.70 | **S** | **57** | **DR** | **63L4** | | 18 | 628 |
| **9.5** | 155 | 137.05 | 8010 | 1.90 | **SF** | **57** | **DR** | **63L4** | | 22 | 629 |
| **10** | 146 | 128.10* | 8040 | 2.0 | **SA** | **57** | **DR** | **63L4** | | 18 | 630 |
| **12** | 128 | 110.73 | 8110 | 2.3 | **SAF** | **57** | **DR** | **63L4** | | 21 | 629 |
| **14** | 111 | 94.08* | 8160 | 2.6 | | | | | | | |
| **15** | 100 | 84.00* | 8190 | 2.9 | | | | | | | |
| **6.5** | 205 | 201.00* | 5120 | 0.80 | | | | | | | |
| **7.0** | 194 | 184.80* | 5210 | 0.85 | | | | | | | |
| **8.2** | 170 | 158.12 | 5340 | 1.00 | | | | | | | |
| **9.5** | 150 | 137.05 | 5440 | 1.10 | | | | | | | |
| **10** | 141 | 128.10* | 5480 | 1.20 | | | | | | | |
| **12** | 124 | 110.73 | 5560 | 1.35 | **S** | **47** | **DR** | **63L4** | | 14 | 623 |
| **14** | 108 | 94.08* | 5630 | 1.55 | **SF** | **47** | **DR** | **63L4** | | 18 | 624 |
| **15** | 98 | 84.00* | 5670 | 1.70 | **SA** | **47** | **DR** | **63L4** | | 15 | 625 |
| **18** | 85 | 71.75* | 5720 | 1.95 | **SAF** | **47** | **DR** | **63L4** | | 17 | 624 |
| **19** | 97 | 69.39 | 5640 | 1.60 | | | | | | | |
| **19** | 80 | 67.20* | 5740 | 2.1 | | | | | | | |
| **20** | 90 | 63.80* | 5670 | 1.70 | | | | | | | |
| **24** | 78 | 54.59 | 5720 | 2.00 | | | | | | | |
| **27** | 68 | 47.32 | 5760 | 2.3 | | | | | | | |
| **13** | 108 | 98.80* | 3000 | 0.80 | | | | | | | |
| **15** | 96 | 86.36 | 3000 | 0.90 | | | | | | | |
| **16** | 91 | 80.96 | 3000 | 0.95 | | | | | | | |
| **18** | 81 | 71.44* | 3000 | 1.05 | | | | | | | |
| **21** | 73 | 63.33 | 3000 | 1.10 | | | | | | | |
| **23** | 78 | 55.93 | 3000 | 1.05 | | | | | | | |
| **25** | 72 | 51.30* | 3000 | 1.15 | | | | | | | |
| **30** | 62 | 43.68 | 3000 | 1.30 | | | | | | | |
| **35** | 54 | 37.66 | 3000 | 1.45 | | | | | | | |
| **37** | 51 | 35.10* | 3000 | 1.55 | | | | | | | |
| **42** | 45 | 30.68 | 3000 | 1.70 | | | | | | | |
| **45** | 42 | 28.76 | 3000 | 1.80 | | | | | | | |
| **51** | 37 | 25.38* | 3000 | 2.00 | **S** | **37** | **DR** | **63L4** | | 11 | 619 |
| **58** | 33 | 22.50* | 3000 | 2.2 | **SF** | **37** | **DR** | **63L4** | | 13 | 620 |
| **65** | 32 | 19.89 | 2870 | 1.65 | **SA** | **37** | **DR** | **63L4** | | 11 | 621 |
| **71** | 29 | 18.24* | 2820 | 1.80 | **SAF** | **37** | **DR** | **63L4** | | 13 | 620 |
| **84** | 25 | 15.53 | 2710 | 2.0 | | | | | | | |
| **97** | 22 | 13.39 | 2620 | 2.3 | | | | | | | |
| **104** | 20 | 12.48* | 2570 | 2.4 | | | | | | | |
| **119** | 18 | 10.91 | 2480 | 2.7 | | | | | | | |
| **127** | 17 | 10.23 | 2440 | 2.8 | | | | | | | |
| **144** | 15 | 9.02* | 2360 | 3.1 | | | | | | | |
| **162** | 13 | 8.00* | 2280 | 3.4 | | | | | | | |
| **191** | 11 | 6.80* | 2180 | 3.8 | | | | | | | |
| **205** | 10 | 6.33 | 2130 | 3.3 | | | | | | | |
| **241** | 9.0 | 5.38 | 2030 | 3.8 | | | | | | | |
| **267** | 8.1 | 4.86* | 1980 | 4.1 | | | | | | | |
| **328** | 6.7 | 3.97 | 1860 | 4.8 | | | | | | | |
| **92** | 21 | 28.76 | 2740 | 3.0 | | | | | | | |
| **105** | 19 | 25.38* | 2650 | 3.3 | | | | | | | |
| **118** | 17 | 22.50* | 2560 | 3.4 | **S** | **37** | **DR** | **63M2** | | 11 | 619 |
| **134** | 16 | 19.89 | 2410 | 2.8 | **SF** | **37** | **DR** | **63M2** | | 12 | 620 |
| **146** | 15 | 18.24* | 2350 | 3.0 | **SA** | **37** | **DR** | **63M2** | | 10 | 621 |
| **171** | 12 | 15.53 | 2250 | 3.4 | **SAF** | **37** | **DR** | **63M2** | | 12 | 620 |
| **199** | 11 | 13.39 | 2160 | 3.8 | | | | | | | |
| **213** | 10 | 12.48* | 2120 | 4.0 | | | | | | | |

21284997/EN – 03/2015

## $P_m$ = 0.37 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **0.67** | 2850 | 2054 | 24500 | 0.90 | **S** | **87R57** | **DRS** | **71S4** | 110 | 653 |
| **0.76** | 2530 | 1824 | 27400 | 1.00 | **SF** | **87R57** | **DRS** | **71S4** | 130 | 653 |
| **0.85** | 2260 | 1631 | 28000 | 1.10 | **SA** | **87R57** | **DRS** | **71S4** | 105 | 653 |
| **1.5** | 1340 | 930 | 29400 | 1.85 | **SAF** | **87R57** | **DRS** | **71S4** | 125 | 653 |
| **1.7** | 1210 | 831 | 29500 | 2.1 | | | | | | |
| **1.9** | 1310 | 714 | 11300 | 0.95 | | | | | | |
| **2.2** | 1160 | 637 | 12600 | 1.05 | **S** | **77R37** | **DRS** | **71S4** | 61 | 653 |
| **2.4** | 1050 | 574 | 13400 | 1.15 | **SF** | **77R37** | **DRS** | **71S4** | 71 | 653 |
| **2.8** | 900 | 499 | 14300 | 1.35 | **SA** | **77R37** | **DRS** | **71S4** | 61 | 653 |
| **3.2** | 795 | 438 | 14900 | 1.55 | **SAF** | **77R37** | **DRS** | **71S4** | 67 | 653 |
| **3.6** | 705 | 389 | 15300 | 1.75 | | | | | | |
| **3.8** | 620 | 365 | 7560 | 0.90 | **S** | **67R37** | **DRS** | **71S4** | 42 | 653 |
| **4.3** | 540 | 319 | 8450 | 1.05 | **SF** | **67R37** | **DRS** | **71S4** | 48 | 653 |
| **4.9** | 475 | 281 | 9030 | 1.20 | **SA** | **67R37** | **DRS** | **71S4** | 43 | 653 |
| **5.6** | 430 | 246 | 9380 | 1.30 | **SAF** | **67R37** | **DRS** | **71S4** | 47 | 653 |
| **3.5** | 635 | 256.47 | 15600 | 2.00 | **S** | **77** | **DRS** | **71M6** | 53 | 638 |
| **4.0** | 565 | 225.26 | 15800 | 2.2 | **SF** | **77** | **DRS** | **71M6** | 63 | 639 |
| **4.2** | 540 | 214.00* | 15900 | 2.3 | **SA** | **77** | **DRS** | **71M6** | 52 | 640 |
| | | | | | **SAF** | **77** | **DRS** | **71M6** | 59 | 639 |
| **4.2** | 500 | 217.41 | 8830 | 1.10 | **S** | **67** | **DRS** | **71M6** | 32 | 633 |
| **4.8** | 445 | 190.11 | 9280 | 1.25 | **SF** | **67** | **DRS** | **71M6** | 38 | 634 |
| **5.0** | 425 | 180.60* | 9410 | 1.30 | **SA** | **67** | **DRS** | **71M6** | 33 | 635 |
| **5.7** | 380 | 158.45 | 9710 | 1.45 | **SAF** | **67** | **DRS** | **71M6** | 37 | 634 |
| **6.4** | 345 | 217.41 | 9900 | 1.50 | | | | | | |
| **7.3** | 305 | 190.11 | 10100 | 1.70 | **S** | **67** | **DRS** | **71S4** | 31 | 633 |
| **7.6** | 290 | 180.60* | 10200 | 1.75 | **SF** | **67** | **DRS** | **71S4** | 37 | 634 |
| **8.7** | 260 | 158.45 | 10300 | 2.00 | **SA** | **67** | **DRS** | **71S4** | 32 | 635 |
| **10** | 225 | 134.40* | 10400 | 2.3 | **SAF** | **67** | **DRS** | **71S4** | 36 | 634 |
| **11** | 205 | 121.33 | 10500 | 2.5 | | | | | | |
| **5.7** | 355 | 158.12 | 6510 | 0.85 | | | | | | |
| **6.6** | 310 | 137.05 | 6950 | 0.95 | **S** | **57** | **DRS** | **71M6** | 21 | 628 |
| **7.1** | 295 | 128.10* | 7110 | 1.00 | **SF** | **57** | **DRS** | **71M6** | 25 | 629 |
| **8.2** | 260 | 110.73 | 7400 | 1.15 | **SA** | **57** | **DRS** | **71M6** | 21 | 630 |
| **9.6** | 225 | 94.08* | 7640 | 1.30 | **SAF** | **57** | **DRS** | **71M6** | 24 | 629 |
| **11** | 205 | 84.00* | 7770 | 1.45 | | | | | | |
| **6.9** | 300 | 201.00* | 7050 | 0.95 | | | | | | |
| **7.5** | 280 | 184.80* | 7230 | 1.05 | | | | | | |
| **8.7** | 245 | 158.12 | 7510 | 1.20 | | | | | | |
| **10** | 215 | 137.05 | 7690 | 1.35 | | | | | | |
| **11** | 205 | 128.10* | 7770 | 1.45 | **S** | **57** | **DRS** | **71S4** | 20 | 628 |
| **12** | 180 | 110.73 | 7900 | 1.65 | **SF** | **57** | **DRS** | **71S4** | 24 | 629 |
| **15** | 156 | 94.08* | 8000 | 1.90 | **SA** | **57** | **DRS** | **71S4** | 20 | 630 |
| **16** | 141 | 84.00* | 8060 | 2.1 | **SAF** | **57** | **DRS** | **71S4** | 23 | 629 |
| **19** | 122 | 71.75* | 8130 | 2.4 | | | | | | |
| **20** | 139 | 69.39 | 8070 | 1.75 | | | | | | |
| **21** | 115 | 67.20* | 8150 | 2.5 | | | | | | |
| **22** | 128 | 63.80* | 8110 | 1.90 | | | | | | |



21284997/EN – 03/2015

## $P_m$ = 0.37 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **10** | 210 | 137.05 | 5110 | 0.80 | | | | | | |
| **11** | 198 | 128.10* | 5180 | 0.85 | | | | | | |
| **12** | 175 | 110.73 | 5320 | 0.95 | | | | | | |
| **15** | 151 | 94.08* | 5430 | 1.10 | | | | | | |
| **16** | 137 | 84.00* | 5500 | 1.20 | | | | | | |
| **19** | 119 | 71.75* | 5580 | 1.40 | | | | | | |
| **20** | 136 | 69.39 | 5460 | 1.15 | | | | | | |
| **21** | 112 | 67.20* | 5610 | 1.50 | | | | | | |
| **22** | 126 | 63.80* | 5510 | 1.25 | **S** | **47** | **DRS** | **71S4** | 16 | 623 |
| **25** | 109 | 54.59 | 5590 | 1.40 | **SF** | **47** | **DRS** | **71S4** | 20 | 624 |
| **29** | 96 | 47.32 | 5410 | 1.60 | **SA** | **47** | **DRS** | **71S4** | 17 | 625 |
| **31** | 90 | 44.22* | 5330 | 1.75 | **SAF** | **47** | **DRS** | **71S4** | 19 | 624 |
| **36** | 78 | 38.23 | 5140 | 2.00 | | | | | | |
| **42** | 67 | 32.48* | 4930 | 2.3 | | | | | | |
| **48** | 60 | 29.00* | 4790 | 2.6 | | | | | | |
| **56** | 52 | 24.77 | 4590 | 3.0 | | | | | | |
| **59** | 49 | 23.20* | 4510 | 3.1 | | | | | | |
| **68** | 46 | 20.33 | 4180 | 2.4 | | | | | | |
| **78** | 40 | 17.62 | 4030 | 2.8 | | | | | | |
| **84** | 37 | 16.47* | 3960 | 3.0 | | | | | | |
| **22** | 103 | 63.33 | 3000 | 0.80 | | | | | | |
| **27** | 101 | 51.30* | 3000 | 0.80 | | | | | | |
| **32** | 87 | 43.68 | 3000 | 0.95 | | | | | | |
| **37** | 76 | 37.66 | 3000 | 1.05 | | | | | | |
| **39** | 71 | 35.10* | 3000 | 1.10 | | | | | | |
| **45** | 62 | 30.68 | 3000 | 1.20 | | | | | | |
| **48** | 59 | 28.76 | 3000 | 1.30 | | | | | | |
| **54** | 52 | 25.38* | 2940 | 1.40 | | | | | | |
| **61** | 47 | 22.50* | 2870 | 1.55 | | | | | | |
| **69** | 44 | 19.89 | 2610 | 1.20 | | | | | | |
| **76** | 41 | 18.24* | 2570 | 1.30 | **S** | **37** | **DRS** | **71S4** | 13 | 619 |
| **89** | 35 | 15.53 | 2500 | 1.45 | **SF** | **37** | **DRS** | **71S4** | 15 | 620 |
| **103** | 30 | 13.39 | 2420 | 1.60 | **SA** | **37** | **DRS** | **71S4** | 13 | 621 |
| **111** | 28 | 12.48* | 2390 | 1.70 | **SAF** | **37** | **DRS** | **71S4** | 15 | 620 |
| **126** | 25 | 10.91 | 2320 | 1.95 | | | | | | |
| **135** | 23 | 10.23 | 2280 | 2.0 | | | | | | |
| **153** | 21 | 9.02* | 2220 | 2.2 | | | | | | |
| **172** | 18 | 8.00* | 2150 | 2.4 | | | | | | |
| **203** | 16 | 6.80* | 2070 | 2.7 | | | | | | |
| **218** | 15 | 6.33 | 2020 | 2.4 | | | | | | |
| **256** | 12 | 5.38 | 1930 | 2.7 | | | | | | |
| **284** | 11 | 4.86* | 1880 | 2.9 | | | | | | |
| **348** | 9.3 | 3.97 | 1780 | 3.4 | | | | | | |
| **104** | 28 | 25.38* | 2540 | 2.2 | | | | | | |
| **118** | 25 | 22.50* | 2460 | 2.3 | | | | | | |
| **133** | 24 | 19.89 | 2290 | 1.85 | | | | | | |
| **145** | 22 | 18.24* | 2240 | 2.0 | **S** | **37** | **DR** | **63L2** | 11 | 619 |
| **171** | 19 | 15.53 | 2160 | 2.3 | **SF** | **37** | **DR** | **63L2** | 13 | 620 |
| **198** | 16 | 13.39 | 2080 | 2.6 | **SA** | **37** | **DR** | **63L2** | 11 | 621 |
| **212** | 15 | 12.48* | 2040 | 2.7 | **SAF** | **37** | **DR** | **63L2** | 13 | 620 |
| **243** | 13 | 10.91 | 1970 | 3.0 | | | | | | |
| **259** | 12 | 10.23 | 1940 | 3.1 | | | | | | |
| **294** | 11 | 9.02* | 1870 | 3.3 | | | | | | |

21284997/EN – 03/2015

| $P_m$ = 0.55 kW | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | | m kg | |
| **1.0** | 2840 | 1332 | 24800 | 0.90 | | | | | | | |
| **1.1** | 2560 | 1191 | 27300 | 0.95 | | | | | | | |
| **1.3** | 2230 | 1032 | 28000 | 1.10 | | | | | | | |
| **1.5** | 2060 | 930 | 28300 | 1.20 | **S** | **87R57** | **DRS** | **71M4** | | 110 | 653 |
| **1.6** | 1860 | 831 | 28700 | 1.35 | **SF** | **87R57** | **DRS** | **71M4** | | 130 | 653 |
| **1.9** | 1620 | 719 | 29000 | 1.55 | **SA** | **87R57** | **DRS** | **71M4** | | 110 | 653 |
| **2.2** | 1410 | 624 | 29300 | 1.75 | **SAF** | **87R57** | **DRS** | **71M4** | | 125 | 653 |
| **2.4** | 1280 | 558 | 29400 | 1.95 | | | | | | | |
| **3.1** | 1020 | 435 | 29700 | 2.4 | | | | | | | |
| **3.1** | 1220 | 438 | 12100 | 1.00 | | | | | | | |
| **3.5** | 1080 | 389 | 13200 | 1.15 | **S** | **77R37** | **DRS** | **71M4** | | 62 | 653 |
| **4.2** | 920 | 327 | 14300 | 1.35 | **SF** | **77R37** | **DRS** | **71M4** | | 72 | 653 |
| **4.7** | 830 | 289 | 14800 | 1.50 | **SA** | **77R37** | **DRS** | **71M4** | | 62 | 653 |
| **5.4** | 715 | 250 | 15300 | 1.70 | **SAF** | **77R37** | **DRS** | **71M4** | | 68 | 653 |
| **5.5** | 655 | 246 | 5530 | 0.85 | **S** | **67R37** | **DRS** | **71M4** | | 43 | 653 |
| **6.2** | 585 | 221 | 7990 | 0.95 | **SF** | **67R37** | **DRS** | **71M4** | | 49 | 653 |
| **6.9** | 535 | 198 | 8520 | 1.05 | **SA** | **67R37** | **DRS** | **71M4** | | 44 | 653 |
| **8.1** | 460 | 168 | 9170 | 1.25 | **SAF** | **67R37** | **DRS** | **71M4** | | 48 | 653 |
| **3.2** | 1110 | 288.00* | 29600 | 2.2 | **S** | **87** | **DRS** | **80S6** | | 91 | 643 |
| **3.5** | 1000 | 258.18 | 29700 | 2.4 | **SF** | **87** | **DRS** | **80S6** | | 115 | 644 |
| **4.1** | 880 | 222.40* | 29800 | 2.7 | **SA** | **87** | **DRS** | **80S6** | | 89 | 645 |
| **4.5** | 810 | 202.96 | 29800 | 2.9 | **SAF** | **87** | **DRS** | **80S6** | | 105 | 644 |
| **3.6** | 940 | 256.47 | 14200 | 1.35 | | | | | | | |
| **4.1** | 830 | 225.26 | 14700 | 1.50 | **S** | **77** | **DRS** | **80S6** | | 55 | 638 |
| **4.3** | 800 | 214.00* | 14900 | 1.60 | **SF** | **77** | **DRS** | **80S6** | | 65 | 639 |
| **4.8** | 715 | 189.09 | 15300 | 1.75 | **SA** | **77** | **DRS** | **80S6** | | 55 | 640 |
| **5.7** | 620 | 161.60* | 15600 | 2.0 | **SAF** | **77** | **DRS** | **80S6** | | 61 | 639 |
| **5.3** | 660 | 256.47 | 15500 | 1.90 | **S** | **77** | **DRS** | **71M4** | | 53 | 638 |
| **6.0** | 585 | 225.26 | 15800 | 2.2 | **SF** | **77** | **DRS** | **71M4** | | 63 | 639 |
| **6.4** | 560 | 214.00* | 15800 | 2.3 | **SA** | **77** | **DRS** | **71M4** | | 52 | 640 |
| **7.2** | 500 | 189.09 | 16000 | 2.5 | **SAF** | **77** | **DRS** | **71M4** | | 59 | 639 |
| **6.3** | 520 | 217.41 | 8660 | 1.00 | | | | | | | |
| **7.2** | 460 | 190.11 | 9150 | 1.10 | | | | | | | |
| **7.5** | 440 | 180.60* | 9300 | 1.15 | | | | | | | |
| **8.6** | 390 | 158.45 | 9620 | 1.30 | | | | | | | |
| **10** | 340 | 134.40* | 9930 | 1.55 | **S** | **67** | **DRS** | **71M4** | | 32 | 633 |
| **11** | 310 | 121.33 | 10100 | 1.65 | **SF** | **67** | **DRS** | **71M4** | | 38 | 634 |
| **13** | 275 | 106.75* | 10200 | 1.85 | **SA** | **67** | **DRS** | **71M4** | | 33 | 635 |
| **13** | 260 | 100.80* | 10300 | 1.95 | **SAF** | **67** | **DRS** | **71M4** | | 37 | 634 |
| **16** | 225 | 85.83 | 10400 | 2.3 | | | | | | | |
| **18** | 230 | 75.06 | 10400 | 2.1 | | | | | | | |
| **21** | 200 | 65.63 | 10500 | 2.4 | | | | | | | |
| **9.7** | 330 | 94.08* | 6760 | 0.90 | | | | | | | |
| **11** | 300 | 84.00* | 7070 | 1.00 | | | | | | | |
| **13** | 260 | 71.75* | 7390 | 1.10 | **S** | **57** | **DRS** | **80S6** | | 23 | 628 |
| **14** | 245 | 67.20* | 7500 | 1.20 | **SF** | **57** | **DRS** | **80S6** | | 27 | 629 |
| **17** | 240 | 54.59 | 7540 | 1.10 | **SA** | **57** | **DRS** | **80S6** | | 23 | 630 |
| **19** | 210 | 47.32 | 7730 | 1.30 | **SAF** | **57** | **DRS** | **80S6** | | 26 | 629 |
| **21** | 199 | 44.22* | 7800 | 1.35 | | | | | | | |
| **24** | 173 | 38.23 | 7930 | 1.55 | | | | | | | |



21284997/EN – 03/2015

## $P_m$ = 0.55 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **8.6** | 370 | 158.12 | 6330 | 0.80 | | | | | | |
| **9.9** | 325 | 137.05 | 6820 | 0.90 | | | | | | |
| **11** | 305 | 128.10* | 7000 | 0.95 | | | | | | |
| **12** | 270 | 110.73 | 7320 | 1.10 | | | | | | |
| **14** | 230 | 94.08* | 7580 | 1.25 | | | | | | |
| **16** | 210 | 84.00* | 7720 | 1.40 | | | | | | |
| **19** | 184 | 71.75* | 7880 | 1.55 | **S** | **57** | **DRS** | **71M4** | 21 | 628 |
| **20** | 174 | 67.20* | 7930 | 1.65 | **SF** | **57** | **DRS** | **71M4** | 25 | 629 |
| **25** | 167 | 54.59 | 7960 | 1.45 | **SA** | **57** | **DRS** | **71M4** | 21 | 630 |
| **29** | 146 | 47.32 | 8040 | 1.70 | **SAF** | **57** | **DRS** | **71M4** | 24 | 629 |
| **31** | 137 | 44.22* | 8080 | 1.80 | | | | | | |
| **36** | 120 | 38.23 | 8130 | 2.0 | | | | | | |
| **42** | 103 | 32.48* | 7980 | 2.4 | | | | | | |
| **47** | 92 | 29.00* | 7730 | 2.7 | | | | | | |
| **55** | 79 | 24.77 | 7390 | 3.1 | | | | | | |
| **59** | 75 | 23.20* | 7260 | 3.3 | | | | | | |
| **67** | 69 | 20.33 | 6790 | 2.4 | | | | | | |
| **16** | 205 | 84.00* | 5140 | 0.80 | | | | | | |
| **19** | 179 | 71.75* | 5290 | 0.95 | | | | | | |
| **20** | 169 | 67.20* | 5350 | 1.00 | | | | | | |
| **25** | 165 | 54.59 | 5140 | 0.95 | | | | | | |
| **29** | 144 | 47.32 | 5020 | 1.10 | | | | | | |
| **31** | 135 | 44.22* | 4960 | 1.15 | | | | | | |
| **36** | 118 | 38.23 | 4820 | 1.30 | | | | | | |
| **42** | 101 | 32.48* | 4660 | 1.55 | **S** | **47** | **DRS** | **71M4** | 17 | 623 |
| **47** | 91 | 29.00* | 4540 | 1.70 | **SF** | **47** | **DRS** | **71M4** | 21 | 624 |
| **55** | 78 | 24.77 | 4380 | 2.00 | **SA** | **47** | **DRS** | **71M4** | 18 | 625 |
| **59** | 74 | 23.20* | 4320 | 2.1 | **SAF** | **47** | **DRS** | **71M4** | 20 | 624 |
| **67** | 69 | 20.33 | 3950 | 1.60 | | | | | | |
| **77** | 60 | 17.62 | 3840 | 1.85 | | | | | | |
| **83** | 56 | 16.47* | 3780 | 1.95 | | | | | | |
| **96** | 49 | 14.24 | 3660 | 2.2 | | | | | | |
| **112** | 42 | 12.10* | 3520 | 2.6 | | | | | | |
| **126** | 37 | 10.80* | 3420 | 2.9 | | | | | | |
| **147** | 32 | 9.23* | 3280 | 3.4 | | | | | | |
| **44** | 94 | 30.68 | 2680 | 0.80 | | | | | | |
| **47** | 89 | 28.76 | 2670 | 0.85 | | | | | | |
| **54** | 79 | 25.38* | 2640 | 0.95 | | | | | | |
| **60** | 70 | 22.50* | 2600 | 1.05 | | | | | | |
| **71** | 60 | 19.13* | 2540 | 1.20 | | | | | | |
| **88** | 52 | 15.53 | 2260 | 0.95 | | | | | | |
| **102** | 46 | 13.39 | 2220 | 1.10 | | | | | | |
| **109** | 43 | 12.48* | 2200 | 1.15 | **S** | **37** | **DRS** | **71M4** | 14 | 619 |
| **125** | 37 | 10.91 | 2160 | 1.30 | **SF** | **37** | **DRS** | **71M4** | 16 | 620 |
| **133** | 35 | 10.23 | 2130 | 1.35 | **SA** | **37** | **DRS** | **71M4** | 14 | 621 |
| **151** | 31 | 9.02* | 2080 | 1.50 | **SAF** | **37** | **DRS** | **71M4** | 16 | 620 |
| **170** | 28 | 8.00* | 2040 | 1.60 | | | | | | |
| **200** | 24 | 6.80* | 1970 | 1.80 | | | | | | |
| **215** | 22 | 6.33 | 1920 | 1.60 | | | | | | |
| **253** | 19 | 5.38 | 1850 | 1.80 | | | | | | |
| **280** | 17 | 4.86* | 1810 | 1.95 | | | | | | |
| **343** | 14 | 3.97 | 1720 | 2.3 | | | | | | |
| **98** | 45 | 28.76 | 2400 | 1.45 | | | | | | |
| **111** | 40 | 25.38* | 2340 | 1.55 | | | | | | |
| **125** | 35 | 22.50* | 2290 | 1.60 | | | | | | |
| **141** | 33 | 19.89 | 2090 | 1.35 | | | | | | |
| **154** | 30 | 18.24* | 2060 | 1.45 | | | | | | |
| **181** | 26 | 15.53 | 2000 | 1.60 | **S** | **37** | **DRS** | **71M2** | 14 | 619 |
| **210** | 23 | 13.39 | 1930 | 1.80 | **SF** | **37** | **DRS** | **71M2** | 16 | 620 |
| **225** | 21 | 12.48* | 1900 | 1.90 | **SA** | **37** | **DRS** | **71M2** | 14 | 621 |
| **258** | 18 | 10.91 | 1850 | 2.1 | **SAF** | **37** | **DRS** | **71M2** | 16 | 620 |
| **275** | 17 | 10.23 | 1820 | 2.2 | | | | | | |
| **311** | 15 | 9.02* | 1770 | 2.3 | | | | | | |
| **351** | 14 | 8.00* | 1710 | 2.6 | | | | | | |
| **413** | 12 | 6.80* | 1640 | 2.5 | | | | | | |

21284997/EN – 03/2015

## $P_m$ = 0.75 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **1.2** | 4690 | 1223 | 24000 | 0.90 | | | | | | |
| **1.4** | 4110 | 1070 | 32700 | 1.00 | | | | | | |
| **1.6** | 3540 | 928 | 34100 | 1.20 | **S** | **97R57** | **DRN** | **80M4** | 175 | 653 |
| **1.8** | 3130 | 824 | 34800 | 1.35 | **SF** | **97R57** | **DRN** | **80M4** | 210 | 653 |
| **2.0** | 2230 | 714 | 35900 | 1.90 | **SA** | **97R57** | **DRN** | **80M4** | 170 | 653 |
| **2.3** | 2380 | 626 | 35800 | 1.75 | **SAF** | **97R57** | **DRN** | **80M4** | 195 | 653 |
| **2.7** | 2040 | 538 | 36100 | 2.1 | | | | | | |
| **3.0** | 1840 | 484 | 36300 | 2.3 | | | | | | |
| **1.4** | 2930 | 1032 | 22000 | 0.85 | | | | | | |
| **1.6** | 2700 | 930 | 27000 | 0.90 | | | | | | |
| **1.7** | 2440 | 831 | 27600 | 1.00 | **S** | **87R57** | **DRN** | **80M4** | 115 | 653 |
| **2.0** | 2120 | 719 | 28200 | 1.15 | **SF** | **87R57** | **DRN** | **80M4** | 135 | 653 |
| **2.3** | 1860 | 624 | 28700 | 1.35 | **SA** | **87R57** | **DRN** | **80M4** | 115 | 653 |
| **2.6** | 1680 | 558 | 28900 | 1.50 | **SAF** | **87R57** | **DRN** | **80M4** | 130 | 653 |
| **3.3** | 1340 | 435 | 29400 | 1.80 | | | | | | |
| **4.5** | 1020 | 323 | 29700 | 2.3 | | | | | | |
| **4.4** | 1190 | 327 | 12300 | 1.05 | **S** | **77R37** | **DRN** | **80M4** | 67 | 653 |
| **5.0** | 1070 | 289 | 13300 | 1.15 | **SF** | **77R37** | **DRN** | **80M4** | 77 | 653 |
| **5.8** | 930 | 250 | 14200 | 1.35 | **SA** | **77R37** | **DRN** | **80M4** | 66 | 653 |
| **6.6** | 820 | 219 | 14800 | 1.50 | **SAF** | **77R37** | **DRN** | **80M4** | 73 | 653 |
| **5.0** | 1000 | 288.00* | 29700 | 2.3 | **S** | **87** | **DRN** | **80M4** | 94 | 643 |
| **5.6** | 910 | 258.18 | 29800 | 2.5 | **SF** | **87** | **DRN** | **80M4** | 115 | 644 |
| **6.5** | 795 | 222.40* | 29800 | 2.8 | **SA** | **87** | **DRN** | **80M4** | 91 | 645 |
| **7.1** | 730 | 202.96 | 29900 | 3.0 | **SAF** | **87** | **DRN** | **80M4** | 105 | 644 |
| **5.6** | 850 | 256.47 | 14600 | 1.50 | | | | | | |
| **6.4** | 760 | 225.26 | 15100 | 1.65 | | | | | | |
| **6.7** | 725 | 214.00* | 15200 | 1.75 | | | | | | |
| **7.6** | 650 | 189.09 | 15500 | 1.90 | **S** | **77** | **DRN** | **80M4** | 58 | 638 |
| **8.9** | 560 | 161.60* | 15800 | 2.2 | **SF** | **77** | **DRN** | **80M4** | 67 | 639 |
| **9.7** | 520 | 148.15 | 16000 | 2.3 | **SA** | **77** | **DRN** | **80M4** | 57 | 640 |
| **11** | 460 | 130.00* | 16000 | 2.5 | **SAF** | **77** | **DRN** | **80M4** | 64 | 639 |
| **12** | 440 | 123.20* | 16000 | 2.6 | | | | | | |
| **13** | 390 | 107.83 | 16000 | 2.8 | | | | | | |
| **7.6** | 600 | 190.11 | 7850 | 0.85 | | | | | | |
| **8.0** | 570 | 180.60* | 8140 | 0.90 | | | | | | |
| **9.1** | 510 | 158.45 | 8750 | 1.00 | | | | | | |
| **11** | 440 | 134.40* | 9310 | 1.20 | | | | | | |
| **12** | 400 | 121.33 | 9570 | 1.30 | | | | | | |
| **13** | 355 | 106.75* | 9830 | 1.45 | **S** | **67** | **DRN** | **80M4** | 37 | 633 |
| **14** | 340 | 100.80* | 9930 | 1.50 | **SF** | **67** | **DRN** | **80M4** | 43 | 634 |
| **17** | 290 | 85.83 | 10100 | 1.75 | **SA** | **67** | **DRN** | **80M4** | 38 | 635 |
| **19** | 295 | 75.06 | 10100 | 1.60 | **SAF** | **67** | **DRN** | **80M4** | 42 | 634 |
| **22** | 260 | 65.63 | 10300 | 1.80 | | | | | | |
| **23** | 250 | 62.35* | 10300 | 1.90 | | | | | | |
| **26** | 220 | 54.70 | 10200 | 2.2 | | | | | | |
| **31** | 190 | 46.40* | 9740 | 2.5 | | | | | | |
| **13** | 350 | 110.73 | 6560 | 0.85 | | | | | | |
| **15** | 300 | 94.08* | 7040 | 1.00 | | | | | | |
| **17** | 275 | 84.00* | 7300 | 1.05 | | | | | | |
| **20** | 235 | 71.75* | 7560 | 1.15 | | | | | | |
| **21** | 225 | 67.20* | 7650 | 1.15 | | | | | | |
| **26** | 215 | 54.59 | 7700 | 1.15 | | | | | | |
| **30** | 189 | 47.32 | 7850 | 1.30 | | | | | | |
| **33** | 177 | 44.22* | 7910 | 1.40 | **S** | **57** | **DRN** | **80M4** | 26 | 628 |
| **38** | 155 | 38.23 | 7910 | 1.60 | **SF** | **57** | **DRN** | **80M4** | 30 | 629 |
| **44** | 132 | 32.48* | 7590 | 1.85 | **SA** | **57** | **DRN** | **80M4** | 26 | 630 |
| **50** | 119 | 29.00* | 7370 | 2.1 | **SAF** | **57** | **DRN** | **80M4** | 28 | 629 |
| **58** | 102 | 24.77 | 7070 | 2.2 | | | | | | |
| **62** | 96 | 23.20* | 6950 | 2.2 | | | | | | |
| **71** | 89 | 20.33 | 6450 | 1.90 | | | | | | |
| **82** | 78 | 17.62 | 6230 | 2.2 | | | | | | |
| **87** | 73 | 16.47* | 6120 | 2.3 | | | | | | |
| **101** | 63 | 14.24 | 5890 | 2.7 | | | | | | |



21284997/EN – 03/2015

## $P_m$ = 0.75 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **30** | 186 | 47.32 | 4520 | 0.85 | **S** | **47** | **DRN** | **80M4** | 22 | 623 |
| **33** | 175 | 44.22* | 4490 | 0.90 | **SF** | **47** | **DRN** | **80M4** | 26 | 624 |
| **38** | 153 | 38.23 | 4400 | 1.00 | **SA** | **47** | **DRN** | **80M4** | 23 | 625 |
| **44** | 131 | 32.48* | 4290 | 1.20 | **SAF** | **47** | **DRN** | **80M4** | 25 | 624 |
| **50** | 118 | 29.00* | 4210 | 1.30 | | | | | | |
| **58** | 101 | 24.77 | 4080 | 1.45 | | | | | | |
| **62** | 95 | 23.20* | 4030 | 1.50 | | | | | | |
| **71** | 89 | 20.33 | 3630 | 1.25 | | | | | | |
| **82** | 77 | 17.62 | 3550 | 1.40 | | | | | | |
| **87** | 73 | 16.47* | 3510 | 1.50 | | | | | | |
| **101** | 63 | 14.24 | 3410 | 1.75 | | | | | | |
| **119** | 54 | 12.10* | 3300 | 2.0 | **S** | **47** | **DRN** | **80M4** | 22 | 623 |
| **133** | 48 | 10.80* | 3220 | 2.2 | **SF** | **47** | **DRN** | **80M4** | 26 | 624 |
| **156** | 41 | 9.23* | 3110 | 2.5 | **SA** | **47** | **DRN** | **80M4** | 23 | 625 |
| **167** | 39 | 8.64* | 3060 | 2.6 | **SAF** | **47** | **DRN** | **80M4** | 25 | 624 |
| **198** | 33 | 7.28 | 2940 | 2.6 | | | | | | |
| **225** | 29 | 6.40* | 2830 | 2.6 | | | | | | |
| **267** | 25 | 5.39 | 2700 | 2.6 | | | | | | |
| **302** | 22 | 4.76 | 2620 | 2.6 | | | | | | |
| **360** | 18 | 4.00* | 2500 | 2.6 | | | | | | |
| **75** | 78 | 19.13* | 2260 | 0.85 | | | | | | |
| **115** | 55 | 12.48* | 1960 | 0.85 | | | | | | |
| **132** | 48 | 10.91 | 1940 | 0.95 | | | | | | |
| **141** | 45 | 10.23 | 1930 | 1.00 | | | | | | |
| **160** | 40 | 9.02* | 1900 | 1.05 | **S** | **37** | **DRN** | **80M4** | 19 | 619 |
| **180** | 36 | 8.00* | 1870 | 1.20 | **SF** | **37** | **DRN** | **80M4** | 20 | 620 |
| **212** | 31 | 6.80* | 1820 | 1.35 | **SA** | **37** | **DRN** | **80M4** | 19 | 621 |
| **227** | 29 | 6.33 | 1780 | 1.20 | **SAF** | **37** | **DRN** | **80M4** | 20 | 620 |
| **267** | 24 | 5.38 | 1730 | 1.40 | | | | | | |
| **296** | 22 | 4.86* | 1690 | 1.50 | | | | | | |
| **363** | 18 | 3.97 | 1620 | 1.75 | | | | | | |

## $P_m$ = 1.1 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **1.8** | 4590 | 824 | 25600 | 0.90 | | | | | | |
| **2.0** | 3280 | 714 | 34500 | 1.30 | **S** | **97R57** | **DRN** | **90S4** | 180 | 653 |
| **2.3** | 3490 | 626 | 34200 | 1.20 | **SF** | **97R57** | **DRN** | **90S4** | 215 | 653 |
| **2.7** | 3000 | 538 | 34900 | 1.40 | **SA** | **97R57** | **DRN** | **90S4** | 175 | 653 |
| **3.0** | 2710 | 484 | 35400 | 1.55 | **SAF** | **97R57** | **DRN** | **90S4** | 200 | 653 |
| **3.5** | 2350 | 420 | 35800 | 1.80 | | | | | | |
| **2.3** | 2740 | 624 | 26500 | 0.90 | | | | | | |
| **2.6** | 2480 | 558 | 27500 | 1.00 | | | | | | |
| **3.0** | 2180 | 485 | 28100 | 1.15 | | | | | | |
| **3.4** | 1980 | 435 | 28500 | 1.25 | **S** | **87R57** | **DRN** | **90S4** | 120 | 653 |
| **3.8** | 1740 | 378 | 28800 | 1.40 | **SF** | **87R57** | **DRN** | **90S4** | 145 | 653 |
| **4.5** | 1510 | 323 | 29100 | 1.60 | **SA** | **87R57** | **DRN** | **90S4** | 120 | 653 |
| **5.2** | 1330 | 281 | 29400 | 1.80 | **SAF** | **87R57** | **DRN** | **90S4** | 135 | 653 |
| **5.7** | 1420 | 255 | 29200 | 1.40 | | | | | | |
| **6.6** | 1240 | 222 | 29400 | 1.60 | | | | | | |
| **7.1** | 1160 | 205 | 29500 | 1.70 | | | | | | |
| **6.6** | 1200 | 219 | 12200 | 1.05 | **S** | **77R37** | **DRN** | **90S4** | 73 | 653 |
| | | | | | **SF** | **77R37** | **DRN** | **90S4** | 82 | 653 |
| | | | | | **SA** | **77R37** | **DRN** | **90S4** | 72 | 653 |
| | | | | | **SAF** | **77R37** | **DRN** | **90S4** | 79 | 653 |
| **5.0** | 1460 | 288.00* | 29200 | 1.55 | | | | | | |
| **5.6** | 1320 | 258.18 | 29400 | 1.70 | **S** | **87** | **DRN** | **90S4** | 99 | 643 |
| **6.5** | 1150 | 222.40* | 29500 | 1.90 | **SF** | **87** | **DRN** | **90S4** | 120 | 644 |
| **7.2** | 1060 | 202.96 | 29600 | 2.0 | **SA** | **87** | **DRN** | **90S4** | 96 | 645 |
| **8.1** | 950 | 180.00* | 29700 | 2.2 | **SAF** | **87** | **DRN** | **90S4** | 110 | 644 |
| **9.6** | 810 | 151.30 | 29800 | 2.5 | | | | | | |

21284997/EN – 03/2015

## $P_m$ = 1.1 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **6.5** | 1100 | 225.26 | 13100 | 1.15 | | | | | | |
| **6.8** | 1050 | 214.00* | 13400 | 1.20 | | | | | | |
| **7.7** | 940 | 189.09 | 14100 | 1.30 | | | | | | |
| **9.0** | 820 | 161.60* | 14800 | 1.50 | **S** | **77** | **DRN** | **90S4** | 63 | 638 |
| **9.8** | 755 | 148.15 | 15100 | 1.60 | **SF** | **77** | **DRN** | **90S4** | 72 | 639 |
| **11** | 670 | 130.00* | 15500 | 1.75 | **SA** | **77** | **DRN** | **90S4** | 62 | 640 |
| **12** | 640 | 123.20* | 15600 | 1.80 | **SAF** | **77** | **DRN** | **90S4** | 69 | 639 |
| **13** | 565 | 107.83 | 15800 | 1.95 | | | | | | |
| **15** | 510 | 97.14 | 16000 | 2.1 | | | | | | |
| **17** | 455 | 85.22 | 16000 | 2.3 | | | | | | |
| **12** | 585 | 121.33 | 8020 | 0.90 | | | | | | |
| **14** | 520 | 106.75* | 8660 | 1.00 | | | | | | |
| **14** | 495 | 100.80* | 8890 | 1.05 | | | | | | |
| **17** | 425 | 85.83 | 9400 | 1.20 | | | | | | |
| **19** | 390 | 78.00* | 9640 | 1.30 | | | | | | |
| **22** | 380 | 65.63 | 9690 | 1.25 | **S** | **67** | **DRN** | **90S4** | 43 | 633 |
| **23** | 365 | 62.35* | 9740 | 1.30 | **SF** | **67** | **DRN** | **90S4** | 50 | 634 |
| **27** | 320 | 54.70 | 9500 | 1.50 | **SA** | **67** | **DRN** | **90S4** | 44 | 635 |
| **31** | 275 | 46.40* | 9170 | 1.75 | **SAF** | **67** | **DRN** | **90S4** | 48 | 634 |
| **35** | 250 | 41.89 | 8970 | 1.90 | | | | | | |
| **39** | 220 | 36.85 | 8700 | 2.2 | | | | | | |
| **42** | 210 | 34.80* | 8590 | 2.3 | | | | | | |
| **49** | 180 | 29.63 | 8260 | 2.7 | | | | | | |
| **20** | 345 | 71.75* | 6620 | 0.80 | **S** | **57** | **DRN** | **90S4** | 32 | 628 |
| **22** | 325 | 67.20* | 6830 | 0.80 | **SF** | **57** | **DRN** | **90S4** | 35 | 629 |
| **26** | 275 | 56.61 | 7260 | 0.80 | **SA** | **57** | **DRN** | **90S4** | 31 | 630 |
| **31** | 270 | 47.32 | 7300 | 0.90 | **SAF** | **57** | **DRN** | **90S4** | 34 | 629 |
| **33** | 255 | 44.22* | 7430 | 0.95 | | | | | | |
| **38** | 220 | 38.23 | 7360 | 1.10 | | | | | | |
| **45** | 192 | 32.48* | 7120 | 1.25 | | | | | | |
| **50** | 173 | 29.00* | 6950 | 1.40 | | | | | | |
| **59** | 149 | 24.77 | 6710 | 1.50 | | | | | | |
| **63** | 140 | 23.20* | 6610 | 1.50 | **S** | **57** | **DRN** | **90S4** | 32 | 628 |
| **74** | 119 | 19.54 | 6340 | 1.55 | **SF** | **57** | **DRN** | **90S4** | 35 | 629 |
| **83** | 113 | 17.62 | 5860 | 1.50 | **SA** | **57** | **DRN** | **90S4** | 31 | 630 |
| **88** | 106 | 16.47* | 5780 | 1.60 | **SAF** | **57** | **DRN** | **90S4** | 34 | 629 |
| **102** | 92 | 14.24 | 5590 | 1.85 | | | | | | |
| **120** | 78 | 12.10* | 5380 | 2.2 | | | | | | |
| **135** | 70 | 10.80* | 5230 | 2.4 | | | | | | |
| **158** | 60 | 9.23* | 5030 | 2.5 | | | | | | |
| **50** | 171 | 29.00* | 3720 | 0.90 | | | | | | |
| **59** | 147 | 24.77 | 3660 | 1.00 | **S** | **47** | **DRN** | **90S4** | 28 | 623 |
| **63** | 138 | 23.20* | 3630 | 1.05 | **SF** | **47** | **DRN** | **90S4** | 32 | 624 |
| **74** | 117 | 19.54 | 3550 | 1.05 | **SA** | **47** | **DRN** | **90S4** | 29 | 625 |
| **83** | 113 | 17.62 | 3120 | 0.95 | **SAF** | **47** | **DRN** | **90S4** | 31 | 624 |
| **88** | 105 | 16.47* | 3110 | 1.05 | | | | | | |
| **102** | 92 | 14.24 | 3070 | 1.20 | | | | | | |
| **120** | 78 | 12.10* | 3010 | 1.40 | | | | | | |
| **135** | 70 | 10.80* | 2960 | 1.55 | | | | | | |
| **158** | 60 | 9.23* | 2880 | 1.75 | **S** | **47** | **DRN** | **90S4** | 28 | 623 |
| **168** | 56 | 8.64* | 2850 | 1.75 | **SF** | **47** | **DRN** | **90S4** | 32 | 624 |
| **200** | 48 | 7.28 | 2750 | 1.80 | **SA** | **47** | **DRN** | **90S4** | 29 | 625 |
| **227** | 42 | 6.40* | 2660 | 1.80 | **SAF** | **47** | **DRN** | **90S4** | 31 | 624 |
| **270** | 36 | 5.39 | 2560 | 1.80 | | | | | | |
| **306** | 32 | 4.76 | 2490 | 1.85 | | | | | | |
| **364** | 27 | 4.00* | 2390 | 1.80 | | | | | | |
| **182** | 52 | 8.00* | 1620 | 0.85 | | | | | | |
| **214** | 44 | 6.80* | 1610 | 0.95 | **S** | **37** | **DRN** | **90S4** | 25 | 619 |
| **230** | 42 | 6.33 | 1570 | 0.85 | **SF** | **37** | **DRN** | **90S4** | 26 | 620 |
| **270** | 35 | 5.38 | 1540 | 0.95 | **SA** | **37** | **DRN** | **90S4** | 25 | 621 |
| **299** | 32 | 4.86* | 1530 | 1.05 | **SAF** | **37** | **DRN** | **90S4** | 26 | 620 |
| **367** | 26 | 3.97 | 1490 | 1.20 | | | | | | |



21284997/EN – 03/2015

## $P_m$ = 1.5 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **2.0** | 4490 | 714 | 30600 | 0.95 | | | | | | |
| **2.3** | 4770 | 626 | 22600 | 0.90 | | | | | | |
| **2.7** | 4110 | 538 | 32800 | 1.00 | **S** | **97R57** | **DRN** | **90L4** | 185 | 653 |
| **3.0** | 3710 | 484 | 33700 | 1.15 | **SF** | **97R57** | **DRN** | **90L4** | 220 | 653 |
| **3.5** | 3230 | 420 | 34600 | 1.30 | **SA** | **97R57** | **DRN** | **90L4** | 180 | 653 |
| **3.9** | 2920 | 376 | 35100 | 1.45 | **SAF** | **97R57** | **DRN** | **90L4** | 205 | 653 |
| **4.5** | 2560 | 327 | 35500 | 1.65 | | | | | | |
| **3.0** | 2990 | 485 | 20100 | 0.85 | | | | | | |
| **3.4** | 2710 | 435 | 27000 | 0.90 | | | | | | |
| **3.9** | 2390 | 378 | 27700 | 1.00 | **S** | **87R57** | **DRN** | **90L4** | 125 | 653 |
| **4.5** | 2070 | 323 | 28300 | 1.15 | **SF** | **87R57** | **DRN** | **90L4** | 145 | 653 |
| **5.2** | 1820 | 281 | 28700 | 1.30 | **SA** | **87R57** | **DRN** | **90L4** | 125 | 653 |
| **5.7** | 1940 | 255 | 28500 | 1.00 | **SAF** | **87R57** | **DRN** | **90L4** | 140 | 653 |
| **6.6** | 1700 | 222 | 28900 | 1.15 | | | | | | |
| **7.1** | 1590 | 205 | 29000 | 1.25 | | | | | | |
| **5.1** | 2060 | 286.40* | 36100 | 1.95 | **S** | **97** | **DRN** | **90L4** | 160 | 648 |
| **5.6** | 1900 | 262.22 | 36300 | 2.1 | **SF** | **97** | **DRN** | **90L4** | 195 | 649 |
| **6.3** | 1690 | 231.67 | 36400 | 2.3 | **SA** | **97** | **DRN** | **90L4** | 155 | 650 |
| **7.4** | 1450 | 196.52 | 36600 | 2.6 | **SAF** | **97** | **DRN** | **90L4** | 180 | 649 |
| **5.1** | 1990 | 288.00* | 28500 | 1.15 | | | | | | |
| **5.7** | 1800 | 258.18 | 28800 | 1.25 | | | | | | |
| **6.6** | 1570 | 222.40* | 29100 | 1.40 | | | | | | |
| **7.2** | 1440 | 202.96 | 29200 | 1.50 | **S** | **87** | **DRN** | **90L4** | 100 | 643 |
| **8.1** | 1290 | 180.00* | 29400 | 1.65 | **SF** | **87** | **DRN** | **90L4** | 125 | 644 |
| **9.7** | 1100 | 151.30 | 29600 | 1.85 | **SA** | **87** | **DRN** | **90L4** | 99 | 645 |
| **11** | 1020 | 139.05 | 29700 | 2.00 | **SAF** | **87** | **DRN** | **90L4** | 115 | 644 |
| **12** | 910 | 123.48 | 29800 | 2.1 | | | | | | |
| **13** | 820 | 110.40* | 29800 | 2.3 | | | | | | |
| **15** | 745 | 99.26 | 29900 | 2.5 | | | | | | |
| **7.7** | 1280 | 189.09 | 11500 | 0.95 | | | | | | |
| **9.0** | 1110 | 161.60* | 13000 | 1.10 | | | | | | |
| **9.9** | 1030 | 148.15 | 13600 | 1.15 | | | | | | |
| **11** | 910 | 130.00* | 14300 | 1.30 | | | | | | |
| **12** | 870 | 123.20* | 14600 | 1.30 | | | | | | |
| **14** | 765 | 107.83 | 15000 | 1.45 | | | | | | |
| **15** | 695 | 97.14 | 15400 | 1.55 | **S** | **77** | **DRN** | **90L4** | 66 | 638 |
| **17** | 615 | 85.22 | 15300 | 1.70 | **SF** | **77** | **DRN** | **90L4** | 76 | 639 |
| **19** | 625 | 75.09 | 14100 | 1.75 | **SA** | **77** | **DRN** | **90L4** | 65 | 640 |
| **20** | 595 | 71.33 | 13900 | 1.85 | **SAF** | **77** | **DRN** | **90L4** | 72 | 639 |
| **22** | 490 | 66.67 | 14400 | 1.95 | | | | | | |
| **23** | 530 | 63.03 | 13600 | 2.1 | | | | | | |
| **26** | 420 | 56.92 | 13900 | 2.2 | | | | | | |
| **27** | 455 | 53.87 | 13100 | 2.4 | | | | | | |
| **30** | 420 | 49.38 | 12900 | 2.6 | | | | | | |
| **34** | 370 | 43.33 | 12500 | 3.0 | | | | | | |
| **17** | 580 | 85.83 | 8060 | 0.90 | **S** | **67** | **DRN** | **90L4** | 46 | 633 |
| **19** | 530 | 78.00* | 8560 | 0.95 | **SF** | **67** | **DRN** | **90L4** | 53 | 634 |
| **22** | 520 | 65.63 | 8670 | 0.90 | **SA** | **67** | **DRN** | **90L4** | 47 | 635 |
| | | | | | **SAF** | **67** | **DRN** | **90L4** | 52 | 634 |
| **23** | 495 | 62.35* | 8880 | 0.95 | | | | | | |
| **27** | 435 | 54.70 | 8770 | 1.10 | | | | | | |
| **31** | 375 | 46.40* | 8550 | 1.30 | | | | | | |
| **35** | 340 | 41.89 | 8400 | 1.40 | | | | | | |
| **40** | 300 | 36.85 | 8200 | 1.60 | | | | | | |
| **42** | 285 | 34.80* | 8110 | 1.70 | **S** | **67** | **DRN** | **90L4** | 46 | 633 |
| **49** | 245 | 29.63 | 7850 | 1.95 | **SF** | **67** | **DRN** | **90L4** | 53 | 634 |
| **54** | 220 | 26.93 | 7690 | 2.0 | **SA** | **67** | **DRN** | **90L4** | 47 | 635 |
| **60** | 210 | 24.44 | 7040 | 1.60 | **SAF** | **67** | **DRN** | **90L4** | 52 | 634 |
| **63** | 200 | 23.22* | 6970 | 1.65 | | | | | | |
| **72** | 180 | 20.37 | 6800 | 1.90 | | | | | | |
| **85** | 153 | 17.28* | 6580 | 2.2 | | | | | | |
| **94** | 139 | 15.60* | 6430 | 2.4 | | | | | | |
| **106** | 123 | 13.73* | 6250 | 2.8 | | | | | | |

21284997/EN – 03/2015

## $P_m$ = 1.5 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **45** | 260 | 32.48* | 6610 | 0.95 | | | | | | |
| **50** | 230 | 29.00* | 6490 | 1.05 | | | | | | |
| **59** | 200 | 24.77 | 6310 | 1.10 | | | | | | |
| **63** | 190 | 23.20* | 6230 | 1.10 | | | | | | |
| **75** | 161 | 19.54 | 6020 | 1.15 | **S** | **57** | **DRN** | **90L4** | 35 | 628 |
| **83** | 153 | 17.62 | 5460 | 1.10 | **SF** | **57** | **DRN** | **90L4** | 39 | 629 |
| **89** | 144 | 16.47* | 5400 | 1.15 | **SA** | **57** | **DRN** | **90L4** | 35 | 630 |
| **103** | 125 | 14.24 | 5260 | 1.35 | **SAF** | **57** | **DRN** | **90L4** | 37 | 629 |
| **121** | 107 | 12.10* | 5100 | 1.60 | | | | | | |
| **135** | 95 | 10.80* | 4980 | 1.75 | | | | | | |
| **158** | 82 | 9.23* | 4810 | 1.80 | | | | | | |
| **103** | 124 | 14.24 | 2680 | 0.90 | **S** | **47** | **DRN** | **90L4** | 31 | 623 |
| **121** | 106 | 12.10* | 2680 | 1.05 | **SF** | **47** | **DRN** | **90L4** | 35 | 624 |
| **135** | 95 | 10.80* | 2660 | 1.15 | **SA** | **47** | **DRN** | **90L4** | 32 | 625 |
| | | | | | **SAF** | **47** | **DRN** | **90L4** | 34 | 624 |
| **158** | 82 | 9.23* | 2630 | 1.30 | | | | | | |
| **169** | 77 | 8.64* | 2610 | 1.30 | | | | | | |
| **201** | 65 | 7.28 | 2550 | 1.35 | **S** | **47** | **DRN** | **90L4** | 31 | 623 |
| **228** | 58 | 6.40* | 2470 | 1.30 | **SF** | **47** | **DRN** | **90L4** | 35 | 624 |
| **271** | 49 | 5.39 | 2400 | 1.35 | **SA** | **47** | **DRN** | **90L4** | 32 | 625 |
| **307** | 43 | 4.76 | 2350 | 1.35 | **SAF** | **47** | **DRN** | **90L4** | 34 | 624 |
| **365** | 36 | 4.00* | 2270 | 1.30 | | | | | | |

## $P_m$ = 2.2 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **3.4** | 4810 | 420 | 22200 | 0.85 | **S** | **97R57** | **DRN** | **100LS4** | 190 | 653 |
| **3.9** | 4340 | 376 | 29600 | 0.95 | **SF** | **97R57** | **DRN** | **100LS4** | 220 | 653 |
| **4.4** | 3800 | 327 | 33600 | 1.10 | **SA** | **97R57** | **DRN** | **100LS4** | 185 | 653 |
| **5.0** | 3360 | 287 | 34400 | 1.25 | **SAF** | **97R57** | **DRN** | **100LS4** | 210 | 653 |
| **5.8** | 2940 | 252 | 35000 | 1.40 | | | | | | |
| **5.1** | 3040 | 286.40* | 34900 | 1.30 | | | | | | |
| **5.5** | 2810 | 262.22 | 35200 | 1.40 | | | | | | |
| **6.3** | 2500 | 231.67 | 35600 | 1.60 | | | | | | |
| **7.4** | 2150 | 196.52 | 36000 | 1.80 | | | | | | |
| **8.0** | 1990 | 180.95 | 36200 | 1.90 | **S** | **97** | **DRN** | **100LS4** | 165 | 648 |
| **9.0** | 1790 | 161.74 | 36400 | 2.0 | **SF** | **97** | **DRN** | **100LS4** | 200 | 649 |
| **10.0** | 1620 | 145.60* | 36500 | 2.2 | **SA** | **97** | **DRN** | **100LS4** | 160 | 650 |
| **11** | 1480 | 131.85 | 36600 | 2.3 | **SAF** | **97** | **DRN** | **100LS4** | 185 | 649 |
| **12** | 1320 | 116.92 | 36700 | 2.5 | | | | | | |
| **14** | 1200 | 105.71 | 36800 | 2.7 | | | | | | |
| **16** | 1020 | 89.60* | 36900 | 2.9 | | | | | | |
| **5.6** | 2660 | 258.18 | 27100 | 0.85 | | | | | | |
| **6.5** | 2320 | 222.40* | 27900 | 0.95 | | | | | | |
| **7.1** | 2130 | 202.96 | 28200 | 1.00 | | | | | | |
| **8.1** | 1910 | 180.00* | 28600 | 1.10 | | | | | | |
| **9.6** | 1630 | 151.30 | 29000 | 1.25 | | | | | | |
| **10** | 1500 | 139.05 | 29200 | 1.35 | | | | | | |
| **12** | 1350 | 123.48 | 29300 | 1.45 | **S** | **87** | **DRN** | **100LS4** | 105 | 643 |
| **13** | 1210 | 110.40* | 29500 | 1.55 | **SF** | **87** | **DRN** | **100LS4** | 130 | 644 |
| **15** | 1100 | 99.26 | 29600 | 1.65 | **SA** | **87** | **DRN** | **100LS4** | 105 | 645 |
| **17** | 960 | 86.15 | 29700 | 1.85 | **SAF** | **87** | **DRN** | **100LS4** | 120 | 644 |
| **18** | 1030 | 81.76 | 29600 | 1.55 | | | | | | |
| **19** | 860 | 77.14 | 29800 | 1.95 | | | | | | |
| **21** | 890 | 70.43 | 29800 | 1.80 | | | | | | |
| **23** | 810 | 64.27 | 29800 | 1.95 | | | | | | |
| **25** | 730 | 57.00* | 29900 | 2.2 | | | | | | |



21284997/EN – 03/2015

## $P_m$ = 2.2 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **11** | 1350 | 130.00* | 9150 | 0.85 | | | | | | |
| **12** | 1280 | 123.20* | 11500 | 0.90 | | | | | | |
| **13** | 1130 | 107.83 | 12800 | 1.00 | | | | | | |
| **15** | 1030 | 97.14 | 13600 | 1.05 | | | | | | |
| **17** | 910 | 85.22 | 14000 | 1.15 | | | | | | |
| **19** | 810 | 75.20* | 13800 | 1.25 | | | | | | |
| **22** | 725 | 66.67 | 13500 | 1.35 | | | | | | |
| **23** | 780 | 63.03 | 12400 | 1.40 | | | | | | |
| **25** | 625 | 56.92 | 13000 | 1.45 | **S** | **77** | **DRN** | **100LS4** | 70 | 638 |
| **27** | 670 | 53.87 | 12100 | 1.65 | **SF** | **77** | **DRN** | **100LS4** | 80 | 639 |
| **29** | 620 | 49.38 | 11900 | 1.75 | **SA** | **77** | **DRN** | **100LS4** | 69 | 640 |
| **33** | 545 | 43.33 | 11700 | 2.0 | **SAF** | **77** | **DRN** | **100LS4** | 76 | 639 |
| **35** | 515 | 41.07 | 11500 | 2.1 | | | | | | |
| **40** | 455 | 35.94 | 11200 | 2.3 | | | | | | |
| **45** | 410 | 32.38 | 11000 | 2.5 | | | | | | |
| **51** | 360 | 28.41 | 10700 | 2.7 | | | | | | |
| **58** | 320 | 25.07 | 10400 | 3.0 | | | | | | |
| **63** | 300 | 22.89 | 9550 | 2.3 | | | | | | |
| **69** | 275 | 20.99 | 9390 | 2.5 | | | | | | |
| **31** | 550 | 46.40* | 7480 | 0.85 | | | | | | |
| **35** | 500 | 41.89 | 7430 | 0.95 | | | | | | |
| **39** | 445 | 36.85 | 7350 | 1.10 | | | | | | |
| **42** | 420 | 34.80* | 7300 | 1.15 | | | | | | |
| **49** | 360 | 29.63 | 7160 | 1.35 | | | | | | |
| **54** | 330 | 26.93 | 7060 | 1.40 | | | | | | |
| **62** | 285 | 23.33 | 6900 | 1.40 | **S** | **67** | **DRN** | **100LS4** | 50 | 633 |
| **71** | 265 | 20.37 | 6130 | 1.30 | **SF** | **67** | **DRN** | **100LS4** | 57 | 634 |
| **84** | 225 | 17.28* | 6010 | 1.50 | **SA** | **67** | **DRN** | **100LS4** | 51 | 635 |
| **93** | 205 | 15.60* | 5920 | 1.65 | **SAF** | **67** | **DRN** | **100LS4** | 55 | 634 |
| **106** | 181 | 13.73* | 5800 | 1.90 | | | | | | |
| **112** | 171 | 12.96* | 5740 | 2.00 | | | | | | |
| **131** | 146 | 11.03 | 5570 | 2.3 | | | | | | |
| **145** | 133 | 10.03 | 5470 | 2.4 | | | | | | |
| **167** | 116 | 8.69 | 5300 | 2.4 | | | | | | |
| **102** | 184 | 14.24 | 4700 | 0.90 | | | | | | |
| **120** | 158 | 12.10* | 4620 | 1.05 | | | | | | |
| **134** | 141 | 10.80* | 4560 | 1.20 | | | | | | |
| **157** | 121 | 9.23* | 4450 | 1.25 | **S** | **57** | **DRN** | **100LS4** | 39 | 628 |
| **168** | 114 | 8.64* | 4400 | 1.25 | **SF** | **57** | **DRN** | **100LS4** | 43 | 629 |
| **199** | 96 | 7.28 | 4270 | 1.25 | **SA** | **57** | **DRN** | **100LS4** | 39 | 630 |
| **227** | 85 | 6.40* | 4120 | 1.15 | **SAF** | **57** | **DRN** | **100LS4** | 41 | 629 |
| **269** | 72 | 5.39 | 3980 | 1.30 | | | | | | |
| **304** | 64 | 4.76 | 3870 | 1.30 | | | | | | |
| **362** | 54 | 4.00* | 3720 | 1.30 | | | | | | |

## $P_m$ = 3.0 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **5.1** | 4580 | 287 | 26000 | 0.90 | **S** | **97R57** | **DRN** | **100L4** | 195 | 653 |
| **5.8** | 4020 | 252 | 33100 | 1.05 | **SF** | **97R57** | **DRN** | **100L4** | 230 | 653 |
| **6.6** | 3510 | 219 | 34100 | 1.20 | **SA** | **97R57** | **DRN** | **100L4** | 190 | 653 |
| **7.1** | 3300 | 205 | 34500 | 1.25 | **SAF** | **97R57** | **DRN** | **100L4** | 215 | 653 |
| **5.1** | 4140 | 286.40* | 32900 | 0.95 | | | | | | |
| **5.6** | 3820 | 262.22 | 33600 | 1.05 | | | | | | |
| **6.3** | 3400 | 231.67 | 34300 | 1.15 | | | | | | |
| **7.4** | 2920 | 196.52 | 35100 | 1.30 | | | | | | |
| **8.0** | 2710 | 180.95 | 35400 | 1.40 | **S** | **97** | **DRN** | **100L4** | 170 | 648 |
| **9.0** | 2440 | 161.74 | 35700 | 1.50 | **SF** | **97** | **DRN** | **100L4** | 205 | 649 |
| **10** | 2210 | 145.60* | 36000 | 1.60 | **SA** | **97** | **DRN** | **100L4** | 165 | 650 |
| **11** | 2010 | 131.85 | 36200 | 1.70 | **SAF** | **97** | **DRN** | **100L4** | 195 | 649 |
| **12** | 1790 | 116.92 | 36300 | 1.85 | | | | | | |
| **14** | 1630 | 105.71 | 36500 | 1.95 | | | | | | |
| **16** | 1390 | 89.60* | 36700 | 2.2 | | | | | | |
| **18** | 1410 | 80.85 | 36600 | 2.3 | | | | | | |

21284997/EN – 03/2015

| $P_m$ = 3.0 kW | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | | m kg | |
| **8.1** | 2600 | 180.00* | 27300 | 0.80 | | | | | | | |
| **9.6** | 2210 | 151.30 | 28100 | 0.95 | | | | | | | |
| **10** | 2050 | 139.05 | 28400 | 1.00 | | | | | | | |
| **12** | 1830 | 123.48 | 28700 | 1.05 | | | | | | | |
| **13** | 1650 | 110.40* | 29000 | 1.15 | | | | | | | |
| **15** | 1490 | 99.26 | 29200 | 1.25 | | | | | | | |
| **17** | 1310 | 86.15 | 29400 | 1.35 | **S** | **87** | **DRN** | **100L4** | | 115 | 643 |
| **18** | 1400 | 81.76 | 29300 | 1.15 | **SF** | **87** | **DRN** | **100L4** | | 135 | 644 |
| **19** | 1180 | 77.14 | 29500 | 1.45 | **SA** | **87** | **DRN** | **100L4** | | 110 | 645 |
| **21** | 1210 | 70.43 | 29500 | 1.30 | **SAF** | **87** | **DRN** | **100L4** | | 125 | 644 |
| **23** | 1110 | 64.27 | 29600 | 1.45 | | | | | | | |
| **26** | 990 | 57.00* | 29700 | 1.60 | | | | | | | |
| **30** | 830 | 47.91 | 29800 | 1.90 | | | | | | | |
| **33** | 770 | 44.03 | 29900 | 2.1 | | | | | | | |
| **37** | 685 | 39.10 | 29900 | 2.3 | | | | | | | |
| **42** | 615 | 34.96* | 29900 | 2.6 | | | | | | | |
| **17** | 1240 | 85.22 | 12000 | 0.85 | **S** | **77** | **DRN** | **100L4** | | 77 | 638 |
| **19** | 1100 | 75.20* | 12500 | 0.90 | **SF** | **77** | **DRN** | **100L4** | | 87 | 639 |
| **22** | 980 | 66.67 | 12300 | 1.00 | **SA** | **77** | **DRN** | **100L4** | | 77 | 640 |
| **23** | 1060 | 63.03 | 10900 | 1.05 | **SAF** | **77** | **DRN** | **100L4** | | 83 | 639 |
| **26** | 850 | 56.92 | 12000 | 1.10 | | | | | | | |
| **27** | 910 | 53.87 | 10900 | 1.20 | | | | | | | |
| **29** | 840 | 49.38 | 10800 | 1.30 | | | | | | | |
| **34** | 740 | 43.33 | 10700 | 1.50 | | | | | | | |
| **35** | 705 | 41.07 | 10600 | 1.55 | | | | | | | |
| **41** | 620 | 35.94 | 10400 | 1.70 | | | | | | | |
| **45** | 560 | 32.38 | 10200 | 1.85 | | | | | | | |
| **51** | 490 | 28.41 | 10000 | 2.0 | **S** | **77** | **DRN** | **100L4** | | 77 | 638 |
| **58** | 435 | 25.07 | 9790 | 2.2 | **SF** | **77** | **DRN** | **100L4** | | 87 | 639 |
| **64** | 410 | 22.89 | 8790 | 1.70 | **SA** | **77** | **DRN** | **100L4** | | 77 | 640 |
| **69** | 375 | 20.99 | 8690 | 1.85 | **SAF** | **77** | **DRN** | **100L4** | | 83 | 639 |
| **79** | 330 | 18.42 | 8520 | 2.1 | | | | | | | |
| **83** | 315 | 17.45 | 8450 | 2.2 | | | | | | | |
| **95** | 275 | 15.28 | 8250 | 2.6 | | | | | | | |
| **106** | 250 | 13.76 | 8090 | 2.9 | | | | | | | |
| **121** | 220 | 12.07 | 7880 | 3.3 | | | | | | | |
| **137** | 195 | 10.65 | 7670 | 3.7 | | | | | | | |
| | | | | | **S** | **67** | **DRN** | **100L4** | | 57 | 633 |
| **42** | 570 | 34.80* | 6370 | 0.85 | **SF** | **67** | **DRN** | **100L4** | | 64 | 634 |
| **49** | 490 | 29.63 | 6350 | 1.00 | **SA** | **67** | **DRN** | **100L4** | | 58 | 635 |
| **54** | 445 | 26.93 | 6320 | 1.00 | **SAF** | **67** | **DRN** | **100L4** | | 63 | 634 |
| **62** | 390 | 23.33 | 6260 | 1.05 | | | | | | | |
| **71** | 360 | 20.37 | 5360 | 0.95 | | | | | | | |
| **84** | 305 | 17.28* | 5350 | 1.10 | | | | | | | |
| **93** | 275 | 15.60* | 5320 | 1.20 | **S** | **67** | **DRN** | **100L4** | | 57 | 633 |
| **106** | 245 | 13.73* | 5270 | 1.40 | **SF** | **67** | **DRN** | **100L4** | | 64 | 634 |
| **112** | 230 | 12.96* | 5240 | 1.45 | **SA** | **67** | **DRN** | **100L4** | | 58 | 635 |
| **132** | 199 | 11.03 | 5150 | 1.70 | **SAF** | **67** | **DRN** | **100L4** | | 63 | 634 |
| **145** | 181 | 10.03 | 5080 | 1.75 | | | | | | | |
| **168** | 157 | 8.69 | 4960 | 1.80 | | | | | | | |
| **193** | 137 | 7.56* | 4840 | 1.80 | | | | | | | |
| **135** | 192 | 10.80* | 4060 | 0.90 | | | | | | | |
| **158** | 164 | 9.23* | 4030 | 0.90 | | | | | | | |
| **169** | 154 | 8.64* | 4000 | 0.90 | **S** | **57** | **DRN** | **100L4** | | 46 | 628 |
| **200** | 130 | 7.28 | 3930 | 0.95 | **SF** | **57** | **DRN** | **100L4** | | 50 | 629 |
| **228** | 116 | 6.40* | 3810 | 0.85 | **SA** | **57** | **DRN** | **100L4** | | 46 | 630 |
| **270** | 98 | 5.39 | 3710 | 0.95 | **SAF** | **57** | **DRN** | **100L4** | | 49 | 629 |
| **306** | 87 | 4.76 | 3630 | 0.95 | | | | | | | |
| **364** | 73 | 4.00* | 3520 | 0.95 | | | | | | | |



21284997/EN – 03/2015

## $P_m$ = 4.0 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | **S** | **97R57** | **DRN** | **112M4** | 205 | 653 |
| **6.7** | 4670 | 219 | 24500 | 0.90 | **SF** | **97R57** | **DRN** | **112M4** | 240 | 653 |
| **7.1** | 4390 | 205 | 28900 | 0.95 | **SA** | **97R57** | **DRN** | **112M4** | 200 | 653 |
| | | | | | **SAF** | **97R57** | **DRN** | **112M4** | 225 | 653 |
| **6.3** | 4520 | 231.67 | 30300 | 0.90 | | | | | | |
| **7.4** | 3880 | 196.52 | 33400 | 1.00 | | | | | | |
| **8.1** | 3590 | 180.95 | 34000 | 1.05 | | | | | | |
| **9.0** | 3230 | 161.74 | 34600 | 1.15 | | | | | | |
| **10** | 2930 | 145.60* | 35100 | 1.20 | | | | | | |
| **11** | 2670 | 131.85 | 35400 | 1.30 | **S** | **97** | **DRN** | **112M4** | 180 | 648 |
| **13** | 2380 | 116.92 | 35800 | 1.40 | **SF** | **97** | **DRN** | **112M4** | 215 | 649 |
| **14** | 2170 | 105.71 | 36000 | 1.50 | **SA** | **97** | **DRN** | **112M4** | 175 | 650 |
| **16** | 1850 | 89.60* | 36300 | 1.65 | **SAF** | **97** | **DRN** | **112M4** | 200 | 649 |
| **18** | 1880 | 80.85 | 36300 | 1.75 | | | | | | |
| **20** | 1660 | 71.43 | 36500 | 2.00 | | | | | | |
| **24** | 1420 | 60.59 | 36600 | 2.3 | | | | | | |
| **26** | 1310 | 55.79 | 36700 | 2.5 | | | | | | |
| **12** | 2430 | 123.48 | 27600 | 0.80 | | | | | | |
| **13** | 2190 | 110.40* | 28100 | 0.85 | | | | | | |
| **15** | 1980 | 99.26 | 28500 | 0.95 | | | | | | |
| **17** | 1730 | 86.15 | 28900 | 1.00 | | | | | | |
| **19** | 1560 | 77.14 | 29100 | 1.10 | | | | | | |
| **21** | 1610 | 70.43 | 29000 | 1.00 | | | | | | |
| **23** | 1470 | 64.27 | 29200 | 1.10 | **S** | **87** | **DRN** | **112M4** | 125 | 643 |
| **26** | 1310 | 57.00* | 29400 | 1.20 | **SF** | **87** | **DRN** | **112M4** | 145 | 644 |
| **31** | 1110 | 47.91 | 29600 | 1.45 | **SA** | **87** | **DRN** | **112M4** | 120 | 645 |
| **33** | 1020 | 44.03 | 29700 | 1.55 | **SAF** | **87** | **DRN** | **112M4** | 135 | 644 |
| **37** | 910 | 39.10 | 29700 | 1.75 | | | | | | |
| **42** | 810 | 34.96* | 29700 | 1.95 | | | | | | |
| **47** | 735 | 31.43 | 28900 | 2.2 | | | | | | |
| **54** | 640 | 27.28 | 28000 | 2.5 | | | | | | |
| **57** | 615 | 25.50* | 26600 | 2.0 | | | | | | |
| **26** | 1120 | 56.92 | 10800 | 0.80 | **S** | **77** | **DRN** | **112M4** | 86 | 638 |
| **27** | 1210 | 53.87 | 9340 | 0.90 | **SF** | **77** | **DRN** | **112M4** | 96 | 639 |
| **30** | 1110 | 49.38 | 9390 | 1.00 | **SA** | **77** | **DRN** | **112M4** | 86 | 640 |
| **34** | 980 | 43.33 | 9420 | 1.10 | **SAF** | **77** | **DRN** | **112M4** | 93 | 639 |
| **36** | 930 | 41.07 | 9410 | 1.15 | | | | | | |
| **41** | 820 | 35.94 | 9370 | 1.30 | | | | | | |
| **45** | 740 | 32.38 | 9300 | 1.40 | | | | | | |
| **52** | 655 | 28.41 | 9190 | 1.50 | | | | | | |
| **58** | 580 | 25.07 | 9060 | 1.65 | | | | | | |
| **64** | 545 | 22.89 | 7840 | 1.30 | | | | | | |
| **70** | 500 | 20.99 | 7820 | 1.40 | **S** | **77** | **DRN** | **112M4** | 86 | 638 |
| **79** | 440 | 18.42 | 7760 | 1.60 | **SF** | **77** | **DRN** | **112M4** | 96 | 639 |
| **84** | 415 | 17.45 | 7720 | 1.70 | **SA** | **77** | **DRN** | **112M4** | 86 | 640 |
| **96** | 365 | 15.28 | 7620 | 1.95 | **SAF** | **77** | **DRN** | **112M4** | 93 | 639 |
| **106** | 330 | 13.76 | 7520 | 2.2 | | | | | | |
| **121** | 290 | 12.07 | 7380 | 2.5 | | | | | | |
| **137** | 255 | 10.65 | 7220 | 2.8 | | | | | | |
| **155** | 225 | 9.44 | 7070 | 2.8 | | | | | | |
| **182** | 197 | 8.06 | 6850 | 2.9 | | | | | | |
| **85** | 405 | 17.28* | 4060 | 0.85 | | | | | | |
| **94** | 365 | 15.60* | 4400 | 0.90 | | | | | | |
| **107** | 325 | 13.73* | 4620 | 1.05 | **S** | **67** | **DRN** | **112M4** | 67 | 633 |
| **113** | 305 | 12.96* | 4620 | 1.10 | **SF** | **67** | **DRN** | **112M4** | 73 | 634 |
| **133** | 260 | 11.03 | 4620 | 1.30 | **SA** | **67** | **DRN** | **112M4** | 68 | 635 |
| **146** | 240 | 10.03 | 4600 | 1.30 | **SAF** | **67** | **DRN** | **112M4** | 72 | 634 |
| **169** | 205 | 8.69 | 4540 | 1.35 | | | | | | |
| **194** | 182 | 7.56* | 4480 | 1.35 | | | | | | |

21284997/EN – 03/2015

| $P_m$ = 5.5 kW | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
| **9.0** | 4460 | 161.74 | 31300 | 0.80 | | | | | | |
| **10** | 4040 | 145.60* | 33100 | 0.90 | | | | | | |
| **11** | 3680 | 131.85 | 33800 | 0.95 | | | | | | |
| **12** | 3280 | 116.92 | 34500 | 1.00 | | | | | | |
| **14** | 2980 | 105.71 | 35000 | 1.05 | | | | | | |
| **16** | 2550 | 89.60* | 35600 | 1.20 | **S** | **97** | **DRN** | **132S4** | 190 | 648 |
| **19** | 2240 | 78.26 | 35900 | 1.30 | **SF** | **97** | **DRN** | **132S4** | 225 | 649 |
| **20** | 2290 | 71.43 | 35900 | 1.45 | **SA** | **97** | **DRN** | **132S4** | 185 | 650 |
| **22** | 1890 | 65.45 | 36300 | 1.40 | **SAF** | **97** | **DRN** | **132S4** | 215 | 649 |
| **24** | 1960 | 60.59 | 36200 | 1.70 | | | | | | |
| **26** | 1800 | 55.79 | 36300 | 1.80 | | | | | | |
| **29** | 1620 | 49.87 | 36500 | 2.0 | | | | | | |
| **33** | 1460 | 44.89 | 36600 | 2.2 | | | | | | |
| **36** | 1320 | 40.65 | 36700 | 2.4 | | | | | | |
| **19** | 2150 | 77.14 | 28200 | 0.80 | **S** | **87** | **DRN** | **132S4** | 135 | 643 |
| **23** | 1800 | 64.00* | 28700 | 0.85 | **SF** | **87** | **DRN** | **132S4** | 155 | 644 |
| **26** | 1810 | 57.00* | 28700 | 0.90 | **SA** | **87** | **DRN** | **132S4** | 130 | 645 |
| **30** | 1530 | 47.91 | 29100 | 1.05 | **SAF** | **87** | **DRN** | **132S4** | 150 | 644 |
| **33** | 1410 | 44.03 | 29300 | 1.15 | | | | | | |
| **37** | 1250 | 39.10 | 29100 | 1.25 | | | | | | |
| **42** | 1120 | 34.96* | 28500 | 1.40 | | | | | | |
| **46** | 1010 | 31.43 | 27900 | 1.55 | | | | | | |
| **54** | 880 | 27.28 | 27100 | 1.80 | | | | | | |
| **57** | 840 | 25.50* | 25400 | 1.45 | **S** | **87** | **DRN** | **132S4** | 135 | 643 |
| **68** | 715 | 21.43 | 24600 | 1.75 | **SF** | **87** | **DRN** | **132S4** | 155 | 644 |
| **74** | 655 | 19.70 | 24200 | 1.90 | **SA** | **87** | **DRN** | **132S4** | 130 | 645 |
| **84** | 585 | 17.49 | 23600 | 2.1 | **SAF** | **87** | **DRN** | **132S4** | 150 | 644 |
| **93** | 525 | 15.64* | 23000 | 2.4 | | | | | | |
| **104** | 470 | 14.06 | 22500 | 2.6 | | | | | | |
| **120** | 410 | 12.21 | 21800 | 3.0 | | | | | | |
| **134** | 365 | 10.93 | 21200 | 3.1 | | | | | | |
| **36** | 1290 | 41.07 | 7660 | 0.85 | **S** | **77** | **DRN** | **132S4** | 98 | 638 |
| **41** | 1130 | 35.94 | 7830 | 0.95 | **SF** | **77** | **DRN** | **132S4** | 105 | 639 |
| **45** | 1020 | 32.38 | 7910 | 1.00 | **SA** | **77** | **DRN** | **132S4** | 97 | 640 |
| | | | | | **SAF** | **77** | **DRN** | **132S4** | 105 | 639 |
| **51** | 900 | 28.41 | 7970 | 1.10 | | | | | | |
| **58** | 800 | 25.07 | 7980 | 1.20 | | | | | | |
| **66** | 710 | 22.22 | 7950 | 1.30 | | | | | | |
| **79** | 605 | 18.42 | 6230 | 1.15 | | | | | | |
| **84** | 575 | 17.45 | 6460 | 1.25 | **S** | **77** | **DRN** | **132S4** | 98 | 638 |
| **96** | 505 | 15.28 | 6680 | 1.40 | **SF** | **77** | **DRN** | **132S4** | 105 | 639 |
| **106** | 455 | 13.76 | 6670 | 1.55 | **SA** | **77** | **DRN** | **132S4** | 97 | 640 |
| **121** | 400 | 12.07 | 6630 | 1.80 | **SAF** | **77** | **DRN** | **132S4** | 105 | 639 |
| **137** | 355 | 10.65 | 6570 | 2.0 | | | | | | |
| **155** | 315 | 9.44 | 6490 | 2.1 | | | | | | |
| **181** | 270 | 8.06 | 6360 | 2.1 | | | | | | |
| **132** | 360 | 11.03 | 3120 | 0.95 | **S** | **67** | **DRN** | **132S4** | 78 | 633 |
| **146** | 330 | 10.03 | 3430 | 0.95 | **SF** | **67** | **DRN** | **132S4** | 85 | 634 |
| **168** | 285 | 8.69 | 3820 | 0.95 | **SA** | **67** | **DRN** | **132S4** | 79 | 635 |
| **193** | 250 | 7.56* | 3940 | 1.00 | **SAF** | **67** | **DRN** | **132S4** | 84 | 634 |



21284997/EN – 03/2015

## $P_m$ = 7.5 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **14** | 4050 | 105.71 | 33100 | 0.80 | | | | | | |
| **16** | 3460 | 89.60* | 34200 | 0.85 | | | | | | |
| **19** | 3040 | 78.26 | 34900 | 0.95 | | | | | | |
| **21** | 3120 | 71.43 | 34800 | 1.05 | | | | | | |
| **22** | 2560 | 65.45 | 35500 | 1.05 | | | | | | |
| **24** | 2660 | 60.59 | 35400 | 1.25 | | | | | | |
| **26** | 2450 | 55.79 | 35700 | 1.35 | **S** | **97** | **DRN** | **132M4** | 210 | 648 |
| **29** | 2200 | 49.87 | 36000 | 1.50 | **SF** | **97** | **DRN** | **132M4** | 245 | 649 |
| **33** | 1980 | 44.89 | 36200 | 1.65 | **SA** | **97** | **DRN** | **132M4** | 205 | 650 |
| **36** | 1800 | 40.65 | 36300 | 1.80 | **SAF** | **97** | **DRN** | **132M4** | 230 | 649 |
| **41** | 1600 | 36.05 | 36100 | 1.95 | | | | | | |
| **45** | 1450 | 32.60 | 35300 | 2.0 | | | | | | |
| **56** | 1210 | 26.39 | 32100 | 2.2 | | | | | | |
| **62** | 1080 | 23.59 | 31400 | 2.4 | | | | | | |
| **69** | 970 | 21.23 | 30800 | 2.6 | | | | | | |
| **76** | 880 | 19.23 | 30100 | 2.8 | | | | | | |
| **33** | 1910 | 44.03 | 27800 | 0.85 | **S** | **87** | **DRN** | **132M4** | 150 | 643 |
| **38** | 1700 | 39.10 | 27400 | 0.95 | **SF** | **87** | **DRN** | **132M4** | 175 | 644 |
| **42** | 1530 | 34.96* | 26900 | 1.05 | **SA** | **87** | **DRN** | **132M4** | 150 | 645 |
| | | | | | **SAF** | **87** | **DRN** | **132M4** | 165 | 644 |
| **47** | 1380 | 31.43 | 26500 | 1.15 | | | | | | |
| **54** | 1200 | 27.28 | 25800 | 1.35 | | | | | | |
| **58** | 1150 | 25.50* | 23700 | 1.10 | | | | | | |
| **68** | 970 | 21.43 | 23200 | 1.30 | | | | | | |
| **75** | 890 | 19.70 | 22900 | 1.40 | **S** | **87** | **DRN** | **132M4** | 150 | 643 |
| **84** | 795 | 17.49 | 22400 | 1.55 | **SF** | **87** | **DRN** | **132M4** | 175 | 644 |
| **94** | 710 | 15.64* | 22000 | 1.75 | **SA** | **87** | **DRN** | **132M4** | 150 | 645 |
| **104** | 640 | 14.06 | 21600 | 1.95 | **SAF** | **87** | **DRN** | **132M4** | 165 | 644 |
| **120** | 555 | 12.21 | 21000 | 2.2 | | | | | | |
| **134** | 500 | 10.93 | 20500 | 2.2 | | | | | | |
| **162** | 415 | 9.07 | 19700 | 2.3 | | | | | | |
| **186** | 360 | 7.88 | 19100 | 2.3 | | | | | | |
| **52** | 1220 | 28.41 | 6340 | 0.80 | **S** | **77** | **DRN** | **132M4** | 115 | 638 |
| **59** | 1080 | 25.07 | 6540 | 0.90 | **SF** | **77** | **DRN** | **132M4** | 125 | 639 |
| **66** | 960 | 22.22 | 6670 | 0.95 | **SA** | **77** | **DRN** | **132M4** | 115 | 640 |
| **80** | 820 | 18.42 | 2360 | 0.85 | **SAF** | **77** | **DRN** | **132M4** | 120 | 639 |
| **84** | 785 | 17.45 | 2770 | 0.90 | | | | | | |
| **96** | 685 | 15.28 | 3660 | 1.05 | | | | | | |
| **107** | 620 | 13.76 | 4250 | 1.15 | **S** | **77** | **DRN** | **132M4** | 115 | 638 |
| **122** | 545 | 12.07 | 4880 | 1.35 | **SF** | **77** | **DRN** | **132M4** | 125 | 639 |
| **138** | 480 | 10.65 | 5380 | 1.50 | **SA** | **77** | **DRN** | **132M4** | 115 | 640 |
| **155** | 425 | 9.44 | 5700 | 1.50 | **SAF** | **77** | **DRN** | **132M4** | 120 | 639 |
| **182** | 365 | 8.06 | 5690 | 1.55 | | | | | | |

## $P_m$ = 9.2 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **19** | 3730 | 78.26 | 33700 | 0.75 | **S** | **97** | **DRN** | **132L4** | 220 | 648 |
| **22** | 3140 | 65.45 | 34700 | 0.85 | **SF** | **97** | **DRN** | **132L4** | 250 | 649 |
| **26** | 3000 | 55.79 | 34900 | 1.10 | **SA** | **97** | **DRN** | **132L4** | 215 | 650 |
| | | | | | **SAF** | **97** | **DRN** | **132L4** | 240 | 649 |
| **29** | 2690 | 49.87 | 35400 | 1.20 | | | | | | |
| **33** | 2430 | 44.89 | 35700 | 1.35 | | | | | | |
| **36** | 2210 | 40.65 | 35700 | 1.45 | | | | | | |
| **41** | 1960 | 36.05 | 34900 | 1.60 | | | | | | |
| **45** | 1780 | 32.60 | 34300 | 1.65 | | | | | | |
| **56** | 1480 | 26.39 | 30900 | 1.75 | **S** | **97** | **DRN** | **132L4** | 220 | 648 |
| **62** | 1320 | 23.59 | 30400 | 1.95 | **SF** | **97** | **DRN** | **132L4** | 250 | 649 |
| **69** | 1190 | 21.23 | 29800 | 2.2 | **SA** | **97** | **DRN** | **132L4** | 215 | 650 |
| **76** | 1080 | 19.23 | 29300 | 2.3 | **SAF** | **97** | **DRN** | **132L4** | 240 | 649 |
| **86** | 960 | 17.05 | 28600 | 2.5 | | | | | | |
| **95** | 870 | 15.42 | 28000 | 2.6 | | | | | | |
| **112** | 740 | 13.07 | 27000 | 2.9 | | | | | | |
| **129** | 645 | 11.41 | 26200 | 3.1 | | | | | | |

21284997/EN – 03/2015

## $P_m$ = 9.2 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **42** | 1870 | 34.96* | 25600 | 0.85 | **S** | **87** | **DRN** | **132L4** | 160 | 643 |
| **47** | 1690 | 31.43 | 25300 | 0.95 | **SF** | **87** | **DRN** | **132L4** | 180 | 644 |
| **54** | 1470 | 27.28 | 24800 | 1.10 | **SA** | **87** | **DRN** | **132L4** | 160 | 645 |
| **60** | 1320 | 24.43 | 24400 | 1.20 | **SAF** | **87** | **DRN** | **132L4** | 175 | 644 |
| **73** | 1100 | 20.27 | 23600 | 1.30 | | | | | | |
| **75** | 1090 | 19.70 | 21800 | 1.15 | | | | | | |
| **84** | 970 | 17.49 | 21500 | 1.25 | | | | | | |
| **94** | 870 | 15.64* | 21100 | 1.40 | **S** | **87** | **DRN** | **132L4** | 160 | 643 |
| **105** | 785 | 14.06 | 20800 | 1.55 | **SF** | **87** | **DRN** | **132L4** | 180 | 644 |
| **120** | 680 | 12.21 | 20300 | 1.80 | **SA** | **87** | **DRN** | **132L4** | 160 | 645 |
| **135** | 610 | 10.93 | 19900 | 1.85 | **SAF** | **87** | **DRN** | **132L4** | 175 | 644 |
| **162** | 510 | 9.07 | 19200 | 1.85 | | | | | | |
| **186** | 440 | 7.88 | 18600 | 1.85 | | | | | | |
| **77** | 1010 | 18.97 | 5840 | 0.85 | | | | | | |
| **107** | 760 | 13.76 | 1770 | 0.95 | **S** | **77** | **DRN** | **132L4** | 125 | 638 |
| **122** | 670 | 12.07 | 2660 | 1.10 | **SF** | **77** | **DRN** | **132L4** | 135 | 639 |
| **138** | 590 | 10.65 | 3380 | 1.20 | **SA** | **77** | **DRN** | **132L4** | 125 | 640 |
| **156** | 525 | 9.44 | 3970 | 1.25 | **SAF** | **77** | **DRN** | **132L4** | 130 | 639 |
| **182** | 450 | 8.06 | 4590 | 1.30 | | | | | | |

## $P_m$ = 11.0 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **26** | 3590 | 55.79 | 34000 | 0.90 | | | | | | |
| **30** | 3210 | 49.87 | 34600 | 1.05 | | | | | | |
| **33** | 2900 | 44.89 | 34800 | 1.15 | | | | | | |
| **36** | 2630 | 40.65 | 34300 | 1.20 | | | | | | |
| **41** | 2340 | 36.05 | 33700 | 1.35 | | | | | | |
| **45** | 2120 | 32.60 | 33200 | 1.40 | **S** | **97** | **DRN** | **160M4** | 250 | 648 |
| **56** | 1760 | 26.39 | 29700 | 1.45 | **SF** | **97** | **DRN** | **160M4** | 285 | 649 |
| **62** | 1580 | 23.59 | 29200 | 1.65 | **SA** | **97** | **DRN** | **160M4** | 245 | 650 |
| **69** | 1420 | 21.23 | 28800 | 1.80 | **SAF** | **97** | **DRN** | **160M4** | 270 | 649 |
| **77** | 1290 | 19.23 | 28300 | 1.95 | | | | | | |
| **86** | 1150 | 17.05 | 27800 | 2.1 | | | | | | |
| **96** | 1040 | 15.42 | 27300 | 2.2 | | | | | | |
| **113** | 880 | 13.07 | 26400 | 2.4 | | | | | | |
| **129** | 770 | 11.41 | 25700 | 2.6 | | | | | | |
| **54** | 1750 | 27.28 | 23700 | 0.90 | **S** | **87** | **DRN** | **160M4** | 190 | 643 |
| **60** | 1570 | 24.43 | 23400 | 1.00 | **SF** | **87** | **DRN** | **160M4** | 215 | 644 |
| **73** | 1310 | 20.27 | 22800 | 1.10 | **SA** | **87** | **DRN** | **160M4** | 190 | 645 |
| | | | | | **SAF** | **87** | **DRN** | **160M4** | 205 | 644 |
| **75** | 1300 | 19.70 | 20700 | 0.95 | | | | | | |
| **84** | 1160 | 17.49 | 20500 | 1.05 | | | | | | |
| **94** | 1040 | 15.64* | 20200 | 1.20 | **S** | **87** | **DRN** | **160M4** | 190 | 643 |
| **105** | 930 | 14.06 | 20000 | 1.30 | **SF** | **87** | **DRN** | **160M4** | 215 | 644 |
| **121** | 810 | 12.21 | 19600 | 1.50 | **SA** | **87** | **DRN** | **160M4** | 190 | 645 |
| **135** | 730 | 10.93 | 19300 | 1.55 | **SAF** | **87** | **DRN** | **160M4** | 205 | 644 |
| **162** | 605 | 9.07 | 18700 | 1.55 | | | | | | |
| **187** | 530 | 7.88 | 18200 | 1.55 | | | | | | |

## $P_m$ = 15.0 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **33** | 3950 | 44.89 | 31500 | 0.85 | **S** | **97** | **DRN** | **160L4** | 265 | 648 |
| **36** | 3590 | 40.65 | 31400 | 0.90 | **SF** | **97** | **DRN** | **160L4** | 300 | 649 |
| **41** | 3190 | 36.05 | 31100 | 0.95 | **SA** | **97** | **DRN** | **160L4** | 260 | 650 |
| | | | | | **SAF** | **97** | **DRN** | **160L4** | 290 | 649 |



21284997/EN – 03/2015

## $P_m$ = 15.0 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **45** | 2890 | 32.60 | 30800 | 1.05 | | | | | | |
| **56** | 2410 | 26.39 | 26900 | 1.10 | | | | | | |
| **62** | 2150 | 23.59 | 26700 | 1.20 | | | | | | |
| **69** | 1940 | 21.23 | 26600 | 1.30 | | | | | | |
| **77** | 1760 | 19.23 | 26300 | 1.40 | **S** | **97** | **DRN** | **160L4** | 265 | 648 |
| **86** | 1560 | 17.05 | 26000 | 1.55 | **SF** | **97** | **DRN** | **160L4** | 300 | 649 |
| **96** | 1410 | 15.42 | 25600 | 1.60 | **SA** | **97** | **DRN** | **160L4** | 260 | 650 |
| **113** | 1200 | 13.07 | 25000 | 1.80 | **SAF** | **97** | **DRN** | **160L4** | 290 | 649 |
| **129** | 1050 | 11.41 | 24500 | 1.90 | | | | | | |
| **154** | 880 | 9.55 | 23700 | 1.90 | | | | | | |
| **178** | 765 | 8.26 | 23000 | 1.90 | | | | | | |
| **94** | 1420 | 15.64* | 16800 | 0.85 | **S** | **87** | **DRN** | **160L4** | 210 | 643 |
| **105** | 1280 | 14.06 | 17900 | 0.95 | **SF** | **87** | **DRN** | **160L4** | 230 | 644 |
| **121** | 1110 | 12.21 | 18000 | 1.10 | **SA** | **87** | **DRN** | **160L4** | 205 | 645 |
| | | | | | **SAF** | **87** | **DRN** | **160L4** | 220 | 644 |
| **135** | 990 | 10.93 | 17900 | 1.15 | **S** | **87** | **DRN** | **160L4** | 210 | 643 |
| **163** | 830 | 9.07 | 17500 | 1.15 | **SF** | **87** | **DRN** | **160L4** | 230 | 644 |
| **187** | 720 | 7.88 | 17200 | 1.15 | **SA** | **87** | **DRN** | **160L4** | 205 | 645 |
| | | | | | **SAF** | **87** | **DRN** | **160L4** | 220 | 644 |

## $P_m$ = 18.5 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **41** | 3930 | 36.05 | 28800 | 0.80 | | | | | | |
| **45** | 3560 | 32.60 | 28700 | 0.85 | | | | | | |
| **54** | 3020 | 27.63 | 28500 | 0.95 | | | | | | |
| **61** | 2650 | 24.13 | 28100 | 1.00 | | | | | | |
| **70** | 2390 | 21.23 | 24500 | 1.05 | **S** | **97** | **DRN** | **180M4** | 290 | 648 |
| **77** | 2170 | 19.23 | 24500 | 1.15 | **SF** | **97** | **DRN** | **180M4** | 320 | 649 |
| **87** | 1920 | 17.05 | 24400 | 1.25 | **SA** | **97** | **DRN** | **180M4** | 285 | 650 |
| **96** | 1740 | 15.42 | 24200 | 1.30 | **SAF** | **97** | **DRN** | **180M4** | 310 | 649 |
| **113** | 1480 | 13.07 | 23800 | 1.45 | | | | | | |
| **130** | 1290 | 11.41 | 23400 | 1.55 | | | | | | |
| **155** | 1080 | 9.55 | 22800 | 1.55 | | | | | | |
| **179** | 940 | 8.26 | 22300 | 1.55 | | | | | | |

## $P_m$ = 22 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **53** | 3600 | 27.63 | 26700 | 0.80 | | | | | | |
| **61** | 3150 | 24.13 | 26600 | 0.85 | **S** | **97** | **DRN** | **180L4** | 305 | 648 |
| **70** | 2840 | 21.23 | 18600 | 0.90 | **SF** | **97** | **DRN** | **180L4** | 340 | 649 |
| **77** | 2580 | 19.23 | 20500 | 0.95 | **SA** | **97** | **DRN** | **180L4** | 300 | 650 |
| **87** | 2290 | 17.05 | 22400 | 1.05 | **SAF** | **97** | **DRN** | **180L4** | 325 | 649 |
| **96** | 2070 | 15.42 | 22800 | 1.10 | **S** | **97** | **DRN** | **180L4** | 305 | 648 |
| **113** | 1760 | 13.07 | 22600 | 1.25 | **SF** | **97** | **DRN** | **180L4** | 340 | 649 |
| **129** | 1540 | 11.41 | 22400 | 1.30 | **SA** | **97** | **DRN** | **180L4** | 300 | 650 |
| **155** | 1290 | 9.55 | 21900 | 1.30 | **SAF** | **97** | **DRN** | **180L4** | 325 | 649 |
| **179** | 1120 | 8.26 | 21500 | 1.30 | | | | | | |

21284997/EN – 03/2015

## 11.4 S..R..DRN.. selection tables for low output speeds in Nm

### $M_{a\,max}$ = 92 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|
| **0.14** | 10037 | 3000 | | | | | | |
| **0.16** | 8654 | 3000 | | | | | | |
| **0.17** | 8066 | 3000 | | | | | | |
| **0.20** | 7051 | 3000 | | | | | | |
| **0.23** | 6079 | 3000 | | | | | | |
| **0.25** | 5431 | 3000 | | | | | | |
| **0.29** | 4747 | 3000 | | | | | | |
| **0.33** | 4155 | 3000 | | | | | | |
| **0.38** | 3632 | 3000 | **S** | **37R17** | **DR** | **63S4** | 14 | 653 |
| **0.48** | 2866 | 3000 | **SF** | **37R17** | **DR** | **63S4** | 15 | 653 |
| **0.56** | 2471 | 3000 | **SA** | **37R17** | **DR** | **63S4** | 14 | 653 |
| **0.64** | 2160 | 3000 | **SAF** | **37R17** | **DR** | **63S4** | 15 | 653 |
| **0.73** | 1887 | 3000 | | | | | | |
| **0.83** | 1665 | 3000 | | | | | | |
| **0.95** | 1456 | 3000 | | | | | | |
| **1.1** | 1271 | 3000 | | | | | | |
| **1.2** | 1121 | 3000 | | | | | | |
| **1.4** | 994 | 3000 | | | | | | |
| **1.6** | 869 | 3000 | | | | | | |
| **1.8** | 774 | 3000 | | | | | | |
| **2.1** | 666 | 3000 | | | | | | |
| **2.3** | 596 | 3000 | | | | | | |
| **2.6** | 521 | 3000 | | | | | | |
| **3.0** | 456 | 3000 | **S** | **37R17** | **DR** | **63S4** | 14 | 653 |
| **3.5** | 398 | 3000 | **SF** | **37R17** | **DR** | **63S4** | 15 | 653 |
| **3.9** | 351 | 3000 | **SA** | **37R17** | **DR** | **63S4** | 13 | 653 |
| **4.6** | 303 | 3000 | **SAF** | **37R17** | **DR** | **63S4** | 15 | 653 |
| **5.2** | 265 | 3000 | | | | | | |
| **6.0** | 232 | 3000 | | | | | | |
| **6.8** | 202 | 3000 | | | | | | |
| **7.4** | 179 | 3000 | | | | | | |
| **8.3** | 158 | 3000 | **S** | **37R17** | **DR** | **63M4** | 14 | 653 |
| **9.1** | 144 | 3000 | **SF** | **37R17** | **DR** | **63M4** | 15 | 653 |
| **11** | 118 | 3000 | **SA** | **37R17** | **DR** | **63M4** | 13 | 653 |
| **12** | 110 | 3000 | **SAF** | **37R17** | **DR** | **63M4** | 15 | 653 |

### $M_{a\,max}$ = 185 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|
| **0.11** | 12909 | 5250 | | | | | | |
| **0.12** | 11189 | 5250 | | | | | | |
| **0.13** | 10374 | 5250 | | | | | | |
| **0.15** | 8992 | 5250 | | | | | | |
| **0.18** | 7860 | 5250 | | | | | | |
| **0.20** | 6887 | 5250 | | | | | | |
| **0.23** | 6055 | 5250 | | | | | | |
| **0.26** | 5292 | 5250 | | | | | | |
| **0.30** | 4637 | 5250 | | | | | | |
| **0.34** | 4092 | 5250 | **S** | **47R17** | **DR** | **63S4** | 17 | 653 |
| **0.39** | 3582 | 5200 | **SF** | **47R17** | **DR** | **63S4** | 20 | 653 |
| **0.44** | 3131 | 5200 | **SA** | **47R17** | **DR** | **63S4** | 18 | 653 |
| **0.51** | 2714 | 5200 | **SAF** | **47R17** | **DR** | **63S4** | 20 | 653 |
| **0.57** | 2412 | 5200 | | | | | | |
| **0.65** | 2131 | 5200 | | | | | | |
| **0.74** | 1863 | 5200 | | | | | | |
| **0.83** | 1663 | 5200 | | | | | | |
| **0.96** | 1435 | 5200 | | | | | | |
| **1.1** | 1254 | 5200 | | | | | | |
| **1.2** | 1120 | 5200 | | | | | | |
| **1.3** | 1083 | 5200 | | | | | | |

## $M_{a\ max}$ = 185 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|
| **1.4** | 965 | 5200 | | | | | | |
| **1.6** | 865 | 5200 | | | | | | |
| **1.8** | 750 | 5200 | **S** | **47R17** | **DR** | **63S4** | 17 | 653 |
| **2.1** | 655 | 5200 | **SF** | **47R17** | **DR** | **63S4** | 20 | 653 |
| **2.4** | 574 | 5200 | **SA** | **47R17** | **DR** | **63S4** | 18 | 653 |
| **2.7** | 506 | 5200 | **SAF** | **47R17** | **DR** | **63S4** | 19 | 653 |
| **3.2** | 438 | 5200 | | | | | | |
| **3.6** | 388 | 5200 | | | | | | |
| | | | **S** | **47R17** | **DR** | **63M4** | 17 | 653 |
| **3.9** | 336 | 5200 | **SF** | **47R17** | **DR** | **63M4** | 20 | 653 |
| **4.5** | 294 | 5200 | **SA** | **47R17** | **DR** | **63M4** | 18 | 653 |
| | | | **SAF** | **47R17** | **DR** | **63M4** | 19 | 653 |
| | | | **S** | **47R17** | **DR** | **63L4** | 17 | 653 |
| **5.0** | 257 | 5260 | **SF** | **47R17** | **DR** | **63L4** | 21 | 653 |
| | | | **SA** | **47R17** | **DR** | **63L4** | 18 | 653 |
| | | | **SAF** | **47R17** | **DR** | **63L4** | 20 | 653 |
| | | | **S** | **47R17** | **DR** | **63M4** | 17 | 653 |
| **5.8** | 229 | 5200 | **SF** | **47R17** | **DR** | **63M4** | 20 | 653 |
| | | | **SA** | **47R17** | **DR** | **63M4** | 18 | 653 |
| | | | **SAF** | **47R17** | **DR** | **63M4** | 19 | 653 |
| | | | **S** | **47R17** | **DR** | **63L4** | 17 | 653 |
| **6.5** | 200 | 5200 | **SF** | **47R17** | **DR** | **63L4** | 21 | 653 |
| **6.9** | 187 | 5200 | **SA** | **47R17** | **DR** | **63L4** | 18 | 653 |
| **7.9** | 165 | 5200 | **SAF** | **47R17** | **DR** | **63L4** | 20 | 653 |
| | | | **S** | **47R17** | **DRS** | **71S4** | 19 | 653 |
| **9.4** | 148 | 5200 | **SF** | **47R17** | **DRS** | **71S4** | 23 | 653 |
| **11** | 131 | 5200 | **SA** | **47R17** | **DRS** | **71S4** | 20 | 653 |
| | | | **SAF** | **47R17** | **DRS** | **71S4** | 22 | 653 |

## $M_{a\ max}$ = 300 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|
| **0.44** | 3131 | 7080 | | | | | | |
| **0.51** | 2714 | 7080 | | | | | | |
| **0.57** | 2412 | 7080 | **S** | **57R17** | **DR** | **63S4** | 21 | 653 |
| **0.65** | 2131 | 7080 | **SF** | **57R17** | **DR** | **63S4** | 24 | 653 |
| **0.74** | 1863 | 7080 | **SA** | **57R17** | **DR** | **63S4** | 20 | 653 |
| **0.83** | 1663 | 7080 | **SAF** | **57R17** | **DR** | **63S4** | 23 | 653 |
| **0.96** | 1435 | 7080 | | | | | | |
| **1.1** | 1254 | 7080 | | | | | | |
| **1.3** | 1083 | 7080 | | | | | | |
| **1.4** | 965 | 7080 | **S** | **57R17** | **DR** | **63S4** | 20 | 653 |
| **1.6** | 865 | 7080 | **SF** | **57R17** | **DR** | **63S4** | 24 | 653 |
| **1.8** | 750 | 7080 | **SA** | **57R17** | **DR** | **63S4** | 20 | 653 |
| **2.1** | 655 | 7080 | **SAF** | **57R17** | **DR** | **63S4** | 23 | 653 |
| **2.3** | 574 | 7080 | **S** | **57R17** | **DR** | **63M4** | 20 | 653 |
| **2.6** | 506 | 7080 | **SF** | **57R17** | **DR** | **63M4** | 24 | 653 |
| **3.0** | 438 | 7080 | **SA** | **57R17** | **DR** | **63M4** | 20 | 653 |
| **3.4** | 388 | 7080 | **SAF** | **57R17** | **DR** | **63M4** | 23 | 653 |
| **3.9** | 336 | 7080 | **S** | **57R17** | **DR** | **63L4** | 21 | 653 |
| **4.4** | 294 | 7080 | **SF** | **57R17** | **DR** | **63L4** | 25 | 653 |
| **4.8** | 269 | 7080 | **SA** | **57R17** | **DR** | **63L4** | 21 | 653 |
| | | | **SAF** | **57R17** | **DR** | **63L4** | 24 | 653 |
| **6.0** | 229 | 7080 | **S** | **57R17** | **DRS** | **71S4** | 23 | 653 |
| **6.8** | 204 | 7080 | **SF** | **57R17** | **DRS** | **71S4** | 27 | 653 |
| **7.4** | 187 | 7080 | **SA** | **57R17** | **DRS** | **71S4** | 23 | 653 |
| | | | **SAF** | **57R17** | **DRS** | **71S4** | 25 | 653 |
| | | | **S** | **57R17** | **DRS** | **71M4** | 24 | 653 |
| **8.2** | 165 | 7080 | **SF** | **57R17** | **DRS** | **71M4** | 28 | 653 |
| **10** | 131 | 7080 | **SA** | **57R17** | **DRS** | **71M4** | 24 | 653 |
| | | | **SAF** | **57R17** | **DRS** | **71M4** | 27 | 653 |

21284997/EN – 03/2015

## $M_{a\ max}$ = 330 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|
| **0.11** | 12909 | 6800 | | | | | | |
| **0.12** | 11189 | 6800 | | | | | | |
| **0.13** | 10374 | 6800 | | | | | | |
| **0.15** | 8992 | 6800 | **S** | **57R17** | **DR** | **63S4** | 21 | 653 |
| **0.18** | 7860 | 6800 | **SF** | **57R17** | **DR** | **63S4** | 24 | 653 |
| **0.20** | 6887 | 6800 | **SA** | **57R17** | **DR** | **63S4** | 20 | 653 |
| **0.23** | 6055 | 6800 | **SAF** | **57R17** | **DR** | **63S4** | 23 | 653 |
| **0.26** | 5292 | 6800 | | | | | | |
| **0.30** | 4637 | 6800 | | | | | | |
| **0.34** | 4092 | 6800 | | | | | | |
| **0.38** | 3628 | 6800 | | | | | | |

## $M_{a\ max}$ = 570 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|
| **0.06** | 21362 | 8190 | | | | | | |
| **0.07** | 19594 | 8190 | | | | | | |
| **0.08** | 18120 | 8190 | | | | | | |
| **0.08** | 16682 | 8190 | | | | | | |
| **0.10** | 14383 | 8190 | | | | | | |
| **0.11** | 12774 | 8190 | | | | | | |
| **0.13** | 11013 | 8190 | | | | | | |
| **0.14** | 9694 | 8190 | | | | | | |
| **0.16** | 8529 | 8190 | | | | | | |
| **0.19** | 7455 | 8190 | | | | | | |
| **0.21** | 6531 | 8190 | **S** | **67R37** | **DR** | **63S4** | 39 | 653 |
| **0.24** | 5759 | 8190 | **SF** | **67R37** | **DR** | **63S4** | 46 | 653 |
| **0.28** | 4965 | 8190 | **SA** | **67R37** | **DR** | **63S4** | 40 | 653 |
| **0.31** | 4410 | 8190 | **SAF** | **67R37** | **DR** | **63S4** | 45 | 653 |
| **0.36** | 3880 | 8190 | | | | | | |
| **0.40** | 3432 | 8190 | | | | | | |
| **0.47** | 2944 | 8190 | | | | | | |
| **0.52** | 2630 | 8190 | | | | | | |
| **0.61** | 2279 | 8190 | | | | | | |
| **0.69** | 2014 | 8190 | | | | | | |
| **0.78** | 1772 | 8190 | | | | | | |
| **0.88** | 1559 | 8190 | | | | | | |
| **1.0** | 1363 | 8190 | | | | | | |
| **1.2** | 1194 | 8190 | | | | | | |
| | | | **S** | **67R37** | **DR** | **63M4** | 39 | 653 |
| **1.3** | 1045 | 8190 | **SF** | **67R37** | **DR** | **63M4** | 46 | 653 |
| **1.4** | 914 | 8190 | **SA** | **67R37** | **DR** | **63M4** | 40 | 653 |
| | | | **SAF** | **67R37** | **DR** | **63M4** | 45 | 653 |
| | | | **S** | **67R37** | **DR** | **63M4** | 39 | 653 |
| **1.6** | 809 | 8190 | **SF** | **67R37** | **DR** | **63M4** | 46 | 653 |
| **1.9** | 712 | 8190 | **SA** | **67R37** | **DR** | **63M4** | 40 | 653 |
| | | | **SAF** | **67R37** | **DR** | **63M4** | 45 | 653 |
| | | | **S** | **67R37** | **DR** | **63L4** | 40 | 653 |
| **2.1** | 615 | 8190 | **SF** | **67R37** | **DR** | **63L4** | 46 | 653 |
| **2.4** | 543 | 8190 | **SA** | **67R37** | **DR** | **63L4** | 41 | 653 |
| | | | **SAF** | **67R37** | **DR** | **63L4** | 45 | 653 |
| | | | **S** | **67R37** | **DRS** | **71S4** | 42 | 653 |
| **2.9** | 469 | 8190 | **SF** | **67R37** | **DRS** | **71S4** | 48 | 653 |
| **3.3** | 424 | 8190 | **SA** | **67R37** | **DRS** | **71S4** | 43 | 653 |
| **3.8** | 365 | 8190 | **SAF** | **67R37** | **DRS** | **71S4** | 47 | 653 |
| **4.3** | 319 | 8190 | **S** | **67R37** | **DRS** | **71M4** | 43 | 653 |
| **4.8** | 281 | 8190 | **SF** | **67R37** | **DRS** | **71M4** | 49 | 653 |
| **5.5** | 246 | 8190 | **SA** | **67R37** | **DRS** | **71M4** | 44 | 653 |
| **6.2** | 221 | 8190 | **SAF** | **67R37** | **DRS** | **71M4** | 48 | 653 |
| | | | **S** | **67R37** | **DRN** | **80M4** | 48 | 653 |
| **7.3** | 198 | 8190 | **SF** | **67R37** | **DRN** | **80M4** | 54 | 653 |
| | | | **SA** | **67R37** | **DRN** | **80M4** | 49 | 653 |
| | | | **SAF** | **67R37** | **DRN** | **80M4** | 53 | 653 |

## $M_{a\ max}$ = 1240 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|
| | | | **S** | **77R37** | **DR** | **63S4** | 59 | 653 |
| **0.50** | 2753 | 12000 | **SF** | **77R37** | **DR** | **63S4** | 68 | 653 |
| **0.58** | 2374 | 12000 | **SA** | **77R37** | **DR** | **63S4** | 58 | 653 |
| | | | **SAF** | **77R37** | **DR** | **63S4** | 65 | 653 |
| **0.63** | 2083 | 12000 | | | | | | |
| **0.73** | 1813 | 12000 | **S** | **77R37** | **DR** | **63M4** | 59 | 653 |
| **0.76** | 1745 | 12000 | **SF** | **77R37** | **DR** | **63M4** | 68 | 653 |
| **0.82** | 1600 | 12000 | **SA** | **77R37** | **DR** | **63M4** | 58 | 653 |
| **0.94** | 1404 | 12000 | **SAF** | **77R37** | **DR** | **63M4** | 65 | 653 |
| | | | **S** | **77R37** | **DR** | **63L4** | 59 | 653 |
| **1.0** | 1245 | 12000 | **SF** | **77R37** | **DR** | **63L4** | 69 | 653 |
| | | | **SA** | **77R37** | **DR** | **63L4** | 59 | 653 |
| | | | **SAF** | **77R37** | **DR** | **63L4** | 65 | 653 |
| | | | **S** | **77R37** | **DR** | **63L4** | 59 | 653 |
| **1.2** | 1100 | 12000 | **SF** | **77R37** | **DR** | **63L4** | 69 | 653 |
| **1.4** | 954 | 12000 | **SA** | **77R37** | **DR** | **63L4** | 59 | 653 |
| | | | **SAF** | **77R37** | **DR** | **63L4** | 65 | 653 |
| | | | **S** | **77R37** | **DRS** | **71S4** | 61 | 653 |
| **1.6** | 837 | 12000 | **SF** | **77R37** | **DRS** | **71S4** | 71 | 653 |
| **1.9** | 714 | 12000 | **SA** | **77R37** | **DRS** | **71S4** | 61 | 653 |
| | | | **SAF** | **77R37** | **DRS** | **71S4** | 67 | 653 |
| | | | **S** | **77R37** | **DRS** | **71M4** | 62 | 653 |
| **2.1** | 637 | 12000 | **SF** | **77R37** | **DRS** | **71M4** | 72 | 653 |
| **2.4** | 574 | 12000 | **SA** | **77R37** | **DRS** | **71M4** | 62 | 653 |
| **2.7** | 499 | 12000 | **SAF** | **77R37** | **DRS** | **71M4** | 68 | 653 |
| | | | **S** | **77R37** | **DRN** | **80M4** | 67 | 653 |
| **3.3** | 438 | 12000 | **SF** | **77R37** | **DRN** | **80M4** | 77 | 653 |
| **3.7** | 389 | 12000 | **SA** | **77R37** | **DRN** | **80M4** | 66 | 653 |
| | | | **SAF** | **77R37** | **DRN** | **80M4** | 73 | 653 |
| | | | **S** | **77R37** | **DRN** | **90S4** | 73 | 653 |
| **4.4** | 327 | 12000 | **SF** | **77R37** | **DRN** | **90S4** | 82 | 653 |
| **5.0** | 289 | 12000 | **SA** | **77R37** | **DRN** | **90S4** | 72 | 653 |
| **5.8** | 250 | 12000 | **SAF** | **77R37** | **DRN** | **90S4** | 79 | 653 |
| | | | **S** | **77R37** | **DRN** | **90L4** | 76 | 653 |
| **6.7** | 219 | 12000 | **SF** | **77R37** | **DRN** | **90L4** | 86 | 653 |
| | | | **SA** | **77R37** | **DRN** | **90L4** | 75 | 653 |
| | | | **SAF** | **77R37** | **DRN** | **90L4** | 82 | 653 |

## $M_{a\ max}$ = 1270 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|
| **0.05** | 25493 | 11700 | | | | | | |
| **0.06** | 21787 | 11700 | | | | | | |
| **0.07** | 19907 | 11700 | | | | | | |
| **0.08** | 17013 | 11700 | | | | | | |
| **0.09** | 14668 | 11700 | | | | | | |
| **0.11** | 13110 | 11700 | | | | | | |
| **0.12** | 11569 | 11700 | **S** | **77R37** | **DR** | **63S4** | 59 | 653 |
| **0.14** | 9887 | 11700 | **SF** | **77R37** | **DR** | **63S4** | 68 | 653 |
| **0.16** | 8817 | 11700 | **SA** | **77R37** | **DR** | **63S4** | 58 | 653 |
| **0.18** | 7735 | 11700 | **SAF** | **77R37** | **DR** | **63S4** | 65 | 653 |
| **0.20** | 6735 | 11700 | | | | | | |
| **0.23** | 5943 | 11700 | | | | | | |
| **0.26** | 5214 | 11700 | | | | | | |
| **0.30** | 4618 | 11700 | | | | | | |
| **0.35** | 3992 | 11700 | | | | | | |
| **0.39** | 3540 | 11700 | | | | | | |
| | | | **S** | **77R37** | **DR** | **63M4** | 59 | 653 |
| **0.43** | 3098 | 11700 | **SF** | **77R37** | **DR** | **63M4** | 68 | 653 |
| | | | **SA** | **77R37** | **DR** | **63M4** | 58 | 653 |
| | | | **SAF** | **77R37** | **DR** | **63M4** | 65 | 653 |

21284997/EN – 03/2015

## $M_{a\ max}$ = 2400 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|
| | | | S | 87R57 | DRN | 100LS4 | 130 | 653 |
| 4.5 | 323 | 27700 | SF | 87R57 | DRN | 100LS4 | 150 | 653 |
| 5.2 | 281 | 27700 | SA | 87R57 | DRN | 100LS4 | 125 | 653 |
| | | | SAF | 87R57 | DRN | 100LS4 | 145 | 653 |

## $M_{a\ max}$ = 2450 Nm

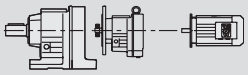
| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|
| | | | S | 87R57 | DRN | 90L4 | 125 | 653 |
| | | | SF | 87R57 | DRN | 90L4 | 145 | 653 |
| 3.4 | 435 | 27600 | SA | 87R57 | DRN | 90L4 | 125 | 653 |
| | | | SAF | 87R57 | DRN | 90L4 | 140 | 653 |
| | | | S | 87R57 | DRN | 100LS4 | 130 | 653 |
| | | | SF | 87R57 | DRN | 100LS4 | 150 | 653 |
| 3.8 | 378 | 27600 | SA | 87R57 | DRN | 100LS4 | 125 | 653 |
| | | | SAF | 87R57 | DRN | 100LS4 | 145 | 653 |

## $M_{a\ max}$ = 2500 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|
| 0.05 | 25987 | 27500 | | | | | | |
| 0.06 | 23940 | 27500 | | | | | | |
| 0.07 | 20568 | 27500 | | | | | | |
| 0.08 | 18265 | 27500 | | | | | | |
| 0.08 | 16774 | 27500 | S | 87R57 | DR | 63S4 | 110 | 653 |
| 0.09 | 14820 | 27500 | SF | 87R57 | DR | 63S4 | 130 | 653 |
| 0.10 | 13160 | 27500 | SA | 87R57 | DR | 63S4 | 105 | 653 |
| 0.12 | 11200 | 27500 | SAF | 87R57 | DR | 63S4 | 120 | 653 |
| 0.14 | 9904 | 27500 | | | | | | |
| 0.16 | 8549 | 27500 | | | | | | |
| 0.18 | 7643 | 27500 | | | | | | |
| 0.21 | 6706 | 27500 | | | | | | |
| 0.22 | 5875 | 27500 | S | 87R57 | DR | 63M4 | 110 | 653 |
| 0.25 | 5187 | 27500 | SF | 87R57 | DR | 63M4 | 130 | 653 |
| 0.29 | 4606 | 27500 | SA | 87R57 | DR | 63M4 | 105 | 653 |
| 0.34 | 3872 | 27500 | SAF | 87R57 | DR | 63M4 | 120 | 653 |
| | | | S | 87R57 | DR | 63L4 | 110 | 653 |
| 0.37 | 3475 | 27500 | SF | 87R57 | DR | 63L4 | 130 | 653 |
| 0.45 | 2905 | 27500 | SA | 87R57 | DR | 63L4 | 105 | 653 |
| 0.50 | 2586 | 27500 | SAF | 87R57 | DR | 63L4 | 120 | 653 |
| | | | S | 87R57 | DRS | 71S4 | 110 | 653 |
| 0.59 | 2335 | 27500 | SF | 87R57 | DRS | 71S4 | 130 | 653 |
| 0.67 | 2054 | 27500 | SA | 87R57 | DRS | 71S4 | 105 | 653 |
| 0.76 | 1824 | 27500 | SAF | 87R57 | DRS | 71S4 | 125 | 653 |
| | | | S | 87R57 | DRS | 71M4 | 110 | 653 |
| 0.83 | 1631 | 27500 | SF | 87R57 | DRS | 71M4 | 130 | 653 |
| 1.0 | 1332 | 27500 | SA | 87R57 | DRS | 71M4 | 110 | 653 |
| 1.1 | 1191 | 27500 | SAF | 87R57 | DRS | 71M4 | 125 | 653 |
| | | | S | 87R57 | DRN | 80M4 | 115 | 653 |
| 1.4 | 1032 | 27500 | SF | 87R57 | DRN | 80M4 | 135 | 653 |
| 1.6 | 930 | 27500 | SA | 87R57 | DRN | 80M4 | 115 | 653 |
| | | | SAF | 87R57 | DRN | 80M4 | 130 | 653 |
| | | | S | 87R57 | DRN | 90S4 | 120 | 653 |
| 1.8 | 831 | 27500 | SF | 87R57 | DRN | 90S4 | 145 | 653 |
| 2.0 | 719 | 27500 | SA | 87R57 | DRN | 90S4 | 120 | 653 |
| 2.3 | 624 | 27500 | SAF | 87R57 | DRN | 90S4 | 135 | 653 |
| | | | S | 87R57 | DRN | 90L4 | 125 | 653 |
| 2.6 | 558 | 27500 | SF | 87R57 | DRN | 90L4 | 145 | 653 |
| 3.0 | 485 | 27500 | SA | 87R57 | DRN | 90L4 | 125 | 653 |
| | | | SAF | 87R57 | DRN | 90L4 | 140 | 653 |



21284997/EN – 03/2015

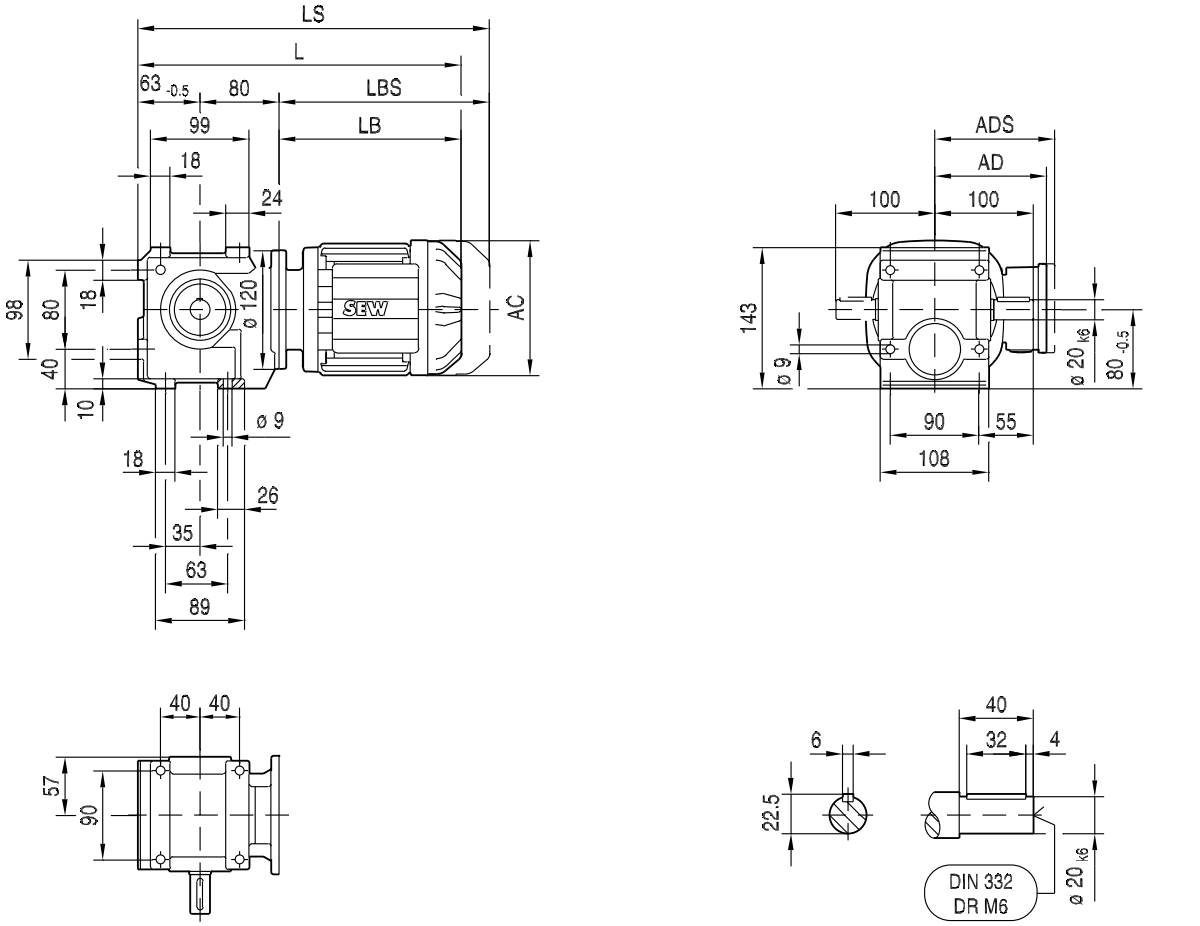
| $M_{a\ max}$ = 4200 Nm | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | i | $F_{Ra}$ [1] N |  | | | | | m kg | |
| **0.04** | 33818 | 32800 | | | | | | | |
| **0.04** | 31154 | 32800 | | | | | | | |
| **0.05** | 27847 | 32800 | | | | | | | |
| **0.06** | 24641 | 32800 | **S** | **97R57** | **DR** | **63S4** | | 170 | 653 |
| **0.06** | 21537 | 32800 | **SF** | **97R57** | **DR** | **63S4** | | 200 | 653 |
| **0.07** | 18749 | 32800 | **SA** | **97R57** | **DR** | **63S4** | | 165 | 653 |
| **0.09** | 16233 | 32800 | **SAF** | **97R57** | **DR** | **63S4** | | 190 | 653 |
| **0.09** | 14576 | 32800 | | | | | | | |
| **0.11** | 12752 | 32800 | | | | | | | |
| **0.12** | 11267 | 32800 | | | | | | | |
| **0.14** | 10078 | 32800 | | | | | | | |
| **0.15** | 8608 | 32800 | | | | | | | |
| **0.17** | 7554 | 32800 | **S** | **97R57** | **DR** | **63M4** | | 170 | 653 |
| **0.20** | 6640 | 31500 | **SF** | **97R57** | **DR** | **63M4** | | 200 | 653 |
| **0.23** | 5780 | 31500 | **SA** | **97R57** | **DR** | **63M4** | | 165 | 653 |
| **0.27** | 4937 | 31500 | **SAF** | **97R57** | **DR** | **63M4** | | 190 | 653 |
| **0.29** | 4444 | 31500 | **S** | **97R57** | **DR** | **63L4** | | 170 | 653 |
| **0.32** | 4017 | 31500 | **SF** | **97R57** | **DR** | **63L4** | | 200 | 653 |
| **0.38** | 3453 | 31500 | **SA** | **97R57** | **DR** | **63L4** | | 165 | 653 |
| **0.42** | 3108 | 31500 | **SAF** | **97R57** | **DR** | **63L4** | | 190 | 653 |
| | | | **S** | **97R57** | **DRS** | **71S4** | | 170 | 653 |
| **0.52** | 2654 | 31500 | **SF** | **97R57** | **DRS** | **71S4** | | 205 | 653 |
| **0.59** | 2329 | 31500 | **SA** | **97R57** | **DRS** | **71S4** | | 165 | 653 |
| | | | **SAF** | **97R57** | **DRS** | **71S4** | | 190 | 653 |
| | | | **S** | **97R57** | **DRS** | **71M4** | | 170 | 653 |
| **0.65** | 2081 | 31500 | **SF** | **97R57** | **DRS** | **71M4** | | 205 | 653 |
| **0.73** | 1860 | 31500 | **SA** | **97R57** | **DRS** | **71M4** | | 165 | 653 |
| **0.86** | 1574 | 31500 | **SAF** | **97R57** | **DRS** | **71M4** | | 190 | 653 |
| | | | **S** | **97R57** | **DRN** | **80M4** | | 175 | 653 |
| **1.0** | 1394 | 31500 | **SF** | **97R57** | **DRN** | **80M4** | | 210 | 653 |
| **1.2** | 1223 | 31500 | **SA** | **97R57** | **DRN** | **80M4** | | 170 | 653 |
| | | | **SAF** | **97R57** | **DRN** | **80M4** | | 195 | 653 |
| | | | **S** | **97R57** | **DRN** | **90S4** | | 180 | 653 |
| **1.4** | 1070 | 31500 | **SF** | **97R57** | **DRN** | **90S4** | | 215 | 653 |
| **1.6** | 928 | 31500 | **SA** | **97R57** | **DRN** | **90S4** | | 175 | 653 |
| **1.8** | 824 | 31500 | **SAF** | **97R57** | **DRN** | **90S4** | | 200 | 653 |
| | | | **S** | **97R57** | **DRN** | **90L4** | | 185 | 653 |
| **2.0** | 714 | 32800 | **SF** | **97R57** | **DRN** | **90L4** | | 220 | 653 |
| **2.3** | 626 | 31500 | **SA** | **97R57** | **DRN** | **90L4** | | 180 | 653 |
| | | | **SAF** | **97R57** | **DRN** | **90L4** | | 205 | 653 |
| **2.7** | 538 | 31600 | **S** | **97R57** | **DRN** | **100LS4** | | 190 | 653 |
| **3.0** | 484 | 31600 | **SF** | **97R57** | **DRN** | **100LS4** | | 220 | 653 |
| **3.4** | 420 | 31600 | **SA** | **97R57** | **DRN** | **100LS4** | | 185 | 653 |
| **3.9** | 376 | 31700 | **SAF** | **97R57** | **DRN** | **100LS4** | | 210 | 653 |
| | | | **S** | **97R57** | **DRN** | **100L4** | | 195 | 653 |
| **4.5** | 327 | 31700 | **SF** | **97R57** | **DRN** | **100L4** | | 230 | 653 |
| **5.1** | 287 | 31700 | **SA** | **97R57** | **DRN** | **100L4** | | 190 | 653 |
| | | | **SAF** | **97R57** | **DRN** | **100L4** | | 215 | 653 |
| | | | **S** | **97R57** | **DRN** | **112M4** | | 205 | 653 |
| **5.8** | 252 | 31800 | **SF** | **97R57** | **DRN** | **112M4** | | 240 | 653 |
| **6.7** | 219 | 31800 | **SA** | **97R57** | **DRN** | **112M4** | | 200 | 653 |
| | | | **SAF** | **97R57** | **DRN** | **112M4** | | 225 | 653 |

21284997/EN – 03/2015

## 11.5 S..DRN.. dimension sheets in mm

02 008 00 14

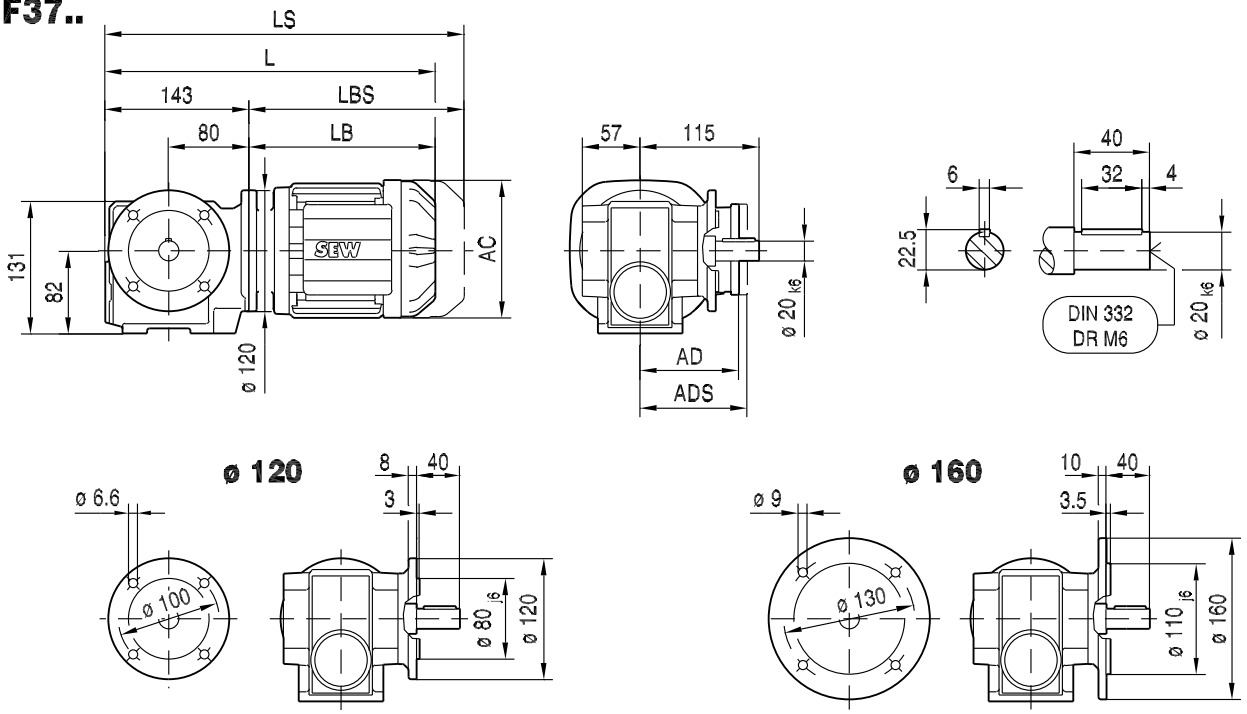
**S37..**



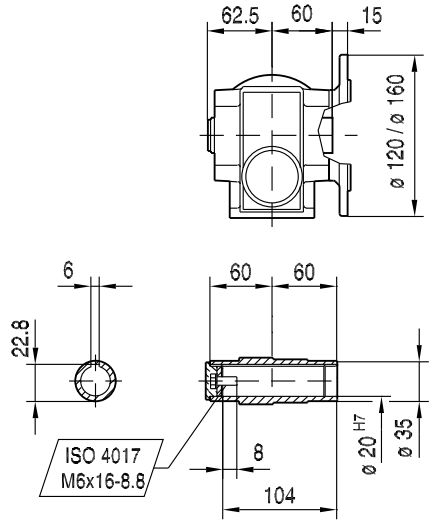

| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | | | |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | | | |
| **AD** | 105 | 119 | 119 | 128 | 140 | | | |
| **ADS** | 105 | 129 | 129 | 139 | 150 | | | |
| **L** | 334 | 345 | 370 | 425 | 426 | | | |
| **LS** | 389 | 413 | 438 | 506 | 520 | | | |
| **LB** | 191 | 202 | 227 | 282 | 283 | | | |
| **LBS** | 246 | 270 | 295 | 363 | 377 | | | |

02 009 00 14

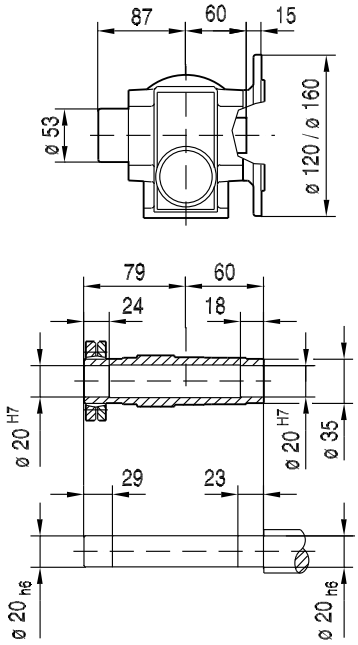
## SF37..




## SAF37..




## SHF37..

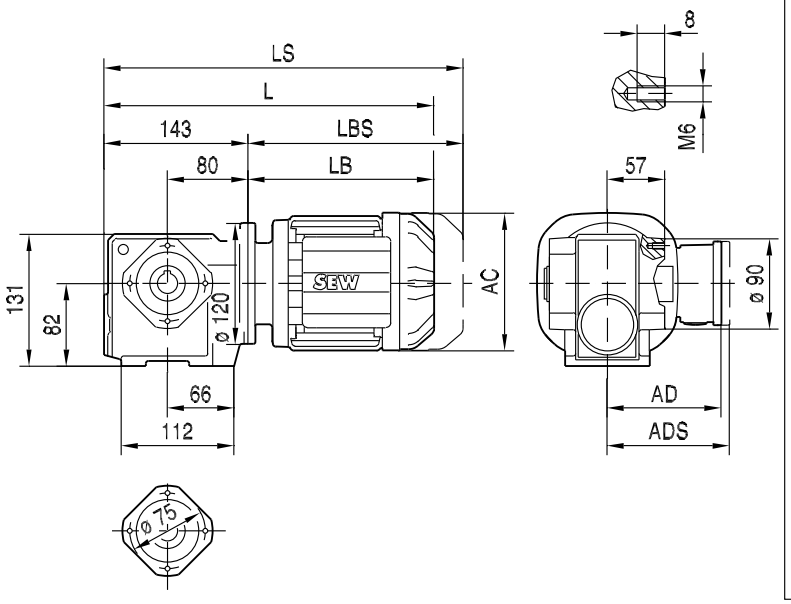


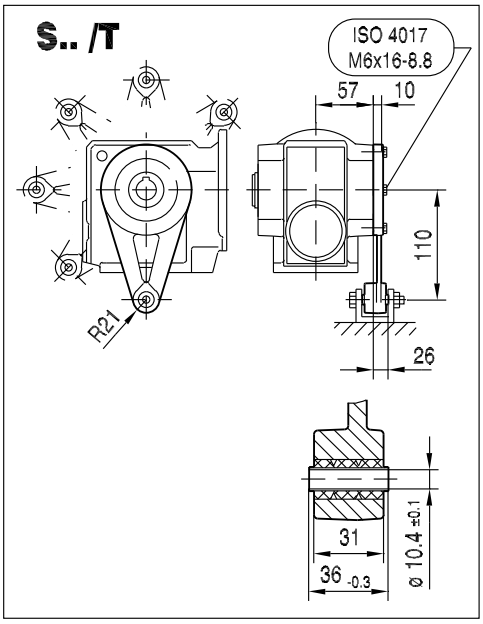

| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | | | |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | | | |
| **AD** | 105 | 119 | 119 | 128 | 140 | | | |
| **ADS** | 105 | 129 | 129 | 139 | 150 | | | |
| **L** | 334 | 345 | 370 | 425 | 426 | | | |
| **LS** | 389 | 413 | 438 | 506 | 520 | | | |
| **LB** | 191 | 202 | 227 | 282 | 283 | | | |
| **LBS** | 246 | 270 | 295 | 363 | 377 | | | |

21284997/EN – 03/2015

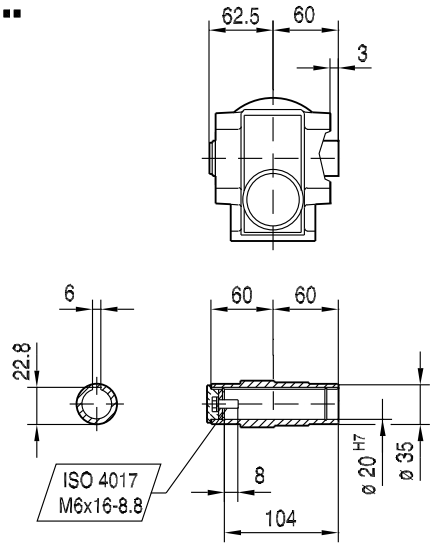
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## SA37..

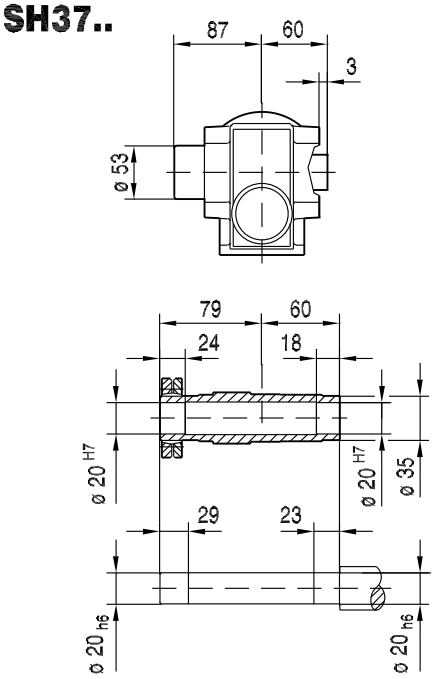



## SA37..

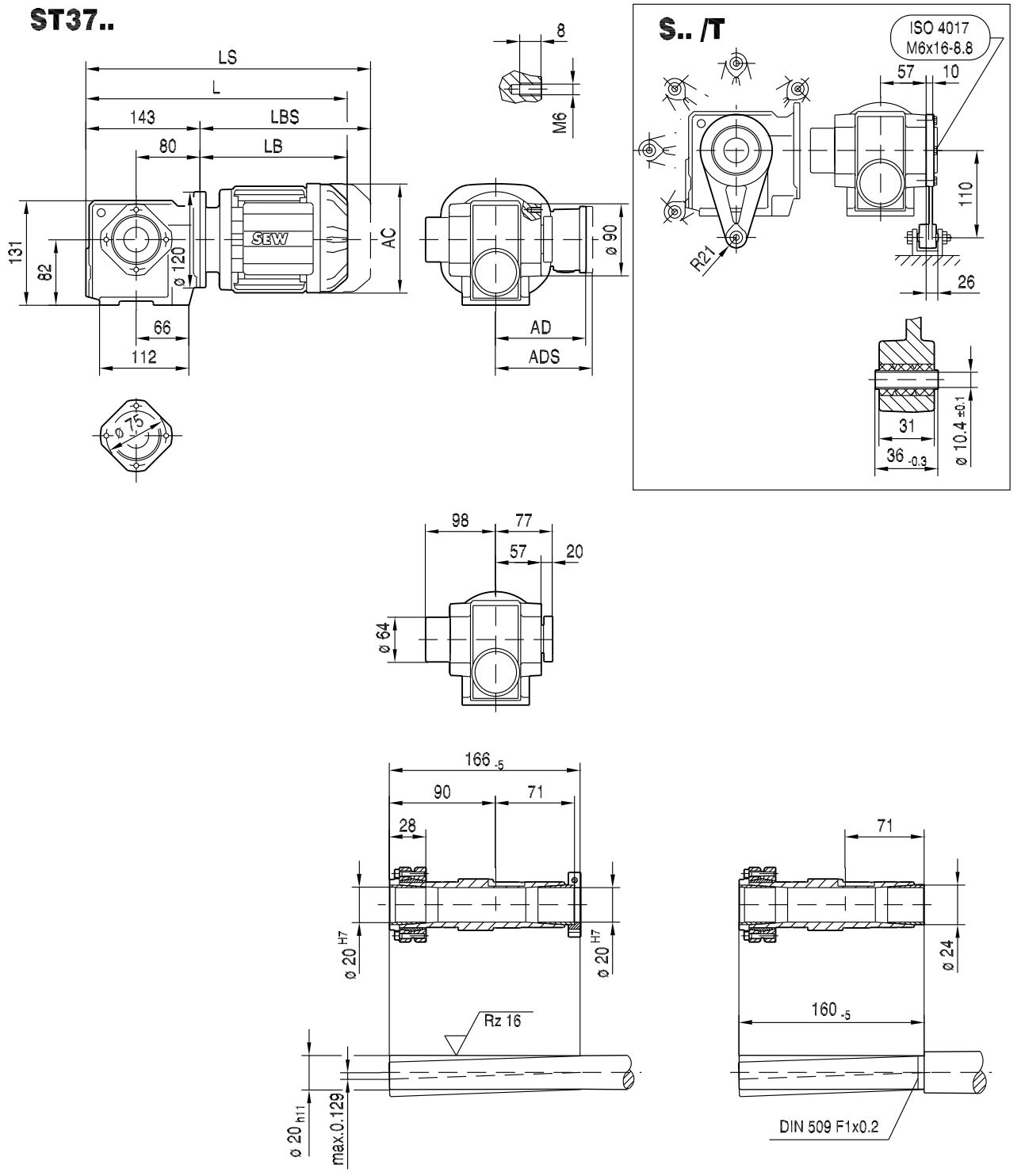



## SH37..




| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | | | |
|---|---|---|---|---|---|---|---|---|
| AC | 132 | 139 | 139 | 156 | 179 | | | |
| AD | 105 | 119 | 119 | 128 | 140 | | | |
| ADS | 105 | 129 | 129 | 139 | 150 | | | |
| L | 334 | 345 | 370 | 425 | 426 | | | |
| LS | 389 | 413 | 438 | 506 | 520 | | | |
| LB | 191 | 202 | 227 | 282 | 283 | | | |
| LBS | 246 | 270 | 295 | 363 | 377 | | | |

02 011 00 14

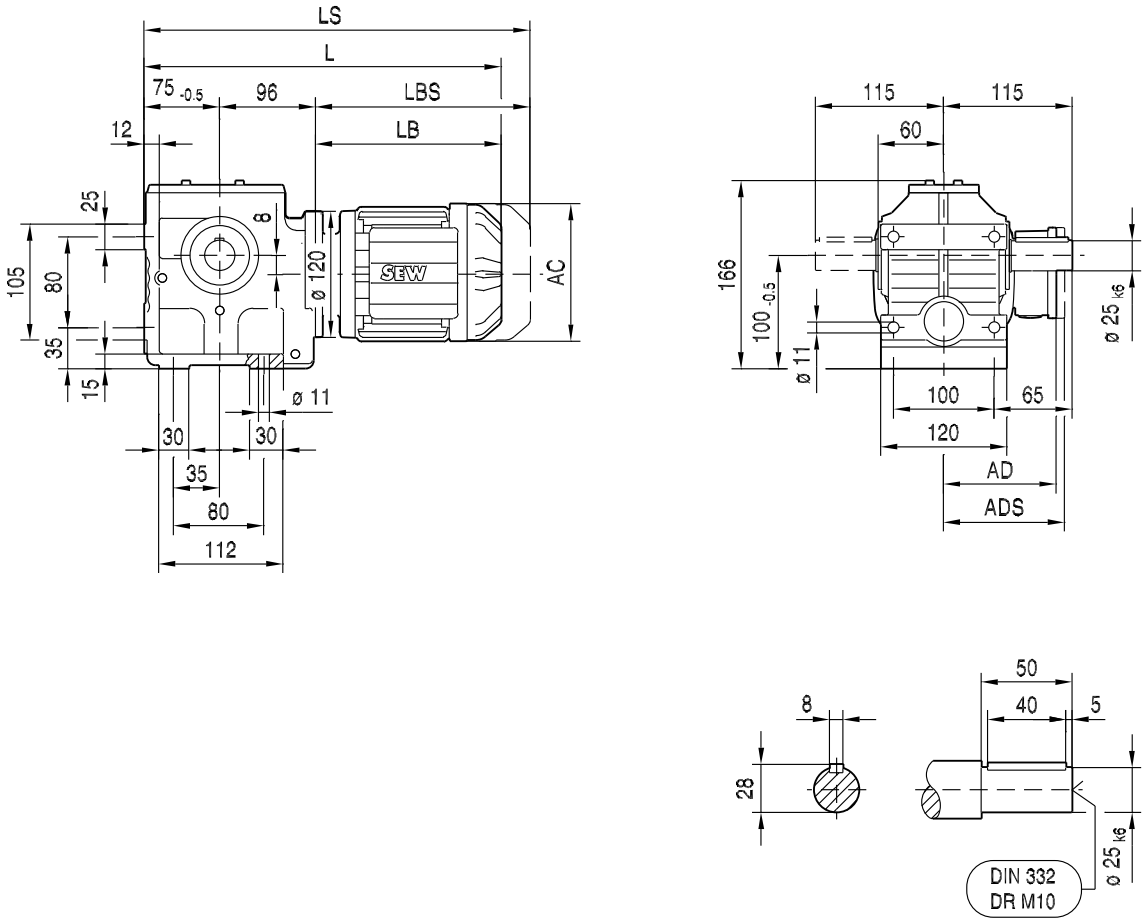



| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | | | |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | | | |
| **AD** | 105 | 119 | 119 | 128 | 140 | | | |
| **ADS** | 105 | 129 | 129 | 139 | 150 | | | |
| **L** | 334 | 345 | 370 | 425 | 426 | | | |
| **LS** | 389 | 413 | 438 | 506 | 520 | | | |
| **LB** | 191 | 202 | 227 | 282 | 283 | | | |
| **LBS** | 246 | 270 | 295 | 363 | 377 | | | |

21284997/EN – 03/2015

02 012 00 14

## S47..

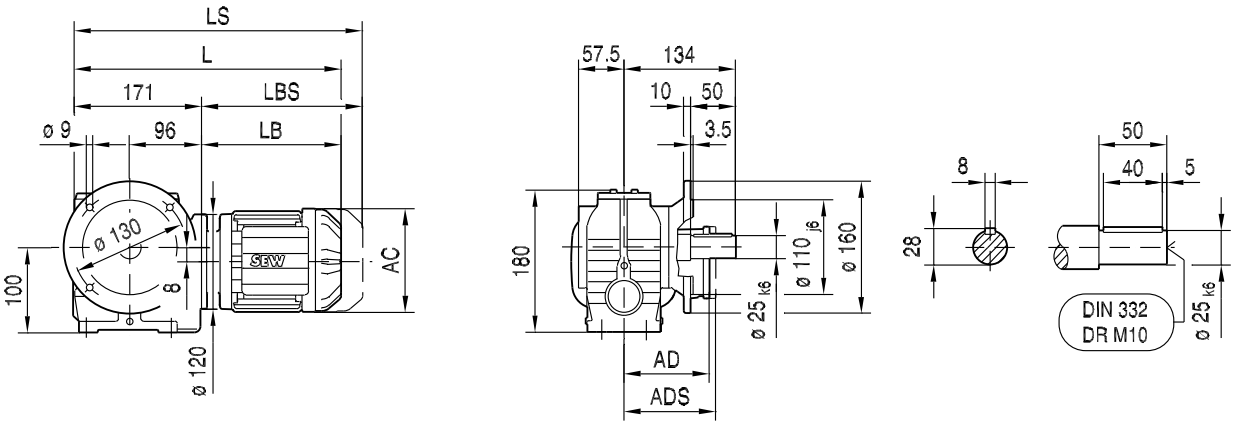



| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | | |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | | |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | | |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | | |
| **L** | 362 | 373 | 398 | 453 | 454 | 486 | | |
| **LS** | 417 | 441 | 466 | 534 | 548 | 580 | | |
| **LB** | 191 | 202 | 227 | 282 | 283 | 315 | | |
| **LBS** | 246 | 270 | 295 | 363 | 377 | 409 | | |

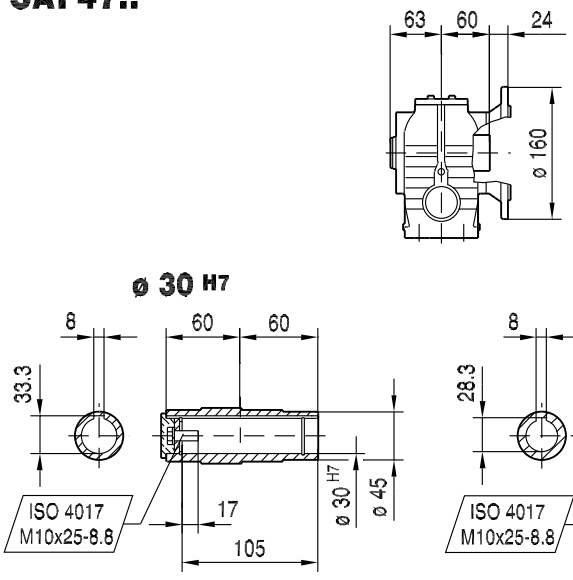
21284997/EN – 03/2015

02 013 00 14

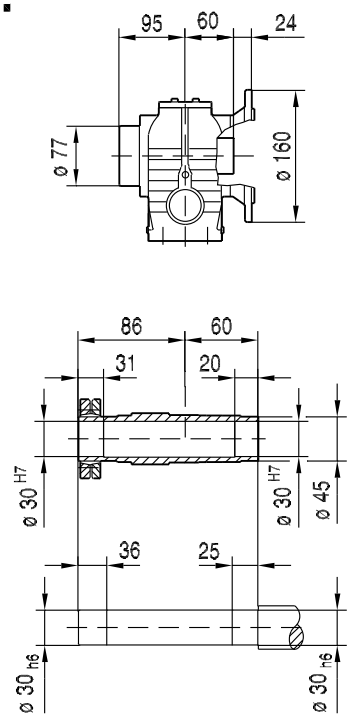
## SF47..




## SAF47..




## SHF47..

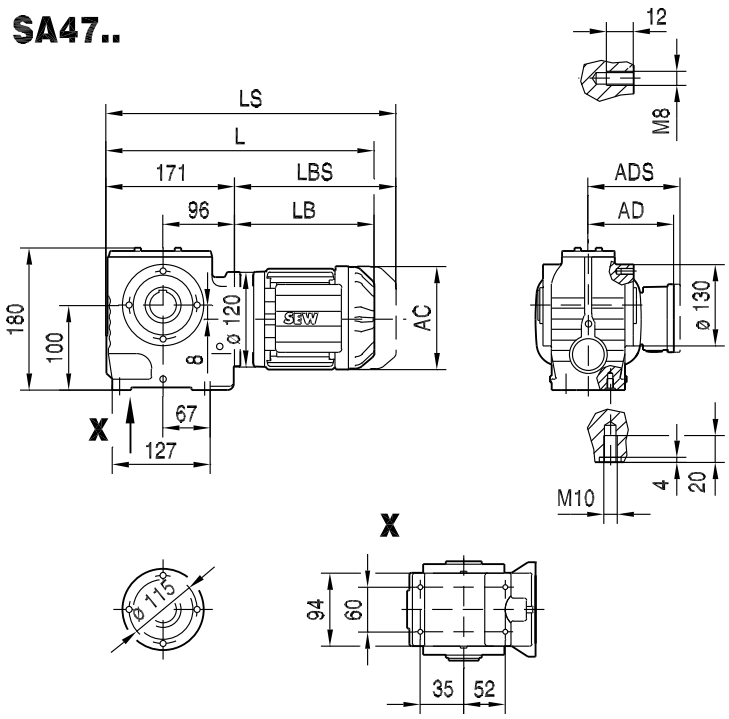



| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | | |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | | |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | | |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | | |
| **L** | 362 | 373 | 398 | 453 | 454 | 486 | | |
| **LS** | 417 | 441 | 466 | 534 | 548 | 580 | | |
| **LB** | 191 | 202 | 227 | 282 | 283 | 315 | | |
| **LBS** | 246 | 270 | 295 | 363 | 377 | 409 | | |

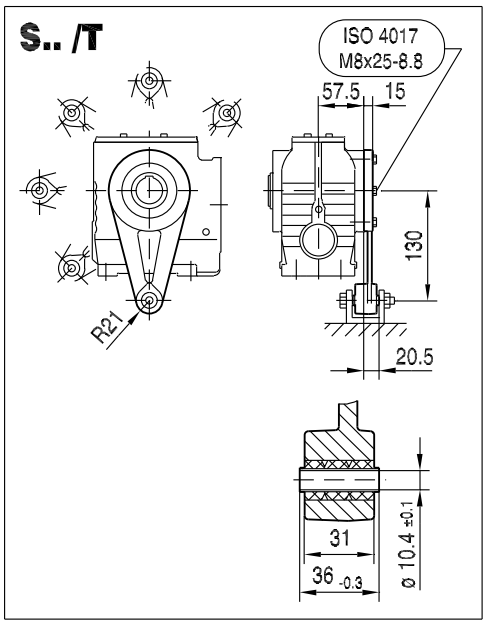
21284997/EN – 03/2015

02 014 00 14

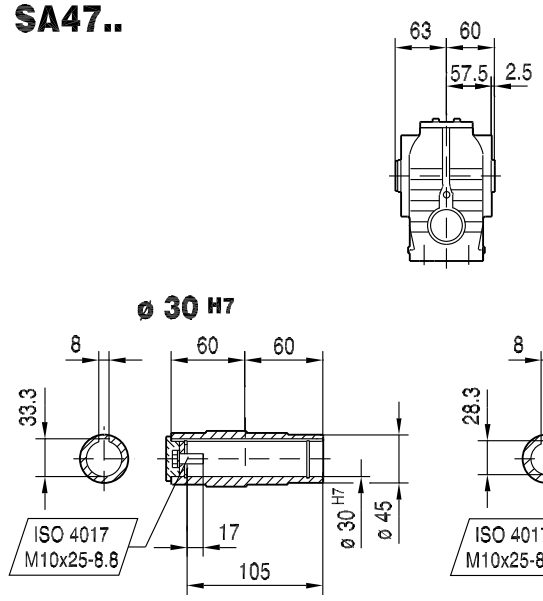
## SA47..



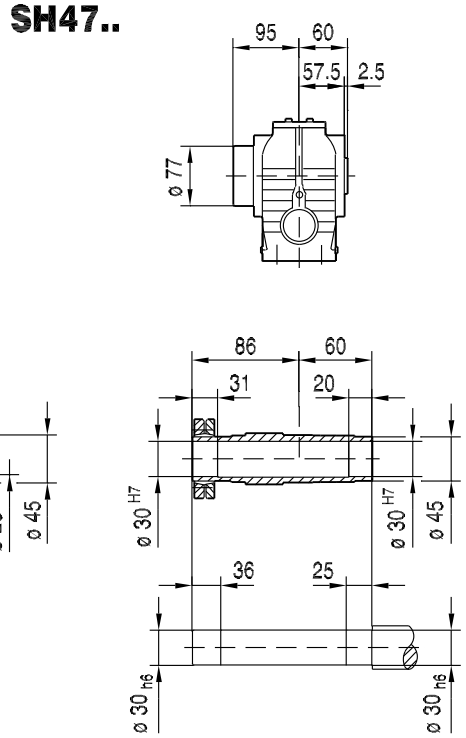

## S.. /T




## SA47..




## SH47..

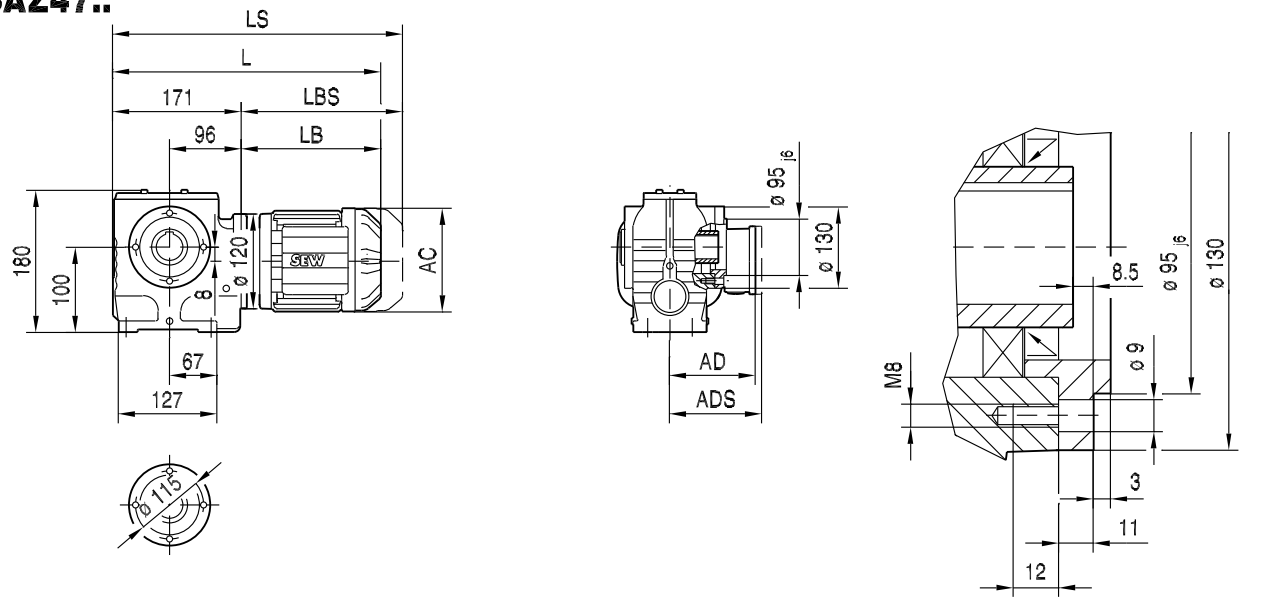



| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | | |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | | |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | | |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | | |
| **L** | 362 | 373 | 398 | 453 | 454 | 486 | | |
| **LS** | 417 | 441 | 466 | 534 | 548 | 580 | | |
| **LB** | 191 | 202 | 227 | 282 | 283 | 315 | | |
| **LBS** | 246 | 270 | 295 | 363 | 377 | 409 | | |

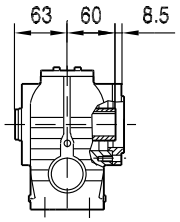
21284997/EN – 03/2015

02 015 00 14

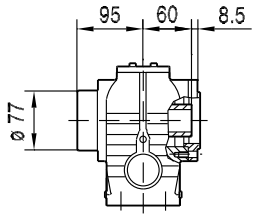
## SAZ47..

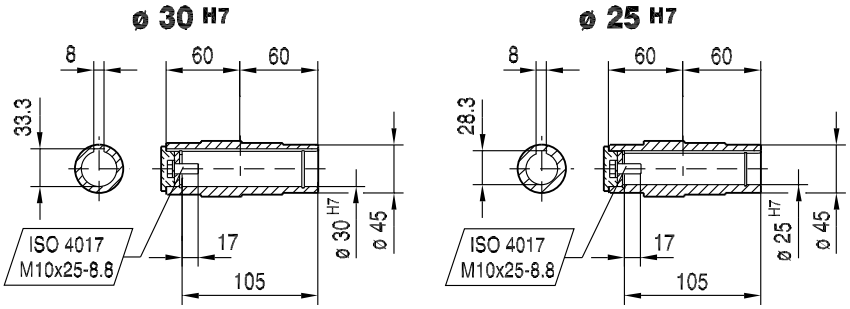


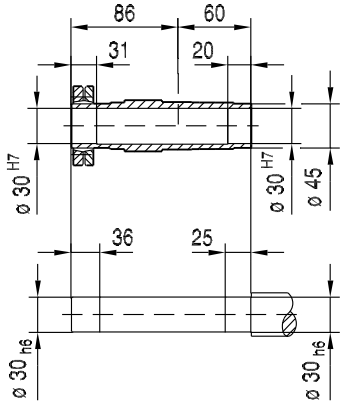

## SAZ47..




## SHZ47..

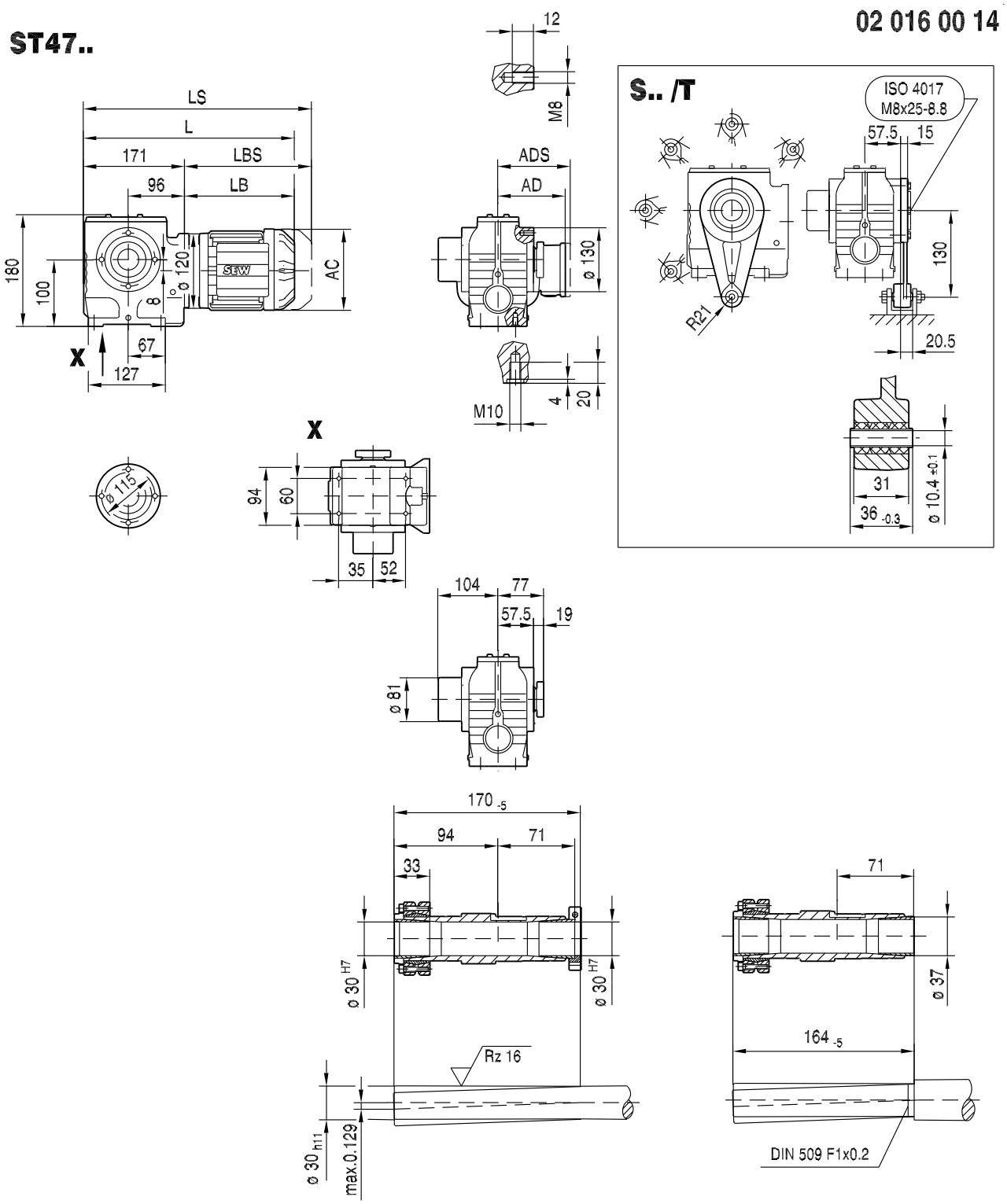



| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | | |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | | |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | | |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | | |
| **L** | 362 | 373 | 398 | 453 | 454 | 486 | | |
| **LS** | 417 | 441 | 466 | 534 | 548 | 580 | | |
| **LB** | 191 | 202 | 227 | 282 | 283 | 315 | | |
| **LBS** | 246 | 270 | 295 | 363 | 377 | 409 | | |

21284997/EN – 03/2015

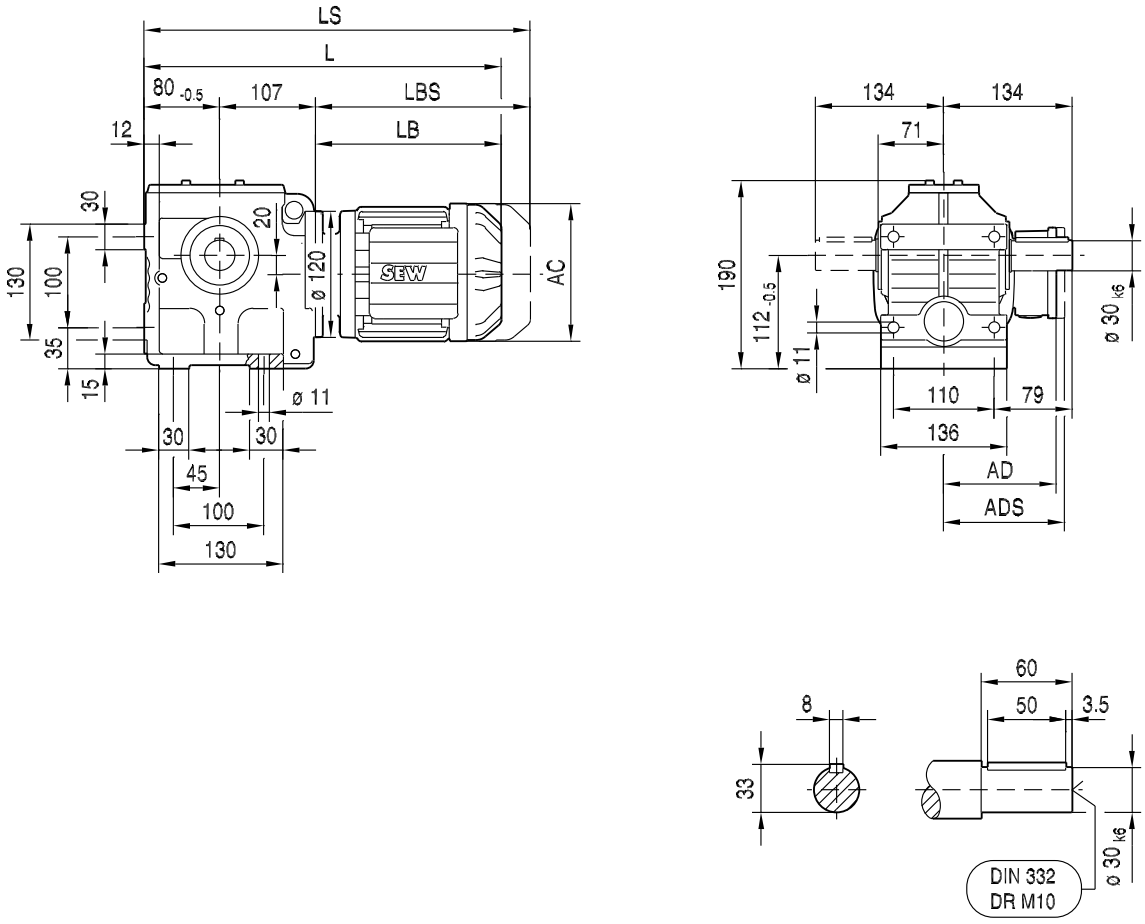



| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | | |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | | |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | | |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | | |
| **L** | 362 | 373 | 398 | 453 | 454 | 486 | | |
| **LS** | 417 | 441 | 466 | 534 | 548 | 580 | | |
| **LB** | 191 | 202 | 227 | 282 | 283 | 315 | | |
| **LBS** | 246 | 270 | 295 | 363 | 377 | 409 | | |

21284997/EN – 03/2015

02 017 00 14

## S57..

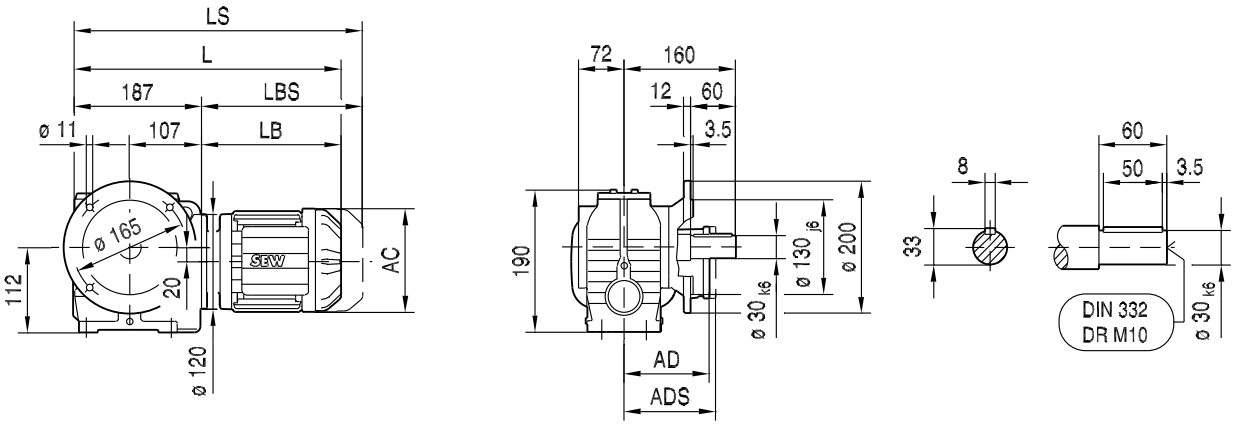



| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 |
| **L** | 378 | 389 | 414 | 469 | 470 | 502 | 501 | 551 |
| **LS** | 433 | 457 | 482 | 550 | 564 | 596 | 595 | 645 |
| **LB** | 191 | 202 | 227 | 282 | 283 | 315 | 314 | 364 |
| **LBS** | 246 | 270 | 295 | 363 | 377 | 409 | 408 | 458 |

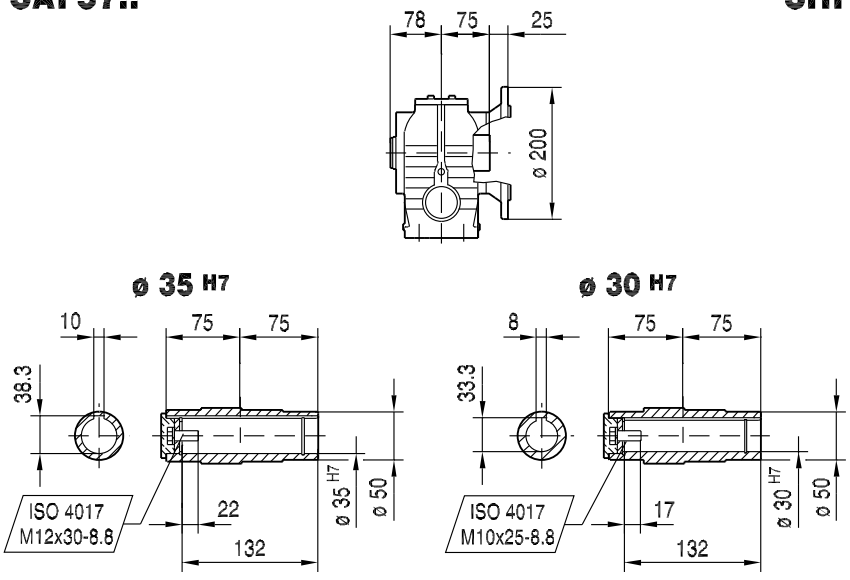
21284997/EN – 03/2015

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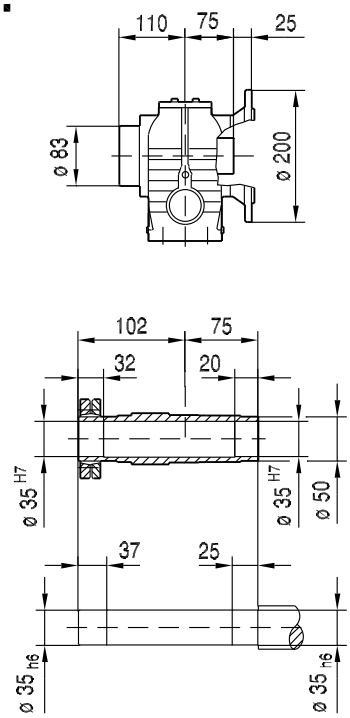
## SF57..




## SAF57..



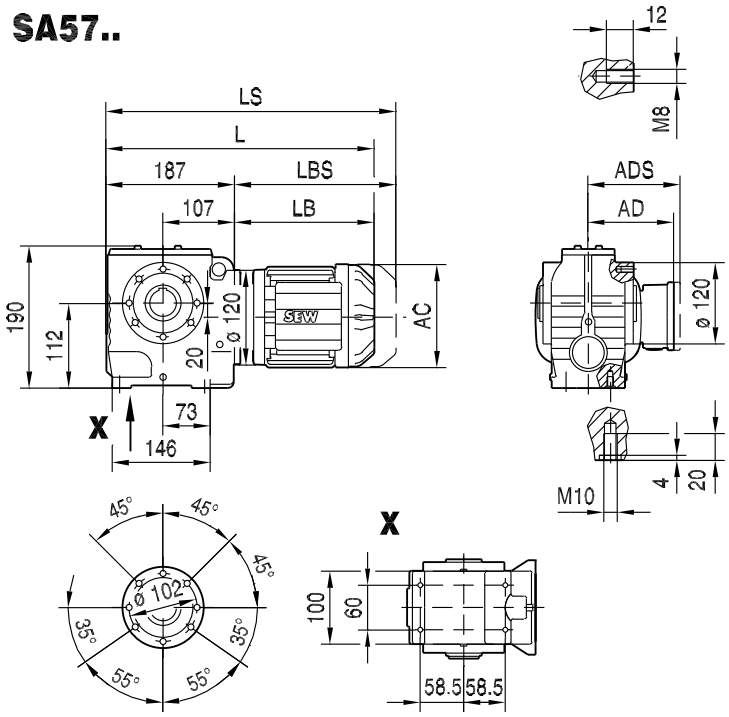

## SHF57..



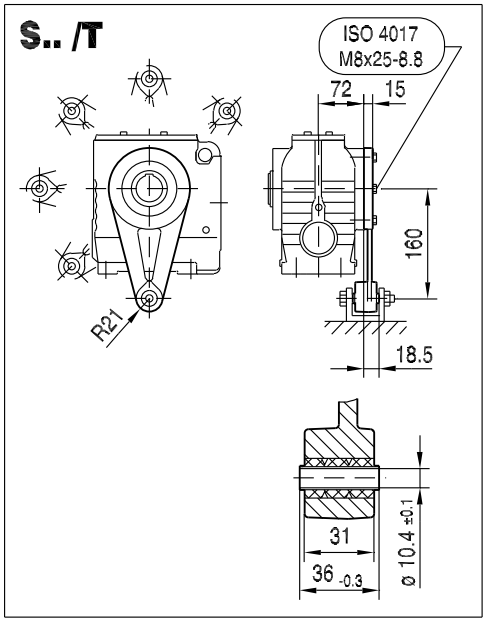

| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 |
| **L** | 378 | 389 | 414 | 469 | 470 | 502 | 501 | 551 |
| **LS** | 433 | 457 | 482 | 550 | 564 | 596 | 595 | 645 |
| **LB** | 191 | 202 | 227 | 282 | 283 | 315 | 314 | 364 |
| **LBS** | 246 | 270 | 295 | 363 | 377 | 409 | 408 | 458 |

02 019 00 14

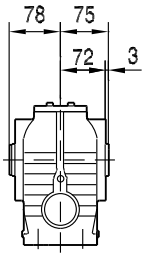
## SA57..



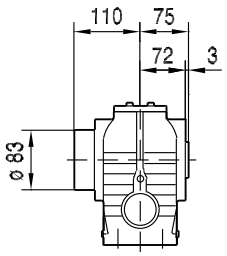

## S.. /T

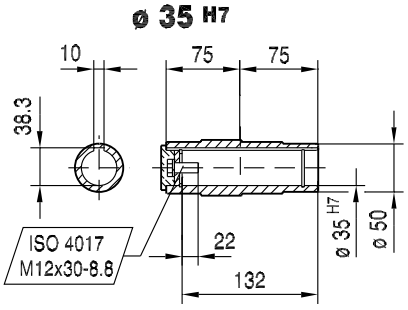


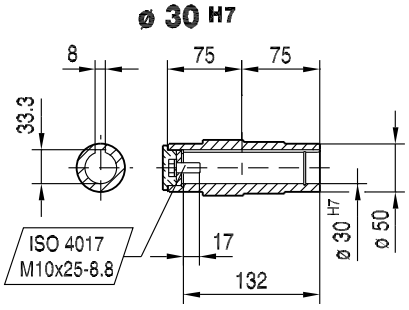

## SA57..

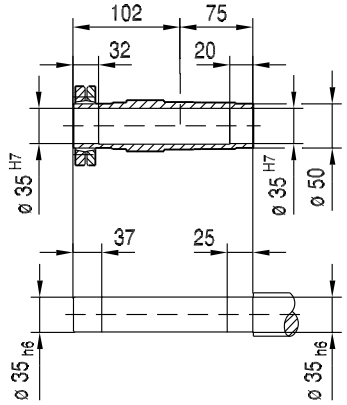



## SH57..



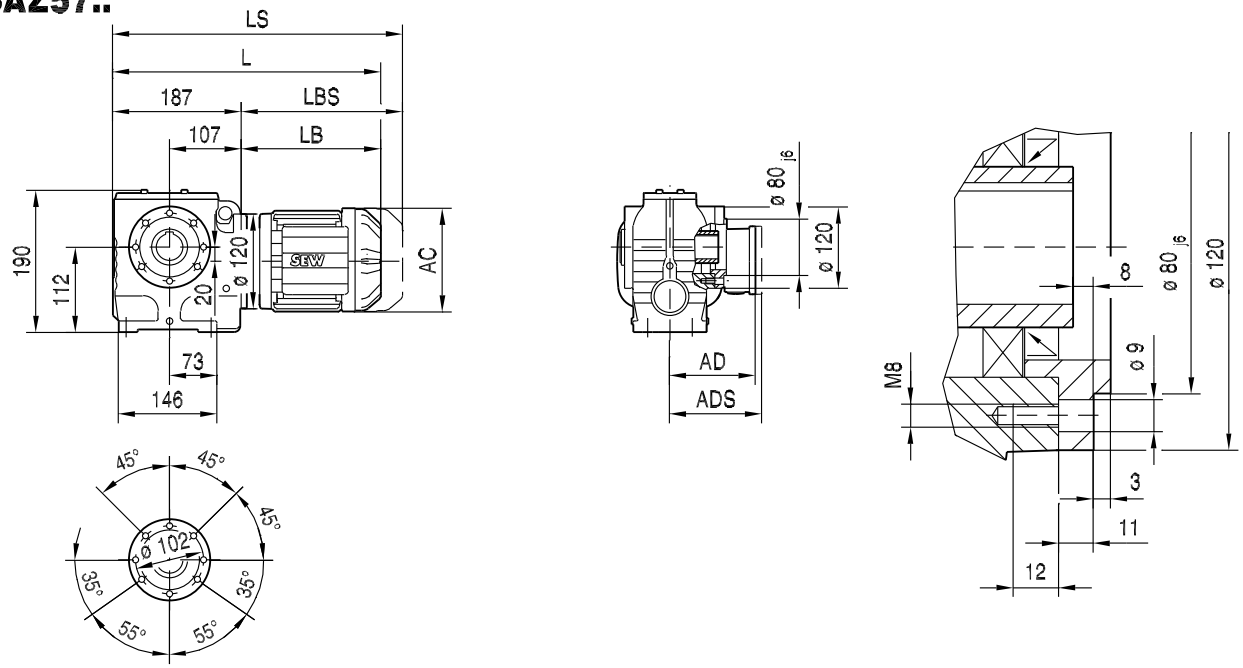




| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 |
| **L** | 378 | 389 | 414 | 469 | 470 | 502 | 501 | 551 |
| **LS** | 433 | 457 | 482 | 550 | 564 | 596 | 595 | 645 |
| **LB** | 191 | 202 | 227 | 282 | 283 | 315 | 314 | 364 |
| **LBS** | 246 | 270 | 295 | 363 | 377 | 409 | 408 | 458 |

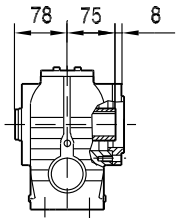
21284997/EN – 03/2015

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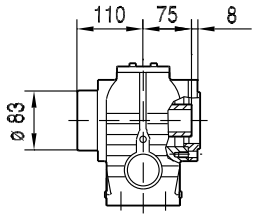
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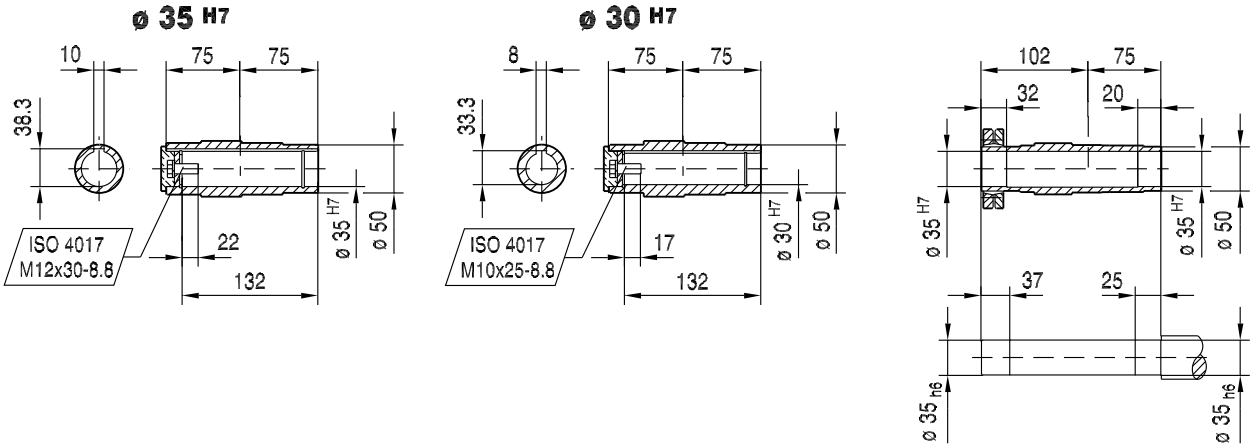



## SAZ57..




## SHZ57..



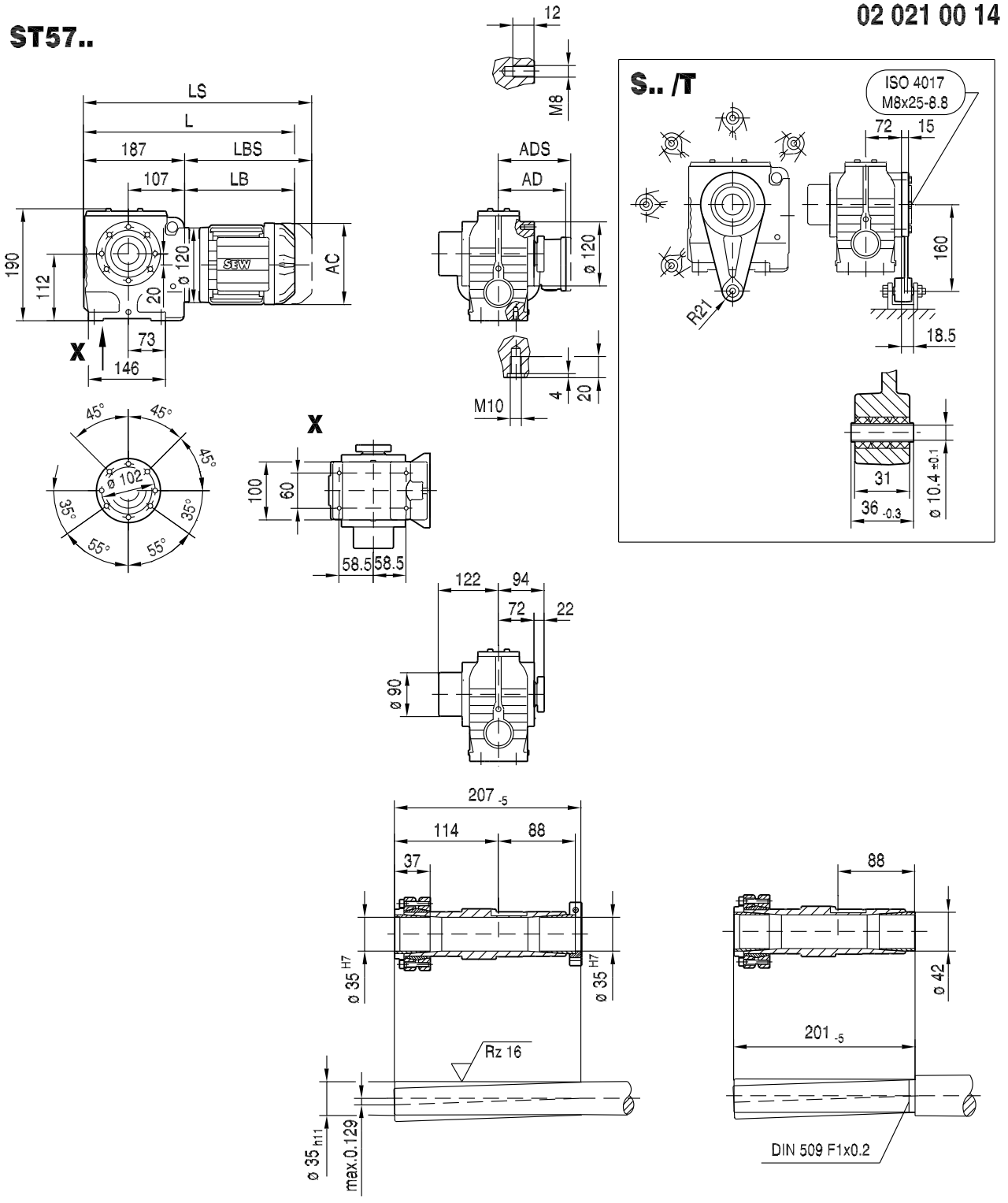




| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 |
| **L** | 378 | 389 | 414 | 469 | 470 | 502 | 501 | 551 |
| **LS** | 433 | 457 | 482 | 550 | 564 | 596 | 595 | 645 |
| **LB** | 191 | 202 | 227 | 282 | 283 | 315 | 314 | 364 |
| **LBS** | 246 | 270 | 295 | 363 | 377 | 409 | 408 | 458 |

21284997/EN – 03/2015

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## ST57..

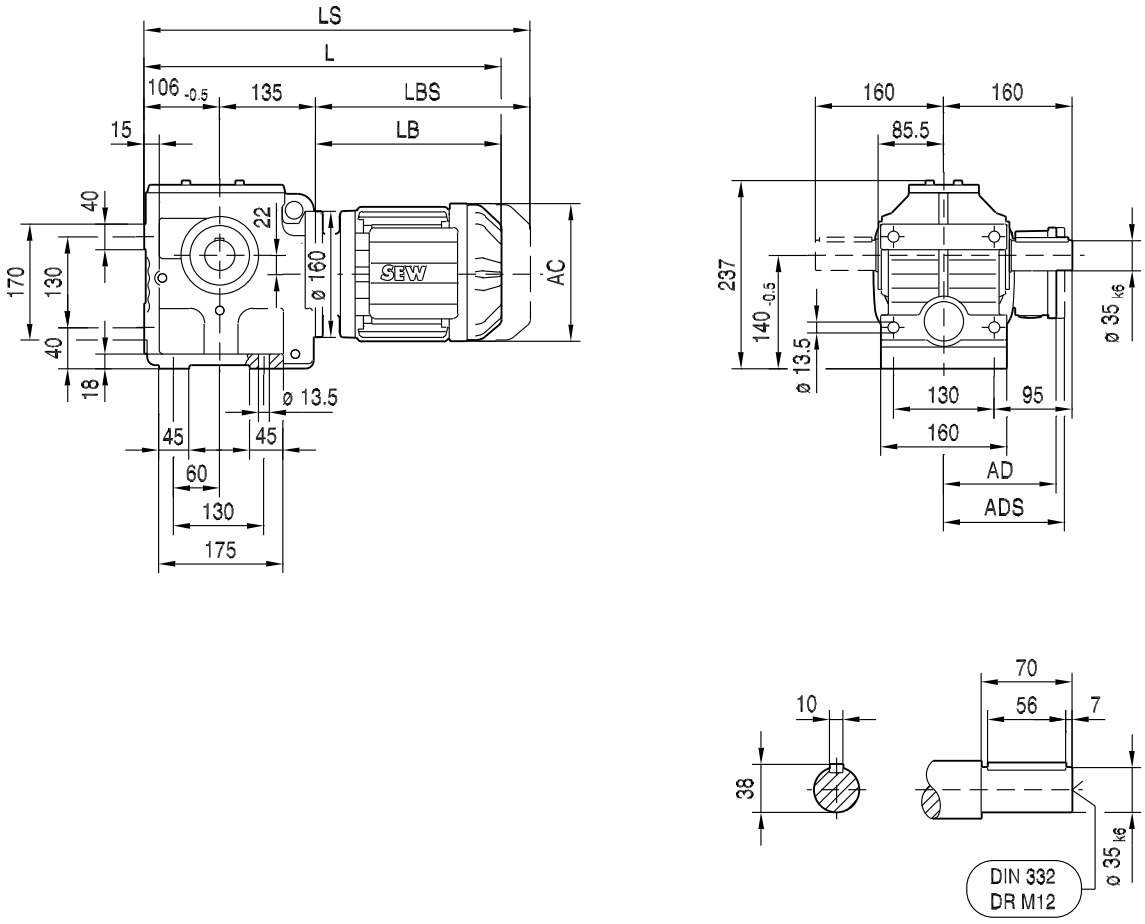



| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 |
| **L** | 378 | 389 | 414 | 469 | 470 | 502 | 501 | 551 |
| **LS** | 433 | 457 | 482 | 550 | 564 | 596 | 595 | 645 |
| **LB** | 191 | 202 | 227 | 282 | 283 | 315 | 314 | 364 |
| **LBS** | 246 | 270 | 295 | 363 | 377 | 409 | 408 | 458 |

21284997/EN – 03/2015

02 022 00 14

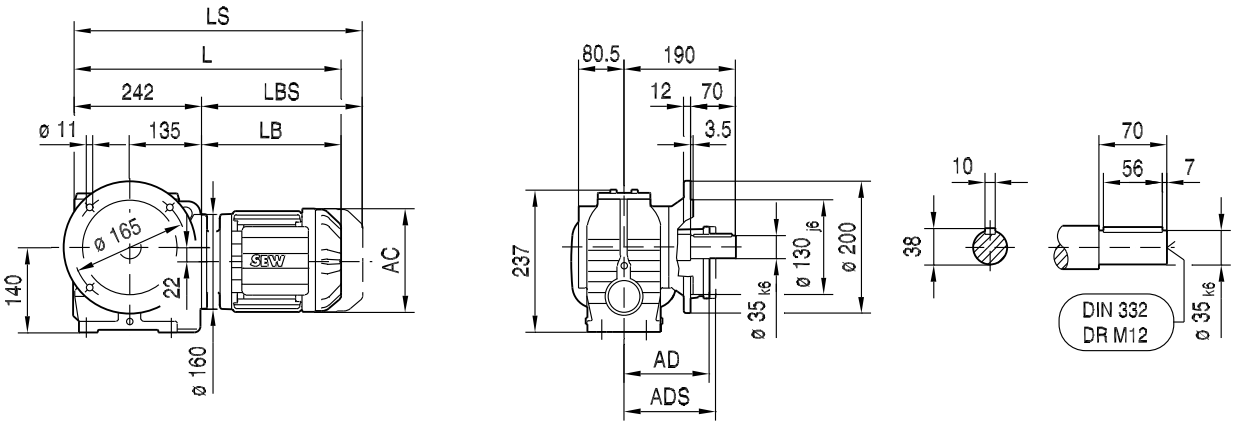
## S67..



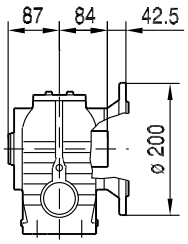

| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 | 221 | 221 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 | 170 | 170 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 | 172 | 172 |
| **L** | 426 | 437 | 462 | 516 | 518 | 550 | 546 | 596 | 627 | 681 |
| **LS** | 481 | 505 | 530 | 597 | 611 | 643 | 640 | 690 | 739 | 793 |
| **LB** | 185 | 196 | 221 | 275 | 277 | 309 | 305 | 355 | 386 | 440 |
| **LBS** | 240 | 264 | 289 | 356 | 370 | 402 | 399 | 449 | 498 | 552 |

02 023 00 14

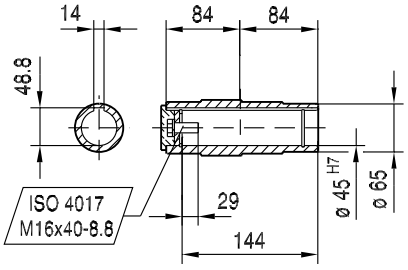
## SF67..



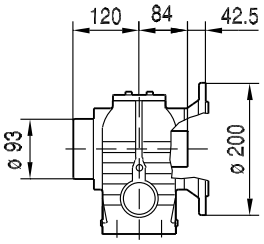

## SAF67..



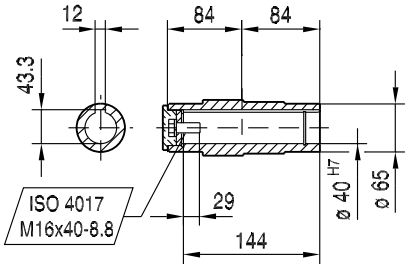

ø 45 H7

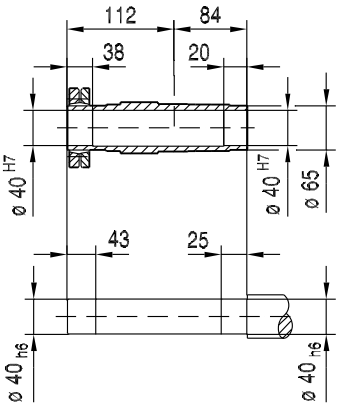



## SHF67..




ø 40 H7



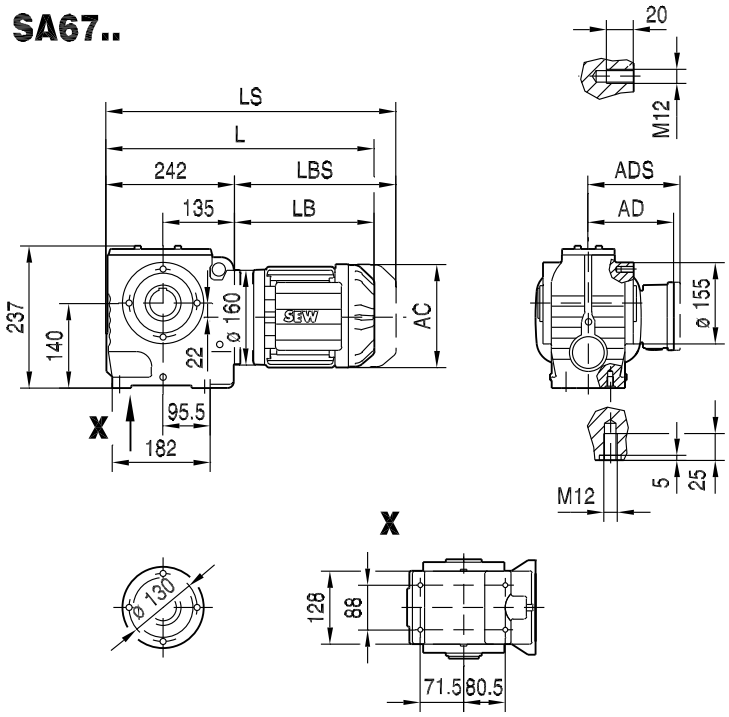




| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 | 221 | 221 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 | 170 | 170 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 | 172 | 172 |
| **L** | 427 | 438 | 463 | 517 | 519 | 551 | 547 | 597 | 628 | 682 |
| **LS** | 482 | 506 | 531 | 598 | 612 | 644 | 641 | 691 | 740 | 794 |
| **LB** | 185 | 196 | 221 | 275 | 277 | 309 | 305 | 355 | 386 | 440 |
| **LBS** | 240 | 264 | 289 | 356 | 370 | 402 | 399 | 449 | 498 | 552 |

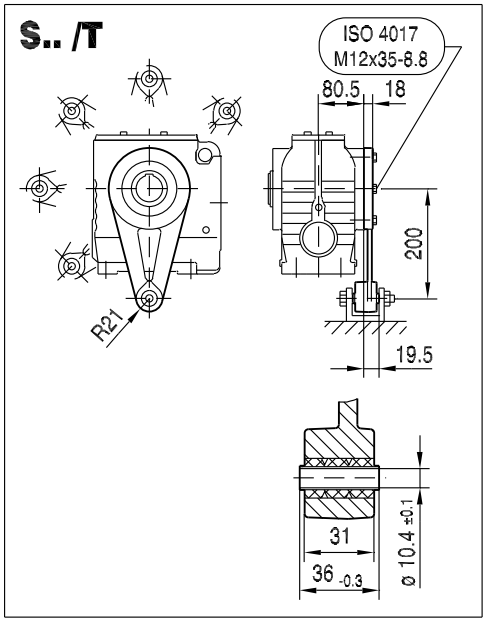
21284997/EN – 03/2015

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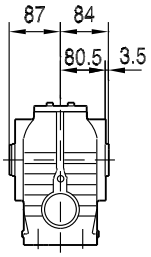
## SA67..



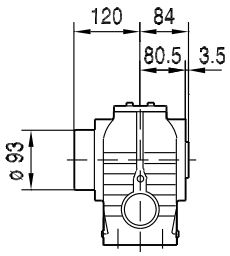

## S.. /T

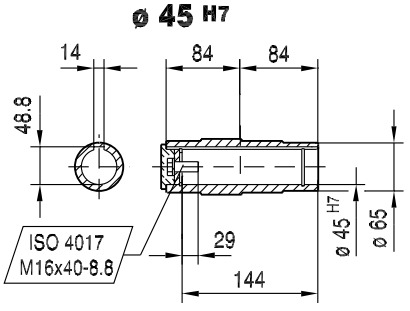


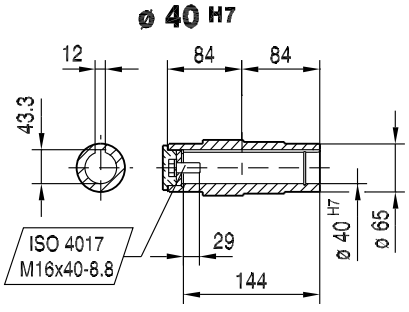

## SA67..

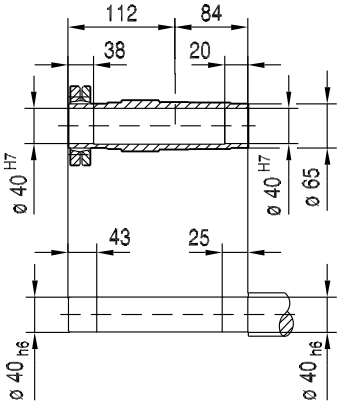



## SH67..



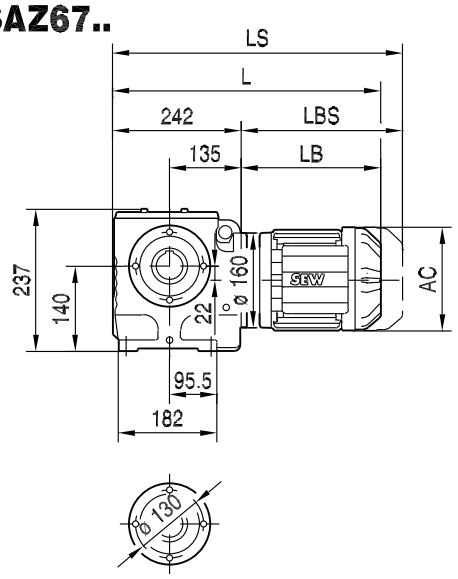



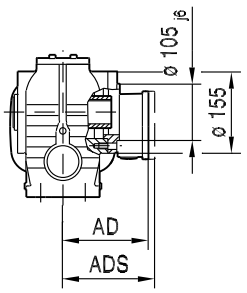



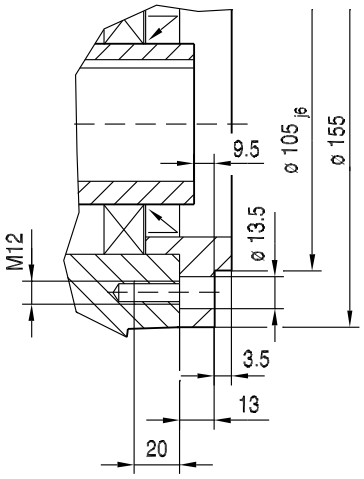

| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 | 221 | 221 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 | 170 | 170 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 | 172 | 172 |
| **L** | 427 | 438 | 463 | 517 | 519 | 551 | 547 | 597 | 628 | 682 |
| **LS** | 482 | 506 | 531 | 598 | 612 | 644 | 641 | 691 | 740 | 794 |
| **LB** | 185 | 196 | 221 | 275 | 277 | 309 | 305 | 355 | 386 | 440 |
| **LBS** | 240 | 264 | 289 | 356 | 370 | 402 | 399 | 449 | 498 | 552 |

02 025 00 14

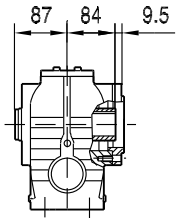
## SAZ67..



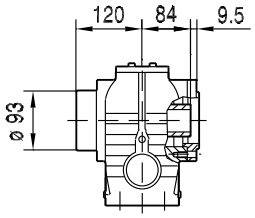



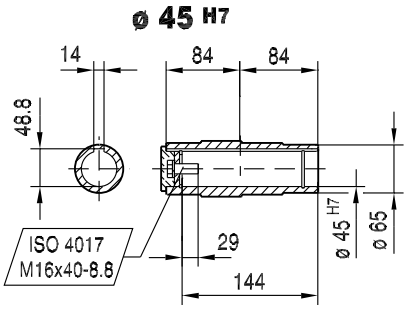



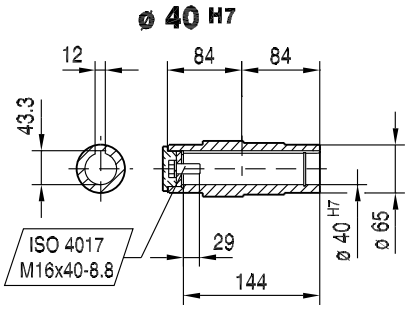

## SAZ67..

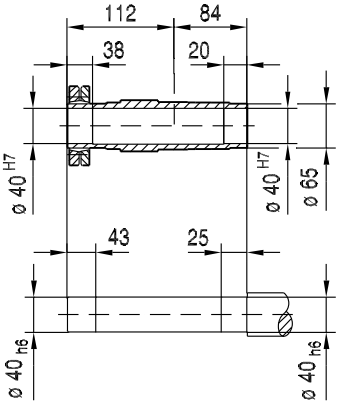



## SHZ67..



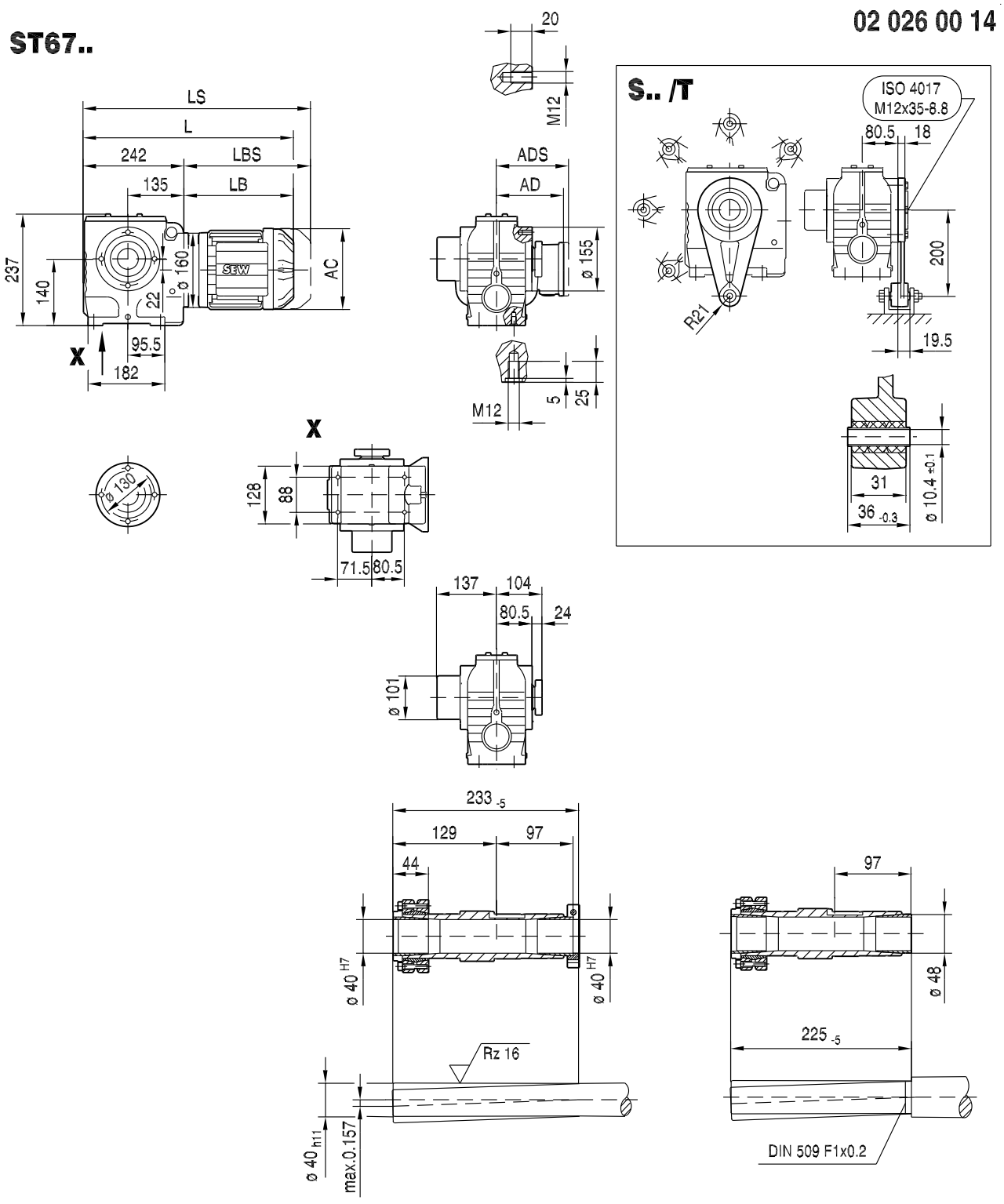




| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 | 221 | 221 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 | 170 | 170 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 | 172 | 172 |
| **L** | 427 | 438 | 463 | 517 | 519 | 551 | 547 | 597 | 628 | 682 |
| **LS** | 482 | 506 | 531 | 598 | 612 | 644 | 641 | 691 | 740 | 794 |
| **LB** | 185 | 196 | 221 | 275 | 277 | 309 | 305 | 355 | 386 | 440 |
| **LBS** | 240 | 264 | 289 | 356 | 370 | 402 | 399 | 449 | 498 | 552 |

21284997/EN – 03/2015

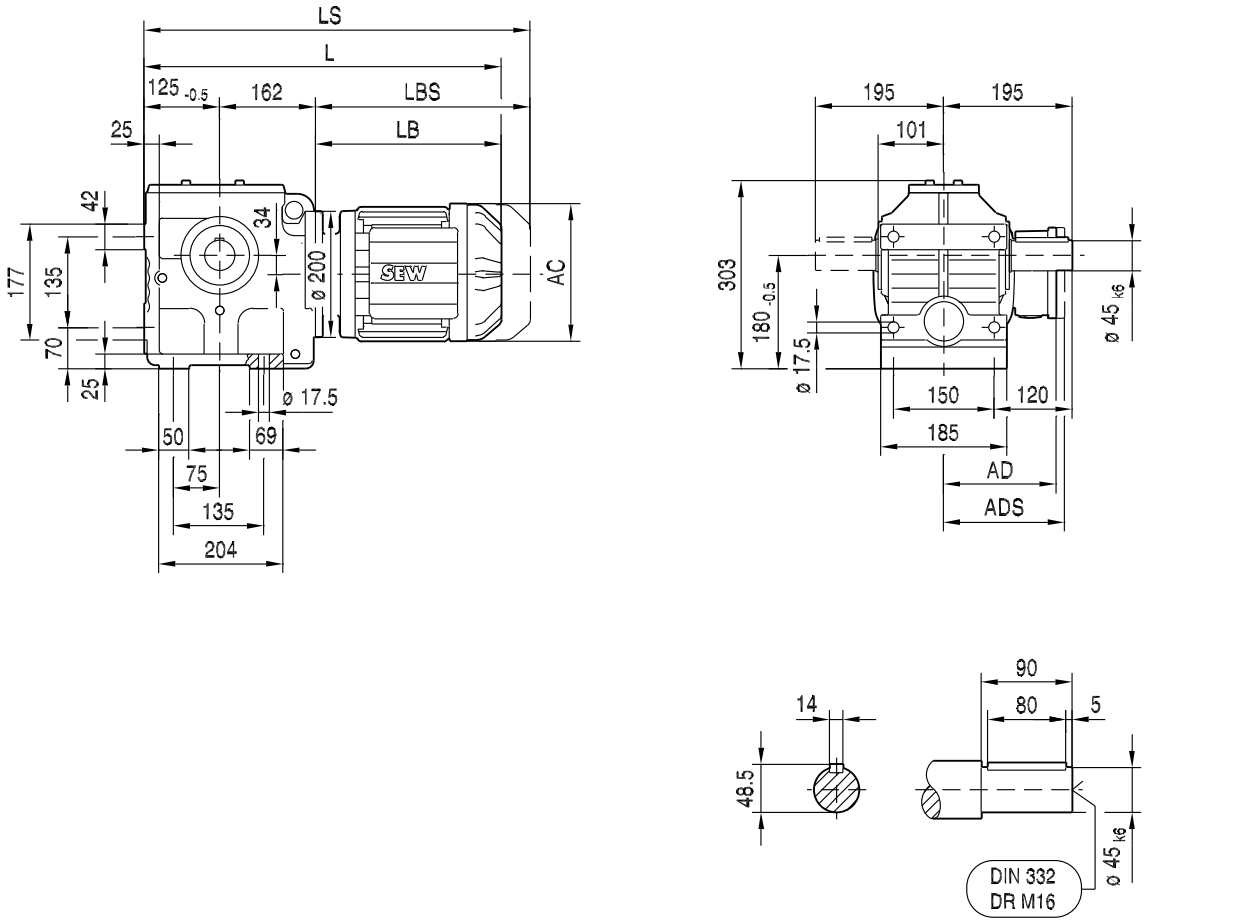



| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 | 221 | 221 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 | 170 | 170 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 | 172 | 172 |
| **L** | 427 | 438 | 463 | 517 | 519 | 551 | 547 | 597 | 628 | 682 |
| **LS** | 482 | 506 | 531 | 598 | 612 | 644 | 641 | 691 | 740 | 794 |
| **LB** | 185 | 196 | 221 | 275 | 277 | 309 | 305 | 355 | 386 | 440 |
| **LBS** | 240 | 264 | 289 | 356 | 370 | 402 | 399 | 449 | 498 | 552 |

21284997/EN – 03/2015

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## S77..

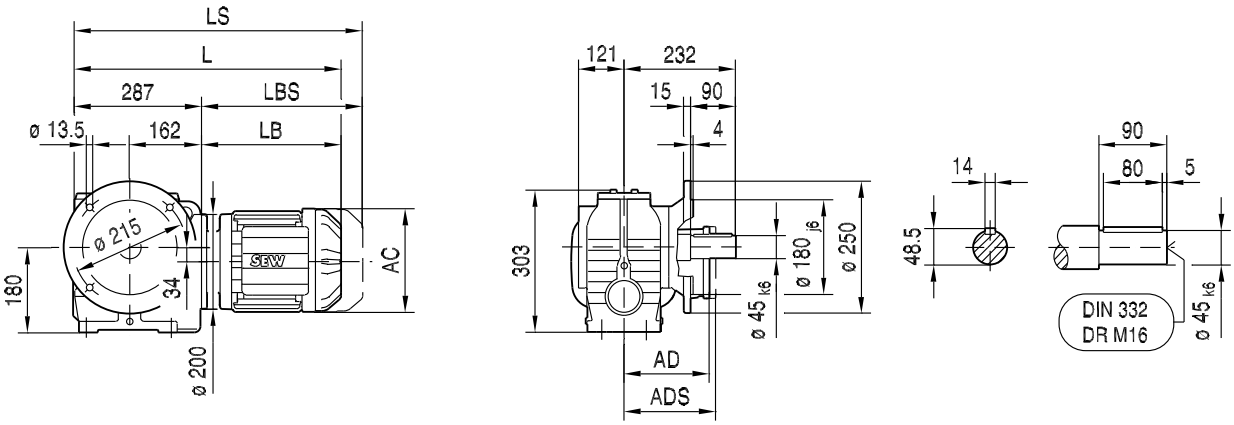



| (→ 142) | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 139 | 156 | 179 | 179 | 197 | 197 | 221 | 221 | 261 | 261 |
| **AD** | 119 | 128 | 140 | 140 | 157 | 157 | 170 | 170 | 228 | 228 |
| **ADS** | 129 | 139 | 150 | 150 | 158 | 158 | 172 | 172 | 228 | 228 |
| **L** | 501 | 555 | 557 | 589 | 585 | 635 | 666 | 716 | 734 | 760 |
| **LS** | 569 | 636 | 650 | 682 | 679 | 729 | 778 | 828 | 872 | 897 |
| **LB** | 214 | 268 | 270 | 302 | 298 | 348 | 379 | 429 | 447 | 473 |
| **LBS** | 282 | 349 | 363 | 395 | 392 | 442 | 491 | 541 | 585 | 610 |

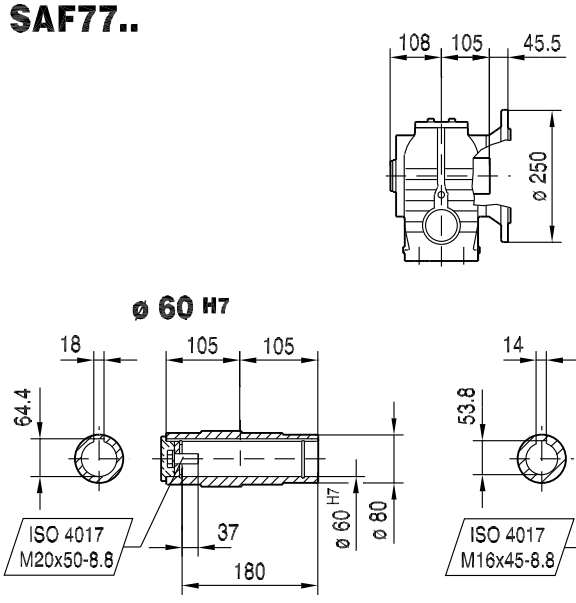
21284997/EN – 03/2015

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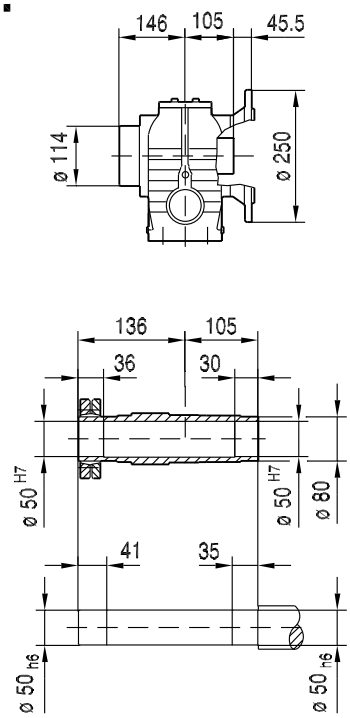
## SF77..




## SAF77..



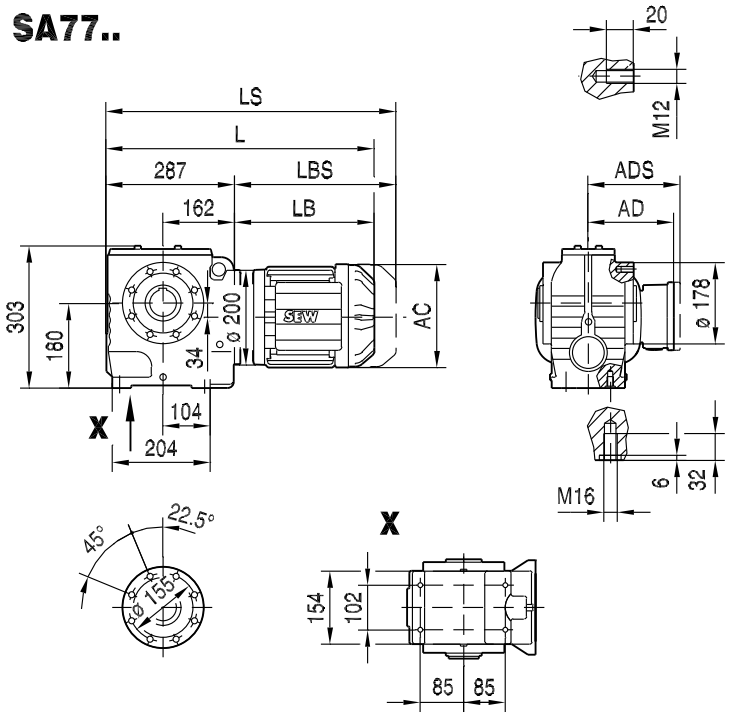

## SHF77..



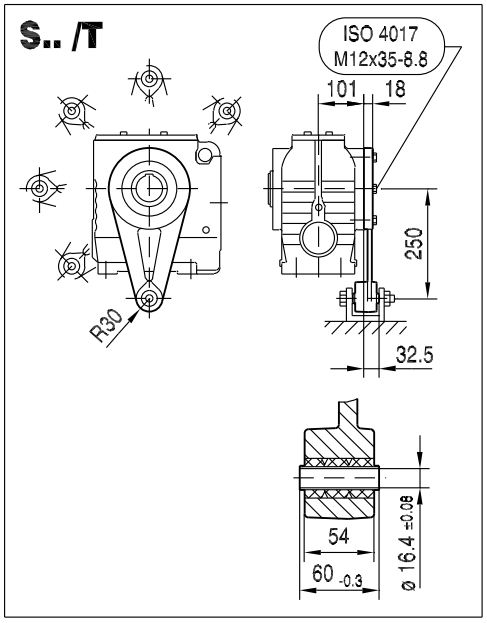

| (→ 142) | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 139 | 156 | 179 | 179 | 197 | 197 | 221 | 221 | 261 | 261 |
| **AD** | 119 | 128 | 140 | 140 | 157 | 157 | 170 | 170 | 228 | 228 |
| **ADS** | 129 | 139 | 150 | 150 | 158 | 158 | 172 | 172 | 228 | 228 |
| **L** | 501 | 555 | 557 | 589 | 585 | 635 | 666 | 716 | 734 | 760 |
| **LS** | 569 | 636 | 650 | 682 | 679 | 729 | 778 | 828 | 872 | 897 |
| **LB** | 214 | 268 | 270 | 302 | 298 | 348 | 379 | 429 | 447 | 473 |
| **LBS** | 282 | 349 | 363 | 395 | 392 | 442 | 491 | 541 | 585 | 610 |

02 029 00 14

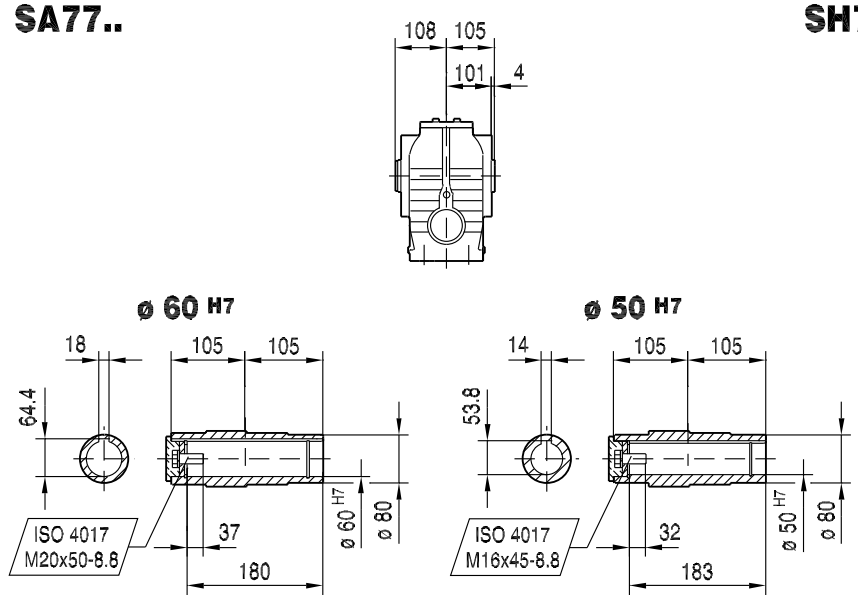
## SA77..



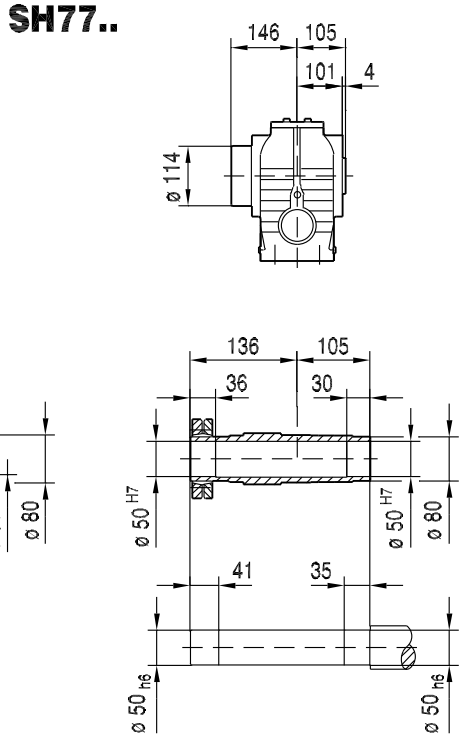

## S.. /T




## SA77..




## SH77..

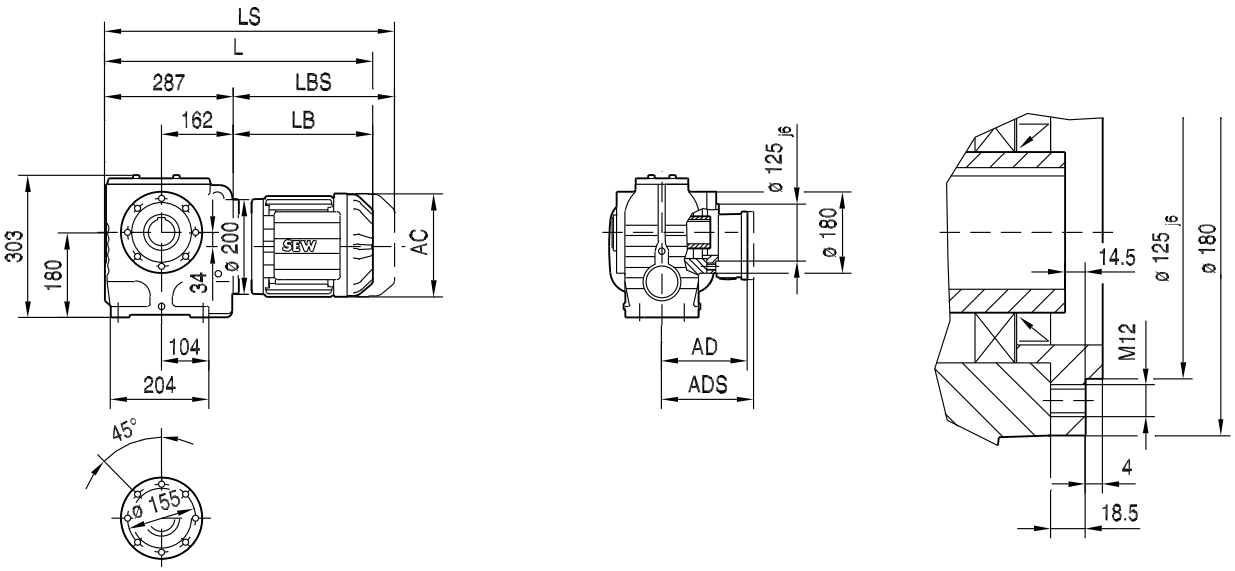



| (→ 142) | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 139 | 156 | 179 | 179 | 197 | 197 | 221 | 221 | 261 | 261 |
| **AD** | 119 | 128 | 140 | 140 | 157 | 157 | 170 | 170 | 228 | 228 |
| **ADS** | 129 | 139 | 150 | 150 | 158 | 158 | 172 | 172 | 228 | 228 |
| **L** | 501 | 555 | 557 | 589 | 585 | 635 | 666 | 716 | 734 | 760 |
| **LS** | 569 | 636 | 650 | 682 | 679 | 729 | 778 | 828 | 872 | 897 |
| **LB** | 214 | 268 | 270 | 302 | 298 | 348 | 379 | 429 | 447 | 473 |
| **LBS** | 282 | 349 | 363 | 395 | 392 | 442 | 491 | 541 | 585 | 610 |

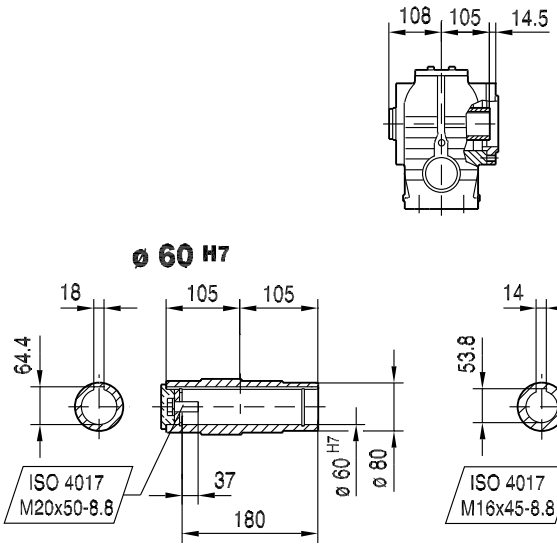
21284997/EN – 03/2015

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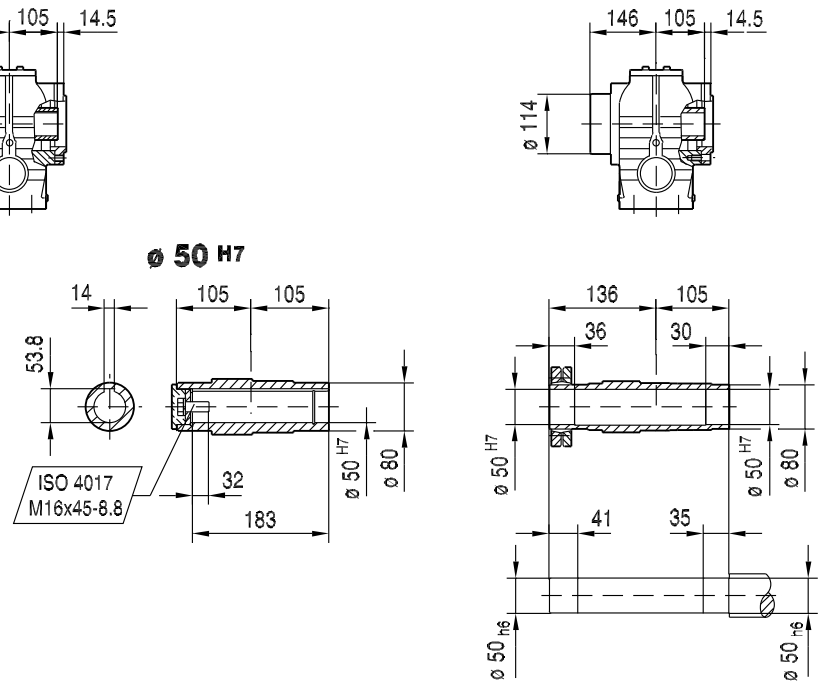
## SAZ77..




## SAZ77..

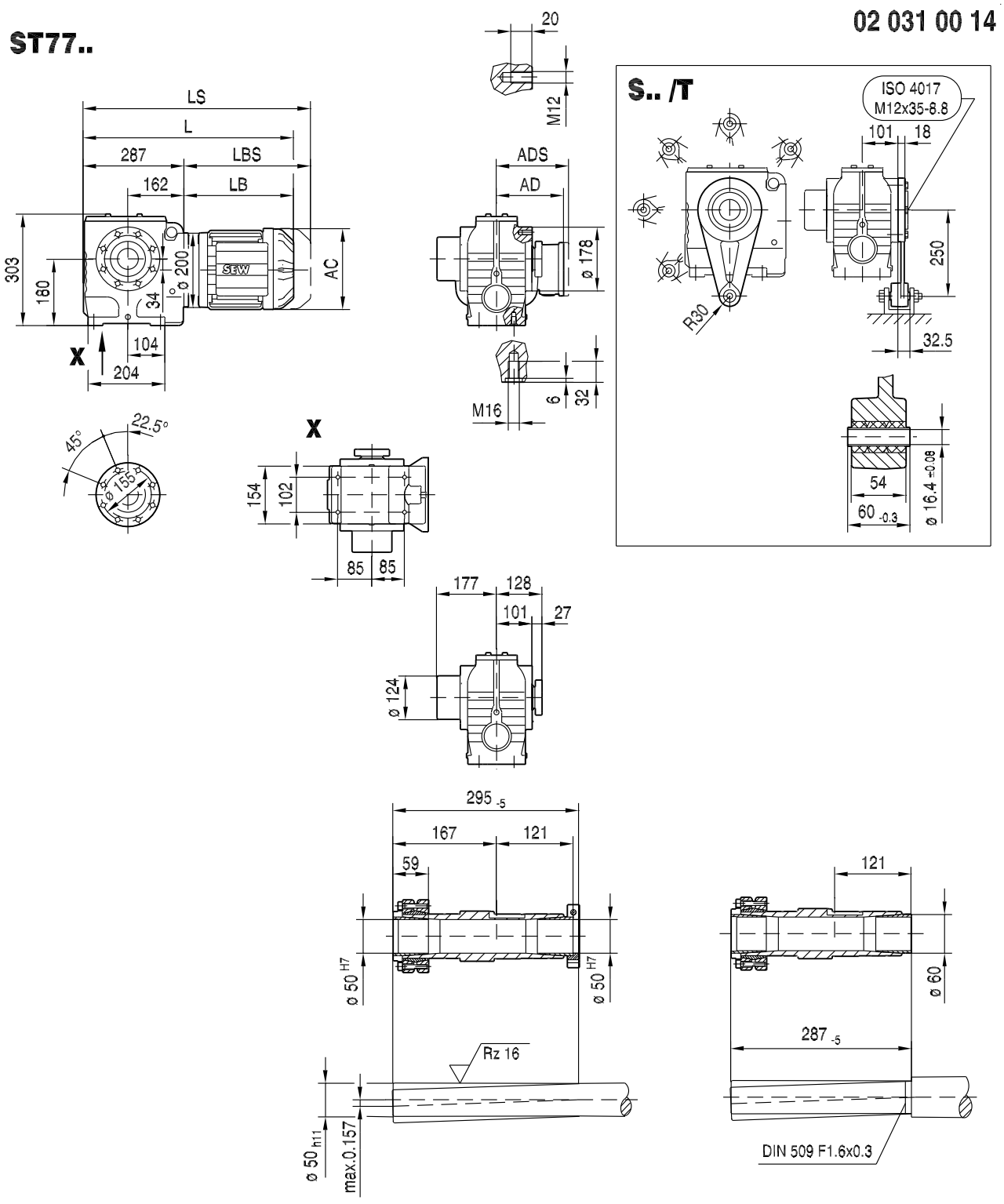



## SHZ77..




| (→ 142) | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 139 | 156 | 179 | 179 | 197 | 197 | 221 | 221 | 261 | 261 |
| **AD** | 119 | 128 | 140 | 140 | 157 | 157 | 170 | 170 | 228 | 228 |
| **ADS** | 129 | 139 | 150 | 150 | 158 | 158 | 172 | 172 | 228 | 228 |
| **L** | 501 | 555 | 557 | 589 | 585 | 635 | 666 | 716 | 734 | 760 |
| **LS** | 569 | 636 | 650 | 682 | 679 | 729 | 778 | 828 | 872 | 897 |
| **LB** | 214 | 268 | 270 | 302 | 298 | 348 | 379 | 429 | 447 | 473 |
| **LBS** | 282 | 349 | 363 | 395 | 392 | 442 | 491 | 541 | 585 | 610 |

21284997/EN – 03/2015

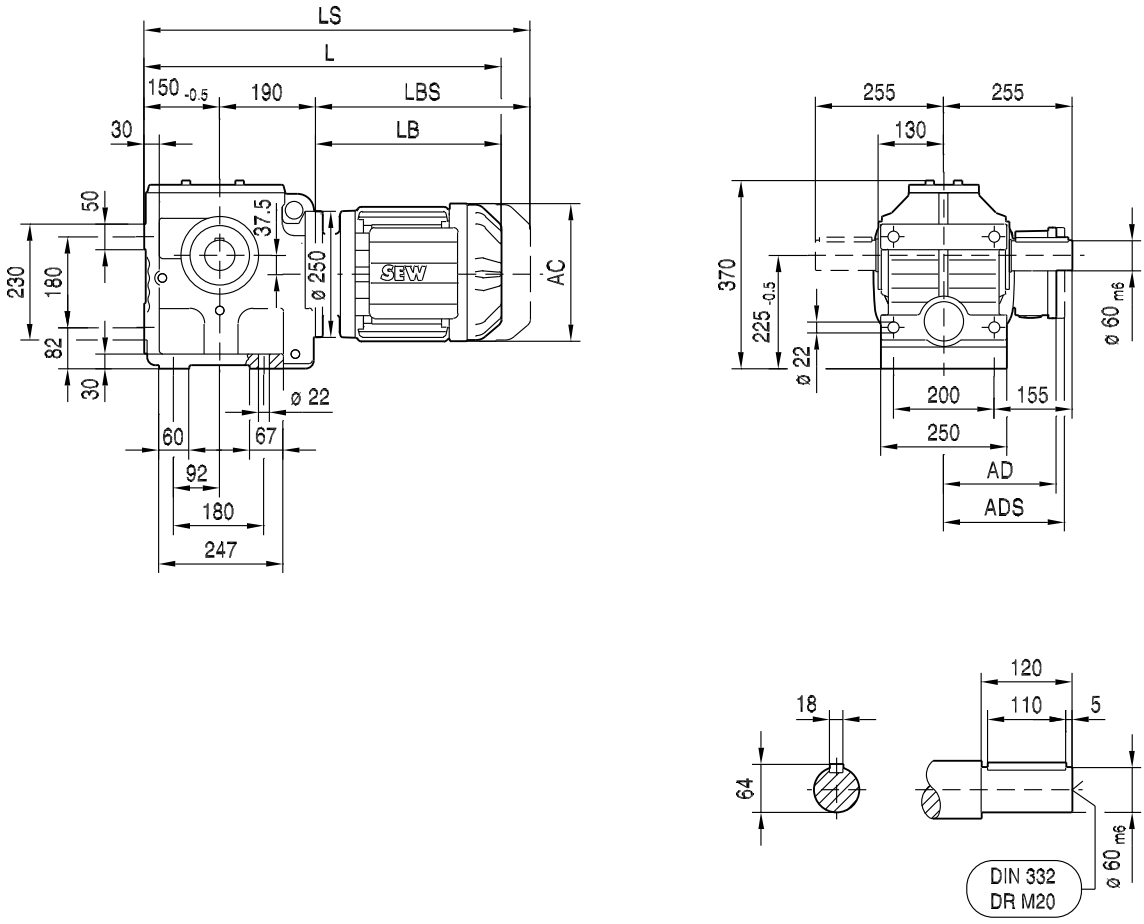



| (→ 142) | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 139 | 156 | 179 | 179 | 197 | 197 | 221 | 221 | 261 | 261 |
| **AD** | 119 | 128 | 140 | 140 | 157 | 157 | 170 | 170 | 228 | 228 |
| **ADS** | 129 | 139 | 150 | 150 | 158 | 158 | 172 | 172 | 228 | 228 |
| **L** | 501 | 555 | 557 | 589 | 585 | 635 | 666 | 716 | 734 | 760 |
| **LS** | 569 | 636 | 650 | 682 | 679 | 729 | 778 | 828 | 872 | 897 |
| **LB** | 214 | 268 | 270 | 302 | 298 | 348 | 379 | 429 | 447 | 473 |
| **LBS** | 282 | 349 | 363 | 395 | 392 | 442 | 491 | 541 | 585 | 610 |

21284997/EN – 03/2015

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## S87..

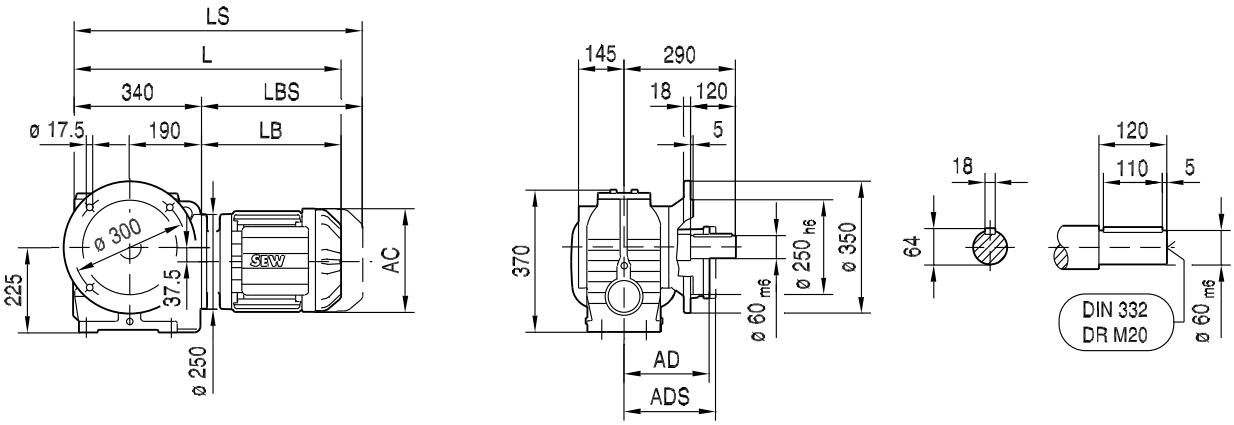



| (→ 142) | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M | DRN160L |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 179 | 179 | 197 | 197 | 221 | 221 | 261 | 261 | 314 | 314 |
| **AD** | 140 | 140 | 157 | 157 | 170 | 170 | 228 | 228 | 253 | 253 |
| **ADS** | 150 | 150 | 158 | 158 | 172 | 172 | 228 | 228 | 253 | 253 |
| **L** | 605 | 637 | 633 | 683 | 714 | 764 | 782 | 808 | 874 | 874 |
| **LS** | 698 | 730 | 727 | 777 | 826 | 876 | 920 | 945 | 1063 | 1063 |
| **LB** | 265 | 297 | 293 | 343 | 374 | 424 | 442 | 468 | 534 | 534 |
| **LBS** | 358 | 390 | 387 | 437 | 486 | 536 | 580 | 605 | 723 | 723 |

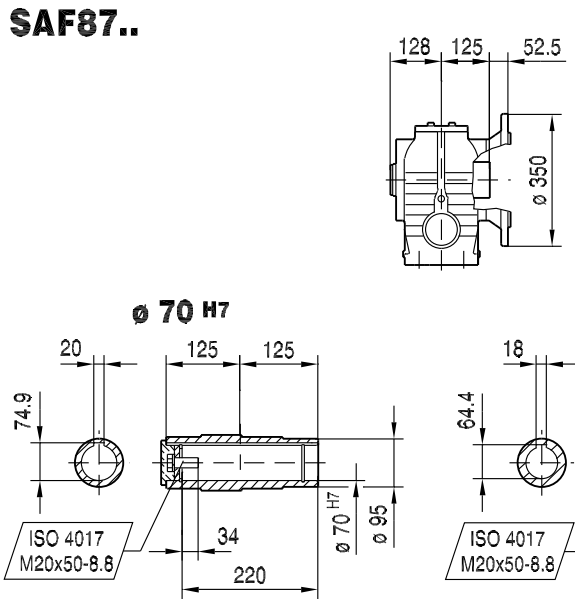
21284997/EN – 03/2015

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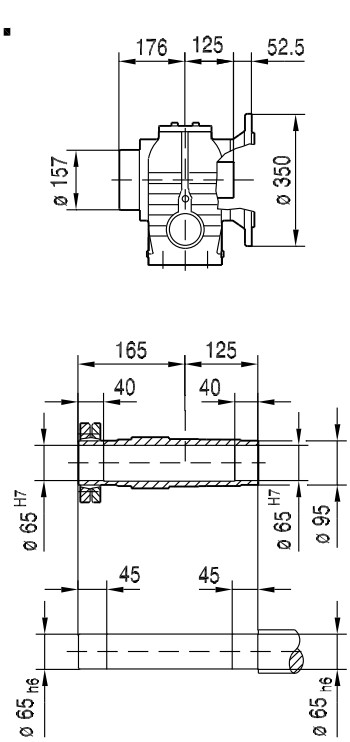
## SF87..




## SAF87..




## SHF87..

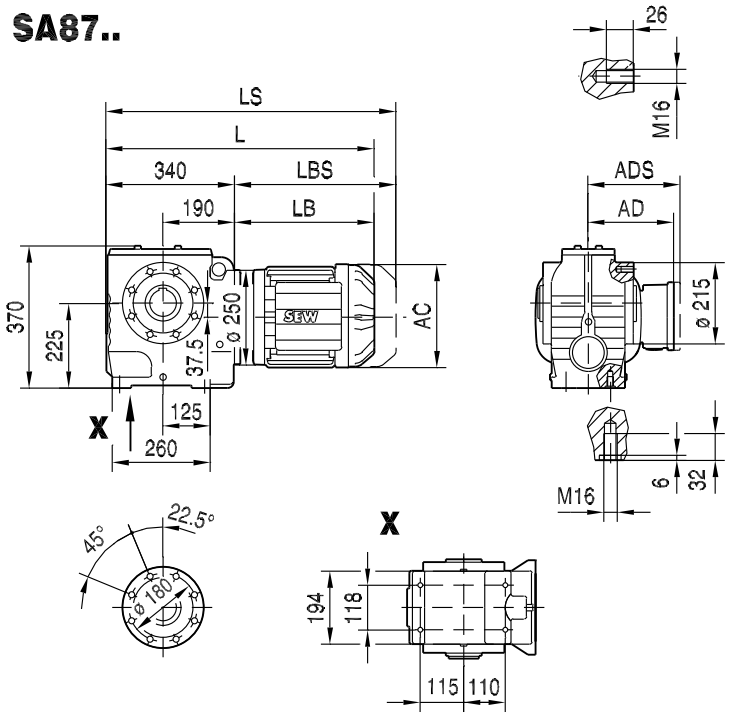



| (→ 142) | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M | DRN160L |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 179 | 179 | 197 | 197 | 221 | 221 | 261 | 261 | 314 | 314 |
| **AD** | 140 | 140 | 157 | 157 | 170 | 170 | 228 | 228 | 253 | 253 |
| **ADS** | 150 | 150 | 158 | 158 | 172 | 172 | 228 | 228 | 253 | 253 |
| **L** | 605 | 637 | 633 | 683 | 714 | 764 | 782 | 808 | 874 | 874 |
| **LS** | 698 | 730 | 727 | 777 | 826 | 876 | 920 | 945 | 1063 | 1063 |
| **LB** | 265 | 297 | 293 | 343 | 374 | 424 | 442 | 468 | 534 | 534 |
| **LBS** | 358 | 390 | 387 | 437 | 486 | 536 | 580 | 605 | 723 | 723 |

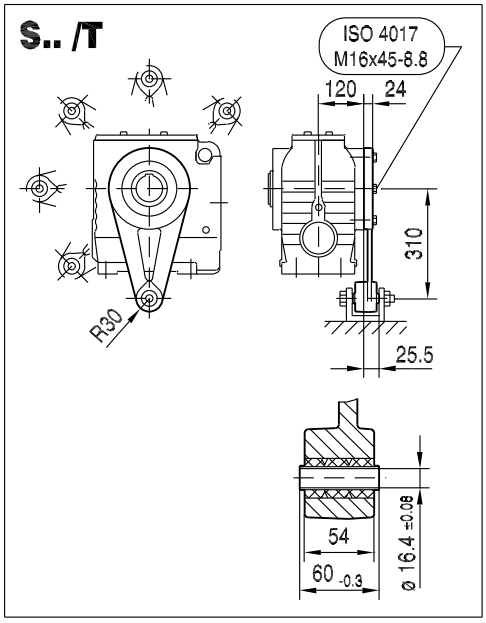
21284997/EN – 03/2015

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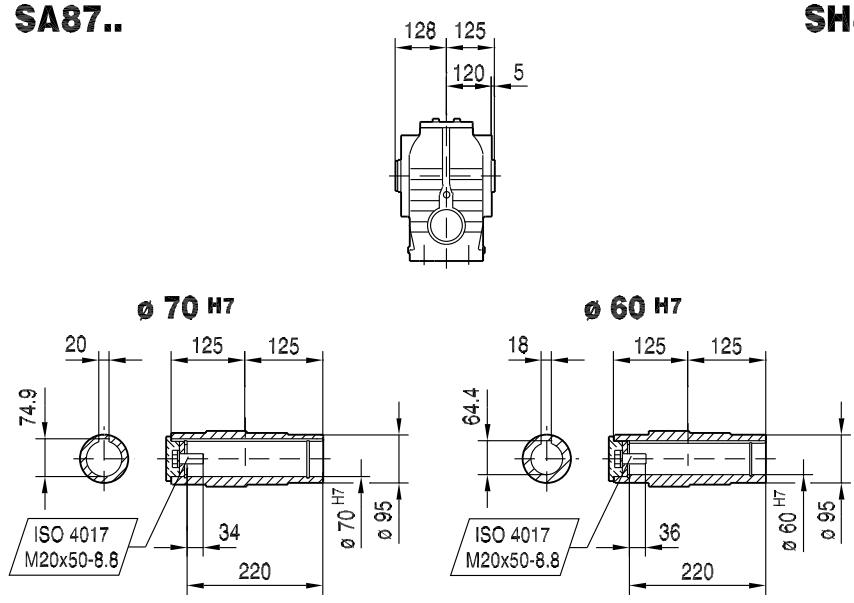
## SA87..



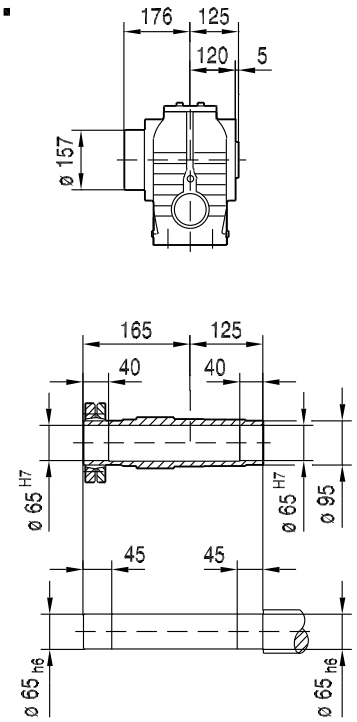

## S.. /T




## SA87..



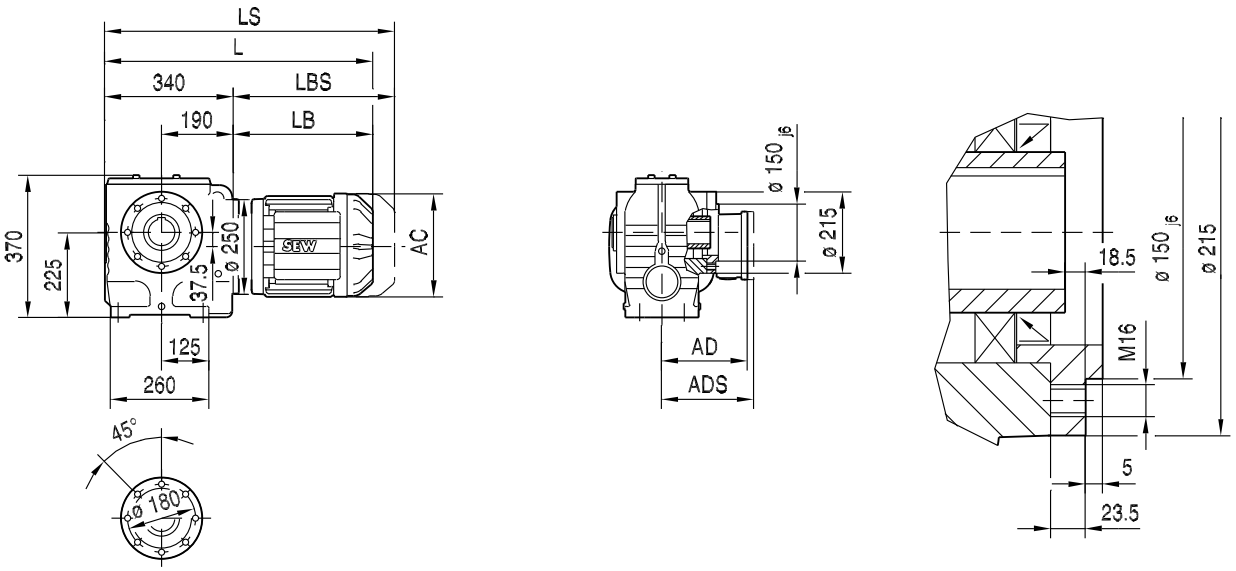

## SH87..



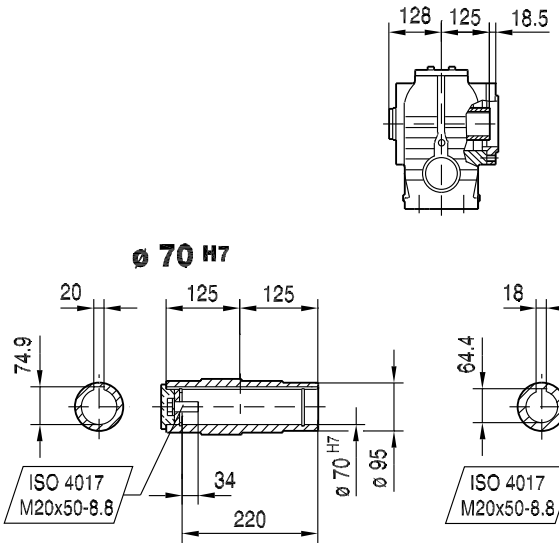

| (→ 142) | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M | DRN160L |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 179 | 179 | 197 | 197 | 221 | 221 | 261 | 261 | 314 | 314 |
| **AD** | 140 | 140 | 157 | 157 | 170 | 170 | 228 | 228 | 253 | 253 |
| **ADS** | 150 | 150 | 158 | 158 | 172 | 172 | 228 | 228 | 253 | 253 |
| **L** | 605 | 637 | 633 | 683 | 714 | 764 | 782 | 808 | 874 | 874 |
| **LS** | 698 | 730 | 727 | 777 | 826 | 876 | 920 | 945 | 1063 | 1063 |
| **LB** | 265 | 297 | 293 | 343 | 374 | 424 | 442 | 468 | 534 | 534 |
| **LBS** | 358 | 390 | 387 | 437 | 486 | 536 | 580 | 605 | 723 | 723 |

02 035 00 14

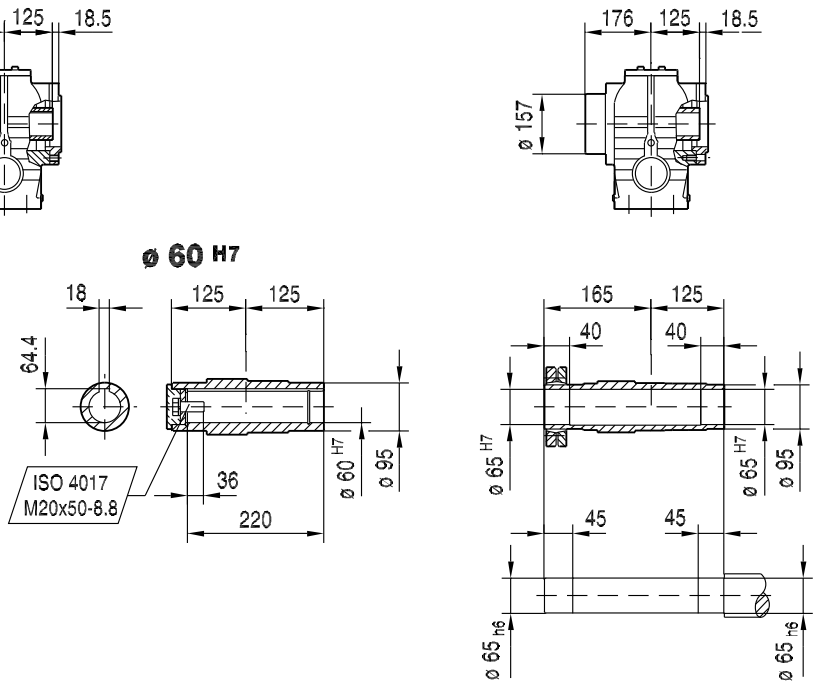
## SAZ87..




## SAZ87..

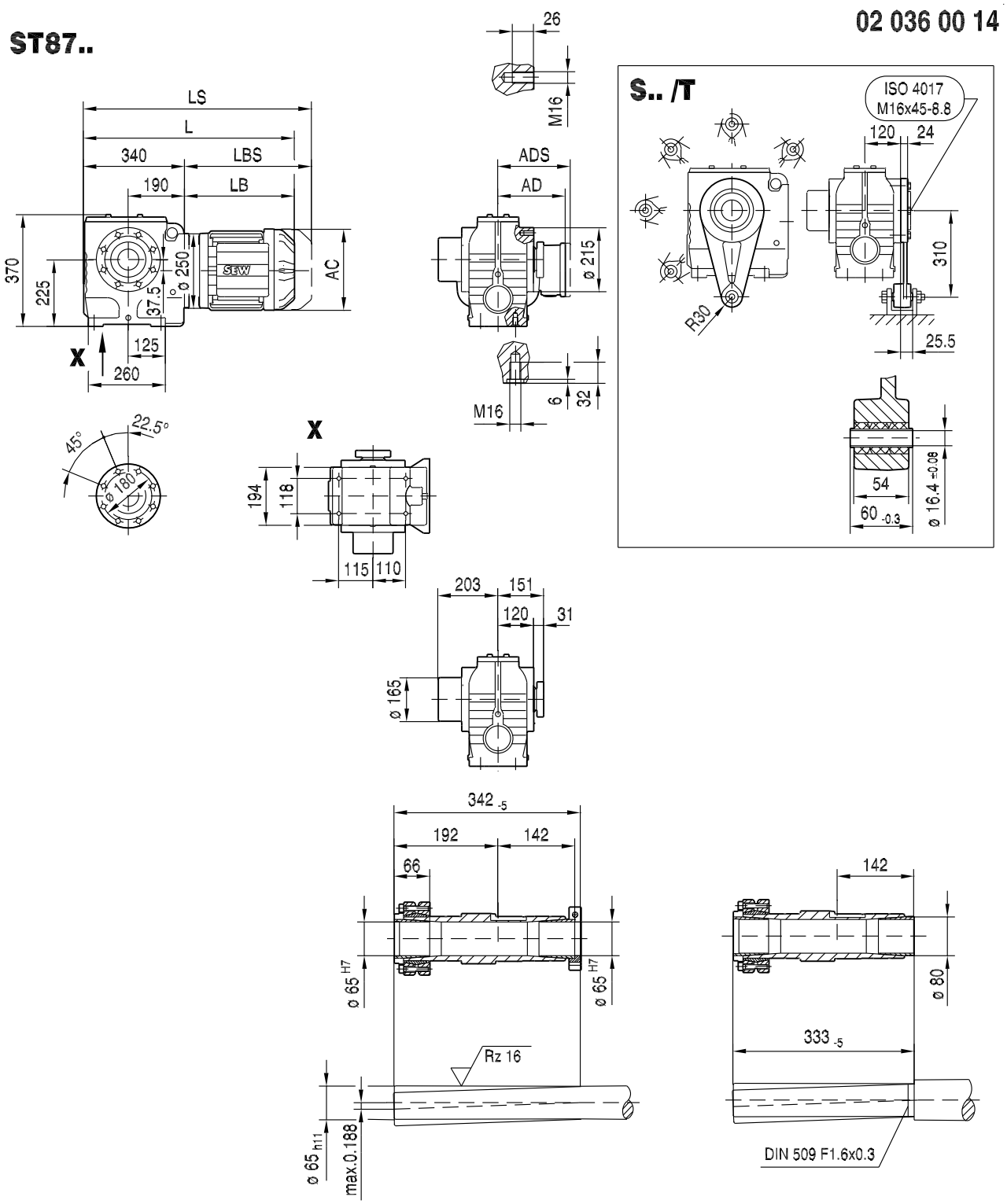



## SHZ87..




| (→ 142) | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M | DRN160L |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 179 | 179 | 197 | 197 | 221 | 221 | 261 | 261 | 314 | 314 |
| **AD** | 140 | 140 | 157 | 157 | 170 | 170 | 228 | 228 | 253 | 253 |
| **ADS** | 150 | 150 | 158 | 158 | 172 | 172 | 228 | 228 | 253 | 253 |
| **L** | 605 | 637 | 633 | 683 | 714 | 764 | 782 | 808 | 874 | 874 |
| **LS** | 698 | 730 | 727 | 777 | 826 | 876 | 920 | 945 | 1063 | 1063 |
| **LB** | 265 | 297 | 293 | 343 | 374 | 424 | 442 | 468 | 534 | 534 |
| **LBS** | 358 | 390 | 387 | 437 | 486 | 536 | 580 | 605 | 723 | 723 |

21284997/EN – 03/2015

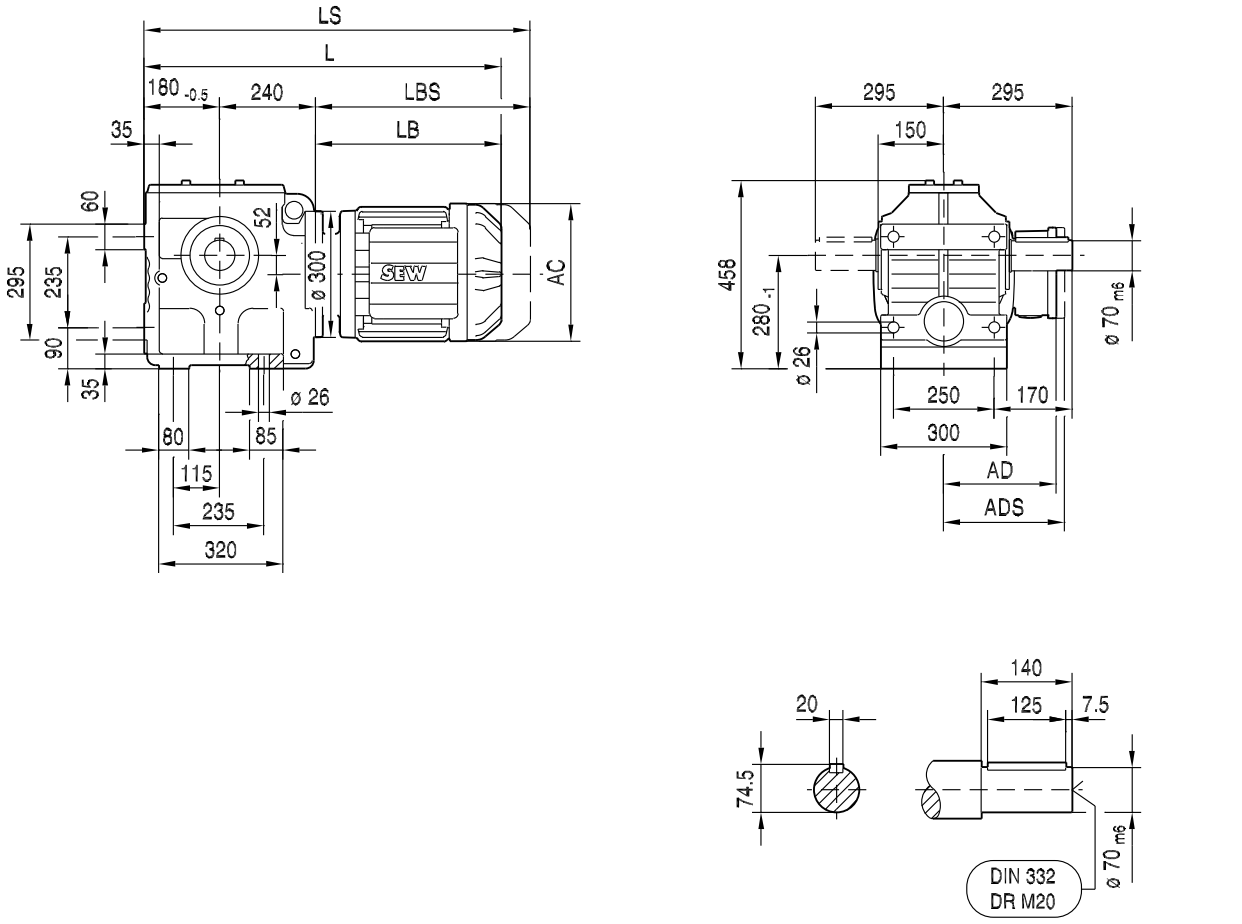



| (→ 142) | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M | DRN160L |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 179 | 179 | 197 | 197 | 221 | 221 | 261 | 261 | 314 | 314 |
| **AD** | 140 | 140 | 157 | 157 | 170 | 170 | 228 | 228 | 253 | 253 |
| **ADS** | 150 | 150 | 158 | 158 | 172 | 172 | 228 | 228 | 253 | 253 |
| **L** | 605 | 637 | 633 | 683 | 714 | 764 | 782 | 808 | 874 | 874 |
| **LS** | 698 | 730 | 727 | 777 | 826 | 876 | 920 | 945 | 1063 | 1063 |
| **LB** | 265 | 297 | 293 | 343 | 374 | 424 | 442 | 468 | 534 | 534 |
| **LBS** | 358 | 390 | 387 | 437 | 486 | 536 | 580 | 605 | 723 | 723 |

21284997/EN – 03/2015

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## S97..

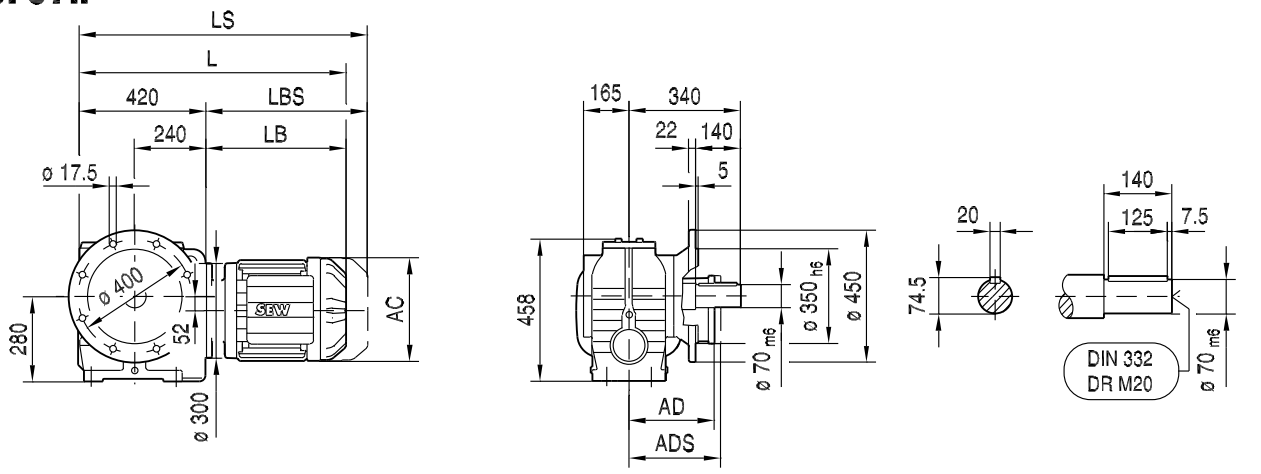



| (→ 142) | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M | DRN160L | DRN180.. |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 179 | 197 | 197 | 221 | 221 | 261 | 261 | 314 | 314 | 357 |
| **AD** | 140 | 157 | 157 | 170 | 170 | 228 | 228 | 253 | 253 | 268 |
| **ADS** | 150 | 158 | 158 | 172 | 172 | 228 | 228 | 253 | 253 | 268 |
| **L** | 712 | 708 | 758 | 789 | 839 | 857 | 883 | 949 | 949 | 972 |
| **LS** | 805 | 802 | 852 | 901 | 951 | 995 | 1020 | 1138 | 1138 | 1161 |
| **LB** | 292 | 288 | 338 | 369 | 419 | 437 | 463 | 529 | 529 | 552 |
| **LBS** | 385 | 382 | 432 | 481 | 531 | 575 | 600 | 718 | 718 | 741 |

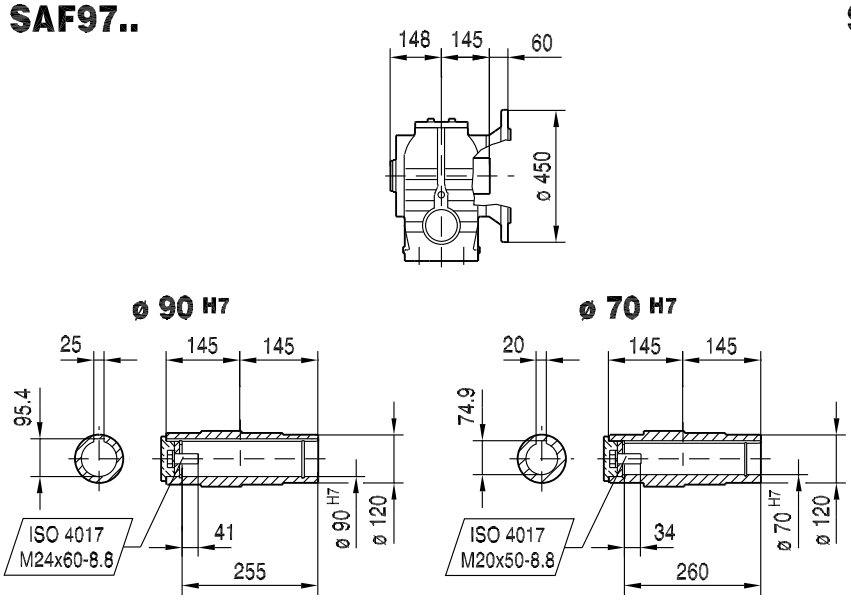
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## SF97..

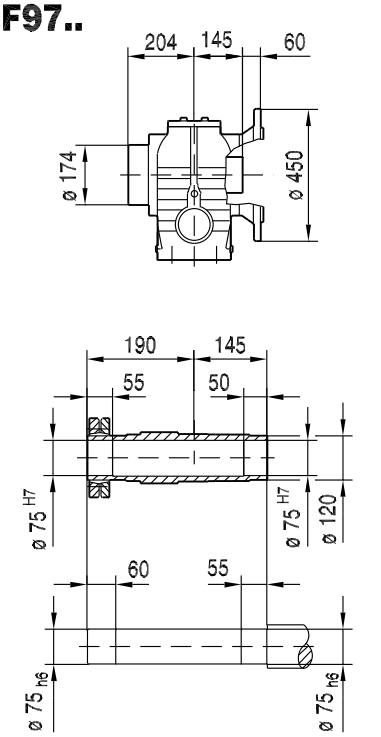
02 038 00 14




## SAF97..




## SHF97..

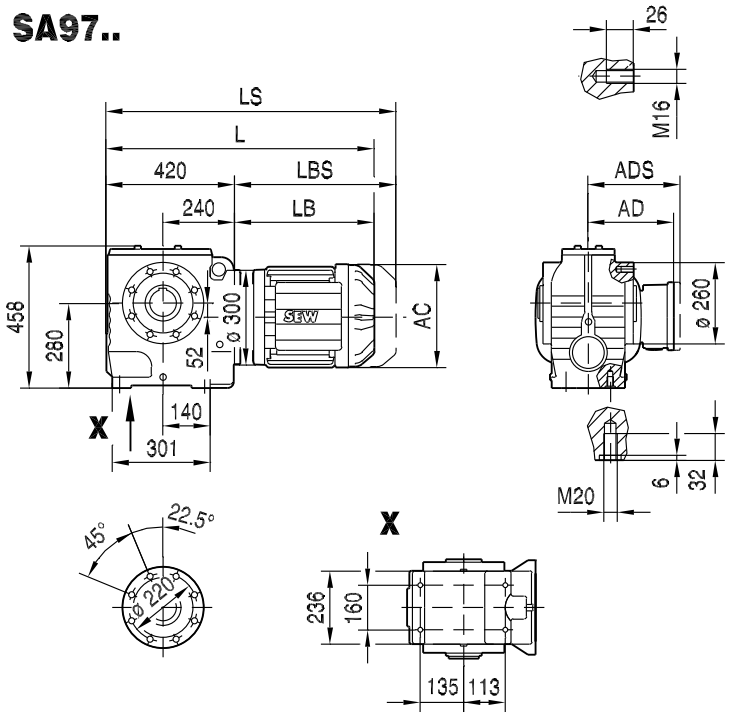


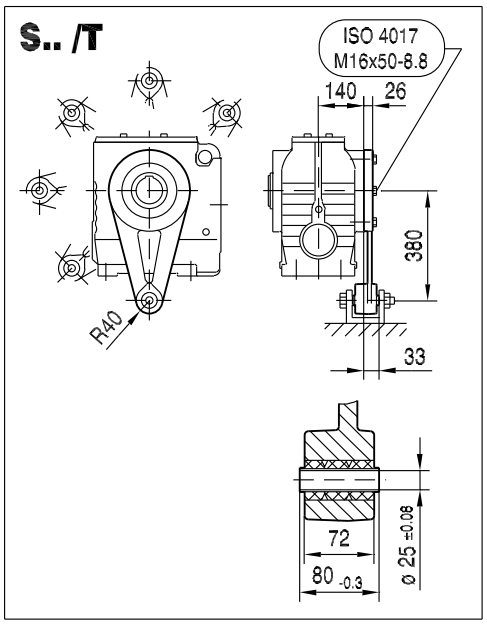

| (→ 142) | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M | DRN160L | DRN180.. |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 179 | 197 | 197 | 221 | 221 | 261 | 261 | 314 | 314 | 357 |
| **AD** | 140 | 157 | 157 | 170 | 170 | 228 | 228 | 253 | 253 | 268 |
| **ADS** | 150 | 158 | 158 | 172 | 172 | 228 | 228 | 253 | 253 | 268 |
| **L** | 712 | 708 | 758 | 789 | 839 | 857 | 883 | 949 | 949 | 972 |
| **LS** | 805 | 802 | 852 | 901 | 951 | 995 | 1020 | 1138 | 1138 | 1161 |
| **LB** | 292 | 288 | 338 | 369 | 419 | 437 | 463 | 529 | 529 | 552 |
| **LBS** | 385 | 382 | 432 | 481 | 531 | 575 | 600 | 718 | 718 | 741 |

21284997/EN – 03/2015

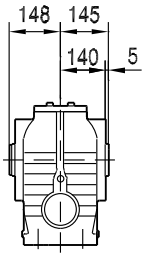
02 039 00 14

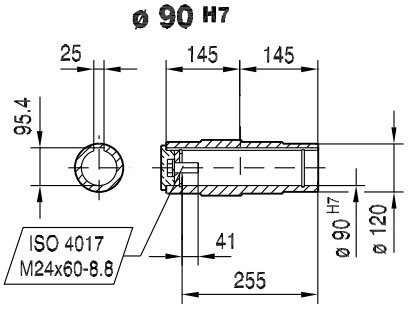
## SA97..

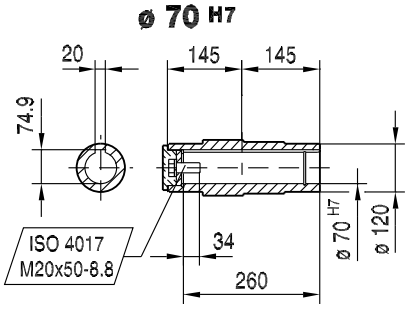


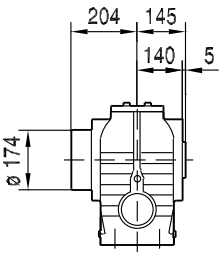

## SA97..

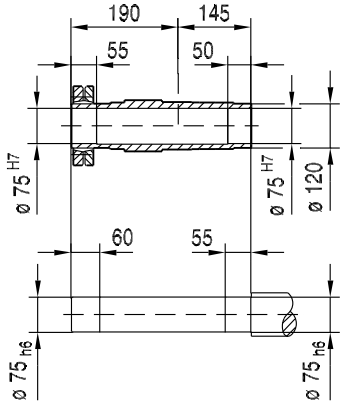



## SH97..



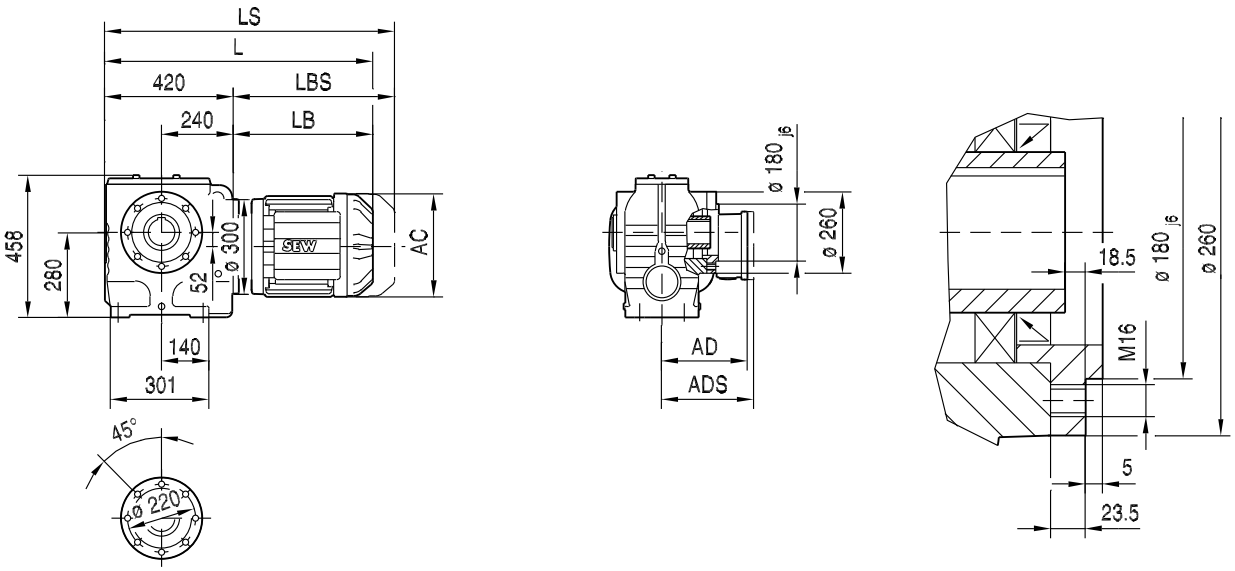




| (→ 142) | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M | DRN160L | DRN180.. |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 179 | 197 | 197 | 221 | 221 | 261 | 261 | 314 | 314 | 357 |
| **AD** | 140 | 157 | 157 | 170 | 170 | 228 | 228 | 253 | 253 | 268 |
| **ADS** | 150 | 158 | 158 | 172 | 172 | 228 | 228 | 253 | 253 | 268 |
| **L** | 712 | 708 | 758 | 789 | 839 | 857 | 883 | 949 | 949 | 972 |
| **LS** | 805 | 802 | 852 | 901 | 951 | 995 | 1020 | 1138 | 1138 | 1161 |
| **LB** | 292 | 288 | 338 | 369 | 419 | 437 | 463 | 529 | 529 | 552 |
| **LBS** | 385 | 382 | 432 | 481 | 531 | 575 | 600 | 718 | 718 | 741 |

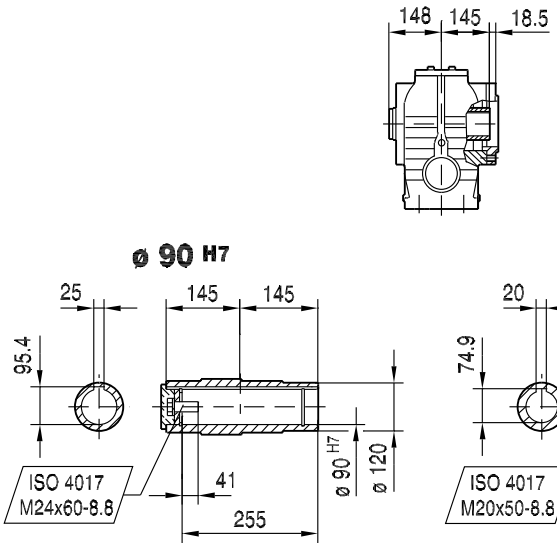
21284997/EN – 03/2015

02 040 00 14

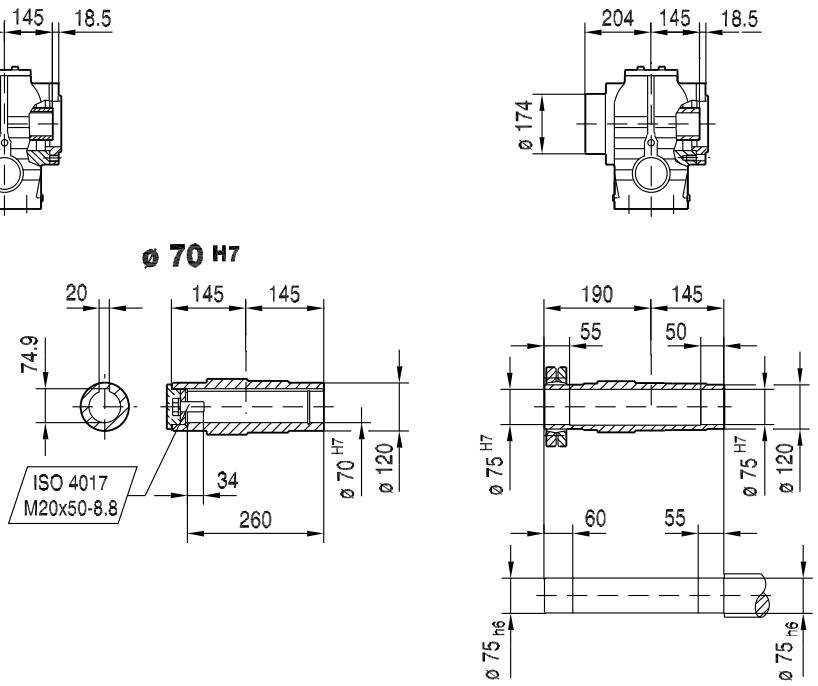
## SAZ97..




## SAZ97..



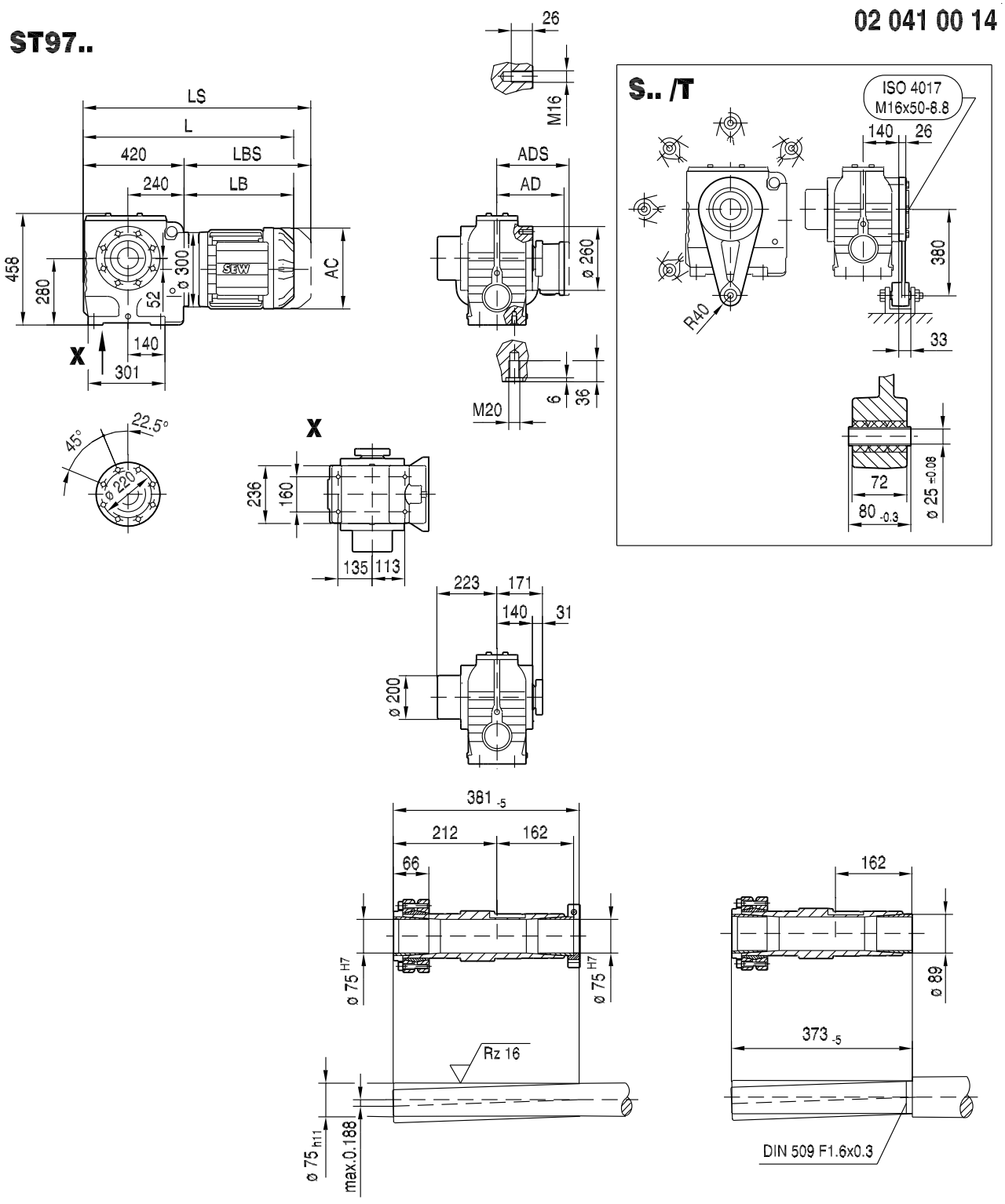

## SHZ97..




| (→ 142) | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M | DRN160L | DRN180.. |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 179 | 197 | 197 | 221 | 221 | 261 | 261 | 314 | 314 | 357 |
| **AD** | 140 | 157 | 157 | 170 | 170 | 228 | 228 | 253 | 253 | 268 |
| **ADS** | 150 | 158 | 158 | 172 | 172 | 228 | 228 | 253 | 253 | 268 |
| **L** | 712 | 708 | 758 | 789 | 839 | 857 | 883 | 949 | 949 | 972 |
| **LS** | 805 | 802 | 852 | 901 | 951 | 995 | 1020 | 1138 | 1138 | 1161 |
| **LB** | 292 | 288 | 338 | 369 | 419 | 437 | 463 | 529 | 529 | 552 |
| **LBS** | 385 | 382 | 432 | 481 | 531 | 575 | 600 | 718 | 718 | 741 |

21284997/EN – 03/2015

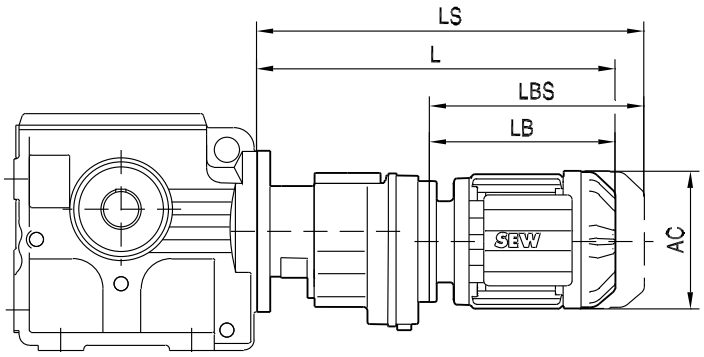
02 041 00 14




| (→ 142) | DRN90L | DRN100LS | DRN100L | DRN112M | DRN132S | DRN132M | DRN132L | DRN160M | DRN160L | DRN180.. |
|---|---|---|---|---|---|---|---|---|---|---|
| **AC** | 179 | 197 | 197 | 221 | 221 | 261 | 261 | 314 | 314 | 357 |
| **AD** | 140 | 157 | 157 | 170 | 170 | 228 | 228 | 253 | 253 | 268 |
| **ADS** | 150 | 158 | 158 | 172 | 172 | 228 | 228 | 253 | 253 | 268 |
| **L** | 712 | 708 | 758 | 789 | 839 | 857 | 883 | 949 | 949 | 972 |
| **LS** | 805 | 802 | 852 | 901 | 951 | 995 | 1020 | 1138 | 1138 | 1161 |
| **LB** | 292 | 288 | 338 | 369 | 419 | 437 | 463 | 529 | 529 | 552 |
| **LBS** | 385 | 382 | 432 | 481 | 531 | 575 | 600 | 718 | 718 | 741 |

21284997/EN – 03/2015

02 080 00 06






| (→ 142) | | AC | L | LS | LB | LBS |
|---|---|---|---|---|---|---|
| **S..37R17** | **DR63..** | 132 | 324 | 379 | 149 | 204 |
| **S..47R17** | **DR63..** | 132 | 324 | 379 | 149 | 204 |
| | **DR71S** | 139 | 335 | 403 | 160 | 228 |
| **S..57R17** | **DR63..** | 132 | 324 | 379 | 149 | 204 |
| | **DR71S** | 139 | 335 | 403 | 160 | 228 |
| | **DR71M** | 139 | 360 | 428 | 185 | 253 |
| **S..67R37** | **DR63..** | 132 | 356 | 411 | 191 | 246 |
| | **DR71S** | 139 | 367 | 434 | 202 | 269 |
| | **DR71M** | 139 | 392 | 459 | 227 | 294 |
| | **DRN80M** | 156 | 446 | 527 | 281 | 362 |
| | **DRN90S** | 179 | 448 | 541 | 283 | 376 |
| **S..77R37** | **DR63..** | 132 | 348 | 403 | 191 | 246 |
| | **DR71S** | 139 | 359 | 426 | 202 | 269 |
| | **DR71M** | 139 | 384 | 451 | 227 | 294 |
| | **DRN80M** | 156 | 438 | 519 | 281 | 362 |
| | **DRN90S** | 179 | 440 | 533 | 283 | 376 |
| | **DRN90L** | 179 | 472 | 565 | 315 | 408 |
| **S..87R57** | **DR63..** | 132 | 412 | 467 | 185 | 240 |
| | **DR71S** | 139 | 423 | 491 | 196 | 264 |
| | **DR71M** | 139 | 448 | 516 | 221 | 289 |
| | **DRN80M** | 156 | 502 | 583 | 275 | 356 |
| | **DRN90S** | 179 | 504 | 597 | 277 | 370 |
| | **DRN90L** | 179 | 536 | 629 | 309 | 402 |
| | **DRN100LS** | 197 | 533 | 626 | 305 | 398 |
| **S..97R57** | **DR63..** | 132 | 407 | 462 | 185 | 240 |
| | **DR71S** | 139 | 418 | 486 | 196 | 264 |
| | **DR71M** | 139 | 443 | 511 | 221 | 289 |
| | **DRN80M** | 156 | 497 | 578 | 275 | 356 |
| | **DRN90S** | 179 | 499 | 592 | 277 | 370 |
| | **DRN90L** | 179 | 531 | 624 | 309 | 402 |
| | **DRN100L** | 197 | 578 | 671 | 355 | 448 |
| | **DRN100LS** | 197 | 528 | 621 | 305 | 398 |
| | **DRN112M** | 221 | 608 | 720 | 386 | 498 |

21284997/EN – 03/2015

## 11.6 Technical data S. SF. SA. SAF 37

**3400 - 2800 rpm**

| $i_{tot}$ | $i_{worm}$ | $n_e$ = 3400 rpm | | | | $n_e$ = 3200 rpm | | | | $n_e$ = 2800 rpm | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % |
| 157.43 | 38/1 | 22 | 78 | 0.31 | 57 | 20 | 80 | 0.30 | 57 | 18 | 82 | 0.27 | 57 |
| 144.40 | | 24 | 76 | 0.33 | 58 | 22 | 78 | 0.31 | 58 | 19 | 80 | 0.28 | 57 |
| 122.94 | | 28 | 74 | 0.37 | 58 | 26 | 75 | 0.35 | 58 | 23 | 78 | 0.32 | 58 |
| 106.00 | | 32 | 71 | 0.41 | 59 | 30 | 72 | 0.39 | 59 | 26 | 76 | 0.36 | 59 |
| 98.80 | | 34 | 70 | 0.43 | 59 | 32 | 72 | 0.41 | 59 | 28 | 75 | 0.38 | 59 |
| 86.36 | | 39 | 68 | 0.47 | 60 | 37 | 69 | 0.45 | 60 | 32 | 72 | 0.41 | 60 |
| 80.96 | | 42 | 66 | 0.49 | 60 | 40 | 68 | 0.47 | 60 | 35 | 72 | 0.43 | 60 |
| 71.44 | | 48 | 55 | 0.47 | 58 | 45 | 64 | 0.50 | 60 | 39 | 70 | 0.47 | 61 |
| 63.33 | | 54 | 37 | 0.41 | 51 | 51 | 51 | 0.47 | 57 | 44 | 67 | 0.51 | 61 |
| 53.83 | | 63 | 29 | 0.39 | 49 | 59 | 32 | 0.40 | 50 | 52 | 53 | 0.49 | 59 |
| 55.93 | 27/2 | 61 | 70 | 0.58 | 77 | 57 | 71 | 0.56 | 76 | 50 | 72 | 0.50 | 76 |
| 51.30 | | 66 | 68 | 0.61 | 77 | 62 | 70 | 0.60 | 77 | 55 | 72 | 0.54 | 76 |
| 43.68 | | 78 | 66 | 0.70 | 77 | 73 | 67 | 0.67 | 77 | 64 | 70 | 0.61 | 77 |
| 37.66 | | 90 | 64 | 0.78 | 78 | 85 | 65 | 0.74 | 78 | 74 | 68 | 0.68 | 78 |
| 35.10 | | 97 | 62 | 0.81 | 78 | 91 | 64 | 0.78 | 78 | 80 | 66 | 0.71 | 78 |
| 30.68 | | 111 | 61 | 0.90 | 78 | 104 | 62 | 0.87 | 78 | 91 | 64 | 0.78 | 78 |
| 28.76 | | 118 | 58 | 0.92 | 78 | 111 | 61 | 0.91 | 78 | 97 | 64 | 0.83 | 78 |
| 25.38 | | 134 | 47 | 0.86 | 77 | 126 | 53 | 0.90 | 78 | 110 | 62 | 0.91 | 79 |
| 22.50 | | 151 | 31 | 0.69 | 71 | 142 | 43 | 0.84 | 76 | 124 | 57 | 0.94 | 79 |
| 19.13 | | 178 | 24 | 0.65 | 69 | 167 | 27 | 0.67 | 70 | 146 | 44 | 0.87 | 77 |
| 19.89 | 24/5 | 171 | 42 | 0.88 | 86 | 161 | 43 | 0.85 | 86 | 141 | 44 | 0.76 | 86 |
| 18.24 | | 186 | 41 | 0.93 | 86 | 175 | 42 | 0.90 | 86 | 154 | 44 | 0.83 | 86 |
| 15.53 | | 219 | 39 | 1.0 | 86 | 206 | 40 | 1.0 | 86 | 180 | 42 | 0.92 | 86 |
| 13.39 | | 254 | 37 | 1.1 | 86 | 239 | 39 | 1.1 | 86 | 209 | 41 | 1.0 | 86 |
| 12.48 | | 272 | 37 | 1.2 * | 86 | 256 | 38 | 1.2 * | 86 | 224 | 40 | 1.1 | 86 |
| 10.91 | | 312 | 35 | 1.3 * | 86 | 293 | 36 | 1.3 * | 86 | 257 | 39 | 1.2 * | 87 |
| 10.23 | | 332 | 35 | 1.4 * | 87 | 313 | 36 | 1.4 * | 87 | 274 | 38 | 1.3 * | 87 |
| 9.02 | | 377 | 31 | 1.4 * | 86 | 355 | 34 | 1.5 * | 87 | 310 | 36 | 1.3 * | 87 |
| 8.00 | | 425 | 20 | 1.1 | 82 | 400 | 29 | 1.4 * | 86 | 350 | 35 | 1.5 * | 87 |
| 6.80 | | 500 | 16 | 1.0 | 81 | 471 | 18 | 1.1 | 82 | 412 | 29 | 1.4 * | 86 |
| 6.33 | 19/5 | 537 | 24 | 1.5 * | 87 | 506 | 27 | 1.6 * | 88 | 442 | 32 | 1.7 * | 88 |
| 5.38 | | 632 | 20 | 1.5 * | 87 | 595 | 22 | 1.6 * | 87 | 520 | 26 | 1.6 * | 88 |
| 4.86 | | 700 | 18 | 1.5 * | 87 | 658 | 19 | 1.5 * | 87 | 576 | 24 | 1.6 * | 88 |
| 3.97 | | 856 | 14 | 1.5 * | 86 | 806 | 15 | 1.5 * | 87 | 705 | 19 | 1.6 * | 88 |

* $P_{emax}$ = 1.1 kW

21284997/EN – 03/2015

**2200 - 1400 rpm**

| $i_{tot}$ | $i_{worm}$ | $n_e$ = 2200 rpm | | | | $n_e$ = 1700 rpm | | | | $n_e$ = 1400 rpm | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % |
| 157.43 | 38/1 | 14 | 87 | 0.23 | 56 | 11 | 91 | 0.19 | 54 | 8.9 | 92 | 0.16 | 53 |
| 144.40 | | 15 | 86 | 0.24 | 56 | 12 | 90 | 0.20 | 55 | 9.7 | 92 | 0.17 | 54 |
| 122.94 | | 18 | 83 | 0.27 | 57 | 14 | 87 | 0.22 | 56 | 11 | 91 | 0.20 | 55 |
| 106.00 | | 21 | 81 | 0.30 | 58 | 16 | 86 | 0.25 | 57 | 13 | 88 | 0.22 | 56 |
| 98.80 | | 22 | 80 | 0.32 | 58 | 17 | 85 | 0.27 | 57 | 14 | 87 | 0.23 | 56 |
| 86.36 | | 25 | 78 | 0.35 | 59 | 20 | 82 | 0.29 | 58 | 16 | 86 | 0.25 | 57 |
| 80.96 | | 27 | 77 | 0.37 | 60 | 21 | 82 | 0.31 | 59 | 17 | 85 | 0.27 | 58 |
| 71.44 | | 31 | 75 | 0.40 | 60 | 24 | 80 | 0.33 | 60 | 20 | 84 | 0.29 | 59 |
| 63.33 | | 35 | 73 | 0.44 | 61 | 27 | 79 | 0.37 | 60 | 22 | 82 | 0.32 | 60 |
| 53.83 | | 41 | 69 | 0.48 | 62 | 32 | 76 | 0.41 | 61 | 26 | 80 | 0.36 | 61 |
| 55.93 | 27/2 | 39 | 77 | 0.42 | 75 | 30 | 81 | 0.35 | 74 | 25 | 81 | 0.29 | 73 |
| 51.30 | | 43 | 76 | 0.45 | 76 | 33 | 80 | 0.37 | 75 | 27 | 81 | 0.31 | 74 |
| 43.68 | | 50 | 74 | 0.51 | 76 | 39 | 78 | 0.42 | 76 | 32 | 81 | 0.36 | 75 |
| 37.66 | | 58 | 72 | 0.57 | 77 | 45 | 76 | 0.47 | 76 | 37 | 79 | 0.41 | 76 |
| 35.10 | | 63 | 71 | 0.60 | 77 | 48 | 75 | 0.50 | 77 | 40 | 78 | 0.43 | 76 |
| 30.68 | | 72 | 70 | 0.67 | 78 | 55 | 73 | 0.55 | 77 | 46 | 76 | 0.47 | 76 |
| 28.76 | | 76 | 68 | 0.70 | 78 | 59 | 73 | 0.58 | 77 | 49 | 75 | 0.50 | 77 |
| 25.38 | | 87 | 67 | 0.77 | 79 | 67 | 71 | 0.64 | 78 | 55 | 74 | 0.55 | 77 |
| 22.50 | | 98 | 66 | 0.85 | 79 | 76 | 70 | 0.70 | 79 | 62 | 73 | 0.61 | 78 |
| 19.13 | | 115 | 63 | 0.95 | 80 | 89 | 68 | 0.80 | 79 | 73 | 71 | 0.69 | 79 |
| 19.89 | 24/5 | 111 | 48 | 0.65 | 85 | 85 | 50 | 0.53 | 85 | 70 | 52 | 0.46 | 84 |
| 18.24 | | 121 | 47 | 0.70 | 85 | 93 | 49 | 0.56 | 85 | 77 | 52 | 0.50 | 84 |
| 15.53 | | 142 | 45 | 0.78 | 86 | 109 | 48 | 0.64 | 85 | 90 | 50 | 0.56 | 85 |
| 13.39 | | 164 | 44 | 0.88 | 86 | 127 | 47 | 0.73 | 86 | 105 | 49 | 0.63 | 85 |
| 12.48 | | 176 | 43 | 0.92 | 86 | 136 | 46 | 0.76 | 86 | 112 | 48 | 0.66 | 86 |
| 10.91 | | 202 | 42 | 1.0 | 87 | 156 | 45 | 0.85 | 86 | 128 | 48 | 0.75 | 86 |
| 10.23 | | 215 | 41 | 1.1 | 87 | 166 | 45 | 0.90 | 87 | 137 | 47 | 0.78 | 86 |
| 9.02 | | 244 | 40 | 1.2 * | 87 | 188 | 43 | 0.98 | 87 | 155 | 46 | 0.86 | 87 |
| 8.00 | | 275 | 39 | 1.3 * | 87 | 213 | 43 | 1.1 | 87 | 175 | 45 | 0.95 | 87 |
| 6.80 | | 324 | 37 | 1.4 * | 88 | 250 | 41 | 1.2 * | 88 | 206 | 43 | 1.1 | 87 |
| 6.33 | 19/5 | 348 | 35 | 1.4 * | 88 | 269 | 35 | 1.1 | 88 | 221 | 35 | 0.93 | 87 |
| 5.38 | | 409 | 34 | 1.6 * | 88 | 316 | 34 | 1.3 * | 88 | 260 | 34 | 1.1 | 88 |
| 4.86 | | 453 | 32 | 1.7 * | 89 | 350 | 33 | 1.4 * | 88 | 288 | 33 | 1.1 | 88 |
| 3.97 | | 554 | 26 | 1.7 * | 88 | 428 | 32 | 1.6 * | 89 | 353 | 32 | 1.3 * | 88 |

* $P_{emax}$ = 1.1 kW



21284997/EN – 03/2015

**1100 - 700 rpm**

| $i_{tot}$ | $i_{worm}$ | $n_e$ = 1100 rpm | | | | $n_e$ = 900 rpm | | | | $n_e$ = 700 rpm | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % |
| 157.43 | 38/1 | 7.0 | 92 | 0.13 | 52 | 5.7 | 92 | 0.11 | 50 | 4.4 | 92 | 0.09 | 49 |
| 144.40 | | 7.6 | 92 | 0.14 | 52 | 6.2 | 92 | 0.12 | 51 | 4.8 | 92 | 0.09 | 50 |
| 122.94 | | 8.9 | 92 | 0.16 | 54 | 7.3 | 92 | 0.14 | 52 | 5.7 | 92 | 0.11 | 51 |
| 106.00 | | 10 | 92 | 0.18 | 55 | 8.5 | 92 | 0.15 | 53 | 6.6 | 92 | 0.12 | 52 |
| 98.80 | | 11 | 92 | 0.19 | 55 | 9.1 | 92 | 0.16 | 54 | 7.1 | 92 | 0.13 | 52 |
| 86.36 | | 13 | 90 | 0.21 | 56 | 10 | 92 | 0.18 | 55 | 8.1 | 92 | 0.15 | 53 |
| 80.96 | | 14 | 89 | 0.22 | 57 | 11 | 92 | 0.19 | 55 | 8.6 | 92 | 0.16 | 54 |
| 71.44 | | 15 | 87 | 0.24 | 57 | 13 | 91 | 0.21 | 56 | 9.8 | 92 | 0.17 | 55 |
| 63.33 | | 17 | 86 | 0.27 | 58 | 14 | 89 | 0.23 | 57 | 11 | 92 | 0.19 | 56 |
| 53.83 | | 20 | 84 | 0.30 | 60 | 17 | 87 | 0.26 | 58 | 13 | 91 | 0.22 | 57 |
| 55.93 | 27/2 | 20 | 87 | 0.25 | 72 | 16 | 91 | 0.21 | 71 | 13 | 92 | 0.17 | 70 |
| 51.30 | | 21 | 87 | 0.27 | 73 | 18 | 90 | 0.23 | 72 | 14 | 92 | 0.19 | 71 |
| 43.68 | | 25 | 84 | 0.30 | 74 | 21 | 87 | 0.26 | 73 | 16 | 92 | 0.22 | 71 |
| 37.66 | | 29 | 82 | 0.34 | 75 | 24 | 86 | 0.29 | 74 | 19 | 89 | 0.24 | 72 |
| 35.10 | | 31 | 82 | 0.36 | 75 | 26 | 84 | 0.31 | 74 | 20 | 88 | 0.25 | 73 |
| 30.68 | | 36 | 80 | 0.40 | 76 | 29 | 82 | 0.34 | 75 | 23 | 87 | 0.28 | 74 |
| 28.76 | | 38 | 79 | 0.42 | 76 | 31 | 82 | 0.36 | 75 | 24 | 86 | 0.30 | 74 |
| 25.38 | | 43 | 78 | 0.46 | 77 | 35 | 81 | 0.40 | 76 | 28 | 84 | 0.33 | 75 |
| 22.50 | | 49 | 77 | 0.51 | 77 | 40 | 79 | 0.43 | 76 | 31 | 82 | 0.36 | 75 |
| 19.13 | | 58 | 75 | 0.58 | 78 | 47 | 78 | 0.50 | 77 | 37 | 81 | 0.41 | 76 |
| 19.89 | 24/5 | 55 | 55 | 0.38 | 83 | 45 | 58 | 0.33 | 83 | 35 | 60 | 0.27 | 82 |
| 18.24 | | 60 | 54 | 0.41 | 84 | 49 | 56 | 0.35 | 83 | 38 | 60 | 0.29 | 82 |
| 15.53 | | 71 | 53 | 0.47 | 84 | 58 | 55 | 0.40 | 84 | 45 | 58 | 0.33 | 83 |
| 13.39 | | 82 | 52 | 0.53 | 85 | 67 | 54 | 0.45 | 84 | 52 | 56 | 0.37 | 83 |
| 12.48 | | 88 | 51 | 0.55 | 85 | 72 | 53 | 0.47 | 84 | 56 | 55 | 0.39 | 84 |
| 10.91 | | 101 | 50 | 0.62 | 86 | 82 | 52 | 0.53 | 85 | 64 | 54 | 0.43 | 84 |
| 10.23 | | 108 | 49 | 0.64 | 86 | 88 | 51 | 0.55 | 85 | 68 | 54 | 0.46 | 84 |
| 9.02 | | 122 | 48 | 0.71 | 86 | 100 | 50 | 0.61 | 86 | 78 | 53 | 0.51 | 85 |
| 8.00 | | 138 | 47 | 0.78 | 87 | 113 | 49 | 0.67 | 86 | 88 | 52 | 0.56 | 85 |
| 6.80 | | 162 | 46 | 0.90 | 87 | 132 | 48 | 0.77 | 87 | 103 | 51 | 0.64 | 86 |
| 6.33 | 19/5 | 174 | 45 | 0.94 | 87 | 142 | 45 | 0.77 | 87 | 111 | 45 | 0.61 | 86 |
| 5.38 | | 204 | 43 | 1.1 | 88 | 167 | 43 | 0.86 | 87 | 130 | 43 | 0.68 | 87 |
| 4.86 | | 226 | 42 | 1.1 | 88 | 185 | 42 | 0.93 | 88 | 144 | 42 | 0.73 | 87 |
| 3.97 | | 277 | 40 | 1.3 * | 88 | 227 | 40 | 1.1 | 88 | 176 | 40 | 0.84 | 88 |

* $P_{emax}$ = 1.1 kW

21284997/EN – 03/2015

**500 - 10 rpm**

| $i_{tot}$ | $i_{worm}$ | $n_e$ = 500 rpm | | | | $n_e$ = 250 rpm | | | | $n_e$ = 10 rpm | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % |
| 157.43 | 38/1 | 3.2 | 92 | 0.06 | 47 | 1.6 | 92 | 0.033 | 46 | 0.06 | 92 | < 0.05 | 26 |
| 144.40 | | 3.5 | 92 | 0.07 | 48 | 1.7 | 92 | 0.036 | 46 | 0.07 | 92 | < 0.05 | 27 |
| 122.94 | | 4.1 | 92 | 0.08 | 49 | 2.0 | 92 | 0.042 | 46 | 0.08 | 92 | < 0.05 | 29 |
| 106.00 | | 4.7 | 92 | 0.09 | 50 | 2.4 | 92 | 0.049 | 47 | 0.09 | 92 | < 0.05 | 30 |
| 98.80 | | 5.1 | 92 | 0.10 | 50 | 2.5 | 92 | 0.05 | 47 | 0.10 | 92 | < 0.05 | 31 |
| 86.36 | | 5.8 | 92 | 0.11 | 51 | 2.9 | 92 | 0.06 | 47 | 0.12 | 92 | < 0.05 | 32 |
| 80.96 | | 6.2 | 92 | 0.12 | 51 | 3.1 | 92 | 0.06 | 47 | 0.12 | 92 | < 0.05 | 33 |
| 71.44 | | 7.0 | 92 | 0.13 | 52 | 3.5 | 92 | 0.07 | 48 | 0.14 | 92 | < 0.05 | 35 |
| 63.33 | | 7.9 | 92 | 0.14 | 53 | 3.9 | 92 | 0.08 | 49 | 0.16 | 92 | < 0.05 | 37 |
| 53.83 | | 9.3 | 92 | 0.16 | 55 | 4.6 | 92 | 0.09 | 50 | 0.19 | 92 | < 0.05 | 39 |
| 55.93 | 27/2 | 8.9 | 92 | 0.13 | 69 | 4.5 | 92 | 0.06 | 67 | 0.18 | 92 | < 0.05 | 48 |
| 51.30 | | 9.7 | 92 | 0.14 | 69 | 4.9 | 92 | 0.07 | 67 | 0.19 | 92 | < 0.05 | 49 |
| 43.68 | | 11 | 92 | 0.16 | 70 | 5.7 | 92 | 0.08 | 67 | 0.23 | 92 | < 0.05 | 51 |
| 37.66 | | 13 | 92 | 0.18 | 71 | 6.6 | 92 | 0.10 | 67 | 0.27 | 92 | < 0.05 | 53 |
| 35.10 | | 14 | 92 | 0.19 | 71 | 7.1 | 92 | 0.10 | 68 | 0.28 | 92 | < 0.05 | 54 |
| 30.68 | | 16 | 92 | 0.22 | 72 | 8.1 | 92 | 0.11 | 68 | 0.33 | 92 | < 0.05 | 56 |
| 28.76 | | 17 | 91 | 0.23 | 72 | 8.7 | 92 | 0.12 | 69 | 0.35 | 92 | < 0.05 | 57 |
| 25.38 | | 20 | 89 | 0.25 | 73 | 9.9 | 92 | 0.14 | 69 | 0.39 | 92 | < 0.05 | 59 |
| 22.50 | | 22 | 87 | 0.28 | 74 | 11 | 92 | 0.15 | 70 | 0.44 | 92 | < 0.05 | 61 |
| 19.13 | | 26 | 85 | 0.31 | 75 | 13 | 92 | 0.18 | 71 | 0.52 | 92 | < 0.05 | 62 |
| 19.89 | 24/5 | 25 | 68 | 0.22 | 81 | 13 | 72 | 0.12 | 79 | 0.50 | 72 | < 0.05 | 65 |
| 18.24 | | 27 | 66 | 0.23 | 81 | 14 | 72 | 0.13 | 79 | 0.55 | 72 | < 0.05 | 66 |
| 15.53 | | 32 | 63 | 0.26 | 82 | 16 | 72 | 0.15 | 79 | 0.64 | 72 | < 0.05 | 68 |
| 13.39 | | 37 | 61 | 0.29 | 82 | 19 | 72 | 0.18 | 80 | 0.75 | 72 | < 0.05 | 71 |
| 12.48 | | 40 | 59 | 0.30 | 82 | 20 | 72 | 0.19 | 80 | 0.80 | 72 | < 0.05 | 72 |
| 10.91 | | 46 | 58 | 0.34 | 83 | 23 | 71 | 0.21 | 81 | 0.92 | 71 | < 0.05 | 73 |
| 10.23 | | 49 | 57 | 0.35 | 83 | 24 | 70 | 0.22 | 81 | 0.98 | 70 | < 0.05 | 73 |
| 9.02 | | 55 | 56 | 0.39 | 84 | 28 | 66 | 0.24 | 81 | 1.1 | 66 | < 0.05 | 74 |
| 8.00 | | 63 | 55 | 0.43 | 84 | 31 | 63 | 0.25 | 82 | 1.2 | 63 | < 0.05 | 74 |
| 6.80 | | 74 | 54 | 0.49 | 85 | 37 | 61 | 0.29 | 82 | 1.5 | 61 | < 0.05 | 75 |
| 6.33 | 19/5 | 79 | 45 | 0.44 | 85 | 39 | 45 | 0.23 | 83 | 1.6 | 45 | <0.05 | 80 |
| 5.38 | | 93 | 43 | 0.49 | 86 | 46 | 43 | 0.25 | 83 | 1.9 | 43 | <0.05 | 80 |
| 4.86 | | 103 | 42 | 0.53 | 86 | 51 | 42 | 0.27 | 84 | 2.1 | 42 | <0.05 | 80 |
| 3.97 | | 126 | 40 | 0.61 | 87 | 63 | 40 | 0.31 | 84 | 2.5 | 40 | <0.05 | 80 |



21284997/EN – 03/2015

## 11.7 Technical data S. SF. SA. SAF 47

**3400 - 2800 rpm**

| $i_{tot}$ | $i_{worm}$ | $n_e$ = 3400 rpm | | | | $n_e$ = 3200 rpm | | | | $n_e$ = 2800 rpm | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % |
| 201.00 | 42/1 | 17 | 150 | 0.44 | 60 | 16 | 150 | 0.42 | 60 | 14 | 150 | 0.37 | 59 |
| 184.80 | | 18 | 150 | 0.48 | 60 | 17 | 150 | 0.45 | 60 | 15 | 150 | 0.40 | 59 |
| 158.12 | | 22 | 150 | 0.55 | 61 | 20 | 150 | 0.52 | 61 | 18 | 150 | 0.46 | 60 |
| 137.05 | | 25 | 150 | 0.63 | 62 | 23 | 150 | 0.59 | 62 | 20 | 150 | 0.52 | 61 |
| 128.10 | | 27 | 150 | 0.67 | 63 | 25 | 150 | 0.63 | 62 | 22 | 150 | 0.56 | 62 |
| 110.73 | | 31 | 138 | 0.70 | 63 | 29 | 148 | 0.71 | 63 | 25 | 150 | 0.63 | 63 |
| 94.08 | | 36 | 113 | 0.69 | 62 | 34 | 123 | 0.70 | 63 | 30 | 146 | 0.72 | 63 |
| 84.00 | | 40 | 95 | 0.66 | 61 | 38 | 107 | 0.69 | 62 | 33 | 130 | 0.71 | 63 |
| 71.75 | | 47 | 58 | 0.55 | 53 | 45 | 82 | 0.64 | 60 | 39 | 107 | 0.70 | 63 |
| 67.20 | | 51 | 53 | 0.54 | 52 | 48 | 68 | 0.60 | 57 | 42 | 99 | 0.69 | 62 |
| 56.61 | | 60 | 40 | 0.51 | 49 | 57 | 46 | 0.53 | 51 | 49 | 75 | 0.65 | 60 |
| 69.39 | 29/2 | 49 | 140 | 0.91 | 79 | 46 | 140 | 0.86 | 78 | 40 | 140 | 0.76 | 78 |
| 63.80 | | 53 | 140 | 0.99 | 79 | 50 | 140 | 0.93 | 79 | 44 | 140 | 0.82 | 78 |
| 54.59 | | 62 | 140 | 1.1 | 80 | 59 | 140 | 1.1 | 79 | 51 | 140 | 0.95 | 79 |
| 47.32 | | 72 | 139 | 1.3 | 80 | 68 | 140 | 1.2 | 80 | 59 | 140 | 1.1 | 80 |
| 44.22 | | 77 | 129 | 1.3 | 80 | 72 | 139 | 1.3 | 80 | 63 | 140 | 1.2 | 80 |
| 38.23 | | 89 | 112 | 1.3 | 80 | 84 | 120 | 1.3 | 80 | 73 | 139 | 1.3 | 80 |
| 32.48 | | 105 | 91 | 1.3 | 79 | 99 | 100 | 1.3 | 80 | 86 | 117 | 1.3 | 80 |
| 29.00 | | 117 | 76 | 1.2 | 78 | 110 | 86 | 1.3 | 79 | 97 | 104 | 1.3 | 80 |
| 24.77 | | 137 | 47 | 0.94 | 72 | 129 | 66 | 1.2 | 77 | 113 | 87 | 1.3 | 80 |
| 23.20 | | 147 | 42 | 0.90 | 71 | 138 | 54 | 1.0 | 75 | 121 | 79 | 1.3 | 79 |
| 19.54 | | 174 | 32 | 0.84 | 69 | 164 | 37 | 0.89 | 71 | 143 | 59 | 1.1 | 77 |
| 20.33 | 27/5 | 167 | 100 | 2.0 * | 88 | 157 | 100 | 1.9 * | 88 | 138 | 100 | 1.6 * | 88 |
| 17.62 | | 193 | 97 | 2.2 * | 88 | 182 | 100 | 2.2 * | 88 | 159 | 100 | 1.9 * | 88 |
| 16.47 | | 206 | 90 | 2.2 * | 88 | 194 | 97 | 2.2 * | 88 | 170 | 100 | 2.0 * | 88 |
| 14.24 | | 239 | 78 | 2.2 * | 88 | 225 | 83 | 2.2 * | 88 | 197 | 97 | 2.3 * | 88 |
| 12.10 | | 281 | 63 | 2.1 * | 88 | 264 | 69 | 2.2 * | 88 | 231 | 82 | 2.2 * | 88 |
| 10.80 | | 315 | 53 | 2.0 * | 87 | 296 | 60 | 2.1 * | 88 | 259 | 72 | 2.2 * | 88 |
| 9.23 | | 368 | 32 | 1.5 | 83 | 347 | 45 | 1.9 * | 86 | 303 | 60 | 2.2 * | 88 |
| 8.64 | | 394 | 29 | 1.5 | 82 | 370 | 37 | 1.7 * | 85 | 324 | 55 | 2.1 * | 88 |
| 7.28 | | 467 | 22 | 1.3 | 81 | 440 | 25 | 1.4 | 82 | 385 | 41 | 1.9 * | 86 |
| 6.83 | 20/5 | 498 | 34 | 2.0 * | 87 | 469 | 37 | 2.1 * | 88 | 410 | 45 | 2.2 * | 88 |
| 6.4 | | 531 | 31 | 2.0 * | 87 | 500 | 34 | 2.0 * | 87 | 438 | 42 | 2.2 * | 88 |
| 5.39 | | 631 | 24 | 1.8 * | 86 | 594 | 27 | 1.9 * | 87 | 519 | 34 | 2.1 * | 88 |
| 4.76 | | 714 | 20 | 1.8 * | 85 | 672 | 23 | 1.9 * | 86 | 588 | 29 | 2.0 * | 87 |
| 4 | | 850 | 16 | 1.7 * | 85 | 800 | 18 | 1.8 * | 85 | 700 | 23 | 1.9 * | 87 |

* $P_{emax}$ = 1.5 kW

21284997/EN – 03/2015

**2200 - 1400 rpm**

| $i_{tot}$ | $i_{worm}$ | $n_e$ = 2200 rpm | | | | $n_e$ = 1700 rpm | | | | $n_e$ = 1400 rpm | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % |
| 201.00 | 42/1 | 11 | 167 | 0.33 | 58 | 8.5 | 170 | 0.27 | 56 | 7.0 | 170 | 0.23 | 55 |
| 184.80 | | 12 | 167 | 0.36 | 58 | 9.2 | 168 | 0.29 | 57 | 7.6 | 170 | 0.24 | 56 |
| 158.12 | | 14 | 167 | 0.41 | 60 | 11 | 168 | 0.33 | 58 | 8.9 | 170 | 0.28 | 57 |
| 137.05 | | 16 | 165 | 0.46 | 60 | 12 | 167 | 0.37 | 59 | 10 | 168 | 0.31 | 58 |
| 128.10 | | 17 | 165 | 0.49 | 61 | 13 | 167 | 0.39 | 59 | 11 | 168 | 0.33 | 58 |
| 110.73 | | 20 | 165 | 0.55 | 62 | 15 | 167 | 0.44 | 61 | 13 | 168 | 0.38 | 59 |
| 94.08 | | 23 | 165 | 0.64 | 63 | 18 | 167 | 0.51 | 62 | 15 | 168 | 0.43 | 60 |
| 84.00 | | 26 | 162 | 0.70 | 64 | 20 | 167 | 0.57 | 62 | 17 | 167 | 0.48 | 61 |
| 71.75 | | 31 | 145 | 0.73 | 64 | 24 | 167 | 0.65 | 63 | 20 | 167 | 0.55 | 62 |
| 67.20 | | 33 | 137 | 0.73 | 64 | 25 | 164 | 0.68 | 64 | 21 | 167 | 0.58 | 63 |
| 56.61 | | 39 | 115 | 0.73 | 64 | 30 | 152 | 0.74 | 65 | 25 | 165 | 0.67 | 64 |
| 69.39 | 29/2 | 32 | 155 | 0.67 | 77 | 24 | 155 | 0.52 | 76 | 20 | 155 | 0.44 | 75 |
| 63.80 | | 34 | 155 | 0.72 | 77 | 27 | 155 | 0.57 | 76 | 22 | 155 | 0.47 | 75 |
| 54.59 | | 40 | 155 | 0.84 | 78 | 31 | 155 | 0.66 | 77 | 26 | 155 | 0.55 | 76 |
| 47.32 | | 46 | 155 | 0.96 | 79 | 36 | 155 | 0.75 | 78 | 30 | 155 | 0.63 | 77 |
| 44.22 | | 50 | 155 | 1.0 | 79 | 38 | 155 | 0.80 | 78 | 32 | 155 | 0.67 | 77 |
| 38.23 | | 58 | 154 | 1.2 | 80 | 44 | 155 | 0.92 | 79 | 37 | 155 | 0.76 | 78 |
| 32.48 | | 68 | 146 | 1.3 | 80 | 52 | 155 | 1.1 | 80 | 43 | 155 | 0.89 | 79 |
| 29.00 | | 76 | 137 | 1.3 | 81 | 59 | 154 | 1.2 | 80 | 48 | 155 | 0.99 | 79 |
| 24.77 | | 89 | 117 | 1.3 | 81 | 69 | 145 | 1.3 | 81 | 57 | 155 | 1.1 | 80 |
| 23.20 | | 95 | 111 | 1.4 | 81 | 73 | 142 | 1.3 | 81 | 60 | 152 | 1.2 | 80 |
| 19.54 | | 113 | 92 | 1.3 | 81 | 87 | 123 | 1.4 | 81 | 72 | 144 | 1.3 | 81 |
| 20.33 | 27/5 | 108 | 109 | 1.4 | 87 | 84 | 110 | 1.1 | 87 | 69 | 110 | 0.92 | 86 |
| 17.62 | | 125 | 108 | 1.6 * | 88 | 96 | 109 | 1.3 | 87 | 79 | 110 | 1.1 | 86 |
| 16.47 | | 134 | 108 | 1.7 * | 88 | 103 | 109 | 1.4 | 87 | 85 | 110 | 1.1 | 87 |
| 14.24 | | 154 | 108 | 2.0 * | 88 | 119 | 109 | 1.6 * | 88 | 98 | 110 | 1.3 | 87 |
| 12.10 | | 182 | 105 | 2.3 * | 89 | 140 | 109 | 1.8 * | 88 | 116 | 109 | 1.5 | 88 |
| 10.80 | | 204 | 95 | 2.3 * | 89 | 157 | 108 | 2.0 * | 88 | 130 | 109 | 1.7 * | 88 |
| 9.23 | | 238 | 82 | 2.3 * | 89 | 184 | 105 | 2.3 * | 89 | 152 | 109 | 2.0 * | 88 |
| 8.64 | | 255 | 77 | 2.3 * | 89 | 197 | 100 | 2.3 * | 89 | 162 | 109 | 2.1 * | 88 |
| 7.28 | | 302 | 64 | 2.3 * | 89 | 234 | 86 | 2.4 * | 89 | 192 | 103 | 2.3 * | 89 |
| 6.83 | 20/5 | 322 | 62 | 2.4 * | 89 | 249 | 78 | 2.3 * | 89 | 205 | 78 | 1.9 * | 89 |
| 6.4 | | 344 | 58 | 2.3 * | 89 | 266 | 76 | 2.4 * | 89 | 219 | 76 | 2.0 * | 89 |
| 5.39 | | 408 | 48 | 2.3 * | 89 | 315 | 65 | 2.4 * | 89 | 260 | 74 | 2.3 * | 89 |
| 4.76 | | 462 | 42 | 2.3 * | 89 | 357 | 58 | 2.4 * | 89 | 294 | 72 | 2.5 * | 90 |
| 4 | | 550 | 34 | 2.2 * | 88 | 425 | 48 | 2.4 * | 89 | 350 | 61 | 2.5 * | 90 |

* $P_{emax}$ = 1.5 kW



21284997/EN – 03/2015

**1100 - 700 rpm**

| $i_{tot}$ | $i_{worm}$ | $n_e$ = 1100 rpm | | | | $n_e$ = 900 rpm | | | | $n_e$ = 700 rpm | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % |
| 201.00 | 42/1 | 5.5 | 176 | 0.19 | 53 | 4.5 | 180 | 0.16 | 52 | 3.5 | 185 | 0.13 | 51 |
| 184.80 | | 6.0 | 174 | 0.20 | 54 | 4.9 | 178 | 0.17 | 53 | 3.8 | 183 | 0.14 | 51 |
| 158.12 | | 7.0 | 172 | 0.23 | 55 | 5.7 | 176 | 0.20 | 54 | 4.4 | 180 | 0.16 | 52 |
| 137.05 | | 8.0 | 171 | 0.26 | 56 | 6.6 | 172 | 0.22 | 55 | 5.1 | 178 | 0.18 | 53 |
| 128.10 | | 8.6 | 171 | 0.27 | 57 | 7.0 | 172 | 0.23 | 55 | 5.5 | 176 | 0.19 | 54 |
| 110.73 | | 9.9 | 169 | 0.30 | 58 | 8.1 | 171 | 0.26 | 56 | 6.3 | 174 | 0.21 | 55 |
| 94.08 | | 12 | 169 | 0.35 | 59 | 9.6 | 171 | 0.30 | 57 | 7.4 | 172 | 0.24 | 56 |
| 84.00 | | 13 | 169 | 0.39 | 60 | 11 | 169 | 0.32 | 58 | 8.3 | 171 | 0.26 | 57 |
| 71.75 | | 15 | 169 | 0.45 | 61 | 13 | 169 | 0.37 | 60 | 9.8 | 171 | 0.30 | 58 |
| 67.20 | | 16 | 169 | 0.47 | 61 | 13 | 169 | 0.40 | 60 | 10 | 171 | 0.32 | 58 |
| 56.61 | | 19 | 169 | 0.55 | 63 | 16 | 169 | 0.46 | 61 | 12 | 171 | 0.37 | 60 |
| 69.39 | 29/2 | 16 | 173 | 0.39 | 74 | 13 | 176 | 0.33 | 73 | 10 | 180 | 0.27 | 71 |
| 63.80 | | 17 | 173 | 0.42 | 74 | 14 | 175 | 0.35 | 73 | 11 | 180 | 0.29 | 72 |
| 54.59 | | 20 | 171 | 0.48 | 75 | 16 | 173 | 0.40 | 74 | 13 | 176 | 0.33 | 73 |
| 47.32 | | 23 | 171 | 0.55 | 76 | 19 | 173 | 0.46 | 75 | 15 | 175 | 0.37 | 73 |
| 44.22 | | 25 | 171 | 0.58 | 76 | 20 | 171 | 0.49 | 75 | 16 | 175 | 0.39 | 74 |
| 38.23 | | 29 | 169 | 0.66 | 77 | 24 | 171 | 0.56 | 76 | 18 | 173 | 0.44 | 75 |
| 32.48 | | 34 | 169 | 0.77 | 78 | 28 | 171 | 0.65 | 77 | 22 | 171 | 0.51 | 75 |
| 29.00 | | 38 | 170 | 0.86 | 78 | 31 | 171 | 0.72 | 77 | 24 | 171 | 0.57 | 76 |
| 24.77 | | 44 | 169 | 0.99 | 79 | 36 | 170 | 0.83 | 78 | 28 | 171 | 0.66 | 77 |
| 23.20 | | 47 | 164 | 1.0 | 79 | 39 | 170 | 0.88 | 79 | 30 | 171 | 0.70 | 77 |
| 19.54 | | 56 | 154 | 1.1 | 80 | 46 | 165 | 1.0 | 79 | 36 | 170 | 0.81 | 78 |
| 20.33 | 27/5 | 54 | 112 | 0.75 | 85 | 44 | 114 | 0.63 | 84 | 34 | 116 | 0.50 | 83 |
| 17.62 | | 62 | 112 | 0.86 | 86 | 51 | 113 | 0.71 | 85 | 40 | 115 | 0.57 | 84 |
| 16.47 | | 67 | 112 | 0.91 | 86 | 55 | 113 | 0.76 | 85 | 43 | 114 | 0.60 | 84 |
| 14.24 | | 77 | 111 | 1.0 | 86 | 63 | 112 | 0.86 | 86 | 49 | 113 | 0.69 | 85 |
| 12.10 | | 91 | 111 | 1.2 | 87 | 74 | 111 | 1.0 | 86 | 58 | 113 | 0.80 | 85 |
| 10.80 | | 102 | 111 | 1.4 | 87 | 83 | 111 | 1.1 | 87 | 65 | 112 | 0.88 | 86 |
| 9.23 | | 119 | 110 | 1.6 * | 88 | 98 | 111 | 1.3 | 87 | 76 | 112 | 1.0 | 86 |
| 8.64 | | 127 | 109 | 1.7 * | 88 | 104 | 111 | 1.4 | 87 | 81 | 112 | 1.1 | 87 |
| 7.28 | | 151 | 109 | 2.0 * | 88 | 124 | 111 | 1.6 * | 88 | 96 | 111 | 1.3 | 87 |
| 6.83 | 20/5 | 161 | 95 | 1.8 * | 89 | 132 | 95 | 1.5 | 88 | 102 | 95 | 1.2 | 88 |
| 6.4 | | 172 | 93 | 1.9 * | 89 | 141 | 93 | 1.6 * | 88 | 109 | 93 | 1.2 | 88 |
| 5.39 | | 204 | 89 | 2.1 * | 89 | 167 | 89 | 1.8 * | 89 | 130 | 89 | 1.4 | 88 |
| 4.76 | | 231 | 87 | 2.4 * | 89 | 189 | 87 | 1.9 * | 89 | 147 | 87 | 1.5 | 89 |
| 4 | | 275 | 78 | 2.5 * | 90 | 225 | 84 | 2.2 * | 89 | 175 | 84 | 1.7 * | 89 |

* $P_{emax}$ = 1.5 kW

21284997/EN – 03/2015

**500 - 10 rpm**

| $i_{tot}$ | $i_{worm}$ | $n_e$ = 500 rpm | | | | $n_e$ = 250 rpm | | | | $n_e$ = 10 rpm | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % |
| 201.00 | 42/1 | 2.5 | 185 | 0.10 | 49 | 1.2 | 185 | 0.05 | 48 | 0.05 | 185 | < 0.05 | 32 |
| 184.80 | | 2.7 | 185 | 0.11 | 49 | 1.4 | 185 | 0.05 | 48 | 0.05 | 185 | < 0.05 | 32 |
| 158.12 | | 3.2 | 185 | 0.12 | 50 | 1.6 | 185 | 0.06 | 48 | 0.06 | 185 | < 0.05 | 35 |
| 137.05 | | 3.6 | 185 | 0.14 | 51 | 1.8 | 185 | 0.07 | 48 | 0.07 | 185 | < 0.05 | 37 |
| 128.10 | | 3.9 | 183 | 0.15 | 51 | 2.0 | 185 | 0.08 | 48 | 0.08 | 185 | < 0.05 | 38 |
| 110.73 | | 4.5 | 181 | 0.16 | 52 | 2.3 | 185 | 0.09 | 49 | 0.09 | 185 | < 0.05 | 40 |
| 94.08 | | 5.3 | 178 | 0.19 | 54 | 2.7 | 185 | 0.10 | 49 | 0.11 | 185 | < 0.05 | 42 |
| 84.00 | | 6.0 | 176 | 0.20 | 54 | 3.0 | 185 | 0.12 | 50 | 0.12 | 185 | < 0.05 | 43 |
| 71.75 | | 7.0 | 174 | 0.23 | 56 | 3.5 | 185 | 0.13 | 51 | 0.14 | 185 | < 0.05 | 44 |
| 67.20 | | 7.4 | 172 | 0.24 | 56 | 3.7 | 185 | 0.14 | 51 | 0.15 | 185 | < 0.05 | 44 |
| 56.61 | | 8.8 | 172 | 0.28 | 57 | 4.4 | 181 | 0.16 | 53 | 0.18 | 181 | < 0.05 | 45 |
| 69.39 | 29/2 | 7.2 | 185 | 0.20 | 70 | 3.6 | 185 | 0.10 | 68 | 0.14 | 185 | < 0.05 | 56 |
| 63.80 | | 7.8 | 185 | 0.22 | 70 | 3.9 | 185 | 0.11 | 68 | 0.16 | 185 | < 0.05 | 57 |
| 54.59 | | 9.2 | 185 | 0.25 | 71 | 4.6 | 185 | 0.13 | 68 | 0.18 | 185 | < 0.05 | 60 |
| 47.32 | | 11 | 181 | 0.28 | 72 | 5.3 | 185 | 0.15 | 68 | 0.21 | 185 | < 0.05 | 61 |
| 44.22 | | 11 | 180 | 0.30 | 72 | 5.7 | 185 | 0.16 | 69 | 0.23 | 185 | < 0.05 | 62 |
| 38.23 | | 13 | 178 | 0.33 | 73 | 6.5 | 185 | 0.18 | 69 | 0.26 | 185 | < 0.05 | 63 |
| 32.48 | | 15 | 174 | 0.38 | 74 | 7.7 | 185 | 0.21 | 70 | 0.31 | 185 | < 0.05 | 64 |
| 29.00 | | 17 | 174 | 0.42 | 74 | 8.6 | 185 | 0.24 | 71 | 0.34 | 185 | < 0.05 | 65 |
| 24.77 | | 20 | 172 | 0.48 | 75 | 10 | 183 | 0.27 | 71 | 0.40 | 183 | < 0.05 | 66 |
| 23.20 | | 22 | 172 | 0.51 | 76 | 11 | 181 | 0.28 | 72 | 0.43 | 181 | < 0.05 | 66 |
| 19.54 | | 26 | 172 | 0.60 | 77 | 13 | 178 | 0.33 | 73 | 0.51 | 178 | < 0.05 | 67 |
| 20.33 | 27/5 | 25 | 124 | 0.39 | 82 | 12 | 157 | 0.25 | 80 | 0.49 | 157 | < 0.05 | 75 |
| 17.62 | | 28 | 120 | 0.43 | 83 | 14 | 149 | 0.28 | 80 | 0.57 | 149 | < 0.05 | 76 |
| 16.47 | | 30 | 118 | 0.45 | 83 | 15 | 145 | 0.29 | 81 | 0.61 | 145 | < 0.05 | 76 |
| 14.24 | | 35 | 116 | 0.51 | 84 | 18 | 138 | 0.31 | 81 | 0.70 | 138 | < 0.05 | 77 |
| 12.10 | | 41 | 115 | 0.59 | 84 | 21 | 131 | 0.35 | 82 | 0.83 | 131 | < 0.05 | 77 |
| 10.80 | | 46 | 114 | 0.65 | 85 | 23 | 127 | 0.37 | 82 | 0.93 | 127 | < 0.05 | 77 |
| 9.23 | | 54 | 113 | 0.75 | 85 | 27 | 121 | 0.41 | 83 | 1.1 | 121 | < 0.05 | 78 |
| 8.64 | | 58 | 113 | 0.80 | 86 | 29 | 120 | 0.44 | 83 | 1.2 | 120 | < 0.05 | 78 |
| 7.28 | | 69 | 112 | 0.93 | 86 | 34 | 117 | 0.50 | 84 | 1.4 | 117 | < 0.05 | 78 |
| 6.83 | 20/5 | 73 | 95 | 0.84 | 87 | 7 | 95 | 0.43 | 84 | 1.5 | 95 | <0.05 | 81 |
| 6.4 | | 78 | 93 | 0.88 | 87 | 39 | 93 | 0.45 | 85 | 1.6 | 93 | <0.05 | 81 |
| 5.39 | | 93 | 89 | 0.99 | 87 | 46 | 89 | 0.51 | 85 | 1.9 | 89 | <0.05 | 81 |
| 4.76 | | 105 | 87 | 1.1 | 88 | 53 | 87 | 0.56 | 86 | 2.1 | 87 | <0.05 | 81 |
| 4 | | 125 | 84 | 1.2 | 88 | 63 | 84 | 0.64 | 86 | 2.5 | 84 | <0.05 | 81 |



21284997/EN – 03/2015

## 11.8 Technical data S. SF. SA. SAF 57

**3400 - 2800 rpm**

| $i_{tot}$ | $i_{worm}$ | $n_e$ = 3400 rpm | | | | $n_e$ = 3200 rpm | | | | $n_e$ = 2800 rpm | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % |
| 201.00 | 42/1 | 17 | 270 | 0.75 | 64 | 16 | 270 | 0.71 | 63 | 14 | 270 | 0.63 | 62 |
| 184.80 | | 18 | 270 | 0.81 | 64 | 17 | 270 | 0.77 | 64 | 15 | 270 | 0.68 | 63 |
| 158.12 | | 22 | 270 | 0.93 | 65 | 20 | 270 | 0.88 | 65 | 18 | 270 | 0.78 | 64 |
| 137.05 | | 25 | 255 | 1.0 | 66 | 23 | 270 | 1.0 | 66 | 20 | 270 | 0.89 | 65 |
| 128.10 | | 27 | 245 | 1.0 | 66 | 25 | 255 | 1.0 | 66 | 22 | 270 | 0.94 | 65 |
| 110.73 | | 31 | 215 | 1.0 | 67 | 29 | 230 | 1.0 | 67 | 25 | 255 | 1.0 | 66 |
| 94.08 | | 36 | 184 | 1.0 | 67 | 34 | 196 | 1.0 | 67 | 30 | 225 | 1.1 | 67 |
| 84.00 | | 40 | 165 | 1.0 | 67 | 38 | 175 | 1.0 | 67 | 33 | 200 | 1.0 | 67 |
| 71.75 | | 47 | 139 | 1.0 | 67 | 45 | 149 | 1.0 | 67 | 39 | 174 | 1.1 | 67 |
| 67.20 | | 51 | 128 | 1.0 | 66 | 48 | 139 | 1.0 | 67 | 42 | 164 | 1.1 | 67 |
| 56.61 | | 60 | 103 | 1.0 | 65 | 57 | 114 | 1.0 | 66 | 49 | 138 | 1.1 | 67 |
| 69.39 | 29/2 | 49 | 220 | 1.4 | 81 | 46 | 220 | 1.3 | 80 | 40 | 220 | 1.2 | 80 |
| 63.80 | | 53 | 220 | 1.5 | 81 | 50 | 220 | 1.4 | 81 | 44 | 220 | 1.3 | 80 |
| 54.59 | | 62 | 220 | 1.8 | 81 | 59 | 220 | 1.7 | 81 | 51 | 220 | 1.5 | 81 |
| 47.32 | | 72 | 210 | 1.9 | 82 | 68 | 220 | 1.9 | 82 | 59 | 220 | 1.7 | 81 |
| 44.22 | | 77 | 197 | 1.9 | 82 | 72 | 205 | 1.9 | 82 | 63 | 220 | 1.8 | 81 |
| 38.23 | | 89 | 174 | 2.0 | 82 | 84 | 184 | 2.0 | 82 | 73 | 205 | 1.9 | 82 |
| 32.48 | | 105 | 148 | 2.0 | 82 | 99 | 157 | 2.0 | 82 | 86 | 180 | 2.0 | 82 |
| 29.00 | | 117 | 131 | 2.0 | 82 | 110 | 141 | 2.0 | 82 | 97 | 162 | 2.0 | 82 |
| 24.77 | | 137 | 111 | 1.9 | 82 | 129 | 120 | 2.0 | 82 | 113 | 139 | 2.0 | 82 |
| 23.20 | | 147 | 102 | 1.9 | 82 | 138 | 111 | 2.0 | 82 | 121 | 131 | 2.0 | 82 |
| 19.54 | | 174 | 81 | 1.8 | 81 | 164 | 90 | 1.9 | 82 | 143 | 109 | 2.0 | 82 |
| 20.33 | 27/5 | 167 | 160 | 3.2 * | 89 | 157 | 160 | 3.0 | 89 | 138 | 160 | 2.6 | 88 |
| 17.62 | | 193 | 140 | 3.2 * | 89 | 182 | 149 | 3.2 * | 89 | 159 | 160 | 3.0 | 89 |
| 16.47 | | 206 | 132 | 3.2 * | 89 | 194 | 140 | 3.2 * | 89 | 170 | 158 | 3.2 * | 89 |
| 14.24 | | 239 | 116 | 3.2 * | 89 | 225 | 123 | 3.2 * | 89 | 197 | 139 | 3.2 * | 89 |
| 12.10 | | 281 | 99 | 3.3 * | 89 | 264 | 105 | 3.3 * | 89 | 231 | 121 | 3.3 * | 89 |
| 10.80 | | 315 | 88 | 3.3 * | 89 | 296 | 94 | 3.3 * | 89 | 259 | 108 | 3.3 * | 89 |
| 9.23 | | 368 | 73 | 3.2 * | 89 | 347 | 79 | 3.2 * | 89 | 303 | 93 | 3.3 * | 89 |
| 8.64 | | 394 | 68 | 3.2 * | 89 | 370 | 74 | 3.2 * | 89 | 324 | 87 | 3.3 * | 89 |
| 7.28 | | 467 | 54 | 3.0 | 88 | 440 | 60 | 3.1 * | 89 | 385 | 72 | 3.2 * | 89 |
| 6.8 | 20/5 | 498 | 54 | 3.2 * | 89 | 469 | 58 | 3.2 * | 89 | 410 | 69 | 3.3 * | 90 |
| 6.4 | | 531 | 50 | 3.1 * | 89 | 500 | 54 | 3.2 * | 89 | 438 | 64 | 3.3 * | 89 |
| 5.4 | | 631 | 41 | 3.1 * | 89 | 594 | 44 | 3.1 * | 89 | 519 | 53 | 3.2 * | 89 |
| 4.8 | | 714 | 35 | 3.0 | 88 | 672 | 38 | 3.0 | 89 | 588 | 46 | 3.2 * | 89 |
| 4 | | 850 | 28 | 2.8 | 88 | 800 | 31 | 2.9 | 88 | 700 | 38 | 3.1 * | 89 |

* $P_{emax}$ = 3.0 kW

21284997/EN – 03/2015

**2200 - 1400 rpm**

| $i_{tot}$ | $i_{worm}$ | $n_e$ = 2200 rpm | | | | $n_e$ = 1700 rpm | | | | $n_e$ = 1400 rpm | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % |
| 201.00 | 42/1 | 11 | 295 | 0.55 | 61 | 8.5 | 295 | 0.44 | 59 | 7.0 | 295 | 0.37 | 58 |
| 184.80 | | 12 | 295 | 0.60 | 62 | 9.2 | 295 | 0.48 | 60 | 7.6 | 295 | 0.40 | 58 |
| 158.12 | | 14 | 295 | 0.69 | 63 | 11 | 295 | 0.55 | 61 | 8.9 | 295 | 0.46 | 60 |
| 137.05 | | 16 | 295 | 0.78 | 64 | 12 | 295 | 0.62 | 62 | 10 | 295 | 0.52 | 61 |
| 128.10 | | 17 | 295 | 0.83 | 64 | 13 | 295 | 0.66 | 62 | 11 | 295 | 0.55 | 61 |
| 110.73 | | 20 | 290 | 0.93 | 65 | 15 | 295 | 0.75 | 63 | 13 | 295 | 0.63 | 62 |
| 94.08 | | 23 | 275 | 1.0 | 66 | 18 | 300 | 0.88 | 65 | 15 | 295 | 0.73 | 63 |
| 84.00 | | 26 | 250 | 1.0 | 67 | 20 | 285 | 0.93 | 65 | 17 | 295 | 0.80 | 64 |
| 71.75 | | 31 | 220 | 1.1 | 67 | 24 | 275 | 1.0 | 66 | 20 | 290 | 0.91 | 65 |
| 67.20 | | 33 | 210 | 1.1 | 67 | 25 | 260 | 1.0 | 67 | 21 | 285 | 0.95 | 65 |
| 56.61 | | 39 | 179 | 1.1 | 68 | 30 | 225 | 1.1 | 67 | 25 | 265 | 1.0 | 67 |
| 69.39 | 29/2 | 32 | 245 | 1.0 | 79 | 24 | 245 | 0.81 | 77 | 20 | 245 | 0.68 | 76 |
| 63.80 | | 34 | 245 | 1.1 | 79 | 27 | 245 | 0.88 | 78 | 22 | 245 | 0.73 | 77 |
| 54.59 | | 40 | 245 | 1.3 | 80 | 31 | 245 | 1.0 | 79 | 26 | 245 | 0.85 | 78 |
| 47.32 | | 46 | 245 | 1.5 | 81 | 36 | 245 | 1.2 | 79 | 30 | 245 | 0.97 | 79 |
| 44.22 | | 50 | 245 | 1.6 | 81 | 38 | 245 | 1.2 | 80 | 32 | 245 | 1.0 | 79 |
| 38.23 | | 58 | 245 | 1.8 | 81 | 44 | 245 | 1.4 | 80 | 37 | 245 | 1.2 | 80 |
| 32.48 | | 68 | 225 | 1.9 | 82 | 52 | 245 | 1.7 | 81 | 43 | 245 | 1.4 | 80 |
| 29.00 | | 76 | 200 | 1.9 | 82 | 59 | 245 | 1.8 | 81 | 48 | 245 | 1.5 | 81 |
| 24.77 | | 89 | 177 | 2.0 | 82 | 69 | 220 | 1.9 | 82 | 57 | 245 | 1.8 | 81 |
| 23.20 | | 95 | 167 | 2.0 | 83 | 73 | 210 | 2.0 | 82 | 60 | 245 | 1.9 | 82 |
| 19.54 | | 113 | 143 | 2.0 | 83 | 87 | 183 | 2.0 | 83 | 72 | 215 | 2.0 | 82 |
| 20.33 | 27/5 | 108 | 168 | 2.2 | 88 | 84 | 168 | 1.7 | 87 | 69 | 168 | 1.4 | 87 |
| 17.62 | | 125 | 168 | 2.5 | 88 | 96 | 168 | 1.9 | 88 | 79 | 168 | 1.6 | 87 |
| 16.47 | | 134 | 169 | 2.7 | 88 | 103 | 168 | 2.1 | 88 | 85 | 168 | 1.7 | 87 |
| 14.24 | | 154 | 169 | 3.1 * | 89 | 119 | 169 | 2.4 | 88 | 98 | 169 | 2.0 | 88 |
| 12.10 | | 182 | 150 | 3.2 * | 89 | 140 | 169 | 2.8 | 89 | 116 | 169 | 2.3 | 88 |
| 10.80 | | 204 | 136 | 3.2 * | 89 | 157 | 169 | 3.1 * | 89 | 130 | 169 | 2.6 | 88 |
| 9.23 | | 238 | 119 | 3.3 * | 89 | 184 | 149 | 3.2 * | 89 | 152 | 169 | 3.0 | 89 |
| 8.64 | | 255 | 112 | 3.3 * | 89 | 197 | 141 | 3.3 * | 89 | 162 | 166 | 3.2 * | 89 |
| 7.28 | | 302 | 96 | 3.4 * | 90 | 234 | 122 | 3.3 * | 90 | 192 | 146 | 3.3 * | 89 |
| 6.8 | 20/5 | 322 | 91 | 3.4 * | 90 | 249 | 100 | 2.9 | 90 | 205 | 100 | 2.4 | 89 |
| 6.4 | | 344 | 85 | 3.4 * | 90 | 266 | 98 | 3.0 | 90 | 219 | 98 | 2.5 | 89 |
| 5.4 | | 408 | 72 | 3.4 * | 90 | 315 | 95 | 3.5 * | 90 | 260 | 95 | 2.9 | 90 |
| 4.8 | | 462 | 63 | 3.4 * | 90 | 357 | 84 | 3.5 * | 90 | 294 | 93 | 3.2 * | 90 |
| 4 | | 550 | 53 | 3.4 * | 90 | 425 | 71 | 3.5 * | 90 | 350 | 88 | 3.6 * | 90 |

* $P_{emax}$ = 3.0 kW



21284997/EN – 03/2015

**1100 - 700 rpm**

| $i_{tot}$ | $i_{worm}$ | $n_e$ = 1100 rpm | | | | $n_e$ = 900 rpm | | | | $n_e$ = 700 rpm | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % |
| 201.00 | 42/1 | 5.5 | 295 | 0.30 | 56 | 4.5 | 300 | 0.26 | 55 | 3.5 | 310 | 0.21 | 53 |
| 184.80 | | 6.0 | 295 | 0.32 | 57 | 4.9 | 300 | 0.28 | 55 | 3.8 | 305 | 0.23 | 54 |
| 158.12 | | 7.0 | 295 | 0.37 | 58 | 5.7 | 295 | 0.31 | 56 | 4.4 | 300 | 0.25 | 55 |
| 137.05 | | 8.0 | 295 | 0.42 | 59 | 6.6 | 295 | 0.35 | 57 | 5.1 | 300 | 0.29 | 56 |
| 128.10 | | 8.6 | 295 | 0.45 | 59 | 7.0 | 295 | 0.37 | 58 | 5.5 | 295 | 0.30 | 56 |
| 110.73 | | 9.9 | 295 | 0.51 | 61 | 8.1 | 295 | 0.43 | 59 | 6.3 | 295 | 0.34 | 57 |
| 94.08 | | 12 | 295 | 0.59 | 62 | 9.6 | 295 | 0.49 | 60 | 7.4 | 295 | 0.39 | 58 |
| 84.00 | | 13 | 295 | 0.65 | 63 | 11 | 295 | 0.54 | 61 | 8.3 | 295 | 0.43 | 59 |
| 71.75 | | 15 | 295 | 0.74 | 64 | 13 | 295 | 0.62 | 62 | 9.8 | 295 | 0.50 | 61 |
| 67.20 | | 16 | 300 | 0.80 | 64 | 13 | 295 | 0.66 | 63 | 10 | 295 | 0.53 | 61 |
| 56.61 | | 19 | 290 | 0.91 | 65 | 16 | 300 | 0.78 | 64 | 12 | 295 | 0.61 | 62 |
| 69.39 | 29/2 | 16 | 270 | 0.60 | 75 | 13 | 270 | 0.49 | 74 | 10 | 270 | 0.39 | 73 |
| 63.80 | | 17 | 270 | 0.64 | 76 | 14 | 270 | 0.53 | 75 | 11 | 270 | 0.42 | 73 |
| 54.59 | | 20 | 270 | 0.74 | 77 | 16 | 270 | 0.62 | 75 | 13 | 270 | 0.49 | 74 |
| 47.32 | | 23 | 270 | 0.85 | 77 | 19 | 270 | 0.70 | 76 | 15 | 270 | 0.56 | 75 |
| 44.22 | | 25 | 270 | 0.91 | 78 | 20 | 270 | 0.75 | 77 | 16 | 270 | 0.59 | 75 |
| 38.23 | | 29 | 270 | 1.0 | 79 | 24 | 270 | 0.86 | 77 | 18 | 270 | 0.68 | 76 |
| 32.48 | | 34 | 270 | 1.2 | 79 | 28 | 270 | 1.0 | 78 | 22 | 270 | 0.79 | 77 |
| 29.00 | | 38 | 270 | 1.3 | 80 | 31 | 270 | 1.1 | 79 | 24 | 270 | 0.88 | 78 |
| 24.77 | | 44 | 270 | 1.6 | 81 | 36 | 270 | 1.3 | 80 | 28 | 270 | 1.0 | 78 |
| 23.20 | | 47 | 270 | 1.7 | 81 | 39 | 270 | 1.4 | 80 | 30 | 270 | 1.1 | 79 |
| 19.54 | | 56 | 250 | 1.8 | 81 | 46 | 270 | 1.6 | 81 | 36 | 270 | 1.3 | 80 |
| 20.33 | 27/5 | 54 | 168 | 1.1 | 86 | 44 | 170 | 0.93 | 85 | 34 | 172 | 0.74 | 84 |
| 17.62 | | 62 | 169 | 1.3 | 86 | 51 | 169 | 1.1 | 86 | 40 | 170 | 0.83 | 85 |
| 16.47 | | 67 | 168 | 1.4 | 87 | 55 | 168 | 1.1 | 86 | 43 | 170 | 0.89 | 85 |
| 14.24 | | 77 | 168 | 1.6 | 87 | 63 | 168 | 1.3 | 86 | 49 | 170 | 1.0 | 86 |
| 12.10 | | 91 | 169 | 1.8 | 88 | 74 | 169 | 1.5 | 87 | 58 | 169 | 1.2 | 86 |
| 10.80 | | 102 | 169 | 2.1 | 88 | 83 | 169 | 1.7 | 87 | 65 | 169 | 1.3 | 87 |
| 9.23 | | 119 | 170 | 2.4 | 88 | 98 | 168 | 2.0 | 88 | 76 | 168 | 1.5 | 87 |
| 8.64 | | 127 | 170 | 2.6 | 88 | 104 | 169 | 2.1 | 88 | 81 | 168 | 1.6 | 87 |
| 7.28 | | 151 | 170 | 3.0 | 89 | 124 | 170 | 2.5 | 88 | 96 | 170 | 1.9 | 88 |
| 6.8 | 20/5 | 161 | 120 | 2.3 | 89 | 132 | 120 | 1.9 | 89 | 102 | 120 | 1.5 | 88 |
| 6.4 | | 172 | 117 | 2.4 | 89 | 141 | 117 | 1.9 | 89 | 109 | 117 | 1.5 | 88 |
| 5.4 | | 204 | 111 | 2.6 | 90 | 167 | 111 | 2.2 | 89 | 130 | 111 | 1.7 | 89 |
| 4.8 | | 231 | 108 | 2.9 | 90 | 189 | 108 | 2.4 | 90 | 147 | 108 | 1.9 | 89 |
| 4 | | 275 | 103 | 3.3 * | 90 | 225 | 103 | 2.7 | 90 | 175 | 103 | 2.1 | 89 |

* $P_{emax}$ = 3.0 kW

21284997/EN – 03/2015

**500 - 10 rpm**

| $i_{tot}$ | $i_{worm}$ | $n_e$ = 500 rpm | | | | $n_e$ = 250 rpm | | | | $n_e$ = 10 rpm | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % |
| 201.00 | 42/1 | 2.5 | 330 | 0.17 | 51 | 1.2 | 330 | 0.09 | 49 | 0.05 | 330 | < 0.05 | 42 |
| 184.80 | | 2.7 | 330 | 0.18 | 51 | 1.4 | 330 | 0.10 | 49 | 0.05 | 330 | < 0.05 | 43 |
| 158.12 | | 3.2 | 315 | 0.20 | 52 | 1.6 | 330 | 0.11 | 49 | 0.06 | 330 | < 0.05 | 44 |
| 137.05 | | 3.6 | 310 | 0.22 | 53 | 1.8 | 330 | 0.13 | 50 | 0.07 | 330 | < 0.05 | 45 |
| 128.10 | | 3.9 | 305 | 0.23 | 54 | 2.0 | 330 | 0.14 | 50 | 0.08 | 330 | < 0.05 | 46 |
| 110.73 | | 4.5 | 300 | 0.26 | 55 | 2.3 | 330 | 0.15 | 51 | 0.09 | 330 | < 0.05 | 46 |
| 94.08 | | 5.3 | 300 | 0.30 | 56 | 2.7 | 330 | 0.18 | 51 | 0.11 | 330 | < 0.05 | 47 |
| 84.00 | | 6.0 | 295 | 0.32 | 57 | 3.0 | 325 | 0.19 | 52 | 0.12 | 325 | < 0.05 | 47 |
| 71.75 | | 7.0 | 295 | 0.37 | 58 | 3.5 | 310 | 0.21 | 53 | 0.14 | 310 | < 0.05 | 48 |
| 67.20 | | 7.4 | 295 | 0.39 | 58 | 3.7 | 310 | 0.23 | 54 | 0.15 | 310 | < 0.05 | 48 |
| 56.61 | | 8.8 | 295 | 0.46 | 60 | 4.4 | 300 | 0.25 | 55 | 0.18 | 300 | < 0.05 | 48 |
| 69.39 | 29/2 | 7.2 | 300 | 0.32 | 71 | 3.6 | 300 | 0.17 | 68 | 0.14 | 300 | < 0.05 | 63 |
| 63.80 | | 7.8 | 300 | 0.34 | 71 | 3.9 | 300 | 0.18 | 68 | 0.16 | 300 | < 0.05 | 64 |
| 54.59 | | 9.2 | 300 | 0.40 | 72 | 4.6 | 300 | 0.21 | 69 | 0.18 | 300 | < 0.05 | 65 |
| 47.32 | | 11 | 300 | 0.45 | 73 | 5.3 | 300 | 0.24 | 70 | 0.21 | 300 | < 0.05 | 66 |
| 44.22 | | 11 | 300 | 0.48 | 74 | 5.7 | 300 | 0.25 | 70 | 0.23 | 300 | < 0.05 | 66 |
| 38.23 | | 13 | 295 | 0.54 | 74 | 6.5 | 300 | 0.29 | 71 | 0.26 | 300 | < 0.05 | 67 |
| 32.48 | | 15 | 295 | 0.63 | 75 | 7.7 | 300 | 0.34 | 71 | 0.31 | 300 | < 0.05 | 67 |
| 29.00 | | 17 | 295 | 0.70 | 76 | 8.6 | 300 | 0.38 | 72 | 0.34 | 300 | < 0.05 | 67 |
| 24.77 | | 20 | 295 | 0.81 | 77 | 10 | 300 | 0.43 | 73 | 0.40 | 300 | < 0.05 | 68 |
| 23.20 | | 22 | 295 | 0.86 | 77 | 11 | 300 | 0.46 | 73 | 0.43 | 300 | < 0.05 | 68 |
| 19.54 | | 26 | 295 | 1.0 | 78 | 13 | 295 | 0.53 | 74 | 0.51 | 295 | < 0.05 | 68 |
| 20.33 | 27/5 | 25 | 181 | 0.56 | 83 | 12 | 215 | 0.35 | 80 | 0.49 | 215 | < 0.05 | 77 |
| 17.62 | | 28 | 175 | 0.62 | 83 | 14 | 210 | 0.39 | 81 | 0.57 | 210 | < 0.05 | 77 |
| 16.47 | | 30 | 174 | 0.66 | 84 | 15 | 205 | 0.40 | 81 | 0.61 | 205 | < 0.05 | 78 |
| 14.24 | | 35 | 172 | 0.75 | 84 | 18 | 198 | 0.45 | 81 | 0.70 | 198 | < 0.05 | 78 |
| 12.10 | | 41 | 170 | 0.87 | 85 | 21 | 188 | 0.49 | 82 | 0.83 | 188 | < 0.05 | 78 |
| 10.80 | | 46 | 170 | 0.97 | 85 | 23 | 184 | 0.54 | 83 | 0.93 | 184 | < 0.05 | 78 |
| 9.23 | | 54 | 170 | 1.1 | 86 | 27 | 177 | 0.60 | 83 | 1.1 | 177 | < 0.05 | 79 |
| 8.64 | | 58 | 170 | 1.2 | 86 | 29 | 175 | 0.64 | 83 | 1.2 | 175 | < 0.05 | 79 |
| 7.28 | | 69 | 170 | 1.4 | 87 | 34 | 172 | 0.73 | 84 | 1.4 | 172 | < 0.05 | 79 |
| 6.8 | 20/5 | 73 | 120 | 1.1 | 87 | 37 | 120 | 0.54 | 85 | 1.5 | 120 | <0.05 | 81 |
| 6.4 | | 78 | 117 | 1.1 | 87 | 39 | 117 | 0.56 | 85 | 1.6 | 117 | <0.05 | 81 |
| 5.4 | | 93 | 111 | 1.2 | 88 | 46 | 111 | 0.63 | 86 | 1.9 | 111 | <0.05 | 81 |
| 4.8 | | 105 | 108 | 1.3 | 88 | 53 | 108 | 0.69 | 86 | 2.1 | 108 | <0.05 | 81 |
| 4 | | 125 | 103 | 1.5 | 89 | 63 | 103 | 0.78 | 87 | 2.5 | 103 | <0.05 | 81 |



21284997/EN – 03/2015

## 11.9 Technical data S. SF. SA. SAF 67

**3400 - 2800 rpm**

| $i_{tot}$ | $i_{worm}$ | $n_e$ = 3400 rpm | | | | $n_e$ = 3200 rpm | | | | $n_e$ = 2800 rpm | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % |
| 217.41 | 42/1 | 16 | 465 | 1.2 | 66 | 15 | 465 | 1.1 | 66 | 13 | 465 | 0.96 | 65 |
| 190.11 | | 18 | 465 | 1.3 | 67 | 17 | 465 | 1.2 | 67 | 15 | 465 | 1.1 | 66 |
| 180.60 | | 19 | 465 | 1.4 | 67 | 18 | 465 | 1.3 | 67 | 16 | 465 | 1.1 | 66 |
| 158.45 | | 21 | 465 | 1.5 | 68 | 20 | 465 | 1.5 | 68 | 18 | 465 | 1.3 | 67 |
| 134.40 | | 25 | 465 | 1.8 | 69 | 24 | 465 | 1.7 | 68 | 21 | 465 | 1.5 | 68 |
| 121.33 | | 28 | 455 | 1.9 | 69 | 26 | 465 | 1.9 | 69 | 23 | 465 | 1.6 | 68 |
| 106.75 | | 32 | 405 | 2.0 | 69 | 30 | 430 | 2.0 | 69 | 26 | 465 | 1.9 | 69 |
| 100.80 | | 34 | 380 | 1.9 | 69 | 32 | 410 | 2.0 | 69 | 28 | 465 | 2.0 | 69 |
| 85.83 | | 40 | 320 | 1.9 | 69 | 37 | 345 | 1.9 | 69 | 33 | 400 | 2.0 | 70 |
| 78.00 | | 44 | 285 | 1.9 | 69 | 41 | 310 | 1.9 | 69 | 36 | 365 | 2.0 | 70 |
| 67.57 | | 50 | 235 | 1.8 | 67 | 47 | 260 | 1.9 | 68 | 41 | 315 | 2.0 | 69 |
| 58.80 | | 58 | 184 | 1.7 | 65 | 54 | 215 | 1.8 | 67 | 48 | 270 | 1.9 | 69 |
| 75.06 | 29/2 | 45 | 435 | 2.5 | 82 | 43 | 435 | 2.4 | 82 | 37 | 435 | 2.1 | 81 |
| 65.63 | | 52 | 435 | 2.9 | 82 | 49 | 435 | 2.7 | 82 | 43 | 435 | 2.4 | 82 |
| 62.35 | | 55 | 435 | 3.0 | 83 | 51 | 435 | 2.8 | 82 | 45 | 435 | 2.5 | 82 |
| 54.70 | | 62 | 435 | 3.4 | 83 | 59 | 435 | 3.2 | 83 | 51 | 435 | 2.8 | 83 |
| 46.40 | | 73 | 395 | 3.6 | 83 | 69 | 415 | 3.6 | 83 | 60 | 435 | 3.3 | 83 |
| 41.89 | | 81 | 355 | 3.6 | 83 | 76 | 380 | 3.6 | 83 | 67 | 430 | 3.6 | 83 |
| 36.85 | | 92 | 310 | 3.6 | 83 | 87 | 335 | 3.6 | 84 | 76 | 380 | 3.6 | 84 |
| 34.80 | | 98 | 295 | 3.6 | 83 | 92 | 315 | 3.6 | 84 | 80 | 365 | 3.7 | 84 |
| 29.63 | | 115 | 250 | 3.6 | 83 | 108 | 270 | 3.7 | 83 | 94 | 310 | 3.7 | 84 |
| 26.93 | | 126 | 220 | 3.5 | 83 | 119 | 240 | 3.6 | 83 | 104 | 280 | 3.6 | 84 |
| 23.33 | | 146 | 182 | 3.4 | 82 | 137 | 200 | 3.5 | 83 | 120 | 245 | 3.7 | 84 |
| 20.30 | | 167 | 141 | 3.1 | 81 | 158 | 164 | 3.3 | 82 | 138 | 205 | 3.6 | 83 |
| 24.44 | 27/5 | 139 | 315 | 5.1 | 90 | 131 | 315 | 4.8 | 90 | 115 | 315 | 4.2 | 89 |
| 23.22 | | 146 | 315 | 5.4 | 90 | 138 | 315 | 5.1 | 90 | 121 | 315 | 4.4 | 90 |
| 20.37 | | 167 | 315 | 6.1 * | 90 | 157 | 315 | 5.8 * | 90 | 137 | 315 | 5.0 | 90 |
| 17.28 | | 197 | 270 | 6.2 * | 90 | 185 | 290 | 6.2 * | 90 | 162 | 315 | 5.9 * | 90 |
| 15.60 | | 218 | 245 | 6.2 * | 90 | 205 | 260 | 6.2 * | 90 | 179 | 295 | 6.1 * | 90 |
| 13.73 | | 248 | 215 | 6.2 * | 90 | 233 | 230 | 6.2 * | 90 | 204 | 265 | 6.3 * | 90 |
| 12.96 | | 262 | 200 | 6.1 * | 90 | 247 | 215 | 6.1 * | 90 | 216 | 250 | 6.3 * | 90 |
| 11.03 | | 308 | 169 | 6.1 * | 90 | 290 | 183 | 6.2 * | 90 | 254 | 215 | 6.3 * | 90 |
| 10.03 | | 339 | 151 | 6.0 * | 90 | 319 | 164 | 6.1 * | 90 | 279 | 194 | 6.3 * | 90 |
| 8.69 | | 391 | 124 | 5.7 * | 89 | 368 | 137 | 5.9 * | 90 | 322 | 166 | 6.2 * | 90 |
| 7.56 | | 450 | 95 | 5.1 | 88 | 423 | 112 | 5.6 * | 89 | 370 | 141 | 6.1 * | 90 |

* $P_{emax}$ = 5.5 kW

21284997/EN – 03/2015

**2200 - 1400 rpm**

| $i_{tot}$ | $i_{worm}$ | $n_e$ = 2200 rpm | | | | $n_e$ = 1700 rpm | | | | $n_e$ = 1400 rpm | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % |
| 217.41 | 42/1 | 10 | 520 | 0.86 | 64 | 7.8 | 520 | 0.69 | 62 | 6.4 | 520 | 0.58 | 61 |
| 190.11 | | 12 | 520 | 0.97 | 65 | 8.9 | 520 | 0.77 | 63 | 7.4 | 520 | 0.65 | 62 |
| 180.60 | | 12 | 520 | 1.0 | 65 | 9.4 | 520 | 0.81 | 63 | 7.8 | 520 | 0.68 | 62 |
| 158.45 | | 14 | 520 | 1.1 | 66 | 11 | 520 | 0.91 | 64 | 8.8 | 520 | 0.76 | 63 |
| 134.40 | | 16 | 520 | 1.3 | 67 | 13 | 520 | 1.1 | 65 | 10 | 520 | 0.88 | 64 |
| 121.33 | | 18 | 520 | 1.5 | 68 | 14 | 520 | 1.2 | 66 | 12 | 520 | 0.97 | 65 |
| 106.75 | | 21 | 520 | 1.6 | 68 | 16 | 520 | 1.3 | 67 | 13 | 520 | 1.1 | 66 |
| 100.80 | | 22 | 510 | 1.7 | 69 | 17 | 520 | 1.4 | 67 | 14 | 520 | 1.1 | 66 |
| 85.83 | | 26 | 490 | 1.9 | 69 | 20 | 520 | 1.6 | 68 | 16 | 520 | 1.3 | 67 |
| 78.00 | | 28 | 465 | 2.0 | 70 | 22 | 510 | 1.7 | 69 | 18 | 520 | 1.4 | 68 |
| 67.57 | | 33 | 410 | 2.0 | 70 | 25 | 495 | 1.9 | 69 | 21 | 520 | 1.6 | 69 |
| 58.80 | | 37 | 360 | 2.0 | 70 | 29 | 460 | 2.0 | 70 | 24 | 500 | 1.8 | 69 |
| 75.06 | 29/2 | 29 | 480 | 1.8 | 81 | 23 | 480 | 1.4 | 79 | 19 | 480 | 1.2 | 79 |
| 65.63 | | 34 | 480 | 2.1 | 81 | 26 | 480 | 1.6 | 80 | 21 | 480 | 1.4 | 79 |
| 62.35 | | 35 | 480 | 2.2 | 81 | 27 | 480 | 1.7 | 80 | 22 | 480 | 1.4 | 79 |
| 54.70 | | 40 | 480 | 2.5 | 82 | 31 | 480 | 1.9 | 81 | 26 | 480 | 1.6 | 80 |
| 46.40 | | 47 | 480 | 2.9 | 82 | 37 | 480 | 2.3 | 82 | 30 | 480 | 1.9 | 81 |
| 41.89 | | 53 | 480 | 3.2 | 83 | 41 | 480 | 2.5 | 82 | 33 | 480 | 2.1 | 81 |
| 36.85 | | 60 | 475 | 3.6 | 83 | 46 | 480 | 2.8 | 82 | 38 | 480 | 2.3 | 82 |
| 34.80 | | 63 | 450 | 3.6 | 83 | 49 | 480 | 3.0 | 83 | 40 | 480 | 2.5 | 82 |
| 29.63 | | 74 | 395 | 3.7 | 84 | 57 | 480 | 3.5 | 83 | 47 | 480 | 2.9 | 83 |
| 26.93 | | 82 | 360 | 3.7 | 84 | 63 | 455 | 3.6 | 83 | 52 | 480 | 3.2 | 83 |
| 23.33 | | 94 | 320 | 3.8 | 84 | 73 | 405 | 3.7 | 84 | 60 | 480 | 3.6 | 83 |
| 20.30 | | 108 | 280 | 3.8 | 84 | 84 | 360 | 3.8 | 84 | 69 | 425 | 3.7 | 84 |
| 24.44 | 27/5 | 90 | 340 | 3.6 | 89 | 70 | 340 | 2.8 | 88 | 57 | 340 | 2.3 | 88 |
| 23.22 | | 95 | 340 | 3.8 | 89 | 73 | 340 | 2.9 | 89 | 60 | 340 | 2.4 | 88 |
| 20.37 | | 108 | 340 | 4.3 | 89 | 83 | 340 | 3.3 | 89 | 69 | 340 | 2.8 | 88 |
| 17.28 | | 127 | 340 | 5.0 | 90 | 98 | 340 | 3.9 | 89 | 81 | 340 | 3.2 | 89 |
| 15.60 | | 141 | 340 | 5.6 * | 90 | 109 | 340 | 4.3 | 89 | 90 | 340 | 3.6 | 89 |
| 13.73 | | 160 | 330 | 6.1 * | 90 | 124 | 340 | 4.9 | 90 | 102 | 340 | 4.1 | 89 |
| 12.96 | | 170 | 315 | 6.2 * | 90 | 131 | 340 | 5.2 | 90 | 108 | 340 | 4.3 | 89 |
| 11.03 | | 199 | 275 | 6.3 * | 90 | 154 | 340 | 6.1 * | 90 | 127 | 340 | 5.0 | 90 |
| 10.03 | | 219 | 250 | 6.3 * | 91 | 169 | 315 | 6.2 * | 90 | 140 | 340 | 5.5 | 90 |
| 8.69 | | 253 | 220 | 6.4 * | 91 | 196 | 280 | 6.3 * | 91 | 161 | 335 | 6.3 * | 90 |
| 7.56 | | 291 | 192 | 6.5 * | 91 | 225 | 250 | 6.5 * | 91 | 185 | 295 | 6.3 * | 91 |

* $P_{emax}$ = 5.5 kW



21284997/EN – 03/2015

**1100 - 700 rpm**

| $i_{tot}$ | $i_{worm}$ | $n_e$ = 1100 rpm | | | | $n_e$ = 900 rpm | | | | $n_e$ = 700 rpm | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % |
| 217.41 | 42/1 | 5.1 | 555 | 0.50 | 59 | 4.1 | 560 | 0.42 | 58 | 3.2 | 570 | 0.34 | 56 |
| 190.11 | | 5.8 | 555 | 0.56 | 60 | 4.7 | 560 | 0.47 | 59 | 3.7 | 565 | 0.38 | 57 |
| 180.60 | | 6.1 | 555 | 0.59 | 61 | 5.0 | 555 | 0.49 | 59 | 3.9 | 565 | 0.40 | 57 |
| 158.45 | | 6.9 | 550 | 0.65 | 62 | 5.7 | 555 | 0.55 | 60 | 4.4 | 560 | 0.44 | 58 |
| 134.40 | | 8.2 | 550 | 0.75 | 63 | 6.7 | 550 | 0.63 | 61 | 5.2 | 555 | 0.51 | 60 |
| 121.33 | | 9.1 | 550 | 0.82 | 63 | 7.4 | 550 | 0.69 | 62 | 5.8 | 555 | 0.56 | 60 |
| 106.75 | | 10 | 550 | 0.92 | 64 | 8.4 | 550 | 0.77 | 63 | 6.6 | 555 | 0.62 | 61 |
| 100.80 | | 11 | 550 | 0.97 | 65 | 8.9 | 550 | 0.81 | 63 | 6.9 | 555 | 0.66 | 62 |
| 85.83 | | 13 | 550 | 1.1 | 66 | 10 | 550 | 0.94 | 64 | 8.2 | 550 | 0.75 | 63 |
| 78.00 | | 14 | 550 | 1.2 | 66 | 12 | 550 | 1.0 | 65 | 9.0 | 550 | 0.82 | 63 |
| 67.57 | | 16 | 550 | 1.4 | 67 | 13 | 550 | 1.2 | 66 | 10 | 550 | 0.93 | 64 |
| 58.80 | | 19 | 530 | 1.5 | 68 | 15 | 550 | 1.3 | 67 | 12 | 550 | 1.0 | 65 |
| 75.06 | 29/2 | 15 | 525 | 1.0 | 77 | 12 | 525 | 0.86 | 76 | 9.3 | 525 | 0.68 | 75 |
| 65.63 | | 17 | 525 | 1.2 | 78 | 14 | 525 | 0.98 | 77 | 11 | 525 | 0.77 | 76 |
| 62.35 | | 18 | 525 | 1.2 | 78 | 14 | 525 | 1.0 | 77 | 11 | 525 | 0.81 | 76 |
| 54.70 | | 20 | 525 | 1.4 | 79 | 16 | 525 | 1.2 | 78 | 13 | 525 | 0.92 | 77 |
| 46.40 | | 24 | 525 | 1.6 | 80 | 19 | 525 | 1.4 | 79 | 15 | 525 | 1.1 | 78 |
| 41.89 | | 26 | 525 | 1.8 | 80 | 21 | 525 | 1.5 | 79 | 17 | 525 | 1.2 | 78 |
| 36.85 | | 30 | 525 | 2.0 | 81 | 24 | 525 | 1.7 | 80 | 19 | 525 | 1.3 | 79 |
| 34.80 | | 32 | 525 | 2.1 | 81 | 26 | 525 | 1.8 | 80 | 20 | 525 | 1.4 | 79 |
| 29.63 | | 37 | 525 | 2.5 | 82 | 30 | 525 | 2.1 | 81 | 24 | 525 | 1.6 | 80 |
| 26.93 | | 41 | 525 | 2.7 | 82 | 33 | 525 | 2.3 | 81 | 26 | 525 | 1.8 | 80 |
| 23.33 | | 47 | 525 | 3.1 | 83 | 39 | 525 | 2.6 | 82 | 30 | 525 | 2.0 | 81 |
| 20.30 | | 54 | 520 | 3.5 | 83 | 44 | 525 | 3.0 | 82 | 34 | 525 | 2.3 | 81 |
| 24.44 | 27/5 | 45 | 355 | 1.9 | 87 | 37 | 360 | 1.6 | 87 | 29 | 365 | 1.3 | 86 |
| 23.22 | | 47 | 355 | 2.0 | 87 | 39 | 360 | 1.7 | 87 | 30 | 365 | 1.3 | 86 |
| 20.37 | | 54 | 355 | 2.3 | 88 | 44 | 355 | 1.9 | 87 | 34 | 365 | 1.5 | 86 |
| 17.28 | | 64 | 355 | 2.7 | 88 | 52 | 355 | 2.2 | 88 | 41 | 360 | 1.8 | 87 |
| 15.60 | | 71 | 350 | 2.9 | 88 | 58 | 355 | 2.4 | 88 | 45 | 355 | 1.9 | 87 |
| 13.73 | | 80 | 350 | 3.3 | 89 | 66 | 355 | 2.8 | 88 | 51 | 355 | 2.2 | 88 |
| 12.96 | | 85 | 350 | 3.5 | 89 | 69 | 350 | 2.9 | 88 | 54 | 355 | 2.3 | 88 |
| 11.03 | | 100 | 350 | 4.1 | 89 | 82 | 350 | 3.4 | 89 | 63 | 355 | 2.7 | 88 |
| 10.03 | | 110 | 345 | 4.4 | 90 | 90 | 350 | 3.7 | 89 | 70 | 355 | 2.9 | 88 |
| 8.69 | | 127 | 345 | 5.1 | 90 | 104 | 350 | 4.2 | 89 | 81 | 350 | 3.3 | 89 |
| 7.56 | | 146 | 345 | 5.8 * | 90 | 119 | 345 | 4.8 | 90 | 93 | 350 | 3.8 | 89 |

* $P_{emax}$ = 5.5 kW

21284997/EN – 03/2015

**500 - 10 rpm**

| $i_{tot}$ | $i_{worm}$ | $n_e$ = 500 rpm | | | | $n_e$ = 250 rpm | | | | $n_e$ = 10 rpm | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % |
| 217.41 | 42/1 | 2.3 | 570 | 0.25 | 54 | 1.1 | 570 | 0.13 | 51 | 0.05 | 570 | < 0.05 | 47 |
| 190.11 | | 2.6 | 570 | 0.29 | 55 | 1.3 | 570 | 0.15 | 51 | 0.05 | 570 | < 0.05 | 48 |
| 180.60 | | 2.8 | 570 | 0.30 | 55 | 1.4 | 570 | 0.16 | 51 | 0.06 | 570 | < 0.05 | 48 |
| 158.45 | | 3.2 | 570 | 0.34 | 56 | 1.6 | 570 | 0.18 | 52 | 0.06 | 570 | < 0.05 | 49 |
| 134.40 | | 3.7 | 565 | 0.38 | 57 | 1.9 | 570 | 0.21 | 53 | 0.07 | 570 | < 0.05 | 50 |
| 121.33 | | 4.1 | 560 | 0.42 | 58 | 2.1 | 570 | 0.23 | 53 | 0.08 | 570 | < 0.05 | 50 |
| 106.75 | | 4.7 | 560 | 0.47 | 59 | 2.3 | 570 | 0.26 | 54 | 0.09 | 570 | < 0.05 | 50 |
| 100.80 | | 5.0 | 560 | 0.49 | 59 | 2.5 | 570 | 0.27 | 55 | 0.10 | 570 | < 0.05 | 50 |
| 85.83 | | 5.8 | 555 | 0.56 | 60 | 2.9 | 570 | 0.31 | 56 | 0.12 | 570 | < 0.05 | 51 |
| 78.00 | | 6.4 | 555 | 0.61 | 61 | 3.2 | 570 | 0.34 | 56 | 0.13 | 570 | < 0.05 | 51 |
| 67.57 | | 7.4 | 555 | 0.69 | 62 | 3.7 | 565 | 0.38 | 57 | 0.15 | 565 | < 0.05 | 51 |
| 58.80 | | 8.5 | 550 | 0.78 | 63 | 4.3 | 560 | 0.43 | 58 | 0.17 | 560 | < 0.05 | 51 |
| 75.06 | 29/2 | 6.7 | 570 | 0.54 | 73 | 3.3 | 570 | 0.28 | 70 | 0.13 | 570 | < 0.05 | 68 |
| 65.63 | | 7.6 | 570 | 0.61 | 74 | 3.8 | 570 | 0.32 | 71 | 0.15 | 570 | < 0.05 | 68 |
| 62.35 | | 8.0 | 570 | 0.64 | 74 | 4.0 | 570 | 0.34 | 71 | 0.16 | 570 | < 0.05 | 69 |
| 54.70 | | 9.1 | 570 | 0.73 | 75 | 4.6 | 570 | 0.38 | 71 | 0.18 | 570 | < 0.05 | 69 |
| 46.40 | | 11 | 570 | 0.85 | 76 | 5.4 | 570 | 0.44 | 72 | 0.22 | 570 | < 0.05 | 69 |
| 41.89 | | 12 | 570 | 0.93 | 76 | 6.0 | 570 | 0.49 | 73 | 0.24 | 570 | < 0.05 | 69 |
| 36.85 | | 14 | 570 | 1.1 | 77 | 6.8 | 570 | 0.55 | 73 | 0.27 | 570 | < 0.05 | 69 |
| 34.80 | | 14 | 570 | 1.1 | 77 | 7.2 | 570 | 0.58 | 74 | 0.29 | 570 | < 0.05 | 69 |
| 29.63 | | 17 | 565 | 1.3 | 78 | 8.4 | 570 | 0.68 | 75 | 0.34 | 570 | < 0.05 | 70 |
| 26.93 | | 19 | 565 | 1.4 | 79 | 9.3 | 570 | 0.74 | 75 | 0.37 | 570 | < 0.05 | 70 |
| 23.33 | | 21 | 565 | 1.6 | 79 | 11 | 570 | 0.84 | 76 | 0.43 | 570 | < 0.05 | 70 |
| 20.30 | | 25 | 565 | 1.8 | 80 | 12 | 570 | 0.96 | 77 | 0.49 | 570 | < 0.05 | 70 |
| 24.44 | 27/5 | 20 | 365 | 0.93 | 85 | 10 | 355 | 0.46 | 82 | 0.41 | 355 | 0.019 | 80 |
| 23.22 | | 22 | 365 | 0.97 | 85 | 11 | 355 | 0.49 | 82 | 0.43 | 355 | < 0.05 | 80 |
| 20.37 | | 25 | 380 | 1.1 | 85 | 12 | 365 | 0.57 | 83 | 0.49 | 365 | < 0.05 | 80 |
| 17.28 | | 29 | 365 | 1.3 | 86 | 14 | 435 | 0.79 | 83 | 0.58 | 435 | < 0.05 | 81 |
| 15.60 | | 32 | 365 | 1.4 | 86 | 16 | 430 | 0.86 | 84 | 0.64 | 430 | < 0.05 | 81 |
| 13.73 | | 36 | 365 | 1.6 | 87 | 18 | 415 | 0.94 | 84 | 0.73 | 415 | < 0.05 | 81 |
| 12.96 | | 39 | 360 | 1.7 | 87 | 19 | 410 | 0.98 | 84 | 0.77 | 410 | < 0.05 | 81 |
| 11.03 | | 45 | 355 | 1.9 | 87 | 23 | 390 | 1.1 | 85 | 0.91 | 390 | < 0.05 | 81 |
| 10.03 | | 50 | 355 | 2.1 | 88 | 25 | 380 | 1.2 | 85 | 1.0 | 380 | < 0.05 | 81 |
| 8.69 | | 58 | 355 | 2.4 | 88 | 29 | 370 | 1.3 | 86 | 1.2 | 370 | 0.06 | 81 |
| 7.56 | | 66 | 355 | 2.8 | 88 | 33 | 365 | 1.5 | 86 | 1.3 | 365 | 0.06 | 81 |



21284997/EN – 03/2015

## 11.10 Technical data S. SF. SA. SAF 77

**3400 - 2800 rpm**

| $i_{tot}$ | $i_{worm}$ | $n_e$ = 3400 rpm | | | | $n_e$ = 3200 rpm | | | | $n_e$ = 2800 rpm | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % |
| 256.47 | 40/1 | 13 | 1160 | 2.3 | 71 | 12 | 1160 | 2.1 | 71 | 11 | 1160 | 1.9 | 70 |
| 225.26 | | 15 | 1130 | 2.5 | 72 | 14 | 1150 | 2.4 | 71 | 12 | 1160 | 2.1 | 71 |
| 214.00 | | 16 | 1110 | 2.6 | 72 | 15 | 1140 | 2.5 | 71 | 13 | 1160 | 2.2 | 71 |
| 189.09 | | 18 | 1080 | 2.8 | 72 | 17 | 1100 | 2.7 | 72 | 15 | 1140 | 2.5 | 71 |
| 161.60 | | 21 | 1040 | 3.1 | 73 | 20 | 1050 | 3.0 | 73 | 17 | 1090 | 2.7 | 72 |
| 148.15 | | 23 | 1010 | 3.3 | 73 | 22 | 1030 | 3.2 | 73 | 19 | 1070 | 2.9 | 73 |
| 130.00 | | 26 | 970 | 3.6 | 74 | 25 | 990 | 3.5 | 74 | 22 | 1030 | 3.2 | 73 |
| 123.20 | | 28 | 950 | 3.7 | 74 | 26 | 970 | 3.6 | 74 | 23 | 1010 | 3.3 | 73 |
| 107.83 | | 32 | 900 | 4.0 | 74 | 30 | 920 | 3.9 | 74 | 26 | 970 | 3.6 | 74 |
| 97.14 | | 35 | 860 | 4.2 | 75 | 33 | 880 | 4.1 | 74 | 29 | 930 | 3.8 | 74 |
| 85.22 | | 40 | 770 | 4.3 | 75 | 38 | 820 | 4.3 | 75 | 33 | 880 | 4.1 | 75 |
| 75.20 | | 45 | 675 | 4.3 | 74 | 43 | 725 | 4.3 | 75 | 37 | 830 | 4.3 | 75 |
| 66.67 | | 51 | 585 | 4.2 | 74 | 48 | 635 | 4.3 | 75 | 42 | 745 | 4.4 | 75 |
| 56.92 | | 60 | 485 | 4.1 | 73 | 56 | 530 | 4.2 | 74 | 49 | 635 | 4.4 | 75 |
| 75.09 | 40/3 | 45 | 1020 | 5.6 | 86 | 43 | 1020 | 5.3 | 86 | 37 | 1020 | 4.6 | 86 |
| 71.33 | | 48 | 1020 | 5.9 | 87 | 45 | 1020 | 5.5 | 86 | 39 | 1020 | 4.9 | 86 |
| 63.03 | | 54 | 1020 | 6.6 | 87 | 51 | 1020 | 6.2 | 87 | 44 | 1020 | 5.5 | 86 |
| 53.87 | | 63 | 980 | 7.4 | 87 | 59 | 1000 | 7.1 | 87 | 52 | 1020 | 6.4 | 87 |
| 49.38 | | 69 | 950 | 7.8 | 87 | 65 | 970 | 7.5 | 87 | 57 | 1010 | 6.9 | 87 |
| 43.33 | | 78 | 910 | 8.5 | 88 | 74 | 930 | 8.2 | 88 | 65 | 970 | 7.5 | 87 |
| 41.07 | | 83 | 900 | 8.9 | 88 | 78 | 910 | 8.5 | 88 | 68 | 950 | 7.8 | 87 |
| 35.94 | | 95 | 800 | 9.0 | 88 | 89 | 850 | 9.0 | 88 | 78 | 910 | 8.5 | 88 |
| 32.38 | | 105 | 725 | 9.1 | 88 | 99 | 770 | 9.1 | 88 | 86 | 880 | 9.1 | 88 |
| 28.41 | | 120 | 635 | 9.1 | 88 | 113 | 680 | 9.1 | 88 | 99 | 780 | 9.1 | 88 |
| 25.07 | | 136 | 560 | 9.1 | 88 | 128 | 600 | 9.1 | 88 | 112 | 695 | 9.2 | 88 |
| 22.22 | | 153 | 485 | 8.9 | 88 | 144 | 525 | 9.0 | 88 | 126 | 615 | 9.2 | 88 |
| 18.97 | | 179 | 395 | 8.5 | 87 | 169 | 440 | 8.9 | 88 | 148 | 520 | 9.1 | 88 |
| 22.89 | 34/6 | 149 | 590 | 10.0 * | 91 | 140 | 590 | 9.5 * | 91 | 122 | 590 | 8.3 | 91 |
| 20.99 | | 162 | 590 | 10.9 * | 92 | 152 | 590 | 10.3 * | 92 | 133 | 590 | 9.0 | 91 |
| 18.42 | | 185 | 590 | 12.4 * | 92 | 174 | 590 | 11.7 * | 92 | 152 | 590 | 10.3 * | 92 |
| 17.45 | | 195 | 590 | 13.1 * | 92 | 183 | 590 | 12.4 * | 92 | 160 | 590 | 10.8 * | 92 |
| 15.28 | | 223 | 530 | 13.5 * | 92 | 209 | 560 | 13.4 * | 92 | 183 | 590 | 12.3 * | 92 |
| 13.76 | | 247 | 480 | 13.5 * | 92 | 233 | 505 | 13.4 * | 92 | 203 | 585 | 13.6 * | 92 |
| 12.07 | | 282 | 415 | 13.3 * | 92 | 265 | 445 | 13.4 * | 92 | 232 | 515 | 13.6 * | 92 |
| 10.65 | | 319 | 365 | 13.3 * | 92 | 300 | 390 | 13.4 * | 92 | 263 | 455 | 13.6 * | 92 |
| 9.44 | | 360 | 315 | 13.0 * | 92 | 339 | 345 | 13.3 * | 92 | 297 | 405 | 13.7 * | 92 |
| 8.06 | | 422 | 260 | 12.6 * | 91 | 397 | 285 | 12.9 * | 92 | 347 | 340 | 13.5 * | 92 |

* $P_{emax}$ = 9.2 kW

21284997/EN – 03/2015

**2200 - 1400 rpm**

| $i_{tot}$ | $i_{worm}$ | $n_e$ = 2200 rpm | | | | $n_e$ = 1700 rpm | | | | $n_e$ = 1400 rpm | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % |
| 256.47 | 40/1 | 8.6 | 1260 | 1.6 | 69 | 6.6 | 1270 | 1.3 | 67 | 5.5 | 1270 | 1.1 | 66 |
| 225.26 | | 9.8 | 1230 | 1.8 | 69 | 7.5 | 1270 | 1.5 | 68 | 6.2 | 1270 | 1.2 | 67 |
| 214.00 | | 10 | 1220 | 1.9 | 70 | 7.9 | 1270 | 1.6 | 68 | 6.5 | 1270 | 1.3 | 67 |
| 189.09 | | 12 | 1200 | 2.1 | 70 | 9.0 | 1240 | 1.7 | 69 | 7.4 | 1270 | 1.5 | 68 |
| 161.60 | | 14 | 1160 | 2.3 | 71 | 11 | 1220 | 1.9 | 70 | 8.7 | 1260 | 1.7 | 69 |
| 148.15 | | 15 | 1140 | 2.5 | 72 | 11 | 1200 | 2.1 | 70 | 9.4 | 1240 | 1.8 | 69 |
| 130.00 | | 17 | 1100 | 2.7 | 72 | 13 | 1170 | 2.3 | 71 | 11 | 1210 | 1.9 | 70 |
| 123.20 | | 18 | 1080 | 2.8 | 73 | 14 | 1150 | 2.3 | 71 | 11 | 1200 | 2.0 | 70 |
| 107.83 | | 20 | 1040 | 3.0 | 73 | 16 | 1110 | 2.5 | 72 | 13 | 1170 | 2.2 | 71 |
| 97.14 | | 23 | 1010 | 3.3 | 74 | 18 | 1090 | 2.8 | 73 | 14 | 1140 | 2.4 | 72 |
| 85.22 | | 26 | 970 | 3.5 | 74 | 20 | 1050 | 3.0 | 73 | 16 | 1100 | 2.6 | 72 |
| 75.20 | | 29 | 920 | 3.8 | 74 | 23 | 1010 | 3.2 | 74 | 19 | 1070 | 2.9 | 73 |
| 66.67 | | 33 | 880 | 4.1 | 75 | 25 | 970 | 3.5 | 74 | 21 | 1040 | 3.1 | 73 |
| 56.92 | | 39 | 830 | 4.5 | 75 | 30 | 920 | 3.9 | 75 | 25 | 990 | 3.4 | 74 |
| 75.09 | 40/3 | 29 | 1100 | 4.0 | 85 | 23 | 1100 | 3.1 | 84 | 19 | 1100 | 2.6 | 83 |
| 71.33 | | 31 | 1100 | 4.2 | 85 | 24 | 1100 | 3.2 | 85 | 20 | 1100 | 2.7 | 84 |
| 63.03 | | 35 | 1100 | 4.7 | 86 | 27 | 1100 | 3.7 | 85 | 22 | 1100 | 3.0 | 84 |
| 53.87 | | 41 | 1100 | 5.5 | 86 | 32 | 1100 | 4.3 | 86 | 26 | 1100 | 3.5 | 85 |
| 49.38 | | 45 | 1080 | 5.8 | 87 | 34 | 1100 | 4.6 | 86 | 28 | 1100 | 3.8 | 85 |
| 43.33 | | 51 | 1050 | 6.4 | 87 | 39 | 1100 | 5.2 | 86 | 32 | 1100 | 4.3 | 86 |
| 41.07 | | 54 | 1030 | 6.6 | 87 | 41 | 1100 | 5.5 | 86 | 34 | 1100 | 4.6 | 86 |
| 35.94 | | 61 | 980 | 7.2 | 87 | 47 | 1060 | 6.1 | 87 | 39 | 1100 | 5.2 | 86 |
| 32.38 | | 68 | 960 | 7.8 | 88 | 53 | 1040 | 6.6 | 87 | 43 | 1090 | 5.7 | 87 |
| 28.41 | | 77 | 920 | 8.5 | 88 | 60 | 990 | 7.1 | 87 | 49 | 1050 | 6.2 | 87 |
| 25.07 | | 88 | 870 | 9.1 | 88 | 68 | 960 | 7.8 | 88 | 56 | 1020 | 6.8 | 87 |
| 22.22 | | 99 | 790 | 9.3 * | 88 | 77 | 920 | 8.4 | 88 | 63 | 980 | 7.4 | 87 |
| 18.97 | | 116 | 680 | 9.4 * | 88 | 90 | 860 | 9.2 | 88 | 74 | 930 | 8.2 | 88 |
| 22.89 | 34/6 | 96 | 710 | 7.9 | 91 | 74 | 705 | 6.1 | 90 | 61 | 705 | 5.0 | 90 |
| 20.99 | | 105 | 710 | 8.6 | 91 | 81 | 705 | 6.6 | 91 | 67 | 705 | 5.5 | 90 |
| 18.42 | | 119 | 720 | 9.9 * | 91 | 92 | 710 | 7.6 | 91 | 76 | 705 | 6.2 | 90 |
| 17.45 | | 126 | 720 | 10.4 * | 91 | 97 | 710 | 8.0 | 91 | 80 | 710 | 6.6 | 91 |
| 15.28 | | 144 | 720 | 11.9 * | 92 | 111 | 720 | 9.2 | 91 | 92 | 710 | 7.5 | 91 |
| 13.76 | | 160 | 725 | 13.2 * | 92 | 124 | 720 | 10.2 * | 91 | 102 | 710 | 8.3 | 91 |
| 12.07 | | 182 | 650 | 13.5 * | 92 | 141 | 725 | 11.7 * | 92 | 116 | 720 | 9.6 * | 91 |
| 10.65 | | 207 | 580 | 13.6 * | 92 | 160 | 725 | 13.2 * | 92 | 131 | 720 | 10.8 * | 92 |
| 9.44 | | 233 | 520 | 13.8 * | 92 | 180 | 655 | 13.4 * | 92 | 148 | 725 | 12.3 * | 92 |
| 8.06 | | 273 | 445 | 13.8 * | 92 | 211 | 575 | 13.8 * | 92 | 174 | 680 | 13.5 * | 92 |

* $P_{emax}$ = 9.2 kW



21284997/EN – 03/2015

**1100 - 700 rpm**

| $i_{tot}$ | $i_{worm}$ | $n_e$ = 1100 rpm | | | | $n_e$ = 900 rpm | | | | $n_e$ = 700 rpm | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % |
| 256.47 | 40/1 | 4.3 | 1270 | 0.89 | 64 | 3.5 | 1270 | 0.75 | 63 | 2.7 | 1270 | 0.60 | 61 |
| 225.26 | | 4.9 | 1270 | 1.0 | 65 | 4.0 | 1270 | 0.84 | 63 | 3.1 | 1270 | 0.67 | 62 |
| 214.00 | | 5.1 | 1270 | 1.0 | 65 | 4.2 | 1270 | 0.88 | 64 | 3.3 | 1270 | 0.70 | 62 |
| 189.09 | | 5.8 | 1270 | 1.2 | 66 | 4.8 | 1270 | 0.98 | 65 | 3.7 | 1270 | 0.78 | 63 |
| 161.60 | | 6.8 | 1270 | 1.3 | 67 | 5.6 | 1270 | 1.1 | 66 | 4.3 | 1270 | 0.90 | 64 |
| 148.15 | | 7.4 | 1270 | 1.5 | 68 | 6.1 | 1270 | 1.2 | 66 | 4.7 | 1270 | 0.97 | 65 |
| 130.00 | | 8.5 | 1260 | 1.6 | 69 | 6.9 | 1270 | 1.4 | 67 | 5.4 | 1270 | 1.1 | 66 |
| 123.20 | | 8.9 | 1250 | 1.7 | 69 | 7.3 | 1270 | 1.4 | 68 | 5.7 | 1270 | 1.1 | 66 |
| 107.83 | | 10 | 1220 | 1.9 | 70 | 8.3 | 1260 | 1.6 | 69 | 6.5 | 1270 | 1.3 | 67 |
| 97.14 | | 11 | 1200 | 2.0 | 70 | 9.3 | 1250 | 1.8 | 69 | 7.2 | 1270 | 1.4 | 68 |
| 85.22 | | 13 | 1170 | 2.2 | 71 | 11 | 1220 | 1.9 | 70 | 8.2 | 1270 | 1.6 | 69 |
| 75.20 | | 15 | 1140 | 2.4 | 72 | 12 | 1190 | 2.1 | 71 | 9.3 | 1250 | 1.8 | 69 |
| 66.67 | | 16 | 1110 | 2.6 | 72 | 13 | 1160 | 2.3 | 71 | 10 | 1220 | 1.9 | 70 |
| 56.92 | | 19 | 1060 | 2.9 | 73 | 16 | 1120 | 2.6 | 72 | 12 | 1190 | 2.2 | 71 |
| 75.09 | 40/3 | 15 | 1120 | 2.1 | 83 | 12 | 1130 | 1.7 | 82 | 9.3 | 1170 | 1.4 | 81 |
| 71.33 | | 15 | 1120 | 2.2 | 83 | 13 | 1130 | 1.8 | 82 | 9.8 | 1120 | 1.4 | 81 |
| 63.03 | | 17 | 1120 | 2.5 | 83 | 14 | 1120 | 2.0 | 82 | 11 | 1130 | 1.6 | 81 |
| 53.87 | | 20 | 1120 | 2.9 | 84 | 17 | 1120 | 2.4 | 83 | 13 | 1120 | 1.9 | 82 |
| 49.38 | | 22 | 1120 | 3.1 | 84 | 18 | 1120 | 2.6 | 83 | 14 | 1120 | 2.0 | 82 |
| 43.33 | | 25 | 1130 | 3.5 | 85 | 21 | 1120 | 2.9 | 84 | 16 | 1120 | 2.3 | 83 |
| 41.07 | | 27 | 1130 | 3.7 | 85 | 22 | 1120 | 3.1 | 84 | 17 | 1120 | 2.4 | 83 |
| 35.94 | | 31 | 1150 | 4.3 | 85 | 25 | 1130 | 3.5 | 85 | 19 | 1120 | 2.7 | 84 |
| 32.38 | | 34 | 1130 | 4.7 | 86 | 28 | 1130 | 3.9 | 85 | 22 | 1120 | 3.0 | 84 |
| 28.41 | | 39 | 1110 | 5.2 | 86 | 32 | 1150 | 4.5 | 86 | 25 | 1130 | 3.4 | 85 |
| 25.07 | | 44 | 1080 | 5.7 | 87 | 36 | 1120 | 4.9 | 86 | 28 | 1130 | 3.9 | 85 |
| 22.22 | | 50 | 1050 | 6.3 | 87 | 41 | 1100 | 5.4 | 86 | 32 | 1150 | 4.4 | 86 |
| 18.97 | | 58 | 1010 | 7.0 | 87 | 47 | 1060 | 6.1 | 87 | 37 | 1120 | 5.0 | 86 |
| 22.89 | 34/6 | 48 | 695 | 3.9 | 89 | 39 | 695 | 3.2 | 89 | 31 | 705 | 2.6 | 88 |
| 20.99 | | 52 | 705 | 4.3 | 90 | 43 | 695 | 3.5 | 89 | 33 | 705 | 2.8 | 88 |
| 18.42 | | 60 | 700 | 4.9 | 90 | 49 | 700 | 4.0 | 89 | 38 | 700 | 3.1 | 89 |
| 17.45 | | 63 | 700 | 5.1 | 90 | 52 | 700 | 4.2 | 90 | 40 | 700 | 3.3 | 89 |
| 15.28 | | 72 | 710 | 5.9 | 90 | 59 | 700 | 4.8 | 90 | 46 | 700 | 3.8 | 89 |
| 13.76 | | 80 | 710 | 6.6 | 91 | 65 | 700 | 5.3 | 90 | 51 | 700 | 4.2 | 90 |
| 12.07 | | 91 | 710 | 7.5 | 91 | 75 | 710 | 6.1 | 90 | 58 | 700 | 4.7 | 90 |
| 10.65 | | 103 | 715 | 8.5 | 91 | 85 | 710 | 6.9 | 91 | 66 | 710 | 5.4 | 90 |
| 9.44 | | 117 | 720 | 9.6 * | 91 | 95 | 715 | 7.8 | 91 | 74 | 710 | 6.1 | 90 |
| 8.06 | | 136 | 725 | 11.3 * | 92 | 112 | 720 | 9.2 | 91 | 87 | 710 | 7.1 | 91 |

* $P_{emax}$ = 9.2 kW

21284997/EN – 03/2015

**500 - 10 rpm**

| $i_{tot}$ | $i_{worm}$ | $n_e$ = 500 rpm | | | | $n_e$ = 250 rpm | | | | $n_e$ = 10 rpm | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % |
| 256.47 | 40/1 | 1.9 | 1270 | 0.44 | 59 | 0.97 | 1270 | 0.23 | 56 | 0.04 | 1270 | < 0.05 | 54 |
| 225.26 | | 2.2 | 1270 | 0.49 | 60 | 1.1 | 1270 | 0.26 | 56 | 0.04 | 1270 | < 0.05 | 55 |
| 214.00 | | 2.3 | 1270 | 0.52 | 60 | 1.2 | 1270 | 0.28 | 56 | 0.05 | 1270 | < 0.05 | 55 |
| 189.09 | | 2.6 | 1270 | 0.58 | 61 | 1.3 | 1270 | 0.31 | 57 | 0.05 | 1270 | < 0.05 | 55 |
| 161.60 | | 3.1 | 1270 | 0.67 | 62 | 1.5 | 1270 | 0.36 | 58 | 0.06 | 1270 | < 0.05 | 55 |
| 148.15 | | 3.4 | 1270 | 0.72 | 62 | 1.7 | 1270 | 0.39 | 58 | 0.07 | 1270 | < 0.05 | 55 |
| 130.00 | | 3.8 | 1270 | 0.81 | 63 | 1.9 | 1270 | 0.43 | 59 | 0.08 | 1270 | < 0.05 | 55 |
| 123.20 | | 4.1 | 1270 | 0.85 | 64 | 2.0 | 1270 | 0.46 | 59 | 0.08 | 1270 | < 0.05 | 55 |
| 107.83 | | 4.6 | 1270 | 0.95 | 65 | 2.3 | 1270 | 0.51 | 60 | 0.09 | 1270 | < 0.05 | 56 |
| 97.14 | | 5.1 | 1270 | 1.0 | 65 | 2.6 | 1270 | 0.56 | 61 | 0.10 | 1270 | < 0.05 | 56 |
| 85.22 | | 5.9 | 1270 | 1.2 | 66 | 2.9 | 1270 | 0.63 | 62 | 0.12 | 1270 | < 0.05 | 56 |
| 75.20 | | 6.6 | 1270 | 1.3 | 67 | 3.3 | 1270 | 0.71 | 62 | 0.13 | 1270 | < 0.05 | 56 |
| 66.67 | | 7.5 | 1270 | 1.5 | 68 | 3.7 | 1270 | 0.79 | 63 | 0.15 | 1270 | < 0.05 | 56 |
| 56.92 | | 8.8 | 1260 | 1.7 | 69 | 4.4 | 1270 | 0.91 | 64 | 0.18 | 1270 | < 0.05 | 56 |
| 75.09 | 40/3 | 6.7 | 1160 | 1.0 | 79 | 3.3 | 1120 | 0.51 | 76 | 0.13 | 1120 | < 0.05 | 75 |
| 71.33 | | 7.0 | 1110 | 1.0 | 79 | 3.5 | 1060 | 0.51 | 77 | 0.14 | 1060 | < 0.05 | 75 |
| 63.03 | | 7.9 | 1230 | 1.3 | 80 | 4.0 | 1200 | 0.65 | 77 | 0.16 | 1200 | < 0.05 | 76 |
| 53.87 | | 9.3 | 1180 | 1.4 | 81 | 4.6 | 1240 | 0.77 | 78 | 0.19 | 1240 | < 0.05 | 76 |
| 49.38 | | 10 | 1160 | 1.5 | 81 | 5.1 | 1240 | 0.84 | 78 | 0.20 | 1240 | < 0.05 | 76 |
| 43.33 | | 12 | 1120 | 1.7 | 82 | 5.8 | 1240 | 0.95 | 79 | 0.23 | 1240 | < 0.05 | 76 |
| 41.07 | | 12 | 1120 | 1.7 | 82 | 6.1 | 1240 | 1.0 | 79 | 0.24 | 1240 | < 0.05 | 76 |
| 35.94 | | 14 | 1120 | 2.0 | 82 | 7.0 | 1240 | 1.1 | 79 | 0.28 | 1240 | < 0.05 | 76 |
| 32.38 | | 15 | 1120 | 2.2 | 83 | 7.7 | 1240 | 1.3 | 80 | 0.31 | 1240 | 0.05 | 76 |
| 28.41 | | 18 | 1120 | 2.5 | 83 | 8.8 | 1190 | 1.4 | 80 | 0.35 | 1190 | 0.06 | 76 |
| 25.07 | | 20 | 1120 | 2.8 | 84 | 10 | 1170 | 1.5 | 81 | 0.40 | 1170 | 0.06 | 76 |
| 22.22 | | 23 | 1130 | 3.2 | 84 | 11 | 1130 | 1.6 | 81 | 0.45 | 1130 | 0.07 | 76 |
| 18.97 | | 26 | 1130 | 3.7 | 85 | 13 | 1120 | 1.9 | 82 | 0.53 | 1120 | 0.08 | 76 |
| 22.89 | 34/6 | 22 | 690 | 1.8 | 87 | 11 | 675 | 0.91 | 85 | 0.44 | 675 | < 0.05 | 83 |
| 20.99 | | 24 | 725 | 2.1 | 87 | 12 | 740 | 1.1 | 85 | 0.48 | 740 | < 0.05 | 83 |
| 18.42 | | 27 | 705 | 2.3 | 88 | 14 | 830 | 1.4 | 86 | 0.54 | 830 | 0.06 | 83 |
| 17.45 | | 29 | 705 | 2.4 | 88 | 14 | 810 | 1.4 | 86 | 0.57 | 810 | 0.06 | 83 |
| 15.28 | | 33 | 705 | 2.7 | 88 | 16 | 785 | 1.6 | 86 | 0.65 | 785 | 0.06 | 83 |
| 13.76 | | 36 | 695 | 3.0 | 89 | 18 | 770 | 1.7 | 87 | 0.73 | 770 | 0.07 | 83 |
| 12.07 | | 41 | 695 | 3.4 | 89 | 21 | 750 | 1.9 | 87 | 0.83 | 750 | 0.08 | 83 |
| 10.65 | | 47 | 695 | 3.8 | 89 | 23 | 725 | 2.0 | 87 | 0.94 | 725 | 0.09 | 83 |
| 9.44 | | 53 | 705 | 4.4 | 90 | 26 | 705 | 2.2 | 88 | 1.1 | 705 | 0.09 | 83 |
| 8.06 | | 62 | 705 | 5.1 | 90 | 31 | 705 | 2.6 | 88 | 1.2 | 705 | 0.11 | 83 |



21284997/EN – 03/2015

## 11.11 Technical data S. SF. SA. SAF 87

**3400 - 2800 rpm**

| $i_{tot}$ | $i_{worm}$ | $n_e$ = 3400 rpm | | | | $n_e$ = 3200 rpm | | | | $n_e$ = 2800 rpm | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % |
| 288.00 | 40/1 | 12 | 2030 | 3.4 | 74 | 11 | 2070 | 3.3 | 73 | 9.7 | 2070 | 2.9 | 73 |
| 258.18 | | 13 | 1990 | 3.7 | 74 | 12 | 2010 | 3.5 | 74 | 11 | 2070 | 3.2 | 73 |
| 222.40 | | 15 | 1910 | 4.1 | 75 | 14 | 1950 | 4.0 | 74 | 13 | 2010 | 3.6 | 74 |
| 202.96 | | 17 | 1850 | 4.3 | 75 | 16 | 1890 | 4.2 | 75 | 14 | 1970 | 3.8 | 74 |
| 180.00 | | 19 | 1800 | 4.7 | 75 | 18 | 1830 | 4.5 | 75 | 16 | 1910 | 4.2 | 75 |
| 151.30 | | 22 | 1690 | 5.3 | 75 | 21 | 1730 | 5.1 | 75 | 19 | 1800 | 4.6 | 75 |
| 139.05 | | 24 | 1630 | 5.5 | 76 | 23 | 1680 | 5.4 | 76 | 20 | 1760 | 4.9 | 75 |
| 123.48 | | 28 | 1570 | 6.0 | 76 | 26 | 1600 | 5.7 | 76 | 23 | 1690 | 5.3 | 76 |
| 110.40 | | 31 | 1430 | 6.1 | 76 | 29 | 1540 | 6.2 | 76 | 25 | 1620 | 5.7 | 76 |
| 99.26 | | 34 | 1260 | 6.0 | 75 | 32 | 1380 | 6.2 | 76 | 28 | 1550 | 6.0 | 76 |
| 86.15 | | 39 | 1030 | 5.8 | 74 | 37 | 1150 | 6.0 | 75 | 33 | 1390 | 6.2 | 76 |
| 77.14 | | 44 | 830 | 5.3 | 72 | 41 | 970 | 5.7 | 74 | 36 | 1220 | 6.1 | 76 |
| 64.00 | | 53 | 500 | 4.3 | 65 | 50 | 620 | 4.7 | 68 | 44 | 960 | 5.9 | 75 |
| 91.20 | 38/3 | 37 | 1470 | 6.6 | 88 | 35 | 1470 | 6.2 | 87 | 31 | 1470 | 5.4 | 87 |
| 81.76 | | 42 | 1470 | 7.3 | 88 | 39 | 1470 | 6.9 | 88 | 34 | 1470 | 6.0 | 87 |
| 70.43 | | 48 | 1470 | 8.4 | 88 | 45 | 1470 | 7.9 | 88 | 40 | 1470 | 7.0 | 88 |
| 64.27 | | 53 | 1470 | 9.2 | 88 | 50 | 1470 | 8.7 | 88 | 44 | 1470 | 7.6 | 88 |
| 57.00 | | 60 | 1470 | 10.4 | 88 | 56 | 1470 | 9.8 | 88 | 49 | 1470 | 8.6 | 88 |
| 47.91 | | 71 | 1470 | 12.3 | 89 | 67 | 1470 | 11.6 | 89 | 58 | 1470 | 10.2 | 88 |
| 44.03 | | 77 | 1470 | 13.4 | 89 | 73 | 1470 | 12.6 | 89 | 64 | 1470 | 11.0 | 89 |
| 39.10 | | 87 | 1300 | 13.3 | 89 | 82 | 1400 | 13.5 | 89 | 72 | 1470 | 12.4 | 89 |
| 34.96 | | 97 | 1140 | 13.1 | 89 | 92 | 1240 | 13.4 | 89 | 80 | 1440 | 13.6 | 89 |
| 31.43 | | 108 | 1000 | 12.8 | 88 | 102 | 1090 | 13.1 | 89 | 89 | 1290 | 13.5 | 89 |
| 27.28 | | 125 | 810 | 12.1 | 88 | 117 | 910 | 12.7 | 88 | 103 | 1110 | 13.4 | 89 |
| 24.43 | | 139 | 660 | 112-13 2S | 87 | 131 | 775 | 12.1 | 88 | 115 | 960 | 13.0 | 89 |
| 20.27 | | 168 | 395 | 8.4 | 82 | 158 | 490 | 9.6 | 84 | 138 | 755 | 12.4 | 88 |
| 25.50 | 34/6 | 133 | 990 | 15.0 | 92 | 125 | 990 | 14.1 | 92 | 110 | 990 | 12.4 | 92 |
| 21.43 | | 159 | 990 | 17.8 * | 92 | 149 | 990 | 16.8 * | 92 | 131 | 990 | 14.7 | 92 |
| 19.70 | | 173 | 990 | 19 * | 92 | 162 | 990 | 18.3 * | 92 | 142 | 990 | 16.0 * | 92 |
| 17.49 | | 194 | 870 | 19 * | 92 | 183 | 930 | 19 * | 92 | 160 | 990 | 18.0 * | 92 |
| 15.64 | | 217 | 760 | 19 * | 92 | 205 | 830 | 19 * | 92 | 179 | 960 | 19 * | 92 |
| 14.06 | | 242 | 660 | 18.2 * | 92 | 228 | 725 | 19 * | 92 | 199 | 860 | 19 * | 92 |
| 12.21 | | 278 | 540 | 17.2 * | 91 | 262 | 605 | 18.1 * | 92 | 229 | 730 | 19 * | 92 |
| 10.93 | | 311 | 440 | 15.8 * | 90 | 293 | 510 | 17.1 * | 91 | 256 | 645 | 19 * | 92 |
| 9.07 | | 375 | 255 | 11.5 | 87 | 353 | 325 | 13.5 | 89 | 309 | 500 | 17.7 * | 92 |
| 7.88 | | 431 | 200 | 10.5 | 86 | 406 | 230 | 11.3 | 87 | 355 | 375 | 15.5 * | 90 |

* $P_{emax}$ =15 kW

21284997/EN – 03/2015

**2200 - 1400 rpm**

| $i_{tot}$ | $i_{worm}$ | $n_e$ = 2200 rpm | | | | $n_e$ = 1700 rpm | | | | $n_e$ = 1400 rpm | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % |
| 288.00 | 40/1 | 7.6 | 2210 | 2.5 | 71 | 5.9 | 2280 | 2.0 | 70 | 4.9 | 2280 | 1.7 | 69 |
| 258.18 | | 8.5 | 2170 | 2.7 | 72 | 6.6 | 2260 | 2.2 | 71 | 5.4 | 2280 | 1.9 | 69 |
| 222.40 | | 9.9 | 2130 | 3.0 | 73 | 7.6 | 2210 | 2.5 | 71 | 6.3 | 2280 | 2.1 | 70 |
| 202.96 | | 11 | 2080 | 3.2 | 73 | 8.4 | 2190 | 2.7 | 72 | 6.9 | 2260 | 2.3 | 71 |
| 180.00 | | 12 | 2020 | 3.5 | 74 | 9.4 | 2130 | 2.9 | 73 | 7.8 | 2210 | 2.5 | 72 |
| 151.30 | | 15 | 1940 | 4.0 | 75 | 11 | 2060 | 3.3 | 74 | 9.3 | 2150 | 2.9 | 73 |
| 139.05 | | 16 | 1880 | 4.2 | 75 | 12 | 2020 | 3.5 | 74 | 10 | 2100 | 3.0 | 73 |
| 123.48 | | 18 | 1820 | 4.5 | 75 | 14 | 1960 | 3.8 | 74 | 11 | 2060 | 3.3 | 74 |
| 110.40 | | 20 | 1770 | 4.9 | 76 | 15 | 1900 | 4.1 | 75 | 13 | 2000 | 3.6 | 74 |
| 99.26 | | 22 | 1700 | 5.2 | 76 | 17 | 1840 | 4.4 | 75 | 14 | 1960 | 3.9 | 75 |
| 86.15 | | 26 | 1620 | 5.7 | 76 | 20 | 1770 | 4.8 | 76 | 16 | 1880 | 4.3 | 75 |
| 77.14 | | 29 | 1540 | 6.0 | 76 | 22 | 1700 | 5.2 | 76 | 18 | 1820 | 4.6 | 76 |
| 64.00 | | 34 | 1360 | 6.4 | 77 | 27 | 1580 | 5.7 | 77 | 22 | 1700 | 5.1 | 76 |
| 91.20 | 38/3 | 24 | 1540 | 4.5 | 87 | 19 | 1520 | 3.5 | 86 | 15 | 1510 | 2.9 | 85 |
| 81.76 | | 27 | 1600 | 5.2 | 87 | 21 | 1600 | 4.0 | 86 | 17 | 1600 | 3.4 | 86 |
| 70.43 | | 31 | 1600 | 6.0 | 87 | 24 | 1600 | 4.7 | 87 | 20 | 1600 | 3.9 | 86 |
| 64.27 | | 34 | 1600 | 6.6 | 88 | 26 | 1600 | 5.1 | 87 | 22 | 1600 | 4.2 | 86 |
| 57.00 | | 39 | 1600 | 7.4 | 88 | 30 | 1600 | 5.7 | 87 | 25 | 1600 | 4.8 | 87 |
| 47.91 | | 46 | 1600 | 8.7 | 88 | 35 | 1600 | 6.8 | 88 | 29 | 1600 | 5.6 | 87 |
| 44.03 | | 50 | 1600 | 9.5 | 88 | 39 | 1600 | 7.4 | 88 | 32 | 1600 | 6.1 | 87 |
| 39.10 | | 56 | 1600 | 10.6 | 89 | 43 | 1600 | 8.3 | 88 | 36 | 1600 | 6.8 | 88 |
| 34.96 | | 63 | 1600 | 11.9 | 89 | 49 | 1600 | 9.2 | 88 | 40 | 1600 | 7.6 | 88 |
| 31.43 | | 70 | 1600 | 13.2 | 89 | 54 | 1600 | 10.2 | 89 | 45 | 1600 | 8.5 | 88 |
| 27.28 | | 81 | 1450 | 13.7 | 89 | 62 | 1600 | 11.7 | 89 | 51 | 1600 | 9.7 | 89 |
| 24.43 | | 90 | 1310 | 13.8 | 89 | 70 | 1600 | 13.1 | 89 | 57 | 1600 | 10.8 | 89 |
| 20.27 | | 109 | 1080 | 13.8 | 89 | 84 | 1420 | 14.0 | 89 | 69 | 1600 | 13.0 | 89 |
| 25.50 | 34/6 | 86 | 1240 | 12.2 | 92 | 67 | 1240 | 9.5 | 91 | 55 | 1240 | 7.8 | 91 |
| 21.43 | | 103 | 1240 | 14.5 | 92 | 79 | 1240 | 11.2 | 92 | 65 | 1240 | 9.3 | 91 |
| 19.70 | | 112 | 1240 | 15.7 * | 92 | 86 | 1240 | 12.2 | 92 | 71 | 1240 | 10.1 | 91 |
| 17.49 | | 126 | 1240 | 17.7 * | 92 | 97 | 1240 | 13.7 | 92 | 80 | 1240 | 11.3 | 92 |
| 15.64 | | 141 | 1230 | 20 * | 92 | 109 | 1240 | 15.3 * | 92 | 90 | 1240 | 12.7 | 92 |
| 14.06 | | 156 | 1110 | 20 * | 92 | 121 | 1240 | 17.0 * | 92 | 100 | 1240 | 14.1 | 92 |
| 12.21 | | 180 | 970 | 20 * | 93 | 139 | 1240 | 20 * | 92 | 115 | 1240 | 16.1 * | 92 |
| 10.93 | | 201 | 870 | 20 * | 93 | 156 | 1130 | 20 * | 93 | 128 | 1240 | 18.0 * | 92 |
| 9.07 | | 243 | 720 | 20 * | 92 | 187 | 950 | 20 * | 93 | 154 | 1140 | 20 * | 93 |
| 7.88 | | 279 | 605 | 19 * | 92 | 216 | 830 | 20 * | 93 | 178 | 1010 | 20 * | 93 |

* $P_{emax}$ = 15 kW



21284997/EN – 03/2015

**1100 - 700 rpm**

| $i_{tot}$ | $i_{worm}$ | $n_e$ = 1100 rpm | | | | $n_e$ = 900 rpm | | | | $n_e$ = 700 rpm | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % |
| 288.00 | 40/1 | 3.8 | 2400 | 1.4 | 67 | 3.1 | 2450 | 1.2 | 66 | 2.4 | 2480 | 0.98 | 64 |
| 258.18 | | 4.3 | 2380 | 1.6 | 68 | 3.5 | 2430 | 1.3 | 67 | 2.7 | 2470 | 1.1 | 65 |
| 222.40 | | 4.9 | 2350 | 1.8 | 69 | 4.0 | 2400 | 1.5 | 68 | 3.1 | 2450 | 1.2 | 66 |
| 202.96 | | 5.4 | 2330 | 1.9 | 70 | 4.4 | 2380 | 1.6 | 68 | 3.4 | 2430 | 1.3 | 67 |
| 180.00 | | 6.1 | 2280 | 2.1 | 70 | 5.0 | 2350 | 1.8 | 69 | 3.9 | 2400 | 1.4 | 68 |
| 151.30 | | 7.3 | 2240 | 2.4 | 71 | 5.9 | 2310 | 2.0 | 70 | 4.6 | 2350 | 1.7 | 69 |
| 139.05 | | 7.9 | 2190 | 2.5 | 72 | 6.5 | 2260 | 2.2 | 71 | 5.0 | 2330 | 1.8 | 69 |
| 123.48 | | 8.9 | 2150 | 2.8 | 73 | 7.3 | 2240 | 2.4 | 71 | 5.7 | 2310 | 2.0 | 70 |
| 110.40 | | 10 | 2110 | 3.0 | 73 | 8.2 | 2190 | 2.6 | 72 | 6.3 | 2280 | 2.1 | 71 |
| 99.26 | | 11 | 2070 | 3.3 | 74 | 9.1 | 2150 | 2.8 | 73 | 7.1 | 2240 | 2.3 | 71 |
| 86.15 | | 13 | 2000 | 3.6 | 74 | 10 | 2090 | 3.1 | 73 | 8.1 | 2190 | 2.6 | 72 |
| 77.14 | | 14 | 1940 | 3.9 | 75 | 12 | 2040 | 3.4 | 74 | 9.1 | 2150 | 2.8 | 73 |
| 64.00 | | 17 | 1840 | 4.4 | 76 | 14 | 1960 | 3.9 | 75 | 11 | 2070 | 3.2 | 74 |
| 91.20 | 38/3 | 12 | 1490 | 2.2 | 84 | 9.9 | 1480 | 1.8 | 83 | 7.7 | 1460 | 1.4 | 82 |
| 81.76 | | 13 | 1760 | 2.9 | 85 | 11 | 1760 | 2.4 | 84 | 8.6 | 1760 | 1.9 | 83 |
| 70.43 | | 16 | 1760 | 3.4 | 85 | 13 | 1760 | 2.8 | 85 | 9.9 | 1760 | 2.2 | 83 |
| 64.27 | | 17 | 1760 | 3.7 | 86 | 14 | 1760 | 3.0 | 85 | 11 | 1760 | 2.4 | 84 |
| 57.00 | | 19 | 1760 | 4.1 | 86 | 16 | 1760 | 3.4 | 85 | 12 | 1760 | 2.7 | 84 |
| 47.91 | | 23 | 1760 | 4.9 | 87 | 19 | 1760 | 4.0 | 86 | 15 | 1760 | 3.2 | 85 |
| 44.03 | | 25 | 1760 | 5.3 | 87 | 20 | 1760 | 4.4 | 86 | 16 | 1760 | 3.4 | 85 |
| 39.10 | | 28 | 1760 | 6.0 | 87 | 23 | 1760 | 4.9 | 87 | 18 | 1760 | 3.9 | 86 |
| 34.96 | | 31 | 1760 | 6.6 | 88 | 26 | 1760 | 5.5 | 87 | 20 | 1760 | 4.3 | 86 |
| 31.43 | | 35 | 1760 | 7.4 | 88 | 29 | 1760 | 6.1 | 87 | 22 | 1760 | 4.7 | 87 |
| 27.28 | | 40 | 1760 | 8.4 | 88 | 33 | 1760 | 6.9 | 88 | 26 | 1760 | 5.4 | 87 |
| 24.43 | | 45 | 1760 | 9.4 | 88 | 37 | 1760 | 7.7 | 88 | 29 | 1760 | 6.0 | 87 |
| 20.27 | | 54 | 1760 | 11.3 | 89 | 44 | 1760 | 9.3 | 88 | 35 | 1760 | 7.2 | 88 |
| 25.50 | 34/6 | 43 | 1340 | 6.7 | 90 | 35 | 1340 | 5.5 | 90 | 27 | 1340 | 4.3 | 89 |
| 21.43 | | 51 | 1340 | 7.9 | 91 | 42 | 1340 | 6.5 | 90 | 33 | 1340 | 5.1 | 90 |
| 19.70 | | 56 | 1340 | 8.6 | 91 | 46 | 1340 | 7.1 | 91 | 36 | 1340 | 5.5 | 90 |
| 17.49 | | 63 | 1340 | 9.7 | 91 | 51 | 1340 | 7.9 | 91 | 40 | 1340 | 6.2 | 90 |
| 15.64 | | 70 | 1340 | 10.8 | 92 | 58 | 1340 | 8.9 | 91 | 45 | 1340 | 6.9 | 91 |
| 14.06 | | 78 | 1340 | 12.0 | 92 | 64 | 1340 | 9.8 | 91 | 50 | 1340 | 7.7 | 91 |
| 12.21 | | 90 | 1340 | 13.8 | 92 | 74 | 1340 | 11.3 | 92 | 57 | 1340 | 8.8 | 91 |
| 10.93 | | 101 | 1340 | 15.3 * | 92 | 82 | 1340 | 12.6 | 92 | 64 | 1340 | 9.8 | 91 |
| 9.07 | | 121 | 1340 | 18.4 * | 92 | 99 | 1340 | 15.1 * | 92 | 77 | 1340 | 11.8 | 92 |
| 7.88 | | 140 | 1260 | 20 * | 93 | 114 | 1340 | 17.4 * | 92 | 89 | 1340 | 13.6 | 92 |

* $P_{emax}$ = 15 kW

21284997/EN – 03/2015

**500 - 10 rpm**

| $i_{tot}$ | $i_{worm}$ | $n_e$ = 500 rpm | | | | $n_e$ = 250 rpm | | | | $n_e$ = 10 rpm | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % |
| 288.00 | 40/1 | 1.7 | 2500 | 0.73 | 62 | 0.87 | 2500 | 0.38 | 59 | 0.03 | 2500 | < 0.05 | 58 |
| 258.18 | | 1.9 | 2500 | 0.80 | 63 | 0.97 | 2500 | 0.43 | 59 | 0.04 | 2500 | < 0.05 | 58 |
| 222.40 | | 2.2 | 2500 | 0.92 | 64 | 1.1 | 2500 | 0.49 | 60 | 0.04 | 2500 | < 0.05 | 59 |
| 202.96 | | 2.5 | 2480 | 0.99 | 64 | 1.2 | 2500 | 0.53 | 61 | 0.05 | 2500 | < 0.05 | 59 |
| 180.00 | | 2.8 | 2480 | 1.1 | 65 | 1.4 | 2500 | 0.60 | 61 | 0.06 | 2500 | < 0.05 | 59 |
| 151.30 | | 3.3 | 2430 | 1.3 | 67 | 1.7 | 2500 | 0.70 | 62 | 0.07 | 2500 | < 0.05 | 59 |
| 139.05 | | 3.6 | 2430 | 1.4 | 67 | 1.8 | 2500 | 0.75 | 63 | 0.07 | 2500 | < 0.05 | 59 |
| 123.48 | | 4.0 | 2400 | 1.5 | 68 | 2.0 | 2500 | 0.84 | 63 | 0.08 | 2500 | < 0.05 | 59 |
| 110.40 | | 4.5 | 2380 | 1.6 | 69 | 2.3 | 2500 | 0.93 | 64 | 0.09 | 2500 | < 0.05 | 59 |
| 99.26 | | 5.0 | 2330 | 1.8 | 69 | 2.5 | 2470 | 1.0 | 65 | 0.10 | 2470 | < 0.05 | 59 |
| 86.15 | | 5.8 | 2310 | 2.0 | 70 | 2.9 | 2450 | 1.1 | 66 | 0.12 | 2450 | 0.05 | 59 |
| 77.14 | | 6.5 | 2260 | 2.2 | 71 | 3.2 | 2430 | 1.2 | 66 | 0.13 | 2430 | 0.06 | 59 |
| 64.00 | | 7.8 | 2220 | 2.5 | 72 | 3.9 | 2400 | 1.5 | 68 | 0.16 | 2400 | 0.07 | 59 |
| 91.20 | 38/3 | 5.5 | 1450 | 1.0 | 81 | 2.7 | 1390 | 0.51 | 79 | 0.11 | 1390 | < 0.05 | 78 |
| 81.76 | | 6.1 | 1960 | 1.5 | 82 | 3.1 | 1880 | 0.76 | 79 | 0.12 | 1880 | < 0.05 | 78 |
| 70.43 | | 7.1 | 1980 | 1.8 | 82 | 3.5 | 1980 | 0.92 | 80 | 0.14 | 1980 | < 0.05 | 79 |
| 64.27 | | 7.8 | 1980 | 2.0 | 83 | 3.9 | 1980 | 1.0 | 80 | 0.16 | 1980 | < 0.05 | 79 |
| 57.00 | | 8.8 | 1980 | 2.2 | 83 | 4.4 | 1980 | 1.1 | 80 | 0.18 | 1980 | < 0.05 | 79 |
| 47.91 | | 10 | 1980 | 2.6 | 84 | 5.2 | 1980 | 1.3 | 81 | 0.21 | 1980 | 0.06 | 79 |
| 44.03 | | 11 | 1980 | 2.8 | 84 | 5.7 | 1980 | 1.4 | 81 | 0.23 | 1980 | 0.06 | 79 |
| 39.10 | | 13 | 1980 | 3.1 | 85 | 6.4 | 1980 | 1.6 | 82 | 0.26 | 1980 | 0.07 | 79 |
| 34.96 | | 14 | 1980 | 3.5 | 85 | 7.2 | 1980 | 1.8 | 82 | 0.29 | 1980 | 0.08 | 79 |
| 31.43 | | 16 | 1980 | 3.9 | 85 | 8.0 | 1980 | 2.0 | 83 | 0.32 | 1980 | 0.08 | 79 |
| 27.28 | | 18 | 1980 | 4.4 | 86 | 9.2 | 1980 | 2.3 | 83 | 0.37 | 1980 | 0.10 | 79 |
| 24.43 | | 20 | 1980 | 4.9 | 86 | 10 | 1980 | 2.5 | 84 | 0.41 | 1980 | 0.11 | 79 |
| 20.27 | | 25 | 1980 | 5.9 | 87 | 12 | 1980 | 3.0 | 85 | 0.49 | 1980 | 0.13 | 79 |
| 25.50 | 34/6 | 20 | 1430 | 3.3 | 88 | 9.8 | 1390 | 1.6 | 87 | 0.39 | 1390 | 0.07 | 85 |
| 21.43 | | 23 | 1420 | 3.9 | 89 | 12 | 1510 | 2.1 | 87 | 0.47 | 1510 | 0.09 | 85 |
| 19.70 | | 25 | 1410 | 4.2 | 89 | 13 | 1570 | 2.4 | 87 | 0.51 | 1570 | 0.10 | 85 |
| 17.49 | | 29 | 1390 | 4.6 | 89 | 14 | 1570 | 2.7 | 88 | 0.57 | 1570 | 0.11 | 85 |
| 15.64 | | 32 | 1390 | 5.2 | 90 | 16 | 1540 | 2.9 | 88 | 0.64 | 1540 | 0.12 | 85 |
| 14.06 | | 36 | 1390 | 5.7 | 90 | 18 | 1510 | 3.2 | 88 | 0.71 | 1510 | 0.13 | 85 |
| 12.21 | | 41 | 1390 | 6.6 | 90 | 20 | 1460 | 3.5 | 89 | 0.82 | 1460 | 0.15 | 85 |
| 10.93 | | 46 | 1390 | 7.3 | 91 | 23 | 1430 | 3.9 | 89 | 0.91 | 1430 | 0.16 | 85 |
| 9.07 | | 55 | 1410 | 8.9 | 91 | 28 | 1390 | 4.5 | 89 | 1.1 | 1390 | 0.19 | 85 |
| 7.88 | | 63 | 1410 | 10.3 | 91 | 32 | 1390 | 5.1 | 90 | 1.3 | 1390 | 0.22 | 85 |



21284997/EN – 03/2015

## 11.12 Technical data S. SF. SA. SAF 97

**3400 - 2800 rpm**

| $i_{tot}$ | $i_{worm}$ | $n_e$ = 3400 rpm | | | | $n_e$ = 3200 rpm | | | | $n_e$ = 2800 rpm | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % |
| 286.40 | 40/1 | 12 | 3520 | 5.8 | 76 | 11 | 3590 | 5.6 | 76 | 9.8 | 3700 | 5.0 | 75 |
| 262.22 | | 13 | 3450 | 6.2 | 76 | 12 | 3520 | 5.9 | 76 | 11 | 3630 | 5.4 | 75 |
| 231.67 | | 15 | 3310 | 6.7 | 76 | 14 | 3380 | 6.4 | 76 | 12 | 3520 | 5.9 | 76 |
| 196.52 | | 17 | 3120 | 7.4 | 77 | 16 | 3210 | 7.2 | 76 | 14 | 3350 | 6.6 | 76 |
| 180.95 | | 19 | 3030 | 7.8 | 77 | 18 | 3120 | 7.5 | 77 | 15 | 3250 | 6.9 | 76 |
| 161.74 | | 21 | 2910 | 8.3 | 77 | 20 | 2970 | 8.0 | 77 | 17 | 3120 | 7.4 | 77 |
| 145.60 | | 23 | 2760 | 8.8 | 77 | 22 | 2850 | 8.5 | 77 | 19 | 3000 | 7.9 | 77 |
| 131.85 | | 26 | 2660 | 9.4 | 77 | 24 | 2740 | 9.1 | 77 | 21 | 2880 | 8.3 | 77 |
| 116.92 | | 29 | 2320 | 9.3 | 76 | 27 | 2550 | 9.5 | 77 | 24 | 2740 | 8.9 | 77 |
| 105.71 | | 32 | 1980 | 8.9 | 75 | 30 | 2210 | 9.2 | 76 | 26 | 2630 | 9.5 | 77 |
| 89.60 | | 38 | 1280 | 7.3 | 70 | 36 | 1670 | 8.5 | 74 | 31 | 2210 | 9.4 | 77 |
| 78.26 | | 43 | 920 | 6.4 | 65 | 41 | 1040 | 6.7 | 67 | 36 | 1770 | 8.8 | 75 |
| 65.45 | | 52 | 675 | 5.9 | 63 | 49 | 775 | 6.2 | 64 | 43 | 1030 | 6.8 | 68 |
| 80.85 | 37/3 | 42 | 3150 | 15.5 | 89 | 40 | 3150 | 14.6 | 89 | 35 | 3150 | 12.8 | 89 |
| 71.43 | | 48 | 3090 | 17.2 | 90 | 45 | 3150 | 16.5 | 89 | 39 | 3150 | 14.5 | 89 |
| 60.59 | | 56 | 2910 | 19 | 90 | 53 | 2970 | 18.3 | 90 | 46 | 3120 | 16.9 | 90 |
| 55.79 | | 61 | 2820 | 20 | 90 | 57 | 2880 | 19 | 90 | 50 | 3030 | 17.8 | 90 |
| 49.87 | | 68 | 2710 | 22 | 90 | 64 | 2760 | 21 | 90 | 56 | 2910 | 19 | 90 |
| 44.89 | | 76 | 2430 | 21 | 90 | 71 | 2630 | 22 | 90 | 62 | 2790 | 20 | 90 |
| 40.65 | | 84 | 2170 | 21 | 90 | 79 | 2350 | 22 | 90 | 69 | 2680 | 21 | 90 |
| 36.05 | | 94 | 1830 | 20 | 89 | 89 | 2020 | 21 | 89 | 78 | 2400 | 22 | 90 |
| 32.60 | | 104 | 1560 | 19 | 89 | 98 | 1760 | 20 | 89 | 86 | 2150 | 22 | 90 |
| 27.63 | | 123 | 1010 | 15.2 | 86 | 116 | 1320 | 18.2 | 88 | 101 | 1740 | 21 | 89 |
| 24.13 | | 141 | 725 | 12.9 | 83 | 133 | 820 | 13.6 | 84 | 116 | 1390 | 19 | 88 |
| 26.39 | 35/6 | 129 | 1750 | 25 * | 93 | 121 | 1750 | 24 * | 93 | 106 | 1750 | 21 | 93 |
| 23.59 | | 144 | 1750 | 28 * | 93 | 136 | 1750 | 27 * | 93 | 119 | 1750 | 23 * | 93 |
| 21.23 | | 160 | 1750 | 32 * | 93 | 151 | 1750 | 30 * | 93 | 132 | 1750 | 26 * | 93 |
| 19.23 | | 177 | 1550 | 31 * | 93 | 166 | 1680 | 31 * | 93 | 146 | 1750 | 29 * | 93 |
| 17.05 | | 199 | 1320 | 30 * | 93 | 188 | 1450 | 31 * | 93 | 164 | 1730 | 32 * | 93 |
| 15.42 | | 220 | 1110 | 28 * | 92 | 208 | 1260 | 30 * | 93 | 182 | 1540 | 31 * | 93 |
| 13.07 | | 260 | 725 | 22 | 90 | 245 | 940 | 26 * | 92 | 214 | 1240 | 30 * | 93 |
| 11.41 | | 298 | 515 | 18.3 | 88 | 280 | 585 | 19 | 89 | 245 | 1000 | 28 * | 92 |
| 9.55 | | 356 | 375 | 16.2 | 87 | 335 | 435 | 17.5 | 87 | 293 | 580 | 20 | 89 |
| 8.26 | | 412 | 290 | 14.7 | 85 | 387 | 335 | 15.8 | 86 | 339 | 455 | 18.4 | 88 |

* $P_{emax}$ = 22 kW

21284997/EN – 03/2015

**2200 - 1400 rpm**

| $i_{tot}$ | $i_{worm}$ | $n_e$ = 2200 rpm | | | | $n_e$ = 1700 rpm | | | | $n_e$ = 1400 rpm | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % |
| 286.40 | 40/1 | 7.7 | 3920 | 4.2 | 74 | 5.9 | 4000 | 3.4 | 73 | 4.9 | 4000 | 2.9 | 72 |
| 262.22 | | 8.4 | 3840 | 4.5 | 75 | 6.5 | 4000 | 3.7 | 73 | 5.3 | 4000 | 3.1 | 72 |
| 231.67 | | 9.5 | 3770 | 5.0 | 75 | 7.3 | 3960 | 4.1 | 74 | 6.0 | 4000 | 3.5 | 73 |
| 196.52 | | 11 | 3580 | 5.5 | 76 | 8.7 | 3840 | 4.7 | 75 | 7.1 | 4000 | 4.0 | 74 |
| 180.95 | | 12 | 3510 | 5.9 | 76 | 9.4 | 3770 | 4.9 | 75 | 7.7 | 3920 | 4.3 | 74 |
| 161.74 | | 14 | 3410 | 6.4 | 76 | 11 | 3650 | 5.3 | 76 | 8.7 | 3840 | 4.7 | 75 |
| 145.60 | | 15 | 3270 | 6.8 | 77 | 12 | 3550 | 5.7 | 76 | 9.6 | 3730 | 5.0 | 75 |
| 131.85 | | 17 | 3170 | 7.2 | 77 | 13 | 3440 | 6.1 | 76 | 11 | 3650 | 5.4 | 76 |
| 116.92 | | 19 | 3020 | 7.7 | 77 | 15 | 3340 | 6.6 | 77 | 12 | 3510 | 5.8 | 76 |
| 105.71 | | 21 | 2930 | 8.3 | 77 | 16 | 3210 | 7.0 | 77 | 13 | 3440 | 6.2 | 76 |
| 89.60 | | 25 | 2730 | 9.1 | 77 | 19 | 3020 | 7.8 | 77 | 16 | 3240 | 6.9 | 77 |
| 78.26 | | 28 | 2540 | 9.6 | 78 | 22 | 2870 | 8.4 | 78 | 18 | 3080 | 7.5 | 77 |
| 65.45 | | 34 | 2120 | 9.7 | 77 | 26 | 2650 | 9.2 | 78 | 21 | 2900 | 8.3 | 78 |
| 80.85 | 37/3 | 27 | 3300 | 10.6 | 89 | 21 | 3270 | 8.2 | 88 | 17 | 3230 | 6.7 | 88 |
| 71.43 | | 31 | 3300 | 12.0 | 89 | 24 | 3300 | 9.3 | 88 | 20 | 3300 | 7.7 | 88 |
| 60.59 | | 36 | 3300 | 14.1 | 89 | 28 | 3300 | 10.9 | 89 | 23 | 3300 | 9.0 | 88 |
| 55.79 | | 39 | 3270 | 15.1 | 89 | 30 | 3300 | 11.8 | 89 | 25 | 3300 | 9.8 | 88 |
| 49.87 | | 44 | 3170 | 16.3 | 90 | 34 | 3300 | 13.2 | 89 | 28 | 3300 | 10.9 | 89 |
| 44.89 | | 49 | 3050 | 17.5 | 90 | 38 | 3300 | 14.6 | 89 | 31 | 3300 | 12.1 | 89 |
| 40.65 | | 54 | 2950 | 19 | 90 | 42 | 3230 | 15.8 | 90 | 34 | 3300 | 13.3 | 89 |
| 36.05 | | 61 | 2810 | 20 | 90 | 47 | 3110 | 17.1 | 90 | 39 | 3300 | 15.0 | 89 |
| 32.60 | | 67 | 2700 | 21 | 90 | 52 | 2980 | 18.1 | 90 | 43 | 3200 | 16.0 | 90 |
| 27.63 | | 80 | 2390 | 22 | 90 | 62 | 2810 | 20 | 90 | 51 | 3010 | 17.8 | 90 |
| 24.13 | | 91 | 2060 | 22 | 90 | 70 | 2670 | 22 | 90 | 58 | 2870 | 19 | 90 |
| 26.39 | 35/6 | 83 | 2550 | 24 * | 93 | 64 | 2600 | 19 | 93 | 53 | 2600 | 15.6 | 92 |
| 23.59 | | 93 | 2450 | 26 * | 93 | 72 | 2600 | 21 | 93 | 59 | 2600 | 17.5 | 93 |
| 21.23 | | 104 | 2380 | 28 * | 93 | 80 | 2570 | 23 * | 93 | 66 | 2600 | 19 | 93 |
| 19.23 | | 114 | 2280 | 29 * | 93 | 88 | 2500 | 25 * | 93 | 73 | 2600 | 21 | 93 |
| 17.05 | | 129 | 2170 | 31 * | 93 | 100 | 2400 | 27 * | 93 | 82 | 2570 | 24 * | 93 |
| 15.42 | | 143 | 2040 | 33 * | 93 | 110 | 2300 | 28 * | 93 | 91 | 2470 | 25 * | 93 |
| 13.07 | | 168 | 1720 | 32 * | 93 | 130 | 2170 | 32 * | 93 | 107 | 2330 | 28 * | 93 |
| 11.41 | | 193 | 1480 | 32 * | 93 | 149 | 2000 | 33 * | 93 | 123 | 2210 | 30 * | 93 |
| 9.55 | | 230 | 1200 | 31 * | 93 | 178 | 1670 | 33 * | 93 | 147 | 2040 | 33 * | 94 |
| 8.26 | | 266 | 980 | 30 * | 93 | 206 | 1440 | 33 * | 93 | 169 | 1770 | 34 * | 94 |

* $P_{emax}$ = 22 kW



21284997/EN – 03/2015

**1100 - 700 rpm**

| $i_{tot}$ | $i_{worm}$ | $n_e$ = 1100 rpm | | | | $n_e$ = 900 rpm | | | | $n_e$ = 700 rpm | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % |
| 286.40 | 40/1 | 3.8 | 4200 | 2.4 | 70 | 3.1 | 4200 | 2.0 | 69 | 2.4 | 4200 | 1.6 | 68 |
| 262.22 | | 4.2 | 4200 | 2.6 | 71 | 3.4 | 4200 | 2.2 | 70 | 2.7 | 4200 | 1.7 | 68 |
| 231.67 | | 4.7 | 4200 | 2.9 | 72 | 3.9 | 4200 | 2.4 | 70 | 3.0 | 4200 | 1.9 | 69 |
| 196.52 | | 5.6 | 4160 | 3.4 | 73 | 4.6 | 4200 | 2.8 | 71 | 3.6 | 4200 | 2.2 | 70 |
| 180.95 | | 6.1 | 4120 | 3.6 | 73 | 5.0 | 4200 | 3.0 | 72 | 3.9 | 4200 | 2.4 | 70 |
| 161.74 | | 6.8 | 4030 | 3.9 | 74 | 5.6 | 4160 | 3.3 | 73 | 4.3 | 4200 | 2.7 | 71 |
| 145.60 | | 7.6 | 3950 | 4.2 | 74 | 6.2 | 4080 | 3.6 | 73 | 4.8 | 4200 | 2.9 | 72 |
| 131.85 | | 8.3 | 3880 | 4.5 | 75 | 6.8 | 4030 | 3.9 | 74 | 5.3 | 4200 | 3.2 | 72 |
| 116.92 | | 9.4 | 3760 | 4.9 | 75 | 7.7 | 3910 | 4.2 | 74 | 6.0 | 4120 | 3.5 | 73 |
| 105.71 | | 10 | 3650 | 5.3 | 76 | 8.5 | 3840 | 4.6 | 75 | 6.6 | 4030 | 3.8 | 74 |
| 89.60 | | 12 | 3500 | 5.9 | 76 | 10 | 3690 | 5.1 | 76 | 7.8 | 3910 | 4.3 | 75 |
| 78.26 | | 14 | 3370 | 6.5 | 77 | 12 | 3580 | 5.7 | 76 | 8.9 | 3800 | 4.7 | 75 |
| 65.45 | | 17 | 3170 | 7.2 | 77 | 14 | 3400 | 6.4 | 77 | 11 | 3650 | 5.4 | 76 |
| 80.85 | 37/3 | 14 | 3230 | 5.3 | 87 | 11 | 3200 | 4.3 | 86 | 8.7 | 3170 | 3.4 | 85 |
| 71.43 | | 15 | 3600 | 6.7 | 87 | 13 | 3600 | 5.5 | 87 | 9.8 | 3600 | 4.3 | 86 |
| 60.59 | | 18 | 3600 | 7.8 | 88 | 15 | 3600 | 6.4 | 87 | 12 | 3600 | 5.0 | 86 |
| 55.79 | | 20 | 3600 | 8.5 | 88 | 16 | 3600 | 7.0 | 87 | 13 | 3600 | 5.5 | 87 |
| 49.87 | | 22 | 3600 | 9.4 | 88 | 18 | 3600 | 7.8 | 88 | 14 | 3600 | 6.1 | 87 |
| 44.89 | | 25 | 3600 | 10.4 | 88 | 20 | 3600 | 8.6 | 88 | 16 | 3600 | 6.7 | 87 |
| 40.65 | | 27 | 3600 | 11.5 | 89 | 22 | 3600 | 9.5 | 88 | 17 | 3600 | 7.4 | 88 |
| 36.05 | | 31 | 3530 | 12.7 | 89 | 25 | 3600 | 10.6 | 89 | 19 | 3600 | 8.3 | 88 |
| 32.60 | | 34 | 3420 | 13.5 | 89 | 28 | 3600 | 11.7 | 89 | 21 | 3600 | 9.2 | 88 |
| 27.63 | | 40 | 3260 | 15.2 | 90 | 33 | 3460 | 13.2 | 89 | 25 | 3600 | 10.8 | 89 |
| 24.13 | | 46 | 3130 | 16.6 | 90 | 37 | 3320 | 14.5 | 89 | 29 | 3560 | 12.2 | 89 |
| 26.39 | 35/6 | 42 | 2650 | 12.6 | 92 | 34 | 2620 | 10.2 | 92 | 27 | 2620 | 8.0 | 91 |
| 23.59 | | 47 | 2650 | 14.0 | 92 | 38 | 2650 | 11.5 | 92 | 30 | 2620 | 8.9 | 91 |
| 21.23 | | 52 | 2650 | 15.6 | 92 | 42 | 2650 | 12.8 | 92 | 33 | 2620 | 9.9 | 92 |
| 19.23 | | 57 | 2650 | 17.2 | 93 | 47 | 2650 | 14.1 | 92 | 36 | 2620 | 10.9 | 92 |
| 17.05 | | 65 | 2670 | 19 | 93 | 53 | 2650 | 15.9 | 92 | 41 | 2650 | 12.4 | 92 |
| 15.42 | | 71 | 2670 | 21 | 93 | 58 | 2650 | 17.5 | 93 | 45 | 2650 | 13.7 | 92 |
| 13.07 | | 84 | 2540 | 24 * | 93 | 69 | 2670 | 21 | 93 | 54 | 2650 | 16.1 | 92 |
| 11.41 | | 96 | 2420 | 26 * | 93 | 79 | 2590 | 23 * | 93 | 61 | 2650 | 18.4 | 93 |
| 9.55 | | 115 | 2280 | 29 * | 93 | 94 | 2440 | 26 * | 93 | 73 | 2650 | 22 | 93 |
| 8.26 | | 133 | 2140 | 32 * | 94 | 109 | 2320 | 28 * | 93 | 85 | 2540 | 24 * | 93 |

* $P_{emax}$ = 22 kW

21284997/EN – 03/2015

**500 - 10 rpm**

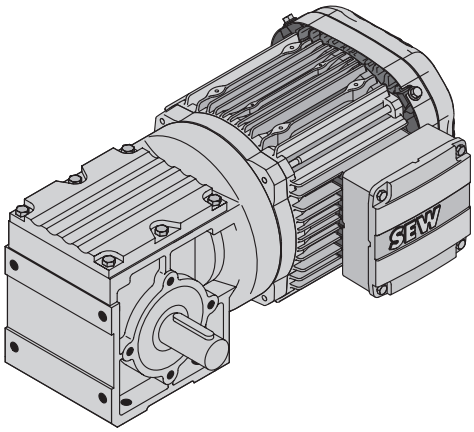
| $i_{tot}$ | $i_{worm}$ | $n_e$ = 500 rpm | | | | $n_e$ = 250 rpm | | | | $n_e$ = 10 rpm | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % | $n_a$ rpm | $M_{amax}$ Nm | $P_e$ kW | η % |
| 286.40 | 40/1 | 1.7 | 4200 | 1.2 | 65 | 0.87 | 4200 | 0.62 | 62 | 0.03 | 4200 | < 0.05 | 60 |
| 262.22 | | 1.9 | 4200 | 1.3 | 66 | 0.95 | 4200 | 0.68 | 62 | 0.04 | 4200 | < 0.05 | 60 |
| 231.67 | | 2.2 | 4200 | 1.4 | 67 | 1.1 | 4200 | 0.76 | 63 | 0.04 | 4200 | < 0.05 | 60 |
| 196.52 | | 2.5 | 4200 | 1.6 | 68 | 1.3 | 4200 | 0.88 | 64 | 0.05 | 4200 | < 0.05 | 60 |
| 180.95 | | 2.8 | 4200 | 1.8 | 68 | 1.4 | 4200 | 0.95 | 64 | 0.06 | 4200 | < 0.05 | 60 |
| 161.74 | | 3.1 | 4200 | 2.0 | 69 | 1.5 | 4200 | 1.1 | 65 | 0.06 | 4200 | < 0.05 | 60 |
| 145.60 | | 3.4 | 4200 | 2.2 | 70 | 1.7 | 4200 | 1.2 | 65 | 0.07 | 4200 | 0.05 | 60 |
| 131.85 | | 3.8 | 4200 | 2.4 | 70 | 1.9 | 4200 | 1.3 | 66 | 0.08 | 4200 | 0.06 | 60 |
| 116.92 | | 4.3 | 4200 | 2.6 | 71 | 2.1 | 4200 | 1.4 | 67 | 0.09 | 4200 | 0.06 | 60 |
| 105.71 | | 4.7 | 4200 | 2.9 | 72 | 2.4 | 4200 | 1.5 | 67 | 0.09 | 4200 | 0.07 | 60 |
| 89.60 | | 5.6 | 4160 | 3.3 | 73 | 2.8 | 4200 | 1.8 | 69 | 0.11 | 4200 | 0.08 | 60 |
| 78.26 | | 6.4 | 4080 | 3.7 | 74 | 3.2 | 4200 | 2.0 | 69 | 0.13 | 4200 | 0.09 | 60 |
| 65.45 | | 7.6 | 3910 | 4.2 | 75 | 3.8 | 4200 | 2.4 | 70 | 0.15 | 4200 | 0.11 | 60 |
| 80.85 | 37/3 | 6.2 | 3110 | 2.4 | 84 | 3.1 | 3010 | 1.2 | 82 | 0.12 | 3010 | < 0.05 | 80 |
| 71.43 | | 7.0 | 4200 | 3.6 | 85 | 3.5 | 4160 | 1.9 | 82 | 0.14 | 4160 | 0.08 | 81 |
| 60.59 | | 8.3 | 4200 | 4.3 | 85 | 4.1 | 4080 | 2.1 | 83 | 0.17 | 4080 | 0.09 | 81 |
| 55.79 | | 9.0 | 4200 | 4.6 | 86 | 4.5 | 4200 | 2.4 | 83 | 0.18 | 4200 | 0.10 | 81 |
| 49.87 | | 10 | 4200 | 5.1 | 86 | 5.0 | 4200 | 2.6 | 83 | 0.20 | 4200 | 0.11 | 81 |
| 44.89 | | 11 | 4160 | 5.6 | 86 | 5.6 | 4200 | 2.9 | 84 | 0.22 | 4200 | 0.12 | 81 |
| 40.65 | | 12 | 4120 | 6.1 | 87 | 6.2 | 4200 | 3.2 | 84 | 0.25 | 4200 | 0.13 | 81 |
| 36.05 | | 14 | 4080 | 6.8 | 87 | 6.9 | 4200 | 3.6 | 85 | 0.28 | 4200 | 0.15 | 81 |
| 32.60 | | 15 | 3990 | 7.3 | 87 | 7.7 | 4200 | 4.0 | 85 | 0.31 | 4200 | 0.17 | 81 |
| 27.63 | | 18 | 3910 | 8.4 | 88 | 9.0 | 4200 | 4.7 | 86 | 0.36 | 4200 | 0.20 | 81 |
| 24.13 | | 21 | 3800 | 9.3 | 88 | 10 | 4200 | 5.3 | 86 | 0.41 | 4200 | 0.23 | 81 |
| 26.39 | 35/6 | 19 | 2590 | 5.7 | 90 | 9.5 | 2540 | 2.8 | 89 | 0.38 | 2540 | 0.12 | 87 |
| 23.59 | | 21 | 2590 | 6.3 | 91 | 11 | 2540 | 3.2 | 89 | 0.42 | 2540 | 0.13 | 87 |
| 21.23 | | 24 | 2590 | 7.0 | 91 | 12 | 2570 | 3.6 | 89 | 0.47 | 2570 | 0.15 | 87 |
| 19.23 | | 26 | 2620 | 7.8 | 91 | 13 | 2570 | 3.9 | 89 | 0.52 | 2570 | 0.16 | 87 |
| 17.05 | | 29 | 2620 | 8.8 | 91 | 15 | 2570 | 4.4 | 90 | 0.59 | 2570 | 0.18 | 87 |
| 15.42 | | 32 | 2620 | 9.7 | 92 | 16 | 2570 | 4.8 | 90 | 0.65 | 2570 | 0.20 | 87 |
| 13.07 | | 38 | 2650 | 11.6 | 92 | 19 | 2590 | 5.7 | 90 | 0.77 | 2590 | 0.24 | 87 |
| 11.41 | | 44 | 2650 | 13.2 | 92 | 22 | 2590 | 6.6 | 91 | 0.88 | 2590 | 0.27 | 87 |
| 9.55 | | 52 | 2650 | 15.7 | 92 | 26 | 2620 | 7.9 | 91 | 1.0 | 2620 | 0.33 | 87 |
| 8.26 | | 61 | 2650 | 18.1 | 93 | 30 | 2620 | 9.1 | 91 | 1.2 | 2620 | 0.38 | 87 |



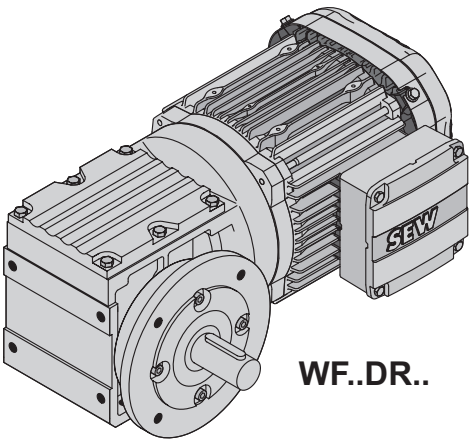
21284997/EN – 03/2015

# 12 SPIROPLAN® gearmotors

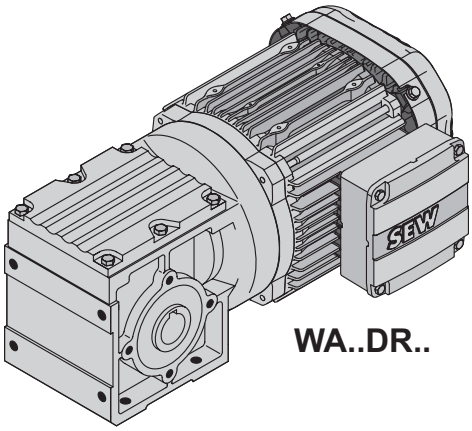
## 12.1 W..DRN.. designs



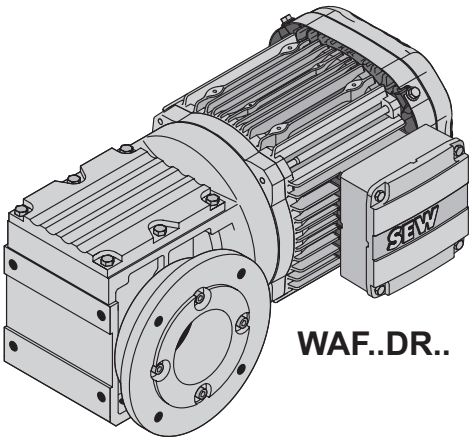
**W..DR..**



**WF..DR..**



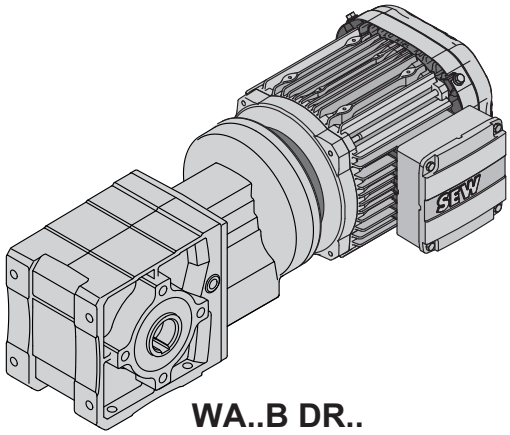
**WA..DR..**



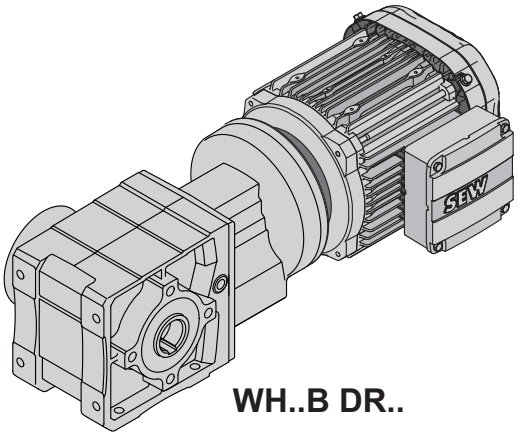
**WAF..DR..**

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21284997/EN – 03/2015

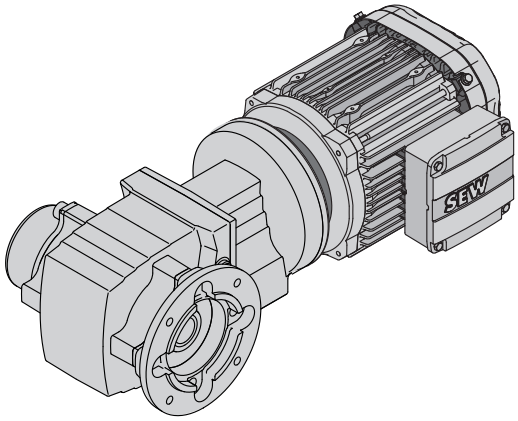


**WA..B DR..**

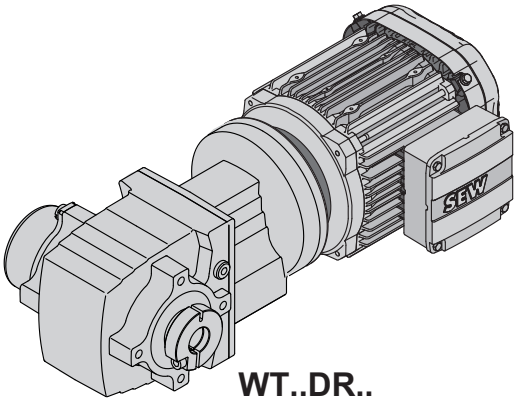


**WH..B DR..**

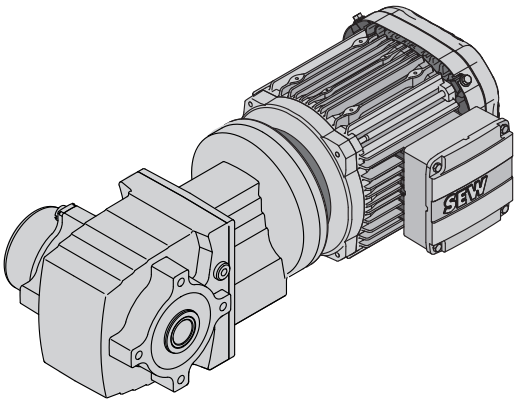




**WHF..DR..**



**WT..DR..**



**WH..DR..**

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21284997/EN – 03/2015

## 12.2 Possible geometrical combinations of W..DRN..

| W10, $n_e$=1400 1/min | | | | | 25 Nm |
|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DT56M DT56L |
| | | | | | 1 |
| 19 | 25 | 1960 | - | 75.00* | |
| 23 | 25 | 1960 | - | 60.00* | |
| 29 | 25 | 1960 | - | 48.00* | |
| 36 | 25 | 1960 | - | 39.00* | |
| 43 | 25 | 1960 | - | 32.50* | |
| 51 | 24 | 1970 | - | 27.50* | |
| 57 | 25 | 1960 | - | 24.50* | |
| 72 | 25 | 1960 | - | 19.50* | |
| 85 | 20 | 1990 | - | 16.50* | |
| 98 | 22 | 1980 | - | 14.33 | |
| 137 | 13 | 1990 | - | 10.25* | |
| 171 | 12 | 1850 | - | 8.20* | |
| 213 | 12 | 1740 | - | 6.57 | |

| W20, $n_e$=1400 1/min | | | | | 40 Nm |
|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M |
| | | | | | 1 |
| 19 | 40 | 2200 | - | 75.00* | |
| 23 | 40 | 2200 | - | 60.00* | |
| 29 | 40 | 2200 | - | 48.00* | |
| 36 | 40 | 2200 | - | 39.00* | |
| 43 | 40 | 2200 | - | 32.50* | |
| 51 | 40 | 2200 | - | 27.50* | |
| 57 | 40 | 2200 | - | 24.50* | |
| 72 | 35 | 2200 | - | 19.50* | |
| 85 | 30 | 2200 | - | 16.50* | |
| 98 | 30 | 2110 | - | 14.33 | |
| 137 | 25 | 1920 | - | 10.25* | |
| 171 | 20 | 1830 | - | 8.20* | |
| 213 | 20 | 1740 | - | 6.57 | |

| W30, $n_e$=1400 1/min | | | | | | 70 Nm |
|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M |
| | | | | | 1 | |
| 19 | 70 | 3000 | - | 75.00* | | |
| 23 | 70 | 3000 | - | 60.00* | | |
| 29 | 70 | 3000 | - | 48.00* | | |
| 36 | 70 | 3000 | - | 39.00* | | |
| 43 | 70 | 3000 | - | 32.50* | | |
| 51 | 70 | 3000 | - | 27.50* | | |

21284997/EN – 03/2015

| W30, $n_e$=1400 1/min | | | | | | 70 Nm |
|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M |
| 57 | 70 | 3000 | - | 24.50* | | |
| 72 | 70 | 3000 | - | 19.50* | | |
| 86 | 60 | 3000 | - | 16.33 | | |
| 98 | 60 | 3000 | - | 14.33 | | |
| 137 | 50 | 2970 | - | 10.25* | | |
| 171 | 40 | 2810 | - | 8.20* | | |
| 213 | 40 | 2640 | - | 6.57 | | |

| W37, $n_e$=1400 1/min | | | | | | | 110 Nm |
|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L |
| | | | | | 2 | | |
| 20 | 110 | 3320 | - | 69.05 | | | |
| 22 | 110 | 3320 | - | 63.33 | | | |
| 26 | 110 | 3320 | - | 53.92 | | | |
| 30 | 110 | 3320 | - | 46.49 | | | |
| 37 | 110 | 3320 | - | 37.88 | | | |
| 41 | 90 | 3610 | - | 34.52 | | | |
| 44 | 90 | 3610 | - | 31.67 | | | |
| 45 | 110 | 3320 | - | 31.33 | | | |
| 50 | 110 | 3320 | - | 27.78 | | | |
| 52 | 90 | 3610 | - | 26.96 | | | |
| 60 | 90 | 3610 | - | 23.25 | | | |
| 66 | 110 | 3320 | - | 21.33 | | | |
| 74 | 90 | 3610 | - | 18.94 | | | |
| 89 | 90 | 3430 | - | 15.67 | | | |
| 101 | 90 | 3250 | - | 13.89 | | | |
| 110 | 70 | 3800 | - | 12.70 | | | |
| 120 | 70 | 3680 | - | 11.65 | | | |
| 131 | 90 | 2880 | - | 10.67 | | | |
| 141 | 70 | 3460 | - | 9.92 | | | |
| 164 | 70 | 3270 | - | 8.55 | | | |
| 201 | 70 | 3020 | - | 6.97 | | | |
| 243 | 70 | 2810 | - | 5.77 | | | |
| 274 | 70 | 2680 | - | 5.11 | | | |
| 356 | 70 | 2410 | - | 3.93 | | | |
| 438 | 70 | 2220 | - | 3.20* | | | |

| W37R17, $n_e$=1400 1/min | | | | | | 110 Nm |
|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | |
| | | | | | 2 3 | |
| 0.32 | 110 | 3320 | - | 4402 | | |
| 0.37 | 110 | 3320 | - | 3795 | | |



21284997/EN – 03/2015

## W37R17, $n_e$=1400 1/min — 110 Nm

| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M |
|---|---|---|---|---|---|
| 0.43 | 110 | 3320 | - | 3272 | |
| 0.48 | 110 | 3320 | - | 2899 | |
| 0.55 | 110 | 3320 | - | 2558 | |
| 0.59 | 110 | 3320 | - | 2382 | |
| 0.64 | 110 | 3320 | - | 2172 | |
| 0.72 | 110 | 3320 | - | 1952 | |
| 0.78 | 110 | 3320 | - | 1795 | |
| 0.88 | 110 | 3320 | - | 1593 | |
| 0.96 | 110 | 3320 | - | 1463 | |
| 1.1 | 110 | 3320 | - | 1298 | |
| 1.9 | 110 | 3320 | - | 754 | |
| 2.1 | 110 | 3320 | - | 669 | |
| | | | | | 2 2 |
| 1.2 | 110 | 3320 | - | 1173 | |
| 1.3 | 110 | 3320 | - | 1063 | |
| 1.5 | 110 | 3320 | - | 956 | |
| 1.6 | 110 | 3320 | - | 854 | |
| 2.3 | 110 | 3320 | - | 600 | |
| 2.6 | 110 | 3320 | - | 532 | |
| 3.0 | 110 | 3320 | - | 472 | |
| 3.2 | 110 | 3320 | - | 434 | |
| 3.6 | 110 | 3320 | - | 384 | |
| 3.9 | 110 | 3320 | - | 359 | |
| 4.3 | 110 | 3320 | - | 327 | |
| 4.9 | 110 | 3320 | - | 286 | |
| 5.2 | 110 | 3320 | - | 267 | |
| 6.0 | 110 | 3320 | - | 233 | |
| 6.8 | 110 | 3320 | - | 207 | |
| 7.6 | 110 | 3320 | - | 184 | |
| 8.8 | 110 | 3320 | - | 160 | |
| 9.9 | 110 | 3320 | - | 141 | |
| 11 | 110 | 3320 | - | 125 | |
| 13 | 110 | 3320 | - | 109 | |
| 15 | 110 | 3320 | - | 96 | |
| 17 | 110 | 3320 | - | 82 | |
| 19 | 90 | 3610 | - | 73 | |
| 22 | 90 | 3610 | - | 63 | |
| 26 | 90 | 3610 | - | 53 | |
| 29 | 90 | 3610 | - | 48 | |

## W47, $n_e$=1400 1/min — 180 Nm

| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | 2 | | | |
| 19 | 180 | 6400 | - | 74.98 | | | | | |
| 20 | 180 | 6400 | - | 68.93 | | | | | |

21284997/EN – 03/2015

| W47, $n_e$=1400 1/min | | | | | | | | | 180 Nm |
|---|---|---|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M DRN90S | DRN90L | DRN100LS DRN100L | DRN112M |
| 24 | 180 | 6400 | - | 58.98 | | | | | |
| 27 | 180 | 6230 | - | 51.12 | | | | | |
| 29 | 180 | 6040 | - | 47.78 | | | | | |
| 34 | 180 | 5650 | - | 41.30 | | | | | |
| 40 | 180 | 5230 | - | 35.09 | | | | | |
| 44 | 160 | 5560 | - | 31.62 | | | | | |
| 45 | 180 | 4950 | - | 31.33 | | | | | |
| 51 | 160 | 5220 | - | 27.41 | | | | | |
| 52 | 180 | 4580 | - | 26.76 | | | | | |
| 55 | 160 | 5070 | - | 25.62 | | | | | |
| 56 | 180 | 4430 | - | 25.07 | | | | | |
| 63 | 160 | 4750 | - | 22.15 | | | | | |
| 74 | 160 | 4410 | - | 18.82 | | | | | |
| 83 | 160 | 4180 | - | 16.80 | | | | | |
| 98 | 160 | 3880 | - | 14.35 | | | | | |
| 104 | 160 | 3760 | - | 13.44 | | | | | |
| 114 | 110 | 4550 | - | 12.30 | | | | | |
| 124 | 160 | 3460 | - | 11.32 | | | | | |
| 131 | 110 | 4300 | - | 10.66 | | | | | |
| 141 | 110 | 4190 | - | 9.96 | | | | | |
| 163 | 110 | 3960 | - | 8.61 | | | | | |
| 191 | 110 | 3710 | - | 7.32 | | | | | |
| 214 | 110 | 3540 | - | 6.53 | | | | | |
| 251 | 110 | 3320 | - | 5.58 | | | | | |
| 268 | 110 | 3240 | - | 5.23 | | | | | |
| 318 | 110 | 3020 | - | 4.40 | | | | | |
| 360 | 110 | 2860 | - | 3.89 | | | | | |
| 428 | 110 | 2660 | - | 3.27 | | | | | |

| W47R17, $n_e$=1400 1/min | | | | | | 180 Nm |
|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M |
| | | | | | 2 3 | |
| 0.29 | 180 | 6400 | - | 4815 | | |
| 0.34 | 180 | 6400 | - | 4173 | | |
| 0.36 | 180 | 6400 | - | 3870 | | |
| 0.39 | 180 | 6400 | - | 3598 | | |
| 0.42 | 180 | 6400 | - | 3354 | | |
| 0.44 | 180 | 6400 | - | 3171 | | |
| 0.51 | 180 | 6400 | - | 2748 | | |
| 0.58 | 180 | 6400 | - | 2425 | | |
| 0.62 | 180 | 6400 | - | 2258 | | |
| 0.66 | 180 | 6400 | - | 2111 | | |
| 0.71 | 180 | 6400 | - | 1959 | | |
| 0.78 | 180 | 6400 | - | 1797 | | |
| 0.88 | 180 | 6400 | - | 1595 | | |
| 0.94 | 180 | 6400 | - | 1486 | | |



21284997/EN – 03/2015

| W47R17, $n_e$=1400 1/min | | | | | | 180 Nm |
|---|---|---|---|---|---|---|
| $n_a$ rpm | $M_{amax}$ Nm | $F_{Ra}$ N | $\varphi_{(/R)}$ ' | i | DR63S DR63M DR63L DRS71S DRS71M | DRN80M |
| 0.97 | 180 | 6400 | - | 1448 | | |
| 1.2 | 180 | 6400 | - | 1170 | | |
| 1.9 | 180 | 6400 | - | 754 | | |
|  | | | | | | |
| 1.1 | 180 | 6400 | - | 1290 | | |
| 1.2 | 180 | 6400 | - | 1183 | | |
| 1.3 | 180 | 6400 | - | 1042 | | |
| 1.5 | 180 | 6400 | - | 956 | | |
| 1.6 | 180 | 6400 | - | 869 | | |
| 2.1 | 180 | 6400 | - | 661 | | |
| 2.3 | 180 | 6400 | - | 596 | | |
| 2.6 | 180 | 6400 | - | 536 | | |
| 3.0 | 180 | 6400 | - | 473 | | |
| 3.2 | 180 | 6400 | - | 434 | | |
| 3.6 | 180 | 6400 | - | 386 | | |
| 3.9 | 180 | 6400 | - | 359 | | |
| 4.4 | 180 | 6400 | - | 318 | | |
| 4.8 | 180 | 6400 | - | 291 | | |
| 5.2 | 180 | 6400 | - | 270 | | |
| 5.3 | 180 | 6400 | - | 265 | | |
| 5.9 | 180 | 6400 | - | 237 | | |
| 6.7 | 180 | 6400 | - | 210 | | |
| 7.7 | 180 | 6400 | - | 183 | | |
| 8.8 | 180 | 6400 | - | 159 | | |
| 9.9 | 180 | 6400 | - | 141 | | |
| 11 | 160 | 6650 | - | 124 | | |
| 12 | 180 | 6400 | - | 120 | | |
| 13 | 160 | 6650 | - | 105 | | |
| 15 | 160 | 6650 | - | 95 | | |
| 16 | 160 | 6650 | - | 85 | | |
| 18 | 160 | 6650 | - | 77 | | |
| 19 | 160 | 6650 | - | 72 | | |

21284997/EN – 03/2015

## 12.3 W..DRN.. selection tables in kW

### $P_m$ = 0.09 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **17** | 20 | 75.00* | 1800 | 1.25 | | | | | | |
| **22** | 17 | 60.00* | 1800 | 1.45 | | | | | | |
| **27** | 16 | 48.00* | 1800 | 1.55 | | | | | | |
| **33** | 15 | 39.00* | 1800 | 1.70 | | | | | | |
| **40** | 13 | 32.50* | 1800 | 1.90 | **W** | **10** | **DT** | **56M4** | 5.3 | 701 |
| **47** | 12 | 27.50* | 1800 | 2.0 | **WF** | **10** | **DT** | **56M4** | 5.5 | 702 |
| **53** | 11 | 24.50* | 1800 | 2.3 | **WA** | **10** | **DT** | **56M4** | 5.3 | 703 |
| **67** | 9.4 | 19.50* | 1800 | 2.6 | **WAF** | **10** | **DT** | **56M4** | 5.5 | 702 |
| **79** | 8.4 | 16.50* | 1800 | 2.4 | | | | | | |
| **91** | 7.6 | 14.33 | 1800 | 2.9 | | | | | | |
| **127** | 5.8 | 10.25* | 1800 | 2.2 | | | | | | |
| **159** | 4.8 | 8.20* | 1800 | 2.5 | | | | | | |
| **198** | 4.0 | 6.57 | 1800 | 3.0 | | | | | | |

### $P_m$ = 0.12 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **3.8** | 135 | 359 | 0 | 0.80 | | | | | | |
| **4.2** | 128 | 327 | 1780 | 0.85 | | | | | | |
| **4.8** | 112 | 286 | 3280 | 1.00 | | | | | | |
| **5.2** | 107 | 267 | 3370 | 1.05 | | | | | | |
| **5.9** | 94 | 233 | 3560 | 1.15 | | | | | | |
| **6.7** | 81 | 207 | 3720 | 1.35 | | | | | | |
| **7.5** | 73 | 184 | 3800 | 1.50 | **W** | **37R17** | **DR** | **63S4** | 13 | 720 |
| **8.6** | 68 | 160 | 3850 | 1.60 | **WF** | **37R17** | **DR** | **63S4** | 13 | 720 |
| **9.8** | 60 | 141 | 3910 | 1.80 | **WA** | **37R17** | **DR** | **63S4** | 13 | 720 |
| **11** | 54 | 125 | 3960 | 2.0 | **WAF** | **37R17** | **DR** | **63S4** | 13 | 720 |
| **13** | 48 | 109 | 4000 | 2.3 | | | | | | |
| **14** | 43 | 96 | 4030 | 2.6 | | | | | | |
| **17** | 37 | 82 | 4060 | 3.0 | | | | | | |
| **19** | 38 | 73 | 4050 | 2.3 | | | | | | |
| **22** | 34 | 63 | 4070 | 2.6 | | | | | | |
| **26** | 29 | 53 | 4090 | 3.1 | | | | | | |
| **29** | 27 | 48 | 4100 | 3.3 | | | | | | |
| **20** | 39 | 69.05 | 4050 | 2.8 | | | | | | |
| **22** | 36 | 63.33 | 4060 | 3.1 | | | | | | |
| **26** | 31 | 53.92 | 4080 | 3.5 | **W** | **37** | **DR** | **63S4** | 10 | 711 |
| **30** | 27 | 46.49 | 4100 | 4.0 | **WF** | **37** | **DR** | **63S4** | 10 | 712 |
| **36** | 23 | 37.88 | 4110 | 4.8 | **WA** | **37** | **DR** | **63S4** | 10 | 714 |
| **40** | 24 | 34.52 | 4110 | 3.8 | **WAF** | **37** | **DR** | **63S4** | 10 | 712 |
| **44** | 22 | 31.67 | 4120 | 4.1 | | | | | | |
| **12** | 40 | 75.00* | 3000 | 1.75 | **W** | **30** | **DR** | **63M6** | 9.0 | 707 |
| **15** | 38 | 60.00* | 3000 | 1.85 | **WF** | **30** | **DR** | **63M6** | 9.4 | 708 |
| **28** | 25 | 32.50* | 3000 | 2.8 | **WA** | **30** | **DR** | **63M6** | 8.8 | 710 |
| **33** | 24 | 27.50* | 3000 | 3.0 | **WAF** | **30** | **DR** | **63M6** | 9.1 | 709 |
| **18** | 28 | 75.00* | 3000 | 2.5 | | | | | | |
| **23** | 26 | 60.00* | 3000 | 2.7 | **W** | **30** | **DR** | **63S4** | 9.0 | 707 |
| **29** | 23 | 48.00* | 3000 | 3.1 | **WF** | **30** | **DR** | **63S4** | 9.4 | 708 |
| **35** | 20 | 39.00* | 3000 | 3.4 | **WA** | **30** | **DR** | **63S4** | 8.8 | 710 |
| **42** | 17 | 32.50* | 3000 | 4.1 | **WAF** | **30** | **DR** | **63S4** | 9.1 | 709 |
| **12** | 36 | 75.00* | 2200 | 1.10 | **W** | **20** | **DR** | **63M6** | 6.6 | 704 |
| **15** | 32 | 60.00* | 2200 | 1.25 | **WF** | **20** | **DR** | **63M6** | 6.8 | 705 |
| **28** | 27 | 32.50* | 2200 | 1.50 | **WA** | **20** | **DR** | **63M6** | 6.3 | 706 |
| **33** | 22 | 27.50* | 2200 | 1.80 | **WAF** | **20** | **DR** | **63M6** | 6.3 | 705 |



21284997/EN – 03/2015

## $P_m$ = 0.12 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **18** | 25 | 75.00* | 2200 | 1.60 | | | | | | |
| **23** | 22 | 60.00* | 2200 | 1.80 | | | | | | |
| **29** | 20 | 48.00* | 2200 | 1.95 | | | | | | |
| **35** | 19 | 39.00* | 2200 | 2.2 | | | | | | |
| **42** | 18 | 32.50* | 2200 | 2.2 | | | | | | |
| **50** | 15 | 27.50* | 2200 | 2.6 | **W** | **20** | **DR** | **63S4** | 6.6 | 704 |
| **56** | 14 | 24.50* | 2200 | 2.9 | **WF** | **20** | **DR** | **63S4** | 6.8 | 705 |
| **71** | 12 | 19.50* | 2200 | 3.0 | **WA** | **20** | **DR** | **63S4** | 6.3 | 706 |
| **84** | 10 | 16.50* | 2200 | 2.9 | **WAF** | **20** | **DR** | **63S4** | 6.3 | 705 |
| **96** | 9.6 | 14.33 | 2200 | 3.1 | | | | | | |
| **135** | 7.2 | 10.25* | 2160 | 3.5 | | | | | | |
| **168** | 5.9 | 8.20* | 2020 | 3.4 | | | | | | |
| **210** | 4.9 | 6.57 | 1890 | 4.0 | | | | | | |
| **17** | 27 | 75.00* | 1800 | 0.95 | | | | | | |
| **22** | 23 | 60.00* | 1800 | 1.05 | | | | | | |
| **27** | 21 | 48.00* | 1800 | 1.15 | | | | | | |
| **33** | 20 | 39.00* | 1800 | 1.30 | | | | | | |
| **40** | 18 | 32.50* | 1800 | 1.40 | | | | | | |
| **47** | 16 | 27.50* | 1800 | 1.55 | **W** | **10** | **DT** | **56L4** | 5.3 | 701 |
| **53** | 15 | 24.50* | 1800 | 1.70 | **WF** | **10** | **DT** | **56L4** | 5.5 | 702 |
| **67** | 13 | 19.50* | 1800 | 2.00 | **WA** | **10** | **DT** | **56L4** | 5.3 | 703 |
| **79** | 11 | 16.50* | 1800 | 1.80 | **WAF** | **10** | **DT** | **56L4** | 5.5 | 702 |
| **91** | 10 | 14.33 | 1800 | 2.2 | | | | | | |
| **127** | 7.7 | 10.25* | 1800 | 1.70 | | | | | | |
| **159** | 6.3 | 8.20* | 1800 | 1.90 | | | | | | |
| **198** | 5.3 | 6.57 | 1800 | 2.3 | | | | | | |

## $P_m$ = 0.18 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **4.2** | 225 | 318 | 6080 | 0.80 | | | | | | |
| **4.9** | 193 | 270 | 6320 | 0.95 | | | | | | |
| **5.6** | 178 | 237 | 6420 | 1.00 | | | | | | |
| **6.3** | 156 | 210 | 6560 | 1.15 | | | | | | |
| **7.2** | 135 | 183 | 6680 | 1.35 | | | | | | |
| **8.3** | 122 | 159 | 6760 | 1.50 | **W** | **47R17** | **DR** | **63M4** | 18 | 720 |
| **9.3** | 108 | 141 | 6840 | 1.65 | **WF** | **47R17** | **DR** | **63M4** | 19 | 720 |
| **11** | 114 | 124 | 6900 | 1.40 | **WA** | **47R17** | **DR** | **63M4** | 17 | 720 |
| **11** | 93 | 120 | 6930 | 1.95 | **WAF** | **47R17** | **DR** | **63M4** | 18 | 720 |
| **13** | 96 | 105 | 6990 | 1.65 | | | | | | |
| **14** | 90 | 95 | 7020 | 1.75 | | | | | | |
| **16** | 79 | 85 | 7070 | 2.0 | | | | | | |
| **17** | 74 | 77 | 7090 | 2.2 | | | | | | |
| **18** | 67 | 72 | 7120 | 2.4 | | | | | | |
| **6.4** | 134 | 207 | 580 | 0.80 | | | | | | |
| **7.2** | 121 | 184 | 2620 | 0.90 | | | | | | |
| **8.2** | 110 | 160 | 3320 | 1.00 | | | | | | |
| **9.3** | 99 | 141 | 3500 | 1.10 | | | | | | |
| **11** | 88 | 125 | 3630 | 1.25 | **W** | **37R17** | **DR** | **63M4** | 13 | 720 |
| **12** | 79 | 109 | 3740 | 1.40 | **WF** | **37R17** | **DR** | **63M4** | 13 | 720 |
| **14** | 71 | 96 | 3820 | 1.55 | **WA** | **37R17** | **DR** | **63M4** | 13 | 720 |
| **16** | 61 | 82 | 3910 | 1.80 | **WAF** | **37R17** | **DR** | **63M4** | 13 | 720 |
| **18** | 64 | 73 | 3890 | 1.40 | | | | | | |
| **21** | 56 | 63 | 3940 | 1.60 | | | | | | |
| **25** | 48 | 53 | 4000 | 1.85 | | | | | | |
| **27** | 44 | 48 | 4020 | 2.0 | | | | | | |
| **18** | 70 | 74.98 | 7060 | 2.6 | | | | | | |
| **19** | 65 | 68.93 | 7080 | 2.8 | | | | | | |
| **22** | 56 | 58.98 | 7130 | 3.2 | **W** | **47** | **DR** | **63M4** | 16 | 716 |
| **26** | 50 | 51.12 | 7160 | 3.6 | **WF** | **47** | **DR** | **63M4** | 16 | 717 |
| **28** | 47 | 47.78 | 7180 | 3.8 | **WA** | **47** | **DR** | **63M4** | 14 | 718 |
| **32** | 41 | 41.30 | 7210 | 4.4 | **WAF** | **47** | **DR** | **63M4** | 15 | 717 |
| **42** | 35 | 31.62 | 7020 | 4.6 | | | | | | |

21284997/EN – 03/2015

## $P_m$ = 0.18 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **19** | 60 | 69.05 | 3920 | 1.85 | | | | | | |
| **21** | 56 | 63.33 | 3950 | 1.95 | | | | | | |
| **24** | 48 | 53.92 | 4000 | 2.3 | | | | | | |
| **28** | 43 | 46.49 | 4030 | 2.6 | | | | | | |
| **35** | 36 | 37.88 | 4070 | 3.1 | **W** | **37** | **DR** | **63M4** | 10 | 711 |
| **38** | 37 | 34.52 | 4060 | 2.4 | **WF** | **37** | **DR** | **63M4** | 10 | 712 |
| **42** | 34 | 31.67 | 4070 | 2.6 | **WA** | **37** | **DR** | **63M4** | 10 | 714 |
| **48** | 27 | 27.78 | 4100 | 4.1 | **WAF** | **37** | **DR** | **63M4** | 10 | 712 |
| **49** | 29 | 26.96 | 4090 | 3.1 | | | | | | |
| **57** | 26 | 23.25 | 4100 | 3.5 | | | | | | |
| **62** | 21 | 21.33 | 4120 | 5.2 | | | | | | |
| **70** | 21 | 18.94 | 4120 | 4.3 | | | | | | |
| **12** | 62 | 75.00* | 3000 | 1.10 | **W** | **30** | **DR** | **63L6** | 9.8 | 707 |
| **14** | 58 | 60.00* | 3000 | 1.20 | **WF** | **30** | **DR** | **63L6** | 10 | 708 |
| **27** | 39 | 32.50* | 3000 | 1.80 | **WA** | **30** | **DR** | **63L6** | 9.5 | 710 |
| **32** | 37 | 27.50* | 3000 | 1.90 | **WAF** | **30** | **DR** | **63L6** | 9.8 | 709 |
| **18** | 44 | 75.00* | 3000 | 1.60 | | | | | | |
| **22** | 40 | 60.00* | 3000 | 1.75 | | | | | | |
| **28** | 35 | 48.00* | 3000 | 2.00 | | | | | | |
| **34** | 32 | 39.00* | 3000 | 2.2 | | | | | | |
| **41** | 27 | 32.50* | 3000 | 2.6 | | | | | | |
| **48** | 25 | 27.50* | 3000 | 2.8 | **W** | **30** | **DR** | **63M4** | 9.0 | 707 |
| **54** | 23 | 24.50* | 3000 | 3.0 | **WF** | **30** | **DR** | **63M4** | 9.4 | 708 |
| **68** | 20 | 19.50* | 3000 | 3.6 | **WA** | **30** | **DR** | **63M4** | 8.8 | 710 |
| **81** | 17 | 16.33 | 3000 | 3.5 | **WAF** | **30** | **DR** | **63M4** | 9.1 | 709 |
| **92** | 15 | 14.33 | 3000 | 3.9 | | | | | | |
| **129** | 12 | 10.25* | 3000 | 4.3 | | | | | | |
| **161** | 9.5 | 8.20* | 3000 | 4.2 | | | | | | |
| **201** | 8.0 | 6.57 | 2980 | 5.0 | | | | | | |
| **111** | 12 | 24.50* | 3000 | 6.0 | | | | | | |
| **139** | 9.9 | 19.50* | 3000 | 7.1 | **W** | **30** | **DR** | **63S2** | 9.0 | 707 |
| **167** | 8.5 | 16.33 | 3000 | 7.1 | **WF** | **30** | **DR** | **63S2** | 9.4 | 708 |
| **190** | 7.7 | 14.33 | 3000 | 7.8 | **WA** | **30** | **DR** | **63S2** | 8.8 | 710 |
| **265** | 5.7 | 10.25* | 2720 | 8.7 | **WAF** | **30** | **DR** | **63S2** | 9.1 | 709 |
| **332** | 4.7 | 8.20* | 2540 | 8.6 | | | | | | |
| **14** | 49 | 60.00* | 2200 | 0.80 | **W** | **20** | **DR** | **63L6** | 7.3 | 704 |
| **32** | 35 | 27.50* | 2200 | 1.15 | **WF** | **20** | **DR** | **63L6** | 7.4 | 705 |
| **45** | 27 | 19.50* | 2200 | 1.30 | **WA** | **20** | **DR** | **63L6** | 7.0 | 706 |
| | | | | | **WAF** | **20** | **DR** | **63L6** | 7.0 | 705 |
| **18** | 39 | 75.00* | 2200 | 1.00 | | | | | | |
| **22** | 34 | 60.00* | 2200 | 1.15 | | | | | | |
| **28** | 32 | 48.00* | 2200 | 1.25 | | | | | | |
| **34** | 29 | 39.00* | 2200 | 1.40 | | | | | | |
| **41** | 28 | 32.50* | 2200 | 1.40 | | | | | | |
| **48** | 24 | 27.50* | 2200 | 1.70 | **W** | **20** | **DR** | **63M4** | 6.6 | 704 |
| **54** | 22 | 24.50* | 2200 | 1.85 | **WF** | **20** | **DR** | **63M4** | 6.8 | 705 |
| **68** | 19 | 19.50* | 2200 | 1.90 | **WA** | **20** | **DR** | **63M4** | 6.3 | 706 |
| **80** | 16 | 16.50* | 2200 | 1.85 | **WAF** | **20** | **DR** | **63M4** | 6.3 | 705 |
| **92** | 15 | 14.33 | 2200 | 2.0 | | | | | | |
| **129** | 11 | 10.25* | 2140 | 2.2 | | | | | | |
| **161** | 9.2 | 8.20* | 2010 | 2.2 | | | | | | |
| **201** | 7.7 | 6.57 | 1890 | 2.6 | | | | | | |
| **111** | 11 | 24.50* | 2200 | 3.6 | | | | | | |
| **139** | 9.4 | 19.50* | 2090 | 3.7 | **W** | **20** | **DR** | **63S2** | 6.6 | 704 |
| **165** | 8.2 | 16.50* | 1980 | 3.7 | **WF** | **20** | **DR** | **63S2** | 6.8 | 705 |
| **190** | 7.5 | 14.33 | 1910 | 4.0 | **WA** | **20** | **DR** | **63S2** | 6.3 | 706 |
| **265** | 5.6 | 10.25* | 1720 | 4.5 | **WAF** | **20** | **DR** | **63S2** | 6.3 | 705 |
| **332** | 4.6 | 8.20* | 1610 | 4.4 | | | | | | |



21284997/EN – 03/2015

## $P_m$ = 0.25 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **7.1** | 196 | 183 | 6300 | 0.90 | | | | | | |
| **8.2** | 175 | 159 | 6430 | 1.05 | | | | | | |
| **9.2** | 157 | 141 | 6550 | 1.15 | | | | | | |
| **11** | 164 | 124 | 6630 | 0.95 | **W** | **47R17** | **DR** | **63L4** | 19 | 720 |
| **11** | 134 | 120 | 6690 | 1.35 | **WF** | **47R17** | **DR** | **63L4** | 20 | 720 |
| **12** | 139 | 105 | 6760 | 1.15 | **WA** | **47R17** | **DR** | **63L4** | 18 | 720 |
| **14** | 129 | 95 | 6820 | 1.25 | **WAF** | **47R17** | **DR** | **63L4** | 18 | 720 |
| **15** | 114 | 85 | 6900 | 1.40 | | | | | | |
| **17** | 106 | 77 | 6940 | 1.50 | | | | | | |
| **18** | 97 | 72 | 6980 | 1.65 | | | | | | |
| **10** | 128 | 125 | 1880 | 0.85 | | | | | | |
| **12** | 114 | 109 | 3220 | 0.95 | | | | | | |
| **14** | 102 | 96 | 3450 | 1.10 | **W** | **37R17** | **DR** | **63L4** | 14 | 720 |
| **16** | 88 | 82 | 3640 | 1.25 | **WF** | **37R17** | **DR** | **63L4** | 14 | 720 |
| **18** | 92 | 73 | 3580 | 0.95 | **WA** | **37R17** | **DR** | **63L4** | 14 | 720 |
| **21** | 82 | 63 | 3720 | 1.10 | **WAF** | **37R17** | **DR** | **63L4** | 14 | 720 |
| **24** | 70 | 53 | 3840 | 1.30 | | | | | | |
| **27** | 64 | 48 | 3880 | 1.40 | | | | | | |
| | | | | | **W** | **47** | **DRS** | **71S6** | 18 | 716 |
| **12** | 136 | 74.98 | 6680 | 1.30 | **WF** | **47** | **DRS** | **71S6** | 19 | 717 |
| **13** | 127 | 68.93 | 6730 | 1.40 | **WA** | **47** | **DRS** | **71S6** | 17 | 718 |
| | | | | | **WAF** | **47** | **DRS** | **71S6** | 17 | 717 |
| **17** | 98 | 74.98 | 6900 | 1.85 | | | | | | |
| **19** | 91 | 68.93 | 6940 | 2.00 | **W** | **47** | **DR** | **63L4** | 16 | 716 |
| **22** | 79 | 58.98 | 7000 | 2.3 | **WF** | **47** | **DR** | **63L4** | 17 | 717 |
| **25** | 70 | 51.12 | 7060 | 2.6 | **WA** | **47** | **DR** | **63L4** | 15 | 718 |
| **27** | 66 | 47.78 | 7080 | 2.7 | **WAF** | **47** | **DR** | **63L4** | 16 | 717 |
| **19** | 85 | 69.05 | 3680 | 1.30 | | | | | | |
| **21** | 78 | 63.33 | 3750 | 1.40 | | | | | | |
| **24** | 68 | 53.92 | 3850 | 1.60 | | | | | | |
| **28** | 60 | 46.49 | 3920 | 1.85 | | | | | | |
| **34** | 50 | 37.88 | 3990 | 2.2 | | | | | | |
| **38** | 52 | 34.52 | 3980 | 1.75 | | | | | | |
| **41** | 48 | 31.67 | 4000 | 1.90 | | | | | | |
| **47** | 38 | 27.78 | 4060 | 2.9 | **W** | **37** | **DR** | **63L4** | 11 | 711 |
| **48** | 41 | 26.96 | 4040 | 2.2 | **WF** | **37** | **DR** | **63L4** | 11 | 712 |
| **56** | 36 | 23.25 | 4060 | 2.5 | **WA** | **37** | **DR** | **63L4** | 11 | 714 |
| **61** | 30 | 21.33 | 4090 | 3.7 | **WAF** | **37** | **DR** | **63L4** | 11 | 712 |
| **69** | 30 | 18.94 | 4090 | 3.0 | | | | | | |
| **83** | 25 | 15.67 | 4110 | 3.6 | | | | | | |
| **94** | 22 | 13.89 | 4110 | 4.0 | | | | | | |
| **102** | 21 | 12.70 | 4120 | 3.3 | | | | | | |
| **112** | 20 | 11.65 | 4120 | 3.6 | | | | | | |
| **122** | 17 | 10.67 | 3910 | 5.2 | | | | | | |
| **131** | 17 | 9.92 | 3920 | 4.2 | | | | | | |
| **12** | 85 | 75.00* | 3000 | 0.85 | | | | | | |
| **15** | 79 | 60.00* | 3000 | 0.90 | **W** | **30** | **DRS** | **71S6** | 12 | 707 |
| **28** | 53 | 32.50* | 3000 | 1.35 | **WF** | **30** | **DRS** | **71S6** | 12 | 708 |
| **37** | 46 | 24.50* | 3000 | 1.50 | **WA** | **30** | **DRS** | **71S6** | 11 | 710 |
| **46** | 39 | 19.50* | 3000 | 1.80 | **WAF** | **30** | **DRS** | **71S6** | 12 | 709 |
| **17** | 61 | 75.00* | 3000 | 1.15 | | | | | | |
| **22** | 57 | 60.00* | 3000 | 1.25 | | | | | | |
| **27** | 50 | 48.00* | 3000 | 1.40 | | | | | | |
| **33** | 45 | 39.00* | 3000 | 1.55 | | | | | | |
| **40** | 38 | 32.50* | 3000 | 1.85 | | | | | | |
| **47** | 35 | 27.50* | 3000 | 2.00 | **W** | **30** | **DR** | **63L4** | 9.8 | 707 |
| **53** | 33 | 24.50* | 3000 | 2.1 | **WF** | **30** | **DR** | **63L4** | 10 | 708 |
| **67** | 28 | 19.50* | 3000 | 2.5 | **WA** | **30** | **DR** | **63L4** | 9.5 | 710 |
| **80** | 24 | 16.33 | 3000 | 2.5 | **WAF** | **30** | **DR** | **63L4** | 9.8 | 709 |
| **91** | 22 | 14.33 | 3000 | 2.8 | | | | | | |
| **127** | 16 | 10.25* | 3000 | 3.1 | | | | | | |
| **159** | 13 | 8.20* | 3000 | 3.0 | | | | | | |
| **198** | 11 | 6.57 | 2970 | 3.6 | | | | | | |

21284997/EN – 03/2015

## $P_m$ = 0.25 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **109** | 17 | 24.50* | 3000 | 4.2 | | | | | | |
| **136** | 14 | 19.50* | 3000 | 5.0 | **W** | **30** | **DR** | **63M2** | 9.0 | 707 |
| **163** | 12 | 16.33 | 3000 | 5.0 | **WF** | **30** | **DR** | **63M2** | 9.4 | 708 |
| **186** | 11 | 14.33 | 3000 | 5.5 | **WA** | **30** | **DR** | **63M2** | 8.8 | 710 |
| **260** | 8.1 | 10.25* | 2720 | 6.2 | **WAF** | **30** | **DR** | **63M2** | 9.1 | 709 |
| **324** | 6.6 | 8.20* | 2540 | 6.0 | | | | | | |
| **33** | 47 | 27.50* | 2200 | 0.85 | | | | | | |
| **37** | 43 | 24.50* | 2200 | 0.95 | | | | | | |
| **46** | 37 | 19.50* | 2200 | 0.95 | **W** | **20** | **DRS** | **71S6** | 9.1 | 704 |
| **62** | 30 | 14.33 | 2200 | 1.00 | **WF** | **20** | **DRS** | **71S6** | 9.2 | 705 |
| **87** | 22 | 10.25* | 2200 | 1.10 | **WA** | **20** | **DRS** | **71S6** | 8.8 | 706 |
| **109** | 19 | 8.20* | 2190 | 1.10 | **WAF** | **20** | **DRS** | **71S6** | 8.8 | 705 |
| **136** | 16 | 6.57 | 2090 | 1.30 | | | | | | |
| **22** | 48 | 60.00* | 2200 | 0.85 | | | | | | |
| **27** | 45 | 48.00* | 2200 | 0.90 | | | | | | |
| **33** | 41 | 39.00* | 2200 | 1.00 | | | | | | |
| **40** | 40 | 32.50* | 2200 | 1.00 | | | | | | |
| **47** | 34 | 27.50* | 2200 | 1.20 | **W** | **20** | **DR** | **63L4** | 7.3 | 704 |
| **53** | 30 | 24.50* | 2200 | 1.30 | **WF** | **20** | **DR** | **63L4** | 7.4 | 705 |
| **67** | 26 | 19.50* | 2200 | 1.35 | **WA** | **20** | **DR** | **63L4** | 7.0 | 706 |
| **79** | 23 | 16.50* | 2200 | 1.30 | **WAF** | **20** | **DR** | **63L4** | 7.0 | 705 |
| **91** | 21 | 14.33 | 2200 | 1.45 | | | | | | |
| **127** | 16 | 10.25* | 2100 | 1.60 | | | | | | |
| **159** | 13 | 8.20* | 1970 | 1.55 | | | | | | |
| **198** | 11 | 6.57 | 1870 | 1.85 | | | | | | |
| **82** | 21 | 32.50* | 2200 | 1.95 | | | | | | |
| **97** | 17 | 27.50* | 2200 | 2.3 | | | | | | |
| **109** | 16 | 24.50* | 2190 | 2.6 | **W** | **20** | **DR** | **63M2** | 6.6 | 704 |
| **136** | 13 | 19.50* | 2050 | 2.6 | **WF** | **20** | **DR** | **63M2** | 6.8 | 705 |
| **161** | 12 | 16.50* | 1950 | 2.6 | **WA** | **20** | **DR** | **63M2** | 6.3 | 706 |
| **186** | 11 | 14.33 | 1880 | 2.8 | **WAF** | **20** | **DR** | **63M2** | 6.3 | 705 |
| **260** | 7.9 | 10.25* | 1710 | 3.2 | | | | | | |
| **324** | 6.5 | 8.20* | 1600 | 3.1 | | | | | | |

## $P_m$ = 0.37 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **9.8** | 220 | 141 | 6110 | 0.80 | | | | | | |
| **11** | 192 | 120 | 6320 | 0.95 | | | | | | |
| **13** | 198 | 105 | 6430 | 0.80 | **W** | **47R17** | **DRS** | **71S4** | 21 | 720 |
| **15** | 183 | 95 | 6520 | 0.90 | **WF** | **47R17** | **DRS** | **71S4** | 21 | 720 |
| **16** | 163 | 85 | 6640 | 1.00 | **WA** | **47R17** | **DRS** | **71S4** | 19 | 720 |
| **18** | 150 | 77 | 6710 | 1.05 | **WAF** | **47R17** | **DRS** | **71S4** | 20 | 720 |
| **19** | 138 | 72 | 6770 | 1.15 | | | | | | |
| **17** | 126 | 82 | 2020 | 0.85 | **W** | **37R17** | **DRS** | **71S4** | 15 | 720 |
| **26** | 100 | 53 | 3480 | 0.90 | **WF** | **37R17** | **DRS** | **71S4** | 15 | 720 |
| **29** | 91 | 48 | 3600 | 1.00 | **WA** | **37R17** | **DRS** | **71S4** | 15 | 720 |
| | | | | | **WAF** | **37R17** | **DRS** | **71S4** | 15 | 720 |
| **12** | 200 | 74.98 | 6270 | 0.90 | **W** | **47** | **DRS** | **71M6** | 19 | 716 |
| **13** | 186 | 68.93 | 6360 | 0.95 | **WF** | **47** | **DRS** | **71M6** | 20 | 717 |
| **15** | 162 | 58.98 | 6520 | 1.10 | **WA** | **47** | **DRS** | **71M6** | 18 | 718 |
| **18** | 143 | 51.12 | 6640 | 1.25 | **WAF** | **47** | **DRS** | **71M6** | 19 | 717 |
| **19** | 134 | 47.78 | 6690 | 1.35 | | | | | | |



21284997/EN – 03/2015

## $P_m$ = 0.37 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **18** | 138 | 74.98 | 6670 | 1.30 | | | | | | |
| **20** | 128 | 68.93 | 6730 | 1.40 | | | | | | |
| **23** | 111 | 58.98 | 6820 | 1.60 | | | | | | |
| **27** | 98 | 51.12 | 6900 | 1.85 | | | | | | |
| **29** | 92 | 47.78 | 6930 | 1.95 | | | | | | |
| **33** | 81 | 41.30 | 6940 | 2.2 | | | | | | |
| **39** | 70 | 35.09 | 6660 | 2.6 | | | | | | |
| **44** | 69 | 31.62 | 6560 | 2.3 | | | | | | |
| **44** | 63 | 31.33 | 6460 | 2.9 | **W** | **47** | **DRS** | **71S4** | 18 | 716 |
| **50** | 60 | 27.41 | 6310 | 2.7 | **WF** | **47** | **DRS** | **71S4** | 19 | 717 |
| **52** | 54 | 26.76 | 6200 | 3.3 | **WA** | **47** | **DRS** | **71S4** | 17 | 718 |
| **54** | 56 | 25.62 | 6200 | 2.8 | **WAF** | **47** | **DRS** | **71S4** | 17 | 717 |
| **55** | 51 | 25.07 | 6090 | 3.5 | | | | | | |
| **62** | 49 | 22.15 | 5950 | 3.3 | | | | | | |
| **73** | 42 | 18.82 | 5680 | 3.8 | | | | | | |
| **82** | 38 | 16.80 | 5500 | 4.2 | | | | | | |
| **96** | 32 | 14.35 | 5250 | 4.9 | | | | | | |
| **112** | 30 | 12.30 | 5120 | 3.7 | | | | | | |
| **129** | 26 | 10.66 | 4890 | 4.3 | | | | | | |
| **139** | 24 | 9.96 | 4790 | 4.6 | | | | | | |
| **22** | 110 | 63.33 | 3320 | 1.00 | | | | | | |
| **26** | 96 | 53.92 | 3540 | 1.15 | | | | | | |
| **30** | 84 | 46.49 | 3680 | 1.30 | | | | | | |
| **36** | 70 | 37.88 | 3830 | 1.55 | | | | | | |
| **40** | 73 | 34.52 | 3810 | 1.25 | | | | | | |
| **44** | 67 | 31.67 | 3860 | 1.35 | | | | | | |
| **50** | 53 | 27.78 | 3970 | 2.1 | | | | | | |
| **51** | 58 | 26.96 | 3930 | 1.55 | **W** | **37** | **DRS** | **71S4** | 13 | 711 |
| **59** | 50 | 23.25 | 3990 | 1.80 | **WF** | **37** | **DRS** | **71S4** | 13 | 712 |
| **65** | 42 | 21.33 | 4030 | 2.6 | **WA** | **37** | **DRS** | **71S4** | 13 | 714 |
| **73** | 42 | 18.94 | 4040 | 2.2 | **WAF** | **37** | **DRS** | **71S4** | 13 | 712 |
| **88** | 35 | 15.67 | 4070 | 2.6 | | | | | | |
| **99** | 31 | 13.89 | 4030 | 2.9 | | | | | | |
| **109** | 30 | 12.70 | 4090 | 2.3 | | | | | | |
| **118** | 27 | 11.65 | 3990 | 2.6 | | | | | | |
| **129** | 24 | 10.67 | 3740 | 3.7 | | | | | | |
| **139** | 23 | 9.92 | 3800 | 3.0 | | | | | | |
| **161** | 20 | 8.55 | 3630 | 3.5 | | | | | | |
| **18** | 86 | 75.00* | 3000 | 0.80 | | | | | | |
| **23** | 80 | 60.00* | 3000 | 0.90 | | | | | | |
| **29** | 69 | 48.00* | 3000 | 1.00 | | | | | | |
| **35** | 63 | 39.00* | 3000 | 1.10 | | | | | | |
| **42** | 53 | 32.50* | 3000 | 1.30 | **W** | **30** | **DRS** | **71S4** | 12 | 707 |
| **50** | 49 | 27.50* | 3000 | 1.40 | **WF** | **30** | **DRS** | **71S4** | 12 | 708 |
| **56** | 46 | 24.50* | 3000 | 1.55 | **WA** | **30** | **DRS** | **71S4** | 11 | 710 |
| **71** | 39 | 19.50* | 3000 | 1.80 | **WAF** | **30** | **DRS** | **71S4** | 12 | 709 |
| **84** | 33 | 16.33 | 3000 | 1.80 | | | | | | |
| **96** | 30 | 14.33 | 3000 | 2.00 | | | | | | |
| **135** | 23 | 10.25* | 3000 | 2.2 | | | | | | |
| **168** | 19 | 8.20* | 3000 | 2.1 | | | | | | |
| **210** | 16 | 6.57 | 2870 | 2.6 | | | | | | |
| **108** | 25 | 24.50* | 3000 | 2.8 | | | | | | |
| **136** | 21 | 19.50* | 3000 | 3.4 | **W** | **30** | **DR** | **63L2** | 9.8 | 707 |
| **162** | 18 | 16.33 | 3000 | 3.4 | **WF** | **30** | **DR** | **63L2** | 10 | 708 |
| **185** | 16 | 14.33 | 2960 | 3.7 | **WA** | **30** | **DR** | **63L2** | 9.5 | 710 |
| **259** | 12 | 10.25* | 2690 | 4.1 | **WAF** | **30** | **DR** | **63L2** | 9.8 | 709 |
| **323** | 9.9 | 8.20* | 2510 | 4.0 | | | | | | |
| **50** | 47 | 27.50* | 2200 | 0.85 | | | | | | |
| **56** | 43 | 24.50* | 2200 | 0.95 | | | | | | |
| **71** | 37 | 19.50* | 2200 | 0.95 | **W** | **20** | **DRS** | **71S4** | 9.1 | 704 |
| **84** | 32 | 16.50* | 2180 | 0.95 | **WF** | **20** | **DRS** | **71S4** | 9.2 | 705 |
| **96** | 29 | 14.33 | 2130 | 1.00 | **WA** | **20** | **DRS** | **71S4** | 8.8 | 706 |
| **135** | 22 | 10.25* | 1970 | 1.15 | **WAF** | **20** | **DRS** | **71S4** | 8.8 | 705 |
| **168** | 18 | 8.20* | 1870 | 1.10 | | | | | | |
| **210** | 15 | 6.57 | 1800 | 1.30 | | | | | | |

21284997/EN – 03/2015

## $P_m$ = 0.37 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **108** | 23 | 24.50* | 2080 | 1.70 | | | | | | |
| **136** | 20 | 19.50* | 1970 | 1.75 | **W** | **20** | **DR** | **63L2** | 7.3 | 704 |
| **161** | 17 | 16.50* | 1880 | 1.75 | **WF** | **20** | **DR** | **63L2** | 7.4 | 705 |
| **185** | 16 | 14.33 | 1820 | 1.90 | **WA** | **20** | **DR** | **63L2** | 7.0 | 706 |
| **259** | 12 | 10.25* | 1660 | 2.1 | **WAF** | **20** | **DR** | **63L2** | 7.0 | 705 |
| **323** | 9.6 | 8.20* | 1560 | 2.1 | | | | | | |

## $P_m$ = 0.55 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **18** | 205 | 51.12 | 6200 | 0.85 | | | | | | |
| **19** | 198 | 47.78 | 6280 | 0.90 | | | | | | |
| **22** | 174 | 41.30 | 6440 | 1.05 | **W** | **47** | **DRS** | **80S6** | 22 | 716 |
| **26** | 150 | 35.09 | 6590 | 1.20 | **WF** | **47** | **DRS** | **80S6** | 22 | 717 |
| **29** | 151 | 31.62 | 6700 | 1.05 | **WA** | **47** | **DRS** | **80S6** | 20 | 718 |
| **29** | 136 | 31.33 | 6610 | 1.35 | **WAF** | **47** | **DRS** | **80S6** | 21 | 717 |
| **33** | 132 | 27.41 | 6570 | 1.20 | | | | | | |
| **36** | 124 | 25.62 | 6480 | 1.30 | | | | | | |
| **18** | 205 | 74.98 | 6220 | 0.85 | | | | | | |
| **20** | 192 | 68.93 | 6320 | 0.95 | | | | | | |
| **23** | 168 | 58.98 | 6480 | 1.05 | | | | | | |
| **27** | 147 | 51.12 | 6610 | 1.20 | **W** | **47** | **DRS** | **71M4** | 19 | 716 |
| **28** | 139 | 47.78 | 6640 | 1.30 | **WF** | **47** | **DRS** | **71M4** | 20 | 717 |
| **33** | 122 | 41.30 | 6460 | 1.50 | **WA** | **47** | **DRS** | **71M4** | 18 | 718 |
| **39** | 105 | 35.09 | 6250 | 1.70 | **WAF** | **47** | **DRS** | **71M4** | 19 | 717 |
| **43** | 104 | 31.62 | 6220 | 1.55 | | | | | | |
| **43** | 95 | 31.33 | 6100 | 1.90 | | | | | | |
| **50** | 90 | 27.41 | 6020 | 1.75 | | | | | | |
| **53** | 85 | 25.62 | 5930 | 1.90 | | | | | | |
| **36** | 106 | 37.88 | 3390 | 1.05 | | | | | | |
| **43** | 101 | 31.67 | 3460 | 0.90 | | | | | | |
| **49** | 80 | 27.78 | 3730 | 1.35 | | | | | | |
| **50** | 87 | 26.96 | 3650 | 1.05 | | | | | | |
| **59** | 76 | 23.25 | 3780 | 1.20 | | | | | | |
| **64** | 63 | 21.33 | 3890 | 1.75 | | | | | | |
| **72** | 63 | 18.94 | 3900 | 1.45 | | | | | | |
| **87** | 52 | 15.67 | 3960 | 1.70 | **W** | **37** | **DRS** | **71M4** | 14 | 711 |
| **98** | 47 | 13.89 | 3850 | 1.95 | **WF** | **37** | **DRS** | **71M4** | 14 | 712 |
| **107** | 45 | 12.70 | 4010 | 1.55 | **WA** | **37** | **DRS** | **71M4** | 14 | 714 |
| **117** | 41 | 11.65 | 3910 | 1.70 | **WAF** | **37** | **DRS** | **71M4** | 14 | 712 |
| **128** | 36 | 10.67 | 3610 | 2.5 | | | | | | |
| **137** | 35 | 9.92 | 3730 | 2.00 | | | | | | |
| **159** | 30 | 8.55 | 3580 | 2.3 | | | | | | |
| **195** | 25 | 6.97 | 3360 | 2.8 | | | | | | |
| **236** | 21 | 5.77 | 3180 | 3.4 | | | | | | |
| **266** | 18 | 5.11 | 3060 | 3.8 | | | | | | |
| **346** | 14 | 3.93 | 2820 | 4.9 | | | | | | |
| **42** | 80 | 32.50* | 3000 | 0.90 | | | | | | |
| **49** | 74 | 27.50* | 3000 | 0.95 | | | | | | |
| **56** | 69 | 24.50* | 3000 | 1.00 | **W** | **30** | **DRS** | **71M4** | 13 | 707 |
| **83** | 50 | 16.33 | 3000 | 1.20 | **WF** | **30** | **DRS** | **71M4** | 13 | 708 |
| **95** | 46 | 14.33 | 3000 | 1.30 | **WA** | **30** | **DRS** | **71M4** | 13 | 710 |
| **133** | 34 | 10.25* | 3000 | 1.45 | **WAF** | **30** | **DRS** | **71M4** | 13 | 709 |
| **166** | 28 | 8.20* | 2990 | 1.40 | | | | | | |
| **207** | 24 | 6.57 | 2810 | 1.70 | | | | | | |
| **115** | 35 | 24.50* | 3000 | 2.0 | | | | | | |
| **144** | 29 | 19.50* | 3000 | 2.4 | **W** | **30** | **DRS** | **71M2** | 13 | 707 |
| **172** | 25 | 16.33 | 2940 | 2.4 | **WF** | **30** | **DRS** | **71M2** | 13 | 708 |
| **196** | 23 | 14.33 | 2840 | 2.6 | **WA** | **30** | **DRS** | **71M2** | 13 | 710 |
| **274** | 17 | 10.25* | 2590 | 3.0 | **WAF** | **30** | **DRS** | **71M2** | 13 | 709 |
| **343** | 14 | 8.20* | 2420 | 2.9 | | | | | | |



21284997/EN – 03/2015

## $P_m$ = 0.55 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **115** | 33 | 24.50* | 1900 | 1.20 | | | | | | |
| **144** | 28 | 19.50* | 1810 | 1.25 | | | | | | |
| **170** | 24 | 16.50* | 1740 | 1.25 | **W** | **20** | **DRS** | **71M2** | 10 | 704 |
| **196** | 22 | 14.33 | 1700 | 1.35 | **WF** | **20** | **DRS** | **71M2** | 11 | 705 |
| **274** | 17 | 10.25* | 1570 | 1.50 | **WA** | **20** | **DRS** | **71M2** | 10 | 706 |
| **343** | 14 | 8.20* | 1480 | 1.50 | **WAF** | **20** | **DRS** | **71M2** | 10 | 705 |
| **428** | 11 | 6.57 | 1420 | 1.75 | | | | | | |

## $P_m$ = 0.75 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **24** | 215 | 58.98 | 6090 | 0.85 | | | | | | |
| **28** | 191 | 51.12 | 6010 | 0.95 | | | | | | |
| **30** | 180 | 47.78 | 5960 | 1.00 | | | | | | |
| **35** | 158 | 41.30 | 5850 | 1.15 | | | | | | |
| **41** | 136 | 35.09 | 5710 | 1.30 | | | | | | |
| **46** | 134 | 31.62 | 5770 | 1.20 | **W** | **47** | **DRN** | **80M4** | 24 | 716 |
| **46** | 123 | 31.33 | 5600 | 1.45 | **WF** | **47** | **DRN** | **80M4** | 25 | 717 |
| **53** | 117 | 27.41 | 5610 | 1.35 | **WA** | **47** | **DRN** | **80M4** | 23 | 718 |
| **54** | 106 | 26.76 | 5450 | 1.70 | **WAF** | **47** | **DRN** | **80M4** | 24 | 717 |
| **56** | 110 | 25.62 | 5540 | 1.45 | | | | | | |
| **57** | 100 | 25.07 | 5380 | 1.80 | | | | | | |
| **65** | 95 | 22.15 | 5370 | 1.70 | | | | | | |
| **77** | 82 | 18.82 | 5180 | 1.95 | | | | | | |
| **117** | 58 | 12.30 | 4850 | 1.90 | | | | | | |
| **46** | 116 | 31.33 | 3050 | 0.95 | | | | | | |
| **52** | 104 | 27.78 | 3420 | 1.05 | | | | | | |
| **62** | 98 | 23.25 | 3510 | 0.90 | | | | | | |
| **68** | 82 | 21.33 | 3710 | 1.35 | | | | | | |
| **76** | 81 | 18.94 | 3720 | 1.10 | | | | | | |
| **92** | 68 | 15.67 | 3670 | 1.35 | | | | | | |
| **104** | 60 | 13.89 | 3590 | 1.50 | **W** | **37** | **DRN** | **80M4** | 18 | 711 |
| **135** | 47 | 10.67 | 3390 | 1.90 | **WF** | **37** | **DRN** | **80M4** | 18 | 712 |
| **145** | 45 | 9.92 | 3590 | 1.55 | **WA** | **37** | **DRN** | **80M4** | 18 | 714 |
| **168** | 39 | 8.55 | 3440 | 1.80 | **WAF** | **37** | **DRN** | **80M4** | 18 | 712 |
| **207** | 32 | 6.97 | 3250 | 2.2 | | | | | | |
| **250** | 27 | 5.77 | 3070 | 2.6 | | | | | | |
| **282** | 24 | 5.11 | 2960 | 3.0 | | | | | | |
| **367** | 18 | 3.93 | 2740 | 3.8 | | | | | | |
| **450** | 15 | 3.20* | 2570 | 4.7 | | | | | | |
| **88** | 65 | 16.33 | 3000 | 0.90 | | | | | | |
| **100** | 59 | 14.33 | 3000 | 1.00 | **W** | **30** | **DRN** | **80M4** | 17 | 707 |
| **140** | 44 | 10.25* | 3000 | 1.15 | **WF** | **30** | **DRN** | **80M4** | 18 | 708 |
| **176** | 36 | 8.20* | 2850 | 1.10 | **WA** | **30** | **DRN** | **80M4** | 17 | 710 |
| **219** | 31 | 6.57 | 2700 | 1.30 | **WAF** | **30** | **DRN** | **80M4** | 17 | 709 |

21284997/EN – 03/2015

## $P_m$ = 1.1 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **41** | 198 | 35.09 | 4910 | 0.90 | | | | | | |
| **46** | 194 | 31.62 | 5110 | 0.80 | | | | | | |
| **46** | 178 | 31.33 | 4880 | 1.00 | | | | | | |
| **53** | 170 | 27.41 | 5030 | 0.95 | | | | | | |
| **54** | 154 | 26.76 | 4820 | 1.15 | | | | | | |
| **57** | 159 | 25.62 | 4990 | 1.00 | | | | | | |
| **58** | 145 | 25.07 | 4780 | 1.25 | **W** | **47** | **DRN** | **90S4** | 30 | 716 |
| **66** | 139 | 22.15 | 4890 | 1.15 | **WF** | **47** | **DRN** | **90S4** | 31 | 717 |
| **77** | 119 | 18.82 | 4760 | 1.35 | **WA** | **47** | **DRN** | **90S4** | 29 | 718 |
| **87** | 107 | 16.80 | 4670 | 1.50 | **WAF** | **47** | **DRN** | **90S4** | 30 | 717 |
| **101** | 92 | 14.35 | 4530 | 1.75 | | | | | | |
| **108** | 86 | 13.44 | 4470 | 1.85 | | | | | | |
| **118** | 84 | 12.30 | 4660 | 1.30 | | | | | | |
| **136** | 73 | 10.66 | 4490 | 1.50 | | | | | | |
| **146** | 68 | 9.96 | 4410 | 1.60 | | | | | | |
| **169** | 59 | 8.61 | 4240 | 1.85 | | | | | | |
| **93** | 98 | 15.67 | 3260 | 0.90 | | | | | | |
| **105** | 88 | 13.89 | 3220 | 1.05 | | | | | | |
| **136** | 68 | 10.67 | 3110 | 1.30 | | | | | | |
| **147** | 66 | 9.92 | 3440 | 1.05 | **W** | **37** | **DRN** | **90S4** | 24 | 711 |
| **170** | 57 | 8.55 | 3310 | 1.25 | **WF** | **37** | **DRN** | **90S4** | 24 | 712 |
| **209** | 47 | 6.97 | 3140 | 1.50 | **WA** | **37** | **DRN** | **90S4** | 24 | 714 |
| **252** | 39 | 5.77 | 2980 | 1.80 | **WAF** | **37** | **DRN** | **90S4** | 24 | 712 |
| **285** | 34 | 5.11 | 2880 | 2.0 | | | | | | |
| **371** | 26 | 3.93 | 2670 | 2.6 | | | | | | |
| **455** | 22 | 3.20* | 2520 | 3.2 | | | | | | |

## $P_m$ = 1.5 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **55** | 205 | 26.76 | 4110 | 0.85 | | | | | | |
| **58** | 198 | 25.07 | 4120 | 0.90 | | | | | | |
| **66** | 188 | 22.15 | 4360 | 0.85 | | | | | | |
| **78** | 161 | 18.82 | 4310 | 1.00 | | | | | | |
| **87** | 145 | 16.80 | 4260 | 1.10 | | | | | | |
| **102** | 125 | 14.35 | 4180 | 1.30 | **W** | **47** | **DRN** | **90L4** | 34 | 716 |
| **109** | 117 | 13.44 | 4140 | 1.35 | **WF** | **47** | **DRN** | **90L4** | 34 | 717 |
| **129** | 99 | 11.32 | 4020 | 1.60 | **WA** | **47** | **DRN** | **90L4** | 32 | 718 |
| **137** | 99 | 10.66 | 4310 | 1.10 | **WAF** | **47** | **DRN** | **90L4** | 33 | 717 |
| **147** | 93 | 9.96 | 4240 | 1.20 | | | | | | |
| **170** | 80 | 8.61 | 4090 | 1.35 | | | | | | |
| **200** | 68 | 7.32 | 3920 | 1.60 | | | | | | |
| **224** | 61 | 6.53 | 3810 | 1.80 | | | | | | |
| **137** | 93 | 10.67 | 2790 | 0.95 | | | | | | |
| **171** | 78 | 8.55 | 3170 | 0.90 | | | | | | |
| **210** | 63 | 6.97 | 3020 | 1.10 | **W** | **37** | **DRN** | **90L4** | 27 | 711 |
| **253** | 53 | 5.77 | 2880 | 1.35 | **WF** | **37** | **DRN** | **90L4** | 27 | 712 |
| **286** | 47 | 5.11 | 2790 | 1.50 | **WA** | **37** | **DRN** | **90L4** | 27 | 714 |
| **372** | 36 | 3.93 | 2600 | 1.95 | **WAF** | **37** | **DRN** | **90L4** | 27 | 712 |
| **457** | 29 | 3.20* | 2460 | 2.4 | | | | | | |



21284997/EN – 03/2015

## $P_m$ = 2.2 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **101** | 184 | 14.35 | 3560 | 0.85 | | | | | | |
| **108** | 173 | 13.44 | 3560 | 0.90 | | | | | | |
| **128** | 147 | 11.32 | 3540 | 1.10 | | | | | | |
| **168** | 119 | 8.61 | 3840 | 0.95 | | | | | | |
| **198** | 101 | 7.32 | 3720 | 1.10 | **W** | **47** | **DRN** | **100LS4** | 38 | 716 |
| **222** | 91 | 6.53 | 3620 | 1.20 | **WF** | **47** | **DRN** | **100LS4** | 38 | 717 |
| **260** | 78 | 5.58 | 3500 | 1.40 | **WA** | **47** | **DRN** | **100LS4** | 36 | 718 |
| **277** | 73 | 5.23 | 3440 | 1.50 | **WAF** | **47** | **DRN** | **100LS4** | 37 | 717 |
| **329** | 61 | 4.40 | 3300 | 1.80 | | | | | | |
| **373** | 54 | 3.89 | 3200 | 2.0 | | | | | | |
| **444** | 46 | 3.27 | 3050 | 2.4 | | | | | | |

## $P_m$ = 3.0 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **223** | 123 | 6.53 | 3400 | 0.90 | | | | | | |
| **261** | 105 | 5.58 | 3300 | 1.05 | **W** | **47** | **DRN** | **100L4** | 45 | 716 |
| **279** | 99 | 5.23 | 3260 | 1.10 | **WF** | **47** | **DRN** | **100L4** | 45 | 717 |
| **331** | 83 | 4.40 | 3150 | 1.30 | **WA** | **47** | **DRN** | **100L4** | 43 | 718 |
| **374** | 74 | 3.89 | 3060 | 1.50 | **WAF** | **47** | **DRN** | **100L4** | 44 | 717 |
| **446** | 62 | 3.27 | 2940 | 1.75 | | | | | | |

## $P_m$ = 4.0 kW

| $n_a$ rpm | $M_a$ Nm | i | $F_{Ra}$ [1] N | SEW $f_B$ | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|---|---|
| **280** | 131 | 5.23 | 3040 | 0.85 | **W** | **47** | **DRN** | **112M4** | 54 | 716 |
| **333** | 111 | 4.40 | 2960 | 1.00 | **WF** | **47** | **DRN** | **112M4** | 55 | 717 |
| **376** | 98 | 3.89 | 2890 | 1.10 | **WA** | **47** | **DRN** | **112M4** | 53 | 718 |
| **448** | 82 | 3.27 | 2800 | 1.35 | **WAF** | **47** | **DRN** | **112M4** | 53 | 717 |

21284997/EN – 03/2015

## 12.4 W..R..DRN.. selection tables for low output speeds in Nm

### $M_{a\,max}$ = 90 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|
| **18** | 73 | 3610 | **W** | **37R17** | **DR** | **63L4** | 14 | 720 |
| | | | **WF** | **37R17** | **DR** | **63L4** | 14 | 720 |
| | | | **WA** | **37R17** | **DR** | **63L4** | 14 | 720 |
| | | | **WAF** | **37R17** | **DR** | **63L4** | 14 | 720 |
| **22** | 63 | 3610 | **W** | **37R17** | **DRS** | **71S4** | 15 | 720 |
| **26** | 53 | 3610 | **WF** | **37R17** | **DRS** | **71S4** | 15 | 720 |
| **29** | 48 | 3610 | **WA** | **37R17** | **DRS** | **71S4** | 15 | 720 |
| | | | **WAF** | **37R17** | **DRS** | **71S4** | 15 | 720 |

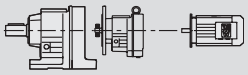
### $M_{a\,max}$ = 110 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|
| **0.31** | 4402 | 3320 | | | | | | |
| **0.36** | 3795 | 3320 | | | | | | |
| **0.42** | 3272 | 3320 | | | | | | |
| **0.48** | 2899 | 3320 | | | | | | |
| **0.54** | 2558 | 3320 | | | | | | |
| **0.58** | 2382 | 3320 | **W** | **37R17** | **DR** | **63S4** | 13 | 720 |
| **0.64** | 2172 | 3320 | **WF** | **37R17** | **DR** | **63S4** | 13 | 720 |
| **0.71** | 1952 | 3320 | **WA** | **37R17** | **DR** | **63S4** | 13 | 720 |
| **0.77** | 1795 | 3320 | **WAF** | **37R17** | **DR** | **63S4** | 13 | 720 |
| **0.87** | 1593 | 3320 | | | | | | |
| **0.94** | 1463 | 3320 | | | | | | |
| **1.1** | 1298 | 3320 | | | | | | |
| **1.8** | 754 | 3320 | | | | | | |
| **2.1** | 669 | 3320 | | | | | | |
| **1.2** | 1173 | 3320 | | | | | | |
| **1.3** | 1063 | 3320 | | | | | | |
| **1.4** | 956 | 3320 | | | | | | |
| **1.6** | 854 | 3320 | | | | | | |
| **2.3** | 600 | 3320 | **W** | **37R17** | **DR** | **63S4** | 13 | 720 |
| **2.6** | 532 | 3320 | **WF** | **37R17** | **DR** | **63S4** | 13 | 720 |
| **2.9** | 472 | 3320 | **WA** | **37R17** | **DR** | **63S4** | 13 | 720 |
| **3.2** | 434 | 3320 | **WAF** | **37R17** | **DR** | **63S4** | 13 | 720 |
| **3.6** | 384 | 3320 | | | | | | |
| **3.8** | 359 | 3320 | | | | | | |
| **4.2** | 327 | 3320 | | | | | | |
| **4.8** | 286 | 3320 | | | | | | |
| **5.0** | 267 | 3320 | **W** | **37R17** | **DR** | **63M4** | 13 | 720 |
| **5.7** | 233 | 3320 | **WF** | **37R17** | **DR** | **63M4** | 13 | 720 |
| **6.4** | 207 | 3320 | **WA** | **37R17** | **DR** | **63M4** | 13 | 720 |
| **7.2** | 184 | 3320 | **WAF** | **37R17** | **DR** | **63M4** | 13 | 720 |
| **8.2** | 160 | 3320 | | | | | | |
| **9.2** | 141 | 3320 | **W** | **37R17** | **DR** | **63L4** | 14 | 720 |
| **10** | 125 | 3320 | **WF** | **37R17** | **DR** | **63L4** | 14 | 720 |
| **12** | 109 | 3320 | **WA** | **37R17** | **DR** | **63L4** | 14 | 720 |
| | | | **WAF** | **37R17** | **DR** | **63L4** | 14 | 720 |
| **14** | 96 | 3320 | **W** | **37R17** | **DRS** | **71S4** | 15 | 720 |
| **17** | 82 | 3320 | **WF** | **37R17** | **DRS** | **71S4** | 15 | 720 |
| | | | **WA** | **37R17** | **DRS** | **71S4** | 15 | 720 |
| | | | **WAF** | **37R17** | **DRS** | **71S4** | 15 | 720 |

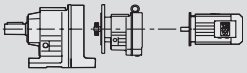
### $M_{a\,max}$ = 160 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N | | | | | m kg | |
|---|---|---|---|---|---|---|---|---|
| **11** | 124 | 6650 | **W** | **47R17** | **DR** | **63L4** | 19 | 720 |
| | | | **WF** | **47R17** | **DR** | **63L4** | 20 | 720 |
| | | | **WA** | **47R17** | **DR** | **63L4** | 18 | 720 |
| | | | **WAF** | **47R17** | **DR** | **63L4** | 18 | 720 |

## $M_{a\ max}$ = 160 Nm

| $n_a$ rpm | i | $F_{Ra}$ [1] N |  | | | | m kg |  |
|---|---|---|---|---|---|---|---|---|
| **13** | 105 | 6650 | **W** | **47R17** | **DRS** | **71S4** | 21 | 720 |
| | | | **WF** | **47R17** | **DRS** | **71S4** | 21 | 720 |
| **15** | 95 | 6650 | **WA** | **47R17** | **DRS** | **71S4** | 19 | 720 |
| **16** | 85 | 6650 | **WAF** | **47R17** | **DRS** | **71S4** | 20 | 720 |
| | | | **W** | **47R17** | **DRS** | **71M4** | 22 | 720 |
| **18** | 77 | 6650 | **WF** | **47R17** | **DRS** | **71M4** | 23 | 720 |
| **19** | 72 | 6650 | **WA** | **47R17** | **DRS** | **71M4** | 21 | 720 |
| | | | **WAF** | **47R17** | **DRS** | **71M4** | 22 | 720 |

## $M_{a\ max}$ = 180 Nm

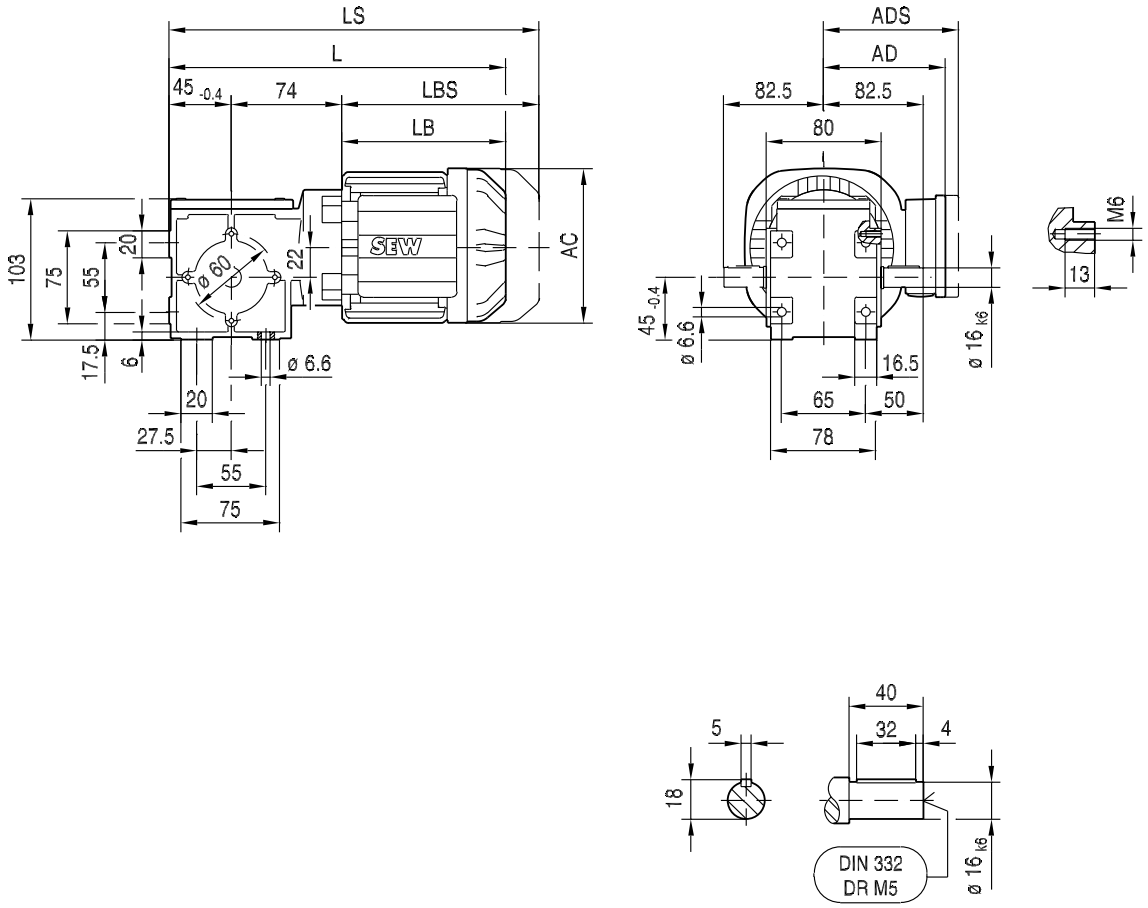
| $n_a$ rpm | i | $F_{Ra}$ [1] N |  | | | | m kg |  |
|---|---|---|---|---|---|---|---|---|
| **0.29** | 4815 | 6400 | | | | | | |
| **0.33** | 4173 | 6400 | | | | | | |
| **0.36** | 3870 | 6400 | | | | | | |
| **0.38** | 3598 | 6400 | | | | | | |
| **0.41** | 3354 | 6400 | | | | | | |
| **0.44** | 3171 | 6400 | | | | | | |
| **0.50** | 2748 | 6400 | **W** | **47R17** | **DR** | **63S4** | 19 | 720 |
| **0.57** | 2425 | 6400 | **WF** | **47R17** | **DR** | **63S4** | 19 | 720 |
| **0.61** | 2258 | 6400 | **WA** | **47R17** | **DR** | **63S4** | 17 | 720 |
| **0.65** | 2111 | 6400 | **WAF** | **47R17** | **DR** | **63S4** | 18 | 720 |
| **0.70** | 1959 | 6400 | | | | | | |
| **0.77** | 1797 | 6400 | | | | | | |
| **0.87** | 1595 | 6400 | | | | | | |
| **0.93** | 1486 | 6400 | | | | | | |
| **0.95** | 1448 | 6400 | | | | | | |
| **1.2** | 1170 | 6400 | | | | | | |
| **1.8** | 754 | 6400 | | | | | | |
| **1.1** | 1290 | 6400 | | | | | | |
| **1.2** | 1183 | 6400 | | | | | | |
| **1.3** | 1042 | 6400 | | | | | | |
| **1.4** | 956 | 6400 | **W** | **47R17** | **DR** | **63S4** | 18 | 720 |
| **1.6** | 869 | 6400 | **WF** | **47R17** | **DR** | **63S4** | 19 | 720 |
| **2.1** | 661 | 6400 | **WA** | **47R17** | **DR** | **63S4** | 17 | 720 |
| **2.3** | 596 | 6400 | **WAF** | **47R17** | **DR** | **63S4** | 18 | 720 |
| **2.6** | 536 | 6400 | | | | | | |
| **2.9** | 473 | 6400 | | | | | | |
| **3.2** | 434 | 6400 | | | | | | |
| **3.4** | 386 | 6400 | | | | | | |
| **3.7** | 359 | 6400 | **W** | **47R17** | **DR** | **63M4** | 18 | 720 |
| **4.2** | 318 | 6400 | **WF** | **47R17** | **DR** | **63M4** | 19 | 720 |
| **4.5** | 291 | 6400 | **WA** | **47R17** | **DR** | **63M4** | 17 | 720 |
| **4.9** | 270 | 6400 | **WAF** | **47R17** | **DR** | **63M4** | 18 | 720 |
| **5.0** | 265 | 6400 | | | | | | |
| | | | **W** | **47R17** | **DR** | **63L4** | 19 | 720 |
| **5.5** | 237 | 6400 | **WF** | **47R17** | **DR** | **63L4** | 20 | 720 |
| **6.2** | 210 | 6400 | **WA** | **47R17** | **DR** | **63L4** | 18 | 720 |
| **7.1** | 183 | 6400 | **WAF** | **47R17** | **DR** | **63L4** | 18 | 720 |
| | | | **W** | **47R17** | **DRS** | **71S4** | 21 | 720 |
| **8.7** | 159 | 6400 | **WF** | **47R17** | **DRS** | **71S4** | 21 | 720 |
| **9.8** | 141 | 6400 | **WA** | **47R17** | **DRS** | **71S4** | 19 | 720 |
| **11** | 120 | 6400 | **WAF** | **47R17** | **DRS** | **71S4** | 20 | 720 |

21284997/EN – 03/2015

## 12.5 W..DRN.. dimension sheets in mm

**W10..**

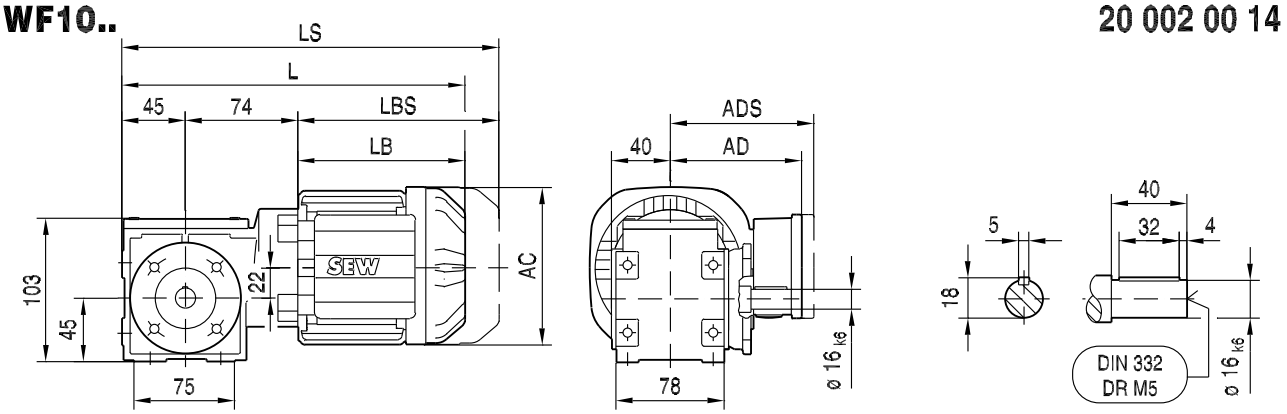
20 001 00 14

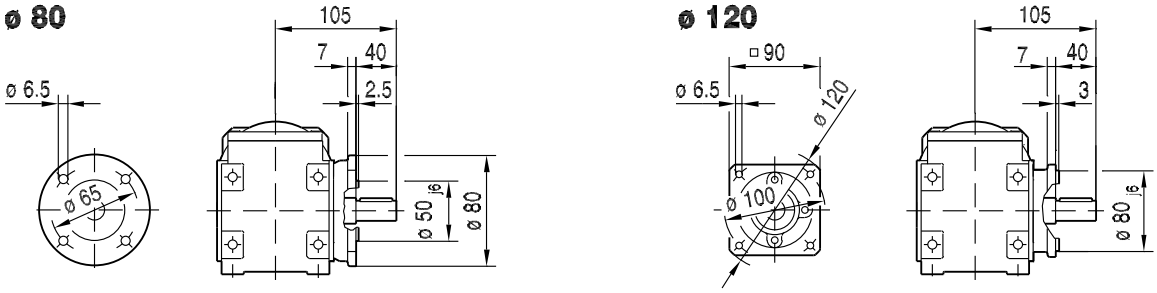



| (→ 142) | DT56.. | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **AC** | 109 | | | | | | | |
| **AD** | 87 | | | | | | | |
| **ADS** | 87 | | | | | | | |
| **L** | 255 | | | | | | | |
| **LS** | 291 | | | | | | | |
| **LB** | 136 | | | | | | | |
| **LBS** | 172 | | | | | | | |

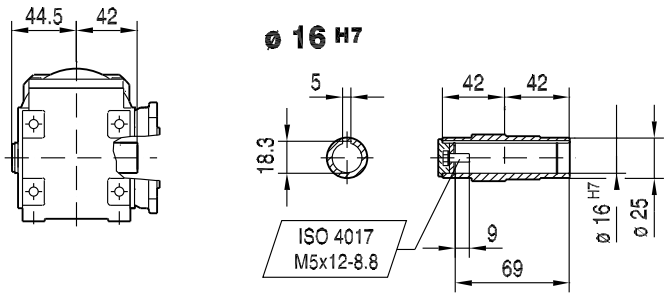
## WF10..

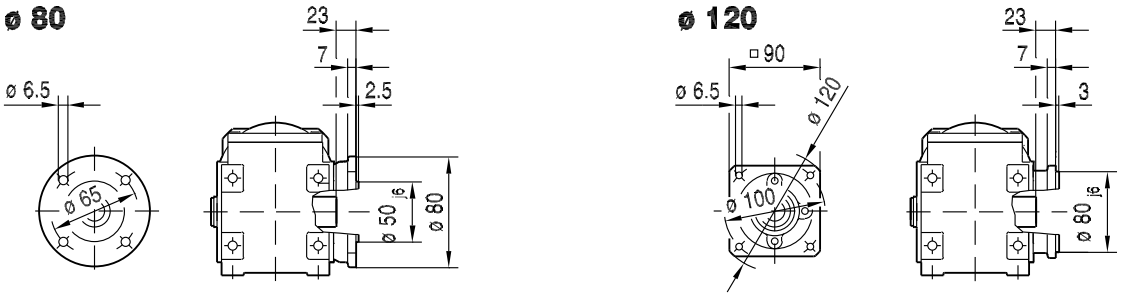
20 002 00 14




## WAF10..

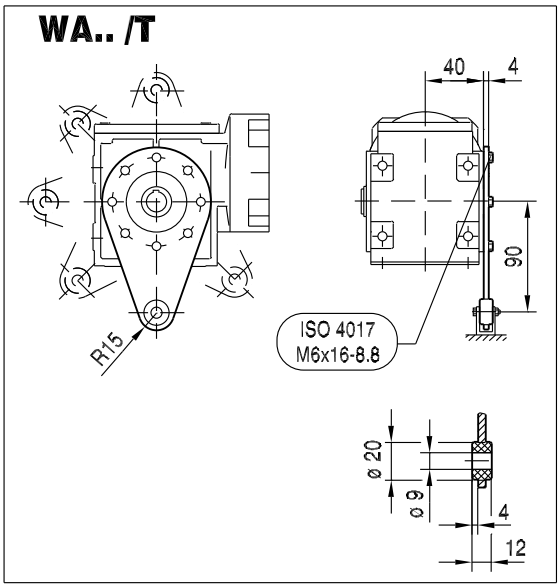


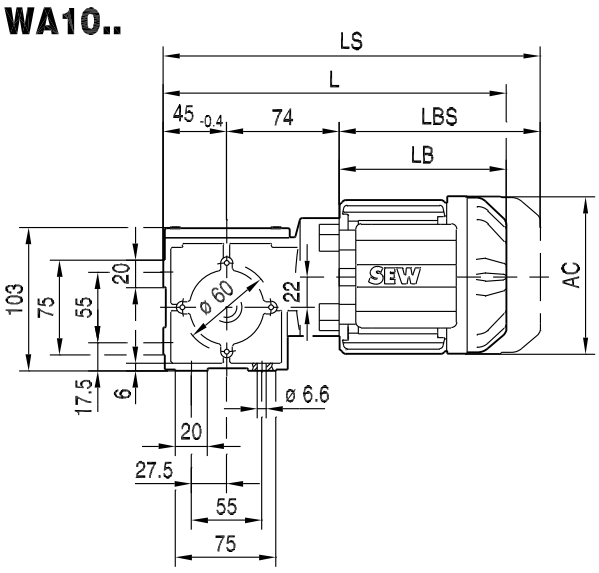



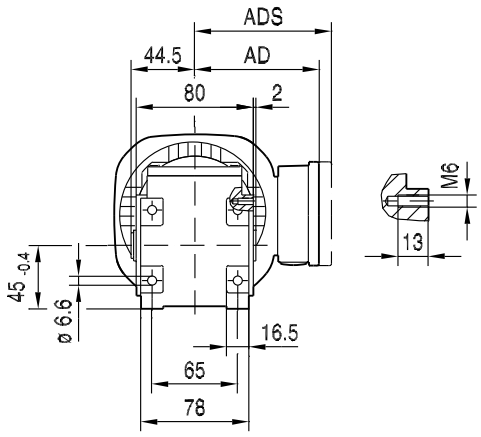

| (→ 142) | DT56.. | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **AC** | 109 | | | | | | | |
| **AD** | 87 | | | | | | | |
| **ADS** | 87 | | | | | | | |
| **L** | 255 | | | | | | | |
| **LS** | 291 | | | | | | | |
| **LB** | 136 | | | | | | | |
| **LBS** | 172 | | | | | | | |

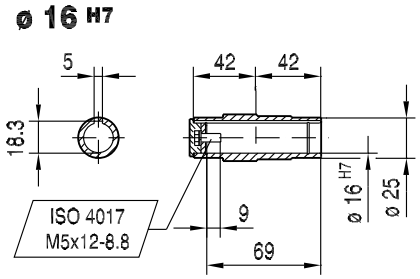
21284997/EN – 03/2015

20 003 00 14



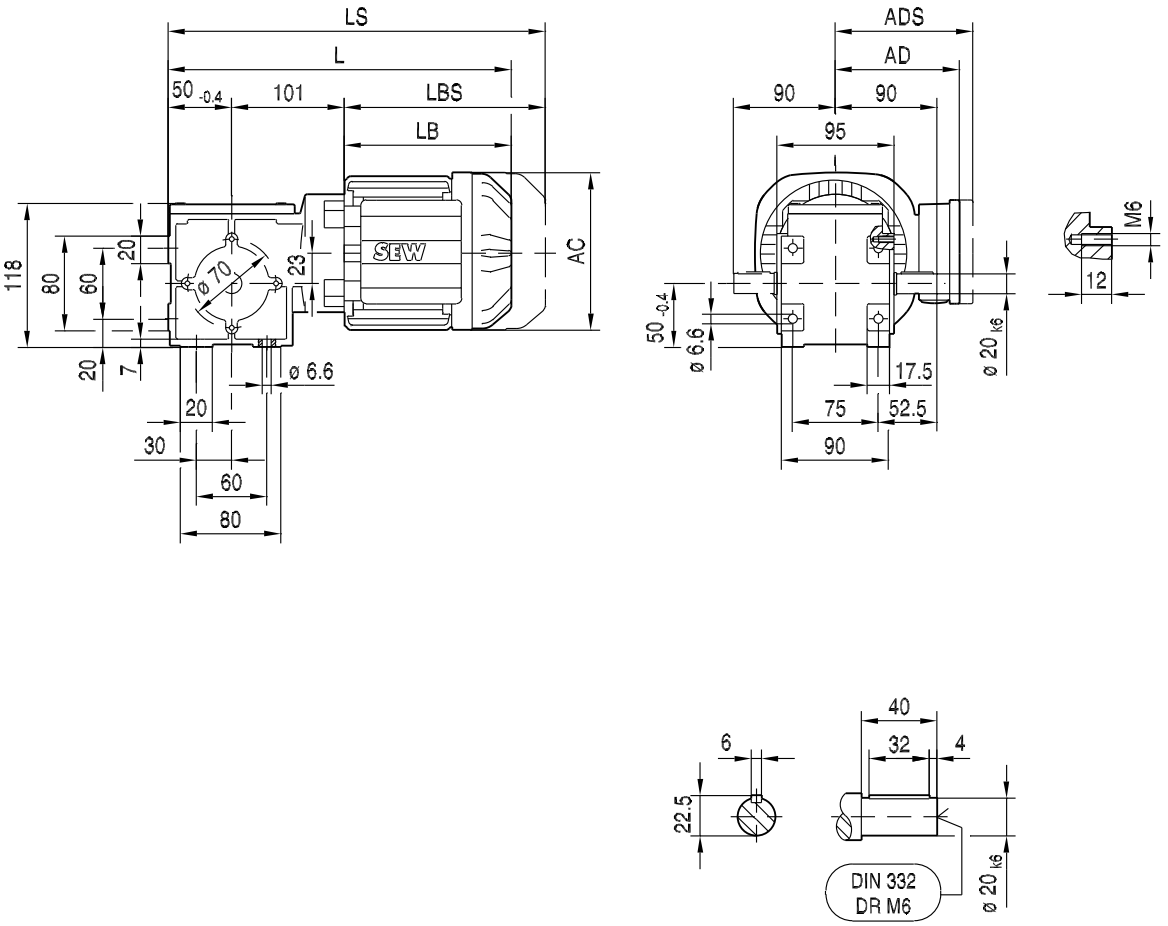




| (→ 142) | DT56.. | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **AC** | 109 | | | | | | | |
| **AD** | 87 | | | | | | | |
| **ADS** | 87 | | | | | | | |
| **L** | 255 | | | | | | | |
| **LS** | 291 | | | | | | | |
| **LB** | 136 | | | | | | | |
| **LBS** | 172 | | | | | | | |

21284997/EN – 03/2015

**W20..**

20 004 00 14

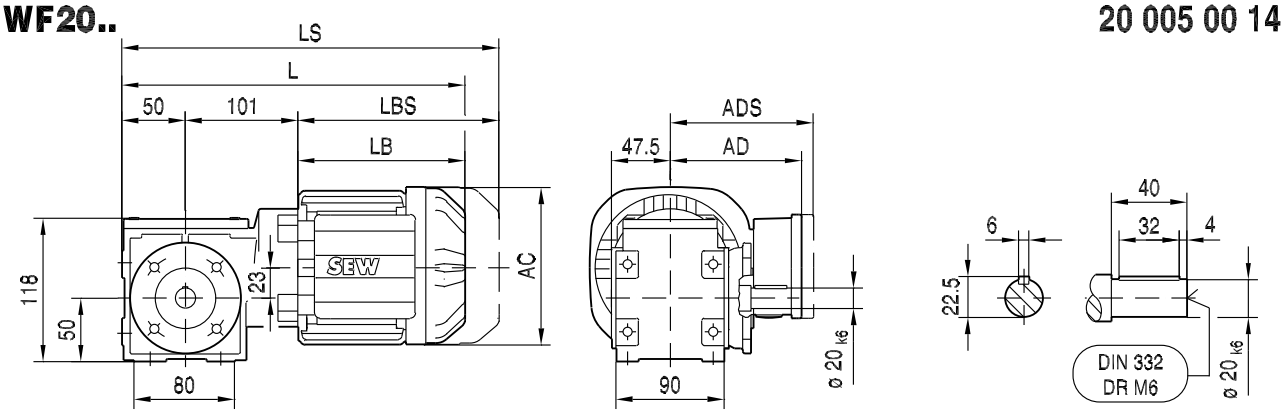



| (→ 142) | DR63.. | DR71S | DR71M | | | | | |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | | | | | |
| **AD** | 105 | 119 | 119 | | | | | |
| **ADS** | 105 | 129 | 129 | | | | | |
| **L** | 300 | 311 | 336 | | | | | |
| **LS** | 355 | 379 | 404 | | | | | |
| **LB** | 149 | 160 | 185 | | | | | |
| **LBS** | 204 | 228 | 253 | | | | | |

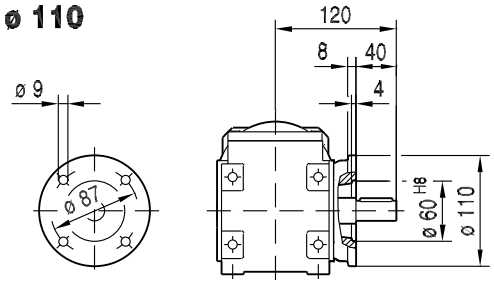
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## WF20..

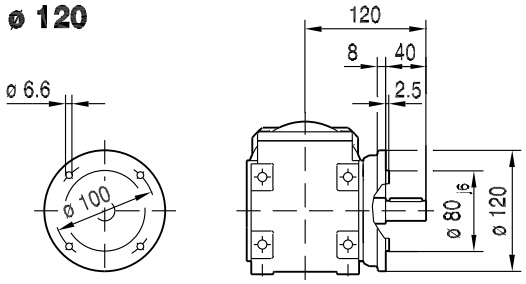
20 005 00 14



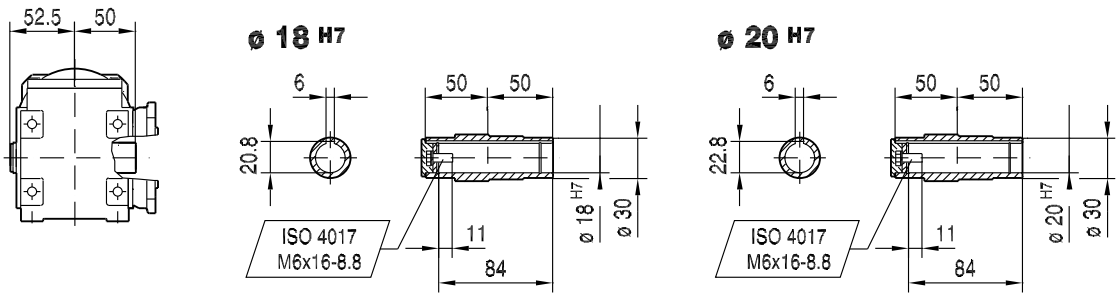

### ø 110



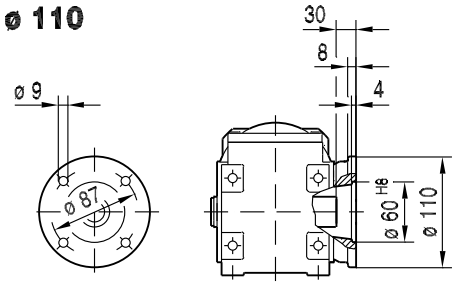

### ø 120



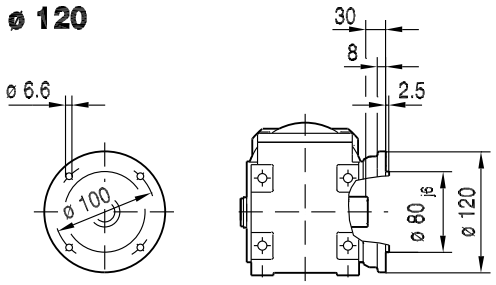

## WAF20..




### ø 110



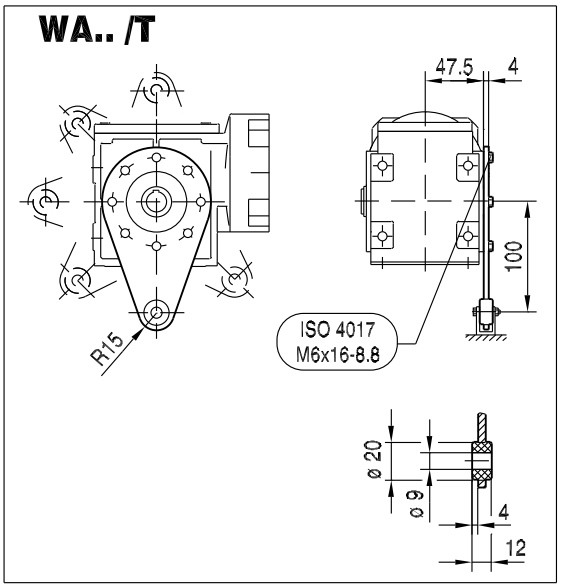

### ø 120

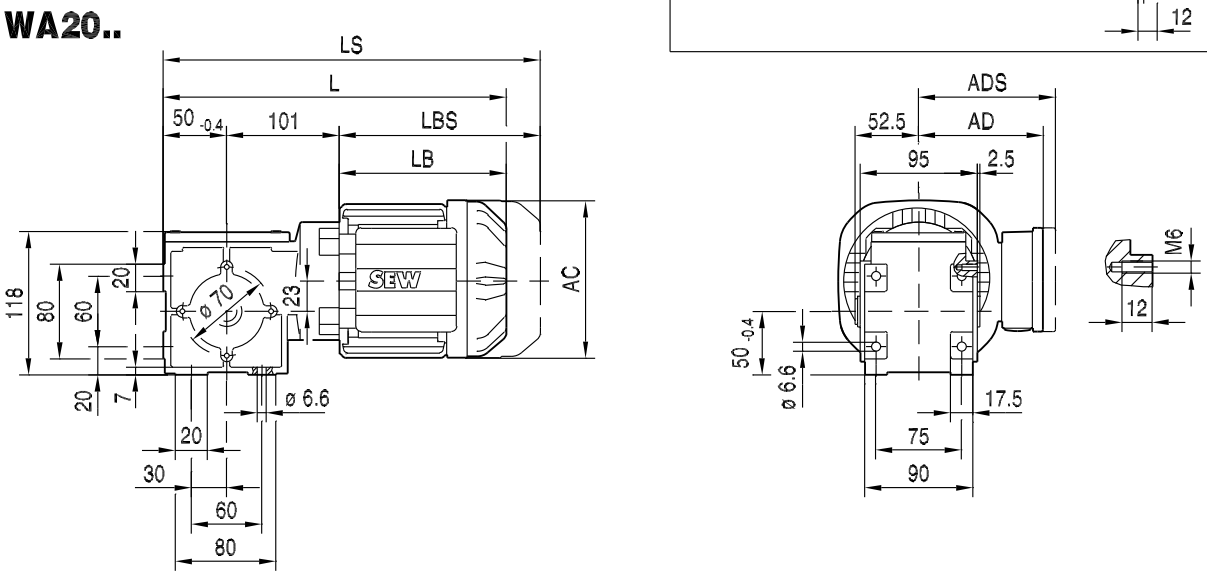


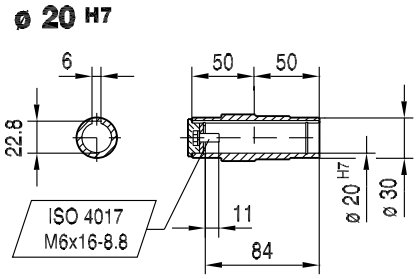

| (→ 142) | DR63.. | DR71S | DR71M | | | | | |
|---|---|---|---|---|---|---|---|---|
| AC | 132 | 139 | 139 | | | | | |
| AD | 105 | 119 | 119 | | | | | |
| ADS | 105 | 129 | 129 | | | | | |
| L | 300 | 311 | 336 | | | | | |
| LS | 355 | 379 | 404 | | | | | |
| LB | 149 | 160 | 185 | | | | | |
| LBS | 204 | 228 | 253 | | | | | |

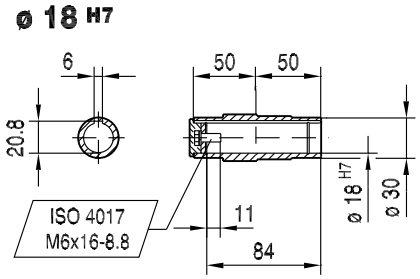
21284997/EN – 03/2015

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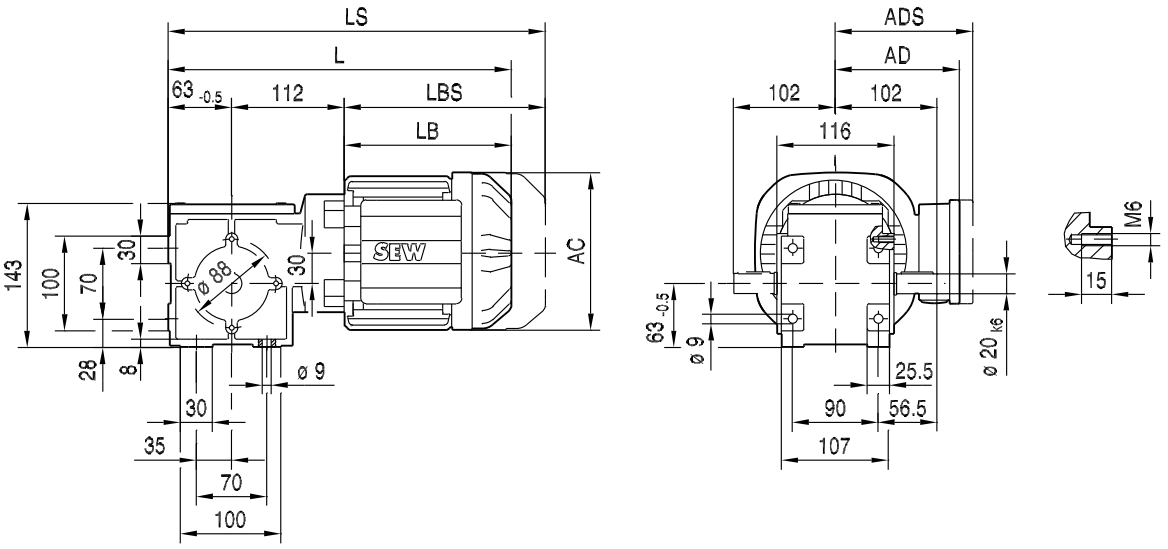




| (→ 142) | DR63.. | DR71S | DR71M | | | | | |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | | | | | |
| **AD** | 105 | 119 | 119 | | | | | |
| **ADS** | 105 | 129 | 129 | | | | | |
| **L** | 300 | 311 | 336 | | | | | |
| **LS** | 355 | 379 | 404 | | | | | |
| **LB** | 149 | 160 | 185 | | | | | |
| **LBS** | 204 | 228 | 253 | | | | | |

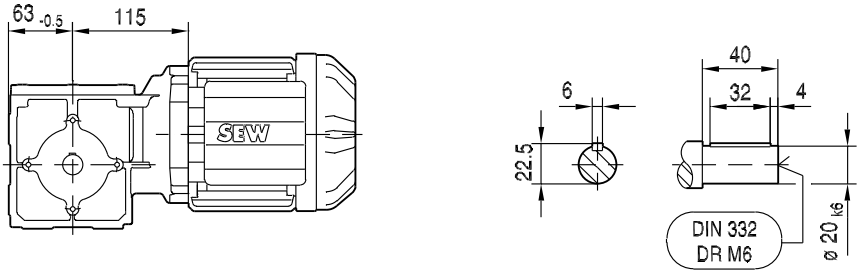
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20 007 00 14

## W30..




## DR80..

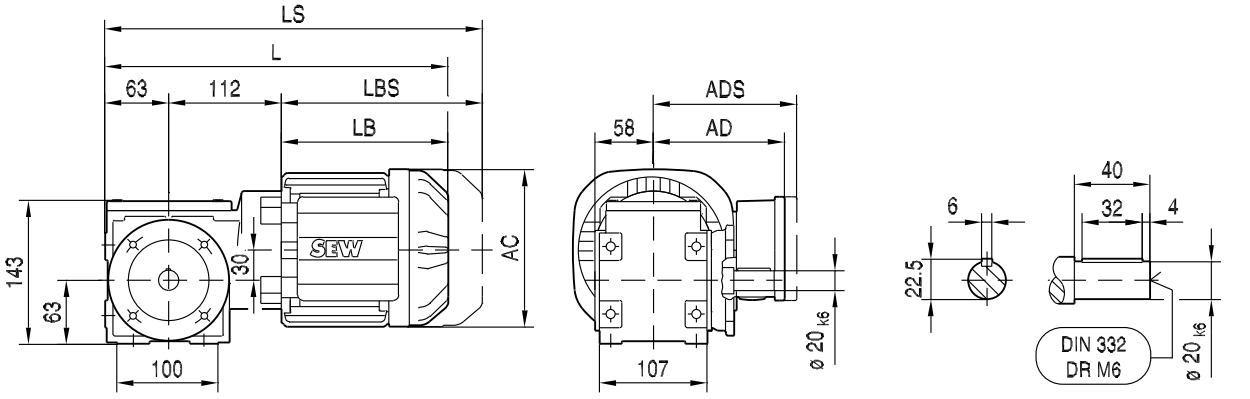



| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | | | | |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | | | | |
| **AD** | 105 | 119 | 119 | 128 | | | | |
| **ADS** | 105 | 129 | 129 | 139 | | | | |
| **L** | 324 | 335 | 360 | 410 | | | | |
| **LS** | 379 | 403 | 428 | 491 | | | | |
| **LB** | 149 | 160 | 185 | 235 | | | | |
| **LBS** | 204 | 228 | 253 | 316 | | | | |

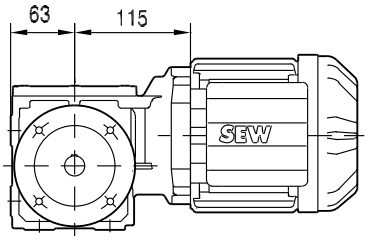
21284997/EN – 03/2015

## WF30..

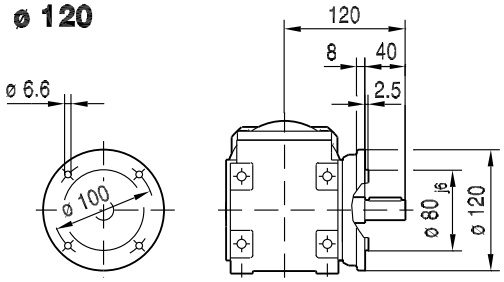
20 008 00 14



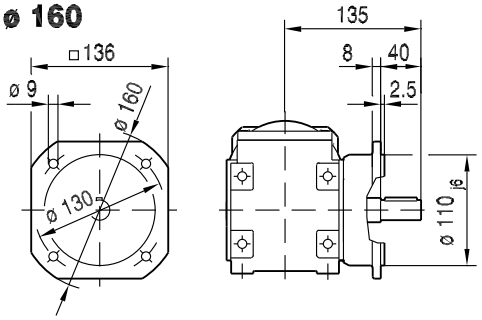

## DR80..




### ø 120




### ø 160

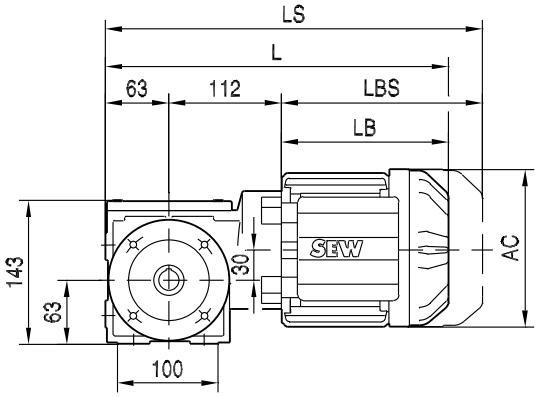


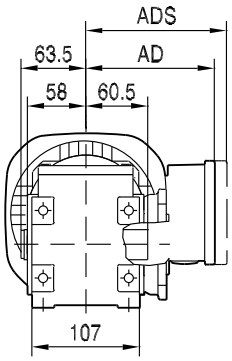

| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | | | | |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | | | | |
| **AD** | 105 | 119 | 119 | 128 | | | | |
| **ADS** | 105 | 129 | 129 | 139 | | | | |
| **L** | 324 | 335 | 360 | 410 | | | | |
| **LS** | 379 | 403 | 428 | 491 | | | | |
| **LB** | 149 | 160 | 185 | 235 | | | | |
| **LBS** | 204 | 228 | 253 | 316 | | | | |

21284997/EN – 03/2015

## WAF30..

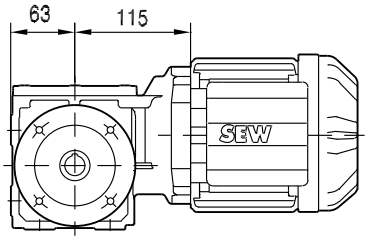
20 009 00 14

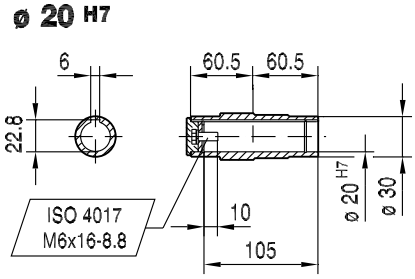


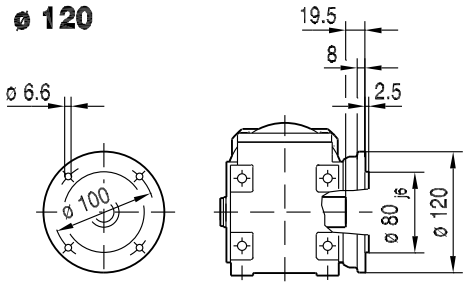



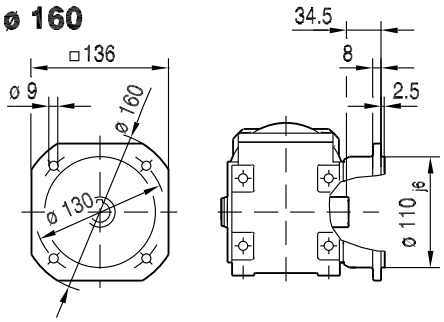



## DR80..



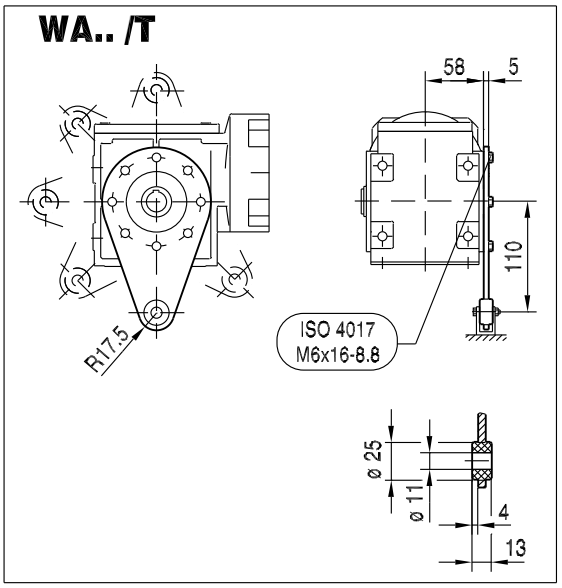



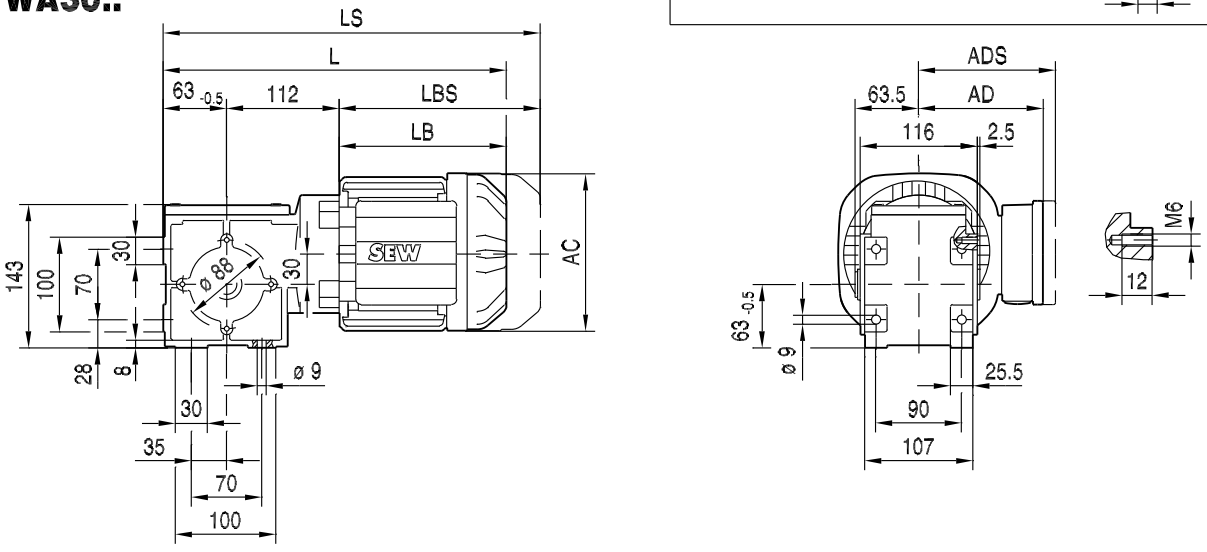



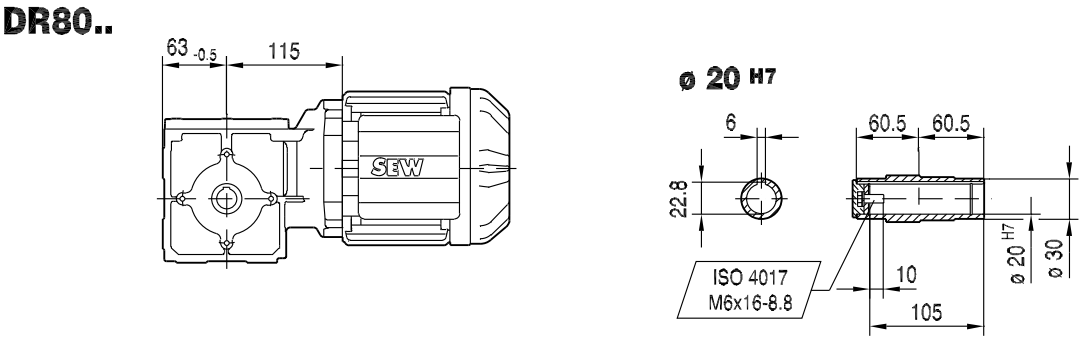

| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | | | | |
|---|---|---|---|---|---|---|---|---|
| AC | 132 | 139 | 139 | 156 | | | | |
| AD | 105 | 119 | 119 | 128 | | | | |
| ADS | 105 | 129 | 129 | 139 | | | | |
| L | 324 | 335 | 360 | 410 | | | | |
| LS | 379 | 403 | 428 | 491 | | | | |
| LB | 149 | 160 | 185 | 235 | | | | |
| LBS | 204 | 228 | 253 | 316 | | | | |

21284997/EN – 03/2015

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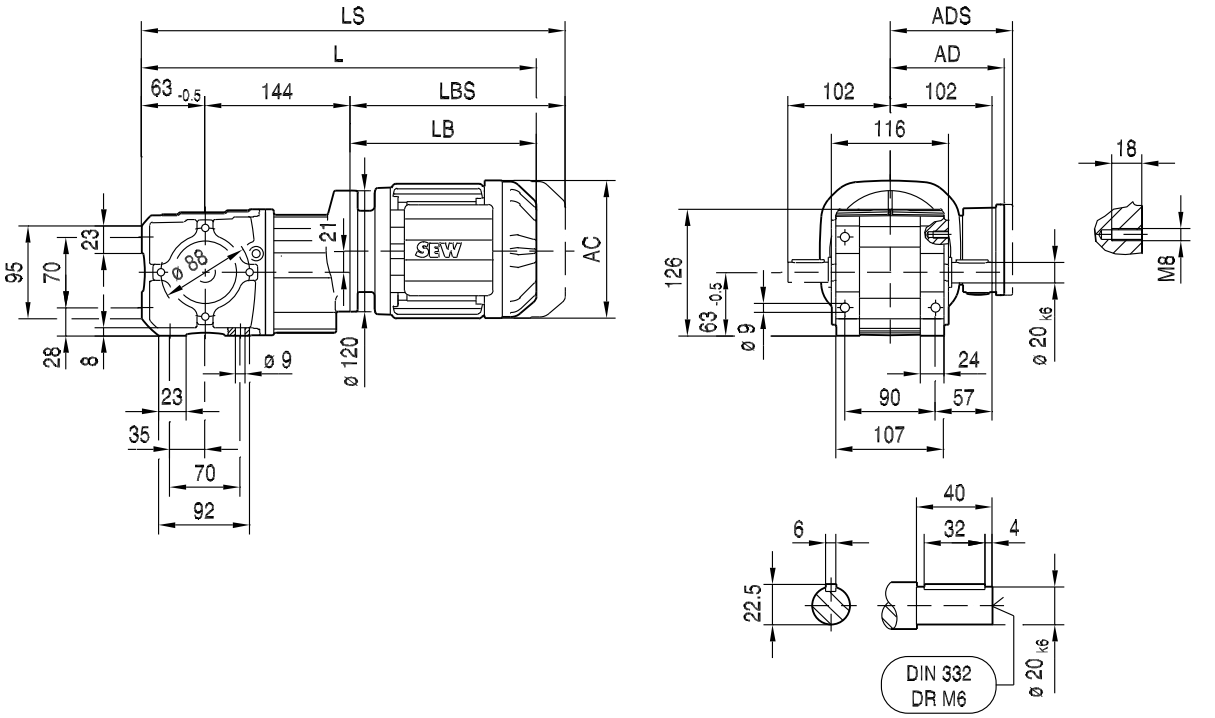




| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | | | | |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | | | | |
| **AD** | 105 | 119 | 119 | 128 | | | | |
| **ADS** | 105 | 129 | 129 | 139 | | | | |
| **L** | 324 | 335 | 360 | 410 | | | | |
| **LS** | 379 | 403 | 428 | 491 | | | | |
| **LB** | 149 | 160 | 185 | 235 | | | | |
| **LBS** | 204 | 228 | 253 | 316 | | | | |

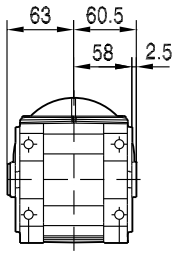
21284997/EN – 03/2015

20 011 00 14

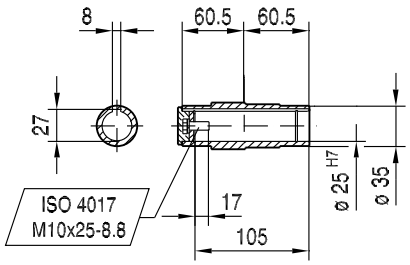
## W37..



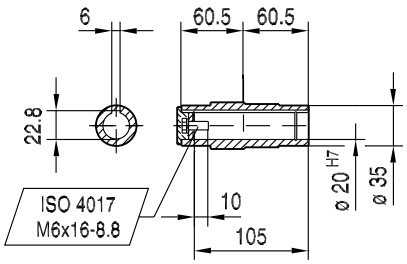

## WA37B..



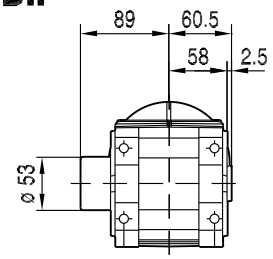

**ø 25 H7**
**DIN 6885-3**

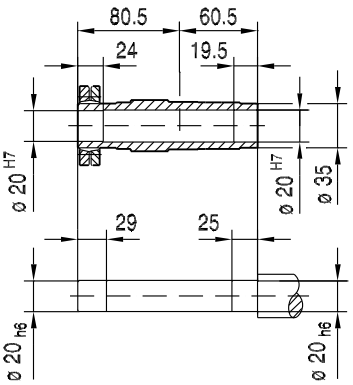



**ø 20 H7**




## WH37B..

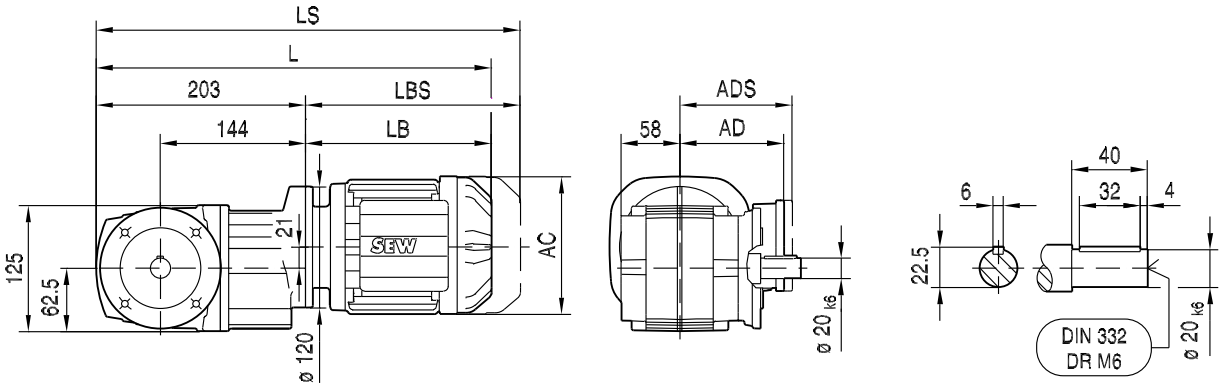


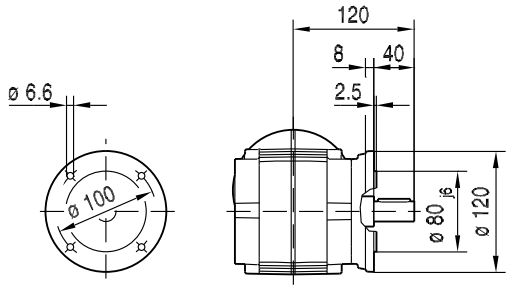

| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | | |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | | |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | | |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | | |
| **L** | 398 | 409 | 434 | 489 | 490 | 522 | | |
| **LS** | 453 | 477 | 502 | 570 | 584 | 616 | | |
| **LB** | 191 | 202 | 227 | 282 | 283 | 315 | | |
| **LBS** | 246 | 270 | 295 | 363 | 377 | 409 | | |

20 012 00 14

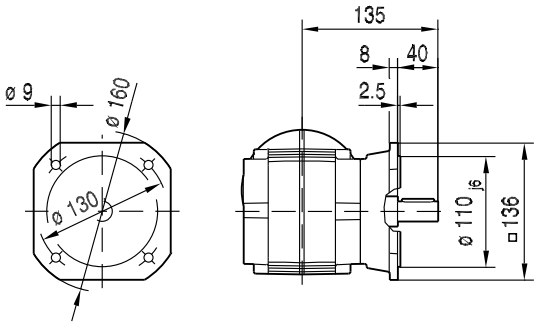
## WF37..




### ø 120
**max. DR71..**

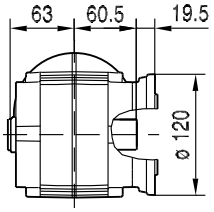



### ø 160

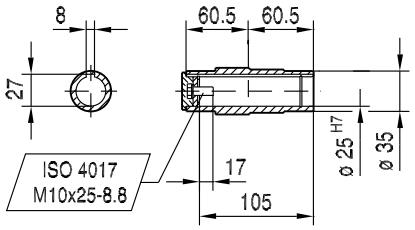



## WAF37..

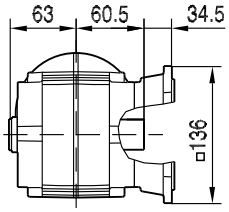
### ø 120
**max. DR71..**



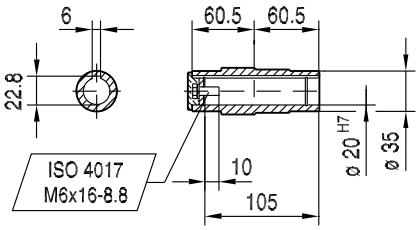

### ø 25 H7
**DIN 6885-3**




### ø 160




### ø 20 H7

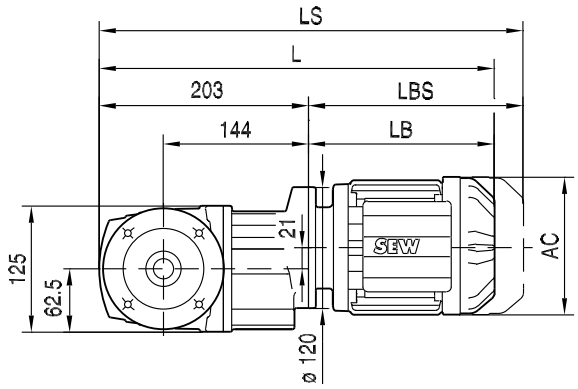


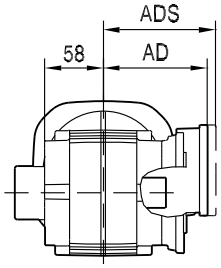

| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | | |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | | |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | | |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | | |
| **L** | 394 | 405 | 430 | 485 | 486 | 518 | | |
| **LS** | 449 | 473 | 498 | 566 | 580 | 612 | | |
| **LB** | 191 | 202 | 227 | 282 | 283 | 315 | | |
| **LBS** | 246 | 270 | 295 | 363 | 377 | 409 | | |

21284997/EN – 03/2015

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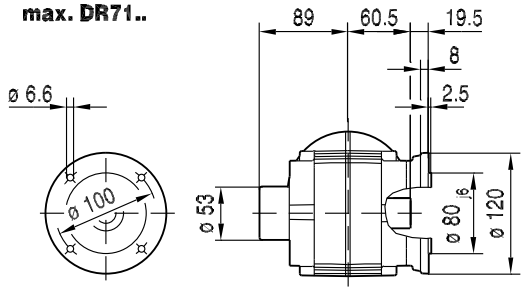
## WHF37..



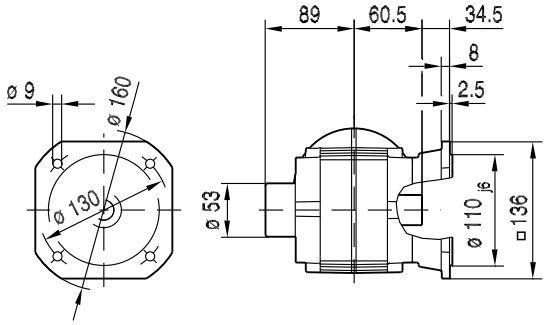



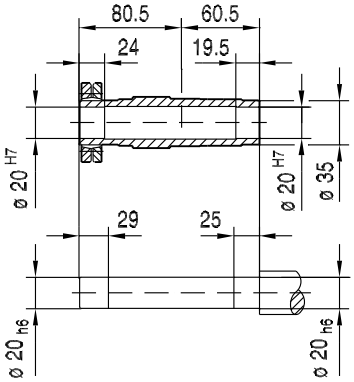



**ø 120**
**max. DR71..**




**ø 160**



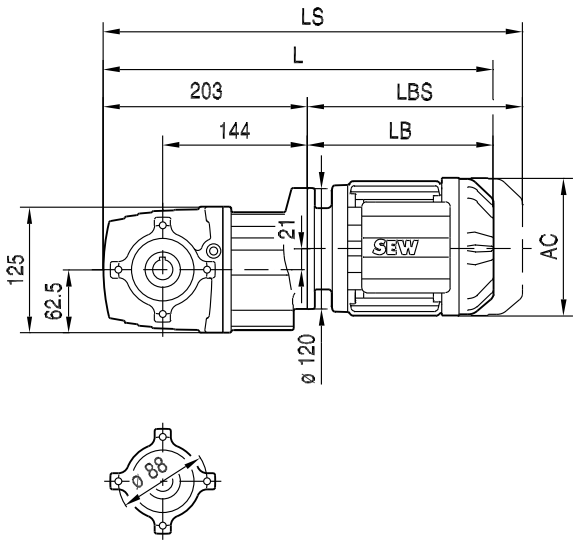



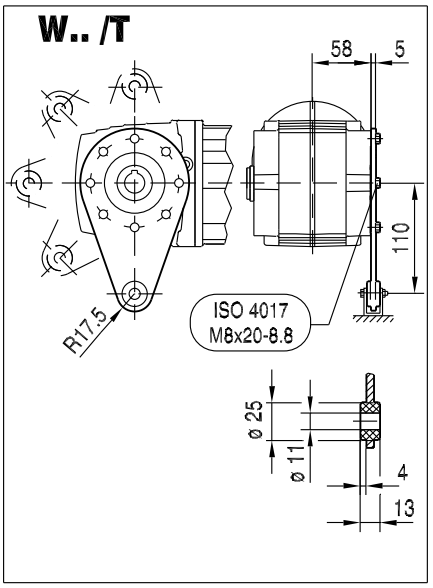

| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | | |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | | |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | | |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | | |
| **L** | 394 | 405 | 430 | 485 | 486 | 518 | | |
| **LS** | 449 | 473 | 498 | 566 | 580 | 612 | | |
| **LB** | 191 | 202 | 227 | 282 | 283 | 315 | | |
| **LBS** | 246 | 270 | 295 | 363 | 377 | 409 | | |

21284997/EN – 03/2015

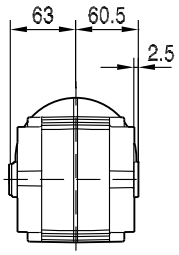
20 014 00 14

## WA37..

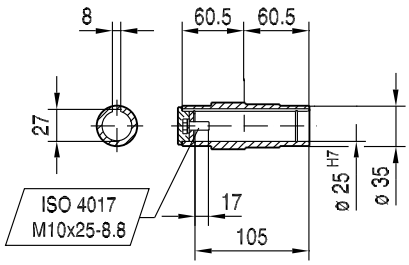


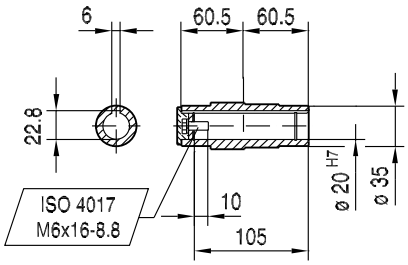

## WA37..



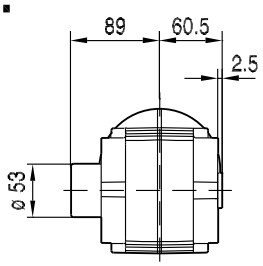

**ø 25 H7**
**DIN 6885-3**

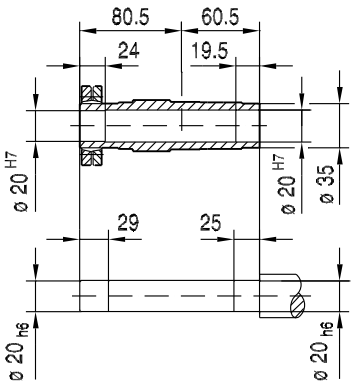



**ø 20 H7**




## WH37..



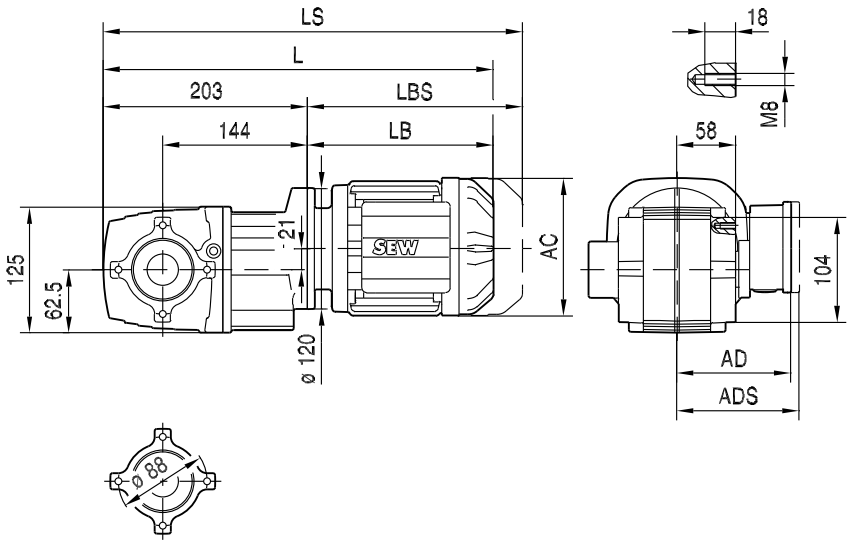



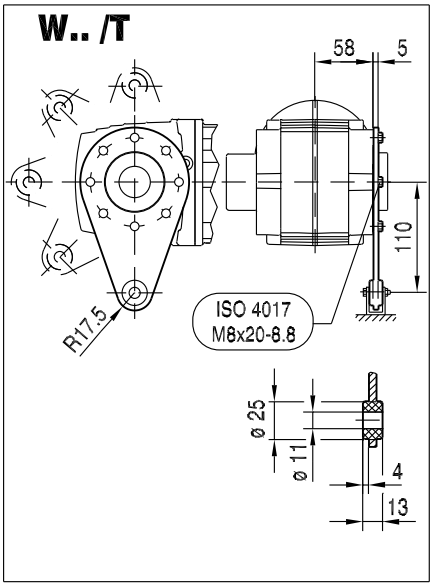

| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | | |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | | |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | | |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | | |
| **L** | 394 | 405 | 430 | 485 | 486 | 518 | | |
| **LS** | 449 | 473 | 498 | 566 | 580 | 612 | | |
| **LB** | 191 | 202 | 227 | 282 | 283 | 315 | | |
| **LBS** | 246 | 270 | 295 | 363 | 377 | 409 | | |

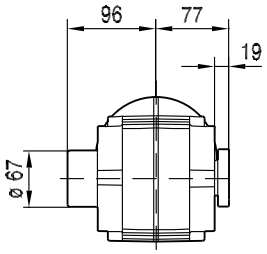
21284997/EN – 03/2015

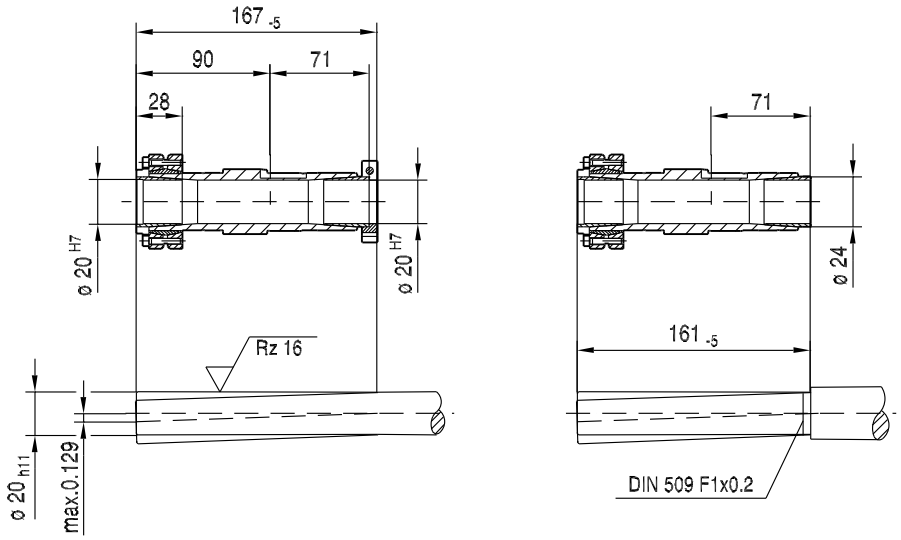
20 015 00 14

## WT37..



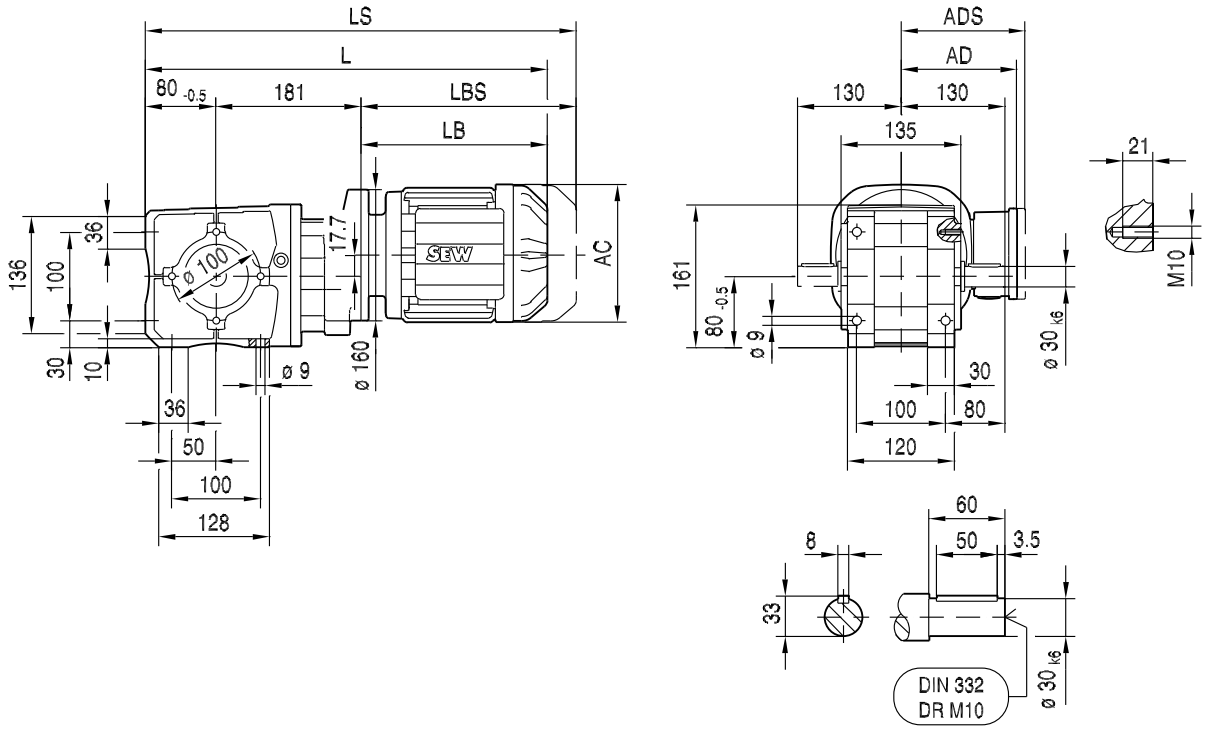




| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | | |
|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | | |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | | |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | | |
| **L** | 394 | 405 | 430 | 485 | 486 | 518 | | |
| **LS** | 449 | 473 | 498 | 566 | 580 | 612 | | |
| **LB** | 191 | 202 | 227 | 282 | 283 | 315 | | |
| **LBS** | 246 | 270 | 295 | 363 | 377 | 409 | | |

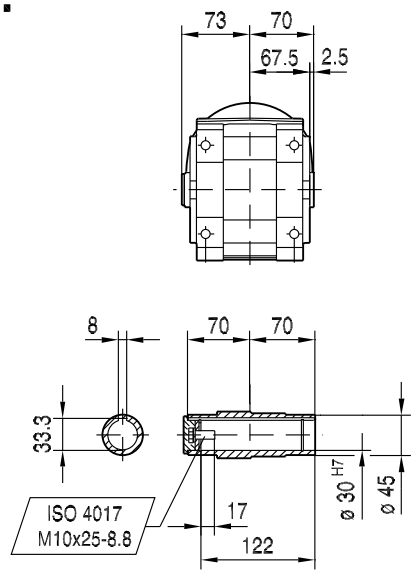
21284997/EN – 03/2015

20 016 00 14

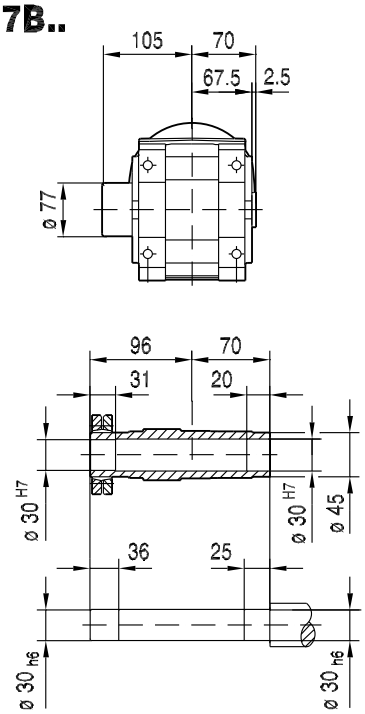
## W47..




## WA47B..




## WH47B..

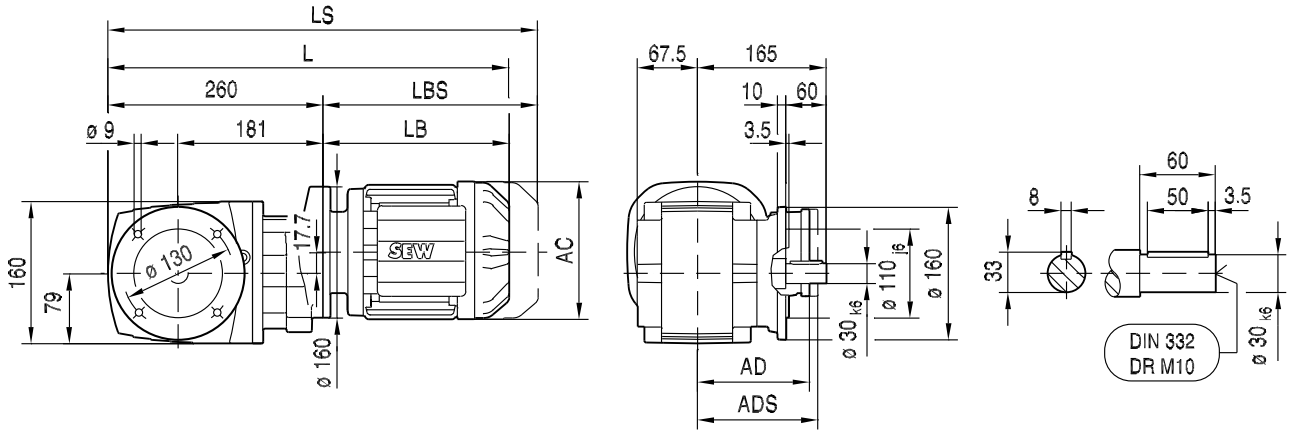



| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M |
|---|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 | 221 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 | 170 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 | 172 |
| **L** | 446 | 457 | 482 | 536 | 538 | 570 | 566 | 616 | 647 |
| **LS** | 501 | 525 | 550 | 617 | 631 | 663 | 660 | 710 | 759 |
| **LB** | 185 | 196 | 221 | 275 | 277 | 309 | 305 | 355 | 386 |
| **LBS** | 240 | 264 | 289 | 356 | 370 | 402 | 399 | 449 | 498 |

21284997/EN – 03/2015

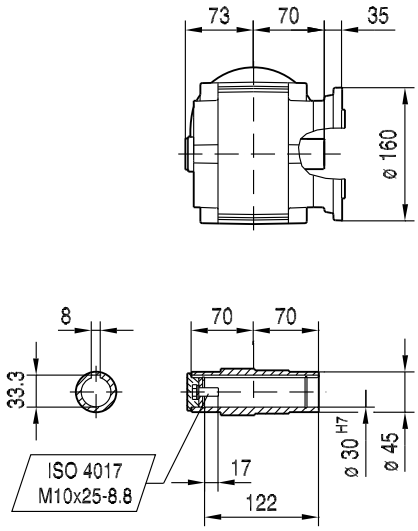
20 017 00 14

## WF47..

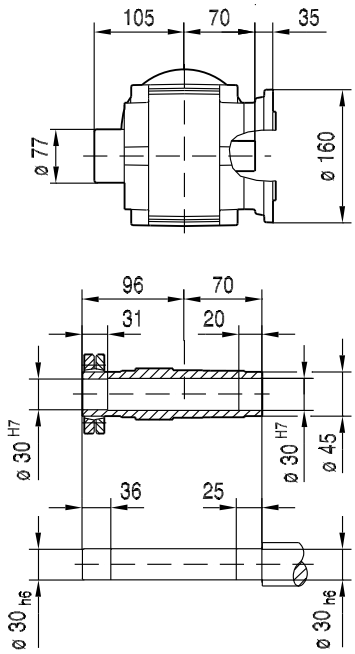



12

## WAF47..




## WHF47..

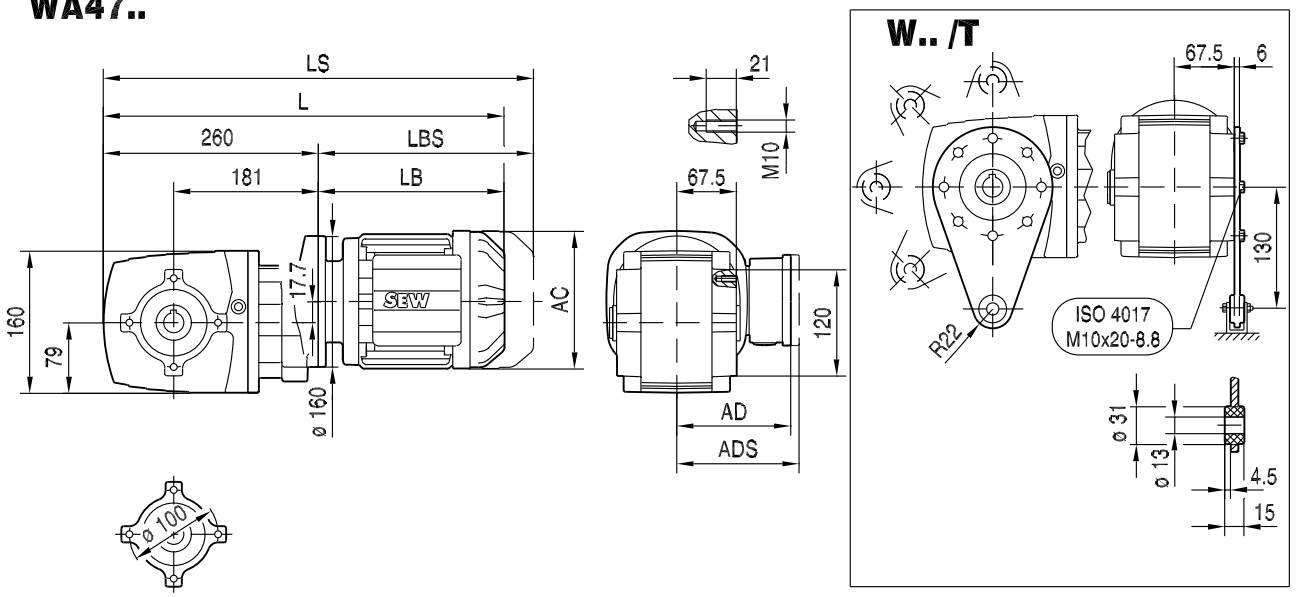



| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M |
|---|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 | 221 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 | 170 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 | 172 |
| **L** | 445 | 456 | 481 | 535 | 537 | 569 | 565 | 615 | 646 |
| **LS** | 500 | 524 | 549 | 616 | 630 | 662 | 659 | 709 | 758 |
| **LB** | 185 | 196 | 221 | 275 | 277 | 309 | 305 | 355 | 386 |
| **LBS** | 240 | 264 | 289 | 356 | 370 | 402 | 399 | 449 | 498 |

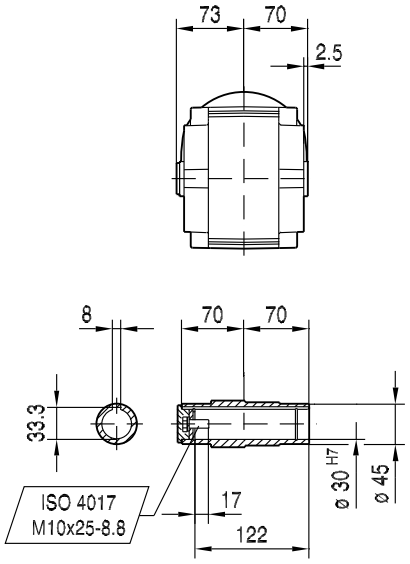
21284997/EN – 03/2015

20 018 00 14

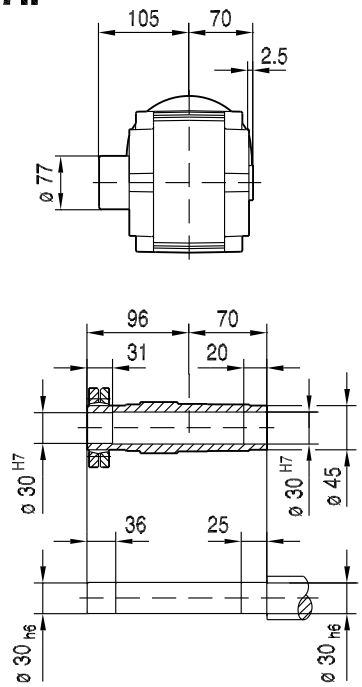
## WA47..




## WA47..




## WH47..

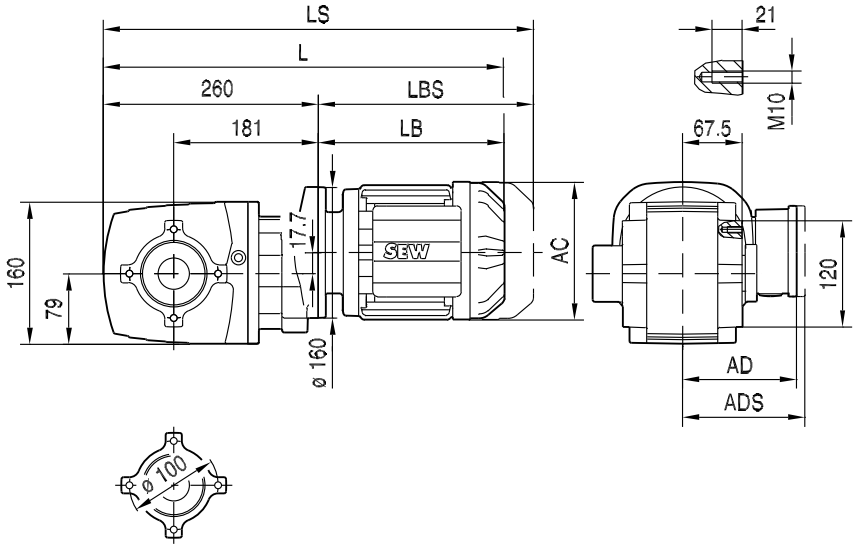



| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M |
|---|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 | 221 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 | 170 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 | 172 |
| **L** | 445 | 456 | 481 | 535 | 537 | 569 | 565 | 615 | 646 |
| **LS** | 500 | 524 | 549 | 616 | 630 | 662 | 659 | 709 | 758 |
| **LB** | 185 | 196 | 221 | 275 | 277 | 309 | 305 | 355 | 386 |
| **LBS** | 240 | 264 | 289 | 356 | 370 | 402 | 399 | 449 | 498 |

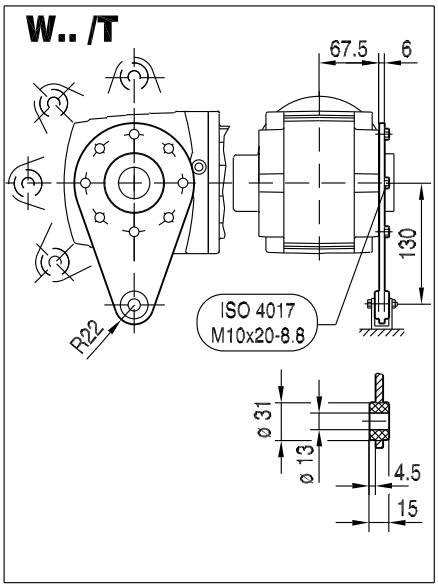
21284997/EN – 03/2015

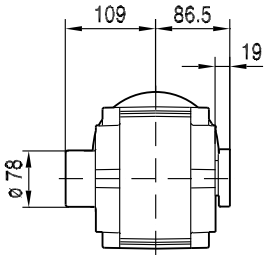
20 019 00 14

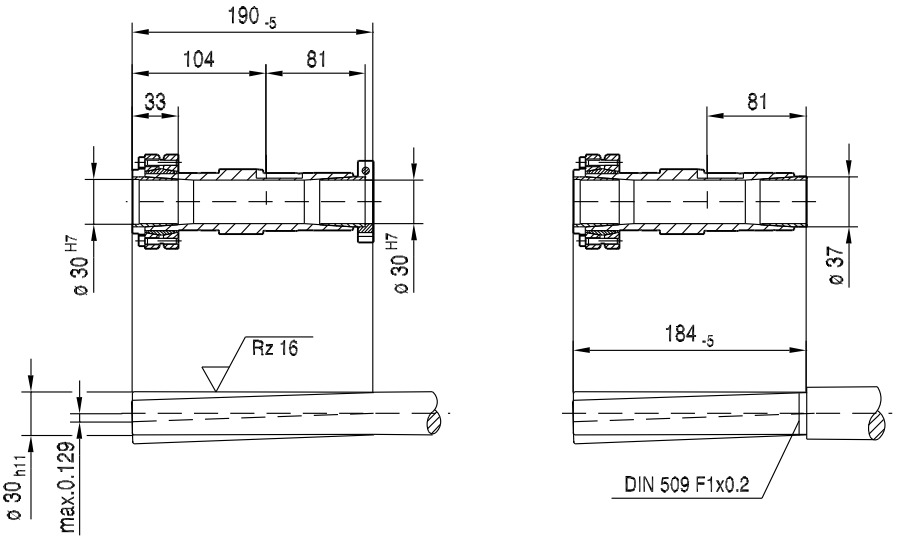
## WT47..




## W.. /T



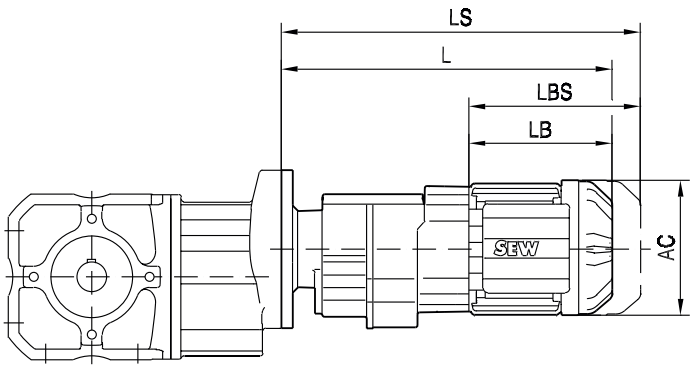




| (→ 142) | DR63.. | DR71S | DR71M | DRN80M | DRN90S | DRN90L | DRN100LS | DRN100L | DRN112M |
|---|---|---|---|---|---|---|---|---|---|
| **AC** | 132 | 139 | 139 | 156 | 179 | 179 | 197 | 197 | 221 |
| **AD** | 105 | 119 | 119 | 128 | 140 | 140 | 157 | 157 | 170 |
| **ADS** | 105 | 129 | 129 | 139 | 150 | 150 | 158 | 158 | 172 |
| **L** | 445 | 456 | 481 | 535 | 537 | 569 | 565 | 615 | 646 |
| **LS** | 500 | 524 | 549 | 616 | 630 | 662 | 659 | 709 | 758 |
| **LB** | 185 | 196 | 221 | 275 | 277 | 309 | 305 | 355 | 386 |
| **LBS** | 240 | 264 | 289 | 356 | 370 | 402 | 399 | 449 | 498 |

21284997/EN – 03/2015

20 018 00 09




| (→ 142) | | AC | L | LS | LB | LBS |
|---|---|---|---|---|---|---|
| **W..37R17** | **DR63..** | 132 | 324 | 379 | 149 | 204 |
| | **DR71S..** | 139 | 335 | 403 | 160 | 228 |
| **W..47R17** | **DR63..** | 132 | 324 | 379 | 149 | 204 |
| | **DR71S..** | 139 | 335 | 403 | 160 | 228 |
| | **DR71M..** | 139 | 360 | 428 | 185 | 253 |

21284997/EN – 03/2015

# 13 Technical data of the motors

## 13.1 Key to the data tables

The following table lists the short symbols used in the "Technical data" tables:

| | |
|---|---|
| $P_N$ | Rated power |
| $M_N$ | Rated torque |
| $n_N$ | Rated speed |
| $I_N$ | Rated current |
| cosφ | Power factor |
| IE | International energy efficiency class |
| $\eta_{50\%}$ | Efficiency at 50% of the rated power |
| $\eta_{75\%}$ | Efficiency at 75% of the rated power |
| $\eta_{100\%}$ | Efficiency at 100% of the rated power |
| $I_A/I_N$ | Starting current ratio |
| $M_A/M_N$ | Starting torque ratio |
| $M_H/M_N$ | Ramp-up torque ratio |
| m | Mass of the motor |
| $J_{Mot}$ | Mass moment of inertia of the motor |
| BE.. | Brake used |
| $Z_0$ BG | Switching frequency for operation with BG brake control |
| $Z_0$ BGE | Switching frequency for operation with BGE brake control |
| $M_B$ | Braking torque |
| $m_B$ | Mass of the brakemotor |
| $J_{MOT_BE}$ | Mass moment of inertia of the brakemotor |



21284997/EN – 03/2015

## 13.2 DT.., DR.., DRS.. motors, 50 Hz, 4-pole, S1

### 4-pole DT.., DR.., DRS.. motors for 400 V (380 – 420 V), 50 Hz

| DT../DR../ DRS.. motor type | $P_N$ kW | $M_N$ Nm | $n_N$ rpm | $I_N$ 400 V A | $I_N$ 380-420 V A | cosφ | IE | $\eta_{50\%}$ % | $\eta_{75\%}$ % | $\eta_{100\%}$ % | $I_A/I_N$ | $M_A/M_N$ $M_H/M_N$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DT56M4 | 0.09 | 0.66 | 1300 | 0.29 | 0.31 | 0.68 | - | - | - | - | 2.6 | 2.1<br>1.8 |
| DT56L4 | 0.12 | 0.88 | 1300 | 0.42 | 0.46 | 0.68 | - | - | - | - | 2.6 | 2.2<br>1.9 |
| DR63S4 | 0.12 | 0.83 | 1380 | 0.39 | 0.39 | 0.69 | - | - | - | - | 3.3 | 2.4<br>2.2 |
| DR63M4 | 0.18 | 1.3 | 1320 | 0.55 | 0.55 | 0.78 | - | - | - | - | 2.9 | 1.8<br>1.7 |
| DR63L4 | 0.25 | 1.8 | 1300 | 0.68 | 0.73 | 0.81 | - | - | - | - | 2.8 | 1.8<br>1.7 |
| DRS71S4 | 0.18 | 1.25 | 1380 | 0.64 | 0.66 | 0.70 | IE1 | 59.1 | 65.3 | 66.6 | 3.5 | 1.8<br>1.8 |
| DRS71S4 | 0.25 | 1.72 | 1390 | 0.67 | 0.69 | 0.75 | IE1 | 68.6 | 72.6 | 72.6 | 4.1 | 1.9<br>1.9 |
| DRS71S4 | 0.37 | 2.55 | 1380 | 1.14 | 1.24 | 0.70 | IE1 | 59.1 | 65.3 | 66.6 | 3.5 | 1.8<br>1.8 |
| DRS71M4 | 0.55 | 3.85 | 1360 | 1.55 | 1.62 | 0.72 | IE1 | 69.1 | 71.9 | 70.6 | 3.6 | 2.1<br>2.1 |

### 4-pole DT.., DR.., DRS.. motors/brakemotors for 400 V (380 – 420 V), 50 Hz

| DT../DR../ DRS.. motor type | $P_N$ kW | $M_N$ Nm | $n_N$ rpm | m kg | $J_{Mot}$ $10^{-4}$ kgm² | BE.. | $Z_0$ BG / BGE 1/h | $M_B$ Nm | $m_B$ kg | $J_{Mot_BE}$ $10^{-4}$ kgm² |
|---|---|---|---|---|---|---|---|---|---|---|
| DT56M4 | 0.09 | 0.66 | 1300 | -[1)] | 1.1 | BMG02 | 10000<br>- | 0.8 | - | 1.2 |
| DT56L4 | 0.12 | 0.88 | 1300 | -[1)] | 1.1 | BMG02 | 10000<br>- | 1.2 | - | 1.2 |
| DR63S4 | 0.12 | 0.83 | 1380 | 6.1 | 3.6 | BR03 | 10000<br>- | 2.4 | 7.6 | 4.8 |
| DR63M4 | 0.18 | 1.3 | 1320 | 6.1 | 3.6 | BR03 | 10000<br>- | 3.2 | 7.6 | 4.8 |
| DR63L4 | 0.25 | 1.8 | 1300 | 6.7 | 4.4 | BR03 | 10000<br>- | 3.2 | 8.2 | 5.6 |
| DRS71S4 | 0.18 | 1.25 | 1380 | 7.8 | 5.13 | BE05 | 6000<br>9500 | 5 | 10 | 6.43 |
| DRS71S4 | 0.25 | 1.72 | 1390 | 7.8 | 5.13 | BE05 | 6000<br>9500 | 5 | 10 | 6.43 |
| DRS71S4 | 0.37 | 2.55 | 1380 | 7.8 | 5.13 | BE05 | 6000<br>9500 | 5 | 10 | 6.43 |
| DRS71M4 | 0.55 | 3.85 | 1360 | 9.1 | 7.21 | BE1 | 4100<br>11000 | 10 | 12 | 8.51 |

1) only available as gearmotor

21284997/EN – 03/2015

## 13.3 DRN.. motors, 50 Hz, 4-pole, S1

**4-pole DRN.. motors for 400 V, 50 Hz, IE3**

| DRN.. motor type | $P_N$ kW | $M_N$ Nm | $n_N$ rpm | $I_N$ 400 V A | cosφ | IE | $\eta_{50\%}$ % | $\eta_{75\%}$ % | $\eta_{100\%}$ % | $I_A/I_N$ | $M_A/M_N$<br>$M_H/M_N$ | $M_K/M_N$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DRN 80M 4 | 0.75 | 4.95 | 1440 | 1.75 | 0.74 | IE3 | 80.7 | 82.9 | 82.9 | 6.7 | 3.1<br>2.7 | 3.4 |
| DRN 90S 4 | 1.1 | 7.2 | 1455 | 2.55 | 0.73 | IE3 | 83.5 | 85.0 | 84.5 | 6.9 | 2.7<br>2.1 | 3.3 |
| DRN 90L 4 | 1.5 | 9.8 | 1461 | 3.4 | 0.74 | IE3 | 84.6 | 86.1 | 85.6 | 7.5 | 2.7<br>2.0 | 3.3 |
| DRN 100LS 4 | 2.2 | 14.5 | 1450 | 4.75 | 0.76 | IE3 | 86.4 | 87.5 | 86.9 | 7.1 | 2.9<br>2.2 | 3.3 |
| DRN 100L 4 | 3 | 19.7 | 1456 | 6.4 | 0.76 | IE3 | 87.3 | 88.3 | 87.8 | 8.2 | 3.4<br>2.3 | 3.7 |
| DRN 112M 4 | 4 | 26 | 1464 | 7.9 | 0.81 | IE3 | 88.6 | 89.4 | 88.7 | 8.2 | 2.4<br>1.6 | 3.6 |
| DRN 132S 4 | 5.5 | 36 | 1461 | 10.5 | 0.84 | IE3 | 90.6 | 90.6 | 89.6 | 8.3 | 2.5<br>2.8 | 3.5 |
| DRN 132M 4 | 7.5 | 49 | 1468 | 15.2 | 0.78 | IE3 | 90.8 | 91.1 | 90.4 | 7.8 | 3.1<br>2.4 | 3.3 |
| DRN 132L 4 | 9.2 | 60 | 1470 | 18.7 | 0.77 | IE3 | 90.8 | 91.6 | 91.0 | 8.4 | 3.7<br>1.8 | 3.7 |
| DRN 160M 4 | 11 | 71 | 1473 | 21 | 0.81 | IE3 | 91.1 | 91.7 | 91.4 | 7.3 | 2.6<br>2.2 | 3.0 |
| DRN 160L 4 | 15 | 97 | 1474 | 29 | 0.80 | IE3 | 91.9 | 92.5 | 92.1 | 8.0 | 3.0<br>2.0 | 3.4 |
| DRN 180M 4 | 18.5 | 120 | 1478 | 33.5 | 0.85 | IE3 | 92.8 | 93.1 | 92.6 | 9.5 | 3.6<br>2.9 | 3.6 |
| DRN 180L 4 | 22 | 142 | 1477 | 38.5 | 0.87 | IE3 | 93.4 | 93.6 | 93.0 | 9.6 | 3.5<br>2.1 | 3.4 |
| DRN 200L 4 | 30 | 194 | 1480 | 56 | 0.82 | IE3 | 93.3 | 93.9 | 93.6 | 8.2 | 2.9<br>2.5 | 3.3 |
| DRN 225S 4 | 37 | 240 | 1482 | 64 | 0.88 | IE3 | 94.3 | 94.4 | 93.9 | 8.4 | 3.0<br>1.9 | 2.5 |
| DRN 225M 4 | 45 | 290 | 1482 | 81 | 0.85 | IE3 | 94.1 | 94.5 | 94.2 | 8.8 | 3.5<br>2.4 | 2.8 |
| DRN 250M 4 | 55 | 355 | 1482 | 105 | 0.80 | IE3 | 94.4 | 94.8 | 94.6 | 7.6 | 3.3<br>2.5 | 2.9 |
| DRN 280S 4 | 75 | 485 | 1482 | 143 | 0.79 | IE3 | 94.9 | 95.3 | 95.0 | 7.6 | 3.7<br>2.6 | 2.9 |
| DRN 280M 4 | 90 | 580 | 1481 | 161 | 0.84 | IE3 | 95.4 | 95.6 | 95.2 | 7.7 | 3.6<br>2.0 | 2.7 |
| DRN 315S 4 | 110 | 710 | 1488 | 189 | 0.87 | IE3 | 95.3 | 95.6 | 95.4 | 6.7 | 2.9<br>2.1 | 3.1 |
| DRN 315M 4 | 132 | 850 | 1488 | 230 | 0.86 | IE3 | 95.6 | 95.9 | 95.6 | 7.9 | 3.0<br>2.2 | 3.5 |
| DRN 315L 4 | 160 | 1030 | 1486 | 275 | 0.87 | IE3 | 95.8 | 96.0 | 95.8 | 7.7 | 3.0<br>2.1 | 3.3 |
| DRN 315H 4 | 200 | 1280 | 1489 | 360 | 0.84 | IE3 | 95.4 | 96.0 | 96.0 | 8.1 | 3.7<br>2.8 | 3.8 |



21284997/EN – 03/2015

## 4-pole DRN.. motors/brakemotors for 400 V, 50 Hz, IE3

| DRN.. motor type | $P_N$ | $M_N$ | $n_N$ | m | $J_{Mot}$ | BE.. | $Z_0$ BG BGE | $M_B$ | $m_B$ | $J_{Mot_BE}$ |
|---|---|---|---|---|---|---|---|---|---|---|
| | kW | Nm | rpm | kg | $10^{-4}$ kgm$^2$ | | 1/h | Nm | kg | $10^{-4}$ kgm$^2$ |
| DRN 80M 4 | 0.75 | 4.95 | 1440 | 14 | 24.7 | BE1 | 3200<br>8200 | 10 | 18 | 26.2 |
| DRN 90S 4 | 1.1 | 7.2 | 1455 | 20 | 54 | BE2 | 2300<br>6000 | 14 | 24 | 58.7 |
| DRN 90L 4 | 1.5 | 9.8 | 1461 | 23 | 67.2 | BE2 | 2200<br>5800 | 20 | 27 | 71.9 |
| DRN 100LS 4 | 2.2 | 14.5 | 1450 | 27 | 81.4 | BE5 | -<br>6100 | 28 | 33 | 87.4 |
| DRN 100L 4 | 3 | 19.7 | 1456 | 34 | 112 | BE5 | -<br>3700 | 40 | 40 | 118 |
| DRN 112M 4 | 4 | 26 | 1464 | 45 | 178 | BE5 | -<br>2900 | 55 | 52 | 183 |
| DRN 132S 4 | 5.5 | 36 | 1461 | 56 | 241 | BE11 | -<br>2100 | 80 | 71 | 251 |
| DRN 132M 4 | 7.5 | 49 | 1468 | 73 | 381 | BE11 | -<br>1100 | 110 | 91 | 403 |
| DRN 132L 4 | 9.2 | 60 | 1470 | 81 | 439 | BE20 | -<br>980 | 150 | 110 | 490 |
| DRN 160M 4 | 11 | 71 | 1473 | 115 | 817 | BE20 | -<br>900 | 150 | 145 | 877 |
| DRN 160L 4 | 15 | 97 | 1474 | 130 | 1040 | BE20 | -<br>800 | 200 | 165 | 1100 |
| DRN 180M 4 | 18.5 | 120 | 1478 | 155 | 1630 | BE30 | -<br>510 | 300 | 195 | 1770 |
| DRN 180L 4 | 22 | 142 | 1477 | 170 | 1950 | BE30 | -<br>470 | 300 | 210 | 2090 |
| DRN 200L 4 | 30 | 194 | 1480 | 280 | 2660 | BE32 | -<br>500 | 400 | 335 | 2890 |
| DRN 225S 4 | 37 | 240 | 1482 | 310 | 4350 | BE32 | -<br>230 | 500 | 365 | 4580 |
| DRN 225M 4 | 45 | 290 | 1482 | 310 | 4350 | BE32 | -<br>200 | 600 | 365 | 4580 |
| DRN 250M 4 | 55 | 355 | 1482 | 460 | 7400 | BE62 | -<br>180 | 800 | 550 | 7990 |
| DRN 280S 4 | 75 | 485 | 1482 | 520 | 8970 | BE62 | -<br>150 | 1000 | 600 | 9570 |
| DRN 280M 4 | 90 | 580 | 1481 | 630 | 12000 | BE62 | -<br>79 | 1200 | 720 | 12600 |
| DRN 315S 4 | 110 | 710 | 1488 | 880 | 23400 | BE122 | -<br>53 | 1600 | 1000 | 24500 |
| DRN 315M 4 | 132 | 850 | 1488 | 900 | 24800 | BE122 | -<br>46 | 2000 | 1020 | 25900 |
| DRN 315L 4 | 160 | 1030 | 1486 | 1030 | 28600 | BE122 | -<br>34 | 2000 | 1150 | 29700 |
| DRN 315H 4 | 200 | 1280 | 1489 | 1150 | 35200 | BE122 | -<br>23 | 2000 | 1270 | 36300 |

21284997/EN – 03/2015

# 14 Address directory SEW-EURODRIVE

| | | | |
|---|---|---|---|
| **Algeria** | | | |
| Sales | Algiers | REDUCOM Sarl<br>16, rue des Frères Zaghnoune<br>Bellevue<br>16200 El Harrach Alger | Tel. +213 21 8214-91<br>Fax +213 21 8222-84<br>http://www.reducom-dz.com<br>info@reducom-dz.com |
| **Argentina** | | | |
| Assembly<br>Sales | Buenos Aires | SEW EURODRIVE ARGENTINA S.A.<br>Ruta Panamericana Km 37.5, Lote 35<br>(B1619IEA) Centro Industrial Garín<br>Prov. de Buenos Aires | Tel. +54 3327 4572-84<br>Fax +54 3327 4572-21<br>http://www.sew-eurodrive.com.ar<br>sewar@sew-eurodrive.com.ar |
| | Córdoba | SEW EURODRIVE ARGENTINA S.A.<br>Ruta Nacional 19, Manzana 97, Lote 5<br>(X5125) Malvinas Argentinas<br>Prov. de Córdoba | Tel. +54 351-490-0010<br>http://www.sew-eurodrive.com.ar<br>sewcor@sew-eurodrive.com.ar |
| | Santa Fe | SEW EURODRIVE ARGENTINA S.A.<br>Ruta Prov. 21 Km 7, Lote 41<br>Parque Industrial Alvear<br>(2126) Gral. Alvear<br>Prov. de Santa Fe | Tel. +54 341-317-7277<br>http://www.sew-eurodrive.com.ar<br>sewsfe@sew-eurodrive.com.ar |
| Service | Mendoza | SEW EURODRIVE ARGENTINA S.A.<br>Francisco Gabrielli (ex Urquiza)<br>2060-Zona Industrial- Guaymallen- CP 5521 | Tel. +54 261-4214150<br>http://www.sew-eurodrive.com.ar<br>sewmen@sew-eurodrive.com.ar |
| Technical Offices | Tucumán | SEW EURODRIVE ARGENTINA S.A.<br>Balcarce 609<br>(T4000IAM) S.M. de Tucumán<br>Prov. de Tucumán | Tel. +54 381-400-4569<br>http://www.sew-eurodrive.com.ar<br>sewtuc@sew-eurodrive.com.ar |
| | Bahía Blanca | SEW EURODRIVE ARGENTINA S.A.<br>O'Higgins 95, 1er Piso A<br>(B8000IVA) Bahía Blanca<br>Prov. de Buenos Aires | Tel. +54 291-451-7345<br>http://www.sew-eurodrive.com.ar<br>sewbb@sew-eurodrive.com.ar |
| | Comahue | SEW EURODRIVE ARGENTINA S.A.<br>Puerto Rico 1885<br>(R8324IOE) Cipolletti<br>Prov. de Río Negro | Tel. +54 299-478-1290<br>http://www.sew-eurodrive.com.ar<br>sewcomahue@sew-eurodrive.com.ar |
| **Australia** | | | |
| Assembly<br>Sales<br>Service | Melbourne | SEW-EURODRIVE PTY. LTD.<br>27 Beverage Drive<br>Tullamarine, Victoria 3043 | Tel. +61 3 9933-1000<br>Fax +61 3 9933-1003<br>http://www.sew-eurodrive.com.au<br>enquires@sew-eurodrive.com.au |
| | Sydney | SEW-EURODRIVE PTY. LTD.<br>9, Sleigh Place, Wetherill Park<br>New South Wales, 2164 | Tel. +61 2 9725-9900<br>Fax +61 2 9725-9905<br>enquires@sew-eurodrive.com.au |
| Sales<br>Service | Adelaide | SEW-EURODRIVE PTY. LTD.<br>9C Park Way<br>Mawson Lakes, SA 5095 | Tel. +61 8 8161 4000<br>Fax +61 8 8161 4002<br>enquires@sew-eurodrive.com.au |
| | Brisbane | SEW-EURODRIVE PTY. LTD.<br>1 /34 Collinsvale St<br>Rocklea, Queensland, 4106 | Tel. +61 7 3276 5100<br>Fax +61 7 3276 5102<br>enquires@sew-eurodrive.com.au |
| | Perth | SEW-EURODRIVE PTY. LTD.<br>10 Colin Jamieson Drive<br>Welshpool, WA 6106 | Tel. +61 8 9251-4900<br>Fax +61 8 9251-4903<br>enquires@sew-eurodrive.com.au |
| Sales | Townsville | SEW-EURODRIVE PTY. LTD.<br>12 Leyland Street<br>Garbutt, QLD 4814 | Tel. +61 7 4779 4333<br>Fax +61 7 4779 5333<br>enquires@sew-eurodrive.com.au |
| **Austria** | | | |
| Assembly<br>Sales<br>Service | Vienna | SEW-EURODRIVE Ges.m.b.H.<br>Richard-Strauss-Strasse 24<br>A-1230 Wien | Tel. +43 1 617 55 00-0<br>Fax +43 1 617 55 00-30<br>http://www.sew-eurodrive.at<br>sew@sew-eurodrive.at |



21284997/EN – 03/2015

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| Croatia | Zagreb | KOMPEKS d. o. o.<br>Zeleni dol 10<br>HR 10 000 Zagreb | Tel. +385 1 4613-158<br>Fax +385 1 4613-158<br>kompeks@inet.hr |
| Romania | Bucharest | Sialco Trading SRL<br>str. Brazilia nr. 36<br>011783 Bucuresti | Tel. +40 21 230-1328<br>Fax +40 21 230-7170<br>sialco@sialco.ro |
| Serbia | Belgrade | DIPAR d.o.o.<br>Ustanicka 128a<br>PC Košum, IV floor<br>SRB-11000 Beograd | Tel. +381 11 347 3244 /<br>+381 11 288 0393<br>Fax +381 11 347 1337<br>office@dipar.rs |
| Slovenia | Celje | Pakman - Pogonska Tehnika d.o.o.<br>UI. XIV. divizije 14<br>SLO - 3000 Celje | Tel. +386 3 490 83-20<br>Fax +386 3 490 83-21<br>pakman@siol.net |
| Technical Offices | Linz | SEW-EURODRIVE Ges.m.b.H.<br>Jaxstraße 2-4<br>A-4020 Linz | Tel. +43 732 655 109-0<br>Fax +43 732 655 109-20<br>tb-linz@sew-eurodrive.at |
| | Graz | SEW-EURODRIVE Ges.m.b.H.<br>Grabenstraße 231<br>A-8045 Graz | Tel. +43 316 685 756-0<br>Fax +43 316 685 756-20<br>tb-graz@sew-eurodrive.at |
| | Dornbirn | SEW-EURODRIVE Ges.m.b.H.<br>Lustenauerstraße 27/1<br>A-6850 Dornbirn | Tel. +43 5572 3725 99-0<br>Fax +43 5572 3725 99-20<br>tb-dornbirn@sew-eurodrive.at |
| **Bangladesch** | | | |
| Vertrieb | Bangladesch | SEW-EURODRIVE INDIA PRIVATE LIMITED<br>345 DIT Road<br>East Rampura<br>Dhaka-1219, Bangladesh | Tel. +88 01729 097309<br>salesdhaka@seweurodrivebangla-desh.com |
| **Belarus** | | | |
| Sales | Minsk | Foreign Enterprise Industrial Components<br>RybalkoStr. 26<br>BY-220033 Minsk | Tel. +375 17 298 47 56 / 298 47 58<br>Fax +375 17 298 47 54<br>http://www.sew.by<br>sales@sew.by |
| **Belgium** | | | |
| Assembly<br>Sales<br>Service | Brussels | SEW-EURODRIVE n.v./s.a.<br>Researchpark Haasrode 1060<br>Evenementenlaan 7<br>BE-3001 Leuven | Tel. +32 16 386-311<br>Fax +32 16 386-336<br>http://www.sew-eurodrive.be<br>info@sew-eurodrive.be |
| Service Competence Center | Industrial Gears | SEW-EURODRIVE n.v./s.a.<br>Rue de Parc Industriel, 31<br>BE-6900 Marche-en-Famenne | Tel. +32 84 219-878<br>Fax +32 84 219-879<br>http://www.sew-eurodrive.be<br>service-wallonie@sew-eurodrive.be |
| **Brazil** | | | |
| Production<br>Sales<br>Service | São Paulo | SEW-EURODRIVE Brasil Ltda.<br>Estrada Municipal José Rubim, 205 – Rodovia Santos Dumont Km 49<br>Indaiatuba – 13347-510 – SP | Tel. +55 19 3835-8000<br>sew@sew.com.br |
| Assembly<br>Sales<br>Service | Rio Claro | SEW-EURODRIVE Brasil Ltda.<br>Rodovia Washington Luiz, Km 172<br>Condomínio Industrial Conpark<br>Caixa Postal: 327<br>13501-600 – Rio Claro / SP | Tel. +55 19 3522-3100<br>Fax +55 19 3524-6653<br>montadora.rc@sew.com.br |
| | Joinville | SEW-EURODRIVE Brasil Ltda.<br>Rua Dona Francisca, 12.346 – Pirabeiraba<br>89239-270 – Joinville / SC | Tel. +55 47 3027-6886<br>Fax +55 47 3027-6888<br>filial.sc@sew.com.br |
| **Bulgaria** | | | |
| Sales | Sofia | BEVER-DRIVE GmbH<br>Bogdanovetz Str.1<br>BG-1606 Sofia | Tel. +359 2 9151160<br>Fax +359 2 9151166<br>bever@bever.bg |
| **Cameroon** | | | |

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21284997/EN – 03/2015

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| **Canada** | | | |
| Assembly<br>Sales<br>Service | Toronto | SEW-EURODRIVE CO. OF CANADA LTD.<br>210 Walker Drive<br>Bramalea, ON L6T 3W1 | Tel. +1 905 791-1553<br>Fax +1 905 791-2999<br>http://www.sew-eurodrive.ca<br>l.watson@sew-eurodrive.ca |
| | Vancouver | SEW-EURODRIVE CO. OF CANADA LTD.<br>Tilbury Industrial Park<br>7188 Honeyman Street<br>Delta, BC V4G 1G1 | Tel. +1 604 946-5535<br>Fax +1 604 946-2513<br>b.wake@sew-eurodrive.ca |
| | Montreal | SEW-EURODRIVE CO. OF CANADA LTD.<br>2555 Rue Leger<br>Lasalle, PQ H8N 2V9 | Tel. +1 514 367-1124<br>Fax +1 514 367-3677<br>a.peluso@sew-eurodrive.ca |
| **Chile** | | | |
| Assembly<br>Sales<br>Service | Santiago de Chile | SEW-EURODRIVE CHILE LTDA<br>Las Encinas 1295<br>Parque Industrial Valle Grande<br>LAMPA<br>RCH-Santiago de Chile<br>P.O. Box<br>Casilla 23 Correo Quilicura - Santiago - Chile | Tel. +56 2 2757 7000<br>Fax +56 2 2757 7001<br>http://www.sew-eurodrive.cl<br>ventas@sew-eurodrive.cl |
| **China** | | | |
| Production<br>Assembly<br>Sales<br>Service | Tianjin | SEW-EURODRIVE (Tianjin) Co., Ltd.<br>No. 78, 13th Avenue, TEDA<br>Tianjin 300457 | Tel. +86 22 25322612<br>Fax +86 22 25323273<br>http://www.sew-eurodrive.cn<br>info@sew-eurodrive.cn |
| Assembly<br>Sales<br>Service | Suzhou | SEW-EURODRIVE (Suzhou) Co., Ltd.<br>333, Suhong Middle Road<br>Suzhou Industrial Park<br>Jiangsu Province, 215021 | Tel. +86 512 62581781<br>Fax +86 512 62581783<br>suzhou@sew-eurodrive.cn |
| | Guangzhou | SEW-EURODRIVE (Guangzhou) Co., Ltd.<br>No. 9, JunDa Road<br>East Section of GETDD<br>Guangzhou 510530 | Tel. +86 20 82267890<br>Fax +86 20 82267922<br>guangzhou@sew-eurodrive.cn |
| | Shenyang | SEW-EURODRIVE (Shenyang) Co., Ltd.<br>10A-2, 6th Road<br>Shenyang Economic Technological Development Area<br>Shenyang, 110141 | Tel. +86 24 25382538<br>Fax +86 24 25382580<br>shenyang@sew-eurodrive.cn |
| | Taiyuan | SEW-EURODRIVE (Taiyuan) Co,. Ltd.<br>No.3, HuaZhang Street,<br>TaiYuan Economic & Technical Development Zone<br>ShanXi, 030032 | Tel. +86-351-7117520<br>Fax +86-351-7117522<br>taiyuan@sew-eurodrive.cn |
| | Wuhan | SEW-EURODRIVE (Wuhan) Co., Ltd.<br>10A-2, 6th Road<br>No. 59, the 4th Quanli Road, WEDA<br>430056 Wuhan | Tel. +86 27 84478388<br>Fax +86 27 84478389<br>wuhan@sew-eurodrive.cn |
| | Xi'An | SEW-EURODRIVE (Xi'An) Co., Ltd.<br>No. 12 Jinye 2nd Road<br>Xi'An High-Technology Industrial Development Zone<br>Xi'An 710065 | Tel. +86 29 68686262<br>Fax +86 29 68686311<br>xian@sew-eurodrive.cn |
| Sales<br>Service | Hong Kong | SEW-EURODRIVE LTD.<br>Unit No. 801-806, 8th Floor<br>Hong Leong Industrial Complex<br>No. 4, Wang Kwong Road<br>Kowloon, Hong Kong | Tel. +852 36902200<br>Fax +852 36902211<br>contact@sew-eurodrive.hk |
| **Colombia** | | | |
| Assembly<br>Sales<br>Service | Bogota | SEW-EURODRIVE COLOMBIA LTDA.<br>Calle 22 No. 132-60<br>Bodega 6, Manzana B<br>Santafé de Bogotá | Tel. +57 1 54750-50<br>Fax +57 1 54750-44<br>http://www.sew-eurodrive.com.co<br>sew@sew-eurodrive.com.co |



21284997/EN – 03/2015

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| **Croatia** | | | |
| Sales<br>Service | Zagreb | KOMPEKS d. o. o.<br>Zeleni dol 10<br>HR 10 000 Zagreb | Tel. +385 1 4613-158<br>Fax +385 1 4613-158<br>kompeks@inet.hr |
| **Czech Republic** | | | |
| Assembly<br>Sales<br>Service | Hostivice | SEW-EURODRIVE CZ s.r.o.<br>Floriánova 2459<br>253 01 Hostivice | Tel. +420 255 709 601<br>Fax +420 235 350 613<br>http://www.sew-eurodrive.cz<br>sew@sew-eurodrive.cz |
| | Drive Service Hotline / 24 Hour Service | +420 800 739 739 (800 SEW SEW) | Service<br>Tel. +420 255 709 632<br>Fax +420 235 358 218<br>servis@sew-eurodrive.cz |
| Assembly<br>Service | Plzeň | SEW-EURODRIVE CZ s.r.o.<br>Areal KRPA a.s.<br>Zahradni 173/2<br>326 00 Plzeň | Tel. +420 378 775 320<br>Fax +420 377 970 710<br>sew@sew-eurodrive.cz |
| Technical Offices | Brno | SEW-EURODRIVE CZ s.r.o.<br>Křenová 52<br>60200 Brno | Tel. +420 543 254 174<br>Fax +420 543 256 845<br>radek.chmela@sew-eurodrive.cz |
| | Hradec Králové | SEW-EURODRIVE CZ s.r.o.<br>Čechova 498<br>50202 Hradec Králové | Tel. +420 495 510 141<br>Fax +420 495 521 313<br>miroslav.moravec@sew-eurodrive.cz |
| | Ostrava | SEW-EURODRIVE CZ s.r.o.<br>Studentská 6202/17<br>708 00 Ostrava-Poruba | Tel. +420 597 329 044<br>david.kenkus@sew-eurodrive.cz |
| | Klatovy | SEW-EURODRIVE CZ s.r.o.<br>Vídeňská 841<br>33901 Klatovy | Tel. +420 376 331 634<br>Fax +420 376 331 634<br>viktor.kubernat@sew-eurodrive.cz |
| Service | Horní Moštěnice | SEW-EURODRIVE CZ s.r.o.<br>Nám.Dr.M.Tyrše 14/64<br>751 17 Horní Moštěnice | Tel. +420 581 224 374<br>Fax +420 581 224 374<br>servis@sew-eurodrive.cz |
| **Denmark** | | | |
| Assembly<br>Sales<br>Service | Copenhagen | SEW-EURODRIVEA/S<br>Geminivej 28-30<br>DK-2670 Greve | Tel. +45 43 95 8500<br>Fax +45 43 9585-09<br>http://www.sew-eurodrive.dk<br>sew@sew-eurodrive.dk |
| **Egypt** | | | |
| Sales<br>Service | Cairo | Copam Egypt<br>for Engineering & Agencies<br>33 El Hegaz ST<br>Heliopolis, Cairo | Tel. +20 222566299<br>Fax +20 2 22594-757<br>http://www.copam-egypt.com<br>copam@copqm-egypt.com |
| **Estonia** | | | |
| Sales | Tallin | ALAS-KUUL AS<br>Reti tee 4<br>EE-75301 Peetri küla, Rae vald, Harjumaa | Tel. +372 6593230<br>Fax +372 6593231<br>veiko.soots@alas-kuul.ee |
| **Finland** | | | |
| Assembly<br>Sales<br>Service | Hollola | SEW-EURODRIVE OY<br>Vesimäentie 4<br>FIN-15860 Hollola 2 | Tel. +358 201 589-300<br>Fax +358 3 780-6211<br>http://www.sew-eurodrive.fi<br>sew@sew.fi |
| Service | Hollola | SEW-EURODRIVE OY<br>Keskikankaantie 21<br>FIN-15860 Hollola | Tel. +358 201 589-300<br>Fax +358 3 780-6211<br>http://www.sew-eurodrive.fi<br>sew@sew.fi |
| Production<br>Assembly | Karkkila | SEW Industrial Gears Oy<br>Santasalonkatu 6, PL 8<br>FI-03600 Karkkila, 03601 Karkkila | Tel. +358 201 589-300<br>Fax +358 201 589-310<br>http://www.sew-eurodrive.fi<br>sew@sew.fi |
| Technical Offices | Helsinki | SEW-EURODRIVE OY<br>Luutnantintie 5<br>FIN-00410 Helsinki | Tel. +358 201 589-300<br>sew@sew.fi |

21284997/EN – 03/2015

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| | Oulu | SEW Industrial Gears Oy<br>Paulaharjuntie 22<br>FIN-90530 Oulu | Tel. +358 201 589 300<br>sew@sew.fi |
| | Vaasa | SEW Industrial Gears Oy<br>Asemakatu 7<br>FIN-65100 Vaasa | Tel. +358 201 589-300<br>sew@sew.fi |
| | Kuopio | SEW Industrial Gears Oy<br>Leväsentie 23<br>FIN-70780 Kuopio | Tel. +358 201 589-300<br>sew@sew.fi |
| | Tampere | SEW Industrial Gears Oy<br>Hermiankatu 3 A<br>FI-33720 Tampere | Tel. +358 201 589-300<br>sew@sew.fi |
| **France** | | | |
| Production<br>Sales<br>Service | Hagenau | SEW-USOCOME<br>48-54 route de Soufflenheim<br>B. P. 20185<br>F-67506 Haguenau Cedex | Tel. +33 3 88 73 67 00<br>Fax +33 3 88 73 66 00<br>http://www.usocome.com<br>sew@usocome.com |
| Production | Forbach | SEW-USOCOME<br>Zone industrielle<br>Technopôle Forbach Sud<br>B. P. 30269<br>F-57604 Forbach Cedex | Tel. +33 3 87 29 38 00 |
| | Brumath | SEW-USOCOME<br>1 rue de Bruxelles<br>F-67670 Mommenheim | Tel. +33 3 88 37 48 48 |
| Assembly<br>Sales<br>Service | Bordeaux | SEW-USOCOME<br>Parc d'activités de Magellan<br>62 avenue de Magellan – B. P. 182<br>F-33607 Pessac Cedex | Tel. +33 5 57 26 39 00<br>Fax +33 5 57 26 39 09 |
| | Lyon | SEW-USOCOME<br>Parc d'affaires Roosevelt<br>Rue Jacques Tati<br>F-69120 Vaulx en Velin | Tel. +33 4 72 15 37 00<br>Fax +33 4 72 15 37 15 |
| | Nantes | SEW-USOCOME<br>Parc d'activités de la forêt<br>4 rue des Fontenelles<br>F-44140 Le Bignon | Tel. +33 2 40 78 42 00<br>Fax +33 2 40 78 42 20 |
| | Paris | SEW-USOCOME<br>Zone industrielle<br>2 rue Denis Papin<br>F-77390 Verneuil l'Étang | Tel. +33 1 64 42 40 80<br>Fax +33 1 64 42 40 88 |
| Technical Offices | Alsace | SEW-USOCOME<br>1 rue Auguste Gasser<br>F-68360 Soultz | Tel. +33 3 89 74 51 62<br>Fax +33 3 89 76 58 71 |
| | Aquitaine / Charentes | SEW-USOCOME<br>Parc d'activités de Magellan<br>62 avenue de Magellan – B.P.182<br>F-33607 Pessac Cedex | Tel. +33 5 57 26 39 08<br>Fax +33 5 57 26 39 09 |
| | Auvergne / Limousin | SEW-USOCOME<br>Farges<br>F-19600 Chasteaux | Tel. +33 5 55 20 12 10<br>Fax +33 5 55 20 12 11 |
| | Lower Normandie | SEW-USOCOME<br>5 rue de la Limare<br>F-14250 Brouay | Tel. +33 2 31 37 92 86<br>Fax +33 2 31 74 68 15 |
| | Brittany | SEW-USOCOME<br>Parc d'activités de la forêt<br>4 rue des Fontenelles<br>F-44140 Le Bignon | Tel. +33 2 40 78 42 04<br>Fax +33 2 40 78 42 20 |
| | Burgundy | SEW-USOCOME<br>10 rue de la poste<br>F-71350 Saint Loup Géanges | Tel. +33 3 85 49 92 18<br>Fax +33 3 85 49 92 19 |
| | Centre / Poitou | SEW-USOCOME<br>Parc d'activités de la forêt<br>4 rue des Fontenelles<br>F-44140 Le Bignon | Tel. +33 2 40 78 42 11<br>Fax +33 2 40 78 42 20 |



21284997/EN – 03/2015

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| Champagne-Ardenne | SEW-USOCOME<br>25 bis rue Victor Hugo<br>Appartement 7<br>F-10120 Saint André Les Vergers | Tel. +33 3 25 79 63 24<br>Fax +33 3 25 79 63 25 |
| Franche-Comté | SEW-USOCOME<br>24 avenue Charles Boby<br>F-70000 Quincey | Tel. +33 3 84 68 57 71<br>Fax +33 3 84 68 57 95 |
| Île-de-France East / Aisne | SEW-USOCOME<br>20 rue Félix Faure<br>F-02100 Saint Quentin | Tel. +33 3 23 62 81 24<br>Fax +33 3 23 62 81 44 |
| Île-de-France North / Picardie | SEW-USOCOME<br>25bis rue Kléber<br>F-92300 Levallois Perret | Tel. +33 1 41 05 92 74<br>Fax +33 1 41 05 92 75 |
| Île-de-France South | SEW-USOCOME<br>6 chemin des bergers<br>Lieu-dit Marchais<br>F-91410 Roinville sous Dourdan | Tel. +33 1 60 81 10 56<br>Fax +33 1 60 81 10 57 |
| Lorraine / Alsace North | SEW-USOCOME<br>1 rue de la forêt<br>F-54250 Champigneulles | Tel. +33 3 83 96 28 04<br>Fax +33 3 83 96 28 07 |
| Midi-Pyrénées / Roussillon | SEW-USOCOME<br>179 route de Grazac<br>F-31190 Caujac | Tel. +33 5 61 08 15 85<br>Fax +33 5 61 08 16 44 |
| Nord-Pas-de-Calais | SEW-USOCOME<br>209 route d'Hesdigneul<br>F-62360 Hesdin l'Abbé | Tel. +33 3 21 10 86 86<br>Fax +33 3 21 10 86 87 |
| Paris / Île-de-France West | SEW-USOCOME<br>42 avenue Jean Jaurès<br>F-78580 Maule | Tel. +33 1 30 90 89 86<br>Fax +33 1 30 90 93 15 |
| Pays de la Loire | SEW-USOCOME<br>Parc d'activités de la forêt<br>4 rue des Fontenelles<br>F-44140 Le Bignon | Tel. +33 2 40 78 42 03<br>Fax +33 2 40 78 42 20 |
| Provence-Alpes-Côte d'Azur | SEW-USOCOME<br>Le Clos Montolivet<br>9 impasse Bounin – Bât. A<br>F-13012 Marseille | Tel. +33 4 91 18 00 11<br>Fax +33 4 91 18 00 12 |
| Rhône-Alpes East | SEW-USOCOME<br>Montée de la Garenne<br>F-26750 Génissieux | Tel. +33 4 75 05 65 95<br>Fax +33 4 75 05 65 96 |
| Rhône-Alpes North | SEW-USOCOME<br>Parc d'affaires Roosevelt<br>Rue Jacques Tati<br>F-69120 Vaulx en Velin | Tel. +33 4 72 15 37 03<br>Fax +33 4 72 15 37 15 |
| Rhône-Alpes West | SEW-USOCOME<br>Parc d'affaires Roosevelt<br>Rue Jacques Tati<br>F-69120 Vaulx en Velin | Tel. +33 4 72 15 37 04<br>Fax +33 4 72 15 37 15 |

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| Headquarters<br>Production<br>Sales | Bruchsal | SEW-EURODRIVE GmbH & Co KG<br>Ernst-Blickle-Straße 42<br>D-76646 Bruchsal<br>P.O. Box<br>Postfach 3023 – D-76642 Bruchsal | Tel. +49 7251 75-0<br>Fax +49 7251 75-1970<br>http://www.sew-eurodrive.de<br>sew@sew-eurodrive.de |
| Production / Industrial Gears | Bruchsal | SEW-EURODRIVE GmbH & Co KG<br>Christian-Pähr-Str. 10<br>D-76646 Bruchsal | Tel.. +49 7251 75-0<br>Fax +49 7251 75-2970 |
| Production | Graben | SEW-EURODRIVE GmbH & Co KG<br>Ernst-Blickle-Straße 1<br>D-76676 Graben-Neudorf<br>P.O. Box<br>Postfach 1220 – D-76671 Graben-Neudorf | Tel. +49 7251 75-0<br>Fax +49 7251-2970 |

21284997/EN – 03/2015

| Germany | | | |
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| | Östringen | SEW-EURODRIVE GmbH & Co KG, Werk Östringen<br>Franz-Gurk-Straße 2<br>D-76684 Östringen | Tel. +49 7253 9254-0<br>Fax +49 7253 9254-90<br>oestringen@sew-eurodrive.de |
| Service Competence Center | Mechanics / Mechatronics | SEW-EURODRIVE GmbH & Co KG<br>Ernst-Blickle-Straße 1<br>D-76676 Graben-Neudorf | Tel. +49 7251 75-1710<br>Fax +49 7251 75-1711<br>scc-mechanik@sew-eurodrive.de |
| | Electronics | SEW-EURODRIVE GmbH & Co KG<br>Ernst-Blickle-Straße 42<br>D-76646 Bruchsal | Tel. +49 7251 75-1780<br>Fax +49 7251 75-1769<br>scc-elektronik@sew-eurodrive.de |
| Drive Technology Center | North | SEW-EURODRIVE GmbH & Co KG<br>Alte Ricklinger Straße 40-42<br>D-30823 Garbsen (Hannover) | Tel. +49 5137 8798-30<br>Fax +49 5137 8798-55<br>dtc-nord@sew-eurodrive.de |
| | East | SEW-EURODRIVE GmbH & Co KG<br>Dänkritzer Weg 1<br>D-08393 Meerane (Zwickau) | Tel. +49 3764 7606-0<br>Fax +49 3764 7606-30<br>dtc-ost@sew-eurodrive.de |
| | South | SEW-EURODRIVE GmbH & Co KG<br>Domagkstraße 5<br>D-85551 Kirchheim (München) | Tel. +49 89 909552-10<br>Fax +49 89 909552-50<br>dtc-sued@sew-eurodrive.de |
| | West | SEW-EURODRIVE GmbH & Co KG<br>Siemensstraße 1<br>D-40764 Langenfeld (Düsseldorf) | Tel. +49 2173 8507-30<br>Fax +49 2173 8507-55<br>dtc-west@sew-eurodrive.de |
| Drive Center | Berlin | SEW-EURODRIVE GmbH & Co KG<br>Alexander-Meißner-Straße 44<br>D-12526 Berlin | Tel. +49 306331131-30<br>Fax +49 306331131-36<br>dc-berlin@sew-eurodrive.de |
| | Saarland | SEW-EURODRIVE GmbH & Co KG<br>Gottlieb-Daimler-Straße 4<br>D-66773 Schwalbach Saar – Hülzweiler | Tel. +49 6831 48946 10<br>Fax +49 6831 48946 13<br>dc-saarland@sew-eurodrive.de |
| | Würzburg | SEW-EURODRIVE GmbH & Co KG<br>Nürnbergerstraße 118<br>D-97076 Würzburg-Lengfeld | Tel. +49 931 27886-60<br>Fax +49 931 27886-66<br>dc-wuerzburg@sew-eurodrive.de |
| Drive Service Hotline / 24 Hour Service | | | +49 800 SEWHELP<br>+49 800 7394357 |
| Technical Offices | Augsburg | SEW-EURODRIVE GmbH & Co KG<br>August-Wessels-Straße 27<br>D-86156 Augsburg | Tel. +49 821 22779-10<br>Fax +49 821 22779-50<br>tb-augsburg@sew-eurodrive.de |
| | Lake Constance | SEW-EURODRIVE GmbH & Co KG<br>Dornierstraße 4<br>D-88677 Markdorf | Tel. +49 7544 96590-90<br>Fax +49 7544 96590-99<br>tb-bodensee@sew-eurodrive.de |
| | Bremen | SEW-EURODRIVE GmbH & Co KG<br>Bornstr.19 ... 22<br>D-28195 Bremen | Tel. +49 421 33918-10<br>Fax +49 421 33918-22<br>tb-bremen@sew-eurodrive.de |
| | Dortmund | SEW-EURODRIVE GmbH & Co KG<br>Hildastraße 8<br>D-44145 Dortmund | Tel. +49 231 229028-10<br>Fax +49 231 229028-20<br>tb-dortmund@sew-eurodrive.de |
| | Dresden | SEW-EURODRIVE GmbH & Co KG<br>Hauptstraße 32<br>D-01445 Radebeul | Tel. +49 351 26338-0<br>Fax +49 351 26338-38<br>tb-dresden@sew-eurodrive.de |
| | Erfurt | SEW-EURODRIVE GmbH & Co KG<br>Dubliner Straße 12<br>D-99091 Erfurt | Tel. +49 361 21709-70<br>Fax +49 361 21709-79<br>tb-erfurt@sew-eurodrive.de |
| | Güstrow | SEW-EURODRIVE GmbH & Co KG<br>Glasewitzer Chaussee 33 B<br>D-18273 Güstrow<br>P.O. Box<br>Postfach 1216 – D-18262 Güstrow | Tel. +49 3843 8557-80<br>Fax +49 3843 8557-88<br>tb-guestrow@sew-eurodrive.de |
| | Hamburg | SEW-EURODRIVE GmbH & Co KG<br>Bramfelder Straße 119<br>D-22305 Hamburg | Tel. +49 40 298109-60<br>Fax +49 40 298109-70<br>tb-hamburg@sew-eurodrive.de |
| | Hannover / Garbsen | SEW-EURODRIVE GmbH & Co KG<br>Alte Ricklinger Str.40-42<br>D-30823 Garbsen<br>P.O. Box<br>Postfach 1104 53 – D-30804 Garbsen | Tel. +49 5137 8798-10<br>Fax +49 5137 8798-50<br>tb-hannover@sew-eurodrive.de |



21284997/EN – 03/2015

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| Heilbronn | SEW-EURODRIVE GmbH & Co KG<br>Zeppelinstraße 7<br>D-74357 Bönnigheim | Tel. +49 7143 8738-0<br>Fax +49 7143 8738-25<br>tb-heilbronn@sew-eurodrive.de |
| Herford | SEW-EURODRIVE GmbH & Co KG<br>Goebenstraße 3 – 7<br>D-32052 Herford | Tel. +49 5221 9141-0<br>Fax +49 5221 9141-20<br>tb-herford@sew-eurodrive.de |
| Karlsruhe | SEW-EURODRIVE GmbH & Co KG<br>Ettlinger Weg 2<br>D-76467 Bietigheim<br>P.O. Box<br>Postfach 43 – D-76463 Bietigheim | Tel. +49 7245 9190-10<br>Fax +49 7245 9190-20<br>tb-karlsruhe@sew-eurodrive.de |
| Kassel | SEW-EURODRIVE GmbH & Co KG<br>Lange Straße 14<br>D-34253 Lohfelden | Tel. +49 561 95144-80<br>Fax +49 561 95144-90<br>tb-kassel@sew-eurodrive.de |
| Koblenz | SEW-EURODRIVE GmbH & Co KG<br>Bahnstraße 17a<br>D-56743 Mendig | Tel. +49 2652 9713-30<br>Fax +49 2652 9713-40<br>tb-koblenz@sew-eurodrive.de |
| Lahr | SEW-EURODRIVE GmbH & Co KG<br>Europastraße 3/1<br>D-77933 Lahr / Schwarzwald | Tel. +49 7821 90999-60<br>Fax +49 7821 90999-79<br>tb-lahr@sew-eurodrive.de |
| Langenfeld | SEW-EURODRIVE GmbH & Co KG<br>Siemensstraße 1<br>D-40764 Langenfeld | Tel. +49 2173 8507-10<br>Fax +49 2173 8507-50<br>tb-langenfeld@sew-eurodrive.de |
| Magdeburg | SEW-EURODRIVE GmbH & Co KG<br>Breiteweg 53<br>D-39179 Barleben | Tel. +49 39203 7577-1<br>Fax +49 39203 7577-9<br>tb-magdeburg@sew-eurodrive.de |
| Mannheim | SEW-EURODRIVE GmbH & Co KG<br>Besselstraße 26<br>D-68219 Mannheim | Tel. +49 621 71683-10<br>Fax +49 621 71683-22<br>tb-mannheim@sew-eurodrive.de |
| München | SEW-EURODRIVE GmbH & Co KG<br>Domagkstraße 5<br>D-85551 Kirchheim | Tel. +49 89 90955-110<br>Fax +49 89 90955-150<br>tb-muenchen@sew-eurodrive.de |
| Münster | SEW-EURODRIVE GmbH & Co KG<br>Hafenplatz 4<br>D-48155 Münster | Tel. +49 251 41475-11<br>Fax +49 251 41475-50<br>tb-muenster@sew-eurodrive.de |
| Nuremberg | SEW-EURODRIVE GmbH & Co KG<br>Plattenäckerweg 6<br>D-90455 Nürnberg | Tel. +49 911 98884-50<br>Fax +49 911 98884-60<br>tb-nuernberg@sew-eurodrive.de |
| Regensburg | SEW-EURODRIVE GmbH & Co KG<br>Im Gewerbepark A15<br>D-93059 Regensburg | Tel. +49 941 46668-68<br>Fax +49 941 46668-66<br>tb-regensburg@sew-eurodrive.de |
| Rhine-Main | SEW-EURODRIVE GmbH & Co KG<br>Niederstedter Weg 5<br>D-61348 Bad Homburg | Tel. +49 6172 9617-0<br>Fax +49 6172 9617-50<br>tb-rheinmain@sew-eurodrive.de |
| Stuttgart | SEW-EURODRIVE GmbH & Co KG<br>Friedrich-List-Straße 46<br>D-70771 Leinfelden-Echterdingen | Tel. +49 711 16072-0<br>Fax +49 711 16072-72<br>tb-stuttgart@sew-eurodrive.de |
| Ulm | SEW-EURODRIVE GmbH & Co KG<br>Dieselstraße 14<br>D-89160 Dornstadt | Tel. +49 7348 9885-0<br>Fax +49 7348 9885-90<br>tb-ulm@sew-eurodrive.de |
| Zwickau / Meerane | SEW-EURODRIVE GmbH & Co KG<br>Dänkritzer Weg1<br>D-08393 Meerane | Tel. +49 3764 7606-0<br>Fax +49 3764 7606-20<br>tb-zwickau@sew-eurodrive.de |

| **Great Britain** | | | |
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| Assembly<br>Sales<br>Service | Normanton | SEW-EURODRIVE Ltd.<br>DeVilliers Way<br>Trident Park<br>Normanton<br>West Yorkshire<br>WF6 1GX | Tel. +44 1924 893-855<br>Fax +44 1924 893-702<br>http://www.sew-eurodrive.co.uk<br>info@sew-eurodrive.co.uk |
| | Drive Service Hotline / 24 Hour Service | | Tel. 01924 896911 |

21284997/EN – 03/2015

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| Service Competence Center | Southern England | SEW-EURODRIVE Ltd.<br>Unit 41<br>Easter Park<br>Benyon Road<br>Silchester<br>Reading<br>Berkshire<br>RG7 2PQ | Tel. +44 1189 701-699<br>Fax +44 1189 701-021 |
| Technical Offices | Midlands | SEW-EURODRIVE Ltd.<br>5 Sugar Brook court<br>Aston Road<br>Bromsgrove<br>Worcs.<br>B60 3EX | Tel. +44 1527 877-319<br>Fax +44 1527 575-245 |
| | Scotland | SEW-EURODRIVE Ltd.<br>No 37 Enterprise House<br>Springkerse Business Park<br>Stirling<br>FK7 7UF | Tel. +44 17 8647-8730<br>Fax +44 17 8645-0223 |
| | Northern Ireland | Heyn Engineering (NI) Ltd.<br>1 Corry Place,<br>Belfast,<br>BT3 9AH | Tel. +44 02890350022<br>Fax +44 02890350012<br>http://www.heyn.co.uk<br>info@heyn.co.uk |
| **Greece** | | | |
| Sales | Athens | Christ. Boznos & Son S.A.<br>12, K. Mavromichali Street<br>P.O. Box 80136<br>GR-18545 Piraeus | Tel. +30 2 1042 251-34<br>Fax +30 2 1042 251-59<br>http://www.boznos.gr<br>info@boznos.gr |
| Technical Office | Thessaloniki | Christ. Boznos & Son S.A.<br>Asklipiou 26<br>562 24 Evosmos, Thessaloniki | Tel. +30 2 310 7054-00<br>Fax +30 2 310 7055-15<br>info@boznos.gr |
| **Hungary** | | | |
| Sales<br>Service | Budapest | SEW-EURODRIVE Kft.<br>Csillaghegyí út 13.<br>H-1037 Budapest | Tel. +36 1 437 06-58<br>Fax +36 1 437 06-50<br>http://www.sew-eurodrive.hu<br>office@sew-eurodrive.hu |
| **Iceland** | | | |
| Sales | Reykjavik | Varma & Vélaverk ehf.<br>Knarrarvogi 4<br>IS-104 Reykjavík | Tel. +354 585 1070<br>Fax +354 585)1071<br>http://www.varmaverk.is<br>vov@vov.is |
| **India** | | | |
| Registered Office<br>Assembly<br>Sales<br>Service | Vadodara | SEW-EURODRIVE India Private Limited<br>Plot No. 4, GIDC<br>POR Ramangamdi • Vadodara - 391 243<br>Gujarat | Tel. +91 265 3045200<br>Fax +91 265 3045300<br>http://www.seweurodriveindia.com<br>salesvadodara@seweurodrivein-dia.com |
| Assembly<br>Sales<br>Service | Chennai | SEW-EURODRIVE India Private Limited<br>Plot No. K3/1, Sipcot Industrial Park Phase II<br>Mambakkam Village<br>Sriperumbudur - 602105<br>Kancheepuram Dist, Tamil Nadu | Tel. +91 44 37188888<br>Fax +91 44 37188811<br>saleschennai@seweurodriveindia.com |
| | Pune | SEW-EURODRIVE India Private Limited<br>Plant: Plot No. D236/1,<br>Chakan Industrial Area Phase- II,<br>Warale, Tal- Khed,<br>Pune-410501, Maharashtra | Tel. +91 21 35301400<br>salespune@seweurodriveindia.com |
| Technical Offices | Ahmedabad | SEW-EURODRIVE India Private Limited<br>306, Shaan office complex, Behind Sakar-IV,<br>Ellisebridge, Ashram Road<br>Ahmedabad – 380006, Gujarat | Tel. +91 79 40072067 / 68<br>Fax +91 79 40072069<br>salesahmedabad@seweurodrivein-dia.com |



21284997/EN – 03/2015

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| Aurangabad | SEW-EURODRIVE India Private Limited<br>Flat.No.403 , Prism Appt.<br>The Venus Housing Society.<br>Beed Bypass Road, Behind Nishant Park Hotel,<br>Aurangabad – 431003, Maharashtra. | Tel. +91 86000 12333<br>salesaurangabad@seweurodrivein-dia.com |
| Bangalore | SEW-EURODRIVE India Private Limited<br>Sy.no:41-P3, Peenya1, Phase 1A, Peenya Village,<br>Yeswanthapura Hobli, Bangalore North Taluk,<br>Bangalore - 560058, Karnataka | Tel. +91 80 28370664<br>Fax +91 80 28370665<br>salesbangalore@seweurodrivein-dia.com |
| Bangalore | SEW-EURODRIVE India Private Limited<br># C-104, 3rd Block, KSSIDC Complex,<br>Electronic City.<br>Bangalore – 560100, Karnataka | Tel. +91 80 28522662 / 28522663<br>salesbangalore@seweurodrivein-dia.com |
| Bangladesch | SEW-EURODRIVE India Private Limited<br>Genetic Udayanchal, House-96 (6th Floor),<br>Road-23/A, Block-B, Banani,<br>Dhaka-1213, Bangladesh | Tel. +88 01729 097309<br>salesdhaka@seweurodrivebangla-desh.com |
| Bellary | SEW-EURODRIVE India Private Limited<br>Door no-56/279 Ward No-15,<br>Sindhigi compound,<br>Near Raghavendra talkies,<br>Bellary-583101, Karnataka | Tel. +91 77609 88668<br>salesbellary@seweurodriveindia.com |
| Chandigarh | SEW-EURODRIVE India Private Limited<br># 72, Type- 4, Power Colony,<br>Chandigarh - Rupnagar Highway<br>Rupnagar - 140001, Punjab | Tel. +91 81462 67606<br>saleschandigarh@seweurodrivein-dia.com |
| Chennai | SEW-EURODRIVE India Private Limited<br>2nd Floor, Josmans Complex,<br>No. 5, McNichols Road, Chetpet<br>Chennai - 600031, Tamil Nadu | Tel. +91 44 42849812 / 13 / 14 / 15<br>Fax +91 44 42849816<br>saleschennai@seweurodriveindia.com |
| Kochi | SEW-EURODRIVE India Private Limited<br>House No: 30/1168 A<br>Kaniyampuzha Road<br>Vyttila Post Office<br>Cochin – 682019, Kerala | Tel. +91 98951 30375<br>salescochin@seweurodriveindia.com |
| Coimbatore | SEW-EURODRIVE India Private Limited<br>687/2, Sri Sakthivel Towers (Near Deepam Hospital)<br>Trichy Road, Ramanathapuram<br>Coimbatore - 641 045, Tamil Nadu | Tel. +91 422 2322420<br>Fax +91 422 2323988<br>salescoimbatore@seweurodrivein-dia.com |
| Cuttack | SEW-EURODRIVE India Private Limited<br>Flat # 002, Sekhar Cottage,<br>Nayapalli Nuasahi,<br>Bhubaneswar-751012, Odisha | Tel. +91 99374 46333<br>salescuttack@seweurodriveindia.com |
| Faridabad | SEW-EURODRIVE India Private Limited<br>H.No.:-1172 ,Sector-9 ,<br>Near St Anthony School<br>Faridabad 121006 | Tel. +91 99580 09275<br>salesfaridabad@seweurodrivein-dia.com |
| Gandhidham | SEW-EURODRIVE India Private Limited<br>TCX-S-28, FF, Ward 12/A,<br>Gandhidham - 370201, Kutch - Gujarat | Tel. +91 81282 36850<br>salesgandhidham@seweurodrivein-dia.com |
| Gurgaon | SEW-EURODRIVE India Private Limited<br>136, Hope Appartment, Sec. 15, Part – II,<br>Jharsa Road, Near Reliance Fresh,<br>Gurgaon-122001, Haryana | Tel. +91 99588 78855<br>salesgurgaon@seweurodriveindia.com |
| Hyderabad | SEW-EURODRIVE India Private Limited<br>408, 4th Floor, Meridian Place<br>Green Park Road, Amerpeet<br>Hyderabad - 500016, Telangana | Tel. +91 40 23414698<br>Fax +91 40 23413884<br>saleshyderabad@seweurodrivein-dia.com |
| Indore | SEW-EURODRIVE India Private Limited<br>103, Abhishek Avenue, Slide-4,<br>Sch. No. 78,<br>Indore - 452010, Madhya Pradesh | Tel. +91 97524 12068<br>salesindore@seweurodriveindia.com |

21284997/EN – 03/2015

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| Jamshedpur | SEW-EURODRIVE India Private Limited<br>Flat No :- S1 "Kashi Kunj",h. No. 60,<br>New Rani Kudar Road No - 3, P.o. + P.s. -Kadma<br>Jamshedpur - 831005, Jharkhand | Tel. +91 99341 23671<br>salesjamshedpur@seweurodrivein-dia.com |
| Kolhapur | SEW-EURODRIVE India Private Limited<br>C/O. Mr.S.V.Pawar.461/37, Abhideep Residency,<br>Opp-Shriram Petrol Pump, Kasaba Bawada,<br>Kolhapur - 416 122, Maharashtra | Tel. +91 86000 20846<br>saleskolhapur@seweurodriveindia.com |
| Kolkata | SEW-EURODRIVE India Private Limited<br>2nd floor, Room No. 35 Chowringhee Court<br>55, Chowringhee Road<br>Kolkata - 700 071, West Bengal | Tel. +91 33 22827457<br>Fax +91 33 22894204<br>saleskolkata@seweurodriveindia.com |
| Lucknow | SEW-EURODRIVE India Private Limited<br>69, Shiv Vihar Colony<br>Vikas Nagar – Sector 5<br>Lucknow - 226022, Uttar Pradesh | Tel. +91 97936 27333<br>saleslucknow@seweurodriveindia.com |
| Mumbai | SEW-EURODRIVE India Private Limited<br>312 A, 3rd Floor, Acme Plaza, J.B. Nagar,<br>Andheri Kurla Road, Andheri (E)<br>Mumbai - 400059, Maharashtra | Tel. +91 22 28348440<br>Fax +91 22 28217858<br>salesmumbai@seweurodriveindia.com |
| Nagpur | SEW-EURODRIVE India Private Limited<br>Plot No 49,<br>New Kailash Nager, Samta colony,<br>Nagpur-440027, Maharashtra | Tel. +91 95610 89525<br>salesnagpur@seweurodriveindia.com |
| Nashik | SEW-EURODRIVE India Private Limited<br>107, "YOG" Bunglow,<br>Mahatama Nagar, Trimbak Road,<br>Nashik – 422 007, Maharashtra | Tel. +91 96657 52978<br>salesnashik@seweurodriveindia.com |
| New Delhi | SEW-EURODRIVE India Private Limited<br>1008, 10th Floor, 12th Level, 'Westend Mall'<br>Tower Plot, District Centre<br>Adjacent Hotel Hilton<br>Janak Puri, New Delhi – 110058 | Tel. +91 11 25544111<br>Fax +91 11 25544113<br>salesdelhi@seweurodriveindia.com |
| Navi Mumbai | SEW-EURODRIVE India Private Limited<br>No.202, Shivam Yeshoram<br>Plot No. 262/257, Sector 19<br>Kopar Khairane,<br>Navi Mumbai - 400 709, Maharashtra | Tel. +91 99677 21324<br>salesmumbai@seweurodriveindia.com |
| Pune | SEW-EURODRIVE India Private Limited<br>Plot No. 7,"Shri Shantadurga Niwas"<br>Shivaji Co –operative Housing Society Ltd.,<br>Behind J.W. Marriot. Off Senapati Bapat Marg.<br>Pune –411 016, Maharashtra | Tel. +91 20 25635466 / 467<br>salespune@seweurodriveindia.com |
| Pune | SEW-EURODRIVE India Private Limited<br>Jai Tulajabhavani Complex.<br>Office No:- 15 First Floor,<br>Opp. Century Enka Company,<br>MIDC Bhosari , Pune 411 026 | Tel. +91 20-65118890 / 91<br>Fax +91 20 25380721<br>salespune@seweurodriveindia.com |
| Raipur | SEW-EURODRIVE India Private Limited<br>A-42, Ashoka Millenium Complex,<br>Ring Road-1,<br>Raipur 492 001 - Chhattisgarh | Tel. +91 771 4090765<br>Fax +91 771 4090765<br>salesraipur@seweurodriveindia.com |
| Ranchi | SEW-EURODRIVE India Private Limited<br>1D- Shail Madhuri Apartment,<br>Near Kokar Pool, H.B Road, Kokar<br>Ranchi - 834001, Jharkhand. | Tel. +91 82946 30772<br>salesranchi@seweurodriveindia.com |
| Tiruchirappalli | SEW-EURODRIVE India Private Limited<br>12B, Indira Gandhi Street,<br>K.K Nagar<br>Trichy-620 021, Tamilnadu | Tel. +91 97899 79855<br>salestrichy@seweurodriveindia.com |
| Vadodara | SEW-EURODRIVE India Private Limited<br>Unit No. 301, Savorite Bldg,<br>Plot No. 143, Vinayak Society, off old Padra Road,<br>Vadodara - 390 007, Gujarat | Tel. +91 265 2325258<br>Fax +91 265 2325259<br>salesvadodara@seweurodrivein-dia.com |



21284997/EN – 03/2015

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| | Vizag | SEW-EURODRIVE India Private Limited<br>D.No.7-13-50/1,<br>Near Padmaja hospital, Ramalayam street,<br>Chittinaidu colony,Old gajuwaka,<br>Visakhapatnam – 530026, Andhra Pradesh | Tel. +91 99895 01748<br>salesvizag@seweurodriveindia.com |
| **Indonesia** | | | |
| Sales | Jakarta | PT. Cahaya Sukses Abadi<br>Komplek Rukan Puri Mutiara Blok A no 99,<br>Sunter<br>Jakarta 14350 | Tel. +62 21 65310599<br>Fax +62 21 65310600<br>csajkt@cbn.net.id |
| | Jakarta | PT. Agrindo Putra Lestari<br>JL.Pantai Indah Selatan, Komplek Sentra Industri Terpadu, Pantai indah Kapuk Tahap III,<br>Blok E No. 27<br>Jakarta 14470 | Tel. +62 21 2921-8899<br>Fax +62 21 2921-8988<br>aplindo@indosat.net.id<br>http://www.aplindo.com |
| | Medan | PT. Serumpun Indah Lestari<br>Jl.Pulau Solor no. 8, Kawasan Industri Medan II<br>Medan 20252 | Tel. +62 61 687 1221<br>Fax +62 61 6871429 / +62 61 6871458 / +62 61 30008041<br>sil@serumpunindah.com<br>serumpunindah@yahoo.com<br>http://www.serumpunindah.com |
| | Surabaya | PT. TRIAGRI JAYA ABADI<br>Jl. Sukosemolo No. 63, Galaxi Bumi Permai G6 No. 11<br>Surabaya 60111 | Tel. +62 31 5990128<br>Fax +62 31 5962666<br>sales@triagri.co.id<br>http://www.triagri.co.id |
| | Surabaya | CV. Multi Mas<br>Jl. Raden Saleh 43A Kav. 18<br>Surabaya 60174 | Tel. +62 31 5458589<br>Fax +62 31 5317220<br>sianhwa@sby.centrin.net.id<br>http://www.cvmultimas.com |
| **Ireland** | | | |
| Sales<br>Service | Dublin | Alperton Engineering Ltd.<br>48 Moyle Road<br>Dublin Industrial Estate<br>Glasnevin, Dublin 11 | Tel. +353 1 830-6277<br>Fax +353 1 830-6458<br>http://www.alperton.ie<br>info@alperton.ie |
| **Israel** | | | |
| Sales | Tel Aviv | Liraz Handasa Ltd.<br>Ahofer Str 34B / 228<br>58858 Holon | Tel. +972 3 5599511<br>Fax +972 3 5599512<br>http://www.liraz-handasa.co.il<br>office@liraz-handasa.co.il |
| **Italy** | | | |
| Assembly<br>Sales<br>Service | Solaro | SEW-EURODRIVE di R. Blickle & Co.s.a.s.<br>Via Bernini,14<br>I-20020 Solaro (Milano) | Tel. +39 02 96 9801<br>Fax +39 02 96 79 97 81<br>http://www.sew-eurodrive.it<br>sewit@sew-eurodrive.it |
| Drive Center | Bologna | SEW-EURODRIVE di R. Blickle & Co.s.a.s.<br>Via della Grafica, 47<br>I-40064 Ozzano dell'Emilia (Bo) | Tel. +39 051 65-23-801<br>Fax +39 02 96 980 499<br>bologna@sew-eurodrive.it |
| | Caserta | SEW-EURODRIVE di R. Blickle & Co.s.a.s.<br>Viale Carlo III Km. 23,300<br>I-81020 S. Nicola la Strada (Caserta) | Tel. +39 0823 219011<br>Fax +39 02 96 980 599<br>caserta@sew-eurodrive.it |
| | Milan | SEW-EURODRIVE di R. Blickle & Co.s.a.s.<br>Via Bernini,14<br>I-20020 Solaro (Milano) | Tel. +39 02 96 980229<br>Fax +39 02 96 980 999<br>milano@sew-eurodrive.it |
| | Pescara | SEW-EURODRIVE di R. Blickle & Co.s.a.s.<br>Viale Europa,132<br>I-65010 Villa Raspa di Spoltore (PE) | Tel. +39 085 41-59-427<br>Fax +39 02 96 980 699<br>pescara@sew-eurodrive.it |
| | Turin | SEW-EURODRIVE di R. Blickle & Co.s.a.s.<br>Filiale Torino<br>c.so Unione Sovietica 612/15 - int. C<br>I-10135 Torino | Tel. +39 011 3473780<br>Fax +39 02 96 980 799<br>torino@sew-eurodrive.it |
| | Verona | SEW-EURODRIVE di R. Blickle & Co.s.a.s.<br>Via Antonio Meucci, 5<br>I-37042 - Caldiero ( VR ) | Tel. +39 045 89-239-11<br>Fax +39 02 96 980 814<br>verona@sew-eurodrive.it |

21284997/EN – 03/2015

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| **Ivory Coast** | | | |
| Sales | Abidjan | SEW-EURODRIVE SARL<br>Ivory Coast<br>Rue des Pècheurs, Zone 3<br>26 BP 916 Abidjan 26 | Tel. +225 21 21 81 05<br>Fax +225 21 25 30 47<br>info@sew-eurodrive.ci<br>http://www.sew-eurodrive.ci |
| **Japan** | | | |
| Assembly<br>Sales<br>Service | Iwata | SEW-EURODRIVE JAPAN CO., LTD<br>250-1, Shimoman-no,<br>Iwata<br>Shizuoka 438-0818 | Tel. +81 538 373811<br>Fax +81 538 373814<br>http://www.sew-eurodrive.co.jp<br>sewjapan@sew-eurodrive.co.jp |
| Technical Offices | Fukuoka | SEW-EURODRIVE JAPAN CO., LTD<br>C-go, 5th-floor, Yakuin-Hiruzu-Bldg.<br>1-5-11, Yakuin, Chuo-ku<br>Fukuoka, 810-0022 | Tel. +81 92 713-6955<br>Fax +81 92 713-6860<br>sewkyushu@jasmine.ocn.ne.jp |
| | Osaka | SEW-EURODRIVE JAPAN CO., LTD<br>Higobashi Shimizu Bldg. 10th flor<br>1-3-7 Tosabori, Nishi-ku<br>Osaka, 550-0001 | Tel. +81 6 6444--8330<br>Fax +81 6 6444--8338<br>sewosaka@crocus.ocn.ne.jp |
| | Tokio | SEW-EURODRIVE JAPAN CO., LTD<br>Omarimon Yusen Bldg. 13th floor<br>3-23-5 Nishinbashi, Minato-ku<br>Tokyo 105-0003 | Tel. +81 3 3239-0469<br>Fax +81 3 3239-0943<br>sewtokyo@basil.ocn.ne.jp |
| **Kazakhstan** | | | |
| Sales | Almaty | SEW-EURODRIVE LLP<br>291-291A, Tole bi street<br>050031, Almaty | Tel. +7 (727) 238 1404<br>Fax +7 (727) 243 2696<br>http://www.sew-eurodrive.kz<br>sew@sew-eurodrive.kz |
| | Tashkent | SEW-EURODRIVE LLP<br>Representative office in Uzbekistan<br>96A, Sharaf Rashidov street,<br>Tashkent, 100084 | Tel. +998 71 2359411<br>Fax +998 71 2359412<br>http://www.sew-eurodrive.uz<br>sew@sew-eurodrive.uz |
| | Ulaanbaatar | SEW-EURODRIVE LLP<br>Representative office in Mongolia<br>Suite 407, Tushig Centre<br>Seoul street 23,<br>Sukhbaatar district,<br>Ulaanbaatar 14250 | Tel. +976-77109997<br>Fax +976-77109997<br>http://www.sew-eurodrive.mn<br>sew@sew-eurodrive.mn |
| Technical Offices | Karagandy | SEW-EURODRIVE LLP<br>82, Molokov Street<br>100004, Karagandy | Tel. +7 7212 908 105<br>Fax +7 7212 908 105<br>karagandy@sew-eurodrive.kz |
| **Kenya** | | | |
| is supported by Tanzania. | | | |
| **Latvia** | | | |
| Sales | Riga | SIA Alas-Kuul<br>Katlakalna 11C<br>LV-1073 Riga | Tel. +371 6 7139253<br>Fax +371 6 7139386<br>http://www.alas-kuul.com<br>info@alas-kuul.com |
| **Lebanon** | | | |
| Sales Lebanon | Beirut | Gabriel Acar & Fils sarl<br>B. P. 80484<br>Bourj Hammoud, Beirut | Tel. +961 1 510 532<br>Fax +961 1 494 971<br>ssacar@inco.com.lb |
| Sales / Jordan / Kuwait / Saudi Arabia / Syria | Beirut | Middle East Drives S.A.L. (offshore)<br>Sin El Fil.<br>B. P. 55-378<br>Beirut | Tel. +961 1 494 786<br>Fax +961 1 494 971<br>http://www.medrives.com<br>info@medrives.com |
| **Lithuania** | | | |
| Sales | Alytus | UAB Irseva<br>Statybininku 106C<br>LT-63431 Alytus | Tel. +370 315 79204<br>Fax +370 315 56175<br>http://www.sew-eurodrive.lt<br>irmantas@irseva.lt |



21284997/EN – 03/2015

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| **Luxembourg** | | | |
| Assembly<br>Sales<br>Service | Brussels | SEW-EURODRIVE n.v./s.a.<br>Researchpark Haasrode 1060<br>Evenementenlaan 7<br>BE-3001 Leuven | Tel. +32 16 386-311<br>Fax +32 16 386-336<br>http://www.sew-eurodrive.lu<br>info@sew-eurodrive.be |
| **Macedonia** | | | |
| Sales | Skopje | Boznos DOOEL<br>Dime Anicin 2A/7A<br>1000 Skopje | Tel. +389 23256553<br>Fax +389 23256554<br>http://www.boznos.mk |
| **Madagascar** | | | |
| Sales | Antananarivo | Ocean Trade<br>BP21bis. Andraharo<br>Antananarivo<br>101 Madagascar | Tel. +261 20 2330303<br>Fax +261 20 2330330<br>oceantrabp@moov.mg |
| **Malaysia** | | | |
| Assembly<br>Sales<br>Service | Johor | SEW-EURODRIVE SDN BHD<br>No. 95, Jalan Seroja 39, Taman Johor Jaya<br>81000 Johor Bahru, Johor<br>West Malaysia | Tel. +60 7 3549409<br>Fax +60 7 3541404<br>sales@sew-eurodrive.com.my |
| Technical Offices | Kuala Lumpur | SEW-EURODRIVE SDN BHD<br>No. 2, Jalan Anggerik Mokara 31/46<br>Kota Kemuning Seksyen 31<br>40460 Shah Alam<br>Selangor Darul Ehsan<br>West Malaysia | Tel. +60 3 51229633<br>Fax +60 3 51229622<br>sewsa@sew-eurodrive.com.my |
| | Penang | SEW-EURODRIVE SDN BHD<br>No. 38, Jalan Bawal<br>Kimsar Garden<br>13700 Prai, Penang<br>West Malaysia | Tel. +60 4 3999349<br>Fax +60 4 3999348<br>sewpg@sew-eurodrive.com.my |
| | Kuching | SEW-EURODRIVE SDN BHD<br>No. 69, Lot 10899<br>1st Floor, Jalan Tun Jugah<br>93350 Kuching<br>Sarawak<br>East Malaysia | Tel. +60 82 572780<br>Fax +60 82 571780<br>sewswk@sew-eurodrive.com.my |
| | Kota Kinabalu | SEW-EURODRIVE SDN BHD<br>East Malaysia | Tel. +60 19 7539395<br>sales@sew-eurodrive.com.my |
| | Ipoh | SEW-EURODRIVE SDN BHD<br>West Malaysia | Tel. +60 19 7177366<br>sewsa@sew-eurodrive.com.my |
| **Mexiko** | | | |
| Assembly<br>Sales<br>Service | Quéretaro | SEW-EURODRIVE MEXICO SA DE CV<br>SEM-981118-M93<br>Tequisquiapan No. 102<br>Parque Industrial Quéretaro<br>C.P. 76220<br>Quéretaro, México | Tel. +52 442 1030-300<br>Fax +52 442 1030-301<br>http://www.sew-eurodrive.com.mx<br>scmexico@seweurodrive.com.mx |
| **Mongolia** | | | |
| Technical Office | Ulaanbaatar | SEW-EURODRIVE LLP<br>Representative office in Mongolia<br>Suite 407, Tushig Centre<br>Seoul street 23,<br>Sukhbaatar district,<br>Ulaanbaatar 14250 | Tel. +976-77109997<br>Fax +976-77109997<br>http://www.sew-eurodrive.mn<br>sew@sew-eurodrive.mn |
| **Morocco** | | | |
| Sales<br>Service | Mohammedia | SEW-EURODRIVE SARL<br>2 bis, Rue Al Jahid<br>28810 Mohammedia | Tel. +212 523 32 27 80/81<br>Fax +212 523 32 27 89<br>http://www.sew-eurodrive.ma<br>sew@sew-eurodrive.ma |

21284997/EN – 03/2015

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| **Namibia** | | | |
| Sales | Swakopmund | DB Mining & Industrial Services<br>Einstein Street<br>Strauss Industrial Park<br>Unit1<br>Swakopmund | Tel. +264 64 462 738<br>Fax +264 64 462 734<br>anton@dbminingnam.com |
| **Netherlands** | | | |
| Assembly<br>Sales<br>Service | Rotterdam | SEW-EURODRIVE B.V.<br>Industrieweg 175<br>NL-3044 AS Rotterdam<br>Postbus 10085<br>NL-3004 AB Rotterdam | Tel. +31 10 4463-700<br>Fax +31 10 4155-552<br>Service: 0800-SEWHELP<br>http://www.sew-eurodrive.nl<br>info@sew-eurodrive.nl |
| **New Zealand** | | | |
| Assembly<br>Sales<br>Service | Auckland | SEW-EURODRIVE NEW ZEALAND LTD.<br>P.O. Box 58-428<br>82 Greenmount drive<br>East Tamaki Auckland | Tel. +64 9 2745627<br>Fax +64 9 2740165<br>http://www.sew-eurodrive.co.nz<br>sales@sew-eurodrive.co.nz |
| | Christchurch | SEW-EURODRIVE NEW ZEALAND LTD.<br>10 Settlers Crescent, Ferrymead<br>Christchurch | Tel. +64 3 384-6251<br>Fax +64 3 384-6455<br>sales@sew-eurodrive.co.nz |
| Technical Office | Palmerston North | SEW-EURODRIVE NEW ZEALAND LTD.<br>C/-Grant Shearman, RD 5, Aronui Road<br>Palmerston North | Tel. +64 6 355-2165<br>Fax +64 6 355-2316<br>sales@sew-eurodrive.co.nz |
| **Nigeria** | | | |
| Sales | Lagos | EISNL Engineering Solutions and Drives Ltd<br>Plot 9, Block A, Ikeja Industrial Estate ( Ogba Scheme)<br>Adeniyi Jones St. End<br>Off ACME Road, Ogba, Ikeja, Lagos | Tel. +234 1 217 4332<br>http://www.eisnl.com<br>team.sew@eisnl.com |
| **Norway** | | | |
| Assembly<br>Sales<br>Service | Moss | SEW-EURODRIVE A/S<br>Solgaard skog 71<br>N-1599 Moss | Tel. +47 69 24 10 20<br>Fax +47 69 24 10 40<br>http://www.sew-eurodrive.no<br>sew@sew-eurodrive.no |
| **Pakistan** | | | |
| Sales | Karachi | Industrial Power Drives<br>Al-Fatah Chamber A/3, 1st Floor Central Commercial Area,<br>Sultan Ahmed Shah Road, Block 7/8,<br>Karachi | Tel. +92 21 452 9369<br>Fax +92-21-454 7365<br>seweurodrive@cyber.net.pk |
| **Paraguay** | | | |
| Sales | Fernando de la Mora | SEW-EURODRIVE PARAGUAY S.R.L<br>De la Victoria 112, Esquina nueva Asunción<br>Departamento Central<br>Fernando de la Mora, Barrio Bernardino | Tel. +595 991 519695<br>Fax +595 21 3285539<br>sewpy@sew-eurodrive.com.py |
| **Peru** | | | |
| Assembly<br>Sales<br>Service | Lima | SEW EURODRIVE DEL PERU S.A.C.<br>Los Calderos, 120-124<br>Urbanizacion Industrial Vulcano, ATE, Lima | Tel. +51 1 3495280<br>Fax +51 1 3493002<br>http://www.sew-eurodrive.com.pe<br>sewperu@sew-eurodrive.com.pe |
| **Philippines** | | | |
| Sales | Makati | P.T. Cerna Corporation<br>4137 Ponte St., Brgy. Sta. Cruz<br>Makati City 1205 | Tel. +63 2 519 6214<br>Fax +63 2 890 2802<br>mech_drive_sys@ptcerna.com<br>http://www.ptcerna.com |
| **Poland** | | | |
| Assembly<br>Sales<br>Service | Łódź | SEW-EURODRIVE Polska Sp.z.o.o.<br>ul. Techniczna 5<br>PL-92-518 Łódź | Tel. +48 42 293 00 00<br>Fax +48 42 293 00 49<br>http://www.sew-eurodrive.pl<br>sew@sew-eurodrive.pl |



21284997/EN – 03/2015

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| **Poland** | | | |
| | Service | Tel. +48 42 293 0030<br>Fax +48 42 293 0043 | 24 Hour Service<br>Tel. +48 602 739 739 (+48 602 SEW SEW)<br>serwis@sew-eurodrive.pl |
| Technical Offices | Tychy | SEW-EURODRIVE Polska Sp.z.o.o.<br>ul. Strzelecka 66<br>PL-43-109 Tychy | Tel. +48 32 32 32 610<br>Fax +48 32 32 32 648 |
| | Bydgoszcz | SEW-EURODRIVE Polska Sp.z.o.o.<br>ul. Fordońska 246<br>PL-85-766 Bydgoszcz | Tel.+48 52 567 30 00<br>Fax +48 52 567 30 09 |
| | Gdansk | SEW-EURODRIVE Polska Sp.z.o.o.<br>ul. Galaktyczna 30A<br>PL-80-299 Gdańsk | Tel. +48 58 762 70 00<br>Fax +48 58 762 70 09 |
| | Posen | SEW-EURODRIVE Polska Sp.z.o.o.<br>ul. Wschodnia<br>PL-62-080 Swadzim k. Poznania | Tel. +48 61 6465500<br>Fax +48 61 6465519 |
| | Radom | SEW-EURODRIVE Polska Sp.z.o.o.<br>ul. Słowackiego 84<br>PL-26-600 Radom | Tel. +48 48 679 47 00<br>Fax +48 48 679 47 09 |
| | Rzeszów | SEW-EURODRIVE Polska Sp.z.o.o.<br>ul. Armii Krajowej 80<br>PL-35-307 Rzeszów | Tel. +48 17 784 27 00<br>Fax +48 17 784 27 09 |
| **Portugal** | | | |
| Assembly<br>Sales<br>Service | Coimbra | SEW-EURODRIVE, LDA.<br>Apartado 15<br>P-3050-901 Mealhada | Tel. +351 231 20 9670<br>Fax +351 231 20 3685<br>http://www.sew-eurodrive.pt<br>infosew@sew-eurodrive.pt |
| Service Competence Center | Lisbon | SEW-EURODRIVE, LDA.<br>Núcleo Empresarial I de São Julião do Tojal<br>Rua de Entremuros, 54<br>Fracção I<br>P-2660-533 São Julião do Tojal | Tel. +351 21 958-0198<br>Fax +351 21 958-0245<br>esc.lisboa@sew-eurodrive.pt |
| Technical Office | Porto | SEW-EURODRIVE, LDA.<br>Av. 25 de Abril, 68<br>4440-502 Valongo | Tel. +351 229 350 383 / +351 9 32559110<br>Fax +351 229 350 384<br>esc.porto@sew-eurodrive.pt |
| **Romania** | | | |
| Sales<br>Service | Bucharest | Sialco Trading SRL<br>str. Brazilia nr. 36<br>011783 Bucuresti | Tel. +40 21 230-1328<br>Fax +40 21 230-7170<br>sialco@sialco.ro |
| **Russia** | | | |
| Assembly<br>Sales<br>Service | St. Petersburg | ZAO SEW-EURODRIVE<br>P.O. Box 36<br>RUS-195220 St. Petersburg | Tel. +7 812 3332522 / +7 812 5357142<br>Fax +7 812 3332523<br>http://www.sew-eurodrive.ru<br>sew@sew-eurodrive.ru |
| Technical Offices | Ekaterinburg | ZAO SEW-EURODRIVE<br>Kominterna Str. 16<br>Office 614<br>RUS-620078 Ekaterinburg | Tel. +7 343 310 3977<br>Fax +7 343 310 3978<br>eso@sew-eurodrive.ru |
| | Irkutsk | ZAO SEW-EURODRIVE<br>5-Armii Str., 31<br>RUS-664011 Irkutsk | Tel. +7 3952 25 5880<br>Fax +7 3952 25 5881<br>iso@sew-eurodrive.ru |
| | Moscow | ZAO SEW-EURODRIVE<br>Malaja Semjonowskaja Str.<br>д. 9, корпус 2<br>RUS-107023 Moskau | Tel. +7 495 9337090<br>Fax +7 495 9337094<br>mso@sew-eurodrive.ru |
| | Novosibirsk | ZAO SEW-EURODRIVE<br>pr. K Marksa 30<br>RUS-630087 Novosibirsk | Tel. +7 383 3350200<br>Fax +7 383 3462544<br>nso@sew-eurodrive.ru |
| | Perm | ZAO SEW-EURODRIVE<br>Stakhanovskaya str., 45 Office 512<br>RUS-614066 Perm | Tel. +7 342 2219494<br>Fax +7 342 2219444<br>pso@sew-eurodrive.ru |

21284997/EN – 03/2015

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| | Togliatti | ZAO SEW-EURODRIVE<br>Sportivnaya Str. 4B, office 2<br>Samarskaya obl.<br>RUS-445057 Togliatti | Tel. +7 8482 710529<br>Fax +7 8482 810590<br>tso@sew-eurodrive.ru |
| **Sambia** | | | |
| is supported by South Africa. | | | |
| **Senegal** | | | |
| Sales | Dakar | SENEMECA<br>Mécanique Générale<br>Km 8, Route de Rufisque<br>B.P. 3251, Dakar | Tel. +221 338 494 770<br>Fax +221 338 494 771<br>http://www.senemeca.com<br>senemeca@senemeca.sn |
| **Serbia** | | | |
| Sales | Belgrade | DIPAR d.o.o.<br>Ustanicka 128a<br>PC Košum, IV floor<br>SRB-11000 Beograd | Tel. +381 11 347 3244 /<br>+381 11 288 0393<br>Fax +381 11 347 1337<br>office@dipar.rs |
| **Singapore** | | | |
| Assembly<br>Sales<br>Service | Singapore | SEW-EURODRIVE PTE. LTD.<br>No 9, Tuas Drive 2<br>Jurong Industrial Estate<br>Singapore 638644 | Tel. +65 68621701<br>Fax +65 68612827<br>http://www.sew-eurodrive.com.sg<br>sewsingapore@sew-eurodrive.com |
| **Slovakia** | | | |
| Sales | Bratislava | SEW-Eurodrive SK s.r.o.<br>Rybničná 40<br>SK-831 06 Bratislava | Tel.+421 2 33595 202, 217, 201<br>Fax +421 2 33595 200<br>http://www.sew-eurodrive.sk<br>sew@sew-eurodrive.sk |
| | Košice | SEW-Eurodrive SK s.r.o.<br>Slovenská ulica 26<br>SK-040 01 Košice | Tel. +421 55 671 2245<br>Fax +421 55 671 2254<br>Mobile +421 907 671 976<br>sew@sew-eurodrive.sk |
| **Slovenia** | | | |
| Sales<br>Service | Celje | Pakman - Pogonska Tehnika d.o.o.<br>UI. XIV. divizije 14<br>SLO - 3000 Celje | Tel. +386 3 490 83-20<br>Fax +386 3 490 83-21<br>pakman@siol.net |
| **South Africa** | | | |
| Assembly<br>Sales<br>Service | Johannesburg | SEW-EURODRIVE (PROPRIETARY) LIMITED<br>Eurodrive House<br>Cnr. Adcock Ingram and Aerodrome Roads<br>Aeroton Ext. 2<br>Johannesburg 2013<br>P.O.Box 90004<br>Bertsham 2013 | Tel. +27 11 248-7000<br>Fax +27 11 248-7289<br>http://www.sew.co.za<br>info@sew.co.za |
| | Cape Town | SEW-EURODRIVE (PROPRIETARY) LIMITED<br>Rainbow Park<br>Cnr. Racecourse & Omuramba Road<br>Montague Gardens<br>Cape Town<br>P.O.Box 36556<br>Chempet 7442 | Tel. +27 21 552-9820<br>Fax +27 21 552-9830<br>Telex 576 062<br>bgriffiths@sew.co.za |
| | Durban | SEW-EURODRIVE (PROPRIETARY) LIMITED<br>48 Prospecton Road<br>Isipingo<br>Durban<br>P.O. Box 10433, Ashwood 3605 | Tel. +27 31 902 3815<br>Fax +27 31 902 3826<br>cdejager@sew.co.za |
| | Nelspruit | SEW-EURODRIVE (PROPRIETARY) LIMITED<br>7 Christie Crescent<br>Vintonia<br>P.O.Box 1942<br>Nelspruit 1200 | Tel. +27 13 752-8007<br>Fax +27 13 752-8008<br>robermeyer@sew.co.za |



21284997/EN – 03/2015

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| Technical Office | Port Elizabeth | SEW-EURODRIVE (PROPRIETARY) LIMITED<br>8 Ruan Access Park<br>Old Cape Road<br>Greenbushes<br>6000 Port Elizabeth | Tel. +27 41 3722246<br>Fax +27 41 3722247<br>http://www.sew.co.za<br>fsieberhagen@sew-co-za |
| **South Korea** | | | |
| Assembly<br>Sales<br>Service | Ansan | SEW-EURODRIVE KOREA CO., LTD.<br>7, Dangjaengi-ro,<br>Danwon-gu,<br>Ansan-si, Gyeonggi-do, Zip 425-839 | Tel. +82 31 492-8051<br>Fax +82 31 492-8056<br>http://www.sew-eurodrive.kr<br>master.korea@sew-eurodrive.com |
| | Busan | SEW-EURODRIVE KOREA CO., LTD.<br>28, Noksansandan 262-ro 50beon-gil,<br>Gangseo-gu,<br>Busan, Zip 618-820 | Tel. +82 51 832-0204<br>Fax +82 51 832-0230 |
| Technical Offices | Daegu | SEW-EURODRIVE KOREA CO., LTD.<br>No.303 Sungan officetel, 1834,<br>Dalgubeol-daero, Dalseo-gu,<br>Daegu, Zip 704-712 | Tel. +82 53 650-7111<br>Fax +82 53 650-7112 |
| | Daejeon | SEW-EURODRIVE KOREA CO., LTD.<br>No.302 Hongin officetel, 28, Daehak-ro,<br>Yuseong-gu,<br>Daejeon, Zip 305-710 | Tel. +82 42 828-6461<br>Fax +82 42 828-6463 |
| | Gwangju | SEW-EURODRIVE KOREA CO., LTD.<br>5fl., Hyundai B/D B, 40,<br>Bungmun-daero, Buk-gu,<br>Gwangju, Zip 500-855 | Tel. +82 62 511-9172<br>Fax +82 62 511-9174 |
| | Seoul | SEW-EURODRIVE KOREA CO., LTD.<br>No.1804 Ace Hiend Tower 8th, 84,<br>Gasan digital 1-ro, Geumcheon-gu,<br>Seoul, Zip 153-797 | Tel. +82 2 862-8051<br>Fax +82 2 862-8199 |
| **Spain** | | | |
| Assembly<br>Sales<br>Service | Bilbao | SEW-EURODRIVE ESPAÑA, S.L.<br>Parque Tecnológico, Edificio, 302<br>E-48170 Zamudio (Vizcaya) | Tel. +34 94 43184-70<br>Fax +34 94 43184-71<br>http://www.sew-eurodrive.es<br>sew.spain@sew-eurodrive.es |
| Technical Offices | Barcelona | SEW-EURODRIVE ESPAÑA, S.L.<br>Avda. Francesc Macià, 60 – Planta 16, porta 1<br>Eix Macià – "Torre Milenium"<br>E-08208 Sabadell (Barcelona) | Tel. +34 93 7162200<br>Fax +34 93 7233007 |
| | Madrid | SEW-EURODRIVE ESPAÑA, S.L.<br>Gran Via. 48-2° A-D<br>E-28220 Majadahonda (Madrid) | Tel. +34 91 6342250<br>Fax +34 91 6340899 |
| | Seville | MEB<br>Pólogono Calonge, C/A Nave 2 - C<br>E-41.077 Sevilla | Tel. +34 954 356 361<br>Fax +34 954 356 274<br>mebsa.sevilla@mebsa.com |
| | Valencia | MEB<br>Músico Andreu i Piqueres, 4<br>E-46.900 Torrente (Valencia) | Tel. +34 961 565 493<br>Fax +34 961 566 688<br>mebsa.valencia@mebsa.com |
| **Sri Lanka** | | | |
| Sales | Colombo | SM International (Pte) Ltd<br>254, Galle Raod<br>Colombo 4, Sri Lanka | Tel. +94 1 2584887<br>Fax +94 1 2582981 |
| **Swaziland** | | | |
| Sales | Manzini | C G Trading Co. (Pty) Ltd<br>PO Box 2960<br>Manzini M200 | Tel. +268 2 518 6343<br>Fax +268 2 518 5033<br>engineering@cgtrading.co.sz |
| **Sweden** | | | |
| Assembly<br>Sales<br>Service | Jönköping | SEW-EURODRIVE AB<br>Gnejsvägen 6-8<br>S-55303 Jönköping<br>Box 3100 S-55003 Jönköping | Tel. +46 36 34 42 00<br>Fax +46 36 34 42 80<br>http://www.sew-eurodrive.se<br>jonkoping@sew.se |

21284997/EN – 03/2015

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| Sales | Gothemburg | SEW-EURODRIVE AB<br>Gustaf Werners gata 8<br>S-42132 Västra Frölunda | Tel. +46 31 709 68 80<br>Fax +46 31 709 68 93<br>goteborg@sew.se |
| | Stockholm | SEW-EURODRIVE AB<br>Björkholmsvägen 10<br>S-14146 Huddinge | Tel. +46 8 449 86 80<br>Fax +46 8 449 86 93<br>stockholm@sew.se |
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| | Bern / Solothurn | Rudolf Bühler<br>Muntersweg 5<br>CH-2540 Grenchen | Tel. +41 32 652 2339<br>Fax +41 32 652 2331 |
| | Central Switzerland, Aargau | Armin Pfister<br>Stierenweid<br>CH-4950 Huttwil, BE | Tel. +41 62 962 54 55<br>Fax +41 62 962 54 56 |
| | Zürich, Ticino | Gian-Michele Muletta<br>Fischerstrasse 61<br>CH-8132 Egg bei Zürich | Tel. +41 44 994 81 15<br>Fax +41 44 994 81 16 |
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| | Nan Tou | Ting Shou Trading Co., Ltd.<br>No. 55 Kung Yeh N. Road<br>Industrial District<br>Nan Tou 540 | Tel. +886 49 255353<br>Fax +886 49 257878<br>sewtwn@ms63.hinet.net<br>http://www.tingshou.com.tw |
| **Tanzania** | | | |
| Sales | Daressalam | SEW-EURODRIVE PTY LIMITED TANZANIA<br>Plot 52, Regent Estate<br>PO Box 106274<br>Dar Es Salaam | Tel. +255 0 22 277 5780<br>Fax +255 0 22 277 5788<br>http://www.sew-eurodrive.co.tz<br>uroos@sew.co.tz |
| **Thailand** | | | |
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| | Hat Yai | SEW-EURODRIVE (Thailand) Ltd.<br>Hadyai Country Home Condominium<br>59/101 Soi.17/1<br>Rachas-Utid Road.<br>Hadyai, Songkhla 90110 | Tel. +66 74 359441<br>Fax +66 74 359442<br>sewthailand@sew-eurodrive.com |



21284997/EN – 03/2015

| | | | |
|---|---|---|---|
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| **Turkey** | | | |
| Assembly<br>Sales<br>Service | Kocaeli-Gebze | SEW-EURODRİVE Hareket<br>Sistemleri San. Ve TIC. Ltd. Sti<br>Gebze Organize Sanayi Böl. 400 Sok No. 401<br>41480 Gebze Kocaeli | Tel. +90 262 9991000 04<br>Fax +90 262 9991009<br>http://www.sew-eurodrive.com.tr<br>sew@sew-eurodrive.com.tr |
| Technical Offices | Adana | SEW-EURODRİVE Hareket<br>Sistemleri San. Ve TIC. Ltd. Sti<br>Cevat Yurdakul Cad.No:52<br>Akdoğan İş Merkezi K:5 D.18<br>Seyhan / Adana | Tel. +90 322 359 94 15<br>Fax +90 322 359 94 16 |
| | Ankara | SEW-EURODRİVE Hareket<br>Sistemleri San. Ve TIC. Ltd. Sti<br>1368.Cadde Eminel İşmerkezi<br>No: 18/68<br>İvogsan / Ankara | Tel. +90 312 385 33 90<br>Fax +90 312 385 32 58 |
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| | Istanbul | SEW-EURODRİVE Hareket<br>Sistemleri San. Ve TIC. Ltd. Sti<br>Tekstilkent Ticaret Merkezi<br>B-13 Blok No:70<br>Esenler / İstanbul | Tel. +90 262 9991000 04<br>Fax +90 262 9991009 |
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| Assembly<br>Sales<br>Service | Dnipropetrovsk | ООО «СЕВ-Евродрайв»<br>ул.Рабочая, 23-В, офис 409<br>49008 Днепропетровск | Tel. +380 56 370 3211<br>Fax +380 56 372 2078<br>http://www.sew-eurodrive.ua<br>sew@sew-eurodrive.ua |
| Sales | Kiev | ООО «СЕВ-Евродрайв»<br>ул.С.Олейника, 21<br>02068 Киев | Tel. +380 44 503 95 77<br>Fax +380 44 503 95 78<br>kso@sew-eurodrive.ua |
| | Ivano-Frank-ivsk | ООО «СЕВ-Евродрайв»<br>ул.Независимости, 4, оф.303<br>76000 Ивано-Франковск | Tel. +380 342 725 190<br>Fax +380 342 725 191<br>ifso@sew-eurodrive.ua |
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| Sales<br>Service | Sharjah | Copam Middle East (FZC)<br>Sharjah Airport International Free Zone<br>P.O. Box 120709<br>Sharjah | Tel. +971 6 5578-488<br>Fax +971 6 5578-499<br>copam_me@eim.ae |
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| Assembly<br>Sales | Montevideo | SEW-EURODRIVE Uruguay, S. A.<br>Jose Serrato 3569 Esqina Corumbe<br>CP 12000 Montevideo | Tel. +598 2 21181-89<br>Fax +598 2 21181-90<br>sewuy@sew-eurodrive.com.uy |

21284997/EN – 03/2015

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| Production<br>Assembly<br>Sales<br>Service | Southeast Region | SEW-EURODRIVE INC.<br>1295 Old Spartanburg Highway<br>P.O. Box 518<br>Lyman, S.C. 29365 | Tel. +1 864 439-7537<br>Fax Sales +1 864 439-7830<br>Fax Production +1 864 439-9948<br>Fax Assembly +1 864 439-0566<br>Fax Confidential/HR +1 864 949-5557<br>http://www.seweurodrive.com<br>cslyman@seweurodrive.com |
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| | Additional addresses for service in USA provided on request! | | |
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| Technical Office | Tashkent | SEW-EURODRIVE LLP<br>Representative office in Uzbekistan<br>96A, Sharaf Rashidov street,<br>Tashkent, 100084 | Tel. +998 71 2359411<br>Fax +998 71 2359412<br>http://www.sew-eurodrive.uz<br>sew@sew-eurodrive.uz |
| **Venezuela** | | | |
| Assembly<br>Sales<br>Service | Valencia | SEW-EURODRIVE Venezuela S.A.<br>Av. Norte Sur No. 3, Galpon 84-319<br>Zona Industrial Municipal Norte<br>Valencia, Estado Carabobo | Tel. +58 241 832-9804<br>Fax +58 241 838-6275<br>http://www.sew-eurodrive.com.ve<br>ventas@sew-eurodrive.com.ve<br>sewfinanzas@cantv.net |
| **Vietnam** | | | |
| Sales | Ho Chi Minh City | Nam Trung Co., Ltd<br>Huế - South Vietnam / Construction Materials<br>250 Binh Duong Avenue, Thu Dau Mot Town,<br>Binh Duong Province<br>HCM office: 91 Tran Minh Quyen Street<br>District 10, Ho Chi Minh City | Tel. +84 8 8301026<br>Fax +84 8 8392223<br>khanh-nguyen@namtrung.com.vn<br>http://www.namtrung.com.vn |
| | Hanoi | MICO LTD<br>Quảng Trị - North Vietnam / All sectors except Construction Materials<br>8th Floor, Ocean Park Building, 01 Dao Duy Anh St, Ha Noi, Viet Nam | Tel. +84 4 39386666<br>Fax +84 4 3938 6888<br>nam_ph@micogroup.com.vn<br>http://www.micogroup.com.vn |



21284997/EN – 03/2015

# Index


## A

Abbreviation key ... 37
Adapter ... 14
Adapter for mounting of
  IEC motors ... 119
  NEMA motors ... 122
  Servomotors ... 124
Additional documentation ... 9
Additional documentation for
  Project Planning for Drives ... 37
Amount of oil ... 97
Anti-friction bearing greases ... 94
Assembly of gear units with hollow shaft and key
  Supplied fastening parts ... 104
Available combinations ... 139
Axial loads of R, F, K, S, W gear units ... 45

## B

Backstop ... 14
Brakemotors ... 14
Breather valve ... 102
Breather valve in motor flange ... 62
Breather valves ... 143

## C

Centering shoulder ... 14
Changing the mounting position ... 94
Churning losses ... 41
Combinations, possible
  Helical gearmotors ... 148
  Helical-bevel gearmotors ... 436
  Helical-worm gearmotors ... 579
  Parallel-shaft helical gearmotors ... 306
  SPIROPLAN®- gearmotors ... 684
  Structure of the tables ... 139
Condition monitoring
  Technical data ... 136
  Type designation ... 23
Connection
  Variants ... 25
Covers, fixed ... 134

## D

Designs
  Helical gearmotors ... 29, 146
  Helical-bevel gearmotors ... 31, 32, 433
  Helical-worm gearmotors ... 34, 577
  Parallel-shaft helical gearmotors ... 30, 303
  SPIROPLAN® gearmotors ... 35, 36, 682
Diagnostic unit
  Oil aging sensor DUO10A ... 19, 136
Dimension sheets
  Helical-bevel gearmotors ... 513
  Helical-worm gearmotors ... 619
  Parallel-shaft helical gearmotors ... 378
  SPIROPLAN® gearmotors ... 701
Dimensions sheets
  Helical gearmotors ... 252
Documentation, additional ... 9
DR type designation
  Mechanical attachments ... 24
  Temperature sensor and temperature detection ... 25
DR.. type designation
  Bearings ... 27
  Condition monitoring ... 27
  Encoder ... 26
  Other additional features ... 27
  Ventilation ... 27
Drive and gear unit selection data ... 37

## E

Efficiency of R, F, K, S, W gear units ... 40
Encoder ... 26
Extended storage ... 18

## F

Fastening, gear units ... 127
Fixed covers ... 134
Flange contours
  FAF.., KAF.., SAF.. and WAF.. ... 133
  FF.., KF.., SF.. and WF.. ... 131
  RF.. and R..F ... 129
Force application definition ... 46


21284997/EN – 03/15



SEW EURODRIVE

## G


Gear ratios, max. torques
Structure of the tables ... 139
Gear unit mounting ... 127
Gear units
Extended storage ... 18
Gear units with hollow shaft ... 109
Special motor/gear unit combinations ... 109
Gear units with hollow shaft and key
Installation/removal kit ... 104
Gearmotor
Accessibility ... 12
Coating ... 12
Heat dissipation ... 12
Installation altitude ... 12
Noise ... 12
Gearmotor dimensions ... 145
Grease filling ... 94


## H


Heavy load range ... 9
Helical gear units
Type designation ... 21
Helical gearmotors ... 146
Designs ... 146
Dimension sheets ... 252
Mounting positions ... 65
Possible geometrical combinations ... 148
Selection tables ... 180
Selection tables for low output speeds ... 241
Structure of the selection tables ... 140
Helical-bevel gear units
Type designation ... 22
Helical-bevel gearmotors ... 433
Designs ... 31, 32, 433
Dimension sheets ... 513
Mounting positions ... 73
Possible geometrical combinations ... 436
Selection tables ... 457
Selection tables for low output speeds ... 502
Structure of the selection tables ... 140
Helical-worm gear unit
Technical data ... 654
Type designation ... 22
Helical-worm gearmotors ... 577
Designs ... 34, 577
Dimension sheets ... 619
Mounting positions ... 81
Possible geometrical combinations ... 579
Selection tables ... 592
Selection tables for low output speeds ... 613
Structure of the selection tables ... 140
Higher permitted overhung loads
Gear units ... 46
Hollow shaft and key, installation/removal ... 104


## I


Installation kit for gear units with hollow shaft and key ... 104
International markets ... 14


## K


Key to mounting position sheets ... 60


## L


Light load range ... 9
Lubricant fill quantities ... 97
Lubricant table ... 95, 96
Lubricants
General information ... 94


## M


Motor
Operating temperature ... 11
Motor flange
Breather valve, oil drain plug ... 62
Motor mounting positions ... 93
Motor platform ... 14
Mounting gear units with hollow shaft and key
Use the SEW installation/removal kit ... 105
Mounting positions
Helical gearmotors ... 65
Helical-bevel gearmotors ... 73
Helical-worm gearmotors ... 81
Overview ... 54
Parallel-shaft helical gearmotors ... 70
SPIROPLAN® gearmotors ... 87
Multi-stage gearmotors ... 49


## N


NOCO® fluid ... 17
Notes on the gearmotor dimension sheets ... 142


21284997/EN – 03/15

## O


Oil aging and vibration sensor
Technical data ... 136
Oil drain plug in motor flange ... 62
Oil expansion tank ... 19
Operating temperature
Gear units ... 11
Motor ... 11
Options
TorcLOC® ... 111
Type designation ... 23
Order information ... 55
Overhung load conversion, gear unit constants ... 48
Overhung loads of R, F, K, S, W gear units ... 45


## P


Parallel-shaft helical gear units
Type designation ... 21
Parallel-shaft helical gearmotors ... 303
Designs ... 30, 303
Dimension sheets ... 378
Mounting positions ... 70
Possible geometrical combinations ... 306
Selection tables ... 331
Selection tables for low output speeds ... 368
Structure of the selection tables ... 140
Permitted axial load ... 46
Position of the torque arm ... 144
Possible geometrical combinations
Helical gearmotors ... 148
Helical-bevel gearmotors ... 436
Helical-worm gearmotors ... 579
Parallel-shaft helical gearmotors ... 306
SPIROPLAN® gearmotors ... 684
Product groups ... 7
Product names ... 10
Project Planning for Drives
Additional documentation ... 37
Multi-stage gearmotors ... 49
Project planning procedure ... 38
Project Planning for Gear Units
Off-center force application, overhung load conversion ... 47
Service factor ... 42


## R


R, F, K, S, W gear units
Operating temperature ... 11
Ratio, max. torques
Helical gearmotors ... 148
Helical-bevel gearmotors ... 436
Helical-worm gearmotors ... 579
Parallel-shaft helical gearmotors ... 306
SPIROPLAN® gearmotors ... 684
Reduced backlash gear units ... 13, 103
Removal kit for gear units with hollow shaft and key ... 104
Removal of the gear units with hollow shaft and key using the SEW installation/removal kit ... 107
Rubber buffer for FA/FH/FV/FT ... 144


## S


Selection tables
Gearmotors, structure of the selection tables ... 140
Helical gearmotors ... 180
Helical-bevel gearmotors ... 457
Helical-worm gearmotors ... 592
Parallel-shaft helical gearmotors ... 331
SPIROPLAN® gearmotors ... 689
Selection tables for low output speeds
Helical gearmotors ... 241
Helical-bevel gearmotors ... 502
Helical-worm gearmotors ... 613
Parallel-shaft helical gearmotors ... 368
SPIROPLAN® gearmotors ... 699
Self-locking helical-worm or SPIROPLAN® gear units ... 40
Service factor
Determining the service factor ... 42
SEW service factor fB ... 43
SEW-EURODRIVE
Group of companies ... 6
Products ... 7
Systems ... 7
Shouldered hollow shaft with shrink disk ... 112
Helical-bevel gear unit ... 115
Helical-worm gear unit ... 117
Parallel-shaft helical gear units ... 113
Shrink disk connection ... 143
SPIROPLAN® gear unit


21284997/EN – 03/15

Type designation ..... 23
SPIROPLAN® gearmotors ..... 682
Designs ..... 35, 36, 682
Dimension sheets ..... 701
Mounting positions ..... 87
Possible geometrical combinations ..... 684
Selection tables ..... 689
Selection tables for low output speeds ..... 699
Structure of the selection tables ..... 140
Splined hollow shaft ..... 144
Storage conditions ..... 18
Structure of the selection tables ..... 140
Surface protection ..... 18
Swing base ..... 15

## T

Technical data
Helical-worm gear unit ..... 654
Technical data DR.. motors
4-pole ..... 722
6-pole ..... 723
Tolerances ..... 142
Shaft heights ..... 142
Flanges ..... 143
Hollow shafts ..... 142
Multiple-spline shafts ..... 143
Shaft ends ..... 142
TorqLOC®
Options ..... 111
TorqLOC® hollow shaft mounting system ..... 110
Torque arm ..... 144
Trademarks ..... 10
Type designation ..... 28
Condition monitoring ..... 23
DRN.. motor series ..... 24
Helical gear units ..... 21
Helical-bevel gear units ..... 22
Helical-worm gear unit ..... 22
Options ..... 23
Output types, output types ..... 24
Parallel-shaft helical gear units ..... 21
SPIROPLAN® gear unit ..... 23
Temperature detection ..... 25
Type designation DR..
Connection variants ..... 25

## V

Versions, possible
Brakemotors ..... 14
for international markets ..... 14
reduced backlash ..... 13, 103
RM gearmotors ..... 13
SPIROPLAN® gear unit ..... 13

21284997/EN – 03/15

# Inquiry/order

**Customer data:**

Company: _____ Customer no.: _____
Department: _____
Name: _____ Phone: _____
Street/P.O. box: _____ Fax: _____
_____ Email: _____
Zip code/city: _____

**Contact at SEW:**

Name: _____ Phone: _____
Technical office: _____ Fax: _____

**Technical data:**

Quantity: _____ Desired delivery date: _____
Catalog designation: _____

**Gear unit type:**

☐ Helical gear units ☐ Parallel-shaft helical gear units ☐ Helical-bevel gear unit ☐ Helical-worm gear unit ☐ Spiroplan® gear units
☐ Double gear units ☐ Servo gear units ☐ Variable-speed gear unit ☐ Electrified monorail system ☐ Miscellaneous: _____

**Power:** _____ kW **Output speed:** _____ rpm **Output torque:** _____ Nm

**Cycles/hour:** _____ c/h **Cyclic duration factor:** S _____ / _____ % cdf

☐ 1-shift operation ☐ 2-shift operation ☐ 3-shift operation
☐ Regular ☐ Irregular ☐ Very irregular

**Mounting position:** [1)]

M1 ☐ M2 ☐ M3 ☐ M4 ☐ M5 ☐ M6 ☐ Pivoted ☐

**Housing form:**

☐ Foot-mounted ☐ Flange (bore) ☐ Flange (thread)
☐ Torque arm ☐ Miscellaneous: _____

**Shaft design:**

☐ Solid shaft with key ☐ Shrink disk Shaft/hollow shaft Ø: _____ mm
☐ Hollow shaft with key ☐ TorqLOC® Flange Ø : _____ mm

**Shaft position** (for right-angle gear units): ☐ A | ☐ B | ☐ AB

**Terminal box position:** ☐ 0°(R) ☐ 90°(B) ☐ 180°(L) ☐ 270°(T)

**Cable entry:** ☐ X ☐ 1 ☐ 2 ☐ 3

**Degree of protection:**

IP54 ☐ IP55 ☐ IP56 ☐ IP65 ☐ IP66 ☐ IP69K ☐

**Thermal class:**

130(B) ☐ 155(F) ☐ 180(H) ☐

**Surface/corrosion protection:**

KS ☐ OS1 ☐ OS2 ☐ OS3 ☐ OS4 ☐

**Line voltage:** _____ V
Line frequency: ☐ 50Hz ☐ 60Hz

**Connection type:** ☐ Δ ☐ Y ☐ YY ☐ Y/Y

**Energy efficiency class:** ☐ IE1 ☐ IE2 ☐ IE3 ☐ IE4

☐ For inverter operation: Max. frequency: _____ Hz **Control range:** _____

**Required options:**

☐ Brake: Voltage _____ V Braking torque: _____ Nm
☐ Manual brake release: ☐ HR or ☐ HF
☐ Forced cooling fan: Forced cooling fan voltage: ____ V
☐ Motor protection: ☐ TF or ☐ TH
☐ Encoder: _____
☐ Plug connector connection: _____
☐ Inverter: _____
☐ RAL 7031 or ☐ RAL _____

**Further options:**

**Special ambient conditions:**

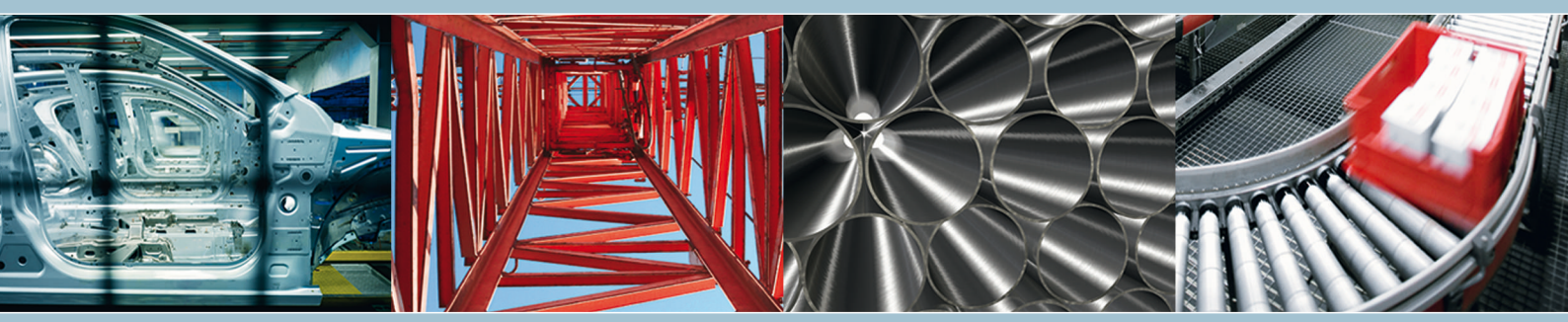
Temperature: from _____ °C to _____ °C | ☐ Operation outdoors | ☐ Installation altitude >1000m above NN
Further environmental conditions: _____

Miscellaneous: _____

1) see back

**Place, date** _____ **Signature:** _____

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