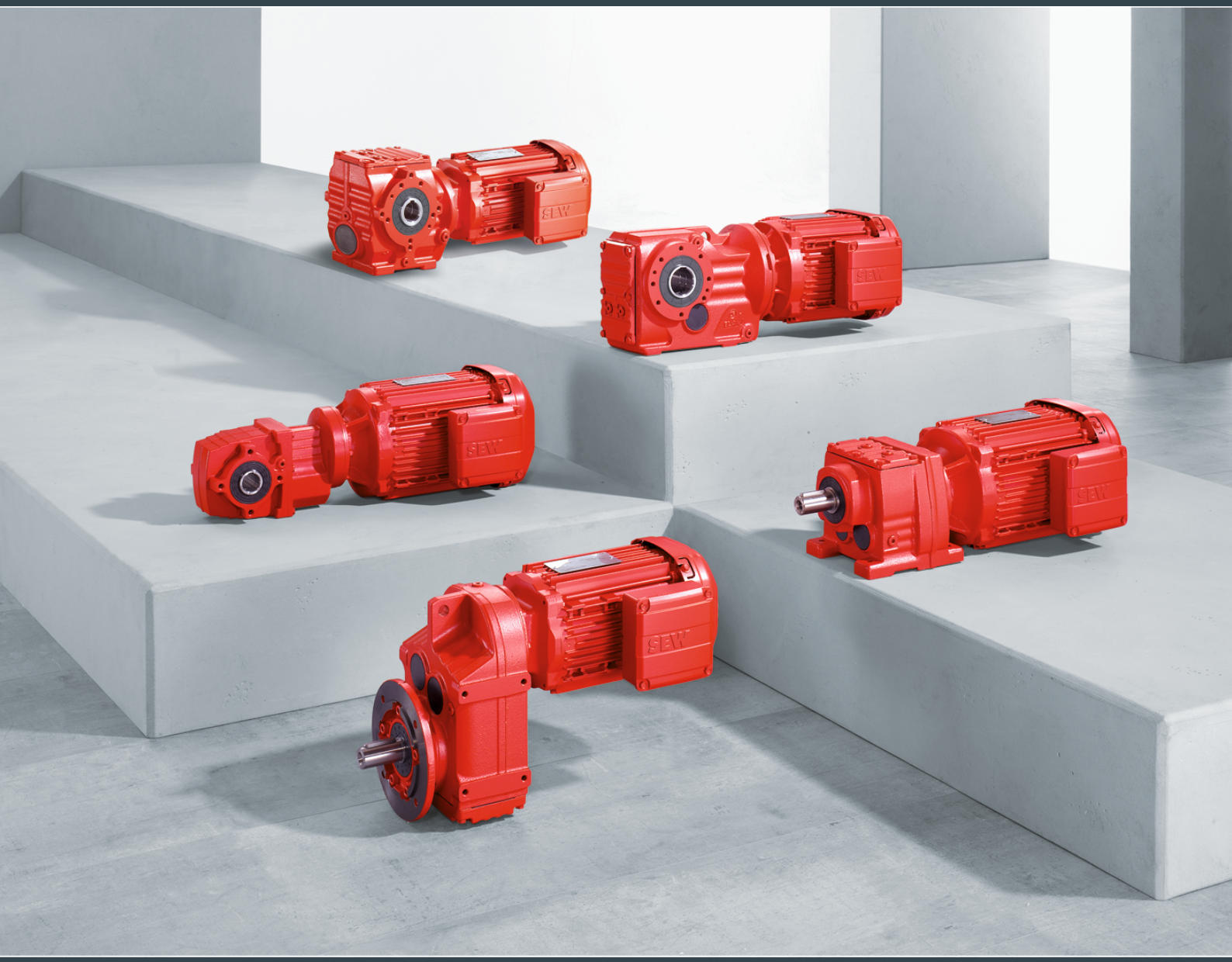
SEW EURODRIVE

Catalog



DRN.. Gearmotors (IE3)

Edition 09/2018

24832936/EN

Table of contents

1 Introduction 6
1.1 The SEW-EURODRIVE group of companies 6
1.2 Documentation 9
1.3 Product names and trademarks 10
1.4 Copyright notice 10

2 Product description 11
2.1 Product features 11
2.2 Corrosion and surface protection 16
2.3 Extended storage 19
2.4 Condition monitoring 20
2.5 Oil expansion tank 21
2.6 Agitator designs 22

3 Overview of types and type designations 23
3.1 Designs and options – R, F, K, S, W gear units 23
3.2 Versions and options for the DRN.. motor series 26
3.3 Type designation of a DRN.. gearmotor 31
3.4 DRN.. gearmotor nameplate 32
3.5 Gearmotor types 33

4 Project planning for drives 44
4.1 Additional publications 44
4.2 Drive and gear unit selection data 44
4.3 Project planning procedure for DR.. gearmotors 45
4.4 Project planning notes – R, F, K, S, W gear units 48
4.5 Service factor 51
4.6 Overhand and axial loads of R, F, K, S, and W gear units 55
4.7 Multi-stage gearmotors 61

5 Gear unit mounting positions and order information 63
5.1 General mounting position information – R, F, K, S, W gear units 63
5.2 Order information 68
5.3 Key to the mounting position sheets 73
5.4 Mounting position sheets 74
5.5 Mounting positions of AC motors 107

6 Design and operating notes 108
6.1 Lubricants 108
6.2 Gear unit venting 127
6.3 Reduced backlash gear unit design /R 128
6.4 Assembly/disassembly of gear units with hollow shaft and key 129
6.5 Gear units with hollow shaft 135
6.6 TorqLOC® mounting system for gear units with hollow shaft 137
6.7 Shouldered hollow shaft option with shrink disk 139
6.8 Adapters for mounting IEC motors 146
6.9 Adapters for mounting NEMA motors 149
6.10 Adapters for mounting servomotors 151

24832936/EN – 09/2018

6.11 Gear unit mounting 154
6.12 Torque arms 155
6.13 Flange contours of RF.. and R..F gear units 157
6.14 Flange contours of FF.., KF.., SF.. and WF.. gear units 159
6.15 Flange contours of FAF.., KAF.., SAF.. and WAF.. gear units 161
6.16 Safety covers 163
6.17 Technical data condition monitoring 169

7 Important information on selection tables and dimension drawings 175
7.1 Possible geometrical combinations 175
7.2 Selection tables for gearmotors 176
7.3 Dimension sheet information 178

8 Helical gearmotors 182
8.1 R..DRN.. designs 182
8.2 Possible geometrical combinations of R..DRN.. 184
8.3 R..DRN.. selection tables in kW 220
8.4 R..R..DRN.. selection tables for low output speeds in Nm 292
8.5 R..DRN.. dimension sheets in mm 308
8.6 R..R..DRN.. dimension sheets in mm 359

9 Parallel-shaft helical gearmotors 363
9.1 F..DRN.. designs 363
9.2 Possible geometrical combinations of F..DRN 366
9.3 F..DRN.. selection tables in kW 392
9.4 F..R..DRN.. selection tables for low output speeds in Nm 432
9.5 F..DRN.. dimension sheets in mm 448
9.6 F..R..DRN.. dimension sheets in mm 520

10 Helical-bevel gearmotors 523
10.1 K..DRN.. variant 523
10.2 K..DRN.. possible geometrical combinations 526
10.3 K..DRN.. selection tables in kW 551
10.4 K..R..DRN.. selection tables for low output speeds in Nm 602
10.5 K..DRN.. dimension sheets in mm 616
10.6 K..R..DRN.. dimension sheets in mm 708

11 Helical-worm gearmotors 713
11.1 S..DRN.. designs 713
11.2 Possible geometrical combinations of S..DRN.. 715
11.3 S..DRN.. selection tables in kW 728
11.4 S..R..DRN.. selection tables for low output speeds in Nm 750
11.5 S..DRN.. dimension sheets in mm 757
11.6 S..R..DRN.. dimension sheets in mm 791
11.7 Technical data of S., SF., SA., SAF 37 793
11.8 Technical data of S., SF., SA., SAF 47 797
11.9 Technical data of S., SF., SA., SAF 57 801
11.10 Technical data of S., SF., SA., SAF 67 805
11.11 Technical data of S., SF., SA., SAF 77 809

24832936/EN – 09/2018

SEW EURODRIVE

11.12 Technical data of S., SF., SA., SAF 87 ... 813
11.13 Technical data of S., SF., SA., SAF 97 ... 817

12 SPIROPLAN® gearmotors ... 821
12.1 W..DRN.. designs ... 821
12.2 Possible geometrical combinations of W..DRN.. ... 823
12.3 W..DRN.. selection tables in kW ... 828
12.4 W..R..DRN.. selection tables for low output speeds in Nm ... 838
12.5 W..DRN.. dimension sheets in mm ... 840
12.6 W..R..DRN.. dimension sheets in mm ... 861

13 Technical data of the motors ... 862
13.1 Key to the data tables ... 862
13.2 IE1 DR2S.. motors. 400 V, 50 Hz, 4-pole ... 863
13.3 IE3 DRN.. motors, 400 V, 50 Hz, 2-pole ... 864
13.4 IE3 DRN.. motors, 400 V, 50 Hz, 4-pole ... 866
13.5 IE3 DRN.. motors, 400 V, 50 Hz, 6-pole ... 868
13.6 IE3 DRN.. motors, 400 V, 50 Hz, 8-pole ... 870

14 Address directory SEW-EURODRIVE ... 871

Index ... 872

24832936/EN – 09/2018

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 all over the world. 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 reliable products in regard of functionality and investment.

Products and services from SEW-EURODRIVE are represented in all important industries of our time. We also show this presence with subsidiaries and production plants all over the world, as well as with our service, which we see as an integrative part of our portfolio that extends SEW-EURODRIVE's high quality standards.

1.1.2 Always the right drive solution

With the broad product portfolio from SEW-EURODRIVE, which also includes mechatronic drive units, frequency inverters, controllers, software and communication in addition to the tried-and-tested modular system for gearmotors, it is possible to implement the perfect drive solution for every application.

Gear units and motors

Thanks to the modular system, gearmotors can be combined individually according to the required speed and torque ranges, the space requirements and the ambient conditions. Gear units and gearmotors offering a unique and finely tuned performance range and the best economic prerequisites to face any drive challenge.

Motors by SEW-EURODRIVE can be mounted directly or via adapter to SEW-EURODRIVE gear units. They meet all worldwide requirements regarding energy efficiency and technical regulations. A wide range of options and accessories ensures high flexibility for adjusting the motor to the requirements of the user and the application.

Inverters

The proven inverter series MOVITRAC®, MOVIDRIVE® and MOVIAXIS® enhance the gearmotors, forming a combination that blends in perfectly with the existing SEW-EURODRIVE systems program.

Modular automation system

With its brand MOVI-C®, SEW-EURODRIVE launches a new generation of drive and automation technology. MOVI-C® is the modular automation system that allows for the highest level of system and machine automation. It comprises drive technology, MotionControl, control technology and visualization.

MOVIDRIVE® modular is the modular application inverter for all types of applications, ranging from simple open-loop speed control to servo drives with kinematic model. MOVIDRIVE® modular can be supplemented by connecting MOVIDRIVE® system single-axis devices. These possess comparable functionalities as axis modules, but have their own line connection. Especially in the upper power range, MOVIDRIVE® system complements the modular application inverter.

24832936/EN – 09/2018

MOVIDRIVE® modular and system are intended for operation at the MOVI-C® CONTROLLER, the controller from SEW-EURODRIVE. They offer a powerful clock-synchronous connection via the integrated EtherCAT®/SBus^{PLUS} communication interface. Other EtherCAT® stations from SEW-EURODRIVE or other manufacturers can be controlled and diagnosed by the MOVI-C® CONTROLLER.

The MOVISUITE® engineering software, with its unique operating philosophy, prevails over all MOVI-C® hardware and software components. MOVISUITE® was developed with a focus on systematically shortening the startup time and covers the entire engineering process, from planning to diagnostics.

Decentralized drive technology

For economical, decentralized installations, SEW-EURODRIVE offers decentralized drive technology components, such as MOVIMOT®, the gearmotor with integrated frequency inverter or MOVI-SWITCH®, the gearmotor with integrated switching and protection function. SEW-EURODRIVE hybrid cables have been designed specifically to ensure cost-effective solutions, independent of the philosophy behind or the size of the system.

The decentralized drive technology portfolio is complemented by the 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.

The smart energy management system MOVI-DPS® enhances the modular product portfolio from SEW-EURODRIVE. With MOVI-DPS®, SEW-EURODRIVE offers the perfect combination: Conserving resources. Reducing costs.

MOVI-DPS® allows for stable power grids, no power failures, and consequently reliable system availability. MOVI-DPS® shows what it can do in both mobile and stationary applications. In addition, MOVI-DPS® can be combined with other systems such as the contactless energy transfer system MOVITRANS®, resulting in further important synergy effects.

Industrial gear units

Power, quality and sturdy design combined in one standard product: With high torque levels, industrial gear units from SEW-EURODRIVE realize major movements. The modular concept will once again provide optimum adaptation of industrial gear units to meet a wide range of different applications.

Individual system solutions with MAXOLUTION®

MAXOLUTION® from SEW-EURODRIVE provides individual application solutions in all areas of system and machine automation. From electromechanical drives, controllers and communication to visualization and the contactless energy transfer system MOVITRANS® up to a comprehensive service portfolio, MAXOLUTION® offers all modules required to design customer-specific solutions for machines and systems.

MAXOLUTION® combines individual products of the proven modular system with innovative system components to form individual solutions that perfectly match the requirements of the specific application – "powered by SEW-EURODRIVE".

Safe – flexible – effective: safetyDRIVE

Guaranteeing the safety of all employees and preventing work accidents while ensuring trouble-free production processes are demands placed on all production areas. safetyDRIVE, the comprehensive safety concept, allows you to implement your machines "safely", in accordance with the currently valid guidelines. With controllers that meet the respective requirement of the safety categories or the performance levels and that monitor instead of switch off.

24832936/EN – 09/2018

All of our drive and frequency inverters provide the function that safely stops the electrical power to the motor (STO). The MOVISAFE® components complete the portfolio – integrated into the inverter as option cards DFS..B or DCS..B or modular as safety monitors UCS..B. The decentralized MOVIFIT® and MOVIPRO® drive technologies with integrated safety functions are ready for use in decentralized installations.

1.1.3 Your ideal partner

Its global presence, extensive product portfolio and broad spectrum of services make SEW-EURODRIVE the ideal partner for the machinery and plant construction industry when it comes to providing drive systems for demanding drive tasks in all industries and applications.

For detailed information on the entire SEW-EURODRIVE product portfolio, refer to our website www.sew-eurodrive.com where you can find out about components, system solutions, services and industries. Via the Online Support, you can access a large selection of documents and tools such as the product configurator and different selection guides as well as all documentation in different languages for download.

24832936/EN – 09/2018

1.2 Documentation

1.2.1 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

INFORMATION

The DR2S56.. motors listed in the catalog will only be available in spring 2019.

1.2.2 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../DR2S.. gearmotors (IE1)
- DRE.. gearmotors (IE2)
- DRU..J (IE4) and DRE..J (IE2) synchronous gearmotors
- (E)DRN.. gearmotors – 60 Hz
- Synchronous servomotors
- Synchronous servo gearmotors
- Asynchronous servo gearmotors
- DRC.. gearmotors
- Gearmotors with single-phase motor
- Gearmotors with BF../BT.. double brake
- Geared torque motors
- Explosion-proof drives
- Explosion-proof AC motors

Drive Engineering – Practical Implementation

For detailed documentation about the entire topic of electrical drive engineering, refer to the publications of the "Drive Engineering - Practical Implementation" series:

- EMC in Drive Engineering – Basic Theoretical Principles and EMC-Compliant Installation in Practice

24832936/EN – 09/2018

- Efficient Plant Automation with Mechatronic Drive Solutions

1.3 Product names and trademarks

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

1.4 Copyright notice

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24832936/EN – 09/2018

2 Product description

2.1 Product features

2.1.1 Operating temperatures

Gear units

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

Gear units	Filled with	Permitted standard temperature range
K..19, K..29, K..39, K..49	CLP(PG) VG460	-20 °C to +40 °C
K..37 , K..47, K..57– K..187 **RX.57 – RX.107** **R.07 – R.167** **F..27 – F..157**	CLP(CC) VG220	-15 °C to +40 °C
S..37 – S..97	CLP(PG) VG680	0 °C to +40 °C
W..10 – W..30, W..37, W..47	CLP(SEW-PG) VG460	-20 °C to +40 °C

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

INFORMATION

For information on churning losses and thermal rating, refer to chapter "Churning losses and thermal rating" (→ 🗎 49).

Gear units from SEW-EURODRIVE can be operated outside the standard temperature range if project planning is adapted to ambient temperatures from as low as up to -40 °C in the intensive cooling range until 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.

SEW-EURODRIVE recommends thermal project planning for the drives in general and offers to perform the project planning.

Motors

The motors of the DR.. product family are designed for use in a temperature range from -20 °C to +40 °C.

This expands the standardized temperature range required by IEC 60034.

Using the motors outside the above temperature range is possible with some special adjustments. Contact SEW-EURODRIVE in this case.

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.

24832936/EN – 09/2018

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 > 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 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 painted as follows:

Gear units	Painting
R, F, K, S, W gear units	blue/gray RAL 7031

Exception: SPIROPLAN® W..10DR2S5 gearmotors have an aluminum housing and are supplied unpainted as standard.

Special paintings 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

Make sure to maintain adequate distance from heat-sensitive components when installing gearmotors/geared brakemotors to the driven machine. The distance is necessary for air circulation for the heat dissipation, for maintenance of the brake and of the MOVIMOT® inverter, if installed.

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

24832936/EN – 09/2018

2.1.9 Weights

Please note that the weight information shown in the catalogs only apply to the gear units and gearmotors without lubricant. The weight varies 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. Refer to the chapter "Lubricant fill quantities" (→ 🗎 122) for recommended lubricant fill quantities depending on the mounting position. For the exact weight, refer to the quotation or the order confirmation.

2.1.10 Backlash reduction

Helical, parallel-shaft helical and helical-bevel gear units with reduced backlash (only K..7) are available as of gear unit size 37.

The rotational clearance of these gear units is considerably less than that of the standard designs so that positioning tasks can be solved with great precision. The rotational clearance is specified in angular minutes in the chapter "Geometrically possible combinations". The rotational clearance for the output shaft is specified without load (max. 1% of the rated output torque); the gear unit input side is blocked. The specified values have a tolerance of ± 2 angular minutes. For further information, refer to the chapter "Reduced backlash gear unit design /R" (→ 🗎 128).

2.1.11 Multi-stage gearmotors

You can achieve particularly low output speeds by using compound gear units or compound gearmotors. This requires a helical gear unit on the input end as a second gear unit.

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

2.1.12 Gear units and gearmotors for agitators and mixers

A special design variant of the helical gear, parallel-shaft and helical-bevel gear units are gear units and gearmotors equipped with an extended output bearing hub (RM../FM../FAM../KM.. and KAM..). These units are designed especially for agitator and mixer applications and allow for high bending moments as well as overhung and axial loads. The remaining data corresponds to that of standard gear units and gearmotors. For further information on gear unit and gearmotor designs for agitators and mixers, refer to chapter "Agitator designs" (→ 🗎 22).

2.1.13 SPIROPLAN® gearmotors

SPIROPLAN® right-angle gearmotors are robust, single- and two-stage right-angle gearmotors with SPIROPLAN® gearing. The difference to the helical-worm gear units is the material combination of the steel-on-steel gearing, the special tooth meshing relation 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 in the foot and face as well as the same axle height to both makes for a number of mounting options.

On request, SPIROPLAN® gearmotors can be equipped with a torque arm.

24832936/EN – 09/2018

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. Included in the delivery is either an automatic disengaging hand lever or an adjustable setscrew. The brake is controlled by a brake control that is installed in either the motor wiring space or the control cabinet.

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

2.1.15 International markets

Market access is contingent to local approvals in many countries. Additional laws, regulations and market conventions must be adhered to. Experience has shown that an identification of the product is required together with certification. This is realized at SEW-EURODRIVE with one or several logos on the main nameplate, with additional labels on the motor, or by providing the relevant certificates.

The countries listed below, for example, have special requirements for motors. The country-specific requirements apply to the motor in general, the efficiency or to the explosion protection. For further details, refer to the relevant motor catalogs.

Some countries, such as the states of the European Union impose certain requirements regarding the gear unit. The relevant marking is attached to the gear unit if these requirements are met.

Contact SEW-EURODRIVE, if required.

Marking	Meaning
CE	CE mark to state compliance with European guidelines, such as the Low Voltage Directive.
Ex	ATEX mark to state compliance with the European Directive 2014/34/EU.
UR	UR logo to confirm that UL (Underwriters Laboratory) is informed about the registered components; register number by UL: E337323
MC170602 CSA	CSA mark to confirm the Canadian Standard Association (CSA) and the market conformity of AC motors
EAC	EAC mark (EurAsian Conformity) Confirms compliance with the regulations of the economic and customs union of Russia, Belarus and Kazakhstan.
013	UA.TR (UkrSEPRO) mark (Ukrainian Certification of Products) Confirms compliance with the technical regulations of the country Ukraine.

24832936/EN – 09/2018

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 shaft assembly with input shaft end,** 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 start-up coupling, also available with disk brake or backstop

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 device
- Proximity-type thermal monitoring device

Contact SEW-EURODRIVE for additional information.

24832936/EN – 09/2018

2.2 Corrosion and surface protection

2.2.1 General information

For motor and gear unit operation in aggressive environments, SEW-EURODRIVE optionally offers the following preventive measure:

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

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

Optional preventive measures are also available for the output shafts.

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 have a surface coating.
- The flange contact surfaces and shaft ends are treated with a temporary rust preventive.
- For brakemotors, additional measures are performed.

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

INFORMATION

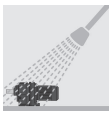
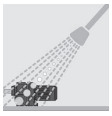
The following motor options are not available with KS corrosion protection:

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

24832936/EN – 09/2018

2.2.3 OS surface protection

As an option for standard surface protection, motors and gear units are also available with surface protection OS1 to OS4. The special measure "Z" is also available in addition. 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. Similar to corrosivity category[3)]: • C1 (negligible)	• Machines and systems in the automobile industry • Transport systems in logistics • Conveyor belts at airports
OS1		Suited for environments prone to condensation and atmospheres with low humidity or contamination, such as applications outdoors under roof or with protective device. According to corrosivity category[3)]: • C2 (low)	• Systems in saw mills • Hall gates • Agitators and mixers
OS2		Suitable for environments with high humidity or mean atmospheric contamination, such as applications outdoors subject to direct weathering. According to corrosivity category[3)]: • C3 (moderate)	• Applications in amusement parks • Funiculars and chair-lifts • Applications in gravel plants • 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. According to corrosivity category[3)]: • C4 (high)	• Sewage treatment plants • Port cranes • Mining applications
OS4		Suitable for environments with permanent humidity or severe atmospheric or chemical contamination. Regular acidic and caustic wet cleaning, also with chemical cleaning agents. According to corrosivity category[3)]: • C5-1 (very high)	• Drives in malting plants • Wet areas in the beverage industry • Conveyor belts in the food industry

1) Motors/brakemotors in degree of protection IP56 or IP66 are only available with OS2, OS3, or OS4 surface protection.

2) Gearmotors with OS2 – OS4 surface protection are only offered in combination with KS corrosion protection.

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

24832936/EN – 09/2018

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 treatment on the contact surface of the oil seal	Severe environmental impact and in conjunction with fluorocarbon rubber oil seal
Output shaft made of stainless steel	Surface protection with 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 helps 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, such as parts of shaft ends or flanges. You can also order NOCO® fluid in larger quantities from SEW-EURODRIVE.

Batch size	Packaging type	Part number
5.5 g	Sachet	09107819
100 g	Tube	03253147
1 kg	Tub	09107827

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

24832936/EN – 09/2018

2.3 Extended storage

2.3.1 Design

SEW-EURODRIVE recommends the "extended storage" gear unit design for storage periods longer than 9 months. The lubricant of those gear units is then mixed with a VCI anti-corrosion agent (**v**olatile **c**orrosion **i**nhibitors). 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. As standard, the gear unit with "extended storage" option will be supplied with OS1 surface protection. Instead of OS1, you can order OS2, OS3 or OS4.

INFORMATION

For SPIROPLAN® gear units, the extended storage option is not available yet.

INFORMATION

To prevent the VCI anti-corrosion agent from evaporating, the gear units in "extended storage" design must remain tightly sealed until startup.

The gear units come with the oil fill according to the specified mounting position (M1 – M6). Always check the oil level before you take the gear unit into operation.

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

24832936/EN – 09/2018

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

2.4.1 DUO10A oil aging sensor

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-EURODRIVE 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, this unit analyzes the oil temperature to 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 is expired, a binary signal can be sent to a higher-level system and evaluated or visualized in the system.

Using the DUO10A diagnostic unit, the system operator no longer replaces 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.

For the technical data and part numbers of the DUO10A oil aging sensor, refer to chapter "Information on oil aging sensor /DUO10A" (→ 🗎 169).

2.4.2 Vibration SmartCheck /DUV40A

DUV40A Vibration SmartCheck vibration monitoring is used to detect damage of gear units and gearmotors early (e.g. bearing damage or imbalances). For this, permanent frequency-selective monitoring of the gearmotor is used. Apart from the vibration analysis, additional measured values of up to 3 signal encoders can be detected, recor-

24832936/EN – 09/2018

ded and analyzed. The additional signals can be used as reference value for signal analysis e.g. to trigger time or event-based measuring tasks. After the analysis and depending on user-defined alarm limits, the system can switch outputs and display the state using LEDs.

Vibration SmartCheck is configured using the FAG software SmartWeb. If you use several Vibration SmartCheck systems, you can control them via the FAG software SmartUtility Light centrally from one PC.

The full version of the SmartUtility software allows you to open sensors directly via the FAG software SmartWeb, to analyze measurement data in the SmartUtility Viewer and to download configurations or uploading configurations on other devices.

For information on the scope of delivery, part numbers and technical data, refer to chapter "Information on Vibration SmartCheck /DUV40A" (→ 🗎 171).

2.5 Oil expansion tank

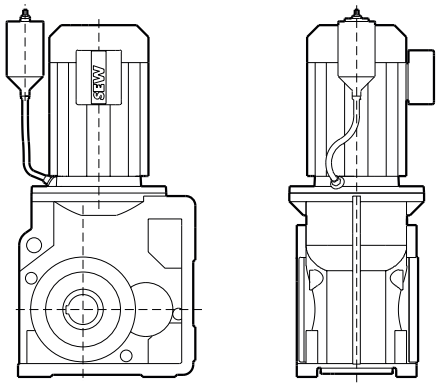
The oil fill level for gear units in mounting position M4 has technical reasons. In case of unfavorable circumstances, oil may leak from the breather valve of these gear units. Use an oil expansion tank to reliably avoid oil from leaking. The oil expansion tank provides additional space for the lubricant to expand.

In case of gear units and gearmotors of size 107 and larger, an oil expansion tank is always required for operation in mounting position M4.

SEW-EURODRIVE recommends using an oil expansion tank for gear units and gearmotors in mounting position M4, in the following cases:

- For input speeds > 2000 min^{-1}
- For sizes 77 – 97 and input speeds > 1800 min^{-1}

The following figure shows the oil expansion tank of a gearmotor.



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The oil expansion tank is delivered as assembly kit for mounting onto the gearmotor. In case of limited space or of gear units without motor, the oil expansion tank can also be mounted to nearby machine parts.

INFORMATION

Transverse acceleration is not permitted for gear units with expansion tank with fixed piping for third party motors and servomotors.

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

2.6 Agitator designs

All gear units in agitator design are equipped with an extended bearing hub especially suitable for mixing and agitating applications. Agitator gear units are based on 3 proven standard gear unit series by SEW-EURODRIVE. Almost any agitator, mixer, blender or kneader application in a whole range of different industries can be provided by using one of the agitator designs of the gear unit.

Advantages of agitator gear units:

- FEM-optimized housing and a special agitator flange for particularly high permitted overhung loads
- No additional bearing required for the agitator shaft,
- Shaft and flange dimensions are compatible with standard dimensions.
- Many different options and design variants for optimum adaptation to the application
- Gear units/gearmotors also available in explosion-proof design
- Global service provided by SEW-EURODRIVE

	RM.. series helical gear units (2 and 3 stages)	Parallel-shaft helical gear units FM../FAM.. series (2 and 3 stages)	Helical-bevel gear units KM../KAM.. series (3-stage)
Sizes:	57 / 67 / 77 / 87 / 97 / 107 / 127 / 137 / 147 / 167	67 / 77 / 87 / 97 / 107 / 127 / 157	67 / 77 / 87 / 97 / 107 / 127 / 157
Gear ratio i:	4.29 – 289.74	3.87 – 281.71	5.20 – 197.37
Maximum output torque in Nm:	450 – 20000	820 – 20000	820 – 20000
Maximum permitted output overhung load in N:	4000 – 120000	35000 – 135000	20000 – 135000

Available options:

- Double oil seal on the output side for additional protection against leaks
- Grease nipple for further greasing of output shaft bearings
- The gear units use series housings and series gearing components. The special flange is bolted to the output side of the standard gear unit.
- Energy efficiency classes IE1 – IE4 for gearmotors
- Motor power range of 0.12 – 200 kW
- Motor adapter AM.. for mounting IEC and NEMA motors

Also available for FM../FAM... and KM../KAM.. series:

- Reinforced bearings also opposite the output side. These increase the permitted overhung load, particularly for high output speeds and low gear ratios.
- Drywell design with leak sensor prevents the product from being contaminated by leaking lubricant.

24832936/EN – 09/2018

3 Overview of types and type designations

3.1 Designs and options – R, F, K, S, W gear units

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	Description
RX..	Single-stage foot-mounted design, output shaft with key
RXF..	Single-stage B5 flange-mounted design, output shaft with key
R..	Foot-mounted design, output shaft with key
R..F	Foot- and B5 flange-mounted design, output shaft with key
RF..	B5 flange-mounted design, output shaft with key
RZ..	B14 flange-mounted design, output shaft with key
RM..	B5 flange-mounted design with extended bearing hub, output shaft with key

3.1.2 Parallel-shaft helical gear units

Designation	Description
F..	Foot-mounted design, output shaft with key
FA..B	Foot-mounted design, hollow shaft with keyway
FH..B	Foot-mounted design, hollow shaft with shrink disk
FV..B	Foot-mounted design, splined hollow shaft to DIN 5480
FF..	B5 flange-mounted design, output shaft with key
FAF..	B5 flange-mounted design, hollow shaft with keyway
FHF..	B5 flange-mounted design, hollow shaft with shrink disk
FVF..	B5 flange-mounted design, splined hollow shaft to DIN 5480
FA..	Hollow shaft with keyway
FH..	Hollow shaft with shrink disk
FT..	Hollow shaft with TorqLOC® hollow shaft mounting system
FV..	Splined hollow shaft to DIN 5480
FZ..	B14 flange-mounted design, output shaft with key
FAZ..	B14 flange-mounted design, hollow shaft with keyway
FHZ..	B14 flange-mounted design, hollow shaft with shrink disk
FVZ..	B14 flange-mounted design, splined hollow shaft to DIN 5480
FM..	B5 flange-mounted design with extended bearing hub, output shaft with key
FAM..	B5 flange-mounted design with extended bearing hub, hollow shaft with keyway

24832936/EN – 09/2018

3.1.3 Helical-bevel gear units

Designation	
K..	Foot-mounted design, output shaft with key
KA..B	Foot-mounted design, hollow shaft with keyway
KAF..B	B5 flange-mounted design, foot-mounted design, hollow shaft with keyway
KF..B	B5 flange-mounted design, foot-mounted design, output shaft with key
KH..B	Foot-mounted design, hollow shaft with shrink disk
KHF..B	B5 flange-mounted design, foot-mounted design, hollow shaft with shrink disk
KV..B	Foot-mounted design, splined hollow shaft to DIN 5480
KF..	B5 flange-mounted design, output shaft with key
KAF..	B5 flange-mounted design, hollow shaft with keyway
KHF..	B5 flange-mounted design, hollow shaft with shrink disk
KVF..	B5 flange-mounted design, splined hollow shaft to DIN 5480
KA..	Hollow shaft with keyway
KH..	Hollow shaft with shrink disk
KT..	Hollow shaft with TorqLOC® hollow shaft mounting system
KV..	Splined hollow shaft to DIN 5480
KZ..	B14 flange-mounted design, output shaft with key
KAZ..	B14 flange-mounted design, hollow shaft with keyway
KHZ..	B14 flange-mounted design, hollow shaft with shrink disk
KVZ..	B14 flange-mounted design, splined hollow shaft to DIN 5480
KM..	B5 flange-mounted design with extended bearing hub, output shaft with key
KAM..	B5 flange-mounted design with extended bearing hub, hollow shaft with keyway

3.1.4 Helical-worm gear units

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

24832936/EN – 09/2018

Designation	Description
SHZ..	B14 flange-mounted design and hollow shaft with shrink disk

3.1.5 SPIROPLAN® gear units

Designation	Description
W..	Foot-mounted design, output shaft with key
WF..	B5 flange-mounted design, output shaft with key
WAF..	B5 flange-mounted design and hollow shaft with keyway
WA..	Hollow shaft with keyway
WA..B	Foot-mounted design and hollow shaft with keyway
WH..B	Foot-mounted design and hollow shaft with shrink disk
WHF..	B5 flange-mounted design 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	Description
/R	Reduced backlash

K, S and W gear units:

Designation	Description
/T	With torque arm

F gear units:

Designation	Description
/G	With rubber buffer

3.1.7 Condition monitoring

Designation	Description
/DUO	Diagnostic Unit Oil = Oil aging sensor
/DUV	Diagnostic Unit Vibration = Vibration sensor

24832936/EN – 09/2018

3.2 Versions and options for the DRN.. motor series

The type designations of the motor series DRN.. and the designs and options are listed in the following tables.

3.2.1 Designation of the DRN.. motors

The following table shows the types of AC motors:

Designation	
DRN..	Energy-efficient motor, Premium Efficiency IE3
63 – 315	Nominal sizes: 63, 71, 80, 90, 100, 112, 132, 160, 180, 200, 225, 250, 280, 315
K, S, M, L, MC, LC, ME, MS, MK, H, LS, LM	Lengths
R, Q	Power designation (identification of motors with the same size but with different power)
2, 4, 6, 8	Number of poles

3.2.2 Output

Code in the type designation	Description	Size
/FI	IEC foot-mounted motor	63MS – 315H
/F.A, /F.B	Universal foot-mounting (/F.A = motor feet enclosed in delivery, /F.B = motor feet mounted at factory)	71MS – 132S, 225S – 315H
/FF	IEC flange-mounted motor with through bores	63MS – 315H
/FE	IEC flange-mounted motor with through bores and IEC feet	63MS – 315H
/FT	IEC flange-mounted motor with threads	63MS – 100L
/FY	IEC flange-mounted motor with threads and IEC feet	63MS – 100L
/FC	C-face flange-mounted motor, dimensions in inch	63MS – 160L
/FG	Integral motor, as stand-alone motor	63MS – 315H
/FM	Integral motor with IEC feet	63MS – 315H
/FL	Flange-mounted motor (deviating from IEC)	63MS – 315H
/FK	Flange-mounted motor (deviating from IEC) with feet	63MS – 280M
/2W	Second shaft end on the motor	63MS – 315H
None	FKM oil seal	63MS – 315H

24832936/EN – 09/2018

3.2.3 Brake and backstop

Code in the type designation	Description	Size
/BE..[1)]	Spring-loaded brake with specification of size	63MS – 315H
HR	Manual brake release, re-engaging	63MS – 315H
HF	Manual brake release, lockable	63MS – 315H
/RS	Backstop	63MS – 315H

1) Also available in design for functional safety

3.2.4 Built-in encoder

Code in the type designation	Description	Size
/EI7C[1)]	Built-in incremental encoder with HTL interface, 24 periods	63MS – 132S
/EI76	Built-in incremental encoder with HTL interface and 6/2/1 period(s)	71MS – 132S
/EI72		71MS – 132S
/EI71		71MS – 132S
/EI8R	Built-in incremental encoder with TTL interface and 1024 periods (4096 increments)	71MS – 132L
/EI8C	Built-in incremental encoder with HTL interface and 1024 periods (4096 increments)	71MS – 132L

1) From 71MS to 132S also available in design for functional safety

3.2.5 Add-on encoder

Code in the type designation	Description	Size
/EK8S[1)]	Add-on encoder with sin/cos interface	71. – 132L
/EV8S		71. – 132L
/EK8R	Add-on encoder with TTL(RS422) interface	71. – 132L
/EV8R		71. – 132S
/EK8C	Add-on encoder with HTL interface	71. – 132L
/EV8C		71. – 132S
/AK8W[1)]	Add-on absolute encoder with sin/cos and RS485 interface (multi-turn)	71. – 132L
/AV8W		71. – 132L
/AK8Y[1)]	Add-on absolute encoder with sin/cos and SSI interface (multi-turn)	71. – 132L
/AV8Y		71. – 132L
/AK8H	Add-on absolute encoder with sin/cos and RS485 interface and HIPERFACE® protocol	71. – 132L
/AV8H		71. – 132L

1) Also available for design in functional safety

24832936/EN – 09/2018

Code in the type designation	Description	Size
/EG7S[1)]	Add-on encoder with sin/cos interface	132M – 280M
ES7S[1)]		80MS – 132S
/EV7S		80MS – 280M
/EH7S		315S – 315H
/ES7R	Add-on encoder with TTL(RS422) interface	80MS – 132S
/EG7R		132M – 280M
/EV7R		80MS – 280M
/EH7R		315S – 315H
/AS7W[1)]	Add-on absolute encoder with sin/cos and RS485 interface (multi-turn)	80MS – 132S
/AG7W[1)]		132M – 280M
/AV7W		80MS – 280M
/AS7Y[1)]	Add-on absolute encoder with sin/cos and SSI interface (multi-turn)	80MS – 132S
/AG7Y[1)]		132M – 280M
/AV7Y		80MS – 280M
/AH7Y		315S – 315H
/ES7C	Add-on encoder with HTL interface	80MS – 132S
/EG7C		132M – 280M
/EV7C		80MS – 280M
/EH7C		315S – 315H
/EH7T	Add-on encoder with TTL(RS422) interface	315S – 315H

1) Also available for design in functional safety

3.2.6 Thermal monitoring

Code in the type designation	Description	Size
/TF	Temperature sensor (PTC thermistor or PTC resistor)	63MS – 315H
/TH	Thermostat (bimetallic switch)	63MS – 315H
/PK	PT1000 sensor	63MS – 315H
/PT	PT100 sensor	63MS – 315H

3.2.7 Plug connector

Code in the type designation	Description	Size
/IS	Integrated plug connector with terminal block in terminal box cover	63MS – 132S
/ISU	Integrated plug connector without terminal block in terminal box cover	63MS – 132S

24832936/EN – 09/2018

Code in the type designation	Description	Size
/ASE.	Mounted Han® 10ES plug connector on terminal box with single locking latch (cage clamp contacts on the motor side)	63MS – 132M
/ASB.	Mounted Han® 10ES plug connector on terminal box with double locking latch (cage clamp contacts on the motor side)	63MS – 132M
/ACE.	Mounted Han® 10E plug connector on terminal box with single locking latch (crimp contacts on the motor side)	63MS – 132S
/ACB.	Mounted Han® 10E plug connector on terminal box with double locking latch (crimp contacts on the motor side)	63MS – 132S
/AME.	Mounted Han® Modular 10B plug connector on terminal box with single locking latch (crimp contacts on the motor side)	63MS – 132M
/ABE.		71MS – 225M
/ADE.		71MS – 225M
/AKE.		132M – 225M
/AMB.	Mounted Han® Modular 10B plug connector on terminal box with double locking latch (crimp contacts on the motor side)	63MS – 132M
/ABB.		71MS – 225M
/ADB.		71MS – 225M
/AKB.		132M – 225M
/AND.	Harting Han® Q8/0, single locking latch	63MS – 132M
/IV	Other industrial plug connectors according to customer specifications	63MS – 225M

3.2.8 Ventilation

Code in the type designation	Description	Size
None	Plastic fan guard	63MS – 90L
None	Steel fan guard	63MS – 315H
/LN	Noise-reducing fan guard	100L – 132S
/C	Canopy for fan guard	63MS – 315H
/V	Forced cooling fan	71MS – 315H
/AL	Aluminum fan	63MS – 315H
/Z	Additional inertia mass (flywheel fan)	63MS – 132L
/U	Non-ventilated (without fan)	63MS – 315H
/OL	Non-ventilated (closed B-side)	63MS – 132S

3.2.9 Bearings

Code in the type designation	Description	Size
/NIB	Current-insulated rolling bearings B-side	200L – 315H
/ERF	Reinforced bearings on A-side with rolling bearing	250M – 315H

24832936/EN – 09/2018

Code in the type designation	Description	Size
/NS	Relubrication device	225S – 315H
None	Preparation for accommodating SPM measuring nipples	132M – 315H

3.2.10 Condition monitoring

Code in the type designation	Description	Size
/DUE	Diagnostic Unit Eddy Current = function/wear monitoring for BE1 to BE122 brake	71MS – 315H

3.2.11 Other motor designs

Code in the type designation	Description	Size
None	Motor design according to recommendation VE01 of the VIK (Verband der Industriellen Energie- und Kraftwirtschaft e.V. – Association of Energy and Power Generation Industry)	63MS – 315H

24832936/EN – 09/2018

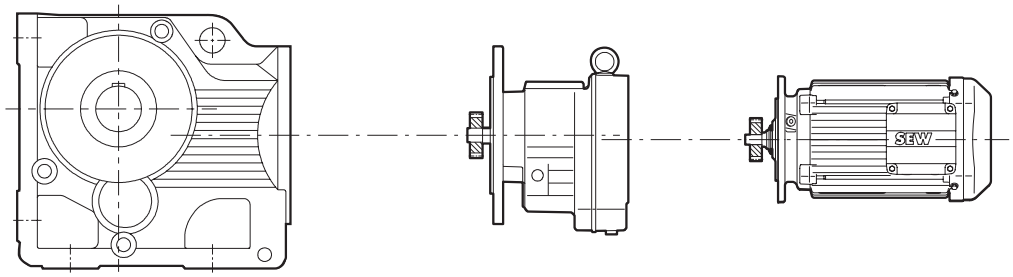
3.3 Type designation of a DRN.. gearmotor

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: K107R77 DRN100LS4 /TF		
Gear unit type	K	1st Gear unit
Size	107	
Gear unit type	R	2nd Gear unit
Size	77	
Motor series	DR	Motor
Product line	N	
Size	100LS	
Number of poles	4	
Motor option temperature sensor	/TF	Option

Example: DRN.. gearmotor



K107 R77 DRN100LS4/TF

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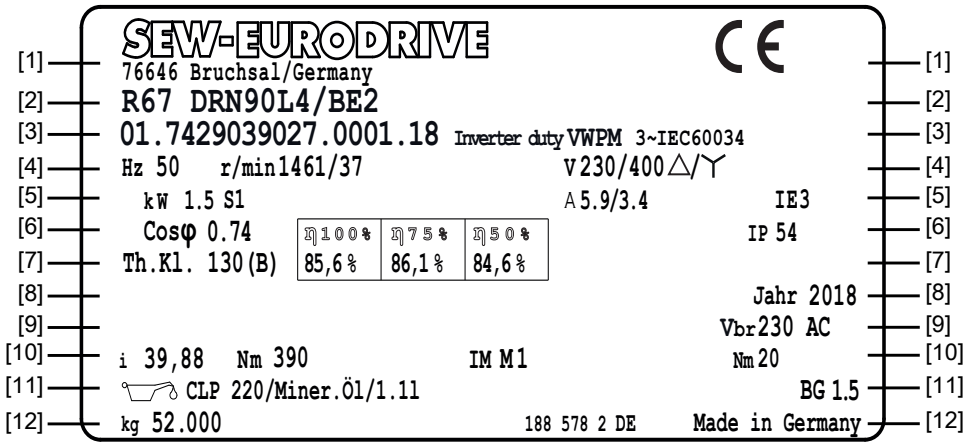
24832936/EN – 09/2018

3.4 DRN.. gearmotor nameplate

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



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Line	Information
[1]	• Manufacturer, address, CE mark
[2]	• Type designation
[3]	• Serial number • Suitability for inverter operation • Number of phases and underlying rating and performance standard
[4]	• Rated frequency • Rated speed of the motor / speed of the gear unit output shaft • Nominal voltage
[5]	• Rated power and operating mode • Rated current • Energy efficiency class according to IEC/EN 60034-30-1
[6]	• Power factor • Efficiency after capacity utilization of 100%, 75% and 50% • Degree of protection according to IEC 60034-5
[7]	• Thermal class
[8]	• Year of manufacture
[9]	• Brake voltage
[10]	• Gear unit ratio • Output torque • Mounting position • Nominal braking torque
[11]	• Oil type and oil fill volume • Brake control
[12]	• Gearmotor weight • Nameplate number • Country of manufacture

24832936/EN – 09/2018

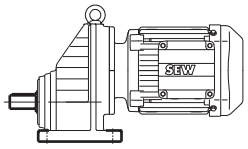
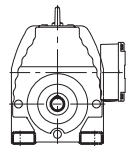
3.5 Gearmotor types

INFORMATION

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

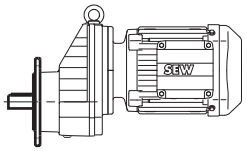
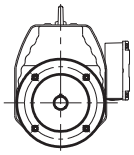
3.5.1 Helical gearmotors

The following designs of helical gearmotors are available:

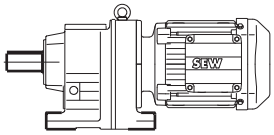
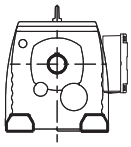
RX..DRN..

Single-stage, helical gearmotor in foot-mounted design

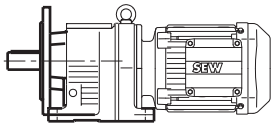
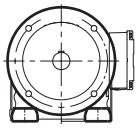
RXF..DRN..

Single-stage helical gearmotor in B5 flange-mounted design

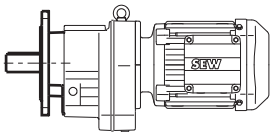
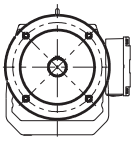
R..DRN..

Helical gearmotor in foot-mounted design

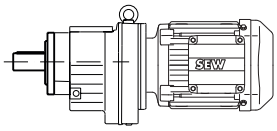
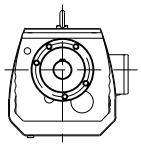
R..F DRN..

Helical gearmotor in foot-mounted and B5 flange-mounted design

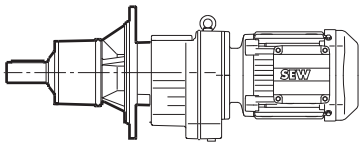
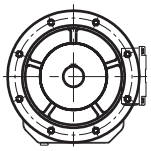
RF..DRN..

Helical gearmotor in B5 flange-mounted design

RZ..DRN..

Helical gearmotor in B14 flange-mounted design

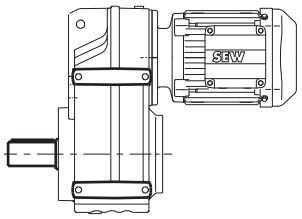
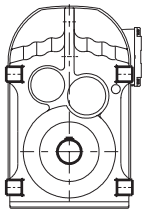
RM..DRN..

Helical gearmotor in B5 flange-mounted design with extended bearing hub

24832936/EN – 09/2018

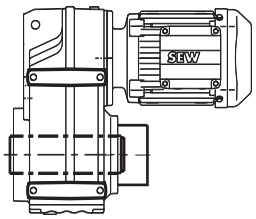
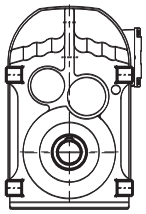
3.5.2 Parallel-shaft helical gearmotors

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

F..DRN..

Parallel-shaft helical gearmotor in foot-mounted design

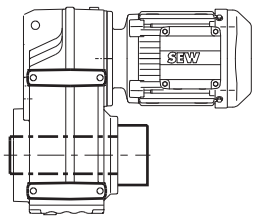
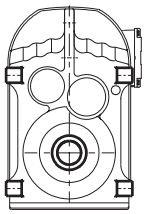



FA..B DRN..

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

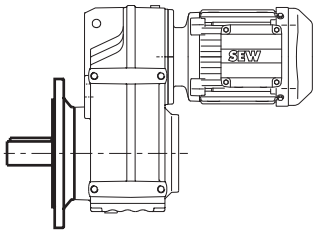
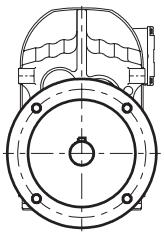
FV..B DRN..

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

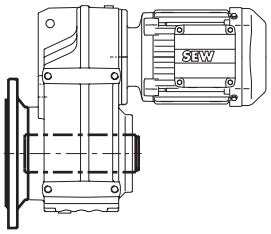
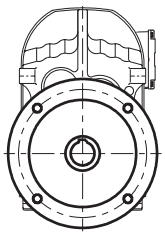
FH..B DRN..

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

FF..DRN..

Parallel-shaft helical gearmotor in B5 flange-mounted design

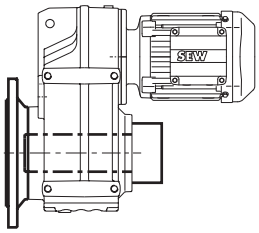
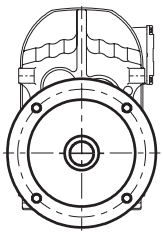



FAF..DRN..

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

FVF..DRN..

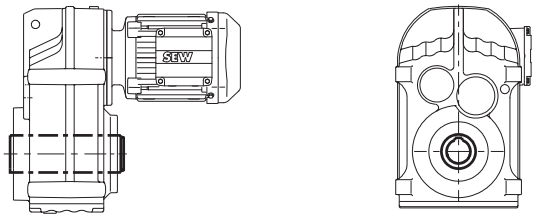
Parallel-shaft helical gearmotor in B5 flange-mounted design with splined hollow shaft to DIN 5480

FHF..DRN..

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

24832936/EN – 09/2018

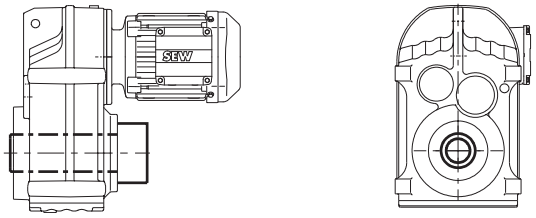


FA..DRN..

Parallel-shaft helical gearmotor with hollow shaft

FV..DRN..

Parallel-shaft helical gearmotor with splined hollow shaft according to DIN 5480

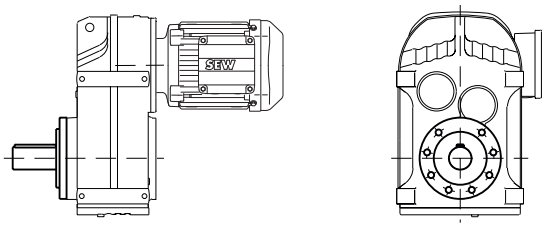


FH..DRN..

Parallel-shaft helical gearmotor with hollow shaft and shrink disk

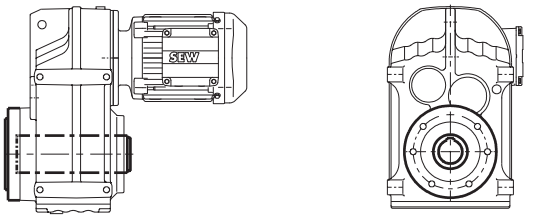
FT..DRN..

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



FZ..DRN..

Parallel-shaft helical gearmotor in B14 flange-mounted design

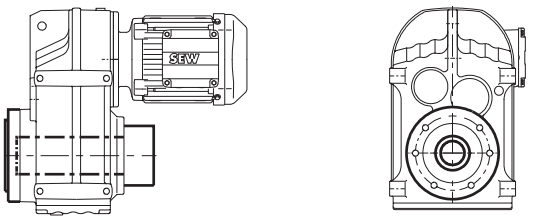


FAZ..DRN..

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

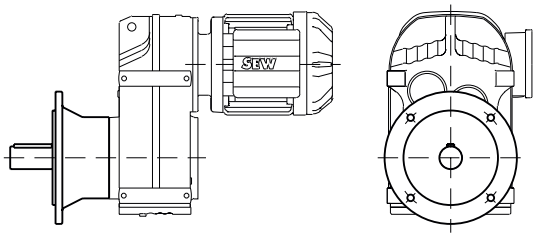
FVZ..DRN..

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



FHZ..DRN..

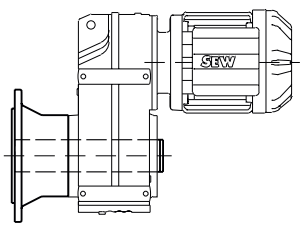
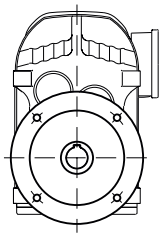
Parallel-shaft helical gearmotor in B14 flange-mounted design with hollow shaft and shrink disk



FM.. DRN..

Parallel-shaft helical gearmotor in B5 flange-mounted design with extended bearing hub, output shaft with key

24832936/EN – 09/2018

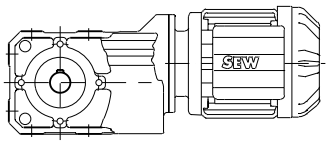
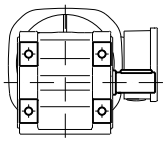



FAM.. DRN..

Parallel-shaft helical gearmotor in B5 flange-mounted design with extended bearing hub and hollow shaft

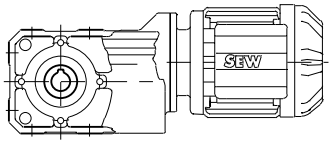
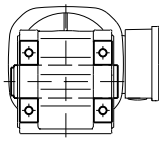
3.5.3 Helical-bevel gearmotors, gear unit sizes K..19 and K..29

The following designs of helical-bevel gearmotors with gear units of size K..19 and K..29 are available:

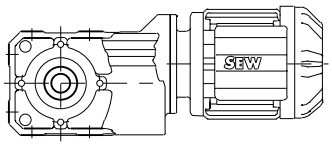
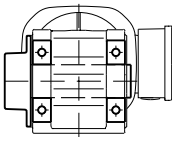
K19 DRN.., K29 DRN..

Helical-bevel gearmotor in foot-mounted design

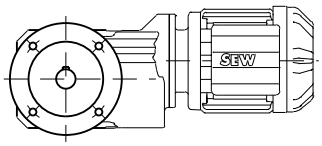
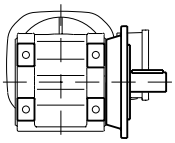
KA19B DRN.., KA29B DRN..

Foot-mounted helical-bevel gearmotor with hollow shaft

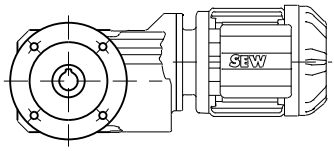
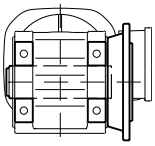
KH19B DRN.., KH29B DRN..

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

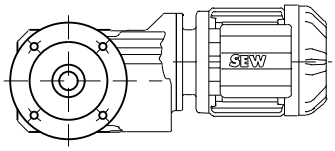
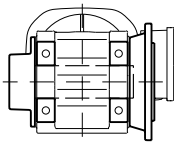
KF19B DRN.., KF29B DRN..

Helical-bevel gearmotor in B5 flange-mounted design in foot-mounted design

KAF19B DRN.., KAF29B DRN..

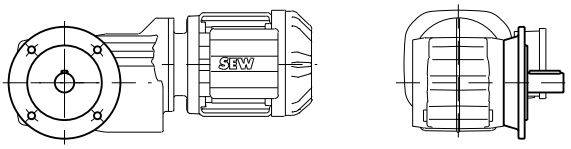
Helical-bevel gearmotor in B5 flange-mounted design with hollow shaft in foot-mounted design

KHF19B DRN.., KHF29B DRN..

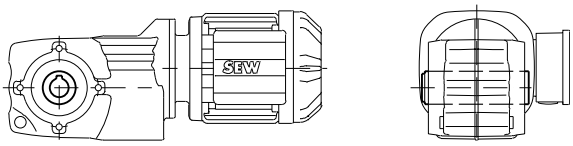
Helical-bevel gearmotor in B5 flange-mounted design with hollow shaft and shrink disk in foot-mounted design

24832936/EN – 09/2018



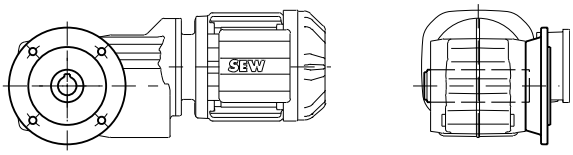
KF19 DRN.., KF29 DRN..

Helical-bevel gearmotor in B5 flange-mounted design



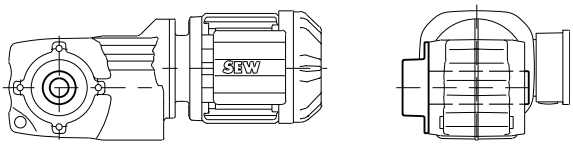
KA19 DRN.., KA29 DRN..

Helical-bevel gearmotor with hollow shaft



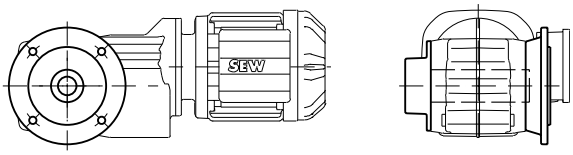
KAF19 DRN.., KAF29 DRN..

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



KH19 DRN.., KH29 DRN..

Helical-bevel gearmotor with hollow shaft and shrink disk

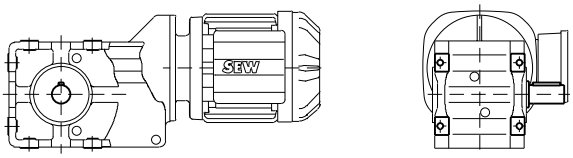


KHF19 DRN.., KHF29 DRN..

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

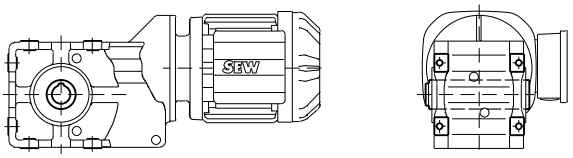
3.5.4 Helical-bevel gearmotors, gear unit sizes K..39 and K..49

The following designs of helical-bevel gearmotors with gear units of sizes K..39 and K..49 are available:



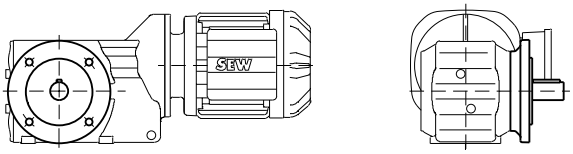
K39 DRN.., K49 DRN..

Helical-bevel gearmotor in foot-mounted design



KA39B DRN.., KA49B DRN..

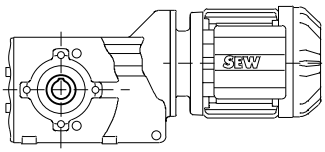
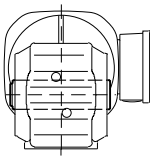
Helical-bevel gearmotor in foot-mounted design



KF39 DRN.., KF49 DRN..

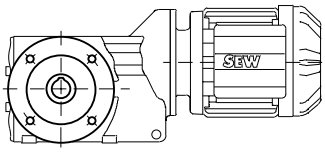
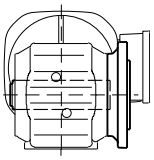
Helical-bevel gearmotor in B5 flange-mounted design

24832936/EN – 09/2018

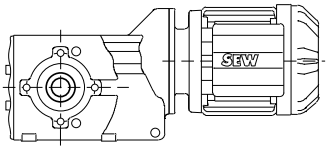
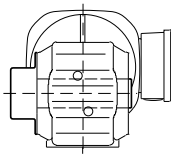
KA39 DRN.., KA49 DRN..

Helical-bevel gearmotor with hollow shaft

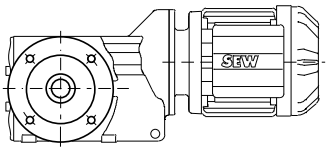
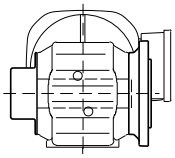
KAF39 DRN.., KAF49 DRN..

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

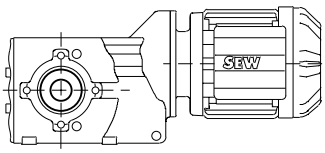
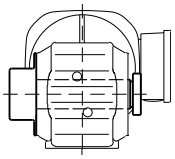
KH39 DRN.., KH49 DRN..

Helical-bevel gearmotor with hollow shaft and shrink disk

KHF39 DRN.., KHF49 DRN..

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

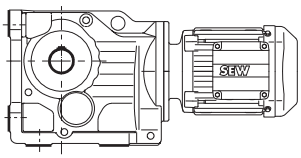
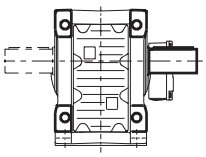



KT39 DRN.., KT49 DRN..

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

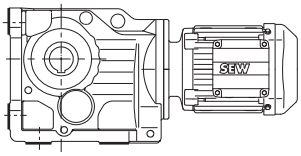
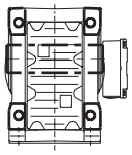
3.5.5 Helical-bevel gearmotors, gear unit sizes K..7

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

K..7 DRN..

Helical-bevel gearmotor in foot-mounted design

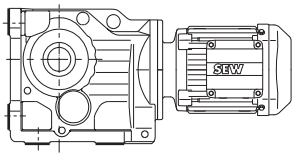
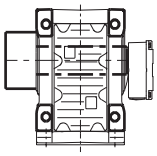



KA..7B DRN..

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

KV..7B DRN..

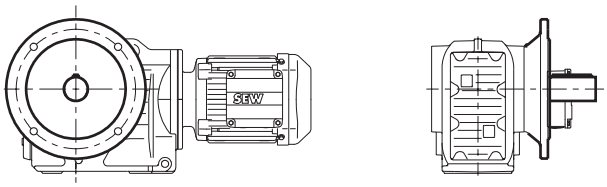
Foot-mounted helical-bevel gearmotor with splined hollow shaft according to DIN 5480

KH..7B DRN..

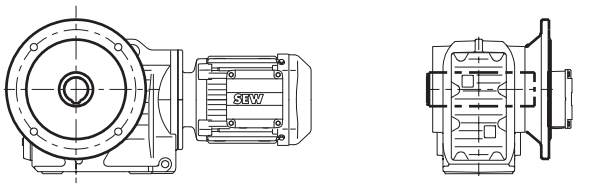
Helical-bevel gearmotor in foot-mounted design with hollow shaft and shrink disk

24832936/EN – 09/2018



KF..7 DRN..

Helical-bevel gearmotor in B5 flange-mounted design

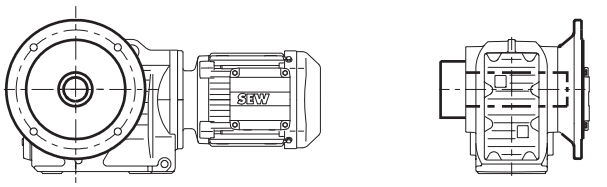


KAF..7 DRN..

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

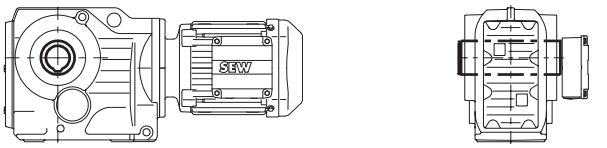
KVF..7 DRN..

Helical-bevel gearmotor in B5 flange-mounted design with splined hollow shaft to DIN 5480



KHF..7 DRN..

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

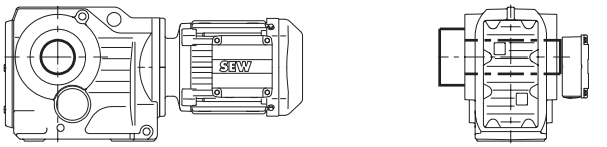


KA..7 DRN..

Helical-bevel gearmotor with hollow shaft

KV..7 DRN..

Helical-bevel gearmotor with hollow shaft and splined hollow shaft according to DIN 5480

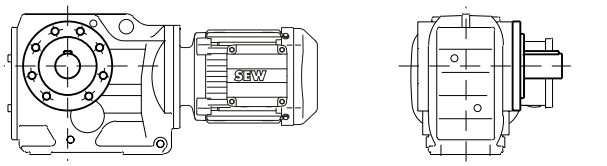


KH..7 DRN..

Helical-bevel gearmotor with hollow shaft and shrink disk

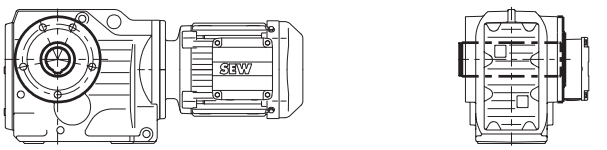
KT..7 DRN..

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



KZ..7 DRN..

Helical-bevel gearmotor in B14 flange-mounted design



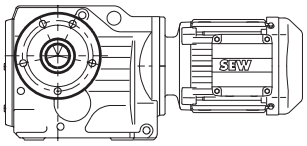
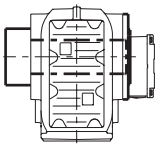
KAZ..7 DRN..

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

KVZ..7 DRN..

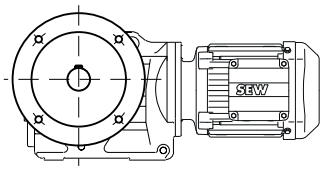
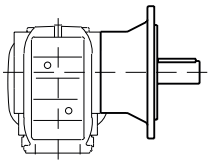
Helical-bevel gearmotor in B14 flange-mounted design with splined hollow shaft to DIN 5480

24832936/EN – 09/2018

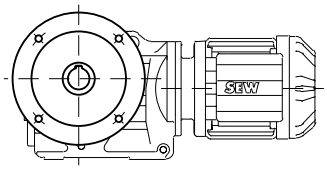
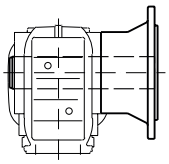
KHZ..7 DRN..

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

KM..7 DRN..

Helical-bevel gearmotor in B5 flange-mounted design with extended bearing hub, output shaft with key

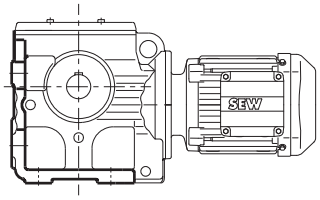
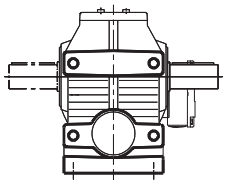



KAM..7 DRN..

Helical-bevel gearmotor in B5 flange-mounted design with extended bearing hub and hollow shaft

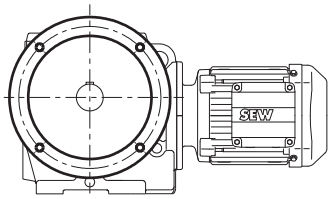
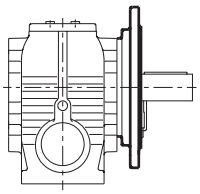
3.5.6 Helical-worm gearmotors

The following designs of helical-worm gearmotors are available:

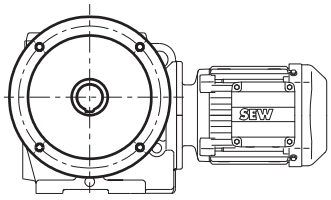
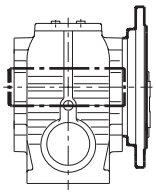
S..DRN..

Helical-worm gearmotor in foot-mounted design

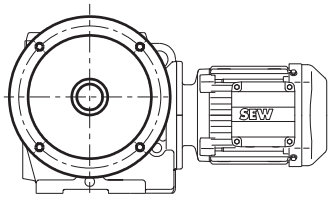
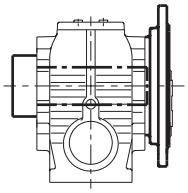
SF..DRN..

Helical-worm gearmotor in B5 flange-mounted design

SAF..DRN..

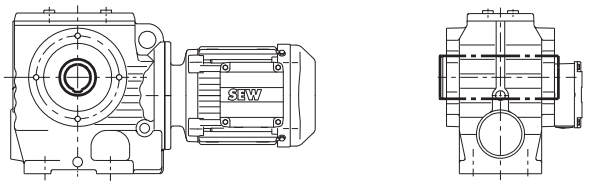
Helical-worm gearmotor in B5 flange-mounted design with hollow shaft

SHF..DRN..

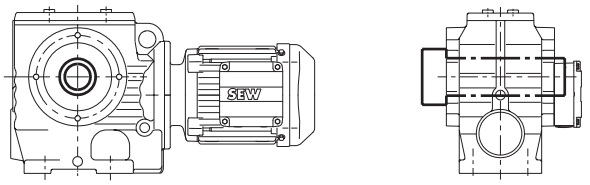
Helical-worm gearmotor in B5 flange-mounted design with hollow shaft and shrink disk

24832936/EN – 09/2018



SA..DRN..

Helical-worm gearmotor with hollow shaft

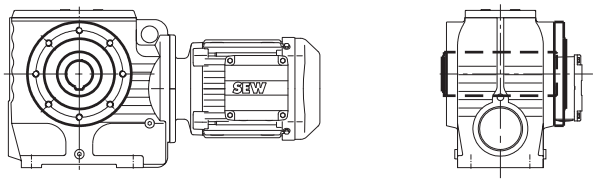


SH..DRN..

Helical-worm gearmotor with hollow shaft and shrink disk

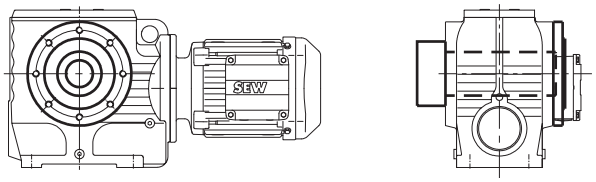
ST..DRN..

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



SAZ..DRN..

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

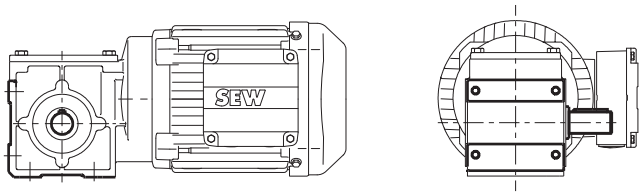


SHZ..DRN..

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

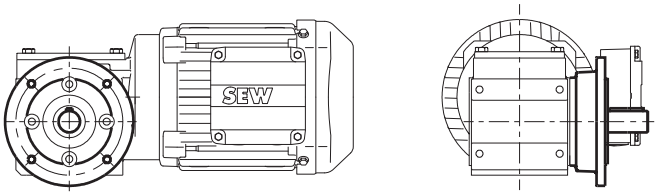
3.5.7 SPIROPLAN® gearmotors, gear unit sizes W..10, W..20, W..30

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



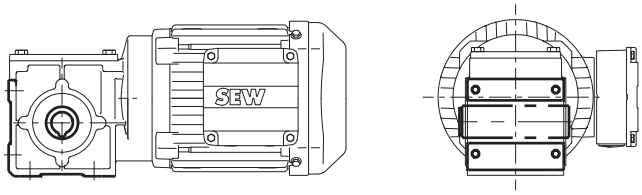
W10 DRN.., W20 DRN.., W30 DRN..,

Foot-mounted SPIROPLAN® gearmotor



WF10 DRN.., WF20 DRN.., WF30 DRN..

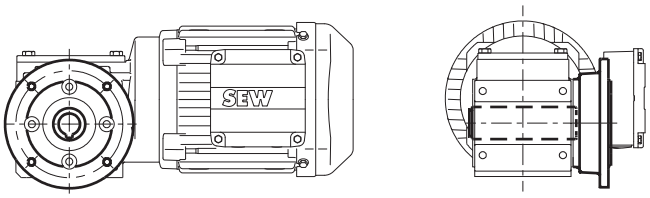
SPIROPLAN® gearmotor in B5 flange mounted design



WA10 DRN.., WA20 DRN.., WA30 DRN..

SPIROPLAN® gearmotor with hollow shaft

24832936/EN – 09/2018

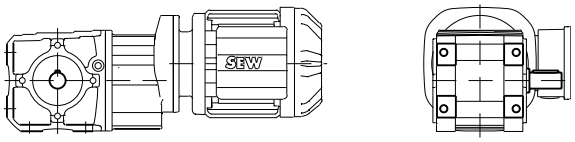


WAF10 DRN.., WAF20 DRN.., WAF30 DRN..

SPIROPLAN® gearmotor in B5 flange-mounted design with hollow shaft

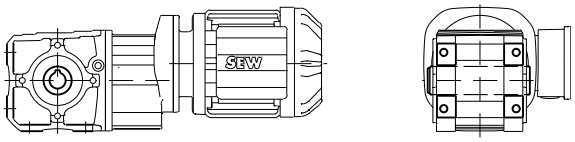
3.5.8 SPIROPLAN® gearmotors, gear unit sizes W..37 and W..47

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



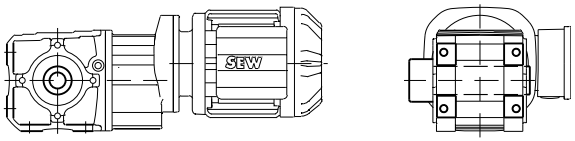
W37 DRN.., W47 DRN..

Foot-mounted SPIROPLAN® gearmotor



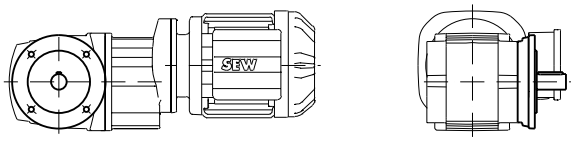
WA37B DRN.., WA47B DRN..

Foot-mounted SPIROPLAN® gearmotor with hollow shaft



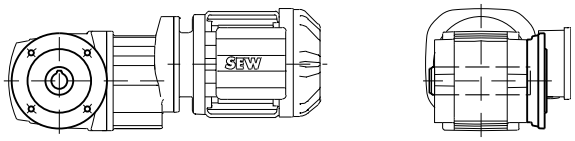
WH37B DRN.., WH47B DRN..

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



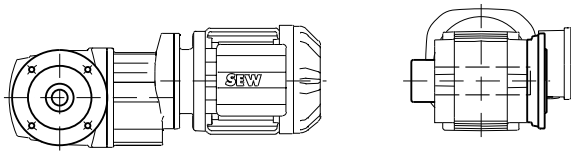
WF37 DRN.., WF47 DRN..

SPIROPLAN® gearmotor in B5 flange mounted design



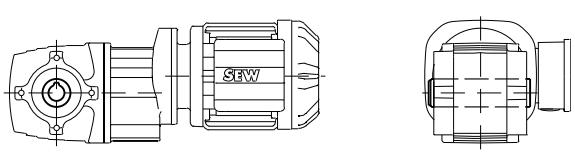
WAF37 DRN.., WAF47 DRN..

SPIROPLAN® gearmotor in B5 flange-mounted design with hollow shaft



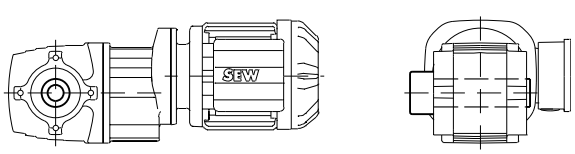
WHF37 DRN.., WHF47 DRN..

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



WA37 DRN.., WA47 DRN..

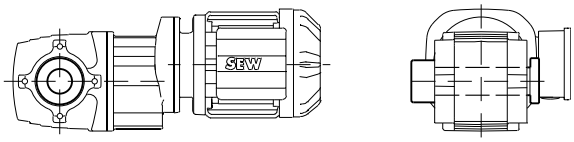
SPIROPLAN® gearmotor with hollow shaft



WH37 DRN.., WH47 DRN..

SPIROPLAN® gearmotor with hollow shaft and shrink disk

24832936/EN – 09/2018



WT37 DRN.., WT47 DRN..

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

24832936/EN – 09/2018

4 Project planning for drives

4.1 Additional publications

For more detailed information about the project planning for drives, refer to the website of SEW-EURODRIVE where you can order or download the following documentations.

- Drive Engineering - Practical Implementation
  - EMC in Drive Engineering – Basic Theoretical Principles and EMC-Compliant Installation in Practice
  - Efficient Plant Automation with Mechatronic Drive Solutions
- Manuals
  - Project Planning for BE.. Brakes

4.2 Drive and gear unit selection data

Determining application data

To select the proper drive, you first need the data (weight, speed, setting range, etc.) of the machine to be driven. These data help determine the required power, torque and speed. Refer to the documentation "Drive Engineering – Practical Implementation, Project Planning" or the SEW-Workbench project planning software for assistance.

Selecting the correct drive

Calculate power, rotational speed, torque, and overhung load of the drive. Observe all mechanical requirements. Then, the suitable drive can be determined.

Application data required for project planning:

Designation	Meaning	Unit
n_{G_min}	Minimum output speed	min^{-1}
n_{G_max}	Maximum output speed	min^{-1}
P_{a_nmin}	Output power at minimum output speed	kW
P_{a_nmax}	Output power at maximum output speed	kW
M_{a_nmin}	Output torque at minimum output speed	Nm
M_{a_nmax}	Output torque at maximum output speed	Nm
F_O	Axial load (tension and compression) on the output shaft	N
F_{R_a}	Overhung loads acting on the output shaft	N
J_L	Mass moment of inertia to be driven	10^{-4} kgm^2
R, F, K, S, W M1 - M6	Mounting position and required gear unit type, see chapter "Gear unit mounting positions" (→ 🗎 63) and "Project planning notes R, F, K, S, W gear units" (→ 🗎 48)	-
IP..	Required degree of protection	-
T_{amb}	Ambient temperature	°C
h	Installation altitude	m above sea level
S.., ..% cdf	Duty type and cyclic duration factor cdf – the exact load cycle can be entered instead	-
Z	Starting frequency – or exact load cycle can be specified	h^{-1}
f_{line}	Line frequency	Hz
U_{Mot}	Motor operating voltage	V
U_B	Brake operating voltage	V
M_{B_req}	Required braking torque	Nm
For inverter operation: required control mode and setting range		

24832936/EN – 09/2018

4.3 Project planning procedure for DR.. gearmotors

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 regarding the machine to be driven

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

↓

Calculation of the relevant application data

- Static and dynamic power
- Rotational speeds
- Torques, power ratings
- Travel diagram, if required
- Determination of the required service factor f_{B_req}

↓

Motor selection

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

↓

Gear unit selection

- Definition of gear unit type, gear unit size, gear unit ratio, and gear unit design
- Checking the positioning accuracy
- Checking the service factor f_B

↓

Ensuring that all requirements have been met.

24832936/EN – 09/2018

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 regarding the machine to be driven

- Technical data and environmental conditions
- Positioning accuracy
- Speed setting range
- Travel cycle calculation

↓

Calculation of the relevant application data

- Travel diagram
- Rotational speeds
- Static, dynamic torques
- Regenerative power

↓

Gear unit selection

- Definition of gear unit type, gear unit size, gear unit ratio, and gear unit design
- Checking the positioning accuracy
- Checking the gear unit utilization ($M_{a\,max} \geq M_a$)
- Checking the input speed (churning losses)

↓

Motor selection

- Maximum torque
- With dynamic drives: effective torque at medium speed
- Maximum speed
- Determination of the energy efficiency class IE
- Observing of dynamic and thermal torque curves
- Selection of the correct encoder
- Mechanical brake (braking work, braking torque, brake service life)
- Motor equipment (brake, plug connector, thermal motor protection, etc.)

↓

Selecting the inverter

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

↓

Braking resistor selection

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

↓

24832936/EN – 09/2018

Options

- EMC measures
- Operation/communication
- Additional functions

↓

Ensuring that all requirements have been met.

24832936/EN – 09/2018

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

4.4.1 Efficiency of gear units

General information

The efficiency of the gear units is mainly determined by the gearing and bearing friction as well by churning losses. Keep in mind that the starting efficiency of a gear unit is always less than its efficiency at operating speed. This factor is particularly true for helical-worm and SPIROPLAN® right-angle gear units.

INFORMATION

For information on churning losses and thermal rating, refer to chapter "Churning losses and thermal rating" (→ 🗎 49).

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. This is the reason why these gear units have higher gearing losses and lower efficiency than R, F or K gear units.

Other factors influencing the efficiency:

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

Helical-worm gear units from SEW-EURODRIVE are helical gear/worm combinations that have a significantly higher efficiency than plain worm gear units, see chapter "Technical data of S., SF., SA., SAF 37" (→ 🗎 793) and following.

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. The helical-worm or SPIROPLAN® gear unit is statically self-locking if the forward efficiency η is ≤ 0.5. The SPIROPLAN® gear units W..10 – W..30 are to some extent (with high ratios) 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.

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.

24832936/EN – 09/2018

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	
i range	η reduction
approx. 35 – 75	approx. 15%
approx. 20 – 35	approx. 10%
approx. 10 – 20	approx. 8%
approx. 8	approx. 5%
approx. 6	approx. 3%

SPIROPLAN® W37 and W47	
i range	η reduction
-	-
-	-
approx. 30 – 70	approx. 8%
approx. 10 – 30	approx. 5%
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 and thermal rating

* (→ 🗎 X)

Churning losses may occur with the following conditions. They must be considered during thermal check:

- A mounting position where the first gear unit stage is fully immersed in the lubricant. The respective mounting positions of the gear units are indicated with a * in chapter Mounting position sheets.
- A high mean input speed and thus a high circumferential velocity of the gear wheels of the input gear stage.

If one or both requirements are met, determine the requirements of the application and the corresponding operating conditions (see chapter "Data for calculating the thermal rating" (→ 🗎 50)) and contact SEW-EURODRIVE. SEW-EURODRIVE can calculate the thermal rating based on the actual operating conditions. The thermal rating of the gear unit can be increased by appropriate measure e.g. by using a synthetic lubricant with higher thermal endurance properties.

INFORMATION

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

24832936/EN – 09/2018

Data for calculating the thermal rating

The following information is required for calculating the thermal rating:

Gear unit type and design:

- Gear unit ratio i
- Mean input speed $\overline{n}_{Mot}$ or mean output speed $\overline{n}_{G}$ in min^{-1}
- Effective motor torque M_{Mot_eff} in Nm
- Input motor power P_{Mot} in kW
- Mounting position M1 – M6 or pivoting angle

Installation site:

- Ambient temperature T_{amb} in °C
- In small, closed rooms or in large rooms (halls) or outdoors

Installation on site:

- Space-critical or well ventilated
- Steel or concrete base

24832936/EN – 09/2018

4.5 Service factor

4.5.1 Service factor f_B

The method for determining the maximum permitted continuous torque M_{a_max} and using this value to derive the service factor $f_B = M_{a_max} / M_a$ is not defined in a standard and varies greatly from manufacturer to manufacturer. With a service factor $f_B = 1$, gear units by SEW-EURODRIVE in any case offer an extremely high level of safety and reliability in the fatigue strength range (With exception of: Low temperatures and wear of the worm gear with helical-worm gear units). The service factor may differ from specifications of other gear unit manufacturers. If in doubt, contact SEW-EURODRIVE.

For the service factor, refer to the order confirmation and the selection tables in the gearmotor catalogs from SEW-EURODRIVE (→ 🗎 176).

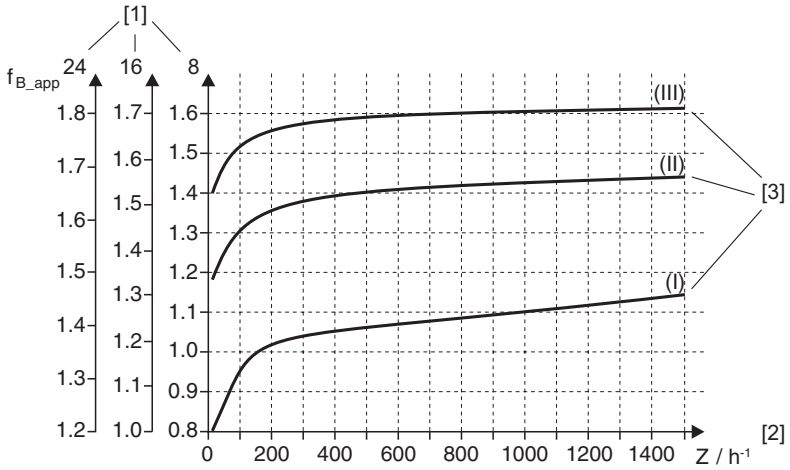
4.5.2 Required service factor f_{B_req}

The operating conditions are considered in order to determine the required service factor f_{B_req} for the gearmotor selection. Decisive factors are the requirements of the driven machine, as well as the ambient temperature and gear unit type, if applicable.

The service factor f_{B_req} result from other service factors described in the following chapters.

4.5.3 Application service factor

The effect of the driven machine on the gear unit is taken into account to a sufficient level of accuracy using the application service factor f_{B_app}. The service factor is determined according to the daily operating time and the switching frequency Z. Three load classifications are taken into account depending on the mass acceleration factor. You can read the service factor applicable to your application from the following diagram.



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[1] Service factor f_{B_app} in relation to the daily operating time in hours/day
[2] Switching frequency Z: The cycles include all starting and braking procedures as well as changeovers from low to high speed and vice versa.
[3] Curves for load classification I, II and III

24832936/EN – 09/2018

Definition of the load classification

The following 3 load classifications are distinguished:

- Load classification I: Uniform, almost no shock load, permitted mass acceleration factor ≤ 0.2
- Load classification II: Non-uniform, moderate shock load, permitted mass acceleration factor ≤ 3
- Load classification III: Very non-uniform, severe shock load, permitted mass acceleration factor ≤ 10

Mass acceleration factor

The mass acceleration factor is calculated as follows:

$$f_a = \frac{J_{Lx}}{J_{Mot}}$$

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f_O = Mass acceleration factor
J_{Lx} = Mass moment of inertia, reduced to motor shaft [J_{Lx}] = kgm²
J_{Mot} = Motor moment of inertia [J_{Mot}] = kgm²

The motor moment of inertia J_{Mot} is the mass moment of inertia of the motor and, if installed, the brake and the flywheel fan (Z fan).

The load moment of inertia J_{Lx} includes 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 shaft.

Scaling down the mass moment of inertia on the motor shaft

The calculation for scaling down to motor speed is performed using the following formula:

$$J_{Lx} = J_L \times \left(\frac{1}{i_G} \right)^2$$

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J_{Lx} = Mass moment of inertia, reduced to motor shaft [J_{Lx}] = kgm²
J_L = Mass moment of inertia with reference to the output speed of the gear unit [J_L] = kgm²
i_G = Gear unit ratio

Service factors f_{B_app} > 1.8 may be required 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.

4.5.4 Service factor at low temperatures

At an ambient temperature < -30 °C observe the additional service factor $f_{B_T\text{-}30}$ = 1.2.

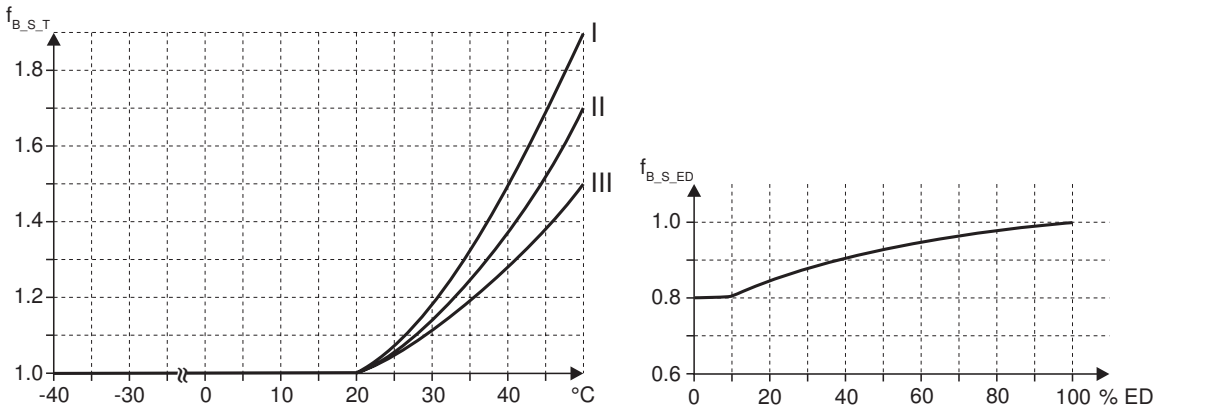
4.5.5 Service factors for helical-worm gear units

In case of helical-worm gear units, the following 2 service factors must be observed:

- $f_{B_S_T}$ = Service factor based on ambient temperature
- $f_{B_S_cdf}$ = Service factor based on cyclic duration factor

24832936/EN – 09/2018

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



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Cyclic duration factor

$$ED = \frac{t_{L_tot}}{60} \times 100$$

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ED = Cyclic duration factor [cdf] = %
t_{L_tot} = Load period $[t_{L_tot}] = \text{min h}^{-1}$

4.5.6 Conditions for selecting gear units based on the service factor

The determined required service factor f_{B_req} must be lower or equal to the service factor according to the selection tables (see chapter "Structure of the selection tables" (→ 🗎 176)).

$$f_{B_req} \leq f_B$$

$$f_{B_app} \times \left[f_{B_T-30} \times f_{B_S_T} \times f_{B_S_ED} \right] \leq f_B$$

or

$$M_a \times f_{B_req} \leq M_{a_max}$$

$$M_a \times f_{B_app} \times \left[f_{B_T-30} \times f_{B_S_T} \times f_{B_S_ED} \right] \leq M_{a_max}$$

The service factors in square brackets are only taken into consideration at the respective application and ambient conditions. Otherwise, the value is 1.

f_B = Service factor
f_{B_req} = Required service factor
f_{B_app} = Application service factor based on load classification and switching frequency
f_{B_T-30} = Low temperature service factor, only applies to ambient temperatures < -30 °C
$f_{B_S_T}$ = Service factor for helical-worm gear units only, based on ambient temperature
$f_{B_S_cdf}$ = Service factor for helical-worm gear units only, based on cdf
M_a = Gearmotor output torque ($M_{Mot} \times i_G$) $[M_a] = \text{Nm}$
M_{a_max} = Maximum permitted output torque $[M_{a_max}] = \text{Nm}$

Additional requirements for selecting gear units based on the service factor

When special ambient or application-related conditions need to be observed, additional requirements on gear unit selection based on the service factor need to be adhered to:

- SPIROPLAN® gearmotors with food grade oil:
  - W..10 – W..30: $f_B \geq 1{,}0$
  - W..37, W..47: $f_B \geq 1{,}2$
- Gear units and compound gear units in combination with explosion-proof motors: $f_B \geq 1.0$

4.5.7 Examples

- An application with mass acceleration factor 2.5 (load classification II), operating time 14 hours/day (read off at 16 h/d^{-1} (→ 🖹 51)) and 300 cycles/hour produce a service factor $f_B = 1.5$ as shown in the figure. The f_B value of the required gearmotor must therefore be ≥ 1.5.

  In case the gearmotor is intended for operation at -35 °C, the following applies:

  $f_{B_req} = f_{B_app} \times f_{B_T\text{-}30} = 1.5 \times 1.2 = 1.8$

  The gearmotor to be selected now requires an f_B value ≥ 1.8.
- The gearmotor with the service factor $f_{B_app} = 1.5$ in the previous example is to be a helical-worm gearmotor, at an ambient temperature of 40 °C:

  → $f_{B_S_T} = 1.36$ (read off at load classification II (→ 🖹 52))

  Time under load = 40 min h^{-1}→ cdf = 66.67% → $f_{B_S_cdf} = 0.95$

  The required service factor is:

  $f_{B_req} = f_{B_app} \times f_{B_S_T} \times f_{B_S_cdf} = 1.5 \times 1.36 \times 0.95 = 1.94$

  The selected helical-worm gearmotor requires a service factor $f_B \geq 1.94$.

24832936/EN – 09/2018

4.6 Overhand and axial loads of R, F, K, S, and W gear units

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 must be considered for various transmission elements.

Transmission element	Transmission element factor f_Z	Comments
Gear wheels	1.15	< 17 teeth
Sprockets	1.40	< 13 teeth
Sprockets	1.25	< 20 teeth
Narrow V-belt pulleys	1.75	Consider influence of pre-tension force
Flat belt pulleys	2.50	Consider influence of pre-tension force
Toothed belt pulleys	1.50	Consider influence of pre-tension force
Gear rack pinion, pretensioned	2.00	Consider influence of pre-tension force
Gear rack pinion, not pretensioned	1.15	< 17 teeth

Transmission element factor at low temperatures

For temperatures < -30 °C observe a transmission element factor $f_{Z_T\text{-}30} = 1.2$.

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

$$F_R = \frac{M_{G_max} \times 2000}{d_{FR}} \times f_Z \times f_{Z_T-30}$$

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F_R = Overhung load [F_R] = N
M_{G_max} = Torque [M_{G_max}] = Nm
f_Z = Transmission element factor
$f_{Z_T\text{-}30}$ = A transmission element factor of 1.2 for ambient temperatures ≤ -30 °C.
For ambient temperatures > 30 °C observe $f_{Z_T\text{-}30} = 1$.
d_{FR} = Overhung load determined by diameter of the installed transmission element [d] = mm

4.6.2 Permitted overhung load F_{R_a}

The following important information refers to the overhung load value F_{R_a} in the relevant tables of this catalog:

F_{R_a} is calculated from the nominal bearing service life L_{10h} (according to ISO 281). For special operating conditions, the permitted overhung loads can be determined based on the modified bearing service life L_{na}. Consult SEW-EURODRIVE in this case.

The permitted overhung load is influenced by the direction of rotation and the force application angle. The values F_{R_a} listed in the catalog are based on the least favorable conditions.

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

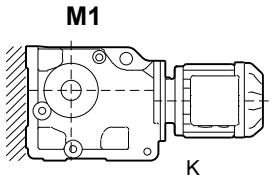
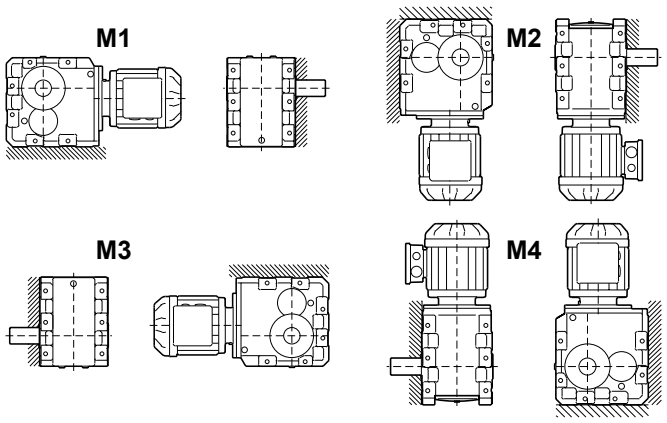
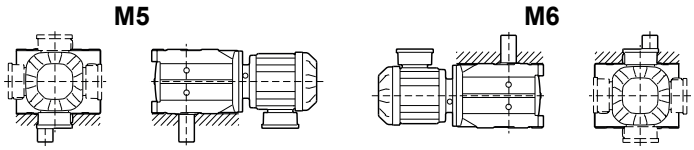
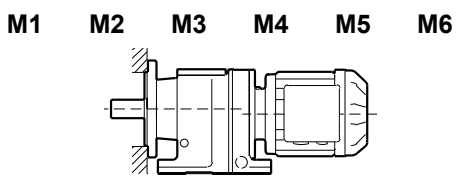
24832936/EN – 09/2018

The overhung load data refers to a force application at the center of the output shaft 0.5 × l. With right-angle gear units, the application point is assumed to be at the A-side.

For gear units with hollow shaft and key (shaft-mounted design), the values refer to force application to the front end of the hollow shaft.

Reduced permitted overhung load

The following table lists the cases that require the overhung load to be limited:

Mounting surface	Gear units	Mounting position	Restriction
	K37 – K157 S37 – S97	M1	Maximally 50% of the overhung load F_{R_a} specified in the selection tables is permitted in the case of mounting at the front-end (highlighted surfaces).
	K167 K187	M1 M2 M3 M4	No reduction when the unit is mounted using the highlighted feet. A maximum of 50% of the overhung load F_{R_a} specified in the selection tables is permitted in the case of deviating mounting.
	K167 K187	M5 M6	No reduction when the unit is mounted using the highlighted feet. In case of deviating mounting, contact SEW-EURODRIVE.
	R07F – R87F	M1 – M6	In case of all foot-mounted/flange-mounted gear units (R..F) with torque transmission via the flange connection, maximally 50% of the overhung load F_{R_a} specified in the selection tables is permitted.

24832936/EN – 09/2018

4.6.3 Higher permitted overhung loads

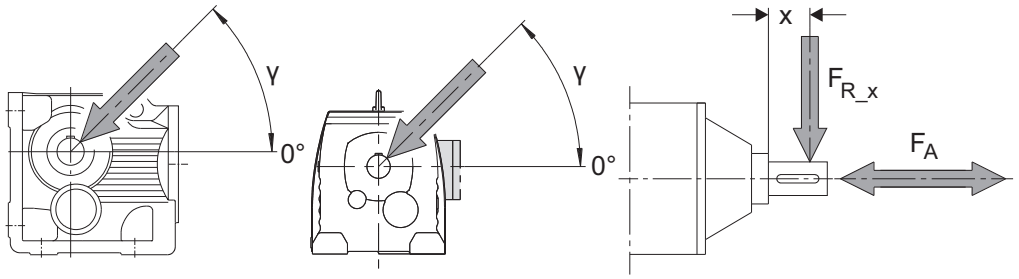
Exactly considering the force application angle γ and the direction of rotation makes it possible to achieve a higher overhung load than listed in the selection tables.

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:



γ	=	Force application angle	[γ] = °
F_{R_x}	=	Permitted overhung load at distance x	[F_{R_x}] = N
F_O	=	Permitted axial force	[F_A] = N

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

INFORMATION

Contact SEW-EURODRIVE for all other gear unit designs and in the event of significantly greater axial loads or combinations of overhung load and axial load.

4.6.6 Input side: 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 to the selection tables using the following formulas in the event of force application to areas other than the center of the shaft end. The smaller of the two values $F_{R_x_b}$ (according to bearing service life) and $F_{R_x_w}$ (according to shaft strength) is the permitted value for the overhung

24832936/EN – 09/2018

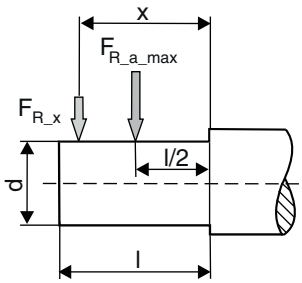
load at distance x. Note that the calculations apply to M_{a_max}. The permitted overhung load values $F_{R_a_max}$ and $F_{R_a_pk}$ listed in the data tables are valid for force application at 0.5 × l (solid shaft) or force application at the shaft end face (front end surface of the hollow shaft).

The following conditions must be met:

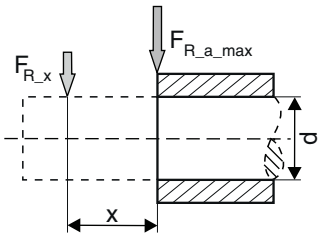
$F_{R_x_b}$ according to bearing service life: $$F_{R_x_b} = F_{R_a_max} \times \frac{a}{b + x}$$

$F_{R_x_w}$ according to shaft strength: $$F_{R_x_w} = \frac{c}{f + x}$$

F_{R_x}	Permitted overhung load at distance x in N	$[F_{R_x}]$ = N
$F_{R_a_max}$	permitted overhung load in N	$[F_{R_a_max}]$ = N
x	Distance from the shaft shoulder to the force application point in mm	[x] = mm
a, b, f	Gear unit constants for overhung load conversion in mm	[a, b, f] = 1
c	Gear unit constant for overhung load conversion in Nmm	[c] = 1



Solid shaft



Hollow shaft

24832936/EN – 09/2018

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	1.51×10^5	34.2	20	40
RX67	52.5	27.5	2.42×10^5	39.7	25	50
RX77	60.5	30.5	1.95×10^5	0	30	60
RX87	73.5	33.5	7.69×10^5	48.9	40	80
RX97	86.5	36.5	1.43×10^6	53.9	50	100
RX107	102.5	42.5	2.47×10^6	62.3	60	120
R07	72.0	52.0	4.67×10^4	11	20	40
R17	88.5	68.5	6.53×10^4	17	20	40
R27	106.5	81.5	1.56×10^5	11.8	25	50
R37	118	93	1.24×10^5	0	25	50
R47	137	107	2.44×10^5	15	30	60
R57	147.5	112.5	3.77×10^5	18	35	70
R67	168.5	133.5	2.65×10^5	0	35	70
R77	173.7	133.7	3.97×10^5	0	40	80
R87	216.7	166.7	8.47×10^5	0	50	100
R97	255.5	195.5	1.06×10^6	0	60	120
R107	285.5	215.5	2.06×10^6	0	70	140
R127	311	226	4.93×10^6	0	90	170
R137	343.5	258.5	4.58×10^6	0	90	170
R147	402	297	8.65×10^6	33	110	210
R167	450	345	1.26×10^7	0	120	210
F27	109.5	84.5	1.13×10^5	0	25	50
F37	123.5	98.5	1.07×10^5	0	25	50
F47	153.5	123.5	1.40×10^5	0	30	60
F57	170.7	135.7	2.70×10^5	0	35	70
F67	181.3	141.3	4.12×10^5	0	40	80
F77	215.8	165.8	7.87×10^5	0	50	100
F87	263	203	1.06×10^6	0	60	120
F97	350	280	2.09×10^6	0	70	140
F107	373.5	288.5	4.23×10^6	0	90	170
F127	442.5	337.5	9.45×10^6	0	110	210
F157	512	407	1.05×10^7	0	120	210
K19	103.7	83.7	8.66×10^4	0	20	40
K29	124.5	99.5	1.26×10^5	0	25	50
K37	123.5	98.5	1.30×10^5	0	25	50

24832936/EN – 09/2018

Gear unit type	a mm	b mm	c Nmm	f mm	d mm	l mm
K39	155.5	125.5	2.25×10^5	0	30	60
K47	153.5	123.5	1.40×10^5	0	30	60
K49	183.5	148.5	2.63×10^5	0	35	70
K57	169.7	134.7	2.70×10^5	0	35	70
K67	181.3	141.3	4.12×10^5	0	40	80
K77	215.8	165.8	7.69×10^5	0	50	100
K87	252	192	1.64×10^6	0	60	120
K97	319	249	2.80×10^6	0	70	140
K107	373.5	288.5	5.53×10^6	0	90	170
K127	443.5	338.5	8.31×10^6	0	110	210
K157	509	404	1.18×10^7	0	120	210
K167	621.5	496.5	1.88×10^7	0	160	250
K187	720.5	560.5	3.04×10^7	0	190	320
S37	118.5	98.5	6.0×10^4	0	20	40
S47	130	105	1.33×10^5	0	25	50
S57	150	120	2.14×10^5	0	30	60
S67	184	149	3.04×10^5	0	35	70
S77	224	179	5.26×10^5	0	45	90
S87	281.5	221.5	1.68×10^6	0	60	120
S97	326.3	256.3	2.54×10^6	0	70	140
W10	84.8	64.8	3.6×10^4	0	16	40
W20	98.5	78.5	4.4×10^4	0	20	40
W30	109.5	89.5	6.0×10^4	0	20	40
W37	121.1	101.1	6.95×10^4	0	20	40
W47	145.5	115.5	4.26×10^5	35.6	30	60

Values for designs not listed are available on request.

24832936/EN – 09/2018

4.7 Multi-stage gearmotors

4.7.1 General information

You can achieve particularly low output speeds by using compound gear units or compound 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 might make protecting the gear unit from high output torques necessary.

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_{Mot_max}).

You can calculate the maximum permitted motor torque as follows:

Maximum permitted motor torque

$$M_{Mot_max} = \frac{M_{a_max}}{i_{tot} \times \eta_{tot}}$$

M_{Mot_max}	Maximum permitted motor torque	$[M_{Mot_max}]$ = Nm
M_{a_max}	Maximum permitted output torque	$[M_{a_max}]$ = Nm
i_{tot}	Total gear unit ratio	$[i_{tot}]$ = 1
η_{tot}	Overall efficiency	$[\eta_{tot}]$ = %

Use this maximum permitted motor torque M_{Mot_max} 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_{Mot_max}. An appropriate measure would be to set the tripping current of the motor protection switch to this maximum current value. A motor protection switch 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

If you use a multi-stage brakemotor, you have to limit the braking torque (M_B) according to the maximum permitted motor torque M_{Mot_max}. The maximum permitted braking torque is 200% M_{Mot_max}.

Maximum braking torque

$$M_{B_max} \leq 200\%\ M_{Mot_max}$$

M_{B_max}	Maximum braking torque in Nm
M_{Mot_max}	Maximum permitted motor torque in Nm

If you have questions regarding the permitted switching frequency of multi-stage brakemotors, please contact SEW-EURODRIVE.

24832936/EN – 09/2018

4.7.4 Preventing blocking

Blockage on the output side of the double 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

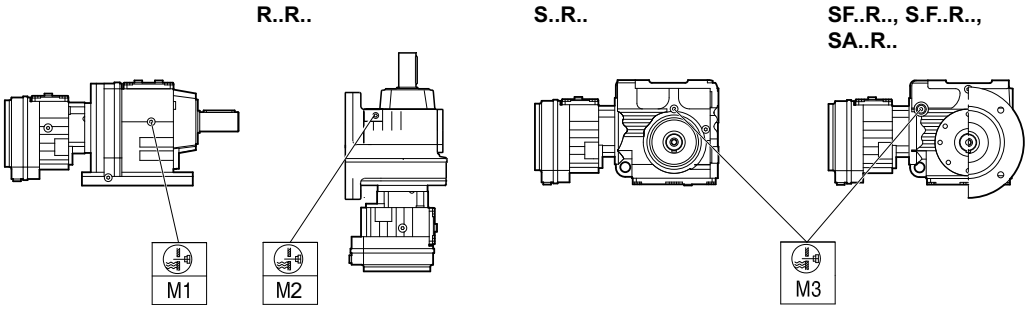
Contact SEW-EURODRIVE if blockages of the double gear unit or multi-stage gearmotor cannot be avoided due to the application.

4.7.5 Position of the oil level plug of compound gear units

To ensure sufficient lubrication of the first gear unit (larger gear unit) in case of compound gear units, the following gear units have a higher oil level in the specified mounting positions:

- Helical gear unit type R..R in mounting position M1 and M2
- Helical-worm gear unit type S..R in mounting position M3

The oil level plugs are located at the following positions, deviating from the specifications on the mounting position sheets:



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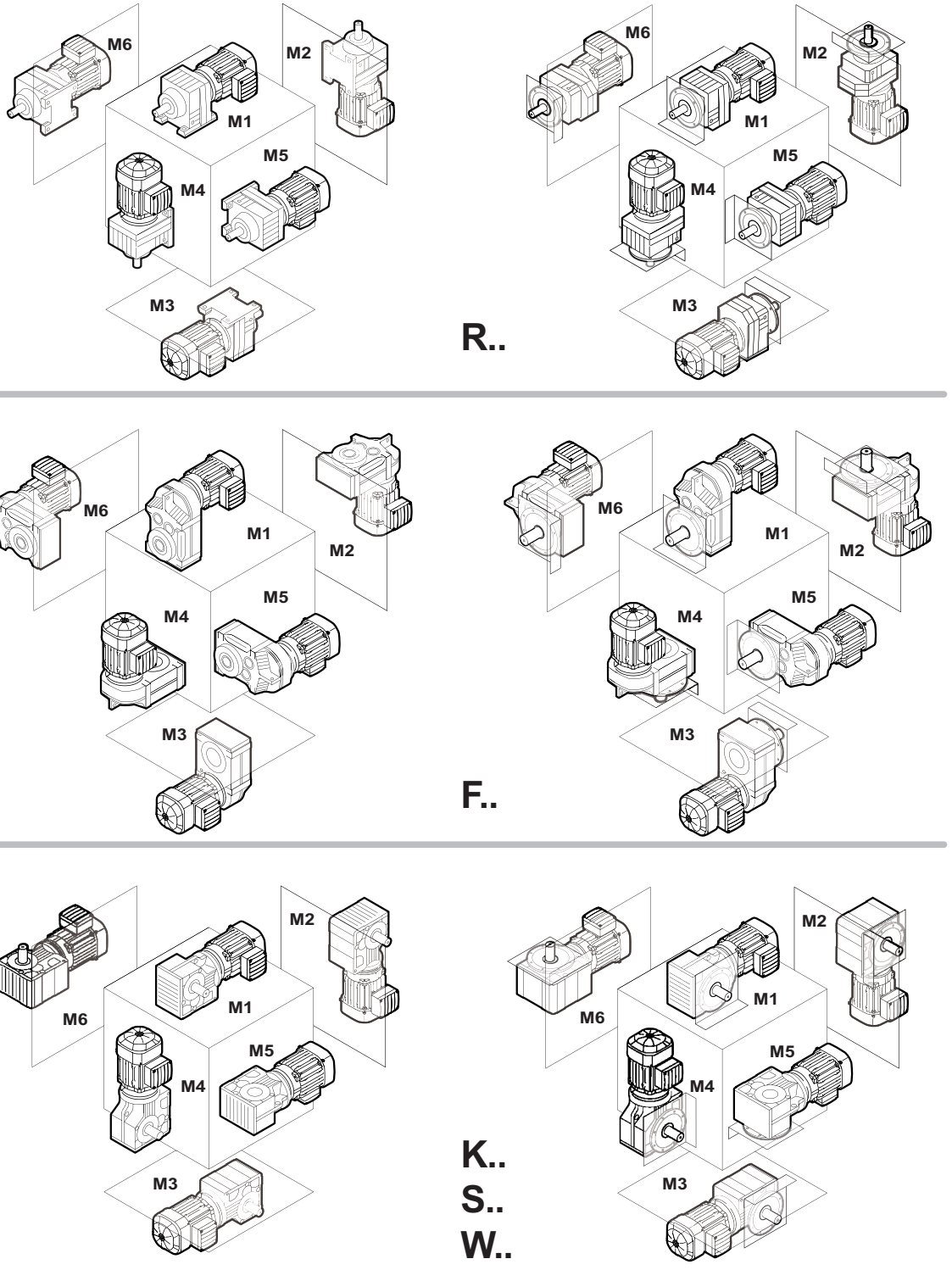
Icon	Meaning
	Oil level plug

24832936/EN – 09/2018

5 Gear unit mounting positions and order information

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

The following illustration shows the SEW-EURODRIVE mounting positions M1 – M6:



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24832936/EN – 09/2018

5.1.1 Change of mounting position

Make sure to read the following information when you operate the gearmotor in a mounting position other than the one indicated in the order:

- Adjust the lubricant fill quantity to the changed mounting position.
- Adjust the position of the breather valve.
- When changing the mounting position to M4: Contact SEW-EURODRIVE. Depending on the drive's operating mode, an oil expansion tank might be necessary (see chapter "Oil expansion tank" (→ 🗎 21)).
- For helical-bevel gearmotors: Contact SEW-EURODRIVE if you want to change to mounting position M5 or M6, independent of the initial mounting position.
- For helical-worm gearmotors: Contact SEW-EURODRIVE when changing to mounting position M2 or M3.
- For helical gearmotors: Contact SEW-EURODRIVE when changing to mounting position M2.
- If you change the mounting position to a mounting position that requires more oil, SEW-EURODRIVE recommends to perform a thermal check/project planning again.

5.1.2 Universal mounting position M0

SPIROPLAN® W10.. – W30.. gear units are available to order in the universal mounting position M0. These small SPIROPLAN® gear units are entirely enclosed due to their small size and have no breather valve. You can use them in any mounting position M1 – M6 without having to adjust the gear unit.

All W10.. – W30.. gear units of one size have the same oil fill quantity.

5.1.3 Mounting position MX

Mounting position MX is available for all gear units of the sizes R..7, F..7, K..7, K..9, S..7, and SPIROPLAN® W..7.

In contrast to the M0 mounting position, gear units in MX mounting position must be adjusted according to the mounting position prior to startup.

For mounting position MX, the gear units are delivered with the maximally possible amount of oil and sealed with oil screw plugs. A breather valve is included with each drive. The oil fill volume must be adapted according to the mounting position of the gear unit (see chapter "Lubricant fill quantities" (→ 🗎 122)). Customers will also have to install the enclosed breather valve at the proper location depending on the mounting position, see chapter "Mounting position sheets" (→ 🗎 74).

Before startup, always check that the oil level is correct.

Compound gear units in MX mounting position

In MX mounting position, both gear units (primary and subsequent gear unit) are in the same mounting position.

5.1.4 Position of breather valve/oil drain plug in motor flange

As shown in the mounting position sheets in chapter "Mounting position sheets" (→ 🗎 74), the position of the breather valve and oil drain plug depend on the gearmotor mounting position.

24832936/EN – 09/2018

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

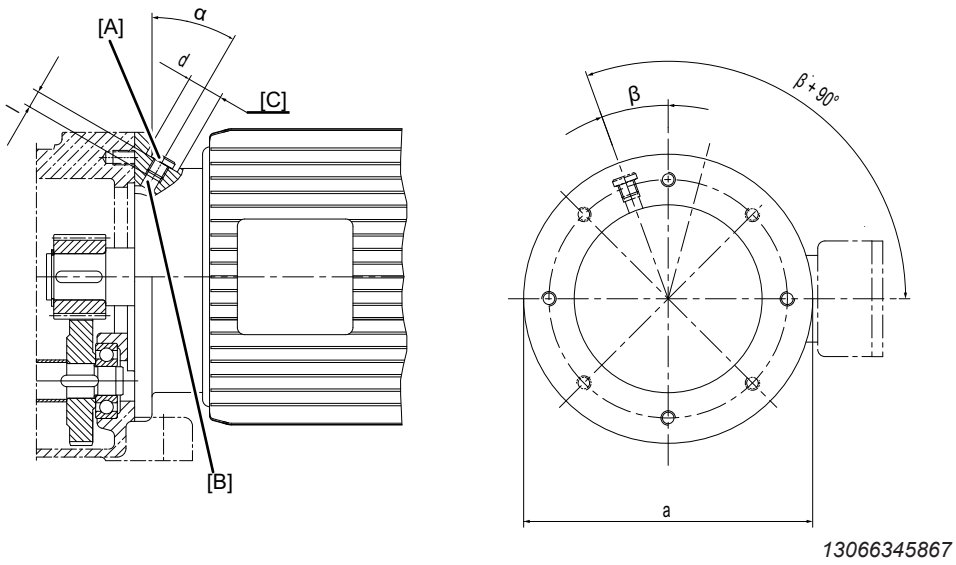
Mounting position	Breather valve position	Oil drain plug position
M1, M3, M5, M6	In the gear unit housing	In the gear unit housing
M4	**In the motor flange**	In the gear unit housing
M2	In the gear unit housing	**In the motor flange**

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 "Mounting position sheets" (→ 🗎 74) 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.



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[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

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.

DR2S.. motor type	a In mm	α in °	β in °	Thread designation	Ø d In mm	l In mm
DR2S56	105	0	45	M10×1	–	10

24832936/EN – 09/2018

DRN.. motor type	a In mm	α in °	β in °	Thread designation	Ø d In mm	l In mm
DRN63	105	0	45	M10×1	–	10
	120				15	
	160					
	200	30	22.5	M12x1.5	18	12
DRN71	105	0	45	M10×1	–	10
	120				15	
	160					
	200	30	22.5	M12x1.5	18	12
	250					
	300	90		M22x1.5	28	14
DRN80	105	0	45	M10×1	–	10
	120	15	22.5		15	
	160	30				
	200			M12x1.5	18	12
	250					
	300	90		M22x1.5	28	14
DRN90	120	30	22.5	M10×1	15	12
	160					
	200			M12x1.5	15	16
	250				18	12
	300			M22x1.5	28	
DRN100	120	30	22.5	M10×1	15	10
	160					12
	200			M12x1.5	18	
	250					
	300			M22x1.5	28	14
	350					
DRN112M DRN132S	160	30	22.5	M10×1	15	10
	200			M12x1.5	18	12
	250					
	300			M22x1.5	28	14
	350					
	400	45				10
	450			M33×2	40	16
DRN132M/L	160	30	22.5	M10×1	15	10
	200	15		M12x1.5	18	14
	250	30				
	300			M22x1.5	28	12
	350					14
	400					13
	450	75		M33×2	40	16
	550	90		M42×2	50	18
DRN160	200	30	22.5	M10×1	15	17
	250			M12x1.5	18	15
	300			M22x1.5	28	12
	350					
	400					16
	450			M33×2	40	
	550	90		M42×2	50	

24832936/EN – 09/2018

DRN.. motor type	a In mm	α in °	β in °	Thread designation	Ø d In mm	l In mm
DRN180	250	30	22.5	M12x1.5	18	15
	300			M22x1.5	28	
	350					
	400					16
	450			M33×2	40	
	550	90		M42×2	50	17
DRN200	250	30	22.5	M12x1.5	18	15
	300			M22x1.5	28	
	350					14
	400					16
	450			M33×2	40	
	550			M42×2	50	19
DRN225	300	30	22.5	M22x1.5	28	15
	350					14
	400					16
	450			M33×2	40	17
	550			M42×2	50	29
DRN250 DRN280	350	15	22.5	M22x1.5	28	14
	400		21			
	450		22.5	M33×2	40	16
	550			M42×2	50	
DRN315	450	30	22.5	M33×2	40	30
	550		11.25	M42×2	50	20

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

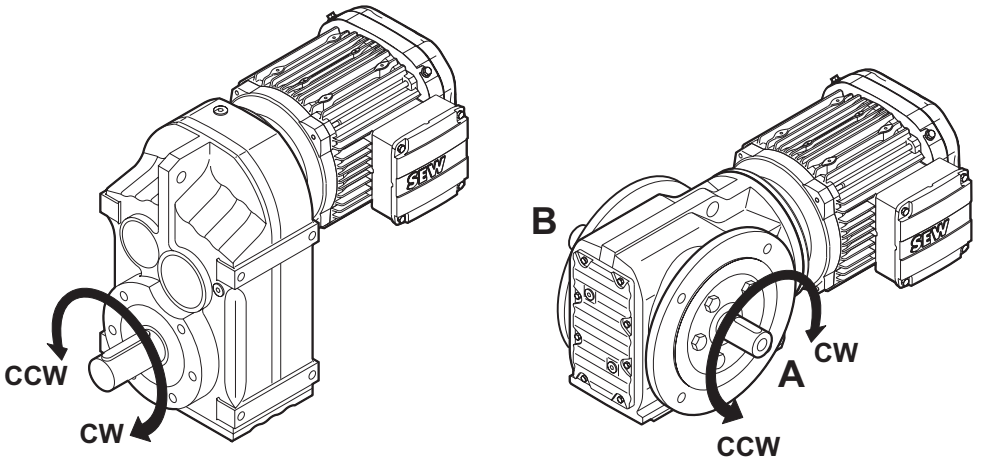
Observe the following notes for all gear units and gearmotors from SEW-EURODRIVE.

Output direction of rotation with backstop

The purpose of a backstop is to prevent unwanted directions of rotation. During operation, the backstop permits rotation only in the specified direction. If the drive has an RS backstop, you have to indicate the direction of rotation of the output for the drive.

The direction of rotation is specified as viewed onto the output shaft (LSS):

- CW rotation
- CCW rotation



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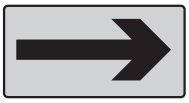
In right-angle gear units, you also have to indicate whether the direction of rotation is given looking onto the A or B-side.

The permitted direction of rotation is indicated by a direction arrow on the housing:



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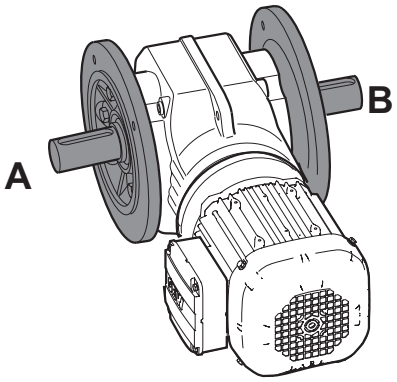
A replacement label is enclosed for the customer.

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

24832936/EN – 09/2018



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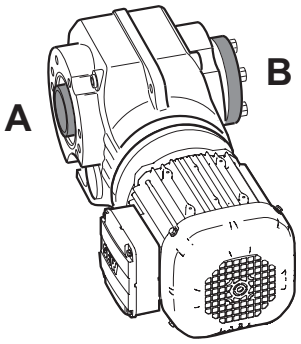
Position of the output end in right-angle gear units

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

In shaft-mounted right-angle gear units, the designation "output side" is equivalent to the designation "position of the output shaft" used for right-angle gear units with solid shaft.



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INFORMATION

For the permitted mounting surfaces (= hatched area), refer to the mounting position sheets (see chapter "Mounting position sheets" (→ 🗎 74)).

5.2.2 Position of motor terminal box and cable entry

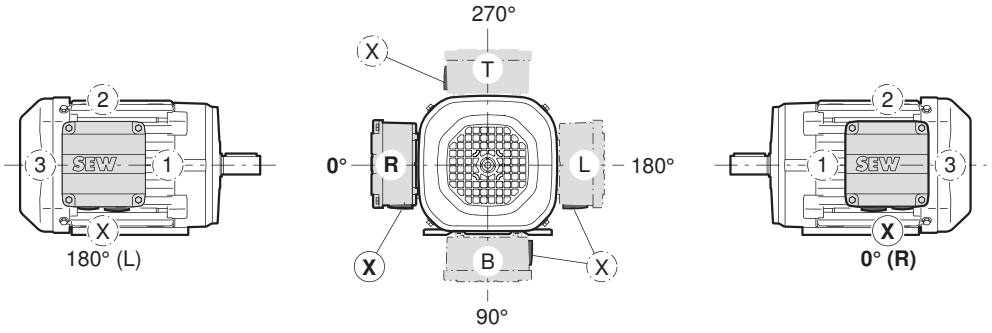
The position of the motor terminal box has so far been indicated with 0°, 90°, 180° or 270° as viewed onto the fan guard (= B-side), see also the following figure. A change in the standard DIN EN 60034 specifies that the following designations will have to be used for terminal box positions for foot-mounted motors in the future:

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

This new designation applies to foot-mounted motors without a gear unit in mounting position B3 (= M1). For gearmotors, the previous designation is maintained. 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.

24832936/EN – 09/2018

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



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Unless indicated otherwise, you will receive the terminal box type 0° with "X" cable entry. SEW-EURODRIVE recommends selecting cable entry "2" with mounting position M3.

INFORMATION

Only cable entries "X" and "2" are possible for DR2S56.. and DRN63.. motors. Exception: This limitation does not apply with IS plug connectors.

INFORMATION

When the **terminal box is in the 90° (B) position**, check to see if 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 any case. 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 are available on the SEW-EURODRIVE website via the respective CAD data.

5.2.3 Sample orders

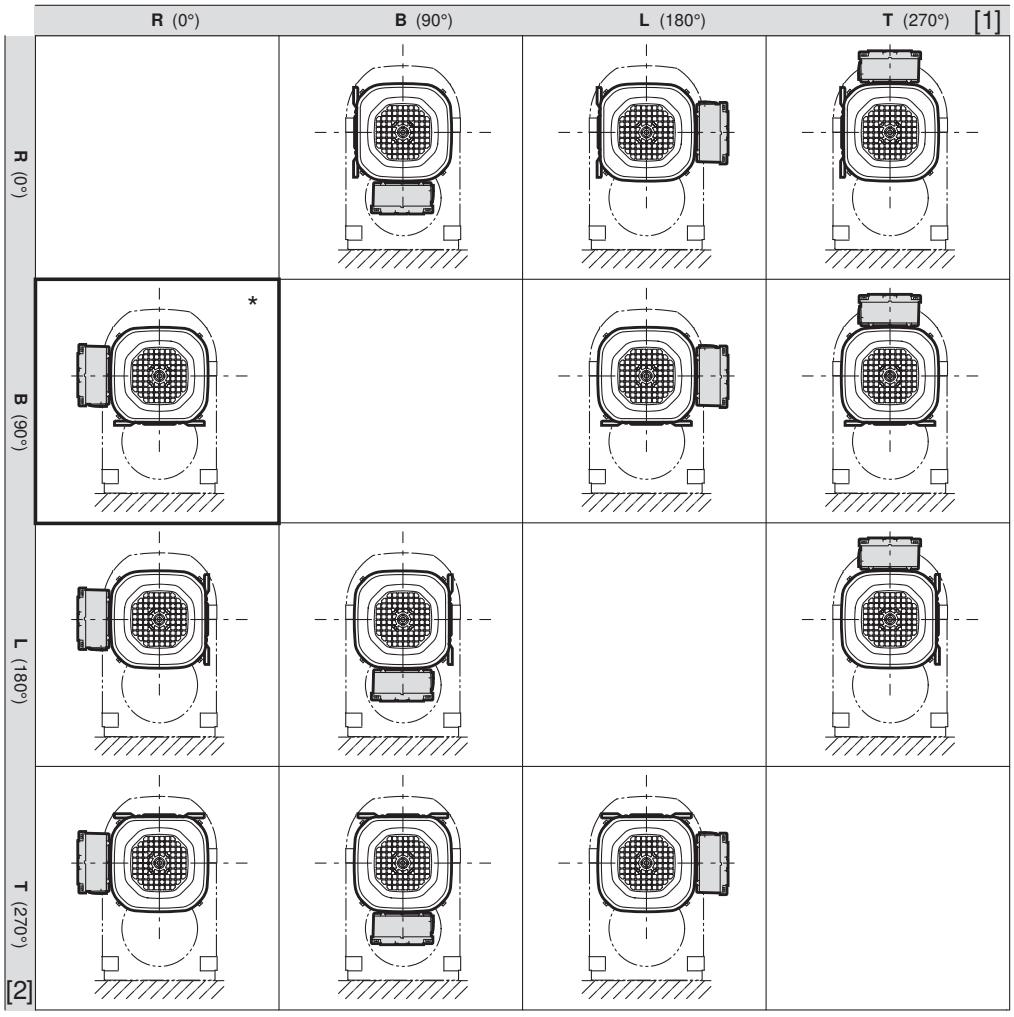
Type (examples)	Mounting position	Shaft position	Flange position	Terminal box position	Cable entry position	Output direction of rotation
K47 DRK71M4/RS	M2	A	-	0°	"X"	CW
SF77 DRS90L4	M6	AB	AB	90°	"3"	-
KA97/II2GD EDRE132M4/2GD	M4	B	-	270°	"2"	-
KH107 DRN160M4	M1	A	-	180°	"3"	-
KAF67AM90	M3	A	B	-	-	-
K47 DRE90MJ4	M2	A	-	0°	"X"	-
R67 DR2S80M4	M1	-	-	90°	"X"	-
KA29/II2GD EDRN90L4/3G	M4	B	-	270°	"2"	-

24832936/EN – 09/2018

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 mounting to gear units. 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.



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[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°).

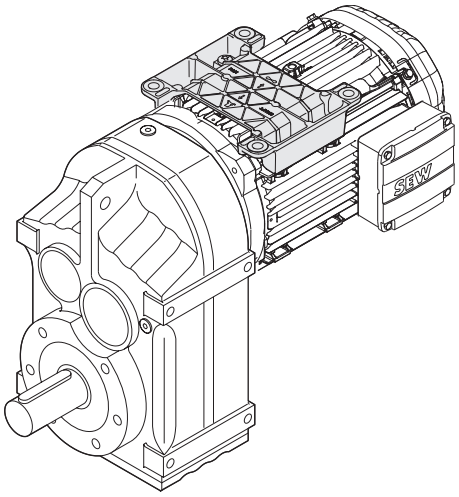
INFORMATION

For motors in size 63 the foot is always positioned at 90° and the terminal box at 270°.

INFORMATION

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

Example: Gearmotor with motor option /FM:



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

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

24832936/EN – 09/2018

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 comply with the assembly specifications.

The motors are only depicted symbolically on the mounting position sheets.

INFORMATION

For gear units with solid shaft: The displayed shaft is always on the A end.

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

INFORMATION

SPRIOPLAN® gearmotors are not dependent on the mounting position, except for W..37 and W..47 gearmotors in mounting position M4. However, mounting positions M1 to M6 are also shown for SPIROPLAN® gearmotors to assist you in working with this documentation.

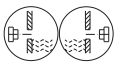
INFORMATION

SPIROPLAN® gearmotors W..10 to W..30 cannot be equipped with breather valves, oil level plugs or drain plugs.

SPIROPLAN® gearmotors W..37 and W..47 are equipped with breather valves in mounting position M4 and with oil drain plugs in mounting position M2.

5.3.1 Symbols used

The following table shows the icons used in the mounting position sheets.

Icon	Meaning
	Breather valve
	Oil level plug [1)]
	Oil drain plug

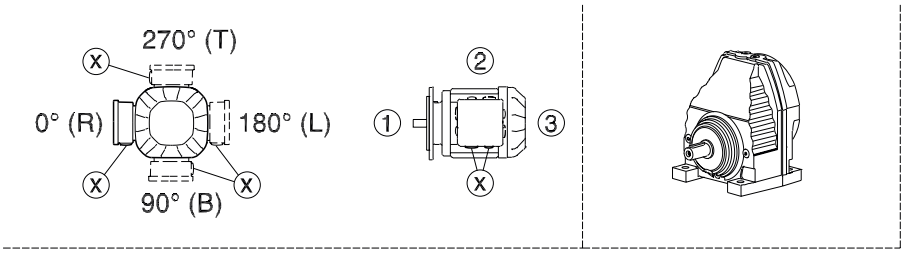
1) Does not apply to the 1st gear unit (large gear unit) of compound gear units. See chapter "Position of the oil level plug of compound gear units".

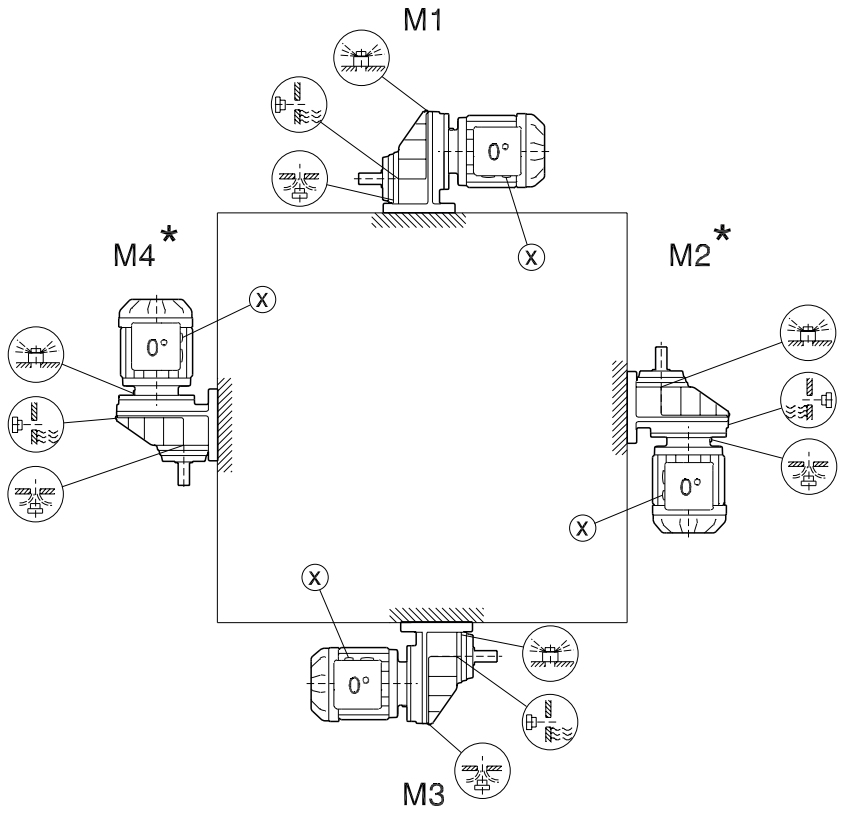
24832936/EN – 09/2018

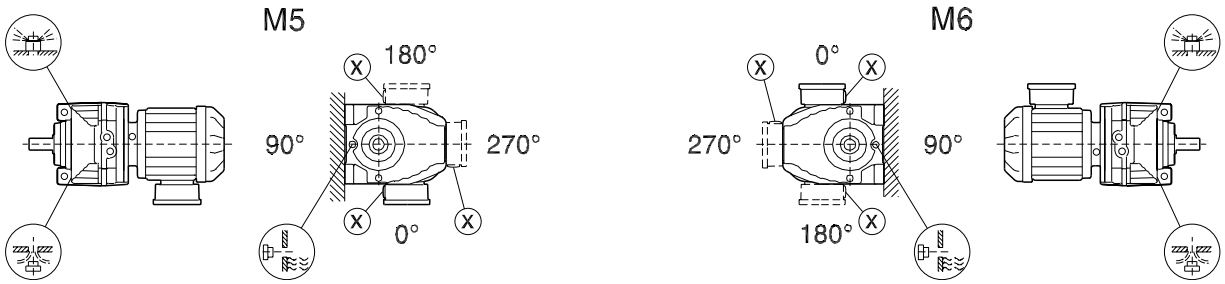
5.4 Mounting position sheets

5.4.1 Mounting positions of helical gearmotors

RX57-RX107





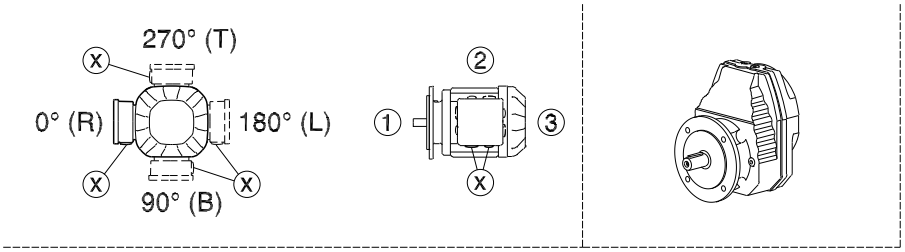


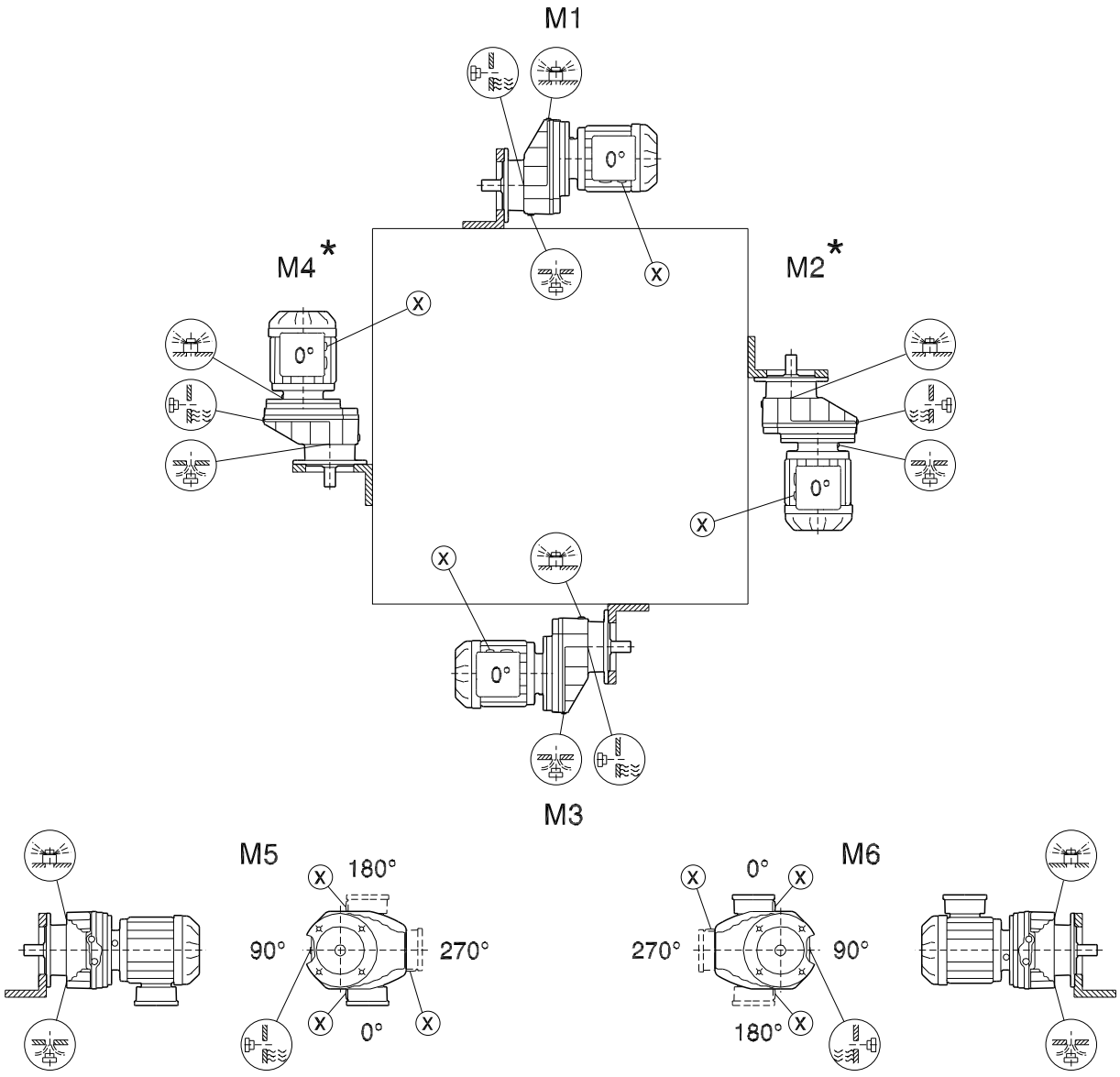
* (→ 🗎 49)

24832936/EN – 09/2018

RXF57-RXF107

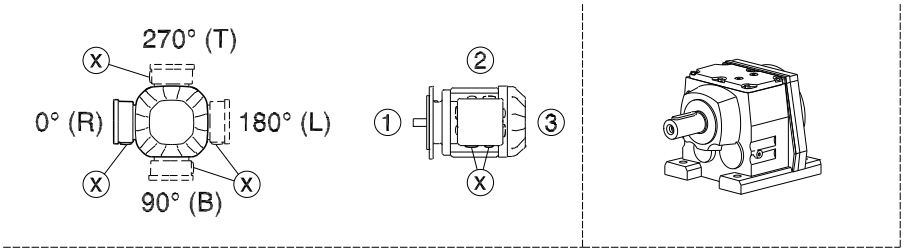
04 044 03 00



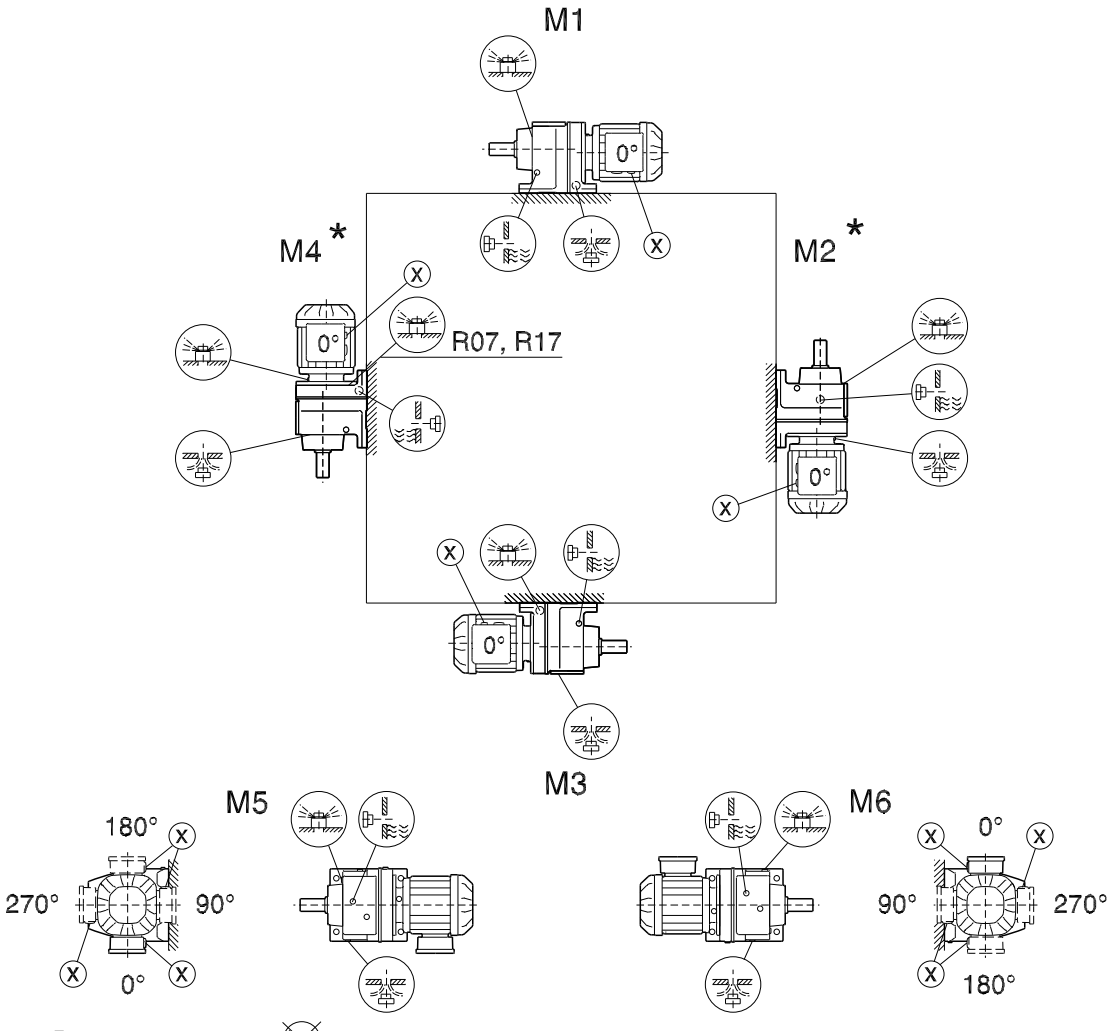


* (→ 49)

R07-R167



04 040 04 00



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

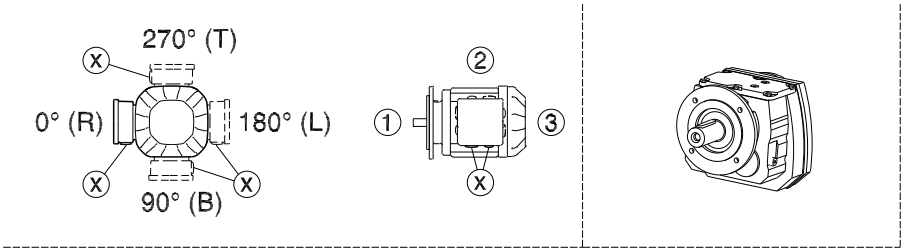
* (→ 🗎 49)

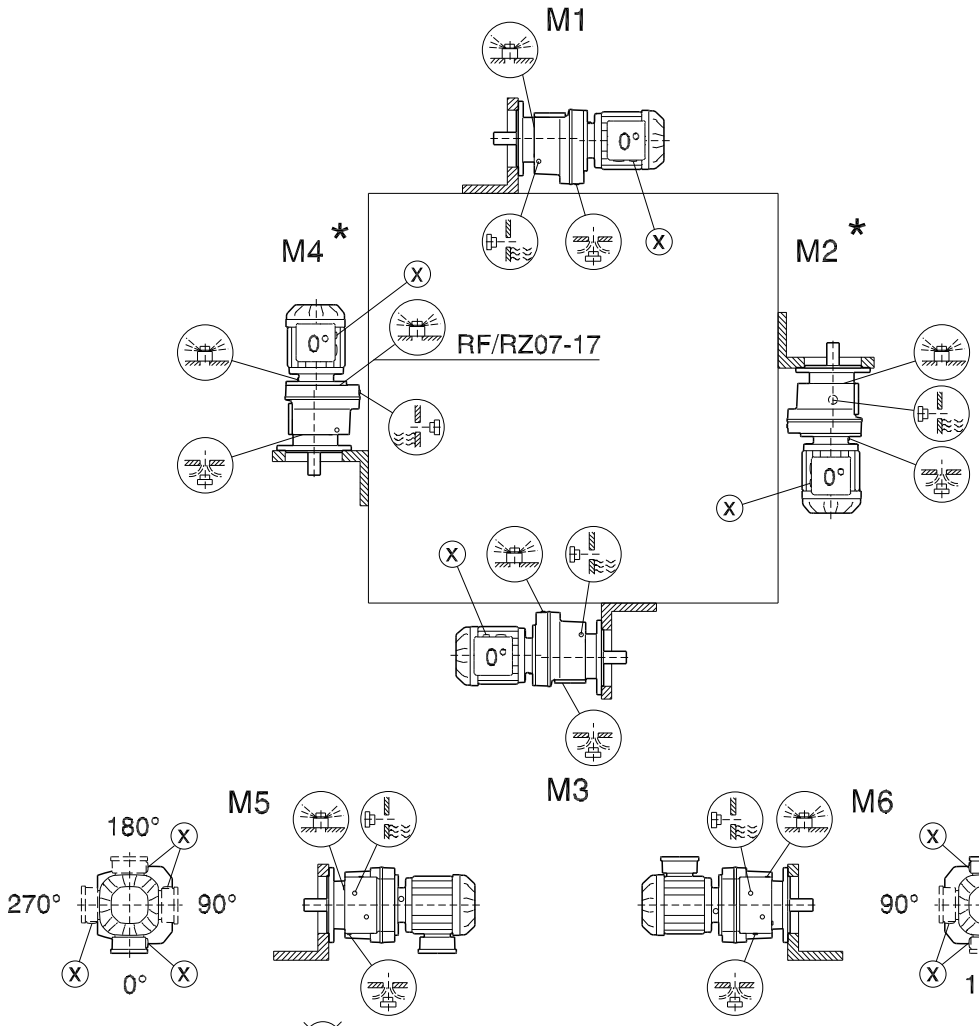
Observe the information in chapter "Overhand and axial loads of R, F, K, S, and W gear units" (→ 🗎 55).

24832936/EN – 09/2018

RF07-RF167, RZ07-RZ87

04 041 04 00

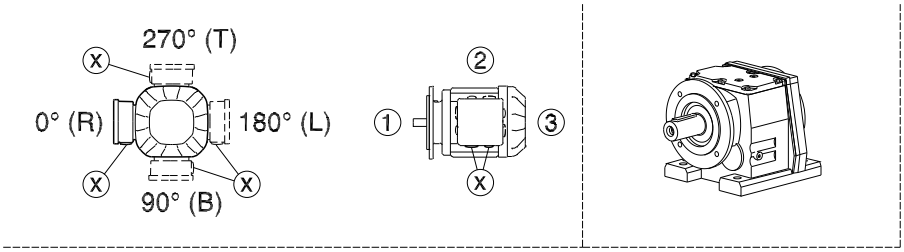




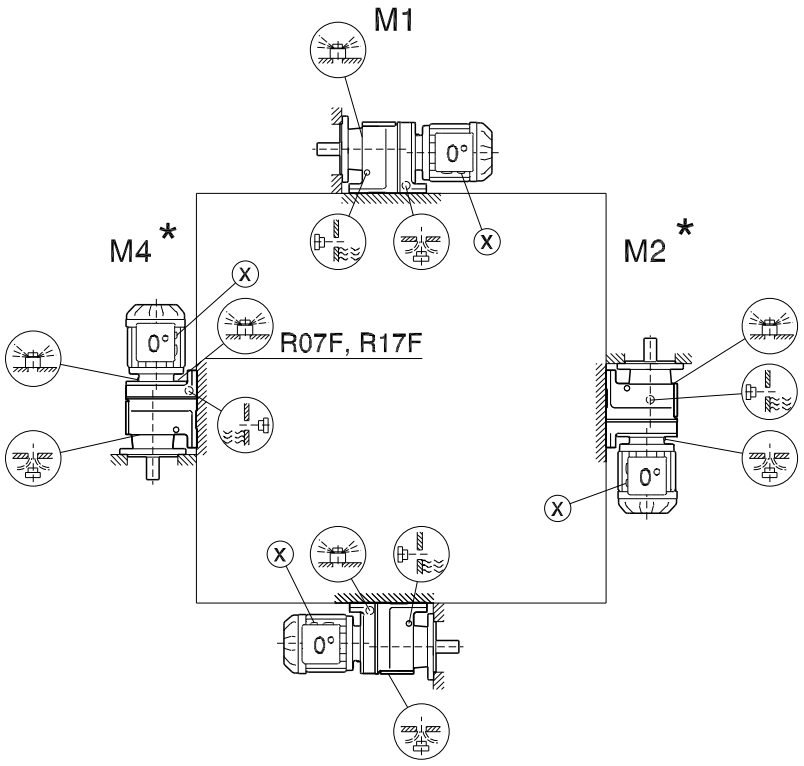
RF/RZ07	⊘	M1, M2, M3, M5, M6
RF/RZ17, 27	⊘	M1, M3, M5, M6
RF/RZ07, 17, 27	⊘ ⊘	
RF/RZ47, 57	⊘	M5

* (→ 🗎 49)

R07F-R87F



04 042 04 00



R07F	M1, M2, M3, M5, M6
R17F, R27F	M1, M3, M5, M6
R07F, R17F, R27F	
R47F, R57F	M5

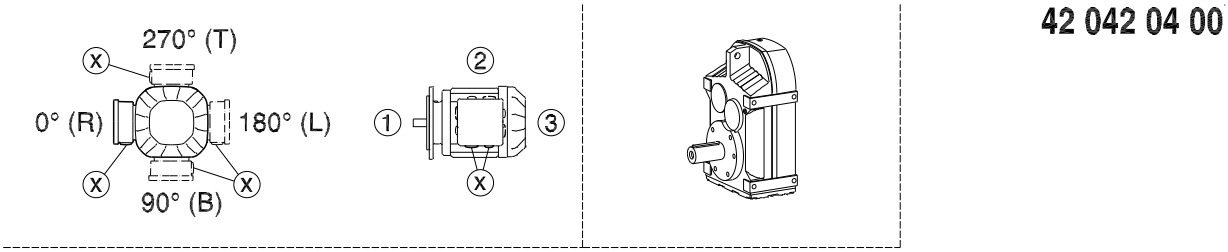
* (→ 🗎 49)

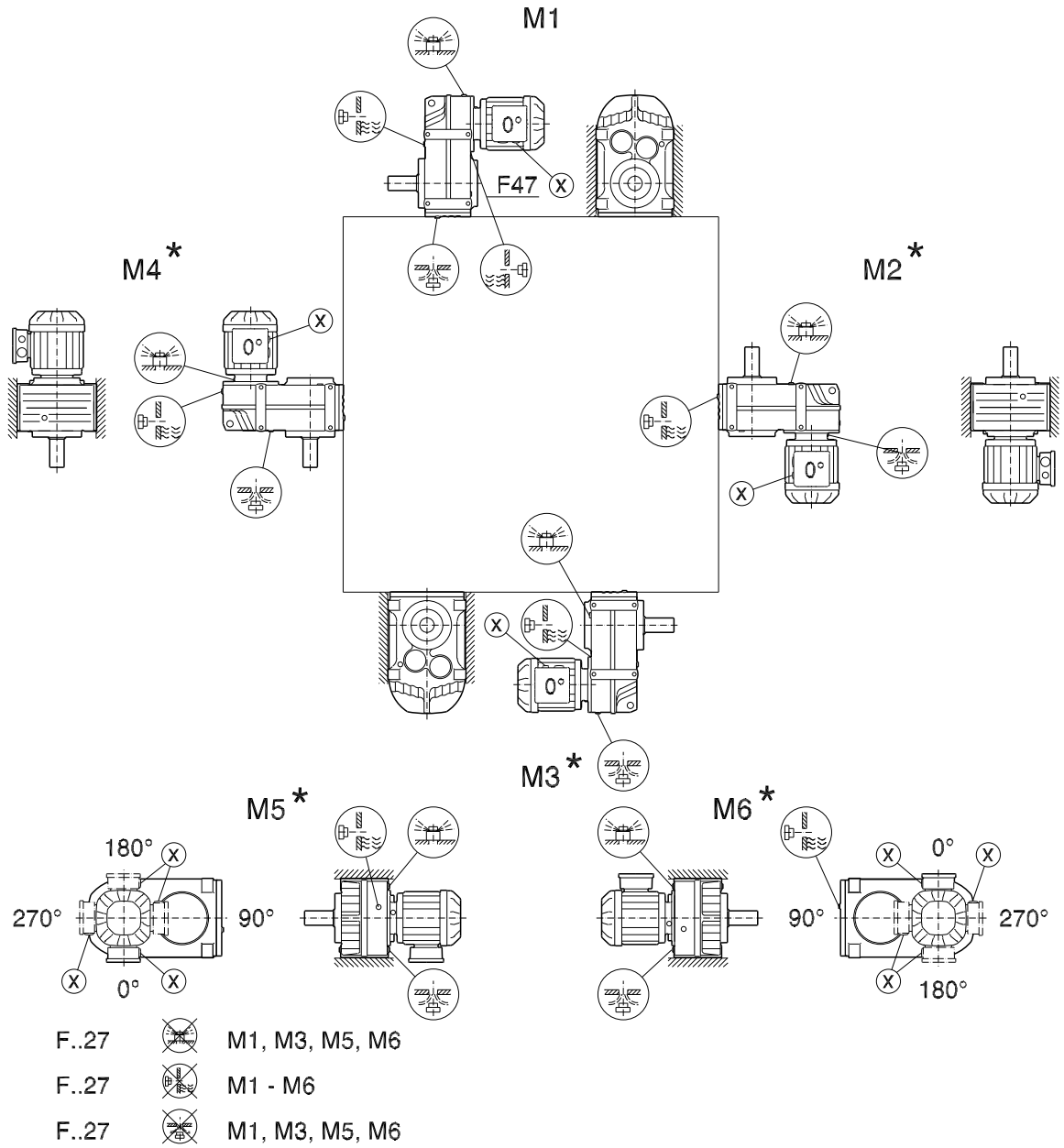
Observe the information in chapter "Overhand and axial loads of R, F, K, S, and W gear units" (→ 🗎 55).

24832936/EN – 09/2018

5.4.2 Mounting positions of parallel-shaft helical gearmotors

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



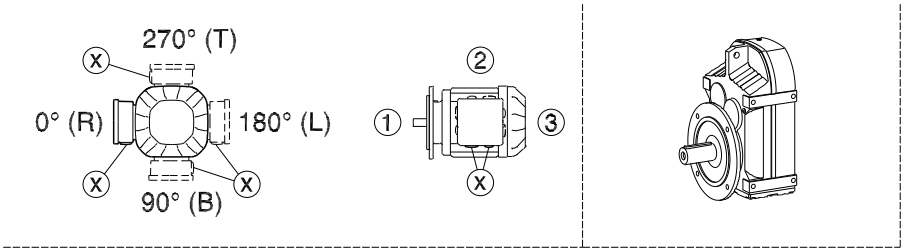


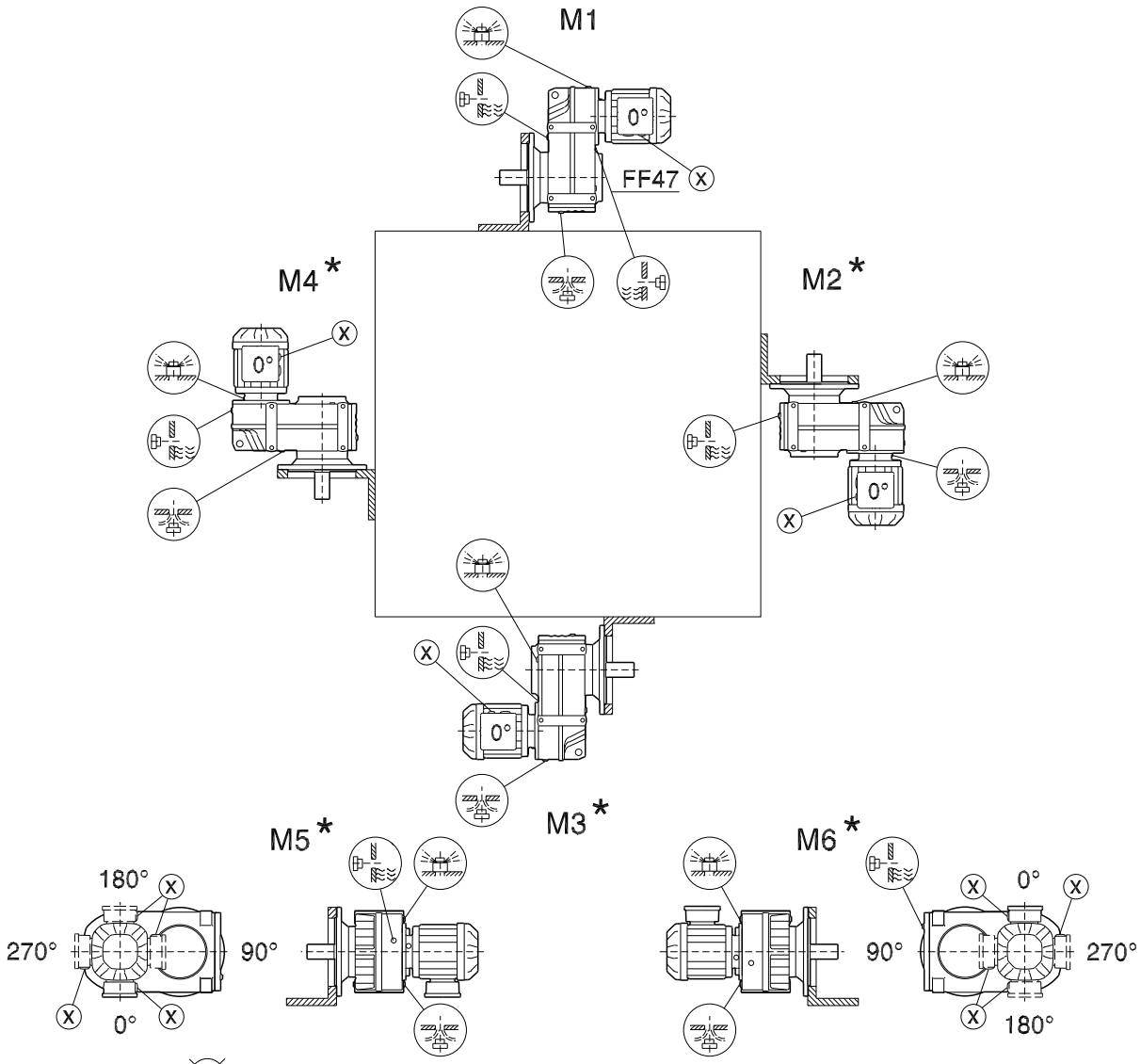
F..27		M1, M3, M5, M6
F..27		M1 - M6
F..27		M1, M3, M5, M6

* (→ 🗎 49)

FF/FAF/FHF/FZ/FAZ/FHZ27-157, FVF/FVZ27-107, FM/FAM67-157

42 043 04 00





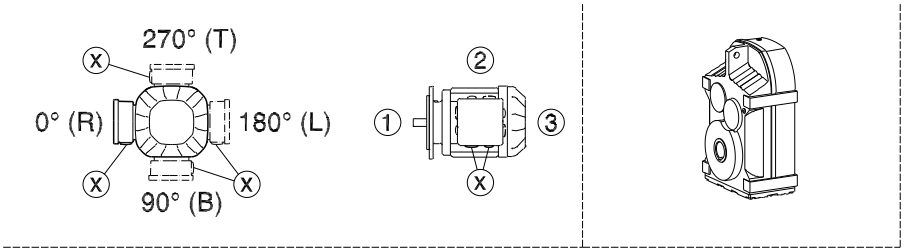
F..27		M1, M3, M5, M6
F..27		M1 - M6
F..27		M1, M3, M5, M6

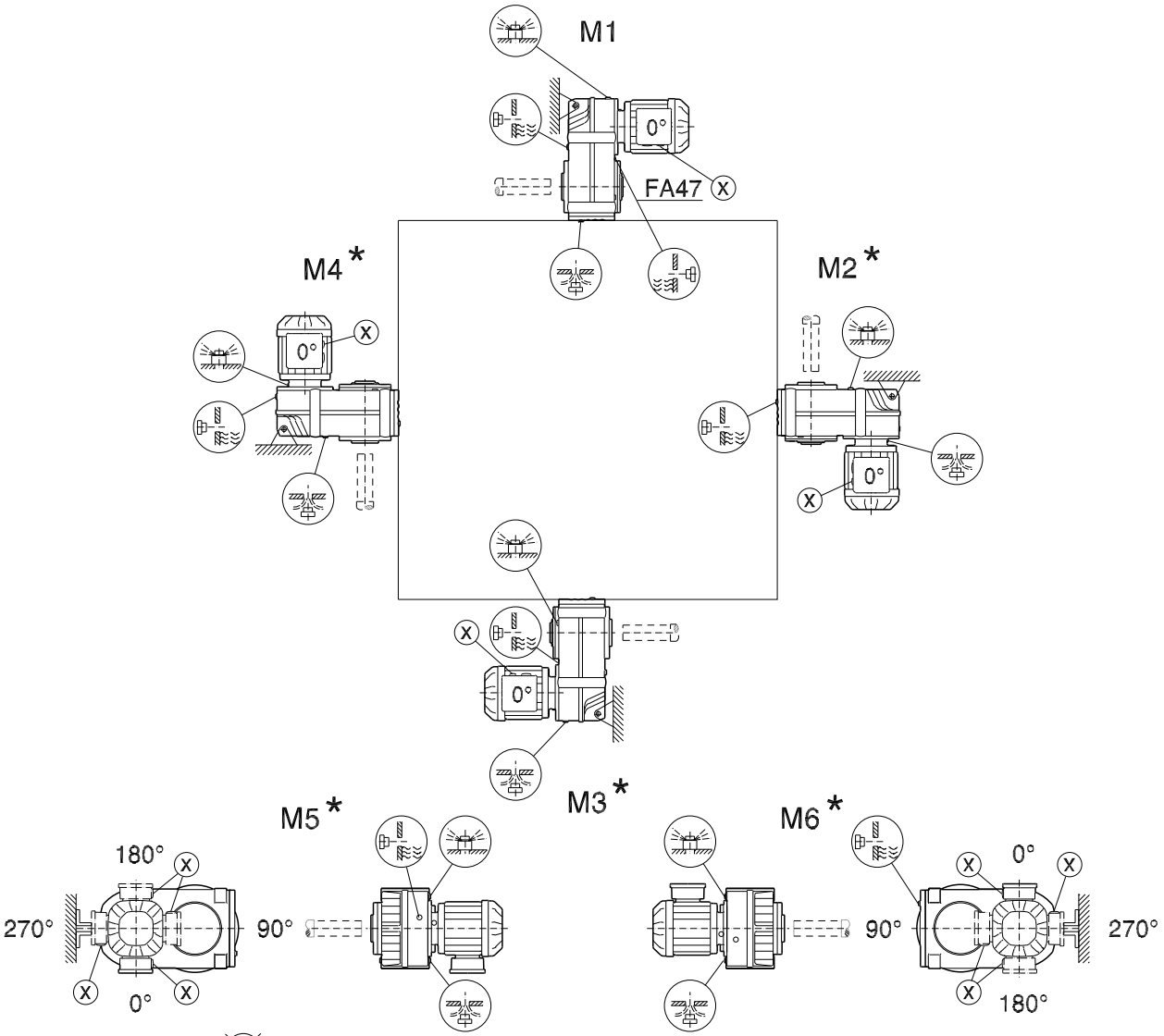
* (→ 🗎 49)

24832936/EN – 09/2018

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

42 044 04 00





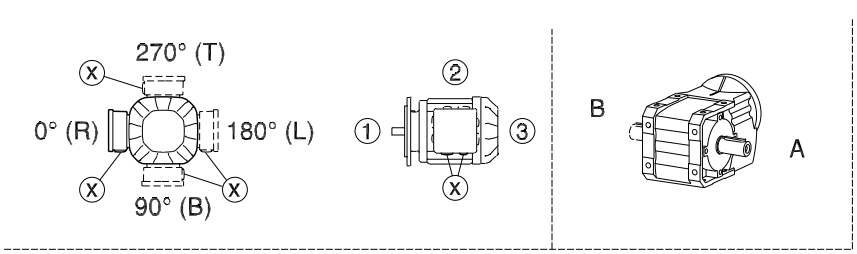
F..27		M1, M3, M5, M6
F..27		M1 - M6
F..27		M1, M3, M5, M6

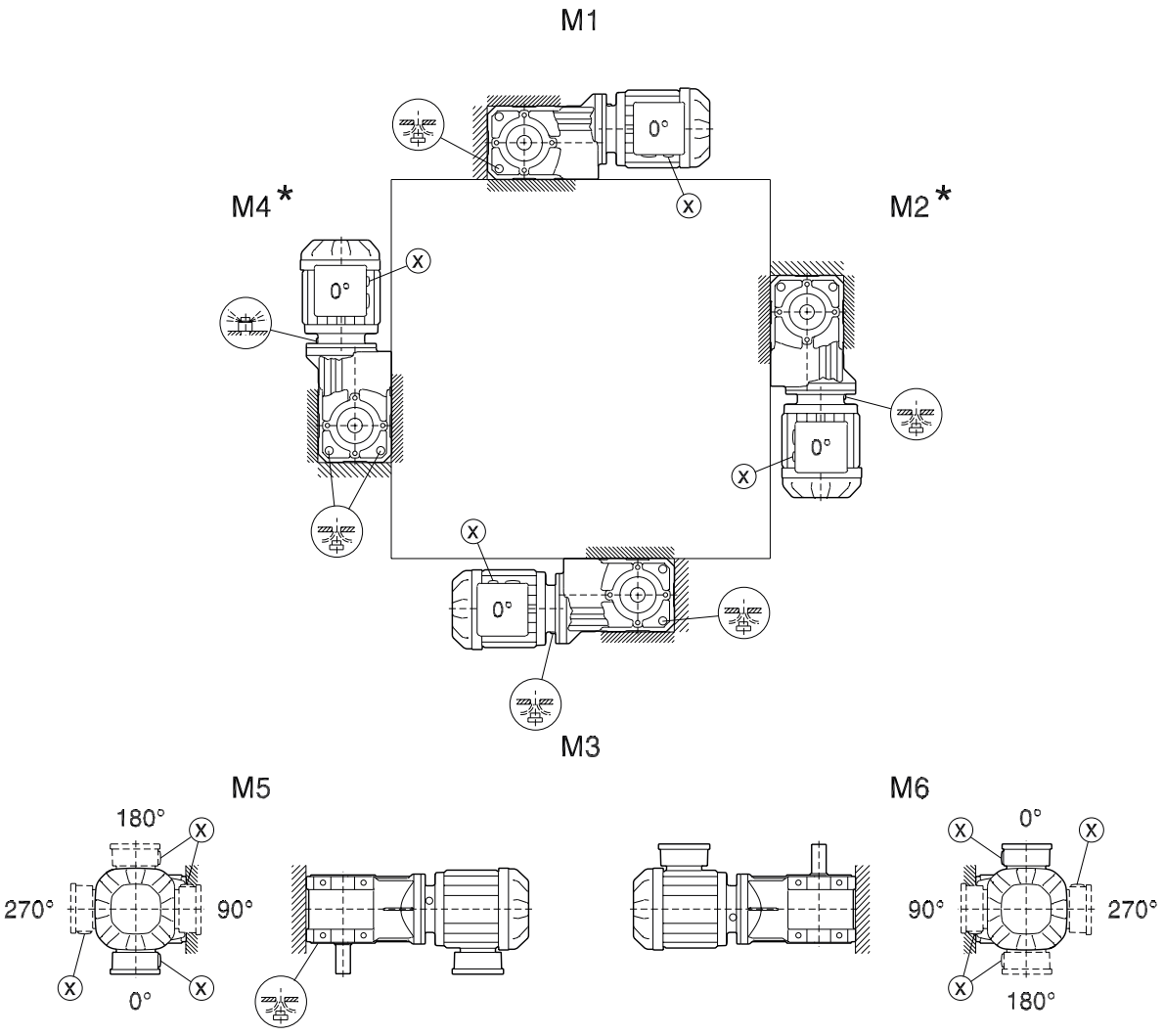
* (→ 🗎 49)

24832936/EN – 09/2018

5.4.3 Mounting positions of helical-bevel gearmotors

K/KA..B/KH19B-29B



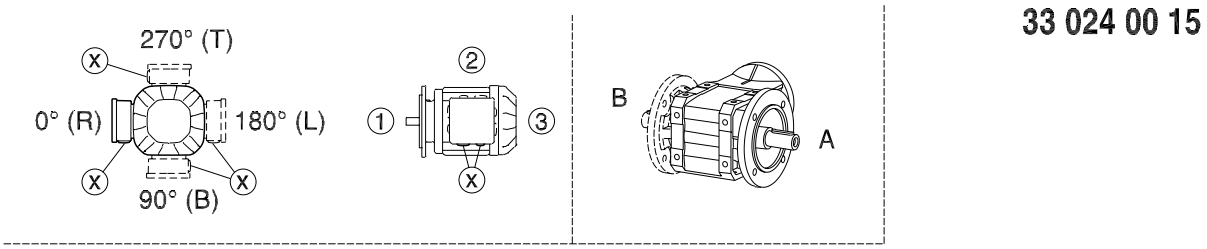


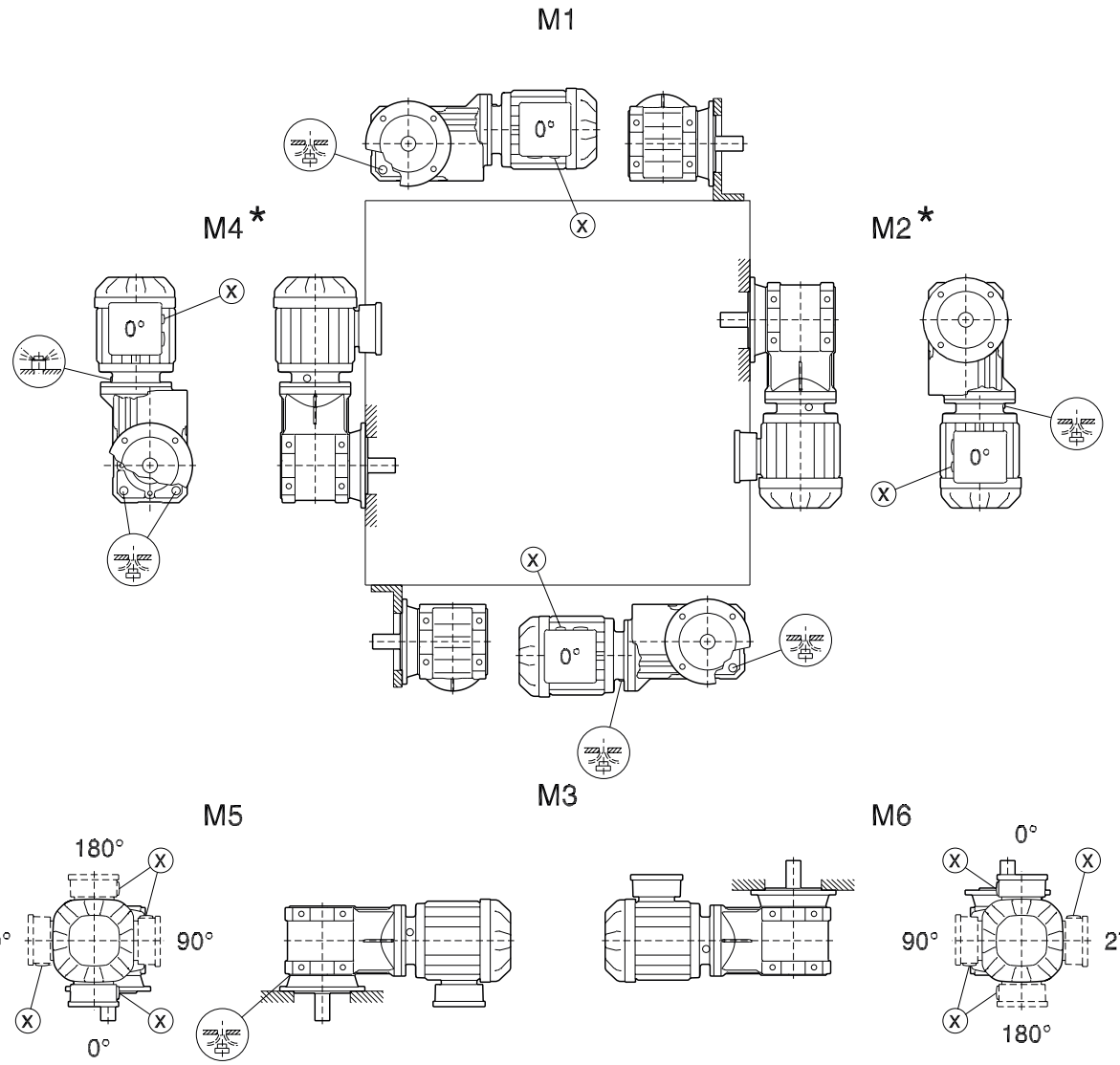
* (→ 🗎 49)

Observe the information in chapter "Overhand and axial loads of R, F, K, S, and W gear units" (→ 🗎 55).

24832936/EN – 09/2018

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



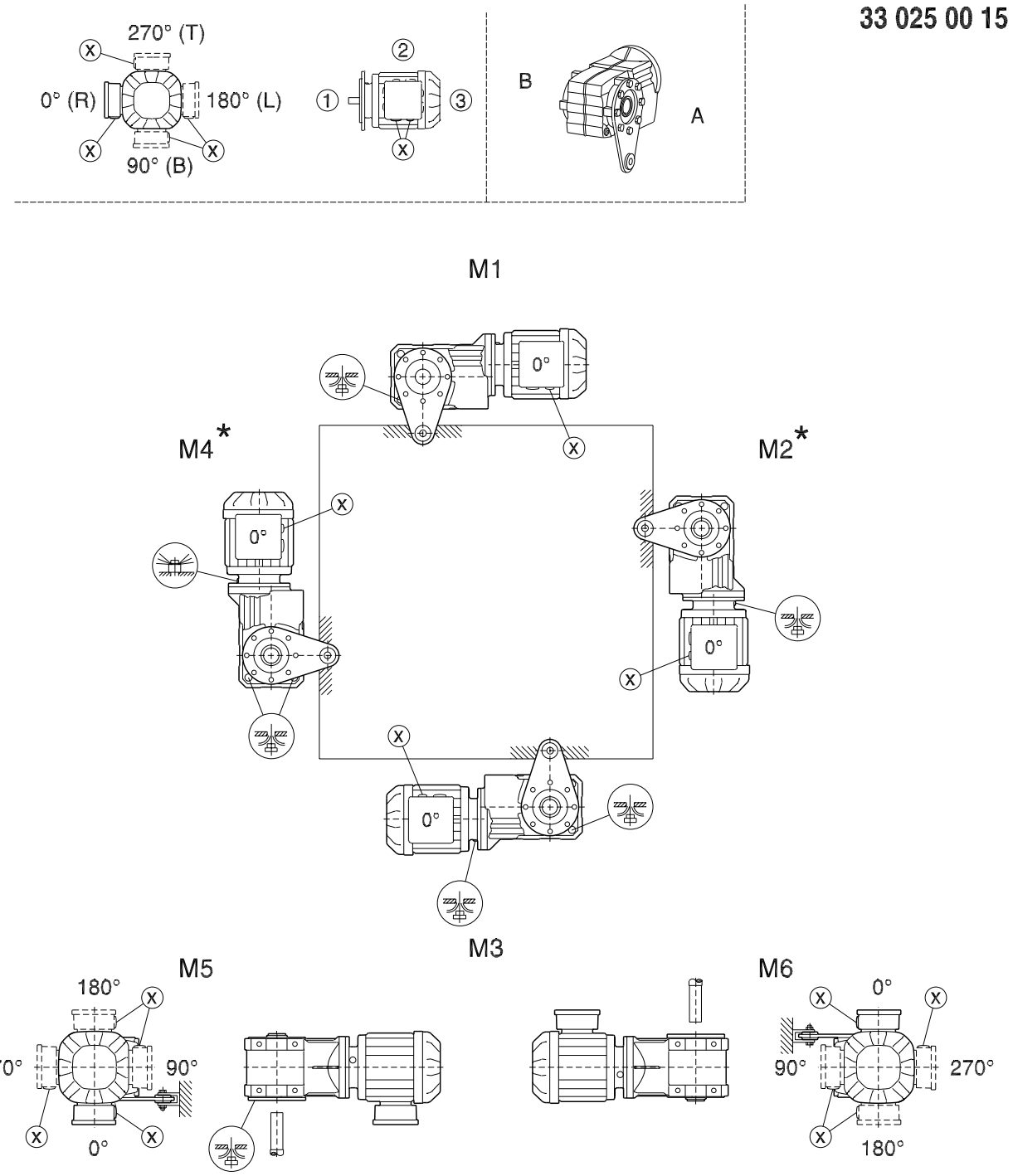


* (→ 🗎 49)

Observe the information in chapter "Overhand and axial loads of R, F, K, S, and W gear units" (→ 🗎 55).

24832936/EN – 09/2018

KA..B/KH19B-29B

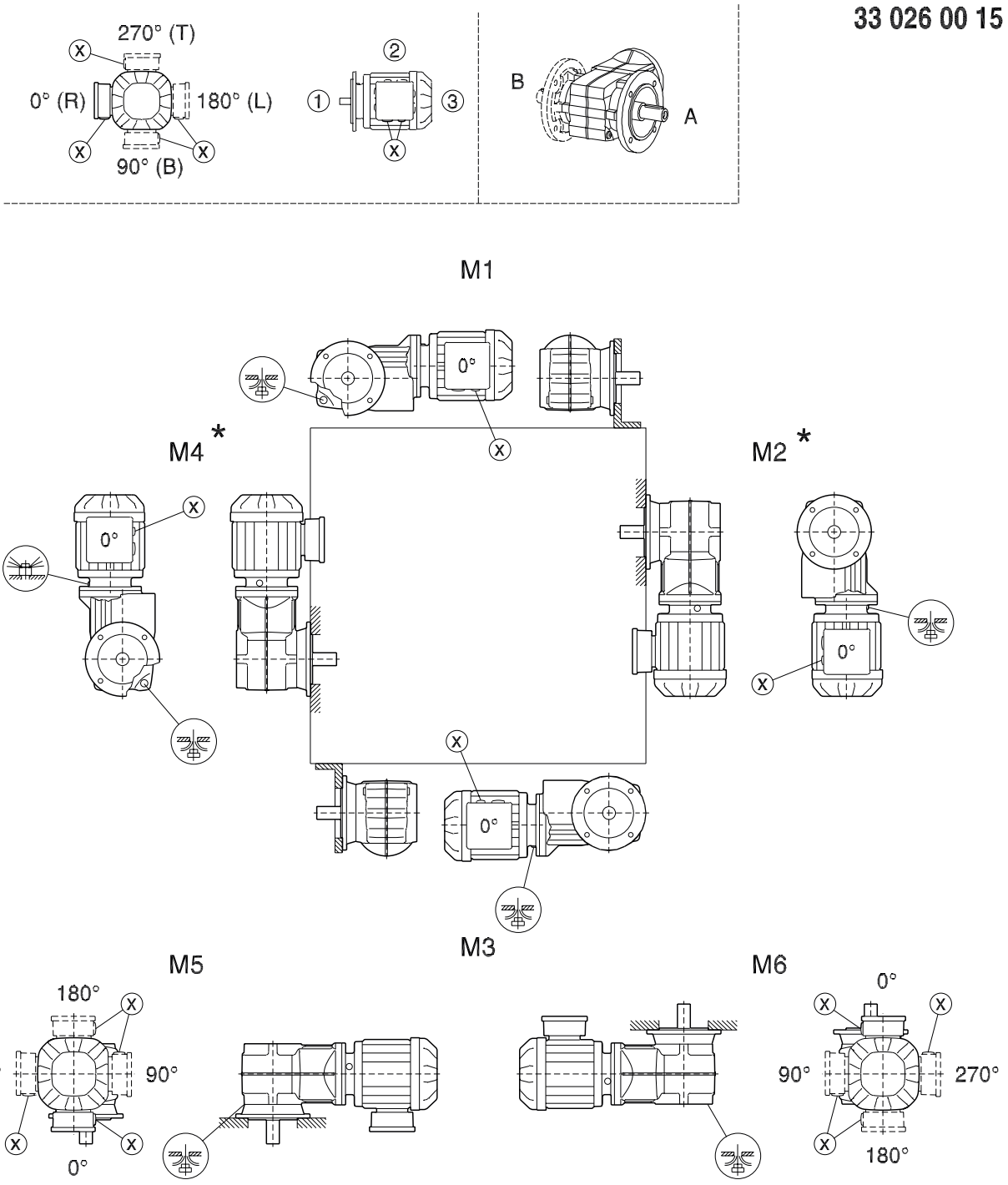


* (→ 🗎 49)

Observe the information in chapter "Overhand and axial loads of R, F, K, S, and W gear units" (→ 🗎 55).

24832936/EN – 09/2018

KF/KAF/KHF19-29

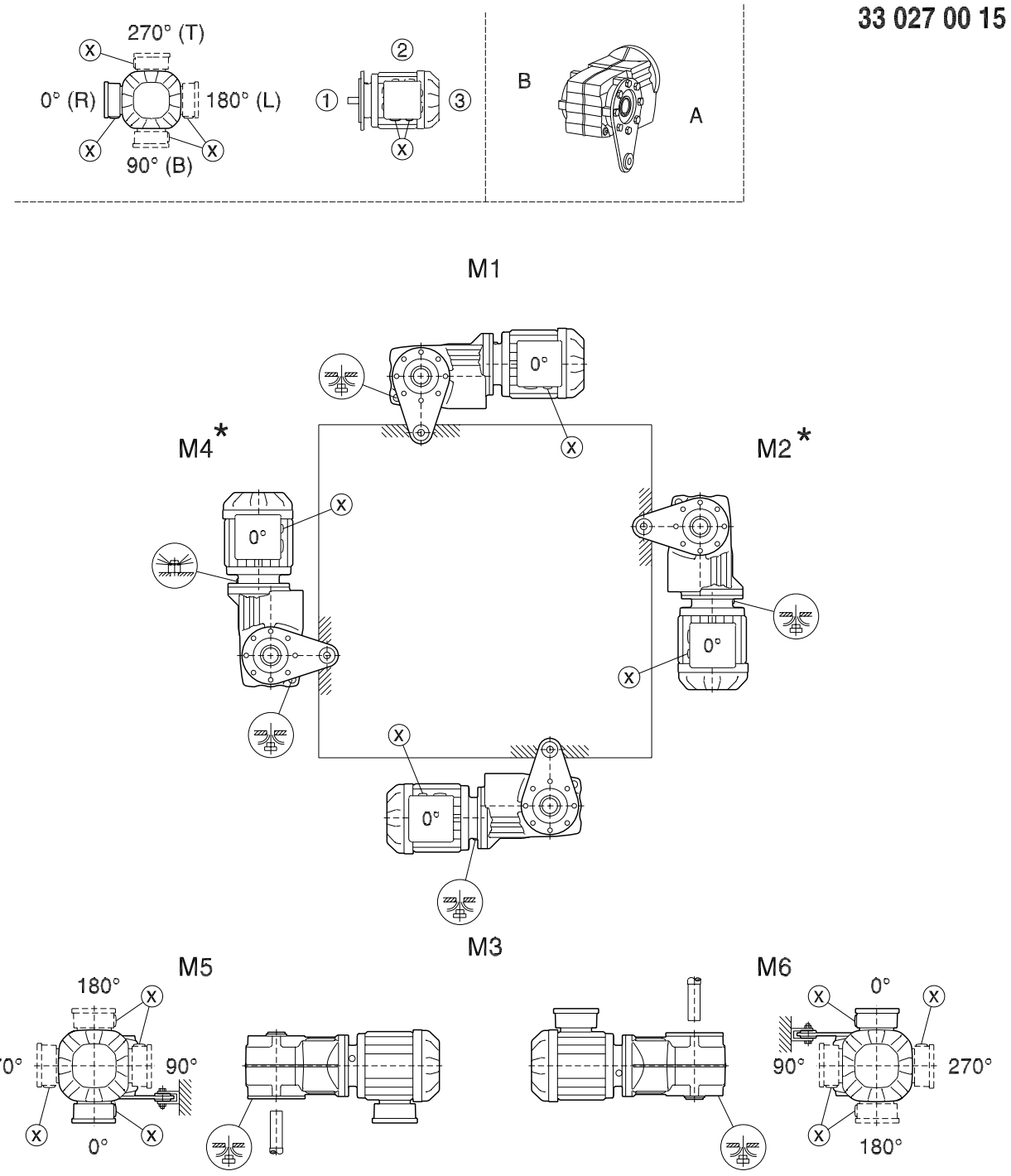


* (→ 🗎 49)

Observe the information in chapter "Overhand and axial loads of R, F, K, S, and W gear units" (→ 🗎 55).

24832936/EN – 09/2018

KA/KH19-29

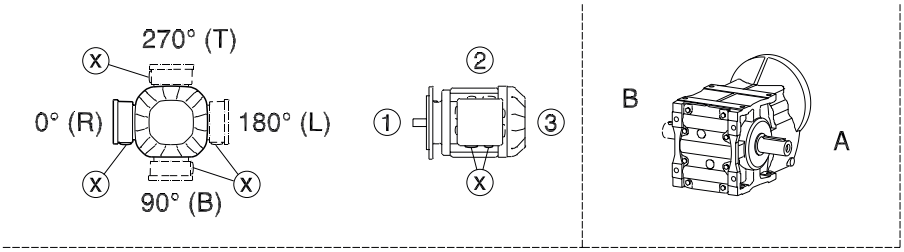


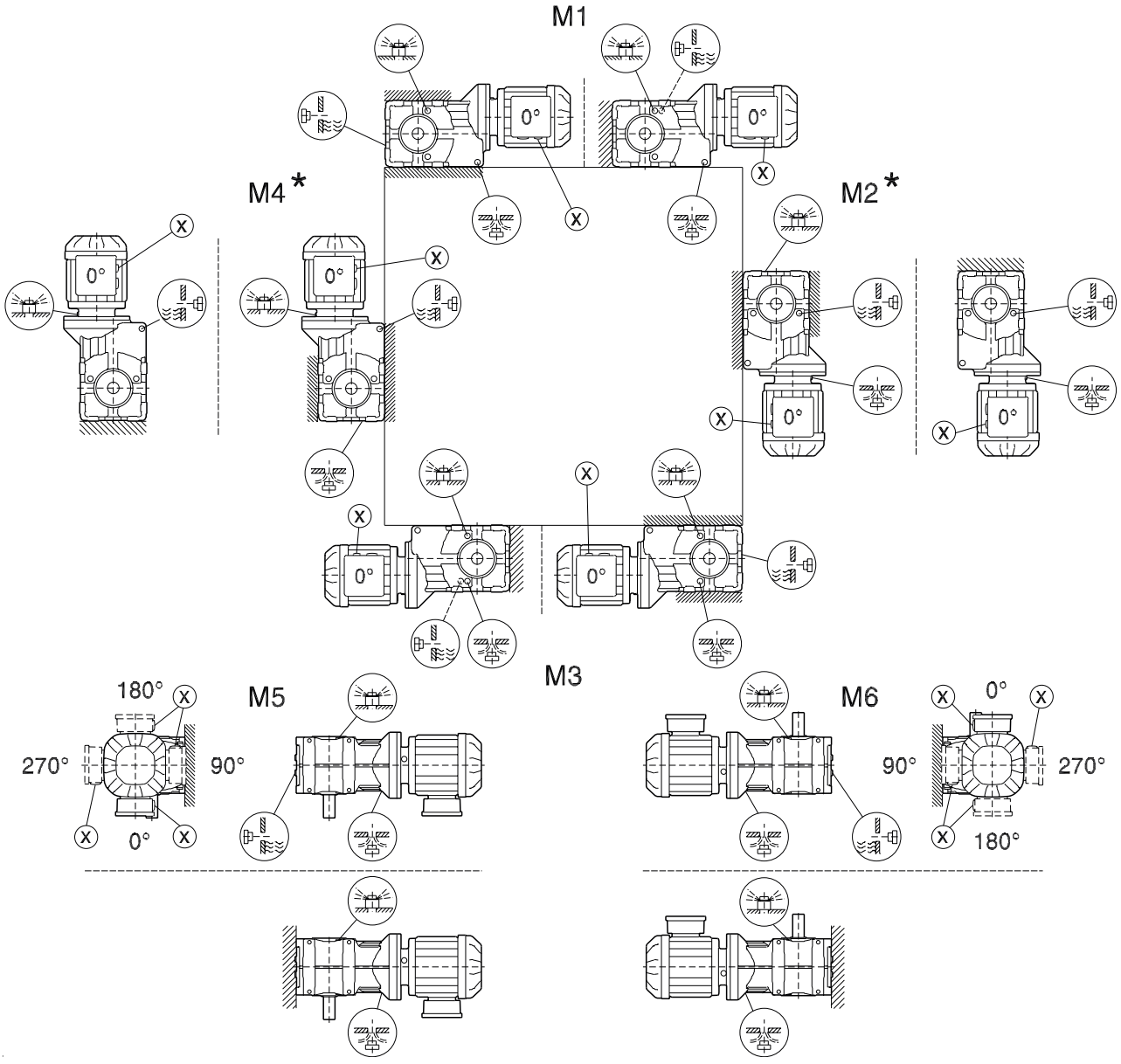
* (→ 🗎 49)

24832936/EN – 09/2018

K/KA..B39-49

33 092 02 14



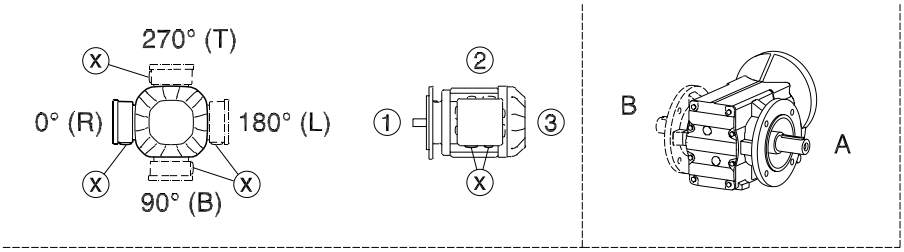


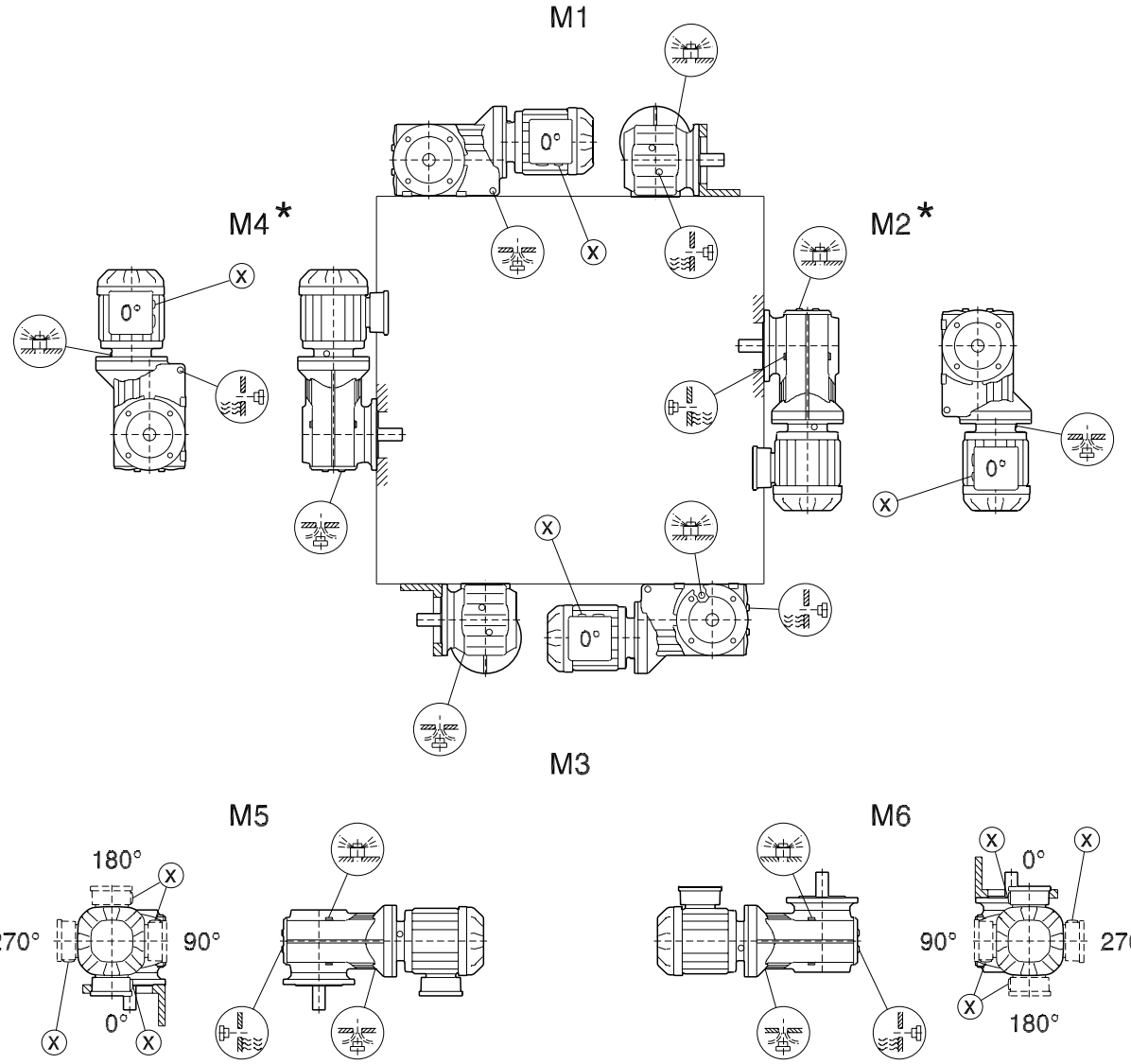
* (→ 49)

24832936/EN – 09/2018

KF/KAF/KHF39-49

33 093 01 14



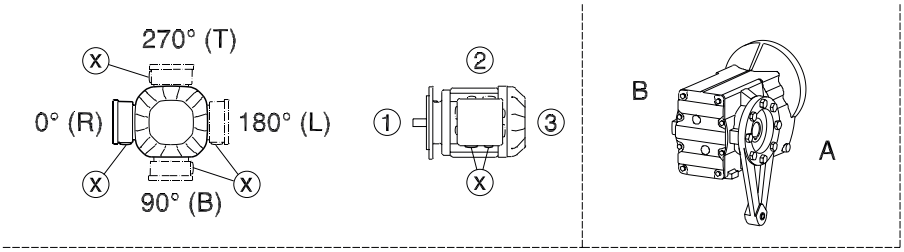


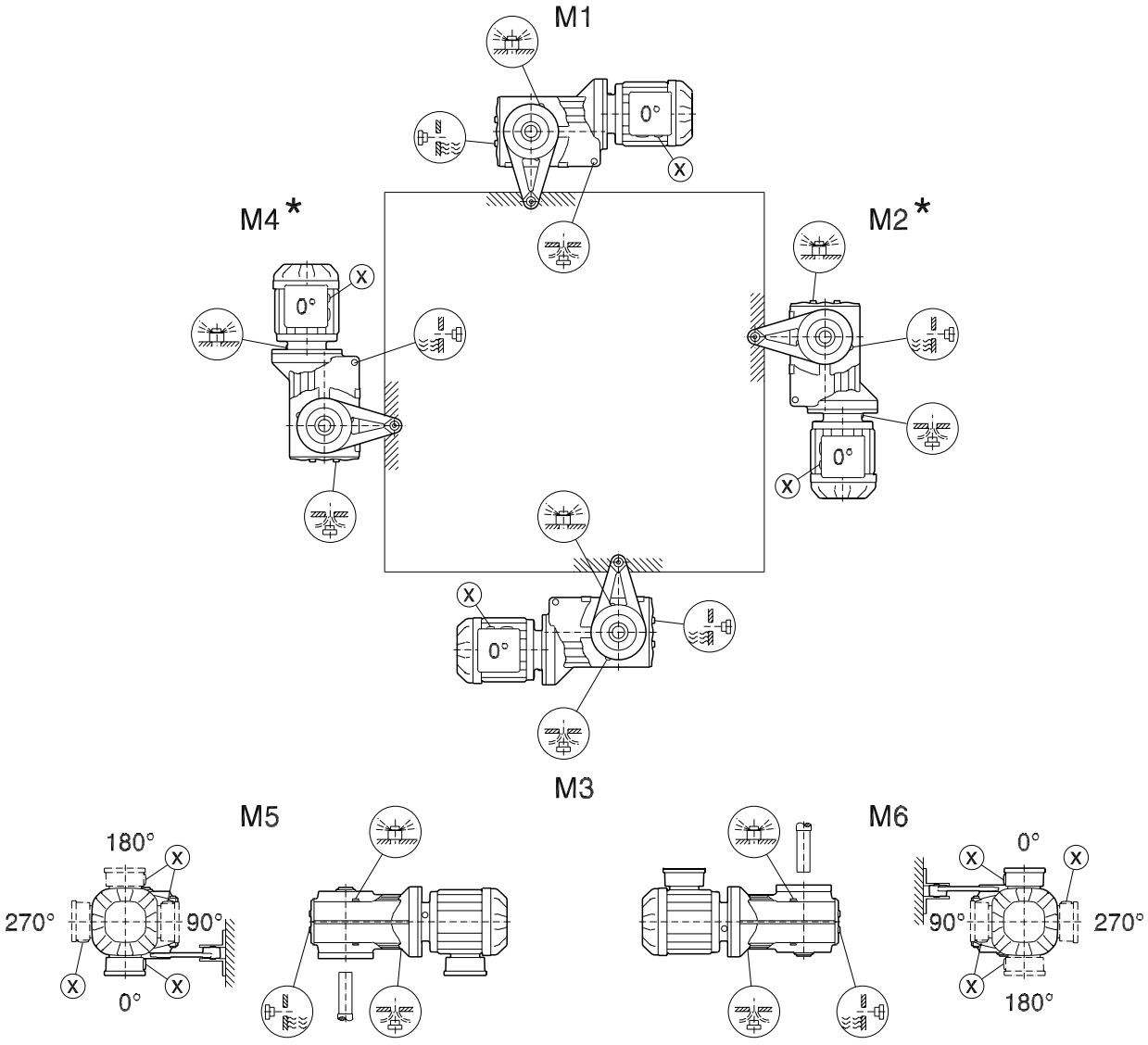
* (→ 🗎 49)

24832936/EN – 09/2018

KA/KH/KT39-49

33 094 01 14



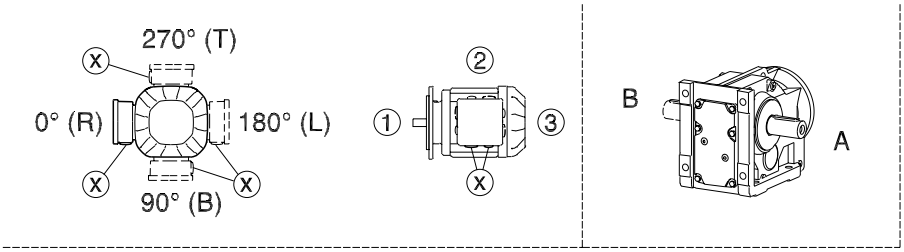


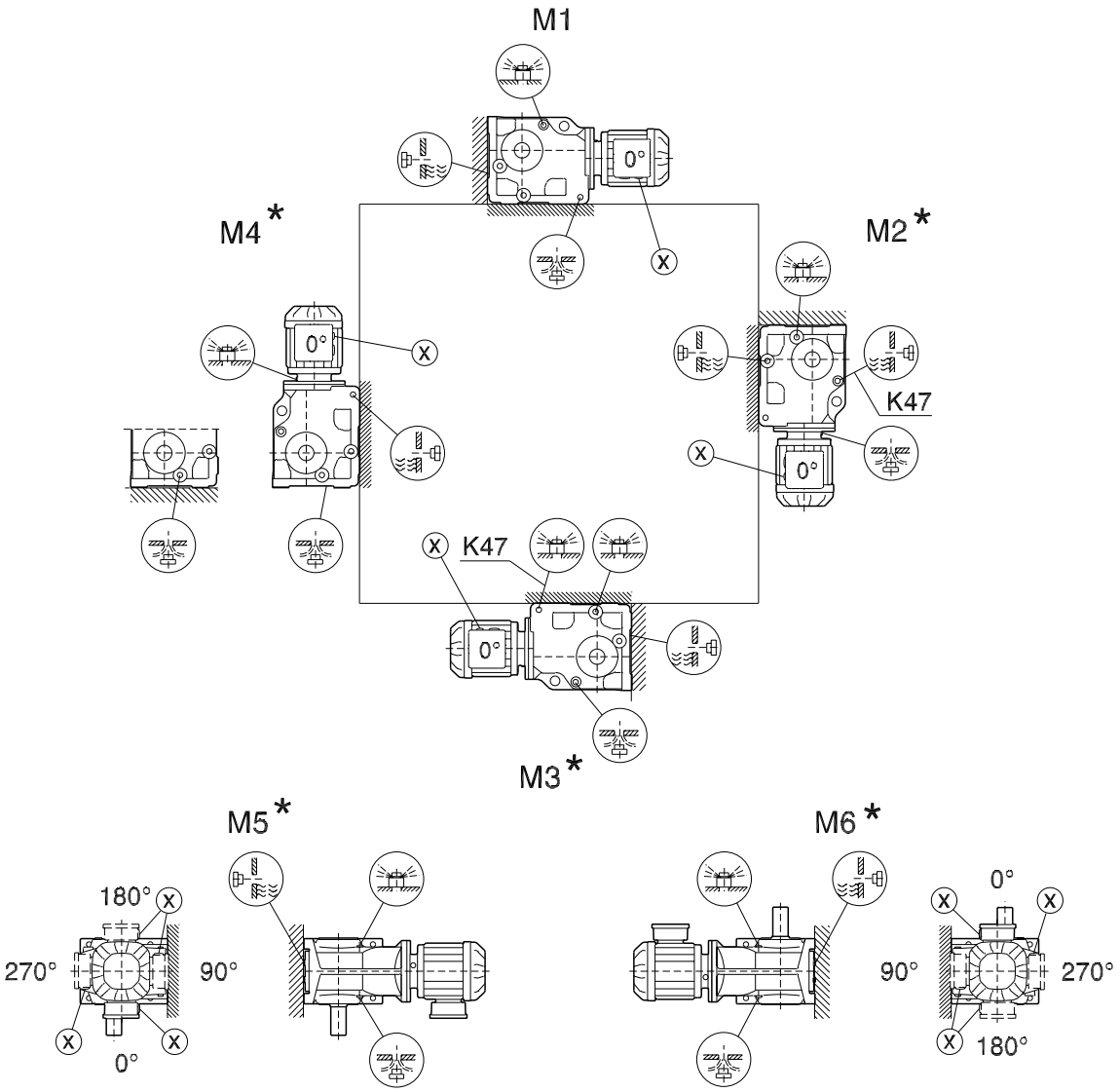
* (→ 🗎 49)

24832936/EN – 09/2018

K/KA..B/KH47B-157B, KV47B-107B

34 025 05 00





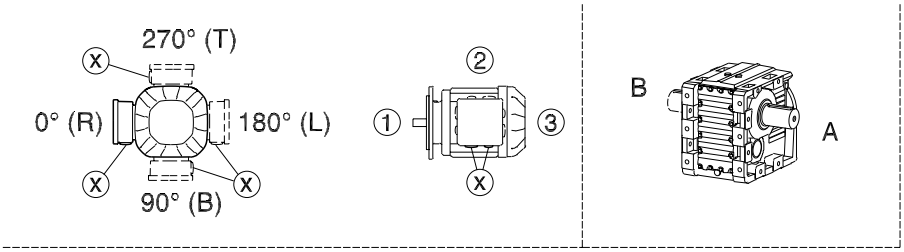
* (→ 🗎 49)

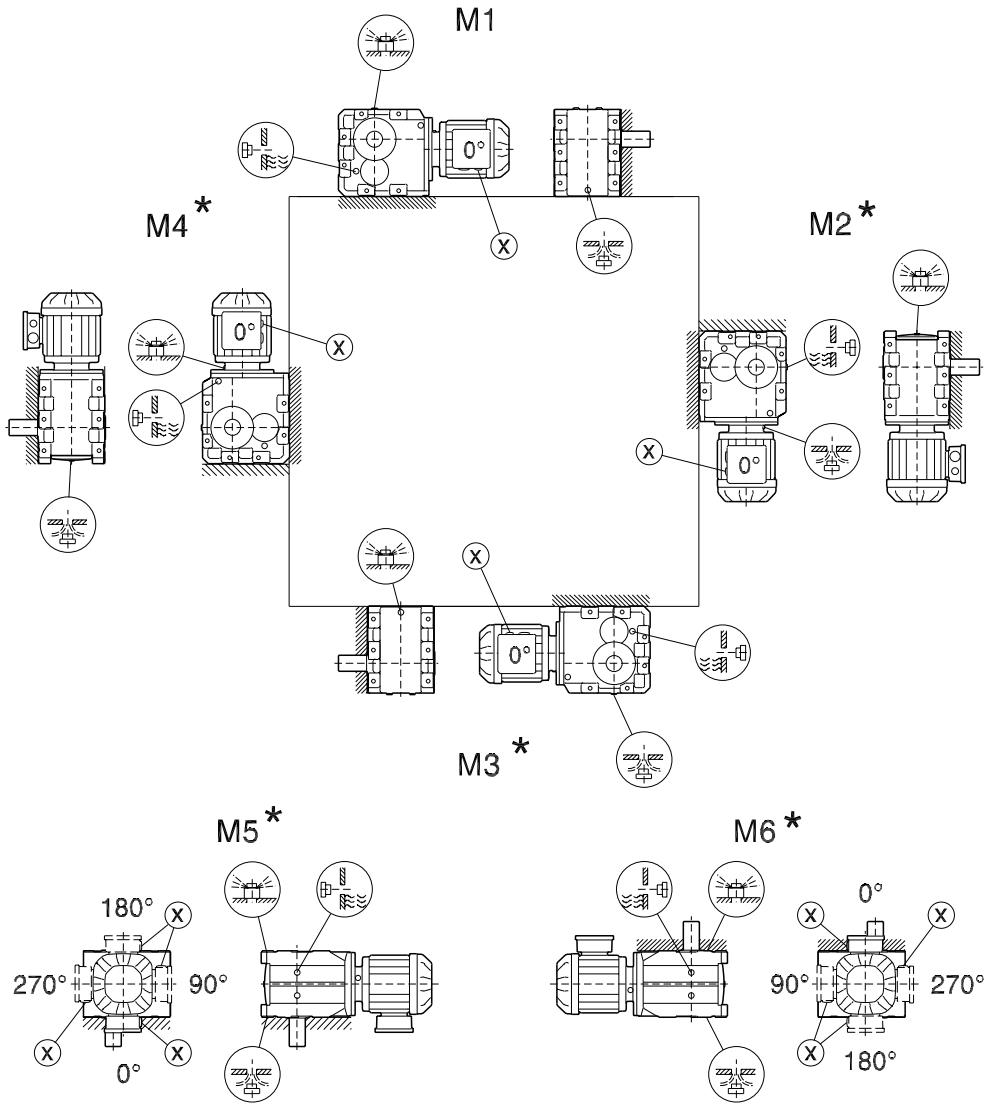
Observe the information in chapter "Overhand and axial loads of R, F, K, S, and W gear units" (→ 🗎 55).

24832936/EN – 09/2018

K167-187, KH167B-187B

34 026 05 00



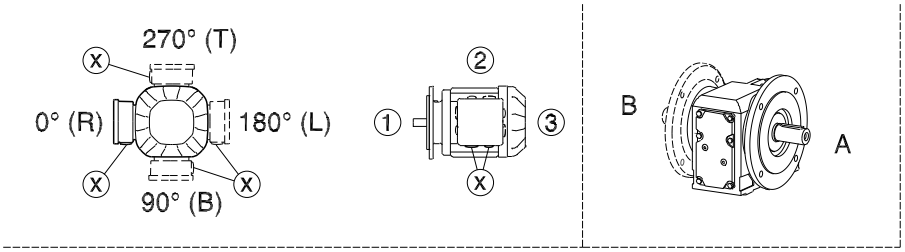


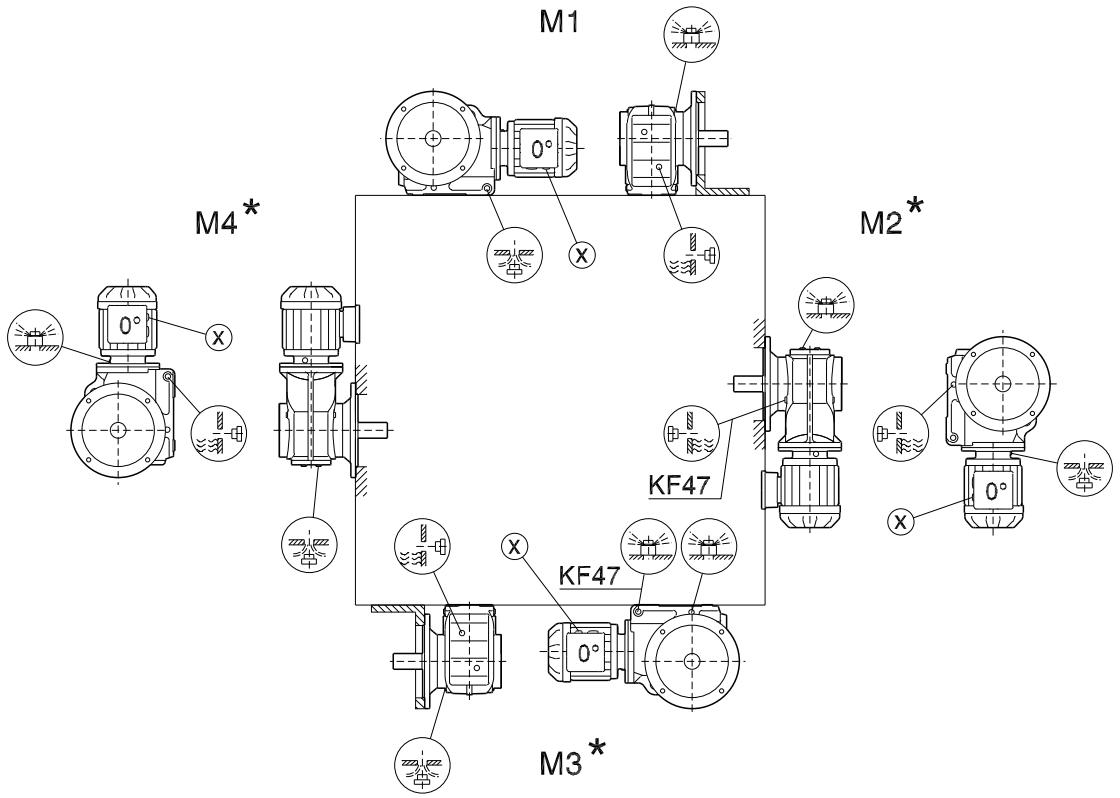
* (→ 🗎 49)

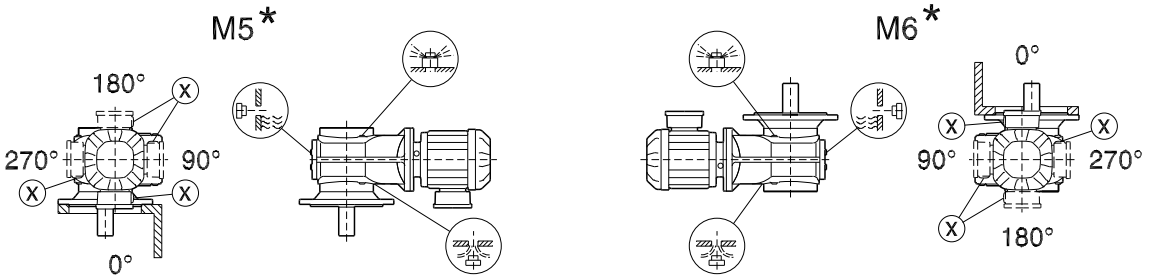
Observe the information in chapter "Overhand and axial loads of R, F, K, S, and W gear units" (→ 🗎 55).

KF/KAF/KHF/KZ/KAZ/KHZ37–157, KVF/KVZ37–107, KM/KAM67–157

34 027 04 00





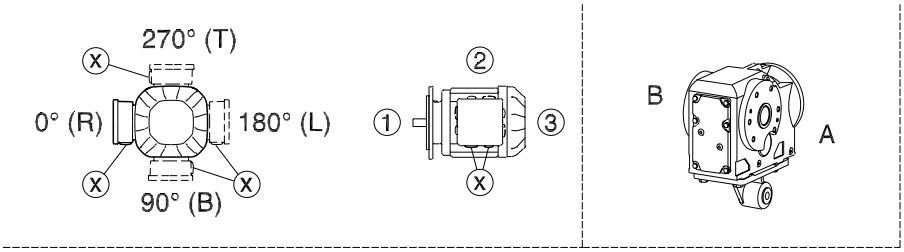


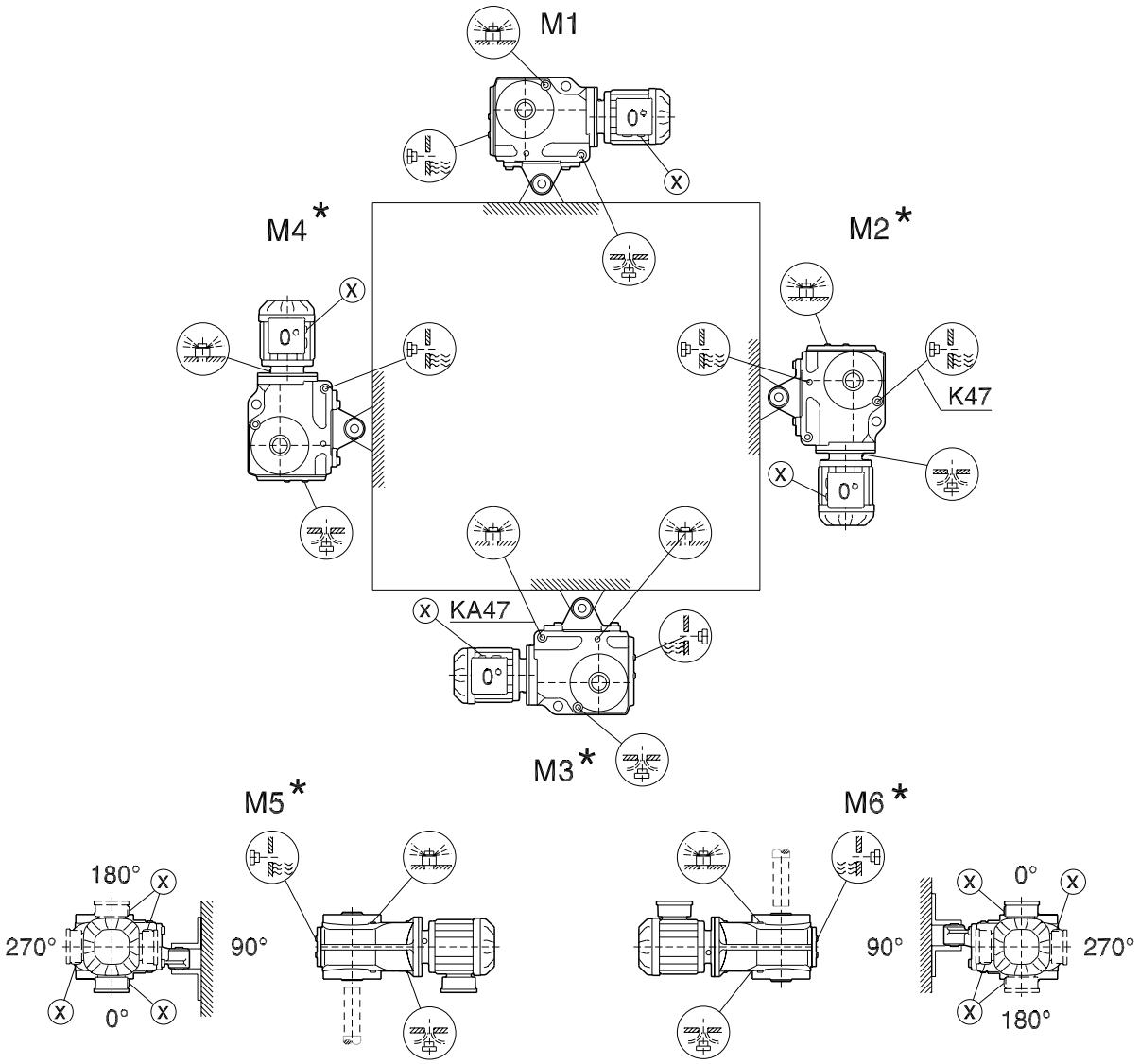
* (→ 🗎 49)

24832936/EN – 09/2018

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

39 025 05 00



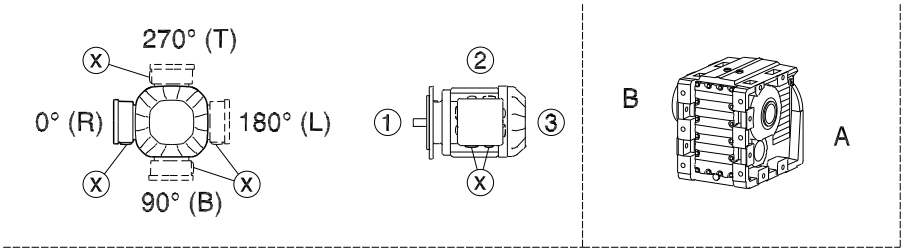


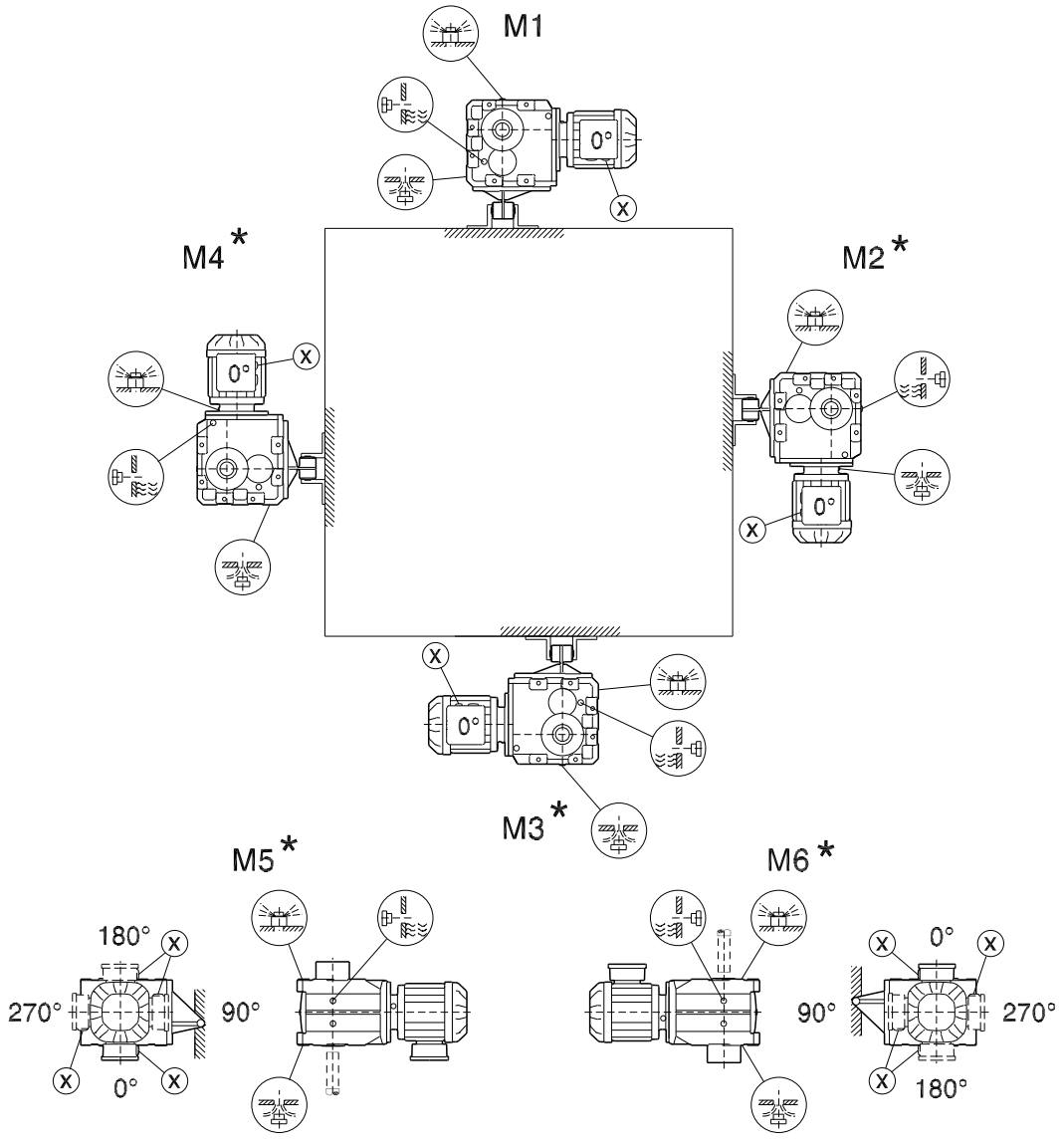
* (→ 🗎 49)

24832936/EN – 09/2018

KH167-187

39 026 05 00



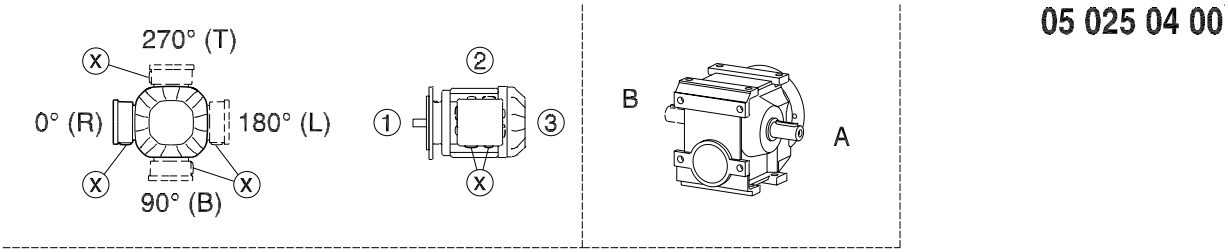


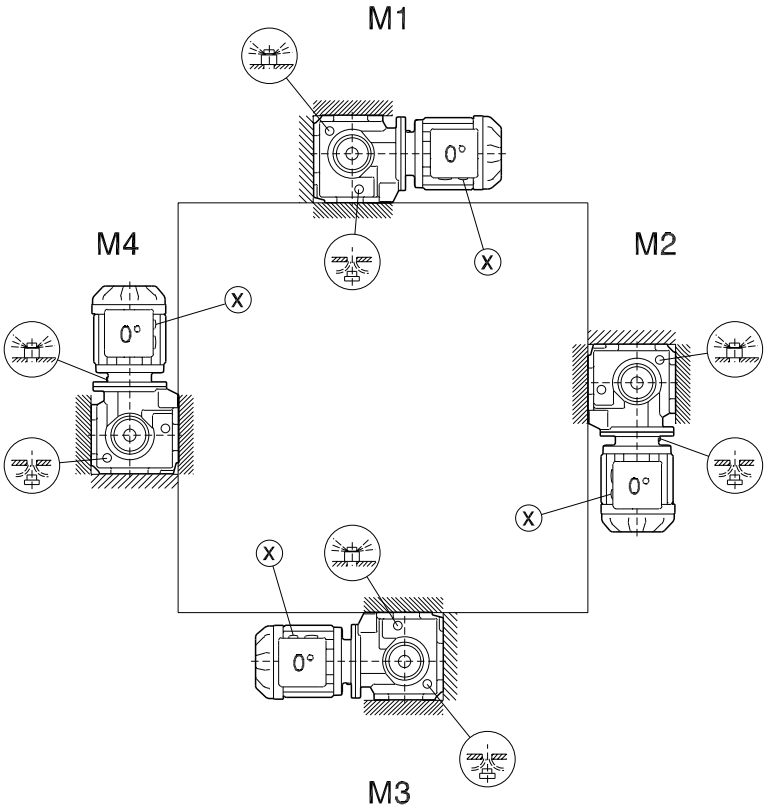
* (→ 🗎 49)

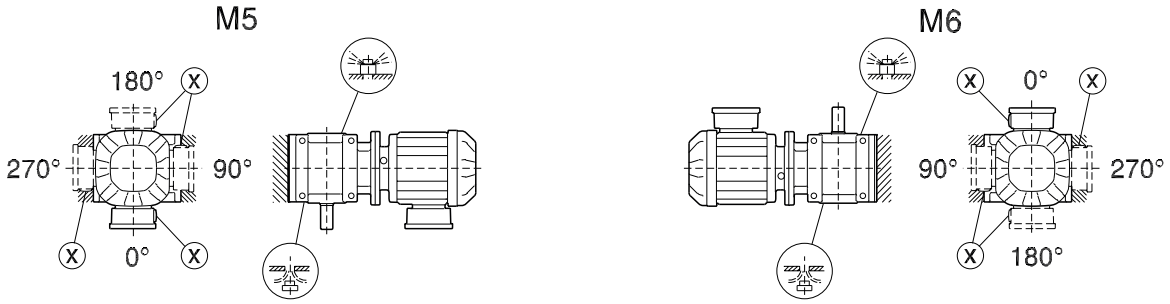
24832936/EN – 09/2018

5.4.4 Mounting positions of helical-worm gearmotors

S37



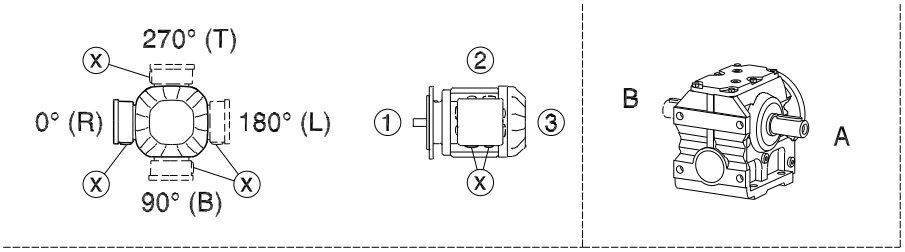


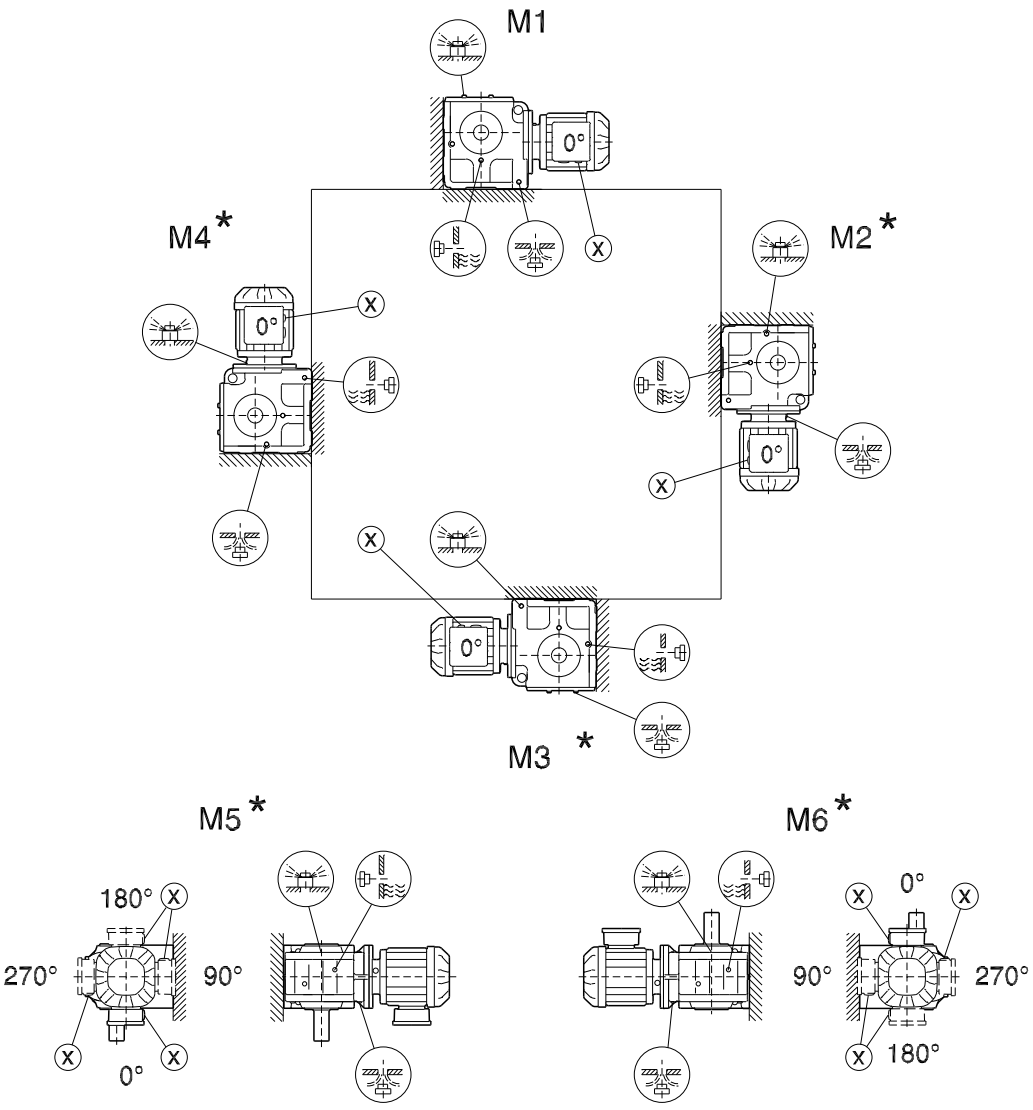


Observe the notes in chapter "Overhand and axial loads of R, F, K, S, and W gear units" (→ 🗎 55).

S47-S97

05 026 04 00



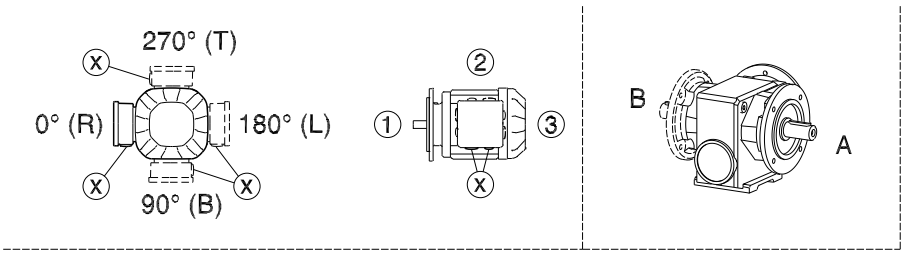


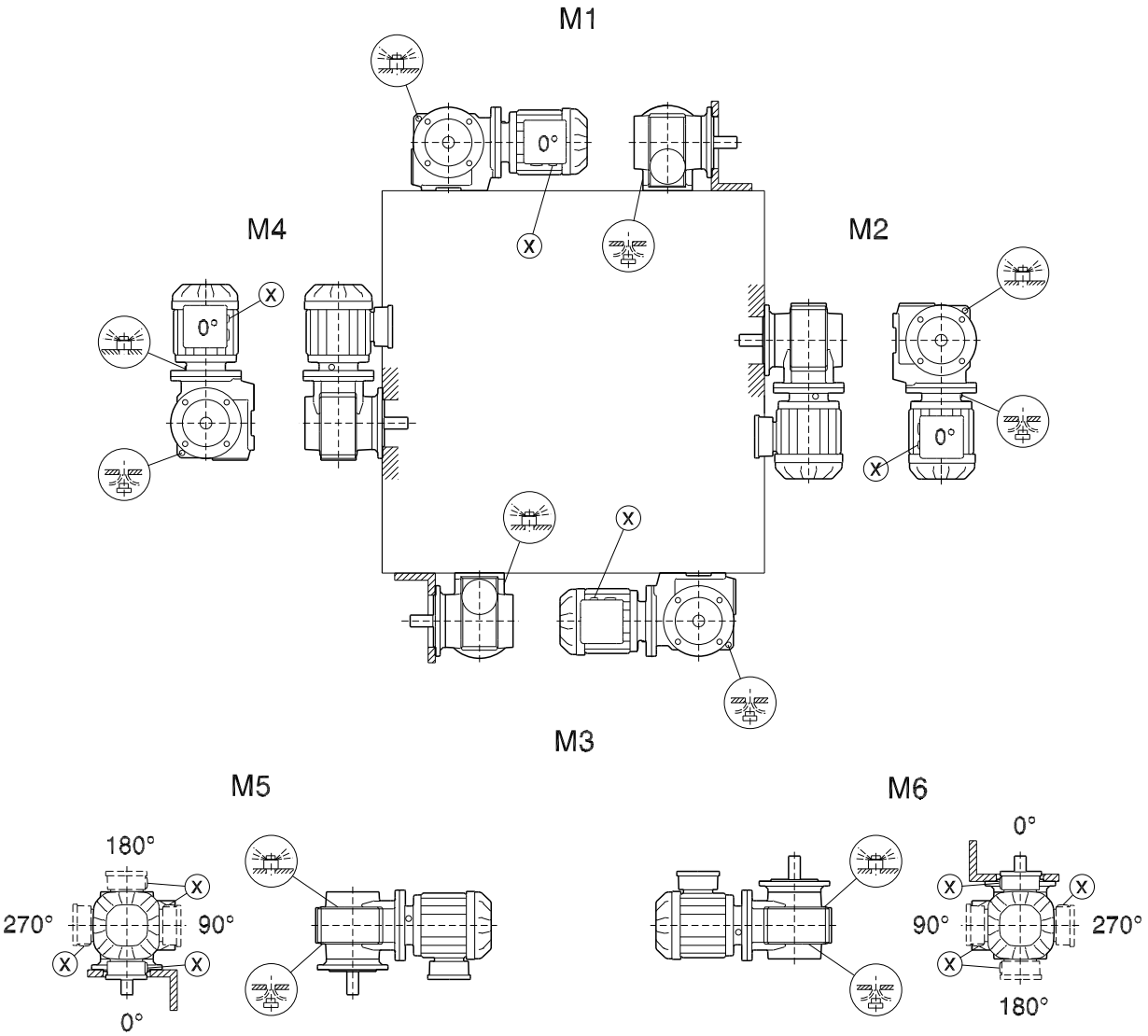
* (→ 🗎 49)

Observe the notes in chapter "Overhand and axial loads of R, F, K, S, and W gear units" (→ 🗎 55).

24832936/EN – 09/2018

SF/SAF/SHF37





24832936/EN – 09/2018

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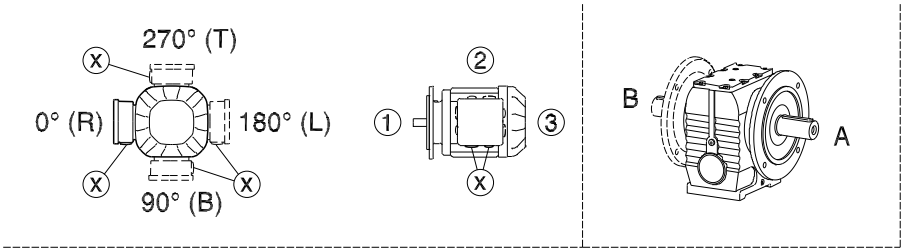

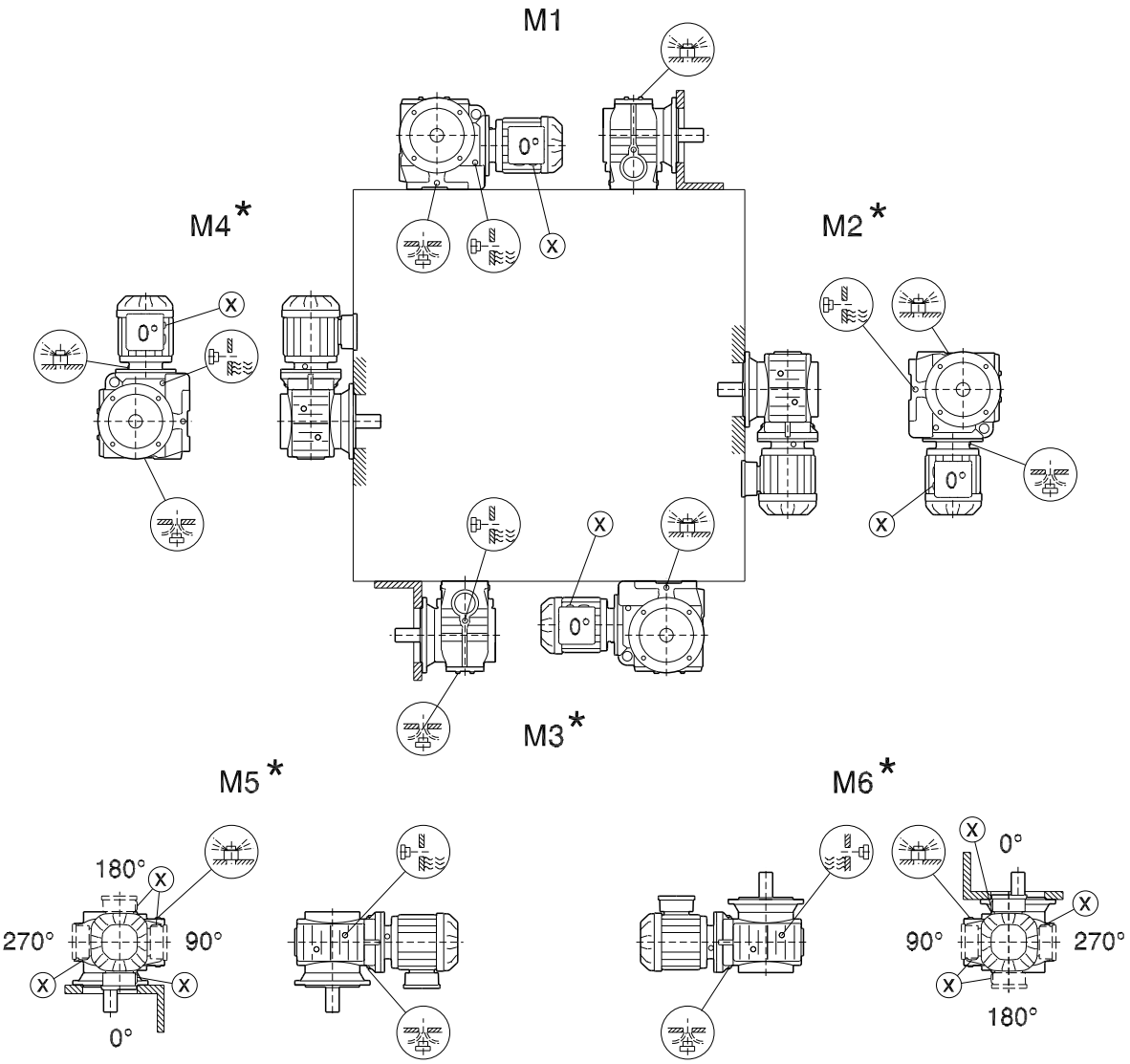

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24832936/EN – 09/2018

SA/SH/ST37

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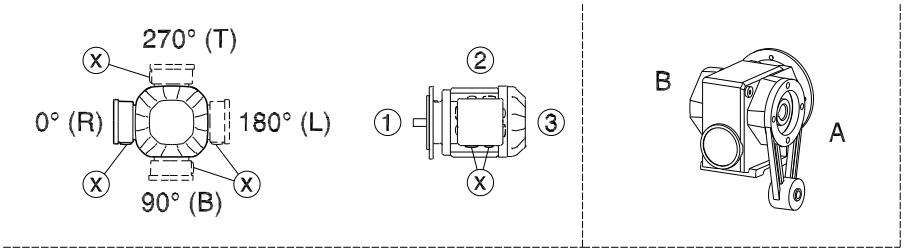

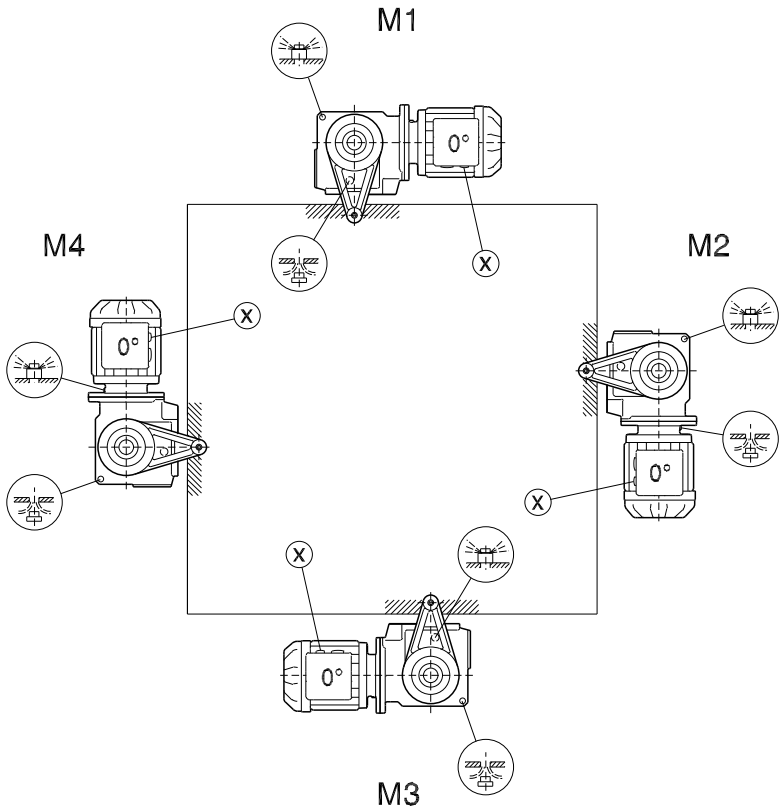

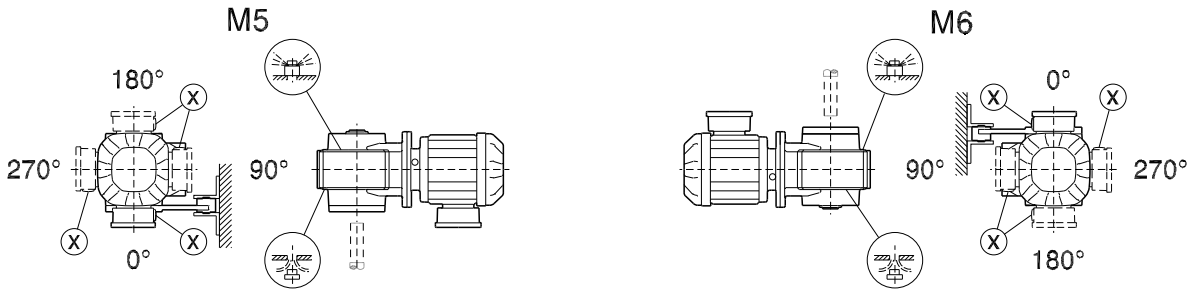

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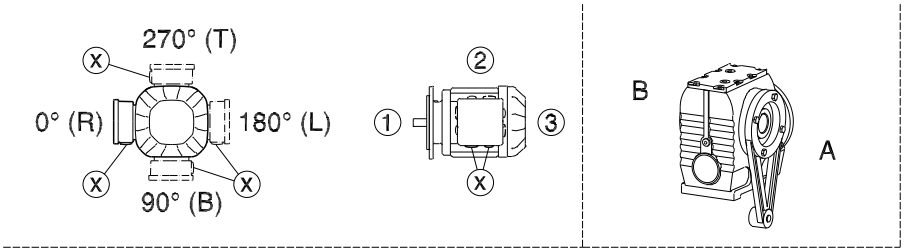

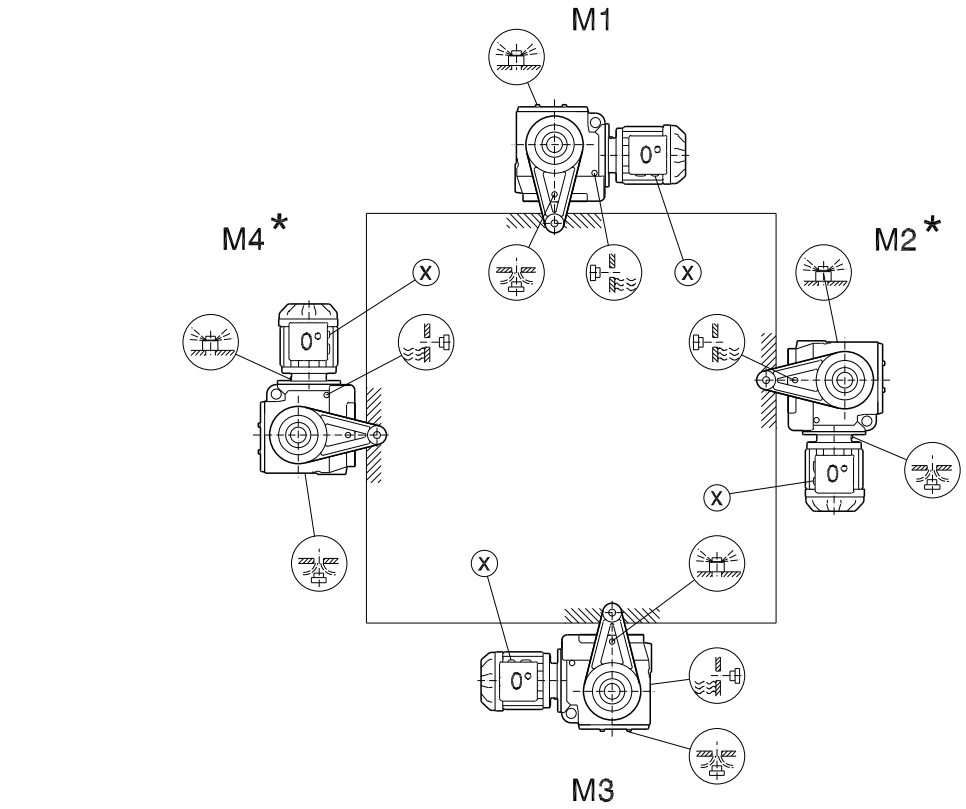

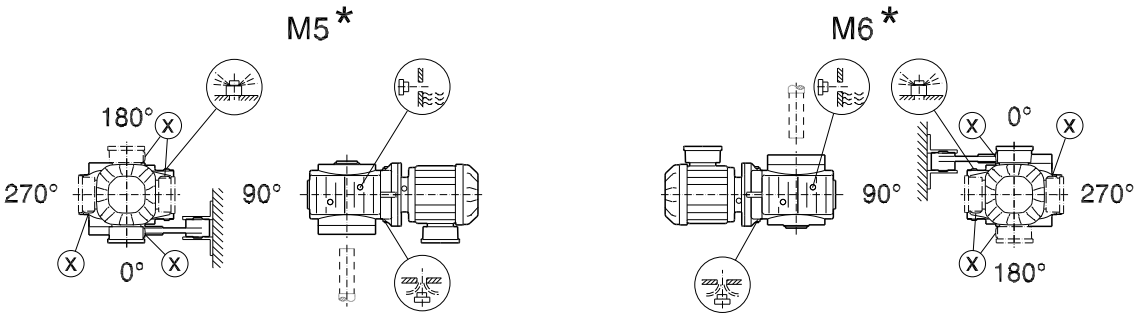

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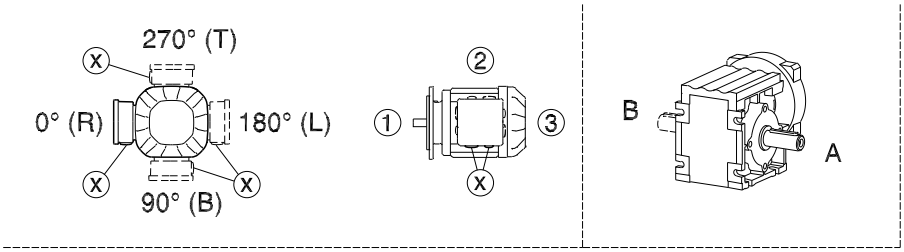
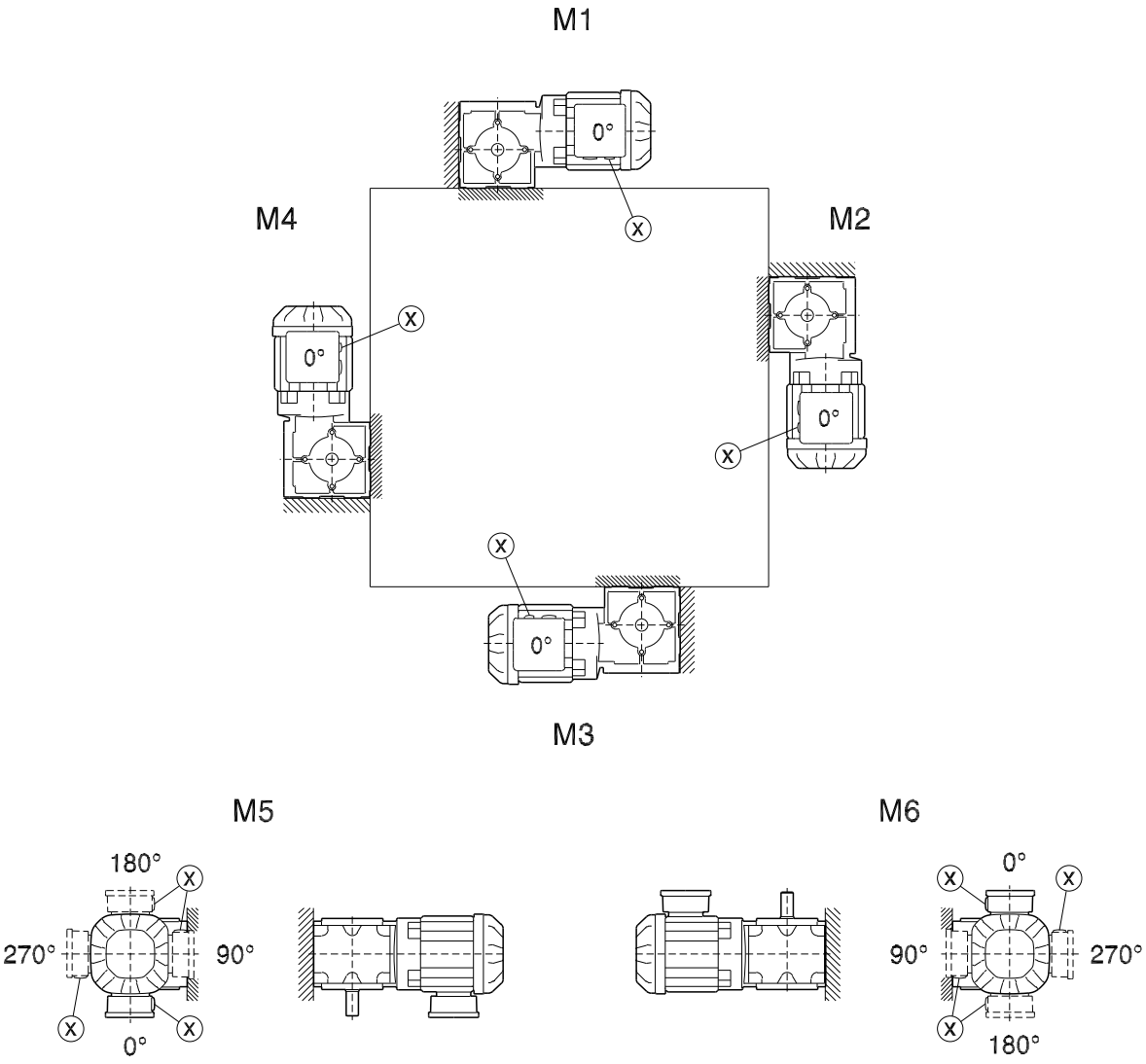
24832936/EN – 09/2018

5.4.5 Mounting positions of SPIROPLAN® gearmotors

W10-30





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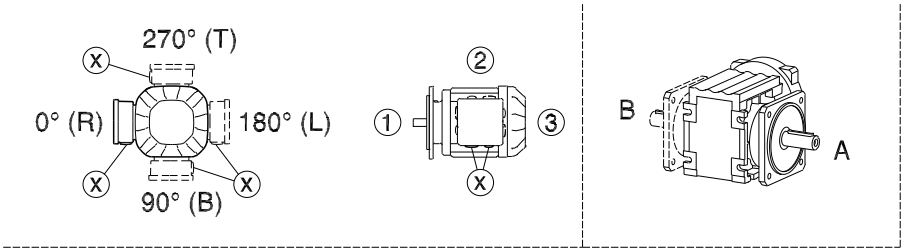

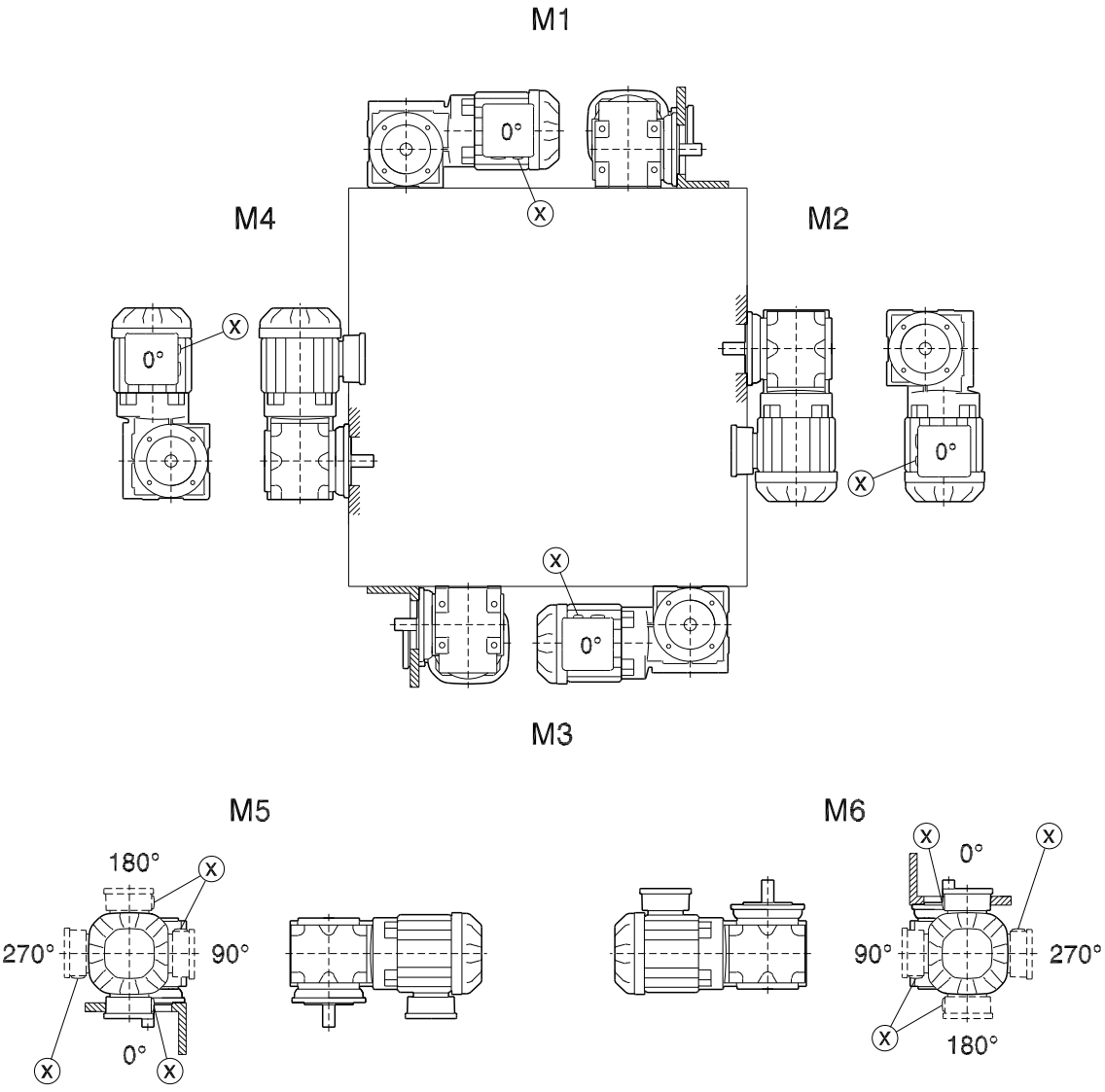

24832936/EN – 09/2018

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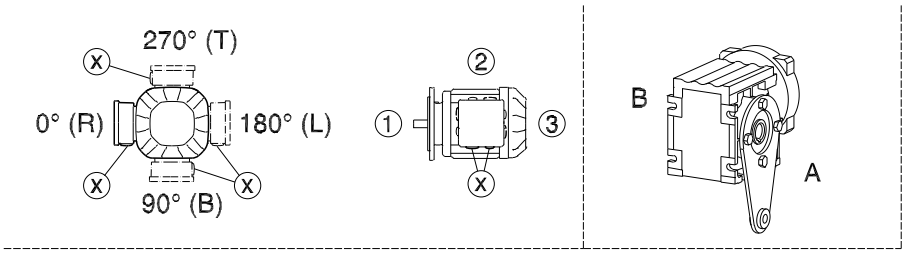

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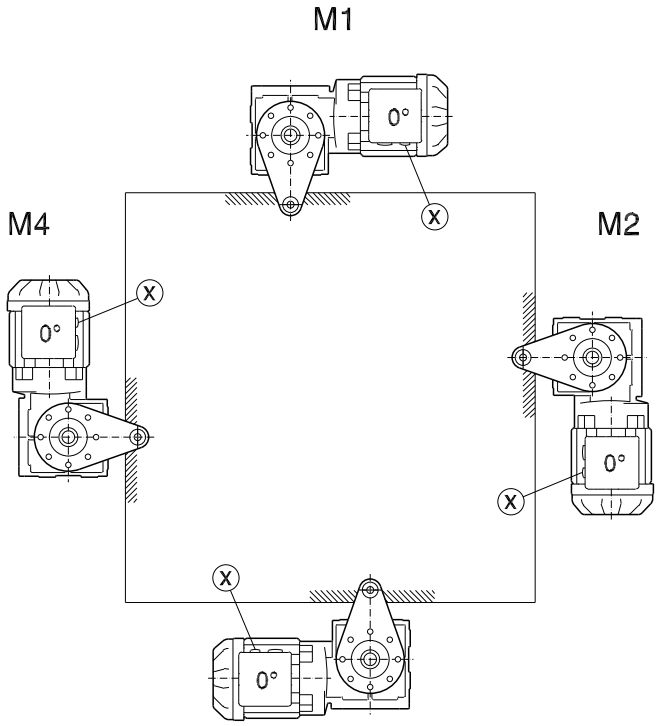

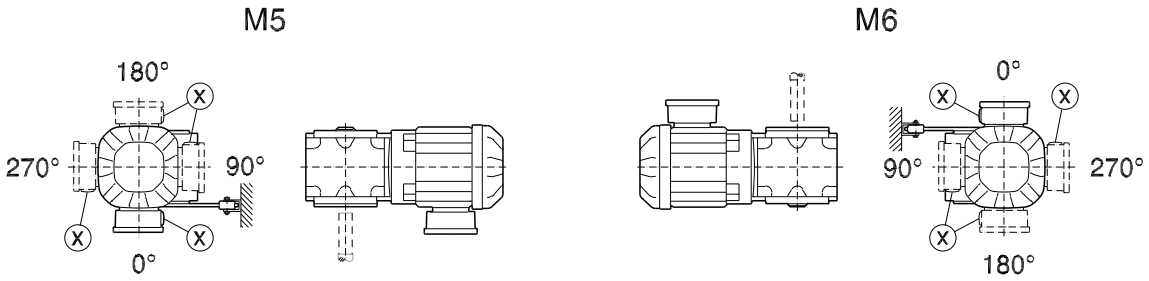

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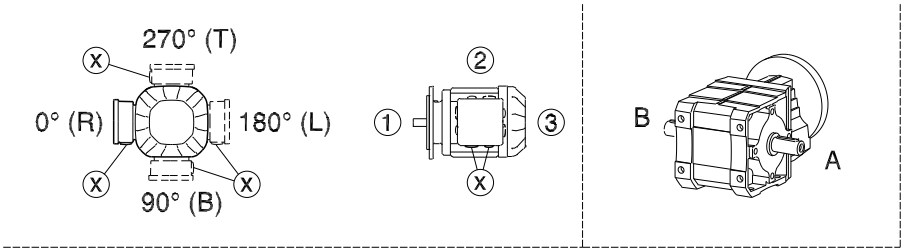

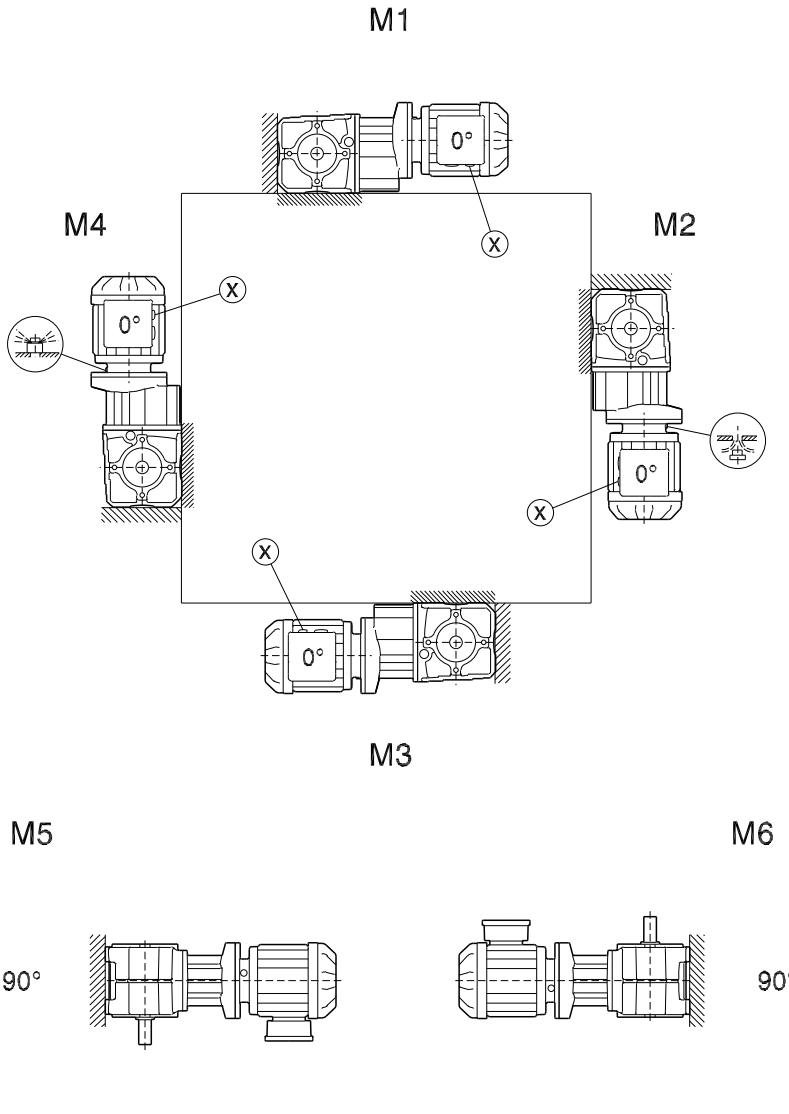

24832936/EN – 09/2018

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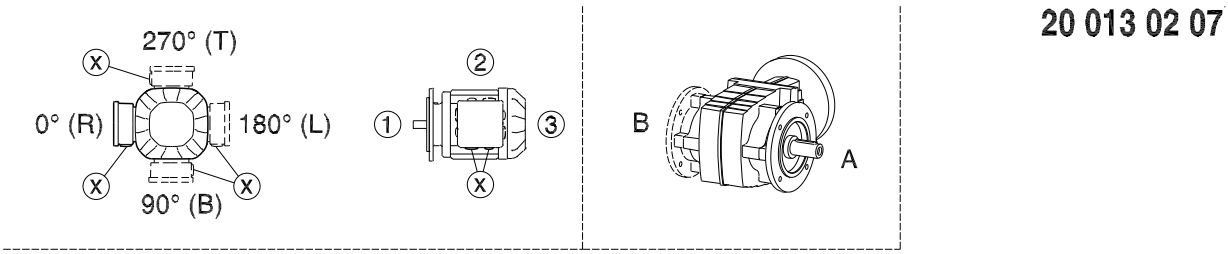

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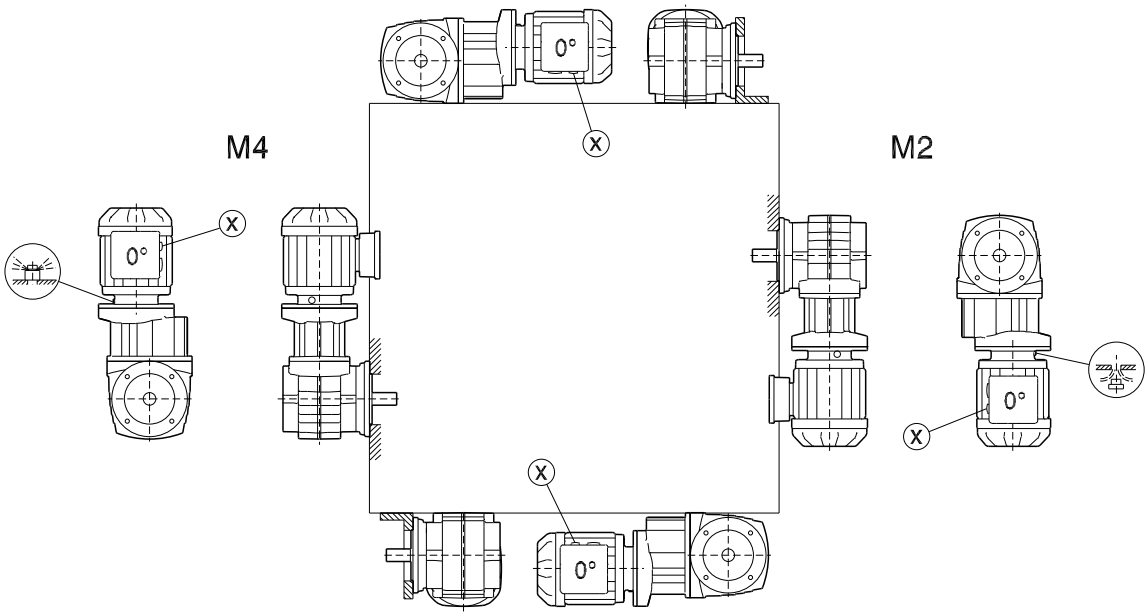

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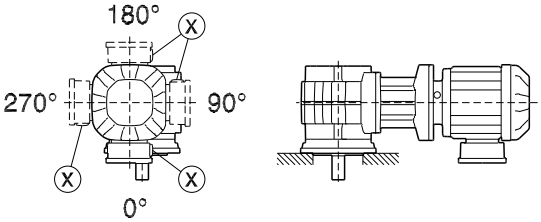
M5



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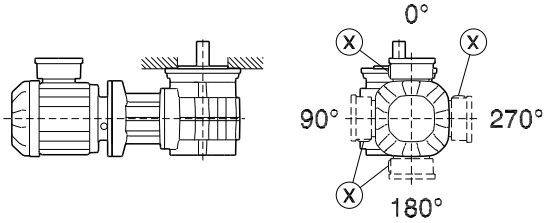

24832936/EN – 09/2018

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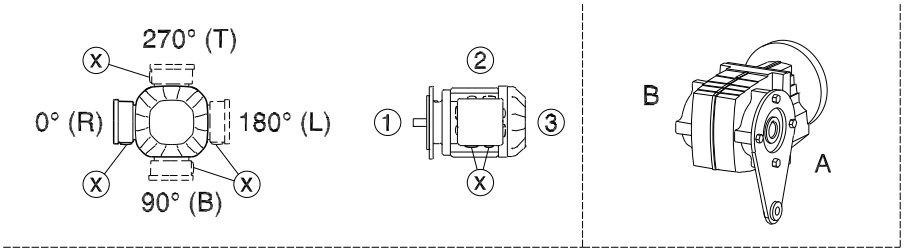

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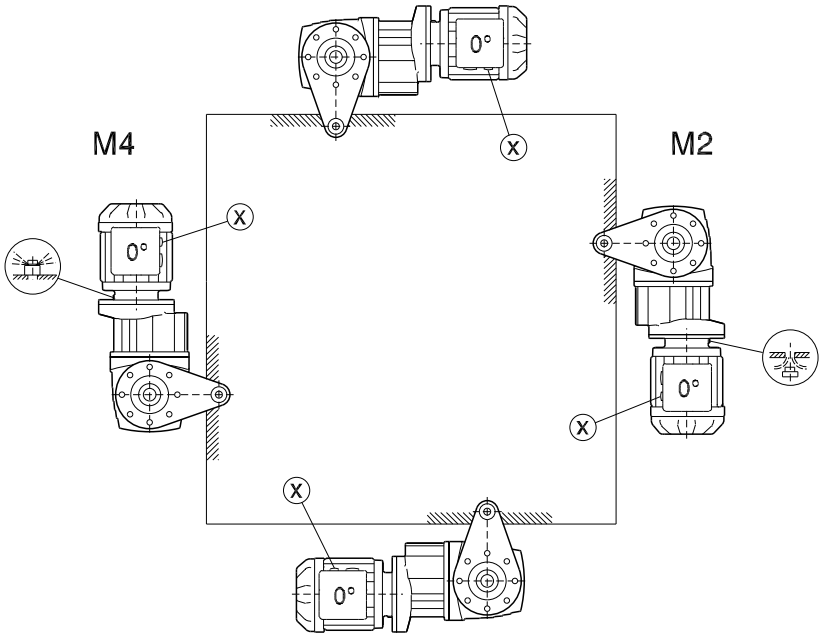

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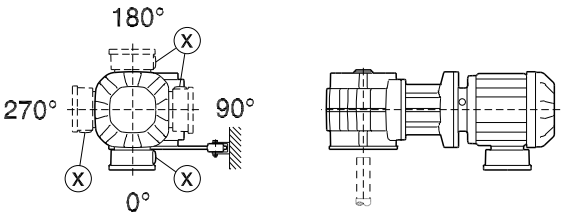

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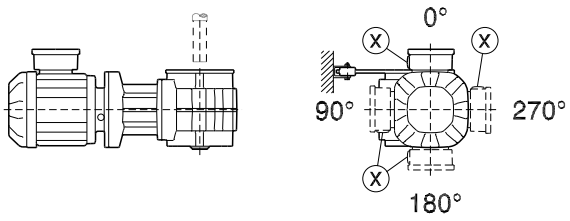
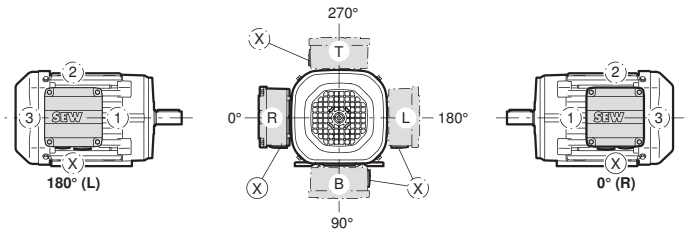


24832936/EN – 09/2018

5.5 Mounting positions of AC motors

5.5.1 Motor terminal box position and cable entry



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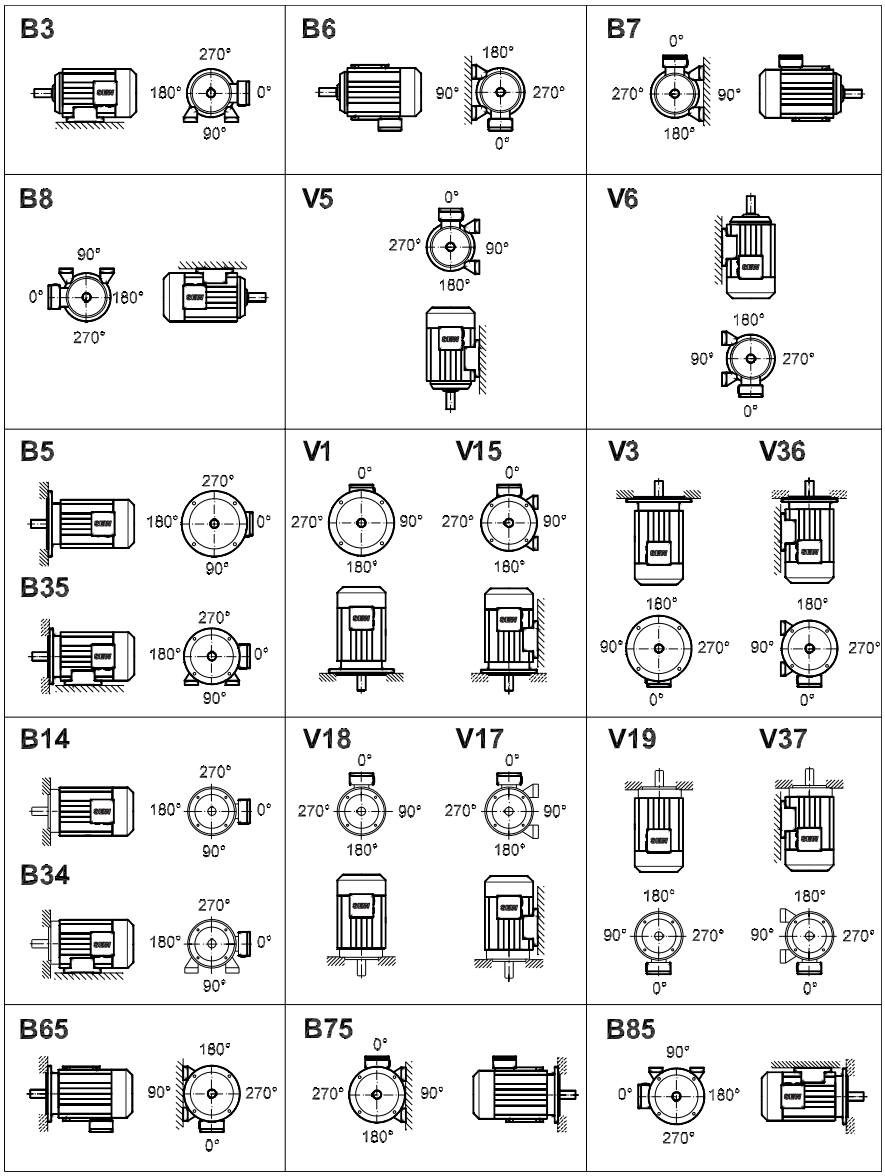
5.5.2 Mounting positions



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6 Design and operating notes

6.1 Lubricants

Unless a special arrangement is made, SEW-EURODRIVE supplies the drives with a lubricant fill adapted for the specific gear unit and mounting position. The decisive factor is the mounting position specified when ordering the drive. If you change the mounting position later, you must adapt the lubricant fill quantity accordingly.

6.1.1 SEW GearOil – Premium lubricant for gear units

With decades of experience in gear unit development and construction, as well as numerous customer applications, SEW-EURODRIVE has extensive tribological knowledge. Based on this and the results of long-term testing, SEW-EURODRIVE has developed a special formulation for our first premium gear unit oil – SEW GearOil. It provides the perfect protection for your valuable SEW-EURODRIVE gear unit.

By using high-quality base materials and additives and appropriate logistics, SEW-EURODRIVE can ensure you always receive the highest level of quality.

SEW GearOil increases the performance of gear units – be they standard, servo or industrial. The premium gear oil reduces the friction between gears, as it creates a very good lubrication film. This increases the service life of lubricant and wear parts, such as seals and bearings. The high damage load stage of the SEW GearOil Base mineral lubricant (damage load stage 14) improves protection from fretting on the gearing. At the same time, SEW GearOil increases the efficiency of the gear unit and protects it from corrosion and damaging oil foaming. The "self-cleaning" properties of the lubricants prevent deposits as they bind water and dirt particles.

As an option, SEW GearOil can be selected as initial filling for gear units and gearmotors. In addition, the premium gear oil can be ordered in cans or barrels for service and maintenance purposes. In an unopened packing unit, SEW GearOil can be stored for up to 6 years.

Refer to the following table for the amounts available to order and the respective part numbers:

SEW GearOil	Part numbers			
	5 liter can	20 liter can	205 liter barrel	1000 liter IBC
Base 150 E[1]	–	03287866	03287742	03096750
Base 220 E[1]	–	03287858	03287734	03096688
Base 320 E[1]	–	03287831	03287726	03096742
Base 460 E[1]	–	03287823	03287718	03096734
Base 680 E[1]	–	03287815	03287696	03096726
Base 680 S E[1]	–	03287807	03287688	03096718
Poly 460 W E[1]	03096599	03287750	03287645	03096696
Poly 460 H1 E[1]	03287076	03288099	03287068	–

For additional information on using SEW GearOil lubricants, as well as most important technical properties, refer to chapter"Lubricant table" (→ 🗎 110). Technical data sheets and safety data sheets are available upon request from SEW-EURODRIVE.

24832936/EN – 09/2018

6.1.2 Bearing greases

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

The table shows the lubricants recommended by SEW-EURODRIVE:

Area of operation	Ambient temperature	Manufacturer	Type
Standard	-40 °C to +80 °C	Fuchs	Renolit CX-TOM 15[1)]
	-40 °C to +80 °C	Klüber	Petamo GHY 133 N
2)	-40 °C to +40 °C	Bremer & Leguil	Cassida Grease GTS 2
3)	-20 °C to +40 °C	Fuchs	Plantogel 2S

1) Bearing grease based on semi-synthetic base oil
2) Lubricant for the food processing industry
3) Easily biodegradable lubricant for environmentally sensitive areas

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.

6.1.3 Lubricant table

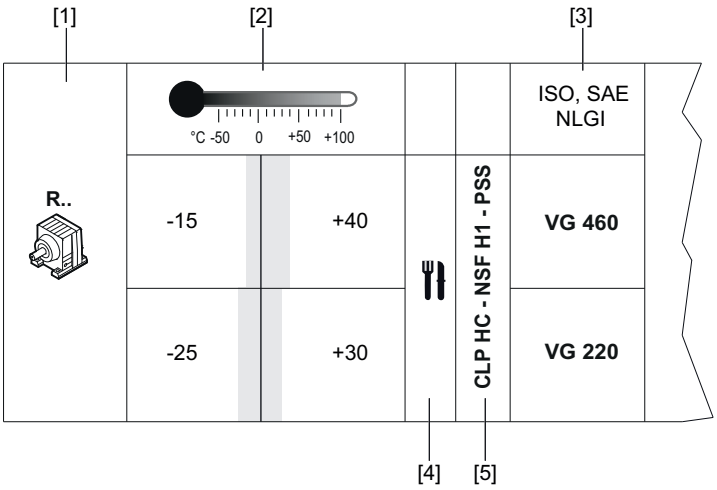
NOTICE

Damage to the gear unit due to improper lubricants.

Possible damage to property.

- The oil viscosity and type (mineral/synthetic) to be used are determined by SEW-EURODRIVE specifically for each order. This information is noted in the order confirmation and on the gear unit's nameplate. If you use other lubricants for the gear units and/or use the lubricants at temperatures outside the recommended temperature range, SEW-EURODRIVE does not assume liability.
- The lubricant recommendation in the lubricant table in no way represents a guarantee regarding the quality of the lubricant delivered by each respective supplier. Each lubricant manufacturer is responsible for the quality of their product.
- Do not mix synthetic lubricants.
- Do not mix synthetic lubricants and mineral lubricants.
- Oils of the same viscosity class from different manufacturers do not have the same characteristics. In particular, the minimally and maximally permitted oil bath temperatures are manufacturer-specific. These temperatures are specified in the lubricant tables.
- The values specified in the lubricant tables apply as of the time of printing of this document. The data of the lubricants is subject to dynamic change on the part of the lubricant manufacturers. For the latest information about the lubricants, visit: **www.sew-eurodrive.de/lubricants**.

Information on table structure



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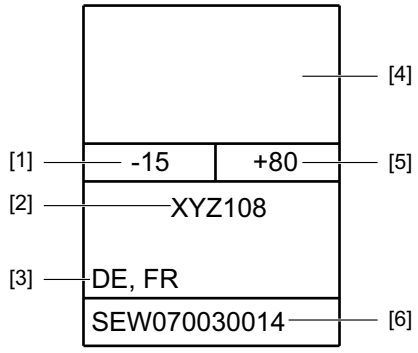
[1] Gear unit type
[2] Ambient temperature range
[3] Viscosity class
[4] Note on special approvals
[5] Lubricant type

The specified ambient temperatures are guide values for the preselection of a suitable lubricant. The exact upper and lower temperature limits for project planning are specified in the table with the respective trade name.

24832936/EN – 09/2018

Information on the various lubricants



[1] Lowest oil sump temperature in °C, **going below this value during operation is not permitted**
[2] Trade name
[3] Factory filling for the listed countries
BR: Brazil
CN: China
DE: Germany
FR: France
US: United States of America
[4] Manufacturer
[5] Highest oil sump temperature in °C. The service life will be considerably reduced when exceeded. Adhere to the lubricant change intervals in chapter "Current lubricant change intervals" in the operating instructions.
[6] Approvals regarding compatibility of the lubricant with approved oil seals

Lubricant compatibility with oil seal

Approval	Explanation
SEW07004_ _13:	A lubricant especially recommended with regard to compatibility with the approved oil seals. The lubricant exceeds the state-of-the-art requirements regarding elastomer compatibility.

Approved application temperature range of the oil seals

In the low temperature range, oil seals can withstand shaft deflections (e. g. through overhung load) only to a limited extent. Especially avoid or limit pulsating or changing radial displacements of the shaft. Contact SEW-EURODRIVE, if required.

Oil seal Material class	Permitted Oil sump temperature
NBR	-40 °C to +80 °C
FKM	-25 °C to +115 °C
FKM-PSS	-25 °C to +115 °C

24832936/EN – 09/2018

Limitations of use of oil seals with the specific lubricant are described in the following table:

Material class			Manufacturer		Material	
S	1	NBR	1	Freudenberg		72 NBR 902
			2	Trelleborg		4NV11
	2	FKM	1	Freudenberg	1	75 FKM 585
					2	75 FKM 170055
			2	Trelleborg	1	VCBVR

Examples:

S11: Only the elastomer 72NBR902 of the Freudenberg company meets the requirements of the approval in conjunction with the specific lubricant.

S2: Only the elastomer FKM meets the requirements of the approval in conjunction with the specific lubricant.

24832936/EN – 09/2018

Key

The following table shows the abbreviations and icons used in the lubricant table and explains what they mean:

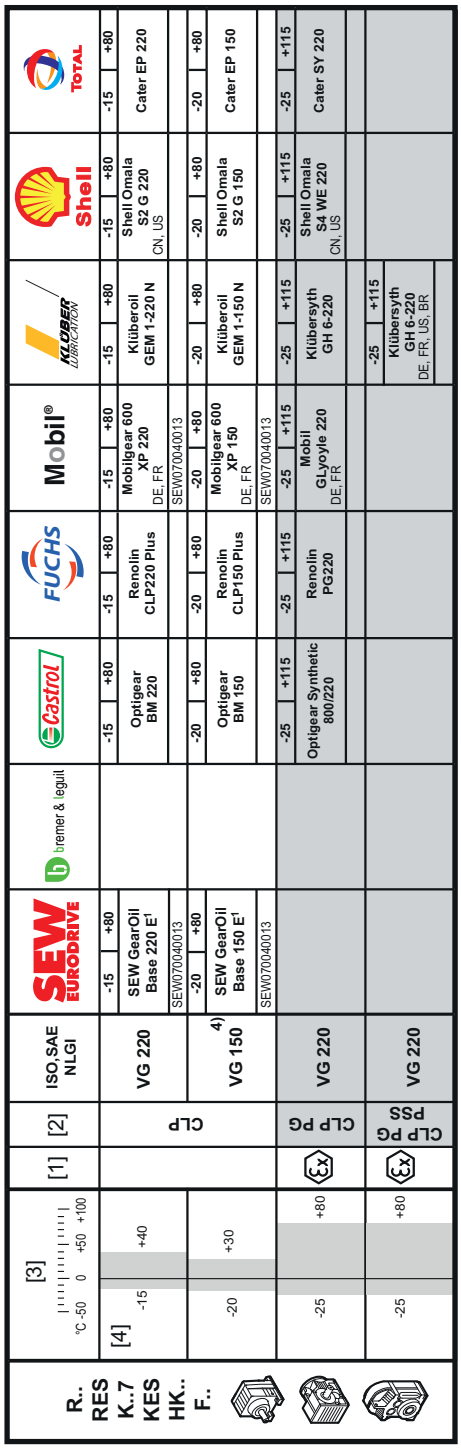
Abbreviation/icon	Meaning
	Synthetic lubricant (marked gray)
	Mineral lubricants
CLP	Mineral oil
CLP PG	Polyglycol (PG)
CLP HC	Synthetic hydrocarbons – polyalphaolefin (PAO)
E	Ester-based oil
	Lubricant for the food processing industry – NSF-H1-compliant
	Easily biodegradable oil for environmentally sensitive areas
	Lubricant suitable for ATEX environment.
1)	Helical-worm gear units with CLP-PG: Contact SEW-EURODRIVE
2)	Special lubricant for SPIROPLAN® gear units only
3)	W..10, W..20, W..30: SEW $f_B \geq 1.0$ required W..37, W..47: SEW $f_B \geq 1.2$ required
4)	Observe the critical starting behavior at low temperatures
7)	With appropriate measures, the gear units can be operated at ambient temperatures as low as -40 °C. Contact SEW-EURODRIVE.
Oil seal	Oil seal
PSS	Oil seal type Premium Sine Seal (PSS). The addendum "PSS" at the lubricant type signals compatibility with the sealing system.

24832936/EN – 09/2018

Lubricant table for R.., F.., and K..7 gear units

The lubricant table is valid at the day this document is published. Refer to **www.sew-eurodrive.de/lubricants** for the latest tables.

Observe the thermal limit of the oil seal material, see chapter "Lubricant compatibility with oil seal" (→ 🗎 111).

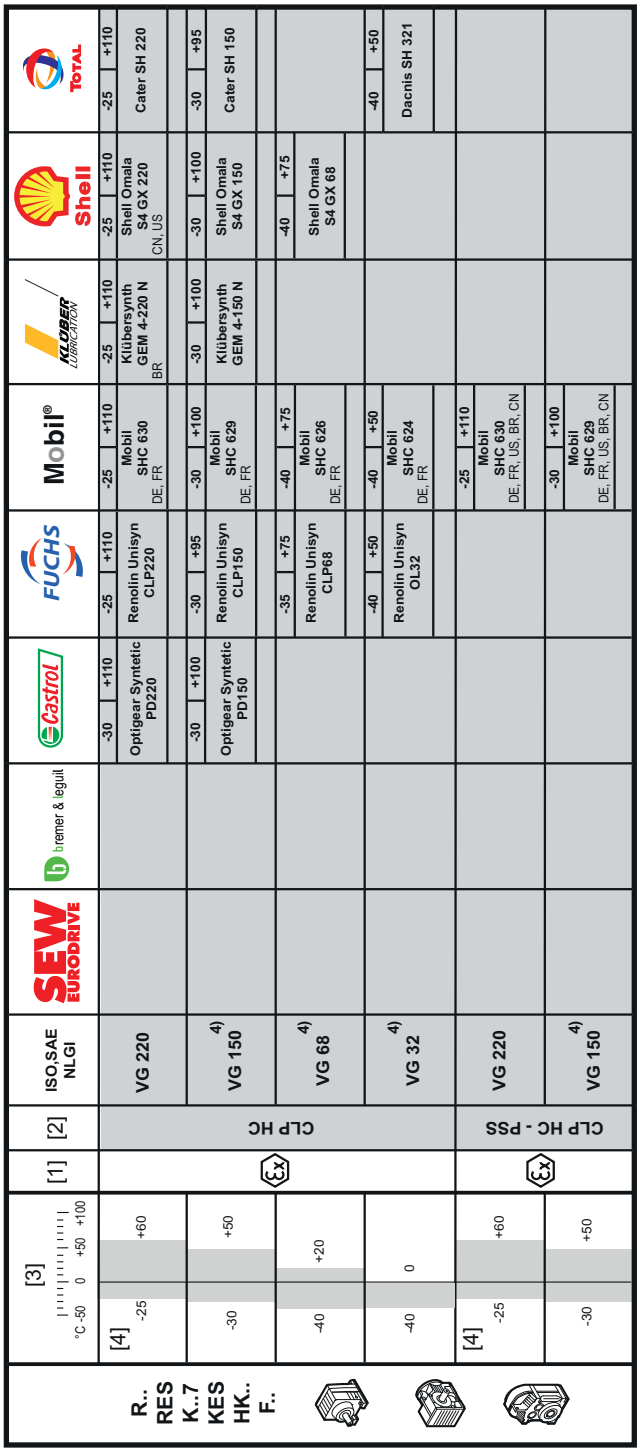


[1] Note on special approvals
[2] Oil type
[3] Ambient temperature range
[4] Standard

24832936/EN – 09/2018

The lubricant table is valid at the day this document is published. Refer to **www.sew-eurodrive.de/lubricants** for the latest tables.

Observe the thermal limit of the oil seal material, see chapter "Lubricant compatibility with oil seal" (→ 🗎 111).



[1] Note on special approvals
[2] Oil type
[3] Ambient temperature range
[4] Standard

The lubricant table is valid at the day this document is published. Refer to **www.sew-eurodrive.de/lubricants** for the latest tables.

Observe the thermal limit of the oil seal material, see chapter "Lubricant compatibility with oil seal" (→ 🗎 111).

	[3] °C -50 0 +50 +100	[1]	[2]	ISO,SAE NLGI	SEW EURODRIVE	bremer & leguil	Castrol	FUCHS	Mobil®	KLÜBER LUBRICATION	Shell	TOTAL
R.. RES K..7 KES HK.. F..	[4] -15 +40		CLP HC - NSF H1	VG 460		-15 +100 Cassida Fluid GL 460	-15 +100 Optileb GT 460 DE, FR SEW07004013			-15 +105 Klüberoil 4UH1-460 N		
	-25 +30			VG 220		-25 +80 Cassida Fluid GL 220	-25 +80 Optileb GT 220 DE, FR SEW07004013			-25 +80 Klüberoil 4UH1-220 N		
	-35 0			4) VG 68		-40 +50 Cassida Fluid HF 68	-35 +50 Optileb HY 68 DE, FR			-35 +50 Klüberoil 4UH1-68 N		
	-40 -10			4) VG 32		-40 +30 Cassida Fluid HF 32	-40 +30 Optileb HY 32 DE, FR			-40 +30 KlüberSummit HySynFG32		
	-15 +40		CLP HC - NSF H1 - PSS	VG 460			-15 +100 Optileb GT 460 DE, FR, US, BR, CN SEW07004013					
	-25 +30			VG 220			-25 +80 Optileb GT 220 DE, FR, US, BR, CN SEW07004013					
	-20 +40		E	VG 460				-20 +80 Plantogear 460 S DE, FR		-20 +80 Klüberbio CA2-460		

[1] Note on special approvals
[2] Oil type
[3] Ambient temperature range
[4] Standard

24832936/EN – 09/2018

Lubricant table for K..9 gear units

The lubricant table is valid at the day this document is published. Refer to **www.sew-eurodrive.de/lubricants** for the latest tables.

Observe the thermal limit of the oil seal material, see chapter "Lubricant compatibility with oil seal" (→ 🗎 111).

K.9	[3] °C	[4]	[1]	[2]	ISO,SAE NLGI	SEW EURODRIVE	bremer & leguil	Castrol	FUCHS	Mobil®	KLÜBER LUBRICATION	Shell	TOTAL
				CLP PG - H1 (-PSS)									
	+60	-20			VG 460						-20 | +95 Klübersynth GH 6-460 DE, FR, US, BR,CN		
	+80	-15			VG 680						-15 | +115 Klübersynth GH 6-680 DE, FR, US, BR,CN		
	+40	-25			VG 220						-25 | +70 Klübersynth GH 6-220 DE, FR, US, BR,CN		
	+30	-30			4) VG 150						-30 | +60 Klübersynth GH 6-150 DE, FR, US, BR,CN		
	+60	-20			VG 460						-20 | +95 Klübersynth UH1 6-460 DE, FR, US, BR,CN		
	+80	-15			VG 680						-15 | +115 Klübersynth UH1 6-680 DE, FR, US, BR,CN		
	+40	-25			VG 220						-25 | +70 Klübersynth UH1 6-220 DE, FR, US, BR,CN		
	+30	-30			4) VG 150						-30 | +60 Klübersynth UH1 6-150 DE, FR, US, BR,CN		

[1] Note on special approvals
[2] Oil type
[3] Ambient temperature range
[4] Standard

Lubricant table for S.. gear units

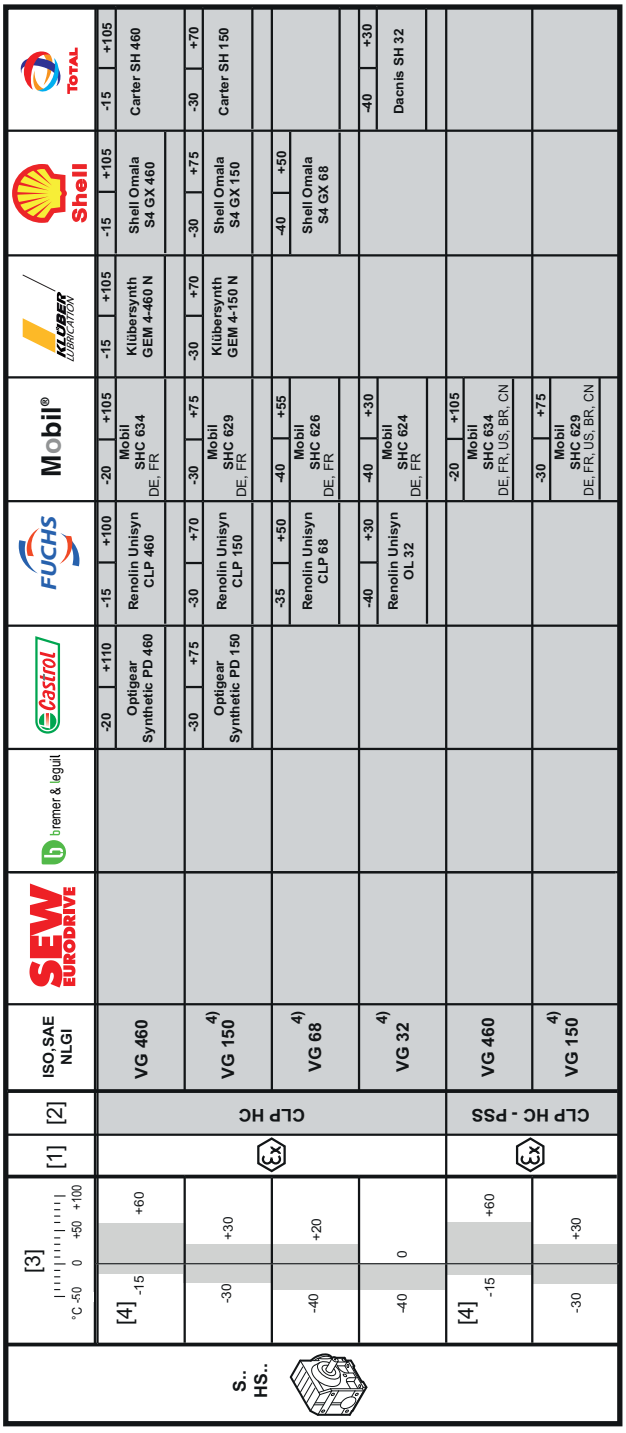
The lubricant table is valid at the day this document is published. Refer to **www.sew-eurodrive.de/lubricants** for the latest tables.

Observe the thermal limit of the oil seal material, see chapter "Lubricant compatibility with oil seal" (→ 🗎 111).

S.. HS..	[3] °C	[4]	[1]	[2]	ISO,SAE NLGI	SEW EURODRIVE	bremer & leguil	Castrol	FUCHS	Mobil®	KLÜBER LUBRICATION	Shell	TOTAL
						-15 | +80		0 | +80	0 | +80	0 | +80	0 | +80	0 | +80	0 | +80
						SEW GearOil Base 680 S E[1]		Optigear BM 680	Renolin CLP 680 Plus DE, FR	Mobilegear 600 XP 680	Klüberoil GEM 1-680 N	Shell Omala S2 G 680 US	Carter EP 680
						SEW07004001 3			SEW07004001 3	SEW07004001 3			
						-20 | +80		-20 | +65	-20 | +65	-20 | +65	-20 | +65	-20 | +65	-20 | +65
						SEW GearOil Base 150 E[1]		Optigear BM150	Renolin CLP 150 Plus	Mobilegear 600 XP 150 DE, FR	Klüberoil GEM 1-150 N	Shell Omala S2 G 150 US	Carter EP 150
						SEW07004001 3				SEW07004001 3			
						-15 | +115		-15 | +115	-15 | +115	-15 | +115	-15 | +115	-15 | +115	
								Optigear Synthetic 800/680	Renolin PG 680	Mobil Glygoyle 680	Klübersynth GH 6-680 DE, FR	Shell Omala S4 WE 680	
						-25 | +90		-25 | +95	-25 | +100	-25 | +100	-25 | +100	-25 | +90	-25 | +90
								Optigear Synthetic 800/220	Renolin PG 220	Mobil Glygoyle 220 DE, FR	Klübersynth GH 6-220	Shell Omala S4 WE 220	Carter SY 220
											-15 | +115		
											Klübersynth GH 6-680 DE, FR, US, BR, CN		
											-25 | +100		
											Klübersynth GH 6-220 DE, FR, US, BR, CN		

The lubricant table is valid at the day this document is published. Refer to **www.sew-eurodrive.de/lubricants** for the latest tables.

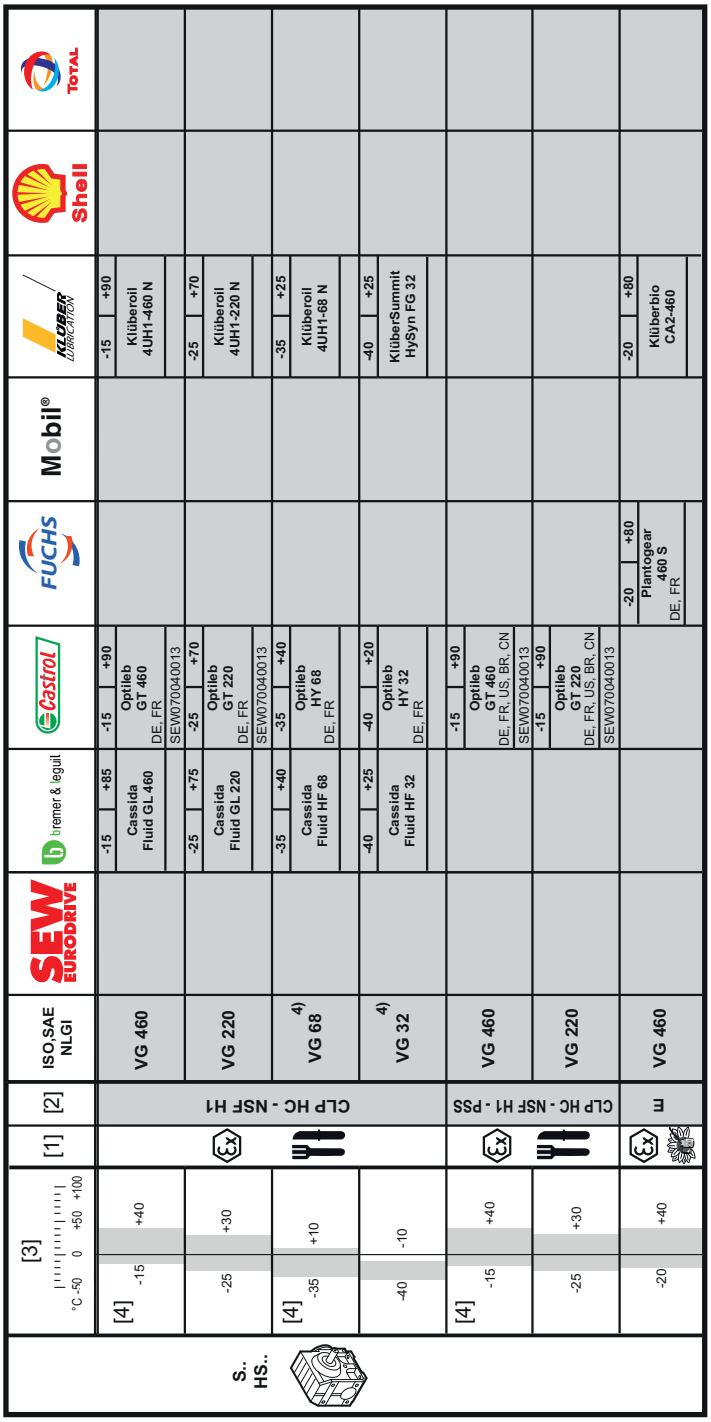
Observe the thermal limit of the oil seal material, see chapter "Lubricant compatibility with oil seal" (→ 🗎 111).



[1] Note on special approvals
[2] Oil type
[3] Ambient temperature range
[4] Standard

The lubricant table is valid at the day this document is published. Refer to **www.sew-eurodrive.de/lubricants** for the latest tables.

Observe the thermal limit of the oil seal material, see chapter "Lubricant compatibility with oil seal" (→ 🗎 111).



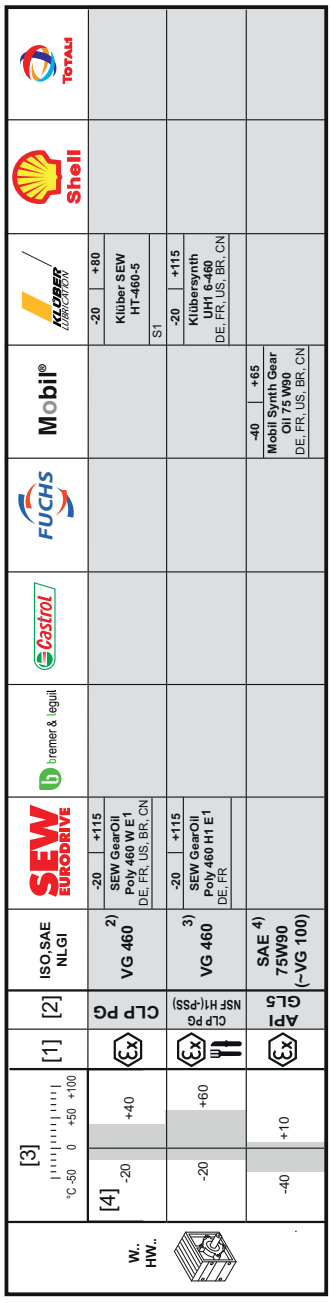
[1] Note on special approvals
[2] Oil type
[3] Ambient temperature range
[4] Standard

24832936/EN – 09/2018

Lubricant table for W.. gear units

The lubricant table is valid at the day this document is published. Refer to **www.sew-eurodrive.de/lubricants** for the latest tables.

Observe the thermal limit of the oil seal material, see chapter "Lubricant compatibility with oil seal" (→ 🗎 111).



[1] Note on special approvals
[2] Oil type
[3] Ambient temperature range
[4] Standard

6.1.4 Lubricant fill quantities

INFORMATION

The specified fill quantities are **guide values**. The exact values vary depending on the number of gear stages and gear ratio. Check the **oil level plug for the exact oil quantity**.

INFORMATION

Unless a special arrangement is made, SEW-EURODRIVE supplies the drives with a lubricant fill adapted for the specific mounting position. The mounting position (see chapter "Gear unit mounting positions and order information" (→ 🗎 63)) must therefore be specified in the drive order.

When the mounting position is changed, the lubricant fill quantity must be adapted accordingly (see the following chapters). Consequently, a mounting position may only be **changed** after consultation with SEW-EURODRIVE, **otherwise your rights to claim under limited warranty no longer apply.**

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

24832936/EN – 09/2018

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
R127	6.4/17	18.3	18.2	22.0	16.8	17.9
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) The larger gear unit of compound gear units must be filled with the larger oil volume.

RF.., RZ..

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
RF127	6.6/16.0	18.3	18.2	21.4	15.9	17.0
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) The larger gear unit of compound gear units must be filled with the larger oil volume.

RX..

Gear unit	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 unit	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	

24832936/EN – 09/2018

Gear unit	Fill quantity in liters					
	M1	M2	M3	M4	M5	M6
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	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	2.25	3.15	1.65	3.15	2.40	2.50
F..67	2.70	3.80	1.90	3.80	2.90	3.20
F..77	5.90	7.30	4.30	8.00	6.00	6.30
F..87	10.8	13.0	7.70	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	27.0
F..127	39.5	51.7	31.5	60.1	45.6	44.2
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	0.60
FF37	1.00	1.25	0.70	1.30	1.00	1.10
FF47	1.60	1.85	1.10	1.90	1.50	1.70
FF57	2.30	3.10	1.70	3.10	2.30	2.40
FF67	2.70	3.80	1.90	3.80	2.90	3.20
FF77	5.90	7.30	4.30	8.10	6.00	6.30
FF87	10.8	13.2	7.80	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	40.6	51.6	31.5	61.2	46.3	44.9
FF157	72.0	105.0	64.0	106.0	87.0	79.0

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

Gear units	Fill quantity in liters					
	M1	M2	M3	M4	M5	M6
F..27	0.60	0.80	0.65	0.70	0.60	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	5.90	7.30	4.30	8.00	6.00	6.30
F..87	10.8	13.0	7.70	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	27.0
F..127	38.3	50.9	31.5	59.7	44.7	43.3
F..157	68.0	103.0	62.0	104.0	85.0	77.0

24832936/EN – 09/2018

Helical-bevel (K) gear units

INFORMATION

All K..19 and K..29 gear units have a universal mounting position, which means that K..19 and K..29 gear units of the same design are filled with the same oil quantity independent of the mounting position. An exception to this is the M4 mounting position.

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

Gear unit	Fill quantity in liters					
	M1	M2	M3	M4	M5	M6
K..19	0.40			0.45	0.40	
K..29	0.70			0.85	0.70	
K..39	0.90	1.70	1.55	1.9	1.55	1.30
K..49	1.70	3.40	2.80	4.20	3.15	2.80
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	5.80	4.20	4.40
K..87	3.70	8.0	8.70	10.90	8.0	
K..97	7.0	14.0	15.70	20.0	15.70	15.50
K..107	10.0	21.0	25.50	33.50	24.0	
K..127	21.0	41.50	44.0	54.0	40.0	41.0
K..157	31.0	65.0	68.0	90.0	62.0	63.0
K..167	33.0	97.0	109.0	127.0	89.0	86.0
K..187	53.0	156.0	174.0	207.0	150.0	147.0

KF..

Gear unit	Fill quantity in liters					
	M1	M2	M3	M4	M5	M6
KF19	0.40			0.45	0.40	
KF29	0.70			0.85	0.70	
KF39	0.90	1.70	1.55	1.9	1.55	1.30
KF49	1.70	3.40	2.80	4.20	3.15	2.80
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	5.90	4.50	
KF87	3.70	8.20	9.0	11.90	8.40	
KF97	7.0	14.70	17.30	21.50	15.70	16.50
KF107	10.0	21.80	25.80	35.10	25.20	
KF127	21.0	41.50	46.0	55.0	41.0	
KF157	31.0	66.0	69.0	92.0	62.0	63.0

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

Gear unit	Fill quantity in liters					
	M1	M2	M3	M4	M5	M6
K..19	0.40			0.45	0.40	
K..29	0.70			0.85	0.70	
K..39	0.90	1.70	1.55	1.9	1.55	1.30
K..49	1.70	3.40	2.80	4.20	3.15	2.80
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

24832936/EN – 09/2018

Gear unit	Fill quantity in liters					
	M1	M2	M3	M4	M5	M6
K..67	1.10	2.40	2.70	3.70	2.60	
K..77	2.10	4.10	4.60	5.90	4.40	
K..87	3.70	8.20	8.80	11.10	8.0	
K..97	7.0	14.70	15.70	20.0	15.70	
K..107	10.0	20.50	24.0	32.40	24.0	
K..127	21.0	41.50	43.0	52.0	40.0	
K..157	31.0	65.0	68.0	90.0	62.0	63.0
K..167	33.0	97.0	109.0	127.0	89.0	86.0
K..187	53.0	156.0	174.0	207.0	150.0	147.0

Helical-worm (S) gear units

S..

Gear unit	Fill quantity in liters					
	M1	M2	M3[1)]	M4	M5	M6
S37	0.25	0.40	0.50	0.55	0.40	
S47	0.35	0.80	0.70/0.90	1.03	0.80	
S57	0.50	1.20	1.00/1.20	1.43	1.30	
S67	1.00	2.00	2.20/3.10	3.10	2.60	2.60
S77	1.90	4.20	3.70/5.4	5.9	4.40	
S87	3.30	8.1	6.9/10.4	11.3	8.4	
S97	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 volume.

SF..

Gear unit	Fill quantity in liters						
	M1	M2	M3[1)]	M4		M5	M6
				Output A or B	Output A + B		
SF37	0.25	0.40	0.50	0.55	0.6	0.40	
SF47	0.40	0.90	0.90/1.05	1.08	1.13	1.00	
SF57	0.50	1.20	1.00/1.50	1.48	1.53	1.40	
SF67	1.00	2.20	2.30/3.00	3.20	3.5	2.70	
SF77	1.90	4.10	3.90/5.8	6.5	7.2	4.90	
SF87	3.80	8.0	7.1/10.1	12.0	13.2	9.1	
SF97	7.4	15.0	13.8/18.8	23.1	25.2	18.0	

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

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

Gear unit	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	1.03	0.80	
S..57	0.50	1.10	1.00/1.50	1.43	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	21.0	15.7	

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

24832936/EN – 09/2018

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 oil quantity 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 unit	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 unit	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	

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

Gear unit	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.

24832936/EN – 09/2018

6.3 Reduced backlash gear unit design /R

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 designs so that positioning tasks can be solved with great precision. The rotational clearance is specified in angular minutes in the chapter "Geometrically possible combinations". The rotational clearance for the output shaft is specified without load (max. 1% of the rated output torque); the gear unit input side is blocked. The specified values have a tolerance of ± 2 angular minutes.

(→ 🗎 176)

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

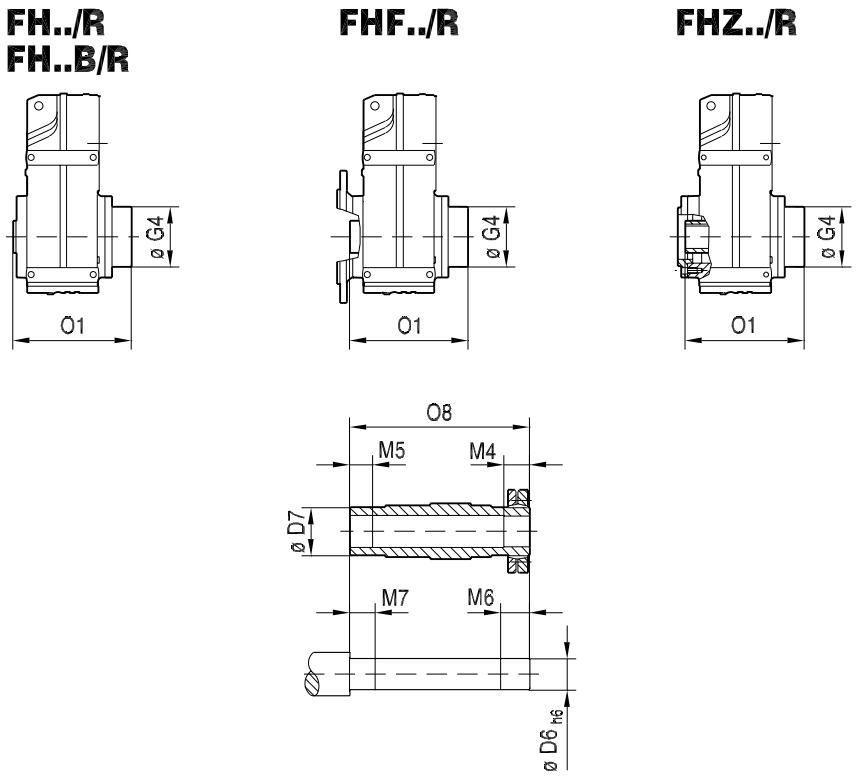
- Helical gear units (R), sizes 37 to 167
- Parallel-shaft helical gear units (F), sizes 37 to 157
- Helical-bevel gear units (only K..7) in gear unit sizes 37 – 187

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

24832936/EN – 09/2018

6.4 Assembly/disassembly of gear units with hollow shaft and key

INFORMATION

The data in this chapter applies to the FAM.. and KAM.. braking resistors.

INFORMATION

Use the supplied NOCO® fluid for mounting. The fluid prevents contact corrosion and facilitates subsequent dismounting.

INFORMATION

The key dimension X is specified for the customer and depends on the application requirements and the used materials.

See figure "Customer shaft with [A] and without [B] contact shoulder".

INFORMATION

For the dimensioning of the keyed connection, observe that the hollow shaft of the gear unit (hub) is made of the material C45R(1.1201).

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

- Mounting using supplied fastening parts
- Mounting/dismounting with SEW-EURODRIVE assembly and disassembly kit

The following sections describe the two options.

6.4.1 Assembly using supplied fastening parts

The following fastening parts are provided as standard:

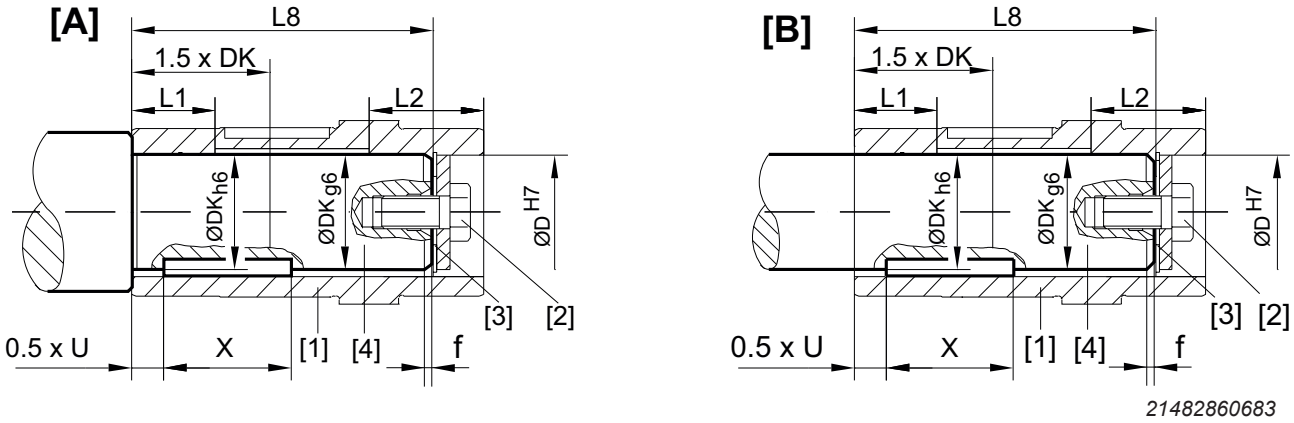
- Retaining screw with washer [2]
- Retaining ring [3]

Note the following information concerning the customer shaft:

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

24832936/EN – 09/2018

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



21482860683

DK Diameter of customer shaft
U Key width
L1 / L2 Cylinder section length with dimension H7
[1] Hollow shaft
[3] Retaining ring
X Key length
L8 Customer shaft length
f Shaft end chamfer
[2] Retaining screw with washer
[4] Customer shaft

Dimensions and tightening torques MS for retaining screw [2] for the **standard gear units**:

Gear unit type	D^{H7}	DK	L1	L2	f	L8	MS	U
	mm	mm	mm	mm	mm	mm	Nm	mm
WA..10	16		24	24	0.5	69	8	5
WA..20	18		27	27	1	84	8	6
WA..20	20		26	30	1	84	8	6
KA..19	20		28	30	1	92	8	6
FA..27	25		30	30	1	89	20	8
KA..29	25		30	38	1	107	20	8
KA..29	30		35	35	1	107	20	8
WA..30	20		30	30	1	105	8	6
SA..37	20		40	40	1	104	8	6
WA37	20		28	30	1	105	8	6
WA37	25		40	40	1	105	20	8
FA..37, KA..37	30		39	45	1	105	20	8
KA..39	30		35	45	1	137	20	8
KA..39	35		35	45	1	137	20	10
KA..49	35		35	45	1	160	20	10
KA..49	40		35	45	1	154	40	12
SA..47	25		38	38	1	105	20	8
SA..47	30		39	45	1	105	20	8
FA..47, KA..47	35		45	52	1	132	20	10

24832936/EN – 09/2018

Gear unit type	D^{H7} mm	DK mm	L1 mm	L2 mm	f mm	L8 mm	MS Nm	U mm
WA..47	30		35	45	1	122	20	8
SA..57	30		39	45	1	132	20	8
SA..57	35		45	52	1	132	20	10
FA..57, KA..57	40		50	60	1	142	40	12
FA..67, KA..67	40		50	60	1	156	40	12
SA..67	40		50	60	1	144	40	12
SA..67	45		50	60	1	144	40	14
FA..77, KA..77	50		65	75	1	183	40	14
SA..77	50		63	75	1	180	40	14
SA..77	60		72	90	1	180	80	18
FA..87, KA..87	60		75	90	1	210	80	18
SA..87	60		75	90	1	220	80	18
SA..87	70		90	105	2	220	80	20
FA..97, KA..97	70		90	105	2	270	80	20
SA..97	70		90	105	2	260	80	20
SA..97	90		110	125	2	255	200	25
FA..107, KA..107	90		110	125	2	313	200	25
FA..127, KA..127	100		120	150	2	373	200	28
FA..157, KA..157	120		180	180	2	460	200	32

6.4.2 Assembly/disassembly with SEW-EURODRIVE assembly and disassembly kit

Assembly

You can also use the optional assembly/disassembly kit for mounting. 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 assembly [2]
- Forcing washer for disassembly [7]
- Fixed nut for disassembly [8]

The short retaining screw delivered as standard is not required.

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]**.

24832936/EN – 09/2018

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

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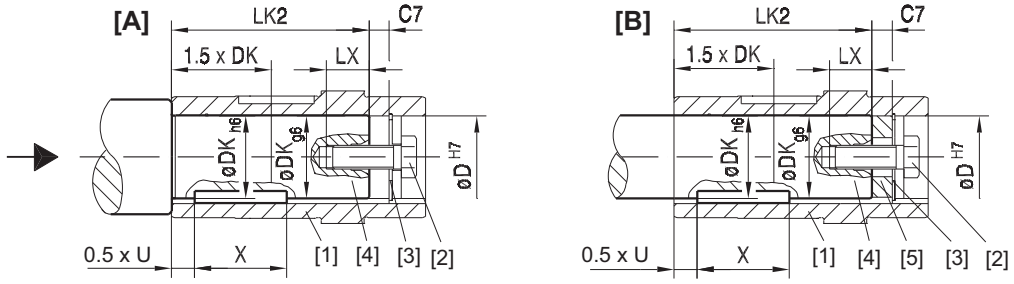

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DK Diameter of customer shaft
X Key dimension
U Key width
[1] Hollow shaft
[2] Retaining screw with washer
[3] Retaining ring
[4] Customer shaft
[5] Spacer tube

Dimensions, tightening torque MS and part numbers for retaining screw [2]:

Type	D^{H7} mm	DK mm	LK2 mm	LX^{+2} mm	C7 mm	MS Nm	Part number of the assembly/disassembly kit	U mm
WA..10	16		58	12.5	11	8	6437125	5
WA..20	18		72	16	12	8	643682X	6
WA..20	20		72	16	12	8	6436838	6
WA..30, WA..37	20		93	16	12	8	6436838	6
SA..37	20		92	16	12	8	6436838	6
KA..19	20		80	16	12	8	6436838	6
KA..29	25		91	22	16	20	6436846	8
FA..27	25		73	22	16	20	6436846	8
SA..47, WA..37	25		89	22	16	20	6436846	8
WA..47	30		106	22	16	20	6436854	8
FA..37, KA..37	30		89	22	16	20	6436854	8
SA..47	30		89	22	16	20	6436854	8
SA..57	30		116	22	16	20	6436854	8
KA..29	30		91	22	16	20	6436854	8
KA..39	30		121	22	16	20	6436854	8
KA..39	35		119	28	18	20	6436862	10
FA..47, KA..47, SA..57	35		114	28	18	20	6436862	10
KA..49	35		142	28	18	20	6436862	10
KA..49	40		136	36	18	40	6436870	12
FA..57, KA..57	40		124	36	18	40	6436870	12
FA..67	40		138	36	18	40	6436870	12
KA..67	40		138	36	18	40	6436870	12

24832936/EN – 09/2018

Type	D^{H7} mm	DK mm	LK2 mm	LX^{+2} mm	C7 mm	MS Nm	Part number of the assembly/disassembly kit	U mm
SA..67	40		126	36	18	40	6436870	12
SA..67	45		126	36	18	40	6436889	14
FA..77, KA..77, SA..77	50		165	36	18	40	6436897	14
FA..87, KA..87	60		188	42	22	80	6436900	18
SA..77	60		158	42	22	80	6436900	18
SA..87	60		198	42	22	80	6436900	18
FA..97, KA..97	70		248	42	22	80	6436919	20
SA..87	70		198	42	22	80	6436919	20
SA..97	70		238	42	22	80	6436919	20
FA..107, KA..107	90		287	50	26	200	6436927	25
SA..97	90		229	50	26	200	6436927	25
FA..127, KA..127	100		347	50	26	200	6436935	28
FA..157, KA..157	120		434	50	26	200	6436943	32

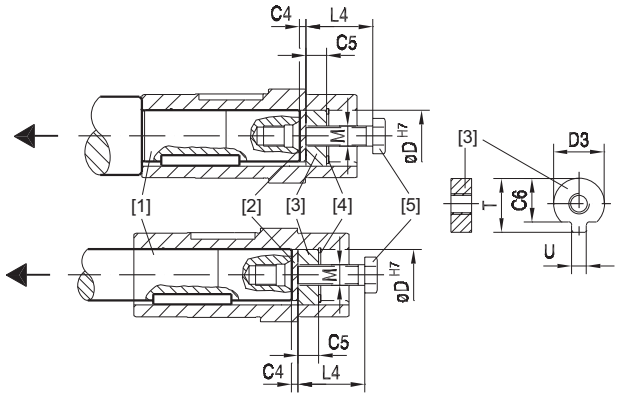
Disassembly

INFORMATION

The depicted assembly kit for attaching the customer shaft is a recommendation by SEW-EURODRIVE.

- You must always check whether this design can compensate the present axial loads.
- In particular applications (e.g. mounting agitator shafts), a different design may have to be used to secure the shaft axially. You can use your own devices to secure the shaft axially, if you ensure that these designs do not cause potential sources of combustion according to DIN EN 13463 (e.g. impact sparks).

The following figure shows the SEW-EURODRIVE assembly/disassembly kit.



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[1] Customer shaft
[2] Forcing washer
[3] Fixed nut for disassembly
[4] Retaining ring
[5] Retaining screw

Dimensions and part numbers of the assembly/disassembly kit:

Type	D^{H7} mm	M[1)]	C4 mm	C5 mm	C6 mm	$U^{-0.5}$ mm	$T^{-0.5}$ mm	$D3^{-0.5}$ mm	L4 mm	Part number of the assembly/disassembly kit
WA..10	16	M5	5	5	12	4.5	18	15.7	50	6437125
WA..20	18	M6	5	6	13.5	5.5	20.5	17.7	25	643682X
WA..20, WA..30, SA..37, WA..37, KA..19	20	M6	5	6	15.5	5.5	22.5	19.7	25	6436838
FA..27, SA..47, WA..47, KA..29	25	M10	5	10	20	7.5	28	24.7	35	6436846
FA..37, KA..29, KA..37, KA..39, SA..47, SA..57, WA..47	30	M10	5	10	25	7.5	33	29.7	35	6436854
FA..47, KA..39, KA..47, KA..49, SA..57	35	M12	5	12	29	9.5	38	34.7	45	6436862
FA..57, KA..57, FA..67, KA..49, KA..67, SA..67	40	M16	5	12	34	11.5	41.9	39.7	50	6436870
SA..67	45	M16	5	12	38.5	13.5	48.5	44.7	50	6436889
FA..77, KA..77, SA..77	50	M16	5	12	43.5	13.5	53.5	49.7	50	6436897
FA..87, KA..87, SA..77, SA..87	60	M20	5	16	56	17.5	64	59.7	60	6436900
FA..97, KA..97, SA..87, SA..97	70	M20	5	16	65.5	19.5	74.5	69.7	60	6436919
FA..107, KA..107, SA..97	90	M24	5	20	80	24.5	95	89.7	70	6436927
FA..127, KA..127	100	M24	5	20	89	27.5	106	99.7	70	6436935
FA..157, KA..157	120	M24	5	20	107	31	127	119.7	70	6436943

1) Retaining screw

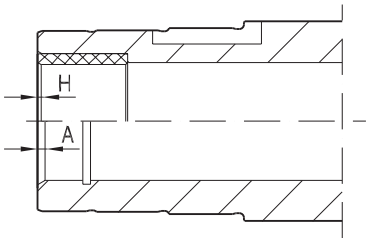
24832936/EN – 09/2018

6.5 Gear units with hollow shaft

6.5.1 Chamfers on hollow shafts

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

00 004 002



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Dimension tables for the chamfers of the F, K, S, and W gear units:

Gear unit	Design	
	with hollow shaft (A)	with hollow shaft and shrink disk (H)
W..10	1.5 × 30°	-
W..20	2 × 30°	-
W..30	2 × 30°	-
F..27	2 × 30°	0.5 × 45 °
K..19	2 × 30°	0.5 × 45 °
K..29	2 × 30°	0.5 × 45 °
F../K../S../W..37	2 × 30°	0.5 × 45 °
K..39	2 × 30°	-
F../K../S../ W..47	2 × 30°	0.5 × 45 °
K..49	2 × 30°	-
S..57	2 × 30°	0.5 × 45 °
F../K..57	2 × 30°	0.5 × 45 °
F../K../S..67	2 × 30°	0.5 × 45 °
F../K../S..77	2 × 30°	0.5 × 45 °
F../K../S..87	3 × 30°	0.5 × 45 °
F../K../S..97	3 × 30°	0.5 × 45 °
F../K..107	3 × 30°	0.5 × 45 °
F../K..127	5 × 30°	0.5 × 45 °
F../K..157	5 × 30°	0.5 × 45 °
KH167	-	0.5 × 45 °
KH187	-	0.5 × 45 °

24832936/EN – 09/2018

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.

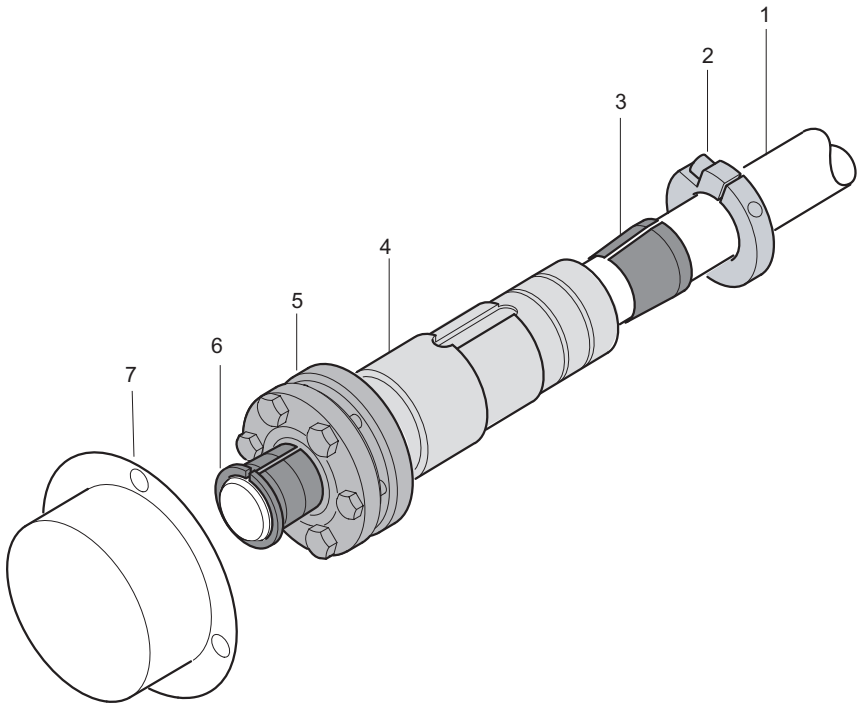
24832936/EN – 09/2018

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 of TorqLOC®

The TorqLOC® hollow shaft mounting system is approved for output torques of 92 Nm to 20000 Nm.

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), 39 and 49 (KT39, KT49)
- Helical-worm gear units in gear unit sizes 37 to 97 (ST37 – ST97)
- SPIROPLAN® gear units in gear unit 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)

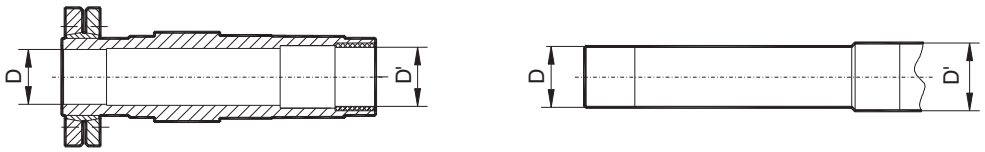
24832936/EN – 09/2018

6.7 Shouldered hollow shaft option with shrink disk

The following gear units with a hollow shaft and shrink disk also have the option of the 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 unit	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

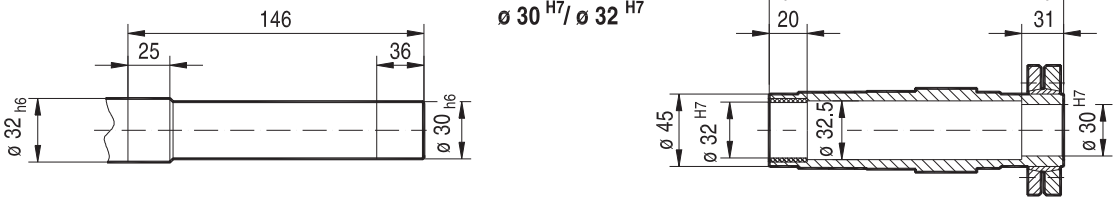
FH37 DRN80M4 with hollow shaft 30/32 mm

24832936/EN – 09/2018

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

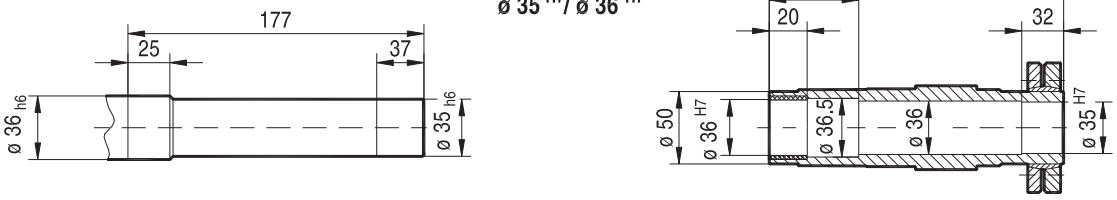
FH / FHF / FHZ37

ø 30 H7/ ø 32 H7



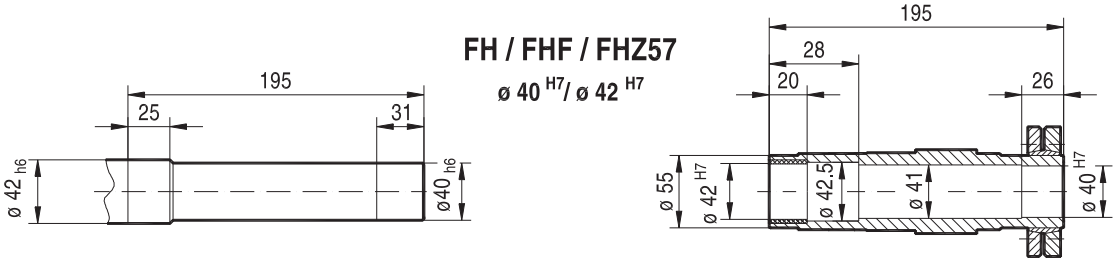
FH / FHF / FHZ47

ø 35 H7/ ø 36 H7



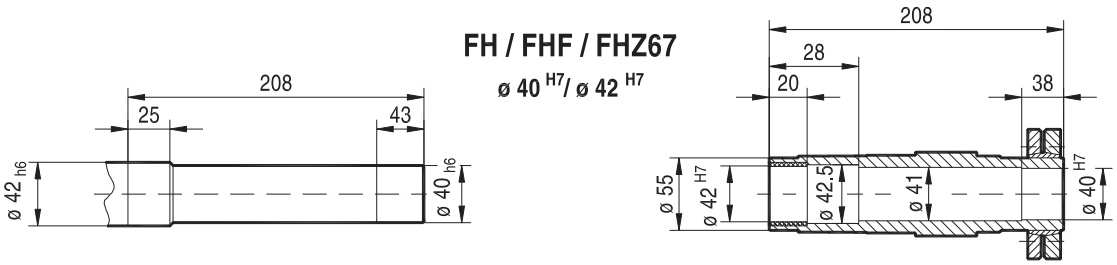
FH / FHF / FHZ57

ø 40 H7/ ø 42 H7



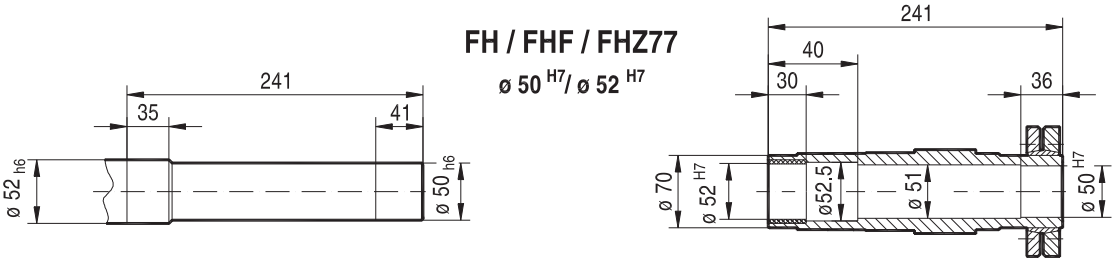
FH / FHF / FHZ67

ø 40 H7/ ø 42 H7



FH / FHF / FHZ77

ø 50 H7/ ø 52 H7



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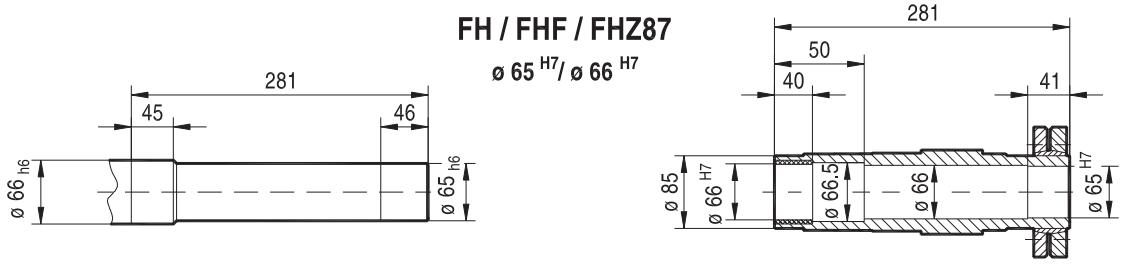
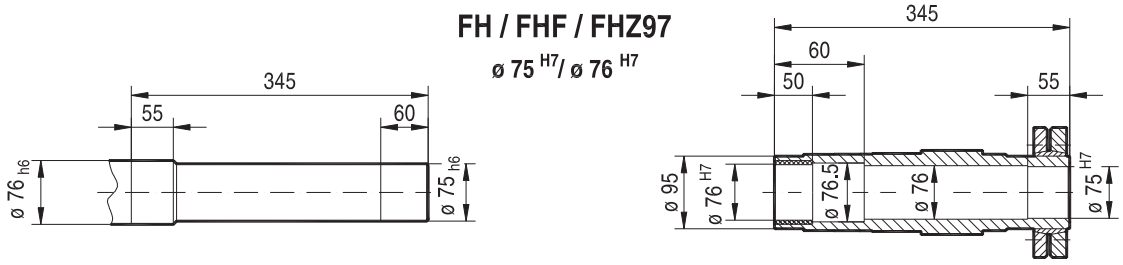
FH / FHF / FHZ87

ø 65 H7/ ø 66 H7



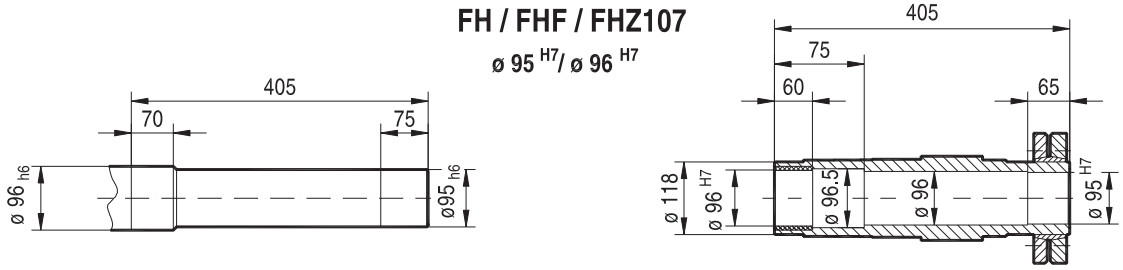
FH / FHF / FHZ97

ø 75 H7/ ø 76 H7



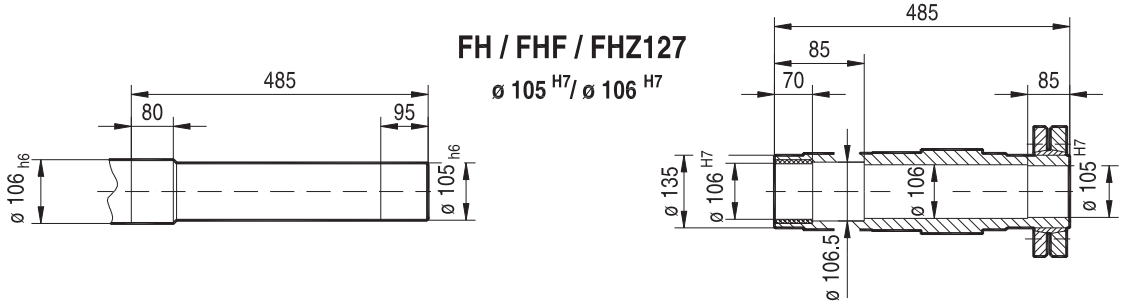
FH / FHF / FHZ107

ø 95 H7/ ø 96 H7



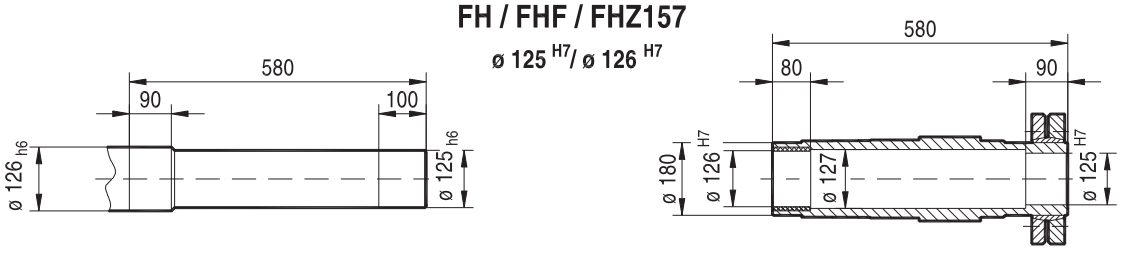
FH / FHF / FHZ127

ø 105 H7/ ø 106 H7



FH / FHF / FHZ157

ø 125 H7/ ø 126 H7



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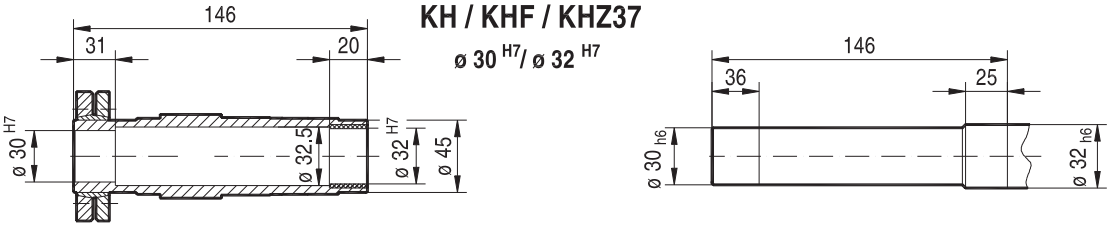
6.7.3 Helical-bevel gear units with shouldered hollow shaft (dimensions in mm):

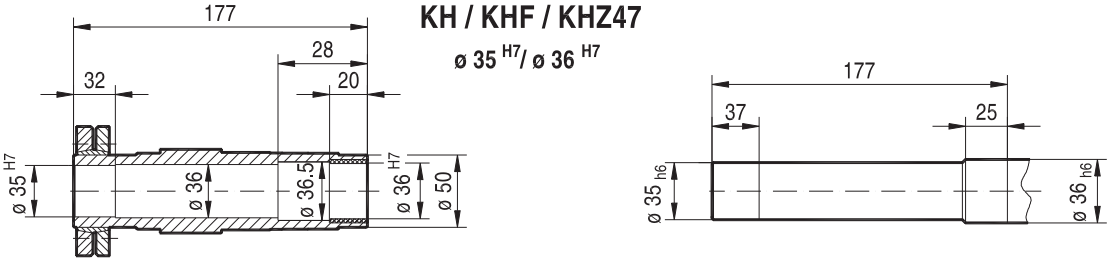
KH / KHF / KHZ37

ø 30 H7/ ø 32 H7



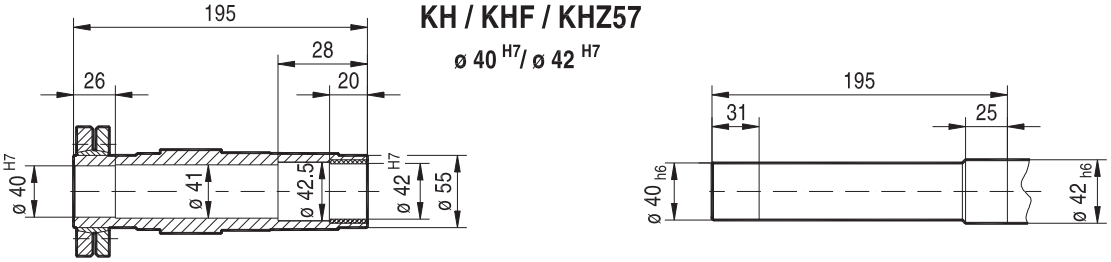
KH / KHF / KHZ47

ø 35 H7/ ø 36 H7



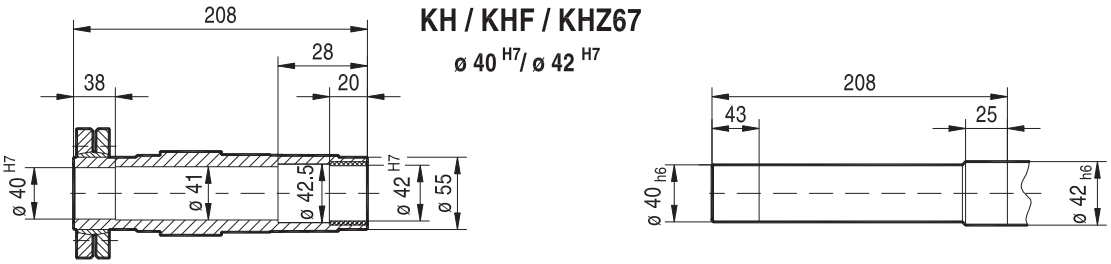
KH / KHF / KHZ57

ø 40 H7/ ø 42 H7



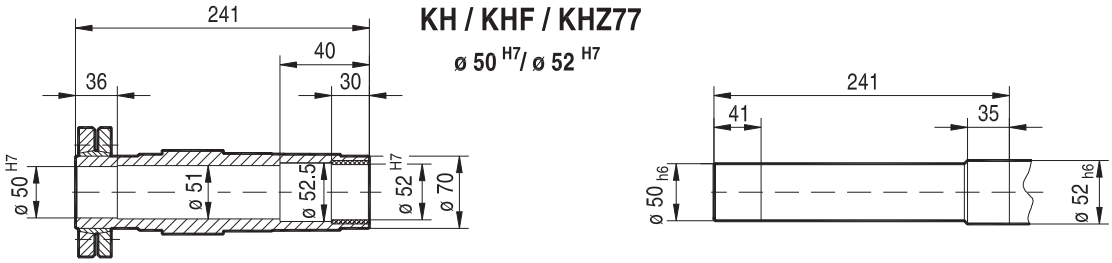
KH / KHF / KHZ67

ø 40 H7/ ø 42 H7



KH / KHF / KHZ77

ø 50 H7/ ø 52 H7



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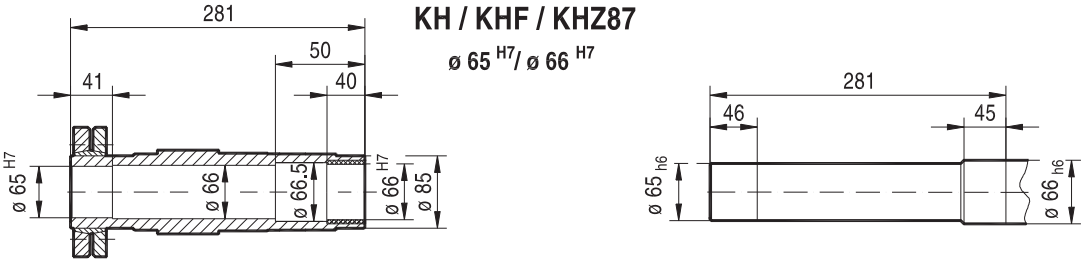
24832936/EN – 09/2018

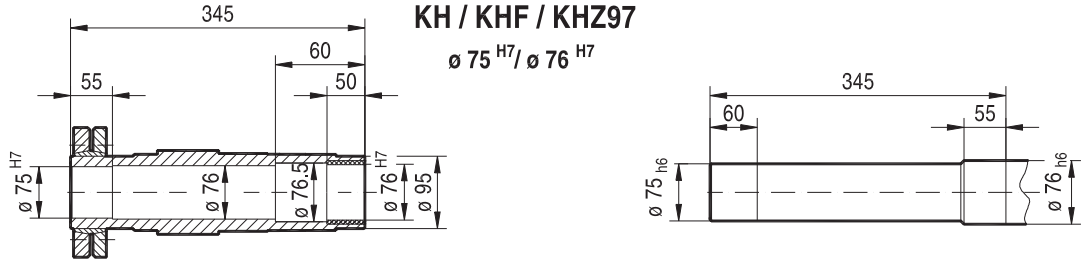
KH / KHF / KHZ87

ø 65 H7/ ø 66 H7



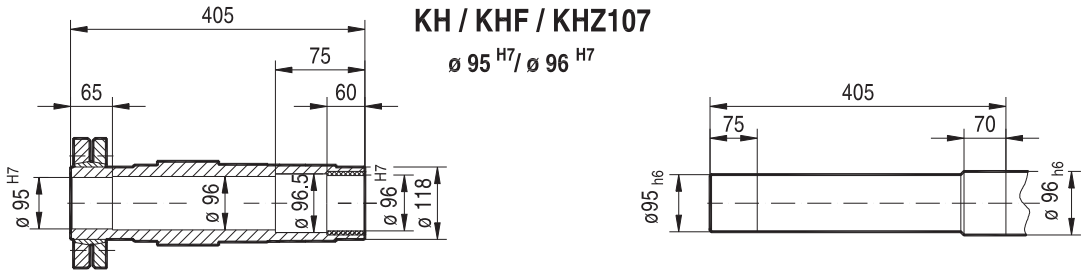
KH / KHF / KHZ97

ø 75 H7/ ø 76 H7



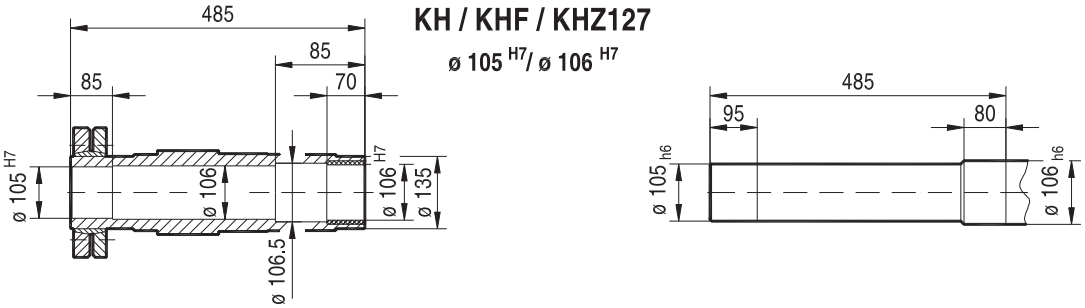
KH / KHF / KHZ107

ø 95 H7/ ø 96 H7



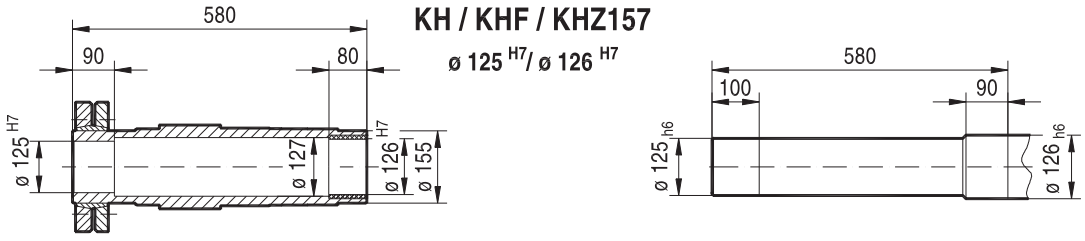
KH / KHF / KHZ127

ø 105 H7/ ø 106 H7



KH / KHF / KHZ157

ø 125 H7/ ø 126 H7



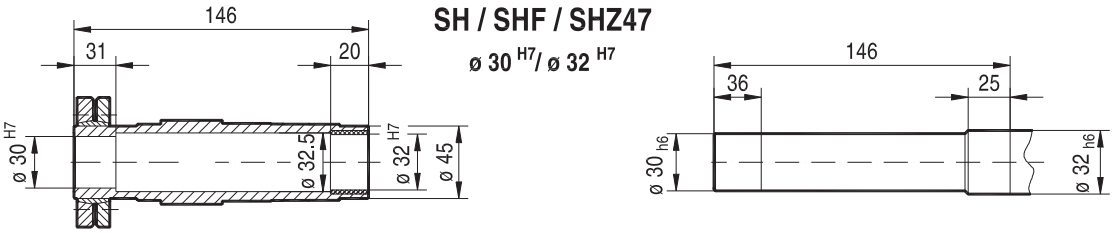
4987065099

24832936/EN – 09/2018

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

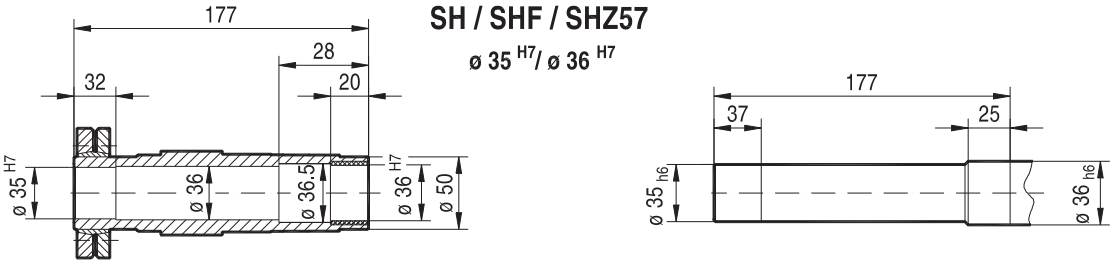
SH / SHF / SHZ47

ø 30 H7/ ø 32 H7



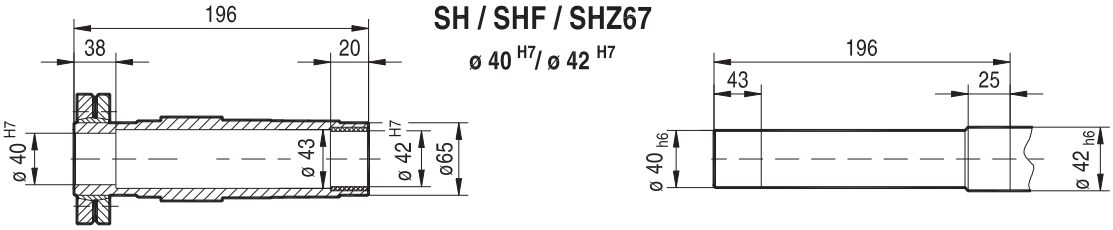
SH / SHF / SHZ57

ø 35 H7/ ø 36 H7



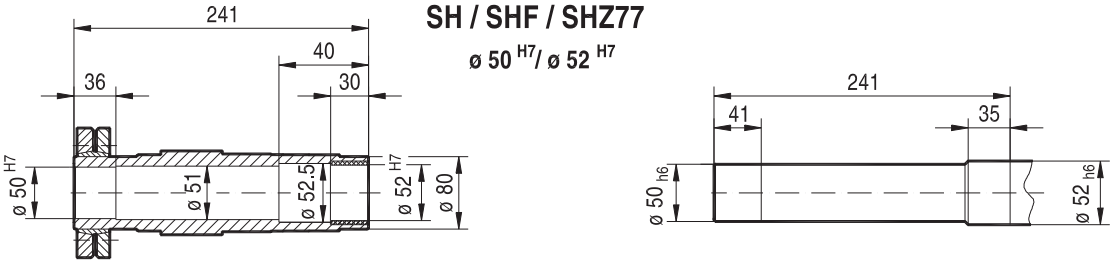
SH / SHF / SHZ67

ø 40 H7/ ø 42 H7



SH / SHF / SHZ77

ø 50 H7/ ø 52 H7



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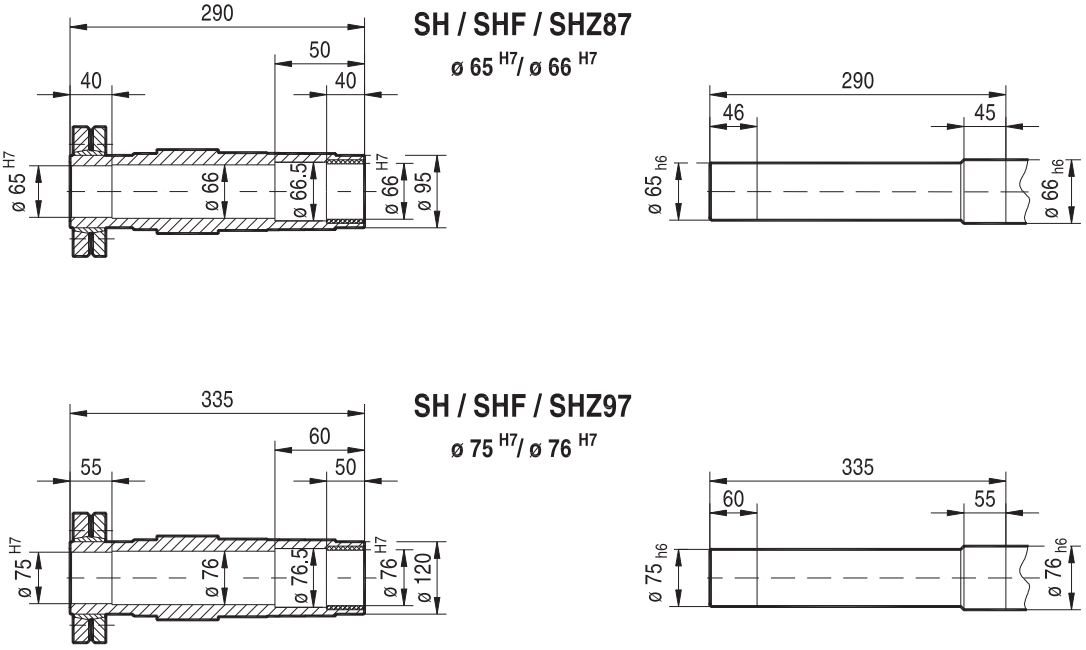
24832936/EN – 09/2018



SH / SHF / SHZ87

ø 65 H7/ ø 66 H7

SH / SHF / SHZ97

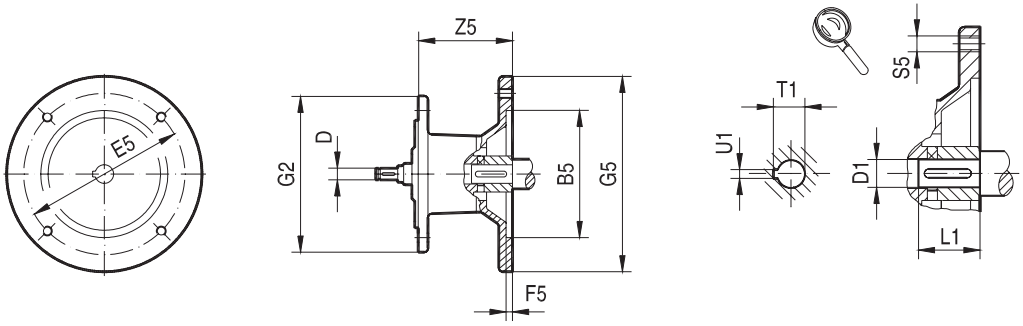
ø 75 H7/ ø 76 H7

4987069451

24832936/EN – 09/2018

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 F..27, F..37, F..47 K..19, K..29, K..37 S..37, S..47, S..57 W..37	AM63	95	10	115	3.5	120	140	M8	72	11	23	12.8	4
	AM71[1]	110	10	130	4	120	160	M8	72	14	30	16.3	5
	AM80[1]	130	12	165	4.5	120	200	M10	106	19	40	21.8	6
	AM90[1]	130	14	165	4.5	120	200	M10	106	24	50	27.3	8
R..47, R..57, R..67 F..57, F..67 K..39, K..47[2], K..57, K..67 S..67 W..47[3]	AM63	95	10	115	3.5	160	140	M8	66	11	23	12.8	4
	AM71	110	10	130	4	160	160	M8	66	14	30	16.3	5
	AM80	130	12	165	4.5	160	200	M10	99	19	40	21.8	6
	AM90	130	14	180	4.5	160	200	M10	99	24	50	27.3	8
	AM100[1]	180	16	215	5	160	250	M12	134	28	60	31.3	8
	AM112[1]	180	18	215	5	160	250	M12	134	28	60	31.3	8
	AM132S/M[1]	230	22	265	5	160	300	M12	191	38	80	41.3	10
R..77 F..77 K..49, K..77 S..77	AM63	95	10	115	3.5	200	140	M8	60	11	23	12.8	4
	AM71	110	10	130	4	200	160	M8	60	14	30	16.3	5
	AM80	130	12	165	4.5	200	200	M10	92	19	40	21.8	6
	AM90	130	14	165	4.5	200	200	M10	92	24	50	27.3	8
	AM100[1]	180	16	215	5	200	250	M12	126	28	60	31.3	8
	AM112[1]	180	18	215	5	200	250	M12	126	28	60	31.3	8
	AM132S/M[1]	230	22	265	5	200	300	M12	179	38	80	41.3	10
	AM132ML[1]	230	28	265	5	200	300	M12	179	38	80	41.3	10
R..87 F..87 K..87 S..87[4]	AM80	130	12	165	4.5	250	200	M10	87	19	40	21.8	6
	AM90	130	14	165	4.5	250	200	M10	87	24	50	27.3	8
	AM100	180	16	215	5	250	250	M12	121	28	60	31.3	8
	AM112	180	18	215	5	250	250	M12	121	28	60	31.3	8
	AM132S/M	230	22	265	5	250	300	M12	174	38	80	41.3	10
	AM132ML	230	28	265	5	250	300	M12	174	38	80	41.3	10
	AM160[1]	250	28	300	6	250	350	M16	232	42	110	45.3	12
	AM180[1]	250	32	300	6	250	350	M16	232	48	110	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) Maximum AM100
3) Maximum AM90
4) Not with AM180

24832936/EN – 09/2018

23 003 100

Fig.1

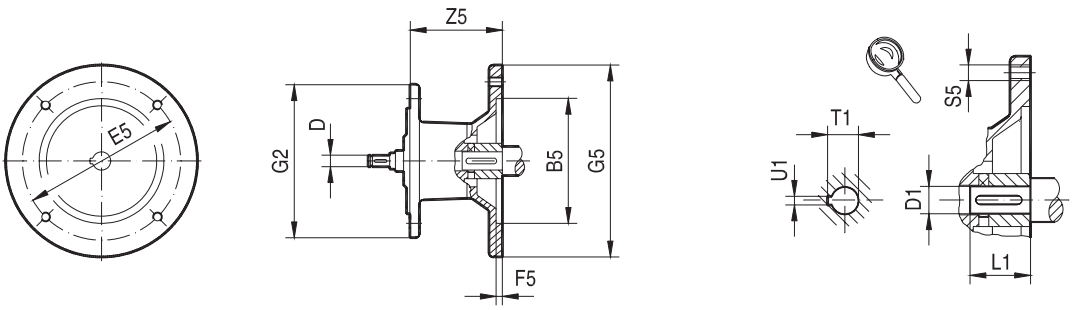
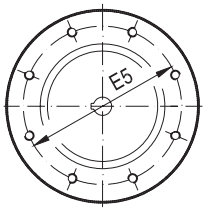


Fig.2



9007204242194571

Gear unit type	Adapter type	Fig.	Dimensions in mm											
			B5	D	E5	F5	G2	G5	S5	Z5	D1	L1	T1	U1
R..97 F..97 K..97 S..97[1)]	AM100	1	180	16	215	5	300	250	M12	116	28	60	31.3	8
	AM112	1	180	18	215	5	300	250	M12	116	28	60	31.3	8
	AM132S/M	1	230	22	265	5	300	300	M12	169	38	80	41.3	10
	AM132ML	1	230	28	265	5	300	300	M12	169	38	80	41.3	10
	AM160	1	250	28	300	6	300	350	M16	227	42	110	45.3	12
	AM180	1	250	32	300	6	300	350	M16	227	48	110	51.8	14
	AM200	1	300	38	350	7	300	400	M16	268	55	110	59.3	16
R..107, R..127 F..107 K..107	AM100	1	180	16	215	5	350	250	M12	110	28	60	31.3	8
	AM112	1	180	18	215	5	350	250	M12	110	28	60	31.3	8
	AM132S/M	1	230	22	265	5	350	300	M12	163	38	80	41.3	10
	AM132ML	1	230	28	265	5	350	300	M12	163	38	80	41.3	10
	AM160	1	250	28	300	6	350	350	M16	221	42	110	45.3	12
	AM180	1	250	32	300	6	350	350	M16	221	48	110	51.8	14
	AM200	1	300	38	350	7	350	400	M16	262	55	110	59.3	16
	AM225	2	350	38	400	7	350	450	M16	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	1	230	28	265	5	400	300	M12	156	38	80	41.3	10
	AM160	1	250	28	300	6	400	350	M16	214	42	110	45.3	12
	AM180	1	250	32	300	6	400	350	M16	214	48	110	51.8	14
	AM200	1	300	38	350	7	400	400	M16	255	55	110	59.3	16
	AM225	2	350	38	400	7	400	450	M16	270	60	140	64.4	18

1) Not with AM200

24832936/EN – 09/2018

23 004 100

Fig.1

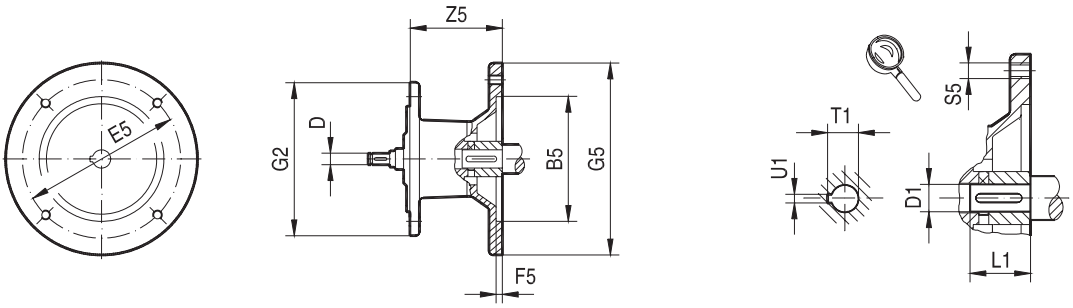
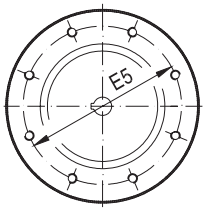


Fig.2



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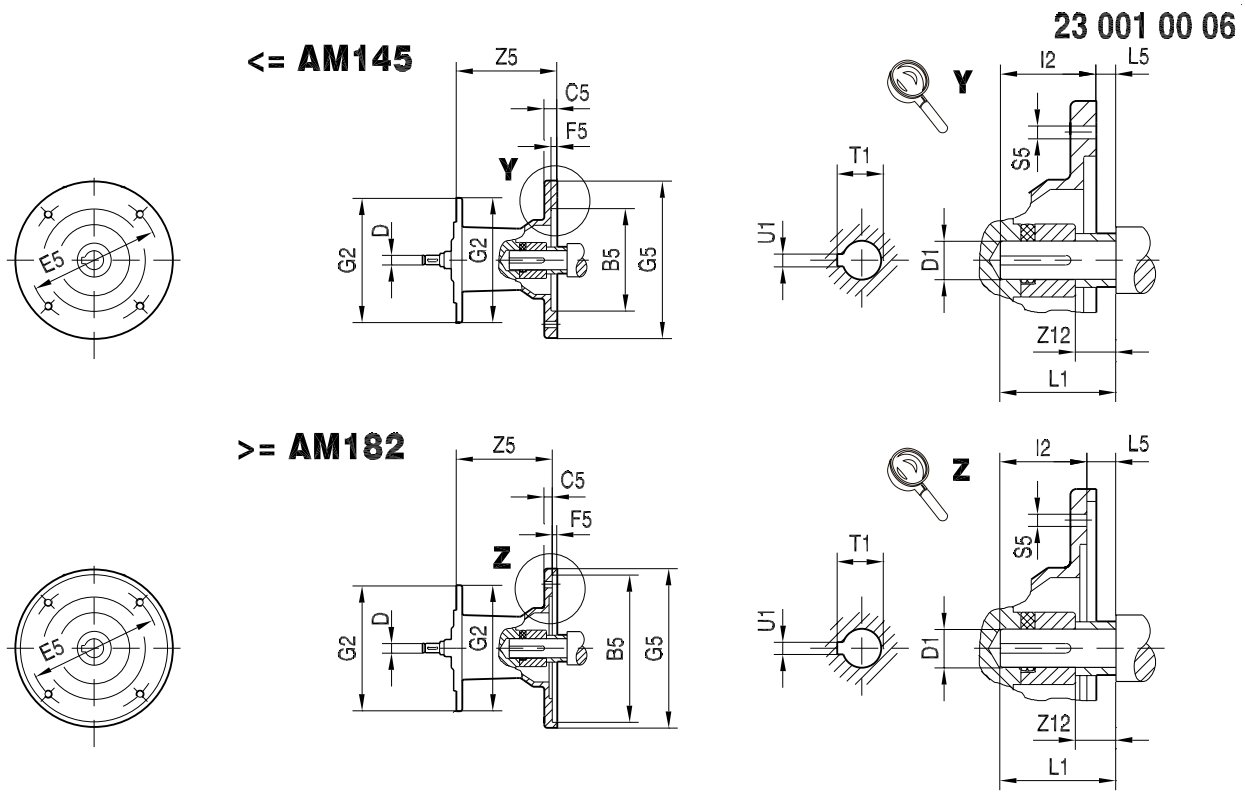
Gear unit type	Adapter type	Fig.	Dimensions in mm											
			B5	D	E5	F5	G2	G5	S5	Z5	D1	L1	T1	U1
R..147 F..127 K..127	AM132S/M	1	230	22	265	5	450	300	M12	148	38	80	41.3	10
	AM132ML	1	230	28	265	5	450	300	M12	148	38	80	41.3	10
	AM160	1	250	28	300	6	450	350	M16	206	42	110	45.3	12
	AM180	1	250	32	300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

24832936/EN – 09/2018

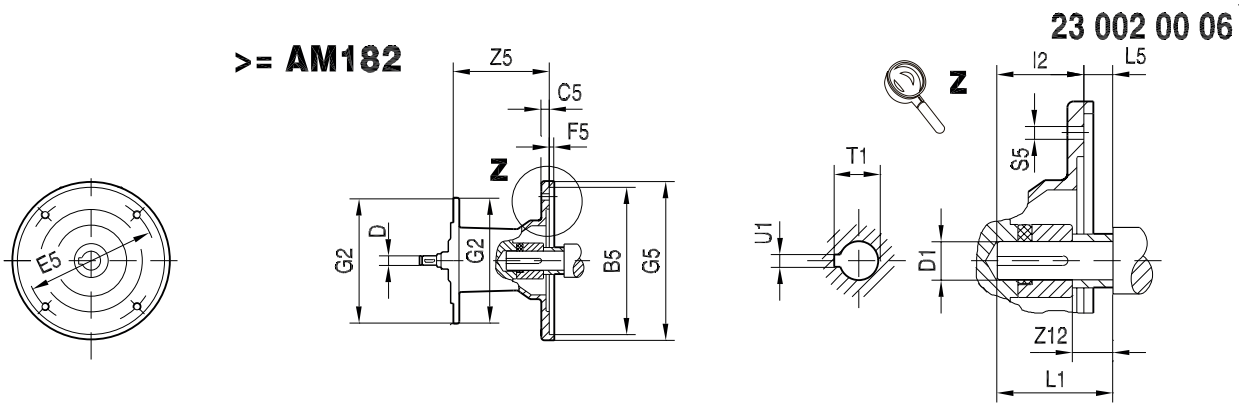
6.9 Adapters for mounting NEMA motors



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 F..27, F..37, F..47 K..19, K..29, K..37 S..37, S..47, S..57 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	114.3	12	12	149.2	4.5	120	170	54.1	3	10.5	117	14.5	22,225	57	24.7	4.76
	AM145	114.3	12	14	149.2	4.5	120	170	54.1	3	10.5	117	14.5	22,225	57	24.7	4.76
R..47, R..57, R..67 F..57, F..67 K..39, K..47, K..57, K..67 S..67 W..47[1)]	AM56	114.3	11	10	149.2	4.5	160	170	52.55	-4.8	10.5	87	16.5	15,875	47	18.1	4.76
	AM143	114.3	12	12	149.2	4.5	160	170	54.1	3	10.5	110.5	14.5	22,225	57	24.7	4.76
	AM145	114.3	12	14	149.2	4.5	160	170	54.1	3	10.5	110.5	14.5	22,225	57	24.7	4.76
	AM182	215.9	10	16	184	5	160	228	66.85	3	15	147.5	16.5	28,575	69	31.7	6.35
	AM184	215.9	10	18	184	5	160	228	66.85	3	15	147.5	16.5	28,575	69	31.7	6.35
	AM213/215	215.9	11	22	184	5	160	228	79.55	6.3	15	200.5	15.8	34,925	85	38.7	7.94
R..77 F..77 K..49, K..77 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	114.3	12	12	149.2	4.5	200	170	54.1	3	10.5	103.5	14.5	22,225	57	24.7	4.76
	AM145	114.3	12	14	149.2	4.5	200	170	54.1	3	10.5	103.5	14.5	22,225	57	24.7	4.76
	AM182	215.9	10	16	184	5	200	228	66.85	3	15	139.5	16.5	28,575	69	31.7	6.35
	AM184	215.9	10	18	184	5	200	228	66.85	3	15	139.5	16.5	28,575	69	31.7	6.35
	AM213/215	215.9	11	22	184	5	200	228	79.55	6.3	15	188.5	15.8	34,925	85	38.7	7.94
R..87 F..87 K..87 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	114.3	12	14	149.2	4.5	250	170	54.1	3	10.5	98.5	14.5	22,225	57	24.7	4.76
	AM182	215.9	10	16	184	5	250	228	66.85	3	15	134.5	16.5	28,575	69	31.7	6.35
	AM184	215.9	10	18	184	5	250	228	66.85	3	15	134.5	16.5	28,575	69	31.7	6.35
	AM213/215	215.9	11	22	184	5	250	228	79.55	6.3	15	183.5	15.8	34,925	85	38.7	7.94
	AM254/256	215.9	12	28	184	5	250	228	95.3	6.3	15	234	8.8	41,275	101	45.8	9.53
	AM284/286	266.7	15	32	228.6	5	250	286	111.05	6.3	15	241	15.8	47,625	117	53.4	12.7

1) Maximum AM143/AM145

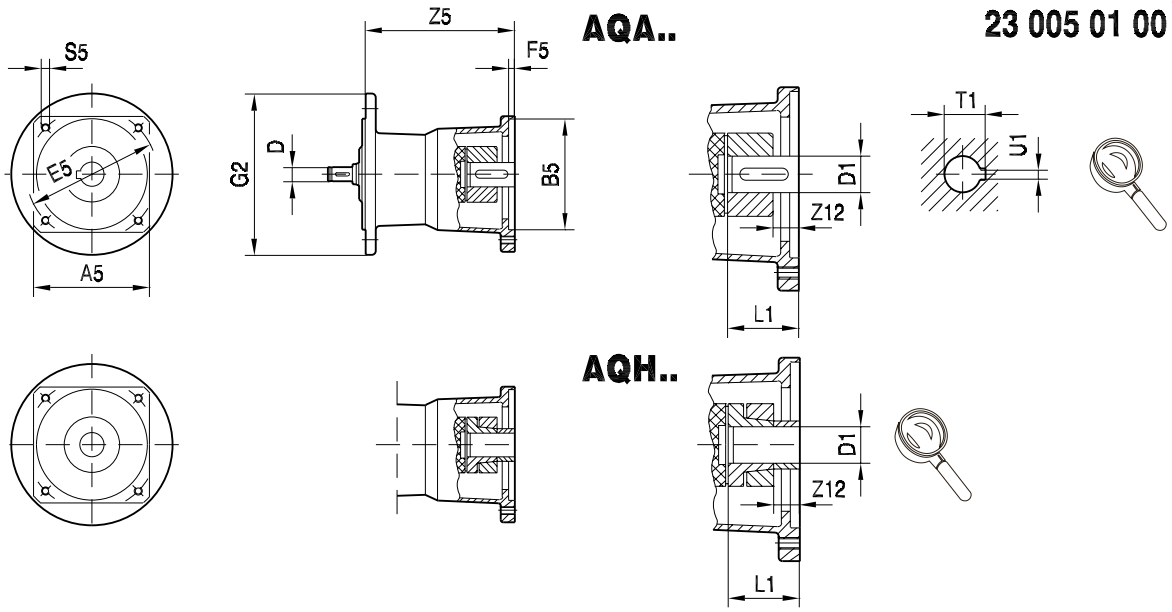
24832936/EN – 09/2018



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 F..97 K..97 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	215.9	10	18	184	5	300	228	66.85	3	15	129.5	16.5	28,575	69	31.7	6.35
	AM213/215	215.9	11	22	184	5	300	228	79.55	6.3	15	178.5	15.8	34,925	85	38.7	7.94
	AM254/256	215.9	12	28	184	5	300	228	95.3	6.3	15	229	8.8	41,275	101	45.8	9.53
	AM284/286	266.7	20	32	228.6	5	300	286	111.05	6.3	15	236	15.8	47,625	117	53.4	12.7
	AM324/326	317.5	17	38	279.4	5	300	356	127.05	6.3	17.5	296	34.8	53,975	133	60	12.7
	AM364/365	317.5	17	38	279.4	5	300	356	143.05	6.3	17.5	296	34.8	60,325	149	67.6	15,875
R..107, R127 F..107 K..107	AM182	215.9	10	16	184	5	350	228	66.85	3	15	123.5	16.5	28,575	69.85	31.7	6.35
	AM184	215.9	10	18	184	5	350	228	66.85	3	15	123.5	16.5	28,575	69.85	31.7	6.35
	AM213/215	215.9	11	22	184	5	350	228	79.55	6.3	15	172.5	15.8	34,925	85.85	38.7	7.94
	AM254/256	215.9	12	28	184	5	350	228	95.3	6.3	15	223	8.8	41,275	101.6	45.8	9.53
	AM284/286	266.7	15	32	228.6	5	350	286	111.05	6.3	15	230	15.8	47,625	117.35	53.4	12.7
	AM324/326	317.5	17	38	279.4	5	350	356	127.05	6.3	17.5	290	34.8	53,975	133.35	60	12.7
	AM364/365	317.5	17	38	279.4	5	350	356	143.05	6.3	17.5	290	34.8	60,325	149.35	67.6	15,875
R..137	AM213/215	215.9	11	22	184	5	400	228	79.55	6.3	15	165.5	15.8	34,925	85.85	38.7	7.94
	AM254/256	215.9	12	28	184	5	400	228	95.3	6.3	15	216	8.8	41,275	101.6	45.8	9.53
	AM284/286	266.7	15	32	228.6	5	400	286	111.05	6.3	15	223	15.8	47,625	117.35	53.4	12.7
	AM324/326	317.5	17	38	279.4	5	400	356	127.05	6.3	17.5	283	34.8	53,975	133.35	60	12.7
	AM364/365	317.5	17	38	279.4	5	400	356	143.05	6.3	17.5	283	34.8	60,325	149.35	67.6	15,875
R..147 F..127 K..127	AM213/215	215.9	11	22	184	5	450	228	79.55	6.3	15	157.5	15.8	34,925	85.85	38.7	7.94
	AM254/256	215.9	12	28	184	5	450	228	95.3	6.3	15	208	8.8	41,275	101.6	45.8	9.53
	AM284/286	266.7	15	32	228.6	5	450	286	111.05	6.3	15	215	15.8	47,625	117.35	53.4	12.7
	AM324/326	317.5	17	38	279.4	5	450	356	127.05	6.3	17.5	275	34.8	53,975	133.35	60	12.7
	AM364/365	317.5	17	38	279.4	5	450	356	143.05	6.3	17.5	275	34.8	60,325	149.35	67.6	15,875
R..167 F..157 K..157 K..167 K..187	AM254/256	215.9	12	28	184	5	550	228	95.3	6.3	15	200	8.8	41,275	101.6	45.8	9.53
	AM284/286	266.7	15	32	228.6	5	550	286	111.05	6.3	15	207	15.8	47,625	117.35	53.4	12.7
	AM324/326	317.5	17	38	279.4	5	550	356	127.05	6.3	17.5	267	34.8	53,975	133.35	60	12.7
	AM364/365	317.5	17	38	279.4	5	550	356	143.05	6.3	17.5	267	34.8	60,325	149.35	67.6	15,875

24832936/EN – 09/2018

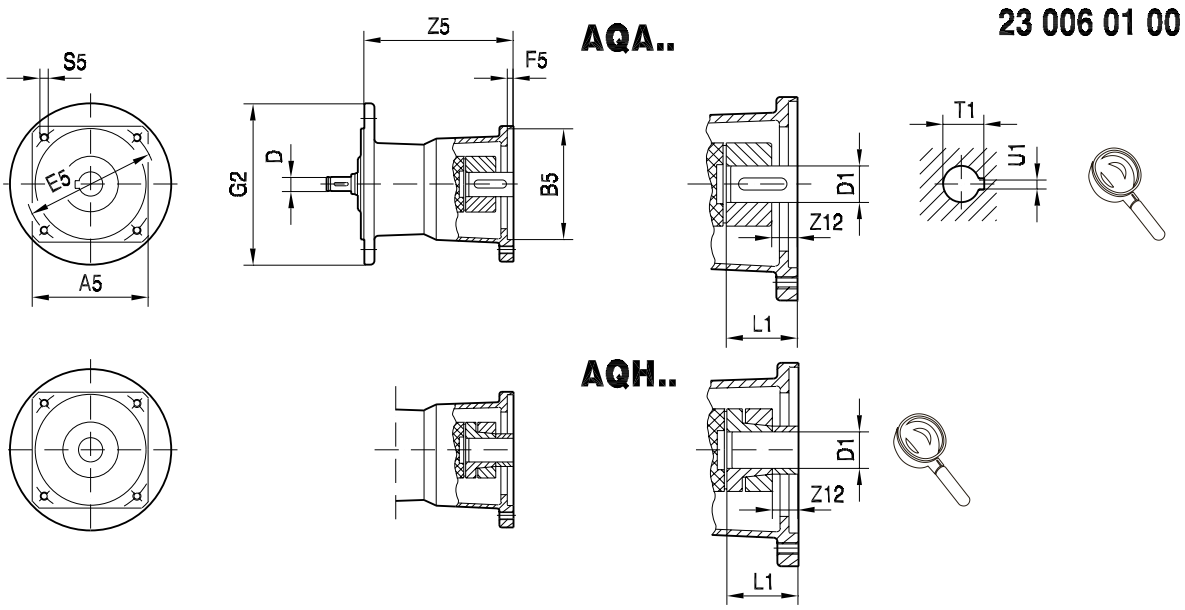
6.10 Adapters for mounting servomotors



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 F..27, F..37, F..47 K..19, K..29, K..37 S..37, S..47, S..57 W..37	AQ..80/1	82	60	10/12	75	3	120	M5	104.5	5.5	5.5	11	23	12.8	4
	AQ..80/2	82	60	10/12	75	3	120	M5	104.5	5.5	5.5	14	30	16.3	5
	AQ..80/3	82	50	10/12	95	3	120	M6	104.5	5.5	5.5	14	30	16.3	5
	AQ..100/1	100	80	10/12/14/16	100	4	120	M6	129.5	-	-	14	30	16.3	5
	AQ..100/2	100	95	10/12/14/16	115	4	120	M8	129.5	-	-	14	30	16.3	5
	AQ..100/3	100	80	10/12/14/16	100	4	120	M6	143.5	2	14	19	40	21.8	6
	AQ..100/4	100	95	10/12/14/16	115	4	120	M8	143.5	2	14	19	40	21.8	6
	AQ..115/1	115	95	10/12/14/16	130	4	120	M8	152.5	11	23	19	40	21.8	6
	AQ..115/2	115	110	10/12/14/16	130	4	120	M8	152.5	11	23	19	40	21.8	6
	AQ..115/3	115	110	10/12/14/16	130	4	120	M8	152.5	16	16	24	50	27.3	8
R..47, R..57, R..67 F..57, F..67 K..39, K..47[3)], K..57, K..67 S..67 W..47	AQ..80/1	82	60	10/12	75	3	160	M5	98	5.5	5.5	11	23	12.8	4
	AQ..80/2	82	60	10/12	75	3	160	M5	98	5.5	5.5	14	30	16.3	5
	AQ..80/3	82	50	10/12	95	3	160	M6	98	5.5	5.5	14	30	16.3	5
	AQ..100/1	100	80	10/12/14/16	100	4	160	M6	122.5	-	-	14	30	16.3	5
	AQ..100/2	100	95	10/12/14/16	115	4	160	M8	122.5	-	-	14	30	16.3	5
	AQ..100/3	100	80	10/12/14/16	100	4	160	M6	136.5	2	14	19	40	21.8	6
	AQ..100/4	100	95	10/12/14/16	115	4	160	M8	136.5	2	14	19	40	21.8	6
	AQ..115/1	115	95	10/12/14/16	130	4	160	M8	145.5	11	23	19	40	21.8	6
	AQ..115/2	115	110	10/12/14/16	130	4	160	M8	145.5	11	23	19	40	21.8	6
	AQ..115/3	115	110	10/12/14/16	130	4	160	M8	145.5	16	16	24	50	27.3	8
	AQ..140/1	140	110	16/18/22	165	5	160	M10	175	16	16	24	50	27.3	8
	AQ..140/2	140	130	16/18/22	165	5	160	M10	175	16	16	24	50	27.3	8
	AQ..140/3	140	130	16/18/22	165	5	160	M10	188	22	22	32	60	35.5	10
	AQ..140/4	140	130	16/18/22	165	5	160	M10	188	22	22	28	60	31.3	8
	AQ..160/1	162	155	16/18/22	190	5	160	M10	188	22	22	32	60	35.3	10
	AQ..190/1	190	130	22/28	215	5	160	M12	237.5	24	24	32	60	35.3	10
	AQ..190/2	190	180	22/28	215	5	160	M12	237.5	24	24	32	60	35.3	10
	AQ..190/3	190	180	22/28	215	5	160	M12	261.5	34	34	38	80	41.3	10

1) For designs with keyway (AQA..)
2) For designs with clamping ring hub (AQH..)
3) Not with AQ190

24832936/EN – 09/2018



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 F..77 K..49, K..77 S..77	AQ..80/1	82	60	10/12	75	3	200	M5	92	5.5	5.5	11	23	12.8	4
	AQ..80/2	82	60	10/12	75	3	200	M5	92	5.5	5.5	14	30	16.3	5
	AQ..80/3	82	50	10/12	95	3	200	M6	92	5.5	5.5	14	30	16.3	5
	AQ..100/1	100	80	10/12/14/16	100	4	200	M6	115.5	-	-	14	30	16.3	5
	AQ..100/2	100	95	10/12/14/16	115	4	200	M8	115.5	-	-	14	30	16.3	5
	AQ..100/3	100	80	10/12/14/16	100	4	200	M6	129.5	2	14	19	40	21.8	6
	AQ..100/4	100	95	10/12/14/16	115	4	200	M8	129.5	2	14	19	40	21.8	6
	AQ..115/1	115	95	10/12/14/16	130	4	200	M8	138.5	11	23	19	40	21.8	6
	AQ..115/2	115	110	10/12/14/16	130	4	200	M8	138.5	11	23	19	40	21.8	6
	AQ..115/3	115	110	10/12/14/16	130	4	200	M8	138.5	16	16	24	50	27.3	8
	AQ..140/1	140	110	16/18/22	165	5	200	M10	167	16	16	24	50	27.3	8
	AQ..140/2	140	130	16/18/22	165	5	200	M10	167	16	16	24	50	27.3	8
	AQ..140/3	140	130	16/18/22	165	5	200	M10	180	22	22	32	60	35.3	10
	AQ..140/4	140	130	16/18/22	165	5	200	M10	180	22	22	28	60	31.3	8
	AQ..160/1	162	155	16/18/22	190	5	200	M10	180	22	22	32	60	35.3	10
	AQ..190/1	190	130	22/28	215	5	200	M12	225.5	24	24	32	60	35.3	10
	AQ..190/2	190	180	22/28	215	5	200	M12	225.5	24	24	32	60	35.3	10
	AQ..190/3	190	180	22/28	215	5	200	M12	249.5	34	34	38	80	41.3	10
R..87 F..87 K..87 S..87	AQ..100/1	100	80	12/14/16	100	4	250	M6	110.5	-	-	14	30	16.3	5
	AQ..100/2	100	95	12/14/16	115	4	250	M8	110.5	-	-	14	30	16.3	5
	AQ..100/3	100	80	12/14/16	100	4	250	M6	124.5	2	14	19	40	21.8	6
	AQ..100/4	100	95	12/14/16	115	4	250	M8	124.5	2	14	19	40	21.8	6
	AQ..115/1	115	95	12/14/16	130	4	250	M8	133.5	11	23	19	40	21.8	6
	AQ..115/2	115	110	12/14/16	130	4	250	M8	133.5	11	23	19	40	21.8	6
	AQ..115/3	115	110	12/14/16	130	4	250	M8	133.5	16	16	24	50	27.3	8
	AQ..140/1	140	110	16/18/22	165	5	250	M10	162	16	16	24	50	27.3	8
	AQ..140/2	140	130	16/18/22	165	5	250	M10	162	16	16	24	50	27.3	8
	AQ..140/3	140	130	16/18/22	165	5	250	M10	175	22	22	32	60	35.3	10
	AQ..140/4	140	130	16/18/22	165	5	250	M10	175	22	22	28	60	31.3	8
	AQ..160/1	162	155	16/18/22	190	5	250	M10	175	22	22	32	60	35.3	10
	AQ..190/1	190	130	22/28	215	5	250	M12	220.5	24	24	32	60	35.3	10
	AQ..190/2	190	180	22/28	215	5	250	M12	220.5	24	24	32	60	35.3	10
	AQ..190/3	190	180	22/28	215	5	250	M12	244.5	34	34	38	80	41.3	10

1) For designs with keyway (AQA..)

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

24832936/EN – 09/2018

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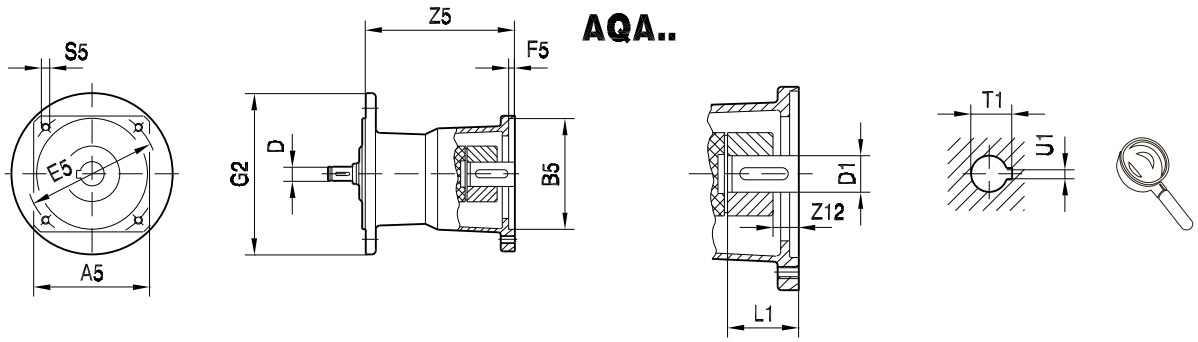
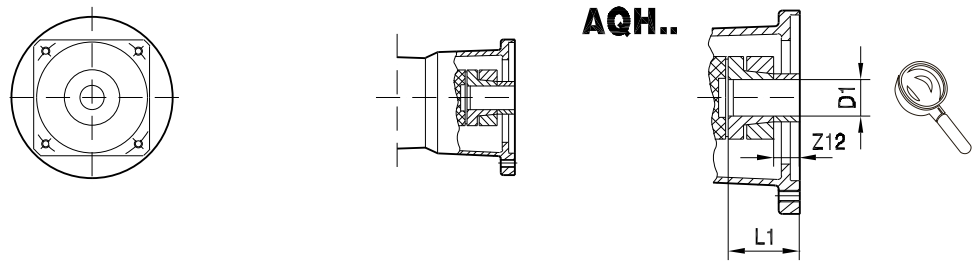




Gear unit type	Adapter type	Dimensions in mm													
		A5	B5	D	E5	F5	G2	S5	Z5	Z12[1)]	Z12[2)]	D1	L1	T1[1)]	U1[1)]
R..97 F..97 K..97 S..97	AQ..140/1	140	110	16/18/22	165	5	300	M10	157	16	16	24	50	27.3	8
	AQ..140/2	140	130	16/18/22	165	5	300	M10	157	16	16	24	50	27.3	8
	AQ..140/3	140	130	16/18/22	165	5	300	M10	170	22	22	32	60	35.3	10
	AQ..140/4	140	130	16/18/22	165	5	300	M10	170	22	22	28	60	31.3	8
	AQ..160/1	162	155	16/18/22	190	5	300	M10	170	22	22	32	60	35.3	10
	AQ..190/1	190	130	22/28	215	5	300	M12	215.5	24	24	32	60	35.3	10
	AQ..190/2	190	180	22/28	215	5	300	M12	215.5	24	24	32	60	35.3	10
	AQ..190/3	190	180	22/28	215	5	300	M12	239.5	34	34	38	80	41.3	10
R..107, R127 F..107 K..107	AQ..140/1	140	110	16/18/22	165	5	350	M10	151	16	16	24	50	27.3	8
	AQ..140/2	140	130	16/18/22	165	5	350	M10	151	16	16	24	50	27.3	8
	AQ..140/3	140	130	16/18/22	165	5	350	M10	164	22	22	32	60	35.3	10
	AQ..140/4	140	130	16/18/22	165	5	350	M10	164	22	22	28	60	31.3	8
	AQ..160/1	162	155	16/18/22	190	5	350	M10	164	22	22	32	60	35.3	10
	AQ..190/1	190	130	22/28	215	5	350	M12	209.5	24	24	32	60	35.3	10
	AQ..190/2	190	180	22/28	215	5	350	M12	209.5	24	24	32	60	35.3	10
	AQ..190/3	190	180	22/28	215	5	350	M12	233.5	34	34	38	80	41.3	10
R..137	AQ..190/1	190	130	22/28	215	5	400	M12	202.5	24	24	32	60	35.3	10
	AQ..190/2	190	180	22/28	215	5	400	M12	202.5	24	24	32	60	35.3	10
	AQ..190/3	190	180	22/28	215	5	400	M12	226.5	34	34	38	80	41.3	10
R..147 F..127 K..127	AQ..190/1	190	130	22/28	215	5	450	M12	194.5	24	24	32	60	35.3	10
	AQ..190/2	190	180	22/28	215	5	450	M12	194.5	24	24	32	60	35.3	10
	AQ..190/3	190	180	22/28	215	5	450	M12	218.5	34	34	38	80	41.3	10

1) For designs with keyway (AQA..)

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

24832936/EN – 09/2018

6.11 Gear unit mounting

Strength class of the screws

Always mount gearmotors using screws of strength class 8.8. The gearmotors in flange-mounted design and in foot-/flange-mounted design listed in the following table are an exception. Always use screws of strength class 10.9 for these gearmotors. Use suitable washers.

Gear unit	Ø flange mm	Strength class of the screws
RF37/R37F	120	10.9
RF47/R47F	140	
RF57/R57F	160	
FF/FAF77 KF/KAF77	250	
FM/FAM67, FM/FAM77 KM/KAM67, KM/KAM77	300	
FM/FAM87 KM/KAM87	350	
FM/FAM97 KM/KAM97	400	
RF147 FM/FAM107 KM/KAM107	450	
RF167 FM/FAM127 KM/KAM127	550	
FM/FAM157 KM/KAM157	660	
RZ37 – RZ87	60ZR – 130ZR	

24832936/EN – 09/2018

6.12 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.
- Attach the KA.9B/T design only via the torque arm.
- Attach the K.9 or KA.9B design only via the foot plate.
- If you want to use foot plates and torque arms for mounting, contact SEW-EURODRIVE.

6.12.1 Standard torque arms

The following table lists the part numbers of all galvanized steel or gray cast iron torque arms available for shipment:

Gear unit	Size					
	19	29	39	49		
KA, KH, KT	10684115	10684107	10682163	06442439		
Gear unit	**Size**					
	27	**37**	**47**	**57**	**67**	**77**
KA, KH, KV, KT	-	6434258	6434282	6434312	6434312	6434347
SA, SH, ST	-	1269941	6442374	6442404	6442439	6442463
FA, FH, FV, FT Rubber buffer (2 pieces)	0133485	0133485	0133485	0133485	0133485	0133493
Gear unit	**Size**					
	87	**97**	**107**	**127**	**157**	
KA, KH, KV, KT	6434371	6434401	6434436	6432948	-	
SA, SH, ST	6442498	6442528	-	-	-	
FA, FH, FV, FT Rubber buffer (2 pieces)	0133493	0133507	0133507	0133515	0133477	
Gear unit	**Size**					
	10	**20**	**30**	**37**	**47**	
WA, WH, WT	10610219	1680730	1680110	10611290	10611851	

6.12.2 Stainless steel torque arm

Torque arms made of stainless steel are available for K..19/29 and SPIROPLAN® gear units. Suitable retaining screws made of stainless steel are included in the delivery in a bag.

Gear unit	Size				
	19	29			
KA, KH, KT	10638008	10638016			
Gear unit	**Size**				
	10	**20**	**30**	**37**	**47**
WA, WH, WT	10638024	10638032	10638040	10638059	10638067

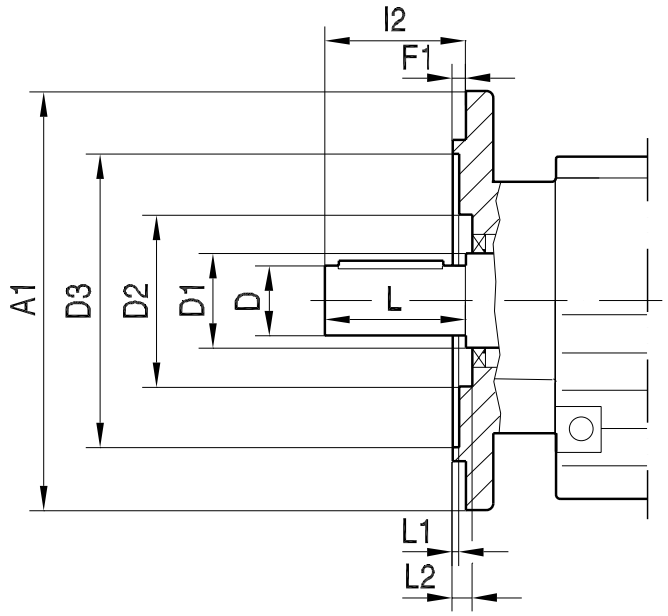
24832936/EN – 09/2018

6.12.3 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.

24832936/EN – 09/2018

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

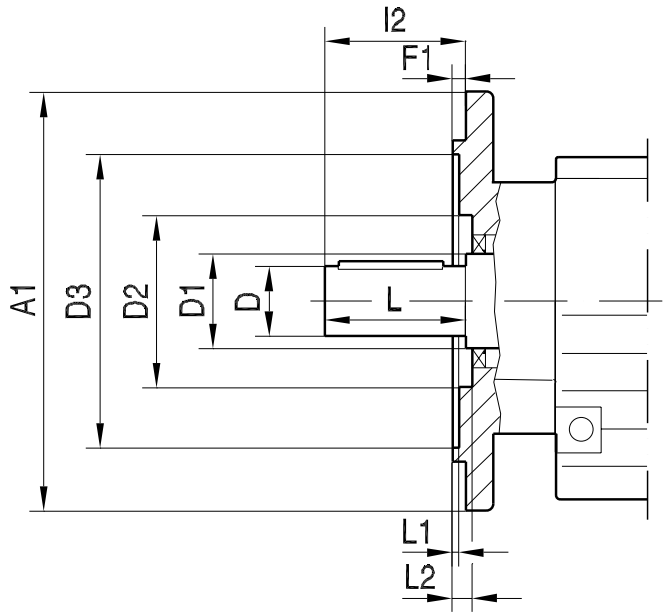


Check dimensions L1 and L2 for selection and installation of output elements!

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

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

24832936/EN – 09/2018

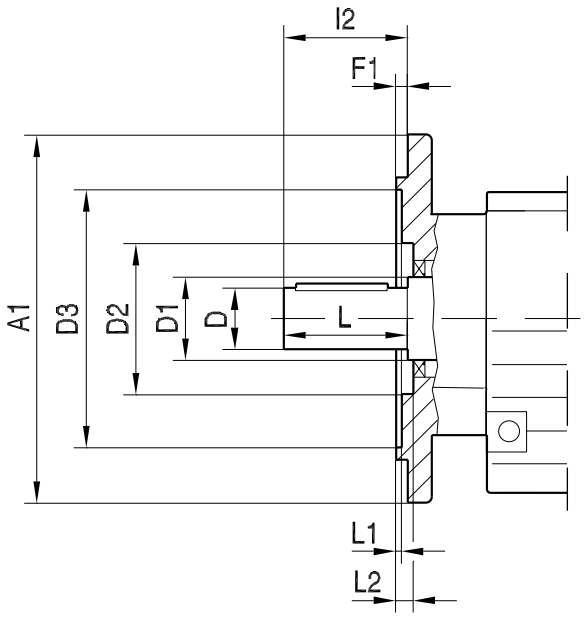


Check dimensions L1 and L2 for selection and installation of output elements!

Type	Dimensions in mm										
	A1	D	D1	D2		D3	F1	I2	L	L1		L2
				RF	R..F					RF	R..F	
RF107	350	70	82	157		232	5	140	140	0		11
	450	70	82	186		316	5	140	140	0		11
RF127	450	90	108	180		316	5	170	170	0		10
RF137	450	90	108	180		316	5	170	170	0		10
	550	90	108	180		416	5	170	170	0		10
RF147	450	110	125	210		316	5	210	210	0		10
	550	110	125	210		416	5	210	210	0		10
RF167	550	120	145	290		416	5	210	210	1		10
	660	120	145	290		517	6	210	210	2		11

24832936/EN – 09/2018

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



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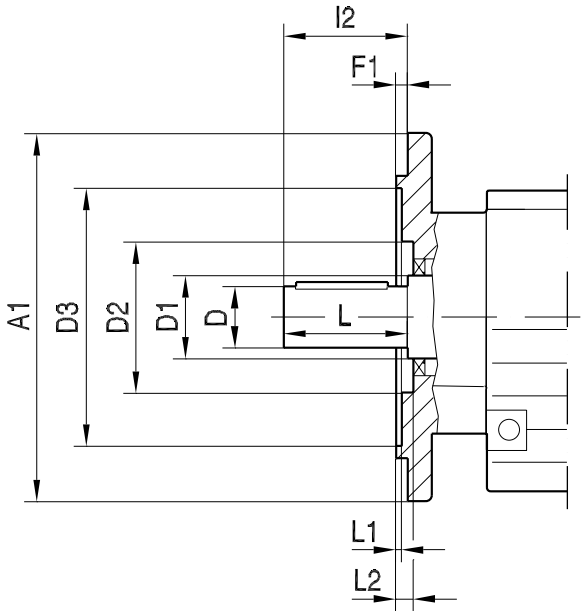
Check dimensions L1 and L2 for selection and installation of output elements!

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	160	25	30	70	94	3.5	50	50	2	6
FF47	200	30	40	72	115	3.5	60	60	3.5	7.5
FF57	250	35	40	84	155	4	70	70	4	9
FF67	250	40	50	84	155	4	80	80	4	9
FF77	300	50	55	82	205	4	100	100	5	9
FF87	350	60	65	115	220	5	120	120	5	9
FF97	450	70	75	112	320	5	140	140	8	10
FF107	450	90	100	159	318	5	170	170	16	9
FF127	550	110	118	-	420	5	210	210	10	-
FF157	660	120	135	190	520	6	210	210	8	14
KF19	120	20	25	-	70	2.5	40	40	-	11.5
KF19	160	20	25	-	100	2.5	40	40	-	11.5
KF29	160	25	30	-	109	3.5	50	50	-	6.5
KF29	200	25	30	-	115	3.5	50	50	-	6.5
KF37	160	25	30	70	94	3.5	50	50	2	6
KF39	160	30	39	68	96	3.5	60	60	13.5	23.5
KF47	200	30	40	72	115	3.5	60	60	3.5	7.5
KF49	200	35	49	76	115	3.5	70	70	24.5	28
KF57	250	35	40	84	155	4	70	70	4	9
KF67	250	40	50	84	155	4	80	80	4	9
KF77	300	50	55	82	205	4	100	100	5	9
KF87	350	60	65	115	220	5	120	120	5	9
KF97	450	70	75	112	320	5	140	140	8	10
KF107	450	90	100	159	318	5	170	170	16	9
KF127	550	110	118	-	420	5	210	210	10	-
KF157	660	120	135	190	520	6	210	210	8	14



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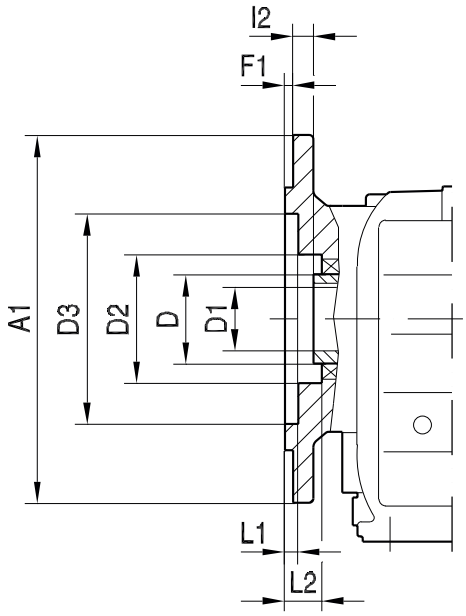
Check dimensions L1 and L2 for selection and installation of output elements!

Type	Dimensions in mm									
	A1	D	D1	D2	D3	F1	I2	L	L1	L2
SF37	120	20	25	-	68	3	40	40	6	-
SF37	160	20	25	-	96	3.5	40	40	5.5	-
SF47	160	25	30	70	94	3.5	50	50	2	6
SF57	200	30	40	72	115	3.5	60	60	3.5	7.5
SF67	200	35	45	-	115	3.5	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	5	140	140	8.5	10
WF10	80	16	25	-	39	2.5	40	40	30	-
WF10	120	16	25	39	74	3	40	40	5	30
WF20	110	20	30	44	53	-4	40	40	27	35
WF20	120	20	30	-	45	2.5	40	40	37.5	-
WF30	120	20	30	48	63	2.5	40	40	18	27
WF30	160	20	30	48	63	2.5	40	40	33	42
WF37	120	20	30	-	70	2.5	40	40	-	10.5
WF37	160	20	30	-	70	2.5	40	40	-	25.5
WF47	160	30	35	-	92	3.5	10	60	6	-

24832936/EN – 09/2018

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



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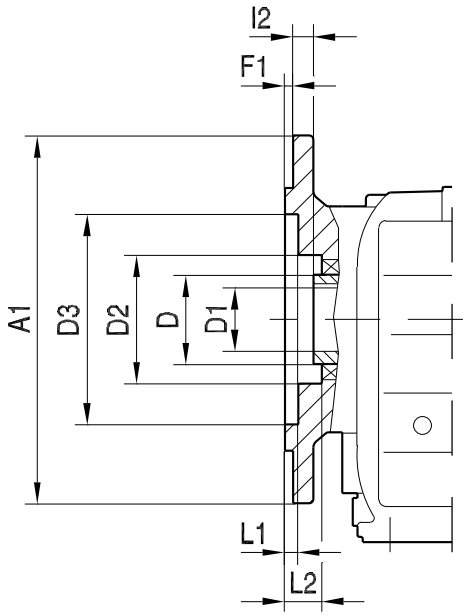
Check dimensions L1 and L2 for selection and installation of output elements!

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	160	45	30	62	94	3.5	24	2	30
FAF47	200	50	35	70	115	3.5	25	3.5	31.5
FAF57	250	55	40	76	155	4	23.5	4	31
FAF67	250	55	40	76	155	4	23	4	31
FAF77	300	70	50	95	205	4	37	5	45
FAF87	350	85	60	120	220	5	30	5	39
FAF97	450	95	70	135	320	5	41.5	5.5	51
FAF107	450	118	90	224	320	5	41	16	52
FAF127	550	135	100	185	420	5	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	30	20	60	100	2.5	25	9	25.5
KAF29	160	40	25 / 30	-	105	3.5	33.5	-	6.5
KAF29	200	40	25 / 30	-	118	3.5	33.5	-	6.5
KAF39	160	50	30 / 35	68	96	3.5	24.5	10	27
KAF37	160	45	30	62	94	3.5	24	2	30
KAF47	200	50	35	70	115	3.5	25	3.5	8.5
KAF49	200	55	35 / 40	76	115	3.5	32.5	16	34.5
KAF57	250	55	40	76	155	4	23.5	4	31
KAF67	250	55	40	76	155	4	23	4	31
KAF77	300	70	50	95	205	4	37	5	45
KAF87	350	85	60	120	220	5	30	5	39
KAF97	450	95	70	135	320	5	41.5	5.5	51
KAF107	450	118	90	224	320	5	41	16	52
KAF127	550	135	100	185	420	5	51	6	63
KAF157	660	155	120	200	520	6	60	10	74



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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
SAF37	120	35	20	-	68	3	15	6	-
SAF37	160	35	20	-	96	3.5	15	5.5	-
SAF47	160	45	30 / 25	62	94	3.5	24	2	30
SAF57	200	50	35 / 30	70	115	3.5	25	3.5	31.5
SAF67	200	65	45 / 40	91	115	3.5	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
SAF97	450	120	90 / 70	160	320	5	60	6.5	69
WAF10	80	25	16	-	39	2.5	23	30	-
WAF10	120	25	16	39	74	3	23	5	30
WAF20	110	30	18 / 20	45	53	-4	30	27	35
WAF20	120	30	18 / 20	-	45	2.5	30	37.5	-
WAF30	120	30	20	48	63	2.5	19.5	18	27
WAF30	160	30	20	48	63	2.5	34.5	22	42
WAF37	120	35	20 / 25	62	63	2.5	19.5	9	24.5
WAF37	160	35	20 / 25	62	63	2.5	34.5	24	39.5
WAF47	160	45	30	62.5	92	3.5	35	6	41
WAF47	200	45	30	62.5	115	3.5	35	6	41

24832936/EN – 09/2018

6.16 Safety covers

6.16.1 Rotating safety cover

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

Gear unit type	Sizes
KH..	19 – 49 and 37 – 97
FH.., SH.., WH..	37 – 97

Should you require a fixed plastic or metal safety cover for safety reasons, refer to the part numbers in the following chapters.

6.16.2 High fixed plastic safety cover

The following gear unit types with hollow shaft and shrink disk are equipped with a high fixed plastic safety cover as standard:

Gear unit type	Sizes
FH..	27 and 107 – 127
KH..	107 – 127

Should you require a high fixed plastic safety cover for other gear unit types or sizes due to safety reasons, refer to the part numbers in the following chapters.

6.16.3 Fixed sheet metal safety cover

The following gear unit types with hollow shaft and shrink disk are equipped with a fixed sheet metal safety cover as standard:

Gear unit type	Sizes
KH..	157, 167 and 187
FH..	157
FT.., KT.., ST.., WT.. (with TorqLOC® hollow shaft mounting system)	All available sizes
Explosion-proof gear units FH.., KH.., SH.., WH.. gear units	All available sizes

Should you require a fixed sheet metal safety cover for other gear unit types or sizes, the part number required to order the cover can be found in the following chapter.

24832936/EN – 09/2018

6.16.4 Flat fixed plastic safety cover

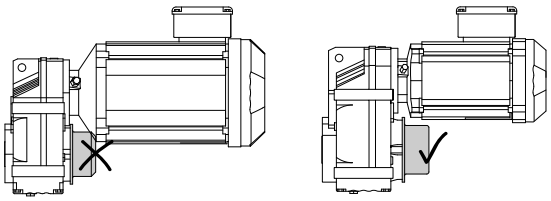
The following gear unit types with hollow shaft can optionally be equipped with a flat fixed plastic safety cover:

Gear unit type	Sizes
FA.., FV..	27 – 97
KA..	19 – 49 and 37 – 97
KV..	37 – 97
SA..	37 – 97
WA..	10 – 30 and 37/47

Should you require a flat fixed plastic safety cover for these gear unit types due to safety reasons, refer to the part numbers in the following chapters.

6.16.5 Motor mounting sizes and terminal box position with fixed safety cover

The size of the attached motor may be limited by the use of a high fixed safety cover for parallel-shaft helical gear units.



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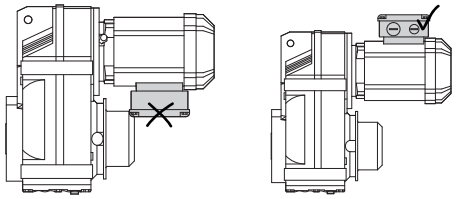


18557415179

INFORMATION

SEW-EURODRIVE recommends the terminal box position ≠ 90° for parallel-shaft helical gear units with high safety cover to simplify assembly and maintenance.

If necessary, check the configuration in the product configurator on the SEW-EURODRIVE website.

High fixed plastic safety cover

The following table shows the maximum possible motor mounting sizes, depending on the gear unit size, for a high fixed plastic safety cover:

Gear unit size	F..37	F..47	F..57	F..67	F..77	F..87	F..97
Maximum possible motor mounting sizes	71M	80M	90L	112M	132L	160L	180L

24832936/EN – 09/2018

Fixed sheet metal safety cover

The following table shows the maximum possible motor sizes, depending on the gear unit size, for a high fixed sheet metal safety cover:

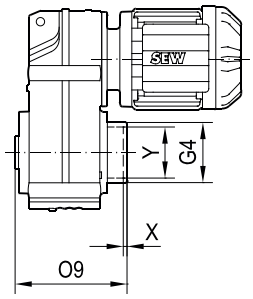
Gear unit size	F..37	F..47	F..57	F..67	F..77	F..87	F..97
Maximum possible motor mounting sizes	71M	71M	80M	100L	132L	160L	180L

24832936/EN – 09/2018

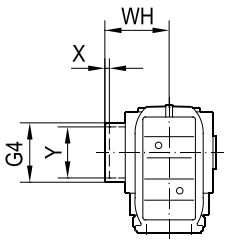
6.16.6 Part numbers and dimensions for high fixed plastic covers

19 002 00 18

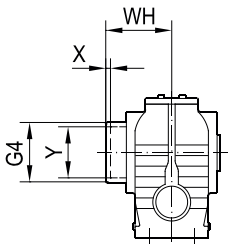
FH.. / FA..



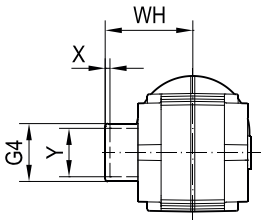
KH.. / KA..



SH.. / SA..



WH.. / WA..



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Parallel-shaft helical gearmotors	FH/FA ..27	FH/FA ..37	FH/FA ..47	FH/FA ..57	FH/FA ..67	FH/FA ..77	FH/FA ..87	FH/FA ..97
Part number	06435319	6435130	6435149	6435157	6435157	6435165	6435173	6435181
G4 in mm	58	78	88	100	100	121	164	185
O9 in mm	134	157	188.5	207.5	221.5	255	295	363.5
X in mm	0.8	2	4.5	7.5	6	6	4	6.5
Y in mm	56	75	83	83	93	114	159	174

Helical-bevel gearmotors	KH/KA ..19	KH/KA ..29
Part number	10684158	10684166
G4 in mm	62	68
WH in mm	83	90
X in mm	2	4
Y in mm	50	60

Helical-bevel gearmotors[1)]	KH/KA ..37	KH/KA ..47	KH/KA ..57	KH/KA ..67	KH/KA ..77	KH/KA ..87	KH/KA ..97
Part number	6435130	6435149	6435157	6435157	6435165	6435173	6435181
G4 in mm	78	88	100	100	121	164	185
WH 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 shafts (KH..B and KA..B)

Helical-worm gearmotors	SH/SA ..37	SH/SA ..47	SH/SA ..57	SH/SA ..67	SH/SA ..77	SH/SA .. 87	SH/SA ..97
Part number	6435122	6435130	6435149	6435157	6435165	6435173	6435181
G4 in mm	59	78	88	100	121	164	185
WH 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

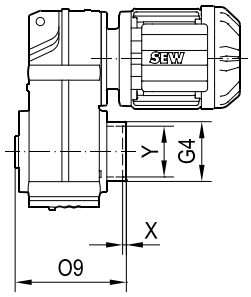
SPIROPLAN® gearmotors	WH/WA ..37	WH/WA ..47
Part number	10611363	10611940
G4 in mm	68	80.5
WH in mm	95.5	109.5
X in mm	11	12.5
Y in mm	50	72

24832936/EN – 09/2018

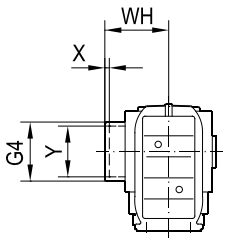
6.16.7 Part numbers and dimensions for fixed sheet metal covers

19 004 00 18

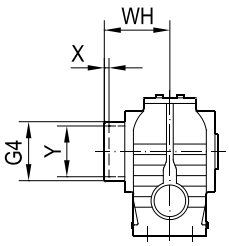
FT.. / FH.. / FA..



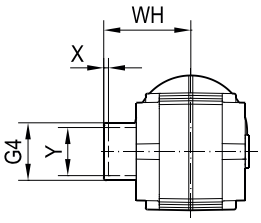
KT.. / KH.. / KA..



ST.. / SH.. / SA..



WT.. / WH.. / WA..



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Parallel-shaft helical gearmotors	FT/FH/FA ..37	FT/FH/FA ..47	FT/FH/FA ..57	FT/FH/FA ..67	FT/FH/FA ..77	FT/FH/FA ..87	FT/FH/FA ..97	FT/FH/FA ..107	FT/FH/FA ..127	FT/FH/FA 157
Part number	0643584X	06435858	06435866	06435866	06435874	06435882	06435890	06421814	06421822	06421830
G4 in mm	81	90	101	101	124	165	200	196	229	275
O9 in mm	166	199	222	236	285	322	382	421	502	605
X in mm	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Y in mm	78	87	98	98	121	162	197	193	226	272

Helical-bevel gearmotors	KH/KA ..19	KH/KA ..29	KT/KH/KA ..39	KT/KH/KA ..49
Part number	10686320	10686339	10682651	10682964
G4 in mm	60	68	86	97
WH in mm	84.5	91.5	117.5	138
X in mm	1.5	1.5	1	1
Y in mm	50	60	84	95

Helical-bevel gearmotors[1)]	KT/KH/KA ..37	KT/KH/KA ..47	KT/KH/KA ..57	KT/KH/KA ..67	KT/KH/KA ..77	KT/KH/KA ..87	KT/KH/KA ..97	KT/KH/KA ..107	KT/KH/KA ..127	KT/KH/KA ..157
Part number	0643584X	06435858	06435866	06435866	06435874	06435882	06435890	06421814	06421822	06421879
G4 in mm	81	90	101	101	124	165	200	196	229	275
WH in mm	104	122	137	143	177	229	382	246	297	375
X in mm	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Y in mm	78	87	98	98	121	162	197	193	226	272

1) Not possible in foot-mounted helical-bevel gear units with hollow shafts (KH..B and KA..B)

Helical-worm gearmotors	ST/SH/SA ..37	ST/SH/SA ..47	ST/SH/SA ..57	ST/SH/SA ..67	ST/SH/SA ..77	ST/SH/SA ..87	ST/SH/SA ..97
Part number	06444768	0643584X	06435858	06435866	06435874	06435882	06435882
G4 in mm	64	81	90	101	124	165	165
WH in mm	98	104	122	137	177	203	223
X in mm	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Y in mm	61	78	87	98	121	162	162

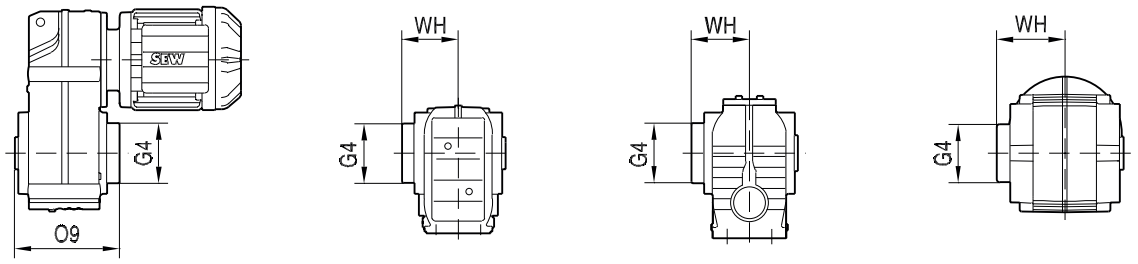
SPIROPLAN® gearmotors	WT/WH/WA ..37	WT/WH/WA ..47
Part number	10611479	10611959
G4 in mm	67	78
WH in mm	95.5	109
X in mm	1	1
Y in mm	64	76

24832936/EN – 09/2018

6.16.8 Part numbers and dimensions for flat fixed plastic covers

19 003 00 18

FA.. / FV.. **KA.. / KV..** **SA..** **WA..**



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Parallel-shaft helical gearmotors	FA/FV..27	FA/FV..37	FA/FV..47	FA/FV..57	FA/FV..67	FA/FV..77	FA/FV..87	FA/FV..97
Part number	10688684	10688293	10688390	10688498	10688498	10688595	10688692	10688781
G4 in mm	57.4	80.4	80.4	84.7	84.7	117.4	147.5	187.4
O9 in mm	111	134	163	179	193	223	251	313

Helical-bevel gearmotors	KA ..19	KA ..29	KA ..39	KA ..49
Part number	10688684	10688293	10688498	10688498
G4 in mm	57.4	80.4	84.7	84.7
WH in mm	63.2	73.5	90	90

Helical-bevel gearmotors[1)]	KA/KV..37	KA/KV..47	KA/KV..57	KA/KV..67	KA/KV..77	KA/KV..87	KA/KV..97
Part number	10688293	10688390	10688498	10688498	10688595	10688692	10688781
G4 in mm	80.4	80.4	84.7	84.7	117.4	147.5	187.4
WH in mm	72.5	87	95	101.5	116	131	161

1) Not possible in foot-mounted helical-bevel gear units with hollow shafts (KH..B and KA..B)

Helical-worm gearmotors	SA ..37	SA..47	SA ..57	SA..67	SA..77	SA.. 87	SA..97
Part number	10687890	10688293	10688390	10688498	10688595	10688692	10688781
G4 in mm	57.4	80.4	80.4	84.7	117.4	147.5	187.4
WH in mm	68	72.5	87	95.5	116	135	155

SPIROPLAN® gearmotors	WA..10	WA..20	WA..30	WA..37	WA..47
Part number	10687998	10687998	10688099	10688099	10688196
G4 in mm	42.4	42.4	57.4	57.4	62.4
WH in mm	51	58.5	69	69	82.5

24832936/EN – 09/2018

6.17 Technical data condition monitoring

6.17.1 Information on oil aging sensor /DUO10A

Technical data

	Technical data		
Preset oil grades	OIL1	CLP mineral oil	T_{max} = 100 °C
		Biodegradable oil	T_{max} = 100 °C
	OIL2	CLP HC synthetic oil	T_{max} = 130 °C
		CLP PAO oil	T_{max} = 130 °C
	OIL3	CLP PG polyglycol	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) 2: Main alarm (time to oil change 0 days) 3: Exceeded temperature T_{max} 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 Temperature sensor: V4A		
Electrical connection	Evaluation unit: M12 plug connector PT1000 temperature sensor: M12 plug connector		

24832936/EN – 09/2018

Designations and part numbers

Designation	Description	Part number
DUO10A	Evaluation unit (basic device)	13438751
DUO10A-PUR-M12-5m	5 m PUR cable with 1 connector	13438778
DUO10A-PVC-M12-5m	5 m PVC cable with 1 connector	13438786
DUO10A	Angle bracket	13438808
DUO10A D = 34	Mounting clamp	13438794
W4843 PT1000	PT1000 temperature sensor	13438816
W4843_4x0.34-2m-PUR	2 m PUR cable for PT1000[1)]	13438824
W4843_4x0.34-2m-PVC	2 m PVC cable for PT1000[2)]	13438832
DUO10A	Protection cap (for aseptic design, IP69K)	13439022

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 bores:

Complete adapter for PT1000 sensor	Part number
M10 × 1	13439030
M12 × 1.5	13439049
M22 × 1.5	13439057
M33 × 2	13439065

24832936/EN – 09/2018

Complete adapter for PT1000 sensor	Part number
M42 × 2	13439073

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

Mounting base with sealing ring	Part number
M10 × 1	13434411
M12 × 1.5	13438271
M22 × 1.5	13438298
M33 × 2	13438301
M42 × 2	13438328

6.17.2 Information on Vibration SmartCheck /DUV40A

Scope of delivery

- Device Vibration SmartCheck with integrated software FAG SmartWeb
- User documentation Vibration SmartCheck and FAG SmartWeb on CD-ROM
- FAG SmartUtility Light software with user documentation on CD-ROM
- 1 Retaining screw: Hexagon socket head screw M6 x 45
- 1 O-ring to secure the retaining screw against loss
- 1 plug with logo to close assembly opening
- 3 closing plugs to close unused M12 connections

INFORMATION

Cables for connecting the device are not included in the standard delivery of Vibration SmartCheck devices.

Technical data

Vibration SmartCheck	
Housing	Glass fiber reinforced plastic
Fastening	Hexagon socket head screw M6 x 45 Contact surface on the machine: 25 mm Ø
Current consumption	< 200 mA at 24 V
Ambient temperature	-20 to +70 °C
Internal operating temperature	-20 to +85 °C
Voltage supply	11 – 32 VDC or Power over Ethernet (PoE) based on 802.3af Mode A
Size	44 mm x 57 mm x 55 mm
Weight	Approx. 210 g
Degree of protection	IP 67
Operating system	Embedded Linux

24832936/EN – 09/2018

Vibration SmartCheck	
Software	FAG SmartWeb (Mozilla Firefox ESR 38 (recommended), Internet Explorer 11, Internet Explorer 9 not recommended due to performance reasons) Vibration SmartUtility Light or optionally Vibration SmartUtility Languages: German, English, Chinese, Spanish, and French

Internal sensor technology	
Vibration	Acceleration sensor (piezoelectric sensor) Frequency range 0.8 Hz – 10 kHz Measuring range ±50 g
Temperature	Measuring range -20 to +70 °C

Measurement	
Measurement functions	Acceleration Speed and distance by integration System temperature Process parameters (e.g. speed, load, pressure)
Diagnostic methods	Time signal, envelope, spectrum and trend analysis, speed and frequency checking

Characteristic values (time and frequency range)	
Defined characteristic values	DIN/ISO 10816
Calculated characteristic values	RMS, frequency selected RMS, direct component, peak, peak to peak, crest factor, Wellhausen count, carpet level, condition monitoring Other user-defined characteristic values are available.

Signal processor	
Frequency resolution	1600, 3200, 6400, or 12800 lines Line width min. 0.0039 Hz at 50 Hz (depending on low pass)
Measurement resolution	24 Bit (A/D converter)
Frequency range	0.8 Hz – 10 kHz
Low passes	50 Hz – 10 kHz (50 Hz, 100 Hz, 200 Hz, 500 Hz, 1 kHz, 2 kHz, 5 kHz, 10 kHz)
High passes (only envelope)	750 Hz, 1 kHz, 2 kHz (other filters upon request)

Memory	
Program and data	64 MB RAM, 128 MB flash

Inputs and outputs	
Inputs	**2 analog inputs** (0 – 10 V / 0 – 24 V / 0 – 20 mA / 4 – 20 mA), frequency range 0 – 500 Hz, 12 Bit **1 digital input** (0 – 30 V, 0.1 Hz – 1 kHz)

24832936/EN – 09/2018

Inputs and outputs	
Outputs	**1 analog output** (0 – 10 V / -20 mA / 4 – 20 mA), 12 Bit **1 switching output** (open collector, max. 1 A, 28 V) Optional galvanic isolation between inputs and outputs

Interfaces	
Control elements	2 capacitive pushbuttons (learning mode, alarm reset, restart, factory settings)
Display elements	1 LED to display status and alarm 1 LED to acknowledge the pushbuttons 2 LEDs to display communication
Communication	Ethernet 100 Mb/s RS485 (currently not yet supported)
Electrical connections	3 M12 plug connectors (polarity reversal protected) for supply, RS485, inputs/outputs, and Ethernet

Part numbers

	Description	Part number
Sensor	Vibration SmartCheck	19175892
Cables	8-pin voltage supply cable for SmartCheck, 5 m; M12(B) <-> open end	19179596
Cables	Ethernet cable for SmartCheck, 5 m; M12 <-> RJ45	19179618
Cables	I/O cable 8-pin for SmartCheck 5 m; M12(St) <-> open end	19179626

	Description	Part number
Base for mounting on standard gear units (R, F, K, and S gear units)	Mounting base with sealing ring M10 x 1	20593422
	Mounting base with sealing ring M12 x 1.5	20593430
	Mounting base with sealing ring M22 x 1.5	20593449
	Mounting base with sealing ring M33 x 2	20593457
	Mounting base with sealing ring M42 x 2	20593465

	Description	Part number
Base for mounting on industrial gear units	Mounting base with sealing ring G3/4	20593384
	Mounting base with sealing ring G1	20593392
	Mounting base with sealing ring G1 1/4	20593406
	Mounting base with sealing ring G1 1/2	20593414

24832936/EN – 09/2018

	Description	Part number
Base for mounting on standard motors	Mounting base M5	21014175
	Mounting base M6	21014167
	Mounting base M8	20593503
	Mounting base M10	21014248
	Mounting base M12	20593473
	Mounting base M16	20593481
	Mounting base M20	20593511

24832936/EN – 09/2018

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. Please contact SEW-EURODRIVE for information on pole-changing AC (brake) motors.

For each combination, the input speed n_e = 1400 min^{-1} 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.

Only if a value is specified for the torsion angle $\varphi_{(/R)}$, is the gear unit with this gear unit ratio available with "reduced backlash (/R)" option. The numerical value specifies the rotational clearance of the reduced backlash version in angular minutes ' (tolerance ± 2 angular minutes).

R77, n_e=1400 min^{-1}												820Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ ′	i	DRN 63MS 63M 71MS ...	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	
					3							
7.2	820	9920	7	195.24*								
8.4	820	9920	7	166.59								

Gear unit ratio: A value marked with * indicates finite gear unit ratio.

No data (-): The reduced backlash option (/R) is not possible for this i value.
Numerical value given: Option reduced backlash is possible.
The numerical value specifies the rotational clearance of the reduced backlash version in angular minutes with a tolerance of ± 2 angular minutes.

Permitted overhung load at maximum output torque M_{amax}
The value refers to the foot-mounted gear unit design with solid shaft

Maximum output torque of the gear unit

Output speed

Combination with the motor in the header is possible

Combination with the motor in the header is not possible

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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.

The 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
- 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 compound 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 compound gear unit is always a helical gear unit.

7.2 Selection tables for gearmotors

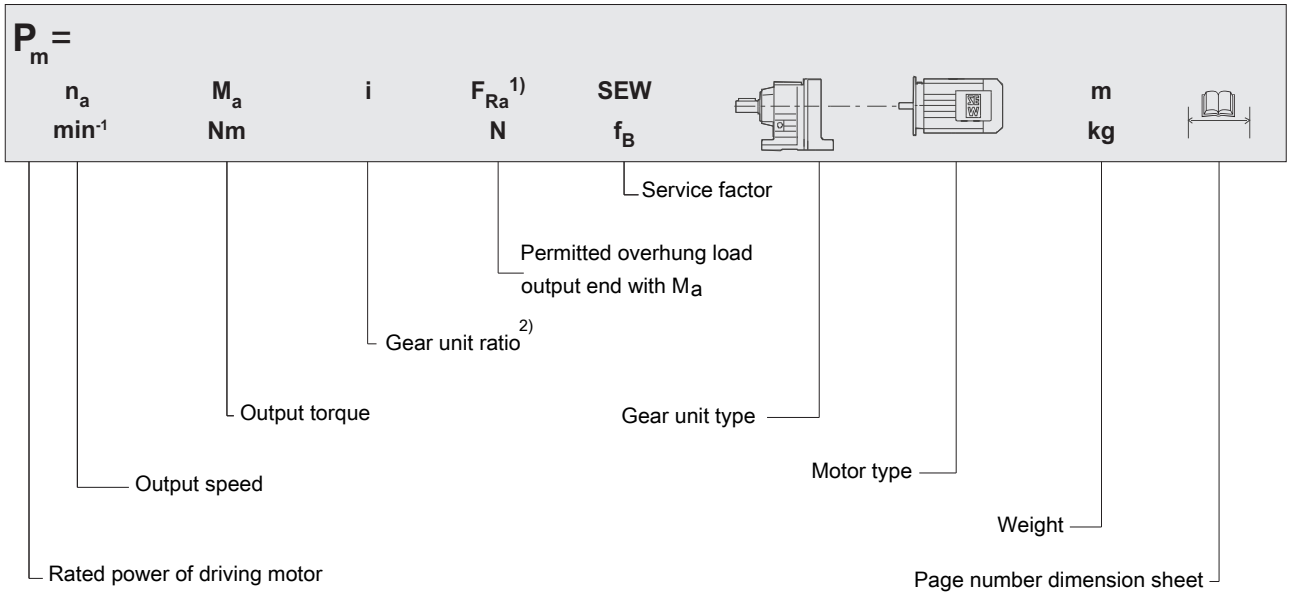
7.2.1 Structure of the selection tables

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 by the rated power P_m of the driving motor in kW.
2. For extremely low output speeds, always compound gearmotors sorted by the maximum permitted output torque M_{amax} in Nm.

Table for standard output speeds:



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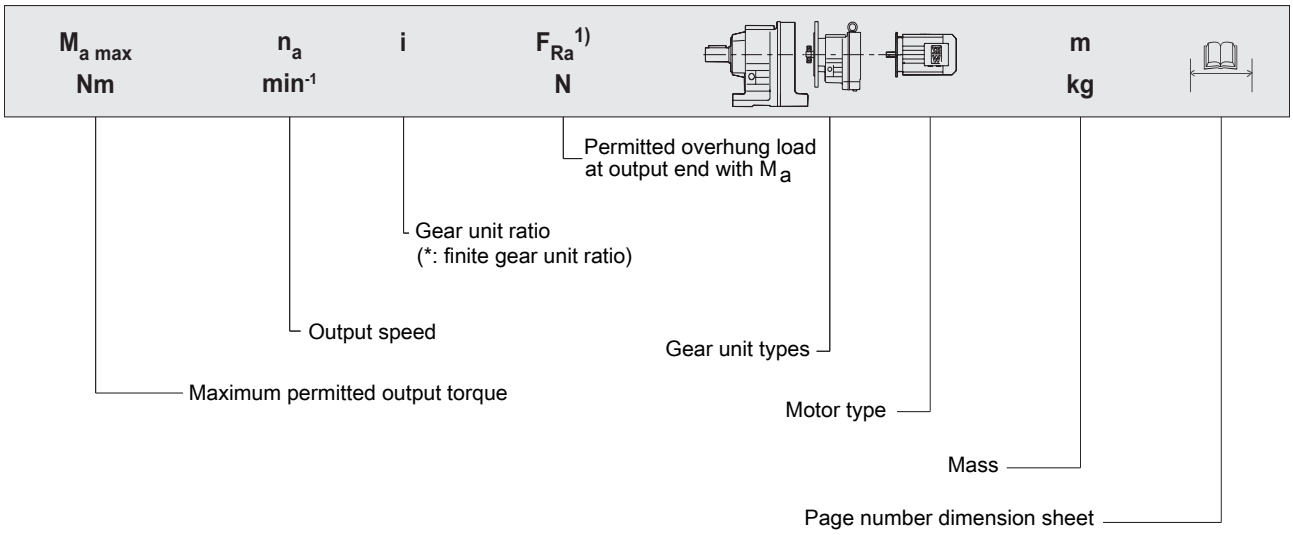
[1] Overhung load for foot-mounted gear units with solid shaft; overhung loads for other design types upon request

[2] A value marked with * indicates finite gear unit ratio.

24832936/EN – 09/2018

Table for extremely low output speeds (compound gearmotors):



25524527371

1) Overhung load for foot-mounted gear units with solid shaft; overhung loads for other design 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.

24832936/EN – 09/2018

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

Centering bores according to 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)

Keyway width to ISO N9

Hollow shafts

Diameter tolerance:

Ø → ISO H7 measured with plug gauge

Keys: according to DIN 6885 (domed type)

Exception: Key for WA.37 with shaft Ø 25 mm and for KA.29 with shaft Ø 30 mm according to DIN 6885-3 (low form)

Keyway width to ISO JS9

24832936/EN – 09/2018

Multiple-spline shafts

D_m Measuring roller diameter

M_e Check size

The fit of the hollow shafts with splined hollow shaft is 9H.

The assumed fit of the customer shaft in the dimension sheets of the catalog is 7d.

The fit pair 9H/7d specified in the dimension sheets is a clearance fit. Depending on the application requirements, it is the customer's responsibility to choose another fit pair and to manufacture the customer shaft accordingly.

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 unit, SPIROPLAN® gear unit, AC (brake) motor and explosion-proof AC (brake) motor. The mountable flange for each size can be found in the respective dimension sheets.

7.3.3 Eyebolts, lifting eyes

R07 – R27 helical gear units, K..167 – K..187 helical-bevel gear units, motors up to DRN90 and SPIROPLAN® gearmotors W..10 – 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 lifting eyes
	Lifting eyebolts	lifting eyes	
R..37 – R..57	—	X	—
R..67 – R..167	X	—	—
RX57 – RX67	—	X	—
RX77 – RX107	X	—	—
F..27 – F..157	—	—	X
K..19 – K..49	—	X	—
K..37 – K..157	—	—	X
S..37 – S47	—	X	—
S..47 – S..97	—	—	X
W..37 – W..47	—	X	—
≥ DRN100L	X	—	—

Legend: — not available, X available

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 to M6. The result may be slightly altered contour dimensions.

24832936/EN – 09/2018

7.3.5 Shrink disk connection

In order to non-positively transfer the torques stated in the catalog in case of gear units with hollow shaft and shrink disk connection, observe the following peripheral conditions in addition to the information on the respective dimension sheet when dimensioning the customer shaft:

- Surface roughness $R_z \leq 16$ µm
- Elastic limit of the customer shaft material R_e and/or $Rp_{0.2} \geq 305$ N/mm²
- Design of the customer shaft as solid shaft

For customer shaft designs as hollow shaft, contact SEW-EURODRIVE.

7.3.6 Splined hollow shaft

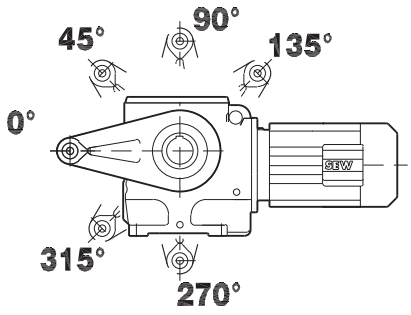
FV.. hollow shaft gear unit sizes 27 to 107, and KV.. sizes 37 to 107 are supplied with splining according to standard DIN 5480.

7.3.7 Rubber buffer for FA/FH/FV/FT

The depictions on the dimension sheets show the rubber buffers for FA/FH/FV/FT gear units in loose state. Preload rubber buffer by the indicated value ΔL. The characteristic curve of spring for the rubber buffer is available upon request from SEW-EURODRIVE.

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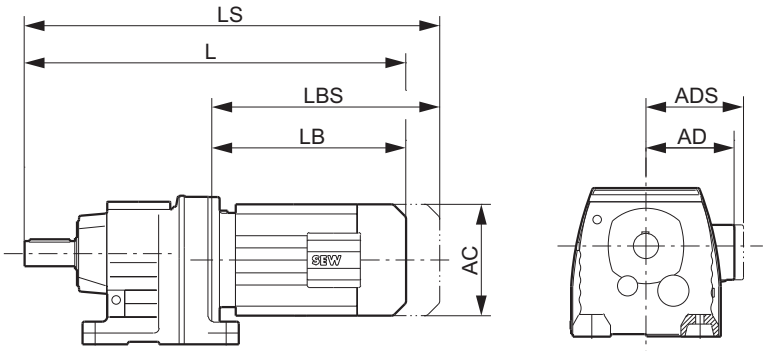
For more information about torque arms, refer to the respective dimension sheets of the gearmotors:

Gearmotor	Dimension sheets on page
Helical-bevel gearmotors	(→ 🗎 616)
Helical-worm gearmotors	(→ 🗎 757)
SPIROPLAN® gearmotors	(→ 🗎 840)

24832936/EN – 09/2018

7.3.9 Gearmotor dimension drawings

The dimension drawings of the gearmotors are described below:



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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

INFORMATION

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

INFORMATION

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

7.3.10 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.

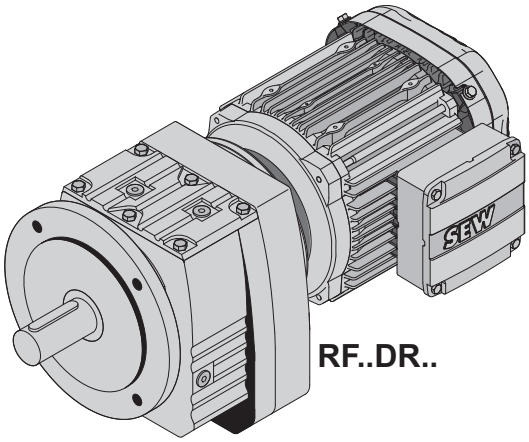
7.3.11 Special designs

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

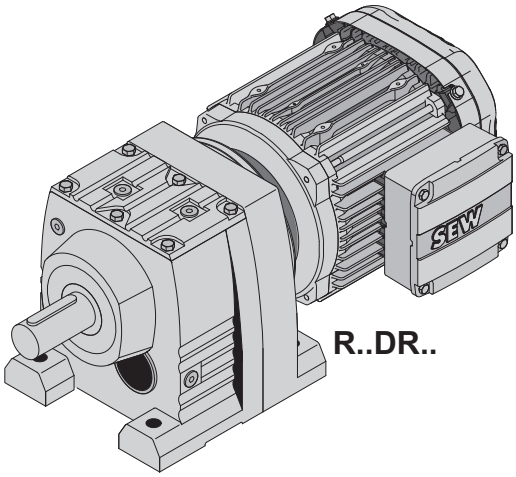
24832936/EN – 09/2018

8 Helical gearmotors

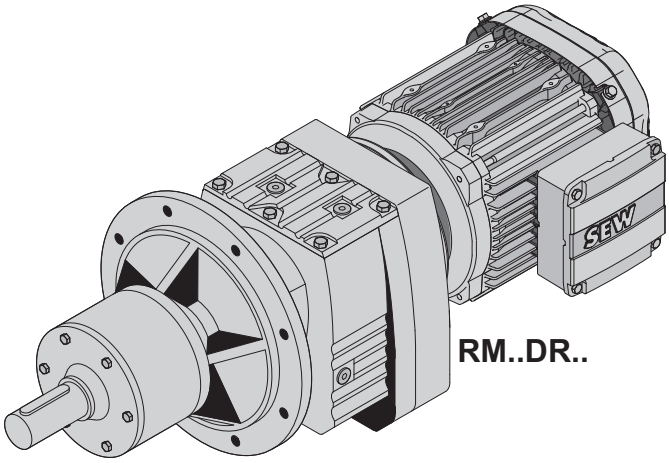
8.1 R..DRN.. designs



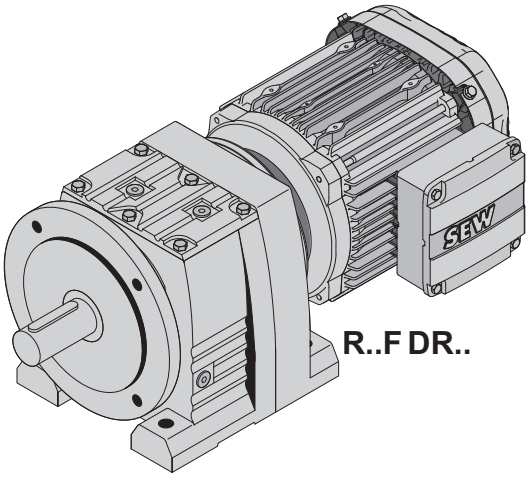
RF..DR..



R..DR..



RM..DR..



R..F DR..

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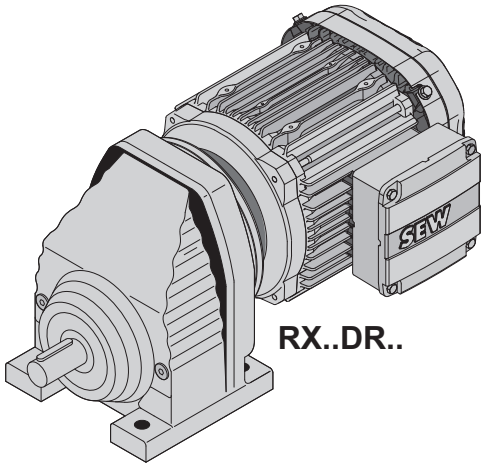
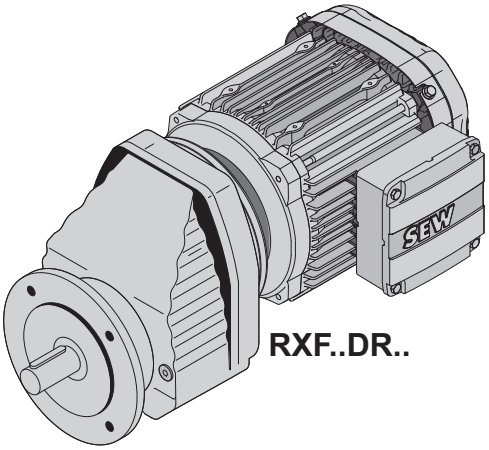
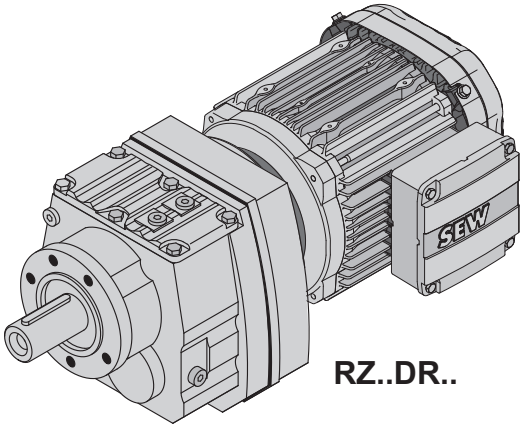
24832936/EN – 09/2018



RX..DR..



RXF..DR..



RZ..DR..

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24832936/EN – 09/2018

8.2 Possible geometrical combinations of R..DRN..

RX57, n_e=1400 min^{-1}										69 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
						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 min^{-1}										134 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
						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*						

24832936/EN – 09/2018

RX77, n_e=1400 min^{-1}											215 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L
					1						
175	57	6330	-	8.00*							
187	53	6200	-	7.47							
218	103	5600	-	6.41							
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 min^{-1}													405 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L
					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									

24832936/EN – 09/2018

RX97, n_e=1400 min^{-1}													595 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S
							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									
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 min^{-1}										830 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S 225M
							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 min^{-1}							50 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M 80MK	DRN 80M
						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			

24832936/EN – 09/2018

R07, n_e=1400 min^{-1}							50 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M 80MK	DRN 80M
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			
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 min^{-1}							85 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M 80MK	DRN 80M
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							

24832936/EN – 09/2018

R17, n_e=1400 min^{-1} — 85 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M 80MK	DRN 80M
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			
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 min^{-1} — 130 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
					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				

24832936/EN – 09/2018

R27, n_e=1400 min^{-1}								130 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
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*				
328	87	920	-	4.27				
350	85	900	-	4.00*				
415	79	900	-	3.37				

R27R17, n_e=1400 min^{-1}							130 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M 80MK	DRN 80M
					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			

24832936/EN – 09/2018

R27R17, n_e=1400 min^{-1}							130 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M 80MK	DRN 80M
					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			
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 min^{-1}								200 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
						3		
10	200	4940	8	134.82				
11	200	4940	8	123.66				
13	200	4940	8	105.28				
15	200	4940	8	90.77				

24832936/EN – 09/2018

R37, n_e=1400 min^{-1}								200 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
17	200	4940	8	84.61				
19	200	4940	8	73.96				
20	200	4940	8	69.33				
23	200	4940	9	61.18				
25	200	4940	9	55.76				
29	200	4940	9	48.08				
31	200	4940	9	44.81				
36	200	4760	9	39.17				
38	200	4540	9	36.72				
43	200	4120	9	32.40				
49	200	3740	9	28.73				
57	200	3240	9	24.42				
						2		
49	200	3690	8	28.32				
54	185	3860	8	26.03				
63	200	2970	8	22.27				
73	200	2570	8	19.31				
78	200	2390	8	18.05				
90	200	2010	8	15.60				
106	190	1880	8	13.25				
118	183	1810	8	11.83				
138	170	1820	9	10.11				
148	167	1760	9	9.47				
176	156	1720	9	7.97				
210	144	1000	13	6.67				
247	142	760	13	5.67				
277	135	790	13	5.06				
324	126	820	13	4.32				
346	122	840	14	4.05				
411	112	900	14	3.41				

R37R17, n_e=1400 min^{-1}							200 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M 80MK	DRN 80M
					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			

24832936/EN – 09/2018

R37R17, n_e=1400 min^{-1}							200 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M 80MK	DRN 80M
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			
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			
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			
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			
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			

24832936/EN – 09/2018

R37R17, n_e=1400 min^{-1}							200 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M 80MK	DRN 80M
9.0	200	4940	-	156			
10	200	4940	-	135			
11	200	4940	-	127			
13	200	4940	-	104			
16	200	4940	-	90			

R47, n_e=1400 min^{-1}										300 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S
					3					
7.9	300	5420	7	176.88						
8.6	300	5420	7	162.94						
10	300	5420	7	139.99						
11	300	5420	7	121.87						
12	300	5420	7	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	8	68.54						
22	300	5420	8	64.21						
25	300	5420	8	56.73						
27	300	5350	8	52.69						
29	300	5140	8	47.75						
33	300	4930	8	42.87						
38	300	4630	8	36.93						
40	300	4520	8	34.73						
47	300	4240	8	29.88						
52	300	4050	8	26.70						
59	300	3840	8	23.59						
					2					
41	240	4680	7	33.79						
45	220	4610	7	31.12						
52	300	4050	7	26.74						
60	300	3820	7	23.28						
64	300	3710	7	21.81						
73	295	3530	7	19.27						
78	290	3390	7	17.89						
86	275	3350	7	16.22						
96	265	3230	7	14.56						
112	250	3080	8	12.54						
119	245	3020	8	11.79						
138	230	2880	8	10.15						
154	220	2780	8	9.07						
175	205	2690	8	8.01						

24832936/EN – 09/2018

R47, n_e=1400 min^{-1}										300 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S
180	163	2720	10	7.76*						
201	159	2620	10	6.96						
233	156	2470	10	6.00						
248	155	2410	10	5.64*						
289	150	2280	11	4.85						
323	146	2190	12	4.34						
366	144	2080	12	3.83						

R47R37, n_e=1400 min^{-1}								300 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
					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				

24832936/EN – 09/2018

R47R37, n_e=1400 min^{-1} — 300 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
					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				
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 min^{-1} — 450 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
					3					
7.5	450	7100	7	186.89						
8.1	450	7100	7	172.17						
9.5	450	7100	7	147.92						
11	450	7100	7	128.77						
12	450	7100	7	120.63						
13	450	7100	7	106.58						
14	450	7100	7	98.99						
16	450	7100	7	89.71						

R57, n_e=1400 min^{-1}										450 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
17	450	7100	7	80.55						
20	450	7100	8	69.23						
22	450	6980	8	64.85						
24	450	6630	8	57.29						
26	450	6430	8	53.22						
29	450	6170	8	48.23						
32	450	5900	8	43.30						
38	450	5530	8	37.30*						
40	450	5390	8	35.07						
46	450	5040	8	30.18						
52	450	4800	8	26.97						
						2				
53	450	4750	7	26.31						
56	450	4640	7	24.99*						
64	450	4370	7	21.93						
75	450	4050	7	18.60*						
83	450	3860	7	16.79						
95	435	3690	7	14.77*						
100	430	3610	7	13.95*						
118	405	3430	7	11.88						
130	390	3330	8	10.79						
150	370	3180	8	9.35						
155	375	2010	9	9.06						
176	355	2020	9	7.97						
186	350	1950	9	7.53						
218	335	1770	9	6.41						
241	320	1820	10	5.82						
277	305	1730	10	5.05						
319	280	1900	11	4.39						

R57R37, n_e=1400 min^{-1}								450 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
					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				

24832936/EN – 09/2018

R57R37, n_e=1400 min^{-1}								450 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
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				
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*				

24832936/EN – 09/2018

R57R37, n_e=1400 min^{-1}								450 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
7.4	450	7100	-	188				
8.8	450	7100	-	159				
9.6	450	7100	-	146				
10	450	7100	-	134				

R67, n_e=1400 min^{-1}										600 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
					3					
7.0	600	7560	7	199.81						
7.6	600	7560	7	184.07						
8.9	600	7560	7	158.14						
10	600	7560	7	137.67						
11	600	7560	7	128.97						
12	600	7560	7	113.94						
13	600	7560	7	105.83						
15	600	7560	7	95.91						
16	600	7560	7	86.11						
19	600	7560	7	74.17						
20	600	7560	7	69.75						
23	600	7560	7	61.26						
25	600	7560	7	56.89						
27	600	7560	8	51.56						
30	600	7560	8	46.29						
35	580	7790	8	39.88*						
37	570	7900	8	37.50						
43	540	8210	8	32.27						
49	520	8400	8	28.83						
					2					
50	540	8210	6	28.13						
52	540	8210	6	26.72						
60	560	8010	7	23.44						
70	600	7560	7	19.89						
78	590	7330	7	17.95						
89	560	7130	7	15.79						
94	550	6980	7	14.91						
110	520	6640	7	12.70						
121	500	6500	7	11.54						
140	470	6220	7	10.00						
161	440	5960	7	8.70*						
180	380	5830	9	7.79						
190	370	5790	9	7.36*						
223	330	5590	9	6.27						
246	310	5450	10	5.70						
284	290	5210	10	4.93						

24832936/EN – 09/2018

R67, n_e=1400 min^{-1}										600 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
326	270	5000	10	4.29						

R67R37, n_e=1400 min^{-1}								600 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
					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				
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				

24832936/EN – 09/2018

R67R37, n_e=1400 min^{-1}								600 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
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*				
6.0	600	7560	-	235				
7.0	600	7560	-	201				
7.7	600	7560	-	181				
8.8	600	7560	-	159				

R77, n_e=1400 min^{-1}											820 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L
						3					
7.2	820	9920	7	195.24*							
8.4	820	9920	7	166.59							
9.6	820	9920	7	145.67							
10	820	9920	7	138.39							
12	820	9920	7	121.42							
14	820	9920	7	102.99							
15	820	9920	7	92.97							
17	820	9920	7	81.80							
18	820	9920	7	77.24							
21	820	9920	7	65.77							
24	820	9920	8	57.68							
27	820	9920	8	52.07							
31	820	9920	8	45.81							
32	820	9920	8	43.26							
38	820	9920	8	36.83							
42	820	9920	8	33.47							
48	820	9920	8	29.00							
55	780	10100	8	25.23							

24832936/EN – 09/2018

R77, n_e=1400 min^{-1}											820 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L
						2					
60	820	8870	7	23.37							
65	820	8250	7	21.43							
74	780	7980	7	18.80							
79	780	7620	7	17.82*							
90	740	7390	7	15.60							
100	720	7050	7	14.05							
114	690	6740	7	12.33							
129	660	6490	7	10.88							
145	630	6300	7	9.64							
163	630	4110	8	8.59							
181	610	3940	8	7.74							
206	580	3850	8	6.79							
234	540	3990	8	5.99*							
264	510	3990	9	5.31*							

R77R37, n_e=1400 min^{-1}								820 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
					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				

R77R37, n_e=1400 min^{-1}								820 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
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				
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 min^{-1}												1550 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L
					3								

24832936/EN – 09/2018

R87, n_e=1400 min^{-1} — 1550 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L
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	7	72.57									
22	1550	15800	7	63.68*									
23	1550	15200	7	60.35*									
27	1550	13500	7	52.82									
29	1550	12300	7	47.58									
34	1550	10800	7	41.74									
38	1550	9470	7	36.84*									
43	1550	8220	7	32.66*									
50	1500	7370	7	27.88									
							2						
41	1500	9480	6	34.40*									
45	1550	7820	6	31.40									
50	1550	6640	6	27.84*									
60	1550	5000	6	23.40									
65	1500	4970	6	21.51									
73	1440	4800	6	19.10									
82	1390	4580	6	17.08*									
91	1340	4450	6	15.35									
105	1280	4220	6	13.33									
117	1230	4120	6	11.93									
141	1180	3520	7	9.90*									
153	1210	99	7	9.14*									
170	1160	225	7	8.22									
196	1070	820	7	7.13									
219	1020	970	7	6.39									
264	910	1710	7	5.30*									

R87R57, n_e=1400 min^{-1} — 1550 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
						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						

24832936/EN – 09/2018

R87R57, n_e=1400 min^{-1}										1550 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
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						
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						
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						

24832936/EN – 09/2018

R87R57, n_e=1400 min^{-1}										1550 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
4.6	1550	16900	-	305						
5.2	1550	16900	-	268						
5.9	1550	16900	-	236*						
6.7	1550	16900	-	209*						
						2 2				
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 min^{-1}													3000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S
							3						
4.8	3000	19800	6	289.74									
5.5	3000	19800	6	255.71									
5.8	3000	19800	6	241.25									
6.5	3000	19800	6	216.28									
7.5	3000	19800	6	186.30									
8.2	3000	19800	6	170.02									
9.3	3000	19800	6	150.78									
11	3000	19800	6	126.75									
12	3000	19800	6	116.48									
14	3000	19800	6	103.44									
15	3000	19800	6	92.48									
17	3000	19800	6	83.15									
19	3000	18000	6	72.17									
21	3000	16300	7	65.21									
23	3000	14800	7	59.92									
26	3000	12900	7	53.21									
29	3000	11100	7	47.58									
33	3000	9480	7	42.78									
38	3000	7410	7	37.13									
42	2890	7160	7	33.25									
51	2670	7260	7	27.58									
							2						
44	2560	10600	6	32.05									
51	2560	8380	6	27.19									
56	2830	4140	6	25.03									
63	2720	4060	6	22.37									
70	2610	4110	6	20.14									
77	2500	4270	6	18.24									

R97, n_e=1400 min^{-1}													3000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S
87	2400	4130	6	16.17									
96	2300	4240	6	14.62									
113	2190	3850	6	12.39									
129	2090	3720	6	10.83									
151	2030	-	6	9.29									
167	2030	-	6	8.39									
197	2000	-	6	7.12									
225	1890	-	6	6.21									
269	1780	-	7	5.20									
311	1630	-	7	4.50*									

R97R57, n_e=1400 min^{-1}										3000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
					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						
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						
					2 3					
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						

24832936/EN – 09/2018

R97R57, n_e=1400 min^{-1}										3000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
					3	2				
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				
2.2	3000	19800	-	625						
2.6	3000	19800	-	549						
3.0	3000	19800	-	466						
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 min^{-1}										4300 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S 225M
					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						

R107, n_e=1400 min^{-1} — 4300 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S 225M
14	4300	29500	7	102.53						
15	4300	29500	7	92.70						
18	4300	29500	8	78.57						
19	4300	29500	8	72.88						
21	4300	29200	8	65.60*						
24	4300	28000	8	59.41						
27	4300	26600	8	52.68						
29	4300	25500	8	47.63						
35	4300	23800	8	40.37*						
40	4300	22400	8	35.26						
47	4300	20700	8	29.49						
						2				
45	4300	21100	7	30.77						
51	4300	20100	7	27.58						
56	4300	19200	7	24.90*						
62	4300	18300	7	22.62						
70	4300	17300	7	20.07						
77	4300	16600	7	18.21						
89	4300	15400	7	15.65						
102	4300	14400	7	13.66						
121	4300	13300	7	11.59						
138	4300	12400	8	10.13						
164	4300	11300	8	8.56						
178	2970	13800	9	7.86						
210	2970	12800	9	6.66						
241	2970	12100	9	5.82						
285	2900	11300	10	4.92						

R107R77, n_e=1400 min^{-1} — 4300 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L
						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							

24832936/EN – 09/2018

R107R77, n_e=1400 min^{-1}											4300 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L
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							
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							

24832936/EN – 09/2018

R127, n_e=1400 min^{-1}											6000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S 225M	DRN 250M
						3					
5.3	6000	43000	6	262.65							
5.8	6000	43000	6	240.48							
6.6	6000	43000	6	212.46							
7.8	6000	43000	6	180.23							
8.4	6000	43000	6	165.95							
9.4	6000	43000	6	148.33							
10	6000	43000	6	133.53							
12	6000	43000	6	120.92							
13	6000	43000	6	107.23							
14	6000	43000	6	96.95							
16	6000	43000	7	85.26							
17	6000	43000	6	82.17							
18	6000	43000	7	76.21							
20	6000	43000	7	68.61							
23	6000	43000	7	62.13							
25	6000	43000	7	55.09							
28	6000	43000	7	49.81							
33	6000	43000	7	42.22							
38	5730	43000	7	36.88							
45	5380	43000	7	30.84							
						2					
44	6000	43000	6	32.18							
49	6000	43000	6	28.84							
54	6000	43000	6	26.04							
59	6000	43000	6	23.65							
67	6000	43000	6	20.98							
74	6000	43000	6	19.04							
86	6000	43000	6	16.37							
98	6000	43000	6	14.29							
116	5940	43000	6	12.12							
132	5700	43000	6	10.59							
156	5420	41400	7	8.96							
158	3930	43000	8	8.85							
186	3930	42400	8	7.51							
213	3930	40200	8	6.56							
252	3930	37600	8	5.55							

R127R77, n_e=1400 min^{-1}											6000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L
						3 3					
0.07	6000	43000	-	20936							
0.08	6000	43000	-	17863							
0.09	6000	43000	-	15620							
0.10	6000	43000	-	14123							

24832936/EN – 09/2018

R127R77, n_e=1400 min^{-1}											6000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L
0.10	6000	43000	-	13417							
0.12	6000	43000	-	11772							
0.14	6000	43000	-	9985							
0.16	6000	43000	-	9013							
0.16	6000	43000	-	8771							
0.17	6000	43000	-	8282							
0.18	6000	43000	-	7639							
0.20	6000	43000	-	7053							
0.21	6000	43000	-	6722							
0.22	6000	43000	-	6347							
0.23	6000	43000	-	6185							
0.25	6000	43000	-	5592							
0.30	6000	43000	-	4740							
0.32	6000	43000	-	4441							
0.35	6000	43000	-	3949							
0.37	6000	43000	-	3764							
0.39	6000	43000	-	3571							
0.45	6000	43000	-	3110							
0.50	6000	43000	-	2812							
0.59	6000	43000	-	2383							
0.72	6000	43000	-	1934							
0.76	6000	43000	-	1835							
0.90	6000	43000	-	1555							
0.97	6000	43000	-	1444							
1.1	6000	43000	-	1224							
						2 3					
0.40	6000	43000	-	3495							
0.46	6000	43000	-	3056							
0.48	6000	43000	-	2903							
0.55	6000	43000	-	2547							
0.65	6000	43000	-	2161							
0.72	6000	43000	-	1951							
0.82	6000	43000	-	1716							
0.86	6000	43000	-	1620							
1.0	6000	43000	-	1380							
1.2	6000	43000	-	1210							
1.5	6000	43000	-	961							
1.8	6000	43000	-	773							
2.3	6000	43000	-	608							
						3 2					
0.56	6000	43000	-	2506							
0.62	6000	43000	-	2266							
0.69	6000	43000	-	2016							
0.73	6000	43000	-	1920							
0.77	6000	43000	-	1823							
0.84	6000	43000	-	1673							
0.91	6000	43000	-	1545							
0.93	6000	43000	-	1512							

24832936/EN – 09/2018

R127R77, n_e=1400 min^{-1}											6000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L
1.1	6000	43000	-	1322							
1.1	6000	43000	-	1282							
1.2	6000	43000	-	1195							
1.2	6000	43000	-	1164							
1.4	6000	43000	-	1034							
1.4	6000	43000	-	1013							
1.4	6000	43000	-	987							
1.5	6000	43000	-	936							
1.5	6000	43000	-	935							
1.7	6000	43000	-	830							
1.8	6000	43000	-	794							
1.8	6000	43000	-	792							
1.8	6000	43000	-	777							
1.9	6000	43000	-	750							
2.1	6000	43000	-	659							
2.2	6000	43000	-	642							
2.2	6000	43000	-	636							
2.3	6000	43000	-	614							
2.4	6000	43000	-	581							
2.7	6000	43000	-	521							
2.8	6000	43000	-	492							
2.9	6000	43000	-	480							
3.4	6000	43000	-	407							
3.6	6000	43000	-	386							
4.7	6000	43000	-	298							
5.5	6000	43000	-	253							
						2	2				
2.9	6000	43000	-	490							
3.6	6000	43000	-	394							
4.3	6000	43000	-	327							
5.4	6000	43000	-	259							
6.9	6000	43000	-	202							
8.6	6000	43000	-	162							
11	6000	43000	-	126							

R137, n_e=1400 min^{-1}									8000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S 225M	DRN 250M 280S 280M
						3			
6.3	8000	53400	6	222.60*					
7.4	8000	53400	6	188.45					
8.0	8000	53400	7	174.40*					
9.0	8000	53400	7	156.31					
9.9	8000	53400	7	141.12*					
11	8000	53400	7	128.18					
12	8000	53400	7	113.72					
14	8000	53400	7	103.20*					

24832936/EN – 09/2018

R137, n_e=1400 min^{-1} — 8000 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S 225M	DRN 250M 280S 280M
16	8000	53400	7	88.70*					
17	8000	53400	7	80.91*					
19	8000	53400	7	73.49					
21	8000	53400	7	65.20					
24	8000	53400	7	59.17*					
28	8000	53400	7	50.86*					
32	8000	53400	7	44.39					
37	8000	53400	7	37.65					
43	8000	53400	7	32.91					
50	7680	54100	7	27.83					
						2			
47	7780	53900	6	29.57*					
58	8000	49400	6	24.12					
64	8000	47100	6	22.00*					
74	8000	43500	6	19.04*					
83	8000	40600	6	16.80*					
96	8000	37300	6	14.51					
109	8000	34700	6	12.83					
130	8000	31100	7	10.79					
161	7840	27600	7	8.71					
184	5110	39000	8	7.59					
219	5110	35900	9	6.38					
272	4600	34500	9	5.15					

R137R77, n_e=1400 min^{-1} — 8000 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L
						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*							

R137R77, n_e=1400 min^{-1}											8000 Nm
n_a	M_{amax}	F_{Ra}	$\varphi_{(/R)}$	i	DRN	DRN	DRN	DRN	DRN	DRN	DRN
min^{-1}	Nm	N	'		63MS 63M 71MS 71M 80MK	80M 90S	90L	100LS 100L	112M	132S 132M	132L 160M 160L
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*							
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							

24832936/EN – 09/2018

R147, n_e=1400 min^{-1}								13000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S 225M	DRN 250M 280S 280M
					3			
8.6	13000	62700	6	163.31				
9.5	13000	62700	6	146.91				
12	13000	62700	6	119.86				
13	13000	62700	6	109.31				
15	13000	62700	6	94.60*				
17	13000	62700	6	83.47				
19	13000	62700	6	72.09				
21	13000	62700	6	66.99				
23	13000	62700	6	61.09				
26	13000	62700	6	52.87				
30	13000	62700	6	46.65				
35	13000	62700	6	40.29				
39	13000	62700	6	35.64				
47	13000	62700	6	29.95				
58	11900	64700	6	24.19				
					2			
68	12000	64600	6	20.44				
78	10500	67000	6	18.04				
90	13000	62700	6	15.64				
101	12600	63400	6	13.91				
117	13000	60400	6	11.99				
144	13000	54400	6	9.74				
169	13000	49900	6	8.26				
193	8670	58400	8	7.25				
238	8670	53200	8	5.89				
280	8670	49300	8	5.00				

R147R77, n_e=1400 min^{-1}											13000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L
					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							

24832936/EN – 09/2018

R147R77, n_e=1400 min^{-1} — 13000 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L
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							
2.9	13000	62700	-	489							
3.4	13000	62700	-	415							

R147R87, n_e=1400 min^{-1} — 13000 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L
					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 min^{-1} — 20000 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S 225M	DRN 250M 280S 280M	DRN 315S 315M	DRN 315L 315H
					3					
6.1	20000	120000	6	229.71						
7.5	20000	120000	6	186.93*						
9.1	20000	120000	6	153.07						
10	20000	120000	6	139.98						
11	20000	120000	6	121.81*						
13	20000	120000	6	107.49						

24832936/EN – 09/2018

R167, n_e=1400 min^{-1}										20000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S 225M	DRN 250M 280S 280M	DRN 315S 315M	DRN 315L 315H
15	20000	120000	6	93.19						
17	20000	120000	6	82.91*						
19	20000	120000	6	73.70*						
21	20000	120000	6	67.40						
24	20000	120000	6	58.65						
27	20000	120000	6	51.76						
31	20000	120000	6	44.87						
35	20000	120000	6	39.92						
41	20000	120000	6	34.41						
50	20000	119500	6	27.96						
59	18800	114400	6	23.71						
						2				
30	9460	120000	5	46.00						
37	10200	120000	5	37.74						
46	11700	120000	5	30.71						
57	16400	120000	6	24.57						
64	20000	107100	6	21.85						
74	20000	100600	6	19.03						
82	20000	95400	6	16.98						
97	19700	89300	6	14.48						
117	19000	83300	6	11.99						
137	18500	77500	6	10.24						

R167R97, n_e=1400 min^{-1}													20000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S
							3 3						
0.05	20000	120000	-	27001									
0.06	20000	120000	-	22482									
0.07	20000	120000	-	20002*									
0.08	20000	120000	-	17361									
0.09	20000	120000	-	15446									
0.10	20000	120000	-	14051									
0.12	20000	120000	-	11812									
0.13	20000	120000	-	10509									
0.15	20000	120000	-	9631									
0.18	20000	120000	-	7749									
0.20	20000	120000	-	6894									
0.23	20000	120000	-	6077									
0.26	20000	120000	-	5407									
0.30	20000	120000	-	4650									
0.34	20000	120000	-	4129									
0.38	20000	120000	-	3692									
0.45	20000	120000	-	3099									
							3 2						
0.53	20000	120000	-	2657*									
0.60	20000	120000	-	2333									
0.67	20000	120000	-	2085									

24832936/EN – 09/2018

R167R97, n_e=1400 min^{-1}													20000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S
0.75	20000	120000	-	1877									
0.84	20000	120000	-	1670*									
0.97	20000	120000	-	1438									
1.1	20000	120000	-	1279									
1.2	20000	120000	-	1123									
1.4	20000	120000	-	999									
1.6	20000	120000	-	861									
1.8	20000	120000	-	760									
2.1	20000	120000	-	656									
2.4	20000	120000	-	579									
2.8	20000	120000	-	503									
3.2	20000	120000	-	432									
3.7	20000	120000	-	376									
4.2	20000	120000	-	335									
4.6	20000	120000	-	303									
5.0	20000	120000	-	279									

R167R107, n_e=1400 min^{-1}										20000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S 225M
					2 3					
0.38	20000	120000	-	3637						
0.42	20000	120000	-	3330						
0.51	20000	120000	-	2757						
0.57	20000	120000	-	2436						
0.61	20000	120000	-	2298						
0.68	20000	120000	-	2066						
0.76	20000	120000	-	1849						
0.84	20000	120000	-	1674						
0.94	20000	120000	-	1485						
1.0	20000	120000	-	1342						
1.1	20000	120000	-	1229						
1.3	20000	120000	-	1111						
1.5	20000	120000	-	950						
1.6	20000	120000	-	860						
1.8	20000	120000	-	763						
2.0	20000	120000	-	690						
2.4	20000	120000	-	585						
2.7	20000	120000	-	511						
					3 2					
4.0	20000	120000	-	349						
4.7	20000	120000	-	295						
5.2	20000	120000	-	270						
6.1	20000	120000	-	229						
7.0	20000	120000	-	200						
8.3	20000	120000	-	169						
					2 2					
3.1	20000	120000	-	446						

24832936/EN – 09/2018

R167R107, n_e=1400 min^{-1}										20000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S 225M
3.5	20000	120000	-	399						
3.9	20000	120000	-	361						
4.3	20000	120000	-	328						
4.8	20000	120000	-	291						
5.3	20000	120000	-	264						
6.2	20000	120000	-	227						
7.1	20000	120000	-	198						
8.3	20000	120000	-	168						

24832936/EN – 09/2018

8.3 R..DRN.. selection tables in kW

P_m = 0.09 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
18	49	78.24	1260	1.05						
19	45	71.47	1290	1.10						
23	38	60.32	1340	1.35						
27	32	51.52	1380	1.55						
29	30	47.78	1400	1.70						
31	28	44.16	1420	1.80						
33	26	41.31	1430	1.95	**R**	**07**	**DR2S**	**56MR4**	5.8	324
34	25	40.34	1440	2.0	**RF**	**07**	**DR2S**	**56MR4**	5.8	325
36	24	38.51	1440	2.1						
41	21	34.05	1460	2.4						
47	18	29.08	1440	2.8						
51	17	26.97	1410	3.0						
59	15	23.32	1350	3.4						
63	14	21.73	1320	3.7						
75	11	18.31	1260	4.4						
82	10	16.73	1230	4.8						
98	8.8	14.12	1170	5.7						
114	7.5	12.06	1120	6.7						
123	7.0	11.18	1090	7.2						
143	6.0	9.67	1040	8.3						
153	5.6	9.01	1020	8.9						
176	4.9	7.85	980	10	**R**	**07**	**DR2S**	**56MR4**	5.7	324
185	4.7	7.48	970	9.2	**RF**	**07**	**DR2S**	**56MR4**	5.7	325
202	4.2	6.83	940	10						
239	3.6	5.76	890	11						
280	3.1	4.92	850	12						
302	2.8	4.57	830	13						
350	2.5	3.95	790	14						
375	2.3	3.68	775	14						
430	2.0	3.21	740	16						

P_m = 0.12 kW

n_a min^{-1}	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						
0.09	9920	15923	67900	1.30						
0.10	8770	14075	69400	1.50						
0.11	7640	12344	70700	1.70	**R**	**147R77**	**DRN**	**63MS4**	420	363
0.12	6730	11143	71600	1.95	**RF**	**147R77**	**DRN**	**63MS4**	430	363
0.14	6030	9743	72200	2.1	**RM**	**147R77**	**DRN**	**63MS4**	600	363
0.16	4830	8443	73000	2.7						
0.19	4180	7307	73400	3.1						
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**	**DRN**	**63MS4**	290	363
0.18	4090	7479	59400	1.95	**RF**	**137R77**	**DRN**	**63MS4**	310	363
0.21	4060	6559	59400	1.95	**RM**	**137R77**	**DRN**	**63MS4**	425	363
0.24	3190	5834	60200	2.5						
0.27	3160	5116	60200	2.5						

24832936/EN – 09/2018

P_m = 0.12 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.12	7330	11772	43000	0.80						
0.14	6180	9985	43000	0.95						
0.15	5450	9013	43000	1.10						
0.16	5100	8771	43000	1.20						
0.17	4740	8282	43000	1.25						
0.18	4620	7639	43000	1.30						
0.20	3860	7053	43000	1.55						
0.21	3910	6722	43000	1.55	**R**	**127R77**	**DRN**	**63MS4**	260	363
0.22	3630	6347	43000	1.65	**RF**	**127R77**	**DRN**	**63MS4**	270	363
0.22	3830	6185	43000	1.55	**RM**	**127R77**	**DRN**	**63MS4**	365	363
0.25	3460	5592	43000	1.75						
0.29	2930	4740	43000	2.0						
0.31	2580	4441	43000	2.3						
0.35	2160	3949	43000	2.8						
0.37	2190	3764	43000	2.7						
0.39	1950	3571	43000	3.1						
0.44	1560	3110	43000	3.9						
0.39	2200	3495	43000	2.7						
0.45	1920	3056	43000	3.1	**R**	**127R77**	**DRN**	**63MS4**	245	363
0.48	1830	2903	43000	3.3	**RF**	**127R77**	**DRN**	**63MS4**	265	363
0.54	1600	2547	43000	3.7	**RM**	**127R77**	**DRN**	**63MS4**	360	363
					R	**127R77**	**DRN**	**63MS4**	260	363
0.55	1570	2506	43000	3.8	**RF**	**127R77**	**DRN**	**63MS4**	270	363
					RM	**127R77**	**DRN**	**63MS4**	365	363
0.18	4410	7583	28800	0.95						
0.20	3690	6743	32400	1.15						
0.23	3660	5914	32500	1.15	**R**	**107R77**	**DRN**	**63MS4**	200	363
0.27	2820	5168	35500	1.50	**RF**	**107R77**	**DRN**	**63MS4**	210	363
0.31	2530	4435	36100	1.70	**RM**	**107R77**	**DRN**	**63MS4**	295	363
0.35	2260	3896	36500	1.90						
0.45	1880	3039	36900	2.3						
0.35	2470	3918	36200	1.75						
0.41	2100	3343	36600	2.0	**R**	**107R77**	**DRN**	**63MS4**	195	363
0.45	1910	3034	36900	2.2	**RF**	**107R77**	**DRN**	**63MS4**	200	363
0.52	1670	2653	37100	2.6	**RM**	**107R77**	**DRN**	**63MS4**	290	363
0.61	1430	2280	37300	3.0						
0.67	1290	2067	37400	3.3						
0.30	3050	4559	17700	1.00	**R**	**97R57**	**DRN**	**63MS4**	130	363
0.34	2560	4004	18200	1.15	**RF**	**97R57**	**DRN**	**63MS4**	145	363
0.40	2270	3481	21700	1.30	**RM**	**97R57**	**DRN**	**63MS4**	195	363
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**	**DRN**	**63MS4**	125	363
0.52	1800	2668	27100	1.65	**RF**	**97R57**	**DRN**	**63MS4**	145	363
0.61	1480	2245	27700	2.0	**RM**	**97R57**	**DRN**	**63MS4**	195	363
0.68	1300	2016	27900	2.3						
0.80	1190	1733	28000	2.5						
0.45	2120	3065	23400	1.40						
0.51	1880	2722	26200	1.60						
0.60	1590	2311	27500	1.90						
0.66	1430	2078	27700	2.1	**R**	**97R57**	**DRN**	**63MS4**	130	363
0.76	1230	1823	28000	2.4	**RF**	**97R57**	**DRN**	**63MS4**	145	363
0.87	1070	1583	28200	2.8	**RM**	**97R57**	**DRN**	**63MS4**	195	363
0.99	900	1396	28300	3.3						
1.1	770	1228	28400	3.9						
0.48	1760	2873	9380	0.90	**R**	**87R57**	**DRN**	**63MS4**	86	363
0.70	1300	1961	18500	1.20	**RF**	**87R57**	**DRN**	**63MS4**	93	363
					RM	**87R57**	**DRN**	**63MS4**	125	363
0.53	1780	2595	15000	0.85	**R**	**87R57**	**DRN**	**63MS4**	85	363
0.65	1430	2129	17700	1.10	**RF**	**87R57**	**DRN**	**63MS4**	92	363
0.72	1270	1930	18600	1.20	**RM**	**87R57**	**DRN**	**63MS4**	120	363
0.80	1120	1733	19300	1.40						

24832936/EN – 09/2018

P_m = 0.12 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.79	1140	1737	18400	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**	**DRN**	**63MS4**	85	363
1.6	580	885	20000	2.6	**RF**	**87R57**	**DRN**	**63MS4**	92	363
1.8	510	776	20000	3.0	**RM**	**87R57**	**DRN**	**63MS4**	120	363
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**	**DRN**	**63MS4**	45	363
1.3	740	1047	10600	1.10	**RF**	**77R37**	**DRN**	**63MS4**	51	363
1.5	635	915	11300	1.30	**RM**	**77R37**	**DRN**	**63MS4**	76	363
1.1	820	1218	9910	1.00						
1.3	740	1084	10600	1.10						
1.5	660	940	11200	1.25	**R**	**77R37**	**DRN**	**63MS4**	46	363
1.7	520	821	12000	1.55	**RF**	**77R37**	**DRN**	**63MS4**	52	363
1.9	475	731	12200	1.70	**RM**	**77R37**	**DRN**	**63MS4**	77	363
2.1	455	646	12300	1.80						
2.6	375	520	12600	2.2						
3.1	320	451	12700	2.5	**R**	**77R37**	**DRN**	**63MS4**	45	363
3.3	300	422	12800	2.7	**RF**	**77R37**	**DRN**	**63MS4**	51	363
3.8	255	365	12900	3.2	**RM**	**77R37**	**DRN**	**63MS4**	76	363
1.6	625	891	7190	0.95						
1.9	505	730	8530	1.20	**R**	**67R37**	**DRN**	**63MS4**	40	363
2.1	440	644	9060	1.35	**RF**	**67R37**	**DRN**	**63MS4**	43	363
2.4	385	571	9430	1.55	**RM**	**67R37**	**DRN**	**63MS4**	59	363
2.8	320	486	9790	1.85						
1.6	590	836	7670	1.00						
1.8	490	750	8630	1.20						
2.1	440	646	9050	1.35	**R**	**67R37**	**DRN**	**63MS4**	41	363
2.4	400	574	9330	1.50	**RF**	**67R37**	**DRN**	**63MS4**	44	363
2.8	340	495	9660	1.75	**RM**	**67R37**	**DRN**	**63MS4**	60	363
3.1	285	438	9940	2.1						
1.8	550	782	4650	0.80						
2.0	455	678	6980	1.00						
2.3	410	604	7260	1.10	**R**	**57R37**	**DRN**	**63MS4**	34	363
2.6	370	537	7400	1.20	**RF**	**57R37**	**DRN**	**63MS4**	38	363
2.9	325	471	7550	1.35	**RM**	**57R37**	**DRN**	**63MS4**	50	363
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**	**DRN**	**63MS4**	33	363
5.3	185	262	7880	2.4	**RF**	**57R37**	**DRN**	**63MS4**	37	363
5.6	171	246	7900	2.6	**RM**	**57R37**	**DRN**	**63MS4**	49	363
6.3	150	220	7930	3.0						
2.7	340	510	3910	0.85						
3.2	285	436	5300	1.05	**R**	**47R37**	**DRN**	**63MS4**	29	363
3.4	265	408	5590	1.10	**RF**	**47R37**	**DRN**	**63MS4**	29	363
4.0	215	344	5780	1.35						
2.8	365	502	3020	0.80						
3.2	310	429	4680	0.95						
3.7	265	372	5580	1.10						
4.0	245	348	5670	1.20	**R**	**47R37**	**DRN**	**63MS4**	28	363
4.6	210	301	5810	1.40	**RF**	**47R37**	**DRN**	**63MS4**	29	363
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	3490	0.90						
4.7	210	296	3900	0.95						
5.3	184	259	4680	1.10	**R**	**37R17**	**DRN**	**63MS4**	18	363
6.0	163	228	5300	1.25	**RF**	**37R17**	**DRN**	**63MS4**	19	363
6.9	140	199	5550	1.40						
8.0	122	172	5680	1.65						

24832936/EN – 09/2018

P_m = 0.12 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
4.2	235	328	3160	0.85						
4.8	200	289	4100	1.00						
5.2	192	265	4450	1.05	**R**	**37R17**	**DRN**	**63MS4**	17	363
6.1	156	226	5410	1.30	**RF**	**37R17**	**DRN**	**63MS4**	19	363
6.8	144	202	5520	1.40						
7.7	125	179	5660	1.60						
6.0	158	229	2790	0.80						
6.9	138	200	3320	0.95	**R**	**27R17**	**DRN**	**63MS4**	12	363
7.8	121	177	3770	1.05	**RF**	**27R17**	**DRN**	**63MS4**	12	363
8.3	116	166	3900	1.10						
6.1	157	227	2830	0.85						
6.8	144	203	3170	0.90	**R**	**27R17**	**DRN**	**63MS4**	11	363
7.7	125	179	3660	1.05	**RF**	**27R17**	**DRN**	**63MS4**	11	363
8.8	106	156	4020	1.25						
4.5	255	195.24*	12900	3.2	**R**	**77**	**DRN**	**63M6**	38	345
5.2	215	166.59	13000	3.7	**RF**	**77**	**DRN**	**63M6**	44	346
6.0	192	145.67	13000	4.3	**RM**	**77**	**DRN**	**63M6**	69	346
4.3	260	199.81	10000	2.3						
4.7	240	184.07	10100	2.5						
5.5	205	158.14	10200	2.9	**R**	**67**	**DRN**	**63M6**	31	342
6.3	181	137.67	10300	3.3	**RF**	**67**	**DRN**	**63M6**	34	343
6.8	170	128.97	10300	3.5	**RM**	**67**	**DRN**	**63M6**	50	343
7.6	150	113.94	10400	4.0						
6.9	166	199.81	10300	3.6	**R**	**67**	**DRN**	**63MS4**	30	342
7.5	153	184.07	10400	3.9	**RF**	**67**	**DRN**	**63MS4**	33	343
					RM	**67**	**DRN**	**63MS4**	49	343
4.7	245	186.89	7760	1.85						
5.0	225	172.17	7800	2.0						
5.9	195	147.92	7860	2.3	**R**	**57**	**DRN**	**63M6**	24	339
6.8	170	128.77	7900	2.6	**RF**	**57**	**DRN**	**63M6**	27	340
7.2	159	120.63	7920	2.8	**RM**	**57**	**DRN**	**63M6**	39	340
8.2	140	106.58	7940	3.2						
8.8	130	98.99	7950	3.5						
7.4	155	186.89	7920	2.9	**R**	**57**	**DRN**	**63MS4**	23	339
8.0	143	172.17	7940	3.1	**RF**	**57**	**DRN**	**63MS4**	27	340
9.3	123	147.92	7960	3.7	**RM**	**57**	**DRN**	**63MS4**	39	340
11	107	128.77	7980	4.2						
4.9	230	176.88	5730	1.30						
5.3	210	162.94	5800	1.40	**R**	**47**	**DRN**	**63M6**	19	336
6.2	184	139.99	5900	1.65	**RF**	**47**	**DRN**	**63M6**	19	337
7.1	161	121.87	5970	1.85						
7.8	147	176.88	6000	2.0						
8.5	135	162.94	6030	2.2						
9.9	116	139.99	6070	2.6	**R**	**47**	**DRN**	**63MS4**	18	336
11	101	121.87	6100	3.0	**RF**	**47**	**DRN**	**63MS4**	18	337
12	95	114.17	6100	3.2						
14	84	100.86	6120	3.6						
15	78	93.68	6130	3.9						
6.5	178	134.82	4870	1.15						
7.0	163	123.66	5290	1.25						
8.3	139	105.28	5560	1.45	**R**	**37**	**DRN**	**63M6**	15	333
9.6	120	90.77	5700	1.65	**RF**	**37**	**DRN**	**63M6**	17	334
10	111	84.61	5750	1.80						
12	97	73.96	5830	2.0						
10	112	134.82	5750	1.80						
11	103	123.66	5800	1.95						
13	87	105.28	5880	2.3	**R**	**37**	**DRN**	**63MS4**	14	333
15	75	90.77	5930	2.6	**RF**	**37**	**DRN**	**63MS4**	16	334
16	70	84.61	5950	2.9						
19	61	73.96	5980	3.3						
7.0	163	123.91	2660	0.80						
8.2	139	105.49	3300	0.95						
9.6	120	90.96	3800	1.10	**R**	**27**	**DRN**	**63M6**	9.3	330
10	112	84.78	3990	1.15	**RF**	**27**	**DRN**	**63M6**	9.2	331
12	98	74.11	4060	1.35						

24832936/EN – 09/2018

P_m = 0.12 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
10	112	135.09	3990	1.15						
11	103	123.91	4040	1.25						
13	88	105.49	4110	1.50						
15	76	90.96	4170	1.70						
16	70	84.78	4200	1.85						
19	62	74.11	4240	2.1	**R**	**27**	**DRN**	**63MS4**	8.4	330
20	58	69.47	4260	2.2	**RF**	**27**	**DRN**	**63MS4**	8.4	331
23	51	61.30	4290	2.5						
25	46	55.87	4280	2.8						
29	40	48.17	4090	3.2						
31	37	44.90	4000	3.5						
11	108	81.64	-	0.80						
12	93	70.39	1250	0.90						
13	86	65.61	1680	1.00	**R**	**17**	**DRN**	**63M6**	8.9	327
15	76	57.35	2300	1.15	**RF**	**17**	**DRN**	**63M6**	8.8	328
16	71	53.76	2400	1.20						
18	62	47.44	2460	1.35						
17	68	81.64	2420	1.25						
20	58	70.39	2490	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**	**DRN**	**63MS4**	8.1	327
31	37	44.18	2500	2.3	**RF**	**17**	**DRN**	**63MS4**	8.0	328
36	32	38.61	2430	2.6						
38	30	36.20	2390	2.8						
43	27	31.94	2310	3.2						
49	24	28.32	2230	3.6						
57	20	24.07	2130	4.2						
23	50	60.32	1250	1.00						
27	43	51.52	1300	1.15						
29	40	47.78	1330	1.25						
31	37	44.16	1350	1.35						
33	34	41.31	1370	1.45						
34	34	40.34	1370	1.50	**R**	**07**	**DRN**	**63MS4**	6.9	324
36	32	38.51	1380	1.55	**RF**	**07**	**DRN**	**63MS4**	6.9	325
41	28	34.05	1410	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						
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**	**DRN**	**63MS4**	6.8	324
185	6.2	7.48	950	6.9	**RF**	**07**	**DRN**	**63MS4**	6.8	325
202	5.7	6.83	930	7.6						
239	4.8	5.76	880	8.4						
280	4.1	4.92	840	9.1						
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	12						
227	5.0	6.07	4260	8.5						
267	4.3	5.18	4050	17	**RX**	**67**	**DRN**	**63MS4**	16	314
305	3.8	4.53	3870	22	**RXF**	**67**	**DRN**	**63MS4**	20	315
321	3.6	4.30*	3810	22						

24832936/EN – 09/2018

P_m = 0.12 kW

n_a min^{-1}	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	3.0	3.55*	2910	23						
440	2.6	3.14	2800	25	**RX**	**57**	**DRN**	**63MS4**	14	312
474	2.4	2.91	2730	28	**RXF**	**57**	**DRN**	**63MS4**	16	313
523	2.2	2.64*	2640	31						
582	2.0	2.37	2550	35						
676	1.7	2.04	2430	41						
719	1.6	1.92*	2380	43						
835	1.4	1.65	2260	50						

P_m = 0.18 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.10	14200	14075	59000	0.90						
0.11	12400	12344	63700	1.05						
0.12	11000	11143	66100	1.15						
0.14	9840	9743	68000	1.30						
0.16	8130	8443	70200	1.60						
0.19	7030	7307	71300	1.85	**R**	**147R77**	**DRN**	**63M4**	420	363
0.21	6200	6447	72000	2.1	**RF**	**147R77**	**DRN**	**63M4**	430	363
0.25	5360	5568	72700	2.4	**RM**	**147R77**	**DRN**	**63M4**	600	363
0.28	4900	4926	73000	2.6						
0.32	4200	4325	73400	3.1						
0.37	3730	3754	73700	3.5						
0.42	3210	3302	73900	4.0						
0.16	8460	8784	52000	0.95						
0.18	7010	7479	55300	1.15						
0.21	6620	6559	56000	1.20	**R**	**137R77**	**DRN**	**63M4**	290	363
0.24	5470	5834	57800	1.45	**RF**	**137R77**	**DRN**	**63M4**	315	363
0.27	5160	5116	58200	1.55	**RM**	**137R77**	**DRN**	**63M4**	425	363
0.31	4290	4464	59200	1.85						
0.35	3780	3928	59700	2.1						
0.29	4830	4709	58600	1.65						
0.34	4120	4018	59400	1.95	**R**	**137R77**	**DRN**	**63M4**	280	363
0.39	3600	3514	59900	2.2	**RF**	**137R77**	**DRN**	**63M4**	305	363
0.41	3420	3338	60000	2.3	**RM**	**137R77**	**DRN**	**63M4**	415	363
0.47	3000	2929	60300	2.7						
0.19	6610	7053	43000	0.90						
0.20	6530	6722	43000	0.90						
0.22	6110	6347	43000	1.00						
0.22	6240	6185	43000	0.95						
0.25	5640	5592	43000	1.05						
0.29	4780	4740	43000	1.25						
0.31	4320	4441	43000	1.40						
0.35	3700	3949	43000	1.60	**R**	**127R77**	**DRN**	**63M4**	260	363
0.37	3660	3764	43000	1.65	**RF**	**127R77**	**DRN**	**63M4**	270	363
0.39	3340	3571	43000	1.80	**RM**	**127R77**	**DRN**	**63M4**	365	363
0.44	2770	3110	43000	2.2						
0.49	2500	2812	43000	2.4						
0.58	2120	2383	43000	2.8						
0.71	1880	1934	43000	3.2						
0.75	1720	1835	43000	3.5						
0.88	1450	1555	43000	4.1						
0.39	3580	3495	43000	1.65						
0.45	3130	3056	43000	1.90						
0.47	2980	2903	43000	2.0						
0.54	2610	2547	43000	2.3	**R**	**127R77**	**DRN**	**63M4**	245	363
0.64	2200	2161	43000	2.7	**RF**	**127R77**	**DRN**	**63M4**	265	363
0.70	1960	1951	43000	3.0	**RM**	**127R77**	**DRN**	**63M4**	360	363
0.80	1680	1716	43000	3.5						
0.85	1580	1620	43000	3.8						

24832936/EN – 09/2018

P_m = 0.18 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.55	2560	2506	43000	2.3						
0.61	2310	2266	43000	2.6						
0.68	1980	2016	43000	3.0						
0.72	1960	1920	43000	3.1	**R**	**127R77**	**DRN**	**63M4**	260	363
0.75	1790	1823	43000	3.3	**RF**	**127R77**	**DRN**	**63M4**	270	363
0.82	1580	1673	43000	3.8	**RM**	**127R77**	**DRN**	**63M4**	365	363
0.89	1520	1545	43000	3.9						
0.91	1430	1512	43000	4.2						
0.31	4270	4435	29600	1.00	**R**	**107R77**	**DRN**	**63M4**	205	363
0.35	3780	3896	32000	1.15	**RF**	**107R77**	**DRN**	**63M4**	210	363
0.45	3060	3039	34700	1.40	**RM**	**107R77**	**DRN**	**63M4**	295	363
0.35	4020	3918	30900	1.05						
0.41	3430	3343	33400	1.25						
0.45	3110	3034	34600	1.40	**R**	**107R77**	**DRN**	**63M4**	195	363
0.52	2720	2653	35800	1.60	**RF**	**107R77**	**DRN**	**63M4**	205	363
0.60	2330	2280	36400	1.85	**RM**	**107R77**	**DRN**	**63M4**	290	363
0.67	2110	2067	36600	2.0						
0.69	2000	1987	36800	2.1						
0.75	1780	1827	37000	2.4	**R**	**107R77**	**DRN**	**63M4**	200	363
0.86	1510	1599	37200	2.8	**RF**	**107R77**	**DRN**	**63M4**	210	363
0.98	1360	1400	37300	3.1	**RM**	**107R77**	**DRN**	**63M4**	295	363
1.1	1160	1226	37500	3.7						
0.52	2860	2668	21900	1.05						
0.61	2370	2245	24700	1.25						
0.68	2100	2016	26000	1.45						
0.79	1880	1733	26800	1.60						
0.85	1750	1623	27200	1.70	**R**	**97R57**	**DRN**	**63M4**	125	363
0.96	1530	1434	27600	1.95	**RF**	**97R57**	**DRN**	**63M4**	145	363
1.1	1270	1207	27900	2.4	**RM**	**97R57**	**DRN**	**63M4**	195	363
1.3	1130	1084	28100	2.6						
1.5	950	934	28300	3.1						
1.6	890	878	28300	3.4						
1.8	750	755	28400	4.0						
0.51	2950	2722	13500	1.00	**R**	**97R57**	**DRN**	**63M4**	130	363
0.59	2500	2311	18900	1.20	**RF**	**97R57**	**DRN**	**63M4**	145	363
0.66	2250	2078	21900	1.35	**RM**	**97R57**	**DRN**	**63M4**	195	363
0.92	1610	1489	16400	0.95						
0.99	1510	1395	17200	1.05						
1.1	1320	1232	18300	1.15	**R**	**87R57**	**DRN**	**63M4**	86	363
1.2	1220	1145	18900	1.25	**RF**	**87R57**	**DRN**	**63M4**	93	363
1.3	1090	1037	19400	1.40	**RM**	**87R57**	**DRN**	**63M4**	120	363
1.5	970	931	19900	1.60						
1.7	820	802	20000	1.90						
0.90	1600	1524	11700	0.95						
1.1	1320	1303	15800	1.15	**R**	**87R57**	**DRN**	**63M4**	86	363
1.2	1160	1143	18100	1.35	**RF**	**87R57**	**DRN**	**63M4**	93	363
1.6	930	885	20000	1.65	**RM**	**87R57**	**DRN**	**63M4**	125	363
1.8	810	776	20000	1.90						
1.6	930	858	8720	0.90						
1.8	810	757	9950	1.00	**R**	**77R37**	**DRN**	**63M4**	46	363
2.0	715	671	10800	1.15	**RF**	**77R37**	**DRN**	**63M4**	52	363
2.4	600	571	11500	1.35	**RM**	**77R37**	**DRN**	**63M4**	77	363
1.7	840	821	9650	0.95						
1.9	765	731	10400	1.05						
2.1	710	646	10800	1.15						
2.5	615	560	11400	1.30	**R**	**77R37**	**DRN**	**63M4**	47	363
2.8	525	488	12000	1.55	**RF**	**77R37**	**DRN**	**63M4**	53	363
3.1	465	436	12200	1.75	**RM**	**77R37**	**DRN**	**63M4**	78	363
3.7	400	373	12500	2.0						
4.2	350	327	12600	2.3						
4.8	315	289	12800	2.6						
2.4	610	571	7430	1.00	**R**	**67R37**	**DRN**	**63M4**	41	363
2.8	510	486	8470	1.15	**RF**	**67R37**	**DRN**	**63M4**	44	363
					RM	**67R37**	**DRN**	**63M4**	60	363

24832936/EN – 09/2018

P_m = 0.18 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
2.4	625	574	7220	0.95						
2.8	540	495	8200	1.10						
3.1	455	438	8920	1.30	**R**	**67R37**	**DRN**	**63M4**	42	363
3.5	405	388	9290	1.45	**RF**	**67R37**	**DRN**	**63M4**	45	363
4.0	375	344	9490	1.60	**RM**	**67R37**	**DRN**	**63M4**	61	363
4.7	300	294	9870	2.0						
5.3	275	261	9980	2.1						
3.0	475	454	6560	0.95	**R**	**57R37**	**DRN**	**63M4**	34	363
3.4	430	410	7180	1.05	**RF**	**57R37**	**DRN**	**63M4**	38	363
					RM	**57R37**	**DRN**	**63M4**	50	363
2.9	510	471	5880	0.85						
3.9	385	357	7360	1.15						
4.3	340	319	7510	1.30	**R**	**57R37**	**DRN**	**63M4**	35	363
5.0	285	273	7660	1.55	**RF**	**57R37**	**DRN**	**63M4**	39	363
5.7	245	241	7760	1.80	**RM**	**57R37**	**DRN**	**63M4**	51	363
6.4	220	215	7810	2.0						
3.8	400	359	7300	1.10						
4.2	360	324	7440	1.25						
4.7	320	290	7570	1.40						
5.2	285	262	7660	1.55	**R**	**57R37**	**DRN**	**63M4**	34	363
5.6	265	246	7710	1.65	**RF**	**57R37**	**DRN**	**63M4**	38	363
6.2	235	220	7780	1.90	**RM**	**57R37**	**DRN**	**63M4**	50	363
7.3	200	188	7850	2.2						
8.7	169	159	7900	2.7						
4.6	330	301	4200	0.90						
5.4	275	255	5510	1.10	**R**	**47R37**	**DRN**	**63M4**	29	363
6.0	245	228	5680	1.20	**RF**	**47R37**	**DRN**	**63M4**	29	363
7.1	205	195	5820	1.45						
6.9	215	199	3700	0.90						
8.0	190	172	4510	1.05	**R**	**37R17**	**DRN**	**63M4**	18	363
9.2	165	150	5220	1.20	**RF**	**37R17**	**DRN**	**63M4**	20	363
6.8	220	202	3550	0.90						
7.7	197	179	4340	1.00	**R**	**37R17**	**DRN**	**63M4**	18	363
8.8	168	156	5150	1.20	**RF**	**37R17**	**DRN**	**63M4**	20	363
9.8	150	141	3000	0.85						
11	133	124	3470	1.00	**R**	**27R17**	**DRN**	**63M4**	13	363
12	119	110	3820	1.10	**RF**	**27R17**	**DRN**	**63M4**	12	363
15	100	94	4050	1.30						
10	145	135	3130	0.90						
12	133	118	3460	1.00	**R**	**27R17**	**DRN**	**63M4**	12	363
13	116	104	3920	1.10	**RF**	**27R17**	**DRN**	**63M4**	12	363
15	100	90	4050	1.30						
4.7	365	195.24*	12600	2.2						
5.5	310	166.59	12800	2.6	**R**	**77**	**DRN**	**71MS6**	38	345
6.3	270	145.67	12900	3.0	**RF**	**77**	**DRN**	**71MS6**	44	346
6.6	255	138.39	12900	3.1	**RM**	**77**	**DRN**	**71MS6**	69	346
7.5	225	121.42	13000	3.6						
7.0	240	195.24*	12900	3.4						
8.2	205	166.59	13000	3.9	**R**	**77**	**DRN**	**63M4**	38	345
9.4	182	145.67	13000	4.5	**RF**	**77**	**DRN**	**63M4**	44	346
9.9	173	138.39	13000	4.7	**RM**	**77**	**DRN**	**63M4**	69	346
4.6	375	199.81	9490	1.60						
5.0	345	184.07	9660	1.75						
5.8	295	158.14	9900	2.0						
6.7	255	137.67	10100	2.3						
7.1	240	128.97	10100	2.5	**R**	**67**	**DRN**	**71MS6**	31	342
8.0	210	113.94	10200	2.8	**RF**	**67**	**DRN**	**71MS6**	34	343
8.7	199	105.83	10300	3.0	**RM**	**67**	**DRN**	**71MS6**	50	343
9.5	180	95.91	10300	3.3						
11	162	86.11	10400	3.7						
12	139	74.17	10400	4.3						
13	131	69.75	10400	4.6						

24832936/EN – 09/2018

P_m = 0.18 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
6.9	245	199.81	10100	2.4						
7.5	230	184.07	10200	2.6						
8.7	198	158.14	10300	3.0	**R**	**67**	**DRN**	**63M4**	31	342
10.0	172	137.67	10300	3.5	**RF**	**67**	**DRN**	**63M4**	34	343
11	161	128.97	10400	3.7	**RM**	**67**	**DRN**	**63M4**	50	343
12	142	113.94	10400	4.2						
13	132	105.83	10400	4.5						
4.9	350	186.89	7480	1.30						
5.3	320	172.17	7560	1.40	**R**	**57**	**DRN**	**71MS6**	25	339
6.2	275	147.92	7690	1.60	**RF**	**57**	**DRN**	**71MS6**	28	340
7.1	240	128.77	7770	1.85	**RM**	**57**	**DRN**	**71MS6**	40	340
7.6	225	120.63	7800	2.0						
7.4	230	186.89	7790	1.95						
8.0	215	172.17	7820	2.1						
9.3	185	147.92	7880	2.4						
11	161	128.77	7910	2.8	**R**	**57**	**DRN**	**63M4**	24	339
11	151	120.63	7930	3.0	**RF**	**57**	**DRN**	**63M4**	27	340
13	133	106.58	7950	3.4	**RM**	**57**	**DRN**	**63M4**	39	340
14	124	98.99	7960	3.6						
15	112	89.71	7970	4.0						
7.8	220	176.88	5780	1.35						
8.4	200	162.94	5840	1.45						
9.8	175	139.99	5930	1.70						
11	152	121.87	5990	1.95						
12	143	114.17	6010	2.1	**R**	**47**	**DRN**	**63M4**	19	336
14	126	100.86	6050	2.4	**RF**	**47**	**DRN**	**63M4**	19	337
15	117	93.68	6070	2.6						
16	106	84.90	6090	2.8						
18	95	76.23	6100	3.1						
7.4	230	123.66	3330	0.85						
8.7	198	105.28	4300	1.00	**R**	**37**	**DRN**	**71MS6**	16	333
10	171	90.77	5070	1.15	**RF**	**37**	**DRN**	**71MS6**	17	334
11	159	84.61	5390	1.25						
10	169	134.82	5130	1.20						
11	155	123.66	5430	1.30						
13	132	105.28	5620	1.50	**R**	**37**	**DRN**	**63M4**	15	333
15	113	90.77	5740	1.75	**RF**	**37**	**DRN**	**63M4**	17	334
16	106	84.61	5780	1.90						
19	92	73.96	5860	2.2						
20	87	69.33	5880	2.3						
22	76	61.18	5930	2.6	**R**	**37**	**DRN**	**63M4**	15	333
25	70	55.76	5950	2.9	**RF**	**37**	**DRN**	**63M4**	17	334
29	60	48.08	5890	3.3						
11	155	123.91	2880	0.85						
13	132	105.49	3490	1.00						
15	114	90.96	3960	1.15						
16	106	84.78	4020	1.25						
19	93	74.11	4090	1.40						
20	87	69.47	4110	1.50						
22	77	61.30	4160	1.70						
25	70	55.87	4170	1.85	**R**	**27**	**DRN**	**63M4**	9.3	330
29	60	48.17	4000	2.2	**RF**	**27**	**DRN**	**63M4**	9.2	331
31	56	44.90	3920	2.3						
35	49	39.25	3770	2.6						
37	46	36.79	3700	2.8						
42	41	32.47	3560	3.2						
48	36	28.78	3440	3.6						
56	31	24.47	3270	4.2						
48	35	28.37	3420	3.7						
53	33	26.09	3340	4.0						
62	28	22.32	3180	4.7						
71	24	19.35	3050	5.4	**R**	**27**	**DRN**	**63M4**	9.0	330
76	23	18.08	2980	5.8	**RF**	**27**	**DRN**	**63M4**	8.9	331
88	20	15.63	2850	6.7						
104	17	13.28*	2710	7.8						

24832936/EN – 09/2018

P_m = 0.18 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
17	102	81.64	485	0.85						
20	88	70.39	1580	0.95						
21	82	65.61	1950	1.05						
24	72	57.35	2390	1.20						
26	67	53.76	2420	1.25						
29	59	47.44	2420	1.45	**R**	**17**	**DRN**	**63M4**	8.9	327
31	55	44.18	2390	1.55	**RF**	**17**	**DRN**	**63M4**	8.8	328
36	48	38.61	2320	1.75						
38	45	36.20	2280	1.90						
43	40	31.94	2210	2.1						
49	35	28.32	2150	2.4						
57	30	24.07	2060	2.8						
54	32	25.23	2080	2.7						
59	29	23.15	2040	2.9	**R**	**17**	**DRN**	**63M4**	8.6	327
70	25	19.71	1950	3.5	**RF**	**17**	**DRN**	**63M4**	8.5	328
81	21	16.99	1870	4.0						
29	60	47.78	1180	0.85						
31	55	44.16	1210	0.90						
33	52	41.31	1240	0.95						
34	50	40.34	1240	1.00						
36	48	38.51	1260	1.05	**R**	**07**	**DRN**	**63M4**	7.8	324
40	43	34.05	1300	1.15	**RF**	**07**	**DRN**	**63M4**	7.8	325
47	36	29.08	1300	1.40						
51	34	26.97	1280	1.50						
59	29	23.32	1240	1.70						
63	27	21.73	1220	1.85						
75	23	18.31	1180	2.2						
82	21	16.73	1150	2.4						
97	18	14.12	1100	2.8						
114	15	12.06	1060	3.3						
123	14	11.18	1040	3.6						
142	12	9.67	1000	4.1						
153	11	9.01	980	4.4						
175	9.8	7.85	940	5.0	**R**	**07**	**DRN**	**63M4**	7.6	324
184	9.3	7.48	930	4.6	**RF**	**07**	**DRN**	**63M4**	7.6	325
201	8.5	6.83	910	5.0						
239	7.2	5.76	860	5.5						
279	6.2	4.92	830	6.0						
301	5.7	4.57	810	6.3						
348	4.9	3.95	775	6.9						
374	4.6	3.68	755	7.2						
429	4.0	3.21	725	7.7						
244	7.0	11.18	860	7.1						
282	6.1	9.67	820	8.2						
302	5.7	9.01	800	8.8						
347	5.0	7.85	775	9.9						
364	4.7	7.48	765	9.1						
399	4.3	6.83	740	10.0	**R**	**07**	**DRN**	**63MS2**	6.8	324
473	3.6	5.76	705	11	**RF**	**07**	**DRN**	**63MS2**	6.8	325
553	3.1	4.92	670	12						
597	2.9	4.57	655	12						
690	2.5	3.95	625	14						
741	2.3	3.68	610	14						
850	2.0	3.21	585	15						
151	11	6.07	4860	3.8						
177	9.7	5.18	4610	7.7	**RX**	**67**	**DRN**	**71MS6**	18	314
202	8.5	4.53	4410	9.6	**RXF**	**67**	**DRN**	**71MS6**	22	315
213	8.1	4.30*	4340	9.9						

24832936/EN – 09/2018

P_m = 0.18 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
227	7.6	6.07	4250	5.7						
266	6.5	5.18	4040	12						
304	5.7	4.53	3860	14						
320	5.4	4.30*	3800	15						
364	4.7	3.77	3640	18	**RX**	**67**	**DRN**	**63M4**	17	314
430	4.0	3.20*	3450	25	**RXF**	**67**	**DRN**	**63M4**	21	315
476	3.6	2.89	3340	29						
541	3.2	2.54	3200	37						
573	3.0	2.40*	3140	41						
673	2.5	2.04	2980	52						
166	10	5.50*	3820	3.8						
181	9.5	5.07	3720	3.8	**RX**	**57**	**DRN**	**71MS6**	15	312
210	8.2	4.35	3540	8.3	**RXF**	**57**	**DRN**	**71MS6**	17	313
241	7.1	3.79	3390	9.7						
250	6.9	5.50*	3350	5.7						
271	6.3	5.07	3260	5.7						
316	5.4	4.35	3110	12						
363	4.7	3.79	2970	15						
387	4.4	3.55*	2910	16						
438	3.9	3.14	2790	17	**RX**	**57**	**DRN**	**63M4**	15	312
472	3.6	2.91	2720	18	**RXF**	**57**	**DRN**	**63M4**	16	313
521	3.3	2.64*	2640	21						
580	3.0	2.37	2540	23						
673	2.5	2.04	2420	27						
716	2.4	1.92*	2380	29						
832	2.1	1.65	2260	33						

P_m = 0.25 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.14	13900	9743	60700	0.95						
0.17	11600	8443	65200	1.10						
0.19	10000	7307	67700	1.30						
0.22	8890	6447	69200	1.45						
0.25	7680	5568	70600	1.70	**R**	**147R77**	**DRN**	**71MS4**	420	363
0.29	6950	4926	71400	1.85	**RF**	**147R77**	**DRN**	**71MS4**	430	363
0.32	6000	4325	72200	2.2	**RM**	**147R77**	**DRN**	**71MS4**	600	363
0.37	5300	3754	72700	2.5						
0.43	4580	3302	73200	2.8						
0.48	3990	2898	73500	3.2						
0.24	7900	5834	53600	1.00						
0.27	7300	5116	54800	1.10	**R**	**137R77**	**DRN**	**71MS4**	290	363
0.31	6160	4464	56800	1.30	**RF**	**137R77**	**DRN**	**71MS4**	315	363
0.36	5420	3928	57900	1.50	**RM**	**137R77**	**DRN**	**71MS4**	425	363
0.30	6820	4709	55700	1.15						
0.35	5820	4018	57300	1.35	**R**	**137R77**	**DRN**	**71MS4**	280	363
0.40	5090	3514	58300	1.55	**RF**	**137R77**	**DRN**	**71MS4**	305	363
0.42	4830	3338	58600	1.65	**RM**	**137R77**	**DRN**	**71MS4**	415	363
0.48	4240	2929	59300	1.90						
0.53	3830	2658	59600	2.1						
0.58	3480	2412	60000	2.3						
0.68	2990	2073	60300	2.7	**R**	**137R77**	**DRN**	**71MS4**	290	363
0.76	2560	1839	60600	3.1	**RF**	**137R77**	**DRN**	**71MS4**	310	363
1.0	1990	1397	60900	4.0	**RM**	**137R77**	**DRN**	**71MS4**	425	363
1.1	1720	1226	61100	4.6						

24832936/EN – 09/2018

P_m = 0.25 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.30	6760	4740	43000	0.90						
0.32	6170	4441	43000	0.95						
0.36	5350	3949	43000	1.10						
0.37	5230	3764	43000	1.15						
0.39	4830	3571	43000	1.25						
0.45	4060	3110	43000	1.45	**R**	**127R77**	**DRN**	**71MS4**	260	363
0.50	3670	2812	43000	1.65	**RF**	**127R77**	**DRN**	**71MS4**	270	363
0.59	3110	2383	43000	1.90	**RM**	**127R77**	**DRN**	**71MS4**	365	363
0.73	2680	1934	43000	2.2						
0.77	2480	1835	43000	2.4						
0.90	2100	1555	43000	2.9						
0.97	1890	1444	43000	3.2						
1.1	1600	1224	43000	3.7						
0.40	5060	3495	43000	1.20						
0.46	4420	3056	43000	1.35						
0.48	4200	2903	43000	1.45						
0.55	3690	2547	43000	1.65						
0.65	3120	2161	43000	1.90	**R**	**127R77**	**DRN**	**71MS4**	245	363
0.72	2780	1951	43000	2.1	**RF**	**127R77**	**DRN**	**71MS4**	265	363
0.82	2410	1716	43000	2.5	**RM**	**127R77**	**DRN**	**71MS4**	360	363
0.87	2260	1620	43000	2.6						
1.0	1890	1380	43000	3.2						
1.2	1740	1210	43000	3.4						
0.56	3620	2506	43000	1.65						
0.62	3270	2266	43000	1.85						
0.70	2830	2016	43000	2.1						
0.73	2770	1920	43000	2.2						
0.77	2560	1823	43000	2.3						
0.84	2290	1673	43000	2.6	**R**	**127R77**	**DRN**	**71MS4**	260	363
0.91	2170	1545	43000	2.8	**RF**	**127R77**	**DRN**	**71MS4**	270	363
0.93	2070	1512	43000	2.9	**RM**	**127R77**	**DRN**	**71MS4**	365	363
1.1	1750	1322	43000	3.4						
1.1	1750	1282	43000	3.4						
1.2	1580	1195	43000	3.8						
1.2	1680	1164	43000	3.6						
1.4	1420	987	43000	4.2						
					R	**107R77**	**DRN**	**71MS4**	205	363
0.46	4330	3039	29300	1.00	**RF**	**107R77**	**DRN**	**71MS4**	210	363
					RM	**107R77**	**DRN**	**71MS4**	300	363
					R	**107R77**	**DRN**	**71MS4**	195	363
0.46	4390	3034	28900	1.00	**RF**	**107R77**	**DRN**	**71MS4**	205	363
					RM	**107R77**	**DRN**	**71MS4**	290	363
0.71	2830	1987	35400	1.50						
0.77	2550	1827	36100	1.70						
0.88	2190	1599	36600	1.95	**R**	**107R77**	**DRN**	**71MS4**	200	363
1.0	1950	1400	36800	2.2	**RF**	**107R77**	**DRN**	**71MS4**	210	363
1.1	1680	1226	37100	2.6	**RM**	**107R77**	**DRN**	**71MS4**	295	363
1.5	1310	939	37400	3.3						
1.7	1120	822	37500	3.8						
					R	**97R57**	**DRN**	**71MS4**	125	363
0.81	2610	1733	23400	1.15	**RF**	**97R57**	**DRN**	**71MS4**	145	363
0.87	2440	1623	24400	1.25	**RM**	**97R57**	**DRN**	**71MS4**	195	363
0.77	2720	1823	16300	1.10						
0.89	2360	1583	20500	1.25						
1.0	2040	1396	24300	1.45						
1.1	1770	1228	27200	1.70	**R**	**97R57**	**DRN**	**71MS4**	130	363
1.3	1610	1069	27500	1.85	**RF**	**97R57**	**DRN**	**71MS4**	145	363
1.5	1400	938	27800	2.1	**RM**	**97R57**	**DRN**	**71MS4**	195	363
1.7	1190	824	28000	2.5						
1.9	1060	737	28200	2.8						
2.2	910	632	28300	3.3						
1.2	1700	1145	15800	0.90						
1.4	1530	1037	17000	1.00	**R**	**87R57**	**DRN**	**71MS4**	86	363
1.5	1360	931	18100	1.15	**RF**	**87R57**	**DRN**	**71MS4**	93	363
1.8	1160	802	19100	1.35	**RM**	**87R57**	**DRN**	**71MS4**	125	363

24832936/EN – 09/2018

P_m = 0.25 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
1.2	1640	1143	11200	0.95						
1.6	1300	885	18400	1.20						
1.8	1140	776	19200	1.35						
2.0	1010	685	19800	1.55	**R**	**87R57**	**DRN**	**71MS4**	87	363
2.4	850	599	20000	1.80	**RF**	**87R57**	**DRN**	**71MS4**	94	363
2.7	745	525	20000	2.1	**RM**	**87R57**	**DRN**	**71MS4**	125	363
3.1	655	456	20000	2.4						
5.2	375	268	20000	4.1						
					R	**77R37**	**DRN**	**71MS4**	47	363
2.5	840	571	9700	0.95	**RF**	**77R37**	**DRN**	**71MS4**	53	363
					RM	**77R37**	**DRN**	**71MS4**	78	363
2.5	850	560	9580	0.95						
2.9	730	488	10700	1.10						
3.2	650	436	11200	1.25						
3.8	555	373	11800	1.45	**R**	**77R37**	**DRN**	**71MS4**	48	363
4.3	490	327	12100	1.65	**RF**	**77R37**	**DRN**	**71MS4**	53	363
4.9	435	289	12300	1.90	**RM**	**77R37**	**DRN**	**71MS4**	78	363
5.4	385	260	12500	2.1						
6.3	325	224	12700	2.5						
3.6	570	388	7890	1.05						
4.1	520	344	8390	1.15						
4.8	425	294	9150	1.40						
5.4	385	261	9400	1.55	**R**	**67R37**	**DRN**	**71MS4**	42	363
6.0	345	234	9640	1.70	**RF**	**67R37**	**DRN**	**71MS4**	45	363
7.0	295	200	9900	2.0	**RM**	**67R37**	**DRN**	**71MS4**	61	363
8.0	255	176	10100	2.4						
8.9	225	158	10200	2.6						
3.7	590	384	7630	1.00						
3.9	550	359	8070	1.10						
4.5	475	310	8790	1.25	**R**	**67R37**	**DRN**	**71MS4**	41	363
5.3	400	264	9330	1.50	**RF**	**67R37**	**DRN**	**71MS4**	45	363
6.0	355	235	9600	1.70	**RM**	**67R37**	**DRN**	**71MS4**	60	363
7.0	300	201	9880	2.0						
7.7	270	181	10000	2.2						
4.4	475	319	6620	0.95						
5.2	400	273	7300	1.10						
5.8	350	241	7480	1.30	**R**	**57R37**	**DRN**	**71MS4**	36	363
6.5	310	215	7590	1.45	**RF**	**57R37**	**DRN**	**71MS4**	39	363
7.5	275	187	7690	1.65	**RM**	**57R37**	**DRN**	**71MS4**	51	363
8.6	235	164	7780	1.90						
9.9	205	142	7840	2.2						
4.3	500	324	6130	0.90						
4.8	440	290	7130	1.00	**R**	**57R37**	**DRN**	**71MS4**	35	363
5.4	400	262	7300	1.10	**RF**	**57R37**	**DRN**	**71MS4**	38	363
5.7	370	246	7400	1.20	**RM**	**57R37**	**DRN**	**71MS4**	50	363
6.4	330	220	7540	1.35						
6.2	340	228	3900	0.85						
7.2	290	195	5210	1.05	**R**	**47R37**	**DRN**	**71MS4**	30	363
7.7	270	182	5560	1.10	**RF**	**47R37**	**DRN**	**71MS4**	30	363
9.1	225	154	5760	1.35						
9.4	225	150	3430	0.85						
11	194	130	4400	1.05						
11	185	124	4670	1.10	**R**	**37R17**	**DRN**	**71MS4**	19	363
13	164	110	5260	1.20	**RF**	**37R17**	**DRN**	**71MS4**	20	363
15	139	94	5560	1.45						
10	200	135	4160	1.00						
11	197	127	4330	1.00	**R**	**37R17**	**DRN**	**71MS4**	19	363
14	160	104	5370	1.25	**RF**	**37R17**	**DRN**	**71MS4**	20	363
16	138	90	5570	1.45						
4.7	505	195.24*	12000	1.60	**R**	**77**	**DRN**	**71M6**	40	345
5.5	430	166.59	12400	1.90	**RF**	**77**	**DRN**	**71M6**	45	346
6.3	380	145.67	12600	2.2	**RM**	**77**	**DRN**	**71M6**	70	346

24832936/EN – 09/2018

P_m = 0.25 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
7.2	330	195.24*	12700	2.5						
8.4	280	166.59	12800	2.9	**R**	**77**	**DRN**	**71MS4**	38	345
9.7	245	145.67	12900	3.3	**RF**	**77**	**DRN**	**71MS4**	44	346
10	235	138.39	13000	3.5	**RM**	**77**	**DRN**	**71MS4**	69	346
12	205	121.42	13000	4.0						
4.6	520	199.81	8390	1.15						
5.0	480	184.07	8750	1.25						
5.8	410	158.14	9250	1.45	**R**	**67**	**DRN**	**71M6**	32	342
6.7	355	137.67	9580	1.65	**RF**	**67**	**DRN**	**71M6**	36	343
7.1	335	128.97	9700	1.80	**RM**	**67**	**DRN**	**71M6**	51	343
8.0	295	113.94	9900	2.0						
8.7	275	105.83	9990	2.2						
7.0	335	199.81	9690	1.75						
7.6	310	184.07	9820	1.90						
8.9	265	158.14	10000	2.2						
10	230	137.67	10100	2.6	**R**	**67**	**DRN**	**71MS4**	31	342
11	215	128.97	10200	2.7	**RF**	**67**	**DRN**	**71MS4**	34	343
12	194	113.94	10300	3.1	**RM**	**67**	**DRN**	**71MS4**	50	343
13	180	105.83	10300	3.3						
15	163	95.91	10400	3.7						
16	146	86.11	10400	4.1						
4.9	485	186.89	6390	0.90						
5.3	445	172.17	7110	1.00						
6.2	385	147.92	7360	1.15	**R**	**57**	**DRN**	**71M6**	26	339
7.1	335	128.77	7520	1.35	**RF**	**57**	**DRN**	**71M6**	29	340
7.6	310	120.63	7590	1.45	**RM**	**57**	**DRN**	**71M6**	41	340
8.6	275	106.58	7690	1.60						
9.2	255	98.99	7730	1.75						
7.5	315	186.89	7580	1.40						
8.2	290	172.17	7650	1.55						
9.5	250	147.92	7750	1.80						
11	215	128.77	7820	2.1						
12	200	120.63	7840	2.2	**R**	**57**	**DRN**	**71MS4**	25	339
13	181	106.58	7880	2.5	**RF**	**57**	**DRN**	**71MS4**	28	340
14	168	98.99	7900	2.7	**RM**	**57**	**DRN**	**71MS4**	40	340
16	152	89.71	7920	3.0						
17	137	80.55	7940	3.3						
20	118	69.23	7960	3.8						
7.9	300	176.88	4980	1.00						
8.6	275	162.94	5540	1.10						
10	235	139.99	5710	1.25						
12	205	121.87	5830	1.45						
12	194	114.17	5870	1.55						
14	171	100.86	5940	1.75						
15	159	93.68	5970	1.90	**R**	**47**	**DRN**	**71MS4**	19	336
17	144	84.90	6010	2.1	**RF**	**47**	**DRN**	**71MS4**	20	337
18	130	76.23	6040	2.3						
20	116	68.54	6070	2.6						
22	109	64.21	6080	2.8						
25	96	56.73	6100	3.1						
27	90	52.69	6110	3.4						
29	81	47.75	5940	3.7						
10	225	134.82	3420	0.85						
11	210	123.66	3950	0.95						
13	179	105.28	4840	1.10	**R**	**37**	**DRN**	**71MS4**	16	333
15	154	90.77	5430	1.30	**RF**	**37**	**DRN**	**71MS4**	17	334
17	144	84.61	5520	1.40						
19	126	73.96	5660	1.60						
20	118	69.33	5710	1.70						
23	104	61.18	5800	1.90						
25	95	55.76	5840	2.1						
29	82	48.08	5740	2.5	**R**	**37**	**DRN**	**71MS4**	16	333
31	76	44.81	5630	2.6	**RF**	**37**	**DRN**	**71MS4**	17	334
36	67	39.17	5410	3.0						
38	62	36.72	5310	3.2						
43	55	32.40	5110	3.6						

24832936/EN – 09/2018

P_m = 0.25 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
17	144	84.78	3160	0.90						
19	126	74.11	3640	1.05						
20	118	69.47	3850	1.10						
23	104	61.30	4030	1.25						
25	95	55.87	4010	1.35						
29	82	48.17	3860	1.60	**R**	**27**	**DRN**	**71MS4**	9.8	330
31	76	44.90	3790	1.70	**RF**	**27**	**DRN**	**71MS4**	9.8	331
36	67	39.25	3650	1.95						
38	63	36.79	3590	2.1						
43	55	32.47	3460	2.4						
49	49	28.78	3350	2.7						
57	42	24.47	3200	3.1						
50	48	28.37	3340	2.7						
54	44	26.09	3260	2.9						
63	38	22.32	3110	3.4						
73	33	19.35	2980	4.0						
78	31	18.08	2920	4.2						
90	27	15.63	2800	4.9						
106	23	13.28*	2660	5.8						
118	20	11.86	2570	6.4						
139	17	10.13	2450	7.1	**R**	**27**	**DRN**	**71MS4**	9.6	330
149	16	9.41	2380	7.6	**RF**	**27**	**DRN**	**71MS4**	9.5	331
172	14	8.16	2280	8.4						
184	13	7.63*	2230	8.6						
213	11	6.59	2130	9.5						
251	9.5	5.60*	2020	10						
281	8.5	5.00*	1950	11						
329	7.3	4.27	1860	12						
351	6.8	4.00*	1820	13						
417	5.7	3.37	1720	14						
24	97	57.35	890	0.85						
26	91	53.76	1350	0.95						
30	81	47.44	2030	1.05						
32	75	44.18	2220	1.15						
36	66	38.61	2170	1.30	**R**	**17**	**DRN**	**71MS4**	9.4	327
39	62	36.20	2140	1.40	**RF**	**17**	**DRN**	**71MS4**	9.4	328
44	54	31.94	2090	1.55						
50	48	28.32	2040	1.75						
58	41	24.07	1960	2.1						
56	43	25.23	1990	2.0						
61	39	23.15	1950	2.2						
71	33	19.71	1870	2.5						
83	29	16.99	1800	2.9	**R**	**17**	**DRN**	**71MS4**	9.2	327
89	27	15.84	1770	3.2	**RF**	**17**	**DRN**	**71MS4**	9.1	328
102	24	13.84	1710	3.6						
108	22	12.98	1680	3.9						
123	19	11.45	1620	4.2						
41	58	34.05	1190	0.85						
48	49	29.08	1190	1.00						
52	46	26.97	1180	1.10	**R**	**07**	**DRN**	**71MS4**	8.3	324
60	40	23.32	1150	1.25	**RF**	**07**	**DRN**	**71MS4**	8.3	325
65	37	21.73	1140	1.35						

24832936/EN – 09/2018

P_m = 0.25 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
77	31	18.31	1110	1.60						
84	28	16.73	1090	1.75						
100	24	14.12	1050	2.1						
117	20	12.06	1010	2.4						
126	19	11.18	990	2.6						
145	16	9.67	960	3.0						
156	15	9.01	940	3.3						
179	13	7.85	910	3.7	**R**	**07**	**DRN**	**71MS4**	8.2	324
188	13	7.48	900	3.4	**RF**	**07**	**DRN**	**71MS4**	8.2	325
206	12	6.83	880	3.7						
244	9.8	5.76	840	4.1						
285	8.4	4.92	800	4.4						
308	7.8	4.57	785	4.6						
356	6.7	3.95	755	5.1						
382	6.2	3.68	740	5.3						
438	5.5	3.21	710	5.7						
246	9.7	11.18	840	5.2						
285	8.4	9.67	800	6.0						
306	7.8	9.01	785	6.4						
351	6.8	7.85	755	7.2						
368	6.5	7.48	745	6.6						
403	5.9	6.83	725	7.3	**R**	**07**	**DRN**	**63M2**	7.6	324
478	5.0	5.76	690	8.0	**RF**	**07**	**DRN**	**63M2**	7.6	325
560	4.3	4.92	660	8.7						
603	4.0	4.57	645	9.1						
698	3.4	3.95	615	9.9						
749	3.2	3.68	605	10						
859	2.8	3.21	580	11						
151	16	6.07	4830	2.7						
177	14	5.18	4590	5.5	**RX**	**67**	**DRN**	**71M6**	19	314
202	12	4.53	4390	6.9	**RXF**	**67**	**DRN**	**71M6**	23	315
213	11	4.30*	4320	7.1						
232	10	6.07	4210	4.2						
271	8.8	5.18	4000	8.5						
310	7.7	4.53	3820	11						
327	7.3	4.30*	3760	11						
372	6.4	3.77	3600	14	**RX**	**67**	**DRN**	**71MS4**	18	314
439	5.4	3.20*	3420	18	**RXF**	**67**	**DRN**	**71MS4**	22	315
486	4.9	2.89	3300	22						
553	4.3	2.54	3170	27						
585	4.1	2.40*	3110	30						
688	3.5	2.04	2950	39						
166	14	5.50*	3790	2.7						
181	13	5.07	3700	2.7	**RX**	**57**	**DRN**	**71M6**	16	312
210	11	4.35	3520	6.0	**RXF**	**57**	**DRN**	**71M6**	18	313
241	9.9	3.79	3370	7.0						
255	9.3	5.50*	3310	4.2						
277	8.6	5.07	3220	4.2						
323	7.4	4.35	3070	9.2						
371	6.4	3.79	2930	11						
396	6.0	3.55*	2870	11						
448	5.3	3.14	2760	12	**RX**	**57**	**DRN**	**71MS4**	15	312
482	5.0	2.91	2690	14	**RXF**	**57**	**DRN**	**71MS4**	17	313
532	4.5	2.64*	2610	15						
593	4.0	2.37	2520	17						
688	3.5	2.04	2400	20						
732	3.3	1.92*	2350	21						
850	2.8	1.65	2240	25						

24832936/EN – 09/2018

P_m = 0.37 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.19	15500	7307	43700	0.85						
0.22	13600	6447	61200	0.95						
0.25	11800	5568	64900	1.10						
0.29	10600	4926	66900	1.25	**R**	**147R77**	**DRN**	**71M4**	425	363
0.33	9210	4325	68800	1.40	**RF**	**147R77**	**DRN**	**71M4**	430	363
0.38	8080	3754	70200	1.60	**RM**	**147R77**	**DRN**	**71M4**	600	363
0.43	7030	3302	71300	1.85						
0.49	6140	2898	72100	2.1						
0.32	9470	4464	41400	0.85	**R**	**137R77**	**DRN**	**71M4**	290	363
0.36	8330	3928	52500	0.95	**RF**	**137R77**	**DRN**	**71M4**	315	363
					RM	**137R77**	**DRN**	**71M4**	425	363
0.35	8840	4018	50300	0.90						
0.40	7730	3514	53900	1.05						
0.42	7340	3338	54700	1.10	**R**	**137R77**	**DRN**	**71M4**	280	363
0.48	6440	2929	56300	1.25	**RF**	**137R77**	**DRN**	**71M4**	305	363
0.57	5450	2484	57800	1.45	**RM**	**137R77**	**DRN**	**71M4**	415	363
0.63	4880	2242	58500	1.65						
0.53	5830	2658	57300	1.35						
0.59	5290	2412	58000	1.50						
0.68	4550	2073	58900	1.75						
0.77	3940	1839	59500	2.0	**R**	**137R77**	**DRN**	**71M4**	290	363
1.0	3040	1397	60300	2.6	**RF**	**137R77**	**DRN**	**71M4**	315	363
1.1	2640	1226	60600	3.0	**RM**	**137R77**	**DRN**	**71M4**	425	363
1.3	2370	1090	60700	3.4						
1.5	2070	951	60900	3.9						
0.46	6370	3110	43000	0.95						
0.50	5760	2812	43000	1.05						
0.59	4880	2383	43000	1.25						
0.73	4120	1934	43000	1.45	**R**	**127R77**	**DRN**	**71M4**	260	363
0.77	3840	1835	43000	1.55	**RF**	**127R77**	**DRN**	**71M4**	275	363
0.91	3260	1555	43000	1.85	**RM**	**127R77**	**DRN**	**71M4**	370	363
0.98	2960	1444	43000	2.0						
1.2	2510	1224	43000	2.4						
0.46	6720	3056	43000	0.90						
0.49	6380	2903	43000	0.95						
0.56	5600	2547	43000	1.05						
0.65	4740	2161	43000	1.25						
0.73	4250	1951	43000	1.40	**R**	**127R77**	**DRN**	**71M4**	245	363
0.82	3700	1716	43000	1.60	**RF**	**127R77**	**DRN**	**71M4**	265	363
0.87	3480	1620	43000	1.70	**RM**	**127R77**	**DRN**	**71M4**	360	363
1.0	2920	1380	43000	2.0						
1.2	2650	1210	43000	2.3						
1.5	2070	961	43000	2.9						
1.8	1640	773	43000	3.7						
0.56	5500	2506	43000	1.10						
0.62	4970	2266	43000	1.20						
0.70	4340	2016	43000	1.40						
0.74	4210	1920	43000	1.40						
0.78	3930	1823	43000	1.55						
0.85	3540	1673	43000	1.70						
0.92	3330	1545	43000	1.80						
0.94	3200	1512	43000	1.85						
1.1	2740	1322	43000	2.2	**R**	**127R77**	**DRN**	**71M4**	260	363
1.1	2710	1282	43000	2.2	**RF**	**127R77**	**DRN**	**71M4**	270	363
1.2	2480	1195	43000	2.4	**RM**	**127R77**	**DRN**	**71M4**	365	363
1.2	2550	1164	43000	2.4						
1.4	2100	1013	43000	2.9						
1.4	2160	987	43000	2.8						
1.5	2020	936	43000	3.0						
1.7	1740	830	43000	3.4						
1.8	1710	794	43000	3.5						
1.8	1640	777	43000	3.6						
1.9	1570	750	43000	3.8						

24832936/EN – 09/2018

P_m = 0.37 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.68	4530	2067	28100	0.95						
0.84	3690	1693	32400	1.15						
0.91	3320	1550	33800	1.30	**R**	**107R77**	**DRN**	**71M4**	200	363
1.0	3020	1407	34900	1.40	**RF**	**107R77**	**DRN**	**71M4**	205	363
1.2	2590	1209	36000	1.65	**RM**	**107R77**	**DRN**	**71M4**	290	363
1.3	2260	1055	36500	1.90						
0.71	4330	1987	29300	1.00						
0.77	3920	1827	31400	1.10						
0.88	3390	1599	33600	1.25	**R**	**107R77**	**DRN**	**71M4**	205	363
1.0	3000	1400	34900	1.45	**RF**	**107R77**	**DRN**	**71M4**	210	363
1.1	2600	1226	36000	1.65	**RM**	**107R77**	**DRN**	**71M4**	300	363
1.5	2010	939	36800	2.1						
1.7	1740	822	37000	2.5						
					R	**97R57**	**DRN**	**71M4**	130	363
1.2	2690	1207	23000	1.10	**RF**	**97R57**	**DRN**	**71M4**	145	363
1.3	2400	1084	24600	1.25	**RM**	**97R57**	**DRN**	**71M4**	195	363
1.0	3090	1396	11900	0.95						
1.1	2700	1228	16600	1.10						
1.3	2410	1069	24500	1.25						
1.5	2100	938	26000	1.40						
1.7	1810	824	27100	1.65	**R**	**97R57**	**DRN**	**71M4**	130	363
1.9	1620	737	27500	1.85	**RF**	**97R57**	**DRN**	**71M4**	145	363
2.2	1380	632	27800	2.2	**RM**	**97R57**	**DRN**	**71M4**	200	363
3.3	950	431	28300	3.1						
3.7	830	379	28400	3.6						
4.2	745	336	28400	4.0						
1.8	1760	802	15300	0.90	**R**	**87R57**	**DRN**	**71M4**	87	363
1.9	1650	754	16200	0.95	**RF**	**87R57**	**DRN**	**71M4**	95	363
2.2	1400	649	17800	1.10	**RM**	**87R57**	**DRN**	**71M4**	125	363
1.8	1730	776	15500	0.90						
2.1	1520	685	17100	1.00						
2.4	1290	599	16200	1.20	**R**	**87R57**	**DRN**	**71M4**	88	363
2.7	1130	525	18500	1.35	**RF**	**87R57**	**DRN**	**71M4**	95	363
3.1	990	456	19800	1.55	**RM**	**87R57**	**DRN**	**71M4**	125	363
5.3	580	268	20000	2.7						
6.0	510	236	20000	3.0						
2.6	1220	538	18800	1.25	**R**	**87R57**	**DRN**	**71M4**	87	363
3.0	1070	472	19500	1.45	**RF**	**87R57**	**DRN**	**71M4**	94	363
3.5	900	400	20000	1.70	**RM**	**87R57**	**DRN**	**71M4**	125	363
3.9	810	361	20000	1.90						
3.8	830	373	9740	1.00						
4.3	735	327	10600	1.10						
4.9	650	289	11200	1.25						
5.5	580	260	11600	1.40	**R**	**77R37**	**DRN**	**71M4**	49	363
6.3	490	224	12100	1.65	**RF**	**77R37**	**DRN**	**71M4**	55	363
7.2	430	197	12400	1.90	**RM**	**77R37**	**DRN**	**71M4**	80	363
8.4	375	169	12600	2.2						
9.5	330	149	12700	2.5						
4.8	645	294	6700	0.95	**R**	**67R37**	**DRN**	**71M4**	44	363
5.4	580	261	7730	1.05	**RF**	**67R37**	**DRN**	**71M4**	47	363
6.0	525	234	8350	1.15	**RM**	**67R37**	**DRN**	**71M4**	62	363
7.1	445	200	9020	1.35						
3.2	1090	289.74	28100	2.7	**R**	**97**	**DRN**	**80MK6**	110	351
3.7	960	255.71	28300	3.1	**RF**	**97**	**DRN**	**80MK6**	125	352
3.9	910	241.25	28300	3.3	**RM**	**97**	**DRN**	**80MK6**	180	352
4.3	810	216.28	28400	3.7						
3.8	930	246.54	20000	1.65						
4.3	810	216.54	20000	1.90						
4.5	775	205.71	20000	2.0	**R**	**87**	**DRN**	**80MK6**	68	348
5.1	685	181.77	20000	2.3	**RF**	**87**	**DRN**	**80MK6**	75	349
6.0	585	155.34	20000	2.6	**RM**	**87**	**DRN**	**80MK6**	105	349
6.6	535	142.41	20000	2.9						
5.6	625	166.59	11400	1.30	**R**	**77**	**DRN**	**80MK6**	42	345
6.4	550	145.67	11800	1.50	**RF**	**77**	**DRN**	**80MK6**	48	346
6.8	520	138.39	12000	1.55	**RM**	**77**	**DRN**	**80MK6**	73	346

24832936/EN – 09/2018

P_m = 0.37 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
7.2	485	195.24*	12100	1.70						
8.5	415	166.59	12400	1.95						
9.7	360	145.67	12600	2.2	**R**	**77**	**DRN**	**71M4**	40	345
10	345	138.39	12700	2.4	**RF**	**77**	**DRN**	**71M4**	45	346
12	300	121.42	12800	2.7	**RM**	**77**	**DRN**	**71M4**	70	346
14	255	102.99	12900	3.2						
15	230	92.97	13000	3.5						
5.9	595	158.14	7590	1.00						
6.8	520	137.67	8400	1.15	**R**	**67**	**DRN**	**80MK6**	35	342
7.2	485	128.97	8690	1.25	**RF**	**67**	**DRN**	**80MK6**	38	343
8.2	430	113.94	9130	1.40	**RM**	**67**	**DRN**	**80MK6**	54	343
7.1	495	199.81	8590	1.20						
7.7	455	184.07	8910	1.30						
8.9	390	158.14	9370	1.50						
10	340	137.67	9670	1.75						
11	320	128.97	9780	1.85						
12	280	113.94	9950	2.1	**R**	**67**	**DRN**	**71M4**	32	342
13	260	105.83	10000	2.3	**RF**	**67**	**DRN**	**71M4**	36	343
15	235	95.91	10100	2.5	**RM**	**67**	**DRN**	**71M4**	51	343
16	215	86.11	10200	2.8						
19	185	74.17	10300	3.2						
20	174	69.75	10300	3.4						
23	153	61.26	10400	3.9						
25	142	56.89	10400	4.2						
7.3	485	128.77	6410	0.90						
7.8	455	120.63	7000	1.00	**R**	**57**	**DRN**	**80MK6**	28	339
8.8	400	106.58	7300	1.10	**RF**	**57**	**DRN**	**80MK6**	32	340
9.4	370	98.99	7400	1.20	**RM**	**57**	**DRN**	**80MK6**	44	340
7.6	465	186.89	6790	0.95						
8.2	425	172.17	7190	1.05						
9.6	365	147.92	7420	1.20						
11	320	128.77	7570	1.40						
12	300	120.63	7630	1.50						
13	265	106.58	7720	1.70						
14	245	98.99	7760	1.80	**R**	**57**	**DRN**	**71M4**	26	339
16	220	89.71	7810	2.0	**RF**	**57**	**DRN**	**71M4**	29	340
18	200	80.55	7850	2.2	**RM**	**57**	**DRN**	**71M4**	41	340
20	173	69.23	7900	2.6						
22	162	64.85	7910	2.8						
25	143	57.29	7700	3.1						
27	133	53.22	7540	3.4						
29	120	48.23	7320	3.7						
10	345	139.99	3770	0.85						
12	300	121.87	4880	1.00						
12	285	114.17	5360	1.05						
14	250	100.86	5650	1.20						
15	230	93.68	5730	1.30						
17	210	84.90	5810	1.40						
19	190	76.23	5880	1.60	**R**	**47**	**DRN**	**71M4**	21	336
21	171	68.54	5940	1.75	**RF**	**47**	**DRN**	**71M4**	21	337
22	160	64.21	5970	1.85						
25	142	56.73	6020	2.1						
27	132	52.69	5940	2.3						
30	119	47.75	5780	2.5						
33	107	42.87	5610	2.8						
38	92	36.93	5370	3.2						
41	87	34.73	5280	3.5						
42	84	33.79	5230	2.8						
45	78	31.12	5110	2.8						
53	67	26.74	4880	4.5	**R**	**47**	**DRN**	**71M4**	20	336
61	58	23.28	4680	5.2	**RF**	**47**	**DRN**	**71M4**	20	337
65	54	21.81	4590	5.5						
16	225	90.77	3480	0.90						
17	210	84.61	3920	0.95	**R**	**37**	**DRN**	**71M4**	17	333
19	185	73.96	4670	1.10	**RF**	**37**	**DRN**	**71M4**	18	334

24832936/EN – 09/2018

P_m = 0.37 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
20	173	69.33	5000	1.15						
23	153	61.18	5450	1.30						
25	139	55.76	5560	1.45						
29	120	48.08	5550	1.65						
32	112	44.81	5440	1.80	**R**	**37**	**DRN**	**71M4**	17	333
36	98	39.17	5250	2.0	**RF**	**37**	**DRN**	**71M4**	18	334
39	92	36.72	5160	2.2						
44	81	32.40	4980	2.5						
49	72	28.73	4810	2.8						
58	61	24.42	4590	3.3						
50	71	28.32	4790	2.8						
54	65	26.03	4680	2.9						
64	56	22.27	4470	3.6	**R**	**37**	**DRN**	**71M4**	17	333
73	48	19.31	4280	4.2	**RF**	**37**	**DRN**	**71M4**	18	334
78	45	18.05	4200	4.4						
91	39	15.60	4020	5.1						
107	33	13.25	3820	5.7	**R**	**37**	**DRN**	**71M4**	17	333
120	30	11.83	3690	6.2	**RF**	**37**	**DRN**	**71M4**	18	334
23	153	61.30	2930	0.85						
25	140	55.87	3280	0.95						
29	120	48.17	3660	1.10						
32	112	44.90	3600	1.15						
36	98	39.25	3490	1.35	**R**	**27**	**DRN**	**71M4**	11	330
38	92	36.79	3430	1.40	**RF**	**27**	**DRN**	**71M4**	11	331
44	81	32.47	3330	1.60						
49	72	28.78	3230	1.80						
58	61	24.47	3090	2.1						
50	71	28.37	3220	1.85						
54	65	26.09	3140	2.0						
63	56	22.32	3020	2.3						
73	48	19.35	2900	2.7	**R**	**27**	**DRN**	**71M4**	11	330
78	45	18.08	2840	2.9	**RF**	**27**	**DRN**	**71M4**	11	331
91	39	15.63	2730	3.3						
107	33	13.28*	2600	3.9						
37	96	38.61	970	0.90						
39	90	36.20	1420	0.95						
44	80	31.94	1900	1.05	**R**	**17**	**DRN**	**71M4**	11	327
50	71	28.32	1870	1.20	**RF**	**17**	**DRN**	**71M4**	11	328
59	60	24.07	1820	1.40						
56	63	25.23	1840	1.35						
61	58	23.15	1810	1.45						
72	49	19.71	1750	1.75						
83	42	16.99	1700	2.0						
89	40	15.84	1680	2.1						
102	35	13.84	1620	2.5						
109	32	12.98	1600	2.6						
124	29	11.45	1550	2.8						
139	25	10.15	1510	3.0	**R**	**17**	**DRN**	**71M4**	10	327
164	22	8.63	1450	3.3	**RF**	**17**	**DRN**	**71M4**	10	328
187	19	7.55	1360	3.0						
201	18	7.04	1340	3.1						
230	15	6.15	1290	3.5						
245	14	5.76	1270	3.7						
278	13	5.09	1230	4.0						
314	11	4.51	1190	4.3						
369	9.6	3.83	1140	4.7						

24832936/EN – 09/2018

P_m = 0.37 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
77	46	18.31	990	1.10						
85	42	16.73	980	1.20						
100	35	14.12	960	1.40						
117	30	12.06	940	1.65						
127	28	11.18	920	1.80						
146	24	9.67	900	2.1						
157	22	9.01	890	2.2						
180	20	7.85	860	2.5	**R**	**07**	**DRN**	**71M4**	9.4	324
189	19	7.48	860	2.3	**RF**	**07**	**DRN**	**71M4**	9.4	325
207	17	6.83	840	2.5						
245	14	5.76	800	2.8						
287	12	4.92	775	3.0						
310	11	4.57	760	3.2						
358	9.9	3.95	730	3.5						
385	9.2	3.68	715	3.6						
441	8.0	3.21	690	3.9						
291	12	9.67	770	4.1						
312	11	9.01	755	4.4						
358	9.9	7.85	730	5.0						
376	9.4	7.48	720	4.6						
411	8.6	6.83	705	5.0						
487	7.2	5.76	670	5.5	**R**	**07**	**DRN**	**71MS2**	8.2	324
571	6.2	4.92	640	6.0	**RF**	**07**	**DRN**	**71MS2**	8.2	325
615	5.7	4.57	625	6.3						
712	5.0	3.95	600	6.8						
764	4.6	3.68	590	7.1						
876	4.0	3.21	565	7.7						
181	20	5.18	4520	3.8						
207	17	4.53	4330	4.8	**RX**	**67**	**DRN**	**80MK6**	21	314
217	16	4.30*	4260	4.9	**RXF**	**67**	**DRN**	**80MK6**	25	315
248	14	3.77	4080	6.1						
233	15	6.07	4160	2.8						
273	13	5.18	3960	5.8						
313	11	4.53	3790	7.3						
329	11	4.30*	3730	7.5						
375	9.4	3.77	3580	9.2	**RX**	**67**	**DRN**	**71M4**	19	314
442	8.0	3.20*	3390	13	**RXF**	**67**	**DRN**	**71M4**	23	315
490	7.2	2.89	3280	15						
557	6.3	2.54	3150	19						
590	6.0	2.40*	3090	21						
692	5.1	2.04	2930	26						
215	16	4.35	3460	4.1	**RX**	**57**	**DRN**	**80MK6**	19	312
247	14	3.79	3310	4.8	**RXF**	**57**	**DRN**	**80MK6**	21	313
263	13	3.55*	3240	5.1						
257	14	5.50*	3270	2.8						
279	13	5.07	3190	2.9						
325	11	4.35	3040	6.3						
373	9.5	3.79	2900	7.3						
399	8.9	3.55*	2840	7.8						
451	7.8	3.14	2740	8.3	**RX**	**57**	**DRN**	**71M4**	16	312
486	7.3	2.91	2670	9.2	**RXF**	**57**	**DRN**	**71M4**	18	313
536	6.6	2.64*	2590	10						
597	5.9	2.37	2500	12						
693	5.1	2.04	2380	14						
737	4.8	1.92*	2330	14						
856	4.1	1.65	2220	17						

P_m = 0.55 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.24	18600	6077	120000	1.05						
0.27	16500	5407	120000	1.20	**R**	**167R97**	**DRN**	**80MK4**	760	364
0.31	14000	4650	120000	1.40	**RF**	**167R97**	**DRN**	**80MK4**	760	364
0.35	12200	4129	120000	1.65	**RM**	**167R97**	**DRN**	**80MK4**	960	364

24832936/EN – 09/2018

P_m = 0.55 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.29	15900	4926	37500	0.80						
0.33	13800	4325	60800	0.95	**R**	**147R77**	**DRN**	**80MK4**	425	363
0.38	12100	3754	64300	1.05	**RF**	**147R77**	**DRN**	**80MK4**	435	363
0.43	10600	3302	66900	1.25	**RM**	**147R77**	**DRN**	**80MK4**	600	363
0.50	9280	2898	68800	1.40						
0.56	8400	2555	69800	1.55						
0.65	7270	2211	71100	1.80						
0.74	6410	1951	71900	2.0	**R**	**147R77**	**DRN**	**80MK4**	425	363
0.84	5480	1705	72600	2.4	**RF**	**147R77**	**DRN**	**80MK4**	435	363
0.93	4910	1536	73000	2.6	**RM**	**147R77**	**DRN**	**80MK4**	600	363
1.1	4250	1329	73400	3.1						
1.2	3690	1166	73700	3.5						
					R	**137R77**	**DRN**	**80MK4**	285	363
0.58	8170	2484	53000	1.00	**RF**	**137R77**	**DRN**	**80MK4**	305	363
					RM	**137R77**	**DRN**	**80MK4**	420	363
0.54	8740	2658	50800	0.90						
0.59	7930	2412	53500	1.00						
0.69	6820	2073	55700	1.15						
0.78	5960	1839	57100	1.35						
0.90	5110	1598	58300	1.55	**R**	**137R77**	**DRN**	**80MK4**	295	363
1.0	4570	1397	58900	1.75	**RF**	**137R77**	**DRN**	**80MK4**	315	363
1.2	3980	1226	59500	2.0	**RM**	**137R77**	**DRN**	**80MK4**	425	363
1.3	3560	1090	59900	2.2						
1.5	3110	951	60300	2.6						
1.7	2650	831	60600	3.0						
0.74	6210	1934	43000	0.95						
0.78	5830	1835	43000	1.05	**R**	**127R77**	**DRN**	**80MK4**	265	363
0.92	4940	1555	43000	1.20	**RF**	**127R77**	**DRN**	**80MK4**	275	363
0.99	4520	1444	43000	1.35	**RM**	**127R77**	**DRN**	**80MK4**	370	363
1.2	3830	1224	43000	1.55						
0.66	7100	2161	43000	0.85						
0.74	6380	1951	43000	0.95						
0.84	5580	1716	43000	1.05						
0.89	5250	1620	43000	1.15	**R**	**127R77**	**DRN**	**80MK4**	250	363
1.0	4430	1380	43000	1.35	**RF**	**127R77**	**DRN**	**80MK4**	270	363
1.2	3980	1210	43000	1.50	**RM**	**127R77**	**DRN**	**80MK4**	365	363
1.5	3120	961	43000	1.90						
1.9	2480	773	43000	2.4						
2.4	1920	608	43000	3.1						
0.71	6550	2016	43000	0.90						
0.75	6310	1920	43000	0.95						
0.79	5920	1823	43000	1.00						
0.86	5370	1673	43000	1.10						
0.93	5020	1545	43000	1.20						
0.95	4860	1512	43000	1.25						
1.1	4180	1322	43000	1.45						
1.1	4120	1282	43000	1.45						
1.2	3780	1195	43000	1.60						
1.2	3830	1164	43000	1.55	**R**	**127R77**	**DRN**	**80MK4**	265	363
1.4	3210	1013	43000	1.85	**RF**	**127R77**	**DRN**	**80MK4**	275	363
1.4	3240	987	43000	1.85	**RM**	**127R77**	**DRN**	**80MK4**	370	363
1.5	3040	936	43000	1.95						
1.7	2650	830	43000	2.3						
1.8	2580	794	43000	2.3						
1.9	2490	777	43000	2.4						
1.9	2400	750	43000	2.5						
2.2	2110	659	43000	2.8						
2.3	2030	636	43000	3.0						
2.3	1940	614	43000	3.1						
2.8	1640	521	43000	3.6						
					R	**127R77**	**DRN**	**80MK4**	245	363
2.9	1630	490	43000	3.7	**RF**	**127R77**	**DRN**	**80MK4**	265	363
					RM	**127R77**	**DRN**	**80MK4**	365	363

24832936/EN – 09/2018

P_m = 0.55 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
1.0	4550	1407	28000	0.95						
1.2	3910	1209	31400	1.10						
1.4	3420	1055	33500	1.25	**R**	**107R77**	**DRN**	**80MK4**	200	363
1.6	2980	919	35000	1.45	**RF**	**107R77**	**DRN**	**80MK4**	205	363
1.8	2660	815	35900	1.60	**RM**	**107R77**	**DRN**	**80MK4**	295	363
2.0	2330	717	36400	1.85						
2.3	2030	626	36700	2.1						
1.0	4530	1400	28100	0.95						
1.2	3940	1226	31300	1.10	**R**	**107R77**	**DRN**	**80MK4**	205	363
1.3	3530	1104	33000	1.20	**RF**	**107R77**	**DRN**	**80MK4**	210	363
1.5	3040	939	34800	1.40	**RM**	**107R77**	**DRN**	**80MK4**	300	363
1.8	2640	822	36000	1.65						
1.7	2710	824	16400	1.10						
1.9	2420	737	19800	1.25						
2.3	2080	632	26100	1.45						
2.6	1800	560	27100	1.65						
3.0	1570	484	27500	1.90	**R**	**97R57**	**DRN**	**80MK4**	135	363
3.3	1420	431	27700	2.1	**RF**	**97R57**	**DRN**	**80MK4**	150	363
3.8	1240	379	28000	2.4	**RM**	**97R57**	**DRN**	**80MK4**	200	363
4.3	1110	336	28100	2.7						
4.8	970	296	28200	3.1						
5.8	810	249	28400	3.7						
2.7	1710	525	10200	0.90						
3.1	1490	456	17300	1.05	**R**	**87R57**	**DRN**	**80MK4**	90	363
3.6	1290	398	18500	1.20	**RF**	**87R57**	**DRN**	**80MK4**	98	363
4.1	1140	352	19200	1.35	**RM**	**87R57**	**DRN**	**80MK4**	125	363
4.7	980	305	19900	1.55						
3.0	1590	472	16600	0.95	**R**	**87R57**	**DRN**	**80MK4**	89	363
3.6	1340	400	18200	1.15	**RF**	**87R57**	**DRN**	**80MK4**	96	363
4.0	1210	361	18900	1.30	**RM**	**87R57**	**DRN**	**80MK4**	125	363
5.2	930	276	8710	0.90						
6.1	790	236	10200	1.05	**R**	**77R37**	**DRN**	**80MK4**	50	363
6.5	740	221	10600	1.10	**RF**	**77R37**	**DRN**	**80MK4**	56	363
7.7	620	186	11400	1.30	**RM**	**77R37**	**DRN**	**80MK4**	81	363
3.3	1570	289.74	27500	1.90						
3.8	1390	255.71	27800	2.2	**R**	**97**	**DRN**	**90SR6**	120	351
4.0	1310	241.25	27900	2.3	**RF**	**97**	**DRN**	**90SR6**	135	352
4.5	1170	216.28	28000	2.5	**RM**	**97**	**DRN**	**90SR6**	185	352
5.0	1060	289.74	28200	2.8						
5.6	930	255.71	28300	3.2	**R**	**97**	**DRN**	**80MK4**	110	351
6.0	880	241.25	28300	3.4	**RF**	**97**	**DRN**	**80MK4**	125	352
6.6	790	216.28	28400	3.8	**RM**	**97**	**DRN**	**80MK4**	180	352
3.9	1340	246.54	15600	1.15						
4.5	1170	216.54	17900	1.30	**R**	**87**	**DRN**	**90SR6**	77	348
4.7	1110	205.71	18800	1.40	**RF**	**87**	**DRN**	**90SR6**	84	349
5.3	980	181.77	19900	1.55	**RM**	**87**	**DRN**	**90SR6**	115	349
6.2	840	155.34	20000	1.85						
5.8	900	246.54	20000	1.70						
6.6	790	216.54	20000	1.95						
7.0	750	205.71	20000	2.1						
7.9	665	181.77	20000	2.3	**R**	**87**	**DRN**	**80MK4**	68	348
9.2	565	155.34	20000	2.7	**RF**	**87**	**DRN**	**80MK4**	75	349
10	520	142.41	20000	3.0	**RM**	**87**	**DRN**	**80MK4**	105	349
11	455	124.97	20000	3.4						
12	430	118.43*	20000	3.6						
14	375	103.65	20000	4.1						
8.6	605	166.59	11500	1.35						
9.8	530	145.67	11900	1.55						
10	505	138.39	12000	1.60						
12	440	121.42	12300	1.85	**R**	**77**	**DRN**	**80MK4**	42	345
14	375	102.99	12600	2.2	**RF**	**77**	**DRN**	**80MK4**	48	346
15	340	92.97	12700	2.4	**RM**	**77**	**DRN**	**80MK4**	73	346
18	295	81.80	12800	2.7						
19	280	77.24	12800	2.9						
22	240	65.77	12900	3.4						

24832936/EN – 09/2018

P_m = 0.55 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
9.1	575	158.14	7800	1.05						
10	500	137.67	8550	1.20						
11	470	128.97	8820	1.25						
13	415	113.94	9220	1.45						
14	385	105.83	9420	1.55	**R**	**67**	**DRN**	**80MK4**	35	342
15	350	95.91	9630	1.70	**RF**	**67**	**DRN**	**80MK4**	38	343
17	315	86.11	9810	1.90	**RM**	**67**	**DRN**	**80MK4**	54	343
19	270	74.17	10000	2.2						
21	255	69.75	10100	2.4						
23	220	61.26	10200	2.7						
25	205	56.89	10200	2.9						
12	440	120.63	7140	1.00						
13	390	106.58	7340	1.15						
14	360	98.99	7440	1.25						
16	325	89.71	7550	1.35						
18	290	80.55	7640	1.55						
21	250	69.23	7740	1.80	**R**	**57**	**DRN**	**80MK4**	28	339
22	235	64.85	7670	1.90	**RF**	**57**	**DRN**	**80MK4**	32	340
25	205	57.29	7420	2.1	**RM**	**57**	**DRN**	**80MK4**	44	340
27	195	53.22	7280	2.3						
30	177	48.23	7090	2.5						
33	158	43.30	6880	2.8						
38	137	37.30*	6600	3.3						
41	128	35.07	6480	3.5						
55	96	26.31	5960	4.7						
57	91	24.99*	5870	4.9	**R**	**57**	**DRN**	**80MK4**	27	339
65	80	21.93	5650	5.6	**RF**	**57**	**DRN**	**80MK4**	31	340
77	68	18.60*	5380	6.6	**RM**	**57**	**DRN**	**80MK4**	43	340
15	340	93.68	3940	0.85						
17	310	84.90	4730	0.95						
19	275	76.23	5510	1.10						
21	250	68.54	5660	1.20						
22	235	64.21	5720	1.30						
25	205	56.73	5800	1.45	**R**	**47**	**DRN**	**80MK4**	23	336
27	193	52.69	5690	1.55	**RF**	**47**	**DRN**	**80MK4**	23	337
30	175	47.75	5550	1.70						
33	157	42.87	5400	1.90						
39	135	36.93	5190	2.2						
41	127	34.73	5100	2.4						
48	109	29.88	4890	2.7						
54	98	26.74	4740	3.1	**R**	**47**	**DRN**	**80MK4**	22	336
62	85	23.28	4560	3.5	**RF**	**47**	**DRN**	**80MK4**	23	337
66	80	21.81	4470	3.8						
23	220	61.18	3560	0.90						
26	200	55.76	4120	1.00						
30	176	48.08	4920	1.15						
32	164	44.81	5170	1.20						
37	143	39.17	5010	1.40	**R**	**37**	**DRN**	**80MK4**	19	333
39	134	36.72	4930	1.50	**RF**	**37**	**DRN**	**80MK4**	21	334
44	119	32.40	4780	1.70						
50	105	28.73	4630	1.90						
59	89	24.42	4430	2.2						
64	82	22.27	4320	2.5						
74	71	19.31	4160	2.8						
80	66	18.05	4080	3.0	**R**	**37**	**DRN**	**80MK4**	19	333
92	57	15.60	3910	3.5	**RF**	**37**	**DRN**	**80MK4**	20	334
108	49	13.25	3730	3.9						
121	43	11.83	3610	4.2						
37	144	39.25	3180	0.90						
39	135	36.79	3210	0.95						
44	119	32.47	3130	1.10	**R**	**27**	**DRN**	**80MK4**	13	330
50	105	28.78	3050	1.25	**RF**	**27**	**DRN**	**80MK4**	13	331
59	90	24.47	2940	1.45						

24832936/EN – 09/2018

P_m = 0.55 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
64	82	22.32	2870	1.60						
74	71	19.35	2770	1.85						
79	66	18.08	2730	1.95						
92	57	15.63	2630	2.3						
108	49	13.28*	2520	2.7						
121	43	11.86	2440	3.0						
142	37	10.13	2330	3.3						
152	34	9.41	2260	3.5	**R**	**27**	**DRN**	**80MK4**	13	330
176	30	8.16	2170	3.9	**RF**	**27**	**DRN**	**80MK4**	13	331
188	28	7.63*	2130	4.0						
218	24	6.59	2040	4.4						
256	20	5.60*	1950	4.8						
287	18	5.00*	1880	5.2						
336	16	4.27	1800	5.6						
359	15	4.00*	1760	5.8						
426	12	3.37	1670	6.4						
53	100	53.76	680	0.85						
60	88	47.44	1560	0.95	**R**	**17**	**DRN**	**71M2**	11	327
64	82	44.18	1600	1.05	**RF**	**17**	**DRN**	**71M2**	11	328
73	72	38.61	1580	1.20						
327	16	8.63	1160	4.5						
374	14	7.55	1090	4.0	**R**	**17**	**DRN**	**71M2**	10	327
402	13	7.04	1070	4.2	**RF**	**17**	**DRN**	**71M2**	10	328
459	11	6.15	1030	4.7						
154	34	18.31	800	1.45						
169	31	16.73	795	1.60						
200	26	14.12	775	1.90						
234	22	12.06	755	2.2						
253	21	11.18	745	2.4						
292	18	9.67	725	2.8						
313	17	9.01	710	3.0						
360	15	7.85	690	3.4	**R**	**07**	**DRN**	**71M2**	9.4	324
378	14	7.48	685	3.1	**RF**	**07**	**DRN**	**71M2**	9.4	325
414	13	6.83	670	3.4						
490	11	5.76	645	3.7						
574	9.2	4.92	620	4.0						
619	8.5	4.57	605	4.2						
715	7.3	3.95	585	4.6						
768	6.8	3.68	570	4.8						
881	6.0	3.21	550	5.2						
187	28	5.18	4410	2.7						
213	25	4.53	4230	3.3	**RX**	**67**	**DRN**	**90SR6**	29	314
225	23	4.30*	4160	3.4	**RXF**	**67**	**DRN**	**90SR6**	33	315
256	21	3.77	4000	4.2						
277	19	5.18	3900	4.0						
317	17	4.53	3740	5.0						
334	16	4.30*	3680	5.1						
380	14	3.77	3530	6.3						
448	12	3.20*	3350	8.5						
497	11	2.89	3240	10	**RX**	**67**	**DRN**	**80MK4**	21	314
565	9.3	2.54	3110	13	**RXF**	**67**	**DRN**	**80MK4**	25	315
598	8.8	2.40*	3050	14						
702	7.5	2.04	2900	18						
773	6.8	1.86	2810	19						
892	5.9	1.61	2680	19						
222	24	4.35	3370	2.9						
255	21	3.79	3230	3.4						
272	19	3.55*	3160	3.6	**RX**	**57**	**DRN**	**90SR6**	27	312
308	17	3.14	3040	3.8	**RXF**	**57**	**DRN**	**90SR6**	29	313
332	16	2.91	2980	4.2						

24832936/EN – 09/2018

P_m = 0.55 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
330	16	4.35	2990	4.3						
379	14	3.79	2860	5.0						
404	13	3.55*	2800	5.3						
458	11	3.14	2700	5.7						
493	11	2.91	2630	6.3						
544	9.7	2.64*	2550	7.1	**RX**	**57**	**DRN**	**80MK4**	19	312
605	8.7	2.37	2470	8.0	**RXF**	**57**	**DRN**	**80MK4**	21	313
703	7.5	2.04	2350	9.2						
747	7.0	1.92*	2300	9.8						
869	6.0	1.65	2200	11						
972	5.4	1.48	2120	13						
1100	4.8	1.30	2040	13						

P_m = 0.75 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.27	23100	5407	120000	0.85						
0.31	19700	4650	120000	1.00	**R**	**167R97**	**DRN**	**80M4**	760	364
0.35	17300	4129	120000	1.15	**RF**	**167R97**	**DRN**	**80M4**	770	364
0.39	15200	3692	120000	1.30	**RM**	**167R97**	**DRN**	**80M4**	960	364
0.54	11500	2657	120000	1.75						
0.62	10000	2333	120000	2.0						
0.69	8850	2085	120000	2.3	**R**	**167R97**	**DRN**	**80M4**	760	364
0.77	7850	1877	120000	2.5	**RF**	**167R97**	**DRN**	**80M4**	760	364
0.86	6980	1670	120000	2.9	**RM**	**167R97**	**DRN**	**80M4**	960	364
1.0	6250	1438	120000	3.2						
0.44	14600	3302	54700	0.90	**R**	**147R77**	**DRN**	**80M4**	430	363
0.50	12800	2898	63000	1.00	**RF**	**147R77**	**DRN**	**80M4**	435	363
					RM	**147R77**	**DRN**	**80M4**	600	363
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	363
0.84	7590	1705	70700	1.70	**RF**	**147R77**	**DRN**	**80M4**	435	363
0.94	6810	1536	71500	1.90	**RM**	**147R77**	**DRN**	**80M4**	600	363
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	363
1.0	6290	1391	56600	1.25	**RF**	**137R77**	**DRN**	**80M4**	310	363
1.1	5660	1256	57500	1.40	**RM**	**137R77**	**DRN**	**80M4**	420	363
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	363
1.2	5500	1226	57800	1.45	**RF**	**137R77**	**DRN**	**80M4**	320	363
1.3	4910	1090	58500	1.65	**RM**	**137R77**	**DRN**	**80M4**	430	363
1.5	4290	951	59200	1.85						
1.7	3680	831	59800	2.2						
2.0	3210	730	60200	2.5						
0.93	6840	1555	43000	0.90	**R**	**127R77**	**DRN**	**80M4**	265	363
1.0	6280	1444	43000	0.95	**RF**	**127R77**	**DRN**	**80M4**	280	363
1.2	5320	1224	43000	1.15	**RM**	**127R77**	**DRN**	**80M4**	375	363
0.89	7250	1620	43000	0.85						
1.0	6140	1380	43000	1.00						
1.2	5470	1210	43000	1.10	**R**	**127R77**	**DRN**	**80M4**	250	363
1.5	4310	961	43000	1.40	**RF**	**127R77**	**DRN**	**80M4**	270	363
1.9	3440	773	43000	1.75	**RM**	**127R77**	**DRN**	**80M4**	370	363
2.4	2680	608	43000	2.2						

24832936/EN – 09/2018

P_m = 0.75 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.86	7440	1673	43000	0.80						
0.93	6930	1545	43000	0.85						
0.95	6730	1512	43000	0.90						
1.1	5820	1322	43000	1.05						
1.1	5700	1282	43000	1.05						
1.2	5260	1195	43000	1.15						
1.2	5270	1164	43000	1.15						
1.4	4490	1034	43000	1.35						
1.4	4460	1013	43000	1.35						
1.5	4460	987	43000	1.35						
1.5	4200	936	43000	1.45						
1.5	4060	935	43000	1.50						
1.7	3680	830	43000	1.65	**R**	**127R77**	**DRN**	**80M4**	265	363
1.8	3560	794	43000	1.70	**RF**	**127R77**	**DRN**	**80M4**	275	363
1.8	3440	792	43000	1.75	**RM**	**127R77**	**DRN**	**80M4**	375	363
1.9	3450	777	43000	1.75						
1.9	3320	750	43000	1.80						
2.2	2930	659	43000	2.0						
2.2	2810	642	43000	2.1						
2.3	2820	636	43000	2.1						
2.4	2700	614	43000	2.2						
2.5	2540	581	43000	2.4						
2.8	2290	521	43000	2.6						
2.9	2150	492	43000	2.8						
3.0	2080	480	43000	2.9						
3.5	1760	407	43000	3.4						
3.7	1700	386	43000	3.5						
2.9	2240	490	43000	2.7	**R**	**127R77**	**DRN**	**80M4**	250	363
3.6	1790	394	43000	3.4	**RF**	**127R77**	**DRN**	**80M4**	270	363
					RM	**127R77**	**DRN**	**80M4**	365	363
1.4	4720	1055	25800	0.90	**R**	**107R77**	**DRN**	**80M4**	205	363
1.6	4120	919	30400	1.05	**RF**	**107R77**	**DRN**	**80M4**	210	363
1.8	3670	815	32500	1.15	**RM**	**107R77**	**DRN**	**80M4**	300	363
1.5	4200	939	30000	1.00						
1.8	3650	822	32500	1.20	**R**	**107R77**	**DRN**	**80M4**	210	363
3.9	1630	369	37100	2.6	**RF**	**107R77**	**DRN**	**80M4**	215	363
4.5	1420	323	37300	3.0	**RM**	**107R77**	**DRN**	**80M4**	305	363
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	363
3.8	1710	379	27300	1.75	**RF**	**97R57**	**DRN**	**80M4**	155	363
4.3	1520	336	27600	1.95	**RM**	**97R57**	**DRN**	**80M4**	205	363
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	363
4.7	1360	305	18100	1.15	**RF**	**87R57**	**DRN**	**80M4**	100	363
5.4	1200	268	18900	1.30	**RM**	**87R57**	**DRN**	**80M4**	130	363
6.1	1060	236	19600	1.45						
4.0	1660	361	16100	0.95	**R**	**87R57**	**DRN**	**80M4**	92	363
4.8	1370	300	18100	1.15	**RF**	**87R57**	**DRN**	**80M4**	100	363
5.6	1160	256	19100	1.35	**RM**	**87R57**	**DRN**	**80M4**	130	363
3.7	1910	255.71	25900	1.55	**R**	**97**	**DRN**	**90S6**	120	351
4.0	1800	241.25	27100	1.65	**RF**	**97**	**DRN**	**90S6**	135	352
4.4	1610	216.28	27500	1.85	**RM**	**97**	**DRN**	**90S6**	185	352
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	351
6.7	1070	216.28	28200	2.8	**RF**	**97**	**DRN**	**80M4**	130	352
7.7	920	186.30	28300	3.2	**RM**	**97**	**DRN**	**80M4**	180	352
8.5	840	170.02	28400	3.5						
4.4	1620	216.54	11500	0.95	**R**	**87**	**DRN**	**90S6**	77	348
4.7	1530	205.71	12700	1.00	**RF**	**87**	**DRN**	**90S6**	84	349
5.3	1360	181.77	15300	1.15	**RM**	**87**	**DRN**	**90S6**	115	349

24832936/EN – 09/2018

P_m = 0.75 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
6.2	1160	155.34	18100	1.35	**R**	**87**	**DRN**	**90S6**	77	348
6.7	1060	142.41	19500	1.45	**RF**	**87**	**DRN**	**90S6**	84	349
					RM	**87**	**DRN**	**90S6**	115	349
5.8	1220	246.54	18800	1.25						
6.7	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	348
10	705	142.41	20000	2.2	**RF**	**87**	**DRN**	**80M4**	79	349
12	620	124.97	20000	2.5	**RM**	**87**	**DRN**	**80M4**	110	349
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	345
9.9	720	145.67	10700	1.15	**RF**	**77**	**DRN**	**80M4**	51	346
10	685	138.39	11000	1.20	**RM**	**77**	**DRN**	**80M4**	76	346
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	345
22	325	65.77	12700	2.5	**RF**	**77**	**DRN**	**80M4**	51	346
25	285	57.68	12800	2.9	**RM**	**77**	**DRN**	**80M4**	76	346
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	342
19	365	74.17	9530	1.65	**RF**	**67**	**DRN**	**80M4**	41	343
21	345	69.75	9650	1.75	**RM**	**67**	**DRN**	**80M4**	57	343
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						
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	339
18	400	80.55	7300	1.10	**RF**	**57**	**DRN**	**80M4**	35	340
21	340	69.23	7460	1.30	**RM**	**57**	**DRN**	**80M4**	47	340
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	339
39	186	37.30*	6410	2.4	**RF**	**57**	**DRN**	**80M4**	35	340
41	174	35.07	6310	2.6	**RM**	**57**	**DRN**	**80M4**	47	340
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	339
66	109	21.93	5540	4.1	**RF**	**57**	**DRN**	**80M4**	34	340
77	93	18.60*	5280	4.9	**RM**	**57**	**DRN**	**80M4**	46	340
21	340	68.54	4530	0.90						
22	315	64.21	5310	0.95	**R**	**47**	**DRN**	**80M4**	26	336
25	280	56.73	5510	1.05	**RF**	**47**	**DRN**	**80M4**	27	337
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	336
41	173	34.73	4930	1.75	**RF**	**47**	**DRN**	**80M4**	27	337
48	149	29.88	4740	2.0						
54	133	26.70	4610	2.3						
61	117	23.59	4460	2.6						

24832936/EN – 09/2018

P_m = 0.75 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
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	336
75	96	19.27	4220	3.1	**RF**	**47**	**DRN**	**80M4**	26	337
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	333
37	195	39.17	4760	1.05	**RF**	**37**	**DRN**	**80M4**	24	334
39	183	36.72	4690	1.10						
44	161	32.40	4570	1.25	**R**	**37**	**DRN**	**80M4**	23	333
50	143	28.73	4440	1.40	**RF**	**37**	**DRN**	**80M4**	24	334
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	333
109	66	13.25	3640	2.9	**RF**	**37**	**DRN**	**80M4**	24	334
122	59	11.83	3530	3.1						
142	50	10.11	3380	3.4						
152	47	9.47	3310	3.5						
50	143	28.78	2860	0.90	**R**	**27**	**DRN**	**80M4**	17	330
59	122	24.47	2770	1.05	**RF**	**27**	**DRN**	**80M4**	17	331
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	330
153	47	9.41	2180	2.6	**RF**	**27**	**DRN**	**80M4**	16	331
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	3.5						
288	25	5.00*	1840	3.8						
249	29	11.45	1180	2.8						
281	25	10.15	1150	3.0						
331	22	8.63	1110	3.3						
378	19	7.55	1040	3.0						
406	18	7.04	1030	3.1	**R**	**17**	**DRN**	**80MS2**	16	327
464	15	6.15	990	3.5	**RF**	**17**	**DRN**	**80MS2**	15	328
495	14	5.76	980	3.7						
561	13	5.09	950	4.0						
633	11	4.51	920	4.2						
745	9.6	3.83	880	4.7						
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						
167	43	8.63	1280	1.70	**R**	**17**	**DRN**	**80M4**	16	327
191	38	7.55	1190	1.50	**RF**	**17**	**DRN**	**80M4**	15	328
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						
211	34	4.53	4180	2.4						
223	32	4.30*	4120	2.5	**RX**	**67**	**DRN**	**90S6**	29	314
254	28	3.77	3960	3.1	**RXF**	**67**	**DRN**	**90S6**	33	315
299	24	3.20*	3760	4.2						

24832936/EN – 09/2018

P_m = 0.75 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
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	314
567	13	2.54	3080	9.3	**RXF**	**67**	**DRN**	**80M4**	29	315
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						
253	28	3.79	3180	2.4						
270	27	3.55*	3120	2.6						
305	23	3.14	3010	2.8	**RX**	**57**	**DRN**	**90S6**	27	312
329	22	2.91	2940	3.1	**RXF**	**57**	**DRN**	**90S6**	29	313
362	20	2.64*	2860	3.5						
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	312
608	12	2.37	2440	5.8	**RXF**	**57**	**DRN**	**80M4**	24	313
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 min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
					R	**167R97**	**DRN**	**90S4**	760	364
0.39	22900	3692	120000	0.85	**RF**	**167R97**	**DRN**	**90S4**	770	364
					RM	**167R97**	**DRN**	**90S4**	970	364
0.55	17100	2657	120000	1.15						
0.62	14900	2333	120000	1.35						
0.70	13200	2085	120000	1.50						
0.78	11800	1877	120000	1.70	**R**	**167R97**	**DRN**	**90S4**	760	364
0.87	10500	1670	120000	1.90	**RF**	**167R97**	**DRN**	**90S4**	770	364
1.0	9290	1438	120000	2.1	**RM**	**167R97**	**DRN**	**90S4**	960	364
1.1	8270	1279	120000	2.4						
1.3	7200	1123	120000	2.8						
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	363
1.2	7600	1166	70700	1.70	**RF**	**147R77**	**DRN**	**90S4**	440	363
1.4	6670	1029	71600	1.95	**RM**	**147R77**	**DRN**	**90S4**	610	363
1.6	5790	889	72400	2.2						
1.9	5080	784	72900	2.5						
2.1	4490	695	73300	2.9						
1.1	9230	1391	45500	0.85						
1.2	8320	1256	52600	0.95	**R**	**137R77**	**DRN**	**90S4**	290	363
1.3	7290	1105	54800	1.10	**RF**	**137R77**	**DRN**	**90S4**	315	363
1.4	6870	1043	55600	1.15	**RM**	**137R77**	**DRN**	**90S4**	425	363
1.6	5830	888	57300	1.35						

24832936/EN – 09/2018

P_m = 1.1 kW

n_a min^{-1}	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	363
1.8	5440	831	57800	1.45	**RF**	**137R77**	**DRN**	**90S4**	325	363
2.0	4750	730	58700	1.70	**RM**	**137R77**	**DRN**	**90S4**	435	363
2.3	4060	629	59400	1.95						
2.6	3670	560	59800	2.2						
3.0	3160	490	60200	2.5						
1.5	6340	961	43000	0.95	**R**	**127R77**	**DRN**	**90S4**	255	363
1.9	5070	773	43000	1.20	**RF**	**127R77**	**DRN**	**90S4**	275	363
2.4	3960	608	43000	1.50	**RM**	**127R77**	**DRN**	**90S4**	375	363
1.4	6680	1034	43000	0.90						
1.4	6600	1013	43000	0.90						
1.5	6550	987	43000	0.90						
1.6	6180	936	43000	0.95						
1.6	6040	935	43000	1.00						
1.8	5430	830	43000	1.10						
1.8	5240	794	43000	1.15						
1.8	5110	792	43000	1.15						
1.9	5100	777	43000	1.20						
1.9	4910	750	43000	1.20						
2.2	4320	659	43000	1.40	**R**	**127R77**	**DRN**	**90S4**	270	363
2.3	4170	642	43000	1.45	**RF**	**127R77**	**DRN**	**90S4**	280	363
2.3	4160	636	43000	1.45	**RM**	**127R77**	**DRN**	**90S4**	380	363
2.4	4000	614	43000	1.50						
2.5	3770	581	43000	1.60						
2.8	3390	521	43000	1.75						
3.0	3190	492	43000	1.90						
3.0	3100	480	43000	1.95						
3.6	2630	407	43000	2.3						
3.8	2520	386	43000	2.4						
4.9	1930	298	43000	3.1						
5.8	1640	253	43000	3.6						
3.0	3290	490	43000	1.80						
3.7	2630	394	43000	2.3	**R**	**127R77**	**DRN**	**90S4**	255	363
4.5	2170	327	43000	2.8	**RF**	**127R77**	**DRN**	**90S4**	275	363
5.6	1700	259	43000	3.5	**RM**	**127R77**	**DRN**	**90S4**	370	363
					R	**107R77**	**DRN**	**90S4**	210	363
2.0	4730	717	25600	0.90	**RF**	**107R77**	**DRN**	**90S4**	215	363
					RM	**107R77**	**DRN**	**90S4**	305	363
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	363
4.0	2410	369	36300	1.80	**RF**	**107R77**	**DRN**	**90S4**	220	363
4.5	2100	323	36700	2.0	**RM**	**107R77**	**DRN**	**90S4**	310	363
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	363
4.9	1960	296	26500	1.55	**RF**	**97R57**	**DRN**	**90S4**	160	363
5.8	1640	249	27400	1.80	**RM**	**97R57**	**DRN**	**90S4**	210	363
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	363
6.2	1560	236	16800	1.00	**RF**	**87R57**	**DRN**	**90S4**	105	363
7.0	1360	209	18100	1.15	**RM**	**87R57**	**DRN**	**90S4**	135	363
5.7	1710	256	15700	0.90	**R**	**87R57**	**DRN**	**90S4**	99	363
6.3	1550	232	16900	1.00	**RF**	**87R57**	**DRN**	**90S4**	105	363
7.5	1310	195	18400	1.20	**RM**	**87R57**	**DRN**	**90S4**	135	363
4.4	2370	216.28	20500	1.25	**R**	**97**	**DRN**	**90L6**	120	351
5.1	2040	186.30	24300	1.45	**RF**	**97**	**DRN**	**90L6**	140	352
					RM	**97**	**DRN**	**90L6**	190	352

24832936/EN – 09/2018

P_m = 1.1 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
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	351
8.6	1220	170.02	28000	2.4	**RF**	**97**	**DRN**	**90S4**	135	352
9.7	1080	150.78	28100	2.8	**RM**	**97**	**DRN**	**90S4**	185	352
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	348
7.1	1480	205.71	17400	1.05	**RF**	**87**	**DRN**	**90S4**	84	349
8.0	1310	181.77	18400	1.20	**RM**	**87**	**DRN**	**90S4**	115	349
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	348
16	670	93.38	20000	2.3	**RF**	**87**	**DRN**	**90S4**	84	349
18	590	81.92	20000	2.6	**RM**	**87**	**DRN**	**90S4**	115	349
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	345
14	740	102.99	10600	1.10	**RF**	**77**	**DRN**	**90S4**	56	346
16	670	92.97	11100	1.20	**RM**	**77**	**DRN**	**90S4**	81	346
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	345
28	375	52.07	12600	2.2	**RF**	**77**	**DRN**	**90S4**	56	346
32	330	45.81	12700	2.5	**RM**	**77**	**DRN**	**90S4**	81	346
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	342
28	370	51.56	9510	1.60	**RF**	**67**	**DRN**	**90S4**	48	343
31	330	46.29	9720	1.80	**RM**	**67**	**DRN**	**90S4**	64	343
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	342
62	169	23.44	9620	3.3	**RF**	**67**	**DRN**	**90S4**	47	343
73	144	19.89	9160	4.2	**RM**	**67**	**DRN**	**90S4**	63	343
21	495	69.23	6720	0.90	**R**	**57**	**DRN**	**90S4**	38	339
22	465	64.85	6800	0.95	**RF**	**57**	**DRN**	**90S4**	41	340
25	410	57.29	6660	1.10	**RM**	**57**	**DRN**	**90S4**	53	340
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	339
39	265	37.30*	6090	1.65	**RF**	**57**	**DRN**	**90S4**	41	340
41	250	35.07	6000	1.80	**RM**	**57**	**DRN**	**90S4**	53	340
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	339
66	158	21.93	5340	2.8	**RF**	**57**	**DRN**	**90S4**	40	340
78	134	18.60*	5110	3.4	**RM**	**57**	**DRN**	**90S4**	52	340
87	121	16.79	4970	3.7						

24832936/EN – 09/2018

P_m = 1.1 kW											
n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B						m kg	
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	336
49	215	29.88	4480	1.40	**RF**	**47**	**DRN**	**90S4**		33	337
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	336
100	105	14.56	3760	2.5	**RF**	**47**	**DRN**	**90S4**		32	337
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	333
60	176	24.42	3800	1.15	**RF**	**37**	**DRN**	**90S4**		30	334
75	139	19.31	3810	1.45							
81	130	18.05	3750	1.55	**R**	**37**	**DRN**	**90S4**		28	333
93	113	15.60	3630	1.80	**RF**	**37**	**DRN**	**90S4**		30	334
110	96	13.25	3490	2.0							
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	333
182	58	7.97	3060	2.7	**RF**	**37**	**DRN**	**90S4**		30	334
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	330
191	55	7.63*	1960	2.0	**RF**	**27**	**DRN**	**90S4**		22	331
221	48	6.59	1900	2.2							
260	40	5.60*	1820	2.5							
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							
215	49	13.28*	1950	2.7							
241	44	11.86	1890	3.0							
282	37	10.13	1820	3.3							
304	35	9.41	1750	3.5							
351	30	8.16	1690	3.9							
375	28	7.63*	1660	4.0	**R**	**27**	**DRN**	**80M2**		16	330
434	24	6.59	1590	4.4	**RF**	**27**	**DRN**	**80M2**		16	331
511	21	5.60*	1520	4.8							
572	18	5.00*	1480	5.2							
670	16	4.27	1410	5.5							
715	15	4.00*	1380	5.8							
849	12	3.37	1320	6.4							

24832936/EN – 09/2018

P_m = 1.1 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
145	72	19.71	1140	1.15						
168	62	16.99	1140	1.35						
181	58	15.84	1130	1.45						
207	51	13.84	1120	1.65						
220	48	12.98	1110	1.80						
250	42	11.45	1090	1.95						
282	37	10.15	1070	2.1						
331	32	8.63	1040	2.3	**R**	**17**	**DRN**	**80M2**	16	327
379	28	7.55	960	2.0	**RF**	**17**	**DRN**	**80M2**	15	328
407	26	7.04	950	2.1						
465	23	6.15	930	2.4						
496	21	5.76	920	2.5						
562	19	5.09	900	2.7						
634	17	4.51	870	2.9						
746	14	3.83	840	3.2						
258	41	5.63	5610	2.7						
272	39	5.35*	5520	2.7	**RX**	**77**	**DRN**	**90S4**	41	316
308	34	4.73	5320	3.6	**RXF**	**77**	**DRN**	**90S4**	43	317
254	41	3.77	3880	2.1	**RX**	**67**	**DRN**	**90L6**	34	314
					RXF	**67**	**DRN**	**90L6**	38	315
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	314
606	17	2.40*	2980	7.1	**RXF**	**67**	**DRN**	**90S4**	35	315
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						
305	34	3.14	2930	1.90	**RX**	**57**	**DRN**	**90L6**	32	312
362	29	2.64*	2790	2.4	**RXF**	**57**	**DRN**	**90L6**	34	313
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	312
713	15	2.04	2280	4.7	**RXF**	**57**	**DRN**	**90S4**	30	313
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 min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.55	23600	2657	120000	0.85						
0.63	20600	2333	120000	0.95						
0.70	18300	2085	120000	1.10						
0.78	16300	1877	120000	1.20	**R**	**167R97**	**DRN**	**90L4**	760	364
0.87	14500	1670	120000	1.35	**RF**	**167R97**	**DRN**	**90L4**	770	364
1.0	12700	1438	120000	1.55	**RM**	**167R97**	**DRN**	**90L4**	970	364
1.1	11300	1279	120000	1.75						
1.3	9930	1123	120000	2.0						
1.5	8840	999	120000	2.3						
3.4	3770	426	73700	3.5	**R**	**147R87**	**DRN**	**90L4**	455	363
4.0	3250	368	73900	4.0	**RF**	**147R87**	**DRN**	**90L4**	465	363
					RM	**147R87**	**DRN**	**90L4**	630	363

P_m = 1.5 kW

n_a min^{-1}	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	363
1.6	7950	889	70400	1.65	**RF**	**147R77**	**DRN**	**90L4**	445	363
1.9	6990	784	71300	1.85	**RM**	**147R77**	**DRN**	**90L4**	610	363
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	363
2.1	6260	699	56600	1.30	**RF**	**137R77**	**DRN**	**90L4**	320	363
2.4	5430	609	57800	1.45	**RM**	**137R77**	**DRN**	**90L4**	430	363
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	363
2.6	5040	560	58400	1.60	**RF**	**137R77**	**DRN**	**90L4**	325	363
3.0	4360	490	59100	1.85	**RM**	**137R77**	**DRN**	**90L4**	440	363
3.4	3800	428	59700	2.1						
3.8	3430	381	60000	2.3						
4.5	2910	323	60400	2.8						
1.9	6950	773	43000	0.85	**R**	**127R77**	**DRN**	**90L4**	260	363
2.4	5440	608	43000	1.10	**RF**	**127R77**	**DRN**	**90L4**	280	363
					RM	**127R77**	**DRN**	**90L4**	375	363
1.8	7450	830	43000	0.80						
1.8	7170	794	43000	0.85						
1.8	7040	792	43000	0.85						
1.9	6990	777	43000	0.85						
1.9	6740	750	43000	0.90						
2.2	5920	659	43000	1.00						
2.3	5730	642	43000	1.05						
2.3	5710	636	43000	1.05	**R**	**127R77**	**DRN**	**90L4**	275	363
2.4	5490	614	43000	1.10	**RF**	**127R77**	**DRN**	**90L4**	285	363
2.5	5180	581	43000	1.15	**RM**	**127R77**	**DRN**	**90L4**	380	363
2.8	4650	521	43000	1.30						
3.0	4390	492	43000	1.35						
3.0	4270	480	43000	1.40						
3.6	3620	407	43000	1.65						
3.8	3460	386	43000	1.75						
4.9	2660	298	43000	2.2						
5.8	2250	253	43000	2.7						
3.0	4500	490	43000	1.35						
3.7	3600	394	43000	1.65	**R**	**127R77**	**DRN**	**90L4**	260	363
4.5	2980	327	43000	2.0	**RF**	**127R77**	**DRN**	**90L4**	280	363
5.7	2340	259	43000	2.6	**RM**	**127R77**	**DRN**	**90L4**	375	363
7.2	1820	202	43000	3.3						
					R	**107R77**	**DRN**	**90L4**	210	363
2.8	4720	528	25800	0.90	**RF**	**107R77**	**DRN**	**90L4**	220	363
					RM	**107R77**	**DRN**	**90L4**	305	363
2.7	4840	544	21300	0.90						
3.0	4380	492	29000	1.00	**R**	**107R77**	**DRN**	**90L4**	220	363
3.5	3710	417	32300	1.15	**RF**	**107R77**	**DRN**	**90L4**	225	363
4.0	3310	369	33900	1.30	**RM**	**107R77**	**DRN**	**90L4**	310	363
4.5	2890	323	35300	1.50						
					R	**107R77**	**DRN**	**90L4**	210	363
3.1	4300	469	29400	1.00	**RF**	**107R77**	**DRN**	**90L4**	215	363
					RM	**107R77**	**DRN**	**90L4**	305	363
4.3	3050	336	17400	1.00						
4.9	2680	296	23000	1.10	**R**	**97R57**	**DRN**	**90L4**	145	363
5.9	2250	249	25300	1.35	**RF**	**97R57**	**DRN**	**90L4**	165	363
6.2	2100	234	26000	1.45	**RM**	**97R57**	**DRN**	**90L4**	215	363
7.0	1870	209	26800	1.60						

24832936/EN – 09/2018

P_m = 1.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
3.8	3740	251.15	32200	1.15						
4.2	3420	229.95	33400	1.25						
4.7	3020	203.16	34900	1.40	**R**	**107**	**DRN**	**100L6**	190	353
5.6	2560	172.34	36100	1.65	**RF**	**107**	**DRN**	**100L6**	195	354
6.1	2360	158.68	36300	1.80	**RM**	**107**	**DRN**	**100L6**	285	354
6.8	2110	141.83	36600	2.0						
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	351
9.7	1470	150.78	27700	2.0	**RF**	**97**	**DRN**	**90L4**	140	352
12	1240	126.75	28000	2.4	**RM**	**97**	**DRN**	**90L4**	190	352
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	348
12	1220	124.97	18800	1.25	**RF**	**87**	**DRN**	**90L4**	87	349
12	1160	118.43*	19200	1.35	**RM**	**87**	**DRN**	**90L4**	115	349
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	348
24	590	60.35*	20000	2.6	**RF**	**87**	**DRN**	**90L4**	87	349
28	515	52.82	20000	3.0	**RM**	**87**	**DRN**	**90L4**	115	349
31	465	47.58	20000	3.3						
35	405	41.74	20000	3.8						
40	360	36.84*	19400	4.3						
16	910	92.97	8980	0.90						
18	800	81.80	10100	1.00	**R**	**77**	**DRN**	**90L4**	54	345
19	755	77.24	10500	1.10	**RF**	**77**	**DRN**	**90L4**	59	346
22	640	65.77	11300	1.25	**RM**	**77**	**DRN**	**90L4**	84	346
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	345
40	360	36.83	12600	2.3	**RF**	**77**	**DRN**	**90L4**	59	346
44	325	33.47	12700	2.5	**RM**	**77**	**DRN**	**90L4**	84	346
50	280	29.00	12400	2.9						
58	245	25.23	11900	3.1						
62	225	23.37	11600	3.6	**R**	**77**	**DRN**	**90L4**	52	345
68	210	21.43	11400	3.9	**RF**	**77**	**DRN**	**90L4**	58	346
78	184	18.80	10900	4.2	**RM**	**77**	**DRN**	**90L4**	83	346
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	342
37	390	39.88*	9390	1.50	**RF**	**67**	**DRN**	**90L4**	51	343
39	365	37.50	9530	1.55	**RM**	**67**	**DRN**	**90L4**	67	343
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	342
62	225	23.44	9410	2.4	**RF**	**67**	**DRN**	**90L4**	50	343
73	195	19.89	8980	3.1	**RM**	**67**	**DRN**	**90L4**	66	343
81	176	17.95	8720	3.4						
27	520	53.22	5900	0.85	**R**	**57**	**DRN**	**90L4**	41	339
30	470	48.23	5980	0.95	**RF**	**57**	**DRN**	**90L4**	45	340
34	420	43.30	5880	1.05	**RM**	**57**	**DRN**	**90L4**	57	340

24832936/EN – 09/2018

P_m = 1.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
39	365	37.30*	5730	1.25	**R**	**57**	**DRN**	**90L4**	41	339
42	340	35.07	5670	1.30	**RF**	**57**	**DRN**	**90L4**	45	340
48	295	30.18	5500	1.50	**RM**	**57**	**DRN**	**90L4**	57	340
54	260	26.97	5380	1.70						
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	339
87	165	16.79	4810	2.7	**RF**	**57**	**DRN**	**90L4**	44	340
99	145	14.77*	4650	3.0	**RM**	**57**	**DRN**	**90L4**	56	340
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	336
55	260	26.70	4110	1.15	**RF**	**47**	**DRN**	**90L4**	36	337
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	336
161	89	9.07	3210	2.5	**RF**	**47**	**DRN**	**90L4**	35	337
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	3.1						
337	43	4.34	2590	3.4						
381	38	3.83	2500	3.8						
76	189	19.31	2760	1.05						
81	177	18.05	2930	1.15	**R**	**37**	**DRN**	**90L4**	31	333
94	153	15.60	3230	1.30	**RF**	**37**	**DRN**	**90L4**	33	334
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	333
258	56	5.67	2680	2.6	**RF**	**37**	**DRN**	**90L4**	33	334
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						
218	66	13.25	2830	2.9						
244	59	11.83	2740	3.1						
286	50	10.11	2630	3.4	**R**	**37**	**DRN**	**90S2**	28	333
305	47	9.47	2580	3.5	**RF**	**37**	**DRN**	**90S2**	30	334
362	40	7.97	2460	3.9						
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	330
222	65	6.59	1800	1.65	**RF**	**27**	**DRN**	**90L4**	25	331
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						

24832936/EN – 09/2018

P_m = 1.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
243	59	11.86	1810	2.2						
285	50	10.13	1750	2.4						
354	40	8.16	1620	2.9						
378	38	7.63*	1600	3.0						
438	33	6.59	1540	3.2	**R**	**27**	**DRN**	**90S2**	22	330
515	28	5.60*	1480	3.6	**RF**	**27**	**DRN**	**90S2**	22	331
577	25	5.00*	1430	3.8						
676	21	4.27	1370	4.1						
722	20	4.00*	1350	4.3						
856	17	3.37	1290	4.7						
259	55	5.63	5520	2.0						
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	316
450	32	3.25*	4670	5.7	**RXF**	**77**	**DRN**	**90L4**	46	317
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	314
609	24	2.40*	2940	5.2	**RXF**	**67**	**DRN**	**90L4**	38	315
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	2.0						
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	312
716	20	2.04	2240	3.5	**RXF**	**57**	**DRN**	**90L4**	34	313
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						

P_m = 2.2 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.77	24600	1877	120000	0.80						
0.87	21900	1670	120000	0.90						
1.0	19100	1438	120000	1.05						
1.1	17000	1279	120000	1.15	**R**	**167R97**	**DRN**	**100LS4**	770	364
1.3	14800	1123	120000	1.35	**RF**	**167R97**	**DRN**	**100LS4**	780	364
1.4	13200	999	120000	1.50	**RM**	**167R97**	**DRN**	**100LS4**	970	364
1.7	11400	861	120000	1.75						
1.9	10100	760	120000	2.0						
2.2	8460	656	120000	2.4						
2.7	6980	533	71300	1.85						
3.1	6010	462	72200	2.2	**R**	**147R87**	**DRN**	**100LS4**	460	363
3.4	5650	426	72500	2.3	**RF**	**147R87**	**DRN**	**100LS4**	470	363
3.9	4880	368	73000	2.7	**RM**	**147R87**	**DRN**	**100LS4**	640	363
4.5	4310	326	73400	3.0						

24832936/EN – 09/2018

P_m = 2.2 kW

n_a min^{-1}	M_a Nm	i	F_{Ra}[1] N	SEW f_B					m kg	
1.2	15500	1166	42600	0.85						
1.4	13700	1029	61200	0.95						
1.6	11800	889	64800	1.10						
1.9	10400	784	67100	1.25	**R**	**147R77**	**DRN**	**100LS4**	440	363
2.1	9240	695	68800	1.40	**RF**	**147R77**	**DRN**	**100LS4**	450	363
2.3	8300	619	70000	1.55	**RM**	**147R77**	**DRN**	**100LS4**	620	363
2.6	7470	558	70900	1.75						
3.0	6540	489	71800	2.0						
2.1	9340	699	43700	0.85	**R**	**137R77**	**DRN**	**100LS4**	300	363
2.4	8110	609	53100	1.00	**RF**	**137R77**	**DRN**	**100LS4**	325	363
					RM	**137R77**	**DRN**	**100LS4**	435	363
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	363
3.8	5110	381	58300	1.55	**RF**	**137R77**	**DRN**	**100LS4**	330	363
4.5	4330	323	59200	1.85	**RM**	**137R77**	**DRN**	**100LS4**	445	363
5.0	3900	291	59600	2.0						
5.7	3410	255	60000	2.3						
6.5	2980	223	60400	2.7						
2.8	6950	521	43000	0.85						
2.9	6560	492	43000	0.90						
3.0	6390	480	43000	0.95	**R**	**127R77**	**DRN**	**100LS4**	280	363
3.6	5410	407	43000	1.10	**RF**	**127R77**	**DRN**	**100LS4**	290	363
3.8	5160	386	43000	1.15	**RM**	**127R77**	**DRN**	**100LS4**	385	363
4.9	3980	298	43000	1.50						
5.7	3370	253	43000	1.80						
3.0	6690	490	43000	0.90						
3.7	5360	394	43000	1.10						
4.4	4440	327	43000	1.35	**R**	**127R77**	**DRN**	**100LS4**	260	363
5.6	3490	259	43000	1.70	**RF**	**127R77**	**DRN**	**100LS4**	285	363
7.2	2720	202	43000	2.2	**RM**	**127R77**	**DRN**	**100LS4**	380	363
8.9	2200	162	43000	2.7						
12	1690	126	43000	3.5						
4.5	4320	323	29300	1.00	**R**	**107R77**	**DRN**	**100LS4**	220	363
5.1	3800	285	31900	1.15	**RF**	**107R77**	**DRN**	**100LS4**	230	363
5.7	3360	253	33700	1.30	**RM**	**107R77**	**DRN**	**100LS4**	315	363
6.8	2850	214	35400	1.50						
					R	**107R77**	**DRN**	**100LS4**	215	363
4.5	4410	325	28800	0.95	**RF**	**107R77**	**DRN**	**100LS4**	220	363
					RM	**107R77**	**DRN**	**100LS4**	310	363
					R	**97R57**	**DRN**	**100LS4**	150	363
6.9	2790	209	22300	1.05	**RF**	**97R57**	**DRN**	**100LS4**	165	363
					RM	**97R57**	**DRN**	**100LS4**	220	363
5.5	3800	262.65	43000	1.60						
6.0	3480	240.48	43000	1.70						
6.8	3070	212.46	43000	1.95						
8.1	2610	180.23	43000	2.3	**R**	**127**	**DRN**	**100LS4**	240	355
8.7	2400	165.95	43000	2.5	**RF**	**127**	**DRN**	**100LS4**	250	356
9.8	2140	148.33	43000	2.8	**RM**	**127**	**DRN**	**100LS4**	345	356
11	1930	133.53	43000	3.1						
12	1750	120.92	43000	3.4						
14	1550	107.23	43000	3.9						
4.8	4380	203.16	29000	1.00	**R**	**107**	**DRN**	**112M6**	200	353
5.7	3720	172.34	32300	1.15	**RF**	**107**	**DRN**	**112M6**	205	354
6.1	3420	158.68	33500	1.25	**RM**	**107**	**DRN**	**112M6**	295	354
6.9	3060	141.83	34700	1.40						
5.8	3630	251.15	32600	1.20	**R**	**107**	**DRN**	**100LS4**	185	353
6.3	3330	229.95	33800	1.30	**RF**	**107**	**DRN**	**100LS4**	190	354
7.1	2940	203.16	35100	1.45	**RM**	**107**	**DRN**	**100LS4**	275	354

24832936/EN – 09/2018

P_m = 2.2 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
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	353
11	1840	127.68	36900	2.3	**RF**	**107**	**DRN**	**100LS4**	190	354
13	1670	115.63	37100	2.6	**RM**	**107**	**DRN**	**100LS4**	275	354
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	351
7.8	2690	186.30	22900	1.10	**RF**	**97**	**DRN**	**100LS4**	145	352
8.5	2460	170.02	24300	1.20	**RM**	**97**	**DRN**	**100LS4**	195	352
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	351
17	1200	83.15	28000	2.5	**RF**	**97**	**DRN**	**100LS4**	145	352
20	1040	72.17	28200	2.9	**RM**	**97**	**DRN**	**100LS4**	195	352
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	4.3						
12	1810	124.97	13900	0.85						
12	1710	118.43*	15700	0.90	**R**	**87**	**DRN**	**100LS4**	85	348
14	1500	103.65	17300	1.05	**RF**	**87**	**DRN**	**100LS4**	92	349
16	1350	93.38	18200	1.15	**RM**	**87**	**DRN**	**100LS4**	120	349
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	**R**	**87**	**DRN**	**100LS4**	85	348
27	765	52.82	20000	2.0	**RF**	**87**	**DRN**	**100LS4**	92	349
30	685	47.58	20000	2.2	**RM**	**87**	**DRN**	**100LS4**	120	349
35	600	41.74	19700	2.6						
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	348
52	400	27.84*	17500	3.8	**RF**	**87**	**DRN**	**100LS4**	90	349
62	335	23.40	16700	4.6	**RM**	**87**	**DRN**	**100LS4**	120	349
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	345
28	750	52.07	10500	1.10	**RF**	**77**	**DRN**	**100LS4**	64	346
32	660	45.81	11200	1.25	**RM**	**77**	**DRN**	**100LS4**	88	346
34	625	43.26	11400	1.30						
39	530	36.83	11900	1.55	**R**	**77**	**DRN**	**100LS4**	58	345
43	485	33.47	12100	1.70	**RF**	**77**	**DRN**	**100LS4**	64	346
50	420	29.00	12000	1.95	**RM**	**77**	**DRN**	**100LS4**	88	346
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	345
81	255	17.82*	10500	3.0	**RF**	**77**	**DRN**	**100LS4**	62	346
93	225	15.60	10100	3.3	**RM**	**77**	**DRN**	**100LS4**	87	346
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	342
45	465	32.27	8850	1.15	**RF**	**67**	**DRN**	**100LS4**	55	343
50	415	28.83	9220	1.25	**RM**	**67**	**DRN**	**100LS4**	71	343

24832936/EN – 09/2018

P_m = 2.2 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
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	2.5						
97	215	14.91	8050	2.5	**R**	**67**	**DRN**	**100LS4**	51	342
114	184	12.70	7700	2.8	**RF**	**67**	**DRN**	**100LS4**	54	343
126	167	11.54	7500	3.0	**RM**	**67**	**DRN**	**100LS4**	70	343
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	339
48	435	30.18	5010	1.05	**RF**	**57**	**DRN**	**100LS4**	48	340
54	390	26.97	4940	1.15	**RM**	**57**	**DRN**	**100LS4**	60	340
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	339
122	172	11.88	4210	2.4	**RF**	**57**	**DRN**	**100LS4**	48	340
134	156	10.79	4110	2.5	**RM**	**57**	**DRN**	**100LS4**	60	340
155	135	9.35	3970	2.7						
160	131	9.06	3950	2.9						
182	116	7.97	3820	3.1						
132	159	21.93	4120	2.8						
156	135	18.60*	3960	3.4	**R**	**57**	**DRN**	**90L2**	40	339
173	121	16.79	3860	3.7	**RF**	**57**	**DRN**	**90L2**	44	340
197	107	14.77*	3730	4.1	**RM**	**57**	**DRN**	**90L2**	56	340
208	101	13.95*	3680	4.3						
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	336
187	112	7.76*	2890	1.45	**RF**	**47**	**DRN**	**100LS4**	39	337
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						
151	139	19.27	3110	2.1						
179	117	16.22	2980	2.3						
200	105	14.56	2910	2.5						
232	91	12.54	2800	2.8	**R**	**47**	**DRN**	**90L2**	35	336
246	85	11.79	2760	2.9	**RF**	**47**	**DRN**	**90L2**	35	337
286	73	10.15	2650	3.1						
320	66	9.07	2570	3.4						
363	58	8.01	2490	3.5						
93	225	15.60	1180	0.90	**R**	**37**	**DRN**	**100LS4**	35	333
109	192	13.25	1740	1.00	**RF**	**37**	**DRN**	**100LS4**	37	334
123	171	11.83	2060	1.05						
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	333
287	73	5.06	2490	1.85	**RF**	**37**	**DRN**	**100LS4**	37	334
336	63	4.32	2400	2.0						
358	59	4.05	2360	2.1						
425	49	3.41	2260	2.3						

24832936/EN – 09/2018

P_m = 2.2 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
186	113	15.60	2770	1.75						
219	96	13.25	2680	2.0	**R**	**37**	**DRN**	**90L2**	31	333
245	86	11.83	2610	2.1	**RF**	**37**	**DRN**	**90L2**	33	334
287	73	10.11	2520	2.3						
307	68	9.47	2480	2.4						
364	58	7.97	2370	2.7						
436	48	6.67	2240	3.0						
513	41	5.67	2150	3.5	**R**	**37**	**DRN**	**90L2**	31	333
574	37	5.06	2080	3.7	**RF**	**37**	**DRN**	**90L2**	33	334
672	31	4.32	1990	4.0						
718	29	4.05	1960	4.2						
852	25	3.41	1860	4.5						
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	330
340	62	4.27	1530	1.40	**RF**	**27**	**DRN**	**100LS4**	29	331
362	58	4.00*	1510	1.45						
430	49	3.37	1460	1.60						
219	96	13.28*	1700	1.35						
245	86	11.86	1680	1.50						
287	73	10.13	1630	1.65						
441	48	6.59	1450	2.2						
519	40	5.60*	1400	2.4	**R**	**27**	**DRN**	**90L2**	25	330
581	36	5.00*	1360	2.6	**RF**	**27**	**DRN**	**90L2**	25	331
680	31	4.27	1320	2.8						
726	29	4.00*	1290	2.9						
862	24	3.37	1240	3.2						
307	68	4.73	5140	1.80						
359	59	4.04*	4910	2.4						
392	54	3.70	4780	2.9						
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	316
597	35	2.43	4210	6.1	**RXF**	**77**	**DRN**	**100LS4**	50	317
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	314
710	30	2.04	2740	4.5	**RXF**	**67**	**DRN**	**100LS4**	42	315
781	27	1.86	2660	4.7						
901	23	1.61	2550	4.9						
1035	20	1.40*	2440	5.1						
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	312
755	28	1.92*	2130	2.5	**RXF**	**57**	**DRN**	**100LS4**	37	313
878	24	1.65	2040	2.9						
982	21	1.48	1980	3.2						
1110	19	1.30	1910	3.3						

24832936/EN – 09/2018

P_m = 3.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra}[1] N	SEW f_B					m kg	
1.1	23200	1279	120000	0.85						
1.3	20300	1123	120000	1.00						
1.5	18100	999	120000	1.10	**R**	**167R97**	**DRN**	**100L4**	780	364
1.7	15600	861	120000	1.30	**RF**	**167R97**	**DRN**	**100L4**	780	364
1.9	13800	760	120000	1.45	**RM**	**167R97**	**DRN**	**100L4**	980	364
2.2	11600	656	120000	1.70						
2.9	8940	503	120000	2.2						
2.7	9590	533	68400	1.35						
3.1	8260	462	70000	1.55						
3.4	7730	426	70600	1.70	**R**	**147R87**	**DRN**	**100L4**	470	363
4.0	6680	368	71600	1.95	**RF**	**147R87**	**DRN**	**100L4**	475	363
4.5	5910	326	72300	2.2	**RM**	**147R87**	**DRN**	**100L4**	640	363
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	363
2.1	12600	695	63400	1.05	**RF**	**147R77**	**DRN**	**100L4**	455	363
2.4	11300	619	65700	1.15	**RM**	**147R77**	**DRN**	**100L4**	620	363
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	363
4.5	5910	323	57200	1.35	**RF**	**137R77**	**DRN**	**100L4**	340	363
5.0	5320	291	58000	1.50	**RM**	**137R77**	**DRN**	**100L4**	450	363
5.7	4650	255	58800	1.70						
6.5	4070	223	59400	1.95						
					R	**137R77**	**DRN**	**100L4**	305	363
2.8	9600	517	38900	0.85	**RF**	**137R77**	**DRN**	**100L4**	330	363
3.2	8410	453	52200	0.95	**RM**	**137R77**	**DRN**	**100L4**	440	363
3.6	7400	407	43000	0.80						
3.8	7040	386	43000	0.85	**R**	**127R77**	**DRN**	**100L4**	285	363
4.9	5430	298	43000	1.10	**RF**	**127R77**	**DRN**	**100L4**	295	363
5.8	4600	253	43000	1.30	**RM**	**127R77**	**DRN**	**100L4**	395	363
3.7	7320	394	43000	0.80						
4.5	6050	327	43000	1.00						
5.6	4770	259	43000	1.25	**R**	**127R77**	**DRN**	**100L4**	270	363
7.2	3720	202	43000	1.60	**RF**	**127R77**	**DRN**	**100L4**	290	363
9.0	3000	162	43000	2.0	**RM**	**127R77**	**DRN**	**100L4**	385	363
12	2310	126	43000	2.6						
5.8	4600	253	27700	0.95	**R**	**107R77**	**DRN**	**100L4**	230	363
6.8	3900	214	31500	1.10	**RF**	**107R77**	**DRN**	**100L4**	235	363
7.8	3400	187	33500	1.25	**RM**	**107R77**	**DRN**	**100L4**	325	363
					R	**107R77**	**DRN**	**100L4**	225	363
5.7	4730	256	25600	0.90	**RF**	**107R77**	**DRN**	**100L4**	230	363
					RM	**107R77**	**DRN**	**100L4**	315	363
5.5	5160	262.65	43000	1.15						
6.0	4730	240.48	43000	1.25						
6.8	4180	212.46	43000	1.45						
8.1	3540	180.23	43000	1.70						
8.8	3260	165.95	43000	1.85						
9.8	2910	148.33	43000	2.1	**R**	**127**	**DRN**	**100L4**	245	355
11	2620	133.53	43000	2.3	**RF**	**127**	**DRN**	**100L4**	260	356
12	2370	120.92	43000	2.5	**RM**	**127**	**DRN**	**100L4**	355	356
14	2100	107.23	43000	2.8						
15	1900	96.95	43000	3.1						
17	1670	85.26	43000	3.6						
18	1610	82.17	43000	3.7						
6.1	4660	158.68	27300	0.90	**R**	**107**	**DRN**	**132S6**	210	353
6.9	4170	141.83	30100	1.05	**RF**	**107**	**DRN**	**132S6**	215	354
7.6	3750	127.68	32100	1.15	**RM**	**107**	**DRN**	**132S6**	305	354

24832936/EN – 09/2018

P_m = 3.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
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	353
11	2510	127.68	36200	1.70	**RF**	**107**	**DRN**	**100L4**	195	354
13	2270	115.63	36500	1.90	**RM**	**107**	**DRN**	**100L4**	285	354
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						
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	351
22	1280	65.21	26700	2.3	**RF**	**97**	**DRN**	**100L4**	150	352
24	1170	59.92	26100	2.5	**RM**	**97**	**DRN**	**100L4**	200	352
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	348
20	1420	72.57	17700	1.10	**RF**	**87**	**DRN**	**100L4**	99	349
23	1250	63.68*	18700	1.25	**RM**	**87**	**DRN**	**100L4**	130	349
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	348
35	820	41.74	19200	1.90	**RF**	**87**	**DRN**	**100L4**	99	349
40	720	36.84*	18500	2.1	**RM**	**87**	**DRN**	**100L4**	130	349
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	348
68	420	21.51	15900	3.5	**RF**	**87**	**DRN**	**100L4**	97	349
76	375	19.10	15400	3.8	**RM**	**87**	**DRN**	**100L4**	125	349
85	335	17.08*	14900	4.1						
95	300	15.35	14400	4.4						
32	900	45.81	9090	0.90						
34	850	43.26	9620	0.95	**R**	**77**	**DRN**	**100L4**	65	345
40	720	36.83	10700	1.15	**RF**	**77**	**DRN**	**100L4**	71	346
44	655	33.47	11200	1.25	**RM**	**77**	**DRN**	**100L4**	96	346
					R	**77**	**DRN**	**100L4**	65	345
50	570	29.00	11600	1.45	**RF**	**77**	**DRN**	**100L4**	71	346
58	495	25.23	11200	1.55	**RM**	**77**	**DRN**	**100L4**	96	346
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	345
118	240	12.33	9250	2.9	**RF**	**77**	**DRN**	**100L4**	70	346
134	210	10.88	8930	3.1	**RM**	**77**	**DRN**	**100L4**	94	346
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						

24832936/EN – 09/2018

P_m = 3.0 kW											
n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B						m kg	
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	342
98	290	14.91	7790	1.85	**RF**	**67**	**DRN**	**100L4**		61	343
115	245	12.70	7470	2.1	**RM**	**67**	**DRN**	**100L4**		77	343
126	225	11.54	7290	2.2							
146	197	10.00	7010	2.4							
					R	**57**	**DRN**	**100L4**		52	339
54	530	26.97	4430	0.85	**RF**	**57**	**DRN**	**100L4**		56	340
					RM	**57**	**DRN**	**100L4**		68	340
66	430	21.93	4360	1.05	**R**	**57**	**DRN**	**100L4**		51	339
78	365	18.60*	4280	1.25	**RF**	**57**	**DRN**	**100L4**		55	340
87	330	16.79	4220	1.35	**RM**	**57**	**DRN**	**100L4**		67	340
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	339
183	157	7.97	3670	2.3	**RF**	**57**	**DRN**	**100L4**		55	340
193	148	7.53	3620	2.4	**RM**	**57**	**DRN**	**100L4**		67	340
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							
132	215	21.93	3920	2.1	**R**	**57**	**DRN**	**100LM2**		51	339
156	184	18.60*	3790	2.4	**RF**	**57**	**DRN**	**100LM2**		55	340
172	166	16.79	3700	2.7	**RM**	**57**	**DRN**	**100LM2**		67	340
196	146	14.77*	3600	3.0							
207	138	13.95*	3550	3.1	**R**	**57**	**DRN**	**100LM2**		51	339
244	118	11.88	3410	3.4	**RF**	**57**	**DRN**	**100LM2**		55	340
268	107	10.79	3330	3.6	**RM**	**57**	**DRN**	**100LM2**		67	340
90	315	16.22	2210	0.85							
100	285	14.56	2650	0.90	**R**	**47**	**DRN**	**100L4**		46	336
116	245	12.54	3040	1.00	**RF**	**47**	**DRN**	**100L4**		46	337
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	336
243	118	6.00	2590	1.30	**RF**	**47**	**DRN**	**100L4**		46	337
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							
245	117	11.79	2650	2.1							
285	100	10.15	2560	2.3							
319	90	9.07	2490	2.5							
361	79	8.01	2410	2.6							
373	77	7.76*	2350	2.1							
416	69	6.96	2290	2.3	**R**	**47**	**DRN**	**100LM2**		46	336
483	59	6.00	2200	2.6	**RF**	**47**	**DRN**	**100LM2**		46	337
513	56	5.64*	2170	2.8							
596	48	4.85	2080	3.1							
667	43	4.34	2020	3.4							
755	38	3.83	1950	3.8							
144	199	10.11	920	0.85	**R**	**37**	**DRN**	**100L4**		42	333
154	186	9.47	1140	0.90	**RF**	**37**	**DRN**	**100L4**		44	334
183	157	7.97	1610	1.00							

24832936/EN – 09/2018

P_m = 3.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
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	333
337	85	4.32	2110	1.50	**RF**	**37**	**DRN**	**100L4**	44	334
360	80	4.05	2180	1.55						
427	67	3.41	2160	1.65						
286	100	10.11	2380	1.70						
306	94	9.47	2360	1.80	**R**	**37**	**DRN**	**100LM2**	42	333
363	79	7.97	2270	2.0	**RF**	**37**	**DRN**	**100LM2**	44	334
434	66	6.67	2150	2.2						
511	56	5.67	2070	2.5						
572	50	5.06	2020	2.7	**R**	**37**	**DRN**	**100LM2**	42	333
670	43	4.32	1940	3.0	**RF**	**37**	**DRN**	**100LM2**	44	334
715	40	4.05	1900	3.0						
849	34	3.41	1820	3.3						
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	330
364	79	4.00*	1070	1.10	**RF**	**27**	**DRN**	**100L4**	37	331
432	66	3.37	1280	1.20						
439	65	6.59	1290	1.60						
517	55	5.60*	1320	1.80						
579	50	5.00*	1290	1.90	**R**	**27**	**DRN**	**100LM2**	37	330
678	42	4.27	1250	2.1	**RF**	**27**	**DRN**	**100LM2**	37	331
724	40	4.00*	1240	2.1						
859	33	3.37	1190	2.4						
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	318
324	89	4.50*	6350	3.3	**RXF**	**87**	**DRN**	**100L4**	77	319
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	316
448	64	3.25*	4500	2.9	**RXF**	**77**	**DRN**	**100L4**	57	317
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	314
713	40	2.04	2660	3.3	**RXF**	**67**	**DRN**	**100L4**	49	315
784	37	1.86	2590	3.5						
905	32	1.61	2480	3.6						
1040	28	1.40*	2380	3.8						
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	312
758	38	1.92*	2050	1.85	**RXF**	**57**	**DRN**	**100L4**	45	313
881	33	1.65	1970	2.1						
986	29	1.48	1910	2.3						
1115	26	1.30	1850	2.5						

P_m = 4.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
1.5	24100	999	120000	0.85						
1.7	20800	861	120000	0.95						
1.9	18400	760	120000	1.10	**R**	**167R97**	**DRN**	**112M4**	780	364
2.2	15600	656	120000	1.30	**RF**	**167R97**	**DRN**	**112M4**	790	364
2.9	11900	503	120000	1.65	**RM**	**167R97**	**DRN**	**112M4**	990	364
3.9	8970	376	120000	2.2						
4.4	7980	335	120000	2.5						

24832936/EN – 09/2018

P_m = 4.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
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						
4.5	7870	326	70400	1.65	**R**	**147R87**	**DRN**	**112M4**	475	363
5.2	6700	280	71600	1.95	**RF**	**147R87**	**DRN**	**112M4**	485	363
5.9	5910	247	72300	2.2	**RM**	**147R87**	**DRN**	**112M4**	650	363
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	363
3.0	11800	489	64800	1.10	**RF**	**147R77**	**DRN**	**112M4**	465	363
3.5	10000	415	67700	1.30	**RM**	**147R77**	**DRN**	**112M4**	630	363
3.8	9280	381	44800	0.85						
4.5	7870	323	53700	1.00	**R**	**137R77**	**DRN**	**112M4**	325	363
5.0	7080	291	55200	1.15	**RF**	**137R77**	**DRN**	**112M4**	350	363
5.8	6190	255	56700	1.30	**RM**	**137R77**	**DRN**	**112M4**	460	363
6.5	5420	223	57900	1.45						
3.9	9260	376	45100	0.85	**R**	**137R77**	**DRN**	**112M4**	315	363
4.3	8340	339	52500	0.95	**RF**	**137R77**	**DRN**	**112M4**	340	363
4.9	7300	297	54800	1.10	**RM**	**137R77**	**DRN**	**112M4**	450	363
4.9	7240	298	43000	0.85	**R**	**127R77**	**DRN**	**112M4**	295	363
5.8	6130	253	43000	1.00	**RF**	**127R77**	**DRN**	**112M4**	305	363
					RM	**127R77**	**DRN**	**112M4**	400	363
5.7	6350	259	43000	0.95						
7.2	4960	202	43000	1.20	**R**	**127R77**	**DRN**	**112M4**	280	363
9.0	3990	162	43000	1.50	**RF**	**127R77**	**DRN**	**112M4**	300	363
12	3080	126	43000	1.95	**RM**	**127R77**	**DRN**	**112M4**	395	363
					R	**107R77**	**DRN**	**112M4**	240	363
7.8	4530	187	28100	0.95	**RF**	**107R77**	**DRN**	**112M4**	245	363
					RM	**107R77**	**DRN**	**112M4**	330	363
					R	**107R77**	**DRN**	**112M4**	230	363
7.6	4740	193	25200	0.90	**RF**	**107R77**	**DRN**	**112M4**	240	363
8.5	4240	172	29800	1.00	**RM**	**107R77**	**DRN**	**112M4**	325	363
4.3	8780	222.60*	50600	0.90						
5.1	7430	188.45	54500	1.10	**R**	**137**	**DRN**	**132S6**	295	357
5.5	6880	174.40*	55600	1.15	**RF**	**137**	**DRN**	**132S6**	320	358
6.2	6160	156.31	56800	1.30	**RM**	**137**	**DRN**	**132S6**	430	358
6.9	5560	141.12*	57700	1.45						
7.5	5050	128.18	58300	1.60						
8.5	4480	113.72	59000	1.80	**R**	**137**	**DRN**	**132S6**	295	357
9.4	4070	103.20*	59400	1.95	**RF**	**137**	**DRN**	**132S6**	320	358
11	3500	88.70*	59900	2.3	**RM**	**137**	**DRN**	**132S6**	430	358
5.6	6850	262.65	43000	0.90						
6.1	6270	240.48	43000	0.95						
6.9	5540	212.46	43000	1.10						
8.1	4700	180.23	43000	1.30						
8.8	4320	165.95	43000	1.40						
9.9	3870	148.33	43000	1.55						
11	3480	133.53	43000	1.70	**R**	**127**	**DRN**	**112M4**	255	355
12	3150	120.92	43000	1.90	**RF**	**127**	**DRN**	**112M4**	265	356
14	2790	107.23	43000	2.1	**RM**	**127**	**DRN**	**112M4**	360	356
15	2520	96.95	43000	2.4						
17	2220	85.26	43000	2.7						
18	2140	82.17	43000	2.8						
19	1980	76.21	43000	3.0						
21	1790	68.61	43000	3.4						
24	1620	62.13	43000	3.7						

24832936/EN – 09/2018

P_m = 4.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
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	353
14	2670	102.53	35900	1.60	**RF**	**107**	**DRN**	**112M4**	205	354
16	2410	92.70	36200	1.80	**RM**	**107**	**DRN**	**112M4**	295	354
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						
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	351
24	1560	59.92	25300	1.90	**RF**	**97**	**DRN**	**112M4**	160	352
28	1380	53.21	24600	2.2	**RM**	**97**	**DRN**	**112M4**	210	352
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	351
58	650	25.03	20000	4.3	**RF**	**97**	**DRN**	**112M4**	155	352
65	580	22.37	19300	4.7	**RM**	**97**	**DRN**	**112M4**	205	352
73	525	20.14	18700	5.0						
23	1660	63.68*	13700	0.95	**R**	**87**	**DRN**	**112M4**	100	348
24	1570	60.35*	14300	1.00	**RF**	**87**	**DRN**	**112M4**	110	349
28	1370	52.82	15500	1.10	**RM**	**87**	**DRN**	**112M4**	140	349
31	1240	47.58	16300	1.25						
35	1080	41.74	17000	1.40	**R**	**87**	**DRN**	**112M4**	100	348
40	960	36.84*	17500	1.60	**RF**	**87**	**DRN**	**112M4**	110	349
45	850	32.66*	17400	1.80	**RM**	**87**	**DRN**	**112M4**	140	349
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	348
77	495	19.10	15100	2.9	**RF**	**87**	**DRN**	**112M4**	105	349
86	445	17.08*	14600	3.1	**RM**	**87**	**DRN**	**112M4**	135	349
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	345
50	755	29.00	10500	1.10	**RF**	**77**	**DRN**	**112M4**	80	346
58	655	25.23	10700	1.20	**RM**	**77**	**DRN**	**112M4**	105	346
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	2.1	**R**	**77**	**DRN**	**112M4**	73	345
135	280	10.88	8700	2.3	**RF**	**77**	**DRN**	**112M4**	79	346
152	250	9.64	8420	2.5	**RM**	**77**	**DRN**	**112M4**	105	346
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	3.5						
276	139	5.31*	7160	3.7						

24832936/EN – 09/2018

P_m = 4.0 kW

n_a min^{-1}	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	**R**	**67**	**DRN**	**112M4**	67	342
146	260	10.00	6790	1.80	**RF**	**67**	**DRN**	**112M4**	70	343
168	225	8.70*	6550	1.95	**RM**	**67**	**DRN**	**112M4**	86	343
188	200	7.79	6390	1.85						
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	339
87	435	16.79	3820	1.05	**RF**	**57**	**DRN**	**112M4**	64	340
99	385	14.77*	3790	1.15	**RM**	**57**	**DRN**	**112M4**	76	340
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	339
184	205	7.97	3480	1.70	**RF**	**57**	**DRN**	**112M4**	64	340
194	196	7.53	3440	1.80	**RM**	**57**	**DRN**	**112M4**	76	340
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	336
260	147	5.64*	2400	1.05	**RF**	**47**	**DRN**	**112M4**	56	337
302	127	4.85	2340	1.20						
338	113	4.34	2290	1.30						
382	100	3.83	2230	1.45						
182	210	16.22	2630	1.30						
202	189	14.56	2590	1.40						
235	162	12.54	2520	1.55						
250	153	11.79	2500	1.60						
290	132	10.15	2430	1.75						
325	117	9.07	2370	1.85						
368	104	8.01	2310	1.95	**R**	**47**	**DRN**	**112M2**	56	336
380	100	7.76*	2230	1.60	**RF**	**47**	**DRN**	**112M2**	56	337
423	90	6.96	2180	1.75						
492	78	6.00	2110	2.0						
523	73	5.64*	2080	2.1						
607	63	4.85	2010	2.4						
680	56	4.34	1950	2.6						
769	50	3.83	1890	2.9						
263	145	5.56*	6580	1.55						
289	132	5.07	6420	1.90	**RX**	**87**	**DRN**	**112M4**	81	318
325	117	4.50*	6210	2.5	**RXF**	**87**	**DRN**	**112M4**	86	319
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	2.1						
475	80	3.08*	4310	2.4						
543	70	2.70	4150	3.1	**RX**	**77**	**DRN**	**112M4**	64	316
603	63	2.43	4030	3.4	**RXF**	**77**	**DRN**	**112M4**	67	317
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						

24832936/EN – 09/2018

P_m = 4.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} 1) N	SEW f_B					m kg	
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	314
716	53	2.04	2560	2.5	**RXF**	**67**	**DRN**	**112M4**	59	315
788	48	1.86	2500	2.6						
910	42	1.61	2400	2.7						
1045	37	1.40*	2310	2.9						
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	312
886	43	1.65	1880	1.60	**RXF**	**57**	**DRN**	**112M4**	54	313
992	39	1.48	1830	1.75						
1120	34	1.30	1780	1.85						

P_m = 5.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} 1) N	SEW f_B					m kg	
2.2	21700	656	120000	0.90						
2.5	19000	579	120000	1.05						
2.9	16600	503	120000	1.20						
3.4	14100	432	120000	1.40	**R**	**167R97**	**DRN**	**132S4**	800	364
3.9	12400	376	120000	1.60	**RF**	**167R97**	**DRN**	**132S4**	800	364
4.4	11000	335	120000	1.80	**RM**	**167R97**	**DRN**	**132S4**	1000	364
4.8	9930	303	120000	2.0						
5.2	9150	279	120000	2.2						
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	363
5.2	9300	280	68700	1.40	**RF**	**147R87**	**DRN**	**132S4**	495	363
5.9	8210	247	70100	1.60	**RM**	**147R87**	**DRN**	**132S4**	660	363
6.8	7090	214	71200	1.85						
7.7	6270	189	72000	2.1						
7.2	6860	202	43000	0.85	**R**	**127R77**	**DRN**	**132S4**	290	363
9.0	5520	162	43000	1.10	**RF**	**127R77**	**DRN**	**132S4**	310	363
12	4260	126	43000	1.40	**RM**	**127R77**	**DRN**	**132S4**	405	363
6.0	8790	163.31	69400	1.50	**R**	**147**	**DRN**	**132L6**	450	359
6.6	7910	146.91	70400	1.65	**RF**	**147**	**DRN**	**132L6**	455	360
8.1	6450	119.86	71800	2.0	**RM**	**147**	**DRN**	**132L6**	620	360
8.9	5880	109.31	72300	2.2	**R**	**147**	**DRN**	**132L6**	450	359
10	5090	94.60*	72900	2.5	**RF**	**147**	**DRN**	**132L6**	455	360
12	4490	83.47	73300	2.9	**RM**	**147**	**DRN**	**132L6**	620	360
5.6	9390	174.40*	42800	0.85						
6.2	8420	156.31	52200	0.95	**R**	**137**	**DRN**	**132L6**	320	357
6.9	7600	141.12*	54200	1.05	**RF**	**137**	**DRN**	**132L6**	345	358
7.6	6900	128.18	55500	1.15	**RM**	**137**	**DRN**	**132L6**	455	358
8.6	6120	113.72	56800	1.30						
					R	**137**	**DRN**	**132L6**	320	357
9.4	5550	103.20*	57700	1.45	**RF**	**137**	**DRN**	**132L6**	345	358
					RM	**137**	**DRN**	**132L6**	455	358
6.6	8000	222.60*	53400	1.00						
7.8	6770	188.45	55800	1.20	**R**	**137**	**DRN**	**132S4**	295	357
8.4	6260	174.40*	56600	1.30	**RF**	**137**	**DRN**	**132S4**	320	358
9.3	5610	156.31	57600	1.40	**RM**	**137**	**DRN**	**132S4**	430	358
10	5070	141.12*	58300	1.60						

P_m = 5.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
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	357
18	2900	80.91*	60400	2.8	**RF**	**137**	**DRN**	**132S4**	320	358
20	2640	73.49	60600	3.0	**RM**	**137**	**DRN**	**132S4**	430	358
22	2340	65.20	60800	3.4						
25	2120	59.17*	60900	3.8						
29	1820	50.86*	61000	4.4						
8.1	6470	180.23	43000	0.95						
8.8	5960	165.95	43000	1.00						
9.8	5330	148.33	43000	1.15						
11	4800	133.53	43000	1.25						
12	4340	120.92	43000	1.40						
14	3850	107.23	43000	1.55						
15	3480	96.95	43000	1.70	**R**	**127**	**DRN**	**132S4**	265	355
17	3060	85.26	43000	1.95	**RF**	**127**	**DRN**	**132S4**	280	356
18	2950	82.17	43000	2.0	**RM**	**127**	**DRN**	**132S4**	375	356
19	2730	76.21	43000	2.2						
21	2460	68.61	43000	2.4						
24	2230	62.13	43000	2.7						
27	1980	55.09	43000	3.0						
29	1790	49.81	43000	3.4						
35	1510	42.22	43000	4.0						
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	353
20	2610	72.88	32800	1.65	**RF**	**107**	**DRN**	**132S4**	215	354
22	2350	65.60*	31900	1.80	**RM**	**107**	**DRN**	**132S4**	305	354
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	**R**	**97**	**DRN**	**132S4**	155	351
27	1910	53.21	23500	1.55	**RF**	**97**	**DRN**	**132S4**	170	352
31	1710	47.58	22900	1.75	**RM**	**97**	**DRN**	**132S4**	220	352
34	1530	42.78	22400	1.95						
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	351
65	800	22.37	18900	3.4	**RF**	**97**	**DRN**	**132S4**	165	352
73	720	20.14	18300	3.6	**RM**	**97**	**DRN**	**132S4**	220	352
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	348
40	1320	36.84*	17100	1.15	**RF**	**87**	**DRN**	**132S4**	120	349
45	1170	32.66*	16600	1.30	**RM**	**87**	**DRN**	**132S4**	150	349
52	1000	27.88	16100	1.50						

24832936/EN – 09/2018

P_m = 5.5 kW

n_a min^{-1}	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	348
110	475	13.33	13300	2.7	**RF**	**87**	**DRN**	**132S4**	120	349
122	425	11.93	12900	2.9	**RM**	**87**	**DRN**	**132S4**	150	349
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	345
82	640	17.82*	9360	1.20	**RF**	**77**	**DRN**	**132S4**	90	346
94	560	15.60	9110	1.30	**RM**	**77**	**DRN**	**132S4**	115	346
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	345
170	305	8.59	8030	2.0	**RF**	**77**	**DRN**	**132S4**	90	346
189	275	7.74	7810	2.2	**RM**	**77**	**DRN**	**132S4**	115	346
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	342
187	280	7.79	6150	1.35	**RF**	**67**	**DRN**	**132S4**	82	343
199	260	7.36*	6070	1.40	**RM**	**67**	**DRN**	**132S4**	98	343
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						
337	156	8.70*	5280	2.8						
377	139	7.79	5140	2.7						
399	132	7.36*	5060	2.8	**R**	**67**	**DRN**	**132S2**	79	342
468	112	6.27	4830	2.9	**RF**	**67**	**DRN**	**132S2**	82	343
515	102	5.70	4700	3.0	**RM**	**67**	**DRN**	**132S2**	98	343
595	88	4.93	4510	3.3						
684	77	4.29	4330	3.5						
99	530	14.77*	1860	0.80						
105	500	13.95*	2200	0.85	**R**	**57**	**DRN**	**132S4**	72	339
123	425	11.88	3000	0.95	**RF**	**57**	**DRN**	**132S4**	76	340
135	385	10.79	3270	1.00	**RM**	**57**	**DRN**	**132S4**	88	340
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	339
228	230	6.41	3110	1.45	**RF**	**57**	**DRN**	**132S4**	76	340
251	205	5.82	3060	1.55	**RM**	**57**	**DRN**	**132S4**	88	340
290	181	5.05	2980	1.70						
333	158	4.39	2900	1.75						
314	167	9.35	2920	2.2						
368	143	7.97	2840	2.5						
390	135	7.53	2800	2.6	**R**	**57**	**DRN**	**132S2**	72	339
458	115	6.41	2700	2.9	**RF**	**57**	**DRN**	**132S2**	76	340
504	104	5.82	2640	3.1	**RM**	**57**	**DRN**	**132S2**	88	340
582	90	5.05	2550	3.4						
668	79	4.39	2460	3.6						
301	174	4.85	1920	0.85						
337	156	4.34	2110	0.95	**R**	**47**	**DRN**	**132S4**	67	336
381	138	3.83	2070	1.05	**RF**	**47**	**DRN**	**132S4**	67	337

24832936/EN – 09/2018

P_m = 5.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
234	220	12.54	1780	1.10						
249	210	11.79	1970	1.15						
289	182	10.15	2250	1.25						
324	162	9.07	2210	1.35						
366	143	8.01	2170	1.45	**R**	**47**	**DRN**	**132S2**	67	336
489	107	6.00	1990	1.45	**RF**	**47**	**DRN**	**132S2**	67	337
520	101	5.64*	1970	1.55						
605	87	4.85	1910	1.75						
677	78	4.34	1860	1.90						
766	69	3.83	1810	2.1						
221	235	6.63*	10400	1.95						
260	200	5.61	9920	2.3	**RX**	**107**	**DRN**	**132S4**	150	322
281	187	5.19	9700	3.7	**RXF**	**107**	**DRN**	**132S4**	165	323
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	4.5						
443	118	3.30	7100	5.0	**RX**	**97**	**DRN**	**132S4**	115	320
500	105	2.92	6850	5.7	**RXF**	**97**	**DRN**	**132S4**	125	321
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						
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	318
529	99	2.76*	5260	4.1	**RXF**	**87**	**DRN**	**132S4**	97	319
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	316
686	77	2.13	3760	2.6	**RXF**	**77**	**DRN**	**132S4**	78	317
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	314
787	67	1.86	2370	1.90	**RXF**	**67**	**DRN**	**132S4**	70	315
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	312
990	53	1.48	1060	1.30	**RXF**	**57**	**DRN**	**132S4**	65	313
1120	47	1.30	1200	1.35						

P_m = 7.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
2.9	22700	503	120000	0.90						
3.4	19400	432	120000	1.05	**R**	**167R97**	**DRN**	**132M4**	810	364
3.9	17000	376	120000	1.20	**RF**	**167R97**	**DRN**	**132M4**	820	364
4.4	15100	335	120000	1.30	**RM**	**167R97**	**DRN**	**132M4**	1020	364
4.8	13500	303	120000	1.45						
5.3	12500	279	120000	1.60						

24832936/EN – 09/2018

P_m = 7.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
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	363
6.9	9670	214	68200	1.35	**RF**	**147R87**	**DRN**	**132M4**	510	363
7.8	8550	189	69700	1.50	**RM**	**147R87**	**DRN**	**132M4**	680	363
9.2	7190	159	71200	1.80						
9.0	7510	162	43000	0.80	**R**	**127R77**	**DRN**	**132M4**	310	363
12	5800	126	43000	1.05	**RF**	**127R77**	**DRN**	**132M4**	330	363
					RM	**127R77**	**DRN**	**132M4**	425	363
4.3	16800	229.71	120000	1.20	**R**	**167**	**DRN**	**160M6**	730	361
5.2	13600	186.93*	120000	1.45	**RF**	**167**	**DRN**	**160M6**	730	362
					RM	**167**	**DRN**	**160M6**	930	362
6.4	11100	153.07	120000	1.80						
7.0	10200	139.98	120000	1.95						
8.0	8910	121.81*	120000	2.2						
9.1	7860	107.49	120000	2.5	**R**	**167**	**DRN**	**160M6**	730	361
11	6810	93.19	120000	2.9	**RF**	**167**	**DRN**	**160M6**	730	362
12	6060	82.91*	120000	3.3	**RM**	**167**	**DRN**	**160M6**	930	362
13	5390	73.70*	120000	3.7						
15	4930	67.40	120000	4.1						
6.0	11900	163.31	64600	1.10	**R**	**147**	**DRN**	**160M6**	480	359
6.7	10700	146.91	66700	1.20	**RF**	**147**	**DRN**	**160M6**	490	360
8.2	8760	119.86	69400	1.50	**RM**	**147**	**DRN**	**160M6**	660	360
9.0	7990	109.31	70300	1.65	**R**	**147**	**DRN**	**160M6**	480	359
10	6920	94.60*	71400	1.90	**RF**	**147**	**DRN**	**160M6**	490	360
12	6100	83.47	72100	2.1	**RM**	**147**	**DRN**	**160M6**	660	360
7.8	9190	188.45	46300	0.85	**R**	**137**	**DRN**	**132M4**	315	357
8.4	8500	174.40*	51800	0.95	**RF**	**137**	**DRN**	**132M4**	335	358
9.4	7620	156.31	54200	1.05	**RM**	**137**	**DRN**	**132M4**	445	358
10	6880	141.12*	55600	1.15						
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	357
18	3940	80.91*	59600	2.0	**RF**	**137**	**DRN**	**132M4**	335	358
20	3580	73.49	59900	2.2	**RM**	**137**	**DRN**	**132M4**	445	358
23	3180	65.20	60200	2.5						
25	2880	59.17*	60400	2.8						
29	2480	50.86*	60700	3.2						
9.9	7230	148.33	43000	0.85						
11	6510	133.53	43000	0.90						
12	5890	120.92	43000	1.00						
14	5230	107.23	43000	1.15						
15	4720	96.95	43000	1.25						
17	4150	85.26	43000	1.45						
18	4000	82.17	43000	1.50	**R**	**127**	**DRN**	**132M4**	285	355
19	3710	76.21	43000	1.60	**RF**	**127**	**DRN**	**132M4**	295	356
21	3340	68.61	43000	1.80	**RM**	**127**	**DRN**	**132M4**	390	356
24	3030	62.13	43000	2.0						
27	2680	55.09	43000	2.2						
29	2430	49.81	43000	2.5						
35	2050	42.22	43000	2.9						
40	1790	36.88	43000	3.2						
48	1500	30.84	43000	3.6						
					R	**127**	**DRN**	**132M4**	270	355
46	1570	32.18	43000	3.8	**RF**	**127**	**DRN**	**132M4**	290	356
					RM	**127**	**DRN**	**132M4**	385	356

24832936/EN – 09/2018

P_m = 7.5 kW

n_a min^{-1}	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	353
28	2570	52.68	29000	1.65	**RF**	**107**	**DRN**	**132M4**	235	354
31	2320	47.63	28300	1.85	**RM**	**107**	**DRN**	**132M4**	320	354
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	353
59	1210	24.90*	23900	3.5	**RF**	**107**	**DRN**	**132M4**	230	354
65	1100	22.62	23300	3.9	**RM**	**107**	**DRN**	**132M4**	315	354
24	2920	59.92	21500	1.05						
28	2590	53.21	22100	1.15	**R**	**97**	**DRN**	**132M4**	170	351
31	2320	47.58	21600	1.30	**RF**	**97**	**DRN**	**132M4**	190	352
34	2080	42.78	21200	1.45	**RM**	**97**	**DRN**	**132M4**	240	352
40	1810	37.13	20600	1.65						
44	1620	33.25	20100	1.80	**R**	**97**	**DRN**	**132M4**	170	351
53	1340	27.58	19200	2.0	**RF**	**97**	**DRN**	**132M4**	190	352
					RM	**97**	**DRN**	**132M4**	240	352
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	351
66	1090	22.37	18300	2.5	**RF**	**97**	**DRN**	**132M4**	185	352
73	980	20.14	17800	2.7	**RM**	**97**	**DRN**	**132M4**	235	352
80	880	18.24	17300	2.8						
40	1790	36.84*	14700	0.85	**R**	**87**	**DRN**	**132M4**	130	348
45	1590	32.66*	15600	0.95	**RF**	**87**	**DRN**	**132M4**	135	349
53	1360	27.88	15200	1.10	**RM**	**87**	**DRN**	**132M4**	165	349
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	348
123	580	11.93	12500	2.1	**RF**	**87**	**DRN**	**132M4**	135	349
148	480	9.90*	11900	2.4	**RM**	**87**	**DRN**	**132M4**	165	349
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	345
152	470	9.64	7770	1.35	**RF**	**77**	**DRN**	**132M4**	110	346
171	415	8.59	7690	1.50	**RM**	**77**	**DRN**	**132M4**	135	346
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						

24832936/EN – 09/2018

P_m = 7.5 kW

n_a min^{-1}	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	342
199	355	7.36*	5760	1.05	**RF**	**67**	**DRN**	**132M4**	100	343
234	305	6.27	5570	1.10	**RM**	**67**	**DRN**	**132M4**	115	343
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	339
252	280	5.82	2470	1.15	**RF**	**57**	**DRN**	**132M4**	94	340
291	245	5.05	2750	1.25	**RM**	**57**	**DRN**	**132M4**	105	340
334	210	4.39	2700	1.30						
199	360	14.77*	2620	1.20						
210	340	13.95*	2800	1.25						
247	285	11.88	2770	1.40						
272	260	10.79	2750	1.50						
314	225	9.35	2700	1.60	**R**	**57**	**DRN**	**132S2**	72	339
368	194	7.97	2660	1.85	**RF**	**57**	**DRN**	**132S2**	76	340
390	184	7.53	2630	1.90	**RM**	**57**	**DRN**	**132S2**	88	340
458	156	6.41	2560	2.1						
504	142	5.82	2510	2.2						
582	123	5.05	2440	2.5						
669	107	4.39	2360	2.6						
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	322
316	225	4.65	9140	3.1	**RXF**	**107**	**DRN**	**132M4**	185	323
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	320
403	178	3.64*	7110	3.4	**RXF**	**97**	**DRN**	**132M4**	140	321
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	318
592	121	2.48	4940	3.4	**RXF**	**87**	**DRN**	**132M4**	115	319
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	316
689	104	2.13	3600	1.90	**RXF**	**77**	**DRN**	**132M4**	96	317
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	314
790	91	1.86	2000	1.40	**RXF**	**67**	**DRN**	**132M4**	89	315
913	78	1.61	2120	1.45						
1050	68	1.40*	2070	1.50						

24832936/EN – 09/2018

P_m = 9.2 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
3.4	23800	432	120000	0.85						
3.9	20900	376	120000	0.95	**R**	**167R97**	**DRN**	**132L4**	820	364
4.4	18600	335	120000	1.05	**RF**	**167R97**	**DRN**	**132L4**	830	364
4.9	16700	303	120000	1.20	**RM**	**167R97**	**DRN**	**132L4**	1020	364
5.3	15400	279	120000	1.30						
5.2	15500	280	42500	0.85						
6.0	13700	247	61100	0.95	**R**	**147R87**	**DRN**	**132L4**	510	363
6.9	11800	214	64800	1.10	**RF**	**147R87**	**DRN**	**132L4**	520	363
7.8	10500	189	67000	1.25	**RM**	**147R87**	**DRN**	**132L4**	690	363
9.3	8830	159	69300	1.45						
					R	**127R77**	**DRN**	**132L4**	315	363
12	7120	126	43000	0.85	**RF**	**127R77**	**DRN**	**132L4**	335	363
					RM	**127R77**	**DRN**	**132L4**	435	363
9.0	9760	163.31	68100	1.35	**R**	**147**	**DRN**	**132L4**	450	359
10	8770	146.91	69400	1.50	**RF**	**147**	**DRN**	**132L4**	455	360
12	7160	119.86	71200	1.80	**RM**	**147**	**DRN**	**132L4**	620	360
13	6530	109.31	71800	2.0						
16	5650	94.60*	72500	2.3	**R**	**147**	**DRN**	**132L4**	450	359
18	4980	83.47	73000	2.6	**RF**	**147**	**DRN**	**132L4**	455	360
20	4300	72.09	73400	3.0	**RM**	**147**	**DRN**	**132L4**	620	360
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	357
11	7660	128.18	54100	1.05	**RF**	**137**	**DRN**	**132L4**	345	358
13	6790	113.72	55700	1.20	**RM**	**137**	**DRN**	**132L4**	455	358
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	357
23	3890	65.20	59600	2.0	**RF**	**137**	**DRN**	**132L4**	345	358
25	3530	59.17*	59900	2.3	**RM**	**137**	**DRN**	**132L4**	455	358
29	3030	50.86*	60300	2.6						
33	2650	44.39	60600	3.0						
12	7220	120.92	43000	0.85						
14	6400	107.23	43000	0.95						
15	5790	96.95	43000	1.05						
17	5090	85.26	43000	1.20						
18	4910	82.17	43000	1.20						
19	4550	76.21	43000	1.30	**R**	**127**	**DRN**	**132L4**	295	355
21	4100	68.61	43000	1.45	**RF**	**127**	**DRN**	**132L4**	305	356
24	3710	62.13	43000	1.60	**RM**	**127**	**DRN**	**132L4**	400	356
27	3290	55.09	43000	1.80						
30	2970	49.81	43000	2.0						
35	2520	42.22	43000	2.4						
40	2200	36.88	43000	2.6						
48	1840	30.84	43000	2.9						
46	1920	32.18	43000	3.1	**R**	**127**	**DRN**	**132L4**	275	355
51	1720	28.84	43000	3.5	**RF**	**127**	**DRN**	**132L4**	300	356
56	1550	26.04	43000	3.9	**RM**	**127**	**DRN**	**132L4**	395	356
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	353
28	3140	52.68	28000	1.35	**RF**	**107**	**DRN**	**132L4**	245	354
31	2840	47.63	27400	1.50	**RM**	**107**	**DRN**	**132L4**	330	354
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	353
59	1480	24.90*	23400	2.9	**RF**	**107**	**DRN**	**132L4**	235	354
65	1350	22.62	22800	3.2	**RM**	**107**	**DRN**	**132L4**	325	354
73	1190	20.07	22100	3.6						

24832936/EN – 09/2018

P_m = 9.2 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
28	3180	53.21	10800	0.95	**R**	**97**	**DRN**	**132L4**	180	351
31	2840	47.58	20600	1.05	**RF**	**97**	**DRN**	**132L4**	195	352
34	2550	42.78	20200	1.15	**RM**	**97**	**DRN**	**132L4**	250	352
40	2210	37.13	19800	1.35	**R**	**97**	**DRN**	**132L4**	180	351
44	1980	33.25	19300	1.45	**RF**	**97**	**DRN**	**132L4**	195	352
53	1640	27.58	18600	1.60	**RM**	**97**	**DRN**	**132L4**	250	352
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	351
81	1090	18.24	16900	2.3	**RF**	**97**	**DRN**	**132L4**	195	352
91	960	16.17	16400	2.5	**RM**	**97**	**DRN**	**132L4**	245	352
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	348
123	710	11.93	12200	1.70	**RF**	**87**	**DRN**	**132L4**	145	349
148	590	9.90*	11600	2.0	**RM**	**87**	**DRN**	**132L4**	175	349
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						
105	830	14.05	4880	0.85						
119	735	12.33	5730	0.95	**R**	**77**	**DRN**	**132L4**	110	345
135	650	10.88	6380	1.00	**RF**	**77**	**DRN**	**132L4**	115	346
152	575	9.64	6880	1.10	**RM**	**77**	**DRN**	**132L4**	140	346
190	460	7.74	6370	1.30						
216	405	6.79	6770	1.45	**R**	**77**	**DRN**	**132L4**	110	345
245	355	5.99*	6890	1.50	**RF**	**77**	**DRN**	**132L4**	115	346
277	315	5.31*	6690	1.60	**RM**	**77**	**DRN**	**132L4**	140	346
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	322
385	225	3.81	8490	3.6	**RXF**	**107**	**DRN**	**132L4**	190	323
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	320
556	158	2.64	6370	3.8	**RXF**	**97**	**DRN**	**132L4**	150	321
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	318
682	129	2.15	4630	3.0	**RXF**	**87**	**DRN**	**132L4**	125	319
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	316
882	100	1.67	3270	1.75	**RXF**	**77**	**DRN**	**132L4**	105	317
1035	85	1.42	3140	1.80						

24832936/EN – 09/2018

P_m = 11.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
5.0	19100	295	120000	1.05						
5.5	17800	270	120000	1.10	**R**	**167R107**	**DRN**	**160M4**	900	364
6.4	15000	229	120000	1.35	**RF**	**167R107**	**DRN**	**160M4**	910	364
7.3	13000	200	120000	1.55	**RM**	**167R107**	**DRN**	**160M4**	1100	364
8.7	11000	169	120000	1.80						
4.5	22000	328	120000	0.90	**R**	**167R107**	**DRN**	**160M4**	900	364
5.1	19500	291	120000	1.05	**RF**	**167R107**	**DRN**	**160M4**	900	364
					RM	**167R107**	**DRN**	**160M4**	1100	364
3.9	25000	376	120000	0.80						
4.4	22200	335	120000	0.90	**R**	**167R97**	**DRN**	**160M4**	860	364
4.9	20000	303	120000	1.00	**RF**	**167R97**	**DRN**	**160M4**	860	364
5.3	18400	279	120000	1.10	**RM**	**167R97**	**DRN**	**160M4**	1060	364
6.0	16400	247	29500	0.80						
6.9	14200	214	59800	0.90	**R**	**147R87**	**DRN**	**160M4**	550	363
7.8	12500	189	63500	1.05	**RF**	**147R87**	**DRN**	**160M4**	560	363
9.3	10500	159	67000	1.25	**RM**	**147R87**	**DRN**	**160M4**	720	363
6.4	16300	229.71	120000	1.20	**R**	**167**	**DRN**	**160M4**	730	361
7.9	13300	186.93*	120000	1.50	**RF**	**167**	**DRN**	**160M4**	730	362
					RM	**167**	**DRN**	**160M4**	930	362
9.6	10900	153.07	120000	1.85						
11	9980	139.98	120000	2.0						
12	8680	121.81*	120000	2.3	**R**	**167**	**DRN**	**160M4**	730	361
14	7660	107.49	120000	2.6	**RF**	**167**	**DRN**	**160M4**	730	362
16	6640	93.19	120000	3.0	**RM**	**167**	**DRN**	**160M4**	930	362
18	5910	82.91*	120000	3.4						
9.0	11600	163.31	65200	1.10	**R**	**147**	**DRN**	**160M4**	480	359
10	10400	146.91	67100	1.25	**RF**	**147**	**DRN**	**160M4**	490	360
12	8540	119.86	69700	1.50	**RM**	**147**	**DRN**	**160M4**	660	360
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	359
20	5140	72.09	72900	2.5	**RF**	**147**	**DRN**	**160M4**	490	360
22	4770	66.99	73100	2.7	**RM**	**147**	**DRN**	**160M4**	660	360
24	4350	61.09	73300	3.0						
28	3770	52.87	73700	3.5						
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	357
20	5240	73.49	58100	1.55	**RF**	**137**	**DRN**	**160M4**	375	358
23	4640	65.20	58800	1.70	**RM**	**137**	**DRN**	**160M4**	485	358
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						
15	6910	96.95	43000	0.85						
17	6080	85.26	43000	1.00						
18	5850	82.17	43000	1.00						
19	5430	76.21	43000	1.10						
21	4890	68.61	43000	1.25	**R**	**127**	**DRN**	**160M4**	325	355
24	4430	62.13	43000	1.35	**RF**	**127**	**DRN**	**160M4**	335	356
27	3920	55.09	43000	1.55	**RM**	**127**	**DRN**	**160M4**	435	356
30	3550	49.81	43000	1.70						
35	3010	42.22	43000	2.0						
40	2620	36.88	43000	2.2						
48	2190	30.84	43000	2.5						
46	2290	32.18	43000	2.6						
51	2050	28.84	43000	2.9	**R**	**127**	**DRN**	**160M4**	310	355
57	1850	26.04	43000	3.2	**RF**	**127**	**DRN**	**160M4**	330	356
62	1680	23.65	43000	3.6	**RM**	**127**	**DRN**	**160M4**	425	356

24832936/EN – 09/2018

P_m = 11.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
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	353
31	3390	47.63	26500	1.25	**RF**	**107**	**DRN**	**160M4**	275	354
36	2870	40.37*	25600	1.50	**RM**	**107**	**DRN**	**160M4**	365	354
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	353
65	1610	22.62	22400	2.7	**RF**	**107**	**DRN**	**160M4**	270	354
73	1430	20.07	21700	3.0	**RM**	**107**	**DRN**	**160M4**	355	354
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	351
44	2370	33.25	18600	1.20	**RF**	**97**	**DRN**	**160M4**	230	352
53	1960	27.58	18000	1.35	**RM**	**97**	**DRN**	**160M4**	280	352
59	1780	25.03	17600	1.60	**R**	**97**	**DRN**	**160M4**	210	351
66	1590	22.37	17200	1.70	**RF**	**97**	**DRN**	**160M4**	225	352
73	1430	20.14	16900	1.80	**RM**	**97**	**DRN**	**160M4**	275	352
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	351
136	770	10.83	14500	2.7	**RF**	**97**	**DRN**	**160M4**	225	352
159	660	9.29	14200	3.1	**RM**	**97**	**DRN**	**160M4**	275	352
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	348
77	1360	19.10	13000	1.05	**RF**	**87**	**DRN**	**160M4**	175	349
86	1210	17.08*	12700	1.15	**RM**	**87**	**DRN**	**160M4**	205	349
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	348
161	650	9.14*	11400	1.85	**RF**	**87**	**DRN**	**160M4**	175	349
179	585	8.22	11100	2.0	**RM**	**87**	**DRN**	**160M4**	205	349
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	345
153	685	9.64	5130	0.90	**RF**	**77**	**DRN**	**160M4**	150	346
					RM	**77**	**DRN**	**160M4**	175	346
190	550	7.74	4740	1.10						
217	480	6.79	5340	1.20	**R**	**77**	**DRN**	**160M4**	140	345
246	425	5.99*	5800	1.25	**RF**	**77**	**DRN**	**160M4**	150	346
277	375	5.31*	6140	1.35	**RM**	**77**	**DRN**	**160M4**	175	346
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	322
435	240	3.38	8050	3.4	**RXF**	**107**	**DRN**	**160M4**	225	323
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	2.9	**RX**	**97**	**DRN**	**160M4**	175	320
557	188	2.64	6240	3.2	**RXF**	**97**	**DRN**	**160M4**	185	321
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						

24832936/EN – 09/2018

P_m = 11.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
424	245	3.48	5000	1.65						
477	220	3.09	4890	1.85						
534	197	2.76*	4770	2.1						
594	177	2.48	4660	2.3	**RX**	**87**	**DRN**	**160M4**	150	318
684	154	2.15	4500	2.5	**RXF**	**87**	**DRN**	**160M4**	155	319
764	138	1.93	4380	2.6						
921	114	1.60*	4170	2.8						
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	316
884	119	1.67	2520	1.45	**RXF**	**77**	**DRN**	**160M4**	135	317
1035	101	1.42	2630	1.55						

P_m = 15.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
5.5	24300	270	120000	0.80						
6.4	20600	229	120000	0.95	**R**	**167R107**	**DRN**	**160L4**	920	364
7.4	17900	200	120000	1.10	**RF**	**167R107**	**DRN**	**160L4**	920	364
8.7	15100	169	120000	1.30	**RM**	**167R107**	**DRN**	**160L4**	1120	364
5.6	24100	264	120000	0.85	**R**	**167R107**	**DRN**	**160L4**	910	364
6.5	20700	227	120000	0.95	**RF**	**167R107**	**DRN**	**160L4**	920	364
7.5	18000	198	120000	1.10	**RM**	**167R107**	**DRN**	**160L4**	1110	364
6.4	22300	229.71	120000	0.90	**R**	**167**	**DRN**	**160L4**	740	361
7.9	18100	186.93*	120000	1.10	**RF**	**167**	**DRN**	**160L4**	750	362
					RM	**167**	**DRN**	**160L4**	940	362
9.6	14800	153.07	120000	1.35						
11	13600	139.98	120000	1.45						
12	11800	121.81*	120000	1.70						
14	10400	107.49	120000	1.90	**R**	**167**	**DRN**	**160L4**	740	361
16	9050	93.19	120000	2.2	**RF**	**167**	**DRN**	**160L4**	750	362
18	8050	82.91*	120000	2.5	**RM**	**167**	**DRN**	**160L4**	940	362
20	7160	73.70*	120000	2.8						
22	6540	67.40	120000	3.0						
9.0	15800	163.31	38500	0.80						
10	14200	146.91	59000	0.90	**R**	**147**	**DRN**	**160L4**	495	359
12	11600	119.86	65200	1.10	**RF**	**147**	**DRN**	**160L4**	500	360
13	10600	109.31	66900	1.20	**RM**	**147**	**DRN**	**160L4**	670	360
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	359
22	6500	66.99	71800	2.0	**RF**	**147**	**DRN**	**160L4**	500	360
24	5930	61.09	72300	2.2	**RM**	**147**	**DRN**	**160L4**	670	360
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	357
18	7860	80.91*	53700	1.00	**RF**	**137**	**DRN**	**160L4**	390	358
20	7140	73.49	55100	1.10	**RM**	**137**	**DRN**	**160L4**	500	358
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	357
33	4310	44.39	59200	1.85	**RF**	**137**	**DRN**	**160L4**	390	358
39	3650	37.65	59800	2.2	**RM**	**137**	**DRN**	**160L4**	500	358
45	3190	32.91	60200	2.5						
53	2700	27.83	60500	2.8						

24832936/EN – 09/2018

P_m = 15.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
19	7400	76.21	43000	0.80						
21	6660	68.61	43000	0.90						
24	6030	62.13	43000	1.00						
27	5350	55.09	43000	1.10	**R**	**127**	**DRN**	**160L4**	340	355
30	4840	49.81	43000	1.25	**RF**	**127**	**DRN**	**160L4**	355	356
35	4100	42.22	43000	1.45	**RM**	**127**	**DRN**	**160L4**	450	356
40	3580	36.88	43000	1.60						
48	2990	30.84	43000	1.80						
46	3120	32.18	43000	1.90						
51	2800	28.84	43000	2.1						
57	2530	26.04	43000	2.4	**R**	**127**	**DRN**	**160L4**	325	355
62	2290	23.65	43000	2.6	**RF**	**127**	**DRN**	**160L4**	345	356
70	2030	20.98	43000	2.9	**RM**	**127**	**DRN**	**160L4**	440	356
77	1850	19.04	43000	3.2						
90	1590	16.37	43000	3.8						
31	4620	47.63	24400	0.95						
37	3920	40.37*	23900	1.10	**R**	**107**	**DRN**	**160L4**	285	353
42	3420	35.26	23400	1.25	**RF**	**107**	**DRN**	**160L4**	290	354
50	2860	29.49	22600	1.50	**RM**	**107**	**DRN**	**160L4**	380	354
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	353
73	1940	20.07	20800	2.2	**RF**	**107**	**DRN**	**160L4**	285	354
81	1760	18.21	20400	2.4	**RM**	**107**	**DRN**	**160L4**	375	354
94	1520	15.65	19600	2.8						
108	1320	13.66	19000	3.2						
					R	**97**	**DRN**	**160L4**	230	351
53	2680	27.58	16500	1.00	**RF**	**97**	**DRN**	**160L4**	245	352
					RM	**97**	**DRN**	**160L4**	295	352
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	351
119	1200	12.39	14400	1.80	**RF**	**97**	**DRN**	**160L4**	240	352
136	1050	10.83	13900	2.0	**RM**	**97**	**DRN**	**160L4**	295	352
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	348
111	1290	13.33	11300	1.00	**RF**	**87**	**DRN**	**160L4**	190	349
124	1150	11.93	11100	1.05	**RM**	**87**	**DRN**	**160L4**	220	349
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	348
207	690	7.13	10300	1.55	**RF**	**87**	**DRN**	**160L4**	190	349
231	620	6.39	10000	1.65	**RM**	**87**	**DRN**	**160L4**	220	349
278	515	5.30*	9570	1.75						
284	500	5.19	8420	1.40						
317	450	4.65	8240	1.55						
351	405	4.20*	8080	2.0						
386	370	3.81	7910	2.2						
436	325	3.38	7690	2.5						
480	295	3.07	7520	2.8	**RX**	**107**	**DRN**	**160L4**	225	322
558	255	2.64*	7240	3.2	**RXF**	**107**	**DRN**	**160L4**	240	323
640	220	2.30	6990	3.7						
754	190	1.95	6690	4.0						
863	166	1.71	6450	4.2						
1020	140	1.44	6150	4.6						

24832936/EN – 09/2018

P_m = 15.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
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	320
558	255	2.64	5960	2.3	**RXF**	**97**	**DRN**	**160L4**	200	321
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						
594	240	2.48	4340	1.70	**RX**	**87**	**DRN**	**160L4**	165	318
684	205	2.15	4220	1.85	**RXF**	**87**	**DRN**	**160L4**	170	319
764	187	1.93	4130	1.90						
921	155	1.60*	3960	2.0						
1060	135	1.39	3830	2.1						

P_m = 18.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
7.9	22300	186.93*	120000	0.90						
9.7	18200	153.07	120000	1.10	**R**	**167**	**DRN**	**180M4**	770	361
11	16700	139.98	120000	1.20	**RF**	**167**	**DRN**	**180M4**	770	362
12	14500	121.81*	120000	1.35	**RM**	**167**	**DRN**	**180M4**	970	362
14	12800	107.49	120000	1.55						
16	11100	93.19	120000	1.80						
18	9910	82.91*	120000	2.0	**R**	**167**	**DRN**	**180M4**	770	361
20	8800	73.70*	120000	2.3	**RF**	**167**	**DRN**	**180M4**	770	362
22	8050	67.40	120000	2.5	**RM**	**167**	**DRN**	**180M4**	970	362
25	7000	58.65	120000	2.9						
12	14300	119.86	58400	0.90	**R**	**147**	**DRN**	**180M4**	520	359
14	13000	109.31	62500	1.00	**RF**	**147**	**DRN**	**180M4**	530	360
16	11300	94.60*	65800	1.15	**RM**	**147**	**DRN**	**180M4**	690	360
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	359
24	7300	61.09	71000	1.80	**RF**	**147**	**DRN**	**180M4**	530	360
28	6310	52.87	71900	2.1	**RM**	**147**	**DRN**	**180M4**	690	360
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	357
23	7790	65.20	53800	1.05	**RF**	**137**	**DRN**	**180M4**	415	358
25	7070	59.17*	55200	1.15	**RM**	**137**	**DRN**	**180M4**	530	358
29	6070	50.86*	56900	1.30						
33	5300	44.39	58000	1.50	**R**	**137**	**DRN**	**180M4**	390	357
39	4500	37.65	59000	1.80	**RF**	**137**	**DRN**	**180M4**	415	358
45	3930	32.91	59600	2.0	**RM**	**137**	**DRN**	**180M4**	530	358
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	357
67	2620	22.00*	60600	3.0	**RF**	**137**	**DRN**	**180M4**	405	358
78	2270	19.04*	60800	3.5	**RM**	**137**	**DRN**	**180M4**	520	358
88	2000	16.80*	60900	4.0						
24	7420	62.13	43000	0.80						
27	6580	55.09	43000	0.90						
30	5950	49.81	43000	1.00	**R**	**127**	**DRN**	**180M4**	365	355
35	5040	42.22	43000	1.20	**RF**	**127**	**DRN**	**180M4**	375	356
40	4400	36.88	43000	1.30	**RM**	**127**	**DRN**	**180M4**	470	356
48	3680	30.84	43000	1.45						

24832936/EN – 09/2018

P_m = 18.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
57	3110	26.04	43000	1.95						
62	2820	23.65	43000	2.1						
70	2500	20.98	43000	2.4	**R**	**127**	**DRN**	**180M4**	345	355
78	2270	19.04	43000	2.6	**RF**	**127**	**DRN**	**180M4**	370	356
90	1950	16.37	43000	3.1	**RM**	**127**	**DRN**	**180M4**	465	356
103	1700	14.29	43000	3.5						
167	1050	8.85	43000	3.7						
37	4820	40.37*	22100	0.90	**R**	**107**	**DRN**	**180M4**	305	353
42	4210	35.26	22000	1.00	**RF**	**107**	**DRN**	**180M4**	310	354
50	3520	29.49	21500	1.20	**RM**	**107**	**DRN**	**180M4**	400	354
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	2.0						
94	1870	15.65	19000	2.3	**R**	**107**	**DRN**	**180M4**	300	353
108	1630	13.66	18400	2.6	**RF**	**107**	**DRN**	**180M4**	305	354
128	1380	11.59	17700	3.1	**RM**	**107**	**DRN**	**180M4**	395	354
146	1210	10.13	17100	3.5						
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	351
159	1100	9.29	13400	1.85	**RF**	**97**	**DRN**	**180M4**	265	352
176	1000	8.39	13100	2.0	**RM**	**97**	**DRN**	**180M4**	315	352
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	348
180	980	8.22	10300	1.20	**RF**	**87**	**DRN**	**180M4**	215	349
207	850	7.13	10000	1.25	**RM**	**87**	**DRN**	**180M4**	245	349
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						
437	400	3.38	7390	2.0						
481	365	3.07	7240	2.3						
560	315	2.64*	6990	2.6	**RX**	**107**	**DRN**	**180M4**	245	322
641	275	2.30	6770	3.0	**RXF**	**107**	**DRN**	**180M4**	260	323
756	230	1.95	6500	3.3						
865	200	1.71	6280	3.5						
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	320
660	265	2.24*	5500	2.2	**RXF**	**97**	**DRN**	**180M4**	220	321
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	318
766	230	1.93	3850	1.55	**RXF**	**87**	**DRN**	**180M4**	195	319
924	191	1.60*	3760	1.65						
1060	166	1.39	3660	1.75						

24832936/EN – 09/2018

P_m = 22 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
9.7	21700	153.07	120000	0.90	**R**	**167**	**DRN**	**180L4**	780	361
11	19900	139.98	120000	1.00	**RF**	**167**	**DRN**	**180L4**	790	362
12	17300	121.81*	120000	1.15	**RM**	**167**	**DRN**	**180L4**	980	362
14	15200	107.49	120000	1.30						
16	13200	93.19	120000	1.50						
18	11700	82.91*	120000	1.70						
20	10400	73.70*	120000	1.90	**R**	**167**	**DRN**	**180L4**	780	361
22	9580	67.40	120000	2.1	**RF**	**167**	**DRN**	**180L4**	790	362
25	8340	58.65	120000	2.4	**RM**	**167**	**DRN**	**180L4**	980	362
29	7360	51.76	120000	2.7						
33	6380	44.87	120000	3.1						
14	15500	109.31	43100	0.85						
16	13400	94.60*	61700	0.95	**R**	**147**	**DRN**	**180L4**	530	359
18	11800	83.47	64800	1.10	**RF**	**147**	**DRN**	**180L4**	540	360
20	10200	72.09	67400	1.25	**RM**	**147**	**DRN**	**180L4**	710	360
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	359
32	6630	46.65	71700	1.95	**RF**	**147**	**DRN**	**180L4**	540	360
37	5730	40.29	72400	2.3	**RM**	**147**	**DRN**	**180L4**	710	360
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	357
29	7230	50.86*	54900	1.10	**RF**	**137**	**DRN**	**180L4**	430	358
33	6310	44.39	56500	1.25	**RM**	**137**	**DRN**	**180L4**	540	358
39	5350	37.65	58000	1.50	**R**	**137**	**DRN**	**180L4**	410	357
45	4680	32.91	58800	1.70	**RF**	**137**	**DRN**	**180L4**	430	358
53	3950	27.83	59500	1.95	**RM**	**137**	**DRN**	**180L4**	540	358
50	4200	29.57*	59300	1.85						
61	3430	24.12	60000	2.3	**R**	**137**	**DRN**	**180L4**	400	357
67	3120	22.00*	60200	2.6	**RF**	**137**	**DRN**	**180L4**	420	358
78	2700	19.04*	60500	3.0	**RM**	**137**	**DRN**	**180L4**	530	358
88	2380	16.80*	60700	3.4	**R**	**137**	**DRN**	**180L4**	400	357
102	2060	14.51	60900	3.9	**RF**	**137**	**DRN**	**180L4**	420	358
115	1820	12.83	61000	4.4	**RM**	**137**	**DRN**	**180L4**	530	358
30	7080	49.81	43000	0.85						
35	6000	42.22	43000	1.00	**R**	**127**	**DRN**	**180L4**	380	355
40	5240	36.88	43000	1.10	**RF**	**127**	**DRN**	**180L4**	390	356
48	4380	30.84	43000	1.25	**RM**	**127**	**DRN**	**180L4**	485	356
57	3700	26.04	43000	1.60						
62	3360	23.65	43000	1.80						
70	2980	20.98	43000	2.0						
78	2700	19.04	43000	2.2						
90	2320	16.37	43000	2.6	**R**	**127**	**DRN**	**180L4**	365	355
103	2030	14.29	43000	3.0	**RF**	**127**	**DRN**	**180L4**	385	356
122	1720	12.12	43000	3.5	**RM**	**127**	**DRN**	**180L4**	480	356
139	1500	10.59	43000	3.8						
167	1250	8.85	43000	3.1						
197	1060	7.51	43000	3.7						
42	5010	35.26	11500	0.85	**R**	**107**	**DRN**	**180L4**	320	353
50	4190	29.49	20400	1.05	**RF**	**107**	**DRN**	**180L4**	330	354
					RM	**107**	**DRN**	**180L4**	415	354
59	3540	24.90*	20000	1.20	**R**	**107**	**DRN**	**180L4**	315	353
65	3210	22.62	19700	1.35	**RF**	**107**	**DRN**	**180L4**	320	354
74	2850	20.07	19300	1.50	**RM**	**107**	**DRN**	**180L4**	410	354
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	353
146	1440	10.13	16800	3.0	**RF**	**107**	**DRN**	**180L4**	320	354
172	1210	8.56	16100	3.5	**RM**	**107**	**DRN**	**180L4**	410	354
188	1110	7.86	16000	2.7						
222	940	6.66	15300	3.1						
254	820	5.82	14800	3.6						

24832936/EN – 09/2018

P_m = 22 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
73	2860	20.14	14000	0.90	**R**	**97**	**DRN**	**180L4**	260	351
81	2590	18.24	13900	0.95	**RF**	**97**	**DRN**	**180L4**	280	352
91	2300	16.17	13700	1.05	**RM**	**97**	**DRN**	**180L4**	330	352
101	2080	14.62	13500	1.10						
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	351
208	1010	7.12	12300	2.0	**RF**	**97**	**DRN**	**180L4**	280	352
238	880	6.21	11900	2.1	**RM**	**97**	**DRN**	**180L4**	330	352
284	735	5.20	11300	2.4						
328	640	4.50*	10900	2.5						
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	348
207	1010	7.13	9680	1.05	**RF**	**87**	**DRN**	**180L4**	230	349
231	900	6.39	9470	1.10	**RM**	**87**	**DRN**	**180L4**	260	349
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						
481	435	3.07	6950	1.90						
559	375	2.64*	6740	2.2	**RX**	**107**	**DRN**	**180L4**	260	322
641	325	2.30	6550	2.5	**RXF**	**107**	**DRN**	**180L4**	280	323
756	275	1.95	6310	2.8						
865	240	1.71	6100	2.9						
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	320
659	315	2.24*	5290	1.85	**RXF**	**97**	**DRN**	**180L4**	235	321
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	318
766	270	1.93	2490	1.30	**RXF**	**87**	**DRN**	**180L4**	210	319
923	225	1.60*	2790	1.40						
1060	198	1.39	3060	1.45						

P_m = 30 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
12	23500	121.81*	120000	0.85	**R**	**167**	**DRN**	**200L4**	890	361
14	20800	107.49	120000	0.95	**RF**	**167**	**DRN**	**200L4**	900	362
16	18000	93.19	120000	1.10	**RM**	**167**	**DRN**	**200L4**	1090	362
18	16000	82.91*	120000	1.25						
20	14200	73.70*	120000	1.40						
22	13000	67.40	120000	1.55						
25	11300	58.65	120000	1.75						
29	10000	51.76	120000	2.0	**R**	**167**	**DRN**	**200L4**	890	361
33	8680	44.87	120000	2.3	**RF**	**167**	**DRN**	**200L4**	900	362
37	7720	39.92	120000	2.6	**RM**	**167**	**DRN**	**200L4**	1090	362
43	6660	34.41	120000	3.0						
53	5410	27.96	120000	3.7						
62	4580	23.71	120000	4.1						
18	16100	83.47	34200	0.80	**R**	**147**	**DRN**	**200L4**	640	359
21	13900	72.09	60600	0.95	**RF**	**147**	**DRN**	**200L4**	650	360
22	12900	66.99	62700	1.00	**RM**	**147**	**DRN**	**200L4**	820	360
24	11800	61.09	64900	1.10						

P_m = 30 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
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	359
42	6890	35.64	71400	1.90	**RF**	**147**	**DRN**	**200L4**	650	360
49	5790	29.95	72400	2.2	**RM**	**147**	**DRN**	**200L4**	820	360
61	4680	24.19	73200	2.5						
72	3950	20.44	73600	3.0	**R**	**147**	**DRN**	**200L4**	630	359
82	3490	18.04	73800	3.0	**RF**	**147**	**DRN**	**200L4**	640	360
95	3020	15.64	74000	4.3	**RM**	**147**	**DRN**	**200L4**	810	360
29	9840	50.86*	33600	0.80						
33	8590	44.39	51400	0.95	**R**	**137**	**DRN**	**200L4**	510	357
39	7280	37.65	54800	1.10	**RF**	**137**	**DRN**	**200L4**	540	358
45	6370	32.91	56500	1.25	**RM**	**137**	**DRN**	**200L4**	650	358
53	5380	27.83	57900	1.45						
61	4660	24.12	58800	1.70						
67	4250	22.00*	59200	1.90	**R**	**137**	**DRN**	**200L4**	500	357
78	3680	19.04*	59800	2.2	**RF**	**137**	**DRN**	**200L4**	530	358
88	3250	16.80*	60200	2.5	**RM**	**137**	**DRN**	**200L4**	640	358
102	2800	14.51	59500	2.9						
115	2480	12.83	58300	3.2	**R**	**137**	**DRN**	**200L4**	500	357
137	2080	10.79	56600	3.8	**RF**	**137**	**DRN**	**200L4**	530	358
195	1460	7.59	53200	3.5	**RM**	**137**	**DRN**	**200L4**	640	358
232	1230	6.38	51200	4.1						
40	7130	36.88	43000	0.80	**R**	**127**	**DRN**	**200L4**	490	355
48	5970	30.84	43000	0.90	**RF**	**127**	**DRN**	**200L4**	500	356
					RM	**127**	**DRN**	**200L4**	600	356
71	4060	20.98	43000	1.50						
78	3680	19.04	43000	1.65						
90	3160	16.37	43000	1.90						
104	2760	14.29	43000	2.2						
122	2340	12.12	43000	2.5	**R**	**127**	**DRN**	**200L4**	470	355
140	2050	10.59	43000	2.8	**RF**	**127**	**DRN**	**200L4**	495	356
165	1730	8.96	43000	3.1	**RM**	**127**	**DRN**	**200L4**	590	356
167	1710	8.85	43000	2.3						
197	1450	7.51	43000	2.7						
225	1270	6.56	43000	3.1						
267	1070	5.55	43000	3.7						
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	353
146	1960	10.13	15900	2.2	**RF**	**107**	**DRN**	**200L4**	430	354
173	1650	8.56	15300	2.6	**RM**	**107**	**DRN**	**200L4**	520	354
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	351
137	2090	10.83	11800	1.00	**RF**	**97**	**DRN**	**200L4**	390	352
159	1790	9.29	12300	1.15	**RM**	**97**	**DRN**	**200L4**	440	352
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	351
285	1000	5.20	10900	1.75	**RF**	**97**	**DRN**	**200L4**	390	352
329	870	4.50*	10500	1.85	**RM**	**97**	**DRN**	**200L4**	440	352
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	322
757	375	1.95	5870	2.0	**RXF**	**107**	**DRN**	**200L4**	385	323
866	330	1.71	5710	2.1						
1025	275	1.44	5520	2.3						

24832936/EN – 09/2018

P_m = 30 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
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	320
756	375	1.96	4480	1.50	**RXF**	**97**	**DRN**	**200L4**	345	321
904	315	1.64	4570	1.60						
1045	270	1.42	4450	1.65						

P_m = 37 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
16	22200	93.19	120000	0.90						
18	19700	82.91*	120000	1.00						
20	17500	73.70*	120000	1.15						
22	16000	67.40	120000	1.25						
25	13900	58.65	120000	1.45	**R**	**167**	**DRN**	**225S4**	920	361
29	12300	51.76	120000	1.60	**RF**	**167**	**DRN**	**225S4**	930	362
33	10600	44.87	120000	1.85	**RM**	**167**	**DRN**	**225S4**	1120	362
37	9510	39.92	120000	2.1						
43	8200	34.41	120000	2.4						
53	6660	27.96	120000	3.0						
48	7320	30.71	120000	1.60						
60	5850	24.57	120000	2.8	**R**	**167**	**DRN**	**225S4**	910	361
68	5200	21.85	120000	3.8	**RF**	**167**	**DRN**	**225S4**	920	362
78	4530	19.03	120000	4.4	**RM**	**167**	**DRN**	**225S4**	1120	362
87	4040	16.98	120000	4.9						
22	15900	66.99	37000	0.80	**R**	**147**	**DRN**	**225S4**	670	359
24	14500	61.09	55600	0.90	**RF**	**147**	**DRN**	**225S4**	680	360
28	12600	52.87	63400	1.05	**RM**	**147**	**DRN**	**225S4**	850	360
32	11100	46.65	66100	1.15						
37	9600	40.29	68300	1.35	**R**	**147**	**DRN**	**225S4**	670	359
42	8490	35.64	69700	1.55	**RF**	**147**	**DRN**	**225S4**	680	360
49	7140	29.95	71200	1.80	**RM**	**147**	**DRN**	**225S4**	850	360
61	5760	24.19	72400	2.1						
73	4870	20.44	73000	2.5	**R**	**147**	**DRN**	**225S4**	660	359
82	4290	18.04	73400	2.4	**RF**	**147**	**DRN**	**225S4**	670	360
95	3720	15.64	73700	3.5	**RM**	**147**	**DRN**	**225S4**	840	360
					R	**147**	**DRN**	**225S4**	660	359
107	3310	13.91	73900	3.8	**RF**	**147**	**DRN**	**225S4**	670	360
					RM	**147**	**DRN**	**225S4**	840	360
39	8970	37.65	49600	0.90	**R**	**137**	**DRN**	**225S4**	550	357
45	7840	32.91	53700	1.00	**RF**	**137**	**DRN**	**225S4**	570	358
53	6630	27.83	56000	1.15	**RM**	**137**	**DRN**	**225S4**	680	358
61	5750	24.12	57400	1.40						
67	5240	22.00*	58100	1.55	**R**	**137**	**DRN**	**225S4**	540	357
78	4530	19.04*	57800	1.75	**RF**	**137**	**DRN**	**225S4**	560	358
88	4000	16.80*	57300	2.0	**RM**	**137**	**DRN**	**225S4**	670	358
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	357
170	2070	8.71	52500	3.8	**RF**	**137**	**DRN**	**225S4**	560	358
195	1800	7.59	51800	2.8	**RM**	**137**	**DRN**	**225S4**	670	358
232	1520	6.38	50000	3.4						
288	1220	5.15	47700	3.7						
71	5000	20.98	43000	1.20						
78	4540	19.04	43000	1.30						
91	3900	16.37	43000	1.55						
104	3400	14.29	43000	1.75						
122	2880	12.12	43000	2.1	**R**	**127**	**DRN**	**225S4**	500	355
140	2520	10.59	43000	2.3	**RF**	**127**	**DRN**	**225S4**	520	356
165	2130	8.96	43000	2.5	**RM**	**127**	**DRN**	**225S4**	620	356
167	2110	8.85	43000	1.85						
197	1790	7.51	43000	2.2						
226	1560	6.56	43000	2.5						
267	1320	5.55	43000	3.0						

P_m = 37 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
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	353
146	2410	10.13	15100	1.80	**RF**	**107**	**DRN**	**225S4**	460	354
173	2040	8.56	14700	2.1	**RM**	**107**	**DRN**	**225S4**	550	354
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	322
758	465	1.95	5480	1.65	**RXF**	**107**	**DRN**	**225S4**	420	323
868	405	1.71	5370	1.75						
1025	340	1.44	5220	1.85						

P_m = 45 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
18	24000	82.91*	120000	0.85						
20	21300	73.70*	120000	0.95	**R**	**167**	**DRN**	**225M4**	920	361
22	19500	67.40	120000	1.00	**RF**	**167**	**DRN**	**225M4**	930	362
25	17000	58.65	120000	1.20	**RM**	**167**	**DRN**	**225M4**	1120	362
29	15000	51.76	120000	1.35						
33	13000	44.87	120000	1.55						
37	11500	39.92	120000	1.75	**R**	**167**	**DRN**	**225M4**	920	361
43	9970	34.41	120000	2.0	**RF**	**167**	**DRN**	**225M4**	930	362
53	8100	27.96	120000	2.5	**RM**	**167**	**DRN**	**225M4**	1120	362
62	6870	23.71	120000	2.7						
48	8900	30.71	120000	1.30						
60	7120	24.57	120000	2.3	**R**	**167**	**DRN**	**225M4**	910	361
68	6330	21.85	120000	3.2	**RF**	**167**	**DRN**	**225M4**	920	362
78	5510	19.03	120000	3.6	**RM**	**167**	**DRN**	**225M4**	1120	362
87	4920	16.98	120000	4.1						
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	359
42	10300	35.64	67300	1.25	**RF**	**147**	**DRN**	**225M4**	680	360
49	8680	29.95	69500	1.50	**RM**	**147**	**DRN**	**225M4**	850	360
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	359
107	4030	13.91	73500	3.1	**RF**	**147**	**DRN**	**225M4**	670	360
124	3470	11.99	73800	3.7	**RM**	**147**	**DRN**	**225M4**	840	360
204	2100	7.25	74300	4.1						
45	9540	32.91	40100	0.85	**R**	**137**	**DRN**	**225M4**	550	357
53	8060	27.83	51300	0.95	**RF**	**137**	**DRN**	**225M4**	570	358
					RM	**137**	**DRN**	**225M4**	680	358
61	6990	24.12	52500	1.15	**R**	**137**	**DRN**	**225M4**	540	357
67	6370	22.00*	53000	1.25	**RF**	**137**	**DRN**	**225M4**	560	358
78	5520	19.04*	53400	1.45	**RM**	**137**	**DRN**	**225M4**	670	358
88	4870	16.80*	53400	1.65						
102	4200	14.51	53100	1.90						
115	3720	12.83	52700	2.1						
137	3120	10.79	51900	2.6	**R**	**137**	**DRN**	**225M4**	540	357
170	2520	8.71	50500	3.1	**RF**	**137**	**DRN**	**225M4**	560	358
195	2200	7.59	50100	2.3	**RM**	**137**	**DRN**	**225M4**	670	358
232	1840	6.38	48600	2.8						
288	1490	5.15	46600	3.1						

24832936/EN – 09/2018

P_m = 45 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
71	6080	20.98	43000	1.00						
78	5520	19.04	43000	1.10						
91	4740	16.37	43000	1.25						
104	4140	14.29	43000	1.45						
122	3510	12.12	43000	1.70	**R**	**127**	**DRN**	**225M4**	500	355
140	3070	10.59	43000	1.85	**RF**	**127**	**DRN**	**225M4**	520	356
165	2590	8.96	43000	2.1	**RM**	**127**	**DRN**	**225M4**	620	356
167	2560	8.85	43000	1.55						
197	2170	7.51	43000	1.80						
226	1900	6.56	43000	2.1						
267	1600	5.55	43000	2.4						
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	353
173	2480	8.56	14000	1.75	**RF**	**107**	**DRN**	**225M4**	460	354
189	2270	7.86	14400	1.30	**RM**	**107**	**DRN**	**225M4**	550	354
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	322
758	565	1.95	4250	1.35	**RXF**	**107**	**DRN**	**225M4**	420	323
868	495	1.71	4590	1.40						
1025	415	1.44	4880	1.55						

P_m = 55 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
25	20700	58.65	120000	0.95						
29	18300	51.76	120000	1.10						
33	15900	44.87	120000	1.25	**R**	**167**	**DRN**	**250M4**	1070	361
37	14100	39.92	120000	1.40	**RF**	**167**	**DRN**	**250M4**	1080	362
43	12100	34.41	120000	1.65	**RM**	**167**	**DRN**	**250M4**	1270	362
53	9900	27.96	120000	2.0						
62	8400	23.71	120000	2.2						
60	8700	24.57	120000	1.90	**R**	**167**	**DRN**	**250M4**	1070	361
68	7740	21.85	120000	2.6	**RF**	**167**	**DRN**	**250M4**	1070	362
78	6740	19.03	120000	3.0	**RM**	**167**	**DRN**	**250M4**	1270	362
87	6010	16.98	120000	3.3	**R**	**167**	**DRN**	**250M4**	1070	361
102	5120	14.48	120000	3.8	**RF**	**167**	**DRN**	**250M4**	1070	362
124	4250	11.99	120000	4.5	**RM**	**167**	**DRN**	**250M4**	1270	362
32	16500	46.65	28000	0.80						
37	14200	40.29	58900	0.90	**R**	**147**	**DRN**	**250M4**	820	359
42	12600	35.64	63400	1.05	**RF**	**147**	**DRN**	**250M4**	830	360
49	10600	29.95	66900	1.20	**RM**	**147**	**DRN**	**250M4**	1000	360
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	359
95	5540	15.64	72600	2.4	**RF**	**147**	**DRN**	**250M4**	820	360
107	4930	13.91	73000	2.6	**RM**	**147**	**DRN**	**250M4**	990	360
124	4240	11.99	73400	3.1						
152	3450	9.74	73800	3.8	**R**	**147**	**DRN**	**250M4**	810	359
204	2560	7.25	74200	3.4	**RF**	**147**	**DRN**	**250M4**	820	360
252	2080	5.89	72400	4.2	**RM**	**147**	**DRN**	**250M4**	990	360
78	6740	19.04*	47800	1.20	**R**	**137**	**DRN**	**250M4**	690	357
88	5950	16.80*	48500	1.35	**RF**	**137**	**DRN**	**250M4**	710	358
102	5140	14.51	48900	1.55	**RM**	**137**	**DRN**	**250M4**	820	358

P_m = 55 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
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	357
195	2690	7.59	48100	1.90	**RF**	**137**	**DRN**	**250M4**	710	358
232	2260	6.38	46900	2.3	**RM**	**137**	**DRN**	**250M4**	820	358
288	1820	5.15	45200	2.5						
91	5800	16.37	43000	1.05						
104	5060	14.29	43000	1.20						
122	4290	12.12	43000	1.40						
140	3750	10.59	43000	1.50	**R**	**127**	**DRN**	**250M4**	650	355
165	3170	8.96	43000	1.70	**RF**	**127**	**DRN**	**250M4**	670	356
167	3130	8.85	43000	1.25	**RM**	**127**	**DRN**	**250M4**	770	356
197	2660	7.51	43000	1.50						
226	2320	6.56	43000	1.70						
267	1960	5.55	43000	2.0						

P_m = 75 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
29	25000	51.76	120000	0.80						
33	21600	44.87	120000	0.90						
37	19200	39.92	120000	1.05	**R**	**167**	**DRN**	**280S4**	1120	361
43	16600	34.41	120000	1.20	**RF**	**167**	**DRN**	**280S4**	1130	362
53	13500	27.96	120000	1.50	**RM**	**167**	**DRN**	**280S4**	1320	362
62	11400	23.71	120000	1.65						
60	11800	24.57	120000	1.40	**R**	**167**	**DRN**	**280S4**	1110	361
68	10500	21.85	120000	1.90	**RF**	**167**	**DRN**	**280S4**	1120	362
78	9190	19.03	120000	2.2	**RM**	**167**	**DRN**	**280S4**	1320	362
87	8200	16.98	120000	2.4						
102	6990	14.48	120000	2.8	**R**	**167**	**DRN**	**280S4**	1110	361
124	5790	11.99	116600	3.3	**RF**	**167**	**DRN**	**280S4**	1120	362
145	4940	10.24	112700	3.7	**RM**	**167**	**DRN**	**280S4**	1320	362
49	14400	29.95	56700	0.90	**R**	**147**	**DRN**	**280S4**	870	359
61	11600	24.19	65100	1.00	**RF**	**147**	**DRN**	**280S4**	880	360
					RM	**147**	**DRN**	**280S4**	1050	360
73	9870	20.44	68000	1.20						
82	8710	18.04	69500	1.20	**R**	**147**	**DRN**	**280S4**	860	359
95	7550	15.64	70800	1.70	**RF**	**147**	**DRN**	**280S4**	870	360
107	6720	13.91	71600	1.85	**RM**	**147**	**DRN**	**280S4**	1040	360
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	359
204	3500	7.25	73100	2.5	**RF**	**147**	**DRN**	**280S4**	870	360
252	2840	5.89	70100	3.0	**RM**	**147**	**DRN**	**280S4**	1040	360
297	2410	5.00	67600	3.6						

P_m = 90 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
37	23100	39.92	120000	0.85	**R**	**167**	**DRN**	**280M4**	1240	361
43	19900	34.41	120000	1.00	**RF**	**167**	**DRN**	**280M4**	1240	362
53	16200	27.96	120000	1.25	**RM**	**167**	**DRN**	**280M4**	1440	362
62	13700	23.71	120000	1.35						
68	12600	21.85	120000	1.60	**R**	**167**	**DRN**	**280M4**	1230	361
78	11000	19.03	120000	1.80	**RF**	**167**	**DRN**	**280M4**	1240	362
					RM	**167**	**DRN**	**280M4**	1430	362
87	9850	16.98	120000	2.0	**R**	**167**	**DRN**	**280M4**	1230	361
102	8400	14.48	117300	2.4	**RF**	**167**	**DRN**	**280M4**	1240	362
123	6960	11.99	113500	2.7	**RM**	**167**	**DRN**	**280M4**	1430	362
145	5940	10.24	110100	3.1						

24832936/EN – 09/2018

P_m = 90 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
95	9070	15.64	69000	1.45	**R**	**147**	**DRN**	**280M4**	970	359
106	8070	13.91	70200	1.55	**RF**	**147**	**DRN**	**280M4**	980	360
					RM	**147**	**DRN**	**280M4**	1150	360
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	359
204	4200	7.25	70900	2.1	**RF**	**147**	**DRN**	**280M4**	980	360
251	3410	5.89	68300	2.5	**RM**	**147**	**DRN**	**280M4**	1150	360
296	2890	5.00	66100	3.0						

P_m = 110 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
43	24200	34.41	115800	0.80	**R**	**167**	**DRN**	**315S4**	1480	361
53	19700	27.96	117100	1.00	**RF**	**167**	**DRN**	**315S4**	1490	362
63	16700	23.71	116900	1.10	**RM**	**167**	**DRN**	**315S4**	1680	362
					R	**167**	**DRN**	**315S4/ERF/NS**	1470	361
78	13400	19.03	115500	1.50	**RF**	**167**	**DRN**	**315S4/ERF/NS**	1480	362
					RM	**167**	**DRN**	**315S4/ERF/NS**	1680	362
88	11900	16.98	114300	1.65						
103	10200	14.48	112200	1.95	**R**	**167**	**DRN**	**315S4**	1470	361
124	8460	11.99	109200	2.2	**RF**	**167**	**DRN**	**315S4**	1480	362
145	7220	10.24	106400	2.6	**RM**	**167**	**DRN**	**315S4**	1680	362

P_m = 132 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
53	23600	27.96	106500	0.85	**R**	**167**	**DRN**	**315M4**	1500	361
63	20000	23.71	107900	0.95	**RF**	**167**	**DRN**	**315M4**	1510	362
					RM	**167**	**DRN**	**315M4**	1700	362
78	16100	19.03	108300	1.25	**R**	**167**	**DRN**	**315M4/ERF/NS**	1490	361
88	14300	16.98	107800	1.40	**RF**	**167**	**DRN**	**315M4/ERF/NS**	1500	362
					RM	**167**	**DRN**	**315M4/ERF/NS**	1700	362
103	12200	14.48	106700	1.60	**R**	**167**	**DRN**	**315M4**	1490	361
124	10100	11.99	104700	1.85	**RF**	**167**	**DRN**	**315M4**	1500	362
145	8670	10.24	102600	2.1	**RM**	**167**	**DRN**	**315M4**	1700	362

P_m = 160 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
103	14800	14.48	99700	1.30	**R**	**167**	**DRN**	**315L4**	1630	361
124	12300	11.99	98900	1.55	**RF**	**167**	**DRN**	**315L4**	1630	362
145	10500	10.24	97600	1.75	**RM**	**167**	**DRN**	**315L4**	1830	362

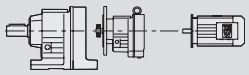
24832936/EN – 09/2018

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

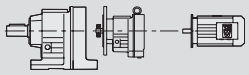
$M_{a\ max}$ = 130 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.16	8612	3540						
0.19	7425	3540						
0.20	6921	3540						
0.23	6050	3540						
0.26	5217	3540						
0.30	4661	3540						
0.34	4073	3540						
0.39	3516	3540	**R**	**27R17**	**DRN**	**63MS4**	12	363
0.44	3160	3540	**RF**	**27R17**	**DRN**	**63MS4**	12	363
0.50	2763	3540						
0.57	2414	3540						
0.65	2110	3540						
0.74	1862	3540						
0.85	1625	3540						
0.96	1434	3540						
1.1	1254	3540						
0.76	1822	3540						
0.87	1580	3540						
0.94	1464	3540						
1.1	1270	3540						
1.2	1100	3540						
1.4	972	3540	**R**	**27R17**	**DRN**	**63MS4**	12	363
1.6	840	3540	**RF**	**27R17**	**DRN**	**63MS4**	12	363
1.9	741	3540						
2.1	654	3540						
2.4	566	3540						
2.8	499	3540						
1.2	1101	3540						
1.4	962	3540						
1.6	848	3540						
1.9	743	3540						
2.1	649	3540						
2.4	567	3540						
2.7	509	3540	**R**	**27R17**	**DRN**	**63MS4**	12	363
3.2	432	3540	**RF**	**27R17**	**DRN**	**63MS4**	12	363
3.6	387	3540						
4.1	339	3540						
4.7	296	3540						
5.3	259	3540						
6.0	229	3540						
6.9	200	3540						
7.8	177	3540						
8.3	166	3540						
9.1	150	3540	**R**	**27R17**	**DRN**	**63M4**	13	363
9.8	141	3540	**RF**	**27R17**	**DRN**	**63M4**	12	363
11	124	3540						
13	110	3540	**R**	**27R17**	**DRN**	**71MS4**	13	363
15	94	3540	**RF**	**27R17**	**DRN**	**71MS4**	13	363
3.1	440	3540						
3.6	381	3540						
4.2	329	3540						
4.8	290	3540	**R**	**27R17**	**DRN**	**63MS4**	11	363
5.4	256	3540	**RF**	**27R17**	**DRN**	**63MS4**	11	363
6.1	227	3540						
6.8	203	3540						
7.7	179	3540						
8.8	156	3540	**R**	**27R17**	**DRN**	**63M4**	12	363
10	135	3540	**RF**	**27R17**	**DRN**	**63M4**	12	363
12	118	3540						
13	104	3540	**R**	**27R17**	**DRN**	**71MS4**	13	363
16	90	3540	**RF**	**27R17**	**DRN**	**71MS4**	13	363

24832936/EN – 09/2018

$M_{a\ max}$ = 200 Nm									
n_a min^{-1}	i	F_{Ra} [1] N						m kg	
0.16	8595	4240							
0.19	7411	4240							
0.20	6907	4240							
0.23	6038	4240							
0.27	5206	4240							
0.30	4651	4240							
0.34	4065	4240							
0.38	3658	4240	**R**	**37R17**	**DRN**	**63MS4**		18	363
0.44	3154	4240	**RF**	**37R17**	**DRN**	**63MS4**		19	363
0.50	2757	4240							
0.57	2409	4240							
0.66	2106	4240							
0.74	1856	4240							
0.85	1622	4240							
0.96	1431	4240							
1.1	1251	4240							
0.76	1818	4240							
0.88	1576	4240							
1.0	1359	4240							
1.1	1267	4240							
1.3	1098	4240							
1.4	970	4240	**R**	**37R17**	**DRN**	**63MS4**		18	363
1.6	839	4240	**RF**	**37R17**	**DRN**	**63MS4**		19	363
1.9	740	4240							
2.1	653	4240							
2.4	577	4240							
2.8	498	4240							
1.3	1099	4240							
1.4	960	4240							
1.6	847	4240							
1.9	741	4240							
2.1	647	4240							
2.4	566	4240	**R**	**37R17**	**DRN**	**63MS4**		18	363
2.7	508	4240	**RF**	**37R17**	**DRN**	**63MS4**		19	363
3.2	431	4240							
3.6	387	4240							
4.1	338	4240							
4.7	296	4240							
5.3	259	4240							
6.0	228	4240	**R**	**37R17**	**DRN**	**63M4**		18	363
6.9	199	4240	**RF**	**37R17**	**DRN**	**63M4**		20	363
8.2	172	4240	**R**	**37R17**	**DRN**	**71MS4**		19	363
9.4	150	4240	**RF**	**37R17**	**DRN**	**71MS4**		20	363
11	130	4240							
11	124	4240	**R**	**37R17**	**DRN**	**71M4**		20	363
13	110	4240	**RF**	**37R17**	**DRN**	**71M4**		22	363
15	94	4240							
3.1	439	4240							
3.6	378	4240	**R**	**37R17**	**DRN**	**63MS4**		17	363
4.2	328	4240	**RF**	**37R17**	**DRN**	**63MS4**		19	363
4.8	289	4240							
5.2	265	4240							
6.1	226	4240	**R**	**37R17**	**DRN**	**63M4**		18	363
6.8	202	4240	**RF**	**37R17**	**DRN**	**63M4**		20	363
7.9	179	4240							
9.0	156	4240	**R**	**37R17**	**DRN**	**71MS4**		19	363
10	135	4240	**RF**	**37R17**	**DRN**	**71MS4**		20	363
11	127	4240							
14	104	4240	**R**	**37R17**	**DRN**	**71M4**		20	363
16	90	4240	**RF**	**37R17**	**DRN**	**71M4**		21	363

24832936/EN – 09/2018

$M_{a\ max}$ = 300 Nm									
n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.10	13598	4990						
0.11	12472	4990						
0.13	10619	4990						
0.15	9155	4990						
0.16	8534	4990						
0.18	7460	4990						
0.20	6993	4990						
0.22	6171	4990	**R**	**47R37**	**DRN**	**63MS4**	29	363
0.25	5624	4990	**RF**	**47R37**	**DRN**	**63MS4**	29	363
0.28	4849	4990						
0.31	4520	4990						
0.35	3951	4990						
0.37	3704	4990						
0.42	3268	4990						
0.48	2898	4990						
0.56	2463	4990						
0.53	2598	4990						
0.58	2383	4990						
0.68	2029	4990						
0.79	1749	4990						
0.85	1630	4990						
0.97	1425	4990						
1.0	1336	4990						
1.2	1179	4990	**R**	**47R37**	**DRN**	**63MS4**	29	363
1.3	1074	4990	**RF**	**47R37**	**DRN**	**63MS4**	29	363
1.5	927	4990						
1.6	863	4990						
1.8	755	4990						
1.9	708	4990						
2.2	624	4990						
2.5	554	4990						
2.9	471	4990						
0.48	2856	4990						
0.53	2625	4990						
0.61	2246	4990						
0.71	1948	4990						
0.76	1821	4990						
0.88	1573	4990						
1.2	1193	4990	**R**	**47R37**	**DRN**	**63MS4**	29	363
1.4	1020	4990	**RF**	**47R37**	**DRN**	**63MS4**	29	363
1.4	955	4990						
1.7	804	4990						
2.0	673	4990						
2.4	572	4990						
2.7	510	4990						
3.1	436	4990						
3.4	408	4990	**R**	**47R37**	**DRN**	**63M4**	29	363
4.0	344	4990	**RF**	**47R37**	**DRN**	**63M4**	29	363
2.5	546	4990						
2.8	502	4990	**R**	**47R37**	**DRN**	**63MS4**	28	363
3.2	429	4990	**RF**	**47R37**	**DRN**	**63MS4**	29	363
3.7	372	4990						
4.0	348	4990	**R**	**47R37**	**DRN**	**63M4**	29	363
4.6	301	4990	**RF**	**47R37**	**DRN**	**63M4**	29	363
5.5	255	4990	**R**	**47R37**	**DRN**	**71MS4**	30	363
6.2	228	4990	**RF**	**47R37**	**DRN**	**71MS4**	30	363
7.3	195	4990						
7.8	182	4990	**R**	**47R37**	**DRN**	**71M4**	31	363
9.2	154	4990	**RF**	**47R37**	**DRN**	**71M4**	31	363
11	129	4990						
13	109	4990	**R**	**47R37**	**DRN**	**80MK4**	33	363
15	98	4990	**RF**	**47R37**	**DRN**	**80MK4**	33	363

24832936/EN – 09/2018

$M_{a\ max}$ = 450 Nm									
n_a min^{-1}	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**	**DRN**	**63MS4**	35	363	
0.28	4928	7100	**RF**	**57R37**	**DRN**	**63MS4**	38	363	
0.32	4378	7100	**RM**	**57R37**	**DRN**	**63MS4**	50	363	
0.36	3873	7100							
0.41	3344	7100							
0.47	2907	7100							
0.54	2567	7100							
0.61	2244	7100							
0.70	1967	7100							
0.47	2957	7100							
0.55	2508	7100							
0.60	2309	7100							
0.69	1991	7100							
0.78	1768	7100							
0.91	1520	7100	**R**	**57R37**	**DRN**	**63MS4**	34	363	
1.0	1342	7100	**RF**	**57R37**	**DRN**	**63MS4**	37	363	
1.2	1164	7100	**RM**	**57R37**	**DRN**	**63MS4**	49	363	
1.3	1027	7100							
1.5	894	7100							
1.7	805	7100							
2.0	683	7100							
2.3	603	7100	**R**	**57R37**	**DRN**	**63M4**	34	363	
2.6	534	7100	**RF**	**57R37**	**DRN**	**63M4**	38	363	
3.0	454	7100	**RM**	**57R37**	**DRN**	**63M4**	50	363	
			R	**57R37**	**DRN**	**71MS4**	35	363	
3.4	410	7100	**RF**	**57R37**	**DRN**	**71MS4**	38	363	
			RM	**57R37**	**DRN**	**71MS4**	50	363	
0.80	1732	7100							
0.89	1555	7100							
0.99	1399	7100	**R**	**57R37**	**DRN**	**63MS4**	34	363	
1.2	1189	7100	**RF**	**57R37**	**DRN**	**63MS4**	38	363	
1.3	1034	7100	**RM**	**57R37**	**DRN**	**63MS4**	50	363	
1.8	782	7100							
2.0	678	7100							
2.3	604	7100	**R**	**57R37**	**DRN**	**63M4**	35	363	
2.6	537	7100	**RF**	**57R37**	**DRN**	**63M4**	39	363	
2.9	471	7100	**RM**	**57R37**	**DRN**	**63M4**	51	363	
			R	**57R37**	**DRN**	**71MS4**	36	363	
3.9	357	7100	**RF**	**57R37**	**DRN**	**71MS4**	39	363	
4.4	319	7100	**RM**	**57R37**	**DRN**	**71MS4**	51	363	
5.2	273	7100	**R**	**57R37**	**DRN**	**71M4**	37	363	
5.9	241	7100	**RF**	**57R37**	**DRN**	**71M4**	40	363	
6.6	215	7100	**RM**	**57R37**	**DRN**	**71M4**	52	363	
7.7	187	7100	**R**	**57R37**	**DRN**	**80MK4**	39	363	
8.7	164	7100	**RF**	**57R37**	**DRN**	**80MK4**	43	363	
10	142	7100	**RM**	**57R37**	**DRN**	**80MK4**	55	363	
			R	**57R37**	**DRN**	**71MS4**	35	363	
3.9	359	7100	**RF**	**57R37**	**DRN**	**71MS4**	38	363	
4.3	324	7100	**RM**	**57R37**	**DRN**	**71MS4**	50	363	
4.9	290	7100							
5.4	262	7100	**R**	**57R37**	**DRN**	**71M4**	36	363	
5.7	246	7100	**RF**	**57R37**	**DRN**	**71M4**	39	363	
6.4	220	7100	**RM**	**57R37**	**DRN**	**71M4**	51	363	
7.6	188	7100	**R**	**57R37**	**DRN**	**80MK4**	38	363	
9.0	159	7100	**RF**	**57R37**	**DRN**	**80MK4**	42	363	
9.8	146	7100	**RM**	**57R37**	**DRN**	**80MK4**	54	363	

24832936/EN – 09/2018

$M_{a\ max}$ = 450 Nm

n_a min^{-1}	i	F_{Ra} [1] N						m kg	
			R	57R37	DRN	80M4		42	363
11	134	7100	RF	57R37	DRN	80M4		45	363
			RM	57R37	DRN	80M4		57	363

$M_{a\ max}$ = 600 Nm

n_a min^{-1}	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	DRN	63MS4		41	363
0.23	5970	7560	RF	67R37	DRN	63MS4		44	363
0.26	5268	7560	RM	67R37	DRN	63MS4		60	363
0.29	4680	7560							
0.33	4136	7560							
0.39	3566	7560							
0.44	3125	7560							
0.50	2745	7560							
0.57	2403	7560							
0.51	2682	7560							
0.56	2460	7560							
0.66	2094	7560							
0.76	1805	7560							
0.85	1629	7560	R	67R37	DRN	63MS4		40	363
0.94	1471	7560	RF	67R37	DRN	63MS4		43	363
1.0	1379	7560	RM	67R37	DRN	63MS4		59	363
1.2	1109	7560							
1.4	956	7560							
1.6	891	7560							
1.9	730	7560	R	67R37	DRN	63M4		41	363
2.1	644	7560	RF	67R37	DRN	63M4		44	363
2.4	571	7560	RM	67R37	DRN	63M4		60	363
			R	67R37	DRN	71MS4		42	363
2.9	486	7560	RF	67R37	DRN	71MS4		45	363
			RM	67R37	DRN	71MS4		61	363
0.65	2136	7560							
0.75	1852	7560							
0.84	1652	7560	R	67R37	DRN	63MS4		41	363
0.96	1432	7560	RF	67R37	DRN	63MS4		44	363
1.1	1259	7560	RM	67R37	DRN	63MS4		60	363
1.2	1106	7560							
1.6	836	7560							
1.8	750	7560	R	67R37	DRN	63M4		42	363
2.1	646	7560	RF	67R37	DRN	63M4		45	363
2.4	574	7560	RM	67R37	DRN	63M4		61	363
			R	67R37	DRN	71MS4		42	363
2.8	495	7560	RF	67R37	DRN	71MS4		45	363
3.2	438	7560	RM	67R37	DRN	71MS4		61	363
3.6	388	7560	R	67R37	DRN	71M4		44	363
4.1	344	7560	RF	67R37	DRN	71M4		47	363
4.8	294	7560	RM	67R37	DRN	71M4		62	363
5.5	261	7560	R	67R37	DRN	80MK4		46	363
6.1	234	7560	RF	67R37	DRN	80MK4		49	363
7.2	200	7560	RM	67R37	DRN	80MK4		65	363
			R	67R37	DRN	80M4		49	363
8.2	176	7560	RF	67R37	DRN	80M4		52	363
9.1	158	7560	RM	67R37	DRN	80M4		68	363
			R	67R37	DRN	71MS4		41	363
3.2	443	7560	RF	67R37	DRN	71MS4		45	363
			RM	67R37	DRN	71MS4		60	363

24832936/EN – 09/2018

$M_{a\ max}$ = 600 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
3.7	384	7560	**R**	**67R37**	**DRN**	**71M4**	43	363
3.9	359	7560	**RF**	**67R37**	**DRN**	**71M4**	46	363
4.6	310	7560	**RM**	**67R37**	**DRN**	**71M4**	62	363
5.4	264	7560						
6.1	235	7560	**R**	**67R37**	**DRN**	**80MK4**	45	363
7.1	201	7560	**RF**	**67R37**	**DRN**	**80MK4**	48	363
7.9	181	7560	**RM**	**67R37**	**DRN**	**80MK4**	64	363
			R	**67R37**	**DRN**	**80M4**	48	363
9.1	159	7560	**RF**	**67R37**	**DRN**	**80M4**	51	363
			RM	**67R37**	**DRN**	**80M4**	67	363

$M_{a\ max}$ = 820 Nm

n_a min^{-1}	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**	**DRN**	**63MS4**	47	363
0.20	6770	9920	**RF**	**77R37**	**DRN**	**63MS4**	52	363
0.24	5838	9920	**RM**	**77R37**	**DRN**	**63MS4**	77	363
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**	**DRN**	**63MS4**	45	363
0.70	1977	9920	**RF**	**77R37**	**DRN**	**63MS4**	51	363
0.80	1728	9920	**RM**	**77R37**	**DRN**	**63MS4**	76	363
0.85	1620	9920						
0.97	1430	9920						
1.1	1303	9920						
1.2	1124	9920						
1.3	1047	9920	**R**	**77R37**	**DRN**	**63M4**	46	363
1.5	915	9920	**RF**	**77R37**	**DRN**	**63M4**	52	363
1.6	858	9920	**RM**	**77R37**	**DRN**	**63M4**	77	363
1.9	757	9920	**R**	**77R37**	**DRN**	**71MS4**	47	363
2.1	671	9920	**RF**	**77R37**	**DRN**	**71MS4**	53	363
2.5	571	9920	**RM**	**77R37**	**DRN**	**71MS4**	78	363
0.59	2345	9920						
0.67	2070	9920						
0.76	1822	9920	**R**	**77R37**	**DRN**	**63MS4**	46	363
0.87	1580	9920	**RF**	**77R37**	**DRN**	**63MS4**	52	363
0.99	1394	9920	**RM**	**77R37**	**DRN**	**63MS4**	77	363
1.1	1218	9920						
1.3	1084	9920	**R**	**77R37**	**DRN**	**63M4**	47	363
1.5	940	9920	**RF**	**77R37**	**DRN**	**63M4**	53	363
1.7	821	9920	**RM**	**77R37**	**DRN**	**63M4**	78	363
1.9	731	9920	**R**	**77R37**	**DRN**	**71MS4**	48	363
2.2	646	9920	**RF**	**77R37**	**DRN**	**71MS4**	53	363
2.5	560	9920	**RM**	**77R37**	**DRN**	**71MS4**	78	363
2.9	488	9920	**R**	**77R37**	**DRN**	**71M4**	49	363
3.2	436	9920	**RF**	**77R37**	**DRN**	**71M4**	55	363
3.8	373	9920	**RM**	**77R37**	**DRN**	**71M4**	80	363
4.4	327	9920	**R**	**77R37**	**DRN**	**80MK4**	51	363
5.0	289	9920	**RF**	**77R37**	**DRN**	**80MK4**	57	363
5.5	260	9920	**RM**	**77R37**	**DRN**	**80MK4**	82	363

24832936/EN – 09/2018

$M_{a\ max}$ = 820 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
6.4	224	9920	**R**	**77R37**	**DRN**	**80M4**	55	363
7.3	197	9920	**RF**	**77R37**	**DRN**	**80M4**	60	363
			RM	**77R37**	**DRN**	**80M4**	85	363
8.6	169	9920	**R**	**77R37**	**DRN**	**90S4**	60	363
9.8	149	9920	**RF**	**77R37**	**DRN**	**90S4**	66	363
			RM	**77R37**	**DRN**	**90S4**	91	363
2.7	520	9920						
3.1	451	9920	**R**	**77R37**	**DRN**	**71M4**	48	363
3.4	422	9920	**RF**	**77R37**	**DRN**	**71M4**	54	363
3.9	365	9920	**RM**	**77R37**	**DRN**	**71M4**	79	363
4.6	310	9920	**R**	**77R37**	**DRN**	**80MK4**	50	363
5.2	276	9920	**RF**	**77R37**	**DRN**	**80MK4**	56	363
			RM	**77R37**	**DRN**	**80MK4**	81	363
6.1	236	9920	**R**	**77R37**	**DRN**	**80M4**	54	363
6.5	221	9920	**RF**	**77R37**	**DRN**	**80M4**	59	363
7.7	186	9920	**RM**	**77R37**	**DRN**	**80M4**	84	363

$M_{a\ max}$ = 1550 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.08	17452	12500						
0.09	15310	12500						
0.10	13813	12500						
0.11	12025	12500						
0.13	10549	12500						
0.15	9244	12500						
0.17	8109	12500	**R**	**87R57**	**DRN**	**63MS4**	86	363
0.20	7038	16900	**RF**	**87R57**	**DRN**	**63MS4**	93	363
0.22	6174	16900	**RM**	**87R57**	**DRN**	**63MS4**	125	363
0.25	5449	16900						
0.29	4831	16900						
0.33	4206	16900						
0.37	3744	16900						
0.43	3233	16900						
0.48	2873	12500						
0.55	2518	12500	**R**	**87R57**	**DRN**	**63M4**	87	363
0.62	2209	12500	**RF**	**87R57**	**DRN**	**63M4**	94	363
0.70	1961	16900	**RM**	**87R57**	**DRN**	**63M4**	125	363
1.4	994	16900	**R**	**87R57**	**DRN**	**71M4**	89	363
1.6	881	16900	**RF**	**87R57**	**DRN**	**71M4**	96	363
			RM	**87R57**	**DRN**	**71M4**	125	363
0.34	4020	16900						
0.37	3703	16900	**R**	**87R57**	**DRN**	**63MS4**	85	363
0.43	3182	16900	**RF**	**87R57**	**DRN**	**63MS4**	92	363
0.50	2770	16900	**RM**	**87R57**	**DRN**	**63MS4**	120	363
0.53	2595	16900						
0.65	2129	16900						
0.71	1930	16900	**R**	**87R57**	**DRN**	**63M4**	86	363
0.79	1733	16900	**RF**	**87R57**	**DRN**	**63M4**	93	363
0.92	1489	16900	**RM**	**87R57**	**DRN**	**63M4**	120	363
1.0	1395	16900	**R**	**87R57**	**DRN**	**71MS4**	86	363
1.1	1232	16900	**RF**	**87R57**	**DRN**	**71MS4**	93	363
1.2	1145	16900	**RM**	**87R57**	**DRN**	**71MS4**	125	363
1.4	1037	16900						
1.5	931	16900	**R**	**87R57**	**DRN**	**71M4**	87	363
1.8	802	16900	**RF**	**87R57**	**DRN**	**71M4**	95	363
1.9	754	16900	**RM**	**87R57**	**DRN**	**71M4**	125	363
2.2	649	16900	**R**	**87R57**	**DRN**	**80MK4**	90	363
2.5	580	16900	**RF**	**87R57**	**DRN**	**80MK4**	97	363
			RM	**87R57**	**DRN**	**80MK4**	125	363
0.79	1737	12500	**R**	**87R57**	**DRN**	**63M4**	86	363
0.90	1524	12500	**RF**	**87R57**	**DRN**	**63M4**	93	363
			RM	**87R57**	**DRN**	**63M4**	125	363

24832936/EN – 09/2018

$M_{a\ max}$ = 1550 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
1.1	1303	12500	**R**	**87R57**	**DRN**	**71MS4**	87	363
1.2	1143	12500	**RF**	**87R57**	**DRN**	**71MS4**	94	363
			RM	**87R57**	**DRN**	**71MS4**	125	363
1.4	1008	12500	**R**	**87R57**	**DRN**	**71M4**	88	363
1.6	885	16900	**RF**	**87R57**	**DRN**	**71M4**	95	363
1.8	776	16900	**RM**	**87R57**	**DRN**	**71M4**	125	363
2.1	685	16900	**R**	**87R57**	**DRN**	**80MK4**	90	363
2.4	599	12500	**RF**	**87R57**	**DRN**	**80MK4**	98	363
2.7	525	12500	**RM**	**87R57**	**DRN**	**80MK4**	125	363
3.2	456	16900	**R**	**87R57**	**DRN**	**80M4**	94	363
3.6	398	16900	**RF**	**87R57**	**DRN**	**80M4**	100	363
4.1	352	16900	**RM**	**87R57**	**DRN**	**80M4**	130	363
4.8	305	16900	**R**	**87R57**	**DRN**	**90S4**	100	363
5.4	268	16900	**RF**	**87R57**	**DRN**	**90S4**	105	363
6.2	236	16900	**RM**	**87R57**	**DRN**	**90S4**	135	363
7.0	209	16900	**R**	**87R57**	**DRN**	**90L4**	105	363
			RF	**87R57**	**DRN**	**90L4**	110	363
			RM	**87R57**	**DRN**	**90L4**	140	363
2.7	538	16900	**R**	**87R57**	**DRN**	**80MK4**	89	363
3.0	472	16900	**RF**	**87R57**	**DRN**	**80MK4**	96	363
			RM	**87R57**	**DRN**	**80MK4**	125	363
3.6	400	16900	**R**	**87R57**	**DRN**	**80M4**	92	363
4.0	361	16900	**RF**	**87R57**	**DRN**	**80M4**	100	363
			RM	**87R57**	**DRN**	**80M4**	130	363
4.8	300	16900	**R**	**87R57**	**DRN**	**90S4**	99	363
5.7	256	16900	**RF**	**87R57**	**DRN**	**90S4**	105	363
6.3	232	16900	**RM**	**87R57**	**DRN**	**90S4**	135	363
7.5	195	16900	**R**	**87R57**	**DRN**	**90L4**	100	363
			RF	**87R57**	**DRN**	**90L4**	110	363
			RM	**87R57**	**DRN**	**90L4**	140	363

$M_{a\ max}$ = 3000 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.06	21769	13100						
0.07	19332	13100						
0.08	17230	13100						
0.09	14999	13100						
0.10	13320	13100						
0.12	11156	13100	**R**	**97R57**	**DRN**	**63MS4**	130	363
0.14	10030	13100	**RF**	**97R57**	**DRN**	**63MS4**	145	363
0.16	8706	13100	**RM**	**97R57**	**DRN**	**63MS4**	195	363
0.18	7692	13100						
0.21	6708	13100						
0.23	5931	19800						
0.27	5161	19800						
0.30	4559	19800						
0.34	4004	13100	**R**	**97R57**	**DRN**	**63M4**	130	363
0.40	3481	13100	**RF**	**97R57**	**DRN**	**63M4**	145	363
			RM	**97R57**	**DRN**	**63M4**	200	363
0.29	4678	19800	**R**	**97R57**	**DRN**	**63MS4**	125	363
			RF	**97R57**	**DRN**	**63MS4**	145	363
			RM	**97R57**	**DRN**	**63MS4**	195	363
0.32	4309	19800	**R**	**97R57**	**DRN**	**63M4**	125	363
0.37	3702	19800	**RF**	**97R57**	**DRN**	**63M4**	145	363
0.46	3019	19800	**RM**	**97R57**	**DRN**	**63M4**	195	363
0.53	2668	19800	**R**	**97R57**	**DRN**	**71MS4**	125	363
0.63	2245	19800	**RF**	**97R57**	**DRN**	**71MS4**	145	363
			RM	**97R57**	**DRN**	**71MS4**	195	363

24832936/EN – 09/2018

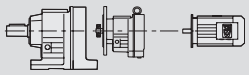
$M_{a\ max}$ = 3000 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.70	2016	19800						
0.82	1733	19800	**R**	**97R57**	**DRN**	**71M4**	130	363
0.87	1623	19800	**RF**	**97R57**	**DRN**	**71M4**	145	363
0.99	1434	19800	**RM**	**97R57**	**DRN**	**71M4**	195	363
1.2	1207	19800	**R**	**97R57**	**DRN**	**80MK4**	130	363
1.3	1084	19800	**RF**	**97R57**	**DRN**	**80MK4**	150	363
1.5	934	19800	**RM**	**97R57**	**DRN**	**80MK4**	200	363
1.6	878	19800	**R**	**97R57**	**DRN**	**80M4**	135	363
1.9	755	19800	**RF**	**97R57**	**DRN**	**80M4**	150	363
			RM	**97R57**	**DRN**	**80M4**	200	363
			R	**97R57**	**DRN**	**63M4**	130	363
0.45	3065	13100	**RF**	**97R57**	**DRN**	**63M4**	145	363
			RM	**97R57**	**DRN**	**63M4**	195	363
0.52	2722	13100	**R**	**97R57**	**DRN**	**71MS4**	130	363
0.61	2311	13100	**RF**	**97R57**	**DRN**	**71MS4**	145	363
0.68	2078	13100	**RM**	**97R57**	**DRN**	**71MS4**	195	363
0.78	1823	13100	**R**	**97R57**	**DRN**	**71M4**	130	363
0.89	1583	13100	**RF**	**97R57**	**DRN**	**71M4**	145	363
1.0	1396	13100	**RM**	**97R57**	**DRN**	**71M4**	200	363
1.2	1228	13100	**R**	**97R57**	**DRN**	**80MK4**	135	363
1.3	1069	19800	**RF**	**97R57**	**DRN**	**80MK4**	150	363
1.5	938	19800	**RM**	**97R57**	**DRN**	**80MK4**	200	363
1.8	824	13100	**R**	**97R57**	**DRN**	**80M4**	135	363
1.9	737	13100	**RF**	**97R57**	**DRN**	**80M4**	155	363
			RM	**97R57**	**DRN**	**80M4**	205	363
2.3	632	19800	**R**	**97R57**	**DRN**	**90S4**	140	363
2.6	560	19800	**RF**	**97R57**	**DRN**	**90S4**	160	363
3.0	484	13100	**RM**	**97R57**	**DRN**	**90S4**	210	363
3.4	431	19800	**R**	**97R57**	**DRN**	**90L4**	145	363
3.9	379	19800	**RF**	**97R57**	**DRN**	**90L4**	165	363
4.3	336	19800	**RM**	**97R57**	**DRN**	**90L4**	215	363
4.9	296	19800	**R**	**97R57**	**DRN**	**100LS4**	150	363
5.8	249	19800	**RF**	**97R57**	**DRN**	**100LS4**	165	363
6.2	234	19800	**RM**	**97R57**	**DRN**	**100LS4**	220	363
			R	**97R57**	**DRN**	**100L4**	155	363
7.0	209	19800	**RF**	**97R57**	**DRN**	**100L4**	175	363
			RM	**97R57**	**DRN**	**100L4**	225	363
2.3	625	19800	**R**	**97R57**	**DRN**	**90S4**	140	363
2.6	549	19800	**RF**	**97R57**	**DRN**	**90S4**	155	363
3.1	466	19800	**RM**	**97R57**	**DRN**	**90S4**	210	363
3.5	420	19800	**R**	**97R57**	**DRN**	**90L4**	140	363
4.0	370	19800	**RF**	**97R57**	**DRN**	**90L4**	160	363
4.2	349	19800	**RM**	**97R57**	**DRN**	**90L4**	210	363
4.9	297	19800	**R**	**97R57**	**DRN**	**100LS4**	145	363
5.4	270	19800	**RF**	**97R57**	**DRN**	**100LS4**	165	363
6.4	227	19800	**RM**	**97R57**	**DRN**	**100LS4**	215	363

$M_{a\ max}$ = 4300 Nm

n_a min^{-1}	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**	**DRN**	**63MS4**	200	363
0.12	11256	29500	**RF**	**107R77**	**DRN**	**63MS4**	210	363
0.14	9547	29500	**RM**	**107R77**	**DRN**	**63MS4**	295	363
0.16	8618	29500						
0.18	7583	29500						
0.20	6743	29500	**R**	**107R77**	**DRN**	**63M4**	205	363
0.23	5914	29500	**RF**	**107R77**	**DRN**	**63M4**	210	363
0.27	5168	29500	**RM**	**107R77**	**DRN**	**63M4**	295	363

24832936/EN – 09/2018

$M_{a\ max}$ = 4300 Nm									
n_a min^{-1}	i	F_{Ra} [1] N						m kg	
0.32	4435	29500	R	107R77	DRN	71MS4		205	363
0.36	3896	29500	RF	107R77	DRN	71MS4		210	363
0.41	3432	29500	RM	107R77	DRN	71MS4		300	363
0.46	3039	29500							
0.53	2688	29500	R	107R77	DRN	71M4		205	363
			RF	107R77	DRN	71M4		210	363
			RM	107R77	DRN	71M4		300	363
0.62	2339	29500	R	107R77	DRN	80M4		210	363
			RF	107R77	DRN	80M4		215	363
			RM	107R77	DRN	80M4		305	363
0.36	3918	29500	R	107R77	DRN	71MS4		195	363
0.42	3343	29500	RF	107R77	DRN	71MS4		205	363
0.46	3034	29500	RM	107R77	DRN	71MS4		290	363
0.53	2653	29500	R	107R77	DRN	71M4		200	363
0.62	2280	29500	RF	107R77	DRN	71M4		205	363
0.68	2067	29500	RM	107R77	DRN	71M4		290	363
0.85	1693	29500	R	107R77	DRN	80MK4		200	363
0.93	1550	29500	RF	107R77	DRN	80MK4		205	363
1.0	1407	29500	RM	107R77	DRN	80MK4		295	363
1.2	1209	29500	R	107R77	DRN	80M4		205	363
1.4	1055	29500	RF	107R77	DRN	80M4		210	363
			RM	107R77	DRN	80M4		300	363
1.6	919	29500	R	107R77	DRN	90S4		210	363
1.8	815	29500	RF	107R77	DRN	90S4		215	363
2.0	717	29500	RM	107R77	DRN	90S4		305	363
2.3	626	29500	R	107R77	DRN	90L4		210	363
2.8	528	29500	RF	107R77	DRN	90L4		220	363
			RM	107R77	DRN	90L4		305	363
0.71	1987	29500	R	107R77	DRN	71M4		205	363
			RF	107R77	DRN	71M4		210	363
			RM	107R77	DRN	71M4		300	363
0.79	1827	29500	R	107R77	DRN	80MK4		205	363
0.90	1599	29500	RF	107R77	DRN	80MK4		210	363
1.0	1400	29500	RM	107R77	DRN	80MK4		300	363
1.2	1226	29500	R	107R77	DRN	80M4		210	363
1.3	1104	29500	RF	107R77	DRN	80M4		215	363
			RM	107R77	DRN	80M4		305	363
1.6	939	29500	R	107R77	DRN	90S4		215	363
1.8	822	29500	RF	107R77	DRN	90S4		220	363
			RM	107R77	DRN	90S4		310	363
2.4	614	29500	R	107R77	DRN	90L4		220	363
2.7	544	29500	RF	107R77	DRN	90L4		225	363
3.0	492	29500	RM	107R77	DRN	90L4		310	363
3.5	417	29500	R	107R77	DRN	100LS4		220	363
3.9	369	29500	RF	107R77	DRN	100LS4		230	363
4.5	323	29500	RM	107R77	DRN	100LS4		315	363
5.1	285	29500	R	107R77	DRN	100L4		230	363
5.8	253	29500	RF	107R77	DRN	100L4		235	363
			RM	107R77	DRN	100L4		325	363
6.8	214	29500	R	107R77	DRN	112M4		240	363
7.8	187	29500	RF	107R77	DRN	112M4		245	363
			RM	107R77	DRN	112M4		330	363
3.1	469	29500	R	107R77	DRN	90L4		210	363
			RF	107R77	DRN	90L4		215	363
			RM	107R77	DRN	90L4		305	363
3.4	426	29500	R	107R77	DRN	100LS4		215	363
3.8	377	29500	RF	107R77	DRN	100LS4		220	363
4.5	325	29500	RM	107R77	DRN	100LS4		310	363
5.1	284	29500	R	107R77	DRN	100L4		225	363
5.7	256	29500	RF	107R77	DRN	100L4		230	363
			RM	107R77	DRN	100L4		315	363

24832936/EN – 09/2018

$M_{a\ max}$ = 4300 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
6.7	220	29500	**R**	**107R77**	**DRN**	**112M4**	230	363
7.6	193	29500	**RF**	**107R77**	**DRN**	**112M4**	240	363
			RM	**107R77**	**DRN**	**112M4**	325	363
8.5	172	29500	**R**	**107R77**	**DRN**	**132S4**	245	363
			RF	**107R77**	**DRN**	**132S4**	250	363
			RM	**107R77**	**DRN**	**132S4**	335	363

$M_{a\ max}$ = 6000 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.07	20936	43000						
0.08	17863	43000						
0.09	15620	43000	**R**	**127R77**	**DRN**	**63MS4**	260	363
0.10	14123	43000	**RF**	**127R77**	**DRN**	**63MS4**	270	363
0.10	13417	43000	**RM**	**127R77**	**DRN**	**63MS4**	365	363
0.12	11772	43000						
0.14	9985	43000						
0.15	9013	43000						
0.16	8771	43000						
0.17	8282	43000						
0.18	7639	43000	**R**	**127R77**	**DRN**	**63M4**	260	363
0.19	7053	43000	**RF**	**127R77**	**DRN**	**63M4**	270	363
0.20	6722	43000	**RM**	**127R77**	**DRN**	**63M4**	365	363
0.22	6347	43000						
0.22	6185	43000						
0.25	5592	43000	**R**	**127R77**	**DRN**	**71MS4**	260	363
0.30	4740	43000	**RF**	**127R77**	**DRN**	**71MS4**	270	363
0.32	4441	43000	**RM**	**127R77**	**DRN**	**71MS4**	365	363
0.36	3949	43000						
0.38	3764	43000	**R**	**127R77**	**DRN**	**71M4**	260	363
0.40	3571	43000	**RF**	**127R77**	**DRN**	**71M4**	275	363
0.46	3110	43000	**RM**	**127R77**	**DRN**	**71M4**	370	363
0.51	2812	43000	**R**	**127R77**	**DRN**	**80MK4**	265	363
0.60	2383	43000	**RF**	**127R77**	**DRN**	**80MK4**	275	363
0.74	1934	43000	**RM**	**127R77**	**DRN**	**80MK4**	370	363
0.78	1835	43000	**R**	**127R77**	**DRN**	**80M4**	265	363
0.93	1555	43000	**RF**	**127R77**	**DRN**	**80M4**	280	363
1.0	1444	43000	**RM**	**127R77**	**DRN**	**80M4**	375	363
1.2	1224	43000	**R**	**127R77**	**DRN**	**90S4**	270	363
			RF	**127R77**	**DRN**	**90S4**	285	363
			RM	**127R77**	**DRN**	**90S4**	380	363
0.40	3495	43000	**R**	**127R77**	**DRN**	**71M4**	245	363
0.46	3056	43000	**RF**	**127R77**	**DRN**	**71M4**	265	363
0.49	2903	43000	**RM**	**127R77**	**DRN**	**71M4**	360	363
0.56	2547	43000	**R**	**127R77**	**DRN**	**80MK4**	250	363
0.66	2161	43000	**RF**	**127R77**	**DRN**	**80MK4**	270	363
0.74	1951	43000	**RM**	**127R77**	**DRN**	**80MK4**	365	363
0.84	1716	43000	**R**	**127R77**	**DRN**	**80M4**	250	363
0.89	1620	43000	**RF**	**127R77**	**DRN**	**80M4**	270	363
1.0	1380	43000	**RM**	**127R77**	**DRN**	**80M4**	370	363
1.2	1210	43000	**R**	**127R77**	**DRN**	**90S4**	255	363
1.5	961	43000	**RF**	**127R77**	**DRN**	**90S4**	275	363
			RM	**127R77**	**DRN**	**90S4**	375	363
1.9	773	43000	**R**	**127R77**	**DRN**	**90L4**	260	363
			RF	**127R77**	**DRN**	**90L4**	280	363
			RM	**127R77**	**DRN**	**90L4**	375	363
2.4	608	43000	**R**	**127R77**	**DRN**	**100LS4**	265	363
			RF	**127R77**	**DRN**	**100LS4**	285	363
			RM	**127R77**	**DRN**	**100LS4**	380	363

24832936/EN – 09/2018

$M_{a\ max}$ = 6000 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.57	2506	43000						
0.63	2266	43000	**R**	**127R77**	**DRN**	**80MK4**	265	363
0.71	2016	43000	**RF**	**127R77**	**DRN**	**80MK4**	275	363
0.75	1920	43000	**RM**	**127R77**	**DRN**	**80MK4**	370	363
0.79	1823	43000						
0.86	1673	43000	**R**	**127R77**	**DRN**	**80M4**	265	363
0.93	1545	43000	**RF**	**127R77**	**DRN**	**80M4**	275	363
0.95	1512	43000	**RM**	**127R77**	**DRN**	**80M4**	375	363
1.1	1322	43000						
1.1	1282	43000						
1.2	1195	43000						
1.2	1164	43000	**R**	**127R77**	**DRN**	**90S4**	270	363
1.4	1034	43000	**RF**	**127R77**	**DRN**	**90S4**	280	363
1.4	1013	43000	**RM**	**127R77**	**DRN**	**90S4**	380	363
1.5	987	43000						
1.6	936	43000						
1.6	935	43000						
1.8	830	43000						
1.8	794	43000	**R**	**127R77**	**DRN**	**90L4**	275	363
1.8	792	43000	**RF**	**127R77**	**DRN**	**90L4**	285	363
1.9	777	43000	**RM**	**127R77**	**DRN**	**90L4**	380	363
1.9	750	43000						
2.2	659	43000						
2.3	642	43000						
2.3	636	43000						
2.4	614	43000	**R**	**127R77**	**DRN**	**100LS4**	280	363
2.5	581	43000	**RF**	**127R77**	**DRN**	**100LS4**	290	363
2.8	521	43000	**RM**	**127R77**	**DRN**	**100LS4**	385	363
2.9	492	43000						
3.0	480	43000						
3.6	407	43000	**R**	**127R77**	**DRN**	**100L4**	285	363
3.8	386	43000	**RF**	**127R77**	**DRN**	**100L4**	295	363
			RM	**127R77**	**DRN**	**100L4**	395	363
4.9	298	43000	**R**	**127R77**	**DRN**	**112M4**	295	363
5.8	253	43000	**RF**	**127R77**	**DRN**	**112M4**	305	363
			RM	**127R77**	**DRN**	**112M4**	400	363
3.0	490	43000	**R**	**127R77**	**DRN**	**100LS4**	260	363
			RF	**127R77**	**DRN**	**100LS4**	285	363
			RM	**127R77**	**DRN**	**100LS4**	380	363
3.7	394	43000	**R**	**127R77**	**DRN**	**100L4**	270	363
4.5	327	43000	**RF**	**127R77**	**DRN**	**100L4**	290	363
			RM	**127R77**	**DRN**	**100L4**	385	363
5.7	259	43000	**R**	**127R77**	**DRN**	**112M4**	280	363
			RF	**127R77**	**DRN**	**112M4**	300	363
			RM	**127R77**	**DRN**	**112M4**	395	363
7.2	202	43000	**R**	**127R77**	**DRN**	**132S4**	290	363
			RF	**127R77**	**DRN**	**132S4**	310	363
			RM	**127R77**	**DRN**	**132S4**	405	363
9.0	162	43000	**R**	**127R77**	**DRN**	**132M4**	310	363
			RF	**127R77**	**DRN**	**132M4**	330	363
			RM	**127R77**	**DRN**	**132M4**	425	363
12	126	43000	**R**	**127R77**	**DRN**	**132L4**	315	363
			RF	**127R77**	**DRN**	**132L4**	335	363
			RM	**127R77**	**DRN**	**132L4**	435	363

$M_{a\ max}$ = 8000 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.06	22203	53400						
0.07	18945	53400	**R**	**137R77**	**DRN**	**63MS4**	290	363
0.08	16566	53400	**RF**	**137R77**	**DRN**	**63MS4**	310	363
0.09	14777	53400	**RM**	**137R77**	**DRN**	**63MS4**	425	363
0.11	12921	53400						

$M_{a\ max}$ = 8000 Nm								
n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.12	11712	53400	R	137R77	DRN	63M4	290	363
0.13	10573	53400	RF	137R77	DRN	63M4	315	363
0.16	8784	53400	RM	137R77	DRN	63M4	425	363
0.19	7479	53400	R	137R77	DRN	71MS4	290	363
0.21	6559	53400	RF	137R77	DRN	71MS4	315	363
			RM	137R77	DRN	71MS4	425	363
0.24	5834	53400	R	137R77	DRN	71M4	290	363
0.28	5116	53400	RF	137R77	DRN	71M4	315	363
0.32	4464	53400	RM	137R77	DRN	71M4	425	363
0.36	3928	53400						
0.42	3454	53400	R	137R77	DRN	80MK4	295	363
0.48	2993	53400	RF	137R77	DRN	80MK4	315	363
			RM	137R77	DRN	80MK4	430	363
0.30	4709	53400	R	137R77	DRN	71M4	280	363
0.35	4018	53400	RF	137R77	DRN	71M4	305	363
			RM	137R77	DRN	71M4	415	363
0.41	3514	53400	R	137R77	DRN	80MK4	285	363
0.43	3338	53400	RF	137R77	DRN	80MK4	305	363
0.49	2929	53400	RM	137R77	DRN	80MK4	420	363
0.58	2484	53400						
0.64	2242	53400	R	137R77	DRN	80M4	285	363
0.77	1863	53400	RF	137R77	DRN	80M4	310	363
			RM	137R77	DRN	80M4	420	363
0.92	1586	53400	R	137R77	DRN	90S4	290	363
1.1	1391	53400	RF	137R77	DRN	90S4	315	363
1.2	1256	53400	RM	137R77	DRN	90S4	425	363
1.3	1105	53400	R	137R77	DRN	90L4	295	363
1.4	1043	53400	RF	137R77	DRN	90L4	320	363
			RM	137R77	DRN	90L4	430	363
1.6	888	53400	R	137R77	DRN	100LS4	300	363
2.1	699	53400	RF	137R77	DRN	100LS4	325	363
2.4	609	53400	RM	137R77	DRN	100LS4	435	363
0.54	2658	53400	R	137R77	DRN	80MK4	295	363
			RF	137R77	DRN	80MK4	315	363
			RM	137R77	DRN	80MK4	425	363
0.60	2412	53400	R	137R77	DRN	80M4	295	363
0.69	2073	53400	RF	137R77	DRN	80M4	320	363
0.78	1839	53400	RM	137R77	DRN	80M4	430	363
0.91	1598	53400	R	137R77	DRN	90S4	300	363
1.0	1397	53400	RF	137R77	DRN	90S4	325	363
1.2	1226	53400	RM	137R77	DRN	90S4	435	363
1.3	1090	53400	R	137R77	DRN	90L4	305	363
1.5	951	53400	RF	137R77	DRN	90L4	325	363
			RM	137R77	DRN	90L4	440	363
1.7	831	53400	R	137R77	DRN	100LS4	310	363
2.0	730	53400	RF	137R77	DRN	100LS4	330	363
2.3	629	53400	RM	137R77	DRN	100LS4	445	363
2.6	560	53400	R	137R77	DRN	100L4	315	363
3.0	490	53400	RF	137R77	DRN	100L4	340	363
			RM	137R77	DRN	100L4	450	363
3.4	428	53400	R	137R77	DRN	112M4	325	363
3.8	381	53400	RF	137R77	DRN	112M4	350	363
			RM	137R77	DRN	112M4	460	363
4.5	323	53400	R	137R77	DRN	132S4	335	363
5.0	291	53400	RF	137R77	DRN	132S4	360	363
5.7	255	53400	RM	137R77	DRN	132S4	470	363
6.6	223	53400	R	137R77	DRN	132M4	355	363
7.4	197	53400	RF	137R77	DRN	132M4	375	363
			RM	137R77	DRN	132M4	490	363
8.4	175	53400	R	137R77	DRN	132L4	360	363
			RF	137R77	DRN	132L4	385	363
			RM	137R77	DRN	132L4	495	363

24832936/EN – 09/2018

$M_{a\ max}$ = 8000 Nm

n_a min^{-1}	i	F_{Ra} [1] N						m kg	
2.6	564	53400	**R**	**137R77**	**DRN**	**100L4**		305	363
2.8	517	53400	**RF**	**137R77**	**DRN**	**100L4**		330	363
3.2	453	53400	**RM**	**137R77**	**DRN**	**100L4**		440	363
3.9	376	53400	**R**	**137R77**	**DRN**	**112M4**		315	363
4.3	339	53400	**RF**	**137R77**	**DRN**	**112M4**		340	363
			RM	**137R77**	**DRN**	**112M4**		450	363
4.9	297	53400	**R**	**137R77**	**DRN**	**132S4**		325	363
			RF	**137R77**	**DRN**	**132S4**		350	363
			RM	**137R77**	**DRN**	**132S4**		460	363

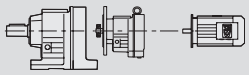
$M_{a\ max}$ = 13000 Nm

n_a min^{-1}	i	F_{Ra} [1] N						m kg	
0.06	23401	62700	**R**	**147R77**	**DRN**	**63MS4**		420	363
0.06	21342	62700	**RF**	**147R77**	**DRN**	**63MS4**		430	363
			RM	**147R77**	**DRN**	**63MS4**		600	363
0.08	18210	62700	**R**	**147R77**	**DRN**	**63M4**		420	363
0.09	15923	62700	**RF**	**147R77**	**DRN**	**63M4**		430	363
0.10	14075	62700	**RM**	**147R77**	**DRN**	**63M4**		600	363
0.11	12344	62700	**R**	**147R77**	**DRN**	**71MS4**		420	363
0.13	11143	62700	**RF**	**147R77**	**DRN**	**71MS4**		430	363
0.14	9743	62700	**RM**	**147R77**	**DRN**	**71MS4**		600	363
0.17	8443	62700	**R**	**147R77**	**DRN**	**71M4**		425	363
0.19	7307	62700	**RF**	**147R77**	**DRN**	**71M4**		430	363
0.22	6447	62700	**RM**	**147R77**	**DRN**	**71M4**		600	363
0.26	5568	62700	**R**	**147R77**	**DRN**	**80MK4**		425	363
0.29	4926	62700	**RF**	**147R77**	**DRN**	**80MK4**		435	363
0.33	4325	62700	**RM**	**147R77**	**DRN**	**80MK4**		600	363
0.38	3754	62700	**R**	**147R77**	**DRN**	**80M4**		430	363
0.44	3302	62700	**RF**	**147R77**	**DRN**	**80M4**		435	363
			RM	**147R77**	**DRN**	**80M4**		600	363
0.50	2898	62700	**R**	**147R77**	**DRN**	**90S4**		435	363
			RF	**147R77**	**DRN**	**90S4**		440	363
			RM	**147R77**	**DRN**	**90S4**		610	363
0.57	2555	62700	**R**	**147R77**	**DRN**	**90S4**		435	363
0.66	2211	62700	**RF**	**147R77**	**DRN**	**90S4**		440	363
			RM	**147R77**	**DRN**	**90S4**		610	363
0.75	1951	62700	**R**	**147R77**	**DRN**	**90L4**		435	363
0.86	1705	62700	**RF**	**147R77**	**DRN**	**90L4**		445	363
0.95	1536	62700	**RM**	**147R77**	**DRN**	**90L4**		610	363
1.1	1329	62700	**R**	**147R77**	**DRN**	**100LS4**		440	363
1.2	1166	62700	**RF**	**147R77**	**DRN**	**100LS4**		450	363
1.4	1029	62700	**RM**	**147R77**	**DRN**	**100LS4**		620	363
1.6	889	62700	**R**	**147R77**	**DRN**	**100L4**		445	363
1.9	784	62700	**RF**	**147R77**	**DRN**	**100L4**		455	363
			RM	**147R77**	**DRN**	**100L4**		620	363
2.1	695	62700	**R**	**147R77**	**DRN**	**112M4**		455	363
2.4	619	62700	**RF**	**147R77**	**DRN**	**112M4**		465	363
2.6	558	62700	**RM**	**147R77**	**DRN**	**112M4**		630	363
3.0	489	62700	**R**	**147R77**	**DRN**	**132S4**		470	363
3.5	415	62700	**RF**	**147R77**	**DRN**	**132S4**		475	363
			RM	**147R77**	**DRN**	**132S4**		640	363
2.7	533	62700	**R**	**147R87**	**DRN**	**132S4**		490	363
3.2	462	62700	**RF**	**147R87**	**DRN**	**132S4**		495	363
3.4	426	62700	**RM**	**147R87**	**DRN**	**132S4**		660	363
4.0	368	62700	**R**	**147R87**	**DRN**	**132M4**		510	363
4.5	326	62700	**RF**	**147R87**	**DRN**	**132M4**		510	363
			RM	**147R87**	**DRN**	**132M4**		680	363
5.2	280	62700	**R**	**147R87**	**DRN**	**132L4**		510	363
6.0	247	62700	**RF**	**147R87**	**DRN**	**132L4**		520	363
			RM	**147R87**	**DRN**	**132L4**		690	363

$M_{a\,max}$ = 13000 Nm									
n_a min^{-1}	i	F_{Ra} [1] N						m kg	
6.9	214	62700	R	147R87	DRN	160M4		550	363
			RF	147R87	DRN	160M4		560	363
			RM	147R87	DRN	160M4		720	363
7.8	189	62700	R	147R87	DRN	160L4		560	363
9.3	159	62700	RF	147R87	DRN	160L4		570	363
			RM	147R87	DRN	160L4		740	363

$M_{a\,max}$ = 20000 Nm									
n_a min^{-1}	i	F_{Ra} [1] N						m kg	
0.05	27001	120000	R	167R97	DRN	71MS4		750	364
0.06	22482	120000	RF	167R97	DRN	71MS4		760	364
0.07	20002	120000	RM	167R97	DRN	71MS4		950	364
0.08	17361	120000							
0.09	15446	120000	R	167R97	DRN	71M4		750	364
0.10	14051	120000	RF	167R97	DRN	71M4		760	364
0.12	11812	120000	RM	167R97	DRN	71M4		960	364
0.13	10509	120000							
0.15	9631	120000	R	167R97	DRN	80MK4		760	364
			RF	167R97	DRN	80MK4		760	364
			RM	167R97	DRN	80MK4		960	364
0.19	7749	120000	R	167R97	DRN	80M4		760	364
0.21	6894	120000	RF	167R97	DRN	80M4		770	364
0.24	6077	120000	RM	167R97	DRN	80M4		960	364
0.27	5407	120000							
0.31	4650	120000	R	167R97	DRN	90S4		760	364
0.35	4129	120000	RF	167R97	DRN	90S4		770	364
0.39	3692	120000	RM	167R97	DRN	90S4		970	364
0.47	3099	120000	R	167R97	DRN	100LS4		770	364
			RF	167R97	DRN	100LS4		780	364
			RM	167R97	DRN	100LS4		970	364
0.55	2657	120000	R	167R97	DRN	90L4		760	364
0.63	2333	120000	RF	167R97	DRN	90L4		770	364
			RM	167R97	DRN	90L4		970	364
0.70	2085	120000	R	167R97	DRN	100LS4		770	364
0.77	1877	120000	RF	167R97	DRN	100LS4		780	364
0.87	1670	120000	RM	167R97	DRN	100LS4		970	364
1.0	1438	120000	R	167R97	DRN	100L4		780	364
1.1	1279	120000	RF	167R97	DRN	100L4		780	364
1.3	1123	120000	RM	167R97	DRN	100L4		980	364
1.5	999	120000	R	167R97	DRN	112M4		780	364
1.7	861	120000	RF	167R97	DRN	112M4		790	364
			RM	167R97	DRN	112M4		990	364
1.9	760	120000	R	167R97	DRN	132S4		800	364
2.2	656	120000	RF	167R97	DRN	132S4		800	364
			RM	167R97	DRN	132S4		1000	364
2.5	579	120000	R	167R97	DRN	132M4		810	364
2.9	503	120000	RF	167R97	DRN	132M4		820	364
			RM	167R97	DRN	132M4		1020	364
3.4	432	120000	R	167R97	DRN	132L4		820	364
3.9	376	120000	RF	167R97	DRN	132L4		830	364
			RM	167R97	DRN	132L4		1020	364
4.4	335	120000	R	167R97	DRN	160M4		860	364
4.9	303	120000	RF	167R97	DRN	160M4		860	364
			RM	167R97	DRN	160M4		1060	364
5.3	279	120000	R	167R97	DRN	160L4		870	364
			RF	167R97	DRN	160L4		880	364
			RM	167R97	DRN	160L4		1070	364

24832936/EN – 09/2018

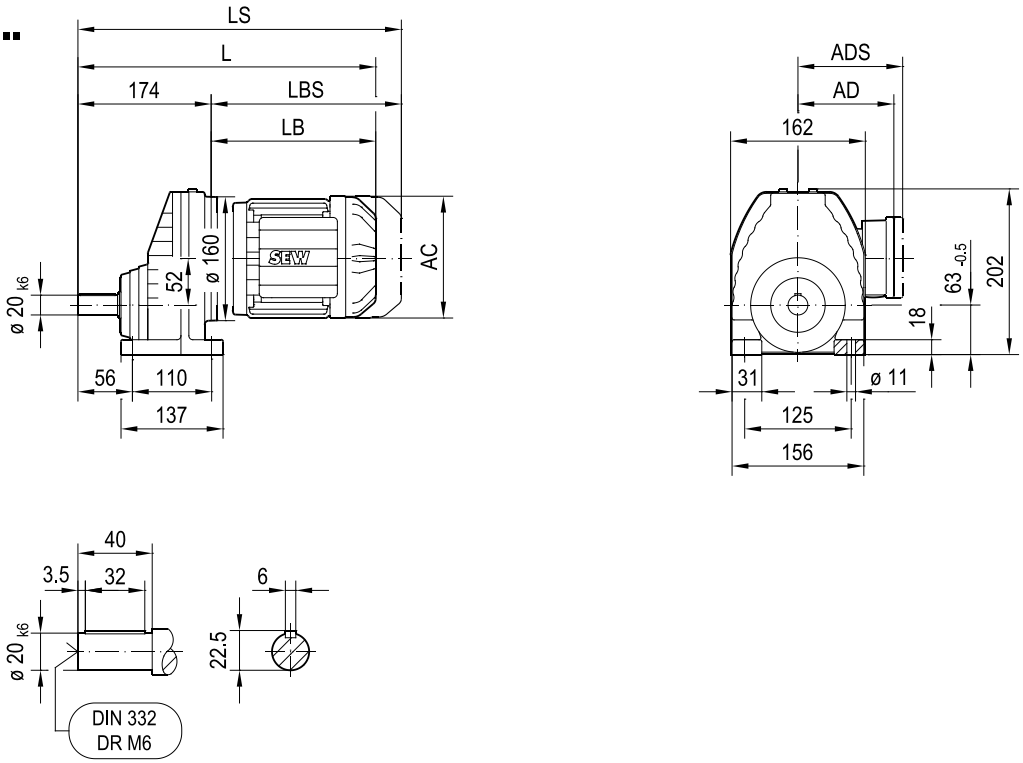
$M_{a\ max}$ = 20000 Nm									
n_a min^{-1}	i	F_{Ra} [1] N						m kg	
0.40	3637	120000							
0.44	3330	120000							
0.53	2757	120000							
0.60	2436	120000	**R**	**167R107**	**DRN**	**100LS4**		820	364
0.63	2298	120000	**RF**	**167R107**	**DRN**	**100LS4**		820	364
0.70	2066	120000	**RM**	**167R107**	**DRN**	**100LS4**		1020	364
0.78	1849	120000							
0.87	1674	120000							
0.98	1485	120000	**R**	**167R107**	**DRN**	**100L4**		820	364
1.1	1342	120000	**RF**	**167R107**	**DRN**	**100L4**		830	364
1.2	1229	120000	**RM**	**167R107**	**DRN**	**100L4**		1030	364
1.3	1111	120000	**R**	**167R107**	**DRN**	**112M4**		830	364
1.5	950	120000	**RF**	**167R107**	**DRN**	**112M4**		840	364
1.7	860	120000	**RM**	**167R107**	**DRN**	**112M4**		1030	364
			R	**167R107**	**DRN**	**132S4**		840	364
1.9	763	120000	**RF**	**167R107**	**DRN**	**132S4**		850	364
2.1	690	120000	**RM**	**167R107**	**DRN**	**132S4**		1040	364
			R	**167R107**	**DRN**	**132M4**		860	364
2.5	585	120000	**RF**	**167R107**	**DRN**	**132M4**		870	364
2.9	511	120000	**RM**	**167R107**	**DRN**	**132M4**		1060	364
			R	**167R107**	**DRN**	**160M4**		900	364
4.2	349	120000	**RF**	**167R107**	**DRN**	**160M4**		910	364
			RM	**167R107**	**DRN**	**160M4**		1100	364
5.0	295	120000	**R**	**167R107**	**DRN**	**160L4**		920	364
5.5	270	120000	**RF**	**167R107**	**DRN**	**160L4**		920	364
6.4	229	120000	**RM**	**167R107**	**DRN**	**160L4**		1120	364
			R	**167R107**	**DRN**	**180M4**		940	364
7.4	200	120000	**RF**	**167R107**	**DRN**	**180M4**		950	364
			RM	**167R107**	**DRN**	**180M4**		1140	364
			R	**167R107**	**DRN**	**180L4**		950	364
8.7	169	120000	**RF**	**167R107**	**DRN**	**180L4**		960	364
			RM	**167R107**	**DRN**	**180L4**		1160	364
			R	**167R107**	**DRN**	**132M4**		850	364
3.3	446	120000	**RF**	**167R107**	**DRN**	**132M4**		860	364
			RM	**167R107**	**DRN**	**132M4**		1060	364
			R	**167R107**	**DRN**	**132L4**		860	364
3.7	399	120000	**RF**	**167R107**	**DRN**	**132L4**		870	364
4.1	361	120000	**RM**	**167R107**	**DRN**	**132L4**		1070	364
			R	**167R107**	**DRN**	**160M4**		900	364
4.5	328	120000	**RF**	**167R107**	**DRN**	**160M4**		900	364
			RM	**167R107**	**DRN**	**160M4**		1100	364
5.1	291	120000	**R**	**167R107**	**DRN**	**160L4**		910	364
5.6	264	120000	**RF**	**167R107**	**DRN**	**160L4**		920	364
6.5	227	120000	**RM**	**167R107**	**DRN**	**160L4**		1110	364
			R	**167R107**	**DRN**	**180M4**		930	364
7.5	198	120000	**RF**	**167R107**	**DRN**	**180M4**		940	364
			RM	**167R107**	**DRN**	**180M4**		1130	364
			R	**167R107**	**DRN**	**180L4**		950	364
8.8	168	120000	**RF**	**167R107**	**DRN**	**180L4**		960	364
			RM	**167R107**	**DRN**	**180L4**		1150	364

24832936/EN – 09/2018

8.5 R..DRN.. dimension sheets in mm

01 004 00 14

RX57..

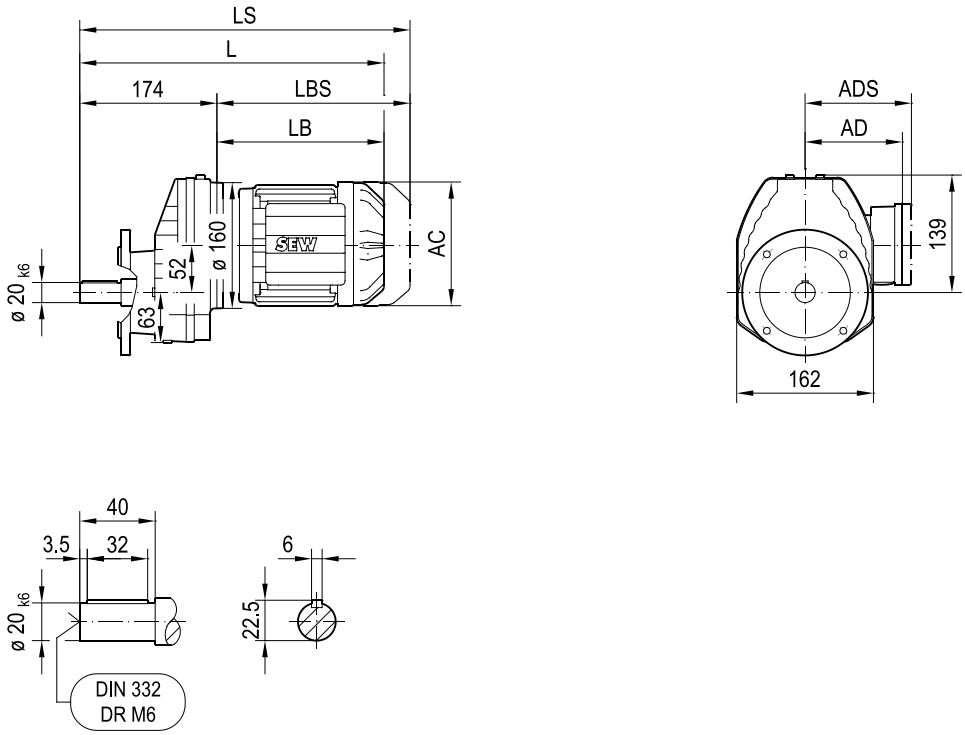


(→ 📖 7.3)	DRN											
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S
AC	115	115	139	139	156	156	179	179	197	197	221	221
AD	98	98	118	118	128	128	140	140	157	157	170	170
ADS	98	98	129	129	139	139	150	150	158	158	172	172
L	358	372	373	393	404	449	451	483	479	529	560	614
LS	414	428	441	461	485	530	544	576	573	623	672	726
LB	184	198	199	219	230	275	277	309	305	355	386	440
LBS	240	254	267	287	311	356	370	402	399	449	498	552

24832936/EN – 09/2018

01 005 01 14

RXF57..



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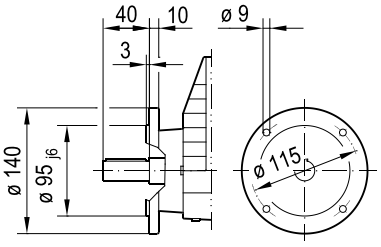

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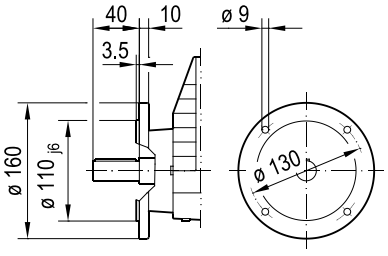
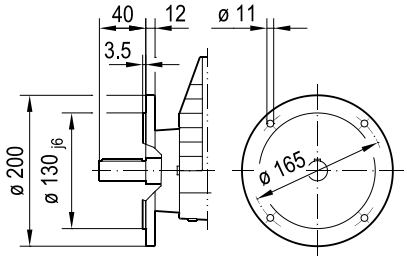


ø 200

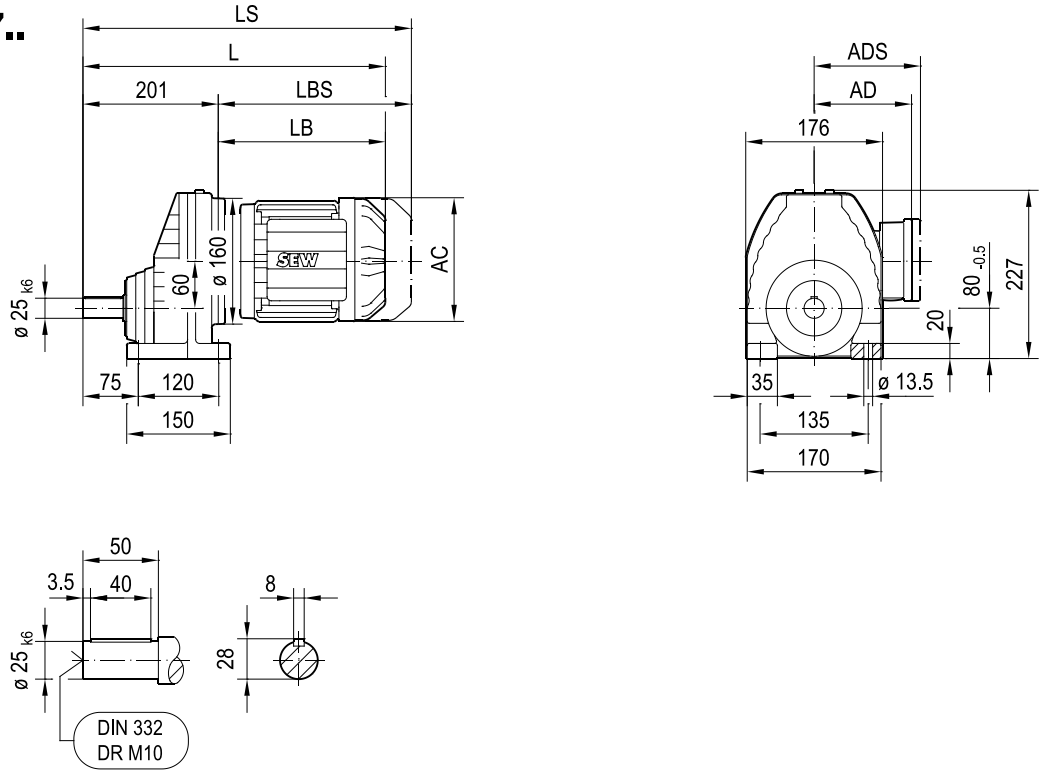


(→ 📖 7.3)	DRN											
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S
AC	115	115	139	139	156	156	179	179	197	197	221	221
AD	98	98	118	118	128	128	140	140	157	157	170	170
ADS	98	98	129	129	139	139	150	150	158	158	172	172
L	358	372	373	393	404	449	451	483	479	529	560	614
LS	414	428	441	461	485	530	544	576	573	623	672	726
LB	184	198	199	219	230	275	277	309	305	355	386	440
LBS	240	254	267	287	311	356	370	402	399	449	498	552

24832936/EN – 09/2018

01 006 01 14

RX67..

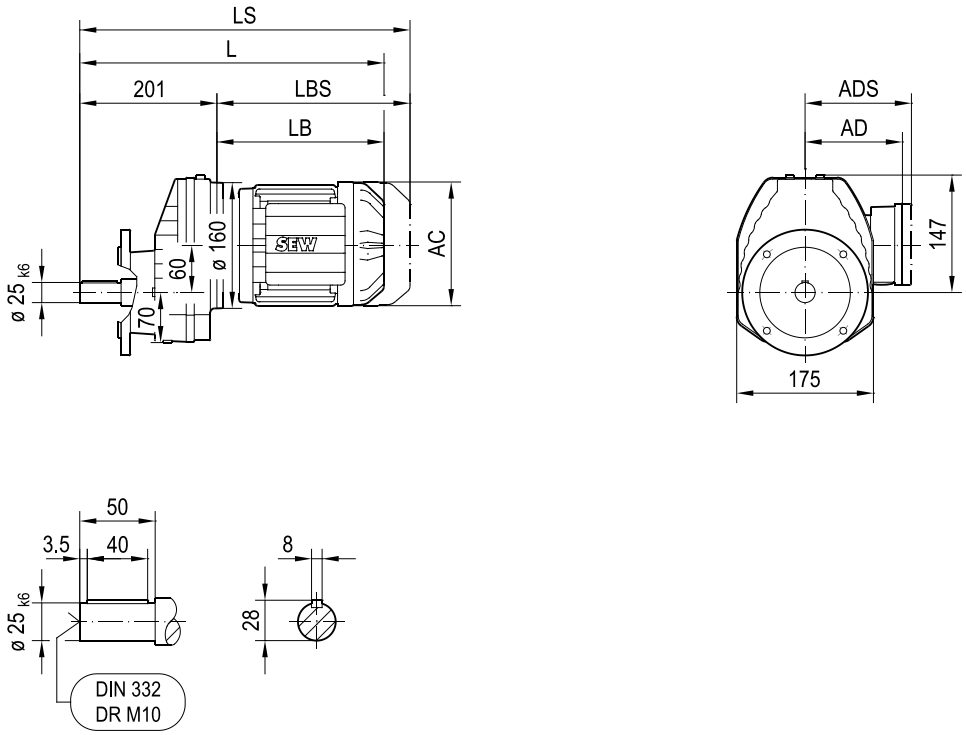


(→ 📖 7.3)	DRN												
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M
AC	115	115	139	139	156	156	179	179	197	197	221	221	261
AD	98	98	118	118	128	128	140	140	157	157	170	170	228
ADS	98	98	129	129	139	139	150	150	158	158	172	172	228
L	385	399	400	420	431	476	478	510	506	556	587	641	659
LS	441	455	468	488	512	557	571	603	600	650	699	753	797
LB	184	198	199	219	230	275	277	309	305	355	386	440	458
LBS	240	254	267	287	311	356	370	402	399	449	498	552	596

24832936/EN – 09/2018

01 007 00 14

RXF67..



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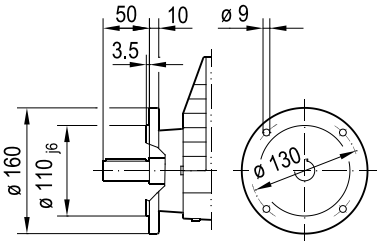

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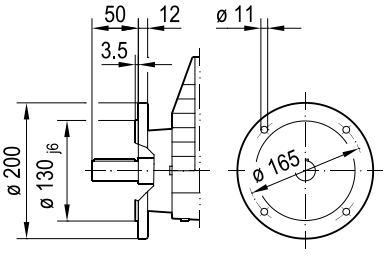

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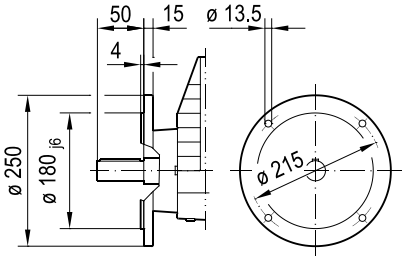
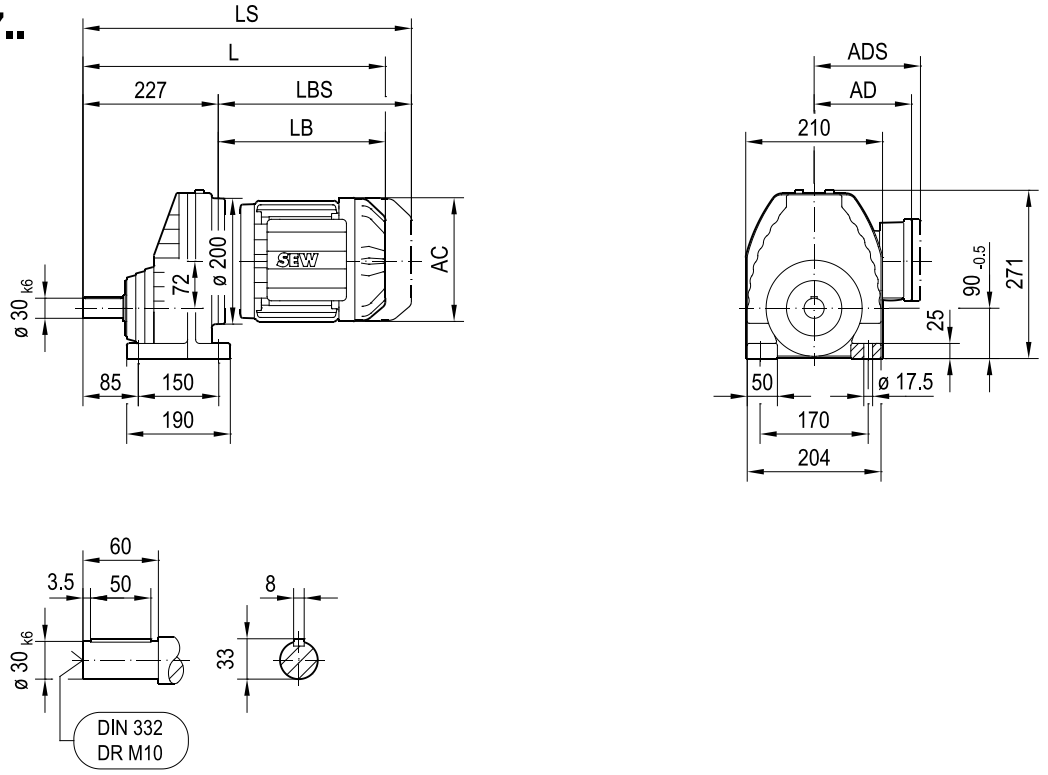


(→ 📖 7.3)	DRN												
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M
AC	115	115	139	139	156	156	179	179	197	197	221	221	261
AD	98	98	118	118	128	128	140	140	157	157	170	170	228
ADS	98	98	129	129	139	139	150	150	158	158	172	172	228
L	385	399	400	420	431	476	478	510	506	556	587	641	659
LS	441	455	468	488	512	557	571	603	600	650	699	753	797
LB	184	198	199	219	230	275	277	309	305	355	386	440	458
LBS	240	254	267	287	311	356	370	402	399	449	498	552	596

24832936/EN – 09/2018

01 008 00 14

RX77..

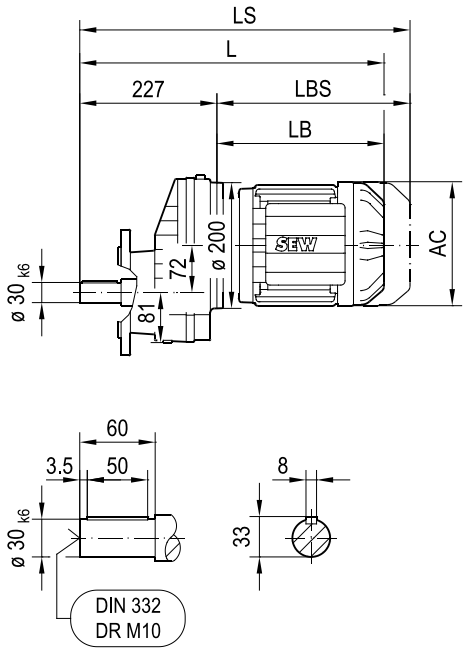


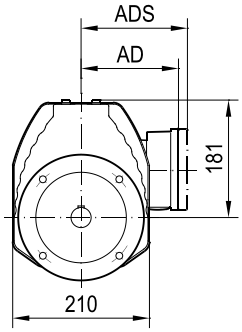
(→ 📖 7.3)	DRN								
	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..
AC	179	179	197	197	221	221	261	261	314
AD	140	140	157	157	170	170	228	228	253
ADS	150	150	158	158	172	172	228	228	253
L	497	529	525	575	606	656	674	700	766
LS	590	622	619	669	718	768	812	837	955
LB	270	302	298	348	379	429	447	473	539
LBS	363	395	392	442	491	541	585	610	728

24832936/EN – 09/2018

01 009 01 14

RXF77..





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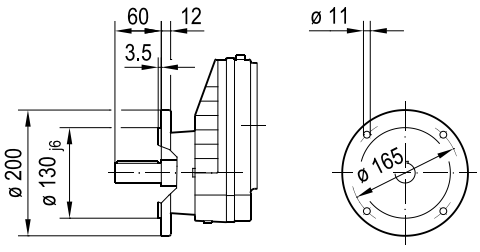
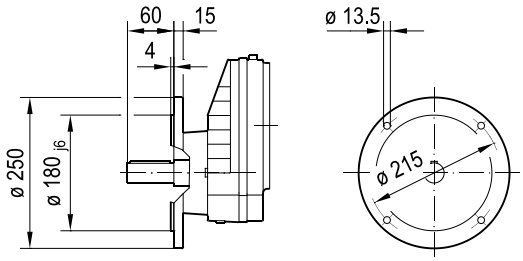


ø 250

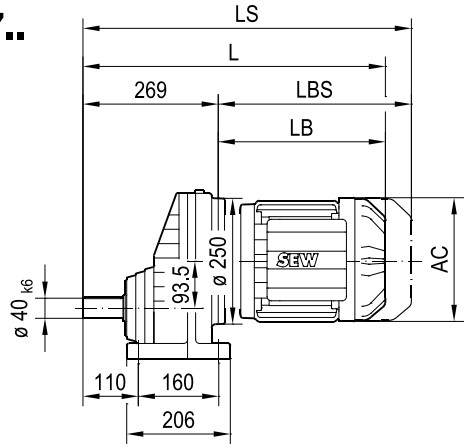


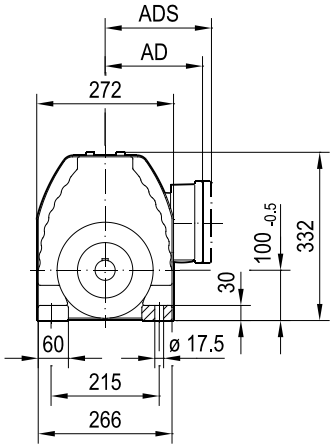
(→ 📖 7.3)	DRN								
	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..
AC	179	179	197	197	221	221	261	261	314
AD	140	140	157	157	170	170	228	228	253
ADS	150	150	158	158	172	172	228	228	253
L	497	529	525	575	606	656	674	700	766
LS	590	622	619	669	718	768	812	837	955
LB	270	302	298	348	379	429	447	473	539
LBS	363	395	392	442	491	541	585	610	728

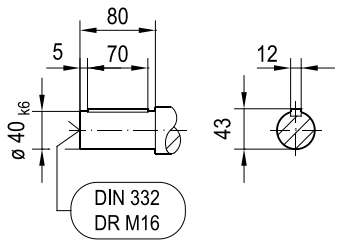
24832936/EN – 09/2018

01 010 00 14

RX87..





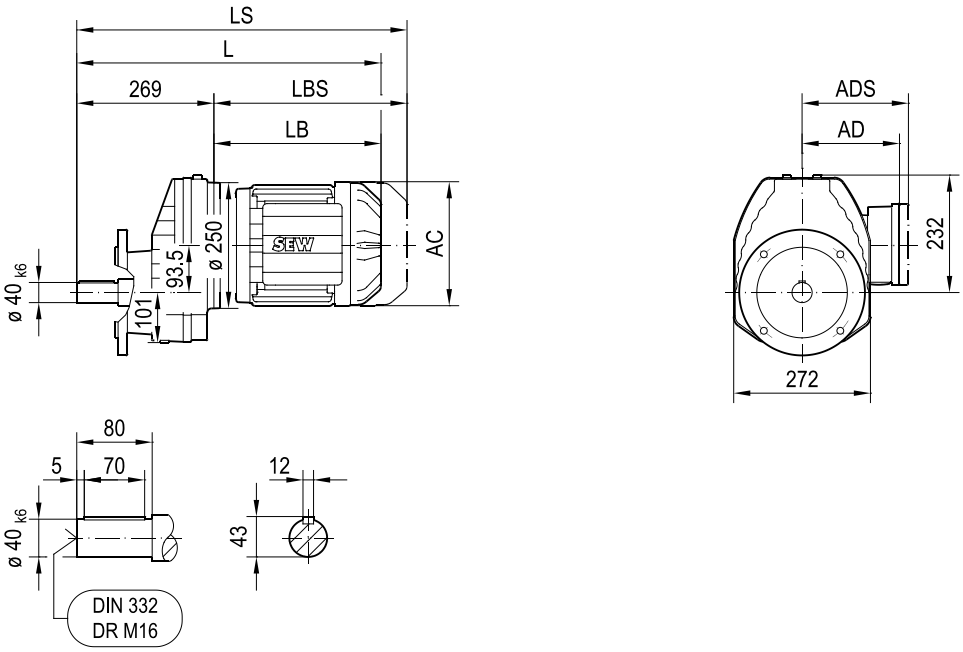


(→ 📖 7.3)	DRN							
	100L/LM	112M	132S	132M	132L	160..	180..	
AC	197	221	221	261	261	314	357	
AD	157	170	170	228	228	253	268	
ADS	158	172	172	228	228	253	268	
L	612	643	693	711	737	803	826	
LS	706	755	805	849	874	992	1015	
LB	343	374	424	442	468	534	557	
LBS	437	486	536	580	605	723	746	

24832936/EN – 09/2018

01 011 01 14

RXF87..



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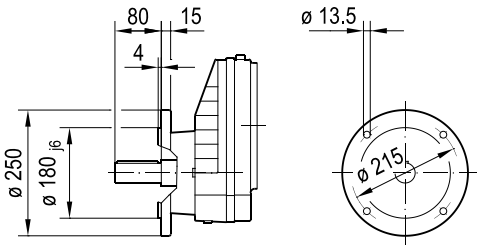

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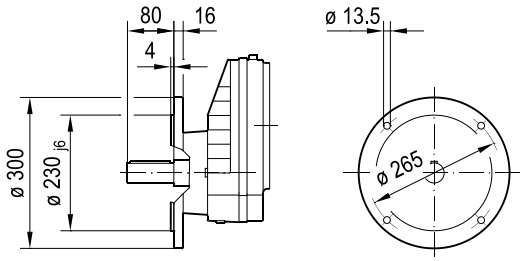
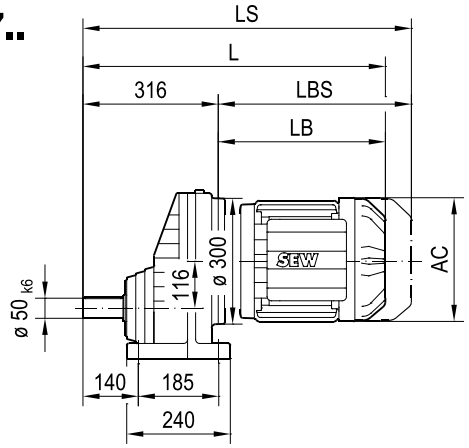


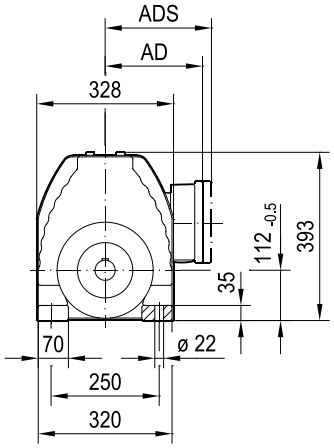
(→ 📖 7.3)	DRN							
	100L/LM	112M	132S	132M	132L	160..	180..	
AC	197	221	221	261	261	314	357	
AD	157	170	170	228	228	253	268	
ADS	158	172	172	228	228	253	268	
L	612	643	693	711	737	803	826	
LS	706	755	805	849	874	992	1015	
LB	343	374	424	442	468	534	557	
LBS	437	486	536	580	605	723	746	

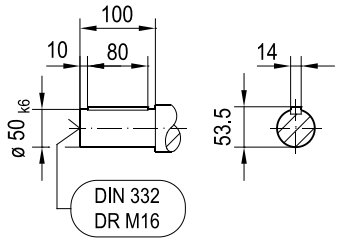
24832936/EN – 09/2018

01 012 00 14

RX97..





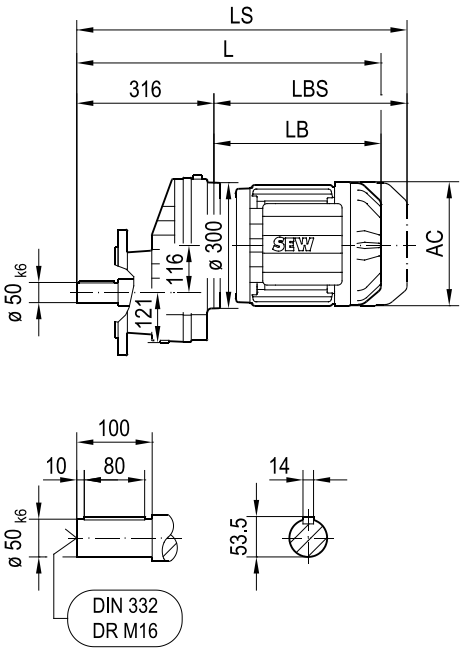


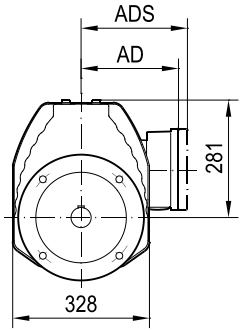
(→ 📖 7.3)	DRN							
	132S	132M	132L	160..	180..	200L		
AC	221	261	261	314	357	394		
AD	170	228	228	253	268	283		
ADS	172	228	228	253	268	283		
L	735	753	779	845	868	978		
LS	847	891	916	1034	1057	1183		
LB	419	437	463	529	552	662		
LBS	531	575	600	718	741	867		

24832936/EN – 09/2018

01 013 01 14

RXF97..





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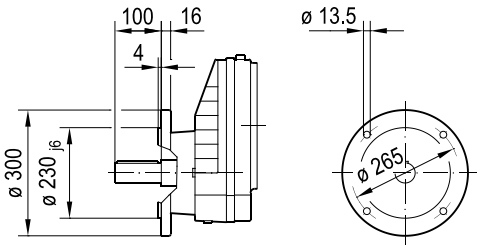

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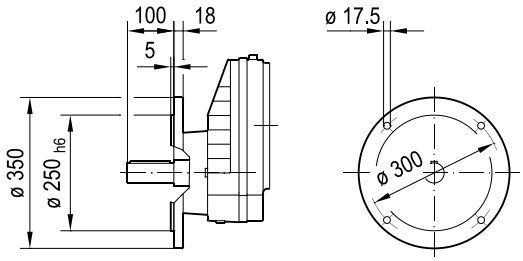
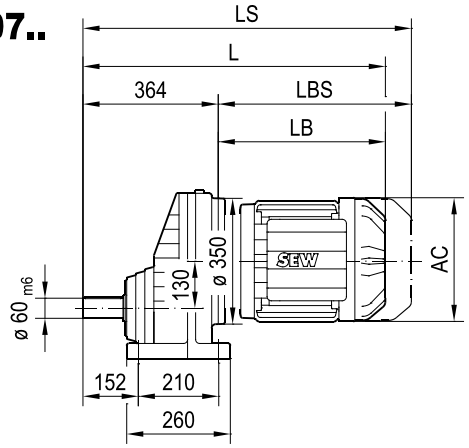


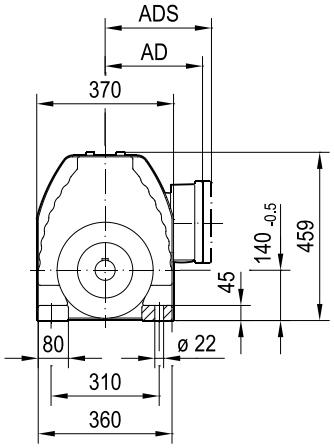
(→ 📖 7.3)	DRN							
	132S	132M	132L	160..	180..	200L		
AC	221	261	261	314	357	394		
AD	170	228	228	253	268	283		
ADS	172	228	228	253	268	283		
L	735	753	779	845	868	978		
LS	847	891	916	1034	1057	1183		
LB	419	437	463	529	552	662		
LBS	531	575	600	718	741	867		

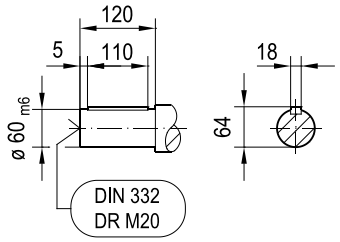
24832936/EN – 09/2018

01 014 00 14

RX107..





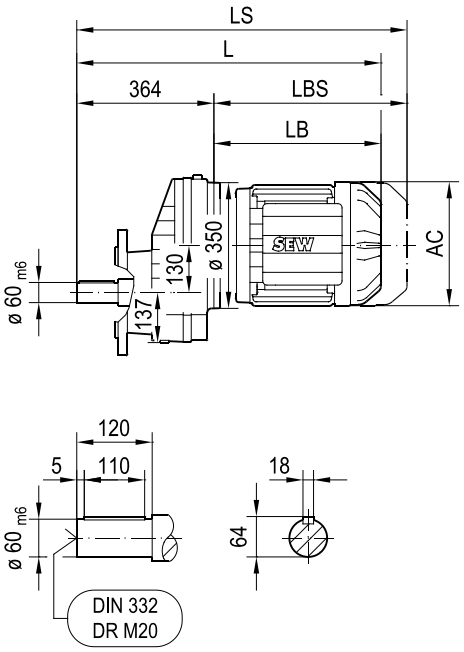


(→ 📖 7.3)	DRN							
	132S	132M	132L	160..	180..	200L	225..	
AC	221	261	261	314	357	394	434	
AD	170	228	228	253	268	283	305	
ADS	172	228	228	253	268	283	305	
L	777	795	821	887	910	1020	994	
LS	889	933	958	1076	1099	1225	1199	
LB	413	431	457	523	546	656	630	
LBS	525	569	594	712	735	861	835	

24832936/EN – 09/2018

01 015 01 14

RXF107..



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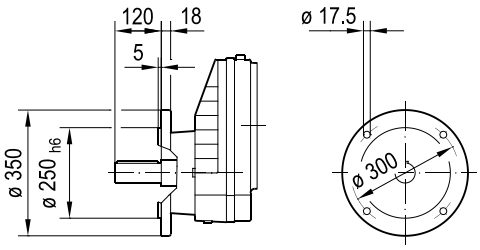

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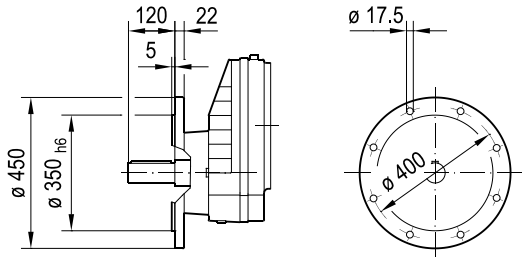
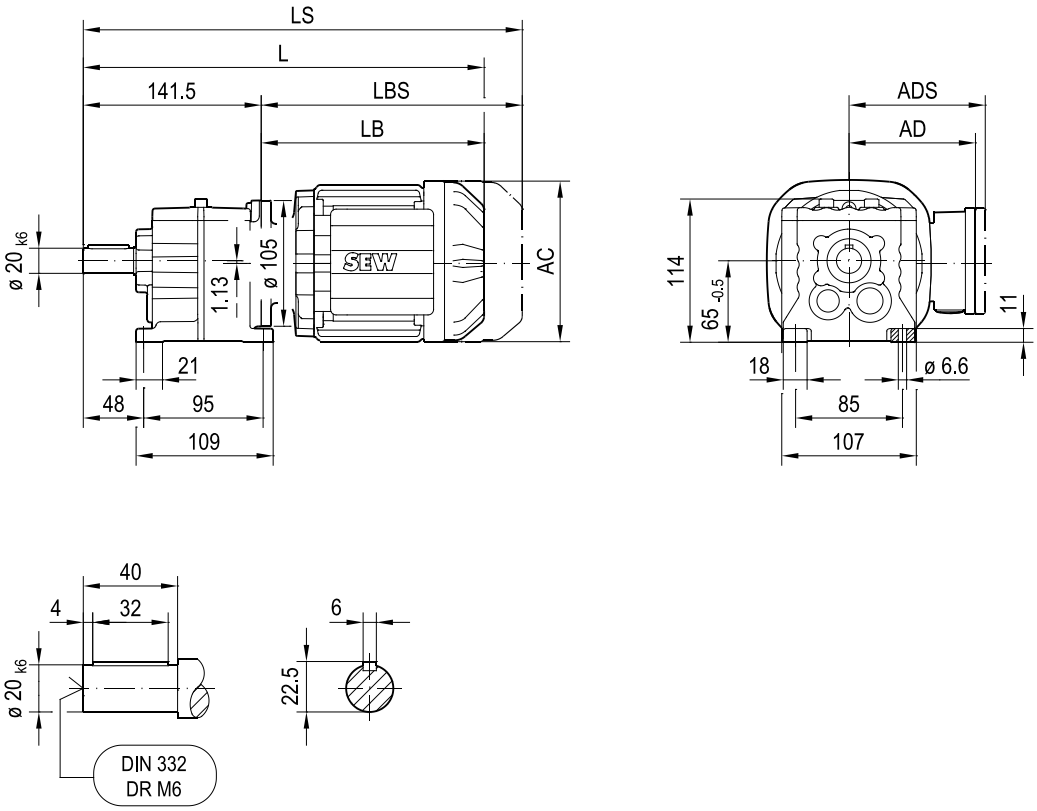


(→ 📖 7.3)	DRN							
	132S	132M	132L	160..	180..	200L	225..	
AC	221	261	261	314	357	394	434	
AD	170	228	228	253	268	283	305	
ADS	172	228	228	253	268	283	305	
L	777	795	821	887	910	1020	994	
LS	889	933	958	1076	1099	1225	1199	
LB	413	431	457	523	546	656	630	
LBS	525	569	594	712	735	861	835	

24832936/EN – 09/2018

01 561 00 17

R07..



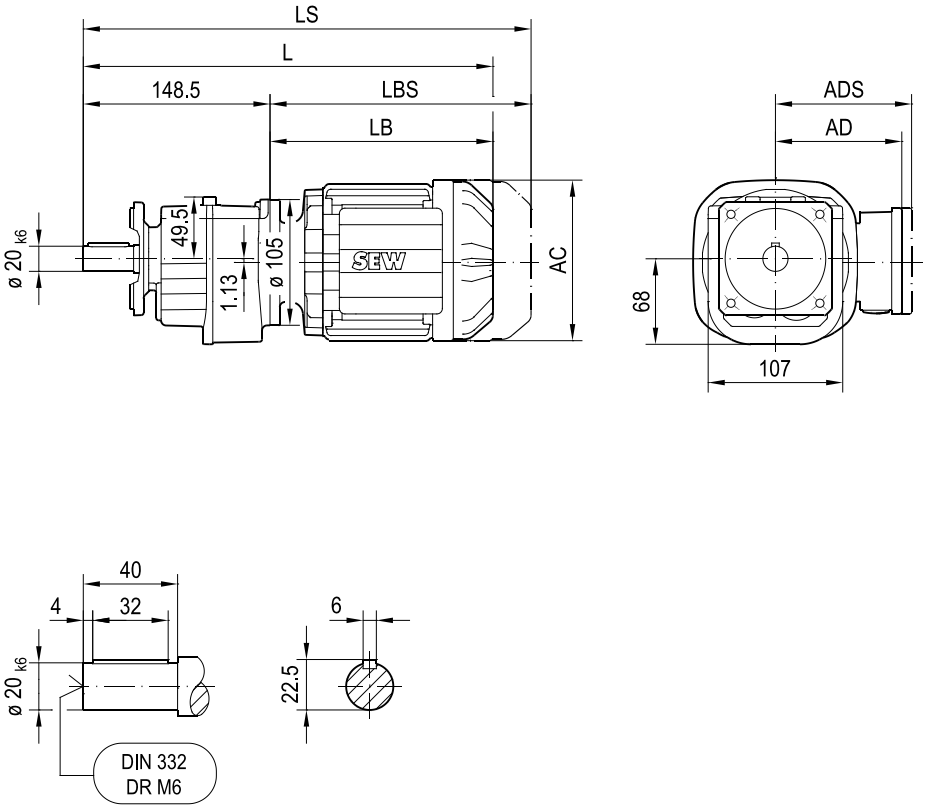
R07F..

(→ 📖 7.3)	DR2S	DRN						
	56..	63MS	63M	71MS	71M			
AC	109	115	115	139	139			
AD	87	98	98	118	118			
ADS	87	98	98	129	129			
L	302	332	346	347	367			
LS	338	388	402	415	435			
LB	160	190	204	206	226			
LBS	196	246	260	273	293			

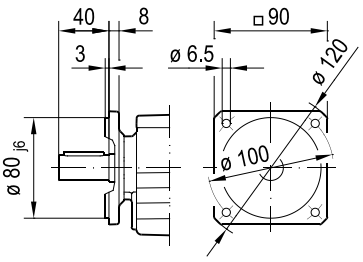
24832936/EN – 09/2018

01 562 00 17

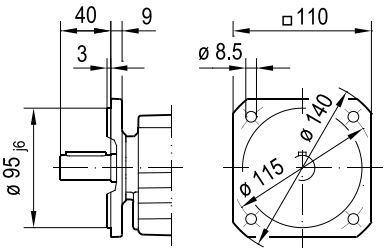
RF07..



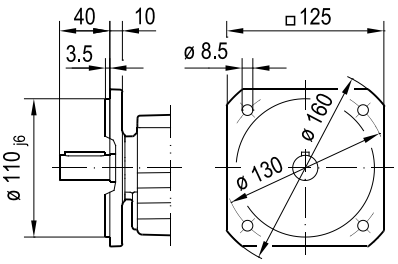
ø 120



ø 140



ø 160

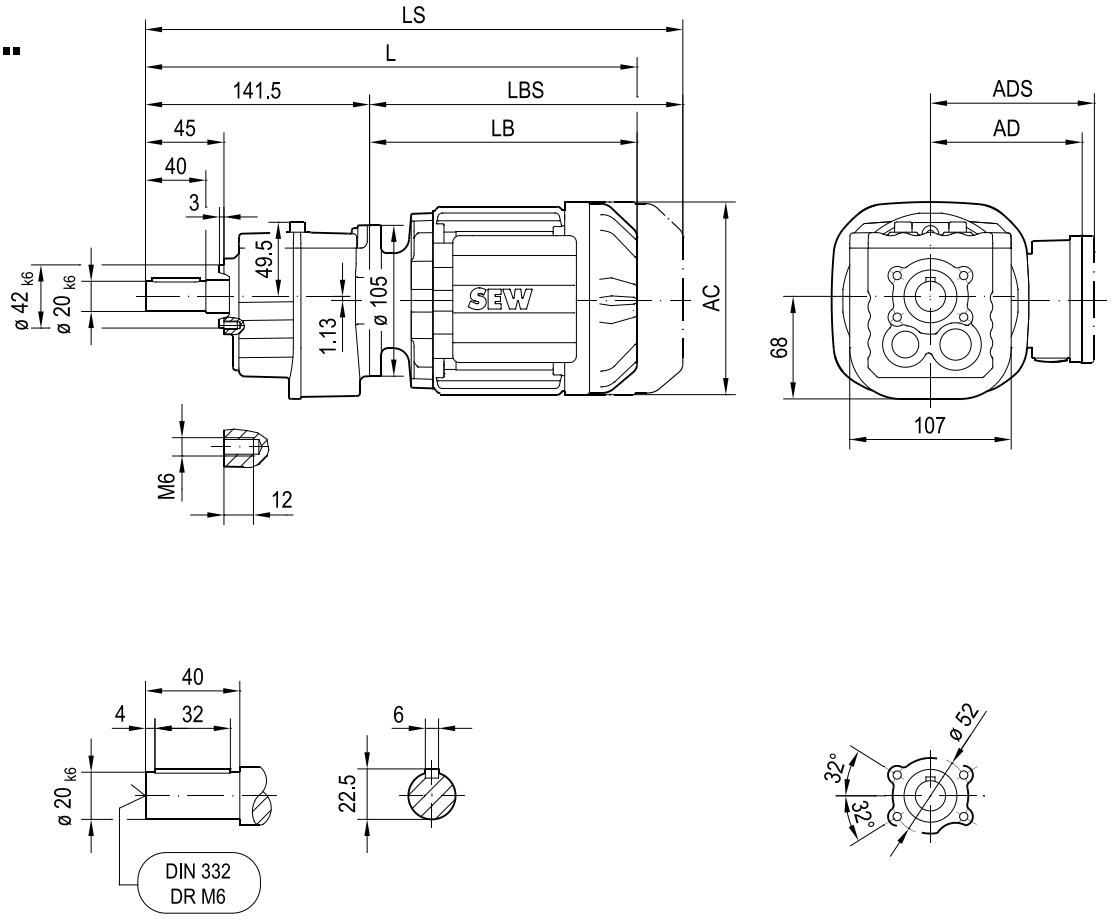


(→ 📖 7.3)	DR2S	DRN						
	56..	63MS	63M	71MS	71M			
AC	109	115	115	139	139			
AD	87	98	98	118	118			
ADS	87	98	98	129	129			
L	309	339	353	354	374			
LS	345	395	409	422	442			
LB	160	190	204	206	226			
LBS	196	246	260	273	293			

24832936/EN – 09/2018

01 563 00 17

RZ07..

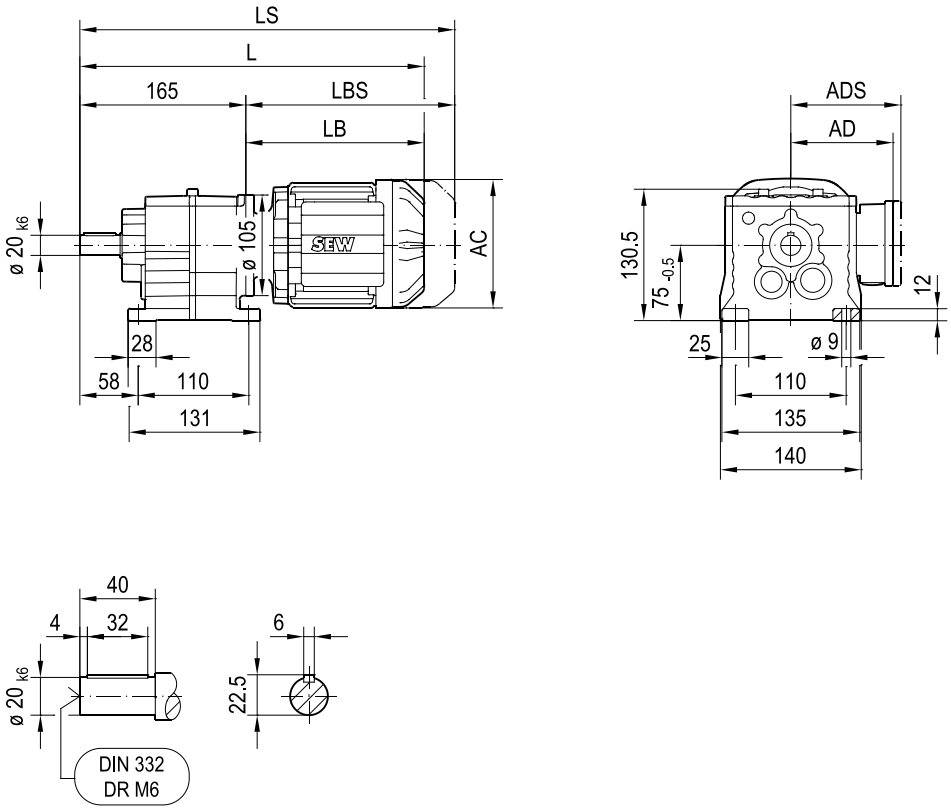


(→ 📖 7.3)	DR2S	DRN						
	56..	63MS	63M	71MS	71M			
AC	109	115	115	139	139			
AD	87	98	98	118	118			
ADS	87	98	98	129	129			
L	302	332	346	347	367			
LS	338	388	402	415	435			
LB	160	190	204	206	226			
LBS	196	246	260	273	293			

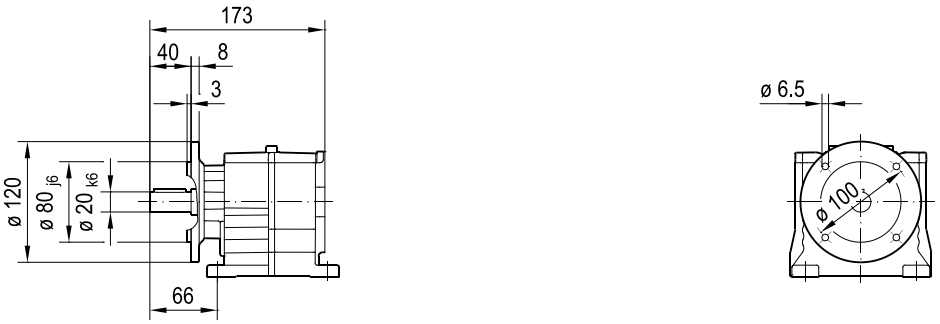
24832936/EN – 09/2018

01 564 00 17

R17..



R17F..

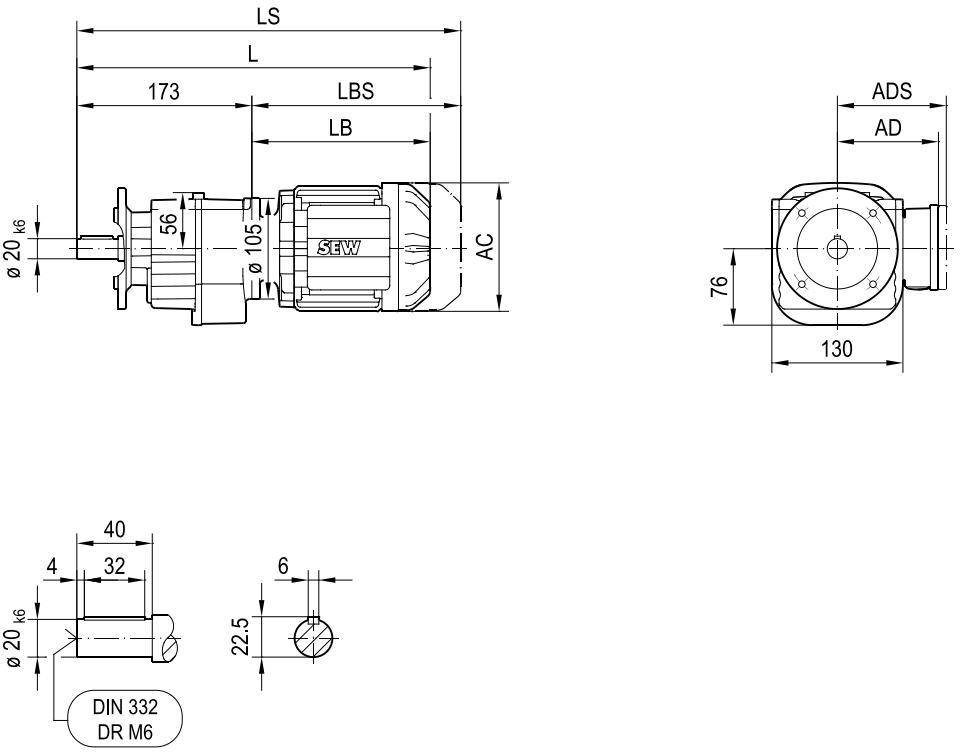


(→ 📖 7.3)	DRN							
	63MS	63M	71MS	71M	80MS	80M		
AC	115	115	139	139	156	156		
AD	98	98	118	118	128	128		
ADS	98	98	129	129	139	139		
L	355	369	371	391	414	442		
LS	411	425	438	458	495	523		
LB	190	204	206	226	249	277		
LBS	246	260	273	293	330	358		

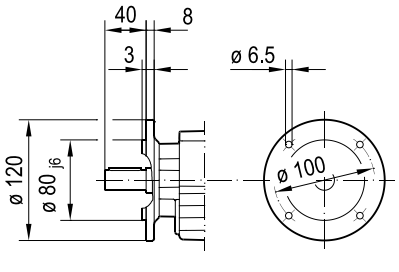
24832936/EN – 09/2018

01 565 00 17

RF17..



ø 120



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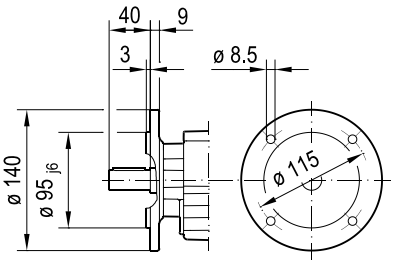
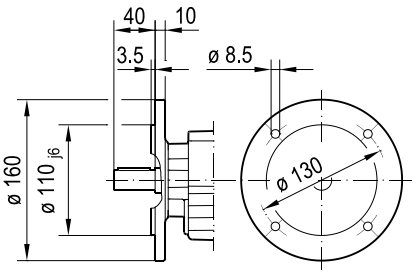


ø 160

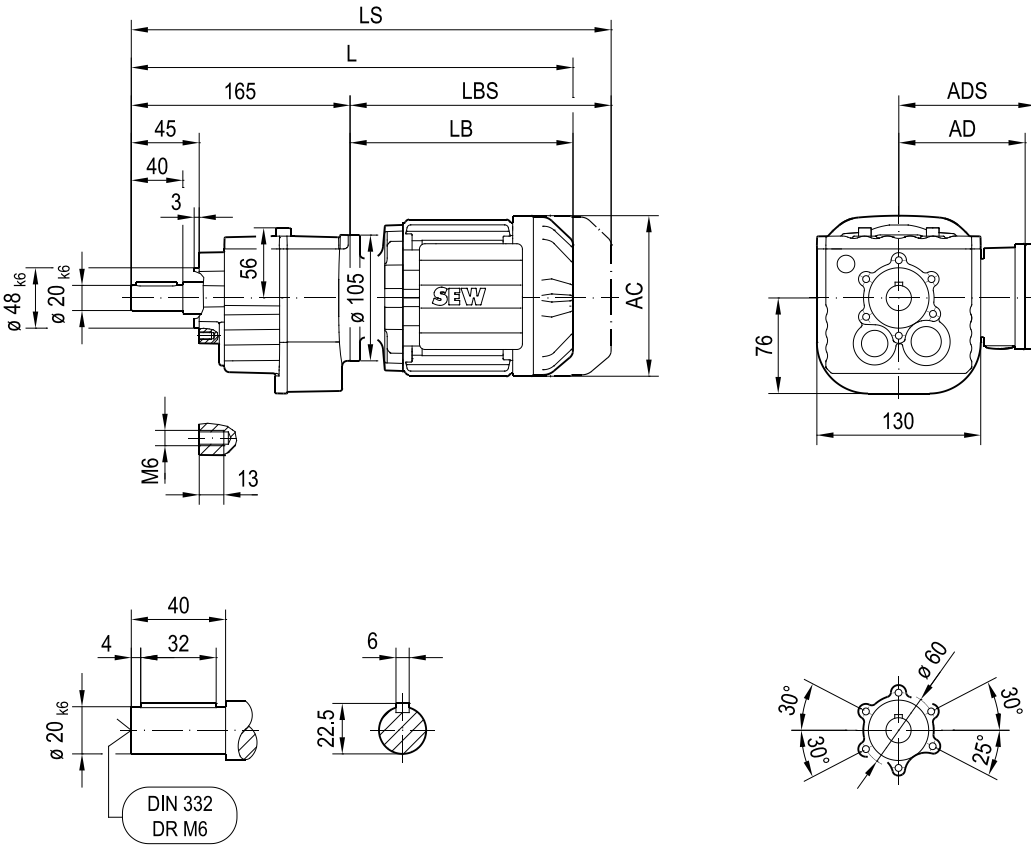


(→ 📖 7.3)	DRN							
	63MS	63M	71MS	71M	80MS	80M		
AC	115	115	139	139	156	156		
AD	98	98	118	118	128	128		
ADS	98	98	129	129	139	139		
L	363	377	379	399	422	450		
LS	419	433	446	466	503	531		
LB	190	204	206	226	249	277		
LBS	246	260	273	293	330	358		

24832936/EN – 09/2018

01 566 00 17

RZ17..

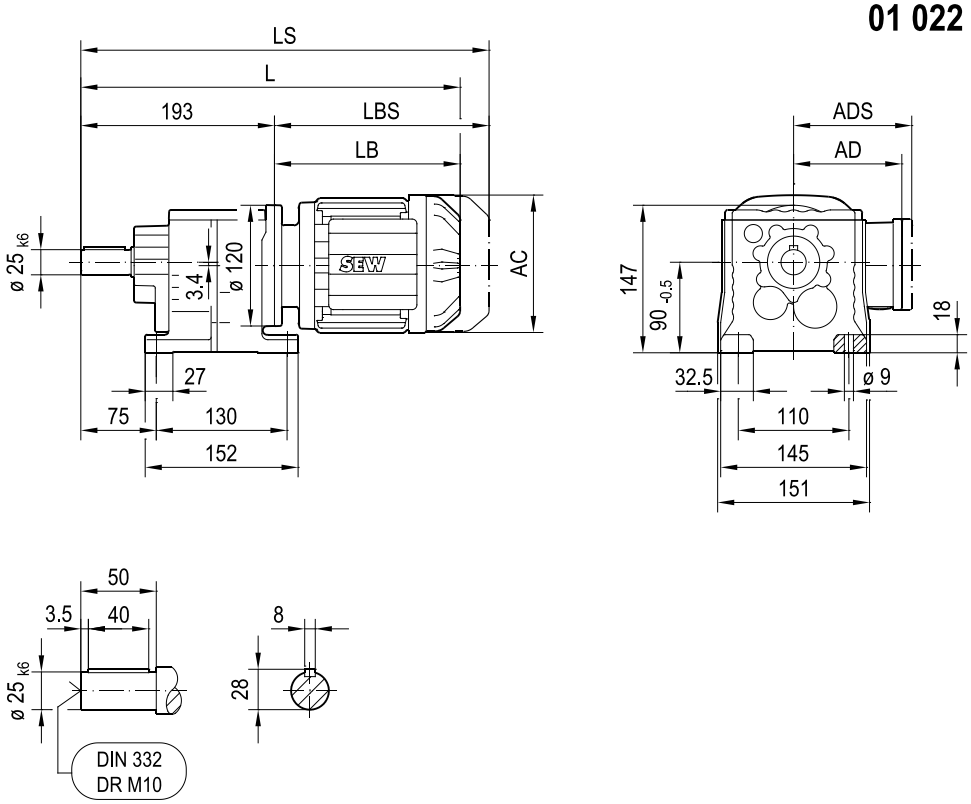


(→ 📖 7.3)	DRN							
	63MS	63M	71MS	71M	80MS	80M		
AC	115	115	139	139	156	156		
AD	98	98	118	118	128	128		
ADS	98	98	129	129	139	139		
L	355	369	371	391	414	442		
LS	411	425	438	458	495	523		
LB	190	204	206	226	249	277		
LBS	246	260	273	293	330	358		

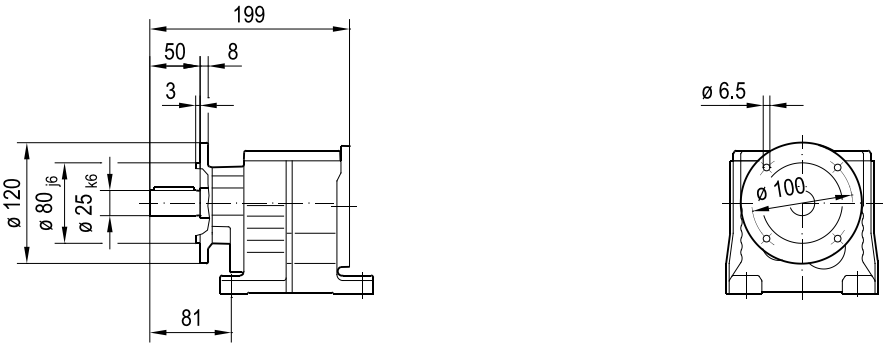
24832936/EN – 09/2018

01 022 00 14

R27..



R27F..

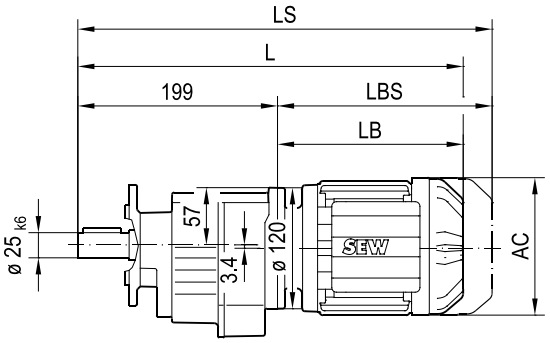


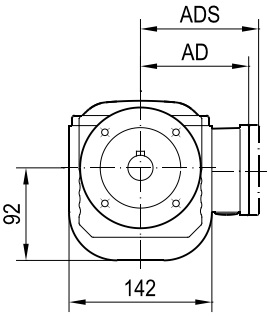
(→ 📖 7.3)	DRN									
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	179	179	197	197
AD	98	98	118	118	128	128	140	140	157	157
ADS	98	98	129	129	139	139	150	150	158	158
L	383	397	399	419	430	475	476	508	507	557
LS	439	453	466	486	511	556	570	602	601	651
LB	190	204	206	226	237	282	283	315	314	364
LBS	246	260	273	293	318	363	377	409	408	458

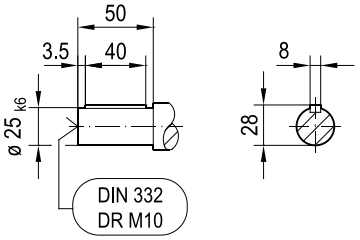
24832936/EN – 09/2018

01 023 00 14

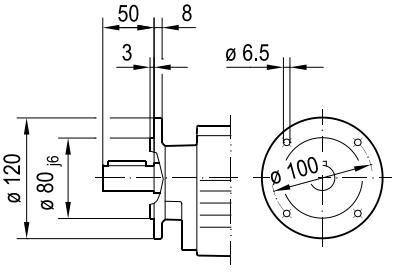
RF27..







ø 120



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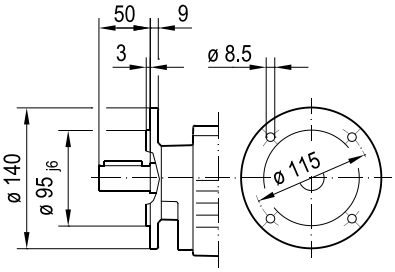
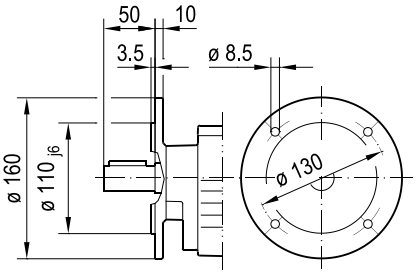


ø 160

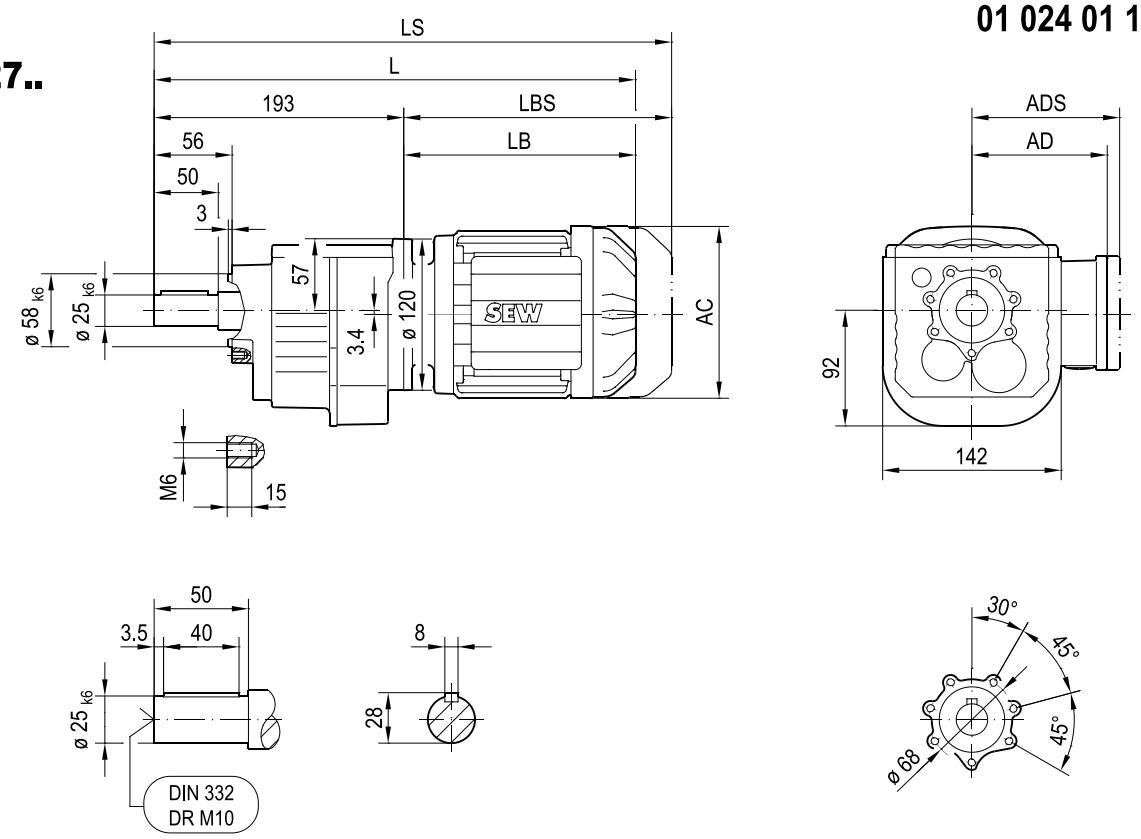


(→ 📖 7.3)	DRN									
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	179	179	197	197
AD	98	98	118	118	128	128	140	140	157	157
ADS	98	98	129	129	139	139	150	150	158	158
L	389	403	405	425	436	481	482	514	513	563
LS	445	459	472	492	517	562	576	608	607	657
LB	190	204	206	226	237	282	283	315	314	364
LBS	246	260	273	293	318	363	377	409	408	458

24832936/EN – 09/2018

RZ27..

01 024 01 14

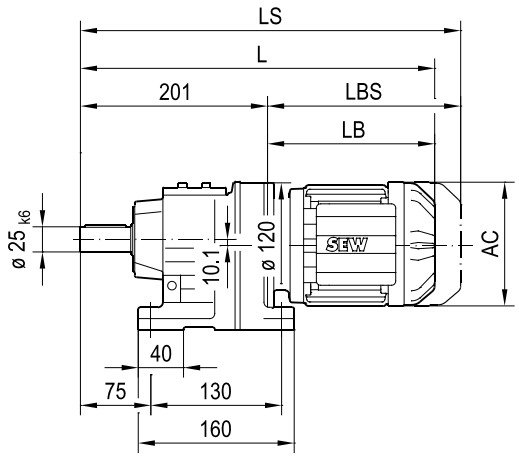


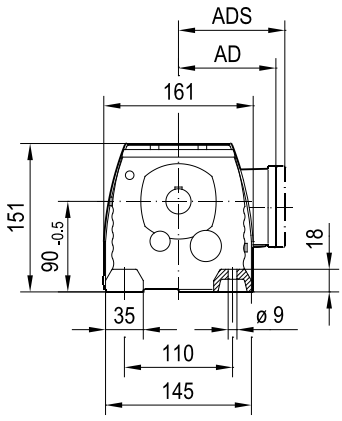
(→ 📖 7.3)	DRN									
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	179	179	197	197
AD	98	98	118	118	128	128	140	140	157	157
ADS	98	98	129	129	139	139	150	150	158	158
L	383	397	399	419	430	475	476	508	507	557
LS	439	453	466	486	511	556	570	602	601	651
LB	190	204	206	226	237	282	283	315	314	364
LBS	246	260	273	293	318	363	377	409	408	458

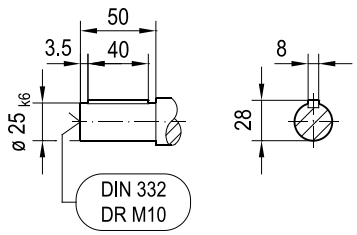
24832936/EN – 09/2018

01 025 01 14

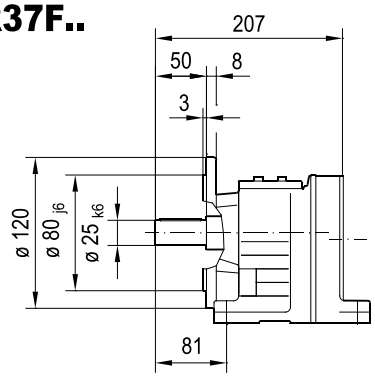
R37..

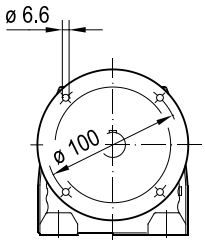






R37F..



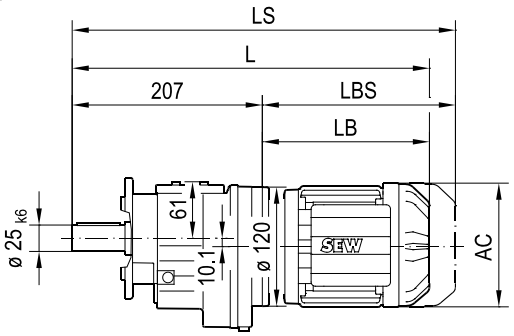


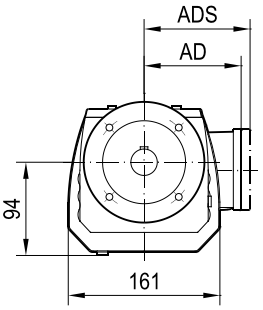
(→ 📖 7.3)	DRN									
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	179	179	197	197
AD	98	98	118	118	128	128	140	140	157	157
ADS	98	98	129	129	139	139	150	150	158	158
L	391	405	407	427	438	483	484	516	515	565
LS	447	461	474	494	519	564	578	610	609	659
LB	190	204	206	226	237	282	283	315	314	364
LBS	246	260	273	293	318	363	377	409	408	458

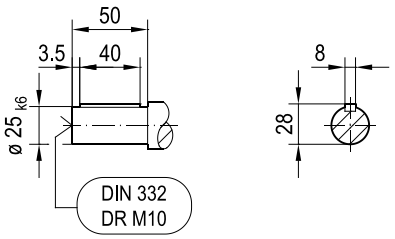
24832936/EN – 09/2018

01 026 01 14

RF37..







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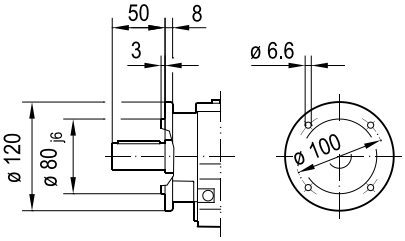

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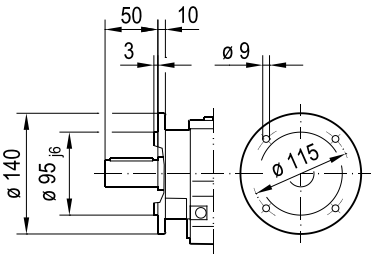
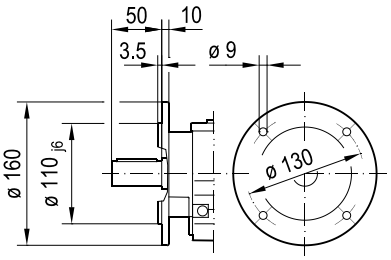


ø 160



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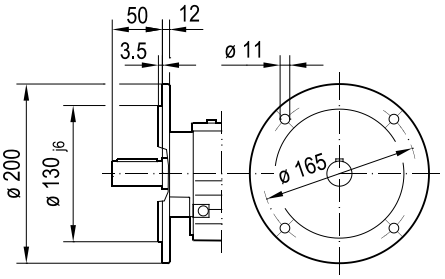
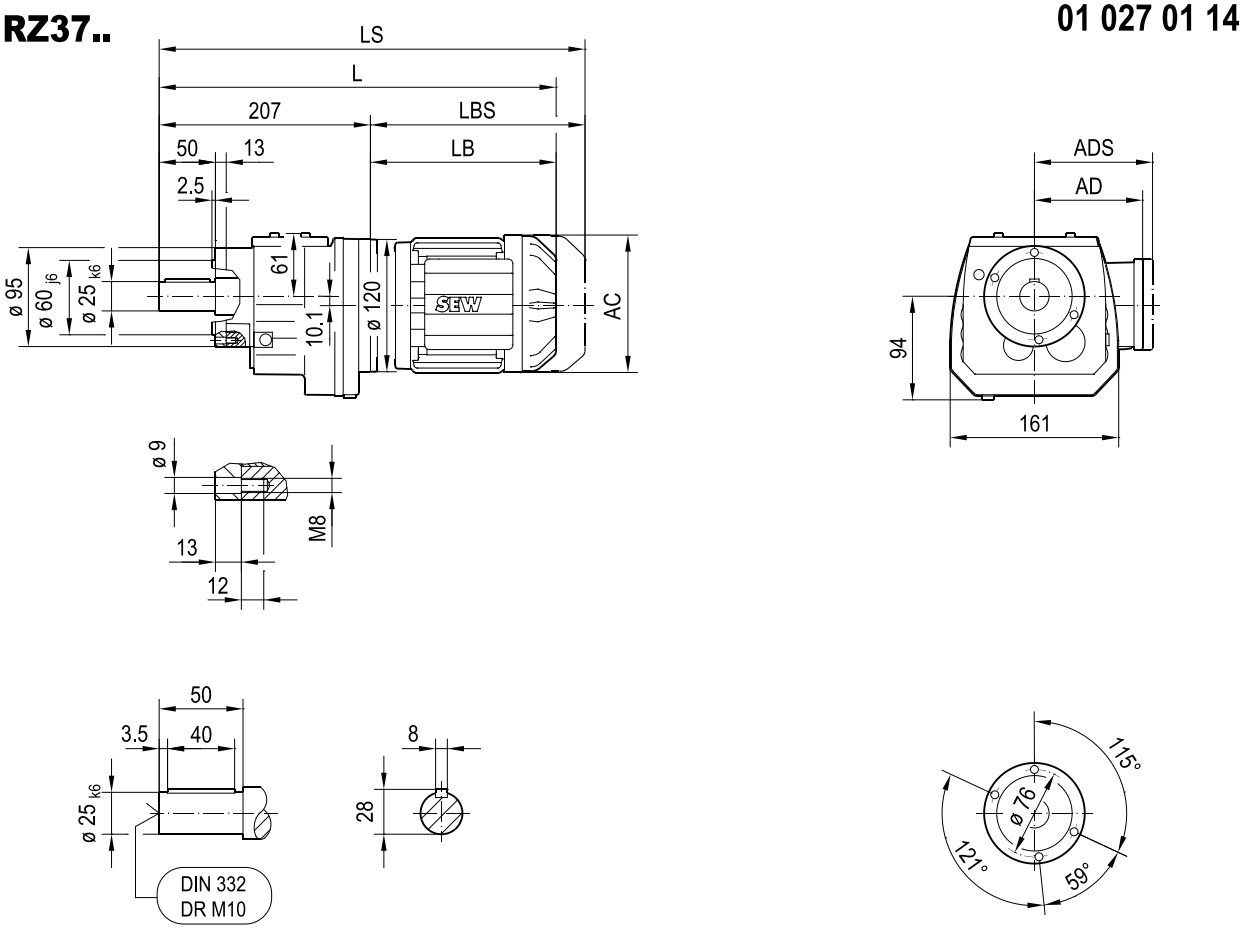


(→ 📖 7.3)	DRN									
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	179	179	197	197
AD	98	98	118	118	128	128	140	140	157	157
ADS	98	98	129	129	139	139	150	150	158	158
L	397	411	413	433	444	489	490	522	521	571
LS	453	467	480	500	525	570	584	616	615	665
LB	190	204	206	226	237	282	283	315	314	364
LBS	246	260	273	293	318	363	377	409	408	458

24832936/EN – 09/2018

RZ37..

01 027 01 14

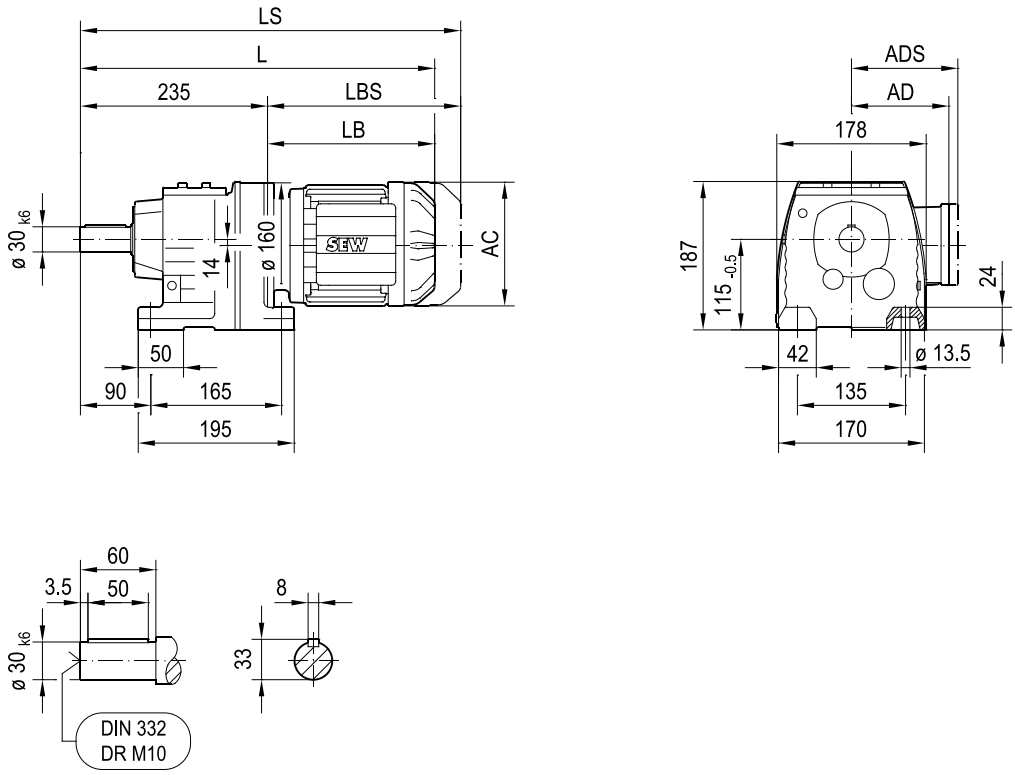


(→ 📖 7.3)	DRN									
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	179	179	197	197
AD	98	98	118	118	128	128	140	140	157	157
ADS	98	98	129	129	139	139	150	150	158	158
L	397	411	413	433	444	489	490	522	521	571
LS	453	467	480	500	525	570	584	616	615	665
LB	190	204	206	226	237	282	283	315	314	364
LBS	246	260	273	293	318	363	377	409	408	458

24832936/EN – 09/2018

01 028 01 14

R47..



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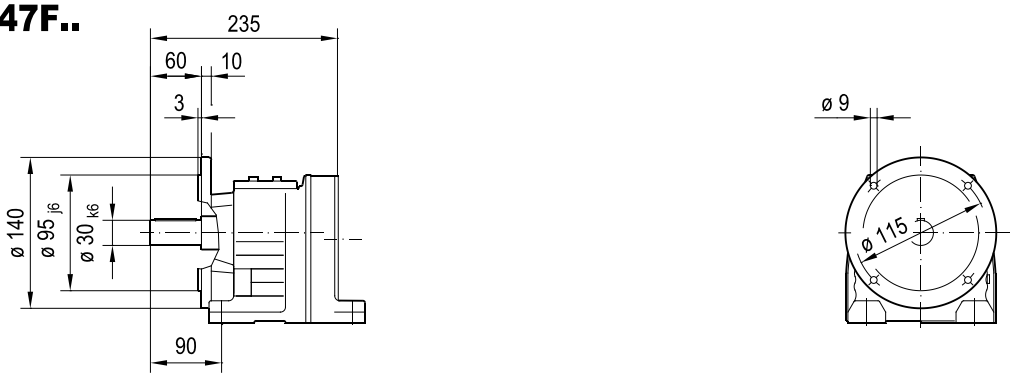
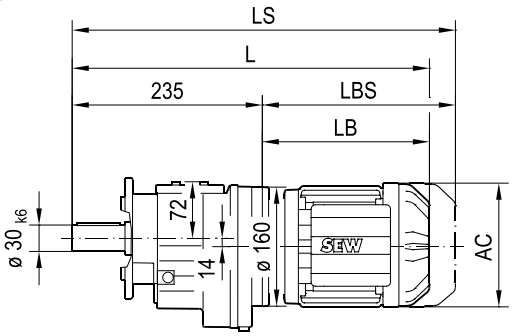


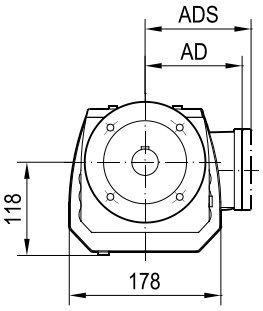
(→ 📖 7.3)	DRN											
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S
AC	115	115	139	139	156	156	179	179	197	197	221	221
AD	98	98	118	118	128	128	140	140	157	157	170	170
ADS	98	98	129	129	139	139	150	150	158	158	172	172
L	419	433	434	454	465	510	512	544	540	590	621	675
LS	475	489	502	522	546	591	605	637	634	684	733	787
LB	184	198	199	219	230	275	277	309	305	355	386	440
LBS	240	254	267	287	311	356	370	402	399	449	498	552

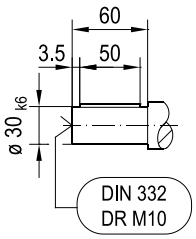
24832936/EN – 09/2018

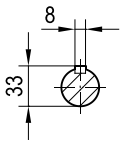
01 029 01 14

RF47..









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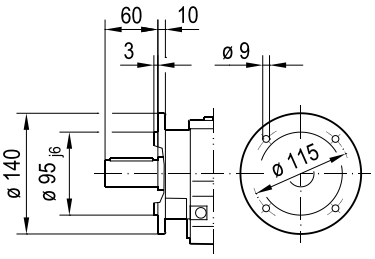

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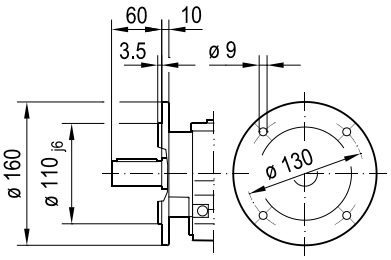

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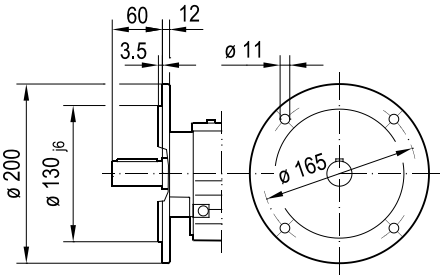
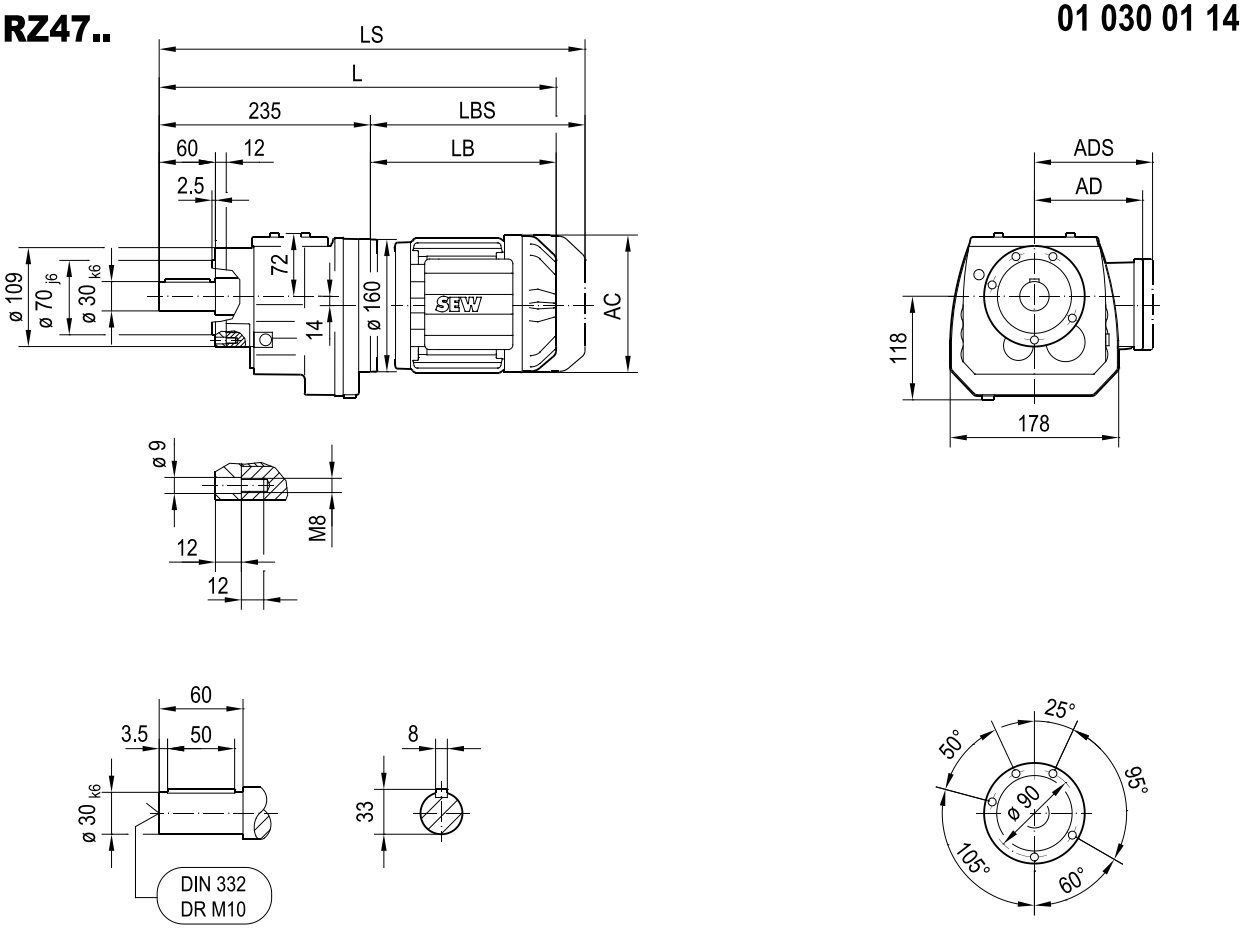


(→ 📖 7.3)	DRN											
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S
AC	115	115	139	139	156	156	179	179	197	197	221	221
AD	98	98	118	118	128	128	140	140	157	157	170	170
ADS	98	98	129	129	139	139	150	150	158	158	172	172
L	419	433	434	454	465	510	512	544	540	590	621	675
LS	475	489	502	522	546	591	605	637	634	684	733	787
LB	184	198	199	219	230	275	277	309	305	355	386	440
LBS	240	254	267	287	311	356	370	402	399	449	498	552

24832936/EN – 09/2018

RZ47..

01 030 01 14

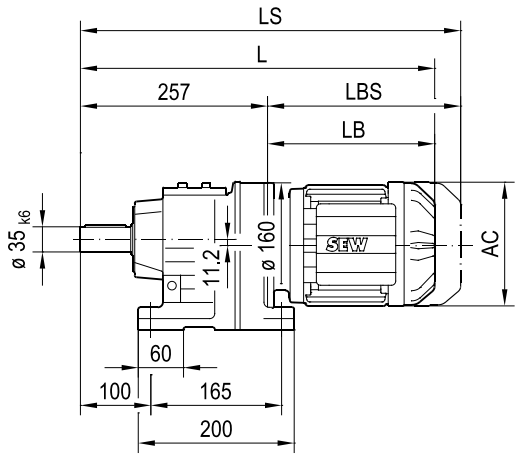


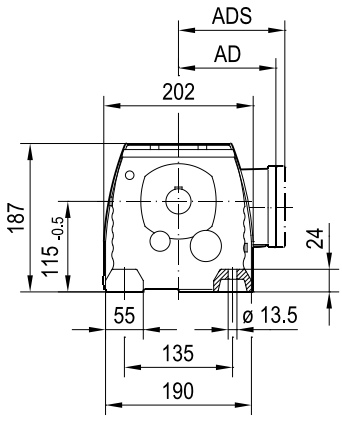
(→ 📖 7.3)	DRN											
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S
AC	115	115	139	139	156	156	179	179	197	197	221	221
AD	98	98	118	118	128	128	140	140	157	157	170	170
ADS	98	98	129	129	139	139	150	150	158	158	172	172
L	419	433	434	454	465	510	512	544	540	590	621	675
LS	475	489	502	522	546	591	605	637	634	684	733	787
LB	184	198	199	219	230	275	277	309	305	355	386	440
LBS	240	254	267	287	311	356	370	402	399	449	498	552

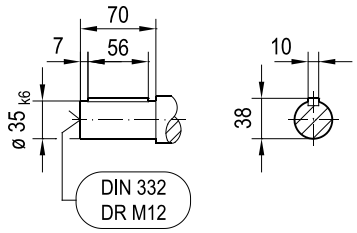
24832936/EN – 09/2018

01 031 01 14

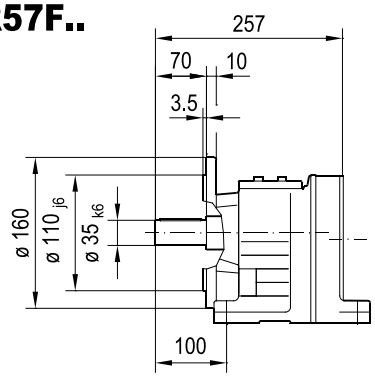
R57..

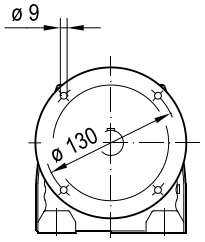






R57F..





(→ 📖 7.3)	DRN												
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M
AC	115	115	139	139	156	156	179	179	197	197	221	221	261
AD	98	98	118	118	128	128	140	140	157	157	170	170	228
ADS	98	98	129	129	139	139	150	150	158	158	172	172	228
L	441	455	456	476	487	532	534	566	562	612	643	697	715
LS	497	511	524	544	568	613	627	659	656	706	755	809	853
LB	184	198	199	219	230	275	277	309	305	355	386	440	458
LBS	240	254	267	287	311	356	370	402	399	449	498	552	596

24832936/EN – 09/2018

RF57..

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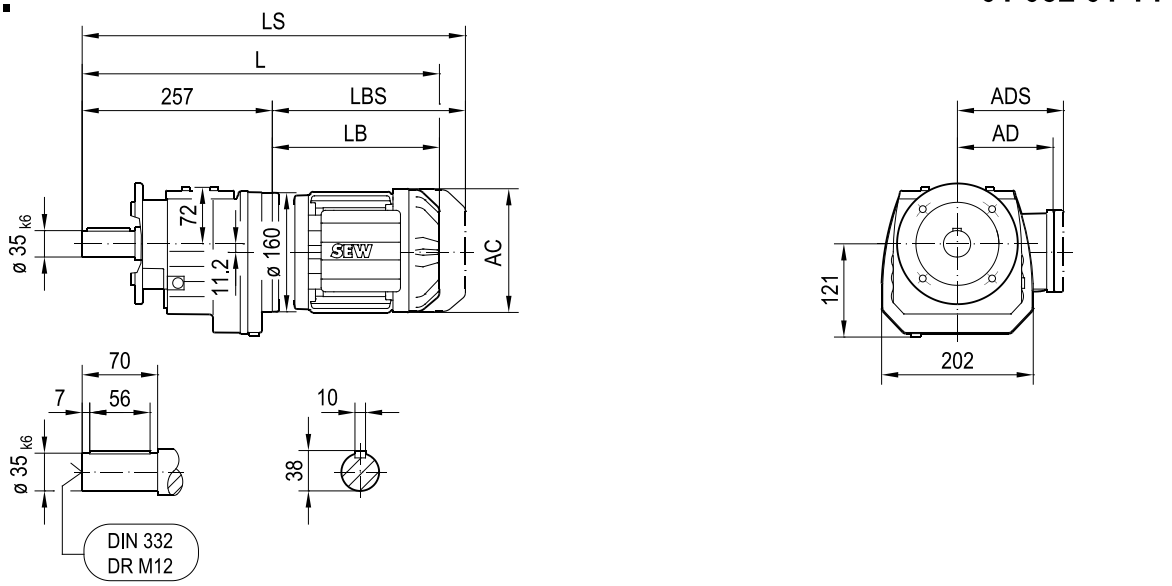
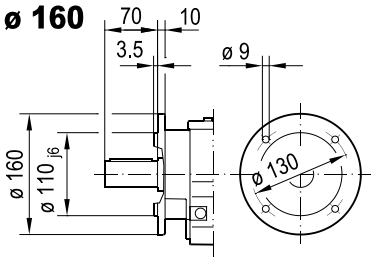


ø 160



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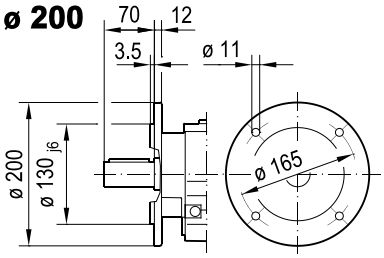

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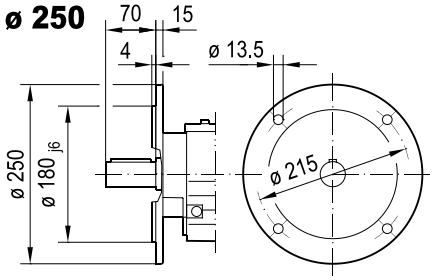
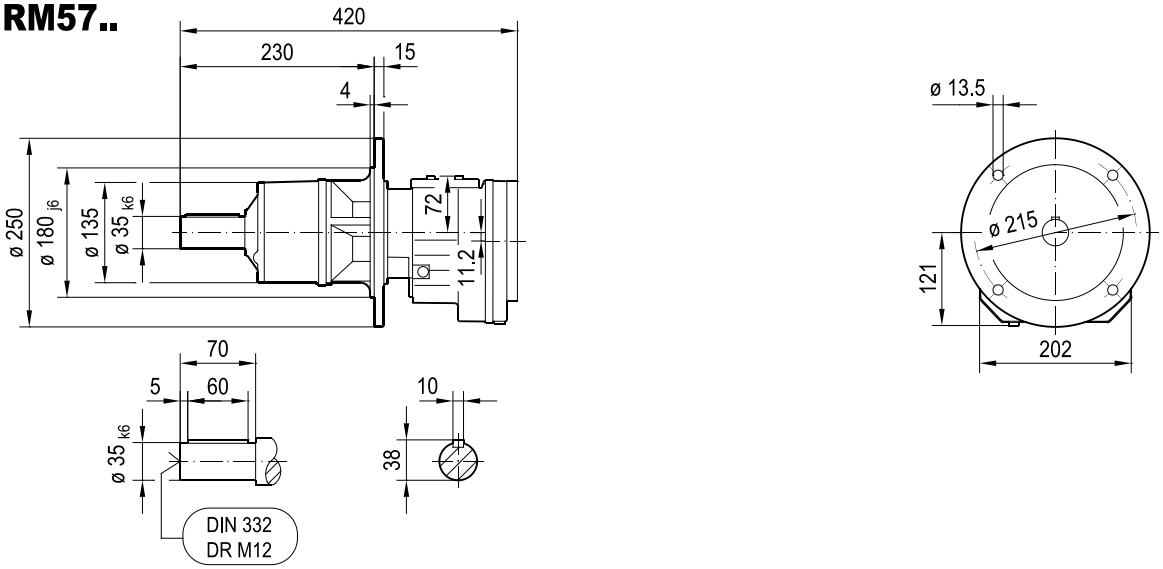


RM57..

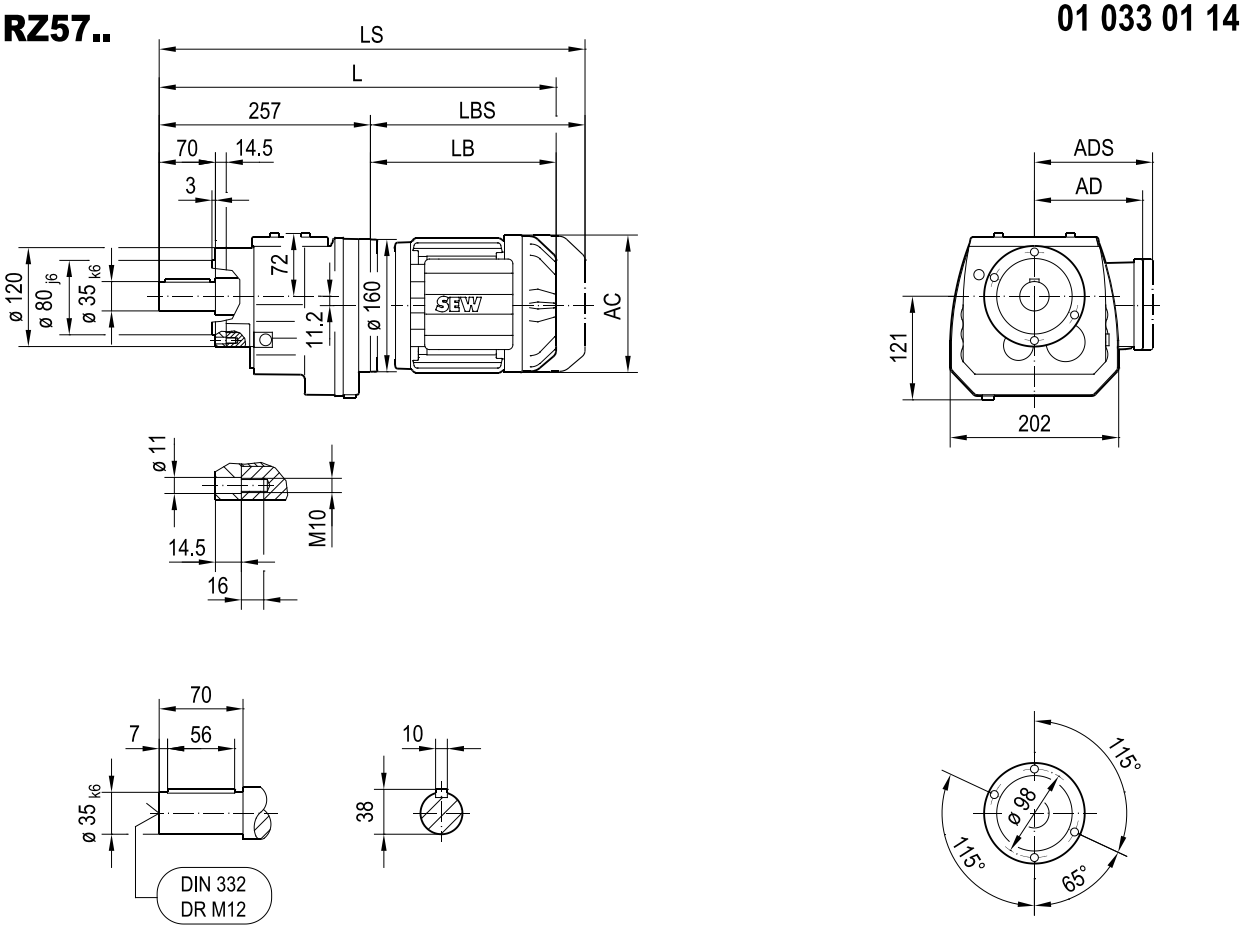


(→ 📖 7.3)	DRN												
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M
AC	115	115	139	139	156	156	179	179	197	197	221	221	261
AD	98	98	118	118	128	128	140	140	157	157	170	170	228
ADS	98	98	129	129	139	139	150	150	158	158	172	172	228
L	441	455	456	476	487	532	534	566	562	612	643	697	715
LS	497	511	524	544	568	613	627	659	656	706	755	809	853
LB	184	198	199	219	230	275	277	309	305	355	386	440	458
LBS	240	254	267	287	311	356	370	402	399	449	498	552	596

24832936/EN – 09/2018

RZ57..

01 033 01 14

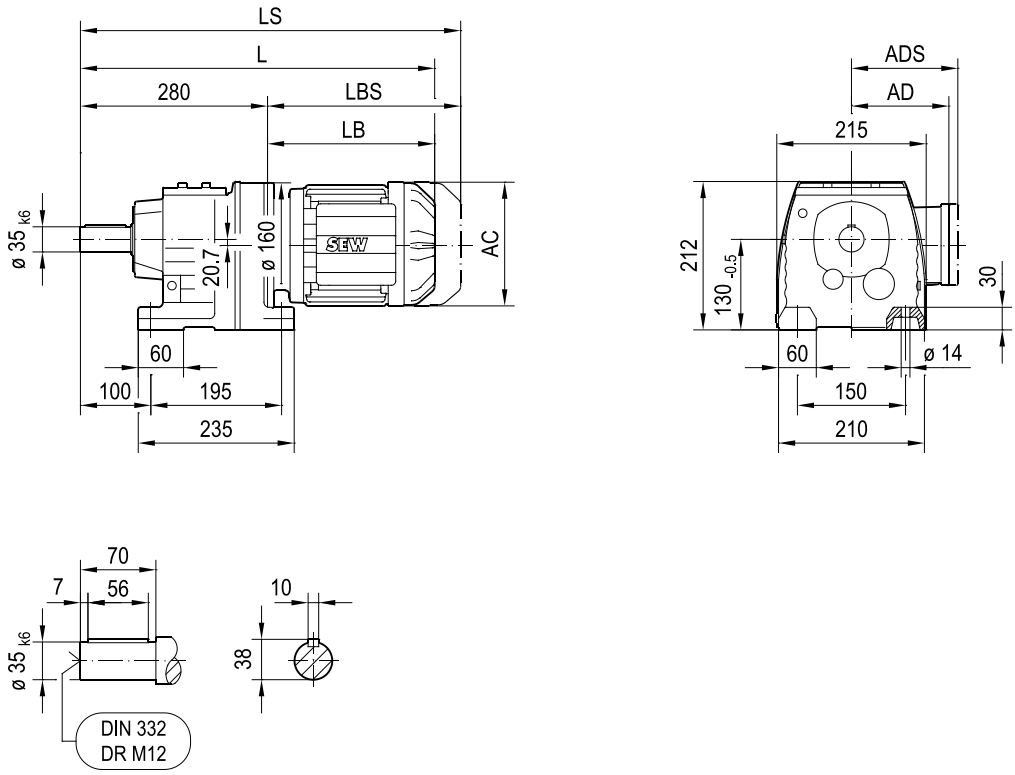


(→ 📖 7.3)	DRN												
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M
AC	115	115	139	139	156	156	179	179	197	197	221	221	261
AD	98	98	118	118	128	128	140	140	157	157	170	170	228
ADS	98	98	129	129	139	139	150	150	158	158	172	172	228
L	441	455	456	476	487	532	534	566	562	612	643	697	715
LS	497	511	524	544	568	613	627	659	656	706	755	809	853
LB	184	198	199	219	230	275	277	309	305	355	386	440	458
LBS	240	254	267	287	311	356	370	402	399	449	498	552	596

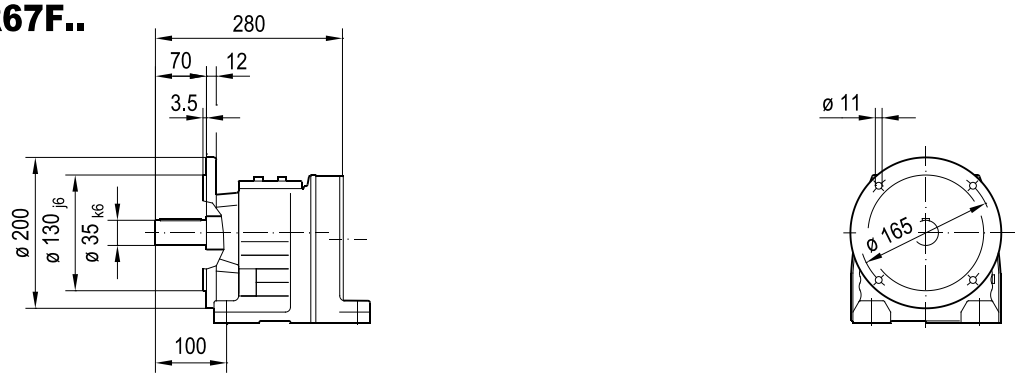
24832936/EN – 09/2018

01 034 01 14

R67..



R67F..

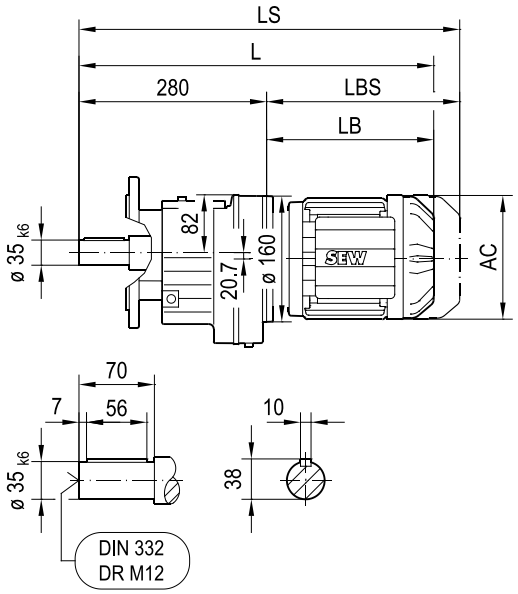


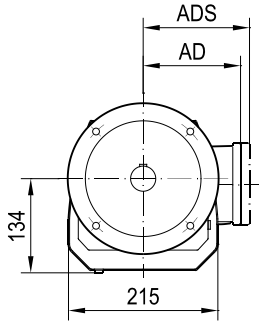
(→ 📖 7.3)	DRN												
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M
AC	115	115	139	139	156	156	179	179	197	197	221	221	261
AD	98	98	118	118	128	128	140	140	157	157	170	170	228
ADS	98	98	129	129	139	139	150	150	158	158	172	172	228
L	464	478	479	499	510	555	557	589	585	635	666	720	738
LS	520	534	547	567	591	636	650	682	679	729	778	832	876
LB	184	198	199	219	230	275	277	309	305	355	386	440	458
LBS	240	254	267	287	311	356	370	402	399	449	498	552	596

24832936/EN – 09/2018

01 035 01 14

RF67..





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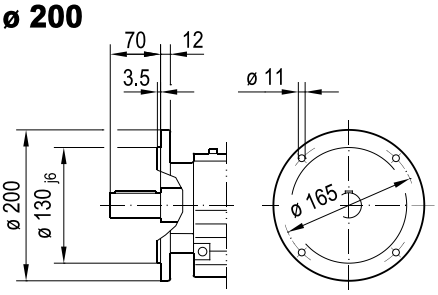

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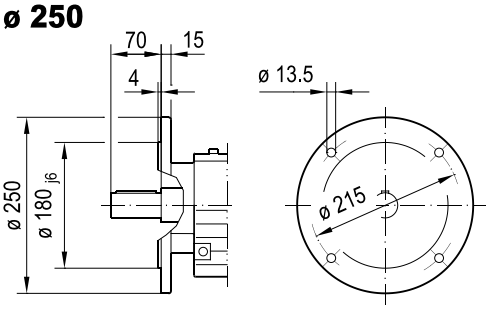
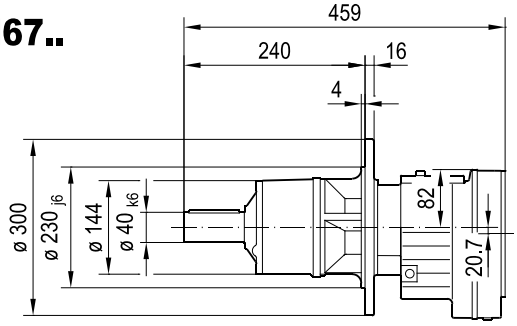
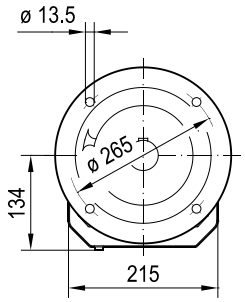


RM67..



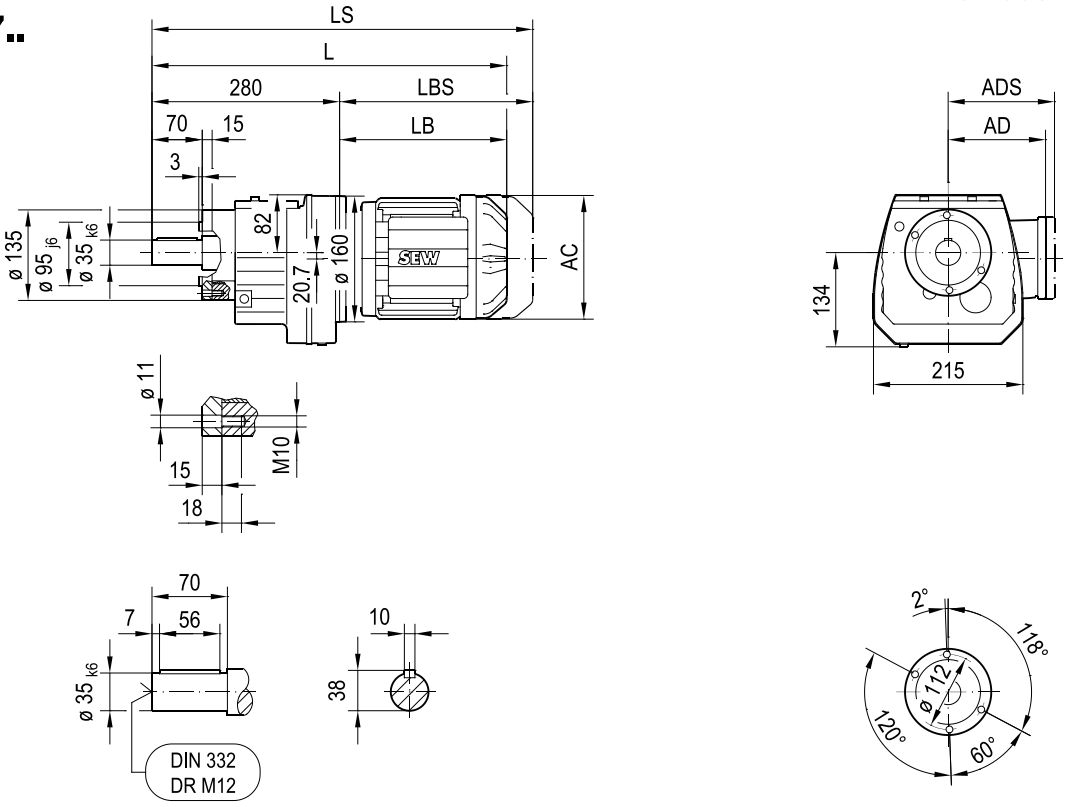


(→ 📖 7.3)	DRN												
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M
AC	115	115	139	139	156	156	179	179	197	197	221	221	261
AD	98	98	118	118	128	128	140	140	157	157	170	170	228
ADS	98	98	129	129	139	139	150	150	158	158	172	172	228
L	464	478	479	499	510	555	557	589	585	635	666	720	738
LS	520	534	547	567	591	636	650	682	679	729	778	832	876
LB	184	198	199	219	230	275	277	309	305	355	386	440	458
LBS	240	254	267	287	311	356	370	402	399	449	498	552	596

24832936/EN – 09/2018

01 036 01 14

RZ67..

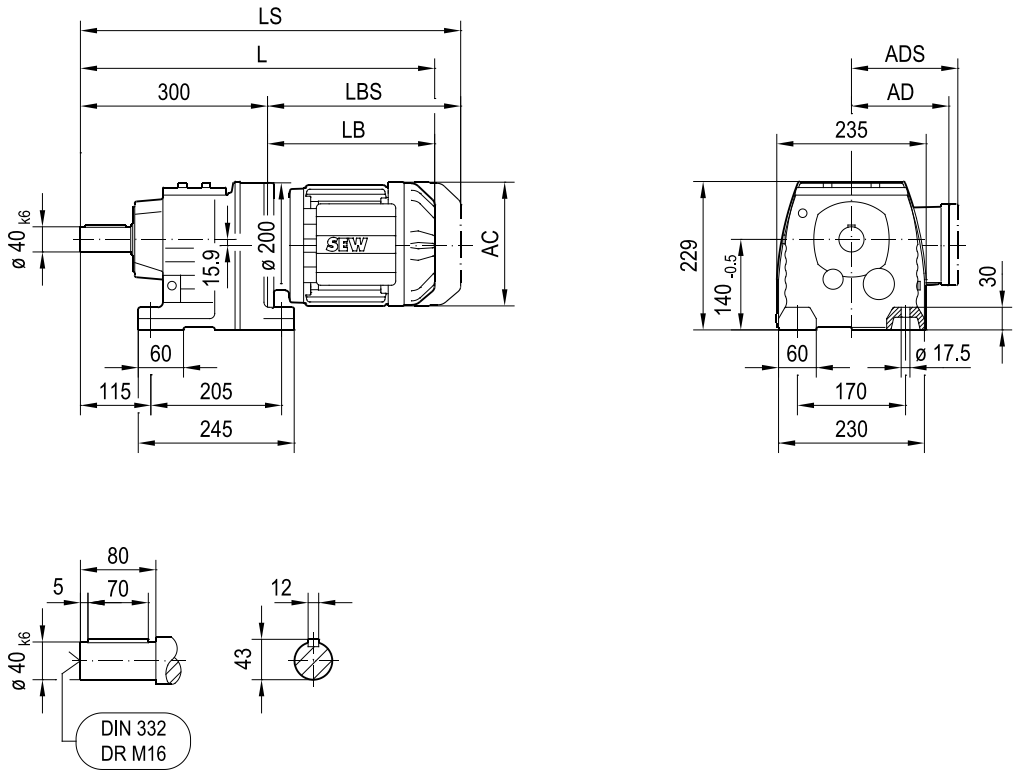


(→ 📖 7.3)	DRN												
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M
AC	115	115	139	139	156	156	179	179	197	197	221	221	261
AD	98	98	118	118	128	128	140	140	157	157	170	170	228
ADS	98	98	129	129	139	139	150	150	158	158	172	172	228
L	464	478	479	499	510	555	557	589	585	635	666	720	738
LS	520	534	547	567	591	636	650	682	679	729	778	832	876
LB	184	198	199	219	230	275	277	309	305	355	386	440	458
LBS	240	254	267	287	311	356	370	402	399	449	498	552	596

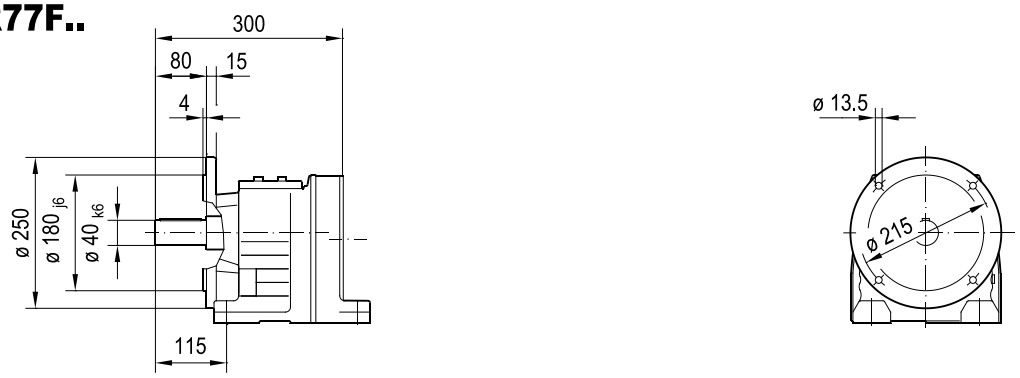
24832936/EN – 09/2018

01 037 01 14

R77..



R77F..

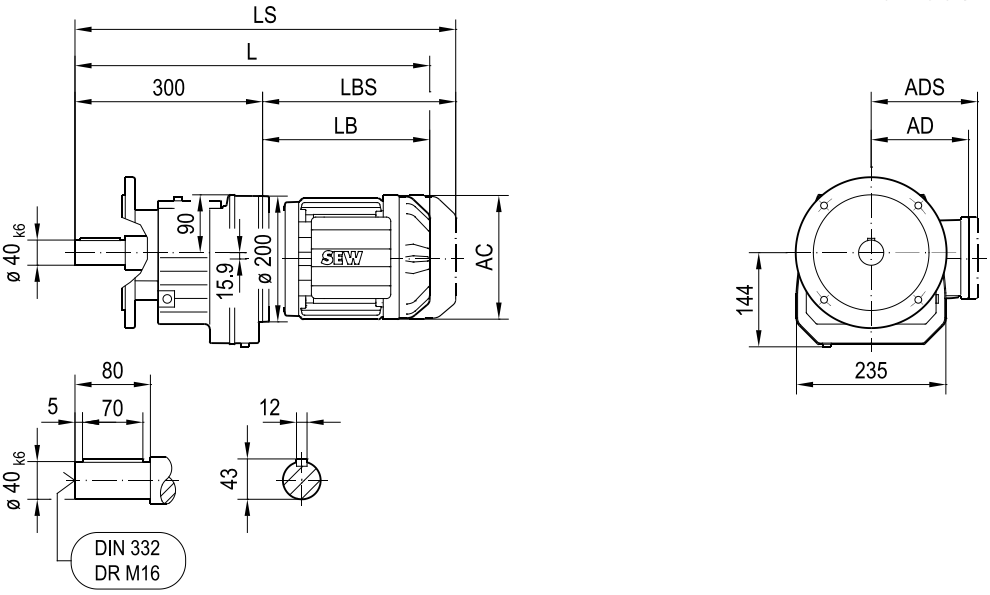


(→ 📖 7.3)	DRN													
	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..
AC	115	139	139	156	156	179	179	197	197	221	221	261	261	314
AD	98	118	118	128	128	140	140	157	157	170	170	228	228	253
ADS	98	129	129	139	139	150	150	158	158	172	172	228	228	253
L	491	492	512	523	568	570	602	598	648	679	729	747	773	839
LS	547	560	580	604	649	663	695	692	742	791	841	885	910	1028
LB	191	192	212	223	268	270	302	298	348	379	429	447	473	539
LBS	247	260	280	304	349	363	395	392	442	491	541	585	610	728

24832936/EN – 09/2018

01 038 01 14

RF77..



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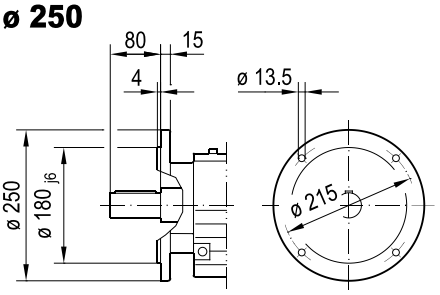

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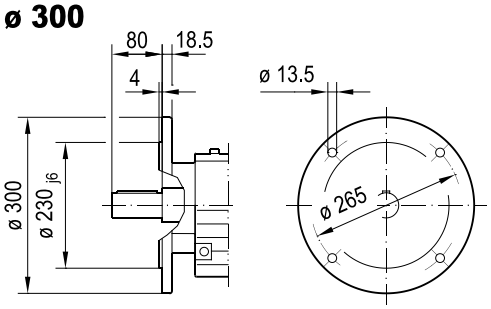
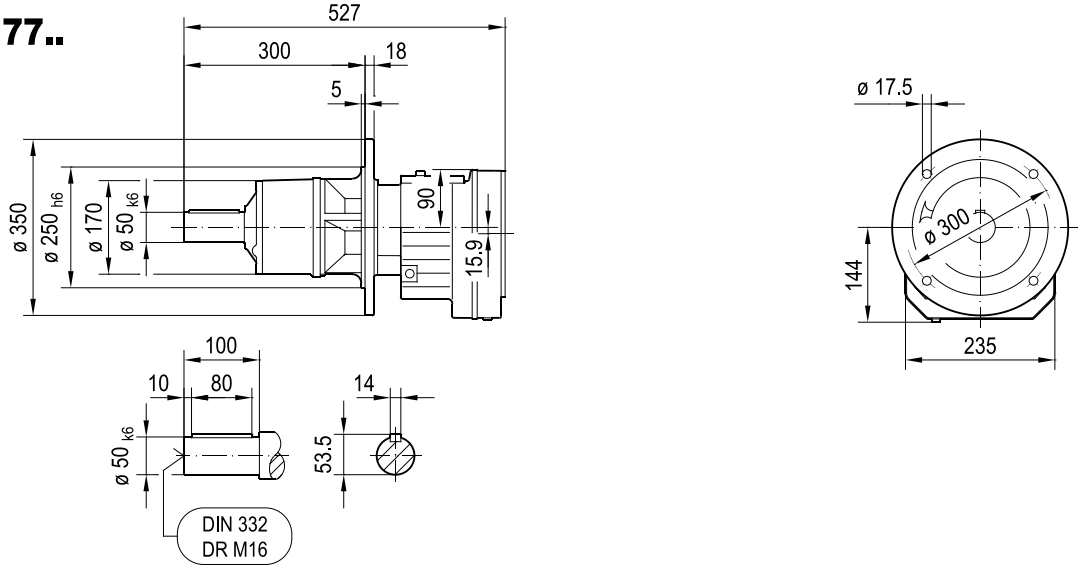


RM77..

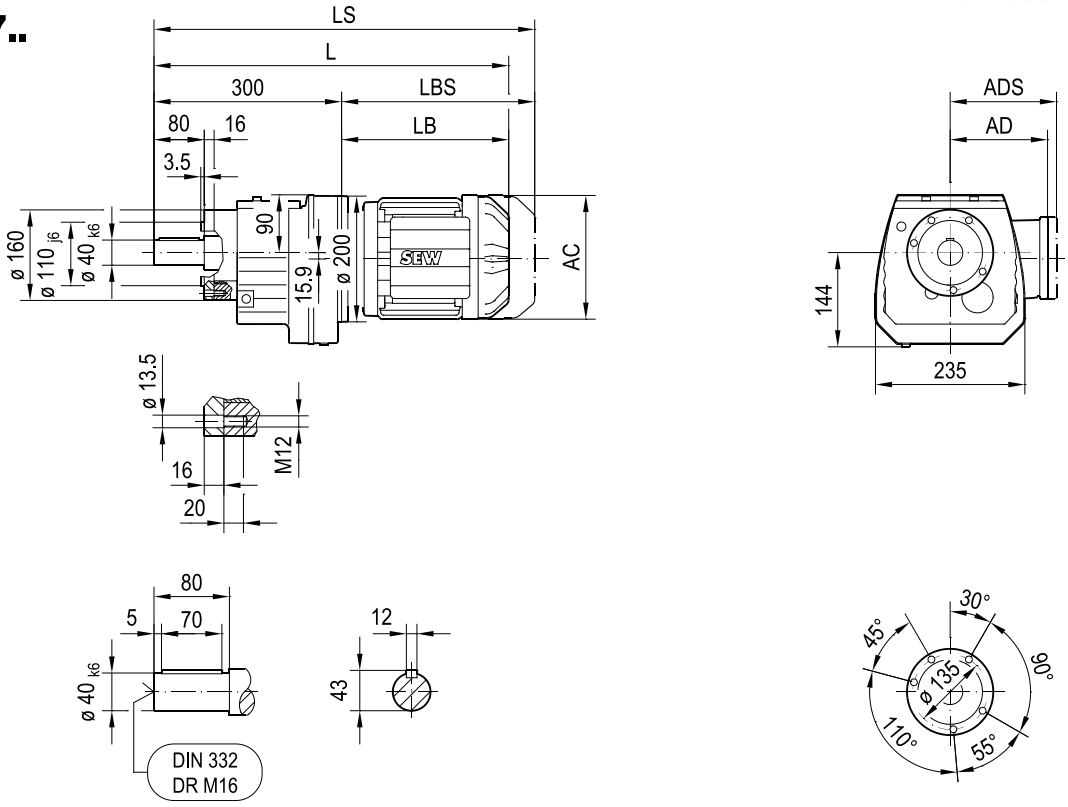


(→ 📖 7.3)	DRN													
	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..
AC	115	139	139	156	156	179	179	197	197	221	221	261	261	314
AD	98	118	118	128	128	140	140	157	157	170	170	228	228	253
ADS	98	129	129	139	139	150	150	158	158	172	172	228	228	253
L	491	492	512	523	568	570	602	598	648	679	729	747	773	839
LS	547	560	580	604	649	663	695	692	742	791	841	885	910	1028
LB	191	192	212	223	268	270	302	298	348	379	429	447	473	539
LBS	247	260	280	304	349	363	395	392	442	491	541	585	610	728

24832936/EN – 09/2018

01 039 01 14

RZ77..

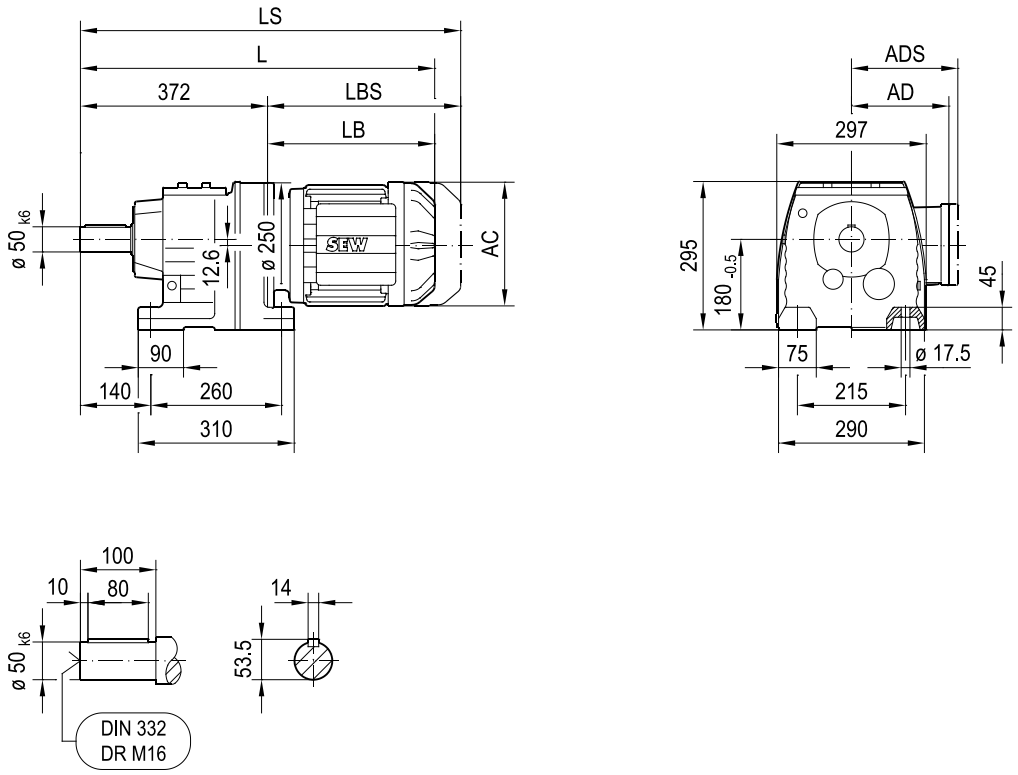


(→ 📖 7.3)	DRN													
	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..
AC	115	139	139	156	156	179	179	197	197	221	221	261	261	314
AD	98	118	118	128	128	140	140	157	157	170	170	228	228	253
ADS	98	129	129	139	139	150	150	158	158	172	172	228	228	253
L	491	492	512	523	568	570	602	598	648	679	729	747	773	839
LS	547	560	580	604	649	663	695	692	742	791	841	885	910	1028
LB	191	192	212	223	268	270	302	298	348	379	429	447	473	539
LBS	247	260	280	304	349	363	395	392	442	491	541	585	610	728

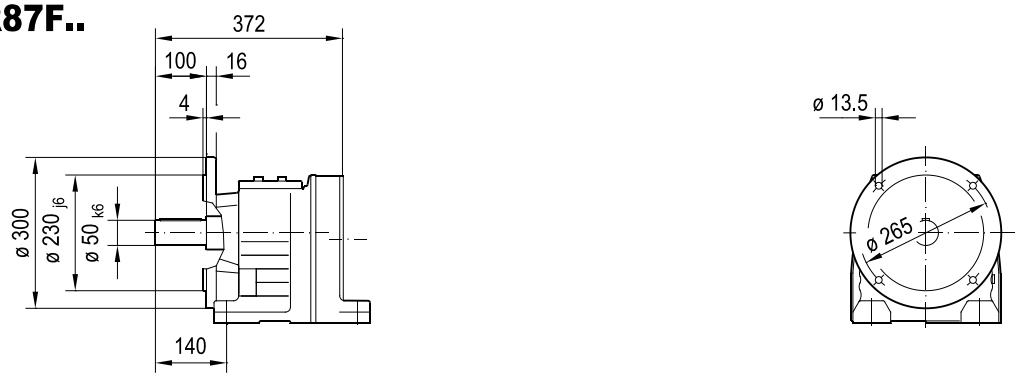
24832936/EN – 09/2018

01 040 01 14

R87..



R87F..

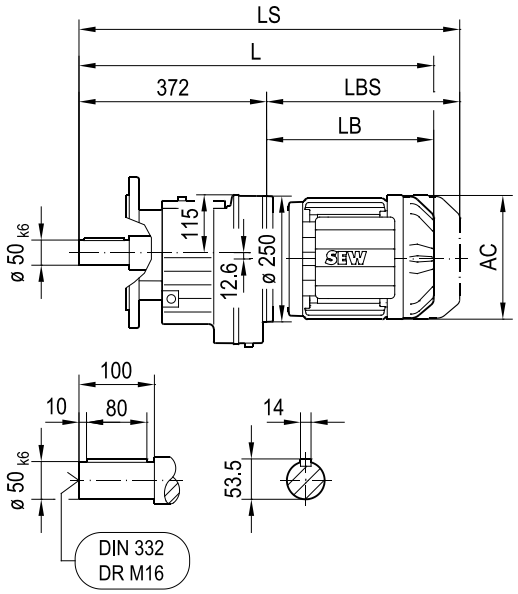


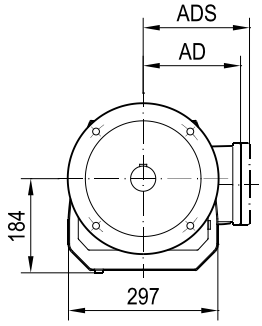
(→ 📖 7.3)	DRN											
	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..
AC	156	156	179	179	197	197	221	221	261	261	314	357
AD	128	128	140	140	157	157	170	170	228	228	253	268
ADS	139	139	150	150	158	158	172	172	228	228	253	268
L	590	635	637	669	665	715	746	796	814	840	906	929
LS	671	716	730	762	759	809	858	908	952	977	1095	1118
LB	218	263	265	297	293	343	374	424	442	468	534	557
LBS	299	344	358	390	387	437	486	536	580	605	723	746

24832936/EN – 09/2018

01 041 01 14

RF87..





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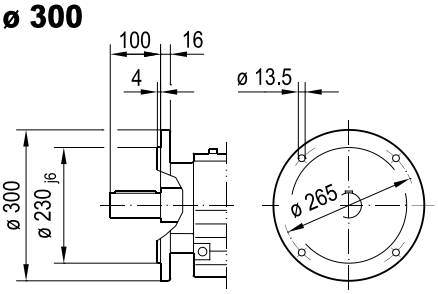

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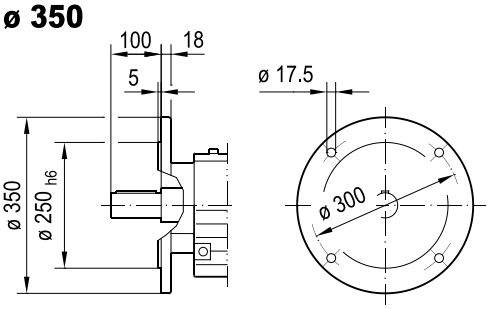
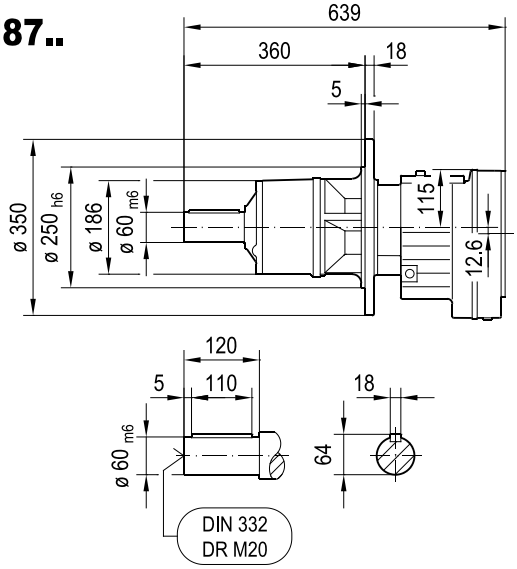
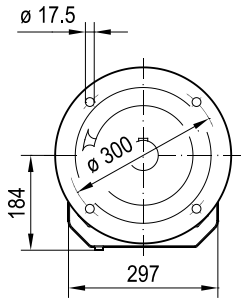


RM87..

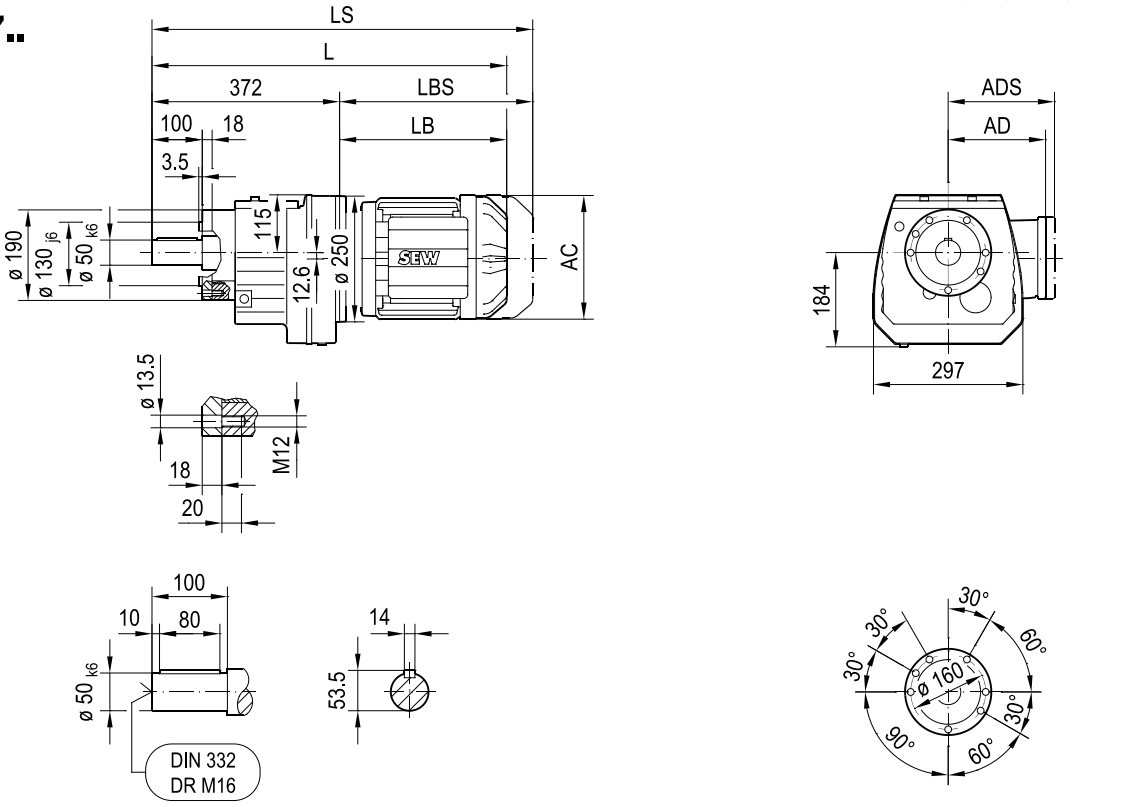




(→ 📖 7.3)	DRN											
	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..
AC	156	156	179	179	197	197	221	221	261	261	314	357
AD	128	128	140	140	157	157	170	170	228	228	253	268
ADS	139	139	150	150	158	158	172	172	228	228	253	268
L	590	635	637	669	665	715	746	796	814	840	906	929
LS	671	716	730	762	759	809	858	908	952	977	1095	1118
LB	218	263	265	297	293	343	374	424	442	468	534	557
LBS	299	344	358	390	387	437	486	536	580	605	723	746

01 042 01 14

RZ87..

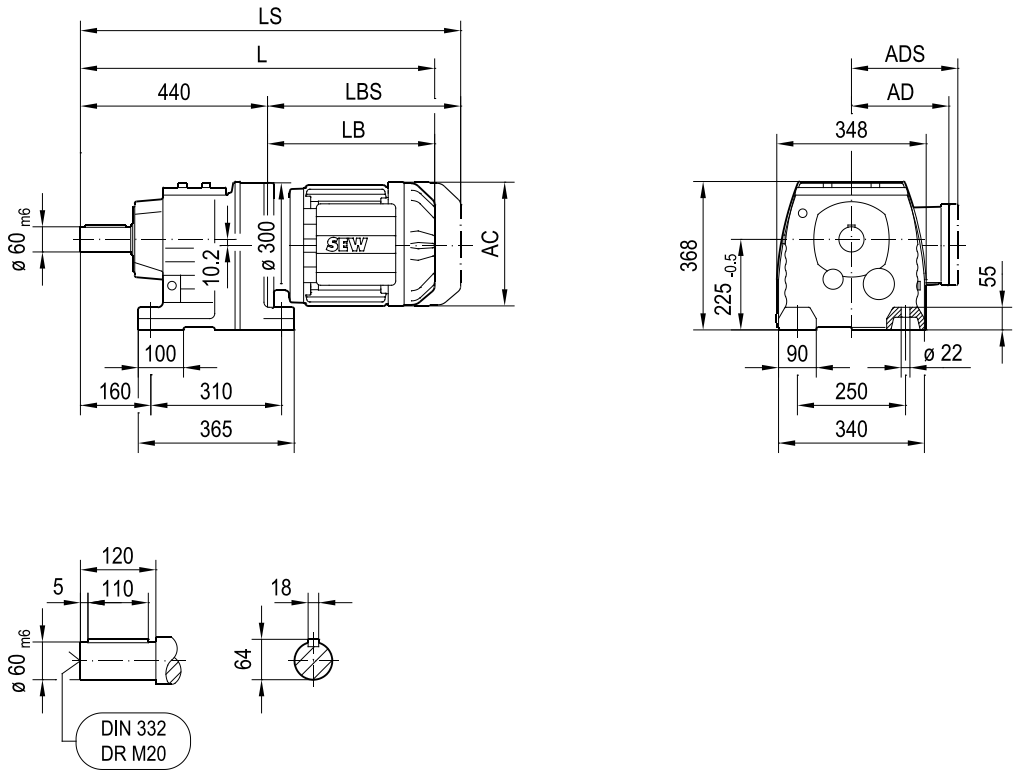


(→ 📖 7.3)	DRN											
	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..
AC	156	156	179	179	197	197	221	221	261	261	314	357
AD	128	128	140	140	157	157	170	170	228	228	253	268
ADS	139	139	150	150	158	158	172	172	228	228	253	268
L	590	635	637	669	665	715	746	796	814	840	906	929
LS	671	716	730	762	759	809	858	908	952	977	1095	1118
LB	218	263	265	297	293	343	374	424	442	468	534	557
LBS	299	344	358	390	387	437	486	536	580	605	723	746

24832936/EN – 09/2018

01 043 01 14

R97..

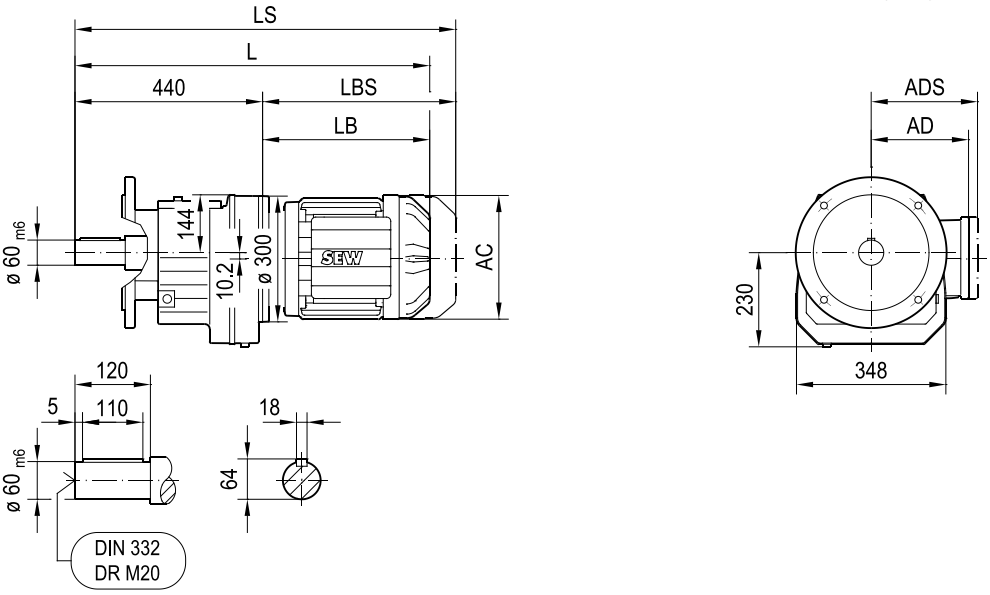


(→ 📖 7.3)	DRN												
	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L
AC	156	156	179	179	197	197	221	221	261	261	314	357	394
AD	128	128	140	140	157	157	170	170	228	228	253	268	283
ADS	139	139	150	150	158	158	172	172	228	228	253	268	283
L	653	698	700	732	728	778	809	859	877	903	969	992	1102
LS	734	779	793	825	822	872	921	971	1015	1040	1158	1181	1307
LB	213	258	260	292	288	338	369	419	437	463	529	552	662
LBS	294	339	353	385	382	432	481	531	575	600	718	741	867

24832936/EN – 09/2018

01 044 01 14

RF97..



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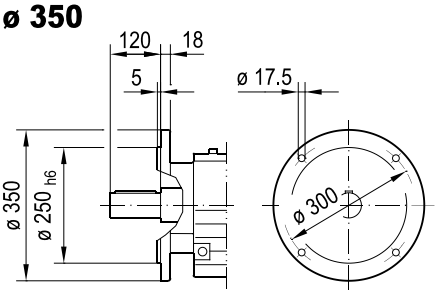
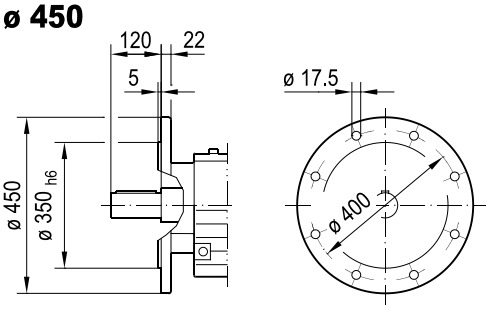
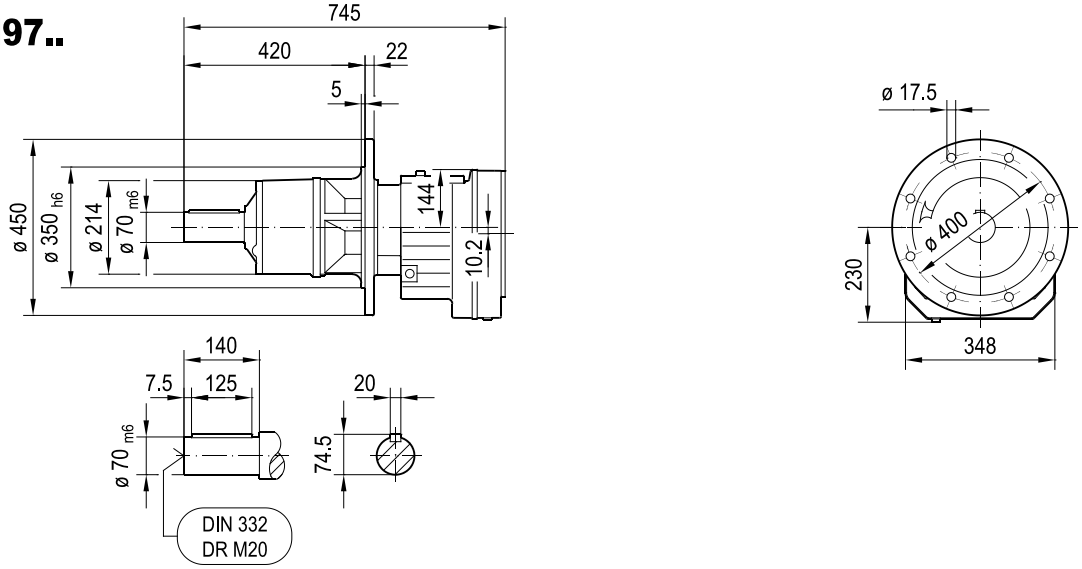


ø 450



RM97..

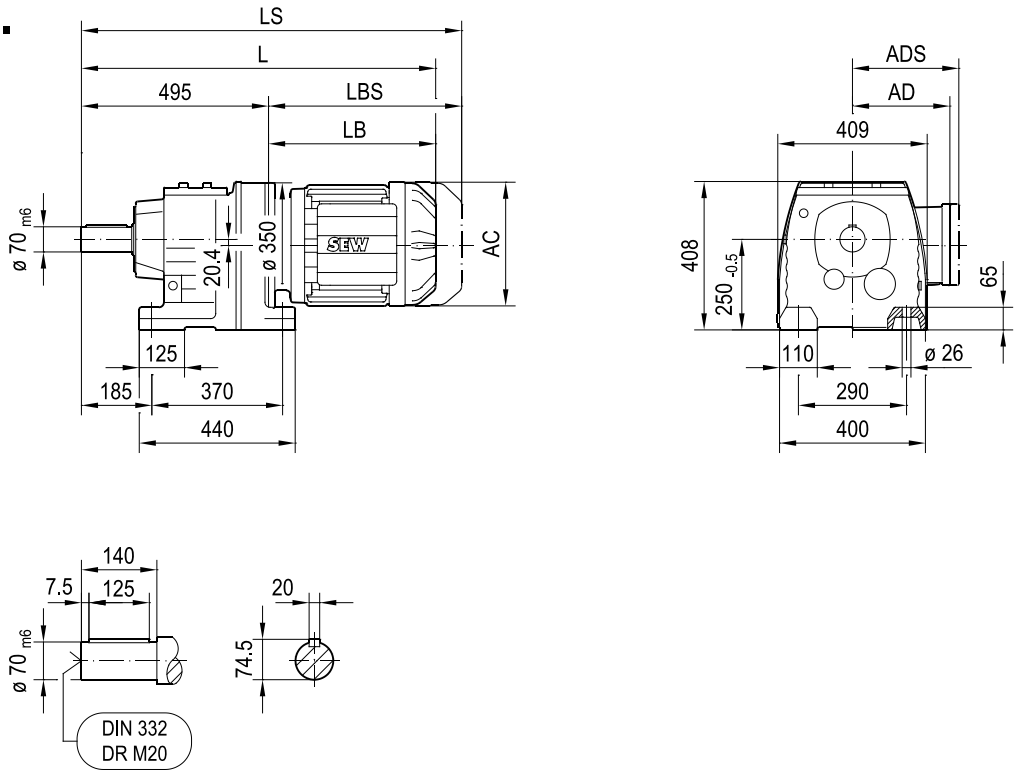


(→ 📖 7.3)	DRN												
	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L
AC	156	156	179	179	197	197	221	221	261	261	314	357	394
AD	128	128	140	140	157	157	170	170	228	228	253	268	283
ADS	139	139	150	150	158	158	172	172	228	228	253	268	283
L	653	698	700	732	728	778	809	859	877	903	969	992	1102
LS	734	779	793	825	822	872	921	971	1015	1040	1158	1181	1307
LB	213	258	260	292	288	338	369	419	437	463	529	552	662
LBS	294	339	353	385	382	432	481	531	575	600	718	741	867

24832936/EN – 09/2018

01 045 01 14

R107..

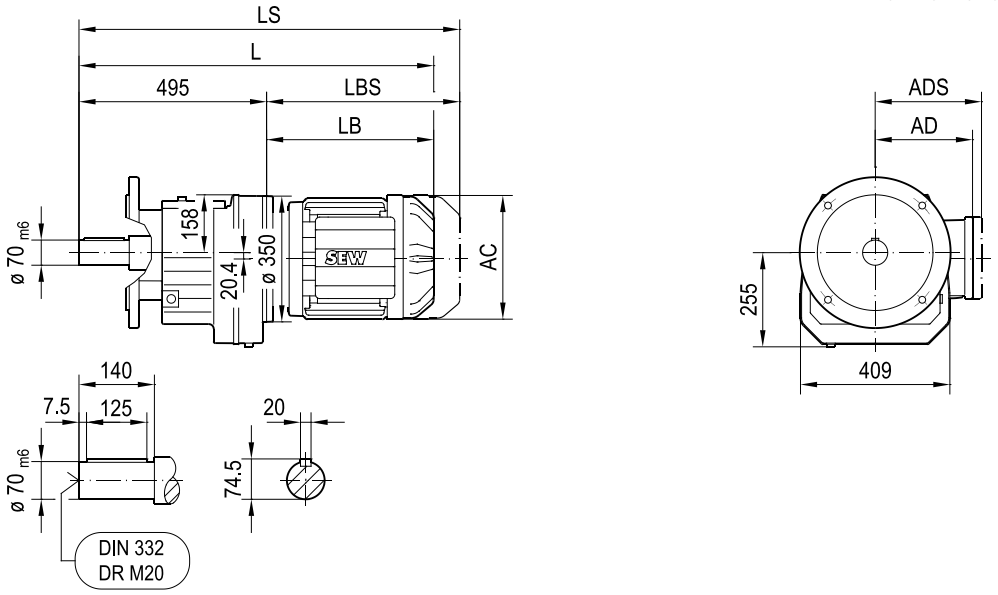


(→ 📖 7.3)	DRN									
	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..
AC	197	197	221	221	261	261	314	357	394	434
AD	157	157	170	170	228	228	253	268	283	305
ADS	158	158	172	172	228	228	253	268	283	305
L	777	827	858	908	926	952	1018	1041	1151	1125
LS	871	921	970	1020	1064	1089	1207	1230	1356	1330
LB	282	332	363	413	431	457	523	546	656	630
LBS	376	426	475	525	569	594	712	735	861	835

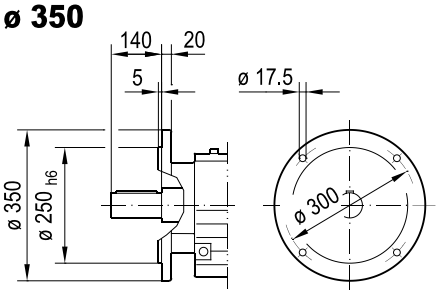
24832936/EN – 09/2018

01 046 01 14

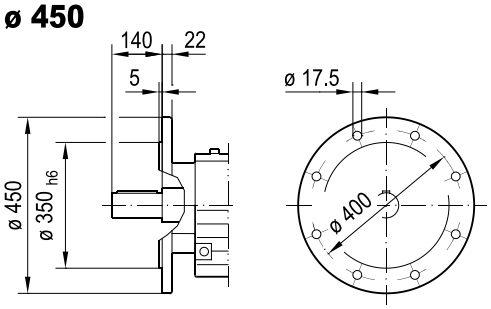
RF107..



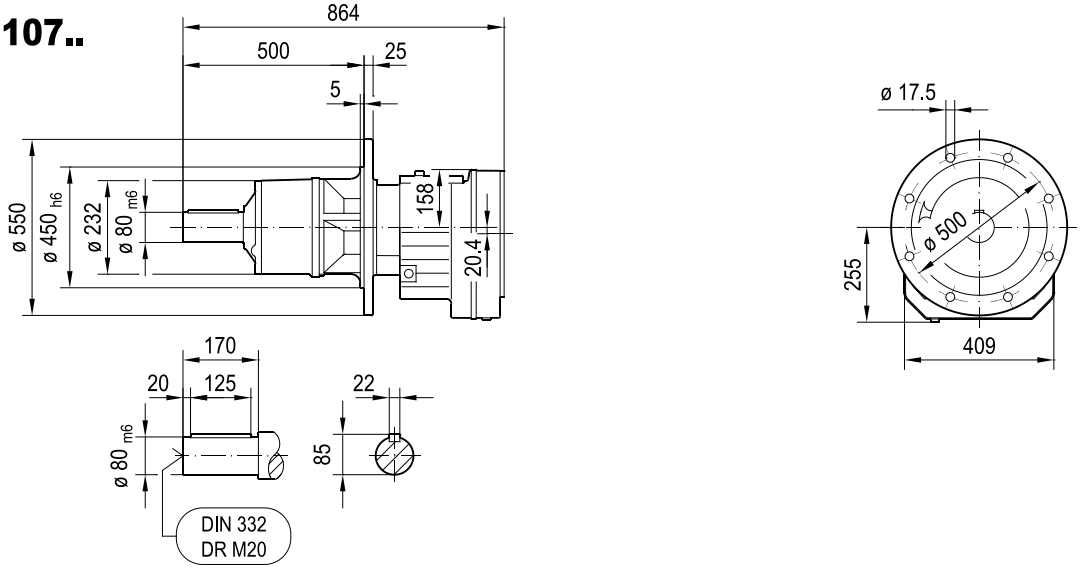
ø 350



ø 450



RM107..

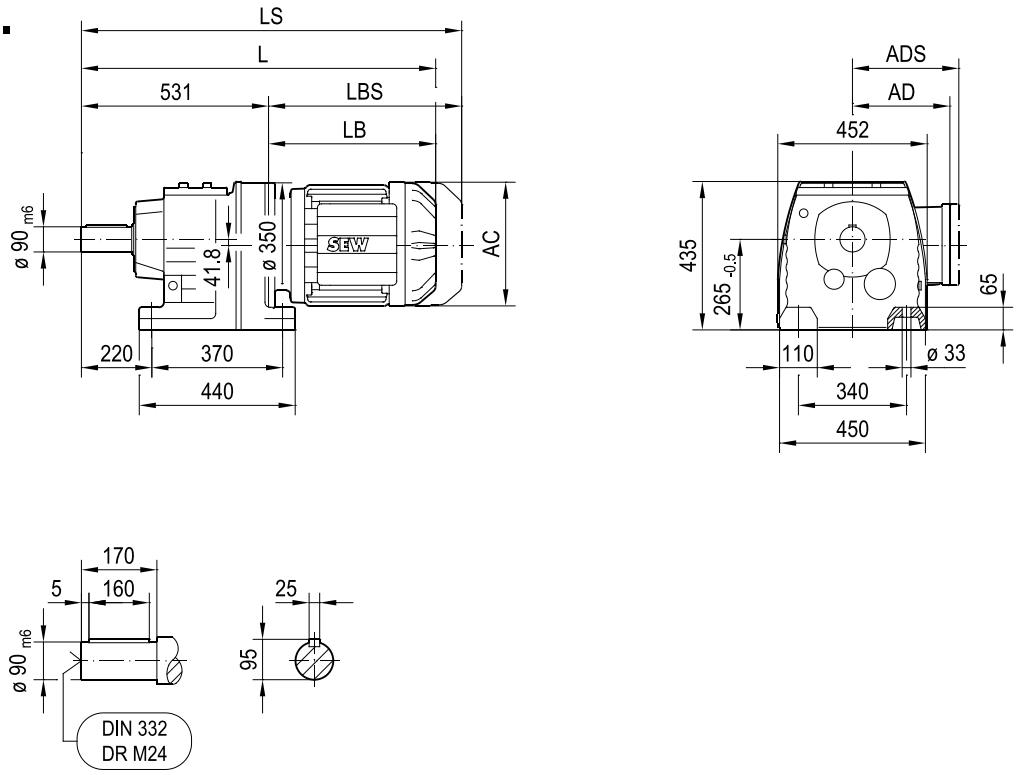


(→ 📖 7.3)	DRN									
	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..
AC	197	197	221	221	261	261	314	357	394	434
AD	157	157	170	170	228	228	253	268	283	305
ADS	158	158	172	172	228	228	253	268	283	305
L	777	827	858	908	926	952	1018	1041	1151	1125
LS	871	921	970	1020	1064	1089	1207	1230	1356	1330
LB	282	332	363	413	431	457	523	546	656	630
LBS	376	426	475	525	569	594	712	735	861	835

24832936/EN – 09/2018

01 147 01 15

R127..

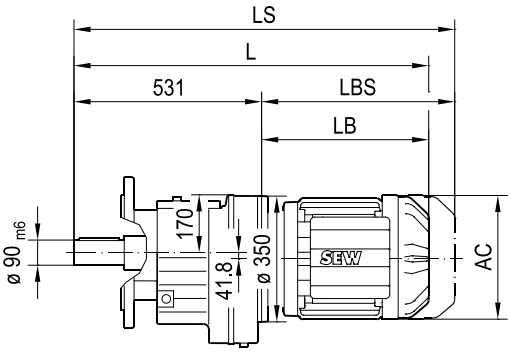


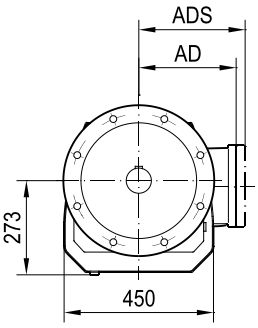
(→ 📖 7.3)	DRN										
	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..	250M
AC	197	197	221	221	261	261	314	357	394	434	495
AD	157	157	170	170	228	228	253	268	283	305	394
ADS	158	158	172	172	228	228	253	268	283	305	394
L	813	863	894	944	962	988	1054	1077	1187	1161	1298
LS	907	957	1006	1056	1100	1125	1243	1266	1392	1366	1538
LB	282	332	363	413	431	457	523	546	656	630	767
LBS	376	426	475	525	569	594	712	735	861	835	1007

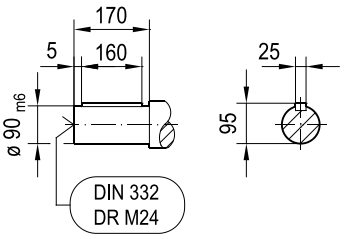
24832936/EN – 09/2018

01 148 01 15

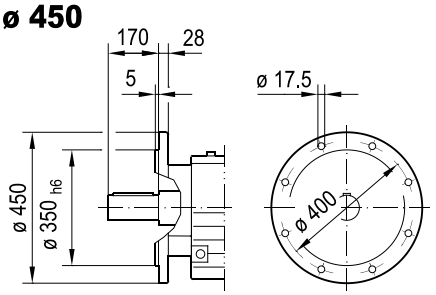
RF127..



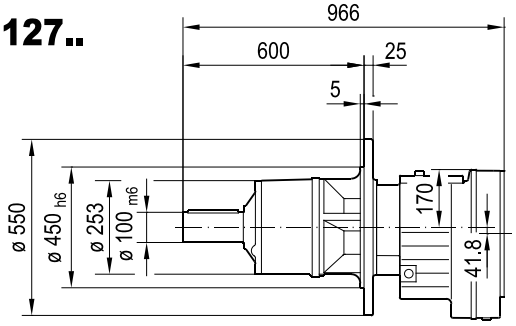


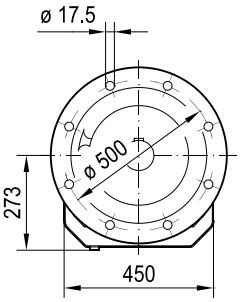


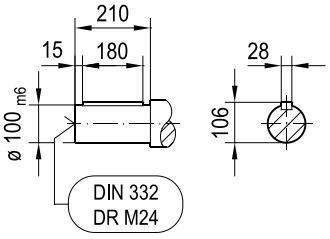
ø 450



RM127..





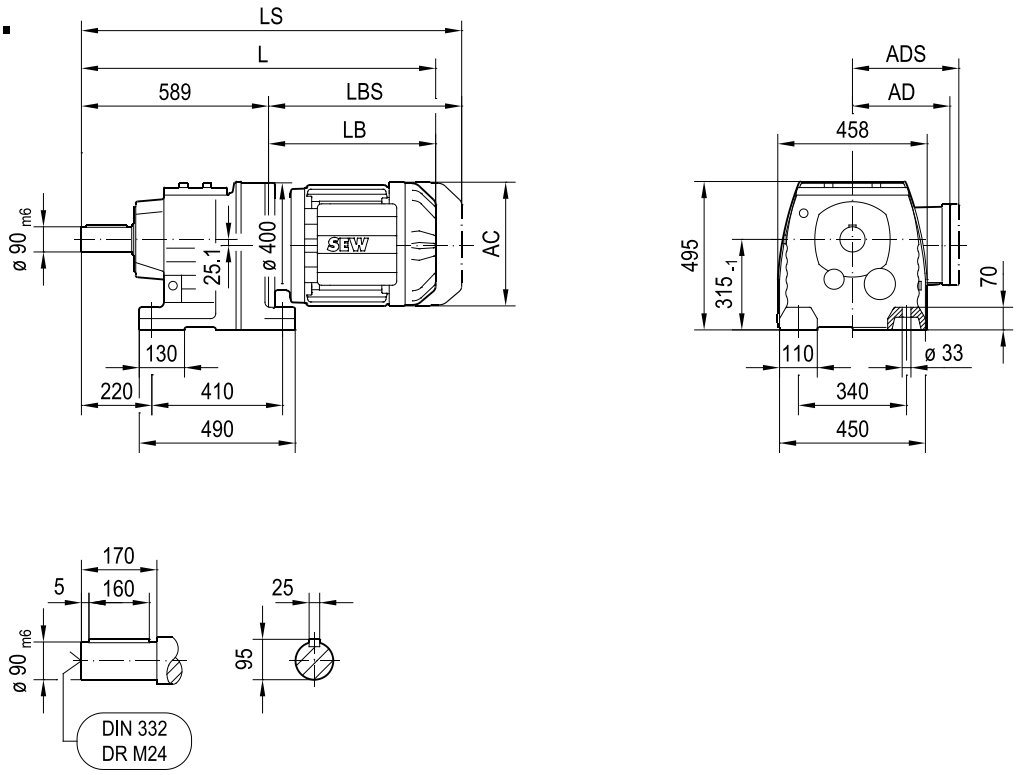


(→ 📖 7.3)	DRN										
	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..	250M
AC	197	197	221	221	261	261	314	357	394	434	495
AD	157	157	170	170	228	228	253	268	283	305	394
ADS	158	158	172	172	228	228	253	268	283	305	394
L	813	863	894	944	962	988	1054	1077	1187	1161	1298
LS	907	957	1006	1056	1100	1125	1243	1266	1392	1366	1538
LB	282	332	363	413	431	457	523	546	656	630	767
LBS	376	426	475	525	569	594	712	735	861	835	1007

24832936/EN – 09/2018

01 047 01 14

R137..

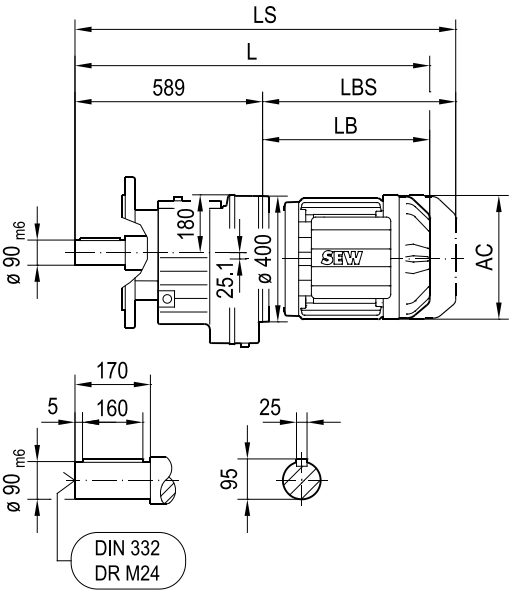


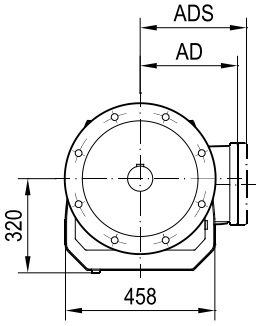
(→ 7.3)	DRN							
	132S	132M	132L	160..	180..	200L	225..	250M
AC	221	261	261	314	357	394	434	495
AD	170	228	228	253	268	283	305	394
ADS	172	228	228	253	268	283	305	394
L	995	1013	1039	1105	1128	1238	1212	1349
LS	1107	1151	1176	1294	1317	1443	1417	1589
LB	406	424	450	516	539	649	623	760
LBS	518	562	587	705	728	854	828	1000

24832936/EN – 09/2018

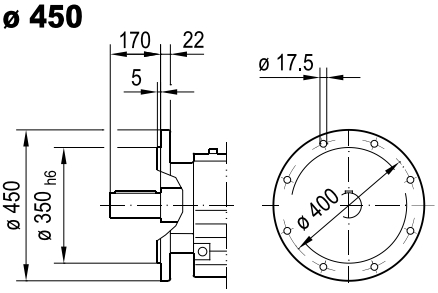
01 048 01 14

RF137..

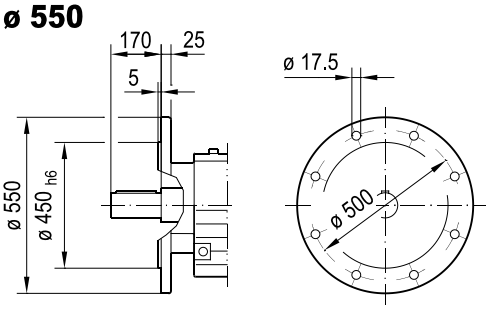




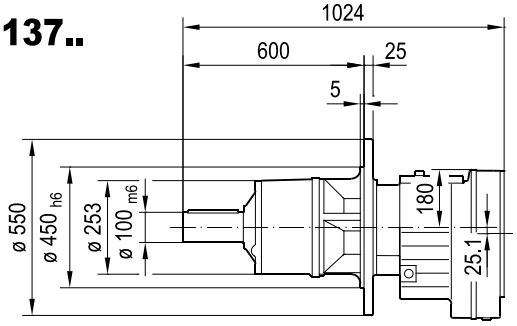
ø 450

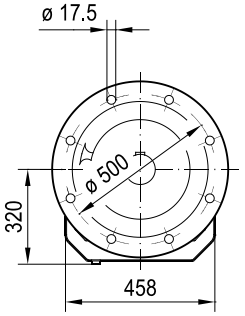


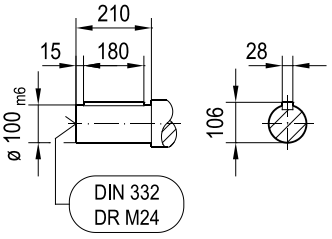
ø 550



RM137..





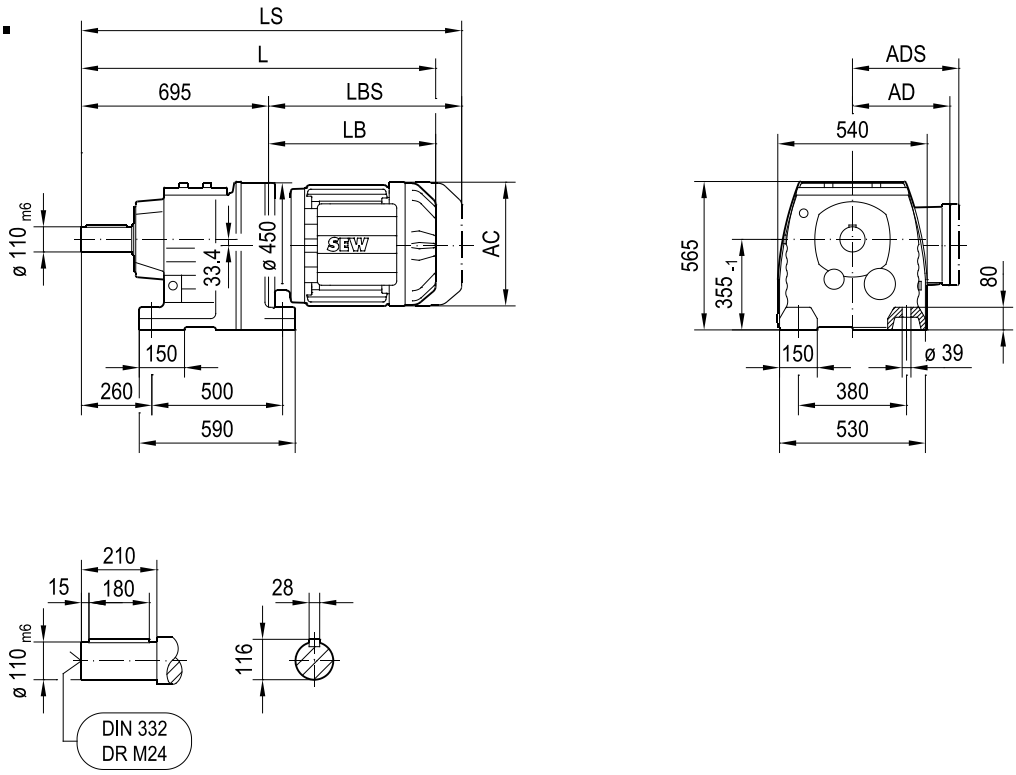


(→ 📖 7.3)	DRN							
	132S	132M	132L	160..	180..	200L	225..	250M
AC	221	261	261	314	357	394	434	495
AD	170	228	228	253	268	283	305	394
ADS	172	228	228	253	268	283	305	394
L	995	1013	1039	1105	1128	1238	1212	1349
LS	1107	1151	1176	1294	1317	1443	1417	1589
LB	406	424	450	516	539	649	623	760
LBS	518	562	587	705	728	854	828	1000

24832936/EN – 09/2018

01 049 01 14

R147..

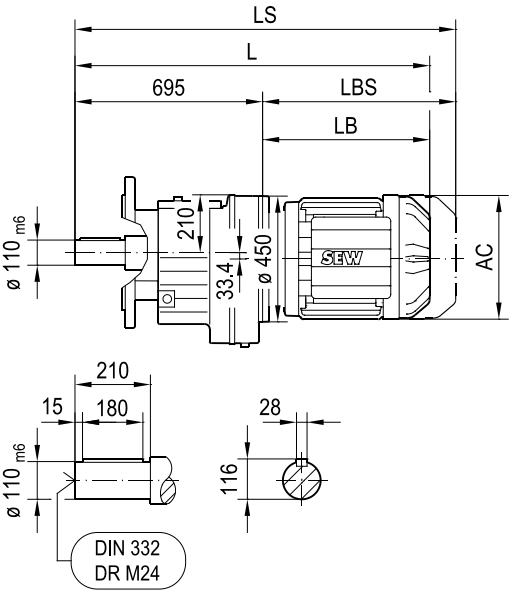


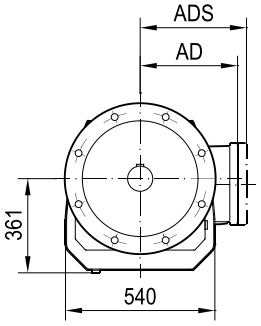
(→ 📖 7.3)	DRN							
	132L	160..	180..	200L	225..	250M	280S	280M
AC	261	314	357	394	434	495	495	495
AD	228	253	268	283	305	394	394	394
ADS	228	253	268	283	305	394	394	394
L	1137	1203	1226	1336	1310	1447	1447	1542
LS	1274	1392	1415	1541	1515	1687	1687	1782
LB	442	508	531	641	615	752	752	847
LBS	579	697	720	846	820	992	992	1087

24832936/EN – 09/2018

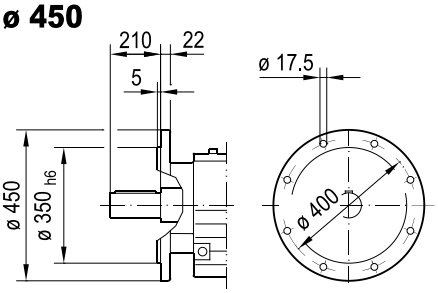
01 050 01 14

RF147..

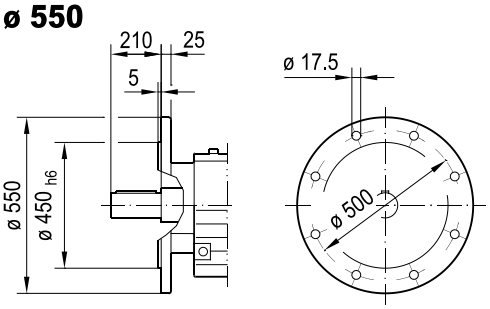




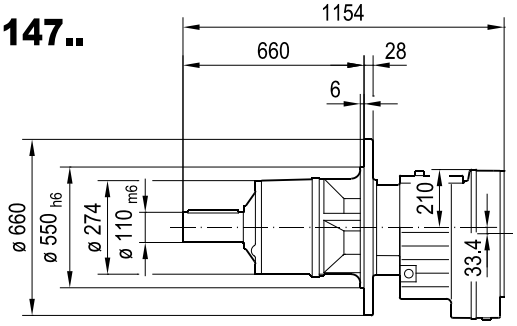
ø 450

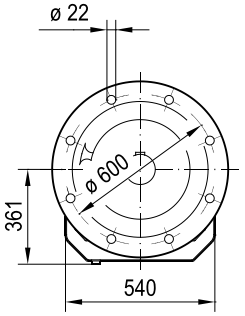


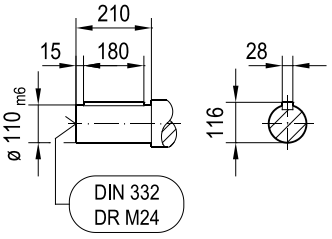
ø 550



RM147..





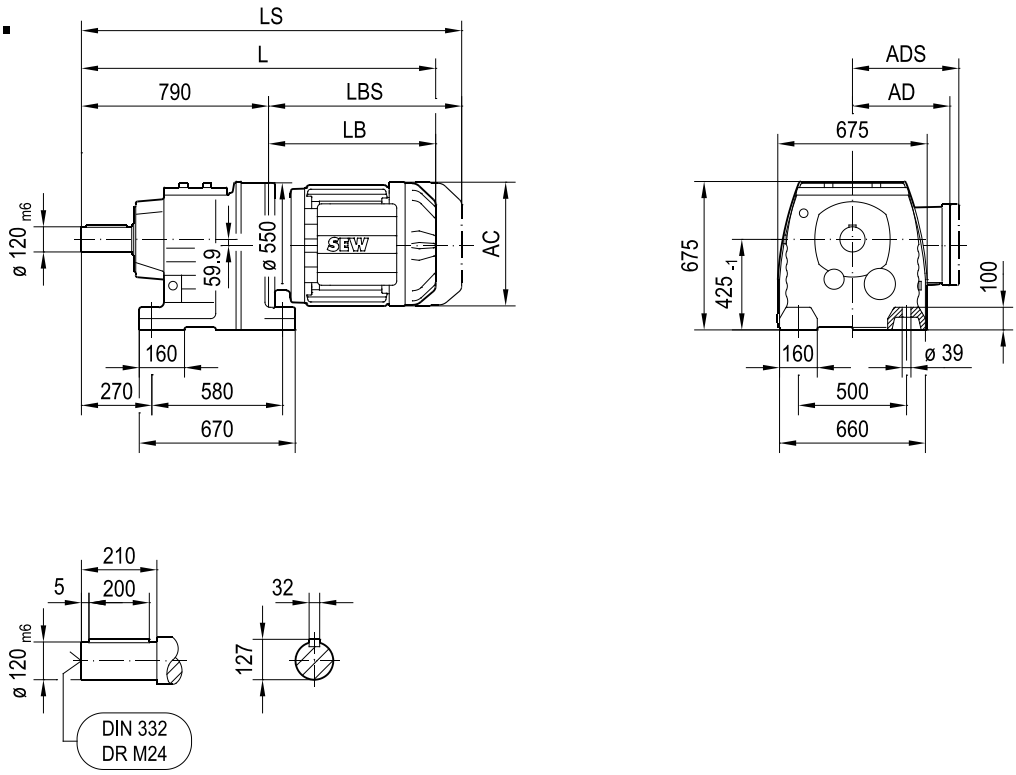


(→ 📖 7.3)	DRN							
	132L	160..	180..	200L	225..	250M	280S	280M
AC	261	314	357	394	434	495	495	495
AD	228	253	268	283	305	394	394	394
ADS	228	253	268	283	305	394	394	394
L	1137	1203	1226	1336	1310	1447	1447	1542
LS	1274	1392	1415	1541	1515	1687	1687	1782
LB	442	508	531	641	615	752	752	847
LBS	579	697	720	846	820	992	992	1087

24832936/EN – 09/2018

01 051 01 14

R167..

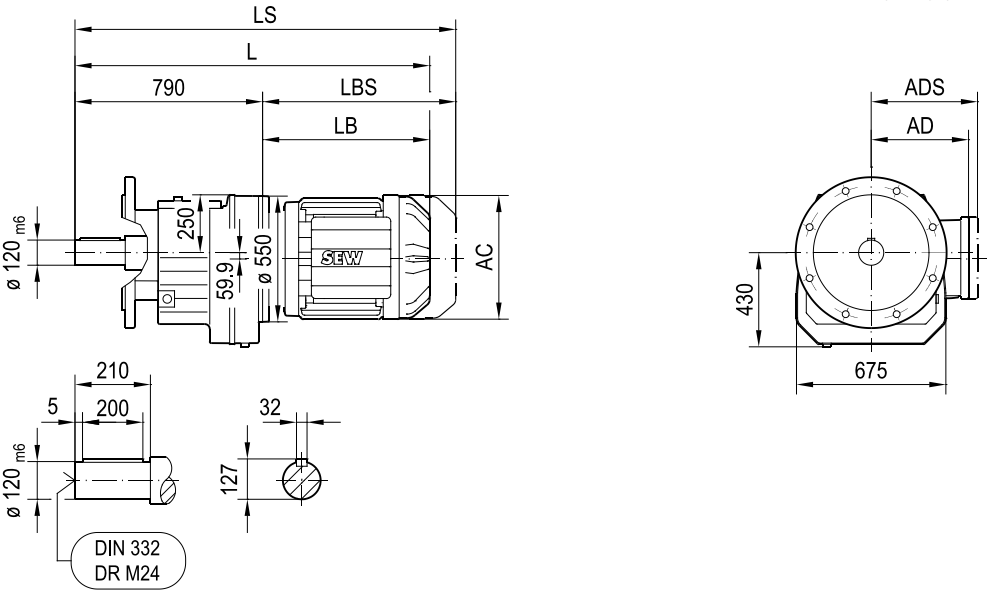


(→ 📖 7.3)	DRN								
	160..	180..	200L	225..	250M	280S	280M	315S-M	315ME-H
AC	314	357	394	434	495	495	495	624	624
AD	253	268	283	305	394	394	394	506	506
ADS	253	268	283	305	394	394	394	506	506
L	1290	1313	1423	1397	1534	1534	1629	1731	1861
LS	1479	1502	1628	1602	1774	1774	1869	1982	2112
LB	500	523	633	607	744	744	839	941	1071
LBS	689	712	838	812	984	984	1079	1192	1322

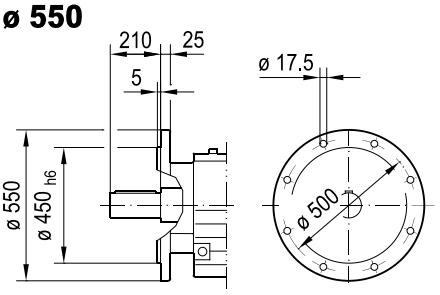
24832936/EN – 09/2018

01 052 01 14

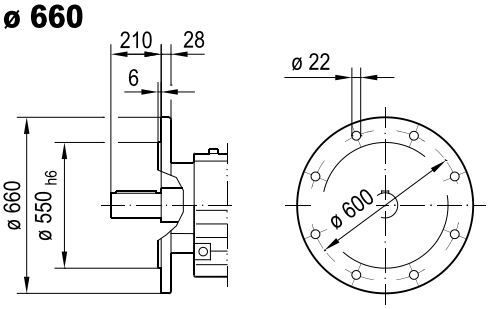
RF167..



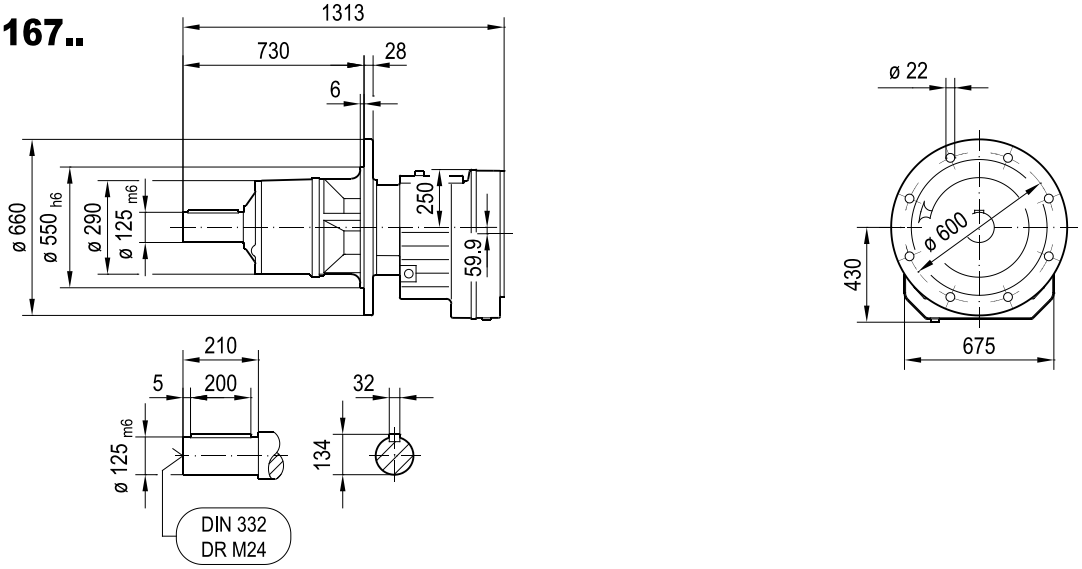
ø 550



ø 660



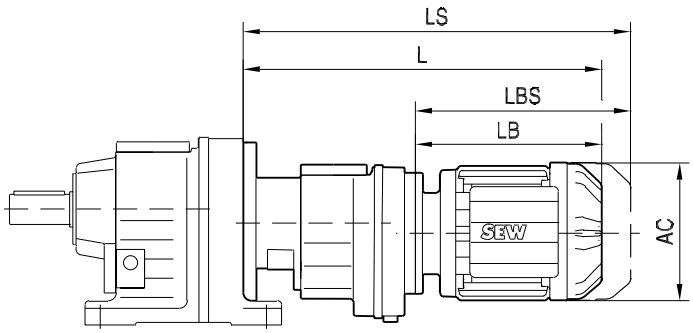
RM167..



(→ 📖 7.3)	DRN								
	160..	180..	200L	225..	250M	280S	280M	315S-M	315ME-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

24832936/EN – 09/2018

8.6 R..R..DRN.. dimension sheets in mm



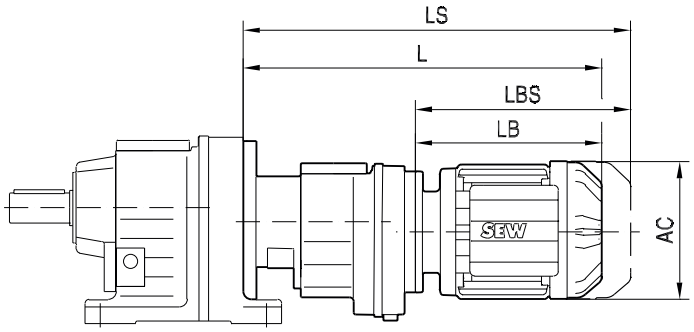
01 131 00 16

9007211762525067

(→ 🗎 181)		AC	L	LS	LB	LBS
R..27R17	**DRN63MS**	115	365	421	190	246
	DRN63M	115	379	435	204	260
	DRN71MS	139	381	448	206	273
	DRN80M	156	452	533	277	358
R..37R17	**DRN63MS**	115	365	421	190	246
	DRN63M	115	379	435	204	260
	DRN71MS	139	381	448	206	273
	DRN71M	139	401	468	226	293
R..47R37	**DRN80M**	156	452	533	277	358
	DRN63MS	115	355	411	190	246
	DRN63M	115	369	425	204	260
	DRN71MS	139	371	438	206	273
	DRN71M	139	391	458	226	293
R..57R37	**DRN80MK**	156	402	483	237	318
	DRN80M	156	447	528	282	363
	DRN63MS	115	355	411	190	246
	DRN63M	115	369	425	204	260
	DRN71MS	139	371	438	206	273
R..67R37	**DRN71M**	139	391	458	226	293
	DRN80MK	156	402	483	237	318
	DRN80M	156	447	528	282	363
	DRN63MS	115	355	411	190	246
	DRN63M	115	369	425	204	260
	DRN71MS	139	371	438	206	273
R..77R37	**DRN71M**	139	391	458	226	293
	DRN80MK	156	402	483	237	318
	DRN80M	156	447	528	282	363
	DRN90S	179	448	542	283	377
	DRN63MS	115	347	403	190	246
	DRN63M	115	361	417	204	260
R..87R57	**DRN63MS**	115	411	467	184	240
	DRN63M	115	425	481	198	254
	DRN71MS	139	427	494	199	267
	DRN71M	139	447	514	219	287
	DRN80MK	156	458	539	230	311
	DRN80M	156	503	584	275	356
	DRN90S	179	504	598	277	370
	DRN90L	179	536	630	309	402
	DRN100L/LM	197	583	676	355	449

24832936/EN – 09/2018

01 131 00 16

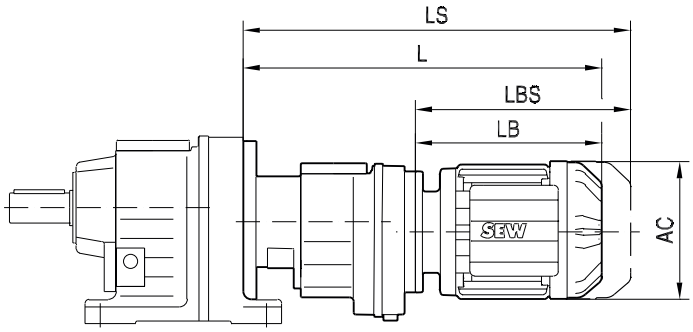


9007211762525067

(→ 🗎 181)		AC	L	LS	LB	LBS
R..97R57	**DRN63MS**	115	406	462	184	240
	DRN63M	115	420	476	198	254
	DRN71MS	139	422	489	199	267
	DRN71M	139	442	509	219	287
	DRN80MK	156	453	534	230	311
	DRN80M	156	498	579	275	356
	DRN90S	179	499	593	277	370
	DRN90L	179	531	625	309	402
	DRN100LS	197	528	621	305	399
	DRN100L/LM	197	578	671	355	449
R..107R77	**DRN63MS**	115	424	480	177	233
	DRN63M	115	438	494	191	247
	DRN71MS	139	439	507	192	260
	DRN71M	139	459	527	212	280
	DRN80MK	156	470	551	223	304
	DRN80M	156	515	596	268	349
	DRN90S	179	517	610	270	363
	DRN90L	179	549	642	302	395
	DRN100LS	197	545	639	298	392
	DRN100L/LM	197	595	689	348	442
	DRN112M	221	626	738	379	491
	DRN132S	221	676	788	429	541
R..127R77	**DRN63MS**	115	424	480	177	233
	DRN63M	115	438	494	191	247
	DRN71MS	139	439	507	192	260
	DRN71M	139	459	527	212	280
	DRN80MK	156	470	551	223	304
	DRN80M	156	515	596	268	349
	DRN90S	179	517	610	270	363
	DRN90L	179	549	642	302	395
	DRN100LS	197	545	639	298	392
	DRN100L/LM	197	595	689	348	442
	DRN112M	221	626	738	379	491
	DRN132S	221	676	788	429	541
	DRN132M	261	694	832	447	585
	DRN132L	261	720	857	473	610
	DRN160..	314	786	975	539	728

24832936/EN – 09/2018

01 131 00 16



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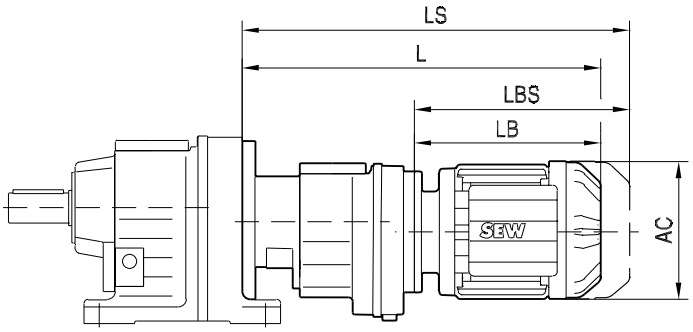
(→ 🗎 181)		AC	L	LS	LB	LBS
R..137R77	**DRN63MS**	115	417	473	177	233
	DRN63M	115	431	487	191	247
	DRN71MS	139	432	500	192	260
	DRN71M	139	452	520	212	280
	DRN80MK	156	463	544	223	304
	DRN80M	156	508	589	268	349
	DRN90S	179	510	603	270	363
	DRN90L	179	542	635	302	395
	DRN100LS	197	538	632	298	392
	DRN100L/LM	197	588	682	348	442
	DRN112M	221	619	731	379	491
	DRN132S	221	669	781	429	541
	DRN132M	261	687	825	447	585
	DRN132L	261	713	850	473	610
R..147R77	**DRN63MS**	115	409	465	177	233
	DRN63M	115	423	479	191	247
	DRN71MS	139	424	492	192	260
	DRN71M	139	444	512	212	280
	DRN80MK	156	455	536	223	304
	DRN80M	156	500	581	268	349
	DRN90S	179	502	595	270	363
	DRN90L	179	534	627	302	395
	DRN100LS	197	530	624	298	392
	DRN100L/LM	197	580	674	348	442
	DRN112M	221	611	723	379	491
	DRN132S	221	661	773	429	541
	DRN132M	261	679	817	447	585
R..147R87	**DRN90L**	179	577	670	297	390
	DRN100LS	197	573	667	293	387
	DRN100L/LM	197	623	717	343	437
	DRN112M	221	654	766	374	486
	DRN132S	221	704	816	424	536
	DRN132M	261	722	860	442	580
	DRN132L	261	748	885	468	605
	DRN160..	314	814	1003	534	723
	DRN180..	357	837	1026	557	746

24832936/EN – 09/2018

01 131 00 16



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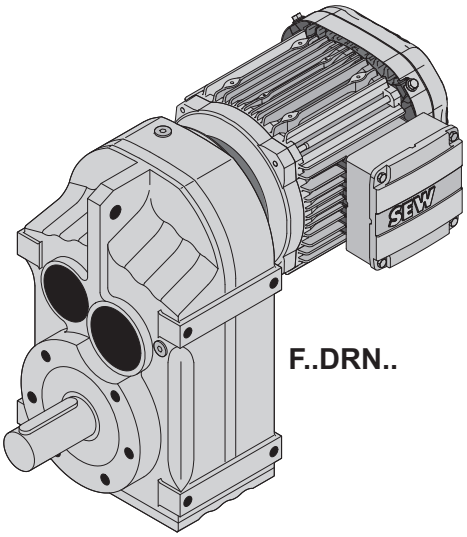
(→ 🗎 181)		AC	L	LS	LB	LBS
R..167R97	**DRN71MS**	139	507	575	182	250
	DRN71M	139	527	595	202	270
	DRN80MK	156	538	619	213	294
	DRN80M	156	583	664	258	339
	DRN90S	179	585	678	260	353
	DRN90L	179	617	710	292	385
	DRN100LS	197	613	707	288	382
	DRN100L/LM	197	663	757	338	432
	DRN112M	221	694	806	369	481
	DRN132S	221	744	856	419	531
	DRN132M	261	762	900	437	575
	DRN132L	261	788	925	463	600
	DRN160..	314	854	1043	529	718
R..167R107	**DRN100LS**	197	664	758	282	376
	DRN100L/LM	197	714	808	332	426
	DRN112M	221	745	857	363	475
	DRN132S	221	795	907	413	525
	DRN132M	261	813	951	431	569
	DRN132L	261	839	976	457	594
	DRN160..	314	905	1094	523	712
	DRN180..	357	928	1117	546	735

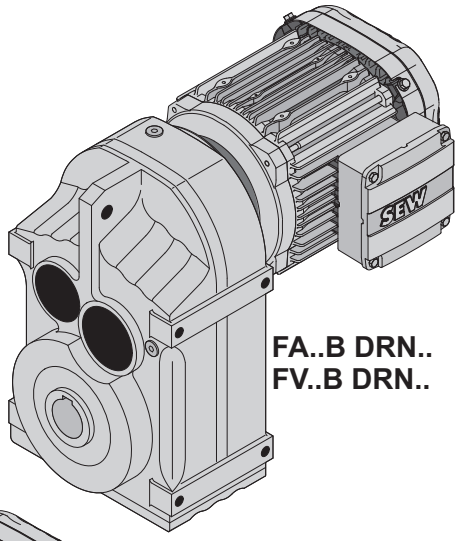
24832936/EN – 09/2018

9 Parallel-shaft helical gearmotors

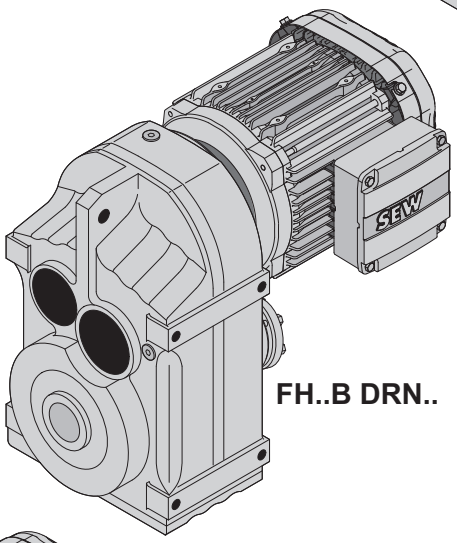
9.1 F..DRN.. designs



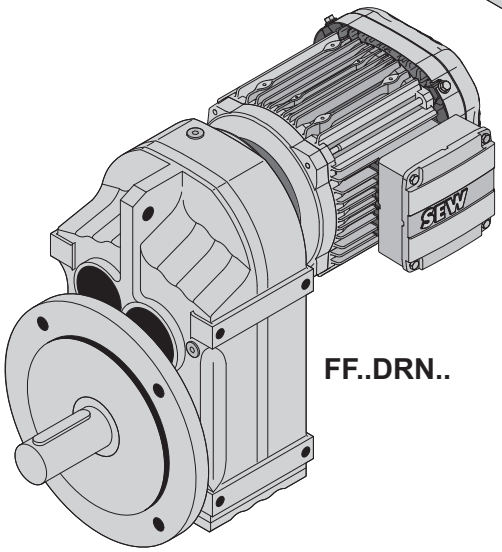
F..DRN..



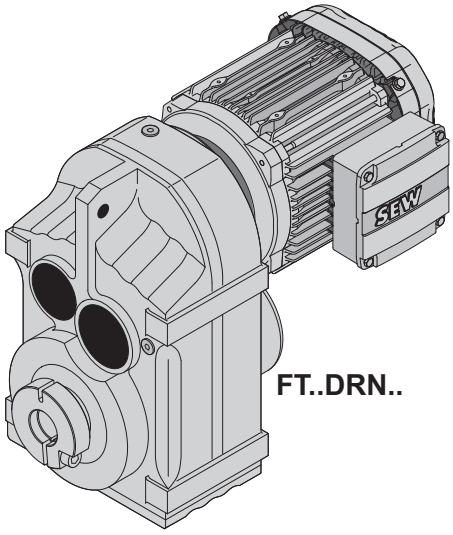
FA..B DRN..
FV..B DRN..



FH..B DRN..



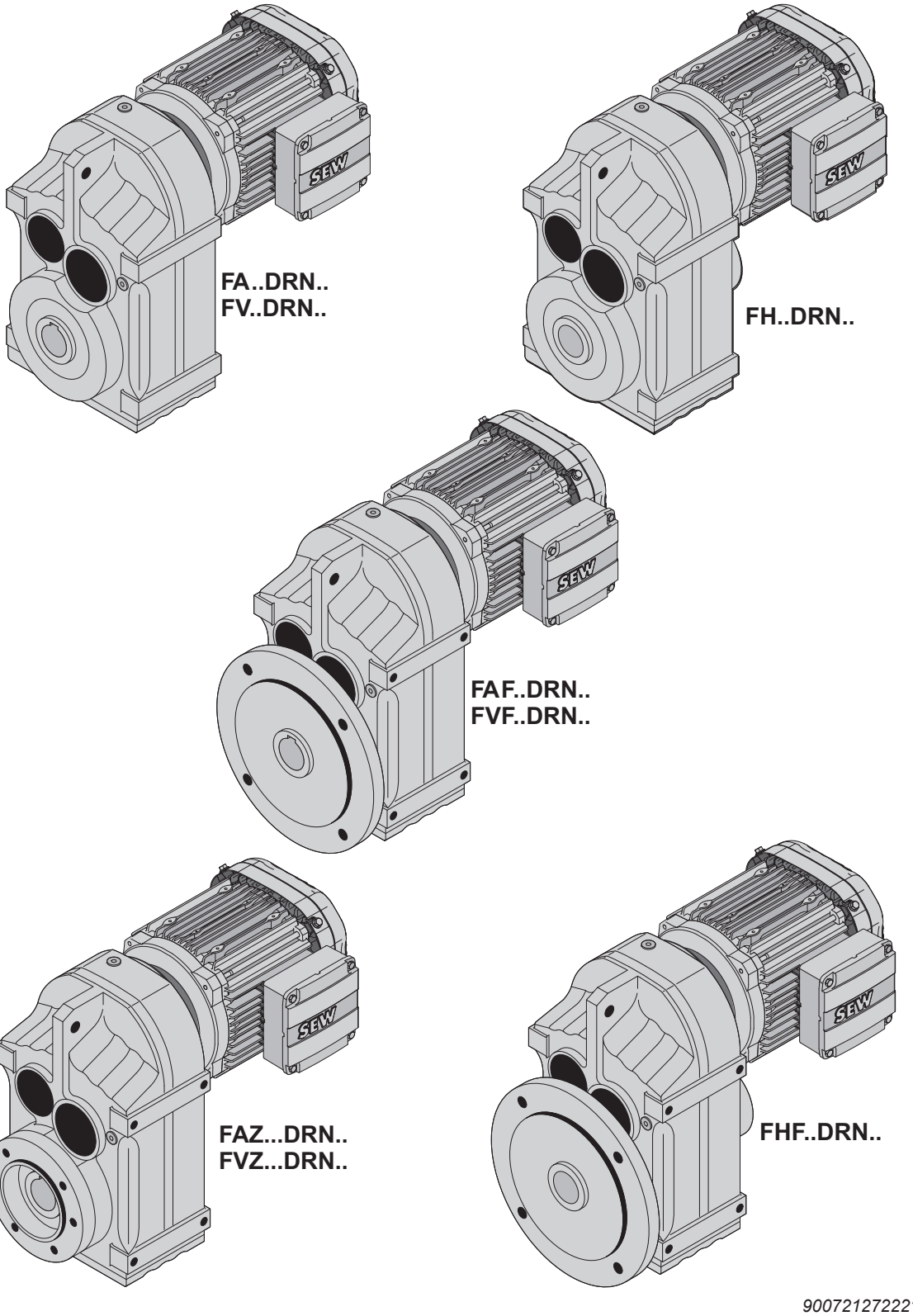
FF..DRN..



FT..DRN..

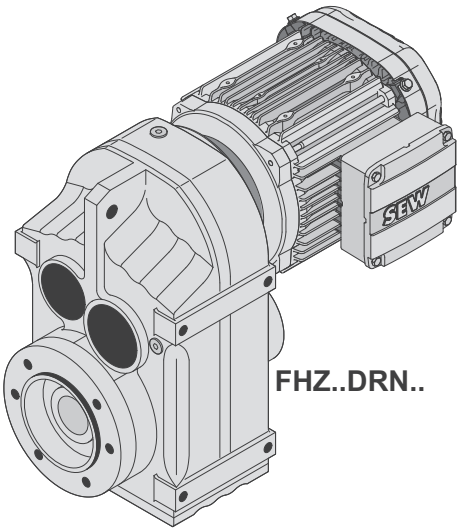
9007212722209035

24832936/EN – 09/2018

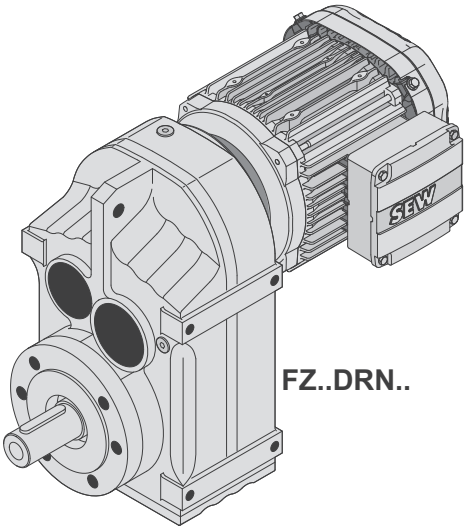


9007212722211595

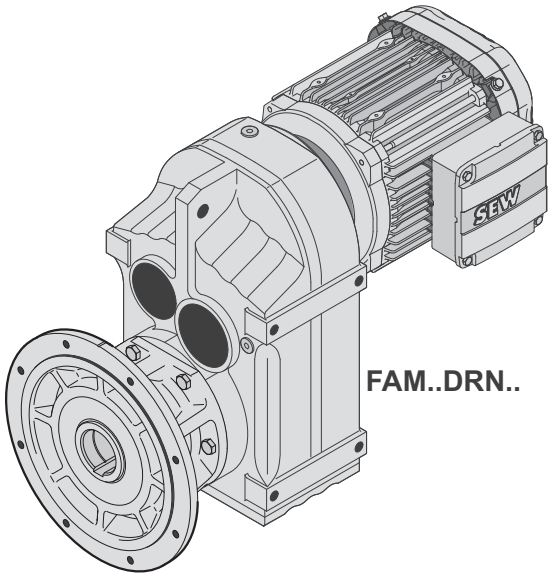
24832936/EN – 09/2018



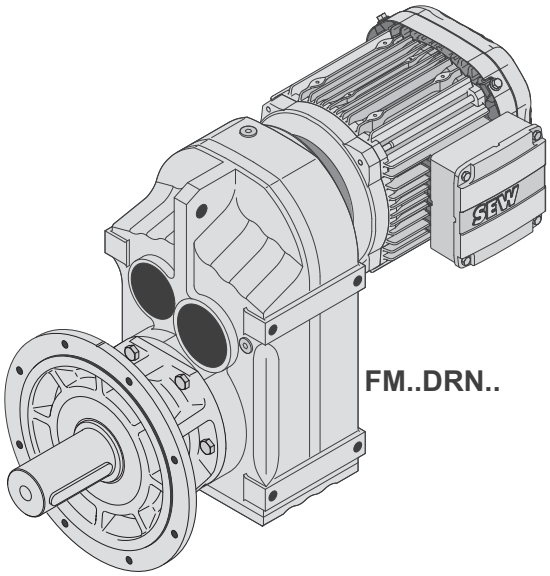
FHZ..DRN..



FZ..DRN..



FAM..DRN..



FM..DRN..

18014411977161867

24832936/EN – 09/2018

9.2 Possible geometrical combinations of F..DRN..

F27, n_e=1400 min^{-1}								130 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
					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 min^{-1}							130 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M 80MK	DRN 80M
					3 3		
0.16	130	4500	-	8972			
0.18	130	4500	-	7736			
0.19	130	4500	-	7211			
0.22	130	4500	-	6303			

24832936/EN – 09/2018

F27R17, n_e=1400 min^{-1}							130 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M 80MK	DRN 80M
0.26	130	4500	-	5435			
0.29	130	4500	-	4855			
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			
2 3							
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			
3 2							
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			
2 2							
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			

24832936/EN – 09/2018

F27R17, n_e=1400 min^{-1}							130 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M 80MK	DRN 80M
6.6	130	4500	-	211			
7.5	130	4500	-	186			
9.9	130	4500	-	142			
11	130	4500	-	124			
13	130	4500	-	109			
15	130	4500	-	96			

F37, n_e=1400 min^{-1}								200 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
					3			
11	200	4290	7	128.51				
12	200	4290	7	117.88				
14	200	4290	7	100.36				
16	200	4290	7	86.53				
17	200	4290	7	80.65				
20	200	4290	7	70.50				
21	200	4290	7	66.09				
24	200	4290	7	58.32				
26	200	4290	8	54.54				
27	200	4290	7	51.70				
30	200	4290	8	47.02				
32	200	4290	8	43.83				
37	200	4290	8	38.31				
39	200	4290	8	35.91				
44	200	4290	8	31.69				
50	200	4060	8	28.09				
59	200	3760	8	23.88				
					2			
59	200	3740	7	23.63				
68	200	3500	7	20.57				
73	200	3390	7	19.27				
82	200	3180	7	17.03				
89	200	3070	7	15.81				
98	200	2910	7	14.33				
109	200	2750	7	12.87				
126	190	2620	7	11.08				
134	185	2580	7	10.42				
156	175	2460	7	8.97				
175	170	2360	8	8.01				
188	145	2350	10	7.44				
208	140	2270	10	6.74				
231	135	2190	11	6.05				
269	125	2120	11	5.21				
286	120	2100	11	4.90				

24832936/EN – 09/2018

F37, n_e=1400 min^{-1}								200 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
332	110	2030	11	4.22				
371	105	1970	12	3.77				

F37R17, n_e=1400 min^{-1}							200 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M 80MK	DRN 80M
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			

F37R17, n_e=1400 min^{-1}							200 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M 80MK	DRN 80M
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			
9.5	200	4290	-	147			
11	200	4290	-	127			
12	200	4290	-	121			
13	200	4290	-	108			
15	200	4290	-	91			
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 min^{-1}								400 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
7.3	400	5920	7	190.76				
8.0	400	5920	7	175.38				
9.3	400	5920	7	150.06				
11	400	5920	7	130.07				
12	400	5920	7	121.57				
13	400	5920	7	105.09				
16	400	5920	7	89.29				
18	400	5920	7	79.72				
21	400	5920	7	68.09				
21	400	5920	7	65.36				
25	400	5920	7	56.49				
29	400	5920	7	48.00*				
33	400	5920	7	42.86				
38	400	5920	7	36.61				

24832936/EN – 09/2018

F47, n_e=1400 min^{-1}								400 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
41	400	5920	7	34.29				
48	400	5790	7	28.88				
2								
45	400	5920	6	30.86				
48	400	5830	6	29.32				
54	400	5460	6	25.72				
64	400	5030	6	21.82				
71	400	4770	6	19.70				
81	400	4450	6	17.33				
86	400	4320	6	16.36				
101	400	3950	7	13.93				
111	400	3740	7	12.66				
128	400	3440	7	10.97				
156	330	3250	8	8.96				
178	380	2630	9	7.88				
188	380	2530	9	7.44*				
221	350	2470	9	6.34				
243	340	2390	9	5.76				
281	320	2310	10	4.99				

F47R17, n_e=1400 min^{-1}							400 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M 80MK	DRN 80M
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			

24832936/EN – 09/2018

F47R17, n_e=1400 min^{-1}							400 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M 80MK	DRN 80M
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			
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			

24832936/EN – 09/2018

F57, n_e=1400 min^{-1}										600 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
					3					
7.0	600	9200	6	199.70						
7.6	600	9200	7	183.60						
8.9	600	9200	7	157.09						
10	600	9200	7	136.16						
11	600	9200	7	127.27						
13	600	9200	7	110.01						
15	600	9200	7	93.47						
17	600	9200	7	83.46						
19	600	9200	7	72.98						
21	600	9200	7	68.22						
24	600	9200	7	58.97						
28	600	9200	7	50.10						
31	600	9160	7	44.73						
37	600	8510	7	38.21						
39	600	8250	7	35.79						
46	590	7650	7	30.15						
					2					
35	290	10500	6	40.13						
41	500	8670	6	34.24						
47	545	7890	6	29.94						
49	535	7760	6	28.45						
56	575	7060	6	24.96						
66	600	6350	6	21.17						
73	600	6020	6	19.11						
83	600	5620	6	16.81						
88	600	5450	6	15.88						
104	600	4980	7	13.52						
114	600	4710	7	12.29						
132	600	4320	7	10.64						
150	420	4760	8	9.31						
171	420	4450	8	8.19						
181	420	4310	8	7.73						
213	420	3940	8	6.58						
234	420	3730	9	5.98						
270	415	3460	9	5.18						

F57R37, n_e=1400 min^{-1}								600 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
					3 3			
0.09	600	9200	-	14832				
0.10	600	9200	-	13604				
0.11	600	9200	-	12602				
0.12	600	9200	-	11252				

F57R37, n_e=1400 min^{-1}								600 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
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				
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				
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				
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				

24832936/EN – 09/2018

F57R37, n_e=1400 min^{-1}								600 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
					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				

F67, n_e=1400 min^{-1}										820 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
					3					
6.1	820	10300	6	228.99						
7.2	820	10300	6	195.39						
8.2	820	10300	6	170.85						
8.6	820	10300	6	162.31						
9.8	820	10300	6	142.40						
12	820	10300	6	120.79						
13	820	10300	6	109.04						
15	820	10300	6	95.94						
15	820	10300	6	90.59						
18	820	10300	7	79.76						
21	820	10300	7	67.65						
23	820	10300	7	61.07						
26	820	10300	7	53.73						
28	820	10300	7	50.74						
32	820	10300	7	43.20						
36	780	10700	7	39.26						
41	740	11000	7	34.01						
					2					
39	820	10300	6	36.30						
44	820	10300	6	32.08						
51	820	10300	6	27.41						
56	820	10300	6	25.13						
63	820	10300	6	22.05						
67	820	10300	6	20.90*						
77	820	10300	6	18.29						
85	820	10300	6	16.48						
97	820	10300	6	14.46						
110	820	10300	6	12.76						
124	820	10300	6	11.31						

24832936/EN – 09/2018

F67, n_e=1400 min^{-1}										820 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
145	820	10300	7	9.66						
154	530	11400	8	9.08						
163	570	10900	9	8.60						
186	610	10100	9	7.53						
206	620	9660	9	6.78						
235	610	9200	9	5.95						
267	590	8850	9	5.25						
300	560	8590	10	4.66						
353	500	8390	10	3.97						

F67R37, n_e=1400 min^{-1}								820 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
0.07	820	10300	-	19199				
0.08	820	10300	-	17610				
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				

24832936/EN – 09/2018

F67R37, n_e=1400 min^{-1}								820 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
2.2	820	10300	-	634				
2.6	820	10300	-	539				
					3 2			
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				
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 min^{-1}											1500 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L
					3						
5.0	1500	15700	6	281.71							
5.3	1500	15700	6	262.93							
6.2	1500	15700	6	225.79							
7.1	1500	15700	6	198.31							
7.4	1500	15700	6	188.40							
8.4	1500	15700	6	166.47							
9.8	1500	15700	6	142.27							

24832936/EN – 09/2018

F77, n_e=1400 min^{-1}											1500 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L
11	1500	15700	6	130.42							
12	1500	15700	6	114.45							
13	1500	15700	6	108.46*							
15	1500	15700	6	94.93							
16	1500	15700	6	85.52							
19	1500	15700	6	75.02							
19	1500	15700	6	72.50							
21	1500	15700	6	66.46							
24	1500	15700	6	58.32							
25	1500	15700	6	55.27							
29	1500	15700	6	48.37							
32	1500	15700	7	43.58							
37	1500	15700	6	38.23							
41	1500	15700	7	33.74							
47	1500	15700	7	29.91							
55	1450	16100	7	25.54							
2											
38	1110	17900	5	36.58							
44	1380	16500	5	31.51							
49	1430	16200	5	28.75							
55	1500	15700	5	25.50*							
65	1500	15700	5	21.43							
71	1500	15700	6	19.70							
80	1500	15700	6	17.49							
90	1500	15700	6	15.64*							
100	1500	15700	6	14.06							
115	1500	14900	6	12.20							
128	1500	14200	6	10.93							
151	1080	13800	8	9.30							
169	1080	13100	8	8.26							
189	1080	12500	8	7.39							
211	1080	12000	8	6.64							
243	1080	11300	8	5.76							
271	1080	10700	8	5.16							
327	1010	10200	9	4.28							

F77R37, n_e=1400 min^{-1}								1500 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
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				

24832936/EN – 09/2018

F77R37, n_e=1400 min^{-1}								1500 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
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				
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				
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				
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				

F77R37, n_e=1400 min^{-1}								1500 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
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 min^{-1}													3000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L
3													
5.2	3000	19800	7	270.68									
5.5	3000	19800	7	255.37									
6.1	3000	19800	7	228.93									
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	8	109.49									
14	3000	19800	8	97.89									
16	3000	19800	8	88.01									
18	3000	19800	8	76.39									
20	3000	19600	8	68.40									
25	3000	17700	8	56.75									
28	2940	16800	8	50.36									
31	2820	16200	8	45.28									
36	2720	15400	8	39.30									
40	2610	14900	8	35.19									
48	2510	13800	8	29.20									
2													
41	2610	14600	7	33.92									
49	2450	13900	7	28.78									
53	3000	11100	7	26.50									
59	3000	10300	7	23.68									
66	3000	9520	7	21.32*									
73	3000	8840	7	19.31									
82	3000	8040	7	17.12									
90	3000	7390	7	15.48									

24832936/EN – 09/2018

F87, n_e=1400 min^{-1}													3000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L
107	3000	6370	7	13.12*									
122	3000	5580	8	11.46									
146	2880	5050	8	9.58									
169	1530	8890	7	8.29									
190	1530	8280	7	7.35									
211	1530	7790	7	6.65									
249	1530	7020	7	5.63									
285	1530	6430	8	4.92									
340	1460	5980	8	4.12									

F87R57, n_e=1400 min^{-1}										3000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
					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						
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						

F87R57, n_e=1400 min^{-1}											3000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
						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						
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 min^{-1}												4300 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S
							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								

24832936/EN – 09/2018

F97, n_e=1400 min^{-1} — 4300 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S
14	4300	29900	6	102.16								
14	4300	29900	7	97.58								
16	4300	29900	7	89.85								
16	4300	29900	6	86.59								
17	4300	29900	7	80.31								
19	4300	29900	6	75.63								
19	4300	29900	7	72.29								
21	4300	29000	7	65.47								
24	4300	27200	7	58.06								
27	4300	25800	7	52.49								
31	4300	23600	7	44.49								
36	4300	21900	7	38.86								
43	4300	19800	7	32.50								
2												
32	3070	27600	6	43.28								
38	3070	25500	6	36.64								
41	4300	20300	6	33.91								
46	4300	19000	6	30.39								
51	4300	17900	6	27.44*								
56	4300	16800	6	24.92								
63	4300	15600	6	22.11								
70	4300	14600	6	20.07								
81	4300	13200	6	17.25*								
93	4300	11900	6	15.06								
110	4300	10500	6	12.77								
125	4100	10000	6	11.16								
155	2360	13400	9	9.06								
170	2360	12600	9	8.22								
198	2360	11500	9	7.07								
227	2250	11100	9	6.17								
268	2150	10400	9	5.23								
306	2050	9950	9	4.57								
362	1800	9960	9	3.87								

F97R57, n_e=1400 min^{-1} — 4300 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
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						

24832936/EN – 09/2018

F97R57, n_e=1400 min^{-1}										4300 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
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						
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										

24832936/EN – 09/2018

F97R57, n_e=1400 min^{-1}										4300 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
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 min^{-1}											7840 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S 225M	DRN 250M
3											
5.5	7680	49800	6	254.40*							
6.5	7680	49800	6	215.37							
7.0	7680	49800	6	199.31							
7.8	7680	49800	6	178.64							
8.7	7680	49800	6	161.28*							
9.6	7680	49800	6	146.49							
11	7680	49800	6	129.97							
12	7680	49800	6	117.94							
14	7680	49800	6	101.38*							
15	7680	49800	6	92.47*							
16	7680	49800	6	88.49							
17	7680	49800	6	83.99							
19	7680	49800	6	74.52							
21	7680	49800	6	67.62							
24	7680	47800	6	58.12*							
28	7680	45100	6	50.73							
33	7680	42000	6	43.03							
37	7680	39500	6	37.61							
44	7680	36500	6	31.80							
2											
41	7400	38300	6	33.79*							
51	7840	33300	6	27.57							
56	7840	31500	6	25.14							
64	7840	28800	6	21.76*							
73	7840	26500	6	19.20*							
84	7840	23900	6	16.58							
95	7680	22400	6	14.67							
114	7000	22600	6	12.33							
141	6500	21500	6	9.96							
144	4910	23500	7	9.69							
167	4800	22000	7	8.37							

24832936/EN – 09/2018

F107, n_e=1400 min^{-1}											7840 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S 225M	DRN 250M
189	4600	21300	7	7.40							
225	4600	19000	7	6.22							
278	4600	16400	7	5.03							

F107R77, n_e=1400 min^{-1}											7840 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L
					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							
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							

24832936/EN – 09/2018

F107R77, n_e=1400 min^{-1} — 7840 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L
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							

F127, n_e=1400 min^{-1} — 12000 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S 225M	DRN 250M 280S 280M
						3			
8.2	12000	90000	5	170.83					
9.1	12000	90000	5	153.67*					
11	12000	90000	5	125.37					
12	12000	88000	5	114.34					
14	12000	83000	5	98.95					
16	12000	79000	5	87.31*					
19	12000	74300	5	75.41*					
20	12000	72100	6	70.07					
22	12000	69400	6	63.91					
25	12000	65200	6	55.31					
29	12000	61300	6	48.80					
33	12000	56800	6	42.15					
38	12000	53200	6	37.28					

F127, n_e=1400 min^{-1}									12000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S 225M	DRN 250M 280S 280M
45	12000	48300	6	31.33					
55	12000	42400	6	25.30					
						2			
52	8500	55300	5	26.86					
57	8500	53300	5	24.57					
65	12000	38000	5	21.38					
74	11000	38800	5	18.87					
86	11000	35400	5	16.36					
96	11000	32600	5	14.55					
112	10000	33300	5	12.54					
137	9500	30900	5	10.19					
158	7000	36400	7	8.86					
178	6000	37000	7	7.88					
206	7000	32200	7	6.80					
254	6000	31700	7	5.52					
299	6000	29500	7	4.68					

F127R77, n_e=1400 min^{-1}											12000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L
						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							
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							

24832936/EN – 09/2018

F127R77, n_e=1400 min^{-1} — 12000 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L
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 min^{-1} — 12000 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L
							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 min^{-1} — 20000 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S 225M	DRN 250M 280S 280M	DRN 315S 315M	DRN 315L 315H
						3				
5.2	20000	93800	5	267.43						
6.4	20000	93800	5	217.62*						
7.9	20000	93800	5	178.20*						
8.6	20000	93800	5	162.96						
9.9	20000	93800	5	141.80*						
11	20000	93800	5	125.14						
13	20000	93800	5	108.49						
15	20000	93800	5	96.53*						
16	20000	91800	5	85.80*						
18	20000	88300	5	78.46						
21	20000	83000	5	68.28*						
23	20000	78500	5	60.25						
27	20000	73600	5	52.24						
30	20000	69600	5	46.48*						
35	20000	64900	5	40.06						
43	20000	58500	5	32.55						
51	20000	53800	5	27.60						

F157, n_e=1400 min^{-1}										20000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S 225M	DRN 250M 280S 280M	DRN 315S 315M	DRN 315L 315H
					2					
26	11000	92400	5	53.55						
32	11900	84000	5	43.94*						
39	13600	74100	5	35.75*						
49	19100	56600	5	28.60*						
55	20000	51500	5	25.43						
63	19900	48000	5	22.16						
71	19400	46100	5	19.77						
83	18700	43500	5	16.85						
100	17900	40700	5	13.96						
117	17300	38300	5	11.92						

F157R97, n_e=1400 min^{-1}													20000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S
					3		3						
0.04	20000	93800	-	31434									
0.05	20000	93800	-	26173									
0.06	20000	93800	-	23464									
0.07	20000	93800	-	20212									
0.08	20000	93800	-	17984*									
0.09	20000	93800	-	16358									
0.10	20000	93800	-	13751									
0.11	20000	93800	-	12235									
0.14	20000	93800	-	10033									
0.16	20000	93800	-	9021									
0.17	20000	93800	-	8026									
0.20	20000	93800	-	7075									
0.22	20000	93800	-	6295									
0.26	20000	93800	-	5404									
0.29	20000	93800	-	4831									
0.34	20000	93800	-	4130*									
0.39	20000	93800	-	3607									
0.44	20000	93800	-	3210									
0.50	20000	93800	-	2780									
0.97	20000	93800	-	1441									
					3		2						
0.58	20000	93800	-	2427									
0.64	20000	93800	-	2185									
0.72	20000	93800	-	1944*									
0.84	20000	93800	-	1674									
1.1	20000	93800	-	1308									
1.2	20000	93800	-	1169									
1.5	20000	93800	-	953									
1.7	20000	93800	-	845									
1.8	20000	93800	-	764									
2.1	20000	93800	-	680									
2.4	20000	93800	-	576									

24832936/EN – 09/2018

F157R97, n_e=1400 min^{-1}													20000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S
2.8	20000	93800	-	503									
3.1	20000	93800	-	446									
4.0	20000	93800	-	353									
4.6	20000	93800	-	302									
5.1	20000	93800	-	273									
6.0	20000	93800	-	232									
6.9	20000	93800	-	202									
7.1	20000	93800	-	197									

24832936/EN – 09/2018

9.3 F..DRN.. selection tables in kW

P_m = 0.12 kW											
n_a min^{-1}	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**	**DRN**	**63MS4**		425	524
0.09	9180	14722	90000	1.30	**FAF**	**127R77**	**DRN**	**63MS4**		465	524
0.11	7990	12912	90000	1.50	**F**	**127R77**	**DRN**	**63MS4**		460	524
0.12	7040	11656	90000	1.70	**FF**	**127R77**	**DRN**	**63MS4**		510	524
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**	**DRN**	**63MS4**		275	524
0.18	4750	7674	56800	1.60	**FAF**	**107R77**	**DRN**	**63MS4**		295	524
0.20	4090	6767	58200	1.90	**F**	**107R77**	**DRN**	**63MS4**		290	524
0.23	3460	5954	59500	2.2	**FF**	**107R77**	**DRN**	**63MS4**		320	524
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	30300	1.05	**FA**	**97R57**	**DRN**	**63MS4**		185	524
0.25	3820	5615	31300	1.15	**FAF**	**97R57**	**DRN**	**63MS4**		205	524
0.28	3320	4961	32500	1.30	**F**	**97R57**	**DRN**	**63MS4**		190	524
0.32	2900	4333	33500	1.50	**FF**	**97R57**	**DRN**	**63MS4**		225	524
0.35	2690	3906	34000	1.60	**FA**	**97R57**	**DRN**	**63MS4**		185	524
0.41	2320	3352	34800	1.85	**FAF**	**97R57**	**DRN**	**63MS4**		205	524
0.47	1910	2907	35500	2.2	**F**	**97R57**	**DRN**	**63MS4**		190	524
0.54	1750	2553	35800	2.4	**FF**	**97R57**	**DRN**	**63MS4**		225	524
					FA	**87R57**	**DRN**	**63MS4**		120	524
0.33	2760	4245	23800	1.10	**FAF**	**87R57**	**DRN**	**63MS4**		130	524
0.37	2210	3721	25800	1.35	**F**	**87R57**	**DRN**	**63MS4**		125	524
					FF	**87R57**	**DRN**	**63MS4**		140	524
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	2.0	**FA**	**87R57**	**DRN**	**63MS4**		115	524
0.72	1300	1930	28300	2.3	**FAF**	**87R57**	**DRN**	**63MS4**		130	524
0.81	1170	1709	28600	2.5	**F**	**87R57**	**DRN**	**63MS4**		125	524
0.92	1030	1493	28900	2.9	**FF**	**87R57**	**DRN**	**63MS4**		140	524
1.1	810	1300	29300	3.7							
1.2	740	1148	29500	4.0							
					FA	**77R37**	**DRN**	**63MS4**		66	524
0.53	1820	2613	13000	0.80	**FAF**	**77R37**	**DRN**	**63MS4**		72	524
0.60	1570	2284	15200	0.95	**F**	**77R37**	**DRN**	**63MS4**		69	524
0.68	1380	2029	16400	1.10	**FF**	**77R37**	**DRN**	**63MS4**		80	524
0.80	1180	1728	17500	1.25							
0.89	1090	1544	17900	1.40							
1.0	950	1354	18500	1.55	**FA**	**77R37**	**DRN**	**63MS4**		65	524
1.1	840	1200	18800	1.75	**FAF**	**77R37**	**DRN**	**63MS4**		72	524
1.3	740	1053	19100	2.0	**F**	**77R37**	**DRN**	**63MS4**		69	524
1.5	630	910	19400	2.4	**FF**	**77R37**	**DRN**	**63MS4**		80	524
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**	**DRN**	**63MS4**		43	524
1.6	560	858	12100	1.45	**FAF**	**67R37**	**DRN**	**63MS4**		49	524
1.8	490	755	12400	1.65	**F**	**67R37**	**DRN**	**63MS4**		46	524
2.1	415	641	12700	1.95	**FF**	**67R37**	**DRN**	**63MS4**		52	524
2.4	390	572	12800	2.1							
2.7	330	509	13000	2.5							
3.2	285	437	13000	2.9							

24832936/EN – 09/2018

P_m = 0.12 kW

n_a min^{-1}	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**	**DRN**	**63MS4**	39	524
2.1	455	646	10200	1.30	**FAF**	**57R37**	**DRN**	**63MS4**	45	524
2.5	385	558	10600	1.55	**F**	**57R37**	**DRN**	**63MS4**	39	524
2.7	345	506	10900	1.75	**FF**	**57R37**	**DRN**	**63MS4**	46	524
3.0	295	452	11100	2.0						
3.2	310	426	11100	1.95						
3.6	270	382	11300	2.2	**FA**	**57R37**	**DRN**	**63MS4**	39	524
4.2	230	330	11500	2.6	**FAF**	**57R37**	**DRN**	**63MS4**	44	524
4.6	210	298	11500	2.9	**F**	**57R37**	**DRN**	**63MS4**	39	524
5.3	185	262	11500	3.2	**FF**	**57R37**	**DRN**	**63MS4**	45	524
2.5	385	543	6100	1.05	**FA**	**47R17**	**DRN**	**63MS4**	24	524
2.9	330	475	6740	1.20	**FAF**	**47R17**	**DRN**	**63MS4**	27	524
3.3	290	419	7150	1.40	**F**	**47R17**	**DRN**	**63MS4**	25	524
					FF	**47R17**	**DRN**	**63MS4**	28	524
2.6	380	524	6190	1.05						
2.8	350	489	6530	1.15						
3.2	300	427	7020	1.30	**FA**	**47R17**	**DRN**	**63MS4**	24	524
3.6	265	381	7310	1.50	**FAF**	**47R17**	**DRN**	**63MS4**	26	524
4.1	235	334	7550	1.70	**F**	**47R17**	**DRN**	**63MS4**	24	524
4.7	205	295	7740	1.95	**FF**	**47R17**	**DRN**	**63MS4**	27	524
5.5	172	253	7910	2.3						
4.3	215	322	3990	0.90	**FA**	**37R17**	**DRN**	**63MS4**	19	524
5.0	192	278	4400	1.05	**FAF**	**37R17**	**DRN**	**63MS4**	21	524
5.7	162	242	4750	1.25	**F**	**37R17**	**DRN**	**63MS4**	20	524
6.2	156	221	4820	1.30	**FF**	**37R17**	**DRN**	**63MS4**	22	524
4.2	235	326	3710	0.85						
4.8	200	285	4250	1.00	**FA**	**37R17**	**DRN**	**63MS4**	19	524
5.5	177	250	4590	1.15	**FAF**	**37R17**	**DRN**	**63MS4**	21	524
6.3	156	219	4820	1.30	**F**	**37R17**	**DRN**	**63MS4**	20	524
7.4	132	186	5040	1.50	**FF**	**37R17**	**DRN**	**63MS4**	22	524
8.3	118	167	5140	1.70						
6.2	155	221	4500	0.85	**FA**	**27R17**	**DRN**	**63MS4**	13	524
8.0	119	172	4500	1.10	**FAF**	**27R17**	**DRN**	**63MS4**	14	524
9.1	104	153	4500	1.25	**F**	**27R17**	**DRN**	**63MS4**	14	524
11	87	130	4500	1.50	**FF**	**27R17**	**DRN**	**63MS4**	15	524
6.5	150	211	4500	0.85						
7.4	131	186	4500	1.00	**FA**	**27R17**	**DRN**	**63MS4**	13	524
9.7	102	142	4500	1.25	**FAF**	**27R17**	**DRN**	**63MS4**	14	524
11	88	124	4500	1.45	**F**	**27R17**	**DRN**	**63MS4**	14	524
13	77	109	4500	1.70	**FF**	**27R17**	**DRN**	**63MS4**	14	524
14	67	96	4500	1.95						
3.8	300	228.99	13000	2.7						
4.5	255	195.39	13000	3.2	**FA**	**67**	**DRN**	**63M6**	33	477
5.1	225	170.85	13000	3.6	**FAF**	**67**	**DRN**	**63M6**	39	476
5.4	210	162.31	13000	3.8	**F**	**67**	**DRN**	**63M6**	36	475
6.1	188	142.40	13000	4.4	**FF**	**67**	**DRN**	**63M6**	42	476
4.4	260	199.70	11300	2.3						
4.7	240	183.60	11400	2.5	**FA**	**57**	**DRN**	**63M6**	29	471
5.5	205	157.09	11500	2.9	**FAF**	**57**	**DRN**	**63M6**	34	470
6.4	179	136.16	11500	3.4	**F**	**57**	**DRN**	**63M6**	29	469
6.8	168	127.27	11500	3.6	**FF**	**57**	**DRN**	**63M6**	36	470
6.9	166	199.70	11500	3.6	**FA**	**57**	**DRN**	**63MS4**	28	471
7.5	152	183.60	11500	3.9	**FAF**	**57**	**DRN**	**63MS4**	34	470
8.8	130	157.09	11500	4.6	**F**	**57**	**DRN**	**63MS4**	28	469
10	113	136.16	11500	5.3	**FF**	**57**	**DRN**	**63MS4**	35	470
4.6	250	190.76	7450	1.60						
5.0	230	175.38	7590	1.75						
5.8	198	150.06	7780	2.0	**FA**	**47**	**DRN**	**63M6**	22	465
6.7	171	130.07	7910	2.3	**FAF**	**47**	**DRN**	**63M6**	25	464
7.2	160	121.57	7960	2.5	**F**	**47**	**DRN**	**63M6**	23	463
8.3	138	105.09	8050	2.9	**FF**	**47**	**DRN**	**63M6**	26	464
9.7	118	89.29	8120	3.4						
11	105	79.72	8150	3.8						

24832936/EN – 09/2018

P_m = 0.12 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
7.2	158	190.76	7970	2.5	**FA**	**47**	**DRN**	**63MS4**	21	465
7.9	146	175.38	8020	2.8	**FAF**	**47**	**DRN**	**63MS4**	24	464
9.2	125	150.06	8100	3.2	**F**	**47**	**DRN**	**63MS4**	22	463
11	108	130.07	8150	3.7	**FF**	**47**	**DRN**	**63MS4**	25	464
6.8	169	128.51	4680	1.20						
7.4	155	117.88	4830	1.30	**FA**	**37**	**DRN**	**63M6**	17	459
8.7	132	100.36	5030	1.50	**FAF**	**37**	**DRN**	**63M6**	19	458
10	114	86.53	5170	1.75	**F**	**37**	**DRN**	**63M6**	17	457
11	106	80.65	5220	1.90	**FF**	**37**	**DRN**	**63M6**	19	458
11	107	128.51	5220	1.85						
12	98	117.88	5270	2.0	**FA**	**37**	**DRN**	**63MS4**	16	459
14	83	100.36	5340	2.4	**FAF**	**37**	**DRN**	**63MS4**	18	458
16	72	86.53	5390	2.8	**F**	**37**	**DRN**	**63MS4**	17	457
17	67	80.65	5410	3.0	**FF**	**37**	**DRN**	**63MS4**	19	458
7.9	145	109.90	4500	0.90	**FA**	**27**	**DRN**	**63M6**	11	454
9.2	125	94.76	4500	1.05	**FAF**	**27**	**DRN**	**63M6**	12	453
9.8	116	88.32	4500	1.10	**F**	**27**	**DRN**	**63M6**	11	452
11	102	77.21	4500	1.30	**FF**	**27**	**DRN**	**63M6**	12	453
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**	**DRN**	**63MS4**	10	454
19	60	72.37	4500	2.2	**FAF**	**27**	**DRN**	**63MS4**	11	453
22	53	63.86	4500	2.5	**F**	**27**	**DRN**	**63MS4**	11	452
24	47	56.62	4500	2.8	**FF**	**27**	**DRN**	**63MS4**	11	453
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	25	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	11	13.84	3250	11						
112	10	12.35	3140	13	**FA**	**27**	**DRN**	**63MS4**	9.8	454
131	8.8	10.55	2990	15	**FAF**	**27**	**DRN**	**63MS4**	11	453
140	8.2	9.88	2920	16	**F**	**27**	**DRN**	**63MS4**	10	452
147	7.8	9.40	2870	17	**FF**	**27**	**DRN**	**63MS4**	11	453
170	6.8	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 min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.11	13000	12912	88400	0.90						
0.12	11600	11656	90000	1.05	**FA**	**127R77**	**DRN**	**63M4**	425	524
0.13	10200	10191	90000	1.15	**FAF**	**127R77**	**DRN**	**63M4**	465	524
0.16	8500	8831	90000	1.40	**F**	**127R77**	**DRN**	**63M4**	465	524
0.18	7360	7643	90000	1.65	**FF**	**127R77**	**DRN**	**63M4**	510	524
0.20	6800	6715	90000	1.75						

24832936/EN – 09/2018

P_m = 0.18 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.16	8010	8548	48900	0.95						
0.18	7750	7674	49600	1.00						
0.20	6730	6767	52200	1.15	**FA**	**107R77**	**DRN**	**63M4**	275	524
0.23	5790	5954	54500	1.35	**FAF**	**107R77**	**DRN**	**63M4**	295	524
0.26	5030	5223	56200	1.55	**F**	**107R77**	**DRN**	**63M4**	290	524
0.30	4630	4567	57100	1.65	**FF**	**107R77**	**DRN**	**63M4**	320	524
0.39	3500	3521	59400	2.2						
0.45	3100	3037	60200	2.5	**FA**	**107R77**	**DRN**	**63M4**	275	524
0.50	2810	2756	60700	2.7	**FAF**	**107R77**	**DRN**	**63M4**	295	524
0.58	2420	2369	61400	3.2	**F**	**107R77**	**DRN**	**63M4**	290	524
0.66	2110	2068	62000	3.6	**FF**	**107R77**	**DRN**	**63M4**	320	524
					FA	**97R57**	**DRN**	**63M4**	185	524
0.32	4590	4333	29000	0.95	**FAF**	**97R57**	**DRN**	**63M4**	205	524
					F	**97R57**	**DRN**	**63M4**	190	524
					FF	**97R57**	**DRN**	**63M4**	225	524
0.35	4230	3906	30100	1.00						
0.41	3640	3352	31700	1.20						
0.47	3060	2907	33200	1.40						
0.54	2760	2553	33800	1.55	**FA**	**97R57**	**DRN**	**63M4**	185	524
0.61	2430	2245	34500	1.75	**FAF**	**97R57**	**DRN**	**63M4**	205	524
0.70	2110	1970	35200	2.0	**F**	**97R57**	**DRN**	**63M4**	190	524
0.80	1870	1722	35600	2.3	**FF**	**97R57**	**DRN**	**63M4**	225	524
0.90	1660	1527	36000	2.6						
1.0	1360	1327	36500	3.2						
1.2	1270	1171	36600	3.4						
0.53	2800	2576	23700	1.05						
0.63	2380	2199	25200	1.25						
0.71	2070	1930	26200	1.45						
0.80	1850	1709	26900	1.60	**FA**	**87R57**	**DRN**	**63M4**	120	524
0.92	1620	1493	27500	1.85	**FAF**	**87R57**	**DRN**	**63M4**	130	524
1.1	1330	1300	28200	2.2	**F**	**87R57**	**DRN**	**63M4**	125	524
1.2	1190	1148	28500	2.5	**FF**	**87R57**	**DRN**	**63M4**	140	524
1.4	1030	1010	28900	2.9						
1.6	920	887	29100	3.2						
1.8	800	780	29400	3.8						
0.89	1700	1544	14200	0.90						
1.0	1490	1354	15800	1.00						
1.1	1320	1200	16800	1.15	**FA**	**77R37**	**DRN**	**63M4**	66	524
1.3	1150	1053	17600	1.30	**FAF**	**77R37**	**DRN**	**63M4**	73	524
1.5	990	910	18300	1.50	**F**	**77R37**	**DRN**	**63M4**	70	524
1.7	840	810	18800	1.75	**FF**	**77R37**	**DRN**	**63M4**	81	524
1.9	740	710	19100	2.0						
2.2	660	615	19400	2.3						
1.6	890	858	9530	0.90						
1.8	790	755	10600	1.05						
2.1	670	641	11500	1.20	**FA**	**67R37**	**DRN**	**63M4**	44	524
2.4	615	572	11800	1.35	**FAF**	**67R37**	**DRN**	**63M4**	50	524
2.7	530	509	12200	1.55	**F**	**67R37**	**DRN**	**63M4**	47	524
3.1	460	437	12600	1.80	**FF**	**67R37**	**DRN**	**63M4**	53	524
3.6	410	384	12800	2.0						
2.8	550	500	12200	1.50						
3.0	505	454	12400	1.60						
3.5	430	392	12700	1.90	**FA**	**67R37**	**DRN**	**63M4**	43	524
4.1	360	333	12900	2.2	**FAF**	**67R37**	**DRN**	**63M4**	49	524
4.6	320	297	13000	2.5	**F**	**67R37**	**DRN**	**63M4**	46	524
5.3	280	261	13000	2.9	**FF**	**67R37**	**DRN**	**63M4**	52	524
5.8	250	238	13000	3.2						
6.9	205	200	13000	3.9						
2.5	605	558	9120	1.00	**FA**	**57R37**	**DRN**	**63M4**	40	524
2.7	545	506	9600	1.10	**FAF**	**57R37**	**DRN**	**63M4**	46	524
3.0	475	452	10100	1.25	**F**	**57R37**	**DRN**	**63M4**	40	524
3.6	405	386	10500	1.45	**FF**	**57R37**	**DRN**	**63M4**	47	524
4.1	350	338	10800	1.70						

24832936/EN – 09/2018

P_m = 0.18 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
3.2	480	426	10100	1.25						
3.6	425	382	10400	1.40	**FA**	**57R37**	**DRN**	**63M4**	39	524
4.2	365	330	10800	1.65	**FAF**	**57R37**	**DRN**	**63M4**	45	524
4.6	325	298	11000	1.80	**F**	**57R37**	**DRN**	**63M4**	40	524
5.2	290	262	11200	2.1	**FF**	**57R37**	**DRN**	**63M4**	46	524
6.1	240	226	11400	2.5						
6.9	210	200	11500	2.8						
3.7	390	370	6010	1.00	**FA**	**47R17**	**DRN**	**63M4**	25	524
4.2	355	324	6440	1.10	**FAF**	**47R17**	**DRN**	**63M4**	28	524
4.8	310	288	6940	1.30	**F**	**47R17**	**DRN**	**63M4**	26	524
5.5	265	249	7340	1.50	**FF**	**47R17**	**DRN**	**63M4**	29	524
4.1	370	334	6320	1.10						
4.7	320	295	6830	1.25	**FA**	**47R17**	**DRN**	**63M4**	24	524
5.4	270	253	7290	1.45	**FAF**	**47R17**	**DRN**	**63M4**	27	524
6.3	240	217	7500	1.65	**F**	**47R17**	**DRN**	**63M4**	25	524
7.2	210	190	7710	1.90	**FF**	**47R17**	**DRN**	**63M4**	28	524
7.7	197	178	7780	2.0						
7.4	205	186	4200	0.95	**FA**	**37R17**	**DRN**	**63M4**	20	524
8.2	185	167	4490	1.10	**FAF**	**37R17**	**DRN**	**63M4**	22	524
9.4	164	145	4740	1.20	**F**	**37R17**	**DRN**	**63M4**	21	524
11	145	129	4930	1.40	**FF**	**37R17**	**DRN**	**63M4**	22	524
9.7	159	142	4500	0.80	**FA**	**27R17**	**DRN**	**63M4**	14	524
11	138	124	4500	0.95	**FAF**	**27R17**	**DRN**	**63M4**	15	524
13	120	109	4500	1.10	**F**	**27R17**	**DRN**	**63M4**	14	524
14	105	96	4500	1.25	**FF**	**27R17**	**DRN**	**63M4**	15	524
3.2	525	281.71	19600	2.8	**FA**	**77**	**DRN**	**71MS6**	57	485
3.5	490	262.93	19700	3.0	**FAF**	**77**	**DRN**	**71MS6**	64	483
4.0	420	225.79	19800	3.5	**F**	**77**	**DRN**	**71MS6**	61	482
					FF	**77**	**DRN**	**71MS6**	72	483
4.0	430	228.99	12700	1.90	**FA**	**67**	**DRN**	**71MS6**	33	477
4.7	365	195.39	12900	2.2	**FAF**	**67**	**DRN**	**71MS6**	40	476
5.4	320	170.85	13000	2.5	**F**	**67**	**DRN**	**71MS6**	36	475
					FF	**67**	**DRN**	**71MS6**	42	476
6.0	285	228.99	13000	2.9	**FA**	**67**	**DRN**	**63M4**	33	477
7.0	240	195.39	13000	3.4	**FAF**	**67**	**DRN**	**63M4**	39	476
8.1	210	170.85	13000	3.8	**F**	**67**	**DRN**	**63M4**	36	475
					FF	**67**	**DRN**	**63M4**	42	476
4.6	375	199.70	10700	1.60						
5.0	340	183.60	10900	1.75	**FA**	**57**	**DRN**	**71MS6**	30	471
5.8	295	157.09	11200	2.0	**FAF**	**57**	**DRN**	**71MS6**	35	470
6.7	255	136.16	11400	2.4	**F**	**57**	**DRN**	**71MS6**	30	469
7.2	235	127.27	11500	2.5	**FF**	**57**	**DRN**	**71MS6**	36	470
8.3	205	110.01	11500	2.9						
6.9	245	199.70	11400	2.4						
7.5	225	183.60	11500	2.6	**FA**	**57**	**DRN**	**63M4**	29	471
8.8	196	157.09	11500	3.1	**FAF**	**57**	**DRN**	**63M4**	34	470
10	170	136.16	11500	3.5	**F**	**57**	**DRN**	**63M4**	29	469
11	159	127.27	11500	3.8	**FF**	**57**	**DRN**	**63M4**	36	470
4.8	355	190.76	6460	1.10						
5.2	325	175.38	6780	1.20	**FA**	**47**	**DRN**	**71MS6**	22	465
6.1	280	150.06	7220	1.40	**FAF**	**47**	**DRN**	**71MS6**	25	464
7.0	240	130.07	7500	1.65	**F**	**47**	**DRN**	**71MS6**	23	463
7.5	225	121.57	7600	1.75	**FF**	**47**	**DRN**	**71MS6**	26	464
7.2	235	190.76	7540	1.70						
7.8	215	175.38	7660	1.80	**FA**	**47**	**DRN**	**63M4**	22	465
9.2	188	150.06	7840	2.1	**FAF**	**47**	**DRN**	**63M4**	25	464
11	163	130.07	7950	2.5	**F**	**47**	**DRN**	**63M4**	23	463
11	152	121.57	8000	2.6	**FF**	**47**	**DRN**	**63M4**	26	464
7.8	220	117.88	3960	0.90						
9.1	189	100.36	4450	1.05	**FA**	**37**	**DRN**	**71MS6**	18	459
11	163	86.53	4750	1.25	**FAF**	**37**	**DRN**	**71MS6**	19	458
11	152	80.65	4860	1.30	**F**	**37**	**DRN**	**71MS6**	18	457
13	132	70.50	5030	1.50	**FF**	**37**	**DRN**	**71MS6**	20	458

24832936/EN – 09/2018

P_m = 0.18 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
11	161	128.51	4770	1.25						
12	147	117.88	4900	1.35						
14	125	100.36	5080	1.60	**FA**	**37**	**DRN**	**63M4**	17	459
16	108	86.53	5200	1.85	**FAF**	**37**	**DRN**	**63M4**	19	458
17	101	80.65	5250	2.0	**F**	**37**	**DRN**	**63M4**	17	457
20	88	70.50	5320	2.3	**FF**	**37**	**DRN**	**63M4**	19	458
21	83	66.09	5350	2.4						
24	73	58.32	5390	2.7						
13	137	109.90	4500	0.95						
15	118	94.76	4500	1.10						
16	110	88.32	4500	1.20						
18	97	77.21	4500	1.35						
19	90	72.37	4500	1.45	**FA**	**27**	**DRN**	**63M4**	11	454
22	80	63.86	4500	1.65	**FAF**	**27**	**DRN**	**63M4**	12	453
24	71	56.62	4500	1.85	**F**	**27**	**DRN**	**63M4**	11	452
27	63	50.19	4500	2.1	**FF**	**27**	**DRN**	**63M4**	12	453
29	58	46.78	4500	2.2						
34	51	40.89	4360	2.5						
36	48	38.33	4290	2.7						
41	42	33.83	4150	3.1						
47	37	29.56	4000	3.5						
51	34	27.18	3900	3.8						
59	29	23.25	3730	4.5						
68	25	20.15	3580	5.2						
73	24	18.84	3510	5.5						
84	20	16.28	3360	6.4						
99	17	13.84	3200	7.5						
111	15	12.35	3100	8.4	**FA**	**27**	**DRN**	**63M4**	11	454
130	13	10.55	2950	9.9	**FAF**	**27**	**DRN**	**63M4**	11	453
139	12	9.88	2890	11	**F**	**27**	**DRN**	**63M4**	11	452
146	12	9.40	2840	11	**FF**	**27**	**DRN**	**63M4**	12	453
169	10	8.13	2710	12						
199	8.6	6.91	2580	13						
223	7.7	6.17	2490	14						
261	6.6	5.27	2370	15						
279	6.2	4.93	2320	16						
331	5.2	4.16	2200	17						
335	5.1	8.13	2190	24						
395	4.4	6.91	2080	26	**FA**	**27**	**DRN**	**63MS2**	9.8	454
442	3.9	6.17	2000	28	**FAF**	**27**	**DRN**	**63MS2**	11	453
517	3.3	5.27	1900	30	**F**	**27**	**DRN**	**63MS2**	10	452
552	3.1	4.93	1860	31	**FF**	**27**	**DRN**	**63MS2**	11	453
656	2.6	4.16	1760	33						

P_m = 0.25 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.16	12100	8831	90000	1.00						
0.18	10500	7643	90000	1.15	**FA**	**127R77**	**DRN**	**71MS4**	425	524
0.21	9610	6715	90000	1.25	**FAF**	**127R77**	**DRN**	**71MS4**	465	524
0.24	8480	5925	90000	1.40	**F**	**127R77**	**DRN**	**71MS4**	465	524
0.27	7270	5153	90000	1.65	**FF**	**127R77**	**DRN**	**71MS4**	510	524
0.31	6290	4533	90000	1.90						
0.24	8270	5954	48200	0.95	**FA**	**107R77**	**DRN**	**71MS4**	275	524
0.27	7200	5223	51000	1.05	**FAF**	**107R77**	**DRN**	**71MS4**	295	524
0.31	6530	4567	52700	1.15	**F**	**107R77**	**DRN**	**71MS4**	295	524
0.40	4970	3521	56400	1.55	**FF**	**107R77**	**DRN**	**71MS4**	320	524
0.46	4380	3037	57600	1.75						
0.51	3980	2756	58500	1.95	**FA**	**107R77**	**DRN**	**71MS4**	275	524
0.59	3420	2369	59600	2.2	**FAF**	**107R77**	**DRN**	**71MS4**	295	524
0.68	2980	2068	60400	2.6	**F**	**107R77**	**DRN**	**71MS4**	290	524
0.88	2280	1597	61700	3.4	**FF**	**107R77**	**DRN**	**71MS4**	320	524
1.0	1970	1401	62200	3.9						

P_m = 0.25 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.48	4290	2907	29900	1.00						
0.55	3840	2553	31200	1.10						
0.63	3380	2245	32400	1.25						
0.71	2940	1970	33400	1.45	**FA**	**97R57**	**DRN**	**71MS4**	185	524
0.82	2600	1722	34200	1.65	**FAF**	**97R57**	**DRN**	**71MS4**	205	524
0.92	2300	1527	34800	1.85	**F**	**97R57**	**DRN**	**71MS4**	190	524
1.1	1920	1327	35500	2.2	**FF**	**97R57**	**DRN**	**71MS4**	225	524
1.2	1760	1171	35800	2.4						
1.4	1540	1022	36200	2.8						
0.73	2880	1930	23400	1.05						
0.82	2570	1709	24500	1.15						
0.94	2250	1493	25600	1.35						
1.1	1880	1300	26800	1.60	**FA**	**87R57**	**DRN**	**71MS4**	120	524
1.2	1680	1148	27300	1.80	**FAF**	**87R57**	**DRN**	**71MS4**	130	524
1.4	1460	1010	27900	2.0	**F**	**87R57**	**DRN**	**71MS4**	125	524
1.6	1300	887	28300	2.3	**FF**	**87R57**	**DRN**	**71MS4**	140	524
1.8	1120	780	28700	2.6						
2.1	950	674	29100	3.1						
1.3	1600	1053	15000	0.95						
1.5	1370	910	16500	1.10						
1.7	1190	810	17500	1.25	**FA**	**77R37**	**DRN**	**71MS4**	67	524
2.0	1040	710	18100	1.45	**FAF**	**77R37**	**DRN**	**71MS4**	73	524
2.3	920	615	18600	1.65	**F**	**77R37**	**DRN**	**71MS4**	71	524
2.6	800	538	19000	1.85	**FF**	**77R37**	**DRN**	**71MS4**	81	524
2.9	715	480	19200	2.1						
3.4	605	413	19500	2.5						
2.5	850	572	9940	0.95	**FA**	**67R37**	**DRN**	**71MS4**	45	524
2.8	745	509	10900	1.10	**FAF**	**67R37**	**DRN**	**71MS4**	51	524
3.2	640	437	11600	1.25	**F**	**67R37**	**DRN**	**71MS4**	47	524
					FF	**67R37**	**DRN**	**71MS4**	53	524
2.8	765	500	10800	1.05						
3.1	695	454	11300	1.15						
3.6	600	392	11900	1.35	**FA**	**67R37**	**DRN**	**71MS4**	43	524
4.2	505	333	12400	1.60	**FAF**	**67R37**	**DRN**	**71MS4**	50	524
4.7	445	297	12600	1.85	**F**	**67R37**	**DRN**	**71MS4**	46	524
5.4	390	261	12800	2.1	**FF**	**67R37**	**DRN**	**71MS4**	52	524
5.9	350	238	13000	2.3						
3.6	570	386	9420	1.05	**FA**	**57R37**	**DRN**	**71MS4**	41	524
4.2	495	338	9940	1.20	**FAF**	**57R37**	**DRN**	**71MS4**	46	524
5.5	375	255	10700	1.60	**F**	**57R37**	**DRN**	**71MS4**	41	524
					FF	**57R37**	**DRN**	**71MS4**	47	524
3.7	585	382	9280	1.00						
4.2	505	330	9880	1.20						
4.7	455	298	10200	1.30	**FA**	**57R37**	**DRN**	**71MS4**	40	524
5.4	400	262	10600	1.50	**FAF**	**57R37**	**DRN**	**71MS4**	46	524
6.2	340	226	10900	1.75	**F**	**57R37**	**DRN**	**71MS4**	40	524
7.0	295	200	11100	2.0	**FF**	**57R37**	**DRN**	**71MS4**	47	524
8.3	250	170	11400	2.4						
5.6	370	249	6310	1.10	**FA**	**47R17**	**DRN**	**71MS4**	26	524
6.4	325	218	6780	1.20	**FAF**	**47R17**	**DRN**	**71MS4**	28	524
7.3	290	193	7150	1.40	**F**	**47R17**	**DRN**	**71MS4**	26	524
8.1	260	175	7360	1.50	**FF**	**47R17**	**DRN**	**71MS4**	30	524
5.5	380	253	6180	1.05						
6.5	335	217	6700	1.20	**FA**	**47R17**	**DRN**	**71MS4**	25	524
7.4	290	190	7130	1.35	**FAF**	**47R17**	**DRN**	**71MS4**	28	524
7.9	270	178	7280	1.45	**F**	**47R17**	**DRN**	**71MS4**	26	524
9.4	225	149	7610	1.75	**FF**	**47R17**	**DRN**	**71MS4**	29	524
11	200	131	7770	2.0						
9.7	225	145	3880	0.90	**FA**	**37R17**	**DRN**	**71MS4**	21	524
11	200	129	4300	1.00	**FAF**	**37R17**	**DRN**	**71MS4**	22	524
12	182	118	4530	1.10	**F**	**37R17**	**DRN**	**71MS4**	21	524
14	151	98	4870	1.35	**FF**	**37R17**	**DRN**	**71MS4**	23	524
16	132	87	5030	1.50						

24832936/EN – 09/2018

P_m = 0.25 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
3.2	735	281.71	19200	2.0						
3.5	685	262.93	19300	2.2	**FA**	**77**	**DRN**	**71M6**	59	485
4.0	585	225.79	19500	2.5	**FAF**	**77**	**DRN**	**71M6**	65	483
4.6	515	198.31	19700	2.9	**F**	**77**	**DRN**	**71M6**	62	482
4.9	490	188.40	19700	3.0	**FF**	**77**	**DRN**	**71M6**	73	483
4.0	595	228.99	11900	1.35						
4.7	505	195.39	12400	1.60	**FA**	**67**	**DRN**	**71M6**	35	477
5.4	445	170.85	12600	1.85	**FAF**	**67**	**DRN**	**71M6**	41	476
5.6	420	162.31	12700	1.95	**F**	**67**	**DRN**	**71M6**	37	475
6.4	370	142.40	12900	2.2	**FF**	**67**	**DRN**	**71M6**	44	476
6.1	385	228.99	12800	2.1						
7.2	330	195.39	13000	2.5	**FA**	**67**	**DRN**	**71MS4**	33	477
8.2	290	170.85	13000	2.8	**FAF**	**67**	**DRN**	**71MS4**	40	476
8.7	275	162.31	13000	3.0	**F**	**67**	**DRN**	**71MS4**	36	475
9.9	240	142.40	13000	3.4	**FF**	**67**	**DRN**	**71MS4**	42	476
4.6	520	199.70	9780	1.15						
5.0	475	183.60	10100	1.25	**FA**	**57**	**DRN**	**71M6**	31	471
5.8	405	157.09	10500	1.45	**FAF**	**57**	**DRN**	**71M6**	36	470
6.7	355	136.16	10800	1.70	**F**	**57**	**DRN**	**71M6**	31	469
7.2	330	127.27	11000	1.80	**FF**	**57**	**DRN**	**71M6**	37	470
8.3	285	110.01	11200	2.1						
7.0	335	199.70	10900	1.75						
7.7	310	183.60	11100	1.90	**FA**	**57**	**DRN**	**71MS4**	30	471
8.9	265	157.09	11300	2.2	**FAF**	**57**	**DRN**	**71MS4**	35	470
10	230	136.16	11500	2.6	**F**	**57**	**DRN**	**71MS4**	30	469
11	215	127.27	11500	2.8	**FF**	**57**	**DRN**	**71MS4**	36	470
13	187	110.01	11500	3.2						
6.1	390	150.06	6040	1.00	**FA**	**47**	**DRN**	**71M6**	24	465
7.0	335	130.07	6670	1.20	**FAF**	**47**	**DRN**	**71M6**	26	464
7.5	315	121.57	6900	1.25	**F**	**47**	**DRN**	**71M6**	24	463
8.7	270	105.09	7280	1.45	**FF**	**47**	**DRN**	**71M6**	28	464
7.4	320	190.76	6830	1.25						
8.0	295	175.38	7080	1.35						
9.4	250	150.06	7420	1.55	**FA**	**47**	**DRN**	**71MS4**	22	465
11	220	130.07	7650	1.80	**FAF**	**47**	**DRN**	**71MS4**	25	464
12	205	121.57	7730	1.95	**F**	**47**	**DRN**	**71MS4**	23	463
13	179	105.09	7880	2.2	**FF**	**47**	**DRN**	**71MS4**	26	464
16	152	89.29	8000	2.6						
11	215	128.51	4010	0.90						
12	200	117.88	4290	1.00						
14	171	100.36	4670	1.15						
16	147	86.53	4900	1.35						
17	137	80.65	4990	1.45						
20	120	70.50	5130	1.65						
21	112	66.09	5180	1.80	**FA**	**37**	**DRN**	**71MS4**	18	459
24	99	58.32	5260	2.0	**FAF**	**37**	**DRN**	**71MS4**	19	458
26	93	54.54	5300	2.2	**F**	**37**	**DRN**	**71MS4**	18	457
27	88	51.70	5320	2.3	**FF**	**37**	**DRN**	**71MS4**	20	458
30	80	47.02	5360	2.5						
32	74	43.83	5380	2.7						
37	65	38.31	5420	3.1						
39	61	35.91	5440	3.3						
44	54	31.69	5460	3.7						
18	131	77.21	4500	1.00						
19	123	72.37	4500	1.05						
22	109	63.86	4500	1.20						
25	96	56.62	4480	1.35	**FA**	**27**	**DRN**	**71MS4**	11	454
28	85	50.19	4370	1.50	**FAF**	**27**	**DRN**	**71MS4**	12	453
30	79	46.78	4300	1.65	**F**	**27**	**DRN**	**71MS4**	12	452
34	69	40.89	4170	1.85	**FF**	**27**	**DRN**	**71MS4**	13	453
37	65	38.33	4100	2.0						
42	57	33.83	3980	2.3						

24832936/EN – 09/2018

P_m = 0.25 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
48	50	29.56	3850	2.6						
52	46	27.18	3760	2.8						
60	40	23.25	3610	3.3						
70	34	20.15	3480	3.8						
75	32	18.84	3410	4.1						
86	28	16.28	3270	4.7						
102	24	13.84	3120	5.5						
114	21	12.35	3020	6.2	**FA**	**27**	**DRN**	**71MS4**	11	454
133	18	10.55	2890	7.2	**FAF**	**27**	**DRN**	**71MS4**	12	453
142	17	9.88	2830	7.7	**F**	**27**	**DRN**	**71MS4**	12	452
149	16	9.40	2770	8.1	**FF**	**27**	**DRN**	**71MS4**	13	453
173	14	8.13	2660	8.9						
203	12	6.91	2530	9.7						
228	10	6.17	2440	10						
267	8.9	5.27	2330	11						
285	8.4	4.93	2280	11						
338	7.1	4.16	2160	12						
339	7.0	8.13	2160	17						
399	6.0	6.91	2050	19	**FA**	**27**	**DRN**	**63M2**	11	454
447	5.3	6.17	1980	20	**FAF**	**27**	**DRN**	**63M2**	11	453
523	4.6	5.27	1890	22	**F**	**27**	**DRN**	**63M2**	11	452
558	4.3	4.93	1850	22	**FF**	**27**	**DRN**	**63M2**	12	453
663	3.6	4.16	1750	24						

P_m = 0.37 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.21	14500	6715	85400	0.80						
0.24	12800	5925	88700	0.95						
0.27	11000	5153	90000	1.10	**FA**	**127R77**	**DRN**	**71M4**	430	524
0.31	9660	4533	90000	1.25	**FAF**	**127R77**	**DRN**	**71M4**	465	524
0.36	8450	3926	90000	1.40	**F**	**127R77**	**DRN**	**71M4**	465	524
0.41	7360	3454	90000	1.65	**FF**	**127R77**	**DRN**	**71M4**	510	524
0.47	6430	3031	90000	1.85						
0.47	6660	3037	52400	1.15						
0.51	6050	2756	53900	1.25	**FA**	**107R77**	**DRN**	**71M4**	275	524
0.60	5200	2369	55900	1.50	**FAF**	**107R77**	**DRN**	**71M4**	295	524
0.68	4540	2068	57300	1.70	**F**	**107R77**	**DRN**	**71M4**	295	524
0.89	3480	1597	59500	2.2	**FF**	**107R77**	**DRN**	**71M4**	320	524
0.72	4420	1970	29500	0.95						
0.82	3890	1722	31100	1.10						
0.93	3450	1527	32200	1.25	**FA**	**97R57**	**DRN**	**71M4**	185	524
1.1	2910	1327	33500	1.45	**FAF**	**97R57**	**DRN**	**71M4**	205	524
1.2	2640	1171	34100	1.60	**F**	**97R57**	**DRN**	**71M4**	195	524
1.4	2310	1022	34800	1.85	**FF**	**97R57**	**DRN**	**71M4**	225	524
1.6	1950	898	35500	2.2						
1.1	2850	1300	23500	1.05						
1.2	2540	1148	24600	1.20						
1.4	2220	1010	25700	1.35						
1.6	1960	887	26500	1.55	**FA**	**87R57**	**DRN**	**71M4**	120	524
1.8	1710	780	27200	1.75	**FAF**	**87R57**	**DRN**	**71M4**	135	524
2.1	1460	674	27900	2.0	**F**	**87R57**	**DRN**	**71M4**	125	524
2.3	1330	609	28200	2.2	**FF**	**87R57**	**DRN**	**71M4**	140	524
2.8	1120	515	28700	2.7						
3.1	990	452	29000	3.0						
1.8	1790	810	13300	0.85						
2.0	1570	710	15200	0.95						
2.3	1380	615	16500	1.10	**FA**	**77R37**	**DRN**	**71M4**	68	524
2.6	1210	538	17400	1.25	**FAF**	**77R37**	**DRN**	**71M4**	75	524
3.0	1070	480	18000	1.40	**F**	**77R37**	**DRN**	**71M4**	72	524
3.4	910	413	18600	1.65	**FF**	**77R37**	**DRN**	**71M4**	82	524
3.9	820	367	18900	1.80						
4.4	730	323	19200	2.0						

24832936/EN – 09/2018

P_m = 0.37 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
3.7	860	384	9900	0.95						
4.2	765	338	10800	1.05	**FA**	**67R37**	**DRN**	**71M4**	46	524
4.7	685	305	11400	1.20	**FAF**	**67R37**	**DRN**	**71M4**	52	524
5.5	575	257	12000	1.40	**F**	**67R37**	**DRN**	**71M4**	49	524
6.1	505	231	12400	1.60	**FF**	**67R37**	**DRN**	**71M4**	55	524
5.5	565	255	9440	1.05	**FA**	**57R37**	**DRN**	**71M4**	42	524
7.0	440	201	10300	1.35	**FAF**	**57R37**	**DRN**	**71M4**	47	524
7.8	400	181	10600	1.50	**F**	**57R37**	**DRN**	**71M4**	42	524
					FF	**57R37**	**DRN**	**71M4**	49	524
5.4	600	262	9190	1.00						
6.3	510	226	9830	1.15	**FA**	**57R37**	**DRN**	**71M4**	41	524
7.1	450	200	10200	1.35	**FAF**	**57R37**	**DRN**	**71M4**	47	524
8.3	380	170	10700	1.55	**F**	**57R37**	**DRN**	**71M4**	41	524
9.3	340	152	10900	1.75	**FF**	**57R37**	**DRN**	**71M4**	48	524
11	295	134	11100	2.0						
8.1	390	175	6000	1.00	**FA**	**47R17**	**DRN**	**71M4**	27	524
9.6	330	147	6750	1.20	**FAF**	**47R17**	**DRN**	**71M4**	30	524
11	290	130	7120	1.35	**F**	**47R17**	**DRN**	**71M4**	28	524
					FF	**47R17**	**DRN**	**71M4**	31	524
3.5	1020	270.68	28900	2.9	**FA**	**87**	**DRN**	**80MK6**	100	492
3.7	960	255.37	29000	3.1	**FAF**	**87**	**DRN**	**80MK6**	115	490
4.1	860	228.93	29200	3.5	**F**	**87**	**DRN**	**80MK6**	105	489
					FF	**87**	**DRN**	**80MK6**	120	490
4.1	850	225.79	18800	1.75						
4.7	745	198.31	19100	2.0	**FA**	**77**	**DRN**	**80MK6**	61	485
5.0	710	188.40	19200	2.1	**FAF**	**77**	**DRN**	**80MK6**	68	483
5.6	625	166.47	19400	2.4	**F**	**77**	**DRN**	**80MK6**	65	482
6.6	535	142.27	19600	2.8	**FF**	**77**	**DRN**	**80MK6**	76	483
5.0	700	281.71	19300	2.1	**FA**	**77**	**DRN**	**71M4**	59	485
5.4	655	262.93	19400	2.3	**FAF**	**77**	**DRN**	**71M4**	65	483
6.3	560	225.79	19600	2.7	**F**	**77**	**DRN**	**71M4**	62	482
7.1	495	198.31	19700	3.0	**FF**	**77**	**DRN**	**71M4**	73	483
4.8	735	195.39	11000	1.10						
5.5	645	170.85	11600	1.25	**FA**	**67**	**DRN**	**80MK6**	37	477
5.8	610	162.31	11800	1.35	**FAF**	**67**	**DRN**	**80MK6**	43	476
6.6	535	142.40	12200	1.50	**F**	**67**	**DRN**	**80MK6**	40	475
7.7	455	120.79	12600	1.80	**FF**	**67**	**DRN**	**80MK6**	46	476
6.2	570	228.99	12100	1.45						
7.2	485	195.39	12500	1.70	**FA**	**67**	**DRN**	**71M4**	35	477
8.3	425	170.85	12700	1.90	**FAF**	**67**	**DRN**	**71M4**	41	476
8.7	405	162.31	12800	2.0	**F**	**67**	**DRN**	**71M4**	37	475
9.9	355	142.40	13000	2.3	**FF**	**67**	**DRN**	**71M4**	44	476
12	300	120.79	13000	2.7						
6.0	590	157.09	9250	1.00	**FA**	**57**	**DRN**	**80MK6**	33	471
6.9	510	136.16	9820	1.15	**FAF**	**57**	**DRN**	**80MK6**	39	470
7.3	480	127.27	10100	1.25	**F**	**57**	**DRN**	**80MK6**	33	469
8.5	415	110.01	10500	1.45	**FF**	**57**	**DRN**	**80MK6**	40	470
7.1	495	199.70	9930	1.20						
7.7	455	183.60	10200	1.30						
9.0	390	157.09	10600	1.55	**FA**	**57**	**DRN**	**71M4**	31	471
10	340	136.16	10900	1.75	**FAF**	**57**	**DRN**	**71M4**	36	470
11	315	127.27	11000	1.90	**F**	**57**	**DRN**	**71M4**	31	469
13	270	110.01	11300	2.2	**FF**	**57**	**DRN**	**71M4**	37	470
15	230	93.47	11500	2.6						
17	205	83.46	11500	2.9						
9.4	370	150.06	6260	1.05						
11	320	130.07	6820	1.25	**FA**	**47**	**DRN**	**71M4**	24	465
13	260	105.09	7370	1.50	**FAF**	**47**	**DRN**	**71M4**	26	464
16	220	89.29	7640	1.80	**F**	**47**	**DRN**	**71M4**	24	463
18	199	79.72	7780	2.0	**FF**	**47**	**DRN**	**71M4**	28	464
21	170	68.09	7920	2.4						
22	163	65.36	7950	2.5						

24832936/EN – 09/2018

P_m = 0.37 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
16	215	86.53	4050	0.95						
18	200	80.65	4270	1.00						
20	176	70.50	4600	1.15						
21	165	66.09	4730	1.20						
24	146	58.32	4920	1.35						
26	136	54.54	5000	1.45	**FA**	**37**	**DRN**	**71M4**	19	459
27	129	51.70	5060	1.55	**FAF**	**37**	**DRN**	**71M4**	20	458
30	117	47.02	5140	1.70	**F**	**37**	**DRN**	**71M4**	19	457
32	109	43.83	5200	1.85	**FF**	**37**	**DRN**	**71M4**	21	458
37	96	38.31	5280	2.1						
39	90	35.91	5310	2.2						
45	79	31.69	5270	2.5						
50	70	28.09	5110	2.9						
59	60	23.88	4900	3.4						
25	141	56.62	4060	0.90						
28	125	50.19	4000	1.05	**FA**	**27**	**DRN**	**71M4**	13	454
30	117	46.78	3960	1.10	**FAF**	**27**	**DRN**	**71M4**	13	453
35	102	40.89	3870	1.25	**F**	**27**	**DRN**	**71M4**	13	452
37	96	38.33	3820	1.35	**FF**	**27**	**DRN**	**71M4**	14	453
42	84	33.83	3730	1.55						
48	74	29.56	3630	1.75						
52	68	27.18	3560	1.90						
61	58	23.25	3440	2.2						
70	50	20.15	3320	2.6						
75	47	18.84	3270	2.8						
87	41	16.28	3150	3.2						
102	35	13.84	3020	3.8						
115	31	12.35	2930	4.2	**FA**	**27**	**DRN**	**71M4**	12	454
134	26	10.55	2800	4.9	**FAF**	**27**	**DRN**	**71M4**	13	453
143	25	9.88	2750	5.3	**F**	**27**	**DRN**	**71M4**	13	452
150	23	9.40	2690	5.5	**FF**	**27**	**DRN**	**71M4**	14	453
174	20	8.13	2590	6.1						
205	17	6.91	2470	6.6						
229	15	6.17	2390	7.1						
269	13	5.27	2280	7.6						
287	12	4.93	2240	7.8						
340	10	4.16	2120	8.4						
346	10	8.13	2120	12						
407	8.7	6.91	2010	13	**FA**	**27**	**DRN**	**71MS2**	11	454
456	7.8	6.17	1940	14	**FAF**	**27**	**DRN**	**71MS2**	12	453
533	6.6	5.27	1850	15	**F**	**27**	**DRN**	**71MS2**	12	452
570	6.2	4.93	1820	15	**FF**	**27**	**DRN**	**71MS2**	13	453
676	5.2	4.16	1720	17						

P_m = 0.55 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.20	21600	7075	87400	0.90	**FA**	**157R97**	**DRN**	**80MK4**	770	524
0.23	19200	6295	96200	1.05	**FAF**	**157R97**	**DRN**	**80MK4**	830	524
0.27	16000	5404	105500	1.25	**F**	**157R97**	**DRN**	**80MK4**	790	524
0.52	8260	2780	119500	2.4	**FF**	**157R97**	**DRN**	**80MK4**	900	524
0.59	7300	2427	120000	2.7	**FA**	**157R97**	**DRN**	**80MK4**	770	524
0.86	5210	1674	120000	3.8	**FAF**	**157R97**	**DRN**	**80MK4**	820	524
1.1	4010	1308	120000	5.0	**F**	**157R97**	**DRN**	**80MK4**	790	524
1.2	3510	1169	120000	5.7	**FF**	**157R97**	**DRN**	**80MK4**	890	524
0.37	12700	3926	89100	0.95	**FA**	**127R77**	**DRN**	**80MK4**	430	524
0.42	11000	3454	90000	1.10	**FAF**	**127R77**	**DRN**	**80MK4**	470	524
0.47	9700	3031	90000	1.25	**F**	**127R77**	**DRN**	**80MK4**	465	524
					FF	**127R77**	**DRN**	**80MK4**	510	524

24832936/EN – 09/2018

P_m = 0.55 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.61	7790	2369	49500	1.00						
0.69	6800	2068	52100	1.15						
0.79	5840	1826	54400	1.30						
0.90	5220	1597	55800	1.45	**FA**	**107R77**	**DRN**	**80MK4**	280	524
1.0	4550	1401	57300	1.70	**FAF**	**107R77**	**DRN**	**80MK4**	300	524
1.1	3970	1243	58500	1.95	**F**	**107R77**	**DRN**	**80MK4**	295	524
1.3	3550	1087	59300	2.2	**FF**	**107R77**	**DRN**	**80MK4**	325	524
1.5	3030	950	60300	2.5						
1.7	2640	834	61000	2.9						
2.2	2050	640	62100	3.7						
1.1	4370	1327	29700	1.00						
1.2	3920	1171	31000	1.10						
1.4	3430	1022	32300	1.25						
1.6	2930	898	33500	1.45						
1.8	2590	784	34200	1.65	**FA**	**97R57**	**DRN**	**80MK4**	190	524
2.1	2250	690	34900	1.90	**FAF**	**97R57**	**DRN**	**80MK4**	210	524
2.4	1980	605	35400	2.2	**F**	**97R57**	**DRN**	**80MK4**	195	524
2.7	1720	529	35900	2.5	**FF**	**97R57**	**DRN**	**80MK4**	230	524
3.1	1520	467	36200	2.8						
3.5	1300	406	36600	3.3						
4.0	1170	363	36800	3.7						
1.6	2930	887	22000	1.00						
1.8	2560	780	24600	1.15						
2.1	2200	674	25800	1.35	**FA**	**87R57**	**DRN**	**80MK4**	120	524
2.4	2000	609	26400	1.50	**FAF**	**87R57**	**DRN**	**80MK4**	135	524
2.8	1690	515	27300	1.75	**F**	**87R57**	**DRN**	**80MK4**	130	524
3.2	1480	452	27800	2.0	**FF**	**87R57**	**DRN**	**80MK4**	145	524
4.2	1110	345	28700	2.7						
3.0	1600	480	15000	0.95	**FA**	**77R37**	**DRN**	**80MK4**	70	524
3.5	1360	413	16500	1.10	**FAF**	**77R37**	**DRN**	**80MK4**	77	524
3.9	1220	367	17300	1.25	**F**	**77R37**	**DRN**	**80MK4**	74	524
4.5	1080	323	18000	1.40	**FF**	**77R37**	**DRN**	**80MK4**	85	524
5.6	850	257	9970	0.95	**FA**	**67R37**	**DRN**	**80MK4**	48	524
6.2	760	231	10800	1.10	**FAF**	**67R37**	**DRN**	**80MK4**	54	524
7.0	680	205	11400	1.20	**F**	**67R37**	**DRN**	**80MK4**	51	524
8.2	575	175	12000	1.40	**FF**	**67R37**	**DRN**	**80MK4**	57	524
3.6	1470	270.68	27900	2.0						
3.8	1380	255.37	28100	2.2	**FA**	**87**	**DRN**	**90SR6**	110	492
4.2	1240	228.93	28400	2.4	**FAF**	**87**	**DRN**	**90SR6**	120	490
4.9	1070	197.20	28800	2.8	**F**	**87**	**DRN**	**90SR6**	115	489
5.4	970	179.97	29000	3.1	**FF**	**87**	**DRN**	**90SR6**	130	490
4.3	1220	225.79	17300	1.20	**FA**	**77**	**DRN**	**90SR6**	69	485
4.9	1070	198.31	18000	1.40	**FAF**	**77**	**DRN**	**90SR6**	76	483
5.1	1020	188.40	18200	1.45	**F**	**77**	**DRN**	**90SR6**	73	482
					FF	**77**	**DRN**	**90SR6**	84	483
5.8	900	166.47	18700	1.65	**FA**	**77**	**DRN**	**90SR6**	69	485
6.8	770	142.27	19100	1.95	**FAF**	**77**	**DRN**	**90SR6**	76	483
7.4	705	130.42	19200	2.1	**F**	**77**	**DRN**	**90SR6**	73	482
					FF	**77**	**DRN**	**90SR6**	84	483
6.4	820	225.79	18900	1.80						
7.2	725	198.31	19200	2.1						
7.6	685	188.40	19300	2.2						
8.6	605	166.47	19500	2.5	**FA**	**77**	**DRN**	**80MK4**	61	485
10	520	142.27	19700	2.9	**FAF**	**77**	**DRN**	**80MK4**	68	483
11	475	130.42	19700	3.1	**F**	**77**	**DRN**	**80MK4**	65	482
13	415	114.45	19800	3.6	**FF**	**77**	**DRN**	**80MK4**	76	483
13	395	108.46*	19900	3.8						
15	345	94.93	19900	4.3						

24832936/EN – 09/2018

P_m = 0.55 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
7.3	715	195.39	11200	1.15						
8.4	625	170.85	11700	1.30						
8.8	590	162.31	11900	1.40						
10	520	142.40	12300	1.55	**FA**	**67**	**DRN**	**80MK4**	37	477
12	440	120.79	12700	1.85	**FAF**	**67**	**DRN**	**80MK4**	43	476
13	395	109.04	12800	2.0	**F**	**67**	**DRN**	**80MK4**	40	475
15	350	95.94	13000	2.3	**FF**	**67**	**DRN**	**80MK4**	46	476
16	330	90.59	13000	2.5						
18	290	79.76	13000	2.8						
9.1	570	157.09	9390	1.05						
11	495	136.16	9930	1.20						
11	465	127.27	10200	1.30						
13	400	110.01	10600	1.50	**FA**	**57**	**DRN**	**80MK4**	33	471
15	340	93.47	10900	1.75	**FAF**	**57**	**DRN**	**80MK4**	39	470
17	305	83.46	11100	1.95	**F**	**57**	**DRN**	**80MK4**	33	469
20	265	72.98	11300	2.2	**FF**	**57**	**DRN**	**80MK4**	40	470
21	245	68.22	11400	2.4						
24	215	58.97	11500	2.8						
14	380	105.09	6130	1.05						
16	325	89.29	6800	1.20						
18	290	79.72	7130	1.35	**FA**	**47**	**DRN**	**80MK4**	26	465
21	245	68.09	7460	1.60	**FAF**	**47**	**DRN**	**80MK4**	29	464
22	235	65.36	7530	1.65	**F**	**47**	**DRN**	**80MK4**	27	463
25	205	56.49	7730	1.95	**FF**	**47**	**DRN**	**80MK4**	30	464
30	176	48.00*	7890	2.3						
33	157	42.86	7980	2.5						
25	210	58.32	4090	0.95						
26	200	54.54	4300	1.00						
28	189	51.70	4440	1.05						
31	172	47.02	4650	1.15	**FA**	**37**	**DRN**	**80MK4**	21	459
33	160	43.83	4780	1.25	**FAF**	**37**	**DRN**	**80MK4**	23	458
37	140	38.31	4970	1.45	**F**	**37**	**DRN**	**80MK4**	22	457
40	131	35.91	5040	1.50	**FF**	**37**	**DRN**	**80MK4**	23	458
45	116	31.69	4940	1.70						
51	103	28.09	4820	1.95						
60	87	23.88	4640	2.3						
61	86	23.63	4630	2.3						
70	75	20.57	4480	2.7	**FA**	**37**	**DRN**	**80MK4**	21	459
74	71	19.27	4410	2.8	**FAF**	**37**	**DRN**	**80MK4**	22	458
84	62	17.03	4280	3.2	**F**	**37**	**DRN**	**80MK4**	21	457
100	52	14.33	4090	3.8	**FF**	**37**	**DRN**	**80MK4**	23	458
37	144	77.21	3410	0.90						
39	135	72.37	3390	0.95	**FA**	**27**	**DRN**	**71M2**	13	454
44	119	63.86	3340	1.10	**FAF**	**27**	**DRN**	**71M2**	13	453
50	105	56.62	3290	1.25	**F**	**27**	**DRN**	**71M2**	13	452
56	93	50.19	3230	1.40	**FF**	**27**	**DRN**	**71M2**	14	453
62	85	23.25	3180	1.55						
71	74	20.15	3100	1.75						
76	69	18.84	3060	1.90						
88	60	16.28	2970	2.2						
104	51	13.84	2860	2.6						
116	45	12.35	2790	2.9						
136	39	10.55	2680	3.4	**FA**	**27**	**DRN**	**80MK4**	15	454
145	36	9.88	2640	3.6	**FAF**	**27**	**DRN**	**80MK4**	15	453
153	34	9.40	2570	3.8	**F**	**27**	**DRN**	**80MK4**	15	452
177	30	8.13	2480	4.1	**FF**	**27**	**DRN**	**80MK4**	16	453
208	25	6.91	2380	4.5						
233	23	6.17	2310	4.8						
272	19	5.27	2210	5.2						
291	18	4.93	2170	5.3						
345	15	4.16	2070	5.7						

24832936/EN – 09/2018

P_m = 0.55 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
348	15	8.13	2060	8.1						
409	13	6.91	1970	8.9	**FA**	**27**	**DRN**	**71M2**	12	454
458	11	6.17	1900	9.5	**FAF**	**27**	**DRN**	**71M2**	13	453
536	9.8	5.27	1820	10	**F**	**27**	**DRN**	**71M2**	13	452
573	9.2	4.93	1780	10	**FF**	**27**	**DRN**	**71M2**	14	453
680	7.7	4.16	1690	11						

P_m = 0.75 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.27	22600	5404	72400	0.90	**FA**	**157R97**	**DRN**	**80M4**	770	524
0.30	19900	4831	93900	1.00	**FAF**	**157R97**	**DRN**	**80M4**	830	524
0.35	16800	4130	103600	1.20	**F**	**157R97**	**DRN**	**80M4**	790	524
0.52	11600	2780	114700	1.70	**FF**	**157R97**	**DRN**	**80M4**	900	524
0.59	10300	2427	116800	1.95						
0.66	9140	2185	118400	2.2	**FA**	**157R97**	**DRN**	**80M4**	770	524
0.74	8130	1944	119600	2.5	**FAF**	**157R97**	**DRN**	**80M4**	830	524
0.86	7280	1674	120000	2.7	**F**	**157R97**	**DRN**	**80M4**	790	524
1.1	5620	1308	120000	3.5	**FF**	**157R97**	**DRN**	**80M4**	900	524
1.2	4960	1169	120000	4.0						
0.48	13400	3031	87700	0.90	**FA**	**127R77**	**DRN**	**80M4**	435	524
					FAF	**127R77**	**DRN**	**80M4**	470	524
					F	**127R77**	**DRN**	**80M4**	470	524
					FF	**127R77**	**DRN**	**80M4**	520	524
0.54	12000	2672	90000	1.00						
0.61	10500	2357	90000	1.15	**FA**	**127R77**	**DRN**	**80M4**	435	524
0.71	9120	2038	90000	1.30	**FAF**	**127R77**	**DRN**	**80M4**	470	524
0.81	7940	1784	90000	1.50	**F**	**127R77**	**DRN**	**80M4**	470	524
0.90	7120	1606	90000	1.70	**FF**	**127R77**	**DRN**	**80M4**	510	524
0.79	8090	1826	48700	0.95						
0.90	7200	1597	51100	1.05						
1.0	6280	1401	53300	1.20						
1.2	5510	1243	55200	1.40	**FA**	**107R77**	**DRN**	**80M4**	280	524
1.3	4900	1087	56500	1.55	**FAF**	**107R77**	**DRN**	**80M4**	305	524
1.5	4210	950	58000	1.80	**F**	**107R77**	**DRN**	**80M4**	300	524
1.7	3670	834	59100	2.1	**FF**	**107R77**	**DRN**	**80M4**	325	524
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						
2.1	3100	690	33100	1.40	**FA**	**97R57**	**DRN**	**80M4**	190	524
2.4	2730	605	33900	1.55	**FAF**	**97R57**	**DRN**	**80M4**	215	524
2.7	2370	529	34700	1.80	**F**	**97R57**	**DRN**	**80M4**	200	524
3.1	2090	467	35200	2.0	**FF**	**97R57**	**DRN**	**80M4**	230	524
3.5	1800	406	35700	2.4						
4.0	1620	363	36100	2.6						
2.1	3030	674	18400	1.00						
2.4	2750	609	23900	1.10	**FA**	**87R57**	**DRN**	**80M4**	125	524
2.8	2320	515	25400	1.30	**FAF**	**87R57**	**DRN**	**80M4**	140	524
3.2	2040	452	26300	1.45	**F**	**87R57**	**DRN**	**80M4**	130	524
4.2	1540	345	27700	1.95	**FF**	**87R57**	**DRN**	**80M4**	145	524
3.9	1670	367	14400	0.90	**FA**	**77R37**	**DRN**	**80M4**	74	524
4.5	1480	323	15800	1.00	**FAF**	**77R37**	**DRN**	**80M4**	80	524
5.2	1270	280	17000	1.15	**F**	**77R37**	**DRN**	**80M4**	77	524
					FF	**77R37**	**DRN**	**80M4**	88	524
3.5	2070	276.77	35300	2.1	**FA**	**97**	**DRN**	**90S6**	175	499
3.8	1890	253.41	35600	2.3	**FAF**	**97**	**DRN**	**90S6**	195	497
4.3	1670	223.88	36000	2.6	**F**	**97**	**DRN**	**90S6**	180	496
					FF	**97**	**DRN**	**90S6**	215	497
3.5	2020	270.68	26400	1.50	**FA**	**87**	**DRN**	**90S6**	110	492
3.8	1910	255.37	26700	1.55	**FAF**	**87**	**DRN**	**90S6**	120	490
4.2	1710	228.93	27300	1.75	**F**	**87**	**DRN**	**90S6**	115	489
4.8	1470	197.20	27900	2.0	**FF**	**87**	**DRN**	**90S6**	130	490

24832936/EN – 09/2018

P_m = 0.75 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
					FA	**87**	**DRN**	**90S6**	110	492
5.3	1340	179.97	28200	2.2	**FAF**	**87**	**DRN**	**90S6**	120	490
6.0	1190	159.61	28600	2.5	**F**	**87**	**DRN**	**90S6**	115	489
					FF	**87**	**DRN**	**90S6**	130	490
					FA	**87**	**DRN**	**80M4**	105	492
5.3	1340	270.68	28200	2.2	**FAF**	**87**	**DRN**	**80M4**	115	490
5.6	1270	255.37	28400	2.4	**F**	**87**	**DRN**	**80M4**	110	489
6.3	1130	228.93	28700	2.6	**FF**	**87**	**DRN**	**80M4**	125	490
4.8	1480	198.31	15800	1.00	**FA**	**77**	**DRN**	**90S6**	69	485
5.1	1400	188.40	16300	1.05	**FAF**	**77**	**DRN**	**90S6**	76	483
5.8	1240	166.47	17200	1.20	**F**	**77**	**DRN**	**90S6**	73	482
6.7	1060	142.27	18000	1.40	**FF**	**77**	**DRN**	**90S6**	84	483
					FA	**77**	**DRN**	**90S6**	69	485
7.3	970	130.42	18400	1.55	**FAF**	**77**	**DRN**	**90S6**	76	483
					F	**77**	**DRN**	**90S6**	73	482
					FF	**77**	**DRN**	**90S6**	84	483
					FA	**77**	**DRN**	**80M4**	65	485
6.4	1120	225.79	17800	1.35	**FAF**	**77**	**DRN**	**80M4**	71	483
7.3	980	198.31	18400	1.50	**F**	**77**	**DRN**	**80M4**	68	482
7.6	930	188.40	18500	1.60	**FF**	**77**	**DRN**	**80M4**	79	483
8.7	820	166.47	18900	1.80						
10	705	142.27	19200	2.1	**FA**	**77**	**DRN**	**80M4**	65	485
11	645	130.42	19400	2.3	**FAF**	**77**	**DRN**	**80M4**	71	483
13	565	114.45	19600	2.6	**F**	**77**	**DRN**	**80M4**	68	482
13	535	108.46*	19600	2.8	**FF**	**77**	**DRN**	**80M4**	79	483
8.4	840	170.85	10000	0.95	**FA**	**67**	**DRN**	**80M4**	41	477
8.9	800	162.31	10400	1.00	**FAF**	**67**	**DRN**	**80M4**	47	476
10	705	142.40	11200	1.15	**F**	**67**	**DRN**	**80M4**	43	475
12	600	120.79	11900	1.35	**FF**	**67**	**DRN**	**80M4**	49	476
13	540	109.04	12200	1.50						
15	475	95.94	12500	1.70	**FA**	**67**	**DRN**	**80M4**	41	477
16	450	90.59	12600	1.80	**FAF**	**67**	**DRN**	**80M4**	47	476
18	395	79.76	12800	2.1	**F**	**67**	**DRN**	**80M4**	43	475
21	335	67.65	13000	2.4	**FF**	**67**	**DRN**	**80M4**	49	476
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	471
20	360	72.98	10800	1.65	**FAF**	**57**	**DRN**	**80M4**	42	470
21	335	68.22	10900	1.75	**F**	**57**	**DRN**	**80M4**	37	469
24	290	58.97	11200	2.0	**FF**	**57**	**DRN**	**80M4**	43	470
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	465
21	335	68.09	6680	1.20	**FAF**	**47**	**DRN**	**80M4**	32	464
22	325	65.36	6820	1.25	**F**	**47**	**DRN**	**80M4**	30	463
					FF	**47**	**DRN**	**80M4**	33	464
25	280	56.49	7220	1.40						
30	235	48.00*	7540	1.70	**FA**	**47**	**DRN**	**80M4**	29	465
34	210	42.86	7700	1.90	**FAF**	**47**	**DRN**	**80M4**	32	464
39	182	36.61	7860	2.2	**F**	**47**	**DRN**	**80M4**	30	463
42	171	34.29	7770	2.4	**FF**	**47**	**DRN**	**80M4**	33	464
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	459
38	191	38.31	4420	1.05	**FAF**	**37**	**DRN**	**80M4**	26	458
40	179	35.91	4570	1.10	**F**	**37**	**DRN**	**80M4**	25	457
45	158	31.69	4590	1.25	**FF**	**37**	**DRN**	**80M4**	27	458
51	140	28.09	4500	1.45						

24832936/EN – 09/2018

P_m = 0.75 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
61	118	23.63	4370	1.70						
70	102	20.57	4250	1.95	**FA**	**37**	**DRN**	**80M4**	24	459
75	96	19.27	4200	2.1	**FAF**	**37**	**DRN**	**80M4**	26	458
85	85	17.03	4090	2.4	**F**	**37**	**DRN**	**80M4**	25	457
100	71	14.33	3930	2.8	**FF**	**37**	**DRN**	**80M4**	27	458
112	64	12.87	3830	3.1						
351	20	8.13	2000	6.0						
413	17	6.91	1920	6.6	**FA**	**27**	**DRN**	**80MS2**	18	454
463	15	6.17	1860	7.0	**FAF**	**27**	**DRN**	**80MS2**	19	453
542	13	5.27	1780	7.6	**F**	**27**	**DRN**	**80MS2**	19	452
579	12	4.93	1740	7.8	**FF**	**27**	**DRN**	**80MS2**	19	453
687	10	4.16	1660	8.3						
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	454
146	49	9.88	2520	2.6	**FAF**	**27**	**DRN**	**80M4**	19	453
153	47	9.40	2450	2.8	**F**	**27**	**DRN**	**80M4**	19	452
177	40	8.13	2370	3.0	**FF**	**27**	**DRN**	**80M4**	19	453
208	34	6.91	2280	3.3						
234	31	6.17	2220	3.5						
273	26	5.27	2140	3.8						
292	25	4.93	2100	3.9						
346	21	4.16	2010	4.2						

P_m = 1.1 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.52	17400	2780	101800	1.15	**FA**	**157R97**	**DRN**	**90S4**	780	524
					FAF	**157R97**	**DRN**	**90S4**	840	524
					F	**157R97**	**DRN**	**90S4**	800	524
					FF	**157R97**	**DRN**	**90S4**	900	524
0.60	15400	2427	107100	1.30						
0.67	13700	2185	110800	1.45						
0.75	12200	1944	113700	1.65						
0.87	10800	1674	116000	1.85	**FA**	**157R97**	**DRN**	**90S4**	770	524
1.1	8380	1308	119300	2.4	**FAF**	**157R97**	**DRN**	**90S4**	830	524
1.2	7420	1169	120000	2.7	**F**	**157R97**	**DRN**	**90S4**	790	524
1.5	5930	953	120000	3.4	**FF**	**157R97**	**DRN**	**90S4**	900	524
1.7	5180	845	120000	3.9						
3.3	2740	446	120000	7.3						
4.8	1850	302	120000	11						
0.71	13400	2038	87700	0.90						
0.82	11700	1784	90000	1.00	**FA**	**127R77**	**DRN**	**90S4**	440	524
0.91	10500	1606	90000	1.15	**FAF**	**127R77**	**DRN**	**90S4**	475	524
1.1	9100	1390	90000	1.30	**F**	**127R77**	**DRN**	**90S4**	475	524
1.2	7950	1220	90000	1.50	**FF**	**127R77**	**DRN**	**90S4**	520	524
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	524
1.5	6220	950	53500	1.25	**FAF**	**107R77**	**DRN**	**90S4**	310	524
1.8	5430	834	55300	1.40	**F**	**107R77**	**DRN**	**90S4**	305	524
2.0	4770	736	56800	1.60	**FF**	**107R77**	**DRN**	**90S4**	330	524
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	524
2.8	3490	529	32100	1.25	**FAF**	**97R57**	**DRN**	**90S4**	220	524
3.1	3080	467	33100	1.40	**F**	**97R57**	**DRN**	**90S4**	205	524
3.6	2660	406	34100	1.60	**FF**	**97R57**	**DRN**	**90S4**	240	524
4.0	2390	363	34600	1.80						

P_m = 1.1 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
3.2	3000	452	19600	1.00	**FA**	**87R57**	**DRN**	**90S4**	130	524
4.2	2270	345	25600	1.30	**FAF**	**87R57**	**DRN**	**90S4**	145	524
4.8	1960	300	26500	1.50	**F**	**87R57**	**DRN**	**90S4**	140	524
5.8	1630	249	27500	1.85	**FF**	**87R57**	**DRN**	**90S4**	155	524
3.5	3030	276.77	33200	1.40						
3.8	2780	253.41	33800	1.55	**FA**	**97**	**DRN**	**90L6**	175	499
4.3	2450	223.88	34500	1.75	**FAF**	**97**	**DRN**	**90L6**	200	497
5.0	2080	189.92	35200	2.1	**F**	**97**	**DRN**	**90L6**	185	496
5.5	1910	174.87	35500	2.2	**FF**	**97**	**DRN**	**90L6**	215	497
5.3	1990	276.77	35400	2.1	**FA**	**97**	**DRN**	**90S4**	175	499
5.7	1820	253.41	35700	2.4	**FAF**	**97**	**DRN**	**90S4**	195	497
6.5	1610	223.88	36100	2.7	**F**	**97**	**DRN**	**90S4**	180	496
					FF	**97**	**DRN**	**90S4**	215	497
4.2	2510	228.93	24800	1.20	**FA**	**87**	**DRN**	**90L6**	110	492
4.8	2160	197.20	25900	1.40	**FAF**	**87**	**DRN**	**90L6**	125	490
5.3	1970	179.97	26500	1.50	**F**	**87**	**DRN**	**90L6**	120	489
6.0	1750	159.61	27200	1.70	**FF**	**87**	**DRN**	**90L6**	135	490
5.4	1950	270.68	26600	1.55	**FA**	**87**	**DRN**	**90S4**	110	492
5.7	1840	255.37	26900	1.65	**FAF**	**87**	**DRN**	**90S4**	120	490
6.4	1650	228.93	27400	1.80	**F**	**87**	**DRN**	**90S4**	115	489
7.4	1420	197.20	28000	2.1	**FF**	**87**	**DRN**	**90S4**	130	490
8.1	1290	179.97	28300	2.3	**FA**	**87**	**DRN**	**90S4**	110	492
9.1	1150	159.61	28600	2.6	**FAF**	**87**	**DRN**	**90S4**	120	490
11	960	134.16	29000	3.1	**F**	**87**	**DRN**	**90S4**	115	489
12	890	123.29	29200	3.4	**FF**	**87**	**DRN**	**90S4**	130	490
7.3	1430	198.31	16200	1.05	**FA**	**77**	**DRN**	**90S4**	69	485
7.7	1360	188.40	16600	1.10	**FAF**	**77**	**DRN**	**90S4**	76	483
8.7	1200	166.47	17400	1.25	**F**	**77**	**DRN**	**90S4**	73	482
10	1020	142.27	18200	1.45	**FF**	**77**	**DRN**	**90S4**	84	483
11	940	130.42	18500	1.60						
13	820	114.45	18900	1.80	**FA**	**77**	**DRN**	**90S4**	69	485
13	780	108.46*	19000	1.90	**FAF**	**77**	**DRN**	**90S4**	76	483
15	685	94.93	19300	2.2	**F**	**77**	**DRN**	**90S4**	73	482
17	615	85.52	19500	2.4	**FF**	**77**	**DRN**	**90S4**	84	483
19	540	75.02	19600	2.8						
					FA	**67**	**DRN**	**90S4**	47	477
12	870	120.79	9820	0.95	**FAF**	**67**	**DRN**	**90S4**	53	476
					F	**67**	**DRN**	**90S4**	50	475
					FF	**67**	**DRN**	**90S4**	56	476
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	477
24	440	61.07	12700	1.85	**FAF**	**67**	**DRN**	**90S4**	53	476
27	385	53.73	12900	2.1	**F**	**67**	**DRN**	**90S4**	50	475
29	365	50.74	12900	2.2	**FF**	**67**	**DRN**	**90S4**	56	476
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	471
29	360	50.10	10800	1.65	**FAF**	**57**	**DRN**	**90S4**	48	470
33	320	44.73	10600	1.85	**F**	**57**	**DRN**	**90S4**	43	469
38	275	38.21	10300	2.2	**FF**	**57**	**DRN**	**90S4**	50	470
41	255	35.79	10100	2.3						
48	215	30.15	9720	2.7						
					FA	**47**	**DRN**	**90S4**	35	465
26	405	56.49	5680	1.00	**FAF**	**47**	**DRN**	**90S4**	38	464
30	345	48.00*	6600	1.15	**F**	**47**	**DRN**	**90S4**	36	463
					FF	**47**	**DRN**	**90S4**	39	464

24832936/EN – 09/2018

P_m = 1.1 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
34	305	42.86	6970	1.30	**FA**	**47**	**DRN**	**90S4**	35	465
40	260	36.61	7300	1.50	**FAF**	**47**	**DRN**	**90S4**	38	464
42	245	34.29	7210	1.60	**F**	**47**	**DRN**	**90S4**	36	463
50	205	28.88	6990	1.90	**FF**	**47**	**DRN**	**90S4**	39	464
47	220	30.86	7080	1.80						
50	210	29.32	7010	1.90	**FA**	**47**	**DRN**	**90S4**	34	465
57	186	25.72	6820	2.1	**FAF**	**47**	**DRN**	**90S4**	37	464
67	158	21.82	6580	2.5	**F**	**47**	**DRN**	**90S4**	35	463
74	142	19.70	6430	2.8	**FF**	**47**	**DRN**	**90S4**	38	464
46	225	31.69	3830	0.85	**FA**	**37**	**DRN**	**90S4**	30	459
52	200	28.09	3960	1.00	**FAF**	**37**	**DRN**	**90S4**	32	458
61	172	23.88	3920	1.15	**F**	**37**	**DRN**	**90S4**	31	457
					FF	**37**	**DRN**	**90S4**	33	458
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	459
102	103	14.33	3650	1.95	**FAF**	**37**	**DRN**	**90S4**	32	458
113	93	12.87	3580	2.1	**F**	**37**	**DRN**	**90S4**	31	457
131	80	11.08	3470	2.4	**FF**	**37**	**DRN**	**90S4**	32	458
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	454
147	71	9.88	2310	1.80	**FAF**	**27**	**DRN**	**90S4**	25	453
155	68	9.40	2230	1.90	**F**	**27**	**DRN**	**90S4**	24	452
179	59	8.13	2180	2.1	**FF**	**27**	**DRN**	**90S4**	25	453
211	50	6.91	2120	2.3						
236	45	6.17	2080	2.5						
276	38	5.27	2010	2.6						
295	36	4.93	1990	2.7						
350	30	4.16	1910	2.9						
352	30	8.13	1910	4.1						
414	25	6.91	1840	4.5	**FA**	**27**	**DRN**	**80M2**	18	454
464	23	6.17	1790	4.8	**FAF**	**27**	**DRN**	**80M2**	19	453
543	19	5.27	1720	5.2	**F**	**27**	**DRN**	**80M2**	19	452
580	18	4.93	1690	5.3	**FF**	**27**	**DRN**	**80M2**	19	453
688	15	4.16	1610	5.7						

P_m = 1.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.60	21300	2427	88800	0.95						
0.67	19000	2185	96900	1.05						
0.75	16900	1944	103200	1.20						
0.87	14800	1674	108300	1.35	**FA**	**157R97**	**DRN**	**90L4**	780	524
1.1	11500	1308	114800	1.75	**FAF**	**157R97**	**DRN**	**90L4**	840	524
1.2	10200	1169	116900	1.95	**F**	**157R97**	**DRN**	**90L4**	800	524
1.5	8250	953	119500	2.4	**FF**	**157R97**	**DRN**	**90L4**	900	524
1.7	7240	845	120000	2.8						
3.3	3820	446	120000	5.2						
4.8	2590	302	120000	7.7						
0.91	14400	1606	85700	0.85						
1.1	12400	1390	89500	0.95						
1.2	10900	1220	90000	1.10	**FA**	**127R77**	**DRN**	**90L4**	440	524
1.4	9690	1077	90000	1.25	**FAF**	**127R77**	**DRN**	**90L4**	480	524
1.6	8320	930	90000	1.45	**F**	**127R77**	**DRN**	**90L4**	480	524
1.8	7310	820	90000	1.65	**FF**	**127R77**	**DRN**	**90L4**	520	524
2.0	6460	727	90000	1.85						
2.2	5830	648	90000	2.1						

24832936/EN – 09/2018

P_m = 1.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
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	524
2.3	5760	640	54600	1.35	**FAF**	**107R77**	**DRN**	**90L4**	310	524
2.6	4980	560	56300	1.55	**F**	**107R77**	**DRN**	**90L4**	305	524
3.0	4350	489	57700	1.75	**FF**	**107R77**	**DRN**	**90L4**	335	524
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	524
3.1	4220	467	30100	1.00	**FAF**	**97R57**	**DRN**	**90L4**	220	524
3.6	3650	406	31700	1.20	**F**	**97R57**	**DRN**	**90L4**	210	524
4.0	3270	363	32700	1.30	**FF**	**97R57**	**DRN**	**90L4**	240	524
					FA	**87R57**	**DRN**	**90L4**	135	524
4.9	2700	300	24100	1.10	**FAF**	**87R57**	**DRN**	**90L4**	150	524
5.9	2240	249	25700	1.35	**F**	**87R57**	**DRN**	**90L4**	140	524
					FF	**87R57**	**DRN**	**90L4**	155	524
3.8	3790	254.40*	58800	2.0	**FA**	**107**	**DRN**	**100L6**	265	506
4.5	3210	215.37	60000	2.4	**FAF**	**107**	**DRN**	**100L6**	285	504
4.8	2970	199.31	60400	2.6	**F**	**107**	**DRN**	**100L6**	280	503
5.4	2660	178.64	61000	2.9	**FF**	**107**	**DRN**	**100L6**	305	504
3.5	4120	276.77	30400	1.05						
3.8	3770	253.41	31400	1.15	**FA**	**97**	**DRN**	**100L6**	190	499
4.3	3330	223.88	32500	1.30	**FAF**	**97**	**DRN**	**100L6**	210	497
5.1	2830	189.92	33700	1.50	**F**	**97**	**DRN**	**100L6**	195	496
5.5	2600	174.87	34200	1.65	**FF**	**97**	**DRN**	**100L6**	230	497
5.3	2710	276.77	34000	1.60						
5.8	2480	253.41	34400	1.75	**FA**	**97**	**DRN**	**90L4**	175	499
6.5	2190	223.88	35000	1.95	**FAF**	**97**	**DRN**	**90L4**	200	497
7.7	1860	189.92	35600	2.3	**F**	**97**	**DRN**	**90L4**	185	496
8.3	1710	174.87	35900	2.5	**FF**	**97**	**DRN**	**90L4**	215	497
5.4	2650	270.68	24300	1.15	**FA**	**87**	**DRN**	**90L4**	110	492
5.7	2500	255.37	24800	1.20	**FAF**	**87**	**DRN**	**90L4**	125	490
6.4	2240	228.93	25700	1.35	**F**	**87**	**DRN**	**90L4**	120	489
7.4	1930	197.20	26600	1.55	**FF**	**87**	**DRN**	**90L4**	135	490
8.1	1760	179.97	27100	1.70						
9.2	1560	159.61	27700	1.90	**FA**	**87**	**DRN**	**90L4**	110	492
11	1310	134.16	28300	2.3	**FAF**	**87**	**DRN**	**90L4**	125	490
13	1070	109.49	28800	2.8	**F**	**87**	**DRN**	**90L4**	120	489
15	950	97.89	29100	3.1	**FF**	**87**	**DRN**	**90L4**	135	490
8.8	1630	166.47	14800	0.90	**FA**	**77**	**DRN**	**90L4**	73	485
10	1390	142.27	16400	1.10	**FAF**	**77**	**DRN**	**90L4**	79	483
11	1270	130.42	17000	1.15	**F**	**77**	**DRN**	**90L4**	76	482
13	1120	114.45	17800	1.35	**FF**	**77**	**DRN**	**90L4**	87	483
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	485
22	650	66.46	19400	2.3	**FAF**	**77**	**DRN**	**90L4**	79	483
25	570	58.32	19600	2.6	**F**	**77**	**DRN**	**90L4**	76	482
26	540	55.27	19600	2.8	**FF**	**77**	**DRN**	**90L4**	87	483
30	470	48.37	19700	3.2						
34	425	43.58	19800	3.5						
38	370	38.23	19900	4.0						
					FA	**77**	**DRN**	**90L4**	71	485
40	355	36.58	19900	3.1	**FAF**	**77**	**DRN**	**90L4**	78	483
46	305	31.51	20000	4.5	**F**	**77**	**DRN**	**90L4**	75	482
					FF	**77**	**DRN**	**90L4**	86	483

24832936/EN – 09/2018

P_m = 1.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
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	477
24	595	61.07	11900	1.35	**FAF**	**67**	**DRN**	**90L4**	56	476
27	525	53.73	12300	1.55	**F**	**67**	**DRN**	**90L4**	53	475
29	495	50.74	12400	1.65	**FF**	**67**	**DRN**	**90L4**	59	476
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	477
46	310	32.08	13000	2.6	**FAF**	**67**	**DRN**	**90L4**	55	476
53	265	27.41	13000	3.0	**F**	**67**	**DRN**	**90L4**	52	475
58	245	25.13	13000	3.3	**FF**	**67**	**DRN**	**90L4**	58	476
25	575	58.97	9370	1.05						
29	490	50.10	9980	1.20	**FA**	**57**	**DRN**	**90L4**	46	471
33	435	44.73	9940	1.35	**FAF**	**57**	**DRN**	**90L4**	52	470
38	370	38.21	9680	1.60	**F**	**57**	**DRN**	**90L4**	46	469
41	350	35.79	9560	1.70	**FF**	**57**	**DRN**	**90L4**	53	470
48	295	30.15	9240	2.0						
40	355	36.61	6460	1.10	**FA**	**47**	**DRN**	**90L4**	38	465
43	335	34.29	6600	1.20	**FAF**	**47**	**DRN**	**90L4**	41	464
51	280	28.88	6460	1.40	**F**	**47**	**DRN**	**90L4**	39	463
					FF	**47**	**DRN**	**90L4**	42	464
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	465
67	210	21.82	6190	1.85	**FAF**	**47**	**DRN**	**90L4**	40	464
74	193	19.70	6070	2.1	**F**	**47**	**DRN**	**90L4**	38	463
84	170	17.33	5920	2.4	**FF**	**47**	**DRN**	**90L4**	42	464
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	459
114	126	12.87	3300	1.60	**FAF**	**37**	**DRN**	**90L4**	35	458
132	109	11.08	3230	1.75	**F**	**37**	**DRN**	**90L4**	34	457
140	102	10.42	3200	1.80	**FF**	**37**	**DRN**	**90L4**	36	458
163	88	8.97	3120	2.0						
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	454
180	80	8.13	1970	1.55	**FAF**	**27**	**DRN**	**90L4**	28	453
212	68	6.91	1940	1.70	**F**	**27**	**DRN**	**90L4**	28	452
237	60	6.17	1920	1.80	**FF**	**27**	**DRN**	**90L4**	28	453
277	52	5.27	1880	1.95						
296	48	4.93	1860	2.0						
352	41	4.16	1800	2.1						
355	40	8.13	1800	3.0						
418	34	6.91	1740	3.3	**FA**	**27**	**DRN**	**90S2**	24	454
468	31	6.17	1700	3.6	**FAF**	**27**	**DRN**	**90S2**	25	453
548	26	5.27	1640	3.8	**F**	**27**	**DRN**	**90S2**	24	452
585	24	4.93	1620	3.9	**FF**	**27**	**DRN**	**90S2**	25	453
694	21	4.16	1550	4.2						

P_m = 2.2 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
1.0	18100	1441	99700	1.10	**FA**	**157R97**	**DRN**	**100LS4**	780	524
					FAF	**157R97**	**DRN**	**100LS4**	840	524
					F	**157R97**	**DRN**	**100LS4**	810	524
					FF	**157R97**	**DRN**	**100LS4**	910	524

24832936/EN – 09/2018

P_m = 2.2 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.87	22200	1674	80700	0.90						
1.1	17300	1308	102200	1.15						
1.2	15400	1169	107100	1.30						
1.5	12400	953	113300	1.60						
1.7	10900	845	115800	1.80						
1.9	9850	764	117400	2.0	**FA**	**157R97**	**DRN**	**100LS4**	780	524
2.1	8760	680	118900	2.3	**FAF**	**157R97**	**DRN**	**100LS4**	840	524
2.5	7350	576	120000	2.7	**F**	**157R97**	**DRN**	**100LS4**	800	524
3.2	5790	446	120000	3.5	**FF**	**157R97**	**DRN**	**100LS4**	910	524
4.8	3920	302	120000	5.1						
5.3	3520	273	120000	5.7						
6.3	2950	232	120000	6.8						
7.4	2500	197	120000	8.0						
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	524
2.0	9670	727	90000	1.25	**FAF**	**127R77**	**DRN**	**100LS4**	485	524
2.2	8680	648	90000	1.40	**F**	**127R77**	**DRN**	**100LS4**	480	524
2.6	7360	549	90000	1.65	**FF**	**127R77**	**DRN**	**100LS4**	530	524
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	524
3.0	6500	489	52800	1.20	**FAF**	**107R77**	**DRN**	**100LS4**	315	524
3.3	5840	436	54400	1.30	**F**	**107R77**	**DRN**	**100LS4**	310	524
3.9	4950	370	56400	1.55	**FF**	**107R77**	**DRN**	**100LS4**	340	524
4.3	4460	333	57500	1.70						
					FA	**97R57**	**DRN**	**100LS4**	205	524
5.1	3830	285	31200	1.10	**FAF**	**97R57**	**DRN**	**100LS4**	225	524
5.9	3290	245	32600	1.30	**F**	**97R57**	**DRN**	**100LS4**	210	524
					FF	**97R57**	**DRN**	**100LS4**	245	524
3.8	5490	254.40*	55200	1.40	**FA**	**107**	**DRN**	**112M6**	270	506
4.5	4650	215.37	57100	1.65	**FAF**	**107**	**DRN**	**112M6**	290	504
4.9	4300	199.31	57800	1.80	**F**	**107**	**DRN**	**112M6**	290	503
5.5	3850	178.64	58700	2.0	**FF**	**107**	**DRN**	**112M6**	315	504
5.7	3680	254.40*	59100	2.1	**FA**	**107**	**DRN**	**100LS4**	255	506
6.7	3120	215.37	60200	2.5	**FAF**	**107**	**DRN**	**100LS4**	275	504
7.3	2880	199.31	60600	2.7	**F**	**107**	**DRN**	**100LS4**	275	503
8.1	2580	178.64	61100	3.0	**FF**	**107**	**DRN**	**100LS4**	300	504
4.3	4830	223.88	21700	0.90	**FA**	**97**	**DRN**	**112M6**	195	499
5.1	4100	189.92	30500	1.05	**FAF**	**97**	**DRN**	**112M6**	220	497
5.6	3770	174.87	31400	1.15	**F**	**97**	**DRN**	**112M6**	205	496
6.2	3370	156.30	32400	1.25	**FF**	**97**	**DRN**	**112M6**	235	497
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	499
7.6	2750	189.92	33900	1.55	**FAF**	**97**	**DRN**	**100LS4**	200	497
8.3	2530	174.87	34300	1.70	**F**	**97**	**DRN**	**100LS4**	190	496
9.3	2260	156.30	34900	1.90	**FF**	**97**	**DRN**	**100LS4**	220	497
10	2030	140.71	35300	2.1						
11	1840	127.42	35700	2.3						
7.3	2850	197.20	23500	1.05	**FA**	**87**	**DRN**	**100LS4**	115	492
8.1	2600	179.97	24400	1.15	**FAF**	**87**	**DRN**	**100LS4**	130	490
9.1	2310	159.61	25500	1.30	**F**	**87**	**DRN**	**100LS4**	120	489
11	1940	134.16	26600	1.55	**FF**	**87**	**DRN**	**100LS4**	140	490
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	492
19	1100	76.39	27700	2.7	**FAF**	**87**	**DRN**	**100LS4**	130	490
21	990	68.40	27000	3.0	**F**	**87**	**DRN**	**100LS4**	120	489
26	820	56.75	25700	3.6	**FF**	**87**	**DRN**	**100LS4**	140	490
29	725	50.36	25000	4.0						
32	655	45.28	24300	4.3						

24832936/EN – 09/2018

P_m = 2.2 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
13	1650	114.45	14600	0.90	**FA**	**77**	**DRN**	**100LS4**	77	485
13	1570	108.46*	15200	0.95	**FAF**	**77**	**DRN**	**100LS4**	83	483
15	1370	94.93	16500	1.10	**F**	**77**	**DRN**	**100LS4**	81	482
17	1230	85.52	17200	1.20	**FF**	**77**	**DRN**	**100LS4**	91	483
19	1080	75.02	18000	1.40						
22	960	66.46	18400	1.55	**FA**	**77**	**DRN**	**100LS4**	77	485
25	840	58.32	18800	1.80	**FAF**	**77**	**DRN**	**100LS4**	83	483
26	800	55.27	19000	1.85	**F**	**77**	**DRN**	**100LS4**	81	482
30	700	48.37	19300	2.1	**FF**	**77**	**DRN**	**100LS4**	91	483
33	630	43.58	19400	2.4						
40	525	36.58	19600	2.1	**FA**	**77**	**DRN**	**100LS4**	75	485
46	455	31.51	19800	3.0	**FAF**	**77**	**DRN**	**100LS4**	82	483
50	415	28.75	19800	3.4	**F**	**77**	**DRN**	**100LS4**	79	482
57	365	25.50*	19900	4.1	**FF**	**77**	**DRN**	**100LS4**	90	483
24	880	61.07	9680	0.95						
27	775	53.73	10700	1.05	**FA**	**67**	**DRN**	**100LS4**	54	477
29	735	50.74	11000	1.10	**FAF**	**67**	**DRN**	**100LS4**	60	476
34	625	43.20	11700	1.30	**F**	**67**	**DRN**	**100LS4**	57	475
37	565	39.26	12100	1.35	**FF**	**67**	**DRN**	**100LS4**	63	476
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	477
58	360	25.13	12900	2.2	**FAF**	**67**	**DRN**	**100LS4**	59	476
66	315	22.05	13000	2.6	**F**	**67**	**DRN**	**100LS4**	55	475
69	300	20.90*	13000	2.7	**FF**	**67**	**DRN**	**100LS4**	62	476
79	265	18.29	13000	3.1						
32	645	44.73	6640	0.95	**FA**	**57**	**DRN**	**100LS4**	50	471
38	550	38.21	8640	1.10	**FAF**	**57**	**DRN**	**100LS4**	55	470
41	515	35.79	8590	1.15	**F**	**57**	**DRN**	**100LS4**	50	469
48	435	30.15	8430	1.35	**FF**	**57**	**DRN**	**100LS4**	57	470
58	360	24.96	8200	1.60						
68	305	21.17	7980	1.95	**FA**	**57**	**DRN**	**100LS4**	49	471
76	275	19.11	7820	2.2	**FAF**	**57**	**DRN**	**100LS4**	55	470
86	240	16.81	7630	2.5	**F**	**57**	**DRN**	**100LS4**	50	469
91	230	15.88	7540	2.6	**FF**	**57**	**DRN**	**100LS4**	56	470
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	465
89	235	16.36	5350	1.70	**FAF**	**47**	**DRN**	**100LS4**	44	464
104	200	13.93	5220	2.0	**F**	**47**	**DRN**	**100LS4**	42	463
115	183	12.66	5140	2.2	**FF**	**47**	**DRN**	**100LS4**	46	464
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	459
181	116	8.01	2760	1.45	**FAF**	**37**	**DRN**	**100LS4**	39	458
215	98	6.74	2620	1.45	**F**	**37**	**DRN**	**100LS4**	38	457
240	88	6.05	2580	1.55	**FF**	**37**	**DRN**	**100LS4**	40	458
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						

24832936/EN – 09/2018

P_m = 2.2 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
178	118	16.28	1720	1.10						
210	100	13.84	1730	1.30						
235	89	12.35	1730	1.45						
275	76	10.55	1710	1.70						
294	71	9.88	1700	1.80	**FA**	**27**	**DRN**	**90L2**	27	454
357	59	8.13	1610	2.1	**FAF**	**27**	**DRN**	**90L2**	28	453
421	50	6.91	1580	2.3	**F**	**27**	**DRN**	**90L2**	28	452
471	45	6.17	1560	2.4	**FF**	**27**	**DRN**	**90L2**	28	453
552	38	5.27	1520	2.6						
589	36	4.93	1500	2.7						
699	30	4.16	1460	2.9						

P_m = 3.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
1.1	23700	1308	39900	0.85						
1.2	21100	1169	89600	0.95						
1.5	17100	953	102800	1.15						
1.7	15000	845	107900	1.30						
1.9	13500	764	111100	1.45	**FA**	**157R97**	**DRN**	**100L4**	790	524
2.1	12000	680	114000	1.65	**FAF**	**157R97**	**DRN**	**100L4**	850	524
2.5	10100	576	117000	1.95	**F**	**157R97**	**DRN**	**100L4**	810	524
3.3	7970	446	119800	2.5	**FF**	**157R97**	**DRN**	**100L4**	920	524
4.8	5390	302	120000	3.7						
5.3	4850	273	120000	4.1						
6.3	4080	232	120000	4.9						
7.4	3460	197	120000	5.8						
2.0	13200	727	88100	0.90	**FA**	**127R77**	**DRN**	**100L4**	455	524
2.2	11800	648	90000	1.00	**FAF**	**127R77**	**DRN**	**100L4**	490	524
2.6	10000	549	90000	1.20	**F**	**127R77**	**DRN**	**100L4**	490	524
2.9	9040	495	90000	1.35	**FF**	**127R77**	**DRN**	**100L4**	530	524
3.3	7970	436	49000	0.95	**FA**	**107R77**	**DRN**	**100L4**	300	524
3.9	6760	370	52200	1.15	**FAF**	**107R77**	**DRN**	**100L4**	325	524
4.4	6080	333	53800	1.25	**F**	**107R77**	**DRN**	**100L4**	320	524
5.0	5320	291	55600	1.45	**FF**	**107R77**	**DRN**	**100L4**	345	524
3.8	7480	254.40*	50300	1.05	**FA**	**107**	**DRN**	**132S6**	285	506
4.5	6330	215.37	53200	1.20	**FAF**	**107**	**DRN**	**132S6**	305	504
4.9	5860	199.31	54300	1.30	**F**	**107**	**DRN**	**132S6**	300	503
5.5	5250	178.64	55700	1.45	**FF**	**107**	**DRN**	**132S6**	325	504
5.7	5000	254.40*	56300	1.55						
6.8	4230	215.37	57900	1.80	**FA**	**107**	**DRN**	**100L4**	265	506
7.3	3920	199.31	58600	1.95	**FAF**	**107**	**DRN**	**100L4**	285	504
8.2	3510	178.64	59400	2.2	**F**	**107**	**DRN**	**100L4**	280	503
9.0	3170	161.28*	60100	2.4	**FF**	**107**	**DRN**	**100L4**	305	504
6.5	4400	223.88	29600	1.00	**FA**	**97**	**DRN**	**100L4**	190	499
7.7	3730	189.92	31500	1.15	**FAF**	**97**	**DRN**	**100L4**	210	497
8.3	3440	174.87	32300	1.25	**F**	**97**	**DRN**	**100L4**	195	496
					FF	**97**	**DRN**	**100L4**	230	497
9.3	3070	156.30	33100	1.40						
10	2760	140.71	33800	1.55	**FA**	**97**	**DRN**	**100L4**	190	499
11	2500	127.42	34400	1.70	**FAF**	**97**	**DRN**	**100L4**	210	497
13	2220	112.99	35000	1.95	**F**	**97**	**DRN**	**100L4**	195	496
14	2010	102.16	35400	2.1	**FF**	**97**	**DRN**	**100L4**	230	497
16	1760	89.85	35800	2.4						
11	2630	134.16	24300	1.15	**FA**	**87**	**DRN**	**100L4**	125	492
12	2420	123.29	25100	1.25	**FAF**	**87**	**DRN**	**100L4**	135	490
13	2150	109.49	26000	1.40	**F**	**87**	**DRN**	**100L4**	130	489
					FF	**87**	**DRN**	**100L4**	145	490
15	1920	97.89	26700	1.55						
17	1730	88.01	26700	1.75	**FA**	**87**	**DRN**	**100L4**	125	492
19	1500	76.39	26100	2.0	**FAF**	**87**	**DRN**	**100L4**	135	490
21	1340	68.40	25500	2.2	**F**	**87**	**DRN**	**100L4**	130	489
26	1110	56.75	24600	2.7	**FF**	**87**	**DRN**	**100L4**	145	490
29	990	50.36	23900	3.0						

24832936/EN – 09/2018

P_m = 3.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
17	1680	85.52	14400	0.90	**FA**	**77**	**DRN**	**100L4**	84	485
19	1470	75.02	15900	1.00	**FAF**	**77**	**DRN**	**100L4**	91	483
22	1300	66.46	16900	1.15	**F**	**77**	**DRN**	**100L4**	88	482
					FF	**77**	**DRN**	**100L4**	98	483
25	1140	58.32	17700	1.30						
26	1080	55.27	18000	1.40	**FA**	**77**	**DRN**	**100L4**	84	485
30	950	48.37	18500	1.60	**FAF**	**77**	**DRN**	**100L4**	91	483
33	850	43.58	18800	1.75	**F**	**77**	**DRN**	**100L4**	88	482
38	750	38.23	19100	2.0	**FF**	**77**	**DRN**	**100L4**	98	483
40	715	36.58	19200	1.55						
46	615	31.51	19500	2.2	**FA**	**77**	**DRN**	**100L4**	83	485
51	565	28.75	19600	2.5	**FAF**	**77**	**DRN**	**100L4**	89	483
57	500	25.50*	19700	3.0	**F**	**77**	**DRN**	**100L4**	86	482
68	420	21.43	19800	3.6	**FF**	**77**	**DRN**	**100L4**	97	483
34	840	43.20	10000	0.95	**FA**	**67**	**DRN**	**100L4**	61	477
37	770	39.26	10700	1.00	**FAF**	**67**	**DRN**	**100L4**	67	476
43	665	34.01	11500	1.10	**F**	**67**	**DRN**	**100L4**	64	475
					FF	**67**	**DRN**	**100L4**	70	476
45	630	32.08	11700	1.30						
53	535	27.41	12200	1.50						
58	490	25.13	12400	1.65	**FA**	**67**	**DRN**	**100L4**	60	477
66	430	22.05	12700	1.90	**FAF**	**67**	**DRN**	**100L4**	66	476
70	410	20.90*	12800	2.0	**F**	**67**	**DRN**	**100L4**	63	475
80	355	18.29	12900	2.3	**FF**	**67**	**DRN**	**100L4**	69	476
88	320	16.48	13000	2.5						
101	280	14.46	13000	2.9						
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	471
87	330	16.81	7100	1.80	**FAF**	**57**	**DRN**	**100L4**	62	470
92	310	15.88	7040	1.90	**F**	**57**	**DRN**	**100L4**	57	469
108	265	13.52	6850	2.3	**FF**	**57**	**DRN**	**100L4**	63	470
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	465
104	270	13.93	4720	1.45	**FAF**	**47**	**DRN**	**100L4**	51	464
115	245	12.66	4690	1.60	**F**	**47**	**DRN**	**100L4**	50	463
133	215	10.97	4620	1.85	**FF**	**47**	**DRN**	**100L4**	53	464
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	459
216	133	6.74	2290	1.05	**FAF**	**37**	**DRN**	**100L4**	46	458
241	119	6.05	2290	1.15	**F**	**37**	**DRN**	**100L4**	45	457
279	103	5.21	2280	1.20	**FF**	**37**	**DRN**	**100L4**	47	458
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 min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
1.5	22800	953	67600	0.85						
1.7	20100	845	93100	1.00						
1.9	18100	764	99700	1.10						
2.1	16100	680	105200	1.25	**FA**	**157R97**	**DRN**	**112M4**	800	524
2.5	13600	576	111000	1.45	**FAF**	**157R97**	**DRN**	**112M4**	860	524
3.3	10600	446	116300	1.85	**F**	**157R97**	**DRN**	**112M4**	820	524
4.8	7220	302	120000	2.8	**FF**	**157R97**	**DRN**	**112M4**	920	524
5.4	6500	273	120000	3.1						
6.3	5480	232	120000	3.6						
7.5	4650	197	120000	4.3						

24832936/EN – 09/2018

P_m = 4.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
2.7	13300	549	87800	0.90	**FA**	**127R77**	**DRN**	**112M4**	460	524
3.0	12000	495	90000	1.00	**FAF**	**127R77**	**DRN**	**112M4**	500	524
3.4	10400	428	90000	1.15	**F**	**127R77**	**DRN**	**112M4**	500	524
3.9	9120	376	90000	1.30	**FF**	**127R77**	**DRN**	**112M4**	540	524
4.4	8090	333	48700	0.95	**FA**	**107R77**	**DRN**	**112M4**	310	524
5.0	7070	291	51400	1.10	**FAF**	**107R77**	**DRN**	**112M4**	330	524
5.7	6200	255	53500	1.25	**F**	**107R77**	**DRN**	**112M4**	325	524
					FF	**107R77**	**DRN**	**112M4**	355	524
5.8	6630	254.40*	52500	1.15						
6.8	5610	215.37	54900	1.35						
7.3	5200	199.31	55900	1.50						
8.2	4660	178.64	57000	1.65	**FA**	**107**	**DRN**	**112M4**	270	506
9.1	4200	161.28*	58000	1.85	**FAF**	**107**	**DRN**	**112M4**	290	504
10.0	3820	146.49	58800	2.0	**F**	**107**	**DRN**	**112M4**	290	503
11	3390	129.97	59600	2.3	**FF**	**107**	**DRN**	**112M4**	315	504
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	499
9.4	4070	156.30	30500	1.05	**FAF**	**97**	**DRN**	**112M4**	220	497
10	3670	140.71	31700	1.15	**F**	**97**	**DRN**	**112M4**	205	496
11	3320	127.42	32500	1.30	**FF**	**97**	**DRN**	**112M4**	235	497
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	499
16	2340	89.85	34700	1.85	**FAF**	**97**	**DRN**	**112M4**	220	497
18	2090	80.31	35200	2.0	**F**	**97**	**DRN**	**112M4**	205	496
20	1880	72.29	35600	2.3	**FF**	**97**	**DRN**	**112M4**	235	497
22	1700	65.47	35900	2.5						
13	2850	109.49	23500	1.05	**FA**	**87**	**DRN**	**112M4**	135	492
15	2550	97.89	24600	1.15	**FAF**	**87**	**DRN**	**112M4**	145	490
17	2290	88.01	24500	1.30	**F**	**87**	**DRN**	**112M4**	140	489
					FF	**87**	**DRN**	**112M4**	155	490
19	1990	76.39	24100	1.50						
21	1780	68.40	23800	1.70	**FA**	**87**	**DRN**	**112M4**	135	492
26	1480	56.75	23100	2.0	**FAF**	**87**	**DRN**	**112M4**	145	490
29	1310	50.36	22600	2.2	**F**	**87**	**DRN**	**112M4**	140	489
32	1180	45.28	22200	2.4	**FF**	**87**	**DRN**	**112M4**	155	490
22	1730	66.46	13900	0.85	**FA**	**77**	**DRN**	**112M4**	93	485
25	1520	58.32	15600	1.00	**FAF**	**77**	**DRN**	**112M4**	100	483
26	1440	55.27	16100	1.05	**F**	**77**	**DRN**	**112M4**	97	482
30	1260	48.37	17100	1.20	**FF**	**77**	**DRN**	**112M4**	110	483
34	1130	43.58	17700	1.30						
38	990	38.23	18300	1.50	**FA**	**77**	**DRN**	**112M4**	93	485
43	880	33.74	18700	1.70	**FAF**	**77**	**DRN**	**112M4**	100	483
49	780	29.91	19000	1.90	**F**	**77**	**DRN**	**112M4**	97	482
57	665	25.54	19300	2.2	**FF**	**77**	**DRN**	**112M4**	110	483
46	820	31.51	18900	1.70						
51	750	28.75	19100	1.90	**FA**	**77**	**DRN**	**112M4**	92	485
57	665	25.50*	19300	2.2	**FAF**	**77**	**DRN**	**112M4**	98	483
68	555	21.43	19600	2.7	**F**	**77**	**DRN**	**112M4**	96	482
74	510	19.70	19700	2.9	**FF**	**77**	**DRN**	**112M4**	105	483

24832936/EN – 09/2018

P_m = 4.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
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	477
129	295	11.31	13000	2.8	**FAF**	**67**	**DRN**	**112M4**	76	476
152	250	9.66	13000	3.2	**F**	**67**	**DRN**	**112M4**	72	475
161	235	9.08	12900	2.2	**FF**	**67**	**DRN**	**112M4**	78	476
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	471
138	275	10.64	6120	2.2	**FAF**	**57**	**DRN**	**112M4**	71	470
157	240	9.31	5820	1.75	**F**	**57**	**DRN**	**112M4**	66	469
179	210	8.19	5700	1.95	**FF**	**57**	**DRN**	**112M4**	73	470
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						

P_m = 5.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
2.1	22400	680	76100	0.90						
2.5	18900	576	97200	1.05						
2.9	16500	503	104400	1.20						
3.3	14800	446	108500	1.35	**FA**	**157R97**	**DRN**	**132S4**	810	524
4.2	11500	353	114900	1.75	**FAF**	**157R97**	**DRN**	**132S4**	870	524
4.8	10000	302	117200	2.0	**F**	**157R97**	**DRN**	**132S4**	830	524
5.3	9040	273	118500	2.2	**FF**	**157R97**	**DRN**	**132S4**	940	524
6.3	7630	232	120000	2.6						
7.2	6630	202	120000	3.0						
7.4	6470	197	120000	3.1						
3.5	13900	418	86700	0.85						
3.9	12400	374	89600	0.95	**FA**	**127R87**	**DRN**	**132S4**	495	524
4.7	10300	312	90000	1.15	**FAF**	**127R87**	**DRN**	**132S4**	530	524
5.0	9730	293	90000	1.25	**F**	**127R87**	**DRN**	**132S4**	530	524
5.7	8590	259	90000	1.40	**FF**	**127R87**	**DRN**	**132S4**	570	524
6.5	7410	223	90000	1.60						
					FA	**127R77**	**DRN**	**132S4**	475	524
3.4	14300	428	85800	0.85	**FAF**	**127R77**	**DRN**	**132S4**	510	524
3.9	12600	376	89300	0.95	**F**	**127R77**	**DRN**	**132S4**	510	524
					FF	**127R77**	**DRN**	**132S4**	550	524
6.8	7740	215.37	49600	1.00	**FA**	**107**	**DRN**	**132S4**	285	506
7.3	7160	199.31	51200	1.05	**FAF**	**107**	**DRN**	**132S4**	305	504
8.2	6420	178.64	53000	1.20	**F**	**107**	**DRN**	**132S4**	300	503
9.1	5790	161.28*	54500	1.30	**FF**	**107**	**DRN**	**132S4**	325	504

24832936/EN – 09/2018

P_m = 5.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
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	506
14	3640	101.38*	59100	2.1	**FAF**	**107**	**DRN**	**132S4**	305	504
16	3320	92.47*	59800	2.3	**F**	**107**	**DRN**	**132S4**	300	503
17	3180	88.49	60000	2.4	**FF**	**107**	**DRN**	**132S4**	325	504
17	3010	83.99	60400	2.5						
11	4580	127.42	29000	0.95	**FA**	**97**	**DRN**	**132S4**	210	499
13	4060	112.99	30600	1.05	**FAF**	**97**	**DRN**	**132S4**	230	497
14	3670	102.16	31700	1.15	**F**	**97**	**DRN**	**132S4**	215	496
					FF	**97**	**DRN**	**132S4**	250	497
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	499
19	2710	75.63	33900	1.60	**FAF**	**97**	**DRN**	**132S4**	230	497
20	2590	72.29	34200	1.65	**F**	**97**	**DRN**	**132S4**	215	496
22	2350	65.47	34700	1.85	**FF**	**97**	**DRN**	**132S4**	250	497
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	492
19	2740	76.39	21200	1.10	**FAF**	**87**	**DRN**	**132S4**	155	490
21	2450	68.40	21200	1.20	**F**	**87**	**DRN**	**132S4**	150	489
26	2040	56.75	21000	1.45	**FF**	**87**	**DRN**	**132S4**	165	490
29	1810	50.36	20700	1.60						
32	1620	45.28	20500	1.75	**FA**	**87**	**DRN**	**132S4**	145	492
37	1410	39.30	20100	1.95	**FAF**	**87**	**DRN**	**132S4**	155	490
42	1260	35.19	19700	2.1	**F**	**87**	**DRN**	**132S4**	150	489
50	1040	29.20	19100	2.4	**FF**	**87**	**DRN**	**132S4**	165	490
43	1210	33.92	19600	2.1	**FA**	**87**	**DRN**	**132S4**	140	492
51	1030	28.78	19000	2.4	**FAF**	**87**	**DRN**	**132S4**	155	490
55	950	26.50	18700	3.1	**F**	**87**	**DRN**	**132S4**	145	489
62	850	23.68	18300	3.5	**FF**	**87**	**DRN**	**132S4**	160	490
30	1730	48.37	13900	0.85						
34	1560	43.58	15300	0.95	**FA**	**77**	**DRN**	**132S4**	105	485
38	1370	38.23	16500	1.10	**FAF**	**77**	**DRN**	**132S4**	110	483
43	1210	33.74	17400	1.25	**F**	**77**	**DRN**	**132S4**	110	482
49	1070	29.91	18000	1.40	**FF**	**77**	**DRN**	**132S4**	120	483
57	910	25.54	18600	1.60						
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	485
84	625	17.49	19400	2.4	**FAF**	**77**	**DRN**	**132S4**	110	483
93	560	15.64*	19600	2.7	**F**	**77**	**DRN**	**132S4**	105	482
104	505	14.06	19200	3.0	**FF**	**77**	**DRN**	**132S4**	120	483
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	477
151	345	9.66	12900	2.4	**FAF**	**67**	**DRN**	**132S4**	87	476
161	325	9.08	12400	1.60	**F**	**67**	**DRN**	**132S4**	84	475
170	305	8.60	12200	1.85	**FF**	**67**	**DRN**	**132S4**	90	476
194	270	7.53	11900	2.2						
215	240	6.78	11600	2.5						
246	210	5.95	11300	2.9						
278	189	5.25	11000	3.1						
314	167	4.66	10700	3.4						
368	143	3.97	10300	3.5						

24832936/EN – 09/2018

P_m = 5.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
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	471
137	380	10.64	5500	1.55	**FAF**	**57**	**DRN**	**132S4**	83	470
178	290	8.19	5180	1.45	**F**	**57**	**DRN**	**132S4**	78	469
189	275	7.73	5150	1.50	**FF**	**57**	**DRN**	**132S4**	84	470
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 min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
2.9	22500	503	74000	0.90						
3.3	20200	446	93000	1.00						
4.2	15800	353	106100	1.25	**FA**	**157R97**	**DRN**	**132M4**	830	524
4.9	13600	302	110900	1.45	**FAF**	**157R97**	**DRN**	**132M4**	890	524
5.4	12300	273	113500	1.60	**F**	**157R97**	**DRN**	**132M4**	850	524
6.3	10400	232	116600	1.90	**FF**	**157R97**	**DRN**	**132M4**	950	524
7.3	9080	202	118500	2.2						
7.5	8840	197	118800	2.3						
4.7	14100	312	86300	0.85						
5.0	13200	293	88000	0.90	**FA**	**127R87**	**DRN**	**132M4**	510	524
5.7	11700	259	90000	1.00	**FAF**	**127R87**	**DRN**	**132M4**	550	524
6.6	10100	223	90000	1.20	**F**	**127R87**	**DRN**	**132M4**	550	524
7.4	8950	198	90000	1.35	**FF**	**127R87**	**DRN**	**132M4**	590	524
3.7	19500	267.43	95300	1.00						
4.5	15900	217.62*	105900	1.25						
5.5	13000	178.20*	112200	1.55						
6.0	11900	162.96	114200	1.70						
6.9	10300	141.80*	116700	1.95						
7.8	9150	125.14	118400	2.2	**FA**	**157**	**DRN**	**160M6**	740	520
9.0	7930	108.49	119800	2.5	**FAF**	**157**	**DRN**	**160M6**	800	518
10	7060	96.53*	120000	2.8	**F**	**157**	**DRN**	**160M6**	760	517
11	6270	85.80*	120000	3.2	**FF**	**157**	**DRN**	**160M6**	870	518
12	5740	78.46	120000	3.5						
14	4990	68.28*	120000	4.0						
16	4400	60.25	120000	4.5						
19	3820	52.24	118700	5.2						
5.7	12400	170.83	89500	0.95	**FA**	**127**	**DRN**	**160M6**	485	513
6.4	11200	153.67*	90000	1.05	**FAF**	**127**	**DRN**	**160M6**	520	511
7.8	9170	125.37	90000	1.30	**F**	**127**	**DRN**	**160M6**	520	510
8.6	8360	114.34	90000	1.45	**FF**	**127**	**DRN**	**160M6**	570	511
8.6	8330	170.83	90000	1.45	**FA**	**127**	**DRN**	**132M4**	445	513
9.6	7490	153.67*	90000	1.60	**FAF**	**127**	**DRN**	**132M4**	485	511
12	6110	125.37	90000	1.95	**F**	**127**	**DRN**	**132M4**	480	510
					FF	**127**	**DRN**	**132M4**	530	511
8.2	8710	178.64	47000	0.90	**FA**	**107**	**DRN**	**132M4**	300	506
9.1	7860	161.28*	49300	1.00	**FAF**	**107**	**DRN**	**132M4**	320	504
10	7140	146.49	51200	1.05	**F**	**107**	**DRN**	**132M4**	320	503
11	6340	129.97	53200	1.20	**FF**	**107**	**DRN**	**132M4**	345	504
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	506
17	4310	88.49	57800	1.80	**FAF**	**107**	**DRN**	**132M4**	320	504
17	4090	83.99	58200	1.85	**F**	**107**	**DRN**	**132M4**	320	503
20	3630	74.52	59200	2.1	**FF**	**107**	**DRN**	**132M4**	345	504
22	3290	67.62	59800	2.3						
15	4760	97.58	24600	0.90						
16	4380	89.85	29600	1.00	**FA**	**97**	**DRN**	**132M4**	225	499
17	4220	86.59	30100	1.00	**FAF**	**97**	**DRN**	**132M4**	245	497
18	3910	80.31	31000	1.10	**F**	**97**	**DRN**	**132M4**	235	496
19	3680	75.63	31600	1.15	**FF**	**97**	**DRN**	**132M4**	265	497
20	3520	72.29	32000	1.20						

P_m = 7.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
22	3190	65.47	32200	1.35						
25	2830	58.06	31700	1.50	**FA**	**97**	**DRN**	**132M4**	225	499
28	2560	52.49	31300	1.70	**FAF**	**97**	**DRN**	**132M4**	245	497
33	2170	44.49	30500	2.0	**F**	**97**	**DRN**	**132M4**	235	496
38	1890	38.86	29800	2.3	**FF**	**97**	**DRN**	**132M4**	265	497
45	1580	32.50	28800	2.7						
34	2110	43.28	30400	1.45	**FA**	**97**	**DRN**	**132M4**	220	499
40	1780	36.64	29500	1.70	**FAF**	**97**	**DRN**	**132M4**	240	497
43	1650	33.91	29000	2.6	**F**	**97**	**DRN**	**132M4**	225	496
48	1480	30.39	28400	2.9	**FF**	**97**	**DRN**	**132M4**	260	497
26	2760	56.75	18100	1.10						
29	2450	50.36	18200	1.20	**FA**	**87**	**DRN**	**132M4**	160	492
32	2200	45.28	18200	1.30	**FAF**	**87**	**DRN**	**132M4**	175	490
37	1910	39.30	18100	1.40	**F**	**87**	**DRN**	**132M4**	165	489
42	1710	35.19	17900	1.50	**FF**	**87**	**DRN**	**132M4**	185	490
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	492
69	1040	21.32*	16800	2.9	**FAF**	**87**	**DRN**	**132M4**	170	490
76	940	19.31	16500	3.2	**F**	**87**	**DRN**	**132M4**	165	489
86	830	17.12	16100	3.6	**FF**	**87**	**DRN**	**132M4**	180	490
95	755	15.48	15800	4.0						
44	1640	33.74	14700	0.90	**FA**	**77**	**DRN**	**132M4**	125	485
49	1450	29.91	16000	1.05	**FAF**	**77**	**DRN**	**132M4**	130	483
57	1240	25.54	17200	1.15	**F**	**77**	**DRN**	**132M4**	125	482
					FF	**77**	**DRN**	**132M4**	135	483
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						
120	595	12.20	17900	2.5	**FA**	**77**	**DRN**	**132M4**	120	485
134	530	10.93	17500	2.8	**FAF**	**77**	**DRN**	**132M4**	130	483
158	450	9.30	16400	2.4	**F**	**77**	**DRN**	**132M4**	125	482
178	400	8.26	16000	2.7	**FF**	**77**	**DRN**	**132M4**	135	483
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 min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
4.2	19400	353	95600	1.05						
4.9	16800	302	103600	1.20	**FA**	**157R97**	**DRN**	**132L4**	840	524
5.4	15100	273	107700	1.30	**FAF**	**157R97**	**DRN**	**132L4**	890	524
6.3	12800	232	112600	1.55	**F**	**157R97**	**DRN**	**132L4**	860	524
7.3	11100	202	115500	1.80	**FF**	**157R97**	**DRN**	**132L4**	960	524
7.5	10800	197	116000	1.85						
5.7	14300	259	85800	0.85	**FA**	**127R87**	**DRN**	**132L4**	520	524
6.6	12400	223	89600	0.95	**FAF**	**127R87**	**DRN**	**132L4**	560	524
7.4	10900	198	90000	1.10	**F**	**127R87**	**DRN**	**132L4**	560	524
					FF	**127R87**	**DRN**	**132L4**	600	524
8.6	10200	170.83	90000	1.20	**FA**	**127**	**DRN**	**132L4**	455	513
9.6	9180	153.67*	90000	1.30	**FAF**	**127**	**DRN**	**132L4**	490	511
12	7490	125.37	90000	1.60	**F**	**127**	**DRN**	**132L4**	490	510
13	6830	114.34	90000	1.75	**FF**	**127**	**DRN**	**132L4**	540	511
15	5910	98.95	90000	2.0						

24832936/EN – 09/2018

P_m = 9.2 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
10	8750	146.49	46800	0.90	**FA**	**107**	**DRN**	**132L4**	310	506
11	7760	129.97	49600	1.00	**FAF**	**107**	**DRN**	**132L4**	330	504
12	7040	117.94	51500	1.10	**F**	**107**	**DRN**	**132L4**	325	503
14	6050	101.38*	53900	1.25	**FF**	**107**	**DRN**	**132L4**	355	504
16	5520	92.47*	55100	1.40						
18	5010	83.99	56300	1.55	**FA**	**107**	**DRN**	**132L4**	310	506
20	4450	74.52	57500	1.70	**FAF**	**107**	**DRN**	**132L4**	330	504
22	4040	67.62	58300	1.90	**F**	**107**	**DRN**	**132L4**	325	503
25	3470	58.12*	58000	2.2	**FF**	**107**	**DRN**	**132L4**	355	504
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	499
20	4320	72.29	29600	1.00	**FAF**	**97**	**DRN**	**132L4**	255	497
22	3910	65.47	29600	1.10	**F**	**97**	**DRN**	**132L4**	240	496
25	3460	58.06	29500	1.25	**FF**	**97**	**DRN**	**132L4**	275	497
28	3130	52.49	29300	1.35	**FA**	**97**	**DRN**	**132L4**	235	499
33	2650	44.49	28800	1.60	**FAF**	**97**	**DRN**	**132L4**	255	497
38	2320	38.86	28300	1.85	**F**	**97**	**DRN**	**132L4**	240	496
45	1940	32.50	27500	2.2	**FF**	**97**	**DRN**	**132L4**	275	497
43	2020	33.91	27700	2.1	**FA**	**97**	**DRN**	**132L4**	230	499
48	1810	30.39	27200	2.4	**FAF**	**97**	**DRN**	**132L4**	250	497
54	1630	27.44*	26700	2.6	**F**	**97**	**DRN**	**132L4**	235	496
59	1480	24.92	26200	2.9	**FF**	**97**	**DRN**	**132L4**	270	497
29	3000	50.36	16000	1.00						
32	2700	45.28	16300	1.05	**FA**	**87**	**DRN**	**132L4**	170	492
37	2340	39.30	16400	1.15	**FAF**	**87**	**DRN**	**132L4**	185	490
42	2100	35.19	16400	1.25	**F**	**87**	**DRN**	**132L4**	175	489
50	1740	29.20	16300	1.45	**FF**	**87**	**DRN**	**132L4**	190	490
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	492
76	1150	19.31	15600	2.6	**FAF**	**87**	**DRN**	**132L4**	180	490
86	1020	17.12	15400	2.9	**F**	**87**	**DRN**	**132L4**	175	489
95	920	15.48	15100	3.2	**FF**	**87**	**DRN**	**132L4**	190	490
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	485
158	555	9.30	15900	1.95	**FAF**	**77**	**DRN**	**132L4**	135	483
178	490	8.26	15600	2.2	**F**	**77**	**DRN**	**132L4**	135	482
199	440	7.39	15200	2.5	**FF**	**77**	**DRN**	**132L4**	145	483
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 min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
4.2	23200	353	55600	0.85						
4.9	20000	302	93500	1.00	**FA**	**157R97**	**DRN**	**160M4**	870	524
5.4	18100	273	99800	1.10	**FAF**	**157R97**	**DRN**	**160M4**	930	524
6.4	15300	232	107300	1.30	**F**	**157R97**	**DRN**	**160M4**	890	524
7.3	13300	202	111600	1.50	**FF**	**157R97**	**DRN**	**160M4**	1000	524
7.5	13000	197	112300	1.55						
6.6	14800	223	84800	0.80	**FA**	**127R87**	**DRN**	**160M4**	550	524
7.5	13100	198	88300	0.90	**FAF**	**127R87**	**DRN**	**160M4**	590	524
8.9	11000	166	90000	1.10	**F**	**127R87**	**DRN**	**160M4**	590	524
					FF	**127R87**	**DRN**	**160M4**	630	524

P_m = 11.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
5.5	19000	267.43	96900	1.05						
6.8	15500	217.62*	106900	1.30						
8.3	12700	178.20*	112800	1.55						
9.0	11600	162.96	114800	1.70						
10	10100	141.80*	117100	2.0	**FA**	**157**	**DRN**	**160M4**	740	520
12	8920	125.14	118700	2.2	**FAF**	**157**	**DRN**	**160M4**	800	518
14	7730	108.49	120000	2.6	**F**	**157**	**DRN**	**160M4**	760	517
15	6880	96.53*	120000	2.9	**FF**	**157**	**DRN**	**160M4**	870	518
17	6110	85.80*	117500	3.3						
19	5590	78.46	115100	3.6						
22	4860	68.28*	111400	4.1						
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	513
13	8150	114.34	90000	1.45	**FAF**	**127**	**DRN**	**160M4**	520	511
15	7050	98.95	90000	1.70	**F**	**127**	**DRN**	**160M4**	520	510
17	6220	87.31*	90000	1.95	**FF**	**127**	**DRN**	**160M4**	570	511
20	5370	75.41*	88300	2.2						
12	8410	117.94	47800	0.90	**FA**	**107**	**DRN**	**160M4**	340	506
15	7220	101.38*	51000	1.05	**FAF**	**107**	**DRN**	**160M4**	365	504
16	6590	92.47*	52600	1.15	**F**	**107**	**DRN**	**160M4**	360	503
					FF	**107**	**DRN**	**160M4**	385	504
18	5980	83.99	54100	1.30						
20	5310	74.52	55600	1.45	**FA**	**107**	**DRN**	**160M4**	340	506
22	4820	67.62	56700	1.60	**FAF**	**107**	**DRN**	**160M4**	365	504
25	4140	58.12*	56200	1.85	**F**	**107**	**DRN**	**160M4**	360	503
29	3610	50.73	54900	2.1	**FF**	**107**	**DRN**	**160M4**	385	504
34	3060	43.03	53300	2.5						
44	2400	33.79*	50700	3.1	**FA**	**107**	**DRN**	**160M4**	330	506
53	1960	27.57	48500	4.0	**FAF**	**107**	**DRN**	**160M4**	355	504
59	1790	25.14	47500	4.4	**F**	**107**	**DRN**	**160M4**	350	503
					FF	**107**	**DRN**	**160M4**	375	504
22	4660	65.47	26900	0.90	**FA**	**97**	**DRN**	**160M4**	265	499
25	4140	58.06	27100	1.05	**FAF**	**97**	**DRN**	**160M4**	290	497
28	3740	52.49	27100	1.15	**F**	**97**	**DRN**	**160M4**	275	496
					FF	**97**	**DRN**	**160M4**	305	497
33	3170	44.49	26900	1.35	**FA**	**97**	**DRN**	**160M4**	265	499
38	2770	38.86	26700	1.55	**FAF**	**97**	**DRN**	**160M4**	290	497
45	2310	32.50	26200	1.85	**F**	**97**	**DRN**	**160M4**	275	496
					FF	**97**	**DRN**	**160M4**	305	497
43	2410	33.91	26300	1.80						
48	2160	30.39	25900	2.0	**FA**	**97**	**DRN**	**160M4**	260	499
54	1950	27.44*	25500	2.2	**FAF**	**97**	**DRN**	**160M4**	285	497
59	1770	24.92	25200	2.4	**F**	**97**	**DRN**	**160M4**	270	496
67	1570	22.11	24600	2.7	**FF**	**97**	**DRN**	**160M4**	300	497
37	2800	39.30	14600	0.95	**FA**	**87**	**DRN**	**160M4**	200	492
42	2500	35.19	14800	1.05	**FAF**	**87**	**DRN**	**160M4**	215	490
50	2080	29.20	15000	1.20	**F**	**87**	**DRN**	**160M4**	210	489
					FF	**87**	**DRN**	**160M4**	225	490
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	492
76	1370	19.31	14800	2.2	**FAF**	**87**	**DRN**	**160M4**	210	490
86	1220	17.12	14600	2.5	**F**	**87**	**DRN**	**160M4**	205	489
95	1100	15.48	14400	2.7	**FF**	**87**	**DRN**	**160M4**	220	490
112	930	13.12*	14000	3.2						

24832936/EN – 09/2018

P_m = 11.0 kW

n_a min^{-1}	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	**FA**	**77**	**DRN**	**160M4**	160	485
135	775	10.93	16600	1.90	**FAF**	**77**	**DRN**	**160M4**	170	483
158	660	9.30	15400	1.65	**F**	**77**	**DRN**	**160M4**	165	482
178	585	8.26	15100	1.85	**FF**	**77**	**DRN**	**160M4**	175	483
199	525	7.39	14800	2.0						
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 min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
6.4	20900	232	90200	0.95	**FA**	**157R97**	**DRN**	**160L4**	880	524
7.3	18200	202	99400	1.10	**FAF**	**157R97**	**DRN**	**160L4**	940	524
7.5	17700	197	100900	1.10	**F**	**157R97**	**DRN**	**160L4**	900	524
					FF	**157R97**	**DRN**	**160L4**	1010	524
6.8	21100	217.62*	89500	0.95						
8.3	17300	178.20*	102200	1.15						
9.0	15800	162.96	106100	1.25						
10	13700	141.80*	110700	1.45	**FA**	**157**	**DRN**	**160L4**	760	520
12	12100	125.14	113800	1.65	**FAF**	**157**	**DRN**	**160L4**	810	518
14	10500	108.49	116500	1.90	**F**	**157**	**DRN**	**160L4**	780	517
15	9380	96.53*	115600	2.1	**FF**	**157**	**DRN**	**160L4**	880	518
17	8330	85.80*	113000	2.4						
19	7620	78.46	111000	2.6						
22	6630	68.28*	107800	3.0						
24	5850	60.25	104900	3.4						
12	12100	125.37	88900	1.00						
13	11100	114.34	88300	1.10	**FA**	**127**	**DRN**	**160L4**	500	513
15	9610	98.95	86900	1.25	**FAF**	**127**	**DRN**	**160L4**	540	511
17	8480	87.31*	85500	1.40	**F**	**127**	**DRN**	**160L4**	540	510
20	7320	75.41*	83700	1.65	**FF**	**127**	**DRN**	**160L4**	580	511
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	506
18	8160	83.99	48500	0.95	**FAF**	**107**	**DRN**	**160L4**	380	504
20	7240	74.52	51000	1.05	**F**	**107**	**DRN**	**160L4**	375	503
22	6570	67.62	52700	1.15	**FF**	**107**	**DRN**	**160L4**	400	504
25	5640	58.12*	52200	1.35						
29	4930	50.73	51400	1.55	**FA**	**107**	**DRN**	**160L4**	360	506
34	4180	43.03	50300	1.85	**FAF**	**107**	**DRN**	**160L4**	380	504
39	3650	37.61	49300	2.1	**F**	**107**	**DRN**	**160L4**	375	503
46	3090	31.80	47900	2.5	**FF**	**107**	**DRN**	**160L4**	400	504
44	3280	33.79*	48400	2.2	**FA**	**107**	**DRN**	**160L4**	350	506
53	2670	27.57	46600	2.9	**FAF**	**107**	**DRN**	**160L4**	370	504
59	2440	25.14	45800	3.2	**F**	**107**	**DRN**	**160L4**	365	503
68	2110	21.76*	44400	3.7	**FF**	**107**	**DRN**	**160L4**	390	504
33	4320	44.49	22900	1.00	**FA**	**97**	**DRN**	**160L4**	285	499
38	3770	38.86	23100	1.15	**FAF**	**97**	**DRN**	**160L4**	305	497
45	3150	32.50	23200	1.35	**F**	**97**	**DRN**	**160L4**	290	496
					FF	**97**	**DRN**	**160L4**	325	497

24832936/EN – 09/2018

P_m = 15.0 kW

n_a min^{-1}	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	499
67	2140	22.11	22600	2.0	**FAF**	**97**	**DRN**	**160L4**	300	497
73	1950	20.07	22400	2.2	**F**	**97**	**DRN**	**160L4**	285	496
85	1670	17.25*	21900	2.6	**FF**	**97**	**DRN**	**160L4**	315	497
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	2.0						
112	1270	13.12*	12700	2.4	**FA**	**87**	**DRN**	**160L4**	215	492
129	1110	11.46	12600	2.7	**FAF**	**87**	**DRN**	**160L4**	230	490
154	930	9.58	12300	3.1	**F**	**87**	**DRN**	**160L4**	220	489
178	800	8.29	11700	1.90	**FF**	**87**	**DRN**	**160L4**	235	490
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 min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
					FA	**157R97**	**DRN**	**180M4**	910	524
7.3	22500	202	74900	0.90	**FAF**	**157R97**	**DRN**	**180M4**	960	524
7.5	21900	197	86400	0.90	**F**	**157R97**	**DRN**	**180M4**	930	524
					FF	**157R97**	**DRN**	**180M4**	1030	524
8.3	21200	178.20*	88900	0.95						
9.1	19400	162.96	95600	1.05						
10	16900	141.80*	103200	1.20						
12	14900	125.14	108200	1.35						
14	12900	108.49	112300	1.55	**FA**	**157**	**DRN**	**180M4**	780	520
15	11500	96.53*	111200	1.75	**FAF**	**157**	**DRN**	**180M4**	840	518
17	10200	85.80*	109100	1.95	**F**	**157**	**DRN**	**180M4**	800	517
19	9370	78.46	107400	2.1	**FF**	**157**	**DRN**	**180M4**	910	518
22	8160	68.28*	104700	2.5						
25	7200	60.25	102100	2.8						
28	6240	52.24	99200	3.2						
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	513
20	9010	75.41*	79700	1.35	**FAF**	**127**	**DRN**	**180M4**	560	511
21	8370	70.07	79000	1.45	**F**	**127**	**DRN**	**180M4**	560	510
23	7630	63.91	78000	1.55	**FF**	**127**	**DRN**	**180M4**	600	511
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	506
22	8080	67.62	48700	0.95	**FAF**	**107**	**DRN**	**180M4**	400	504
25	6940	58.12*	48700	1.10	**F**	**107**	**DRN**	**180M4**	395	503
29	6060	50.73	48400	1.25	**FF**	**107**	**DRN**	**180M4**	425	504
					FA	**107**	**DRN**	**180M4**	380	506
34	5140	43.03	47700	1.50	**FAF**	**107**	**DRN**	**180M4**	400	504
39	4490	37.61	47000	1.70	**F**	**107**	**DRN**	**180M4**	395	503
46	3800	31.80	45900	2.0	**FF**	**107**	**DRN**	**180M4**	425	504
44	4030	33.79*	46300	1.85	**FA**	**107**	**DRN**	**180M4**	370	506
54	3290	27.57	44900	2.4	**FAF**	**107**	**DRN**	**180M4**	390	504
59	3000	25.14	44200	2.6	**F**	**107**	**DRN**	**180M4**	385	503
68	2600	21.76*	43100	3.0	**FF**	**107**	**DRN**	**180M4**	415	504

24832936/EN – 09/2018

P_m = 18.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
					FA	97	DRN	180M4	305	499
38	4640	38.86	20100	0.95	FAF	97	DRN	180M4	325	497
45	3880	32.50	20600	1.10	F	97	DRN	180M4	310	496
					FF	97	DRN	180M4	345	497
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	499
74	2390	20.07	20800	1.80	FAF	97	DRN	180M4	320	497
86	2060	17.25*	20500	2.1	F	97	DRN	180M4	305	496
98	1790	15.06	20200	2.4	FF	97	DRN	180M4	340	497
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	492
154	1140	9.58	11500	2.5	FAF	87	DRN	180M4	250	490
178	990	8.29	10900	1.55	F	87	DRN	180M4	245	489
201	870	7.35	10800	1.75	FF	87	DRN	180M4	260	490
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 min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
9.1	23100	162.96	59000	0.85						
10	20100	141.80*	93200	1.00						
12	17700	125.14	100800	1.10						
14	15400	108.49	107100	1.30						
15	13700	96.53*	106800	1.45						
17	12200	85.80*	105200	1.65	FA	157	DRN	180L4	790	520
19	11100	78.46	103900	1.80	FAF	157	DRN	180L4	850	518
22	9710	68.28*	101600	2.1	F	157	DRN	180L4	820	517
25	8570	60.25	99400	2.3	FF	157	DRN	180L4	920	518
28	7420	52.24	96800	2.7						
32	6610	46.48*	94600	3.0						
37	5690	40.06	91700	3.5						
45	4620	32.55	87600	4.3						
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	513
21	9960	70.07	75300	1.20	FAF	127	DRN	180L4	580	511
23	9080	63.91	74600	1.30	F	127	DRN	180L4	580	510
27	7860	55.31	73400	1.55	FF	127	DRN	180L4	620	511
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	506
29	7210	50.73	45300	1.05	FAF	107	DRN	180L4	415	504
34	6120	43.03	45100	1.25	F	107	DRN	180L4	410	503
					FF	107	DRN	180L4	440	504
					FA	107	DRN	180L4	395	506
39	5340	37.61	44700	1.45	FAF	107	DRN	180L4	415	504
46	4520	31.80	44000	1.70	F	107	DRN	180L4	410	503
					FF	107	DRN	180L4	440	504
44	4800	33.79*	44300	1.55	FA	107	DRN	180L4	385	506
54	3920	27.57	43300	2.0	FAF	107	DRN	180L4	405	504
59	3570	25.14	42700	2.2	F	107	DRN	180L4	400	503
68	3090	21.76*	41800	2.5	FF	107	DRN	180L4	430	504
77	2730	19.20*	40900	2.9						

24832936/EN – 09/2018

P_m = 22 kW

n_a min^{-1}	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	499
74	2850	20.07	19200	1.50	**FAF**	**97**	**DRN**	**180L4**	335	497
86	2450	17.25*	19100	1.75	**F**	**97**	**DRN**	**180L4**	320	496
98	2140	15.06	19000	2.0	**FF**	**97**	**DRN**	**180L4**	355	497
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	492
154	1360	9.58	10600	2.1	**FAF**	**87**	**DRN**	**180L4**	265	490
178	1170	8.29	10100	1.30	**F**	**87**	**DRN**	**180L4**	260	489
201	1040	7.35	10100	1.45	**FF**	**87**	**DRN**	**180L4**	275	490
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 min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
14	21000	108.49	90100	0.95						
15	18600	96.53*	96900	1.05						
17	16600	85.80*	96400	1.20						
19	15100	78.46	95800	1.30	**FA**	**157**	**DRN**	**200L4**	900	520
22	13200	68.28*	94500	1.50	**FAF**	**157**	**DRN**	**200L4**	960	518
25	11600	60.25	93200	1.70	**F**	**157**	**DRN**	**200L4**	920	517
28	10100	52.24	91400	2.0	**FF**	**157**	**DRN**	**200L4**	1030	518
32	8990	46.48*	89800	2.2						
37	7750	40.06	87600	2.6						
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	513
30	9440	48.80	66300	1.25	**FAF**	**127**	**DRN**	**200L4**	690	511
35	8150	42.15	65500	1.45	**F**	**127**	**DRN**	**200L4**	680	510
40	7210	37.28	64600	1.65	**FF**	**127**	**DRN**	**200L4**	730	511
47	6060	31.33	63200	2.0						
58	4890	25.30	61100	2.5						
55	5200	26.86	61700	1.65	**FA**	**127**	**DRN**	**200L4**	640	513
60	4750	24.57	60800	1.80	**FAF**	**127**	**DRN**	**200L4**	670	511
69	4130	21.38	59300	2.9	**F**	**127**	**DRN**	**200L4**	670	510
78	3650	18.87	57900	3.0	**FF**	**127**	**DRN**	**200L4**	720	511
34	8320	43.03	39200	0.90	**FA**	**107**	**DRN**	**200L4**	500	506
39	7280	37.61	39600	1.05	**FAF**	**107**	**DRN**	**200L4**	530	504
47	6150	31.80	39700	1.25	**F**	**107**	**DRN**	**200L4**	520	503
					FF	**107**	**DRN**	**200L4**	550	504
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	506
77	3710	19.20*	38300	2.1	**FAF**	**107**	**DRN**	**200L4**	520	504
89	3200	16.58	37500	2.4	**F**	**107**	**DRN**	**200L4**	510	503
101	2830	14.67	36900	2.7	**FF**	**107**	**DRN**	**200L4**	540	504
120	2380	12.33	35800	2.9						
149	1920	9.96	34400	3.4						

24832936/EN – 09/2018

P_m = 30 kW

n_a min^{-1}	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	499
133	2160	11.16	16400	1.90	**FAF**	**97**	**DRN**	**200L4**	445	497
163	1750	9.06	15400	1.35	**F**	**97**	**DRN**	**200L4**	430	496
180	1590	8.22	15300	1.50	**FF**	**97**	**DRN**	**200L4**	465	497
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 min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
15	23000	96.53*	63700	0.85						
17	20400	85.80*	88600	1.00						
19	18700	78.46	88700	1.05						
22	16200	68.28*	88400	1.25	**FA**	**157**	**DRN**	**225S4**	930	520
25	14300	60.25	87800	1.40	**FAF**	**157**	**DRN**	**225S4**	990	518
28	12400	52.24	86700	1.60	**F**	**157**	**DRN**	**225S4**	950	517
32	11000	46.48*	85600	1.80	**FF**	**157**	**DRN**	**225S4**	1060	518
37	9550	40.06	83900	2.1						
46	7750	32.55	81300	2.6						
54	6580	27.60	79000	3.0						
27	13100	55.31	59200	0.90						
30	11600	48.80	60800	1.05	**FA**	**127**	**DRN**	**225S4**	680	513
35	10000	42.15	61100	1.20	**FAF**	**127**	**DRN**	**225S4**	720	511
40	8880	37.28	60700	1.35	**F**	**127**	**DRN**	**225S4**	720	510
47	7460	31.33	59900	1.60	**FF**	**127**	**DRN**	**225S4**	760	511
59	6030	25.30	58400	2.0						
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	2.5	**FA**	**127**	**DRN**	**225S4**	670	513
91	3890	16.36	54500	2.8	**FAF**	**127**	**DRN**	**225S4**	710	511
102	3460	14.55	53300	3.2	**F**	**127**	**DRN**	**225S4**	700	510
118	2990	12.54	51800	3.3	**FF**	**127**	**DRN**	**225S4**	750	511
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	2.0	**FA**	**107**	**DRN**	**225S4**	530	506
101	3490	14.67	35100	2.2	**FAF**	**107**	**DRN**	**225S4**	550	504
120	2930	12.33	34300	2.4	**F**	**107**	**DRN**	**225S4**	540	503
149	2370	9.96	33200	2.7	**FF**	**107**	**DRN**	**225S4**	570	504
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						

24832936/EN – 09/2018

P_m = 45 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
19	22700	78.46	70300	0.90						
22	19700	68.28*	81400	1.00						
25	17400	60.25	81600	1.15	**FA**	**157**	**DRN**	**225M4**	930	520
28	15100	52.24	81300	1.30	**FAF**	**157**	**DRN**	**225M4**	990	518
32	13400	46.48*	80800	1.50	**F**	**157**	**DRN**	**225M4**	950	517
37	11600	40.06	79800	1.70	**FF**	**157**	**DRN**	**225M4**	1060	518
46	9430	32.55	78000	2.1						
54	8000	27.60	76100	2.5						
30	14100	48.80	51600	0.85						
35	12200	42.15	54300	1.00	**FA**	**127**	**DRN**	**225M4**	680	513
40	10800	37.28	55800	1.10	**FAF**	**127**	**DRN**	**225M4**	720	511
47	9080	31.33	56100	1.30	**F**	**127**	**DRN**	**225M4**	720	510
59	7330	25.30	55400	1.65	**FF**	**127**	**DRN**	**225M4**	760	511
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	513
102	4210	14.55	51600	2.6	**FAF**	**127**	**DRN**	**225M4**	710	511
118	3630	12.54	50300	2.8	**F**	**127**	**DRN**	**225M4**	700	510
145	2950	10.19	48300	3.2	**FF**	**127**	**DRN**	**225M4**	750	511
167	2560	8.86	46500	2.7						
188	2280	7.88	45400	2.6						
218	1970	6.80	44000	3.5						
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	506
101	4250	14.67	33100	1.80	**FAF**	**107**	**DRN**	**225M4**	550	504
120	3570	12.33	32600	1.95	**F**	**107**	**DRN**	**225M4**	540	503
149	2880	9.96	31900	2.2	**FF**	**107**	**DRN**	**225M4**	570	504
153	2810	9.69	30900	1.75						
177	2420	8.37	30400	2.0						
200	2140	7.40	29800	2.1						
238	1800	6.22	29000	2.5						

P_m = 55 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
25	21300	60.25	73800	0.95						
28	18500	52.24	74600	1.10	**FA**	**157**	**DRN**	**250M4**	1080	520
32	16400	46.48*	74800	1.20	**FAF**	**157**	**DRN**	**250M4**	1140	518
37	14100	40.06	74700	1.40	**F**	**157**	**DRN**	**250M4**	1110	517
46	11500	32.55	73800	1.75	**FF**	**157**	**DRN**	**250M4**	1210	518
54	9780	27.60	72600	2.0						
52	10100	28.60*	72900	1.90						
58	9010	25.43	71900	2.2	**FA**	**157**	**DRN**	**250M4**	1080	520
67	7850	22.16	70600	2.5	**FAF**	**157**	**DRN**	**250M4**	1140	518
75	7000	19.77	69400	2.8	**F**	**157**	**DRN**	**250M4**	1100	517
88	5970	16.85	67500	3.1	**FF**	**157**	**DRN**	**250M4**	1210	518
40	13200	37.28	47000	0.90	**FA**	**127**	**DRN**	**250M4**	830	513
47	11100	31.33	50000	1.10	**FAF**	**127**	**DRN**	**250M4**	870	511
59	8960	25.30	51600	1.35	**F**	**127**	**DRN**	**250M4**	870	510
					FF	**127**	**DRN**	**250M4**	910	511

24832936/EN – 09/2018

P_m = 55 kW

n_a min^{-1}	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	513
145	3610	10.19	46800	2.6	**FAF**	**127**	**DRN**	**250M4**	850	511
167	3140	8.86	45100	2.2	**F**	**127**	**DRN**	**250M4**	850	510
188	2790	7.88	44100	2.1	**FF**	**127**	**DRN**	**250M4**	900	511
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 min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
32	22400	46.48*	62900	0.90	**FA**	**157**	**DRN**	**280S4**	1130	520
37	19300	40.06	64400	1.05	**FAF**	**157**	**DRN**	**280S4**	1190	518
46	15700	32.55	65400	1.25	**F**	**157**	**DRN**	**280S4**	1150	517
54	13300	27.60	65500	1.50	**FF**	**157**	**DRN**	**280S4**	1260	518
52	13800	28.60*	65500	1.40						
58	12200	25.43	65400	1.65						
67	10700	22.16	64900	1.85	**FA**	**157**	**DRN**	**280S4**	1130	520
75	9550	19.77	64300	2.0	**FAF**	**157**	**DRN**	**280S4**	1190	518
88	8140	16.85	63200	2.3	**F**	**157**	**DRN**	**280S4**	1150	517
106	6740	13.96	61600	2.6	**FF**	**157**	**DRN**	**280S4**	1260	518
124	5750	11.92	60100	3.0						
59	12200	25.30	40000	1.00	**FA**	**127**	**DRN**	**280S4**	880	513
					FAF	**127**	**DRN**	**280S4**	920	511
					F	**127**	**DRN**	**280S4**	910	510
					FF	**127**	**DRN**	**280S4**	960	511
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	513
145	4920	10.19	43700	1.95	**FAF**	**127**	**DRN**	**280S4**	900	511
167	4280	8.86	42200	1.65	**F**	**127**	**DRN**	**280S4**	900	510
188	3800	7.88	41600	1.55	**FF**	**127**	**DRN**	**280S4**	950	511
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 min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
37	23200	40.06	56600	0.85	**FA**	**157**	**DRN**	**280M4**	1250	520
46	18800	32.55	59100	1.05	**FAF**	**157**	**DRN**	**280M4**	1310	518
54	16000	27.60	60200	1.25	**F**	**157**	**DRN**	**280M4**	1270	517
					FF	**157**	**DRN**	**280M4**	1380	518
67	12800	22.16	60600	1.55						
75	11400	19.77	60500	1.70	**FA**	**157**	**DRN**	**280M4**	1240	520
88	9770	16.85	59900	1.90	**FAF**	**157**	**DRN**	**280M4**	1300	518
106	8100	13.96	58900	2.2	**F**	**157**	**DRN**	**280M4**	1260	517
124	6910	11.92	57800	2.5	**FF**	**157**	**DRN**	**280M4**	1370	518
59	14600	25.30	29600	0.80	**FA**	**127**	**DRN**	**280M4**	990	513
					FAF	**127**	**DRN**	**280M4**	1030	511
					F	**127**	**DRN**	**280M4**	1030	510
					FF	**127**	**DRN**	**280M4**	1070	511

24832936/EN – 09/2018

P_m = 90 kW

n_a min^{-1}	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	513
167	5140	8.86	40100	1.35	**FAF**	**127**	**DRN**	**280M4**	1020	511
188	4570	7.88	39700	1.30	**F**	**127**	**DRN**	**280M4**	1020	510
218	3940	6.80	39000	1.80	**FF**	**127**	**DRN**	**280M4**	1060	511
268	3200	5.52	37900	1.85						
316	2710	4.68	36900	2.2						

P_m = 110 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
					FA	**157**	**DRN**	**315S4**	1490	520
46	22900	32.55	50800	0.85	**FAF**	**157**	**DRN**	**315S4**	1550	518
54	19400	27.60	53100	1.05	**F**	**157**	**DRN**	**315S4**	1510	517
					FF	**157**	**DRN**	**315S4**	1620	518
					FA	**157**	**DRN**	**315S4/ERF/NS**	1490	520
67	15600	22.16	54900	1.25	**FAF**	**157**	**DRN**	**315S4/ERF/NS**	1550	518
					F	**157**	**DRN**	**315S4/ERF/NS**	1510	517
					FF	**157**	**DRN**	**315S4/ERF/NS**	1610	518
75	13900	19.77	55400	1.40	**FA**	**157**	**DRN**	**315S4**	1490	520
88	11800	16.85	55600	1.55	**FAF**	**157**	**DRN**	**315S4**	1550	518
107	9850	13.96	55300	1.80	**F**	**157**	**DRN**	**315S4**	1510	517
125	8410	11.92	54700	2.1	**FF**	**157**	**DRN**	**315S4**	1610	518

P_m = 132 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
					FA	**157**	**DRN**	**315M4**	1510	520
54	23300	27.60	45400	0.85	**FAF**	**157**	**DRN**	**315M4**	1570	518
					F	**157**	**DRN**	**315M4**	1530	517
					FF	**157**	**DRN**	**315M4**	1640	518
					FA	**157**	**DRN**	**315M4/ERF/NS**	1510	520
67	18700	22.16	48700	1.05	**FAF**	**157**	**DRN**	**315M4/ERF/NS**	1570	518
75	16700	19.77	49800	1.15	**F**	**157**	**DRN**	**315M4/ERF/NS**	1530	517
					FF	**157**	**DRN**	**315M4/ERF/NS**	1630	518
					FA	**157**	**DRN**	**315M4**	1510	520
88	14200	16.85	50900	1.30	**FAF**	**157**	**DRN**	**315M4**	1570	518
107	11800	13.96	51400	1.50	**F**	**157**	**DRN**	**315M4**	1530	517
125	10000	11.92	51400	1.70	**FF**	**157**	**DRN**	**315M4**	1630	518

P_m = 160 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
					FA	**157**	**DRN**	**315L4**	1640	520
88	17300	16.85	44800	1.10	**FAF**	**157**	**DRN**	**315L4**	1700	518
106	14300	13.96	46400	1.25	**F**	**157**	**DRN**	**315L4**	1660	517
125	12200	11.92	47100	1.40	**FF**	**157**	**DRN**	**315L4**	1770	518

P_m = 200 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
					FA	**157**	**DRN**	**315H4/ERF/NS**	1760	520
88	21600	16.85	36200	0.85	**FAF**	**157**	**DRN**	**315H4/ERF/NS**	1820	518
					F	**157**	**DRN**	**315H4/ERF/NS**	1780	517
					FF	**157**	**DRN**	**315H4/ERF/NS**	1880	518

24832936/EN – 09/2018

P_m = 200 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B						m kg	
					FA	**157**	**DRN**	**315H4**		1760	520
107	17900	13.96	39200	1.00	**FAF**	**157**	**DRN**	**315H4**		1820	518
125	15200	11.92	41000	1.15	**F**	**157**	**DRN**	**315H4**		1780	517
					FF	**157**	**DRN**	**315H4**		1880	518

24832936/EN – 09/2018

9.4 F..R..DRN.. selection tables for low output speeds in Nm

$M_{a\ max}$ = 130 Nm									
n_a min^{-1}	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**	**DRN**	**63MS4**		14	524
0.28	4855	4500	**FAF**	**27R17**	**DRN**	**63MS4**		14	524
0.33	4243	4500	**F**	**27R17**	**DRN**	**63MS4**		14	524
0.37	3715	4500	**FF**	**27R17**	**DRN**	**63MS4**		15	524
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**	**DRN**	**63MS4**		13	524
1.4	1013	4500	**FAF**	**27R17**	**DRN**	**63MS4**		14	524
1.6	890	4500	**F**	**27R17**	**DRN**	**63MS4**		14	524
1.8	778	4500	**FF**	**27R17**	**DRN**	**63MS4**		15	524
2.0	682	4500							
2.3	602	4500							
2.6	520	4500							
0.71	1948	4500							
0.76	1826	4500							
0.86	1610	4500							
0.99	1399	4500							
1.1	1230	4500							
1.5	948	4500							
1.7	829	4500							
1.9	731	4500	**FA**	**27R17**	**DRN**	**63MS4**		13	524
2.2	633	4500	**FAF**	**27R17**	**DRN**	**63MS4**		14	524
2.5	551	4500	**F**	**27R17**	**DRN**	**63MS4**		14	524
2.8	489	4500	**FF**	**27R17**	**DRN**	**63MS4**		15	524
3.2	427	4500							
3.6	379	4500							
4.2	326	4500							
4.8	288	4500							
5.5	251	4500							
6.2	221	4500							
			FA	**27R17**	**DRN**	**63M4**		14	524
8.0	172	4500	**FAF**	**27R17**	**DRN**	**63M4**		15	524
9.0	153	4500	**F**	**27R17**	**DRN**	**63M4**		15	524
11	130	4500	**FF**	**27R17**	**DRN**	**63M4**		15	524
3.0	458	4500							
3.5	397	4500							
4.0	342	4500	**FA**	**27R17**	**DRN**	**63MS4**		13	524
4.6	302	4500	**FAF**	**27R17**	**DRN**	**63MS4**		14	524
5.2	266	4500	**F**	**27R17**	**DRN**	**63MS4**		14	524
5.8	236	4500	**FF**	**27R17**	**DRN**	**63MS4**		14	524
6.5	211	4500							
7.4	186	4500							
			FA	**27R17**	**DRN**	**63M4**		14	524
9.7	142	4500	**FAF**	**27R17**	**DRN**	**63M4**		15	524
11	124	4500	**F**	**27R17**	**DRN**	**63M4**		14	524
			FF	**27R17**	**DRN**	**63M4**		15	524
			FA	**27R17**	**DRN**	**71MS4**		14	524
13	109	4500	**FAF**	**27R17**	**DRN**	**71MS4**		15	524
15	96	4500	**F**	**27R17**	**DRN**	**71MS4**		15	524
			FF	**27R17**	**DRN**	**71MS4**		16	524

24832936/EN – 09/2018

$M_{a\ max}$ = 200 Nm

n_a min^{-1}	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						
0.31	4434	4290	**FA**	**37R17**	**DRN**	**63MS4**	20	524
0.36	3875	4290	**FAF**	**37R17**	**DRN**	**63MS4**	21	524
0.41	3392	4290	**F**	**37R17**	**DRN**	**63MS4**	20	524
0.47	2965	4290	**FF**	**37R17**	**DRN**	**63MS4**	22	524
0.53	2587	4290						
0.60	2284	4290						
0.69	1997	4290						
0.79	1742	4290						
0.89	1545	4290						
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**	**DRN**	**63MS4**	20	524
1.5	914	4290	**FAF**	**37R17**	**DRN**	**63MS4**	21	524
1.7	808	4290	**F**	**37R17**	**DRN**	**63MS4**	20	524
2.0	698	4290	**FF**	**37R17**	**DRN**	**63MS4**	22	524
2.2	616	4290						
2.5	544	4290						
3.0	466	4290						
3.4	411	4290						
3.8	364	4290						
1.0	1370	4290						
1.1	1198	4290						
1.3	1047	4290						
1.5	915	4290						
1.7	807	4290	**FA**	**37R17**	**DRN**	**63MS4**	19	524
1.9	707	4290	**FAF**	**37R17**	**DRN**	**63MS4**	21	524
2.2	617	4290	**F**	**37R17**	**DRN**	**63MS4**	20	524
2.6	538	4290	**FF**	**37R17**	**DRN**	**63MS4**	22	524
2.9	477	4290						
3.4	412	4290						
3.8	365	4290						
4.3	322	4290						
5.0	278	4290	**FA**	**37R17**	**DRN**	**63M4**	20	524
5.7	242	4290	**FAF**	**37R17**	**DRN**	**63M4**	22	524
6.2	221	4290	**F**	**37R17**	**DRN**	**63M4**	21	524
7.1	195	4290	**FF**	**37R17**	**DRN**	**63M4**	23	524
			FA	**37R17**	**DRN**	**71MS4**	21	524
8.4	168	4290	**FAF**	**37R17**	**DRN**	**71MS4**	22	524
9.6	147	4290	**F**	**37R17**	**DRN**	**71MS4**	21	524
			FF	**37R17**	**DRN**	**71MS4**	23	524
11	127	4290	**FA**	**37R17**	**DRN**	**71M4**	22	524
12	121	4290	**FAF**	**37R17**	**DRN**	**71M4**	24	524
13	108	4290	**F**	**37R17**	**DRN**	**71M4**	23	524
15	91	4290	**FF**	**37R17**	**DRN**	**71M4**	24	524
			FA	**37R17**	**DRN**	**63MS4**	19	524
4.2	326	4290	**FAF**	**37R17**	**DRN**	**63MS4**	21	524
4.8	285	4290	**F**	**37R17**	**DRN**	**63MS4**	20	524
			FF	**37R17**	**DRN**	**63MS4**	22	524
			FA	**37R17**	**DRN**	**63M4**	20	524
5.5	250	4290	**FAF**	**37R17**	**DRN**	**63M4**	22	524
6.3	219	4290	**F**	**37R17**	**DRN**	**63M4**	21	524
7.4	186	4290	**FF**	**37R17**	**DRN**	**63M4**	22	524
			FA	**37R17**	**DRN**	**71MS4**	21	524
8.4	167	4290	**FAF**	**37R17**	**DRN**	**71MS4**	22	524
9.7	145	4290	**F**	**37R17**	**DRN**	**71MS4**	21	524
			FF	**37R17**	**DRN**	**71MS4**	23	524

24832936/EN – 09/2018

$M_{a\ max}$ = 200 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
11	129	4290	**FA**	**37R17**	**DRN**	**71M4**	22	524
12	118	4290	**FAF**	**37R17**	**DRN**	**71M4**	23	524
14	98	4290	**F**	**37R17**	**DRN**	**71M4**	22	524
			FF	**37R17**	**DRN**	**71M4**	24	524
17	87	4290	**FA**	**37R17**	**DRN**	**80M4**	27	524
			FAF	**37R17**	**DRN**	**80M4**	29	524
			F	**37R17**	**DRN**	**80M4**	28	524
			FF	**37R17**	**DRN**	**80M4**	29	524

$M_{a\ max}$ = 400 Nm

n_a min^{-1}	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						
0.24	5746	5920	**FA**	**47R17**	**DRN**	**63MS4**	25	524
0.27	5022	5920	**FAF**	**47R17**	**DRN**	**63MS4**	27	524
0.31	4401	5920	**F**	**47R17**	**DRN**	**63MS4**	25	524
0.36	3883	5920	**FF**	**47R17**	**DRN**	**63MS4**	28	524
0.40	3443	5920						
0.46	2976	5920						
0.52	2629	5920						
0.60	2304	5920						
0.68	2033	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**	**DRN**	**63MS4**	24	524
1.0	1363	5920	**FAF**	**47R17**	**DRN**	**63MS4**	27	524
1.2	1192	5920	**F**	**47R17**	**DRN**	**63MS4**	25	524
1.3	1061	5920	**FF**	**47R17**	**DRN**	**63MS4**	28	524
1.5	931	5920						
1.7	822	5920						
2.0	706	5920						
2.2	619	5920						
0.77	1785	5920						
0.87	1578	5920						
1.0	1364	5920						
1.1	1203	5920	**FA**	**47R17**	**DRN**	**63MS4**	24	524
1.3	1049	5920	**FAF**	**47R17**	**DRN**	**63MS4**	27	524
1.5	918	5920	**F**	**47R17**	**DRN**	**63MS4**	25	524
1.7	809	5920	**FF**	**47R17**	**DRN**	**63MS4**	28	524
2.0	700	5920						
2.2	622	5920						
2.5	543	5920	**FA**	**47R17**	**DRN**	**63M4**	25	524
2.9	475	5920	**FAF**	**47R17**	**DRN**	**63M4**	28	524
3.3	419	5920	**F**	**47R17**	**DRN**	**63M4**	26	524
			FF	**47R17**	**DRN**	**63M4**	29	524
3.8	370	5920	**FA**	**47R17**	**DRN**	**71MS4**	26	524
4.3	324	5920	**FAF**	**47R17**	**DRN**	**71MS4**	28	524
4.9	288	5920	**F**	**47R17**	**DRN**	**71MS4**	26	524
			FF	**47R17**	**DRN**	**71MS4**	30	524
5.7	249	5920	**FA**	**47R17**	**DRN**	**71M4**	27	524
6.5	218	5920	**FAF**	**47R17**	**DRN**	**71M4**	30	524
7.3	193	5920	**F**	**47R17**	**DRN**	**71M4**	28	524
			FF	**47R17**	**DRN**	**71M4**	31	524
8.3	175	5920	**FA**	**47R17**	**DRN**	**80M4**	32	524
9.8	147	5920	**FAF**	**47R17**	**DRN**	**80M4**	35	524
11	130	5920	**F**	**47R17**	**DRN**	**80M4**	33	524
			FF	**47R17**	**DRN**	**80M4**	36	524

24832936/EN – 09/2018

$M_{a\ max}$ = 400 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
2.6	524	5920	**FA**	**47R17**	**DRN**	**63M4**	24	524
2.8	489	5920	**FAF**	**47R17**	**DRN**	**63M4**	27	524
3.2	427	5920	**F**	**47R17**	**DRN**	**63M4**	25	524
3.6	381	5920	**FF**	**47R17**	**DRN**	**63M4**	28	524
			FA	**47R17**	**DRN**	**71MS4**	25	524
4.2	334	5920	**FAF**	**47R17**	**DRN**	**71MS4**	28	524
4.8	295	5920	**F**	**47R17**	**DRN**	**71MS4**	26	524
			FF	**47R17**	**DRN**	**71MS4**	29	524
5.6	253	5920	**FA**	**47R17**	**DRN**	**71M4**	26	524
6.5	217	5920	**FAF**	**47R17**	**DRN**	**71M4**	29	524
7.5	190	5920	**F**	**47R17**	**DRN**	**71M4**	27	524
8.0	178	5920	**FF**	**47R17**	**DRN**	**71M4**	30	524
			FA	**47R17**	**DRN**	**80M4**	31	524
9.7	149	5920	**FAF**	**47R17**	**DRN**	**80M4**	34	524
11	131	5920	**F**	**47R17**	**DRN**	**80M4**	32	524
			FF	**47R17**	**DRN**	**80M4**	35	524

$M_{a\ max}$ = 600 Nm

n_a min^{-1}	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						
0.17	7908	9200						
0.20	6913	9200						
0.23	6030	9200						
0.26	5289	9200	**FA**	**57R37**	**DRN**	**63MS4**	39	524
0.30	4654	9200	**FAF**	**57R37**	**DRN**	**63MS4**	45	524
0.34	4060	9200	**F**	**57R37**	**DRN**	**63MS4**	40	524
0.39	3564	9200	**FF**	**57R37**	**DRN**	**63MS4**	46	524
0.44	3161	9200						
0.50	2737	9200						
0.57	2409	9200						
0.65	2131	9200						
0.75	1840	9200						
0.85	1623	9200						
0.96	1439	9200						
1.1	1238	9200						
0.48	2854	9200						
0.54	2576	9200						
0.61	2266	9200						
0.69	2012	9200						
0.77	1791	9200	**FA**	**57R37**	**DRN**	**63MS4**	39	524
0.85	1617	9200	**FAF**	**57R37**	**DRN**	**63MS4**	44	524
0.97	1422	9200	**F**	**57R37**	**DRN**	**63MS4**	39	524
1.1	1243	9200	**FF**	**57R37**	**DRN**	**63MS4**	45	524
1.3	1066	9200						
1.4	949	9200						
1.6	856	9200						
			FA	**57R37**	**DRN**	**63M4**	40	524
1.8	749	9200	**FAF**	**57R37**	**DRN**	**63M4**	45	524
2.1	658	9200	**F**	**57R37**	**DRN**	**63M4**	40	524
			FF	**57R37**	**DRN**	**63M4**	46	524
			FA	**57R37**	**DRN**	**71MS4**	40	524
2.6	549	9200	**FAF**	**57R37**	**DRN**	**71MS4**	46	524
2.9	483	9200	**F**	**57R37**	**DRN**	**71MS4**	40	524
			FF	**57R37**	**DRN**	**71MS4**	47	524
			FA	**57R37**	**DRN**	**63MS4**	39	524
1.2	1106	9200	**FAF**	**57R37**	**DRN**	**63MS4**	45	524
1.4	967	9200	**F**	**57R37**	**DRN**	**63MS4**	39	524
1.6	851	9200	**FF**	**57R37**	**DRN**	**63MS4**	46	524

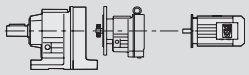
$M_{a\ max}$ = 600 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
1.9	738	9200	**FA**	**57R37**	**DRN**	**63M4**	40	524
2.1	646	9200	**FAF**	**57R37**	**DRN**	**63M4**	46	524
2.5	558	9200	**F**	**57R37**	**DRN**	**63M4**	40	524
			FF	**57R37**	**DRN**	**63M4**	47	524
2.8	506	9200	**FA**	**57R37**	**DRN**	**71MS4**	41	524
3.1	452	9200	**FAF**	**57R37**	**DRN**	**71MS4**	46	524
			F	**57R37**	**DRN**	**71MS4**	41	524
			FF	**57R37**	**DRN**	**71MS4**	47	524
3.7	386	9200	**FA**	**57R37**	**DRN**	**71M4**	42	524
4.2	338	9200	**FAF**	**57R37**	**DRN**	**71M4**	47	524
			F	**57R37**	**DRN**	**71M4**	42	524
			FF	**57R37**	**DRN**	**71M4**	49	524
5.6	255	9200	**FA**	**57R37**	**DRN**	**80MK4**	44	524
7.1	201	9200	**FAF**	**57R37**	**DRN**	**80MK4**	50	524
7.9	181	9200	**F**	**57R37**	**DRN**	**80MK4**	44	524
			FF	**57R37**	**DRN**	**80MK4**	51	524
9.3	155	9200	**FA**	**57R37**	**DRN**	**80M4**	48	524
			FAF	**57R37**	**DRN**	**80M4**	53	524
			F	**57R37**	**DRN**	**80M4**	48	524
			FF	**57R37**	**DRN**	**80M4**	54	524
3.3	426	9200	**FA**	**57R37**	**DRN**	**71MS4**	40	524
			FAF	**57R37**	**DRN**	**71MS4**	46	524
			F	**57R37**	**DRN**	**71MS4**	40	524
			FF	**57R37**	**DRN**	**71MS4**	47	524
3.7	382	9200	**FA**	**57R37**	**DRN**	**71M4**	41	524
4.3	330	9200	**FAF**	**57R37**	**DRN**	**71M4**	47	524
4.8	298	9200	**F**	**57R37**	**DRN**	**71M4**	41	524
5.4	262	9200	**FF**	**57R37**	**DRN**	**71M4**	48	524
6.3	226	9200	**FA**	**57R37**	**DRN**	**80MK4**	43	524
7.2	200	9200	**FAF**	**57R37**	**DRN**	**80MK4**	49	524
			F	**57R37**	**DRN**	**80MK4**	44	524
			FF	**57R37**	**DRN**	**80MK4**	50	524
8.5	170	9200	**FA**	**57R37**	**DRN**	**80M4**	47	524
9.4	152	9200	**FAF**	**57R37**	**DRN**	**80M4**	52	524
11	134	9200	**F**	**57R37**	**DRN**	**80M4**	47	524
			FF	**57R37**	**DRN**	**80M4**	54	524

$M_{a\ max}$ = 820 Nm

n_a min^{-1}	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						
0.17	7940	10300	**FA**	**67R37**	**DRN**	**63MS4**	43	524
0.19	7096	10300	**FAF**	**67R37**	**DRN**	**63MS4**	50	524
0.23	6080	10300	**F**	**67R37**	**DRN**	**63MS4**	46	524
0.26	5341	10300	**FF**	**67R37**	**DRN**	**63MS4**	52	524
0.29	4690	10300						
0.34	4091	10300						
0.39	3574	10300						
0.44	3133	10300						
0.50	2756	10300						
0.57	2439	10300						

24832936/EN – 09/2018

$M_{a\ max}$ = 820 Nm								
n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.41	3377	10300						
0.47	2912	10300						
0.51	2714	10300						
0.58	2372	10300	**FA**	**67R37**	**DRN**	**63MS4**	42	524
0.65	2126	10300	**FAF**	**67R37**	**DRN**	**63MS4**	48	524
0.74	1859	10300	**F**	**67R37**	**DRN**	**63MS4**	45	524
0.85	1631	10300	**FF**	**67R37**	**DRN**	**63MS4**	51	524
0.96	1437	10300						
1.1	1256	10300						
			FA	**67R37**	**DRN**	**63M4**	43	524
1.2	1126	10300	**FAF**	**67R37**	**DRN**	**63M4**	49	524
1.4	984	10300	**F**	**67R37**	**DRN**	**63M4**	46	524
1.6	864	10300	**FF**	**67R37**	**DRN**	**63M4**	52	524
			FA	**67R37**	**DRN**	**71MS4**	44	524
1.9	722	10300	**FAF**	**67R37**	**DRN**	**71MS4**	50	524
2.2	634	10300	**F**	**67R37**	**DRN**	**71MS4**	46	524
			FF	**67R37**	**DRN**	**71MS4**	52	524
			FA	**67R37**	**DRN**	**71M4**	45	524
2.6	539	10300	**FAF**	**67R37**	**DRN**	**71M4**	51	524
			F	**67R37**	**DRN**	**71M4**	48	524
			FF	**67R37**	**DRN**	**71M4**	54	524
0.66	2106	10300						
0.73	1884	10300	**FA**	**67R37**	**DRN**	**63MS4**	43	524
0.84	1635	10300	**FAF**	**67R37**	**DRN**	**63MS4**	49	524
0.97	1429	10300	**F**	**67R37**	**DRN**	**63MS4**	46	524
1.1	1271	10300	**FF**	**67R37**	**DRN**	**63MS4**	52	524
			FA	**67R37**	**DRN**	**63M4**	44	524
1.2	1102	10300	**FAF**	**67R37**	**DRN**	**63M4**	50	524
1.4	970	10300	**F**	**67R37**	**DRN**	**63M4**	47	524
1.6	858	10300	**FF**	**67R37**	**DRN**	**63M4**	53	524
			FA	**67R37**	**DRN**	**71MS4**	45	524
1.9	755	10300	**FAF**	**67R37**	**DRN**	**71MS4**	51	524
2.2	641	10300	**F**	**67R37**	**DRN**	**71MS4**	47	524
2.5	572	10300	**FF**	**67R37**	**DRN**	**71MS4**	53	524
			FA	**67R37**	**DRN**	**71M4**	46	524
2.8	509	10300	**FAF**	**67R37**	**DRN**	**71M4**	52	524
3.2	437	10300	**F**	**67R37**	**DRN**	**71M4**	49	524
3.7	384	10300	**FF**	**67R37**	**DRN**	**71M4**	55	524
			FA	**67R37**	**DRN**	**80MK4**	48	524
4.2	338	10300	**FAF**	**67R37**	**DRN**	**80MK4**	54	524
4.7	305	10300	**F**	**67R37**	**DRN**	**80MK4**	51	524
5.6	257	10300	**FF**	**67R37**	**DRN**	**80MK4**	57	524
			FA	**67R37**	**DRN**	**80M4**	51	524
6.2	231	10300	**FAF**	**67R37**	**DRN**	**80M4**	58	524
7.0	205	10300	**F**	**67R37**	**DRN**	**80M4**	54	524
			FF	**67R37**	**DRN**	**80M4**	60	524
			FA	**67R37**	**DRN**	**90S4**	57	524
8.3	175	10300	**FAF**	**67R37**	**DRN**	**90S4**	64	524
			F	**67R37**	**DRN**	**90S4**	60	524
			FF	**67R37**	**DRN**	**90S4**	66	524
			FA	**67R37**	**DRN**	**71M4**	45	524
2.8	500	10300	**FAF**	**67R37**	**DRN**	**71M4**	51	524
3.1	454	10300	**F**	**67R37**	**DRN**	**71M4**	47	524
3.6	392	10300	**FF**	**67R37**	**DRN**	**71M4**	53	524
			FA	**67R37**	**DRN**	**80MK4**	47	524
4.3	333	10300	**FAF**	**67R37**	**DRN**	**80MK4**	53	524
4.8	297	10300	**F**	**67R37**	**DRN**	**80MK4**	50	524
5.5	261	10300	**FF**	**67R37**	**DRN**	**80MK4**	56	524
			FA	**67R37**	**DRN**	**80M4**	50	524
6.0	238	10300	**FAF**	**67R37**	**DRN**	**80M4**	57	524
7.2	200	10300	**F**	**67R37**	**DRN**	**80M4**	53	524
			FF	**67R37**	**DRN**	**80M4**	59	524

24832936/EN – 09/2018

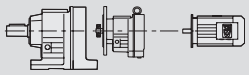
$M_{a\ max}$ = 820 Nm

n_a min^{-1}	i	F_{Ra} [1] N						m kg	
8.3	176	10300	**FA**	**67R37**	**DRN**	**90S4**		56	524
			FAF	**67R37**	**DRN**	**90S4**		62	524
			F	**67R37**	**DRN**	**90S4**		59	524
			FF	**67R37**	**DRN**	**90S4**		65	524

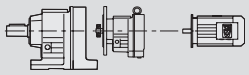
$M_{a\ max}$ = 1110 Nm

n_a min^{-1}	i	F_{Ra} [1] N						m kg	
0.28	4931	17900							
0.31	4523	17900							
0.36	3851	17900							
0.42	3320	17900							
0.45	3095	17900	**FA**	**77R37**	**DRN**	**63MS4**		64	524
0.51	2705	17900	**FAF**	**77R37**	**DRN**	**63MS4**		71	524
0.54	2536	17900	**F**	**77R37**	**DRN**	**63MS4**		68	524
0.62	2238	17900	**FF**	**77R37**	**DRN**	**63MS4**		79	524
0.68	2039	17900							
0.78	1759	17900							
0.84	1639	17900							
0.96	1433	17900	**FA**	**77R37**	**DRN**	**63M4**		65	524
1.0	1343	17900	**FAF**	**77R37**	**DRN**	**63M4**		72	524
1.2	1185	17900	**F**	**77R37**	**DRN**	**63M4**		69	524
1.3	1051	17900	**FF**	**77R37**	**DRN**	**63M4**		80	524
1.6	893	17900	**FA**	**77R37**	**DRN**	**71MS4**		66	524
			FAF	**77R37**	**DRN**	**71MS4**		72	524
			F	**77R37**	**DRN**	**71MS4**		69	524
			FF	**77R37**	**DRN**	**71MS4**		80	524
1.7	815	17900	**FA**	**77R37**	**DRN**	**71MS4**		65	524
			FAF	**77R37**	**DRN**	**71MS4**		72	524
			F	**77R37**	**DRN**	**71MS4**		69	524
			FF	**77R37**	**DRN**	**71MS4**		80	524
2.0	706	17900	**FA**	**77R37**	**DRN**	**71M4**		67	524
2.1	660	17900	**FAF**	**77R37**	**DRN**	**71M4**		73	524
2.5	571	17900	**F**	**77R37**	**DRN**	**71M4**		70	524
			FF	**77R37**	**DRN**	**71M4**		81	524
3.0	485	17900	**FA**	**77R37**	**DRN**	**80MK4**		69	524
3.3	433	17900	**FAF**	**77R37**	**DRN**	**80MK4**		75	524
3.9	370	17900	**F**	**77R37**	**DRN**	**80MK4**		73	524
4.1	346	17900	**FF**	**77R37**	**DRN**	**80MK4**		83	524
4.9	292	17900	**FA**	**77R37**	**DRN**	**80M4**		72	524
			FAF	**77R37**	**DRN**	**80M4**		79	524
			F	**77R37**	**DRN**	**80M4**		76	524
			FF	**77R37**	**DRN**	**80M4**		87	524

24832936/EN – 09/2018

$M_{a\ max}$ = 1500 Nm								
n_a min^{-1}	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						
0.16	8464	15700	**FA**	**77R37**	**DRN**	**63MS4**	66	524
0.18	7520	15700	**FAF**	**77R37**	**DRN**	**63MS4**	72	524
0.21	6580	15700	**F**	**77R37**	**DRN**	**63MS4**	69	524
0.24	5808	15700	**FF**	**77R37**	**DRN**	**63MS4**	80	524
0.27	5026	15700						
0.31	4435	15700						
0.36	3832	15700						
0.41	3381	15700						
0.46	2978	15700						
0.53	2613	15700						
0.60	2284	15700						
0.68	2029	15700	**FA**	**77R37**	**DRN**	**63M4**	66	524
			FAF	**77R37**	**DRN**	**63M4**	73	524
			F	**77R37**	**DRN**	**63M4**	70	524
			FF	**77R37**	**DRN**	**63M4**	81	524
0.80	1728	15700	**FA**	**77R37**	**DRN**	**63M4**	66	524
0.89	1544	15700	**FAF**	**77R37**	**DRN**	**63M4**	73	524
			F	**77R37**	**DRN**	**63M4**	70	524
			FF	**77R37**	**DRN**	**63M4**	81	524
1.0	1354	15700	**FA**	**77R37**	**DRN**	**71MS4**	67	524
1.2	1200	15700	**FAF**	**77R37**	**DRN**	**71MS4**	73	524
1.3	1053	15700	**F**	**77R37**	**DRN**	**71MS4**	71	524
			FF	**77R37**	**DRN**	**71MS4**	81	524
1.6	910	15700	**FA**	**77R37**	**DRN**	**71M4**	68	524
1.8	810	15700	**FAF**	**77R37**	**DRN**	**71M4**	75	524
2.0	710	15700	**F**	**77R37**	**DRN**	**71M4**	72	524
			FF	**77R37**	**DRN**	**71M4**	82	524
2.3	615	15700	**FA**	**77R37**	**DRN**	**80MK4**	70	524
2.7	538	15700	**FAF**	**77R37**	**DRN**	**80MK4**	77	524
3.0	480	15700	**F**	**77R37**	**DRN**	**80MK4**	74	524
			FF	**77R37**	**DRN**	**80MK4**	85	524
3.5	413	15700	**FA**	**77R37**	**DRN**	**80M4**	74	524
3.9	367	15700	**FAF**	**77R37**	**DRN**	**80M4**	80	524
			F	**77R37**	**DRN**	**80M4**	77	524
			FF	**77R37**	**DRN**	**80M4**	88	524
4.5	323	15700	**FA**	**77R37**	**DRN**	**90S4**	80	524
5.2	280	15700	**FAF**	**77R37**	**DRN**	**90S4**	86	524
5.9	247	15700	**F**	**77R37**	**DRN**	**90S4**	83	524
			FF	**77R37**	**DRN**	**90S4**	94	524
6.6	221	15700	**FA**	**77R37**	**DRN**	**90L4**	83	524
7.3	199	15700	**FAF**	**77R37**	**DRN**	**90L4**	89	524
			F	**77R37**	**DRN**	**90L4**	86	524
			FF	**77R37**	**DRN**	**90L4**	97	524

24832936/EN – 09/2018

$M_{a\ max}$ = 3000 Nm									
n_a min^{-1}	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	**FA**	**87R57**	**DRN**	**63MS4**	120	524
0.11	12205	19800	**FAF**	**87R57**	**DRN**	**63MS4**	130	524
0.13	10433	19800	**F**	**87R57**	**DRN**	**63MS4**	125	524
0.15	9381	19800	**FF**	**87R57**	**DRN**	**63MS4**	140	524
0.17	8142	19800						
0.19	7100	19800						
0.22	6273	19800						
0.25	5510	19800						
0.28	4954	19800						
			FA	**87R57**	**DRN**	**63M4**	120	524
0.32	4245	19800	**FAF**	**87R57**	**DRN**	**63M4**	130	524
0.37	3721	19800	**F**	**87R57**	**DRN**	**63M4**	125	524
			FF	**87R57**	**DRN**	**63M4**	140	524
			FA	**87R57**	**DRN**	**63MS4**	115	524
0.28	4952	19800	**FAF**	**87R57**	**DRN**	**63MS4**	130	524
0.30	4562	19800	**F**	**87R57**	**DRN**	**63MS4**	120	524
			FF	**87R57**	**DRN**	**63MS4**	135	524
0.35	3919	19800	**FA**	**87R57**	**DRN**	**63M4**	115	524
0.39	3503	19800	**FAF**	**87R57**	**DRN**	**63M4**	130	524
0.43	3196	19800	**F**	**87R57**	**DRN**	**63M4**	120	524
0.48	2857	19800	**FF**	**87R57**	**DRN**	**63M4**	135	524
			FA	**87R57**	**DRN**	**71MS4**	115	524
0.56	2524	19800	**FAF**	**87R57**	**DRN**	**71MS4**	130	524
0.66	2134	19800	**F**	**87R57**	**DRN**	**71MS4**	120	524
			FF	**87R57**	**DRN**	**71MS4**	140	524
			FA	**87R57**	**DRN**	**71M4**	120	524
0.74	1913	19800	**FAF**	**87R57**	**DRN**	**71M4**	130	524
0.82	1717	19800	**F**	**87R57**	**DRN**	**71M4**	125	524
0.96	1476	19800	**FF**	**87R57**	**DRN**	**71M4**	140	524
			FA	**87R57**	**DRN**	**80MK4**	120	524
1.1	1278	19800	**FAF**	**87R57**	**DRN**	**80MK4**	135	524
1.3	1142	19800	**F**	**87R57**	**DRN**	**80MK4**	125	524
1.4	988	19800	**FF**	**87R57**	**DRN**	**80MK4**	140	524
			FA	**87R57**	**DRN**	**80M4**	125	524
1.6	883	19800	**FAF**	**87R57**	**DRN**	**80M4**	135	524
1.9	748	19800	**F**	**87R57**	**DRN**	**80M4**	130	524
			FF	**87R57**	**DRN**	**80M4**	145	524
			FA	**87R57**	**DRN**	**63M4**	120	524
0.42	3244	19800	**FAF**	**87R57**	**DRN**	**63M4**	130	524
0.48	2881	19800	**F**	**87R57**	**DRN**	**63M4**	125	524
			FF	**87R57**	**DRN**	**63M4**	140	524
			FA	**87R57**	**DRN**	**71MS4**	120	524
0.55	2576	19800	**FAF**	**87R57**	**DRN**	**71MS4**	130	524
0.64	2199	19800	**F**	**87R57**	**DRN**	**71MS4**	125	524
			FF	**87R57**	**DRN**	**71MS4**	140	524
			FA	**87R57**	**DRN**	**71M4**	120	524
0.73	1930	19800	**FAF**	**87R57**	**DRN**	**71M4**	135	524
0.83	1709	19800	**F**	**87R57**	**DRN**	**71M4**	125	524
0.95	1493	19800	**FF**	**87R57**	**DRN**	**71M4**	140	524
			FA	**87R57**	**DRN**	**80MK4**	120	524
1.1	1300	19800	**FAF**	**87R57**	**DRN**	**80MK4**	135	524
1.2	1148	19800	**F**	**87R57**	**DRN**	**80MK4**	130	524
1.4	1010	19800	**FF**	**87R57**	**DRN**	**80MK4**	145	524
			FA	**87R57**	**DRN**	**80M4**	125	524
1.6	887	19800	**FAF**	**87R57**	**DRN**	**80M4**	140	524
1.9	780	19800	**F**	**87R57**	**DRN**	**80M4**	130	524
2.1	674	19800	**FF**	**87R57**	**DRN**	**80M4**	145	524

24832936/EN – 09/2018

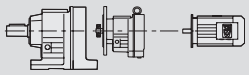
$M_{a\ max}$ = 3000 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
2.4	609	19800	**FA**	**87R57**	**DRN**	**90S4**	130	524
2.8	515	19800	**FAF**	**87R57**	**DRN**	**90S4**	145	524
3.2	452	19800	**F**	**87R57**	**DRN**	**90S4**	140	524
			FF	**87R57**	**DRN**	**90S4**	155	524
4.2	345	19800	**FA**	**87R57**	**DRN**	**90L4**	135	524
			FAF	**87R57**	**DRN**	**90L4**	150	524
			F	**87R57**	**DRN**	**90L4**	140	524
			FF	**87R57**	**DRN**	**90L4**	155	524
4.8	300	19800	**FA**	**87R57**	**DRN**	**100LS4**	140	524
5.8	249	19800	**FAF**	**87R57**	**DRN**	**100LS4**	150	524
			F	**87R57**	**DRN**	**100LS4**	145	524
			FF	**87R57**	**DRN**	**100LS4**	160	524
2.2	662	19800	**FA**	**87R57**	**DRN**	**80M4**	125	524
			FAF	**87R57**	**DRN**	**80M4**	135	524
			F	**87R57**	**DRN**	**80M4**	130	524
			FF	**87R57**	**DRN**	**80M4**	145	524
2.5	592	19800	**FA**	**87R57**	**DRN**	**90S4**	130	524
2.8	519	19800	**FAF**	**87R57**	**DRN**	**90S4**	140	524
3.1	468	19800	**F**	**87R57**	**DRN**	**90S4**	135	524
			FF	**87R57**	**DRN**	**90S4**	150	524
3.7	398	19800	**FA**	**87R57**	**DRN**	**90L4**	130	524
4.2	350	19800	**FAF**	**87R57**	**DRN**	**90L4**	145	524
			F	**87R57**	**DRN**	**90L4**	140	524
			FF	**87R57**	**DRN**	**90L4**	155	524
4.6	315	19800	**FA**	**87R57**	**DRN**	**100LS4**	135	524
5.2	281	19800	**FAF**	**87R57**	**DRN**	**100LS4**	150	524
6.0	240	19800	**F**	**87R57**	**DRN**	**100LS4**	140	524
			FF	**87R57**	**DRN**	**100LS4**	155	524
6.9	211	19800	**FA**	**87R57**	**DRN**	**100L4**	145	524
7.5	193	19800	**FAF**	**87R57**	**DRN**	**100L4**	155	524
			F	**87R57**	**DRN**	**100L4**	150	524
			FF	**87R57**	**DRN**	**100L4**	165	524

$M_{a\ max}$ = 4300 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.05	29211	29900						
0.05	26911	29900						
0.06	23814	29900						
0.07	20813	29900						
0.08	18119	29900	**FA**	**97R57**	**DRN**	**63MS4**	185	524
0.09	15472	29900	**FAF**	**97R57**	**DRN**	**63MS4**	205	524
0.10	14022	29900	**F**	**97R57**	**DRN**	**63MS4**	190	524
0.11	12324	29900	**FF**	**97R57**	**DRN**	**63MS4**	225	524
0.13	10838	29900						
0.14	9576	29900						
0.17	8318	29900						
0.19	7328	29900						
0.21	6469	29900	**FA**	**97R57**	**DRN**	**63M4**	185	524
0.24	5615	29900	**FAF**	**97R57**	**DRN**	**63M4**	205	524
0.28	4961	29900	**F**	**97R57**	**DRN**	**63M4**	190	524
0.32	4333	29900	**FF**	**97R57**	**DRN**	**63M4**	225	524
0.22	6338	29900	**FA**	**97R57**	**DRN**	**63MS4**	180	524
			FAF	**97R57**	**DRN**	**63MS4**	200	524
			F	**97R57**	**DRN**	**63MS4**	185	524
			FF	**97R57**	**DRN**	**63MS4**	220	524
0.24	5680	29900	**FA**	**97R57**	**DRN**	**63M4**	180	524
0.27	5016	29900	**FAF**	**97R57**	**DRN**	**63M4**	200	524
0.31	4367	29900	**F**	**97R57**	**DRN**	**63M4**	185	524
			FF	**97R57**	**DRN**	**63M4**	220	524

24832936/EN – 09/2018

$M_{a\ max}$ = 4300 Nm								
n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.36	3914	29900	**FA**	**97R57**	**DRN**	**71MS4**	180	524
0.42	3357	29900	**FAF**	**97R57**	**DRN**	**71MS4**	200	524
0.47	3009	29900	**F**	**97R57**	**DRN**	**71MS4**	185	524
			FF	**97R57**	**DRN**	**71MS4**	220	524
0.58	2448	29900	**FA**	**97R57**	**DRN**	**71M4**	180	524
0.64	2199	29900	**FAF**	**97R57**	**DRN**	**71M4**	200	524
0.72	1971	29900	**F**	**97R57**	**DRN**	**71M4**	190	524
			FF	**97R57**	**DRN**	**71M4**	220	524
0.82	1741	29900	**FA**	**97R57**	**DRN**	**80MK4**	185	524
0.98	1468	29900	**FAF**	**97R57**	**DRN**	**80MK4**	205	524
1.1	1316	29900	**F**	**97R57**	**DRN**	**80MK4**	190	524
			FF	**97R57**	**DRN**	**80MK4**	225	524
			FA	**97R57**	**DRN**	**80M4**	185	524
1.2	1189	29900	**FAF**	**97R57**	**DRN**	**80M4**	210	524
1.4	1023	29900	**F**	**97R57**	**DRN**	**80M4**	195	524
			FF	**97R57**	**DRN**	**80M4**	225	524
			FA	**97R57**	**DRN**	**71MS4**	185	524
0.36	3906	29900	**FAF**	**97R57**	**DRN**	**71MS4**	205	524
0.42	3352	29900	**F**	**97R57**	**DRN**	**71MS4**	190	524
			FF	**97R57**	**DRN**	**71MS4**	225	524
0.49	2907	29900	**FA**	**97R57**	**DRN**	**71M4**	185	524
0.55	2553	29900	**FAF**	**97R57**	**DRN**	**71M4**	205	524
0.63	2245	29900	**F**	**97R57**	**DRN**	**71M4**	195	524
0.72	1970	29900	**FF**	**97R57**	**DRN**	**71M4**	225	524
0.83	1722	29900	**FA**	**97R57**	**DRN**	**80MK4**	190	524
0.94	1527	29900	**FAF**	**97R57**	**DRN**	**80MK4**	210	524
1.1	1327	29900	**F**	**97R57**	**DRN**	**80MK4**	195	524
			FF	**97R57**	**DRN**	**80MK4**	230	524
			FA	**97R57**	**DRN**	**80M4**	190	524
1.2	1171	29900	**FAF**	**97R57**	**DRN**	**80M4**	215	524
1.4	1022	29900	**F**	**97R57**	**DRN**	**80M4**	200	524
			FF	**97R57**	**DRN**	**80M4**	230	524
1.6	898	29900	**FA**	**97R57**	**DRN**	**90S4**	195	524
1.9	784	29900	**FAF**	**97R57**	**DRN**	**90S4**	220	524
2.1	690	29900	**F**	**97R57**	**DRN**	**90S4**	205	524
			FF	**97R57**	**DRN**	**90S4**	240	524
			FA	**97R57**	**DRN**	**90L4**	200	524
2.4	605	29900	**FAF**	**97R57**	**DRN**	**90L4**	220	524
2.8	529	29900	**F**	**97R57**	**DRN**	**90L4**	210	524
			FF	**97R57**	**DRN**	**90L4**	240	524
3.1	467	29900	**FA**	**97R57**	**DRN**	**100LS4**	205	524
3.6	406	29900	**FAF**	**97R57**	**DRN**	**100LS4**	225	524
4.0	363	29900	**F**	**97R57**	**DRN**	**100LS4**	210	524
			FF	**97R57**	**DRN**	**100LS4**	245	524
			FA	**97R57**	**DRN**	**100L4**	210	524
5.1	285	29900	**FAF**	**97R57**	**DRN**	**100L4**	235	524
6.0	245	29900	**F**	**97R57**	**DRN**	**100L4**	220	524
			FF	**97R57**	**DRN**	**100L4**	250	524
			FA	**97R57**	**DRN**	**112M4**	220	524
7.0	208	29900	**FAF**	**97R57**	**DRN**	**112M4**	245	524
7.5	195	29900	**F**	**97R57**	**DRN**	**112M4**	230	524
			FF	**97R57**	**DRN**	**112M4**	260	524
1.6	892	29900	**FA**	**97R57**	**DRN**	**90S4**	190	524
1.9	760	29900	**FAF**	**97R57**	**DRN**	**90S4**	215	524
2.2	667	29900	**F**	**97R57**	**DRN**	**90S4**	200	524
			FF	**97R57**	**DRN**	**90S4**	230	524
			FA	**97R57**	**DRN**	**90L4**	195	524
2.6	569	29900	**FAF**	**97R57**	**DRN**	**90L4**	215	524
2.9	510	29900	**F**	**97R57**	**DRN**	**90L4**	200	524
3.1	473	29900	**FF**	**97R57**	**DRN**	**90L4**	235	524
			FA	**97R57**	**DRN**	**100LS4**	200	524
3.6	403	29900	**FAF**	**97R57**	**DRN**	**100LS4**	220	524
4.0	361	29900	**F**	**97R57**	**DRN**	**100LS4**	205	524
4.6	317	29900	**FF**	**97R57**	**DRN**	**100LS4**	240	524

24832936/EN – 09/2018

$M_{a\ max}$ = 4300 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
			FA	97R57	DRN	100L4	205	524
5.3	275	29900	FAF	97R57	DRN	100L4	225	524
6.0	242	29900	F	97R57	DRN	100L4	215	524
			FF	97R57	DRN	100L4	245	524

$M_{a\ max}$ = 7680 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.05	25375	49800						
0.06	21652	49800	FA	107R77	DRN	63MS4	275	524
0.07	18933	49800	FAF	107R77	DRN	63MS4	295	524
0.08	16888	49800	F	107R77	DRN	63MS4	290	524
0.09	14767	49800	FF	107R77	DRN	63MS4	320	524
0.12	11348	49800	FA	107R77	DRN	63M4	275	524
0.14	10039	49800	FAF	107R77	DRN	63M4	295	524
0.16	8548	49800	F	107R77	DRN	63M4	290	524
0.18	7674	49800	FF	107R77	DRN	63M4	320	524
			FA	107R77	DRN	71MS4	275	524
0.21	6767	49800	FAF	107R77	DRN	71MS4	295	524
0.24	5954	49800	F	107R77	DRN	71MS4	295	524
			FF	107R77	DRN	71MS4	320	524
			FA	107R77	DRN	71M4	275	524
0.27	5223	49800	FAF	107R77	DRN	71M4	300	524
0.31	4567	49800	F	107R77	DRN	71M4	295	524
0.36	3948	49800	FF	107R77	DRN	71M4	320	524
			FA	107R77	DRN	80MK4	280	524
			FAF	107R77	DRN	80MK4	300	524
0.41	3521	49800	F	107R77	DRN	80MK4	295	524
			FF	107R77	DRN	80MK4	325	524
			FA	107R77	DRN	80MK4	280	524
0.47	3037	49800	FAF	107R77	DRN	80MK4	300	524
0.52	2756	49800	F	107R77	DRN	80MK4	295	524
0.61	2369	49800	FF	107R77	DRN	80MK4	325	524
			FA	107R77	DRN	80M4	280	524
0.70	2068	49800	FAF	107R77	DRN	80M4	305	524
0.79	1826	49800	F	107R77	DRN	80M4	300	524
			FF	107R77	DRN	80M4	325	524
			FA	107R77	DRN	90S4	285	524
0.91	1597	49800	FAF	107R77	DRN	90S4	310	524
1.0	1401	49800	F	107R77	DRN	90S4	305	524
1.2	1243	49800	FF	107R77	DRN	90S4	330	524
			FA	107R77	DRN	90L4	290	524
1.3	1087	49800	FAF	107R77	DRN	90L4	310	524
1.5	950	49800	F	107R77	DRN	90L4	305	524
			FF	107R77	DRN	90L4	335	524
			FA	107R77	DRN	100LS4	295	524
1.7	834	49800	FAF	107R77	DRN	100LS4	315	524
2.0	736	49800	F	107R77	DRN	100LS4	310	524
2.3	640	49800	FF	107R77	DRN	100LS4	340	524
			FA	107R77	DRN	100L4	300	524
2.6	560	49800	FAF	107R77	DRN	100L4	325	524
3.0	489	49800	F	107R77	DRN	100L4	320	524
3.3	436	49800	FF	107R77	DRN	100L4	345	524
			FA	107R77	DRN	112M4	310	524
4.0	370	49800	FAF	107R77	DRN	112M4	330	524
4.4	333	49800	F	107R77	DRN	112M4	325	524
			FF	107R77	DRN	112M4	355	524
			FA	107R77	DRN	132S4	320	524
5.0	291	49800	FAF	107R77	DRN	132S4	345	524
5.7	255	49800	F	107R77	DRN	132S4	340	524
			FF	107R77	DRN	132S4	365	524

24832936/EN – 09/2018

$M_{a\ max}$ = 7680 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
			FA	107R77	DRN	132M4	340	524
6.5	225	49800	FAF	107R77	DRN	132M4	360	524
7.7	190	49800	F	107R77	DRN	132M4	355	524
			FF	107R77	DRN	132M4	385	524

$M_{a\ max}$ = 7840 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.26	5383	49400	FA	107R77	DRN	71M4	265	524
0.31	4593	49400	FAF	107R77	DRN	71M4	290	524
0.35	4016	49400	F	107R77	DRN	71M4	285	524
0.37	3815	49400	FF	107R77	DRN	71M4	310	524
			FA	107R77	DRN	80MK4	270	524
0.43	3347	49400	FAF	107R77	DRN	80MK4	290	524
0.51	2839	49400	F	107R77	DRN	80MK4	285	524
0.56	2563	49400	FF	107R77	DRN	80MK4	315	524
			FA	107R77	DRN	80M4	275	524
0.64	2255	49400	FAF	107R77	DRN	80M4	295	524
0.68	2129	49400	F	107R77	DRN	80M4	290	524
0.79	1813	49400	FF	107R77	DRN	80M4	315	524
0.91	1590	49400	FA	107R77	DRN	90S4	280	524
1.0	1436	49400	FAF	107R77	DRN	90S4	300	524
1.1	1263	49400	F	107R77	DRN	90S4	295	524
1.2	1193	49400	FF	107R77	DRN	90S4	320	524
			FA	107R77	DRN	90L4	280	524
1.4	1015	49400	FAF	107R77	DRN	90L4	300	524
1.6	923	49400	F	107R77	DRN	90L4	300	524
			FF	107R77	DRN	90L4	325	524
			FA	107R77	DRN	100LS4	285	524
1.8	800	49400	FAF	107R77	DRN	100LS4	305	524
2.1	696	49400	F	107R77	DRN	100LS4	300	524
			FF	107R77	DRN	100LS4	330	524
			FA	107R77	DRN	100LS4	285	524
2.2	644	49400	FAF	107R77	DRN	100LS4	305	524
2.5	591	49400	F	107R77	DRN	100LS4	300	524
			FF	107R77	DRN	100LS4	330	524
			FA	107R77	DRN	100L4	290	524
2.8	518	49400	FAF	107R77	DRN	100L4	315	524
3.0	491	49400	F	107R77	DRN	100L4	310	524
3.4	430	49400	FF	107R77	DRN	100L4	335	524
			FA	107R77	DRN	112M4	300	524
3.8	387	49400	FAF	107R77	DRN	112M4	320	524
4.3	340	49400	F	107R77	DRN	112M4	315	524
			FF	107R77	DRN	112M4	345	524
			FA	107R77	DRN	132S4	310	524
4.9	300	49400	FAF	107R77	DRN	132S4	335	524
5.5	266	49400	F	107R77	DRN	132S4	330	524
			FF	107R77	DRN	132S4	355	524

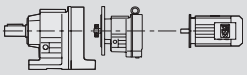
$M_{a\ max}$ = 12000 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
			FA	127R77	DRN	63MS4	425	524
0.06	24478	90000	FAF	127R77	DRN	63MS4	465	524
0.06	22323	90000	F	127R77	DRN	63MS4	460	524
			FF	127R77	DRN	63MS4	510	524
0.07	19048	90000	FA	127R77	DRN	63M4	425	524
0.08	16656	90000	FAF	127R77	DRN	63M4	465	524
0.09	14722	90000	F	127R77	DRN	63M4	465	524
0.11	12912	90000	FF	127R77	DRN	63M4	510	524

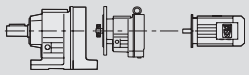
24832936/EN – 09/2018

$M_{a\ max}$ = 12000 Nm								
n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.12	11656	90000	**FA**	**127R77**	**DRN**	**71MS4**	425	524
0.14	10191	90000	**FAF**	**127R77**	**DRN**	**71MS4**	465	524
0.16	8831	90000	**F**	**127R77**	**DRN**	**71MS4**	465	524
			FF	**127R77**	**DRN**	**71MS4**	510	524
0.19	7643	90000	**FA**	**127R77**	**DRN**	**71M4**	430	524
0.21	6715	90000	**FAF**	**127R77**	**DRN**	**71M4**	465	524
0.24	5925	90000	**F**	**127R77**	**DRN**	**71M4**	465	524
			FF	**127R77**	**DRN**	**71M4**	510	524
0.28	5153	90000	**FA**	**127R77**	**DRN**	**80MK4**	430	524
0.32	4533	90000	**FAF**	**127R77**	**DRN**	**80MK4**	470	524
0.37	3926	90000	**F**	**127R77**	**DRN**	**80MK4**	465	524
			FF	**127R77**	**DRN**	**80MK4**	510	524
			FA	**127R77**	**DRN**	**80M4**	435	524
0.42	3454	90000	**FAF**	**127R77**	**DRN**	**80M4**	470	524
0.48	3031	90000	**F**	**127R77**	**DRN**	**80M4**	470	524
			FF	**127R77**	**DRN**	**80M4**	520	524
			FA	**127R77**	**DRN**	**80M4**	435	524
0.54	2672	90000	**FAF**	**127R77**	**DRN**	**80M4**	470	524
			F	**127R77**	**DRN**	**80M4**	470	524
			FF	**127R77**	**DRN**	**80M4**	510	524
			FA	**127R77**	**DRN**	**90S4**	440	524
0.62	2357	90000	**FAF**	**127R77**	**DRN**	**90S4**	475	524
0.71	2038	90000	**F**	**127R77**	**DRN**	**90S4**	475	524
			FF	**127R77**	**DRN**	**90S4**	520	524
0.82	1784	90000	**FA**	**127R77**	**DRN**	**90L4**	440	524
0.91	1606	90000	**FAF**	**127R77**	**DRN**	**90L4**	480	524
1.1	1390	90000	**F**	**127R77**	**DRN**	**90L4**	480	524
			FF	**127R77**	**DRN**	**90L4**	520	524
1.2	1220	90000	**FA**	**127R77**	**DRN**	**100LS4**	445	524
1.4	1077	90000	**FAF**	**127R77**	**DRN**	**100LS4**	485	524
1.6	930	90000	**F**	**127R77**	**DRN**	**100LS4**	480	524
			FF	**127R77**	**DRN**	**100LS4**	530	524
			FA	**127R77**	**DRN**	**100L4**	455	524
1.8	820	90000	**FAF**	**127R77**	**DRN**	**100L4**	490	524
2.0	727	90000	**F**	**127R77**	**DRN**	**100L4**	490	524
			FF	**127R77**	**DRN**	**100L4**	530	524
2.3	648	90000	**FA**	**127R77**	**DRN**	**112M4**	460	524
2.7	549	90000	**FAF**	**127R77**	**DRN**	**112M4**	500	524
3.0	495	90000	**F**	**127R77**	**DRN**	**112M4**	500	524
			FF	**127R77**	**DRN**	**112M4**	540	524
			FA	**127R77**	**DRN**	**132S4**	475	524
3.4	428	90000	**FAF**	**127R77**	**DRN**	**132S4**	510	524
3.9	376	90000	**F**	**127R77**	**DRN**	**132S4**	510	524
			FF	**127R77**	**DRN**	**132S4**	550	524
3.0	483	90000	**FA**	**127R87**	**DRN**	**132S4**	495	524
3.5	418	90000	**FAF**	**127R87**	**DRN**	**132S4**	530	524
3.9	374	90000	**F**	**127R87**	**DRN**	**132S4**	530	524
			FF	**127R87**	**DRN**	**132S4**	570	524
			FA	**127R87**	**DRN**	**132M4**	510	524
4.7	312	90000	**FAF**	**127R87**	**DRN**	**132M4**	550	524
5.0	293	90000	**F**	**127R87**	**DRN**	**132M4**	550	524
			FF	**127R87**	**DRN**	**132M4**	590	524
			FA	**127R87**	**DRN**	**132L4**	520	524
5.7	259	90000	**FAF**	**127R87**	**DRN**	**132L4**	560	524
6.6	223	90000	**F**	**127R87**	**DRN**	**132L4**	560	524
			FF	**127R87**	**DRN**	**132L4**	600	524
			FA	**127R87**	**DRN**	**160M4**	550	524
7.5	198	90000	**FAF**	**127R87**	**DRN**	**160M4**	590	524
			F	**127R87**	**DRN**	**160M4**	590	524
			FF	**127R87**	**DRN**	**160M4**	630	524
			FA	**127R87**	**DRN**	**160L4**	570	524
8.9	166	90000	**FAF**	**127R87**	**DRN**	**160L4**	610	524
			F	**127R87**	**DRN**	**160L4**	600	524
			FF	**127R87**	**DRN**	**160L4**	650	524

24832936/EN – 09/2018

$M_{a\ max}$ = 20000 Nm								
n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.04	31434	93800						
0.05	26173	93800	**FA**	**157R97**	**DRN**	**71MS4**	770	524
0.06	23464	93800	**FAF**	**157R97**	**DRN**	**71MS4**	820	524
0.07	20212	93800	**F**	**157R97**	**DRN**	**71MS4**	790	524
0.08	17984	93800	**FF**	**157R97**	**DRN**	**71MS4**	890	524
0.09	16358	93800						
			FA	**157R97**	**DRN**	**71M4**	770	524
0.10	13751	93800	**FAF**	**157R97**	**DRN**	**71M4**	830	524
0.12	12235	93800	**F**	**157R97**	**DRN**	**71M4**	790	524
			FF	**157R97**	**DRN**	**71M4**	890	524
			FA	**157R97**	**DRN**	**80M4**	770	524
0.14	10033	93800	**FAF**	**157R97**	**DRN**	**80M4**	830	524
0.16	9021	93800	**F**	**157R97**	**DRN**	**80M4**	790	524
0.18	8026	93800	**FF**	**157R97**	**DRN**	**80M4**	900	524
			FA	**157R97**	**DRN**	**80MK4**	770	524
0.20	7075	93800	**FAF**	**157R97**	**DRN**	**80MK4**	830	524
			F	**157R97**	**DRN**	**80MK4**	790	524
			FF	**157R97**	**DRN**	**80MK4**	900	524
			FA	**157R97**	**DRN**	**80M4**	770	524
0.23	6295	93800	**FAF**	**157R97**	**DRN**	**80M4**	830	524
0.27	5404	93800	**F**	**157R97**	**DRN**	**80M4**	790	524
			FF	**157R97**	**DRN**	**80M4**	900	524
			FA	**157R97**	**DRN**	**90S4**	780	524
0.30	4831	93800	**FAF**	**157R97**	**DRN**	**90S4**	840	524
0.35	4130	93800	**F**	**157R97**	**DRN**	**90S4**	800	524
			FF	**157R97**	**DRN**	**90S4**	900	524
			FA	**157R97**	**DRN**	**100LS4**	780	524
0.40	3607	93800	**FAF**	**157R97**	**DRN**	**100LS4**	840	524
0.45	3210	93800	**F**	**157R97**	**DRN**	**100LS4**	810	524
			FF	**157R97**	**DRN**	**100LS4**	910	524
			FA	**157R97**	**DRN**	**90L4**	780	524
0.53	2780	93800	**FAF**	**157R97**	**DRN**	**90L4**	840	524
			F	**157R97**	**DRN**	**90L4**	800	524
			FF	**157R97**	**DRN**	**90L4**	910	524
			FA	**157R97**	**DRN**	**100L4**	790	524
1.0	1441	93800	**FAF**	**157R97**	**DRN**	**100L4**	850	524
			F	**157R97**	**DRN**	**100L4**	810	524
			FF	**157R97**	**DRN**	**100L4**	920	524
			FA	**157R97**	**DRN**	**90L4**	780	524
0.60	2427	93800	**FAF**	**157R97**	**DRN**	**90L4**	840	524
			F	**157R97**	**DRN**	**90L4**	800	524
			FF	**157R97**	**DRN**	**90L4**	900	524
			FA	**157R97**	**DRN**	**100LS4**	780	524
0.66	2185	93800	**FAF**	**157R97**	**DRN**	**100LS4**	840	524
0.75	1944	93800	**F**	**157R97**	**DRN**	**100LS4**	800	524
0.87	1674	93800	**FF**	**157R97**	**DRN**	**100LS4**	910	524
			FA	**157R97**	**DRN**	**100L4**	790	524
1.1	1308	93800	**FAF**	**157R97**	**DRN**	**100L4**	850	524
1.2	1169	93800	**F**	**157R97**	**DRN**	**100L4**	810	524
			FF	**157R97**	**DRN**	**100L4**	920	524
			FA	**157R97**	**DRN**	**112M4**	800	524
1.5	953	93800	**FAF**	**157R97**	**DRN**	**112M4**	860	524
1.7	845	93800	**F**	**157R97**	**DRN**	**112M4**	820	524
			FF	**157R97**	**DRN**	**112M4**	920	524
			FA	**157R97**	**DRN**	**132S4**	810	524
1.9	764	93800	**FAF**	**157R97**	**DRN**	**132S4**	870	524
2.1	680	93800	**F**	**157R97**	**DRN**	**132S4**	830	524
			FF	**157R97**	**DRN**	**132S4**	940	524
			FA	**157R97**	**DRN**	**132M4**	830	524
2.5	576	93800	**FAF**	**157R97**	**DRN**	**132M4**	890	524
2.9	503	93800	**F**	**157R97**	**DRN**	**132M4**	850	524
3.3	446	93800	**FF**	**157R97**	**DRN**	**132M4**	950	524

24832936/EN – 09/2018

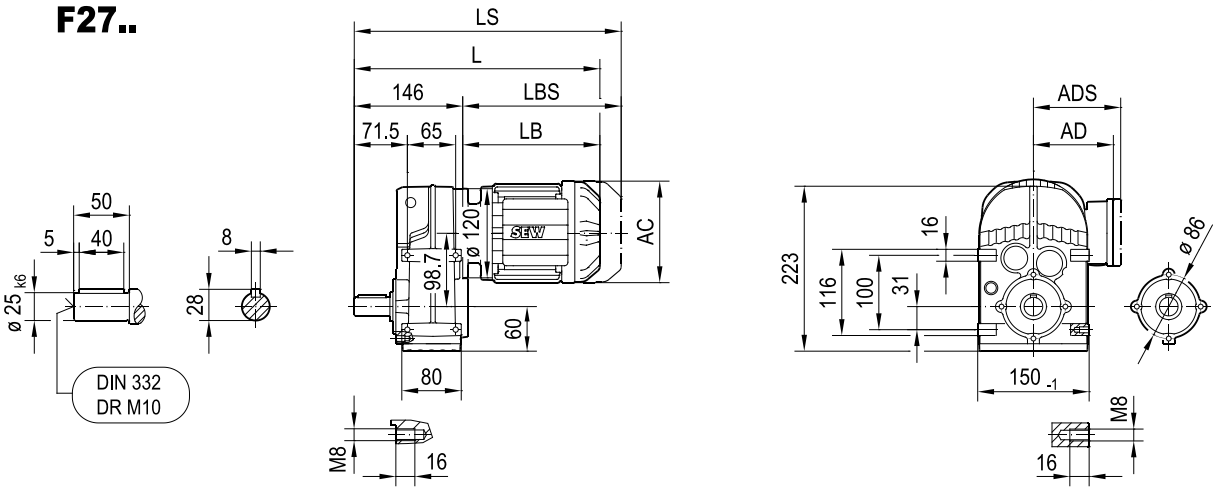
$M_{a\ max}$ = 20000 Nm								
n_a min^{-1}	i	F_{Ra} [1] N					m kg	
			FA	**157R97**	**DRN**	**160M4**	870	524
4.2	353	93800	**FAF**	**157R97**	**DRN**	**160M4**	930	524
4.9	302	93800	**F**	**157R97**	**DRN**	**160M4**	890	524
			FF	**157R97**	**DRN**	**160M4**	1000	524
			FA	**157R97**	**DRN**	**160L4**	880	524
5.4	273	93800	**FAF**	**157R97**	**DRN**	**160L4**	940	524
6.4	232	93800	**F**	**157R97**	**DRN**	**160L4**	900	524
			FF	**157R97**	**DRN**	**160L4**	1010	524
			FA	**157R97**	**DRN**	**180M4**	910	524
7.3	202	93800	**FAF**	**157R97**	**DRN**	**180M4**	960	524
7.5	197	93800	**F**	**157R97**	**DRN**	**180M4**	930	524
			FF	**157R97**	**DRN**	**180M4**	1030	524

24832936/EN – 09/2018

9.5 F..DRN.. dimension sheets in mm

42 020 01 14

F27..



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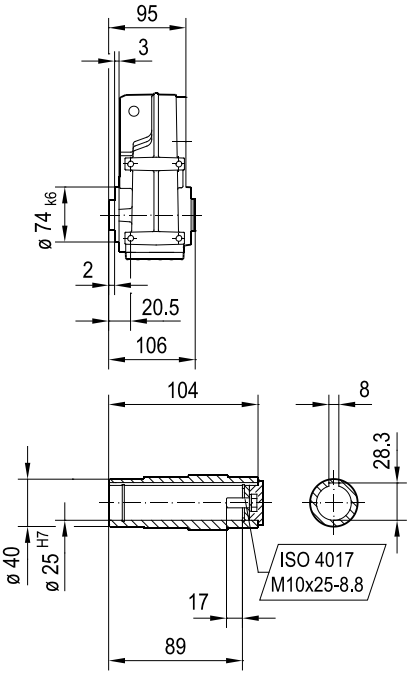
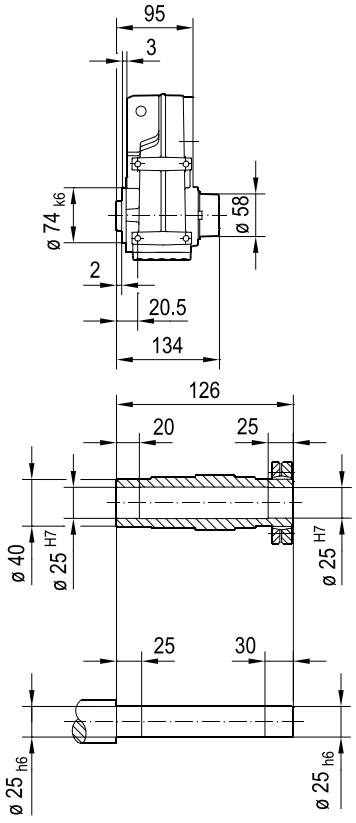


FH27B..
max. DR71..



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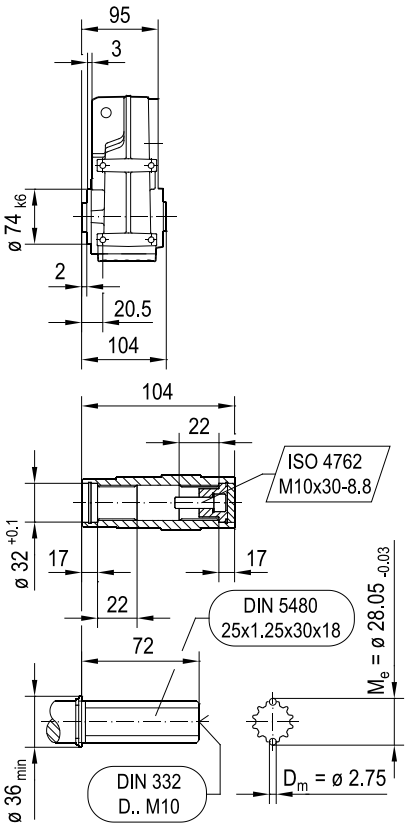
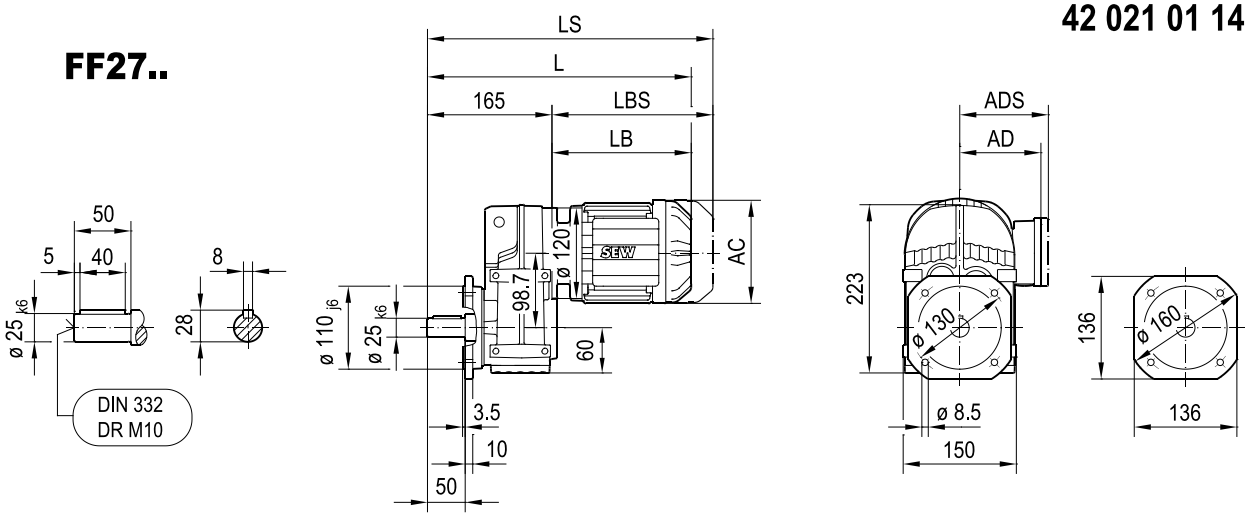


(→ 📖 7.3)	DRN								
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L
AC	115	115	139	139	156	156	156	179	179
AD	98	98	118	118	128	128	128	140	140
ADS	98	98	129	129	139	139	139	150	150
L	336	350	352	372	383	400	428	429	461
LS	392	406	419	439	464	481	509	523	555
LB	190	204	206	226	237	254	282	283	315
LBS	246	260	273	293	318	335	363	377	409

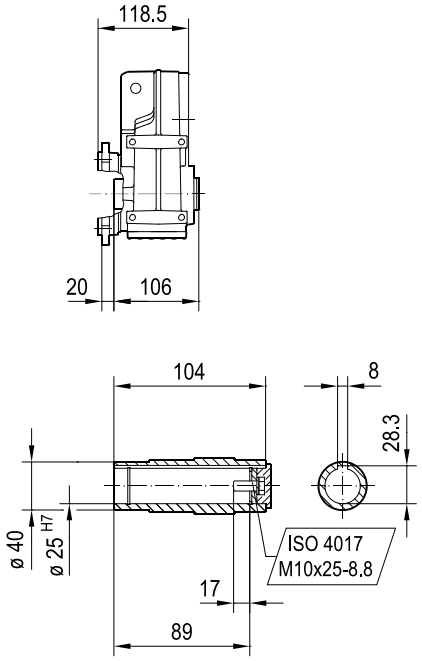
24832936/EN – 09/2018

42 021 01 14

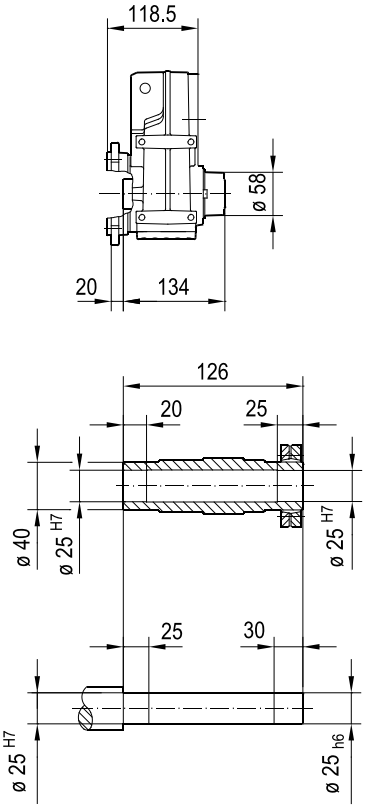
FF27..



FAF27..



FHF27..
max. DR71..



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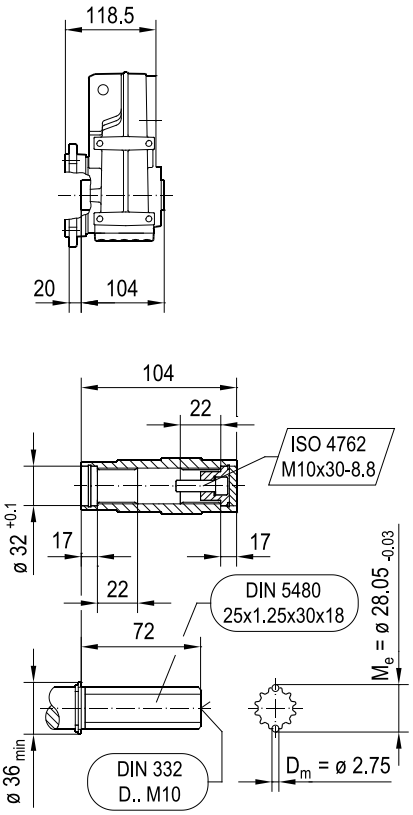
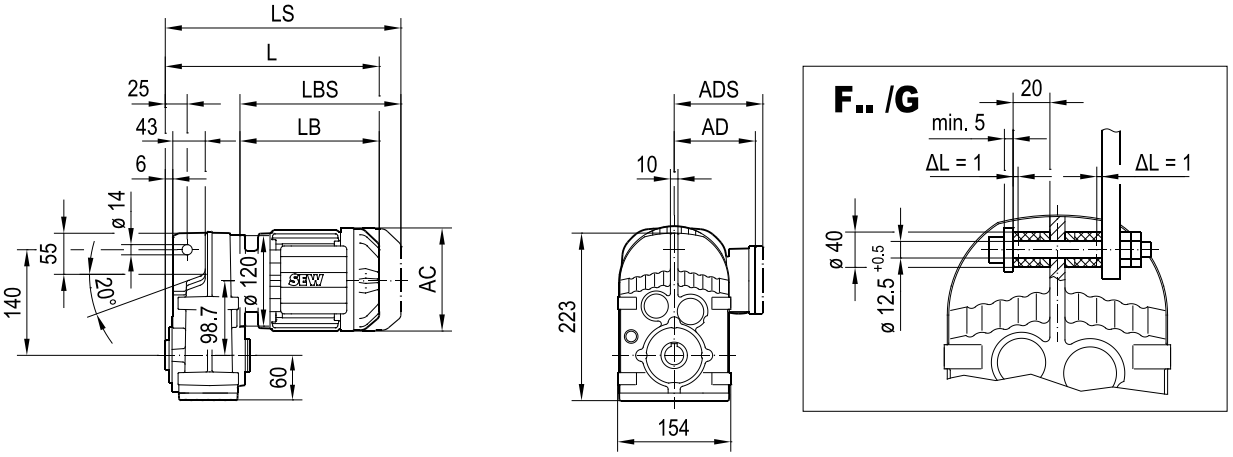


(→ 📖 7.3)	DRN								
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L
AC	115	115	139	139	156	156	156	179	179
AD	98	98	118	118	128	128	128	140	140
ADS	98	98	129	129	139	139	139	150	150
L	355	369	371	391	402	419	447	448	480
LS	411	425	438	458	483	500	528	542	574
LB	190	204	206	226	237	254	282	283	315
LBS	246	260	273	293	318	335	363	377	409

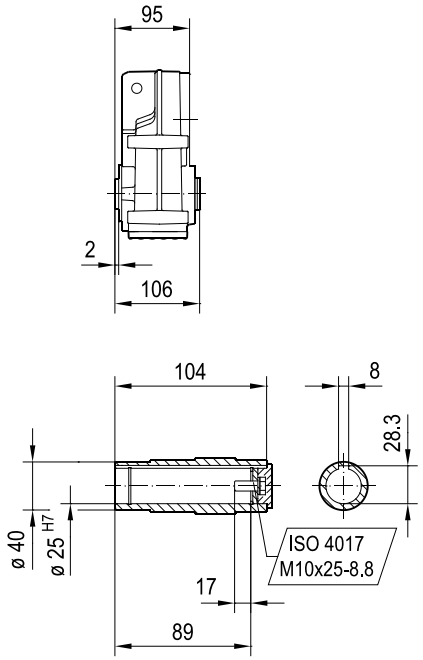
24832936/EN – 09/2018

FA27..

42 022 01 14

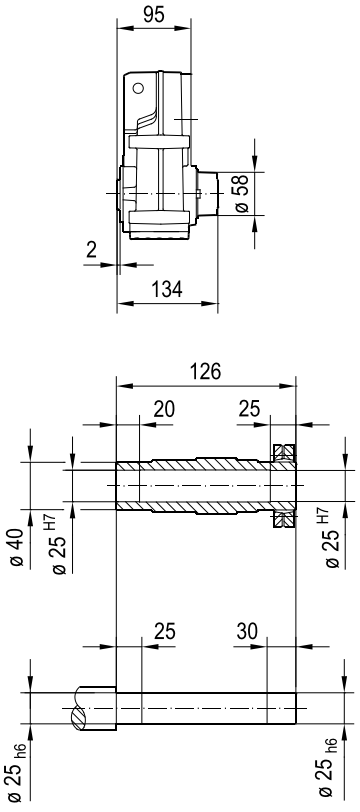


FA27..

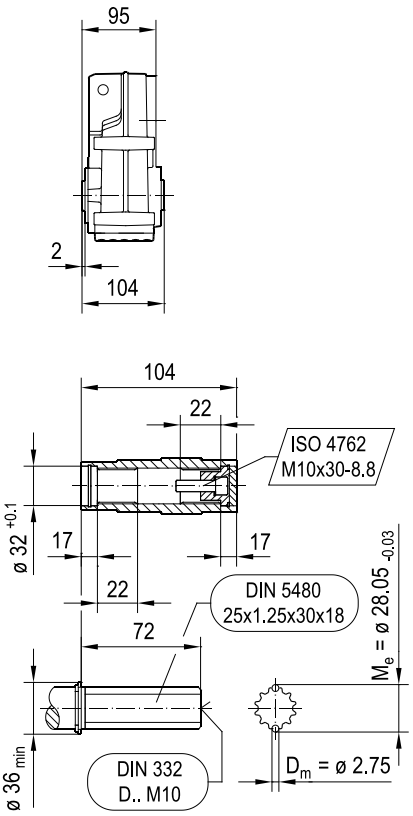


FH27..

max. DR71..



FV27..

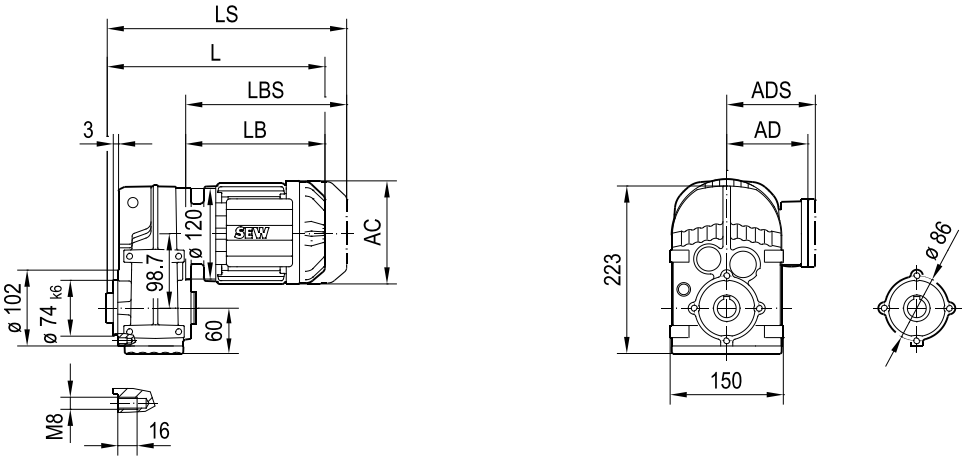


(→ 📖 7.3)	DRN								
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L
AC	115	115	139	139	156	156	156	179	179
AD	98	98	118	118	128	128	128	140	140
ADS	98	98	129	129	139	139	139	150	150
L	285	299	301	321	332	349	377	378	410
LS	341	355	368	388	413	430	458	472	504
LB	190	204	206	226	237	254	282	283	315
LBS	246	260	273	293	318	335	363	377	409

24832936/EN – 09/2018

FAZ27..

42 023 01 14



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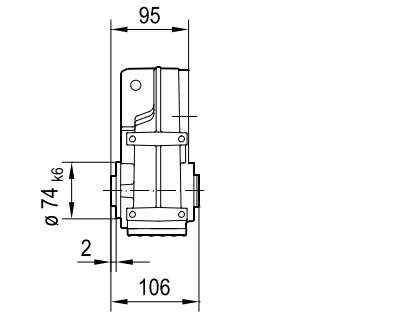
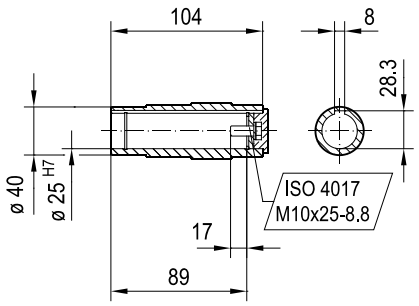
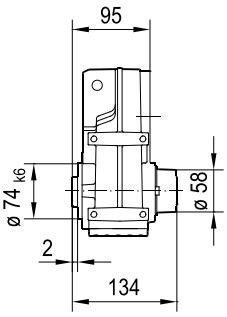
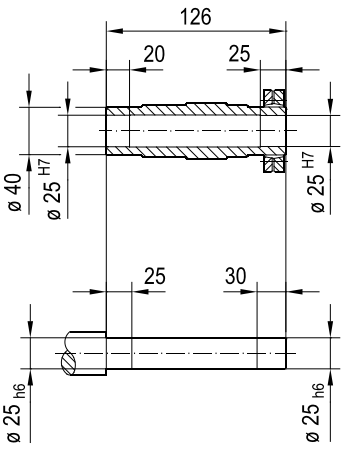




FHZ27..
max. DR71..





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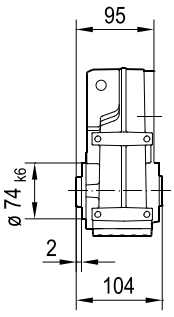
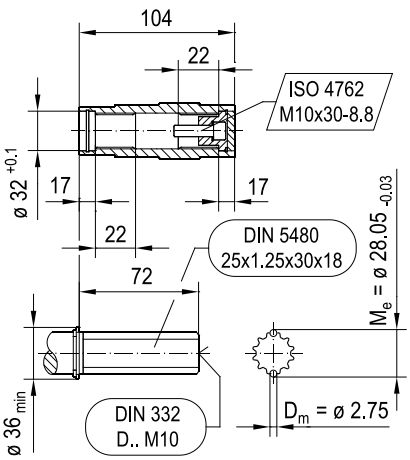


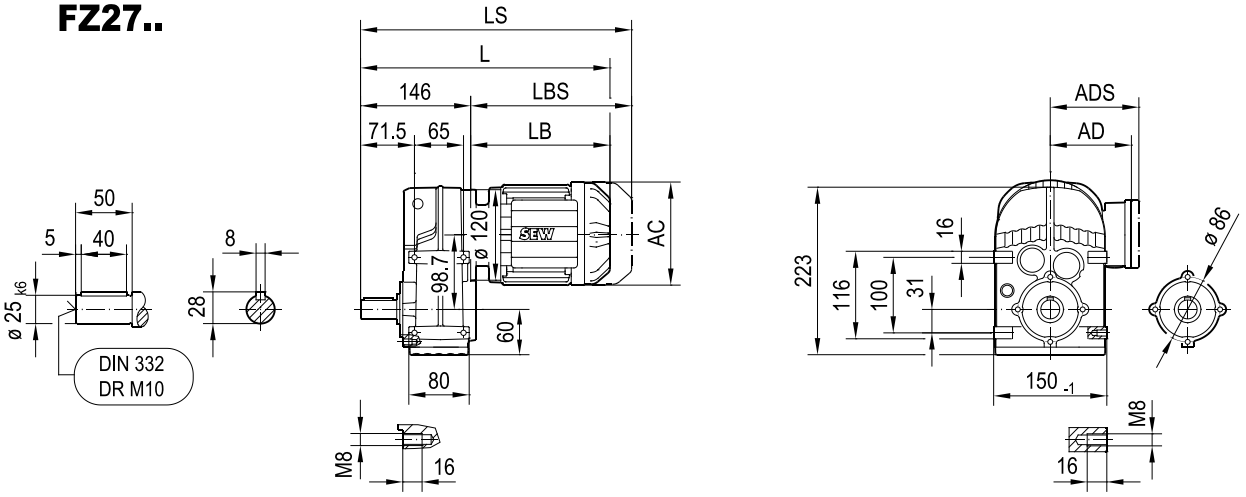


(→ 📖 7.3)	DRN								
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L
AC	115	115	139	139	156	156	156	179	179
AD	98	98	118	118	128	128	128	140	140
ADS	98	98	129	129	139	139	139	150	150
L	285	299	301	321	332	349	377	378	410
LS	341	355	368	388	413	430	458	472	504
LB	190	204	206	226	237	254	282	283	315
LBS	246	260	273	293	318	335	363	377	409

24832936/EN – 09/2018

42 071 00 15

FZ27..

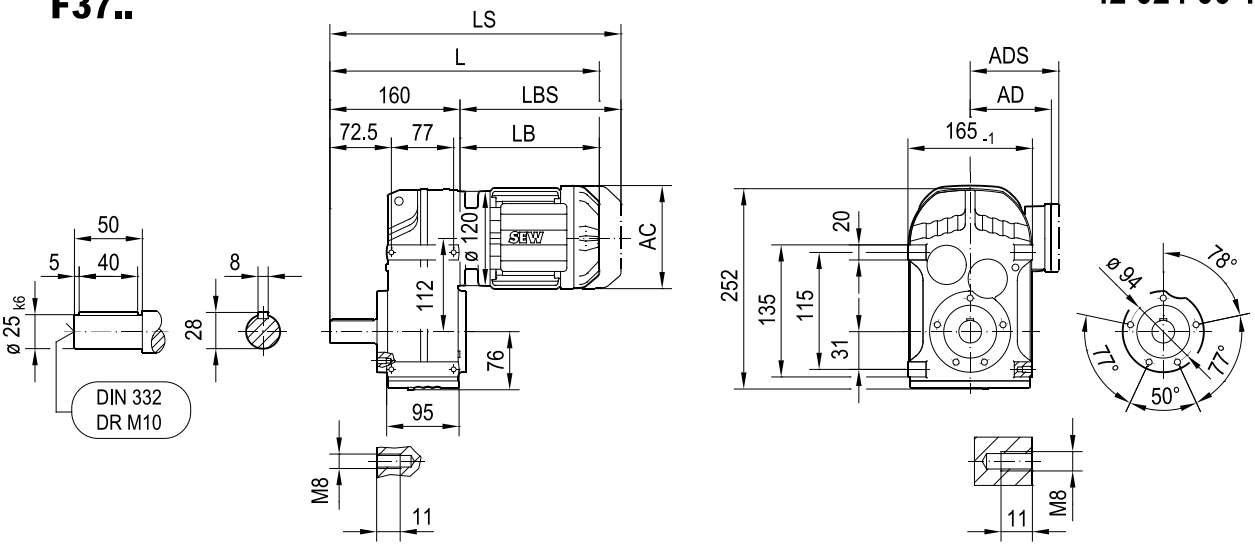


(→ 📖 7.3)	DRN								
	63MS	63M	71MS	71M	80MK	80MS	80M	90S	90L
AC	115	115	139	139	156	156	156	179	179
AD	98	98	118	118	128	128	128	140	140
ADS	98	98	129	129	139	139	139	150	150
L	336	350	352	372	383	400	428	429	461
LS	392	406	419	439	464	481	509	523	555
LB	190	204	206	226	237	254	282	283	315
LBS	246	260	273	293	318	335	363	377	409

24832936/EN – 09/2018

F37..

42 024 00 14



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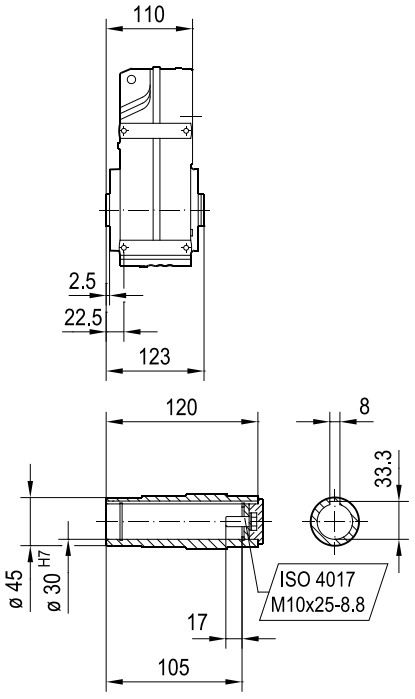

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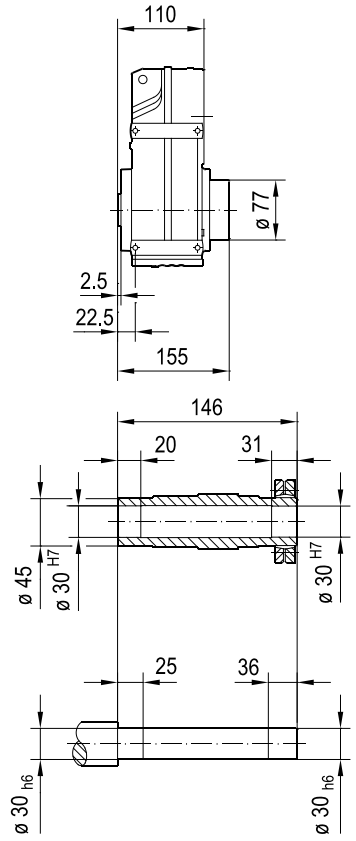

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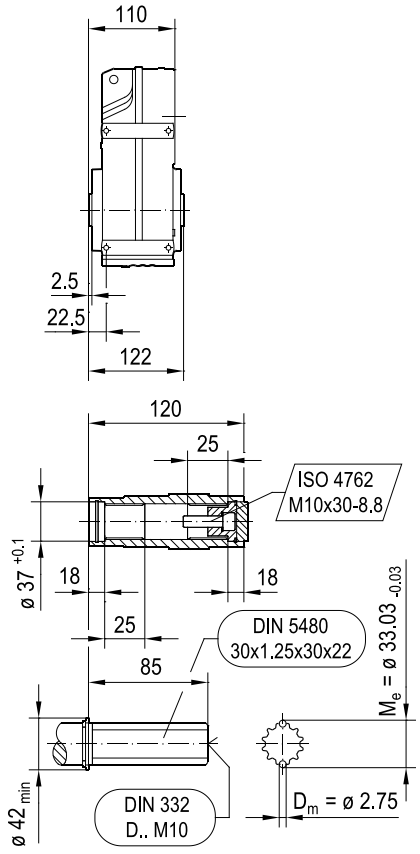
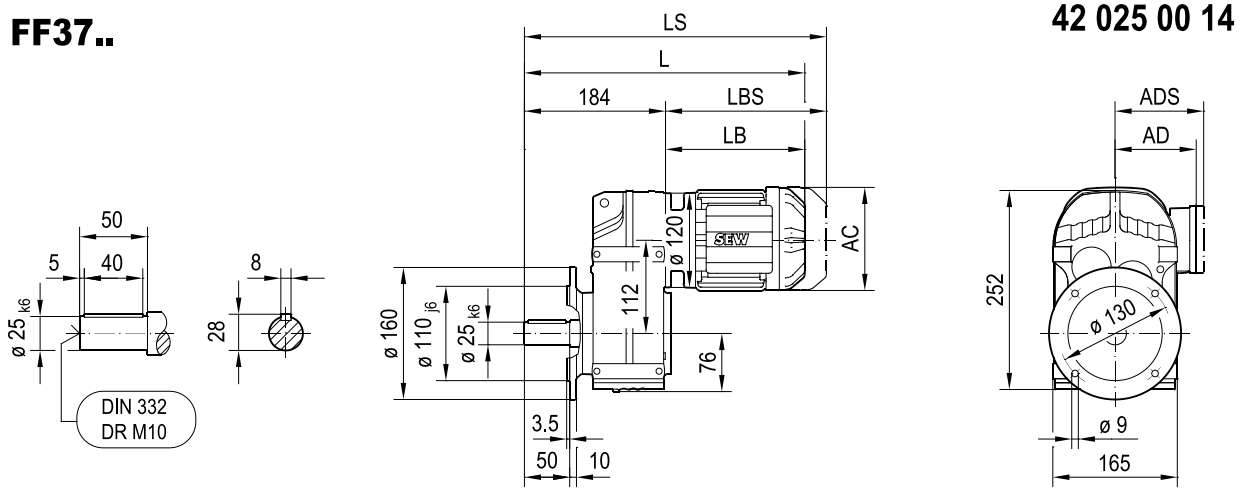


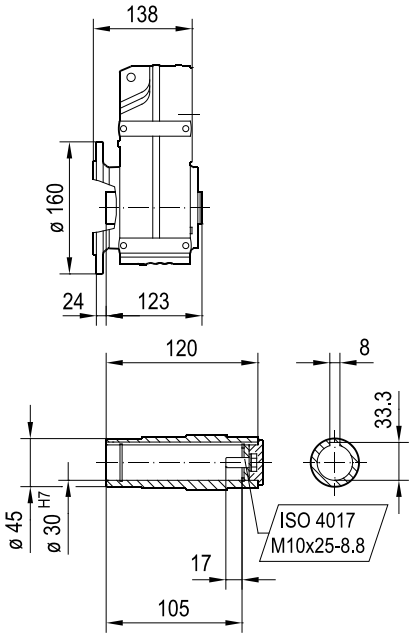
(→ 📖 7.3)	DRN									
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	179	179	197	197
AD	98	98	118	118	128	128	140	140	157	157
ADS	98	98	129	129	139	139	150	150	158	158
L	350	364	366	386	397	442	443	475	474	524
LS	406	420	433	453	478	523	537	569	568	618
LB	190	204	206	226	237	282	283	315	314	364
LBS	246	260	273	293	318	363	377	409	408	458

FF37..

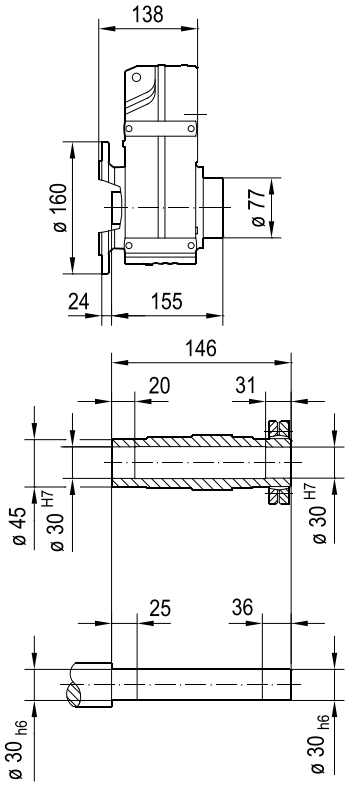
42 025 00 14



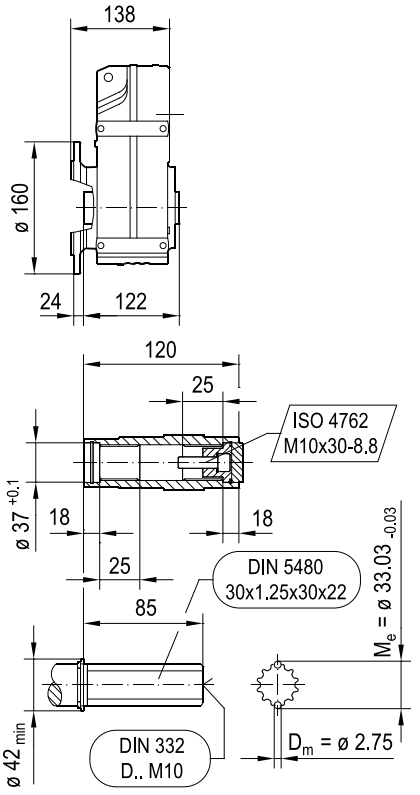
FAF37..



FHF37..



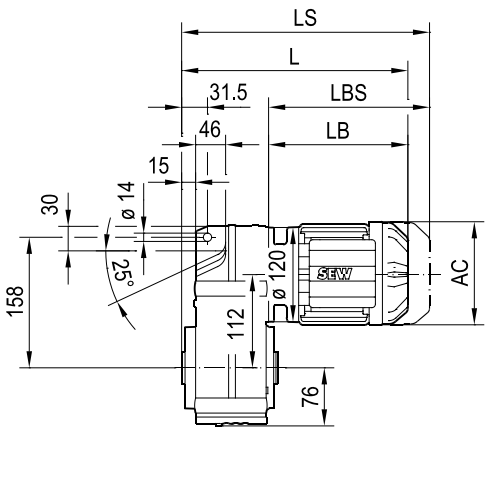
FVF37..

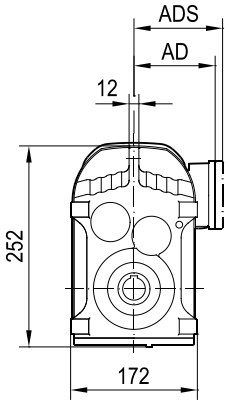


(→ 📖 7.3)	DRN									
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	179	179	197	197
AD	98	98	118	118	128	128	140	140	157	157
ADS	98	98	129	129	139	139	150	150	158	158
L	374	388	390	410	421	466	467	499	498	548
LS	430	444	457	477	502	547	561	593	592	642
LB	190	204	206	226	237	282	283	315	314	364
LBS	246	260	273	293	318	363	377	409	408	458

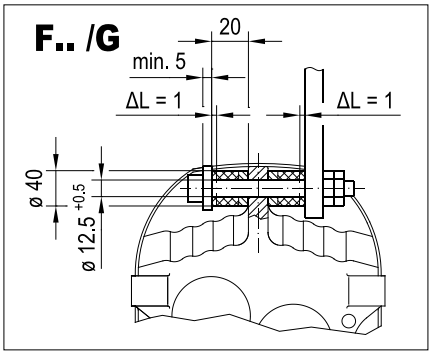
24832936/EN – 09/2018

FA37..

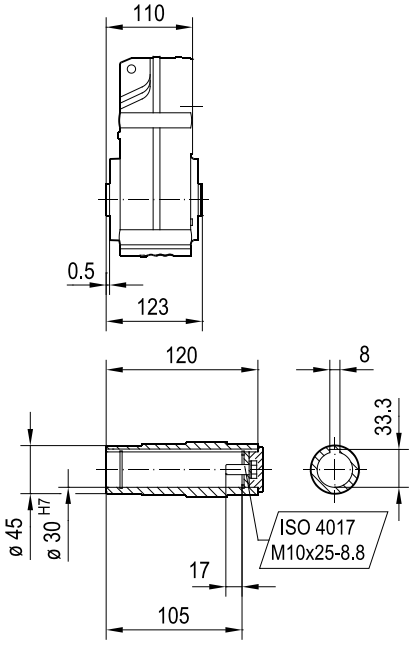




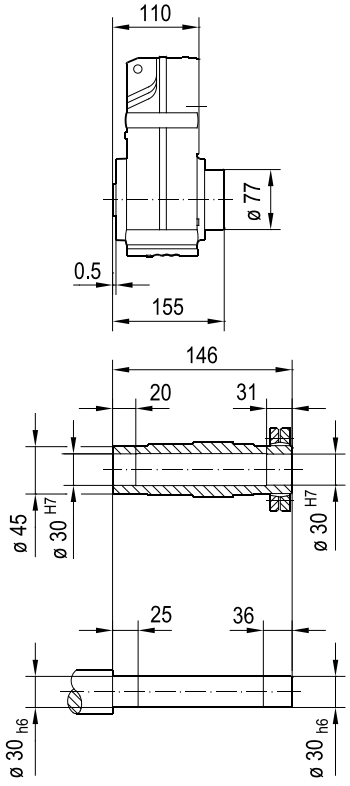
42 026 00 14



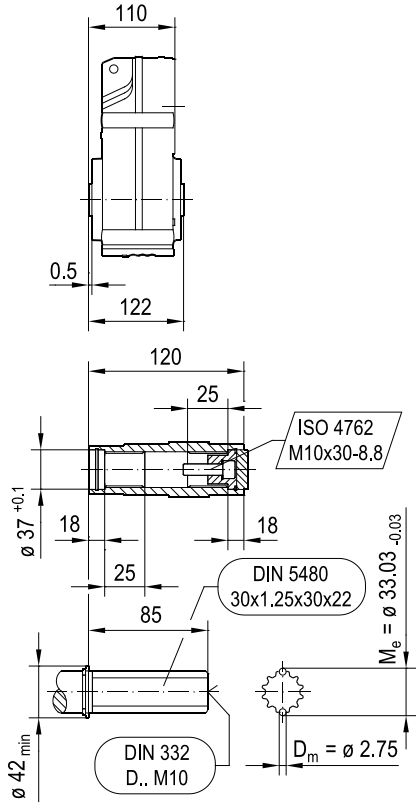
FA37..



FH37..



FV37..

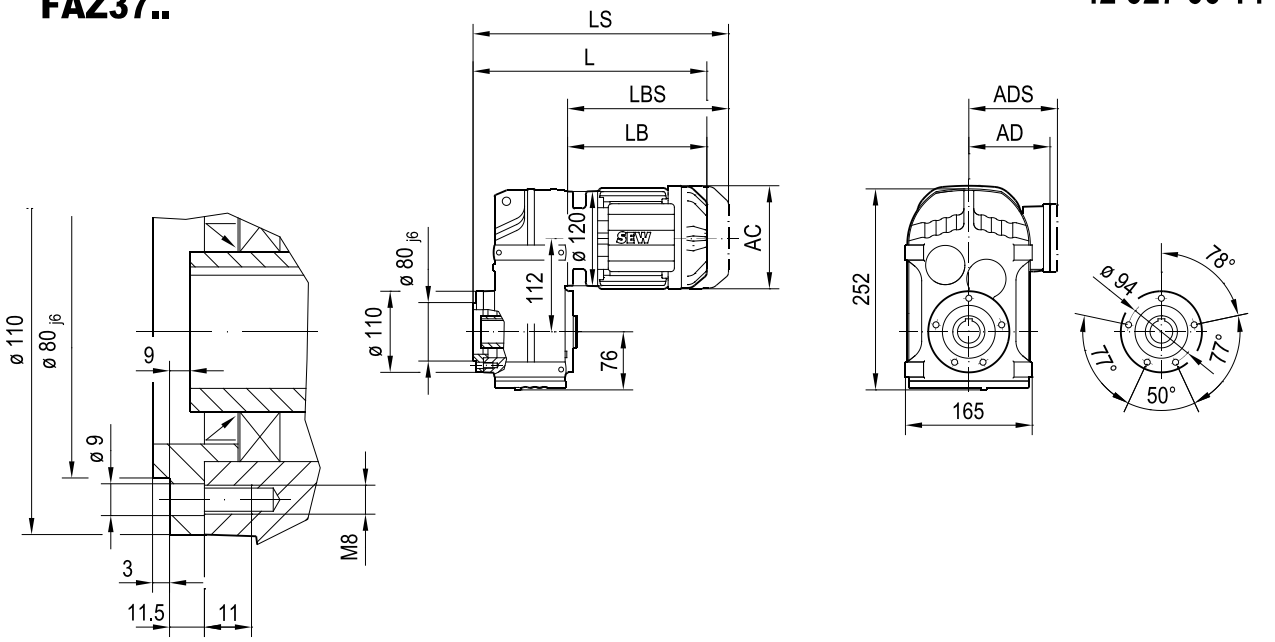


(→ 📖 7.3)	DRN									
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	179	179	197	197
AD	98	98	118	118	128	128	140	140	157	157
ADS	98	98	129	129	139	139	150	150	158	158
L	300	314	316	336	347	392	393	425	424	474
LS	356	370	383	403	428	473	487	519	518	568
LB	190	204	206	226	237	282	283	315	314	364
LBS	246	260	273	293	318	363	377	409	408	458

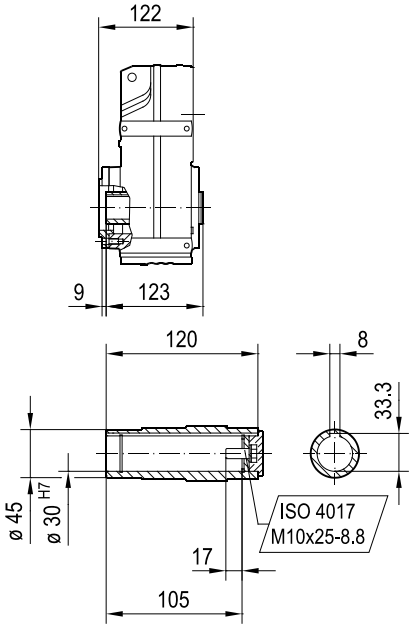
24832936/EN – 09/2018

FAZ37..

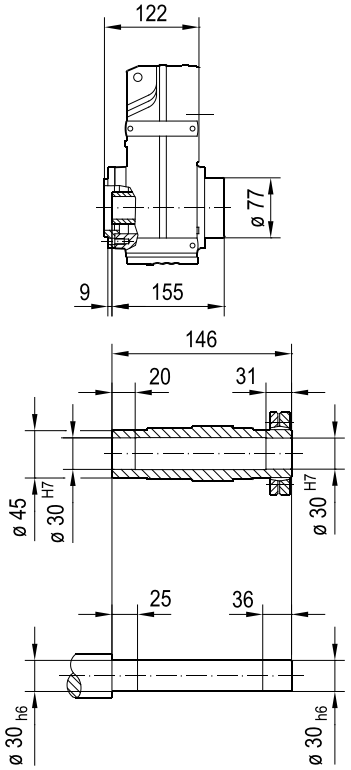
42 027 00 14



FAZ37..



FHZ37..



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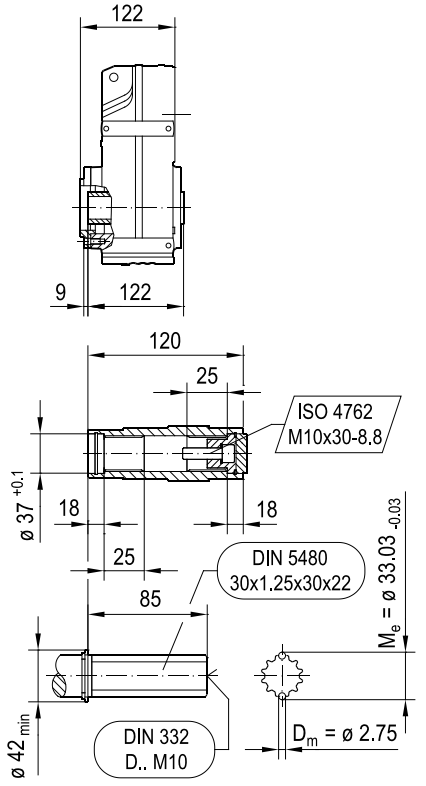
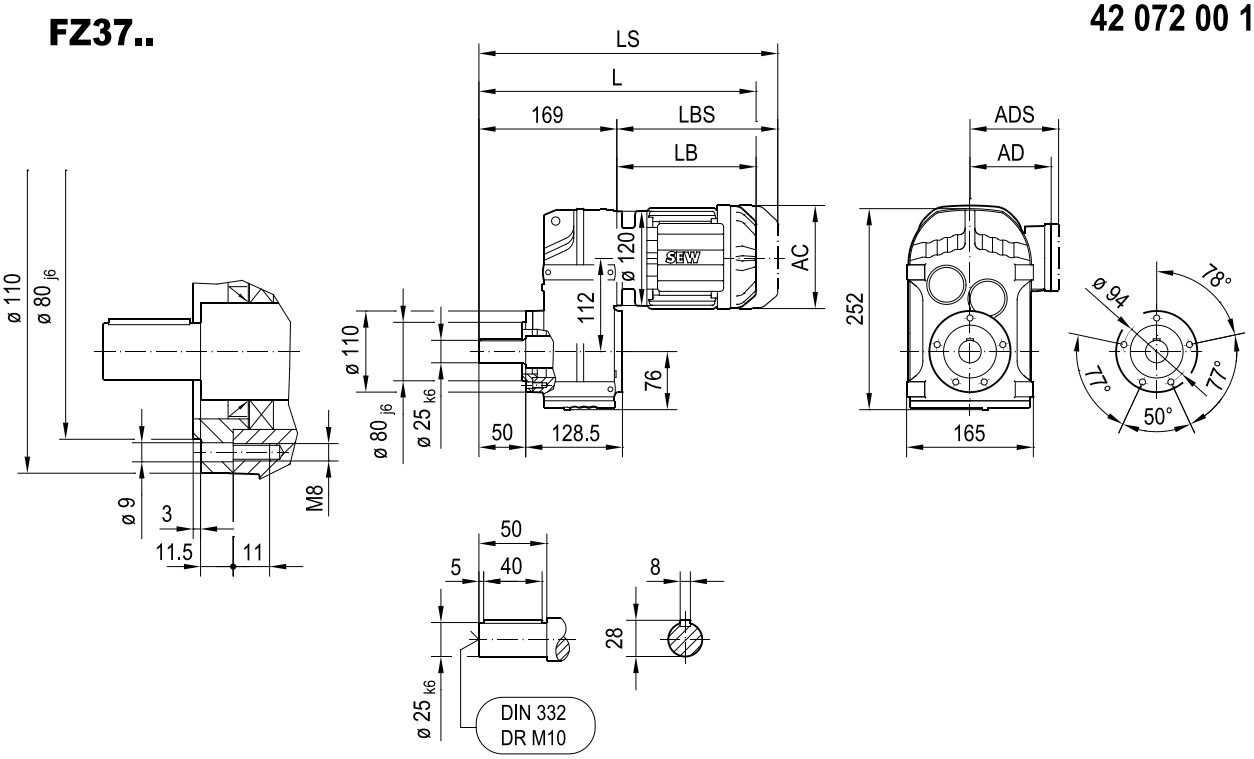


(→ 📖 7.3)	DRN									
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	179	179	197	197
AD	98	98	118	118	128	128	140	140	157	157
ADS	98	98	129	129	139	139	150	150	158	158
L	312	326	328	348	359	404	405	437	436	486
LS	368	382	395	415	440	485	499	531	530	580
LB	190	204	206	226	237	282	283	315	314	364
LBS	246	260	273	293	318	363	377	409	408	458

24832936/EN – 09/2018

FZ37..

42 072 00 15

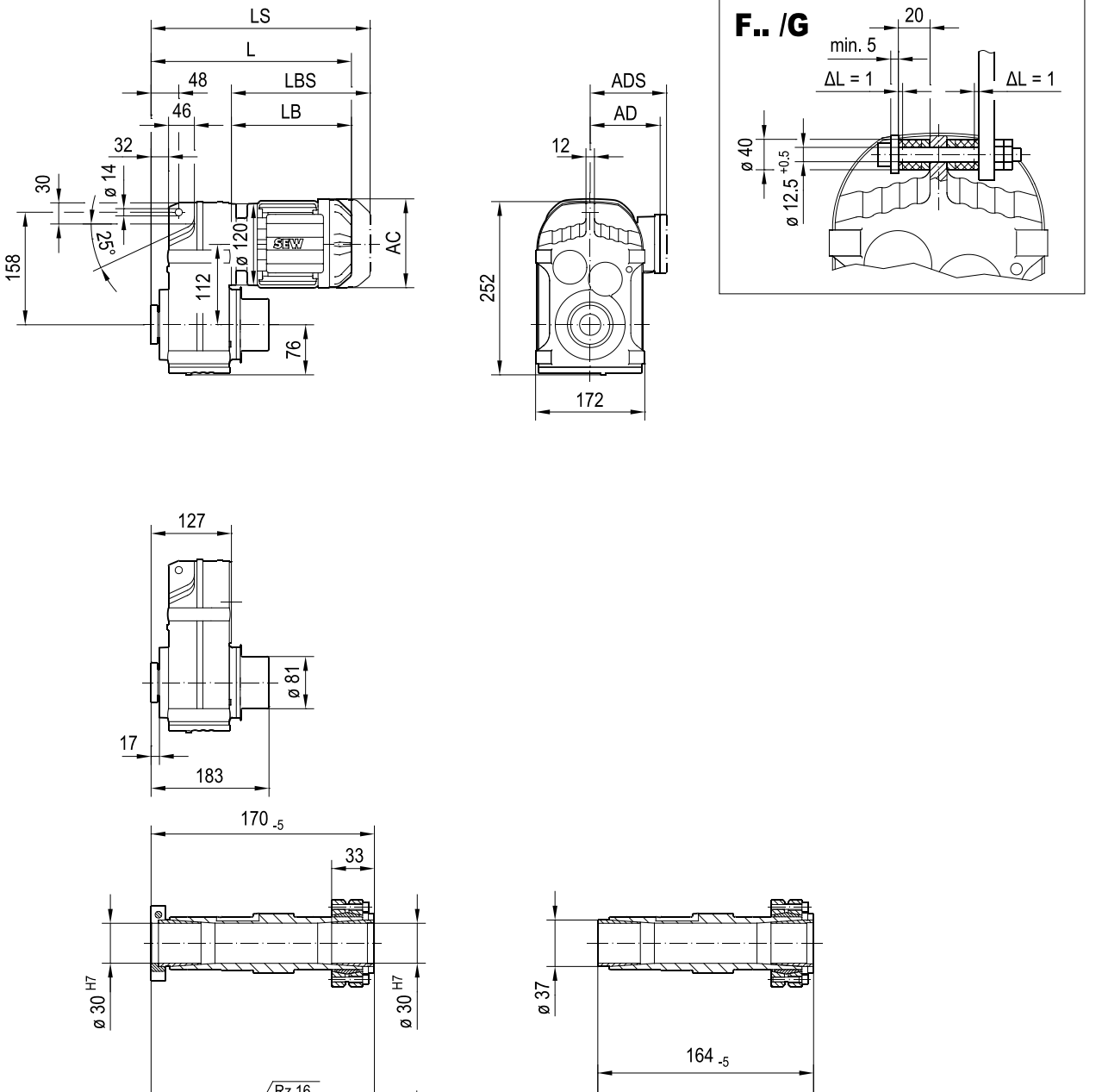


(→ 📖 7.3)	DRN									
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	179	179	197	197
AD	98	98	118	118	128	128	140	140	157	157
ADS	98	98	129	129	139	139	150	150	158	158
L	359	373	375	395	406	451	452	484	483	533
LS	415	429	442	462	487	532	546	578	577	627
LB	190	204	206	226	237	282	283	315	314	364
LBS	246	260	273	293	318	363	377	409	408	458

24832936/EN – 09/2018

FT37..

42 028 01 14

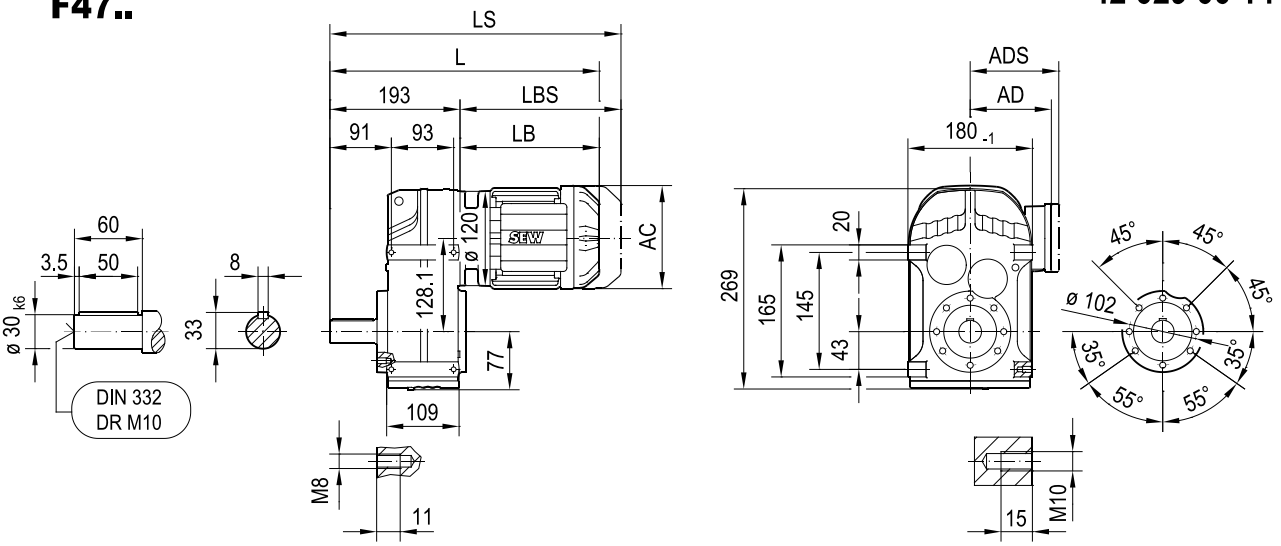


(→ 📖 7.3)	DRN							
	63MS	63M	71MS	71M				
AC	115	115	139	139				
AD	98	98	118	118				
ADS	98	98	129	129				
L	317	331	333	353				
LS	373	387	400	420				
LB	190	204	206	226				
LBS	246	260	273	293				

24832936/EN – 09/2018

F47..

42 029 00 14



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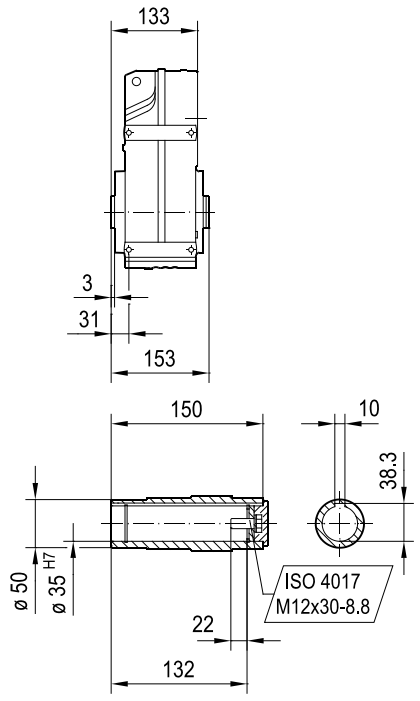

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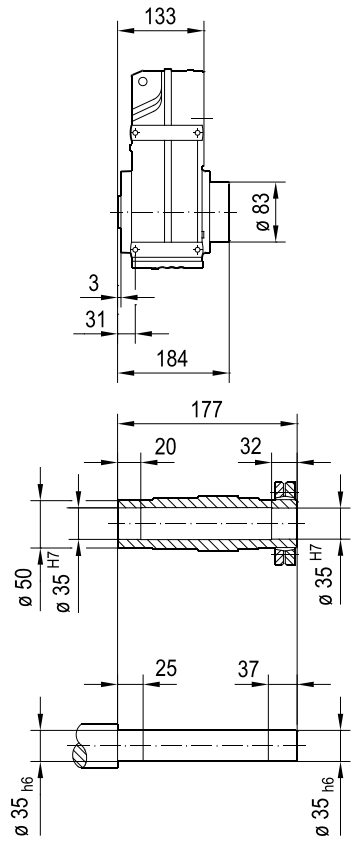

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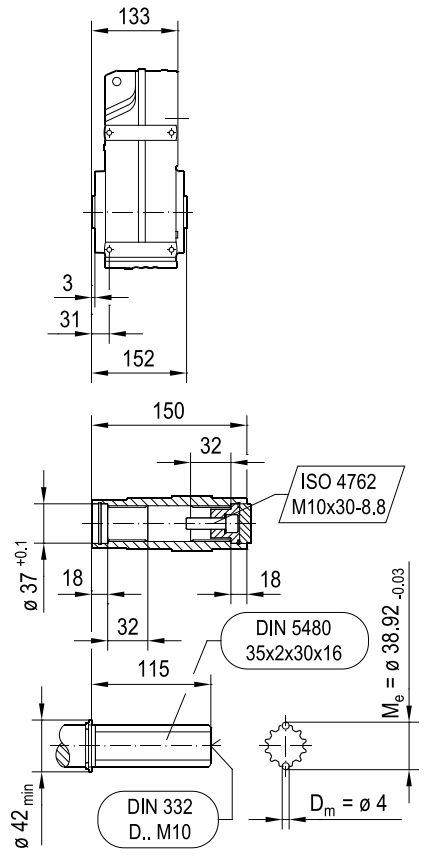
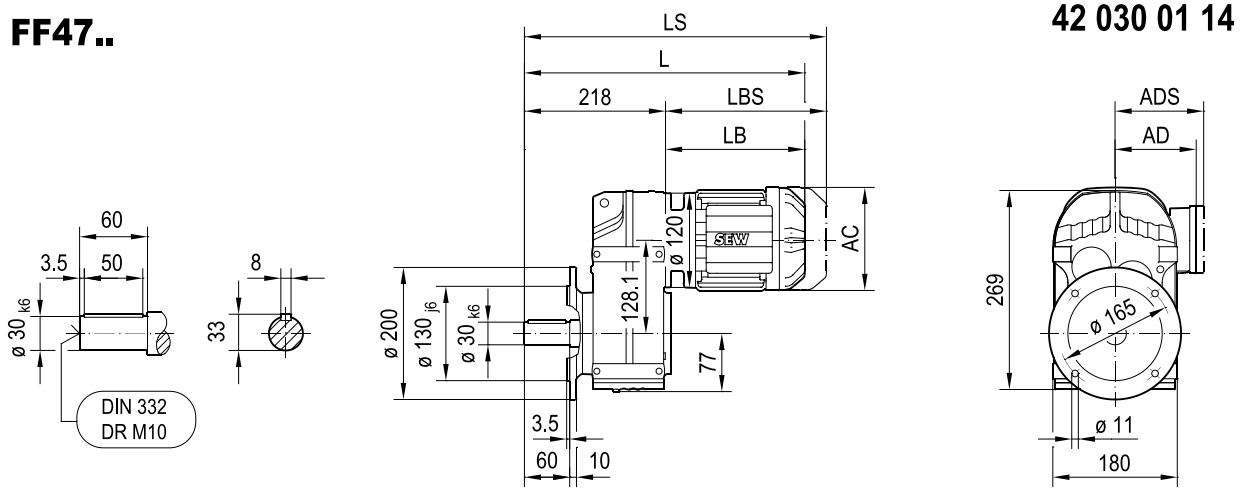


(→ 7.3)	DRN									
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	179	179	197	197
AD	98	98	118	118	128	128	140	140	157	157
ADS	98	98	129	129	139	139	150	150	158	158
L	383	397	399	419	430	475	476	508	507	557
LS	439	453	466	486	511	556	570	602	601	651
LB	190	204	206	226	237	282	283	315	314	364
LBS	246	260	273	293	318	363	377	409	408	458

24832936/EN – 09/2018

FF47..

42 030 01 14



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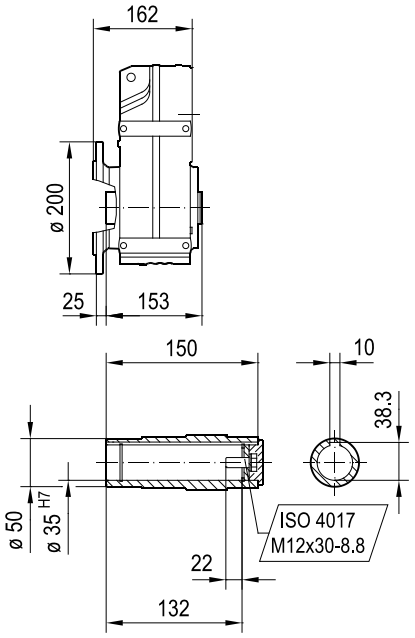
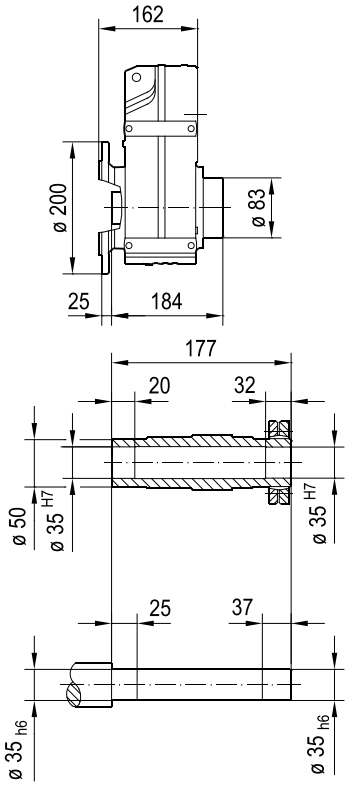


FHF47..



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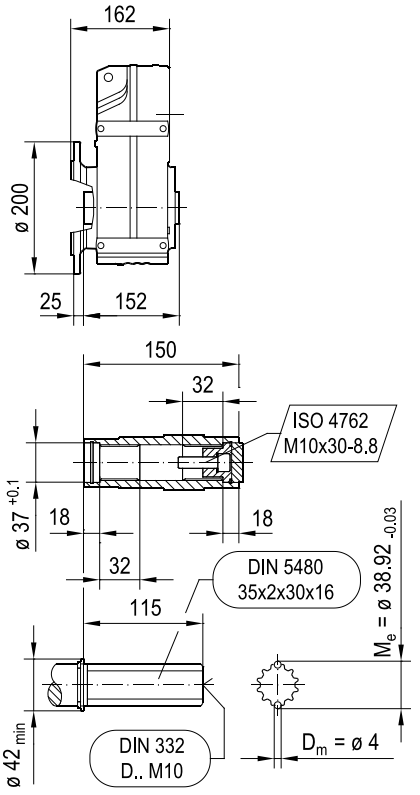
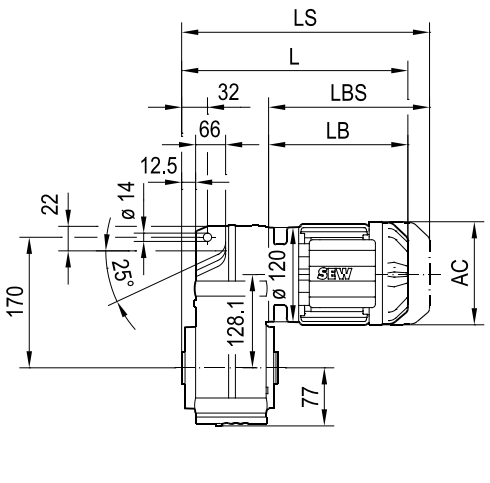


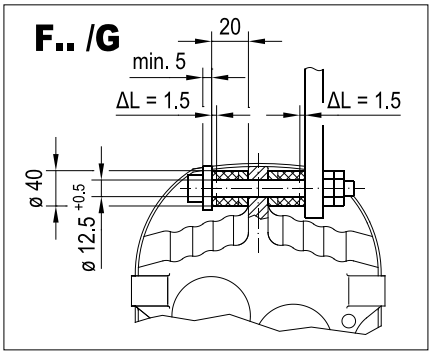
(→ 📖 7.3)	DRN									
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	179	179	197	197
AD	98	98	118	118	128	128	140	140	157	157
ADS	98	98	129	129	139	139	150	150	158	158
L	408	422	424	444	455	500	501	533	532	582
LS	464	478	491	511	536	581	595	627	626	676
LB	190	204	206	226	237	282	283	315	314	364
LBS	246	260	273	293	318	363	377	409	408	458

24832936/EN – 09/2018

FA47..



42 031 00 14



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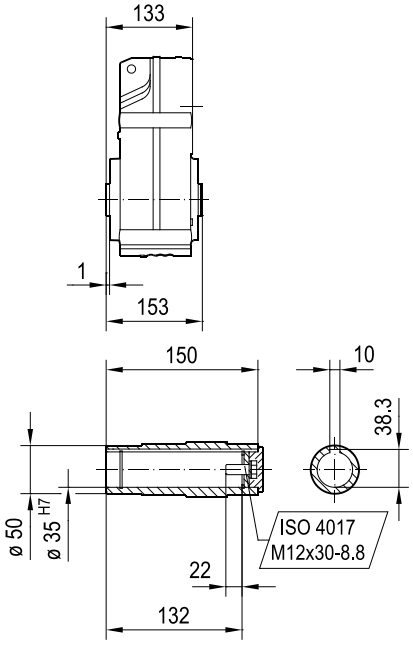

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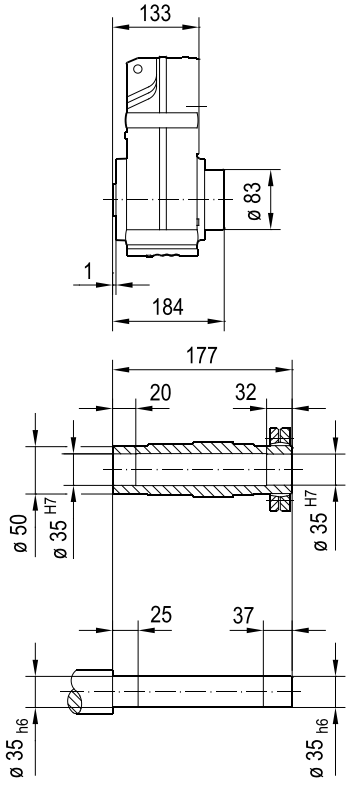

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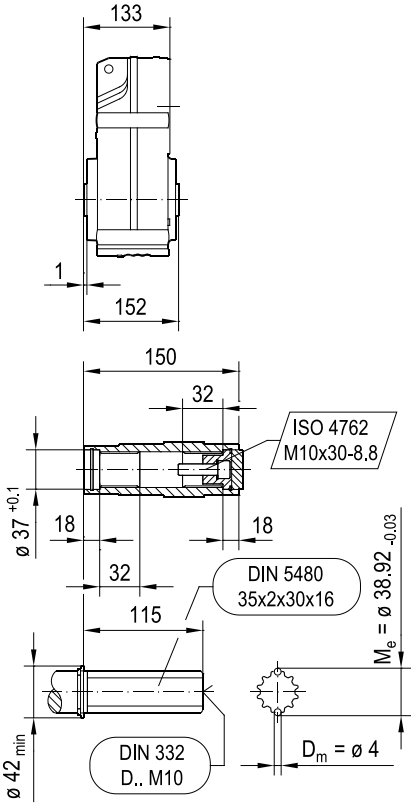
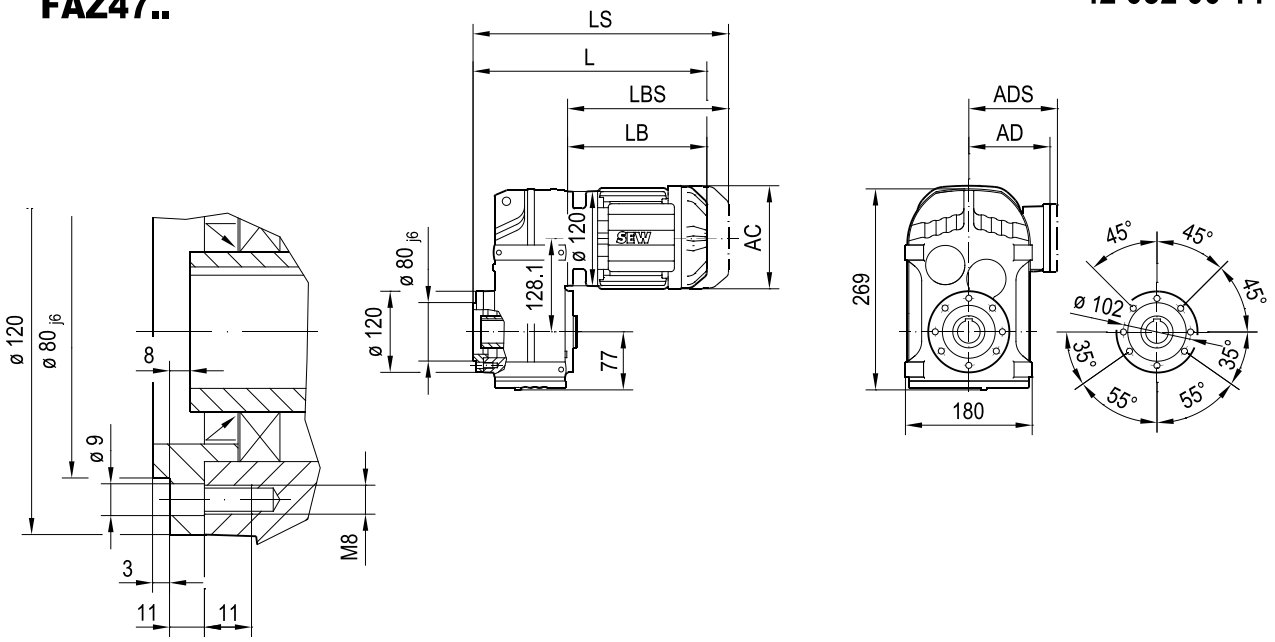


(→ 📖 7.3)	DRN									
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	179	179	197	197
AD	98	98	118	118	128	128	140	140	157	157
ADS	98	98	129	129	139	139	150	150	158	158
L	323	337	339	359	370	415	416	448	447	497
LS	379	393	406	426	451	496	510	542	541	591
LB	190	204	206	226	237	282	283	315	314	364
LBS	246	260	273	293	318	363	377	409	408	458

24832936/EN – 09/2018

FAZ47..

42 032 00 14



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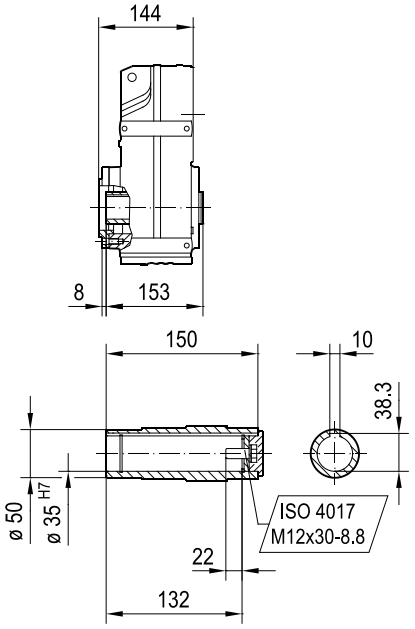

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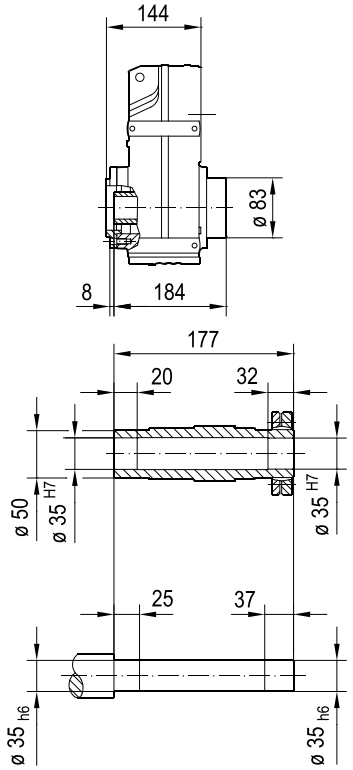

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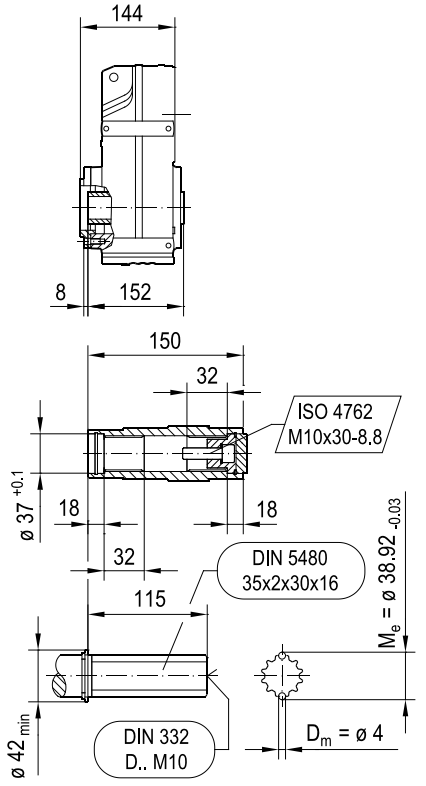
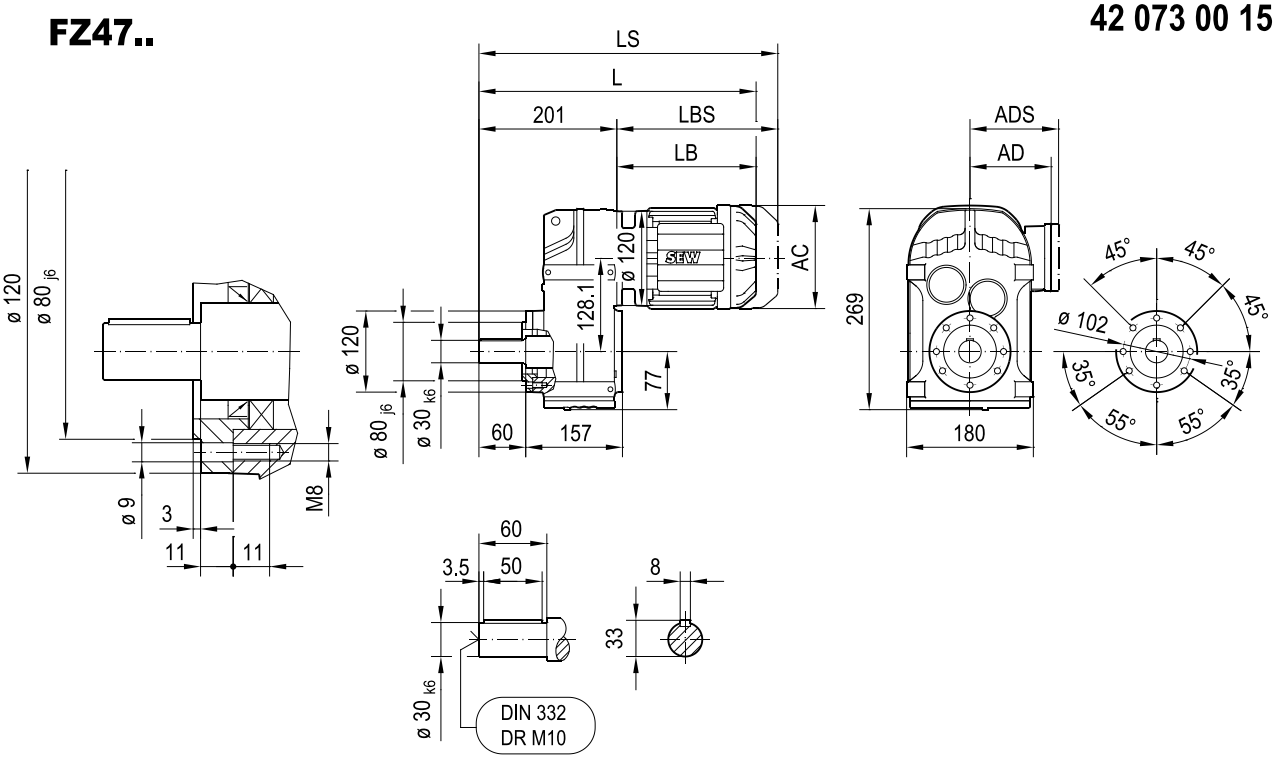


(→ 📖 7.3)	DRN									
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	179	179	197	197
AD	98	98	118	118	128	128	140	140	157	157
ADS	98	98	129	129	139	139	150	150	158	158
L	334	348	350	370	381	426	427	459	458	508
LS	390	404	417	437	462	507	521	553	552	602
LB	190	204	206	226	237	282	283	315	314	364
LBS	246	260	273	293	318	363	377	409	408	458

24832936/EN – 09/2018

FZ47..

42 073 00 15

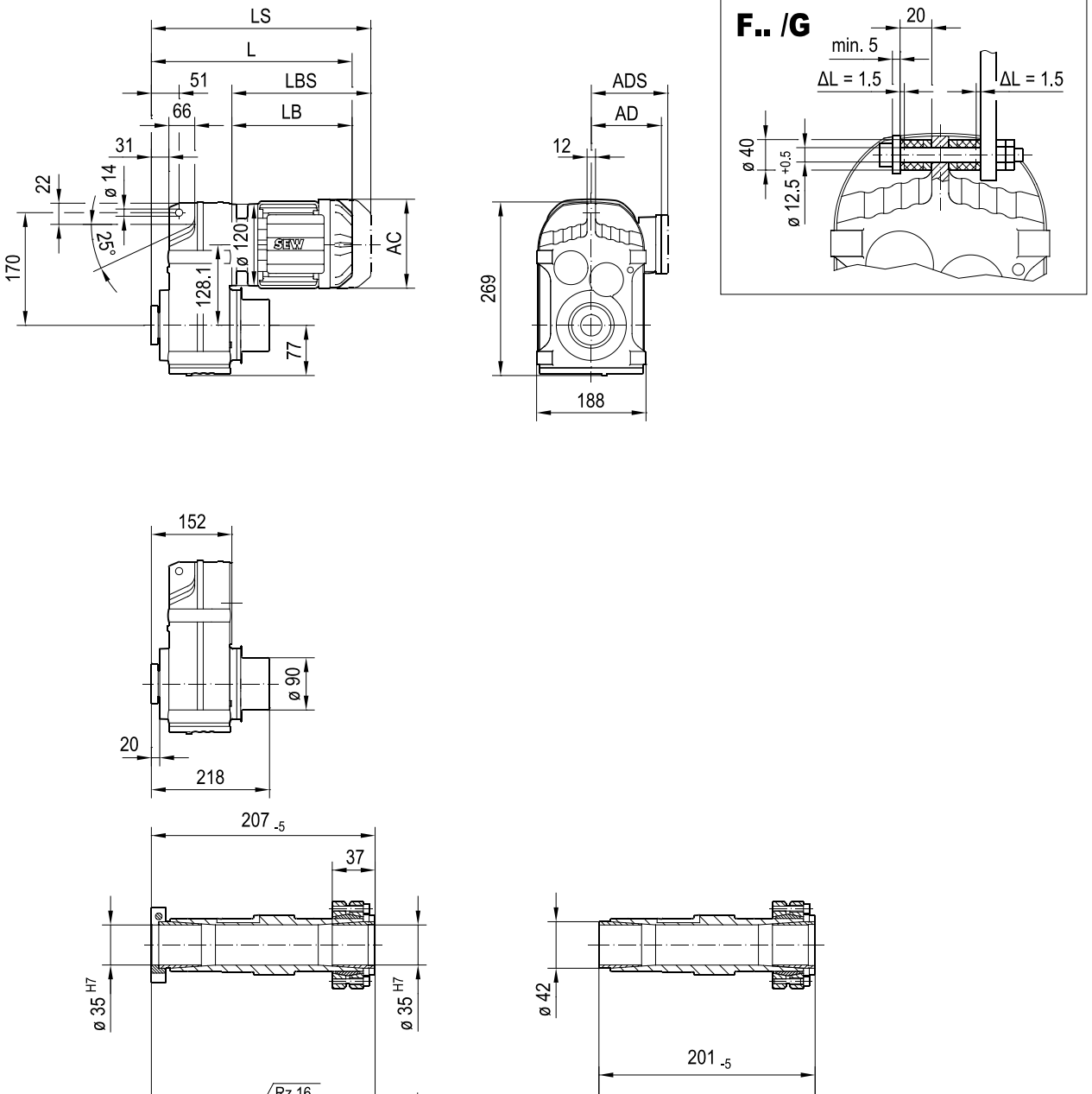


(→ 📖 7.3)	DRN									
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	179	179	197	197
AD	98	98	118	118	128	128	140	140	157	157
ADS	98	98	129	129	139	139	150	150	158	158
L	391	405	407	427	438	483	484	516	515	565
LS	447	461	474	494	519	564	578	610	609	659
LB	190	204	206	226	237	282	283	315	314	364
LBS	246	260	273	293	318	363	377	409	408	458

24832936/EN – 09/2018

FT47..

42 033 01 14

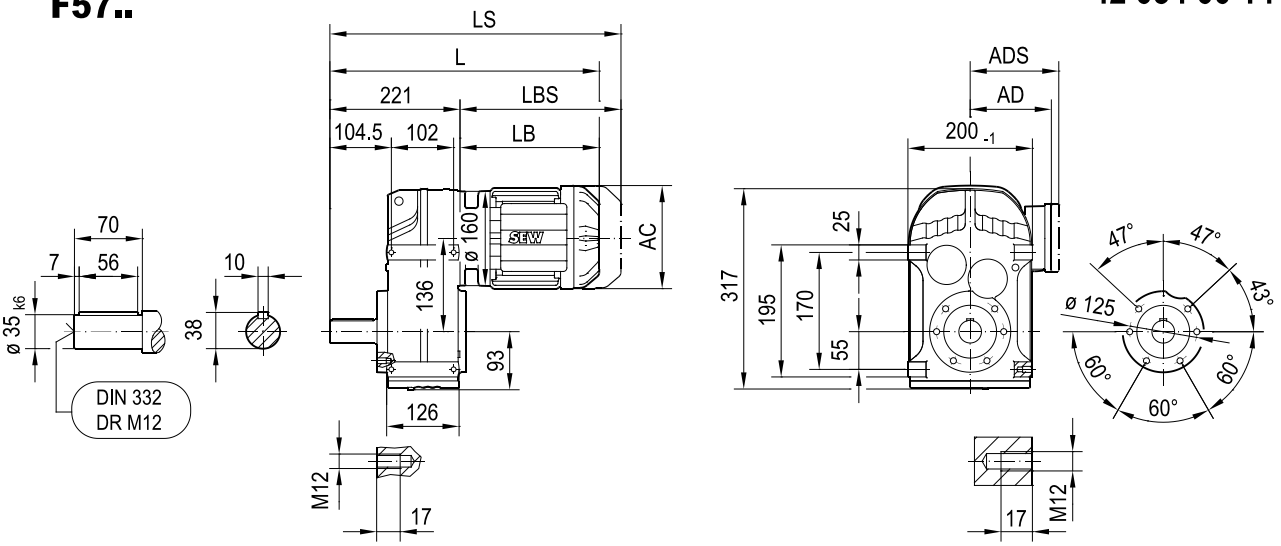


(→ 📖 7.3)	DRN							
	63MS	63M	71MS	71M				
AC	115	115	139	139				
AD	98	98	118	118				
ADS	98	98	129	129				
L	342	356	358	378				
LS	398	412	425	445				
LB	190	204	206	226				
LBS	246	260	273	293				

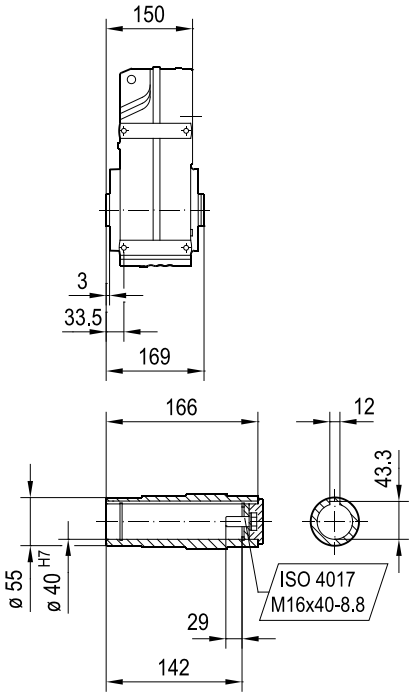
24832936/EN – 09/2018

F57..

42 034 00 14

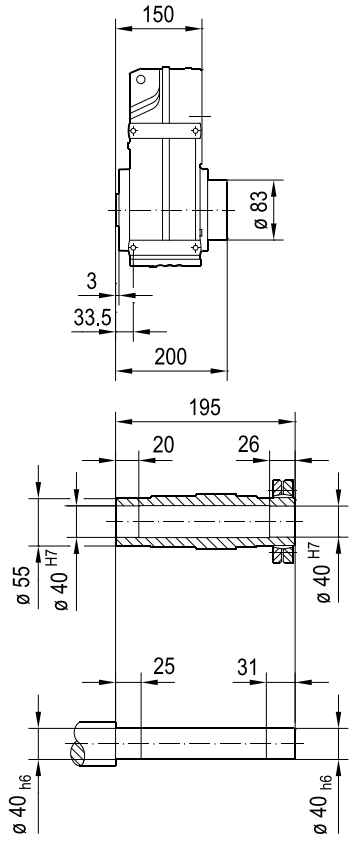


FA57B..

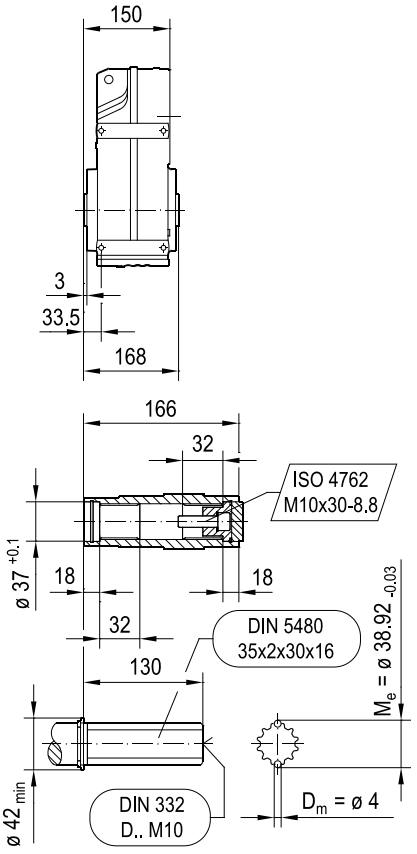


FH57B..

max. DRN100L



FV57B..

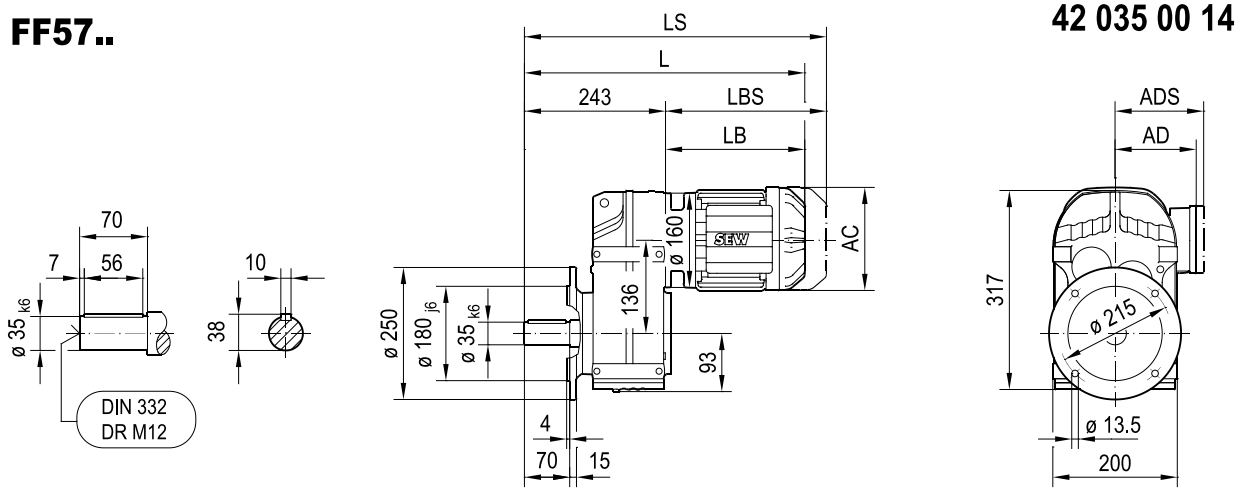


(→ 📖 7.3)	DRN											
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S
AC	115	115	139	139	156	156	179	179	197	197	221	221
AD	98	98	118	118	128	128	140	140	157	157	170	170
ADS	98	98	129	129	139	139	150	150	158	158	172	172
L	405	419	420	440	451	496	498	530	526	576	607	661
LS	461	475	488	508	532	577	591	623	620	670	719	773
LB	184	198	199	219	230	275	277	309	305	355	386	440
LBS	240	254	267	287	311	356	370	402	399	449	498	552

24832936/EN – 09/2018

FF57..

42 035 00 14



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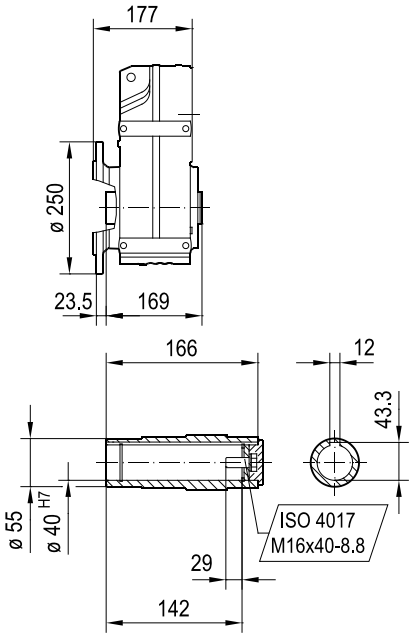

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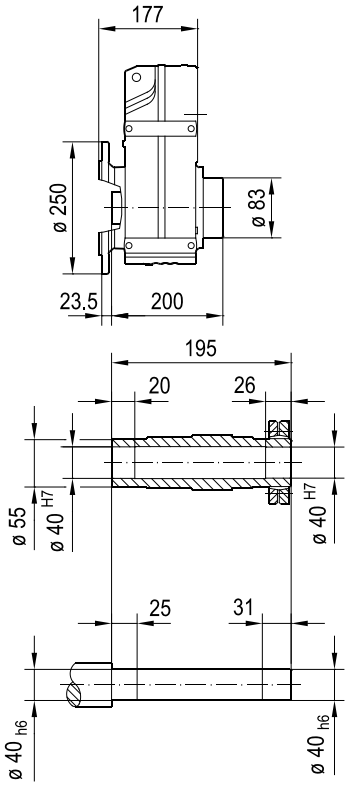
max. DRN100L



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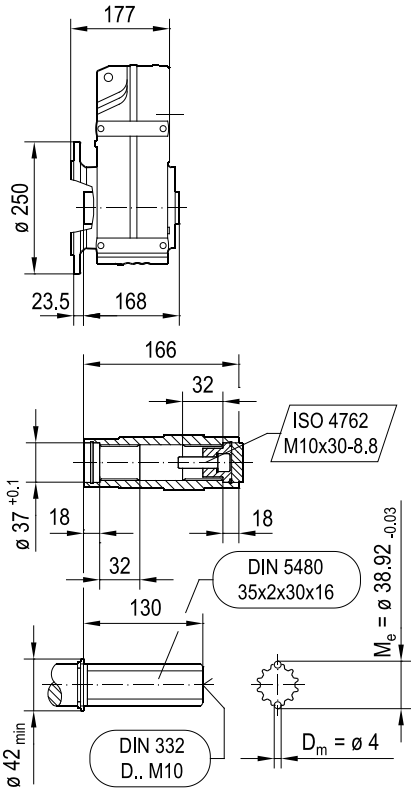
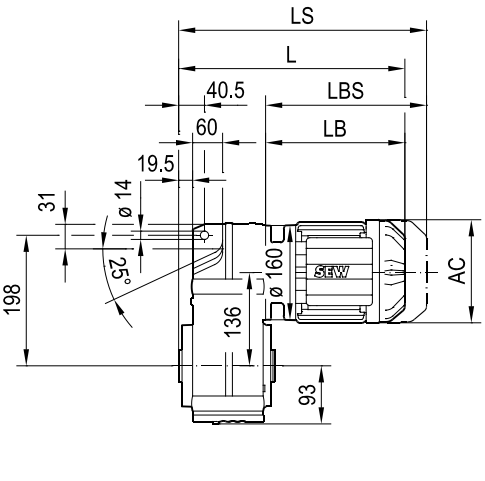


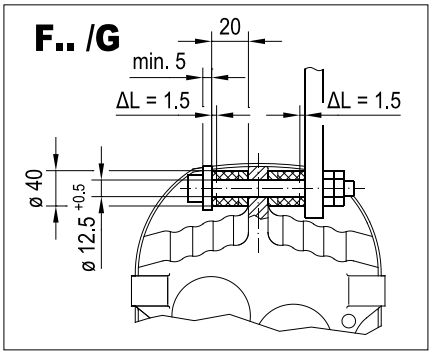
(→ 📖 7.3)	DRN											
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S
AC	115	115	139	139	156	156	179	179	197	197	221	221
AD	98	98	118	118	128	128	140	140	157	157	170	170
ADS	98	98	129	129	139	139	150	150	158	158	172	172
L	427	441	442	462	473	518	520	552	548	598	629	683
LS	483	497	510	530	554	599	613	645	642	692	741	795
LB	184	198	199	219	230	275	277	309	305	355	386	440
LBS	240	254	267	287	311	356	370	402	399	449	498	552

24832936/EN – 09/2018

FA57..



42 036 00 14



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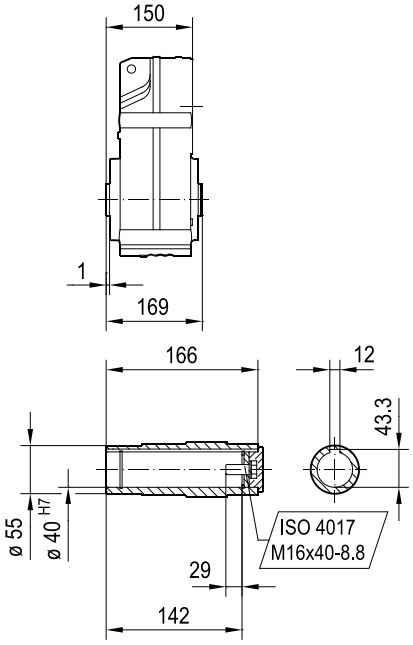
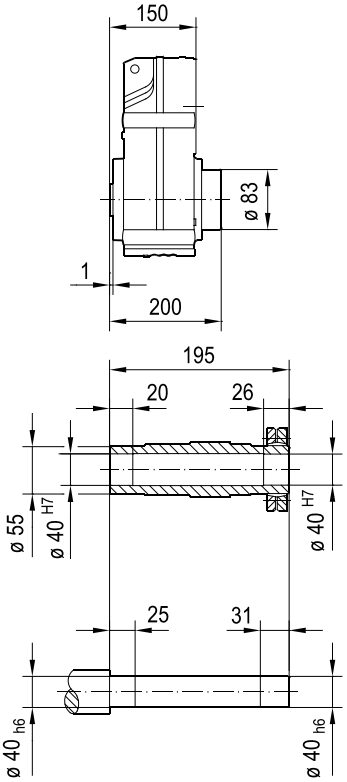


FH57..
max. DRN100L



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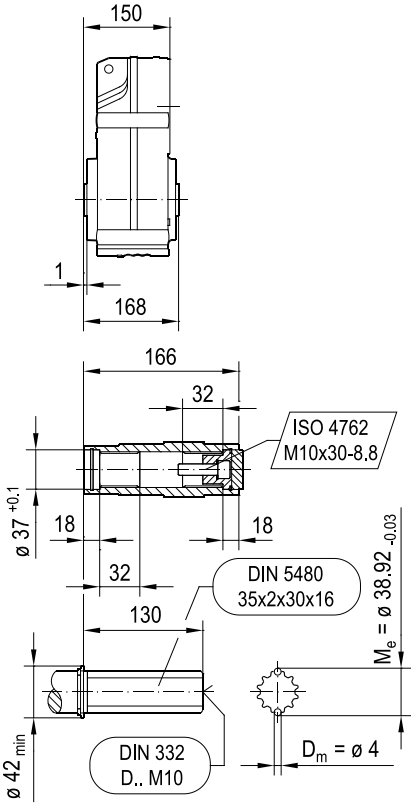
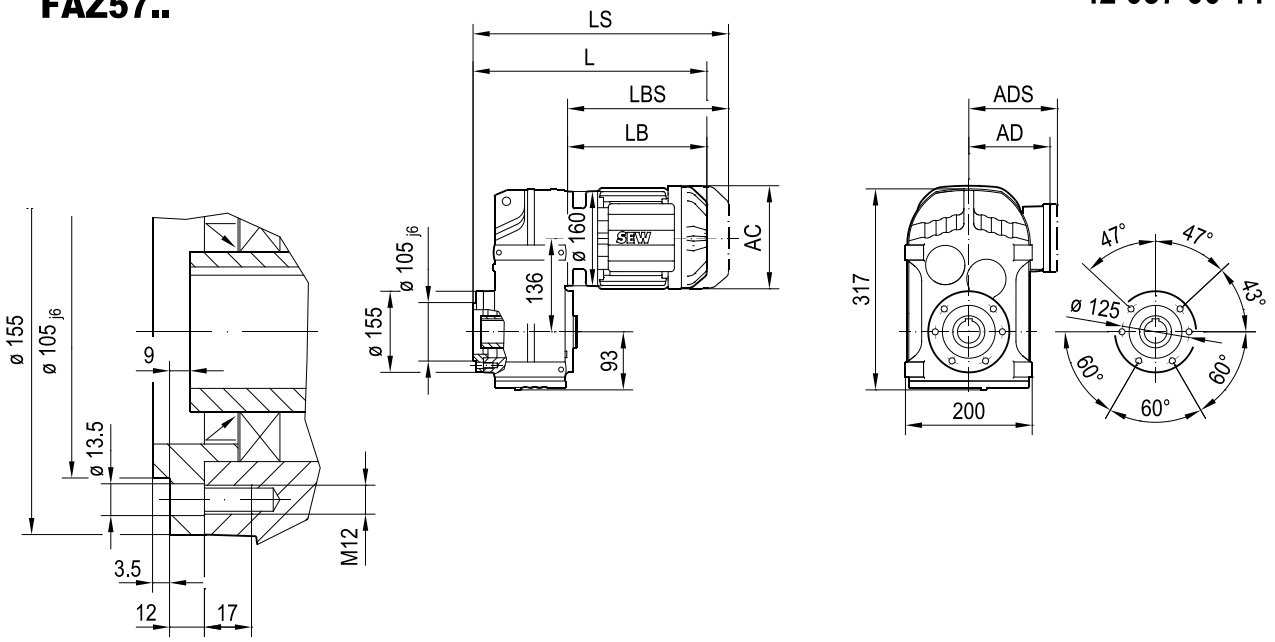


(→ 📖 7.3)	DRN											
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S
AC	115	115	139	139	156	156	179	179	197	197	221	221
AD	98	98	118	118	128	128	140	140	157	157	170	170
ADS	98	98	129	129	139	139	150	150	158	158	172	172
L	334	348	349	369	380	425	427	459	455	505	536	590
LS	390	404	417	437	461	506	520	552	549	599	648	702
LB	184	198	199	219	230	275	277	309	305	355	386	440
LBS	240	254	267	287	311	356	370	402	399	449	498	552

24832936/EN – 09/2018

FAZ57..

42 037 00 14



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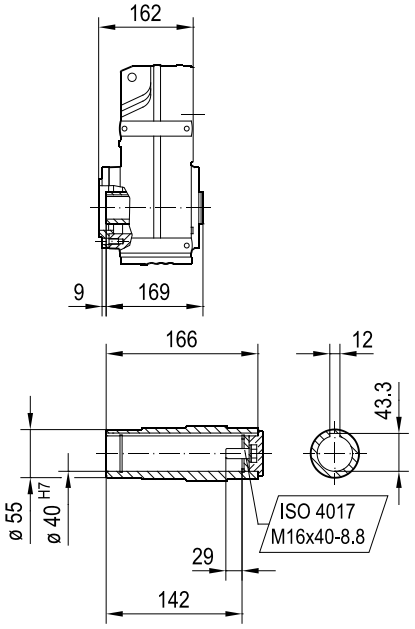

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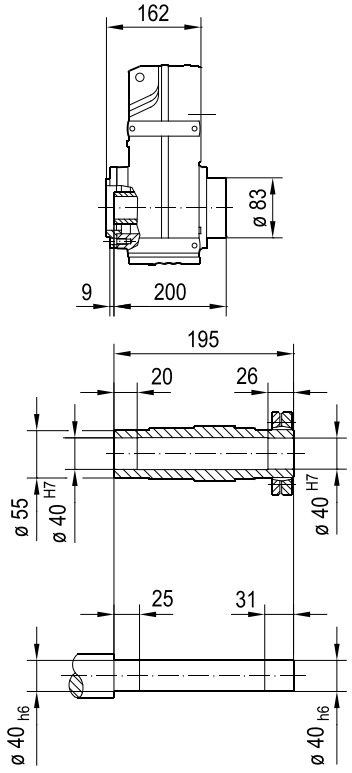
max. DRN100L



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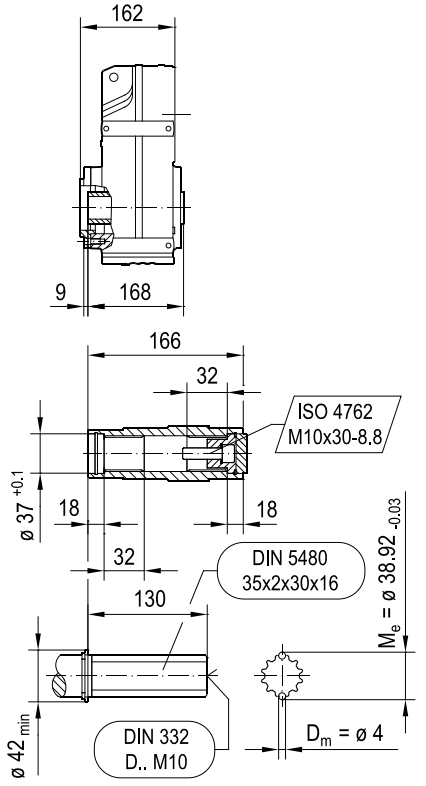
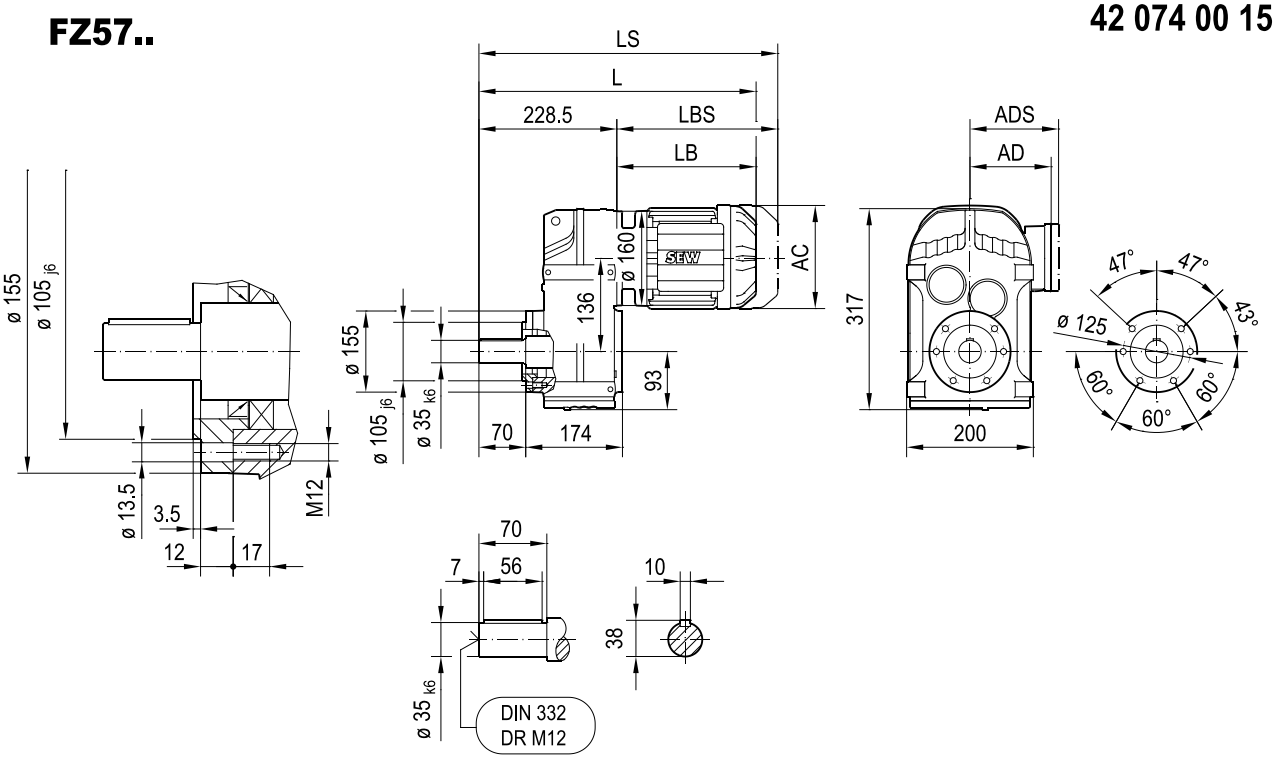


(→ 📖 7.3)	DRN											
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S
AC	115	115	139	139	156	156	179	179	197	197	221	221
AD	98	98	118	118	128	128	140	140	157	157	170	170
ADS	98	98	129	129	139	139	150	150	158	158	172	172
L	346	360	361	381	392	437	439	471	467	517	548	602
LS	402	416	429	449	473	518	532	564	561	611	660	714
LB	184	198	199	219	230	275	277	309	305	355	386	440
LBS	240	254	267	287	311	356	370	402	399	449	498	552

24832936/EN – 09/2018

FZ57..

42 074 00 15

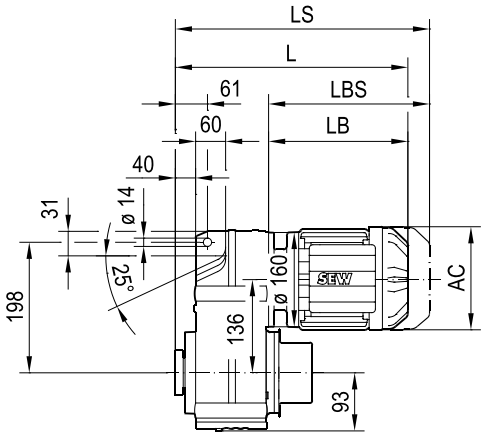


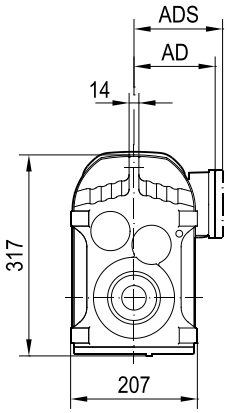
(→ 📖 7.3)	DRN											
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S
AC	115	115	139	139	156	156	179	179	197	197	221	221
AD	98	98	118	118	128	128	140	140	157	157	170	170
ADS	98	98	129	129	139	139	150	150	158	158	172	172
L	412	426	428	448	459	504	505	537	534	584	615	669
LS	468	482	495	515	540	585	599	631	627	677	727	781
LB	184	198	199	219	230	275	277	309	305	355	386	440
LBS	240	254	267	287	311	356	370	402	399	449	498	552

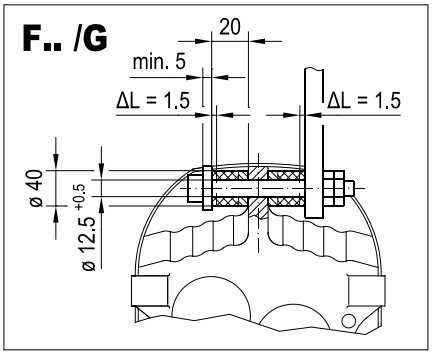
24832936/EN – 09/2018

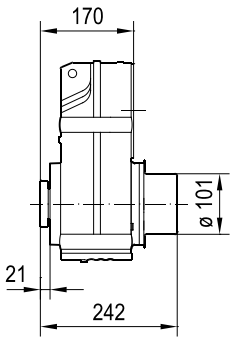
FT57..

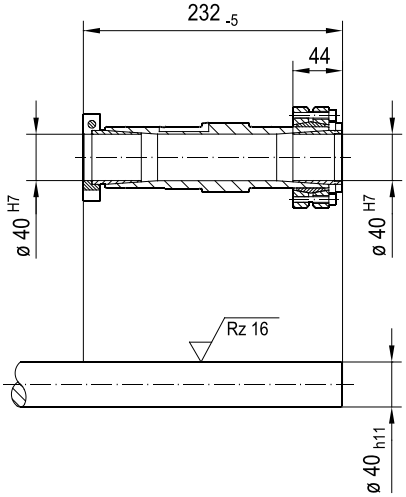
42 038 01 14

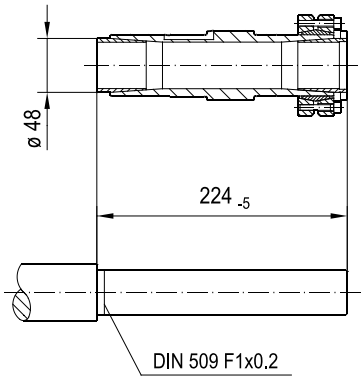










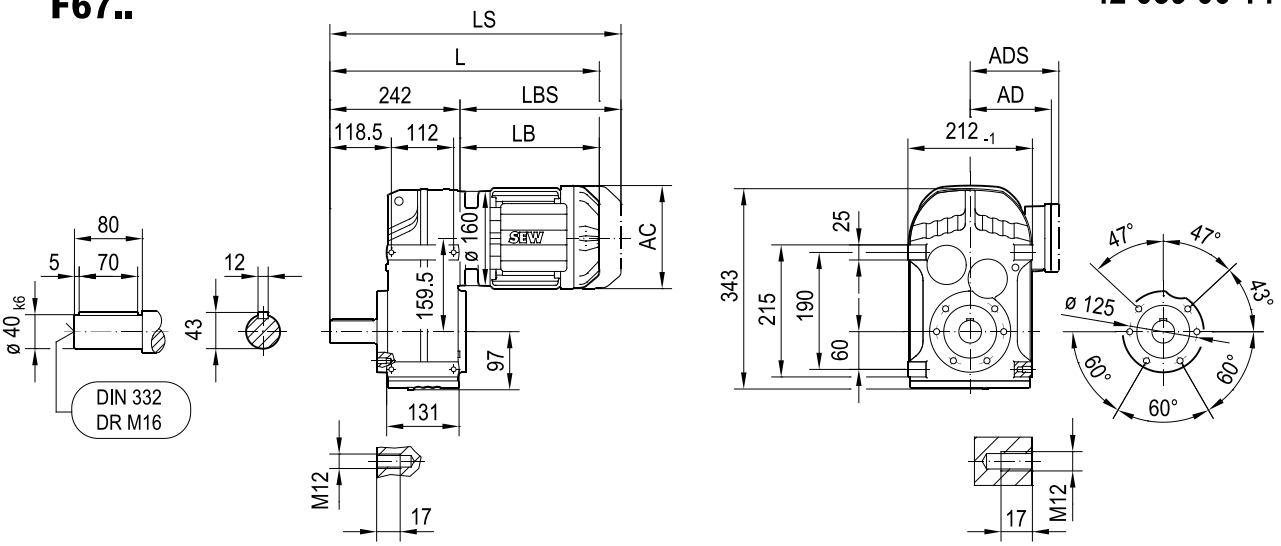


(→ 📖 7.3)	DRN							
	63MS	63M	71MS	71M	80MK	80M	90S	
AC	115	115	139	139	156	156	179	
AD	98	98	118	118	128	128	140	
ADS	98	98	129	129	139	139	150	
L	354	368	369	389	400	445	447	
LS	410	424	437	457	481	526	540	
LB	184	198	199	219	230	275	277	
LBS	240	254	267	287	311	356	370	

24832936/EN – 09/2018

F67..

42 039 00 14



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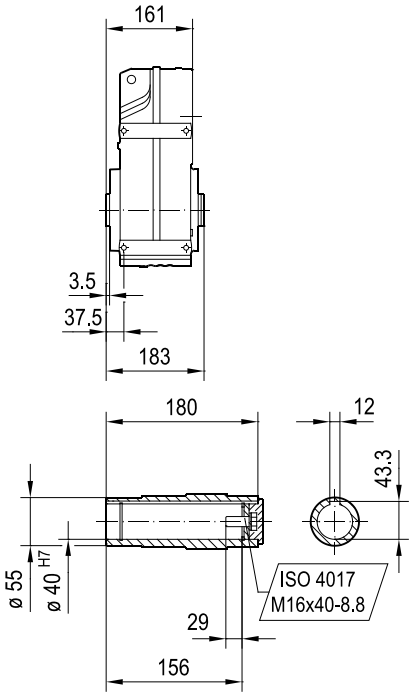

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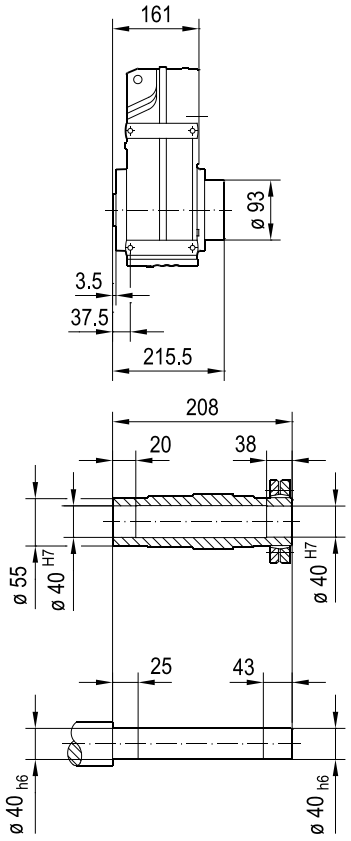
max. DRN132S



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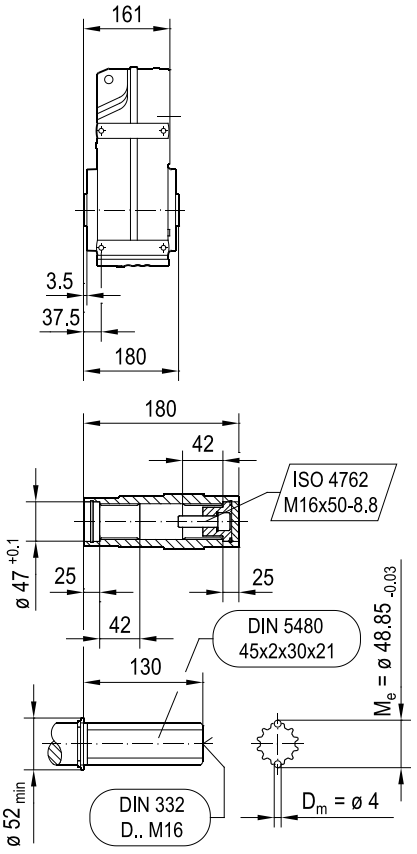
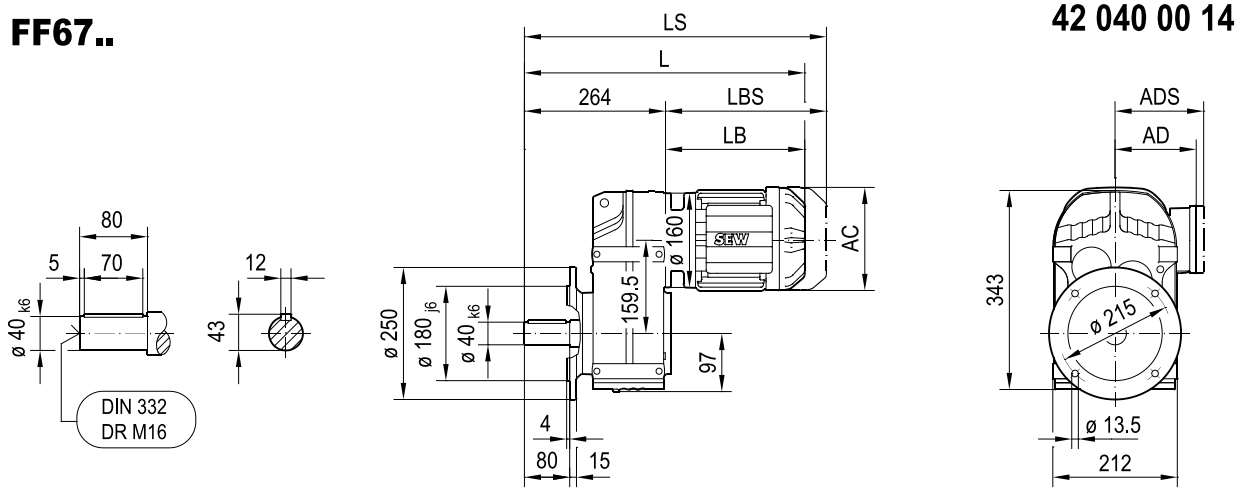


(→ 📖 7.3)	DRN										
	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S
AC	115	139	139	156	156	179	179	197	197	221	221
AD	98	118	118	128	128	140	140	157	157	170	170
ADS	98	129	129	139	139	150	150	158	158	172	172
L	440	441	461	472	517	519	551	547	597	628	682
LS	496	509	529	553	598	612	644	641	691	740	794
LB	198	199	219	230	275	277	309	305	355	386	440
LBS	254	267	287	311	356	370	402	399	449	498	552

24832936/EN – 09/2018

FF67..

42 040 00 14



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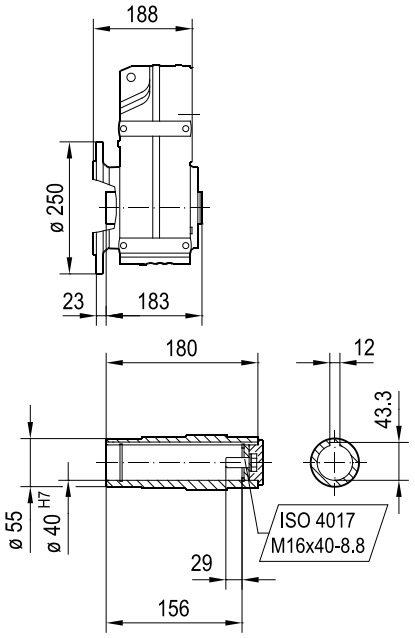

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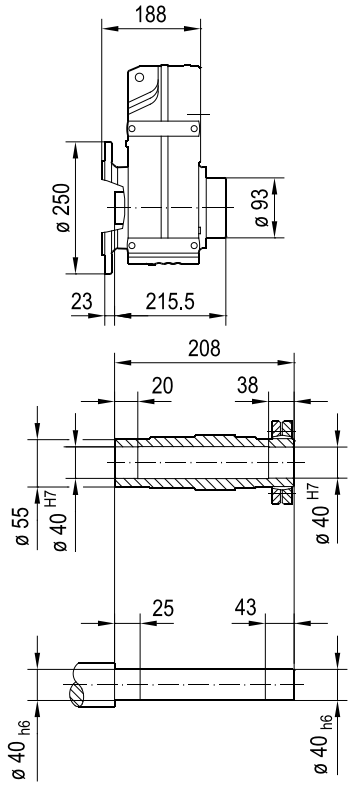

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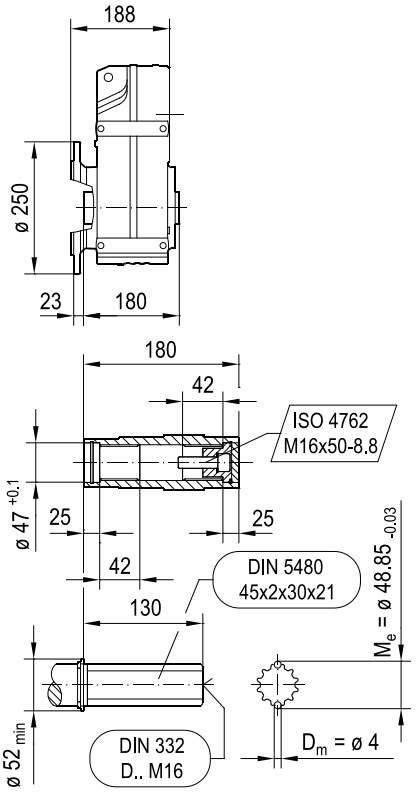
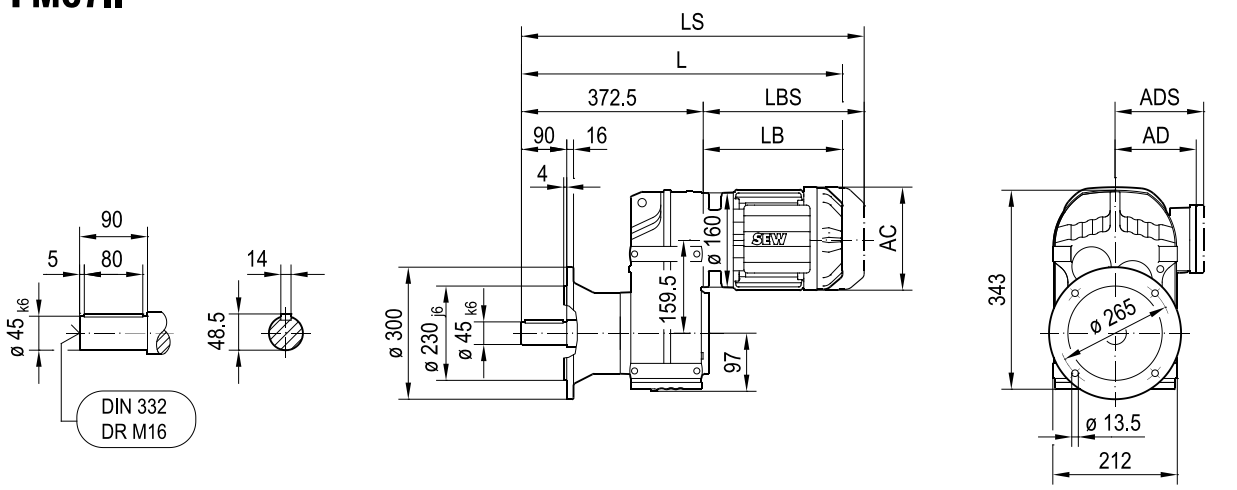


(→ 📖 7.3)	DRN										
	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S
AC	115	139	139	156	156	179	179	197	197	221	221
AD	98	118	118	128	128	140	140	157	157	170	170
ADS	98	129	129	139	139	150	150	158	158	172	172
L	462	463	483	494	539	541	573	569	619	650	704
LS	518	531	551	575	620	634	666	663	713	762	816
LB	198	199	219	230	275	277	309	305	355	386	440
LBS	254	267	287	311	356	370	402	399	449	498	552

24832936/EN – 09/2018

FM67..

42 112 00 17



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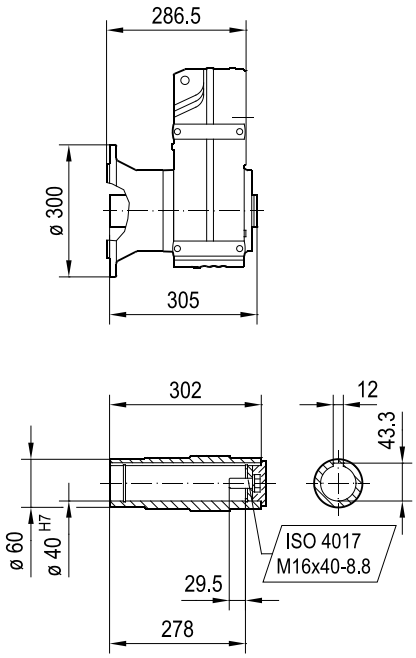
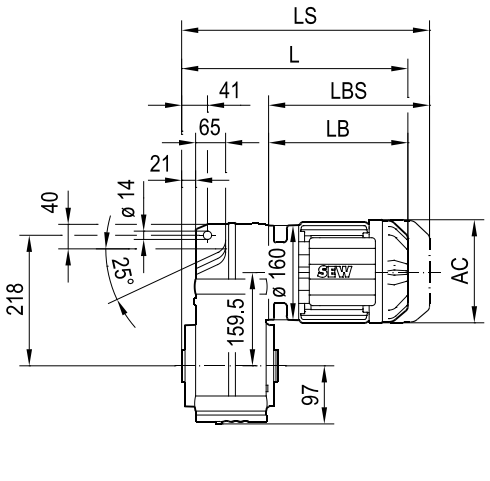


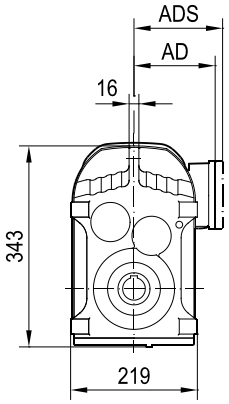
(→ 📖 7.3)	DRN										
	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S
AC	115	139	139	156	156	179	179	197	197	221	221
AD	98	118	118	128	128	140	140	157	157	170	170
ADS	98	129	129	139	139	150	150	158	158	172	172
L	570	572	592	603	648	649	681	678	728	759	813
LS	626	639	659	684	729	743	775	771	821	871	925
LB	198	199	219	230	275	277	309	305	355	386	440
LBS	254	267	287	311	356	370	402	399	449	498	552

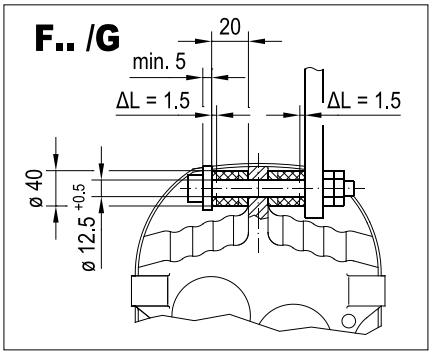
24832936/EN – 09/2018

FA67..

42 041 00 14







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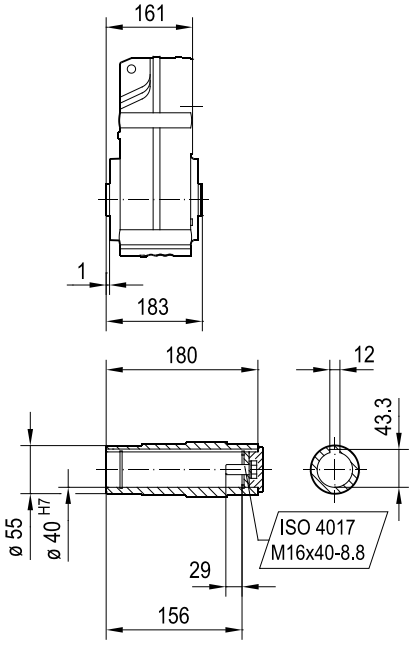

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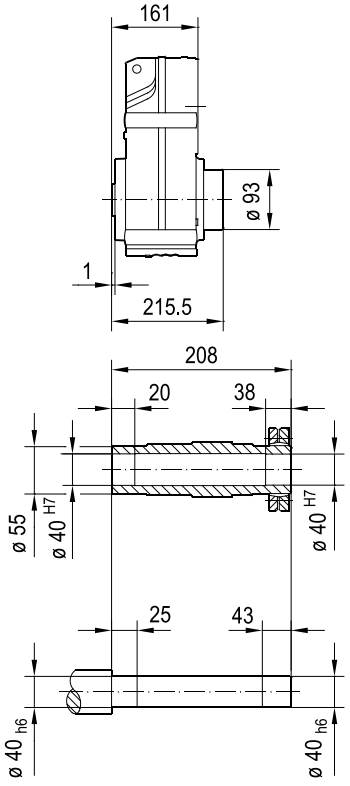
max. DRN132S



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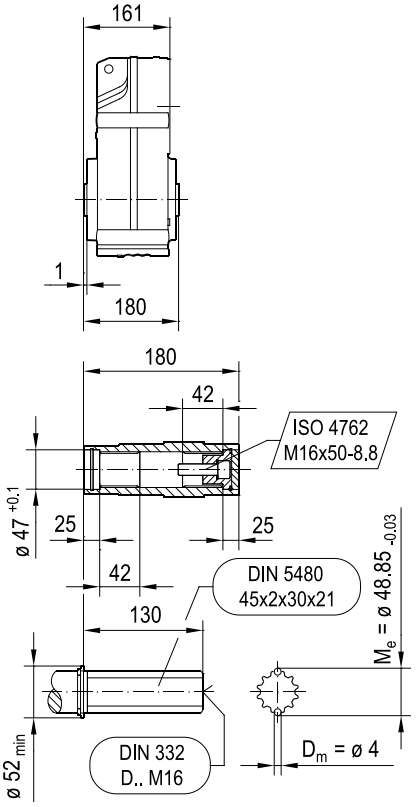
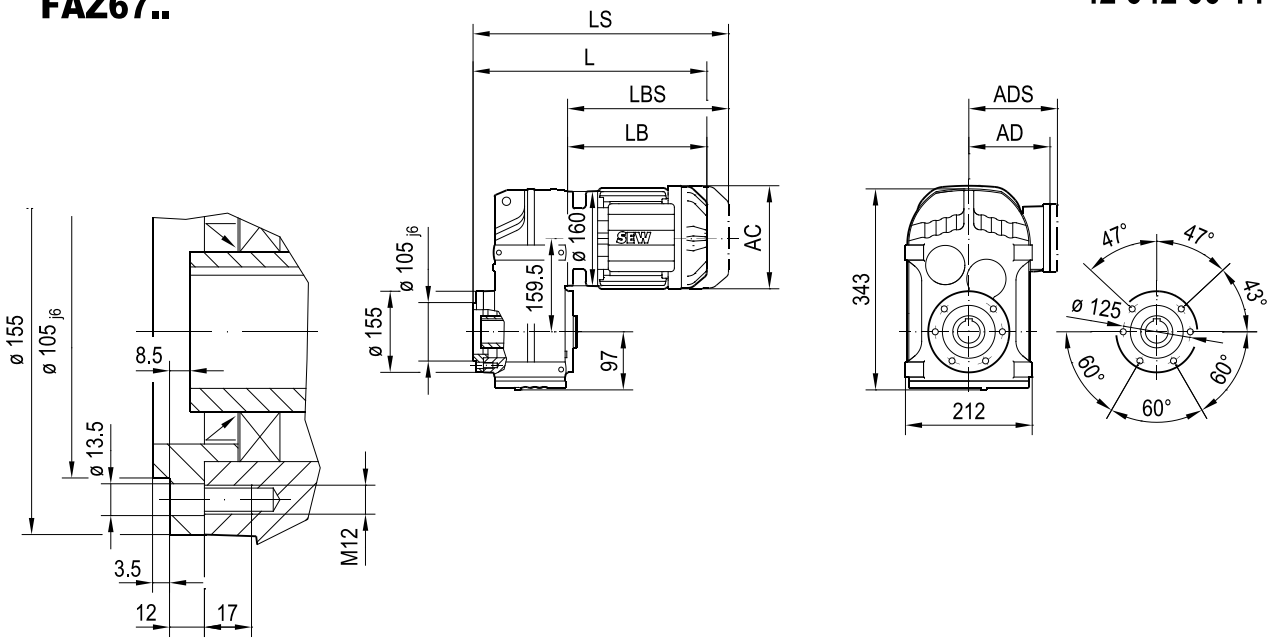


(→ 📖 7.3)	DRN										
	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S
AC	115	139	139	156	156	179	179	197	197	221	221
AD	98	118	118	128	128	140	140	157	157	170	170
ADS	98	129	129	139	139	150	150	158	158	172	172
L	359	360	380	391	436	438	470	466	516	547	601
LS	415	428	448	472	517	531	563	560	610	659	713
LB	198	199	219	230	275	277	309	305	355	386	440
LBS	254	267	287	311	356	370	402	399	449	498	552

24832936/EN – 09/2018

42 042 00 14

FAZ67..



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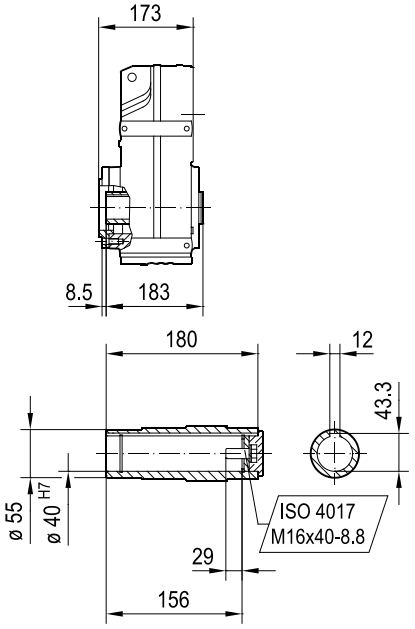

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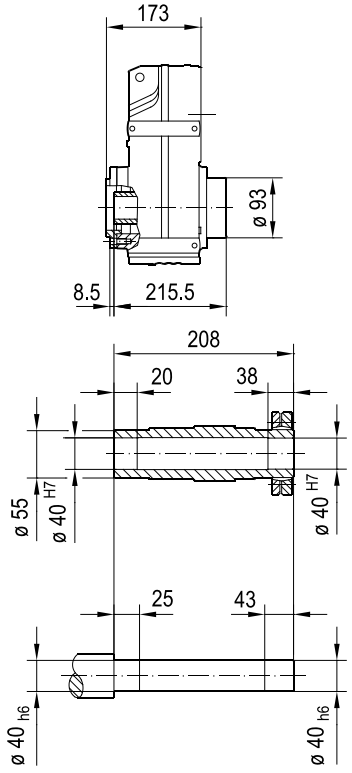

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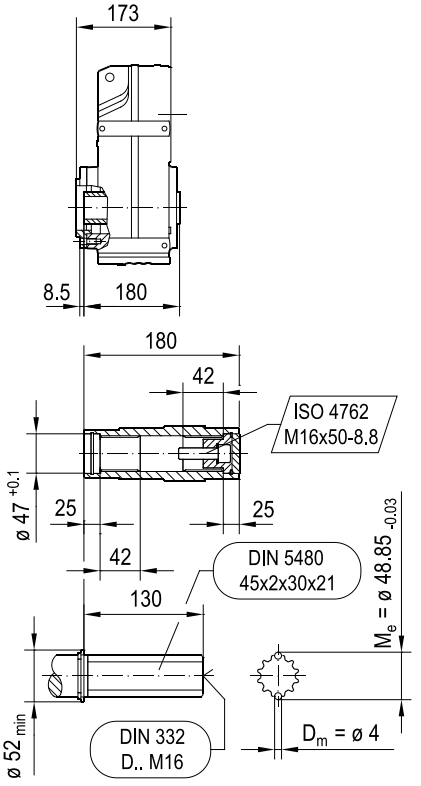
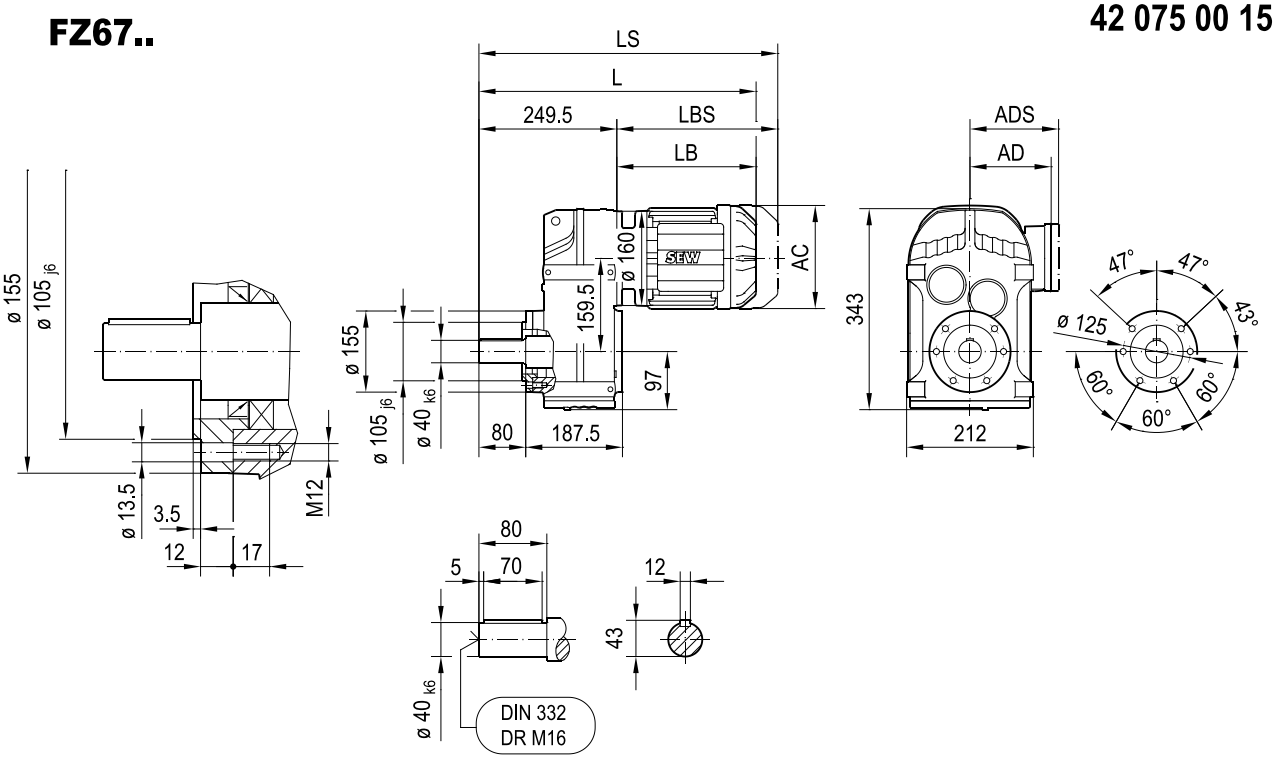


(→ 📖 7.3)	DRN										
	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S
AC	115	139	139	156	156	179	179	197	197	221	221
AD	98	118	118	128	128	140	140	157	157	170	170
ADS	98	129	129	139	139	150	150	158	158	172	172
L	371	372	392	403	448	450	482	478	528	559	613
LS	427	440	460	484	529	543	575	572	622	671	725
LB	198	199	219	230	275	277	309	305	355	386	440
LBS	254	267	287	311	356	370	402	399	449	498	552

FZ67..

42 075 00 15

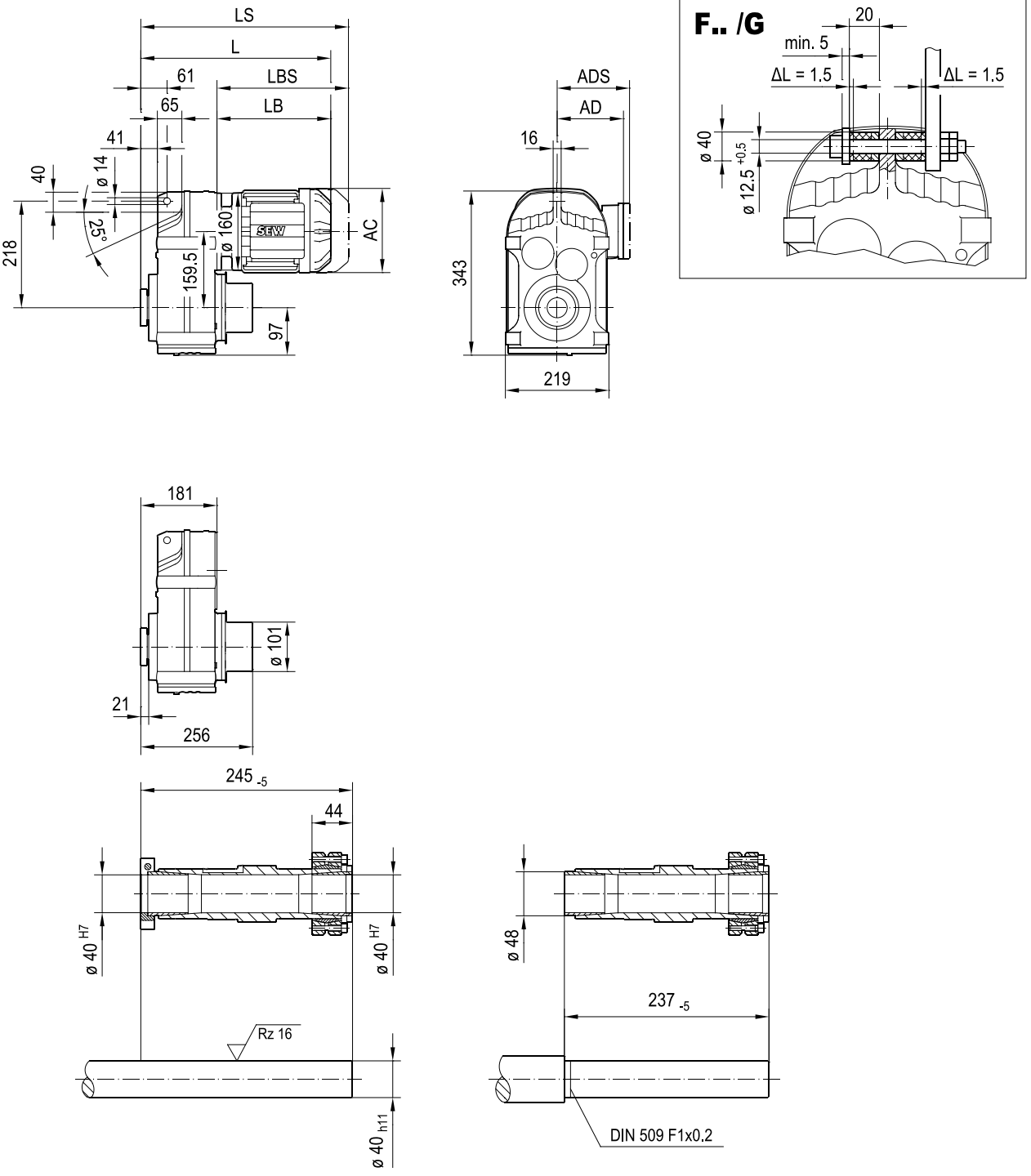


(→ 📖 7.3)	DRN										
	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S
AC	115	139	139	156	156	179	179	197	197	221	221
AD	98	118	118	128	128	140	140	157	157	170	170
ADS	98	129	129	139	139	150	150	158	158	172	172
L	447	449	469	480	525	526	558	555	605	636	690
LS	503	516	536	561	606	620	652	648	698	748	802
LB	198	199	219	230	275	277	309	305	355	386	440
LBS	254	267	287	311	356	370	402	399	449	498	552

24832936/EN – 09/2018

FT67..

42 043 01 14

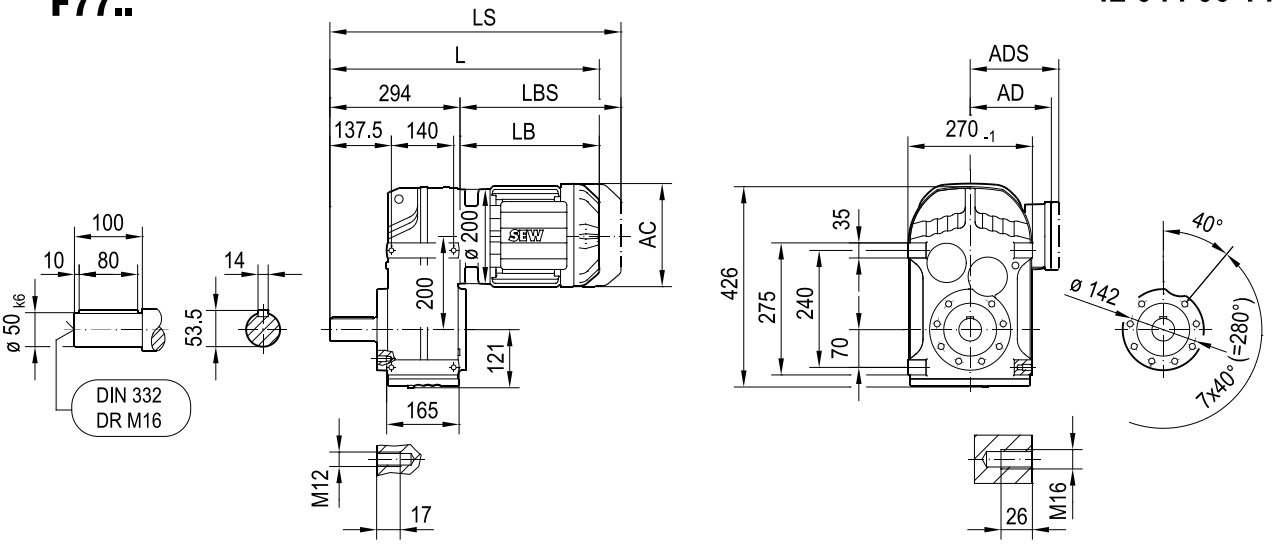


(→ 📖 7.3)	DRN								
	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM
AC	115	139	139	156	156	179	179	197	197
AD	98	118	118	128	128	140	140	157	157
ADS	98	129	129	139	139	150	150	158	158
L	379	380	400	411	456	458	490	486	536
LS	435	448	468	492	537	551	583	580	630
LB	198	199	219	230	275	277	309	305	355
LBS	254	267	287	311	356	370	402	399	449

24832936/EN – 09/2018

F77..

42 044 00 14



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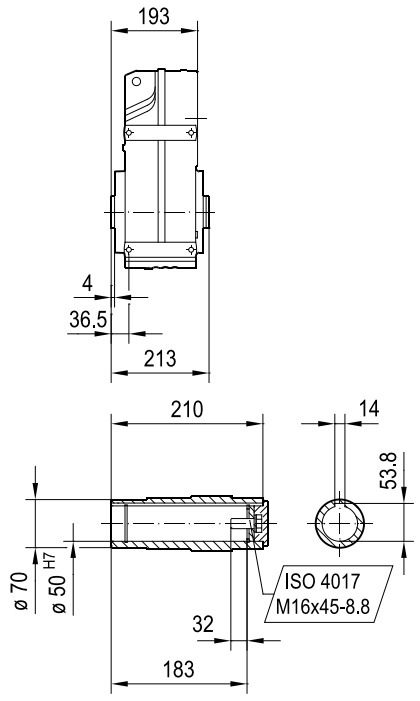
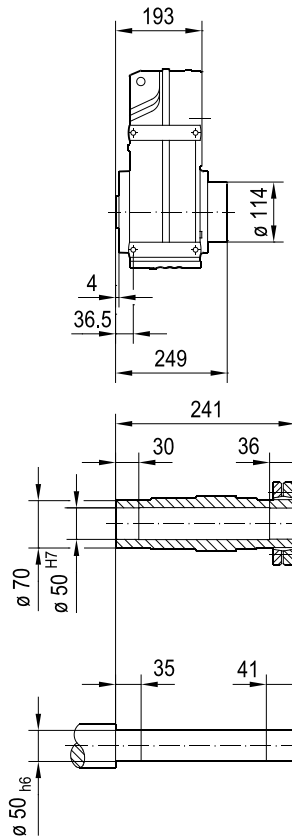


FH77B..

max. DRN132L



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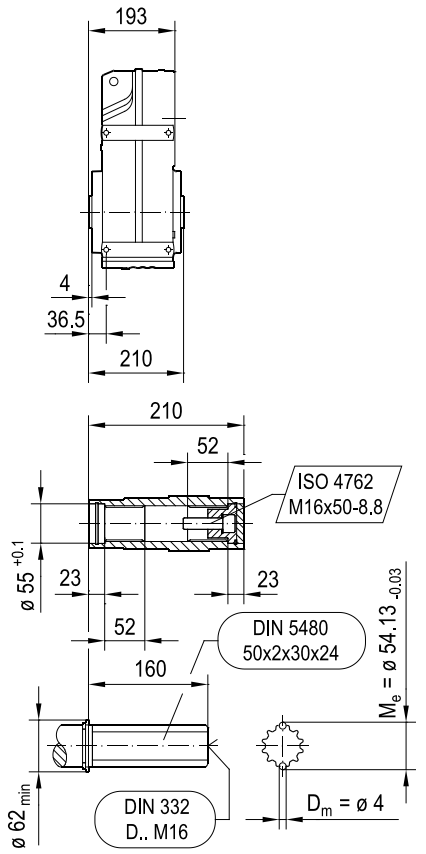
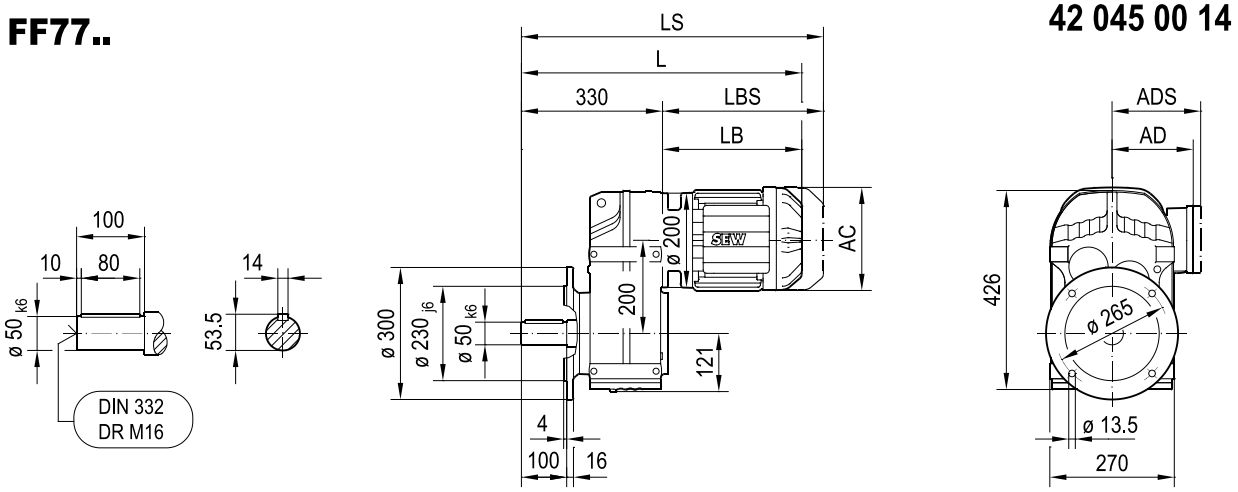


(→ 📖 7.3)	DRN												
	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..
AC	139	139	156	156	179	179	197	197	221	221	261	261	314
AD	118	118	128	128	140	140	157	157	170	170	228	228	253
ADS	129	129	139	139	150	150	158	158	172	172	228	228	253
L	486	506	517	562	564	596	592	642	673	723	741	767	833
LS	554	574	598	643	657	689	686	736	785	835	879	904	1022
LB	192	212	223	268	270	302	298	348	379	429	447	473	539
LBS	260	280	304	349	363	395	392	442	491	541	585	610	728

24832936/EN – 09/2018

FF77..

42 045 00 14



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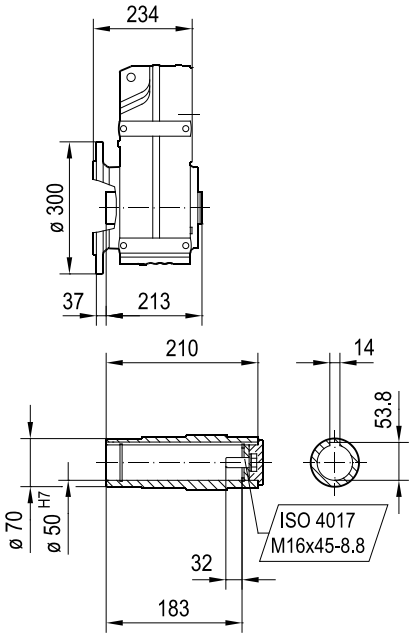

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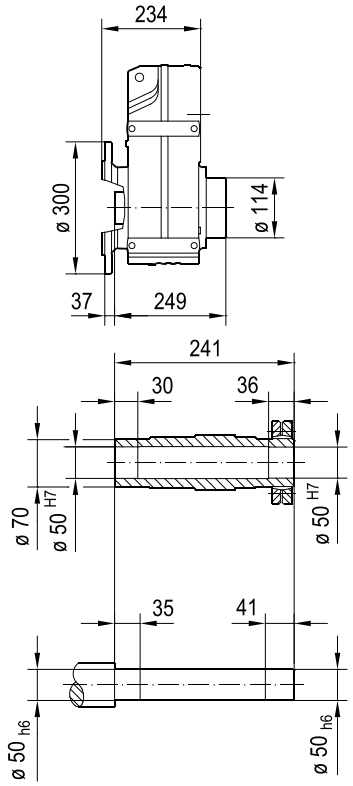
max. DRN132L



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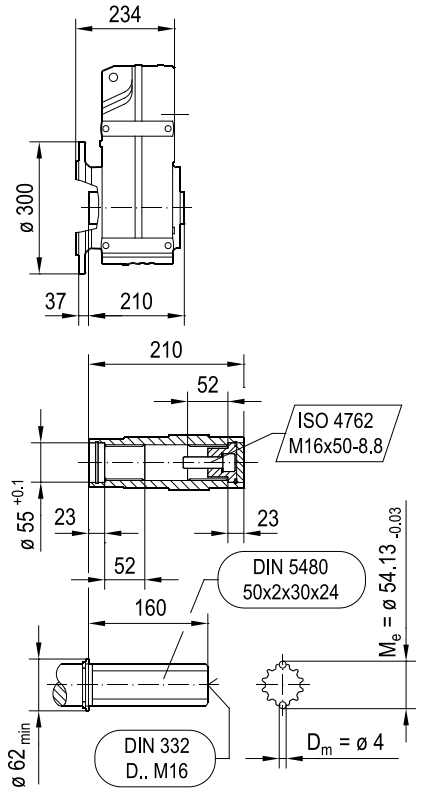
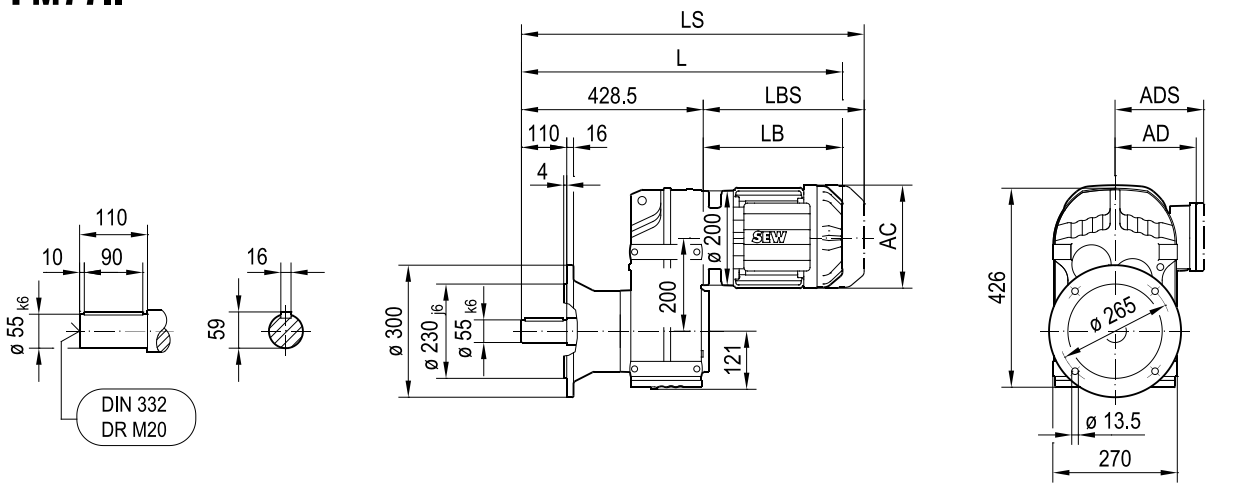


(→ 📖 7.3)	DRN												
	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..
AC	139	139	156	156	179	179	197	197	221	221	261	261	314
AD	118	118	128	128	140	140	157	157	170	170	228	228	253
ADS	129	129	139	139	150	150	158	158	172	172	228	228	253
L	522	542	553	598	600	632	628	678	709	759	777	803	869
LS	590	610	634	679	693	725	722	772	821	871	915	940	1058
LB	192	212	223	268	270	302	298	348	379	429	447	473	539
LBS	260	280	304	349	363	395	392	442	491	541	585	610	728

FM77..

42 113 01 17



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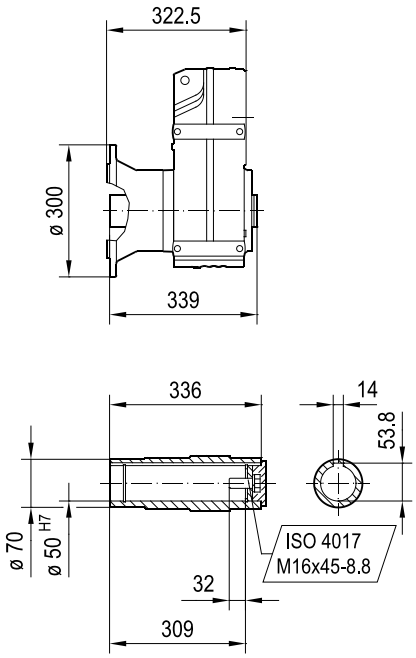
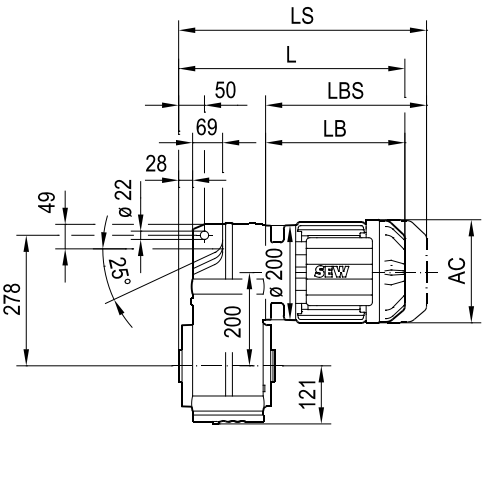


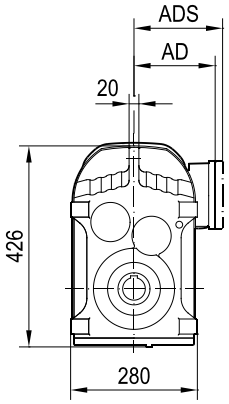
(→ 📖 7.3)	DRN												
	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..
AC	139	139	156	156	179	179	197	197	221	221	261	261	314
AD	118	118	128	128	140	140	157	157	170	170	228	228	253
ADS	129	129	139	139	150	150	158	158	172	172	228	228	253
L	621	641	652	697	698	730	727	777	808	858	876	901	968
LS	688	708	733	778	792	824	820	870	920	970	1013	1038	1157
LB	192	212	223	268	270	302	298	348	379	429	447	473	539
LBS	260	280	304	349	363	395	392	442	491	541	585	610	728

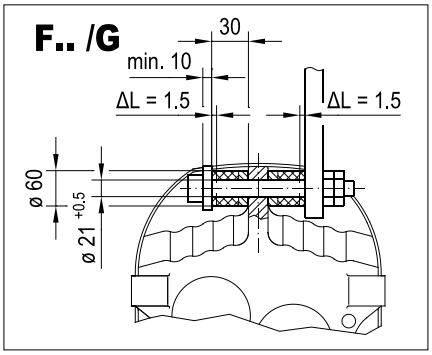
24832936/EN – 09/2018

FA77..

42 046 00 14







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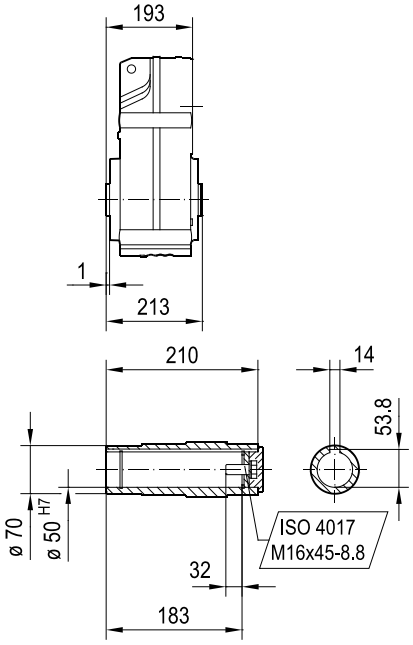
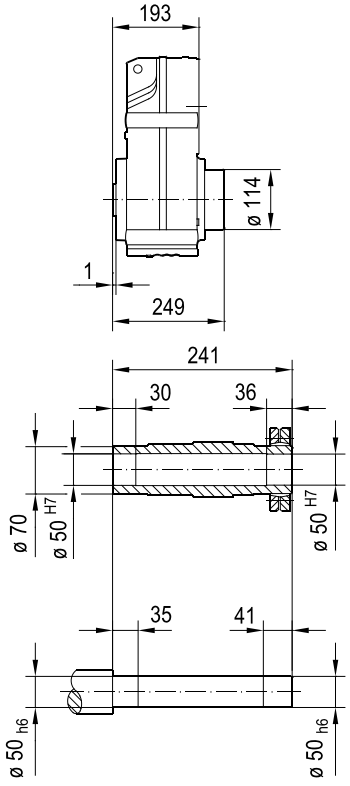


FH77..
max. DRN132L



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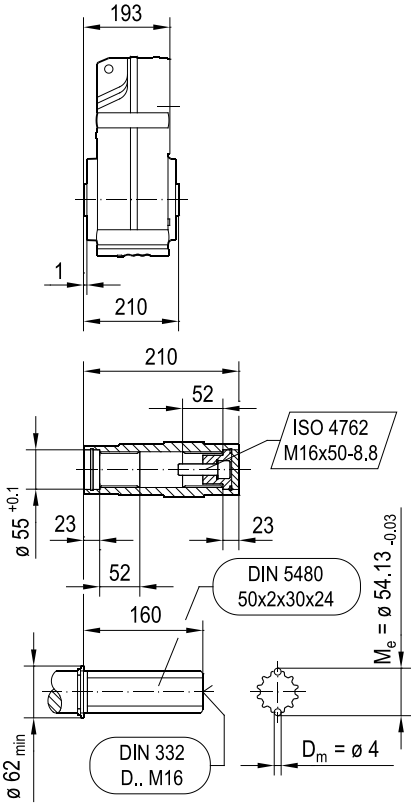
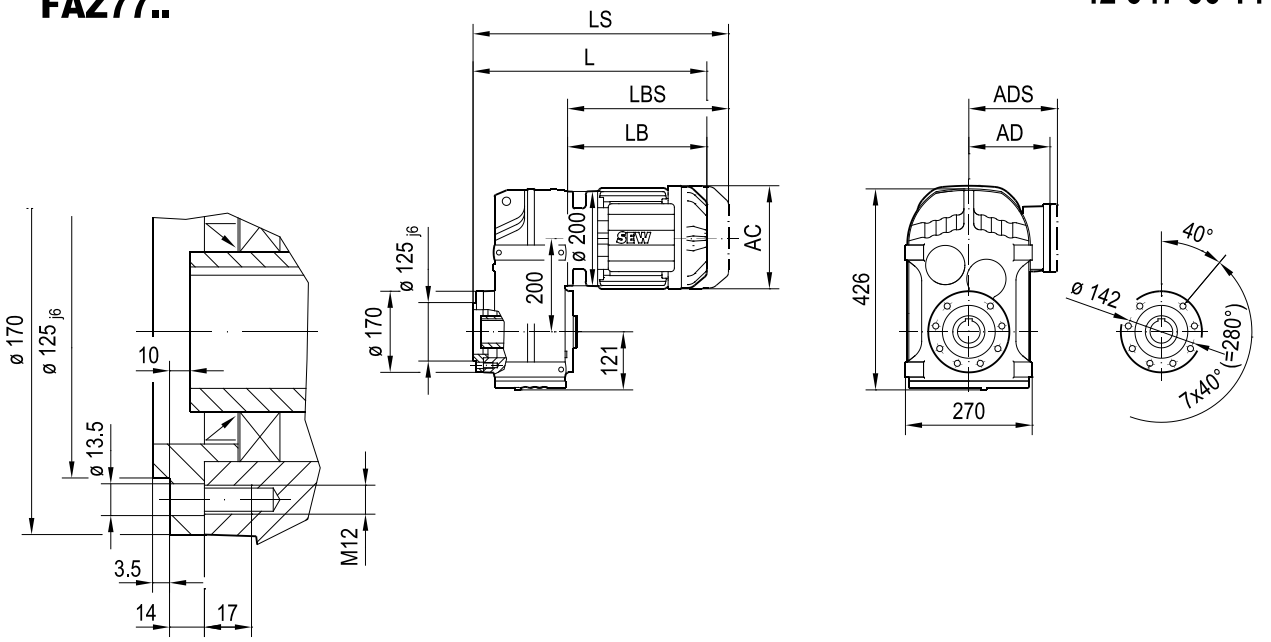


(→ 📖 7.3)	DRN												
	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..
AC	139	139	156	156	179	179	197	197	221	221	261	261	314
AD	118	118	128	128	140	140	157	157	170	170	228	228	253
ADS	129	129	139	139	150	150	158	158	172	172	228	228	253
L	385	405	416	461	463	495	491	541	572	622	640	666	732
LS	453	473	497	542	556	588	585	635	684	734	778	803	921
LB	192	212	223	268	270	302	298	348	379	429	447	473	539
LBS	260	280	304	349	363	395	392	442	491	541	585	610	728

24832936/EN – 09/2018

FAZ77..

42 047 00 14



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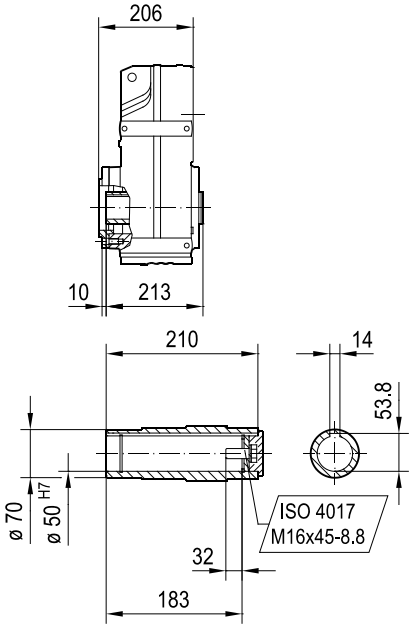

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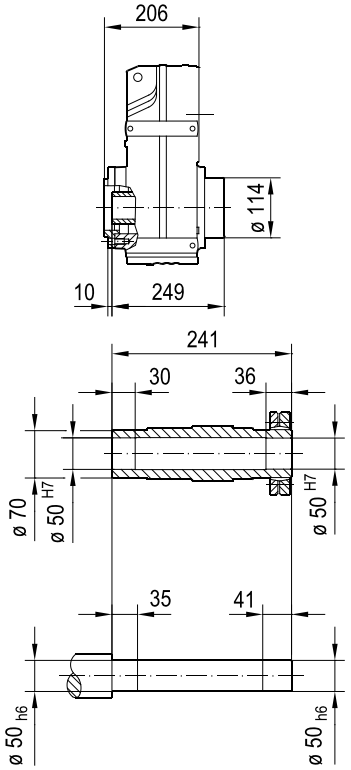
max. DRN132L



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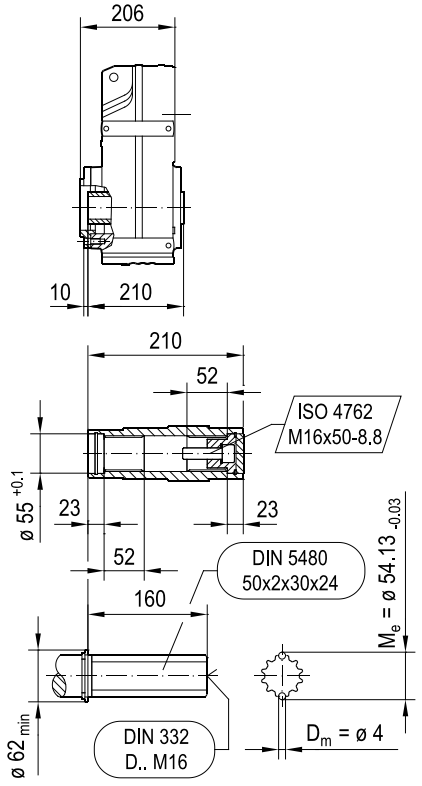
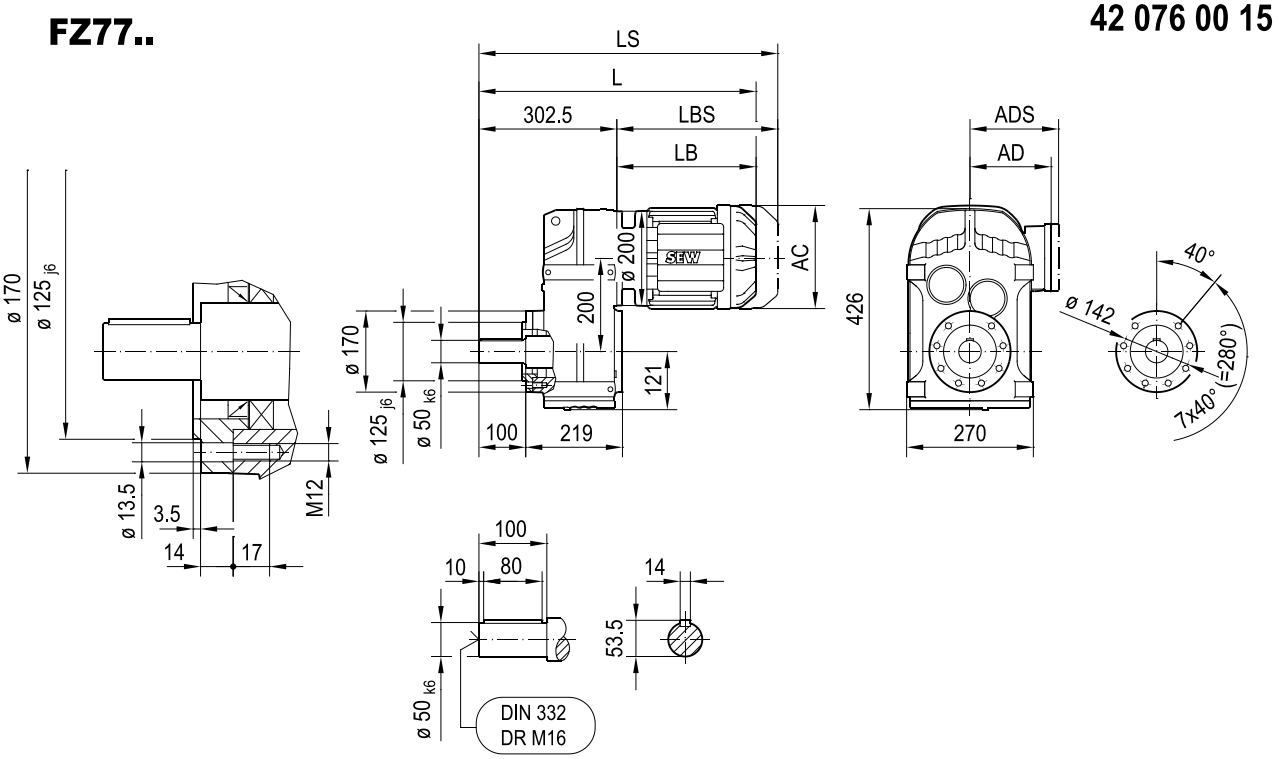


(→ 📖 7.3)	DRN												
	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..
AC	139	139	156	156	179	179	197	197	221	221	261	261	314
AD	118	118	128	128	140	140	157	157	170	170	228	228	253
ADS	129	129	139	139	150	150	158	158	172	172	228	228	253
L	398	418	429	474	476	508	504	554	585	635	653	679	745
LS	466	486	510	555	569	601	598	648	697	747	791	816	934
LB	192	212	223	268	270	302	298	348	379	429	447	473	539
LBS	260	280	304	349	363	395	392	442	491	541	585	610	728

24832936/EN – 09/2018

FZ77..

42 076 00 15

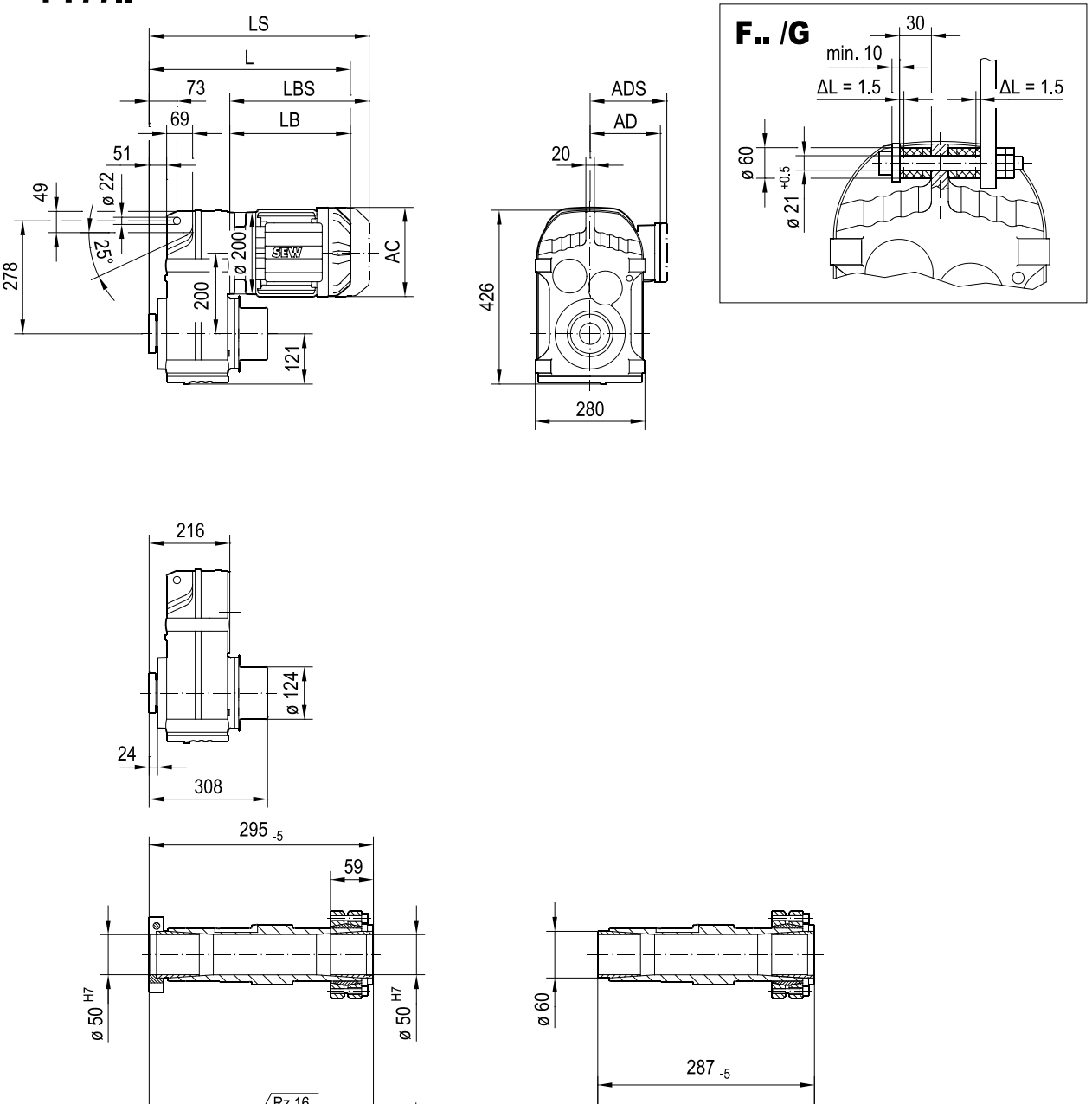


(→ 📖 7.3)	DRN												
	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..
AC	139	139	156	156	179	179	197	197	221	221	261	261	314
AD	118	118	128	128	140	140	157	157	170	170	228	228	253
ADS	129	129	139	139	150	150	158	158	172	172	228	228	253
L	495	515	526	571	572	604	601	651	682	732	750	775	842
LS	562	582	607	652	666	698	694	744	794	844	887	912	1031
LB	192	212	223	268	270	302	298	348	379	429	447	473	539
LBS	260	280	304	349	363	395	392	442	491	541	585	610	728

24832936/EN – 09/2018

FT77..

42 048 01 14

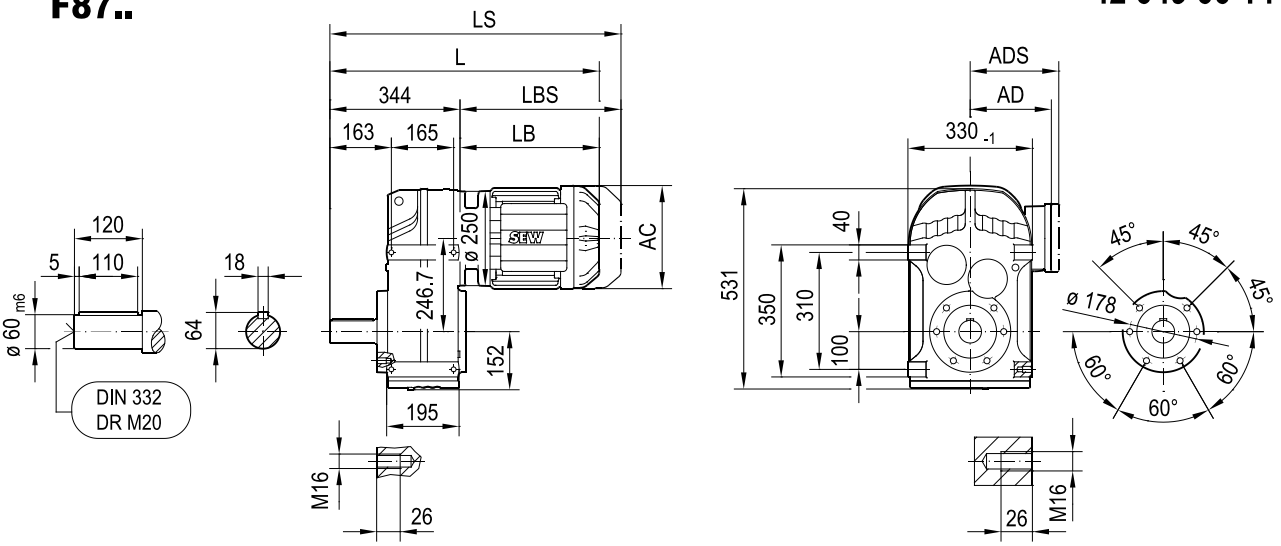


(→ 📖 7.3)	DRN											
	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L
AC	139	139	156	156	179	179	197	197	221	221	261	261
AD	118	118	128	128	140	140	157	157	170	170	228	228
ADS	129	129	139	139	150	150	158	158	172	172	228	228
L	408	428	439	484	486	518	514	564	595	645	663	689
LS	476	496	520	565	579	611	608	658	707	757	801	826
LB	192	212	223	268	270	302	298	348	379	429	447	473
LBS	260	280	304	349	363	395	392	442	491	541	585	610

24832936/EN – 09/2018

F87..

42 049 00 14



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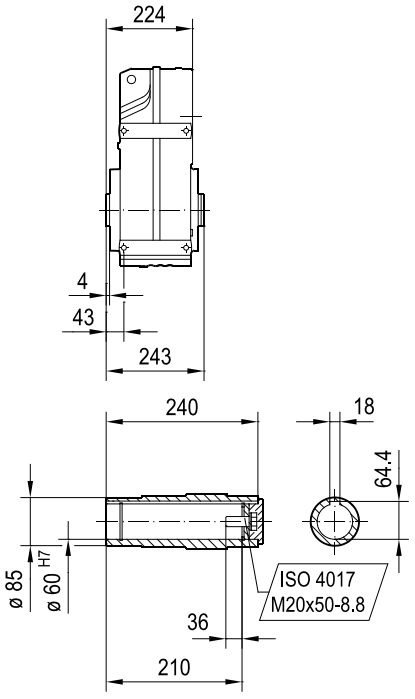
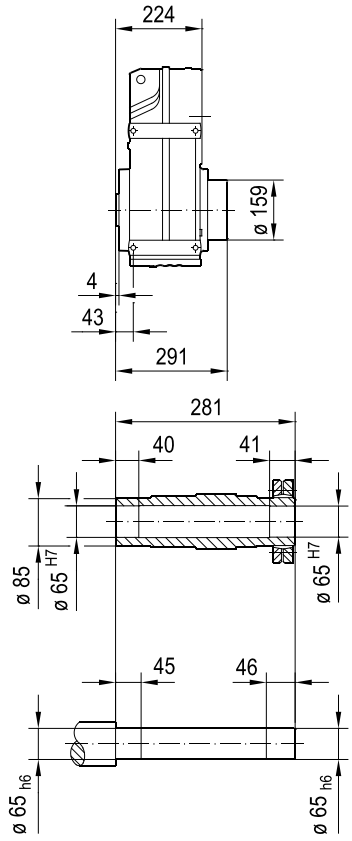


FH87B..

FH87B/R.. → 6.3



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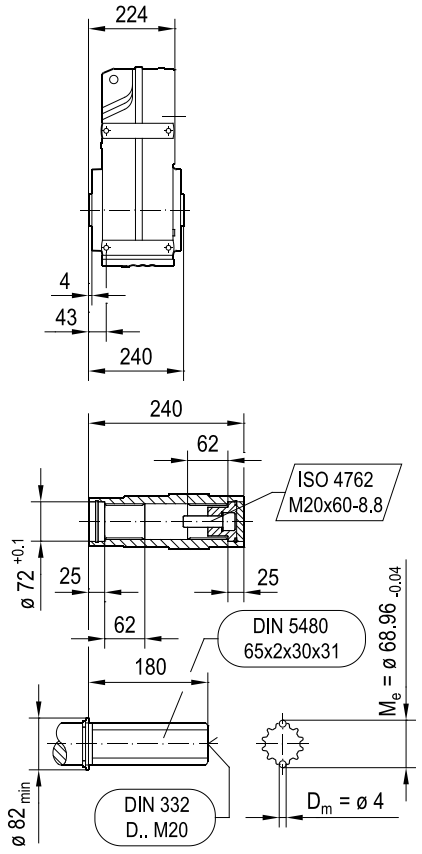
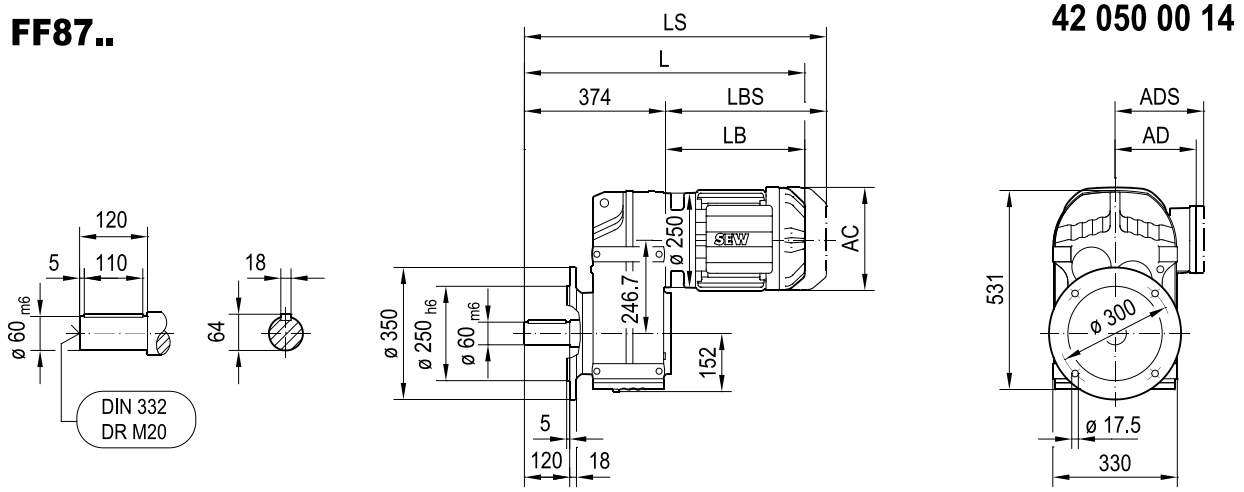


(→ 7.3)	DRN											
	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..
AC	156	156	179	179	197	197	221	221	261	261	314	357
AD	128	128	140	140	157	157	170	170	228	228	253	268
ADS	139	139	150	150	158	158	172	172	228	228	253	268
L	562	607	609	641	637	687	718	768	786	812	878	901
LS	643	688	702	734	731	781	830	880	924	949	1067	1090
LB	218	263	265	297	293	343	374	424	442	468	534	557
LBS	299	344	358	390	387	437	486	536	580	605	723	746

24832936/EN – 09/2018

FF87..

42 050 00 14



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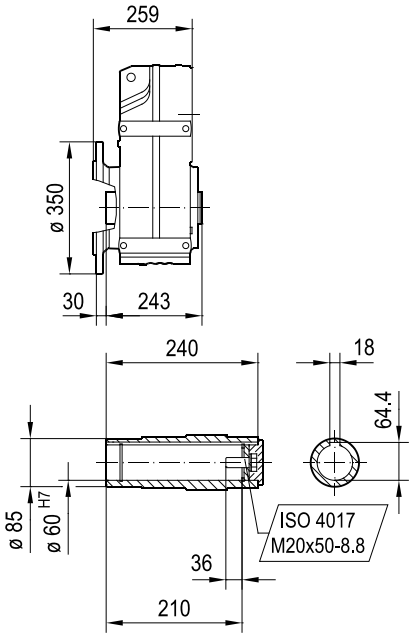
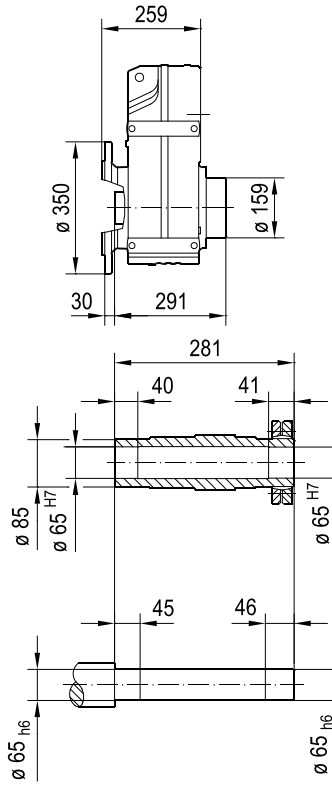
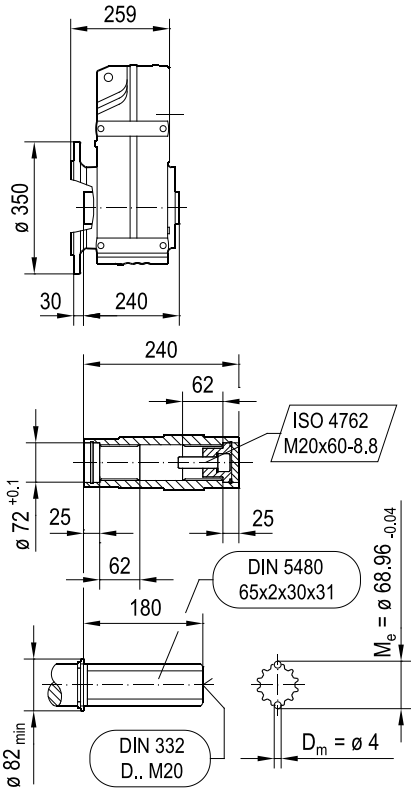


FHF87..

FHF87/R.. → 6.3



FVF87..

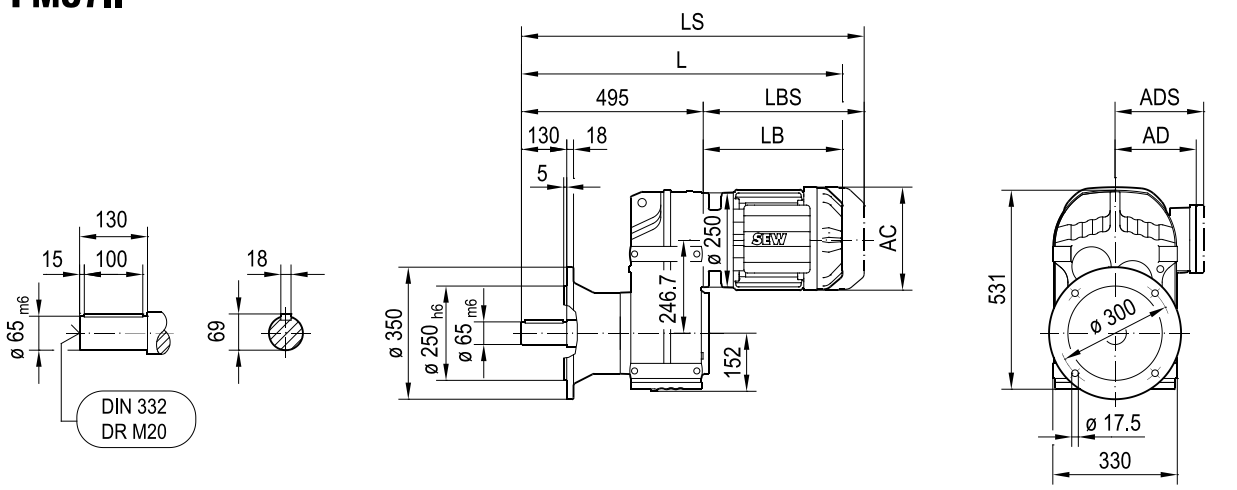


(→ 7.3)	DRN											
	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..
AC	156	156	179	179	197	197	221	221	261	261	314	357
AD	128	128	140	140	157	157	170	170	228	228	253	268
ADS	139	139	150	150	158	158	172	172	228	228	253	268
L	592	637	639	671	667	717	748	798	816	842	908	931
LS	673	718	732	764	761	811	860	910	954	979	1097	1120
LB	218	263	265	297	293	343	374	424	442	468	534	557
LBS	299	344	358	390	387	437	486	536	580	605	723	746

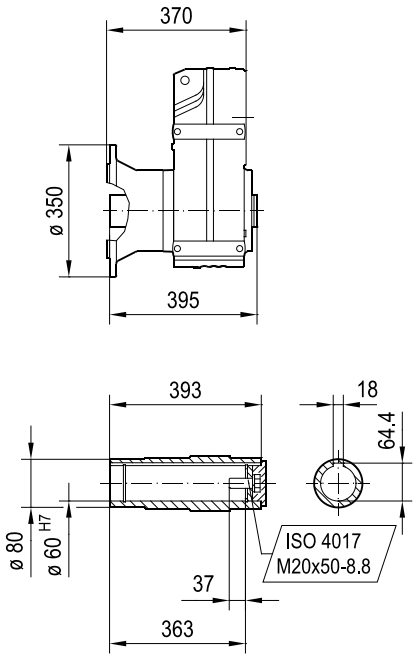
24832936/EN – 09/2018

FM87..

42 114 01 17



FAM87..

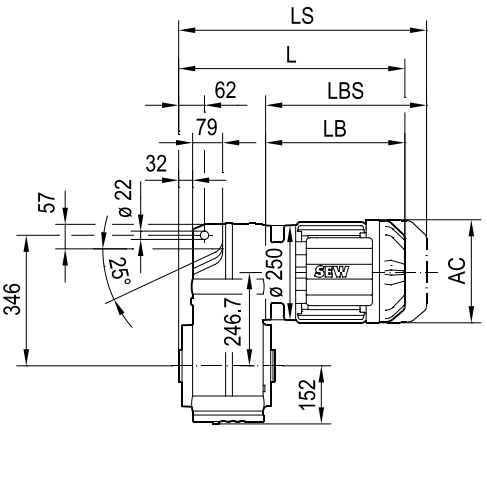


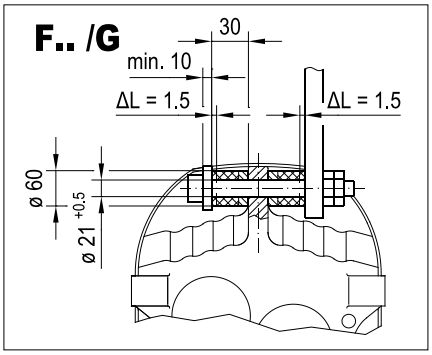
(→ 📖 7.3)	DRN											
	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..
AC	156	156	179	179	197	197	221	221	261	261	314	357
AD	128	128	140	140	157	157	170	170	228	228	253	268
ADS	139	139	150	150	158	158	172	172	228	228	253	268
L	713	758	760	792	788	838	869	919	937	963	1029	1052
LS	794	839	853	885	882	932	981	1031	1075	1100	1218	1241
LB	218	263	265	297	293	343	374	424	442	468	534	557
LBS	299	344	358	390	387	437	486	536	580	605	723	746

24832936/EN – 09/2018

42 051 00 14

FA87..





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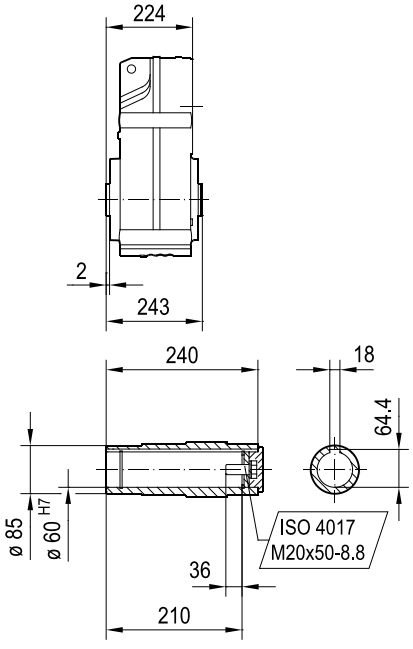
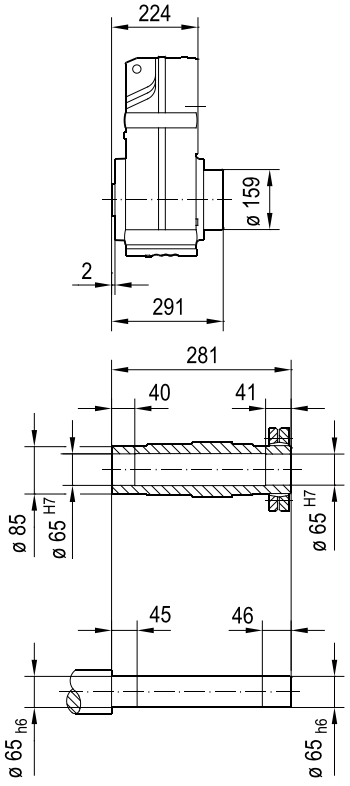


FH87..

FH87/R.. → 📖 6.3



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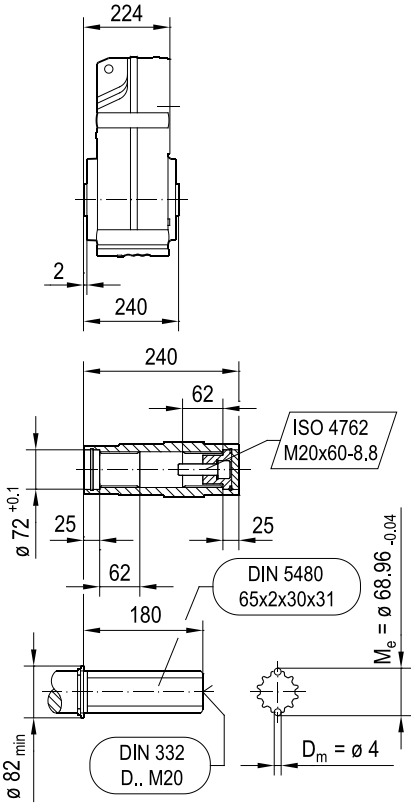
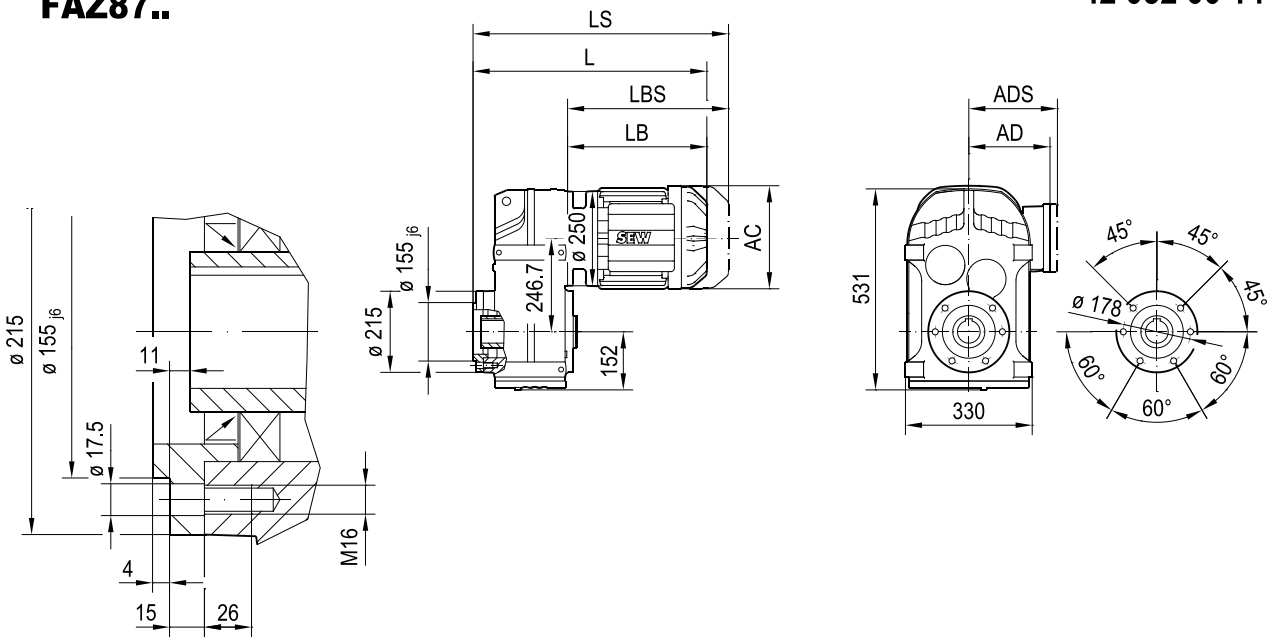


(→ 📖 7.3)	DRN											
	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..
AC	156	156	179	179	197	197	221	221	261	261	314	357
AD	128	128	140	140	157	157	170	170	228	228	253	268
ADS	139	139	150	150	158	158	172	172	228	228	253	268
L	442	487	489	521	517	567	598	648	666	692	758	781
LS	523	568	582	614	611	661	710	760	804	829	947	970
LB	218	263	265	297	293	343	374	424	442	468	534	557
LBS	299	344	358	390	387	437	486	536	580	605	723	746

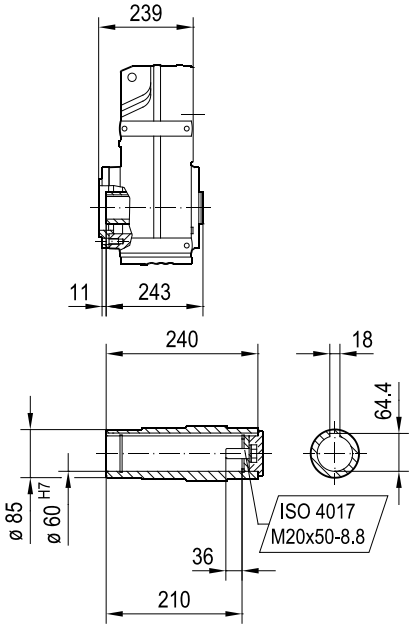
24832936/EN – 09/2018

FAZ87..

42 052 00 14

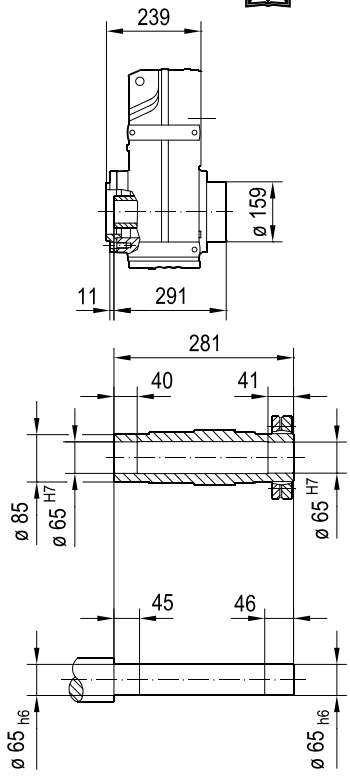


FAZ87..



FHZ87..

FHZ87/R.. → 6.3



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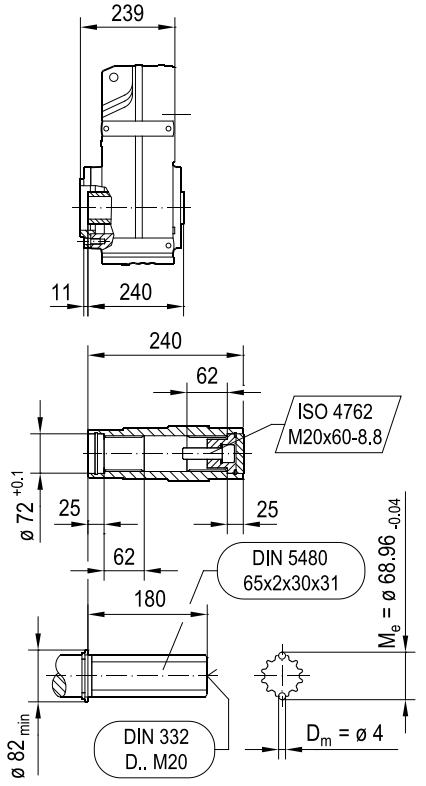
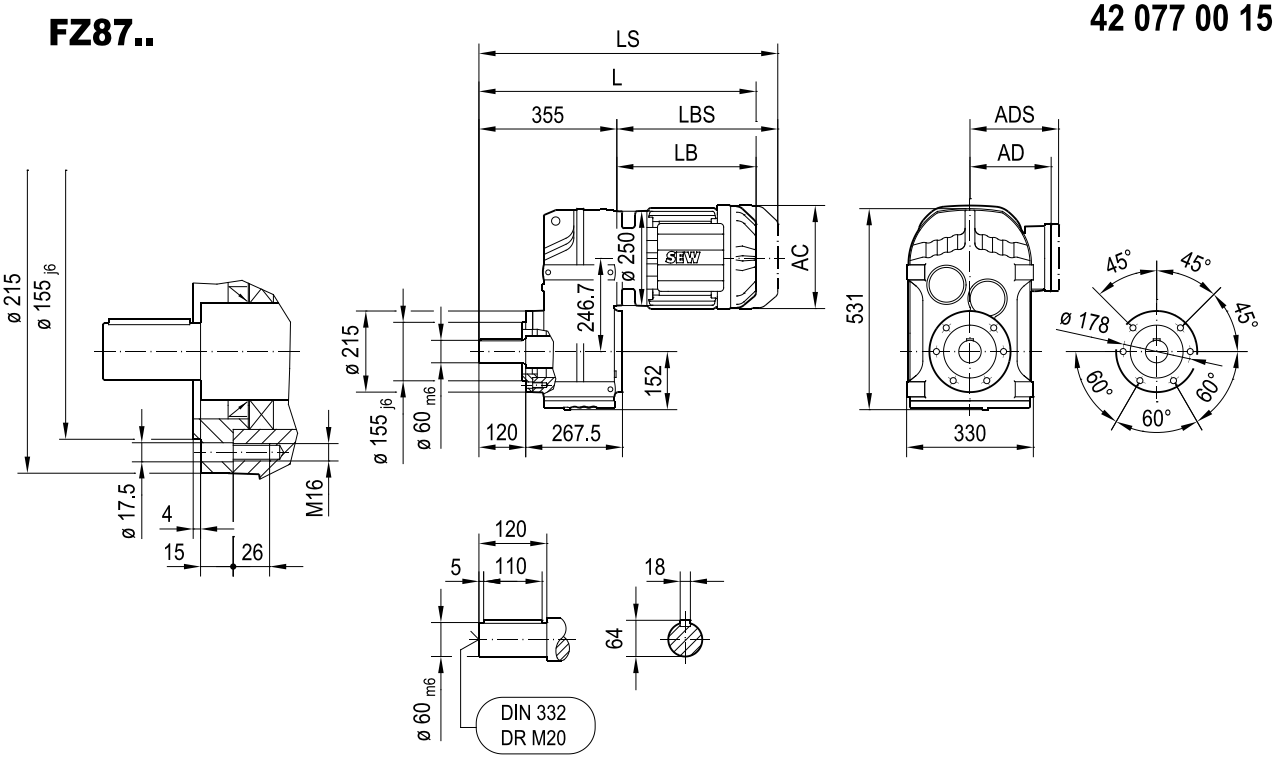


(→ 7.3)	DRN											
	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..
AC	156	156	179	179	197	197	221	221	261	261	314	357
AD	128	128	140	140	157	157	170	170	228	228	253	268
ADS	139	139	150	150	158	158	172	172	228	228	253	268
L	457	502	504	536	532	582	613	663	681	707	773	796
LS	538	583	597	629	626	676	725	775	819	844	962	985
LB	218	263	265	297	293	343	374	424	442	468	534	557
LBS	299	344	358	390	387	437	486	536	580	605	723	746

24832936/EN – 09/2018

FZ87..

42 077 00 15

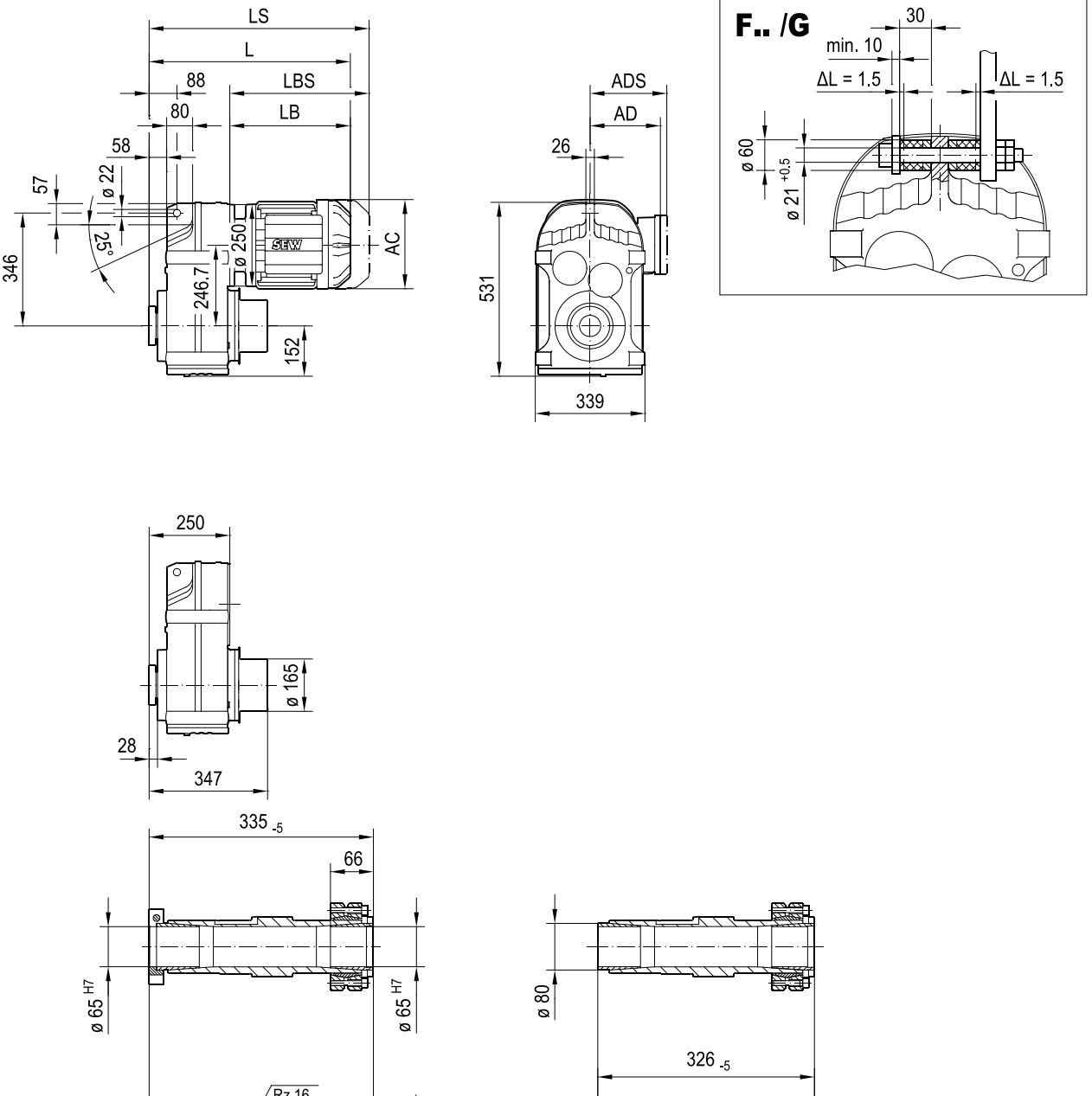


(→ 📖 7.3)	DRN											
	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..
AC	156	156	179	179	197	197	221	221	261	261	314	357
AD	128	128	140	140	157	157	170	170	228	228	253	268
ADS	139	139	150	150	158	158	172	172	228	228	253	268
L	573	618	620	652	648	698	729	779	797	823	889	912
LS	654	699	713	745	742	792	841	891	935	960	1078	1101
LB	218	263	265	297	293	343	374	424	442	468	534	557
LBS	299	344	358	390	387	437	486	536	580	605	723	746

24832936/EN – 09/2018

FT87..

42 053 01 14

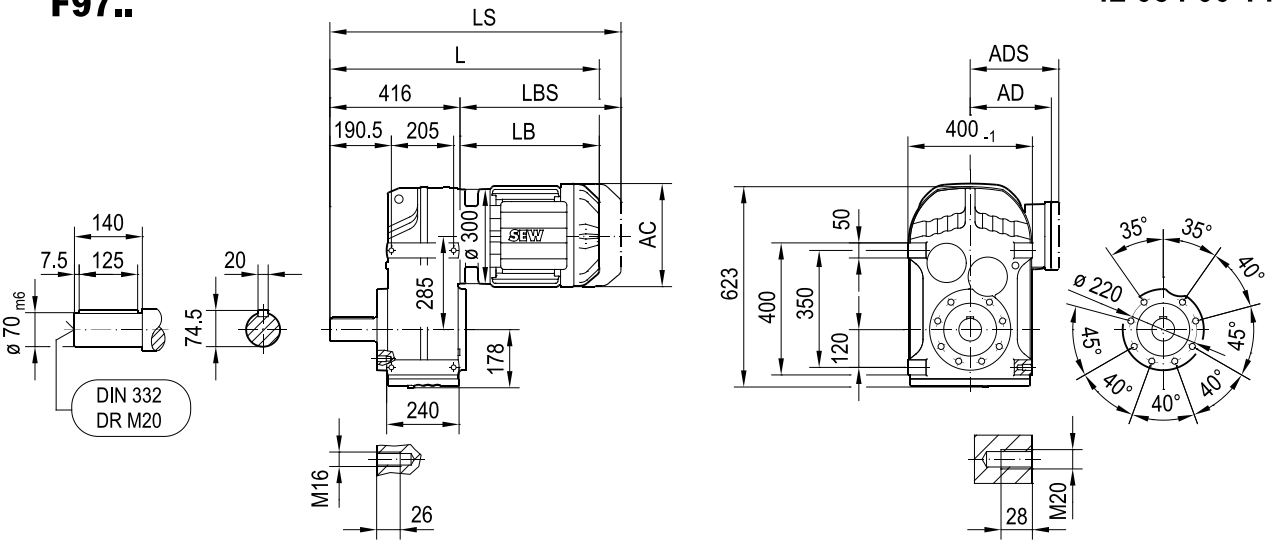


(→ 📖 7.3)	DRN											
	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..
AC	156	156	179	179	197	197	221	221	261	261	314	357
AD	128	128	140	140	157	157	170	170	228	228	253	268
ADS	139	139	150	150	158	158	172	172	228	228	253	268
L	468	513	515	547	543	593	624	674	692	718	784	807
LS	549	594	608	640	637	687	736	786	830	855	973	996
LB	218	263	265	297	293	343	374	424	442	468	534	557
LBS	299	344	358	390	387	437	486	536	580	605	723	746

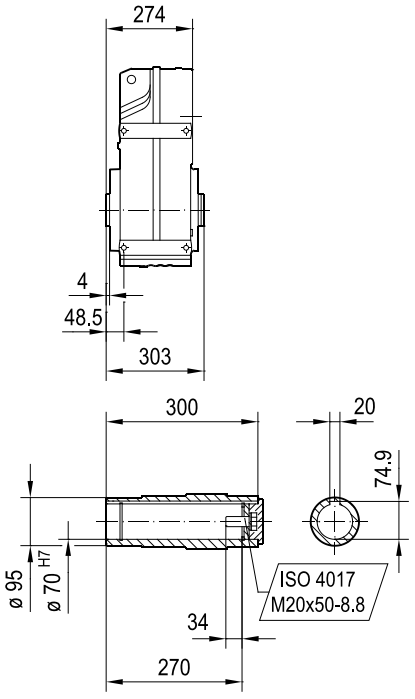
24832936/EN – 09/2018

F97..

42 054 00 14

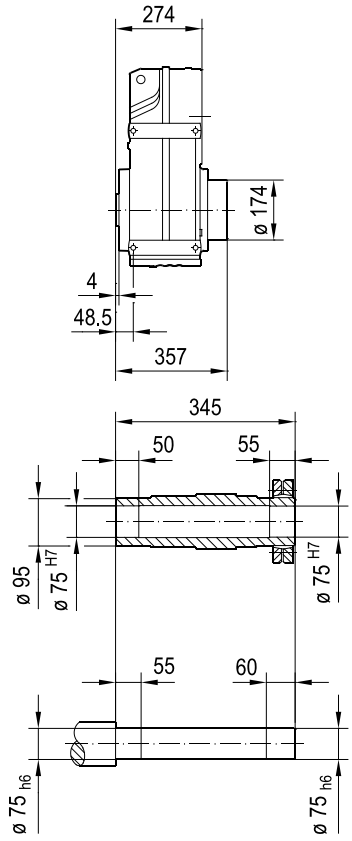


FA97B..



FH97B..

FH97B/R.. → 6.3



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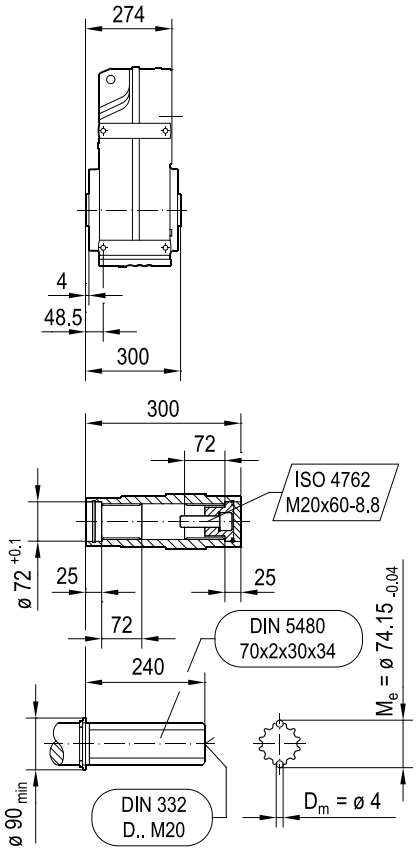
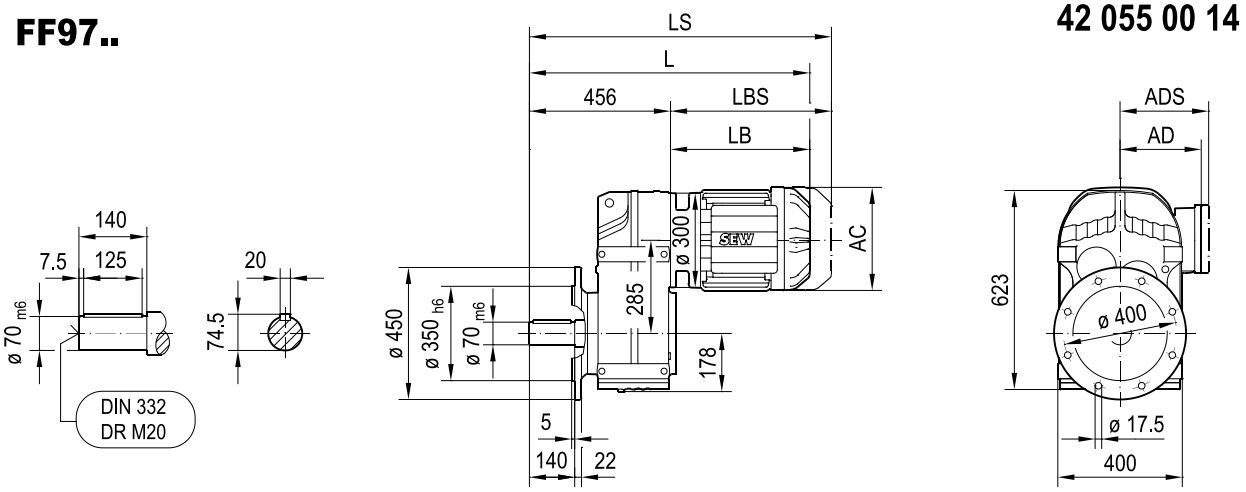


(→ 7.3)	DRN										
	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L
AC	179	179	197	197	221	221	261	261	314	357	394
AD	140	140	157	157	170	170	228	228	253	268	283
ADS	150	150	158	158	172	172	228	228	253	268	283
L	676	708	704	754	785	835	853	879	945	968	1078
LS	769	801	798	848	897	947	991	1016	1134	1157	1283
LB	260	292	288	338	369	419	437	463	529	552	662
LBS	353	385	382	432	481	531	575	600	718	741	867

24832936/EN – 09/2018

FF97..

42 055 00 14



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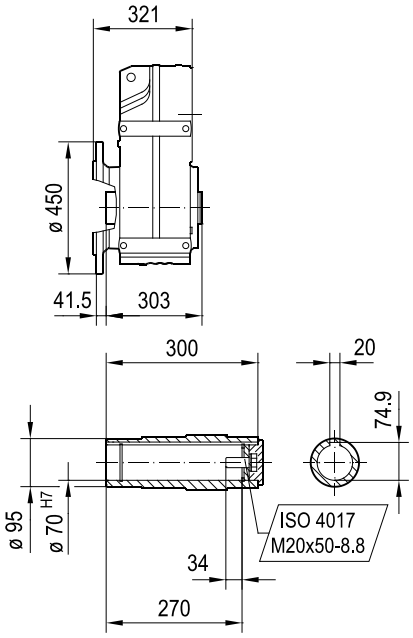

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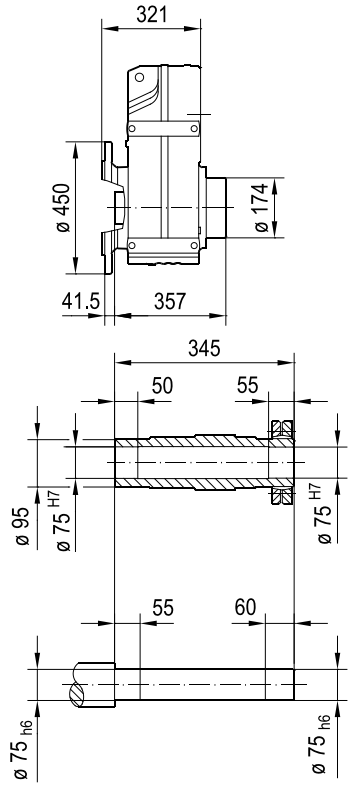
FHF97/R.. → 6.3



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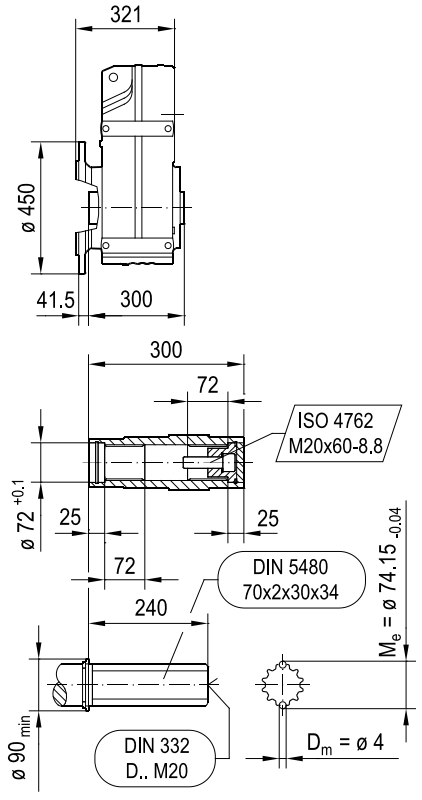
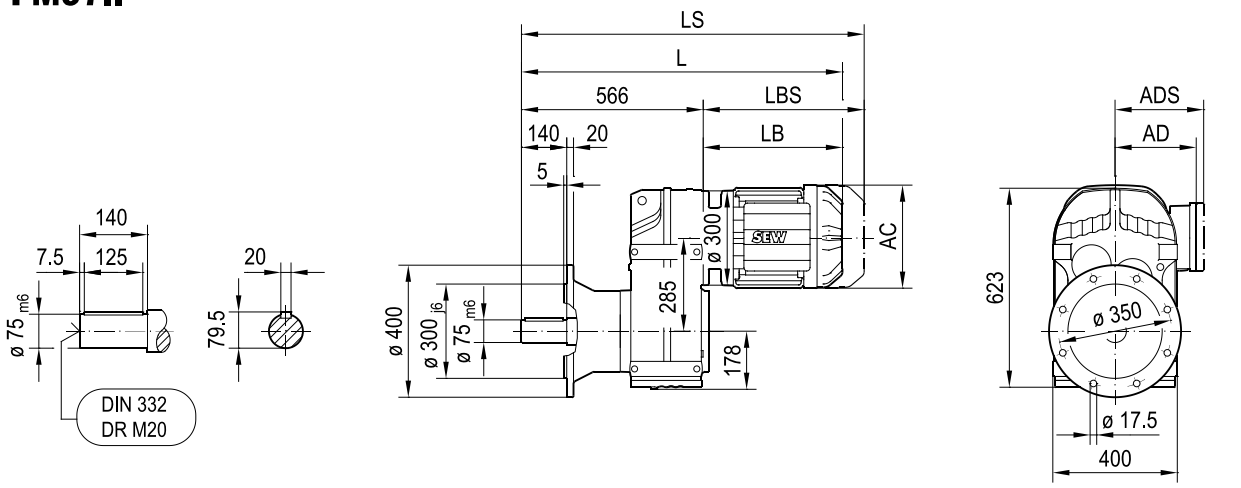


(→ 7.3)	DRN										
	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L
AC	179	179	197	197	221	221	261	261	314	357	394
AD	140	140	157	157	170	170	228	228	253	268	283
ADS	150	150	158	158	172	172	228	228	253	268	283
L	716	748	744	794	825	875	893	919	985	1008	1118
LS	809	841	838	888	937	987	1031	1056	1174	1197	1323
LB	260	292	288	338	369	419	437	463	529	552	662
LBS	353	385	382	432	481	531	575	600	718	741	867

24832936/EN – 09/2018

FM97..

42 115 00 17



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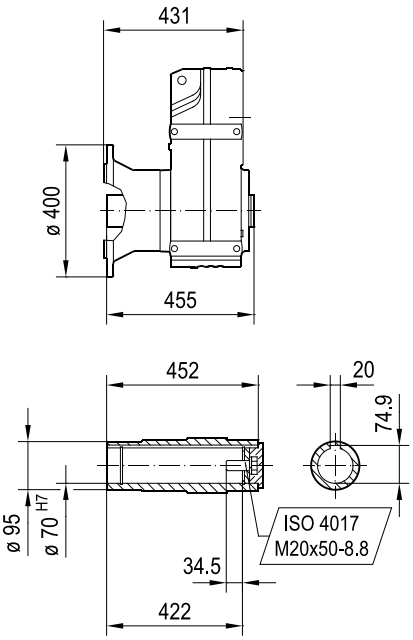
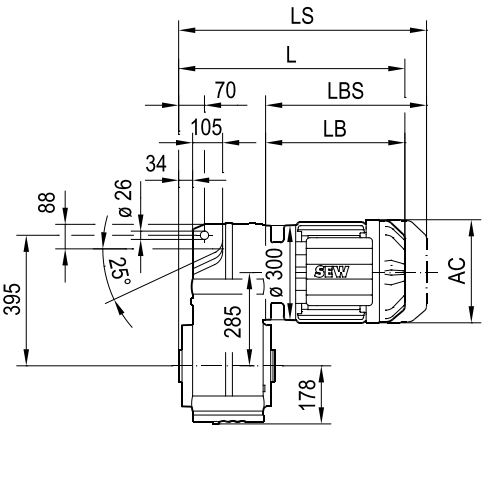


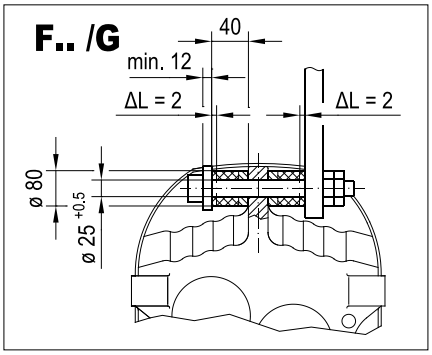
(→ 📖 7.3)	DRN										
	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L
AC	179	179	197	197	221	221	261	261	314	357	394
AD	140	140	157	157	170	170	228	228	253	268	283
ADS	150	150	158	158	172	172	228	228	253	268	283
L	826	858	854	904	935	985	1003	1029	1095	1118	1228
LS	919	951	948	998	1047	1097	1141	1166	1284	1307	1433
LB	260	292	288	338	369	419	437	463	529	552	662
LBS	353	385	382	432	481	531	575	600	718	741	867

24832936/EN – 09/2018

FA97..

42 056 00 14





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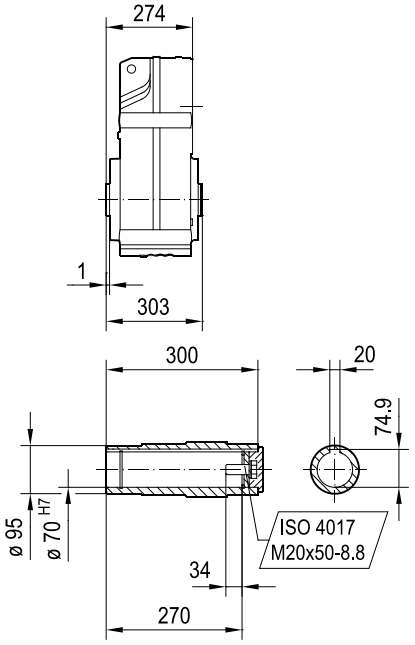
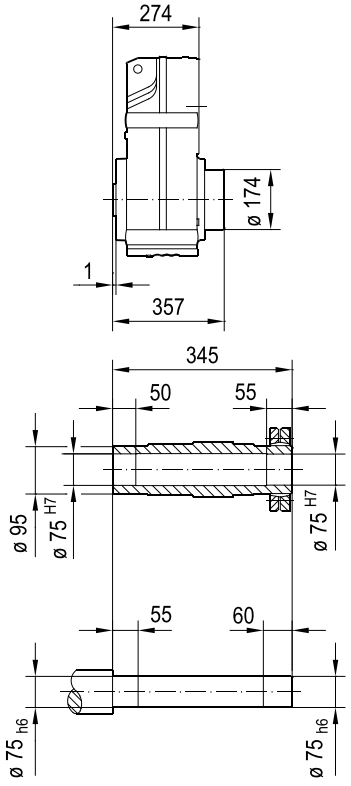


FH97..

FH97/R.. → 📖 6.3



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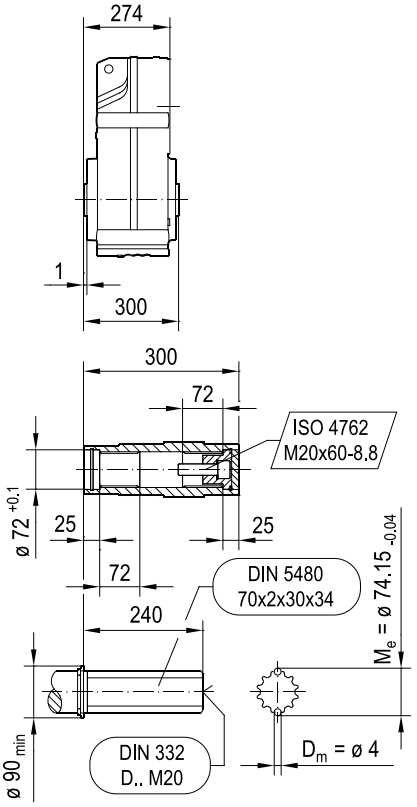
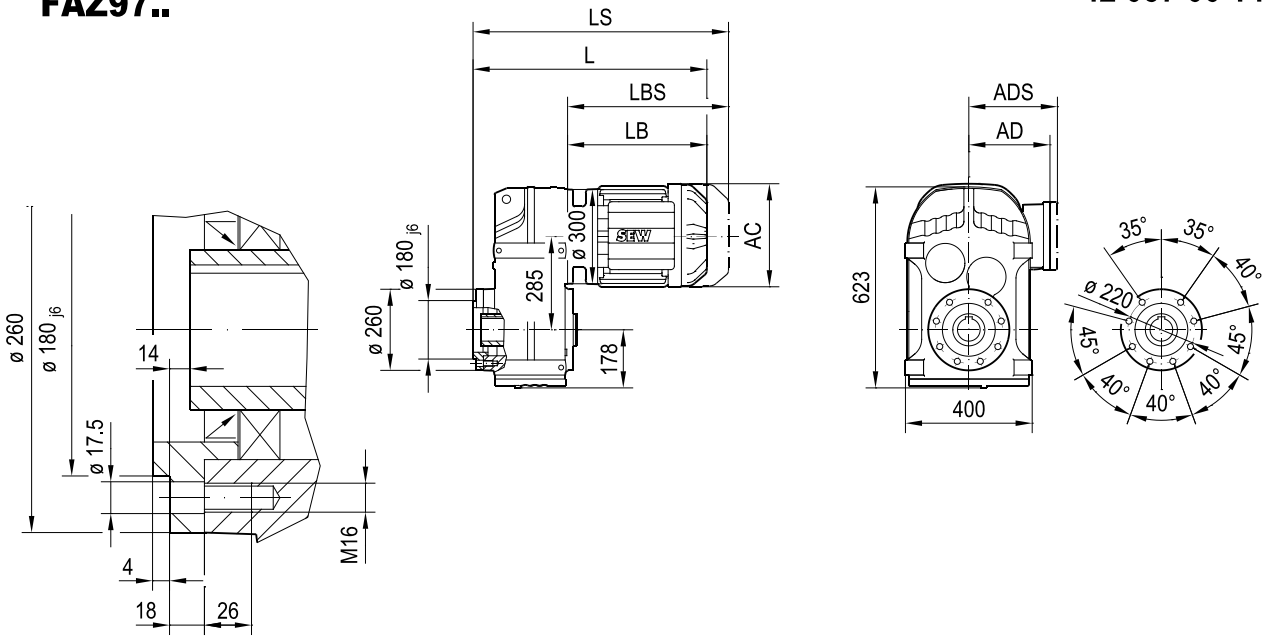


(→ 📖 7.3)	DRN										
	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L
AC	179	179	197	197	221	221	261	261	314	357	394
AD	140	140	157	157	170	170	228	228	253	268	283
ADS	150	150	158	158	172	172	228	228	253	268	283
L	534	566	562	612	643	693	711	737	803	826	936
LS	627	659	656	706	755	805	849	874	992	1015	1141
LB	260	292	288	338	369	419	437	463	529	552	662
LBS	353	385	382	432	481	531	575	600	718	741	867

24832936/EN – 09/2018

FAZ97..

42 057 00 14



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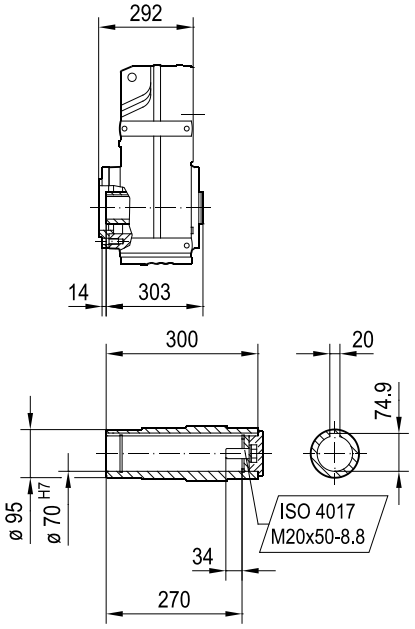
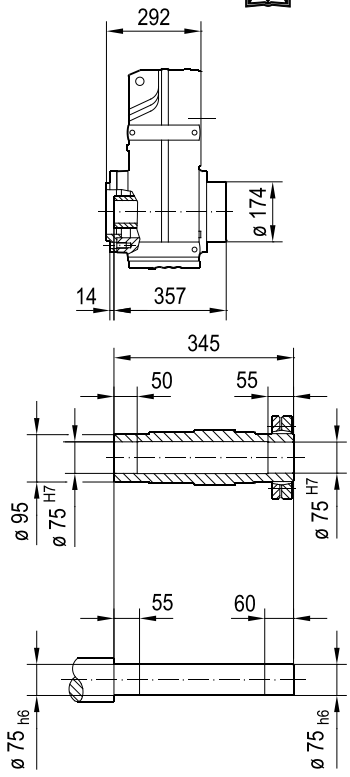


FHZ97..

FHZ97/R.. → 6.3



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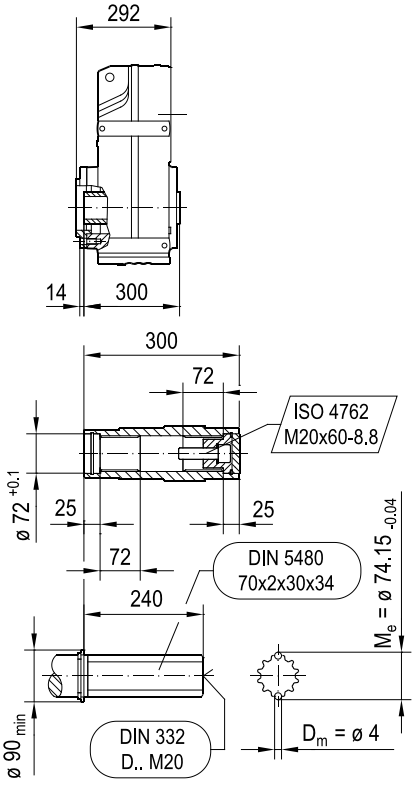
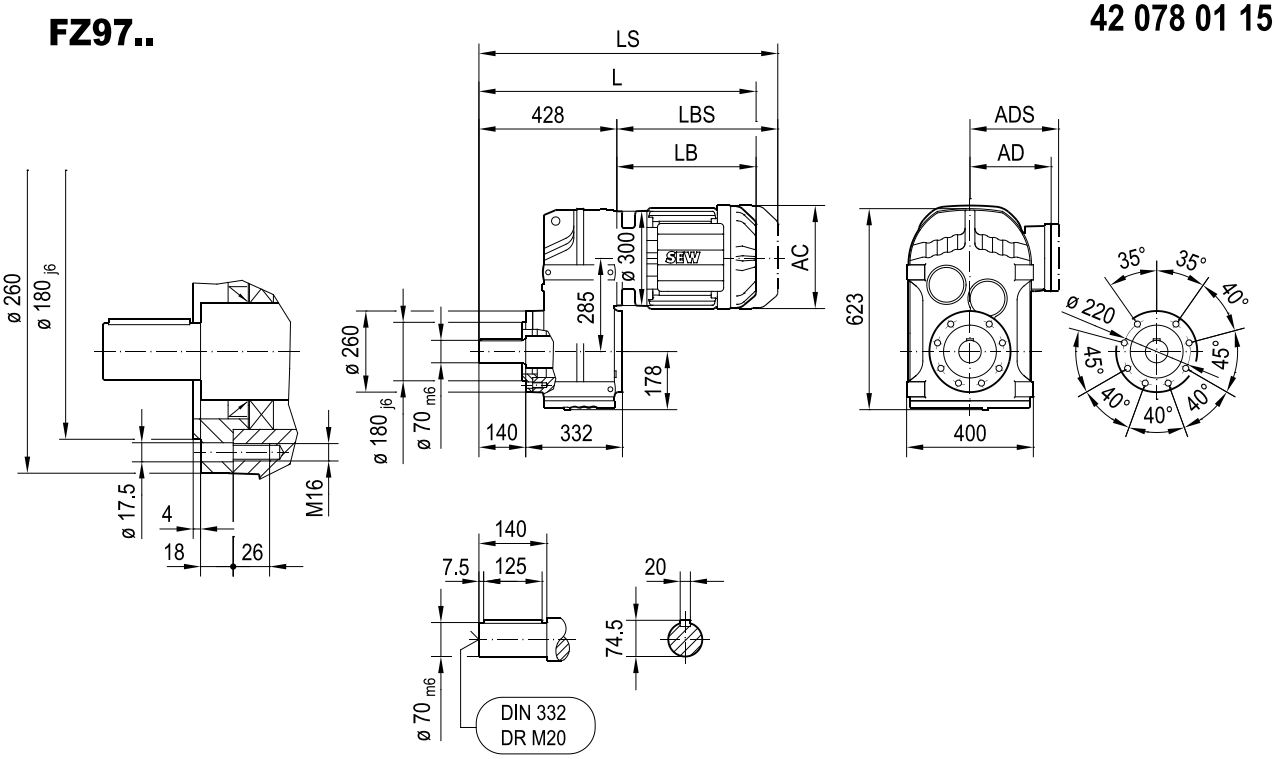


(→ 7.3)	DRN										
	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L
AC	179	179	197	197	221	221	261	261	314	357	394
AD	140	140	157	157	170	170	228	228	253	268	283
ADS	150	150	158	158	172	172	228	228	253	268	283
L	552	584	580	630	661	711	729	755	821	844	954
LS	645	677	674	724	773	823	867	892	1010	1033	1159
LB	260	292	288	338	369	419	437	463	529	552	662
LBS	353	385	382	432	481	531	575	600	718	741	867

24832936/EN – 09/2018

FZ97..

42 078 01 15

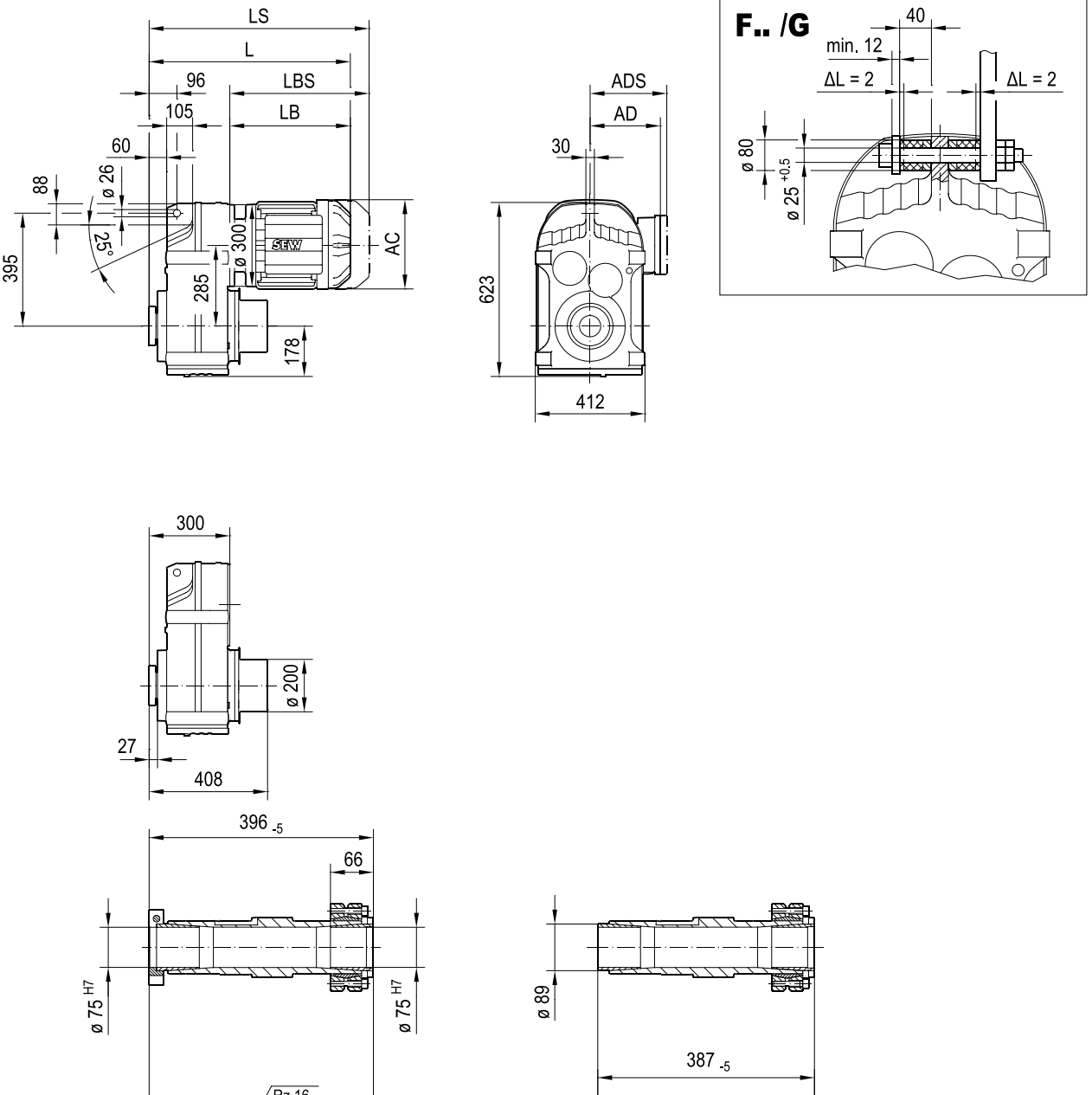


(→ 📖 7.3)	DRN										
	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L
AC	179	179	197	197	221	221	261	261	314	357	394
AD	140	140	157	157	170	170	228	228	253	268	283
ADS	150	150	158	158	172	172	228	228	253	268	283
L	688	720	716	766	797	847	865	891	957	980	1090
LS	781	813	810	860	909	959	1003	1028	1146	1169	1295
LB	260	292	288	338	369	419	437	463	529	552	662
LBS	353	385	382	432	481	531	575	600	718	741	867

24832936/EN – 09/2018

FT97..

42 058 01 14

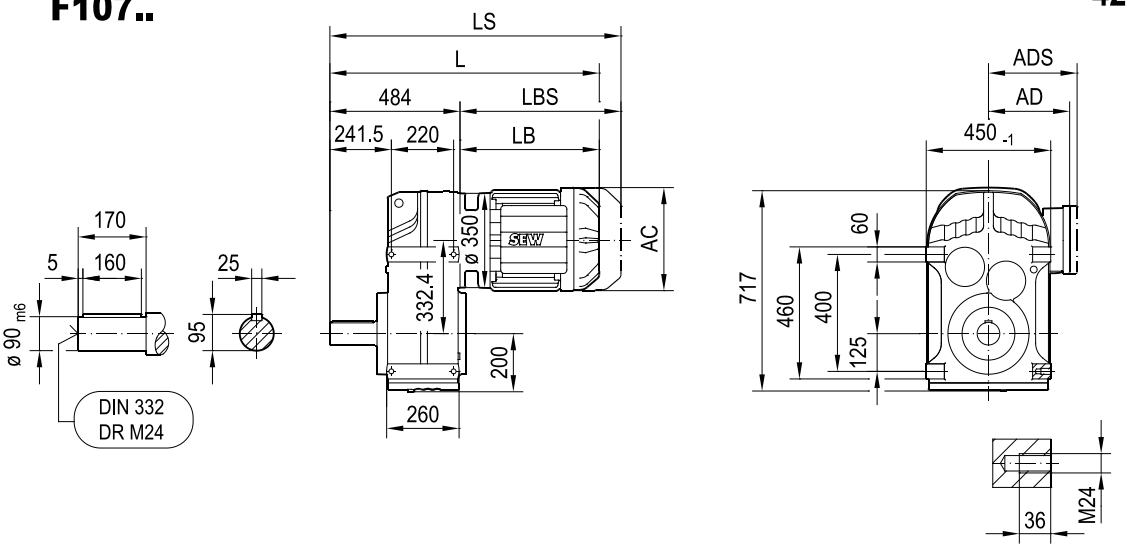


(→ 📖 7.3)	DRN									
	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..
AC	179	179	197	197	221	221	261	261	314	357
AD	140	140	157	157	170	170	228	228	253	268
ADS	150	150	158	158	172	172	228	228	253	268
L	560	592	588	638	669	719	737	763	829	852
LS	653	685	682	732	781	831	875	900	1018	1041
LB	260	292	288	338	369	419	437	463	529	552
LBS	353	385	382	432	481	531	575	600	718	741

24832936/EN – 09/2018

F107..

42 059 00 14



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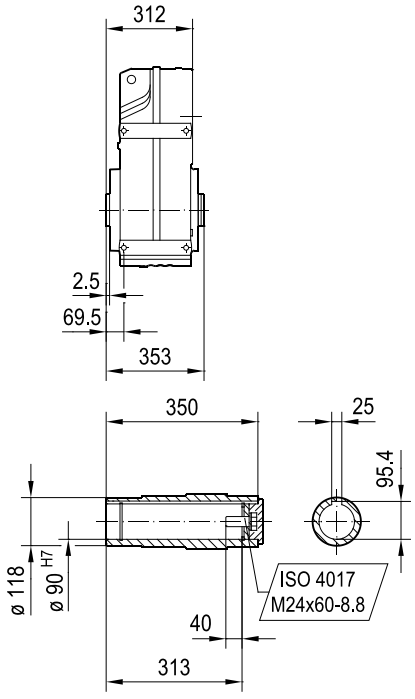

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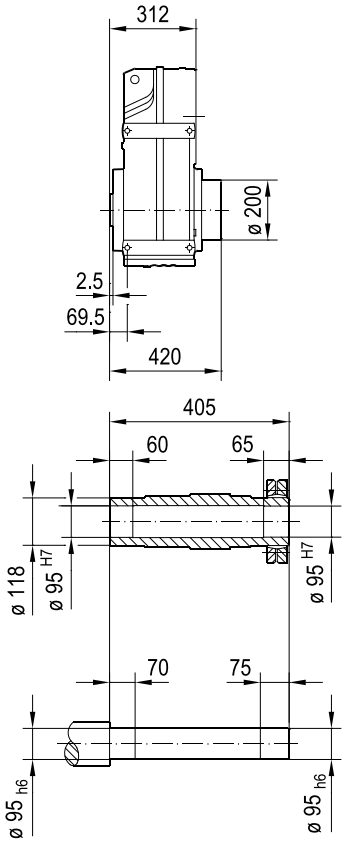

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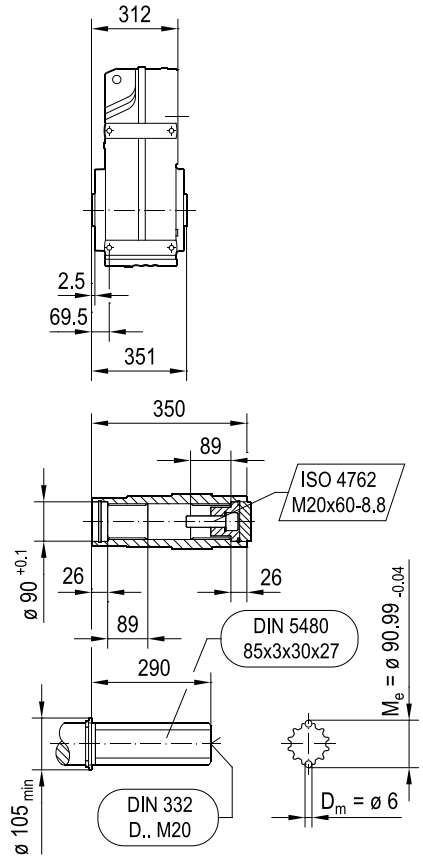
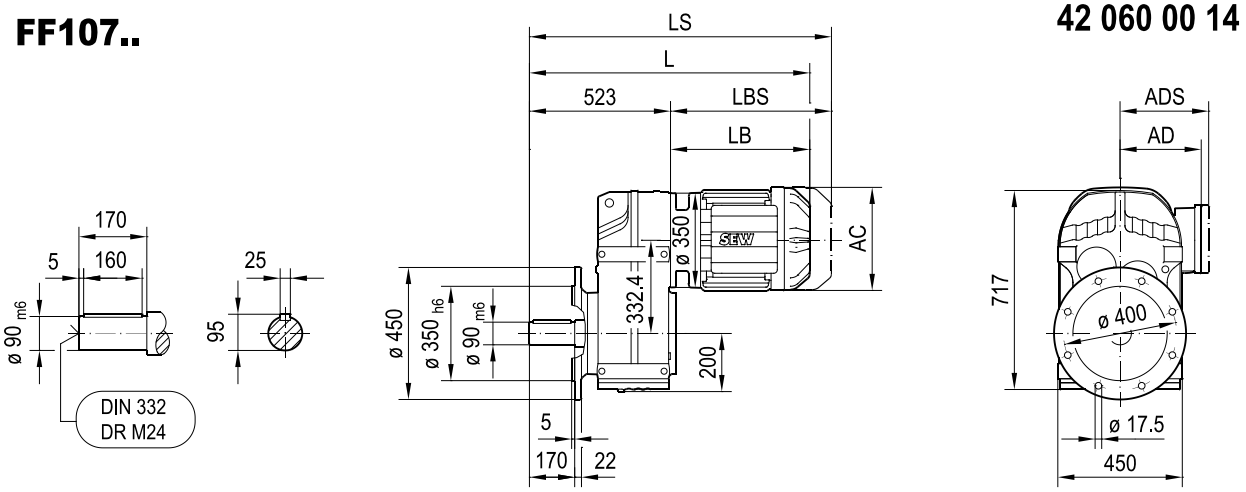


(→ 📖 7.3)	DRN									
	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..
AC	197	197	221	221	261	261	314	357	394	434
AD	157	157	170	170	228	228	253	268	283	305
ADS	158	158	172	172	228	228	253	268	283	305
L	766	816	847	897	915	941	1007	1030	1140	1114
LS	860	910	959	1009	1053	1078	1196	1219	1345	1319
LB	282	332	363	413	431	457	523	546	656	630
LBS	376	426	475	525	569	594	712	735	861	835

FF107..

42 060 00 14



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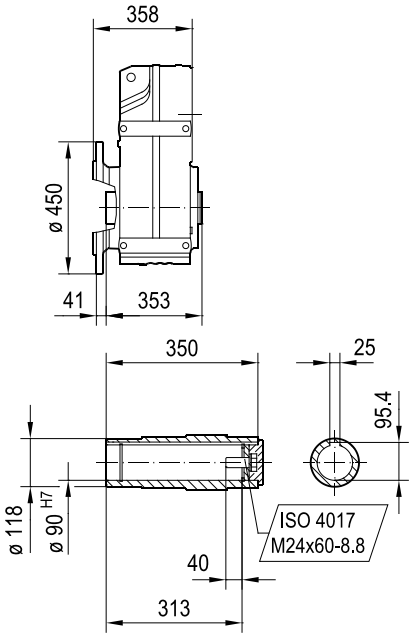

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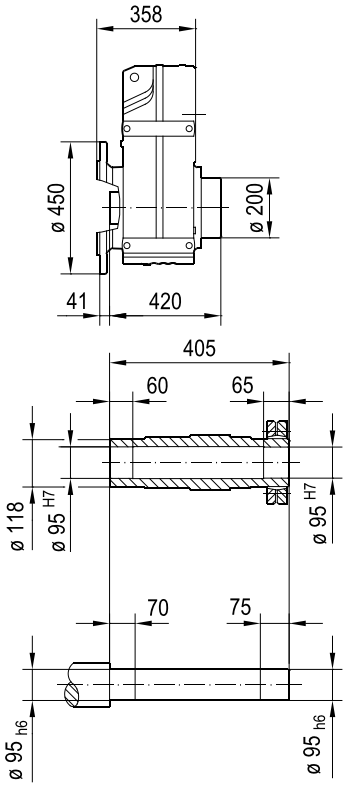

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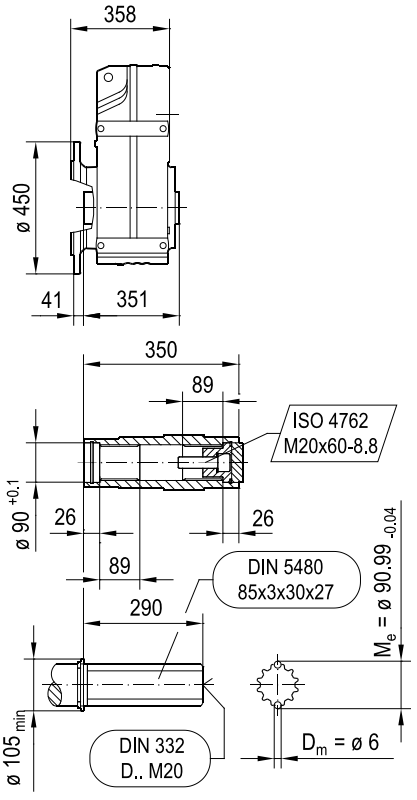
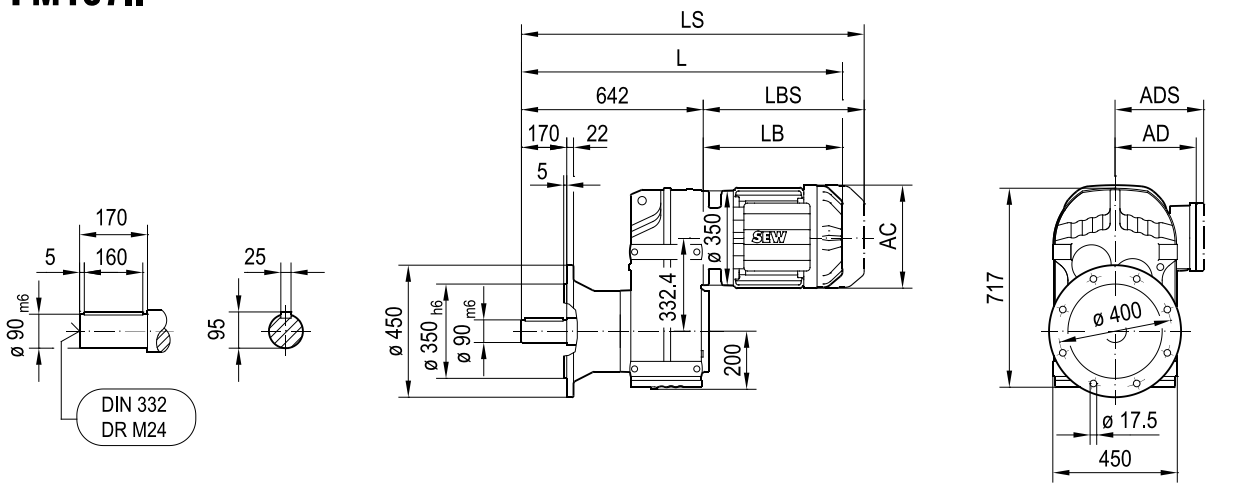


(→ 📖 7.3)	DRN									
	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..
AC	197	197	221	221	261	261	314	357	394	434
AD	157	157	170	170	228	228	253	268	283	305
ADS	158	158	172	172	228	228	253	268	283	305
L	805	855	886	936	954	980	1046	1069	1179	1153
LS	899	949	998	1048	1092	1117	1235	1258	1384	1358
LB	282	332	363	413	431	457	523	546	656	630
LBS	376	426	475	525	569	594	712	735	861	835

24832936/EN – 09/2018

FM107..

42 116 00 17



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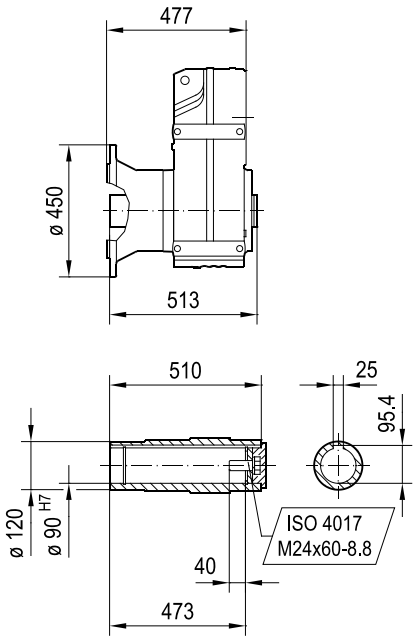
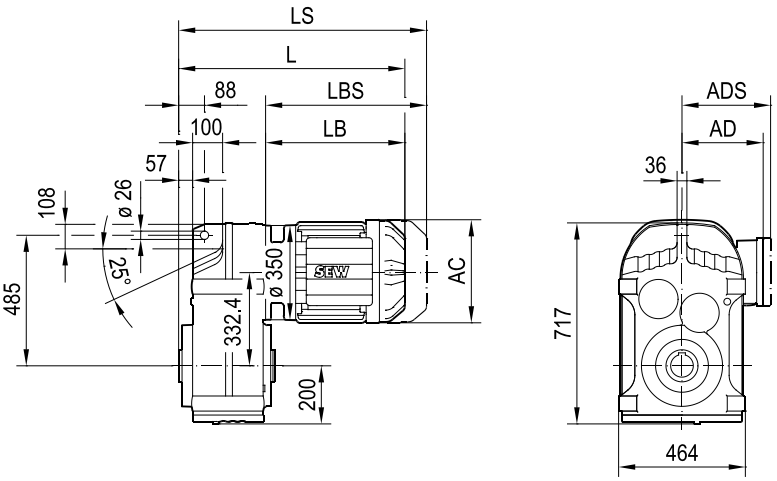


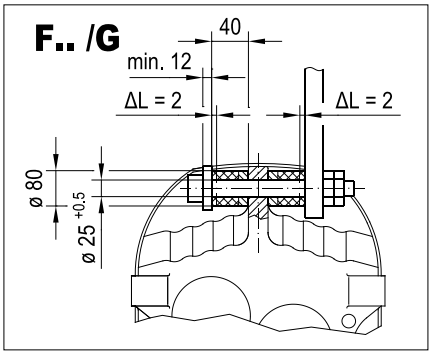
(→ 📖 7.3)	DRN									
	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..
AC	197	197	221	221	261	261	314	357	394	434
AD	157	157	170	170	228	228	253	268	283	305
ADS	158	158	172	172	228	228	253	268	283	305
L	924	974	1005	1055	1073	1099	1165	1188	1298	1272
LS	1018	1068	1117	1167	1211	1236	1354	1377	1503	1477
LB	282	332	363	413	431	457	523	546	656	630
LBS	376	426	475	525	569	594	712	735	861	835

24832936/EN – 09/2018

FA107..

42 061 00 14





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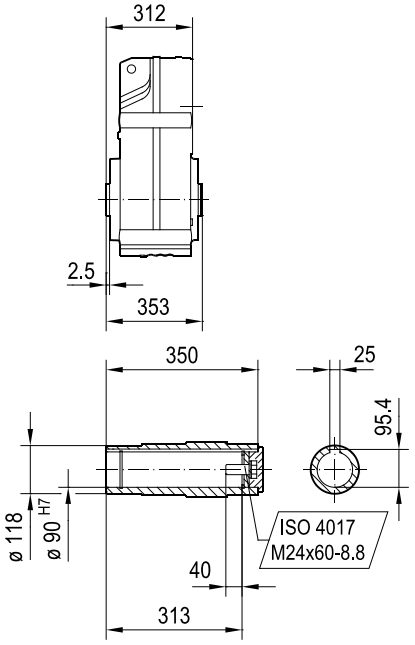

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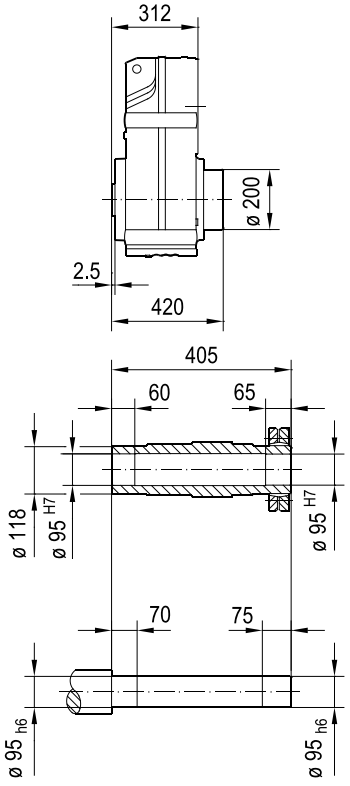

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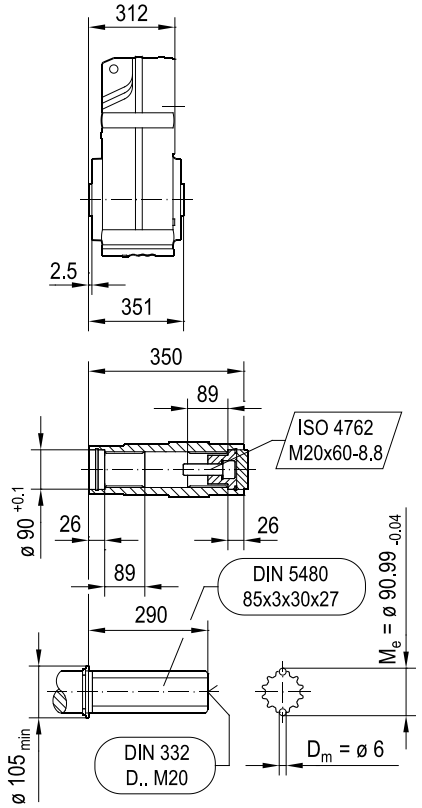
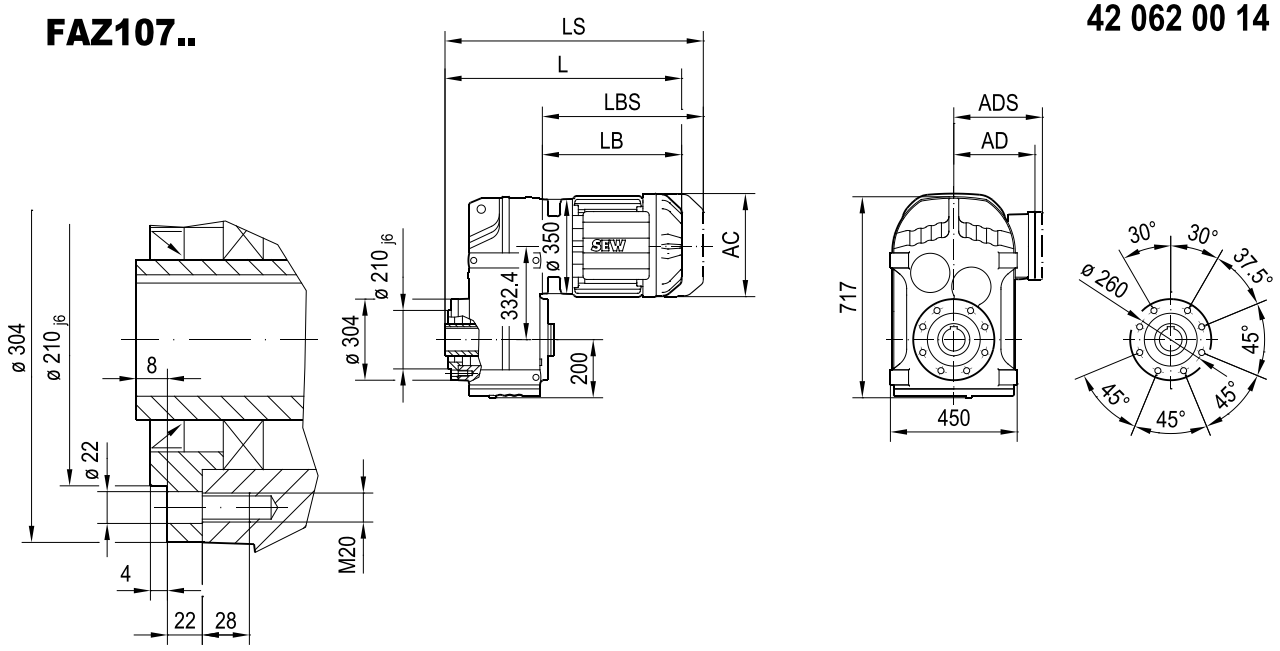


(→ 📖 7.3)	DRN									
	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..
AC	197	197	221	221	261	261	314	357	394	434
AD	157	157	170	170	228	228	253	268	283	305
ADS	158	158	172	172	228	228	253	268	283	305
L	594	644	675	725	743	769	835	858	968	942
LS	688	738	787	837	881	906	1024	1047	1173	1147
LB	282	332	363	413	431	457	523	546	656	630
LBS	376	426	475	525	569	594	712	735	861	835

24832936/EN – 09/2018

FAZ107..

42 062 00 14



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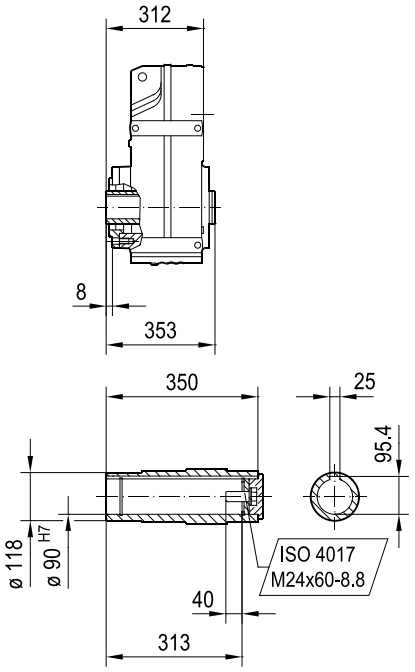

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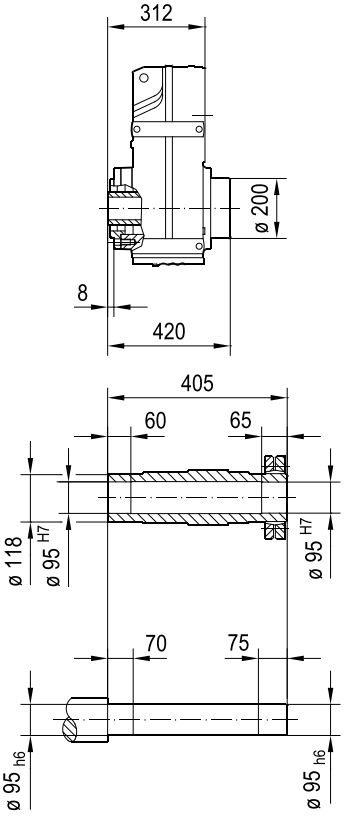

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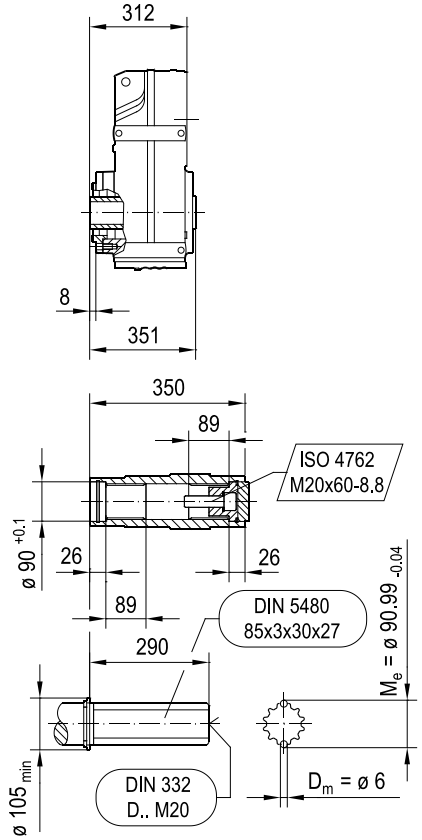
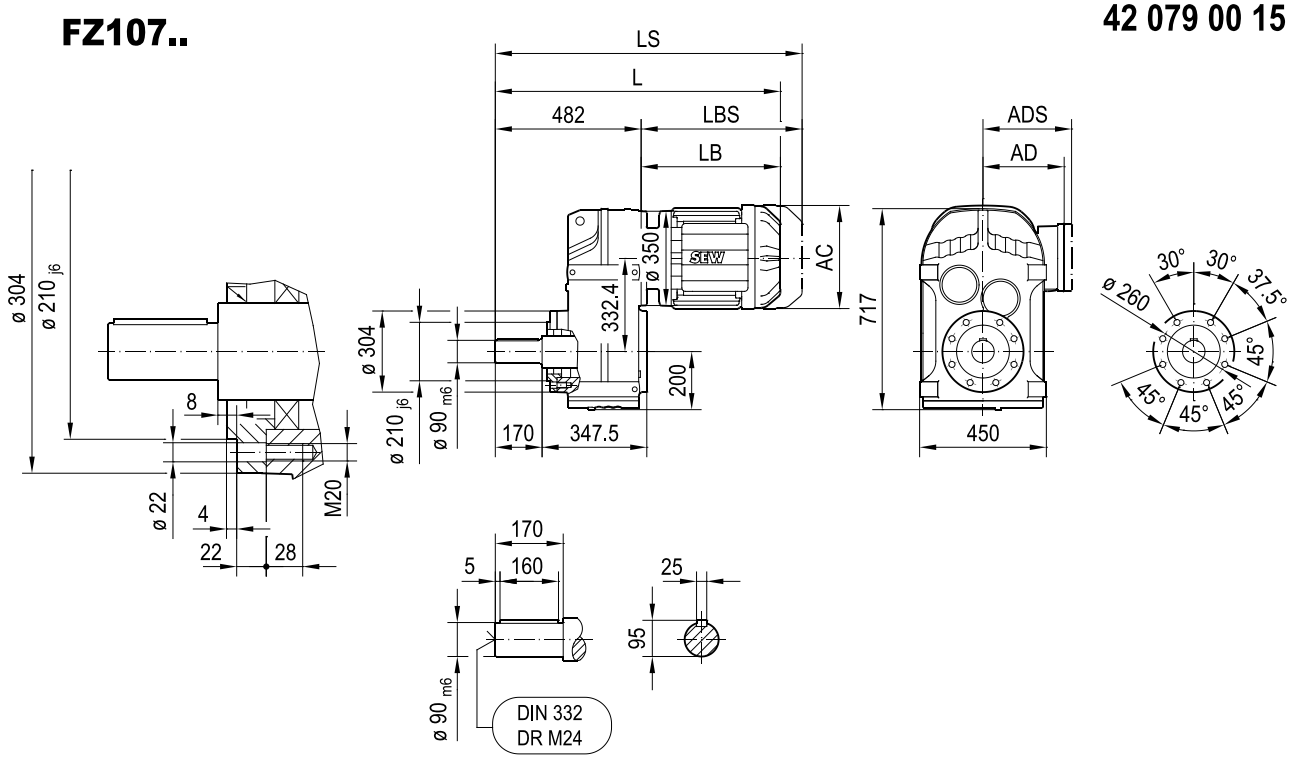


(→ 📖 7.3)	DRN									
	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..
AC	197	197	221	221	261	261	314	357	394	434
AD	157	157	170	170	228	228	253	268	283	305
ADS	158	158	172	172	228	228	253	268	283	305
L	594	644	675	725	743	769	835	858	968	942
LS	688	738	787	837	881	906	1024	1047	1173	1147
LB	282	332	363	413	431	457	523	546	656	630
LBS	376	426	475	525	569	594	712	735	861	835

24832936/EN – 09/2018

FZ107..

42 079 00 15

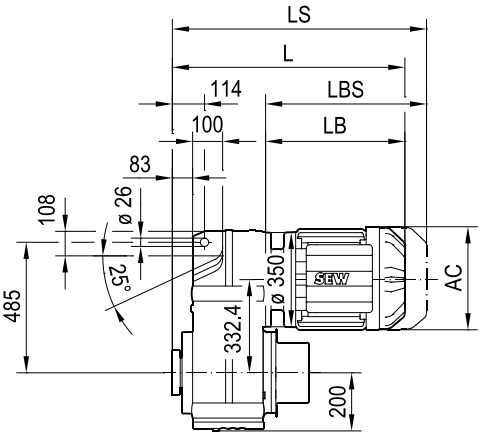


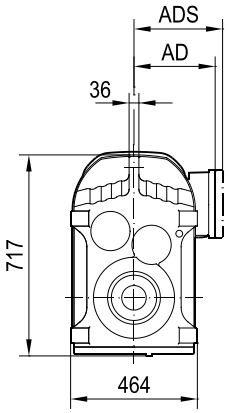
(→ 📖 7.3)	DRN									
	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..
AC	197	197	221	221	261	261	314	357	394	434
AD	157	157	170	170	228	228	253	268	283	305
ADS	158	158	172	172	228	228	253	268	283	305
L	764	814	845	895	913	939	1005	1028	1138	1112
LS	858	908	957	1007	1051	1076	1194	1217	1343	1317
LB	282	332	363	413	431	457	523	546	656	630
LBS	376	426	475	525	569	594	712	735	861	835

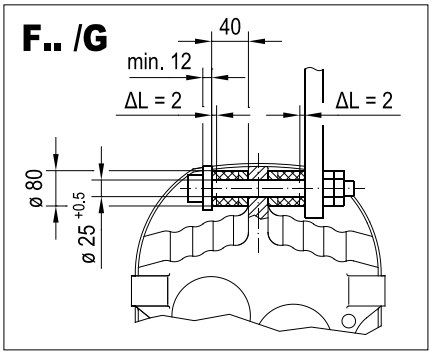
24832936/EN – 09/2018

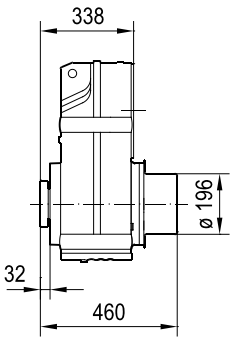
FT107..

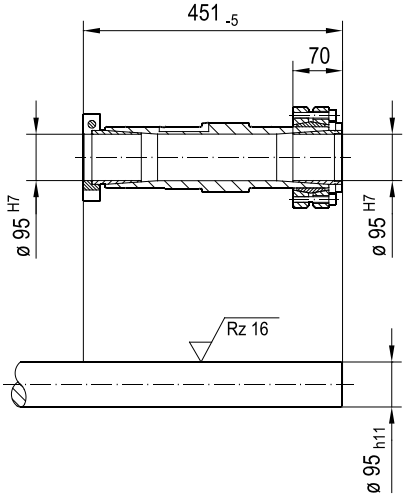
42 063 01 14

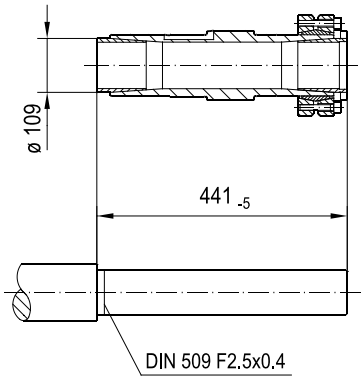








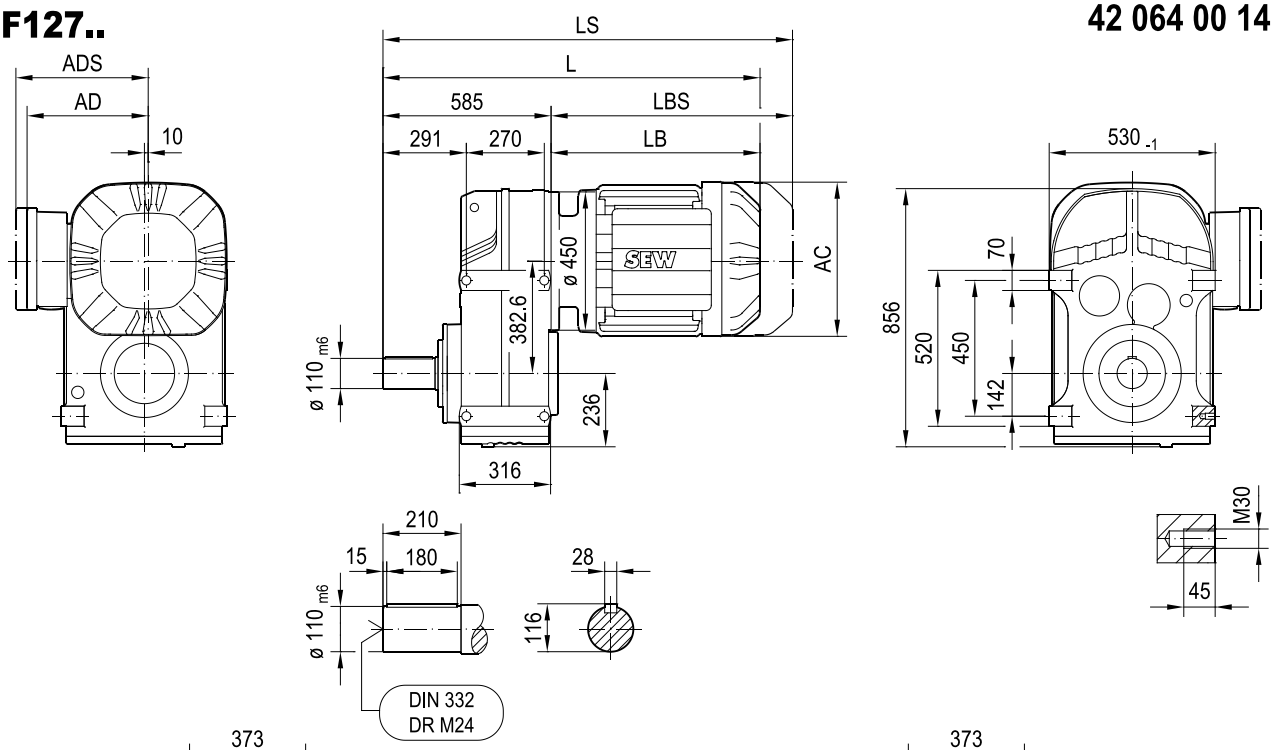




(→ 📖 7.3)	DRN									
	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..
AC	197	197	221	221	261	261	314	357	394	434
AD	157	157	170	170	228	228	253	268	283	305
ADS	158	158	172	172	228	228	253	268	283	305
L	620	670	701	751	769	795	861	884	994	968
LS	714	764	813	863	907	932	1050	1073	1199	1173
LB	282	332	363	413	431	457	523	546	656	630
LBS	376	426	475	525	569	594	712	735	861	835

F127..

42 064 00 14



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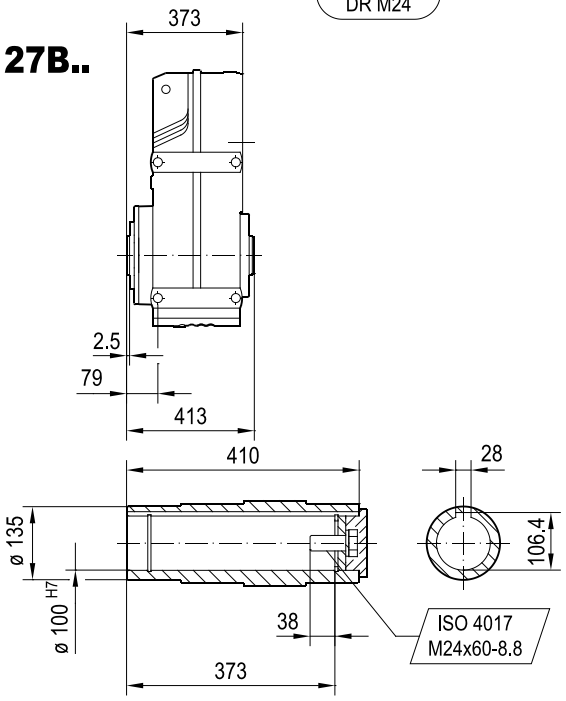

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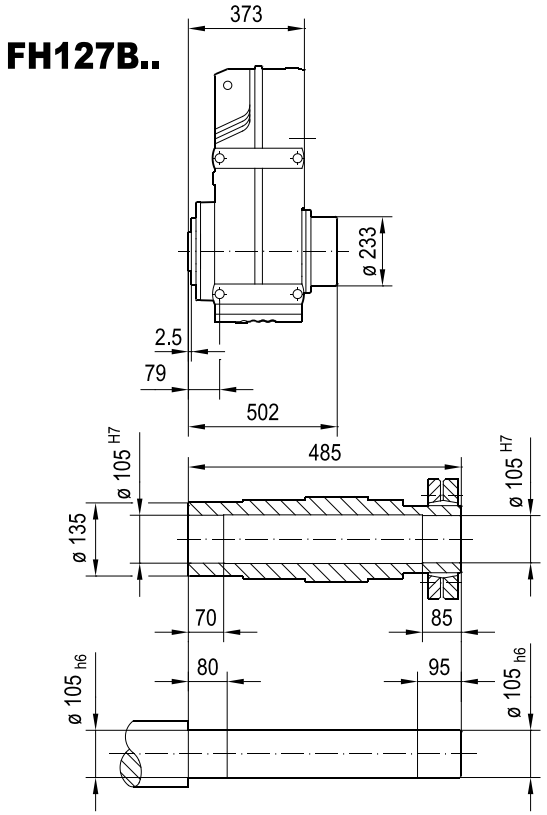
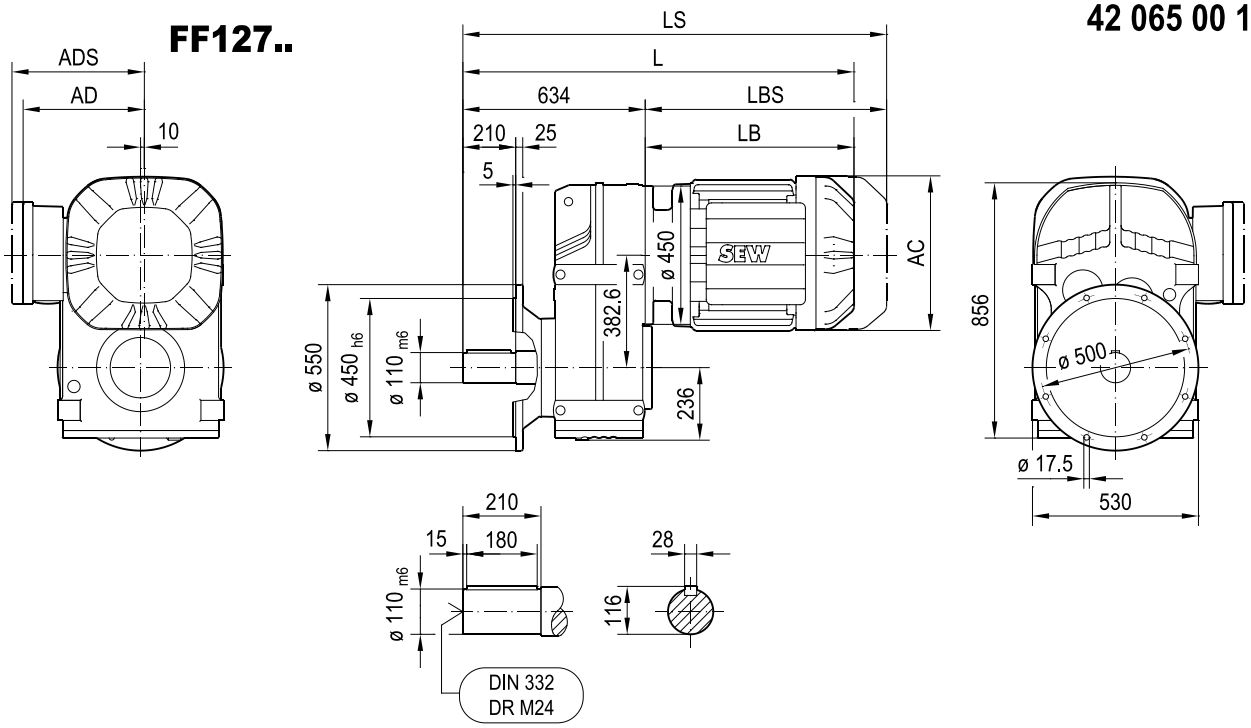


(→ 📖 7.3)	DRN								
	132M	132L	160..	180..	200L	225..	250M	280S	280M
AC	261	261	314	357	394	434	495	495	495
AD	228	228	253	268	283	305	394	394	394
ADS	228	228	253	268	283	305	394	394	394
L	1001	1027	1093	1116	1226	1200	1337	1337	1432
LS	1139	1164	1282	1305	1431	1405	1577	1577	1672
LB	416	442	508	531	641	615	752	752	847
LBS	554	579	697	720	846	820	992	992	1087

24832936/EN – 09/2018

FF127..

42 065 00 14



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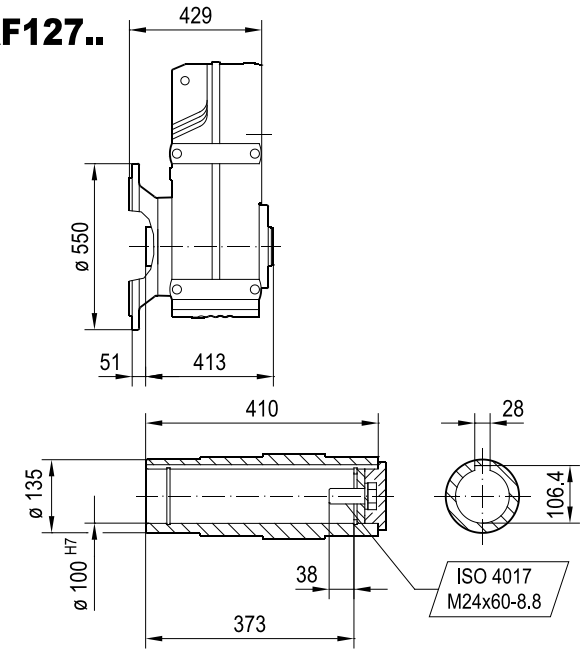

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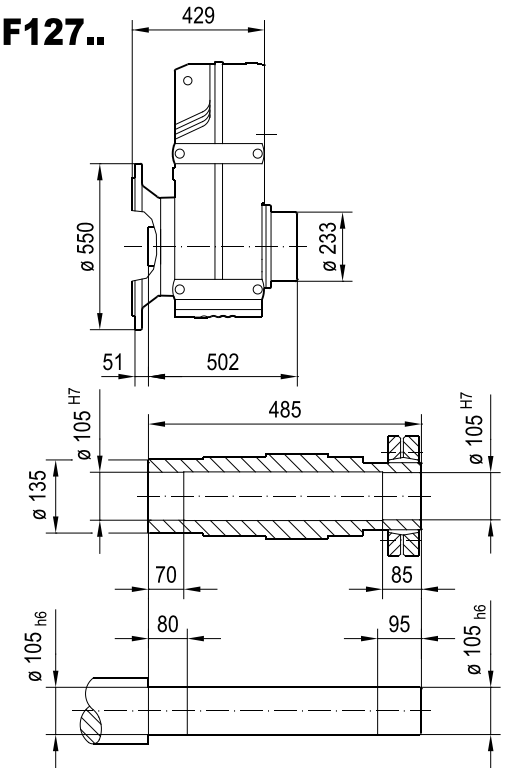
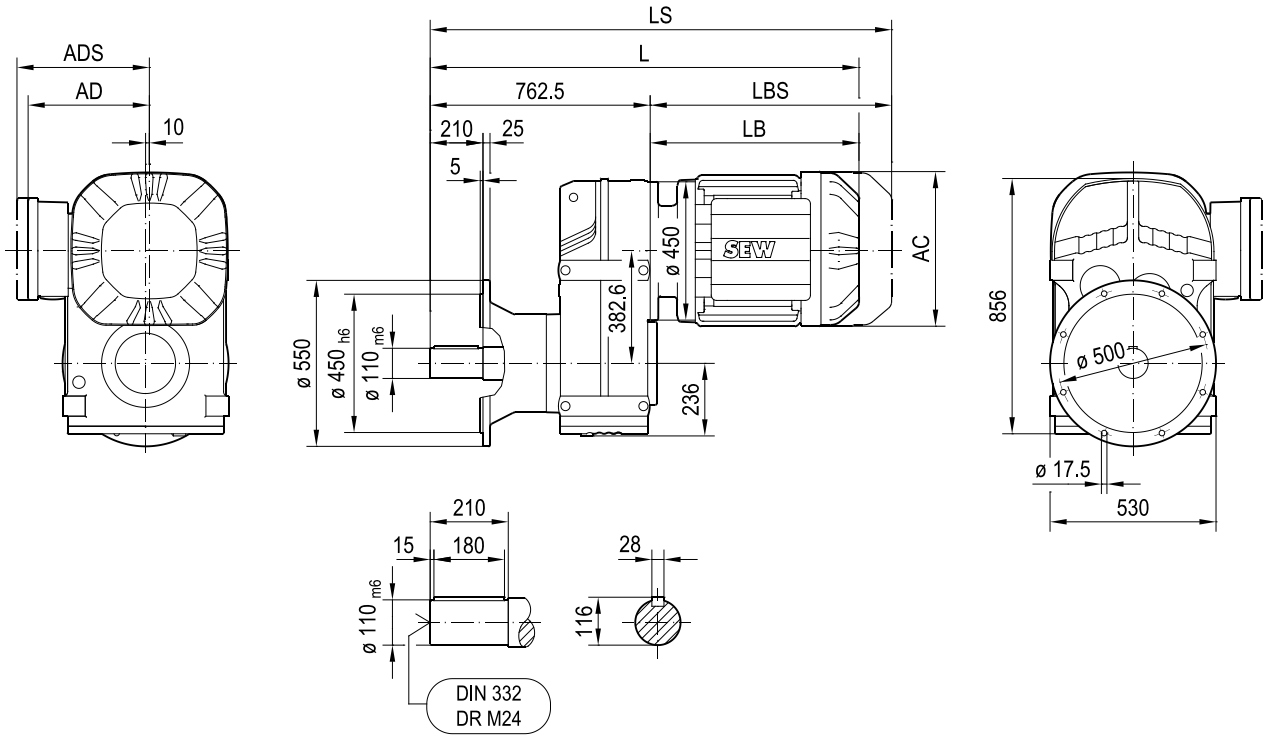


(→ 📖 7.3)	DRN								
	132M	132L	160..	180..	200L	225..	250M	280S	280M
AC	261	261	314	357	394	434	495	495	495
AD	228	228	253	268	283	305	394	394	394
ADS	228	228	253	268	283	305	394	394	394
L	1050	1076	1142	1165	1275	1249	1386	1386	1481
LS	1188	1213	1331	1354	1480	1454	1626	1626	1721
LB	416	442	508	531	641	615	752	752	847
LBS	554	579	697	720	846	820	992	992	1087

24832936/EN – 09/2018

FM127..

42 011 00 17



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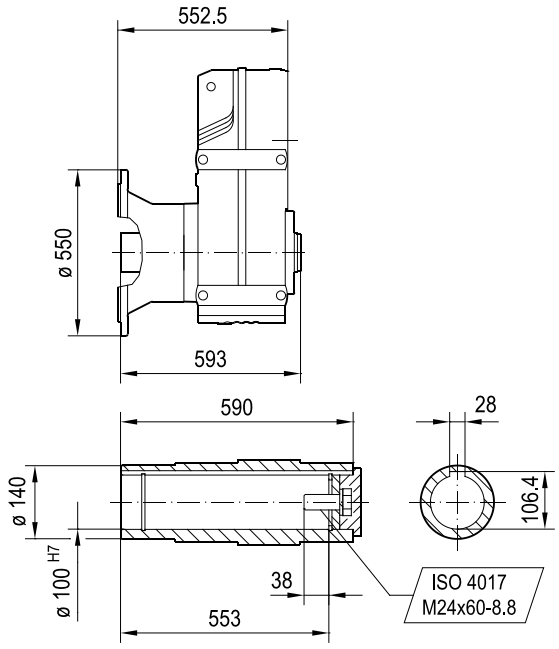
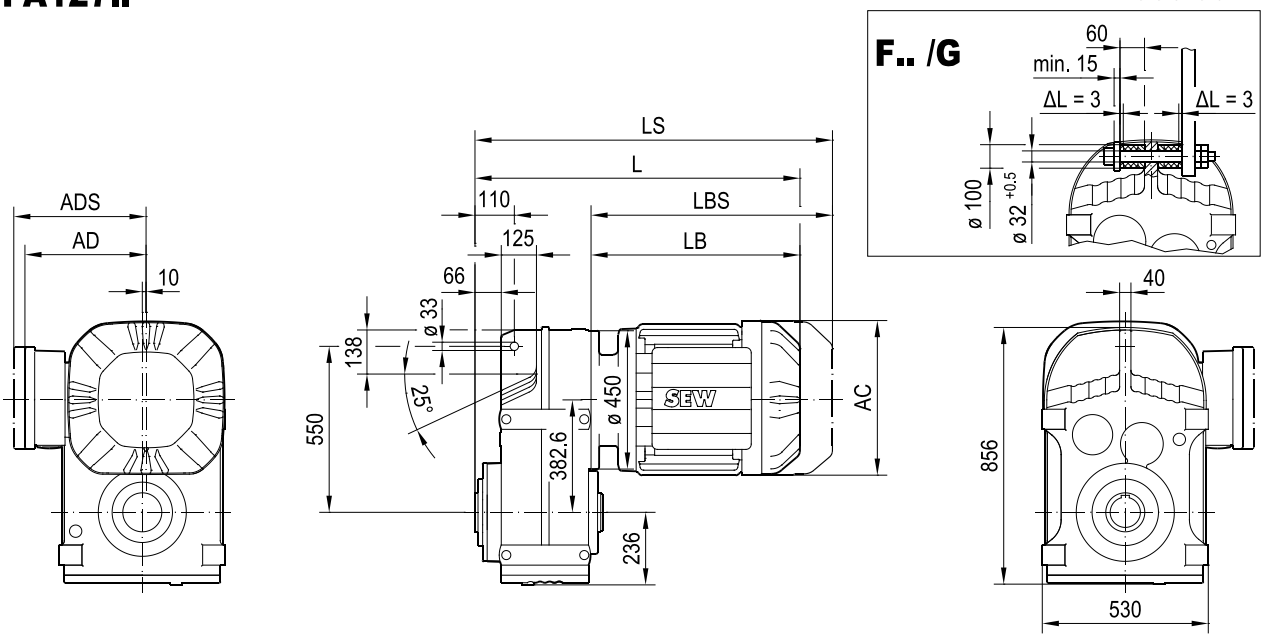


(→ 📖 7.3)	DRN								
	132M	132L	160..	180..	200L	225..	250M	280S	280M
AC	261	261	314	357	394	434	495	495	495
AD	228	228	253	268	283	305	394	394	394
ADS	228	228	253	268	283	305	394	394	394
L	1179	1204	1271	1294	1403	1378	1515	1515	1610
LS	1316	1341	1460	1483	1608	1583	1755	1755	1850
LB	416	442	508	531	641	615	752	752	847
LBS	554	579	697	720	846	820	992	992	1087

24832936/EN – 09/2018

FA127..

42 066 00 14



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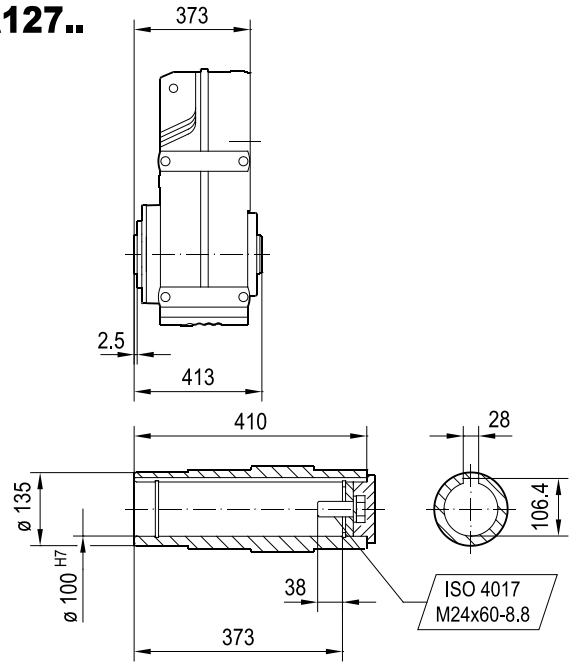

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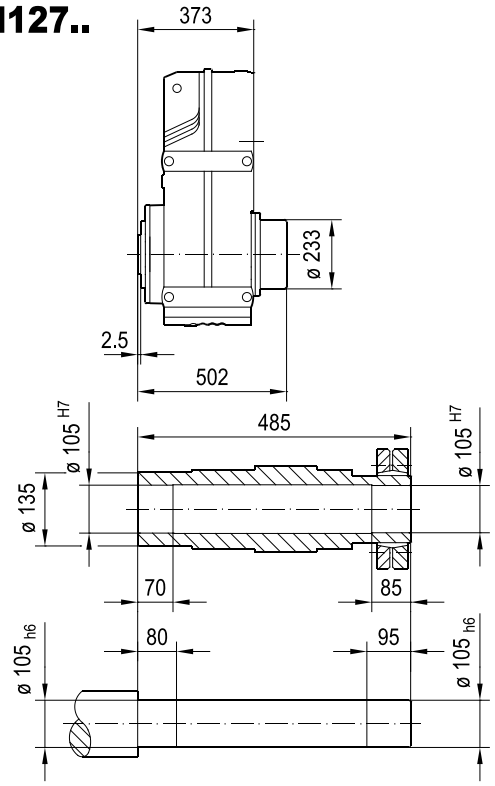
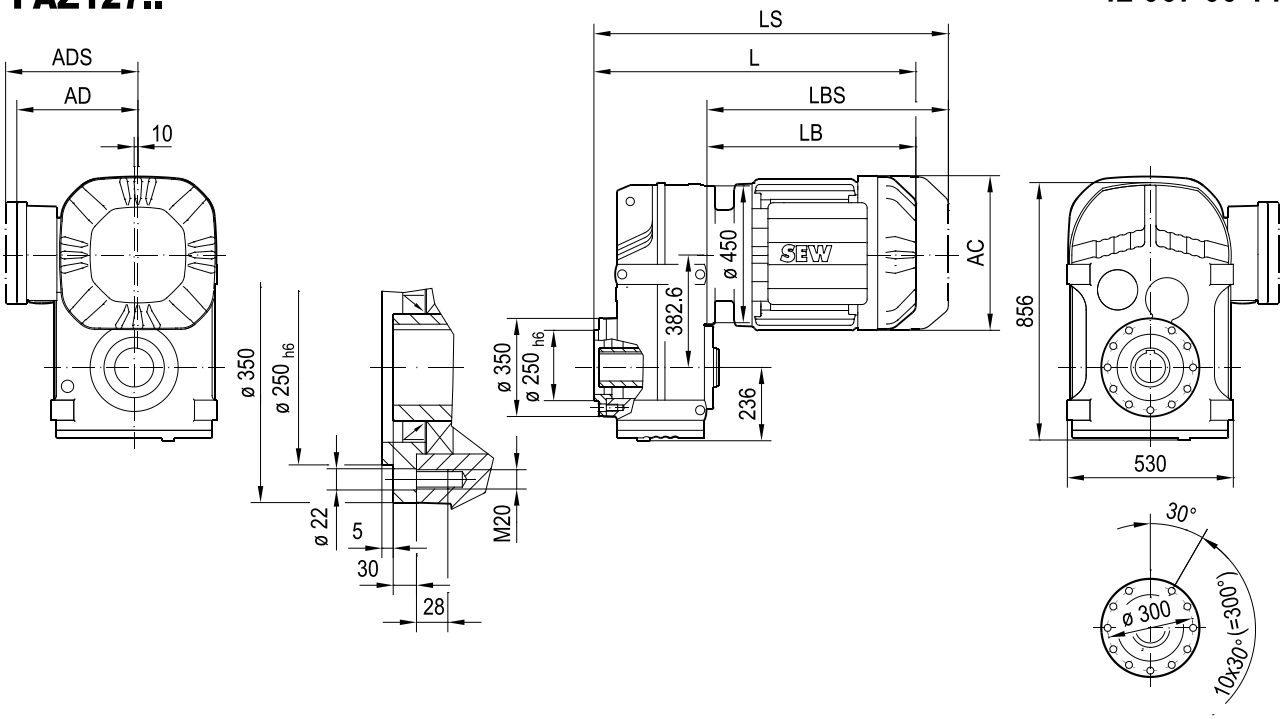


(→ 📖 7.3)	DRN								
	132M	132L	160..	180..	200L	225..	250M	280S	280M
AC	261	261	314	357	394	434	495	495	495
AD	228	228	253	268	283	305	394	394	394
ADS	228	228	253	268	283	305	394	394	394
L	789	815	881	904	1014	988	1125	1125	1220
LS	927	952	1070	1093	1219	1193	1365	1365	1460
LB	416	442	508	531	641	615	752	752	847
LBS	554	579	697	720	846	820	992	992	1087

24832936/EN – 09/2018

FAZ127..

42 067 00 14



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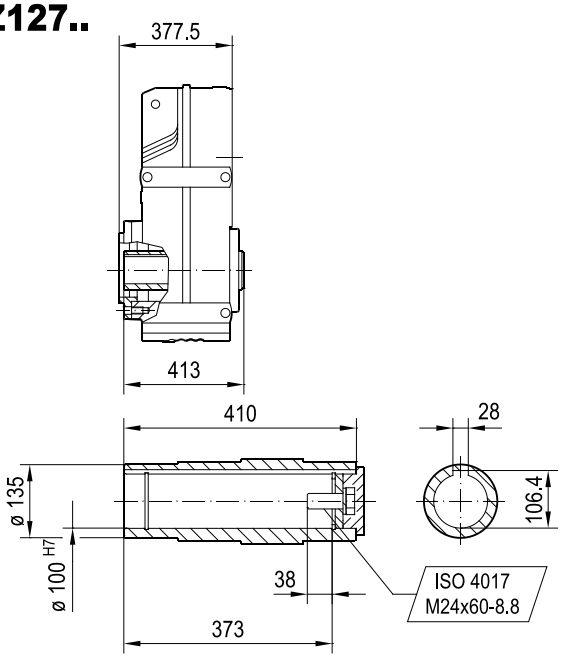
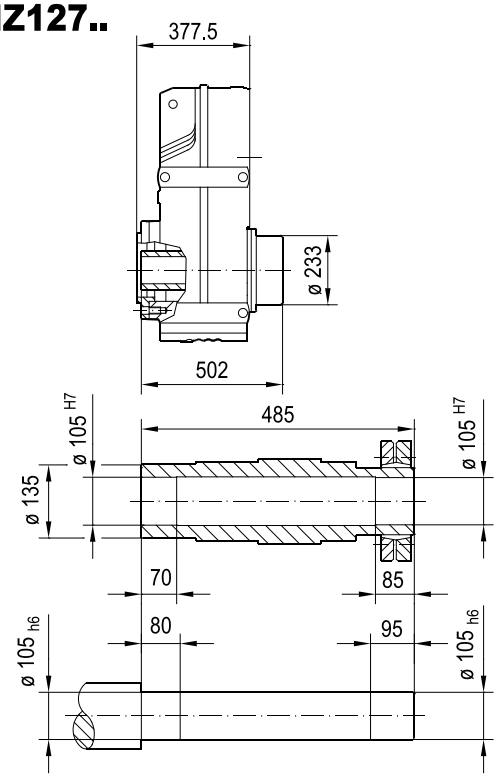


FHZ127..

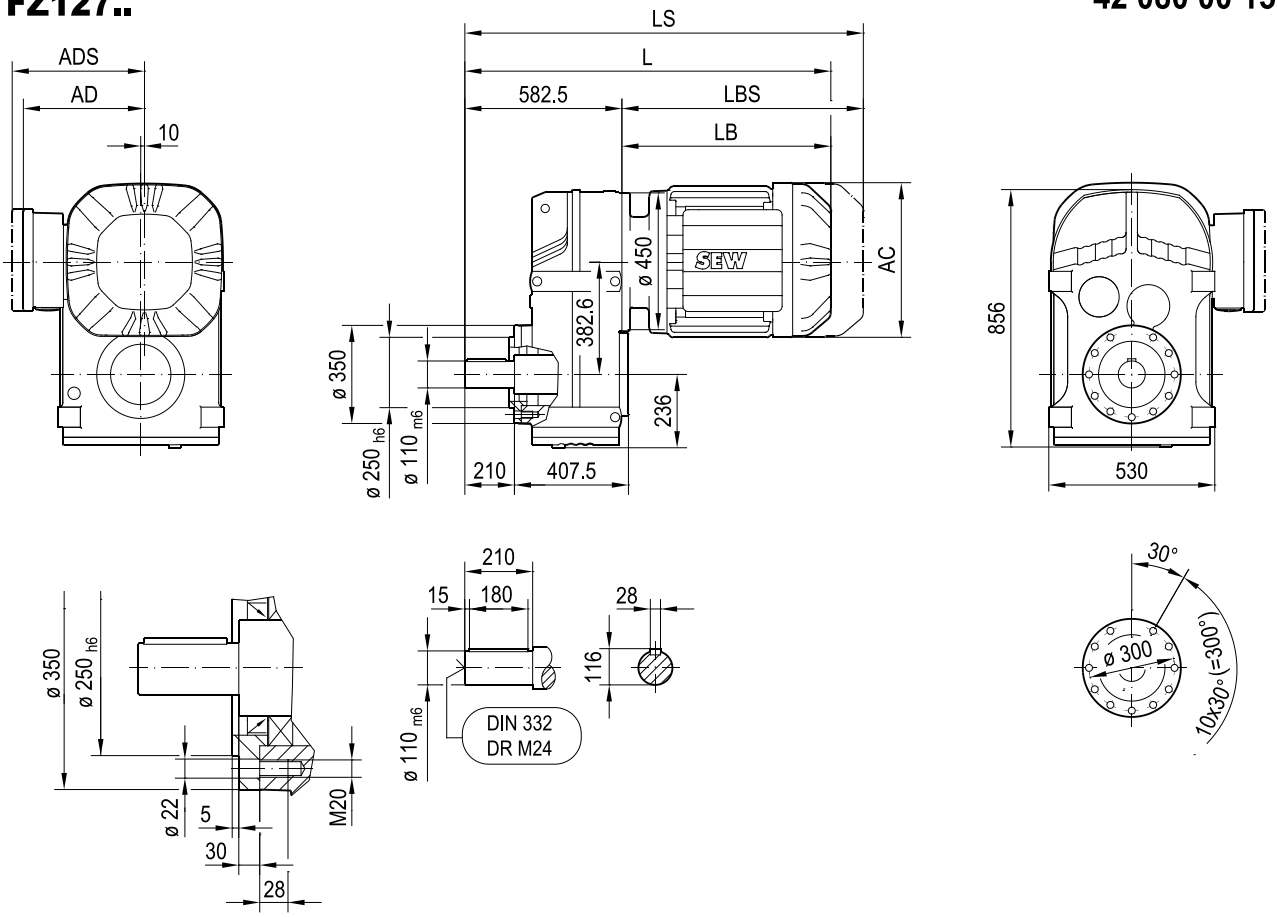


(→ 📖 7.3)	DRN								
	132M	132L	160..	180..	200L	225..	250M	280S	280M
AC	261	261	314	357	394	434	495	495	495
AD	228	228	253	268	283	305	394	394	394
ADS	228	228	253	268	283	305	394	394	394
L	794	819	886	909	1018	993	1130	1130	1225
LS	931	956	1075	1098	1223	1198	1370	1370	1465
LB	416	442	508	531	641	615	752	752	847
LBS	554	579	697	720	846	820	992	992	1087

24832936/EN – 09/2018

FZ127..

42 080 00 15

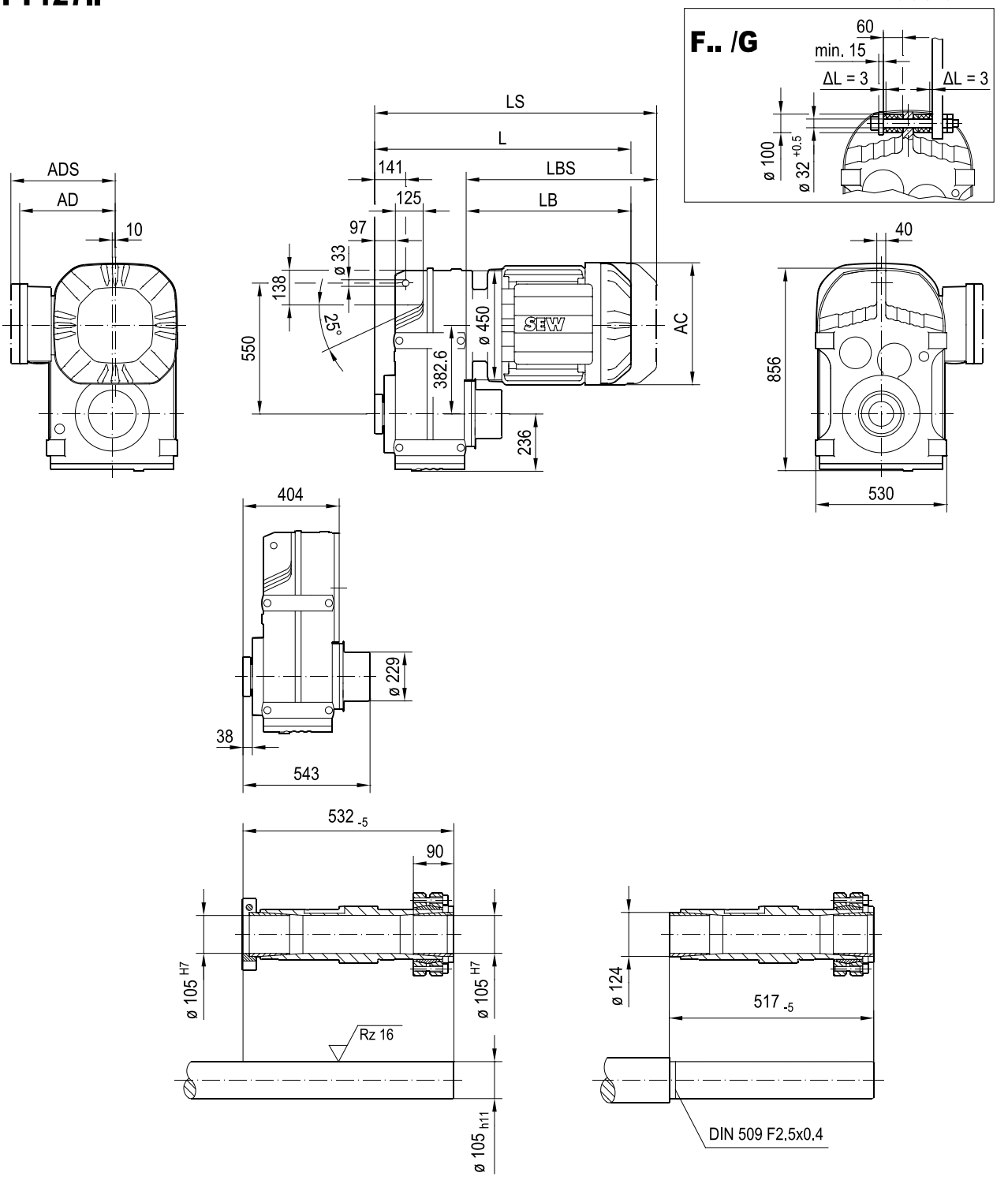


(→ 📖 7.3)	DRN								
	132M	132L	160..	180..	200L	225..	250M	280S	280M
AC	261	261	314	357	394	434	495	495	495
AD	228	228	253	268	283	305	394	394	394
ADS	228	228	253	268	283	305	394	394	394
L	999	1024	1091	1114	1223	1198	1335	1335	1430
LS	1136	1161	1280	1303	1428	1403	1575	1575	1670
LB	416	442	508	531	641	615	752	752	847
LBS	554	579	697	720	846	820	992	992	1087

24832936/EN – 09/2018

FT127..

42 068 01 14

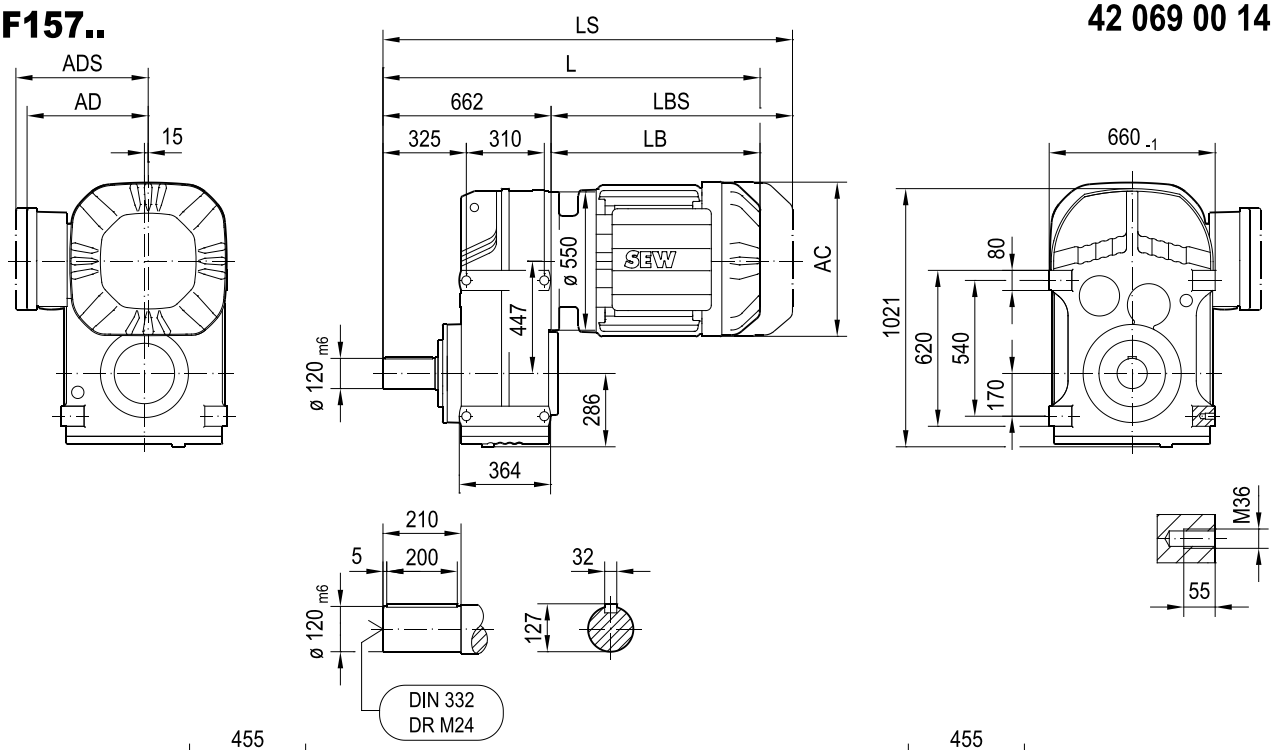


(→ 📖 7.3)	DRN								
	132M	132L	160..	180..	200L	225..	250M	280S	280M
AC	261	261	314	357	394	434	495	495	495
AD	228	228	253	268	283	305	394	394	394
ADS	228	228	253	268	283	305	394	394	394
L	820	846	912	935	1045	1019	1156	1156	1251
LS	958	983	1101	1124	1250	1224	1396	1396	1491
LB	416	442	508	531	641	615	752	752	847
LBS	554	579	697	720	846	820	992	992	1087

24832936/EN – 09/2018

F157..

42 069 00 14



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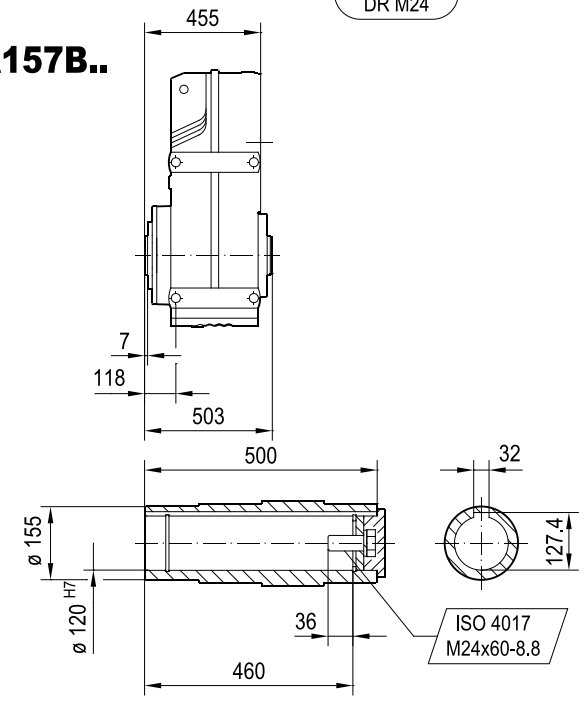

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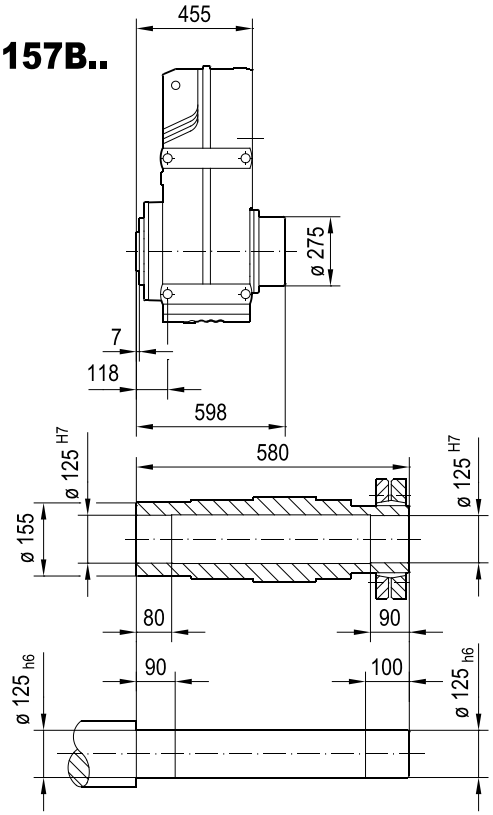
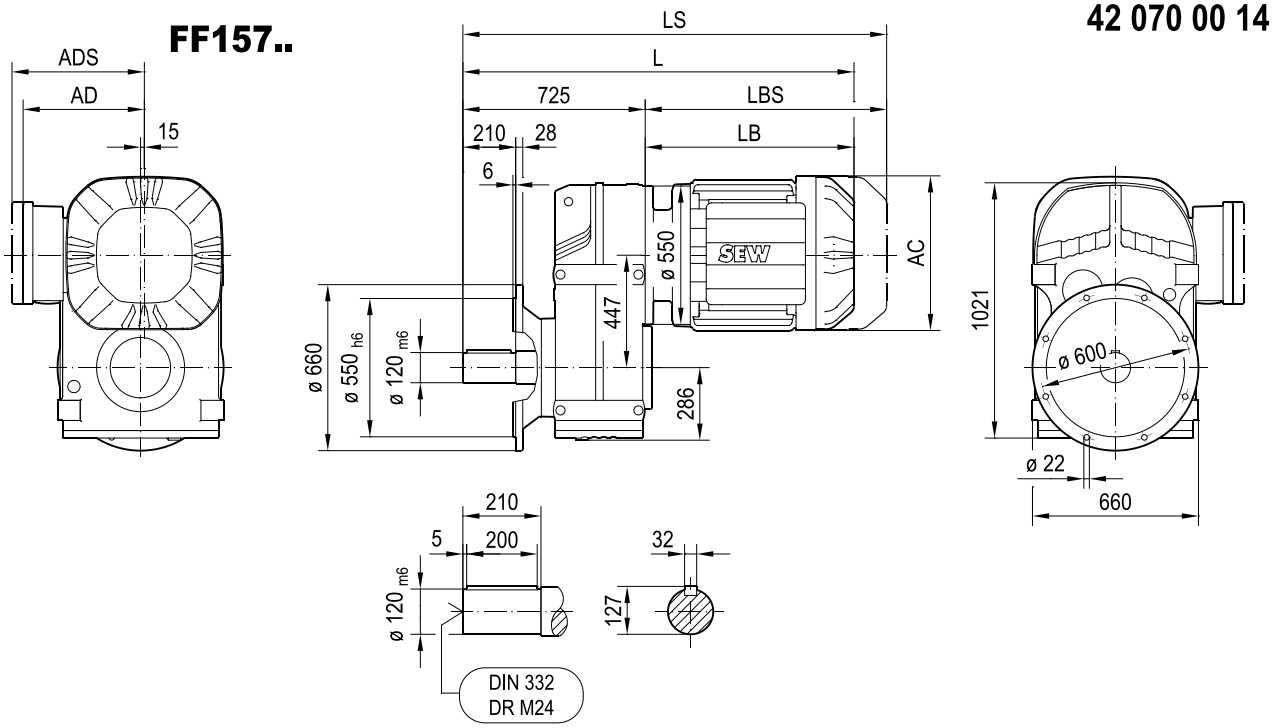


(→ 📖 7.3)	DRN								
	160..	180..	200L	225..	250M	280S	280M	315S-M	315ME-H
AC	314	357	394	434	495	495	495	624	624
AD	253	268	283	305	394	394	394	506	506
ADS	253	268	283	305	394	394	394	506	506
L	1162	1185	1295	1269	1406	1406	1501	1603	1733
LS	1351	1374	1500	1474	1646	1646	1741	1854	1984
LB	500	523	633	607	744	744	839	941	1071
LBS	689	712	838	812	984	984	1079	1192	1322

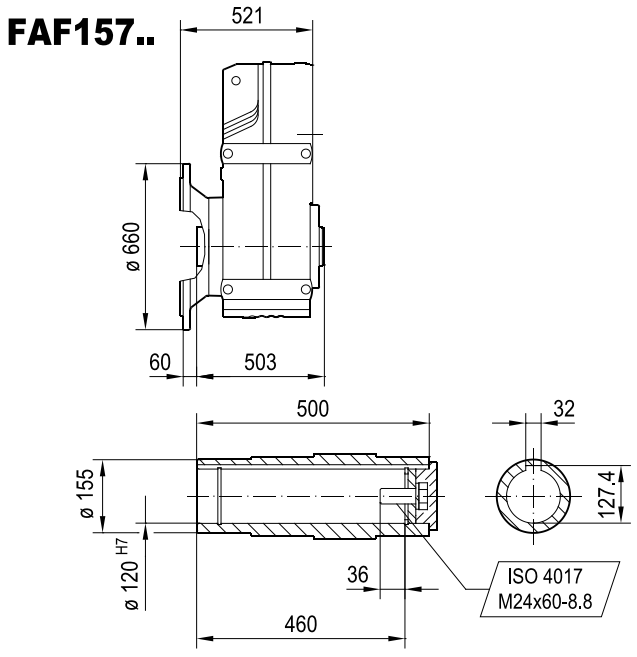
24832936/EN – 09/2018

42 070 00 14

FF157..



FAF157..



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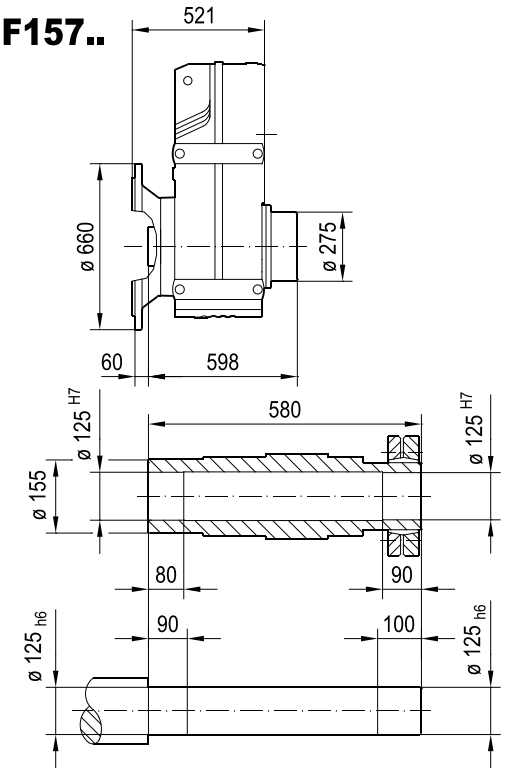
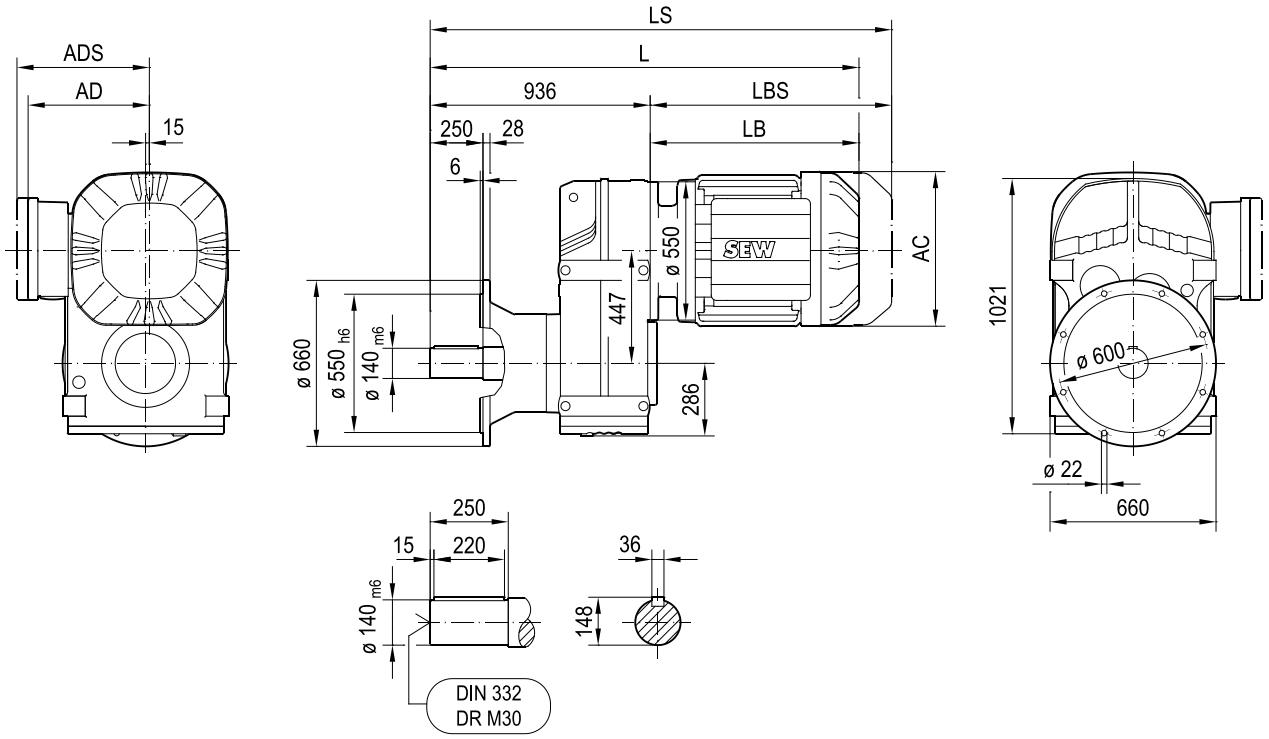


(→ 📖 7.3)	DRN								
	160..	180..	200L	225..	250M	280S	280M	315S-M	315ME-H
AC	314	357	394	434	495	495	495	624	624
AD	253	268	283	305	394	394	394	506	506
ADS	253	268	283	305	394	394	394	506	506
L	1225	1248	1358	1332	1469	1469	1564	1666	1796
LS	1414	1437	1563	1537	1709	1709	1804	1917	2047
LB	500	523	633	607	744	744	839	941	1071
LBS	689	712	838	812	984	984	1079	1192	1322

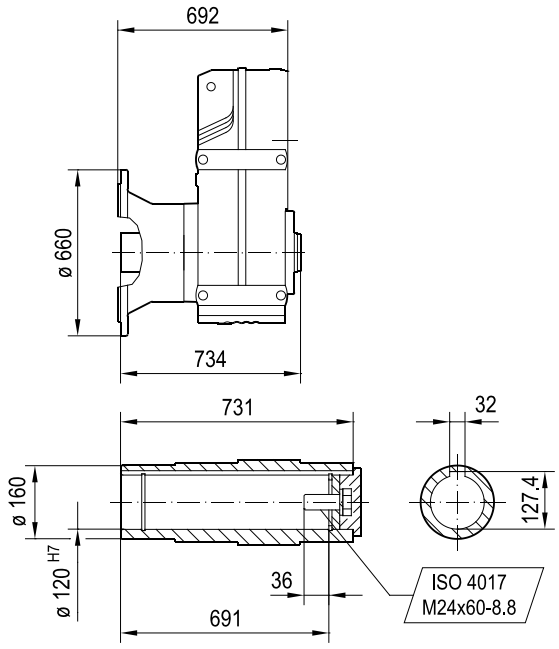
24832936/EN – 09/2018

FM157..

42 117 00 17



FAM157..

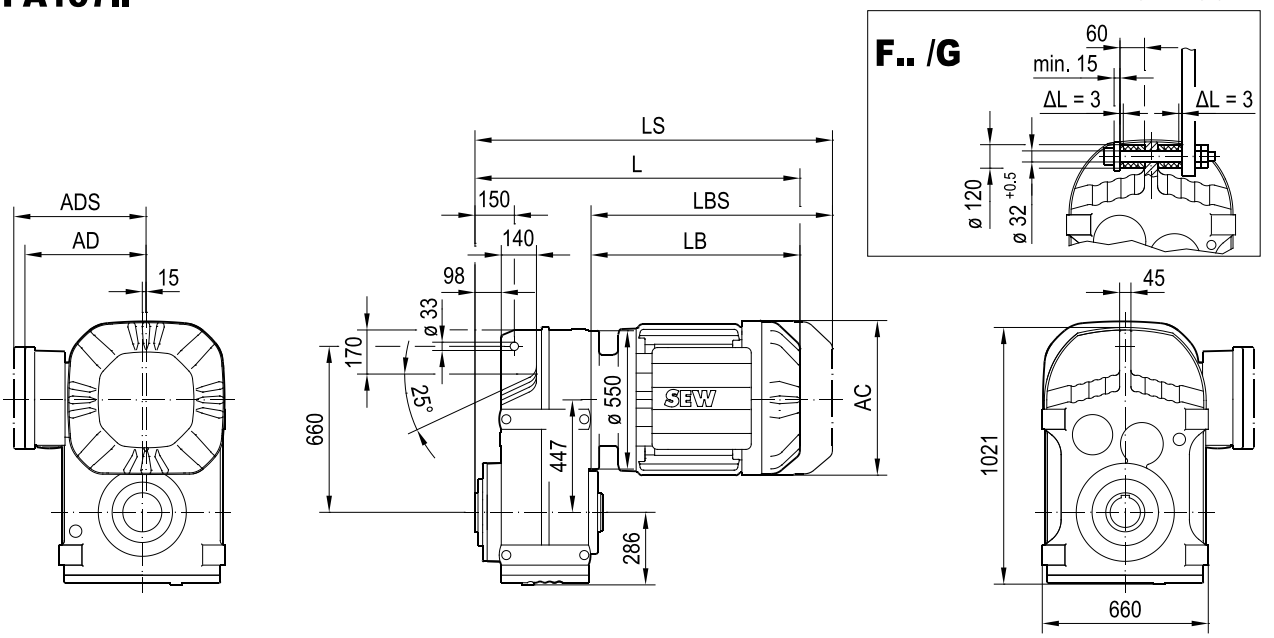


(→ 📖 7.3)	DRN								
	160..	180..	200L	225..	250M	280S	280M	315S-M	315ME-H
AC	314	357	394	434	495	495	495	624	624
AD	253	268	283	305	394	394	394	506	506
ADS	253	268	283	305	394	394	394	506	506
L	1436	1459	1569	1543	1680	1680	1775	1877	2007
LS	1625	1648	1774	1748	1920	1920	2015	2128	2258
LB	500	523	633	607	744	744	839	941	1071
LBS	689	712	838	812	984	984	1079	1192	1322

24832936/EN – 09/2018

FA157..

42 071 00 14



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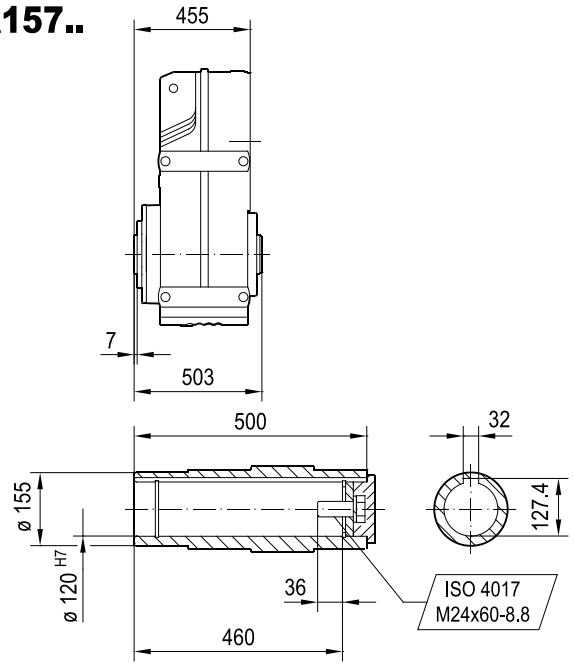
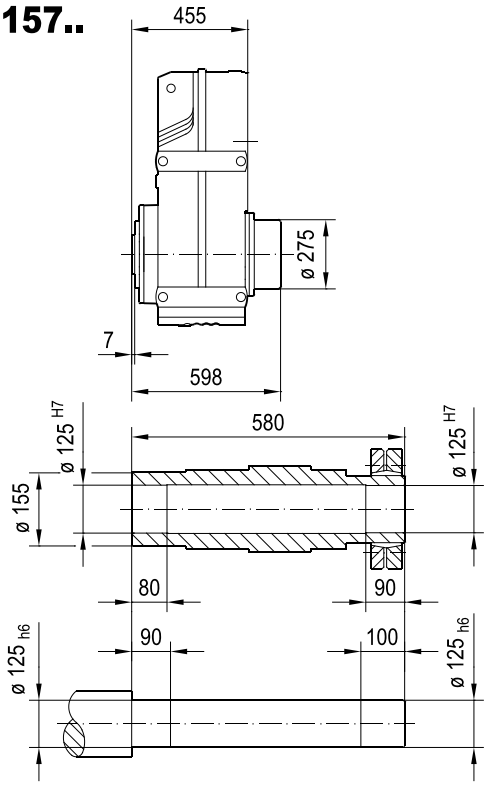


FH157..

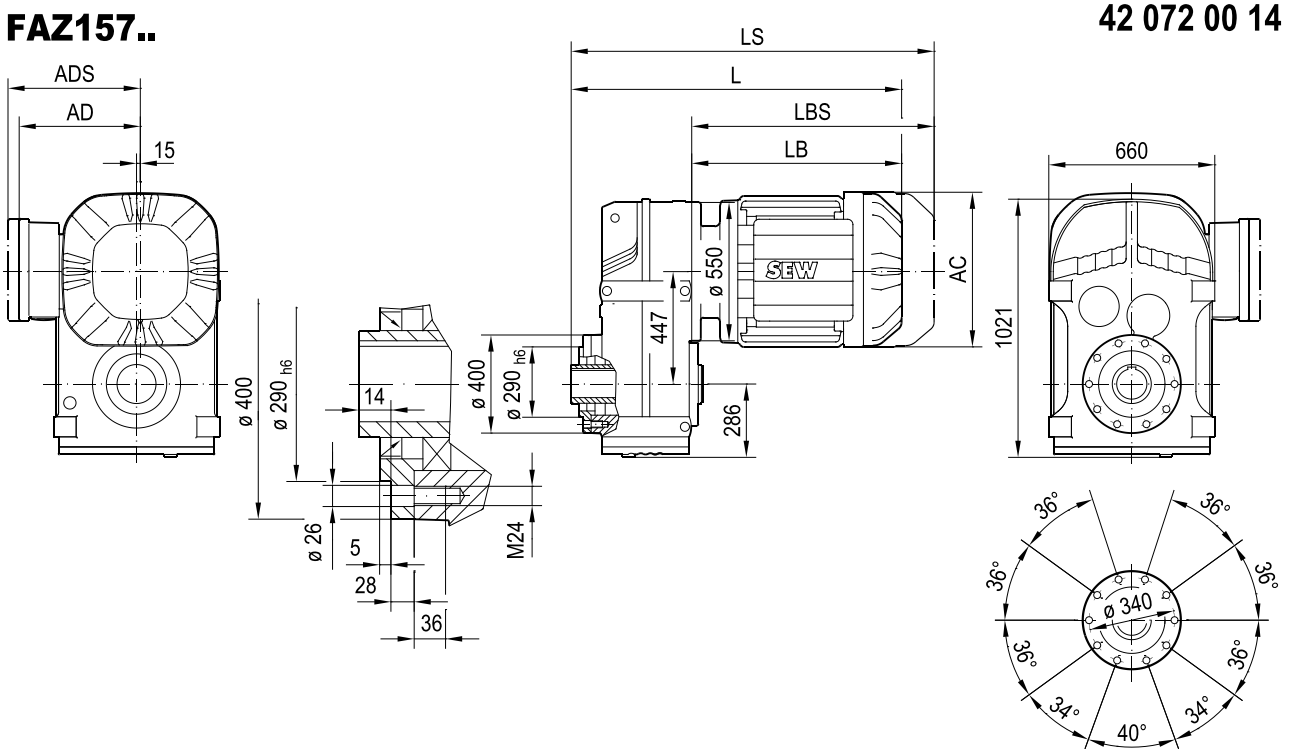


(→ 📖 7.3)	DRN								
	160..	180..	200L	225..	250M	280S	280M	315S-M	315ME-H
AC	314	357	394	434	495	495	495	624	624
AD	253	268	283	305	394	394	394	506	506
ADS	253	268	283	305	394	394	394	506	506
L	955	978	1088	1062	1199	1199	1294	1396	1526
LS	1144	1167	1293	1267	1439	1439	1534	1647	1777
LB	500	523	633	607	744	744	839	941	1071
LBS	689	712	838	812	984	984	1079	1192	1322

24832936/EN – 09/2018

FAZ157..

42 072 00 14



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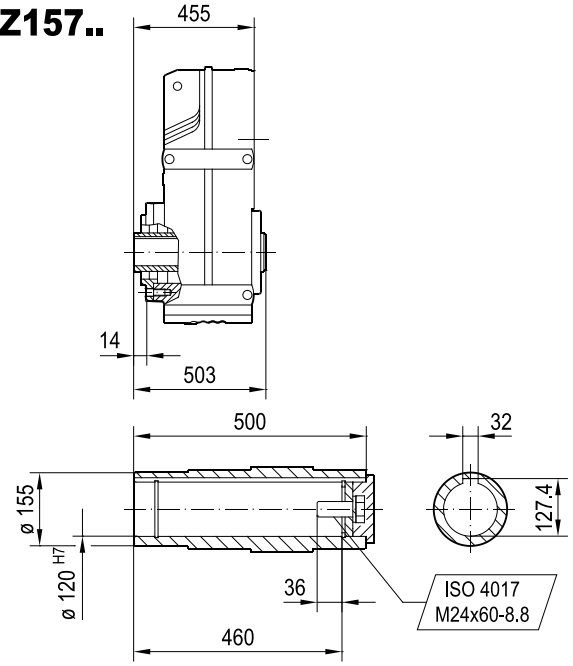

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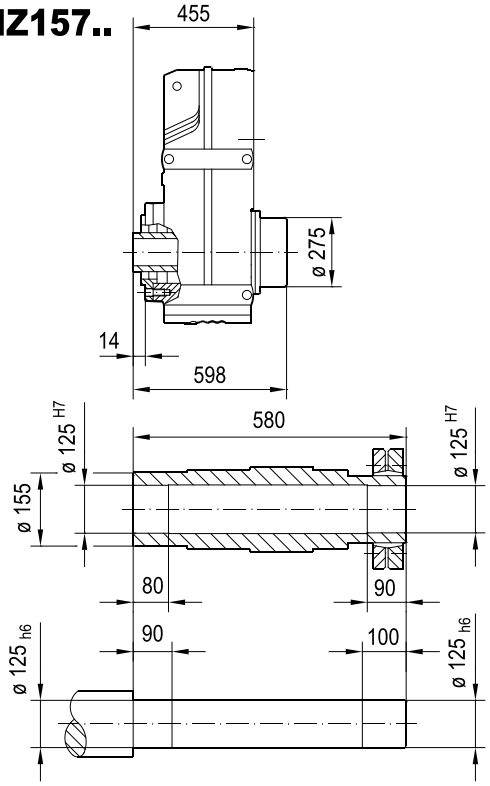
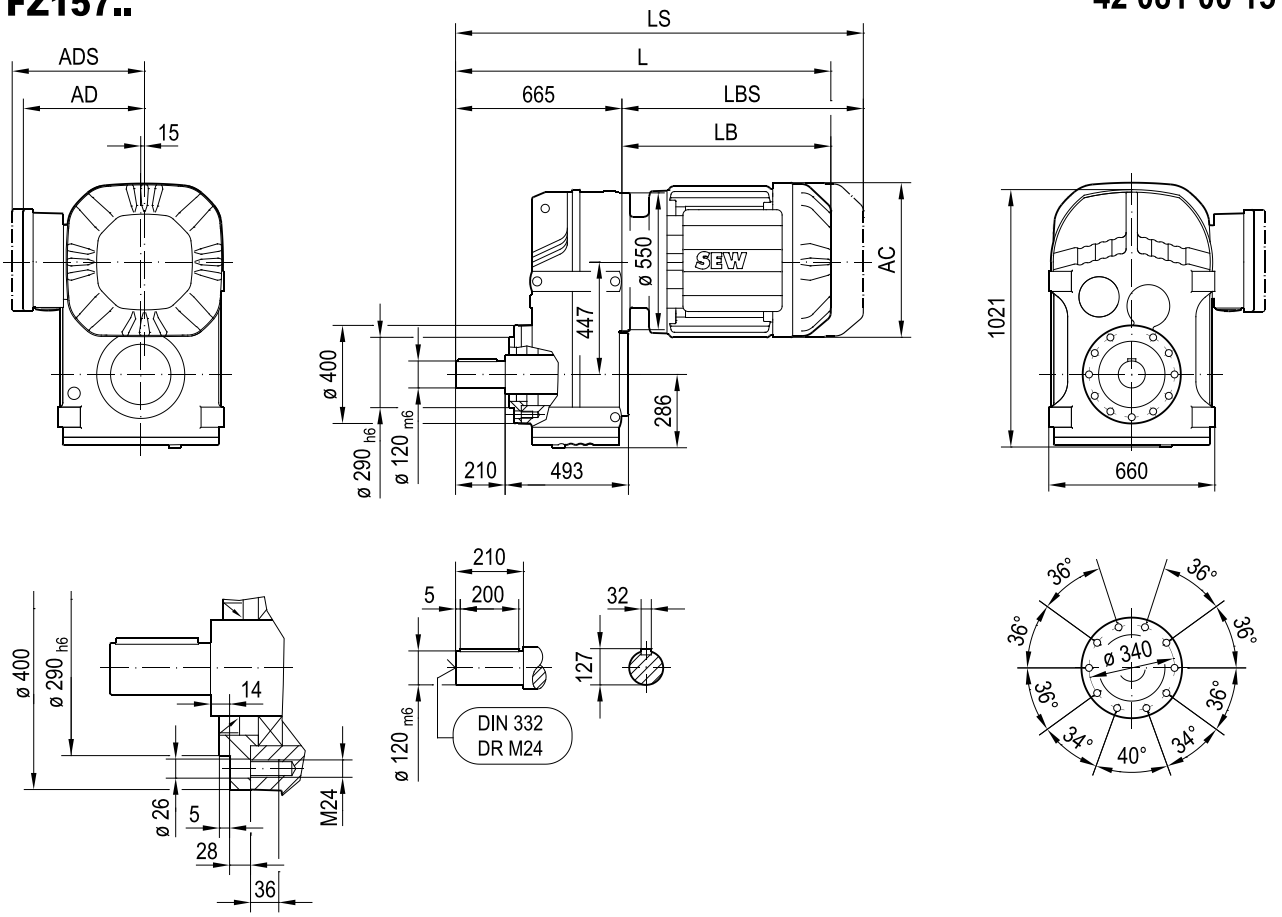


(→ 📖 7.3)	DRN								
	160..	180..	200L	225..	250M	280S	280M	315S-M	315ME-H
AC	314	357	394	434	495	495	495	624	624
AD	253	268	283	305	394	394	394	506	506
ADS	253	268	283	305	394	394	394	506	506
L	955	978	1088	1062	1199	1199	1294	1396	1526
LS	1144	1167	1293	1267	1439	1439	1534	1647	1777
LB	500	523	633	607	744	744	839	941	1071
LBS	689	712	838	812	984	984	1079	1192	1322

24832936/EN – 09/2018

FZ157..

42 081 00 15

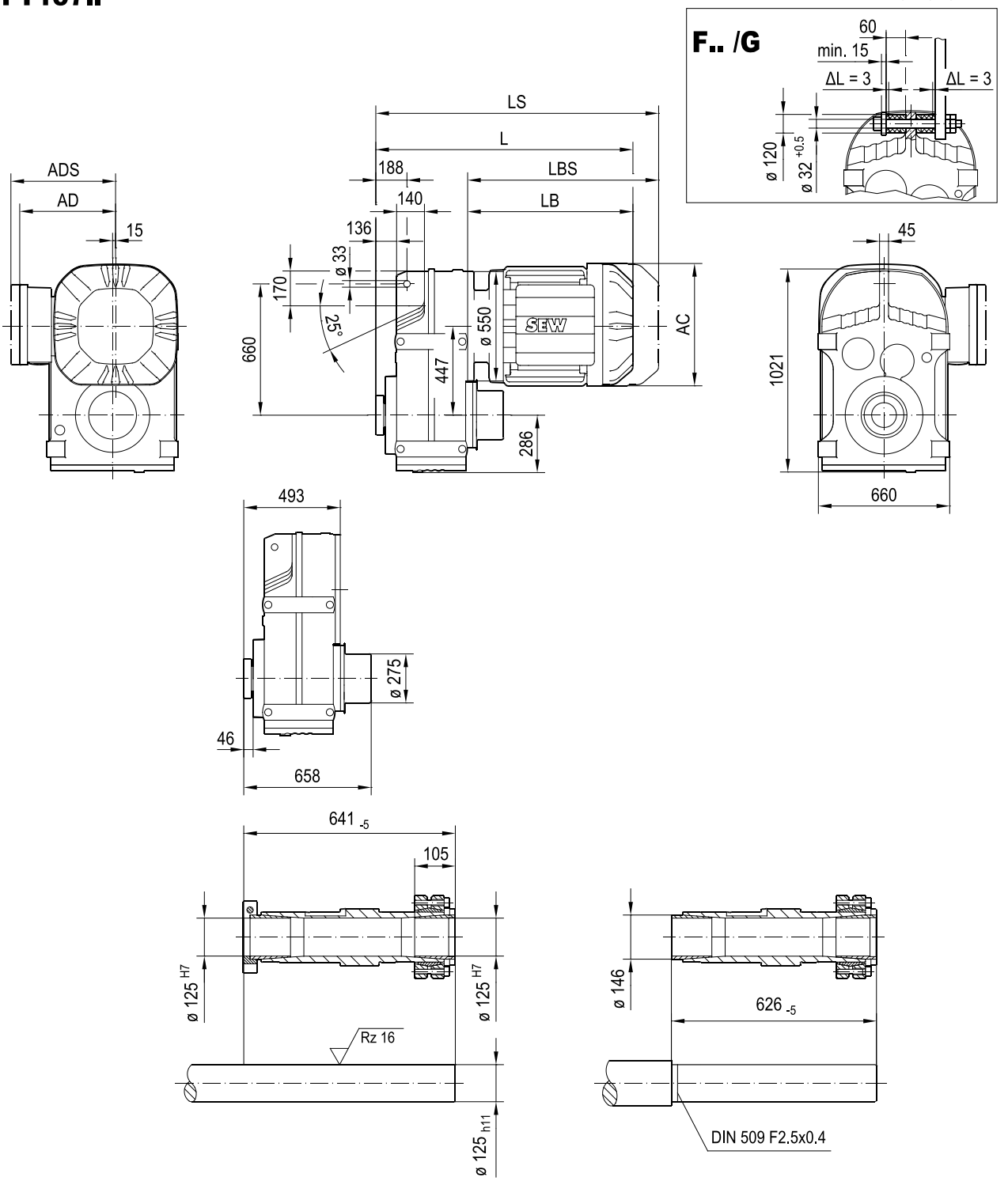


(→ 📖 7.3)	DRN								
	160..	180..	200L	225..	250M	280S	280M	315S-M	315ME-H
AC	314	357	394	434	495	495	495	624	624
AD	253	268	283	305	394	394	394	506	506
ADS	253	268	283	305	394	394	394	506	506
L	1165	1188	1298	1272	1409	1409	1504	1606	1736
LS	1354	1377	1503	1477	1649	1649	1744	1857	1987
LB	500	523	633	607	744	744	839	941	1071
LBS	689	712	838	812	984	984	1079	1192	1322

24832936/EN – 09/2018

FT157..

42 073 01 14

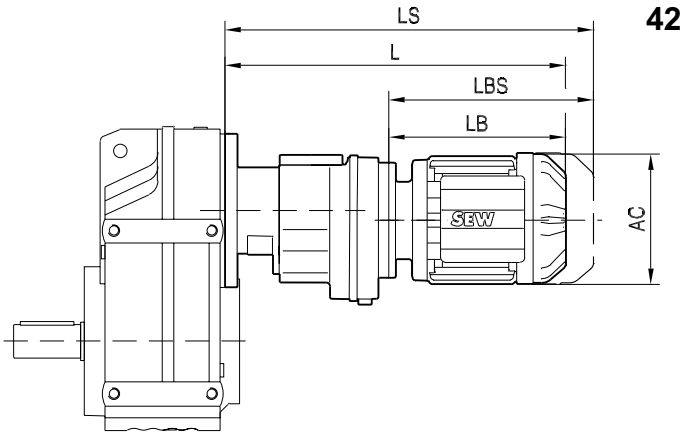


(→ 📖 7.3)	DRN								
	160..	180..	200L	225..	250M	280S	280M	315S-M	315ME-H
AC	314	357	394	434	495	495	495	624	624
AD	253	268	283	305	394	394	394	506	506
ADS	253	268	283	305	394	394	394	506	506
L	993	1016	1126	1100	1237	1237	1332	1434	1564
LS	1182	1205	1331	1305	1477	1477	1572	1685	1815
LB	500	523	633	607	744	744	839	941	1071
LBS	689	712	838	812	984	984	1079	1192	1322

24832936/EN – 09/2018

9.6 F..R..DRN.. dimension sheets in mm

42 121 00 16

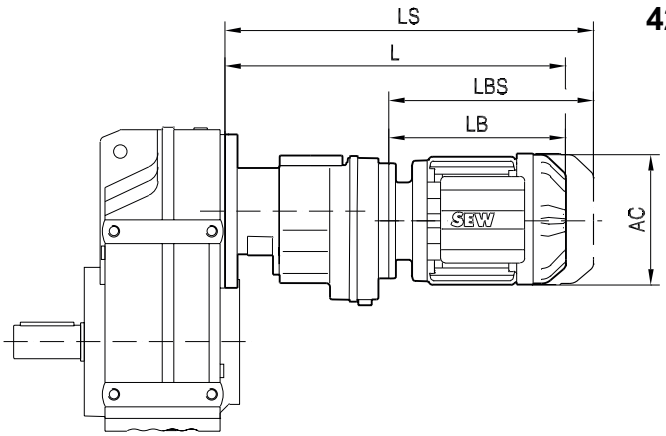


18014407032230795

(→ 🗎 181)		AC	L	LS	LB	LBS
F..27R17	**DRN63MS**	115	365	421	190	246
	DRN63M	115	379	435	204	260
	DRN71MS	139	381	448	206	273
	DRN80M	156	452	533	277	358
F..37R17	**DRN63MS**	115	365	421	190	246
	DRN63M	115	379	435	204	260
	DRN71MS	139	381	448	206	273
	DRN71M	139	401	468	226	293
	DRN80M	156	452	533	277	358
F..47R17	**DRN63MS**	115	365	421	190	246
	DRN63M	115	379	435	204	260
	DRN71MS	139	381	448	206	273
	DRN71M	139	401	468	226	293
	DRN80M	156	452	533	277	358
F..57R37	**DRN63MS**	115	355	411	190	246
	DRN63M	115	369	425	204	260
	DRN71MS	139	371	438	206	273
	DRN71M	139	391	458	226	293
	DRN80MK	156	402	483	237	318
	DRN80M	156	447	528	282	363
	DRN90S	179	448	542	283	377
F..67R37	**DRN63MS**	115	355	411	190	246
	DRN63M	115	369	425	204	260
	DRN71MS	139	371	438	206	273
	DRN71M	139	391	458	226	293
	DRN80MK	156	402	483	237	318
	DRN80M	156	447	528	282	363
	DRN90S	179	448	542	283	377
F..77R37	**DRN63MS**	115	347	403	190	246
	DRN63M	115	361	417	204	260
	DRN71MS	139	363	430	206	273
	DRN71M	139	383	450	226	293
	DRN80MK	156	394	475	237	318
	DRN80M	156	439	520	282	363
	DRN90S	179	440	534	283	377
	DRN90L	179	472	566	315	409
	DRN100L/LM	197	521	615	364	458

24832936/EN – 09/2018

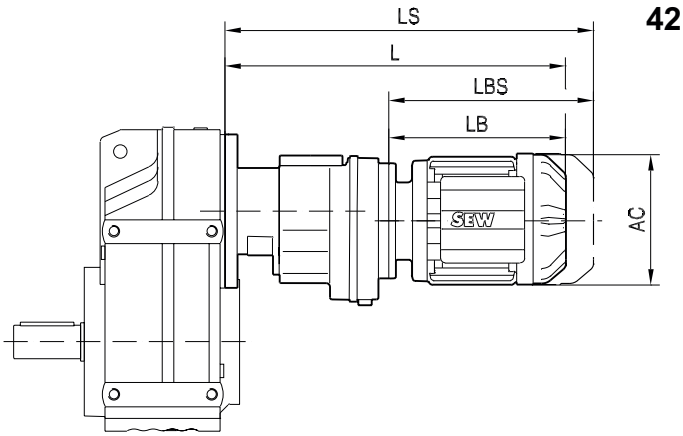
42 121 00 16



18014407032230795

(→ 🗎 181)		AC	L	LS	LB	LBS
F..87R57	**DRN63MS**	115	411	467	184	240
	DRN63M	115	425	481	198	254
	DRN71MS	139	427	494	199	267
	DRN71M	139	447	514	219	287
	DRN80MK	156	458	539	230	311
	DRN80M	156	503	584	275	356
	DRN90S	179	504	598	277	370
	DRN90L	179	536	630	309	402
	DRN100LS	197	533	626	305	399
	DRN100L/LM	197	583	676	355	449
F..97R57	**DRN63MS**	115	406	462	184	240
	DRN63M	115	420	476	198	254
	DRN71MS	139	422	489	199	267
	DRN71M	139	442	509	219	287
	DRN80MK	156	453	534	230	311
	DRN80M	156	498	579	275	356
	DRN90S	179	499	593	277	370
	DRN90L	179	531	625	309	402
	DRN100LS	197	528	621	305	399
	DRN100L/LM	197	578	671	355	449
	DRN112M	221	609	721	386	498
	DRN132S	221	663	775	440	552
F..107R77	**DRN63MS**	115	424	480	177	233
	DRN63M	115	438	494	191	247
	DRN71MS	139	439	507	192	260
	DRN71M	139	459	527	212	280
	DRN80MK	156	470	551	223	304
	DRN80M	156	515	596	268	349
	DRN90S	179	517	610	270	363
	DRN90L	179	549	642	302	395
	DRN100LS	197	545	639	298	392
	DRN100L/LM	197	595	689	348	442
	DRN112M	221	626	738	379	491
	DRN132S	221	676	788	429	541
	DRN132M	261	694	832	447	585
	DRN132L	261	720	857	473	610

42 121 00 16



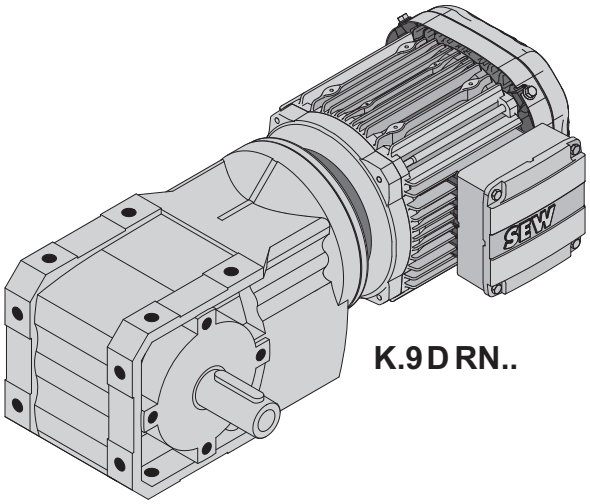
18014407032230795

(→ 🗎 181)		AC	L	LS	LB	LBS
F..127R77	**DRN63MS**	115	409	465	177	233
	DRN63M	115	423	479	191	247
	DRN71MS	139	424	492	192	260
	DRN71M	139	444	512	212	280
	DRN80MK	156	455	536	223	304
	DRN80M	156	500	581	268	349
	DRN90S	179	502	595	270	363
	DRN90L	179	534	627	302	395
	DRN100LS	197	530	624	298	392
	DRN100L/LM	197	580	674	348	442
	DRN112M	221	611	723	379	491
	DRN132S	221	661	773	429	541
	DRN132M	261	679	817	447	585
F..127R87	**DRN100L/LM**	197	623	717	343	437
	DRN112M	221	654	766	374	486
	DRN132S	221	704	816	424	536
	DRN132M	261	722	860	442	580
	DRN132L	261	748	885	468	605
	DRN160..	314	814	1003	534	723
F..157R97	**DRN71MS**	139	507	575	182	250
	DRN71M	139	527	595	202	270
	DRN80MK	156	538	619	213	294
	DRN80M	156	583	664	258	339
	DRN90S	179	585	678	260	353
	DRN90L	179	617	710	292	385
	DRN100LS	197	613	707	288	382
	DRN100L/LM	197	663	757	338	432
	DRN112M	221	694	806	369	481
	DRN132S	221	744	856	419	531
	DRN132M	261	762	900	437	575
	DRN132L	261	788	925	463	600
	DRN160..	314	854	1043	529	718
	DRN180..	357	877	1066	552	741

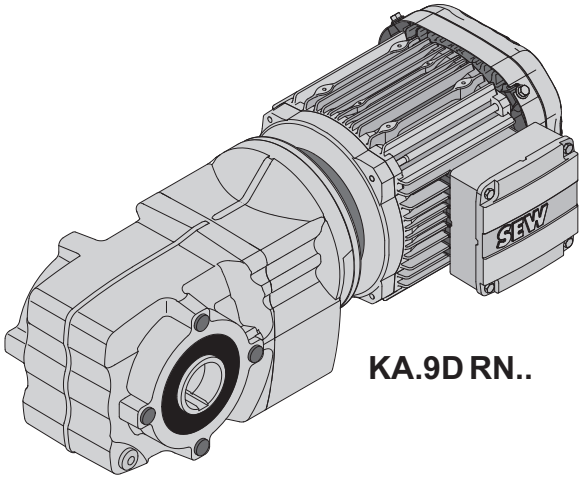
24832936/EN – 09/2018

10 Helical-bevel gearmotors

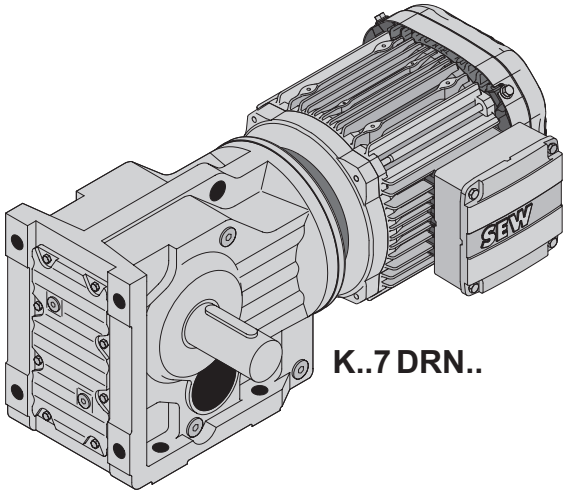
10.1 K..DRN.. variant



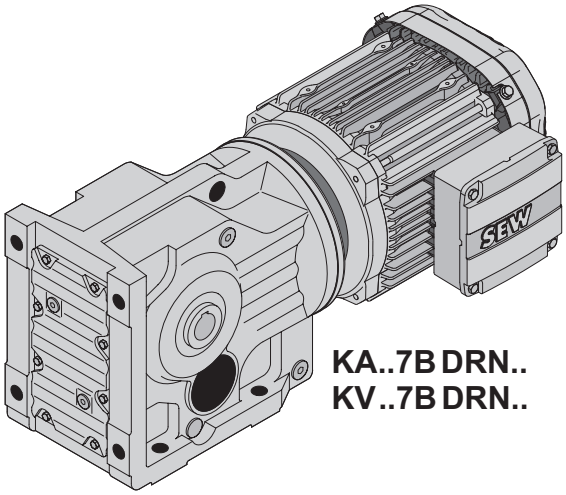
K.9D RN..



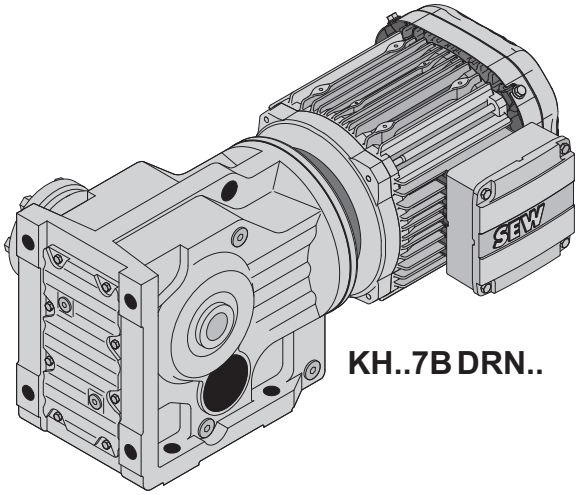
KA.9D RN..



K..7 DRN..



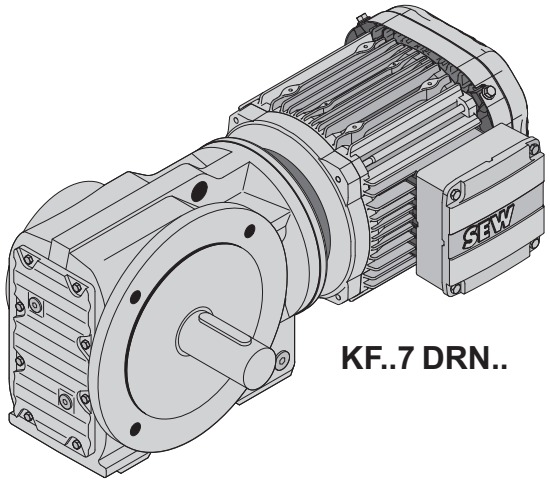
KA..7B DRN..
KV..7B DRN..



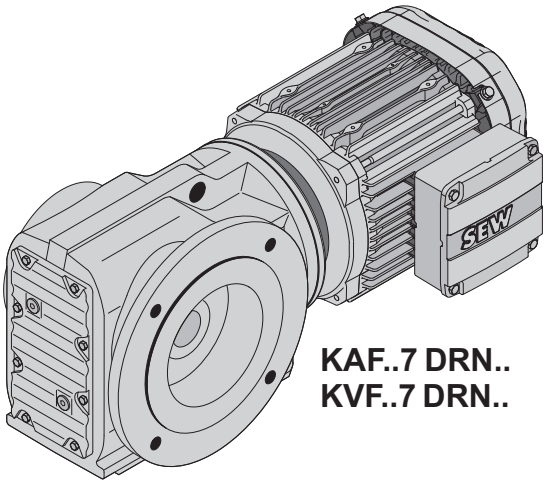
KH..7B DRN..

27021606428977291

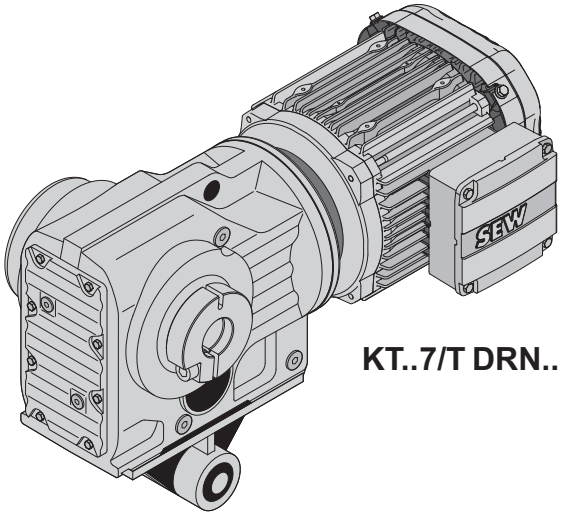
24832936/EN – 09/2018



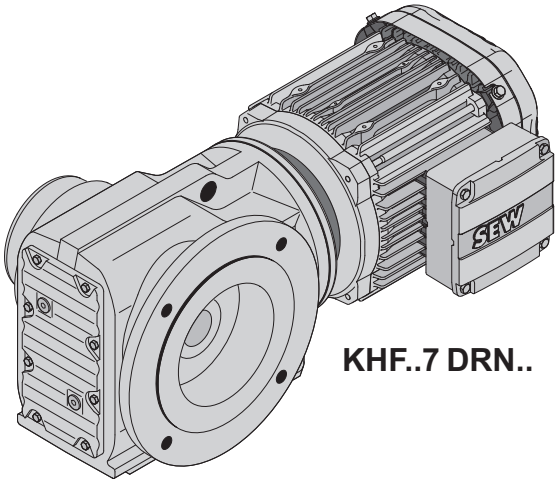
KF..7 DRN..



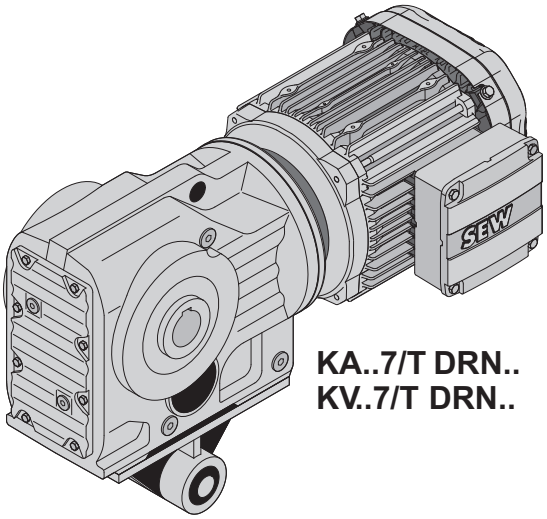
KAF..7 DRN..
KVF..7 DRN..



KT..7/T DRN..



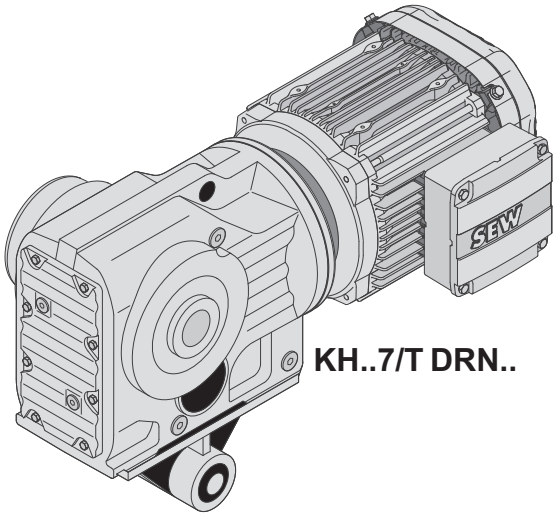
KHF..7 DRN..



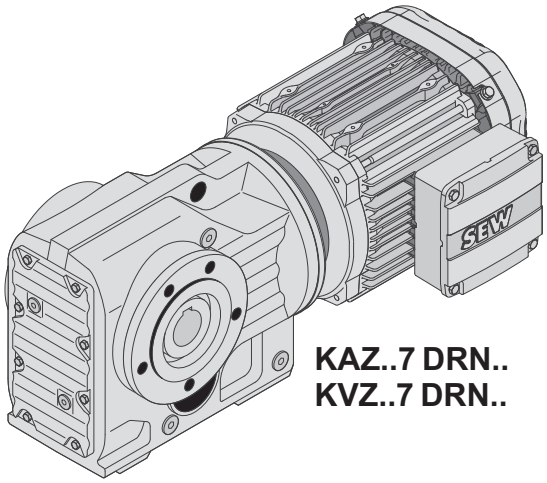
KA..7/T DRN..
KV..7/T DRN..

18014407174238219

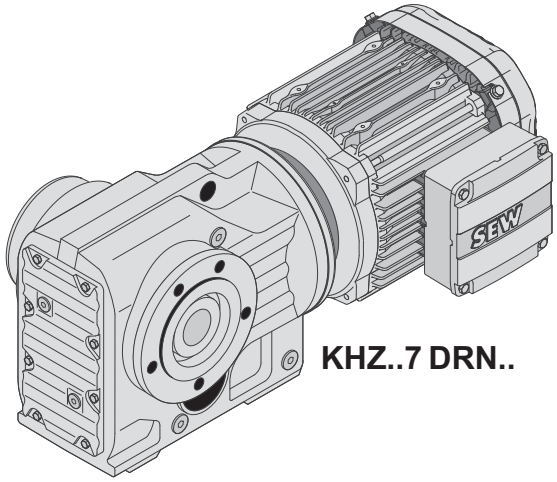
24832936/EN – 09/2018



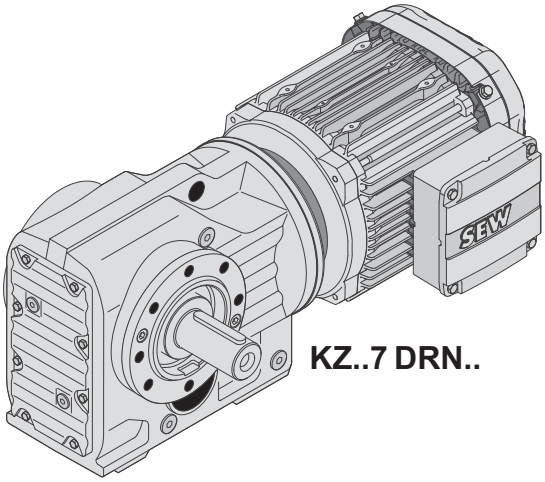
KH..7/T DRN..



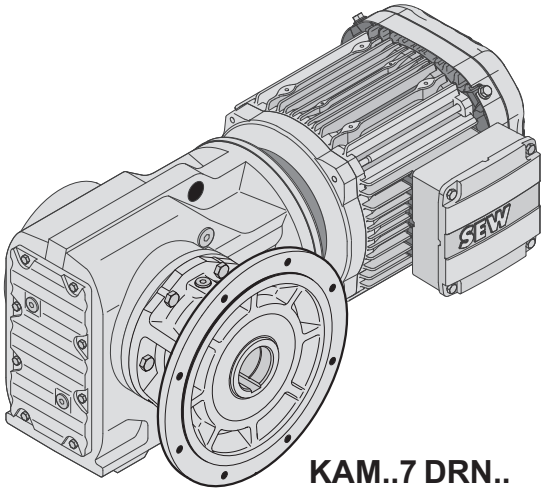
KAZ..7 DRN..
KVZ..7 DRN..



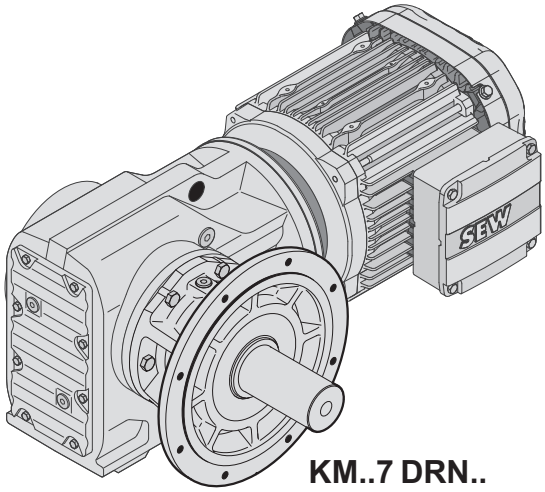
KHZ..7 DRN..



KZ..7 DRN..



KAM..7 DRN..



KM..7 DRN..

36028806136919947

24832936/EN – 09/2018

10.2 K..DRN.. possible geometrical combinations

K19, n_e=1400 min^{-1}							80 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S
					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 min^{-1}									130 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS
						2			
19	130	4980	-	71.93					
21	130	4980	-	66.25					
23	130	4980	-	61.28					
26	130	4980	-	54.89					
28	130	4980	-	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					

24832936/EN – 09/2018

K29, n_e=1400 min^{-1}									130 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS
47	130	4210	-	29.69					
51	130	4060	-	27.23					
56	109	3980	-	24.91					
60	130	3790	-	23.19					
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 min^{-1}								200 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
					3			
13	200	5640	7	106.38				
14	200	5640	7	97.81				
17	200	5640	7	83.69				
19	200	5520	7	72.54				
21	200	5360	7	67.80				
24	200	5020	7	58.60				
28	200	4660	7	49.79				
31	200	4420	7	44.46				
37	200	4100	7	37.97				
39	200	3970	8	35.57				
47	200	3650	8	29.96				
49	200	3580	9	28.83				
56	200	3330	9	24.99				
60	195	3260	9	23.36				
69	185	3110	9	20.19				
82	180	2900	9	17.15				
91	175	2780	9	15.31				
107	165	2650	9	13.08				
115	160	2600	12	12.14				
133	160	2410	13	10.49				
157	160	2200	13	8.91				
176	155	2110	13	7.96				
206	150	1980	13	6.80				

24832936/EN – 09/2018

K37, n_e=1400 min^{-1}								200 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
220	145	1950	13	6.37				
261	140	1810	14	5.36				
352	125	1660	13	3.98				

K37R17, n_e=1400 min^{-1}							200 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M 80MK	DRN 80M
					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			

24832936/EN – 09/2018

K39, n_e=1400 min^{-1} — 300 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M
					2				
24	300	7500	-	58.24					
28	300	7440	-	49.69					
32	300	7000	-	43.45					
34	300	6840	-	41.28					
39	300	6440	-	36.22					
46	300	5960	-	30.72					
50	300	5670	-	27.73					
57	300	5330	-	24.40					
61	300	5180	-	23.04					
71	295	4820	-	19.62					
79	290	4630	-	17.83					
91	280	4380	-	15.44					
104	270	4160	-	13.44					
110	250	4930	-	12.73					
116	255	4790	-	12.09					
132	285	4360	-	10.61					
156	300	3950	-	9.00					
172	300	3760	-	8.12					
196	300	3530	-	7.15					
207	300	3430	-	6.75					
243	275	3300	-	5.75					
268	260	3240	-	5.22					
310	240	3130	-	4.52					
355	215	3070	-	3.94					
498	170	2870	-	2.81					

K39R17, n_e=1400 min^{-1} — 300 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M 80MK	DRN 80M
					2	3	
0.35	300	7500	-	4057			
0.42	300	7500	-	3370			
0.48	300	7500	-	2906			
0.56	300	7500	-	2508			
0.59	300	7500	-	2367			
0.65	300	7500	-	2162			
0.74	300	7500	-	1881			
0.79	300	7500	-	1762			
0.86	300	7500	-	1622			
0.94	300	7500	-	1494			
1.1	300	7500	-	1321			
1.2	300	7500	-	1169			
1.3	300	7500	-	1093			
					2	2	

24832936/EN – 09/2018

K39R17, n_e=1400 min^{-1}							300 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M 80MK	DRN 80M
1.5	300	7500	-	956			
1.7	300	7500	-	814			
2.0	300	7500	-	711			
2.3	300	7500	-	605			
2.8	300	7500	-	504			
3.1	300	7500	-	454			
3.5	300	7500	-	399			
3.8	300	7500	-	365			
4.5	300	7500	-	312			
4.7	300	7500	-	299			
5.5	300	7500	-	254			
6.0	300	7500	-	234			
6.7	300	7500	-	210			
7.4	300	7500	-	189			
8.0	300	7500	-	174			
9.0	300	7500	-	156			
9.9	300	7500	-	142			
12	300	7500	-	117			
19	295	7500	-	75			

K47, n_e=1400 min^{-1}								400 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
						3		
11	400	5920	7	131.87*				
12	400	5920	7	121.48*				
13	400	5920	7	104.37				
15	400	5920	7	90.86				
16	400	5920	7	85.12*				
19	400	5920	7	75.20*				
20	400	5920	7	69.84				
22	400	5920	7	63.30*				
25	400	5920	7	56.83				
29	400	5920	7	48.95*				
30	400	5920	7	46.03*				
35	400	5920	7	39.61				
40	400	5920	7	35.39				
45	400	5700	8	31.30				
48	400	5520	8	29.32				
54	400	5170	8	25.91				
58	400	4970	8	24.06				
64	400	4710	8	21.81				
72	400	4440	8	19.58				
83	380	4220	8	16.86				
88	380	4080	8	15.86				
103	360	3890	8	13.65				

24832936/EN – 09/2018

K47, n_e=1400 min^{-1}								400 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
115	350	3720	9	12.19				
119	280	4060	11	11.77				
133	280	3830	11	10.56				
154	280	3540	11	9.10				
164	270	3500	11	8.56				
190	250	3380	11	7.36				
213	240	3270	12	6.58				
241	230	3140	12	5.81				
302	205	2980	12	4.64				

K47R37, n_e=1400 min^{-1}								400 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
					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				
					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				

24832936/EN – 09/2018

K47R37, n_e=1400 min^{-1}								400 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
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				

K49, n_e=1400 min^{-1}										500 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
						2				
19	475	9000	-	75.20						
20	445	9000	-	70.19						
23	500	9000	-	60.27						
26	500	8590	-	52.94						
28	500	8380	-	50.29						
32	500	7900	-	44.44						
37	500	7310	-	37.98						
40	500	7000	-	34.81						
46	500	6550	-	30.55						
48	500	6370	-	28.95						
55	500	5940	-	25.34						
61	500	5610	-	22.83						
70	500	5220	-	20.03						
79	500	4860	-	17.67						
89	490	4590	-	15.67						
105	470	4320	-	13.38						
123	495	5000	-	11.37						
134	480	4860	-	10.42						
153	500	4460	-	9.14						
162	500	4340	-	8.66						
185	500	4050	-	7.58						
205	500	3840	-	6.83						
234	500	3570	-	5.99						
265	485	3400	-	5.29						
299	465	3270	-	4.69						
350	440	3110	-	4.00						

24832936/EN – 09/2018

K49R37, n_e=1400 min^{-1}								500 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
					2	3		
0.20	500	9000	-	7137				
0.23	500	9000	-	5991				
0.27	500	9000	-	5120				
0.35	500	9000	-	4034				
0.39	500	9000	-	3580				
0.45	500	9000	-	3081				
0.50	500	9000	-	2773				
0.55	500	9000	-	2545				
0.59	500	9000	-	2372				
0.66	500	9000	-	2118				
0.72	500	9000	-	1941				
0.80	500	9000	-	1741				
0.86	500	9000	-	1632				
0.92	500	9000	-	1521				
1.1	500	9000	-	1228				
1.4	500	9000	-	1000				
					2	2		
0.98	500	9000	-	1424				
1.1	500	9000	-	1309				
1.2	500	9000	-	1120				
1.5	500	9000	-	908				
1.7	500	9000	-	802				
2.0	500	9000	-	701				
2.2	500	9000	-	645				
2.4	500	9000	-	595				
2.6	500	9000	-	543				
2.8	500	9000	-	501				
3.1	500	9000	-	449				
3.5	500	9000	-	401				
3.9	500	9000	-	360				
4.2	500	9000	-	330				
4.7	500	9000	-	300				
5.1	500	9000	-	274				
5.8	500	9000	-	243				
6.5	500	9000	-	217				
7.3	500	9000	-	193				
8.0	500	9000	-	176				
9.2	500	9000	-	152				
11	500	9000	-	125				
14	500	9000	-	99				

24832936/EN – 09/2018

K57, n_e=1400 min^{-1}										600 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
						3				
9.6	600	7630	6	145.14*						
11	600	7630	6	123.85						
13	600	7630	6	108.29						
14	600	7630	6	102.88*						
16	600	7630	6	90.26*						
18	600	7630	6	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	7	44.43						
36	600	7630	7	38.49						
39	600	7630	7	35.70						
46	600	7300	7	30.28						
51	600	6930	7	27.34						
58	600	6480	7	24.05						
62	600	6280	7	22.71						
72	575	5910	7	19.34						
80	555	5740	8	17.57						
92	535	5430	8	15.22						
106	510	5190	8	13.25						
117	415	5150	10	11.92						
124	415	4990	10	11.26						
146	405	4650	10	9.59						
161	390	4520	10	8.71						
185	365	4360	11	7.55						
213	345	4180	11	6.57						
299	300	3800	11	4.69						

K57R37, n_e=1400 min^{-1}								600 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
					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				

24832936/EN – 09/2018

K57R37, n_e=1400 min^{-1}								600 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
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				
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 min^{-1}										820 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
					3					
9.7	820	10300	7	144.79*						
11	820	10300	7	123.54						
13	820	10300	7	108.03						
14	820	10300	7	102.62						
16	820	10300	7	90.04						
18	820	10300	7	76.37						
20	820	10300	7	68.95						
23	820	10300	7	60.66						
24	820	10300	7	57.28						
29	820	10300	7	48.77						
32	820	10300	7	44.32						
36	800	10500	7	38.39						

24832936/EN – 09/2018

K67, n_e=1400 min^{-1}										820 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
39	820	10300	8	35.62						
46	820	10300	8	30.22						
51	820	10300	8	27.28						
58	800	10500	8	24.00						
62	780	10700	8	22.66						
73	760	10800	8	19.30						
80	740	11000	8	17.54						
92	700	11300	8	15.19						
106	670	11500	8	13.22						
112	530	12300	9	12.48						
132	500	11800	9	10.63						
145	480	11500	10	9.66						
167	440	11100	10	8.37						
192	420	10700	10	7.28						
269	350	9860	10	5.20						

K67R37, n_e=1400 min^{-1}								820 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
					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				

24832936/EN – 09/2018

K67R37, n_e=1400 min^{-1}								820 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
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 min^{-1}											1550 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L
						3					
7.3	1450	16100	6	192.18							
7.8	1450	16100	6	179.37							
9.1	1550	15400	6	154.02							
10	1550	15400	6	135.28							
11	1550	15400	6	128.52							
12	1550	15400	6	113.56							
14	1550	15400	6	97.05							
16	1550	15400	6	88.97							
18	1550	15400	6	78.07							
19	1550	15400	6	73.99							
22	1550	15400	6	64.75							
24	1550	15400	6	58.34							
27	1550	15400	6	51.18							
31	1550	15400	6	45.16							
35	1550	15400	6	40.04							
36	1500	15700	6	38.39							
40	1550	15400	6	35.20							
45	1550	15400	7	30.89							
48	1550	15400	7	29.27							
55	1550	15400	7	25.62							
61	1550	15400	7	23.08							
69	1500	15700	7	20.25							
78	1450	16100	7	17.87							
88	1400	15500	7	15.84							
104	1340	14800	7	13.52							
113	1000	15100	8	12.36							
129	990	14400	8	10.84							
146	940	13900	8	9.56							
165	890	13500	9	8.48							

24832936/EN – 09/2018

K77, n_e=1400 min^{-1}											1550 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L
193	820	13100	9	7.24							

K77R37, n_e=1400 min^{-1}								1550 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
					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				
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				

24832936/EN – 09/2018

K87, n_e=1400 min^{-1}													2700 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L
							3						
7.1	2700	27300	6	197.37									
8.0	2700	27300	6	174.19									
8.5	2700	27300	6	164.34*									
9.5	2700	27300	6	147.32*									
11	2700	27300	6	126.91*									
12	2700	27300	6	115.82									
14	2700	27300	6	102.71*									
16	2700	27300	6	86.34									
18	2700	27300	6	79.34									
20	2700	27300	6	70.46									
22	2700	26200	6	63.00*									
25	2700	25000	6	56.64									
28	2700	23500	6	49.16									
32	2600	22800	6	44.02									
38	2500	21400	6	36.52*									
45	2700	19200	7	31.39									
50	2600	18500	7	27.88									
56	2500	18000	7	24.92									
62	2300	17900	7	22.41									
72	2300	16800	7	19.45									
80	2200	16300	7	17.42									
88	1800	16000	7	16.00									
97	2100	15300	7	14.45									
111	2000	14800	7	12.56									
125	1500	14900	7	11.17									
140	1500	14200	7	10.00									
169	1400	13500	7	8.29									
194	1300	13200	8	7.21									

K87R57, n_e=1400 min^{-1}										2700 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
						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						

24832936/EN – 09/2018

K87R57, n_e=1400 min^{-1}										2700 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
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						
7.0	2700	27300	-	201						
7.7	2700	27300	-	183						
8.8	2700	27300	-	159						
9.9	2600	27400	-	141						

K97, n_e=1400 min^{-1}												4300 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S
							3					
8.0	4300	40000	7	176.05*								
9.1	4300	40000	7	153.21*								
10.0	4300	40000	7	140.28								
11	4300	40000	7	123.93*								
13	4300	40000	7	105.13								
14	4300	40000	7	96.80								
16	4300	38800	7	86.52								
18	4300	37100	7	77.89*								
20	4300	35600	7	70.54								
22	4300	33800	7	62.55								
25	4300	32300	7	56.55								
29	4300	30000	7	47.93*								
33	4300	28300	7	41.87								
37	4300	27100	8	38.30								
41	4300	25700	8	34.23								
45	4300	24500	8	30.82								
50	4300	23300	8	27.91								

24832936/EN – 09/2018

K97, n_e=1400 min^{-1}												4300 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S
57	4300	22000	8	24.75								
63	4300	20900	8	22.37								
74	4300	19100	8	18.96								
85	4300	17800	8	16.56								
101	4300	16100	8	13.85								
117	3890	16200	8	11.99								
134	2870	16400	10	10.41								
161	2660	15800	10	8.71								
186	2400	15700	10	7.54								

K97R57, n_e=1400 min^{-1}										4300 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
					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						
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*						

24832936/EN – 09/2018

K97R57, n_e=1400 min^{-1} — 4300 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
4.6	4300	40000	-	305						
5.4	4300	40000	-	258						
6.0	4300	40000	-	232						
7.0	4300	40000	-	199						

K107, n_e=1400 min^{-1} — 8000 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S 225M	DRN 250M
							3				
9.8	8000	65000	6	143.47*							
12	8000	61500	6	121.46							
12	8000	59300	6	112.41*							
14	8000	56200	6	100.75							
15	8000	53500	6	90.96*							
17	8000	50900	6	82.61							
19	8000	47900	6	73.30							
21	8000	45400	6	66.52*							
24	8000	41700	6	57.17*							
28	7840	39300	6	49.90							
33	7360	37900	6	42.33*							
38	7200	35800	6	37.00*							
43	7200	33200	7	32.69							
45	6800	34200	6	31.28*							
48	7200	30700	7	29.00							
53	7200	28800	7	26.32							
62	7200	25800	7	22.62							
71	7200	23200	7	19.74							
84	7050	21000	7	16.75							
96	6890	19500	7	14.64							
104	4300	29200	9	13.43							
119	4300	27500	9	11.73							
141	4190	25800	9	9.94							
161	4070	24600	9	8.69							
190	3600	24400	9	7.35							

K107R77, n_e=1400 min^{-1} — 8000 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L
						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							

24832936/EN – 09/2018

K107R77, n_e=1400 min^{-1}											8000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L
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							
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 min^{-1}									13000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S 225M	DRN 250M 280S 280M
						3			
9.6	13000	79200	6	146.07					
10	13000	79200	6	136.14					
11	13000	79200	6	122.48					
13	13000	79200	6	110.18					
16	13000	75100	6	89.89					
17	13000	72100	6	81.98					
20	13000	67700	6	70.95*					
22	13000	64000	6	62.60					
26	13000	59800	6	54.07					

24832936/EN – 09/2018

K127, n_e=1400 min^{-1} — 13000 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S 225M	DRN 250M 280S 280M
29	13000	56500	6	47.82					
35	13000	52000	6	40.19					
39	13000	49400	6	36.25					
45	13000	45900	6	31.37					
51	13000	43000	6	27.68					
59	13000	39800	6	23.91					
66	13000	37200	6	21.15					
79	13000	32600	6	17.77					
98	12100	31000	6	14.35					
109	8530	35400	8	12.79					
130	8000	33900	9	10.74					
161	7230	32500	9	8.68					

K127R77, n_e=1400 min^{-1} — 13000 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L
						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							
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							
						3	2				
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							

24832936/EN – 09/2018

K127R77, n_e=1400 min^{-1} — 13000 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L
3.3	13000	79200	-	418							

K127R87, n_e=1400 min^{-1} — 13000 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L
					3		2					
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 min^{-1} — 20000 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S 225M	DRN 250M 280S 280M	DRN 315S 315M	DRN 315L 315H
					3					
9.3	20000	111100	6	150.41						
11	20000	102100	6	122.39						
14	20000	93700	6	100.22						
15	20000	90000	6	91.65						
18	20000	84500	6	79.75						
20	20000	79800	6	70.38						
23	20000	74600	6	61.02						
26	20000	70600	6	54.29						
30	20000	65600	6	46.79						
37	20000	59000	6	38.02						
45	19000	55300	6	31.30						
51	20000	49600	6	27.62						
58	20000	45700	6	23.95						
66	20000	42600	6	21.31						
76	20000	38800	6	18.37						
94	20000	33800	6	14.92						
111	18700	32900	6	12.65						

K157R97, n_e=1400 min^{-1} — 20000 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S
					3		3						

24832936/EN – 09/2018

K157R97, n_e=1400 min^{-1}													20000 Nm
n_a	M_{amax}	F_{Ra}	$\varphi_{(/R)}$	i	DRN	DRN	DRN	DRN	DRN	DRN	DRN	DRN	DRN
min^{-1}	Nm	N	'		71MS 71M 80MK	80M 90S	90L	100LS 100L	112M	132S 132M	132L 160M 160L	180M 180L	200L 225S
0.08	20000	111100	-	17679									
0.09	20000	111100	-	15729									
0.10	20000	111100	-	14721									
0.11	20000	111100	-	13097									
0.12	20000	111100	-	11368									
0.14	20000	111100	-	10114									
0.16	20000	111100	-	8718									
0.18	20000	111100	-	7734									
0.20	20000	111100	-	6881									
0.24	20000	111100	-	5931									
0.28	20000	111100	-	5074									
0.31	20000	111100	-	4514									
0.35	20000	111100	-	3979									
0.40	20000	111100	-	3516									
0.46	20000	111100	-	3051									
0.54	20000	111100	-	2610									
0.60	20000	111100	-	2322									
0.69	20000	111100	-	2029									
0.78	20000	111100	-	1805									
0.84	20000	111100	-	1659									
1.0	20000	111100	-	1365									
1.1	20000	111100	-	1229*									
1.3	20000	111100	-	1093*									
1.5	20000	111100	-	942									
1.6	20000	111100	-	854									
1.9	20000	111100	-	756*									
2.1	20000	111100	-	661									
2.5	20000	111100	-	567									
2.8	20000	111100	-	504									
3.2	20000	111100	-	434*									
3.7	20000	111100	-	379									
4.2	20000	111100	-	333									
4.8	20000	111100	-	291									

24832936/EN – 09/2018

K157R107, n_e=1400 min^{-1} — 20000 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S 225M
						3 2				
3.6	20000	111100	-	385						
4.3	20000	111100	-	325						
4.7	20000	111100	-	299						
5.5	20000	111100	-	253						
6.1	20000	111100	-	230						
6.6	20000	111100	-	213						
7.5	20000	111100	-	187						
8.9	20000	111100	-	157						
11	20000	102100	-	122						
13	20000	96400	-	107						

K167, n_e=1400 min^{-1} — 35000 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S 225M	DRN 250M 280S 280M	DRN 315S 315M	DRN 315L 315H
						3				
8.5	33800	150000	5	164.50						
10	35000	150000	5	134.99						
13	35000	150000	5	109.83						
16	35000	141700	5	87.86						
18	35000	134600	5	78.14						
21	35000	126500	5	68.07						
23	35000	120100	5	60.74						
27	35000	111500	5	51.77						
33	35000	101900	5	42.89						
38	35000	94200	5	36.61						
43	35000	88200	5	32.25						
49	35000	83100	5	28.77						
57	35000	76200	5	24.52						
69	35000	68500	5	20.32						
81	35000	62400	5	17.34						

K167R97, n_e=1400 min^{-1} — 35000 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S
						3 3							
0.07	35000	150000	-	19723									
0.08	35000	150000	-	17406									
0.09	35000	150000	-	15000									
0.11	35000	150000	-	13238									
0.12	35000	150000	-	11573									
0.14	35000	150000	-	10264									
0.16	35000	150000	-	8628									
0.21	35000	150000	-	6562									
0.26	35000	150000	-	5355									
0.29	35000	150000	-	4788									

24832936/EN – 09/2018

K167R97, n_e=1400 min^{-1}													35000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S
0.34	35000	150000	-	4079									
0.41	35000	150000	-	3376									
0.51	35000	150000	-	2755									
0.62	35000	150000	-	2263									
							3 2						
0.64	35000	150000	-	2182									
0.82	35000	150000	-	1704									
0.99	35000	150000	-	1408									
1.1	35000	150000	-	1296									
1.3	35000	150000	-	1101									
1.5	35000	150000	-	944									
1.7	35000	150000	-	843									
1.8	35000	150000	-	757									
2.2	35000	150000	-	632									
2.5	35000	150000	-	561									
2.9	35000	150000	-	481									
3.3	35000	150000	-	423									
3.8	35000	150000	-	369									

K167R107, n_e=1400 min^{-1}										35000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S 225M
						3 2				
4.4	35000	150000	-	318						
5.0	35000	150000	-	278						
5.7	35000	150000	-	244						
6.6	35000	150000	-	213						
6.8	35000	150000	-	206						
7.8	35000	150000	-	180						
8.8	35000	150000	-	160						
10	35000	150000	-	135						
12	35000	150000	-	118						

K187, n_e=1400 min^{-1}										53000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S 225M	DRN 250M 280S 280M	DRN 315S 315M	DRN 315L 315H
						3				
7.8	53000	190000	4	179.86						
8.5	53000	190000	4	165.21						
9.7	53000	181500	4	144.59						
11	53000	173100	4	129.69						
12	53000	162500	4	112.60						
14	53000	155400	4	102.16						
16	53000	145000	4	88.00						
19	53000	133500	4	73.96						
22	53000	124400	4	64.04						

24832936/EN – 09/2018

K187, n_e=1400 min^{-1}										53000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S 225M	DRN 250M 280S 280M	DRN 315S 315M	DRN 315L 315H
26	53000	113400	4	53.36						
31	53000	104300	4	45.50*						
33	53000	100500	5	42.51						
36	53000	95300	5	38.57						
42	53000	87500	5	33.23						
50	53000	78900	5	27.92						
58	53000	72100	5	24.18						
69	49700	69000	5	20.15						
81	46400	67300	5	17.18						

K187R97, n_e=1400 min^{-1}													53000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S
					3	3							
0.04	53000	190000	-	32625									
0.05	53000	190000	-	27165									
0.06	53000	190000	-	24353									
0.07	53000	190000	-	19144									
0.08	53000	190000	-	16978									
0.10	53000	190000	-	14272									
0.11	53000	190000	-	13116									
0.12	53000	190000	-	11647									
0.13	53000	190000	-	10413									
0.15	53000	190000	-	9363									
0.17	53000	190000	-	8126									
0.19	53000	190000	-	7343									
0.21	53000	190000	-	6747									
0.23	53000	190000	-	5991									
0.26	53000	190000	-	5358									
0.29	53000	190000	-	4817									
0.32	53000	190000	-	4370									
0.50	53000	190000	-	2818*									
					3	2							
0.39	53000	190000	-	3609									
0.46	53000	190000	-	3062									
0.56	53000	190000	-	2519									
0.62	53000	190000	-	2268									
0.68	53000	190000	-	2054									
0.77	53000	190000	-	1821									
0.87	53000	190000	-	1605									
1.0	53000	190000	-	1395									
1.2	53000	190000	-	1196									
1.3	53000	190000	-	1046									
1.5	53000	190000	-	945									
1.9	53000	190000	-	738									
2.3	53000	190000	-	621									
2.7	53000	190000	-	527									

24832936/EN – 09/2018

K187R107, n_e=1400 min^{-1}										53000 Nm
n_a	M_{amax}	F_{Ra}	$\varphi_{(/R)}$	i	DRN	DRN	DRN	DRN	DRN	DRN
min^{-1}	Nm	N	'		100LS 100L	112M	132S 132M	132L 160M 160L	180M 180L	200L 225S 225M
					3	2				
1.7	53000	190000	-	835						
1.9	53000	190000	-	729						
2.3	53000	190000	-	622						
2.7	53000	190000	-	520						
3.1	53000	190000	-	454						
3.9	53000	190000	-	355						
5.4	53000	190000	-	261						
6.3	53000	190000	-	221						
7.3	53000	190000	-	193						
8.6	53000	190000	-	163						

24832936/EN – 09/2018

10.3 K..DRN.. selection tables in kW

P_m = 0.12 kW

n_a min^{-1}	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**	**DRN**	**63MS4**	470	713
0.11	7690	12440	81600	1.70	**KF**	**127R77**	**DRN**	**63MS4**	510	713
0.13	6750	10915	81800	1.95	**KA**	**127R77**	**DRN**	**63MS4**	440	713
0.14	6070	9819	82000	2.1	**KAF**	**127R77**	**DRN**	**63MS4**	480	713
0.16	5180	8443	82200	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**	**DRN**	**63MS4**	310	713
0.17	5150	8328	65000	1.55	**KF**	**107R77**	**DRN**	**63MS4**	320	713
0.19	4490	7270	65000	1.80	**KA**	**107R77**	**DRN**	**63MS4**	280	713
0.22	3700	6184	65000	2.2	**KAF**	**107R77**	**DRN**	**63MS4**	305	713
0.24	3210	5662	65000	2.5						
0.27	2910	5138	65000	2.7						
0.32	2670	4359	65000	3.0						
0.20	4420	6970	40000	0.95						
0.23	4000	6027	40000	1.05						
0.26	3650	5391	40000	1.20	**K**	**97R57**	**DRN**	**63MS4**	180	713
0.30	3020	4669	40000	1.40	**KF**	**97R57**	**DRN**	**63MS4**	200	713
0.34	2730	4082	40000	1.55	**KA**	**97R57**	**DRN**	**63MS4**	160	713
0.39	2370	3583	40000	1.80	**KAF**	**97R57**	**DRN**	**63MS4**	185	713
0.44	2090	3108	40000	2.0						
0.50	1760	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**	**DRN**	**63MS4**	180	713
0.85	1040	1625	40000	4.1	**KF**	**97R57**	**DRN**	**63MS4**	200	713
0.96	890	1430	40000	4.8	**KA**	**97R57**	**DRN**	**63MS4**	160	713
1.1	860	1261	40000	5.0	**KAF**	**97R57**	**DRN**	**63MS4**	185	713
1.2	755	1102	40000	5.7						
0.30	2890	4562	27000	0.95						
0.34	2680	4037	27300	1.00	**K**	**87R57**	**DRN**	**63MS4**	120	713
0.38	2390	3609	27600	1.15	**KF**	**87R57**	**DRN**	**63MS4**	130	713
0.44	2060	3107	28000	1.30	**KA**	**87R57**	**DRN**	**63MS4**	105	713
0.51	1730	2728	28300	1.55	**KAF**	**87R57**	**DRN**	**63MS4**	120	713
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**	**DRN**	**63MS4**	120	713
1.1	830	1229	28900	3.2	**KF**	**87R57**	**DRN**	**63MS4**	125	713
1.3	720	1078	28900	3.7	**KA**	**87R57**	**DRN**	**63MS4**	105	713
1.4	610	951	29000	4.4	**KAF**	**87R57**	**DRN**	**63MS4**	120	713
1.6	520	837	29000	5.2						
1.9	450	726	29000	5.9						
					K	**77R37**	**DRN**	**63MS4**	70	713
0.51	1840	2717	11500	0.85	**KF**	**77R37**	**DRN**	**63MS4**	78	713
0.58	1530	2370	15500	1.00	**KA**	**77R37**	**DRN**	**63MS4**	62	713
					KAF	**77R37**	**DRN**	**63MS4**	70	713
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**	**DRN**	**63MS4**	69	713
1.1	840	1218	18900	1.85	**KF**	**77R37**	**DRN**	**63MS4**	78	713
1.3	735	1053	19200	2.1	**KA**	**77R37**	**DRN**	**63MS4**	62	713
1.5	645	924	19400	2.4	**KAF**	**77R37**	**DRN**	**63MS4**	70	713
1.7	570	815	19600	2.7						
1.9	445	709	19800	3.5						
2.2	390	622	19900	3.9						

24832936/EN – 09/2018

P_m = 0.12 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
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	**K**	**67R37**	**DRN**	**63MS4**	45	713
2.2	400	613	12800	2.0	**KF**	**67R37**	**DRN**	**63MS4**	51	713
2.5	350	542	13000	2.3	**KA**	**67R37**	**DRN**	**63MS4**	42	713
2.9	325	471	13000	2.5	**KAF**	**67R37**	**DRN**	**63MS4**	48	713
3.3	270	420	13000	3.0						
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						
6.3	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**	**DRN**	**63MS4**	39	713
3.3	270	421	9390	2.2	**KF**	**57R37**	**DRN**	**63MS4**	44	713
3.8	245	362	9470	2.4	**KA**	**57R37**	**DRN**	**63MS4**	37	713
4.3	215	319	9570	2.8	**KAF**	**57R37**	**DRN**	**63MS4**	43	713
4.9	181	280	9690	3.3						
5.6	159	246	9760	3.8						
6.4	141	215	9810	4.3						
7.2	126	192	9850	4.8						
1.5	615	908	9000	0.80						
1.7	545	802	9000	0.90						
2.0	460	701	9000	1.10						
2.1	445	645	9000	1.10						
2.3	385	595	9000	1.30						
2.5	360	543	9000	1.35						
2.8	315	501	9000	1.60	**K**	**49R37**	**DRN**	**63MS4**	43	713
3.1	285	449	9000	1.75	**KF**	**49R37**	**DRN**	**63MS4**	45	713
3.4	245	401	9000	2.0	**KA**	**49R37**	**DRN**	**63MS4**	40	713
3.8	225	360	9000	2.2	**KAF**	**49R37**	**DRN**	**63MS4**	45	713
4.2	205	330	9000	2.4						
4.6	197	300	9000	2.5						
5.0	172	274	9000	2.9						
5.7	149	243	9000	3.3						
6.3	138	217	9000	3.6						
7.2	130	193	9000	3.9						
2.5	380	552	6170	1.05						
2.8	320	495	6840	1.25	**K**	**47R37**	**DRN**	**63MS4**	33	713
3.2	285	426	7160	1.40	**KF**	**47R37**	**DRN**	**63MS4**	37	713
3.7	240	375	7510	1.65	**KA**	**47R37**	**DRN**	**63MS4**	33	713
4.2	225	327	7620	1.75	**KAF**	**47R37**	**DRN**	**63MS4**	35	713
4.8	198	289	7780	2.0						
2.7	330	504	7500	0.90						
3.0	315	454	7500	0.95						
3.5	265	399	7500	1.10						
3.8	250	365	7500	1.20						
4.4	205	312	7500	1.45						
4.6	200	299	7500	1.50	**K**	**39R17**	**DRN**	**63MS4**	24	713
5.4	172	254	7500	1.75	**KF**	**39R17**	**DRN**	**63MS4**	26	713
5.9	154	234	7500	1.95	**KA**	**39R17**	**DRN**	**63MS4**	23	713
6.6	140	210	7500	2.1	**KAF**	**39R17**	**DRN**	**63MS4**	25	713
7.3	128	189	7500	2.3						
7.9	120	174	7500	2.5						
8.8	104	156	7500	2.9						
9.7	96	142	7500	3.1						
12	78	117	7500	3.8						

24832936/EN – 09/2018

P_m = 0.12 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
4.0	240	346	3540	0.80						
4.5	205	304	5150	0.95						
5.2	189	267	5310	1.05	**K**	**37R17**	**DRN**	**63MS4**	19	713
5.9	163	234	5540	1.25	**KF**	**37R17**	**DRN**	**63MS4**	22	713
6.7	142	205	5730	1.40	**KA**	**37R17**	**DRN**	**63MS4**	19	713
7.6	124	181	5900	1.60	**KAF**	**37R17**	**DRN**	**63MS4**	21	713
8.6	109	160	6040	1.85						
10	91	136	6200	2.2						
					K	**67**	**DRN**	**63M6**	35	660
6.0	191	144.79*	13000	4.3	**KF**	**67**	**DRN**	**63M6**	40	661
					KA	**67**	**DRN**	**63M6**	32	663
					KAF	**67**	**DRN**	**63M6**	38	661
6.0	191	145.14*	9660	3.1						
7.0	163	123.85	9740	3.7	**K**	**57**	**DRN**	**63M6**	29	654
8.0	143	108.29	9800	4.2	**KF**	**57**	**DRN**	**63M6**	34	655
8.5	136	102.88*	9820	4.4	**KA**	**57**	**DRN**	**63M6**	27	656
9.6	119	90.26*	9870	5.0	**KAF**	**57**	**DRN**	**63M6**	33	655
11	101	76.56*	9920	6.0						
9.5	121	145.14*	9870	5.0						
11	103	123.85	9910	5.8	**K**	**57**	**DRN**	**63MS4**	28	654
13	90	108.29	9950	6.7	**KF**	**57**	**DRN**	**63MS4**	33	655
13	85	102.88*	9960	7.0	**KA**	**57**	**DRN**	**63MS4**	26	656
15	75	90.26*	9990	8.0	**KAF**	**57**	**DRN**	**63MS4**	32	655
6.6	174	131.87*	7900	2.3	**K**	**47**	**DRN**	**63M6**	23	644
7.2	160	121.48*	7960	2.5	**KF**	**47**	**DRN**	**63M6**	26	645
8.3	137	104.37	8050	2.9	**KA**	**47**	**DRN**	**63M6**	22	646
					KAF	**47**	**DRN**	**63M6**	25	645
					K	**47**	**DRN**	**63MS4**	22	644
10	110	131.87*	8140	3.6	**KF**	**47**	**DRN**	**63MS4**	26	645
11	101	121.48*	8160	4.0	**KA**	**47**	**DRN**	**63MS4**	21	646
					KAF	**47**	**DRN**	**63MS4**	24	645
8.2	140	106.38	5750	1.45	**K**	**37**	**DRN**	**63M6**	17	634
8.9	129	97.81	5860	1.55	**KF**	**37**	**DRN**	**63M6**	19	635
10	110	83.69	6030	1.80	**KA**	**37**	**DRN**	**63M6**	17	636
12	96	72.54	6160	2.1	**KAF**	**37**	**DRN**	**63M6**	18	635
13	88	106.38	6220	2.3						
14	81	97.81	6290	2.5	**K**	**37**	**DRN**	**63MS4**	16	634
16	69	83.69	6400	2.9	**KF**	**37**	**DRN**	**63MS4**	18	635
19	60	72.54	6480	3.3	**KA**	**37**	**DRN**	**63MS4**	16	636
20	56	67.80	6520	3.5	**KAF**	**37**	**DRN**	**63MS4**	18	635
25	46	54.89	5230	2.9	**K**	**29**	**DRN**	**63MS4**	10	627
27	42	50.35	5240	3.1	**KF**	**29**	**DRN**	**63MS4**	11	631
32	36	42.87	5260	3.6	**KA**	**29**	**DRN**	**63MS4**	10.0	633
					KAF	**29**	**DRN**	**63MS4**	11	631
31	37	44.48	4500	1.85						
34	34	40.63	4500	2.0						
40	28	34.29	4500	2.2						
47	24	29.29	4500	2.5						
51	23	27.16	4500	2.7						
57	20	24.06	4460	4.0	**K**	**19**	**DRN**	**63MS4**	8.6	621
63	18	21.98	4340	4.4	**KF**	**19**	**DRN**	**63MS4**	9.0	624
74	15	18.55	4120	5.2	**KA**	**19**	**DRN**	**63MS4**	8.2	626
87	13	15.84	3920	6.1	**KAF**	**19**	**DRN**	**63MS4**	8.6	624
94	12	14.69	3830	6.6						
109	11	12.70	3660	7.6						
117	9.8	11.84	3580	8.0						
134	8.6	10.32	3430	8.9						
144	8.0	9.58	3370	7.9						

24832936/EN – 09/2018

P_m = 0.18 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.09	15000	14975	75800	0.85						
0.11	12500	12440	79400	1.05						
0.13	10900	10915	80200	1.20						
0.14	9870	9819	80700	1.30						
0.16	8450	8443	81300	1.55	**K**	**127R77**	**DRN**	**63M4**	470	713
0.18	7520	7482	81600	1.75	**KF**	**127R77**	**DRN**	**63M4**	510	713
0.21	6600	6565	81900	1.95	**KA**	**127R77**	**DRN**	**63M4**	445	713
0.24	5590	5804	82200	2.3	**KAF**	**127R77**	**DRN**	**63M4**	480	713
0.27	4960	5027	82300	2.6						
0.31	4260	4423	82400	3.0						
0.35	3710	3889	82500	3.5						
0.42	3080	3311	82600	4.2						
0.17	8370	8328	65000	0.95						
0.19	7310	7270	65000	1.10						
0.22	6100	6184	65000	1.30						
0.24	5400	5662	65000	1.50						
0.27	4900	5138	65000	1.65	**K**	**107R77**	**DRN**	**63M4**	310	713
0.32	4360	4359	65000	1.85	**KF**	**107R77**	**DRN**	**63M4**	320	713
0.36	3810	3810	65000	2.1	**KA**	**107R77**	**DRN**	**63M4**	285	713
0.41	3230	3358	65000	2.5	**KAF**	**107R77**	**DRN**	**63M4**	305	713
0.46	2930	2977	65000	2.7						
0.53	2560	2599	65000	3.1						
0.60	2200	2286	65000	3.6						
0.29	4820	4669	40000	0.90						
0.34	4330	4082	40000	1.00	**K**	**97R57**	**DRN**	**63M4**	180	713
0.38	3760	3583	40000	1.15	**KF**	**97R57**	**DRN**	**63M4**	200	713
0.44	3300	3108	40000	1.30	**KA**	**97R57**	**DRN**	**63M4**	160	713
0.50	2840	2757	40000	1.50	**KAF**	**97R57**	**DRN**	**63M4**	185	713
0.57	2600	2419	40000	1.65						
0.65	2250	2123	40000	1.90						
0.74	2000	1856	40000	2.1						
0.85	1680	1625	40000	2.6						
0.96	1450	1430	40000	3.0	**K**	**97R57**	**DRN**	**63M4**	180	713
1.1	1360	1261	40000	3.2	**KF**	**97R57**	**DRN**	**63M4**	200	713
1.2	1180	1102	40000	3.6	**KA**	**97R57**	**DRN**	**63M4**	160	713
1.4	1030	957	40000	4.1	**KAF**	**97R57**	**DRN**	**63M4**	185	713
1.6	920	855	40000	4.6						
1.9	735	743	40000	5.8						
2.1	655	652	40000	6.5						
0.44	3280	3107	26500	0.80	**K**	**87R57**	**DRN**	**63M4**	120	713
0.50	2790	2728	27200	0.95	**KF**	**87R57**	**DRN**	**63M4**	130	713
0.58	2450	2371	27600	1.10	**KA**	**87R57**	**DRN**	**63M4**	105	713
					KAF	**87R57**	**DRN**	**63M4**	120	713
0.66	2250	2088	27800	1.20						
0.74	1990	1854	28100	1.35						
0.83	1780	1657	28200	1.50						
0.97	1520	1415	28500	1.75	**K**	**87R57**	**DRN**	**63M4**	120	713
1.1	1320	1229	28600	2.0	**KF**	**87R57**	**DRN**	**63M4**	130	713
1.3	1140	1078	28700	2.4	**KA**	**87R57**	**DRN**	**63M4**	105	713
1.4	980	951	28800	2.7	**KAF**	**87R57**	**DRN**	**63M4**	120	713
1.6	850	837	28900	3.2						
1.9	735	726	28900	3.6						
0.91	1640	1514	14700	0.95						
0.99	1500	1388	15700	1.05						
1.1	1310	1218	16800	1.15						
1.3	1150	1053	17700	1.35						
1.5	1000	924	18300	1.55	**K**	**77R37**	**DRN**	**63M4**	70	713
1.7	890	815	18700	1.75	**KF**	**77R37**	**DRN**	**63M4**	78	713
1.9	725	709	19200	2.1	**KA**	**77R37**	**DRN**	**63M4**	63	713
2.2	635	622	19400	2.4	**KAF**	**77R37**	**DRN**	**63M4**	71	713
2.5	570	552	19600	2.7						
2.8	500	485	19700	3.1						
3.2	440	428	19800	3.5						
3.8	390	367	19900	4.0						

24832936/EN – 09/2018

P_m = 0.18 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
1.7	880	793	9670	0.95						
2.0	725	697	11100	1.10						
2.2	640	613	11600	1.30						
2.5	560	542	12100	1.45	**K**	**67R37**	**DRN**	**63M4**	46	713
2.9	515	471	12300	1.60	**KF**	**67R37**	**DRN**	**63M4**	52	713
3.3	435	420	12700	1.90	**KA**	**67R37**	**DRN**	**63M4**	43	713
3.8	390	361	12800	2.1	**KAF**	**67R37**	**DRN**	**63M4**	49	713
4.3	345	323	13000	2.4						
4.9	290	279	13000	2.8						
2.5	565	544	7910	1.05						
2.9	510	473	8330	1.15						
3.3	435	421	8720	1.35						
3.8	390	362	8920	1.55	**K**	**57R37**	**DRN**	**63M4**	40	713
4.3	340	319	9110	1.75	**KF**	**57R37**	**DRN**	**63M4**	45	713
4.9	290	280	9320	2.1	**KA**	**57R37**	**DRN**	**63M4**	38	713
5.6	255	246	9440	2.3	**KAF**	**57R37**	**DRN**	**63M4**	44	713
6.4	225	215	9550	2.7						
7.2	200	192	9630	3.0						
8.3	174	166	9710	3.5						
2.5	570	543	9000	0.90						
2.7	505	501	9000	1.00						
3.1	455	449	9000	1.10						
3.4	395	401	9000	1.25						
3.8	360	360	9000	1.40						
4.2	330	330	9000	1.50	**K**	**49R37**	**DRN**	**63M4**	44	713
4.6	310	300	9000	1.60	**KF**	**49R37**	**DRN**	**63M4**	46	713
5.0	275	274	9000	1.80	**KA**	**49R37**	**DRN**	**63M4**	41	713
5.6	240	243	9000	2.1	**KAF**	**49R37**	**DRN**	**63M4**	46	713
6.3	220	217	9000	2.3						
7.1	200	193	9000	2.5						
7.8	181	176	9000	2.8						
9.1	151	152	9000	3.3						
11	127	125	9000	3.9						
3.7	390	375	6060	1.05						
4.2	350	327	6510	1.15						
4.8	310	289	6950	1.30						
5.4	265	256	7340	1.50	**K**	**47R37**	**DRN**	**63M4**	34	713
6.1	240	225	7530	1.65	**KF**	**47R37**	**DRN**	**63M4**	37	713
6.9	205	198	7740	1.95	**KA**	**47R37**	**DRN**	**63M4**	33	713
8.0	179	171	7880	2.2	**KAF**	**47R37**	**DRN**	**63M4**	36	713
9.0	160	153	7960	2.5						
10	140	131	8040	2.9						
4.4	320	312	7500	0.95						
4.6	315	299	7500	0.95						
5.4	265	254	7500	1.10						
5.9	240	234	7500	1.25						
6.5	215	210	7500	1.35	**K**	**39R17**	**DRN**	**63M4**	25	713
7.3	200	189	7500	1.50	**KF**	**39R17**	**DRN**	**63M4**	27	713
7.9	186	174	7500	1.60	**KA**	**39R17**	**DRN**	**63M4**	24	713
8.8	164	156	7500	1.85	**KAF**	**39R17**	**DRN**	**63M4**	26	713
9.7	150	142	7500	2.0						
12	123	117	7500	2.4						
18	77	75	7500	3.8						
6.7	220	205	5000	0.90						
7.6	195	181	5250	1.05	**K**	**37R17**	**DRN**	**63M4**	20	713
8.6	172	160	5470	1.15	**KF**	**37R17**	**DRN**	**63M4**	23	713
10	144	136	5720	1.40	**KA**	**37R17**	**DRN**	**63M4**	20	713
11	138	127	5770	1.45	**KAF**	**37R17**	**DRN**	**63M4**	22	713
6.3	270	144.79*	13000	3.0	**K**	**67**	**DRN**	**71MS6**	35	660
7.4	230	123.54	13000	3.5	**KF**	**67**	**DRN**	**71MS6**	41	661
8.5	200	108.03	13000	4.0	**KA**	**67**	**DRN**	**71MS6**	33	663
8.9	193	102.62	13000	4.2	**KAF**	**67**	**DRN**	**71MS6**	38	661
9.5	181	144.79*	13000	4.5	**K**	**67**	**DRN**	**63M4**	35	660
11	154	123.54	13000	5.3	**KF**	**67**	**DRN**	**63M4**	40	661
13	135	108.03	13000	6.1	**KA**	**67**	**DRN**	**63M4**	32	663
					KAF	**67**	**DRN**	**63M4**	38	661

24832936/EN – 09/2018

P_m = 0.18 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
6.3	270	145.14*	9380	2.2						
7.4	230	123.85	9520	2.6	**K**	**57**	**DRN**	**71MS6**	30	654
8.4	200	108.29	9620	3.0	**KF**	**57**	**DRN**	**71MS6**	34	655
8.9	193	102.88*	9650	3.1	**KA**	**57**	**DRN**	**71MS6**	28	656
10	170	90.26*	9720	3.5	**KAF**	**57**	**DRN**	**71MS6**	33	655
9.5	181	145.14*	9690	3.3						
11	155	123.85	9770	3.9	**K**	**57**	**DRN**	**63M4**	29	654
13	135	108.29	9820	4.4	**KF**	**57**	**DRN**	**63M4**	34	655
13	129	102.88*	9840	4.7	**KA**	**57**	**DRN**	**63M4**	27	656
15	113	90.26*	9890	5.3	**KAF**	**57**	**DRN**	**63M4**	33	655
18	96	76.56*	9930	6.3						
6.9	245	131.87*	7480	1.60	**K**	**47**	**DRN**	**71MS6**	24	644
7.5	225	121.48*	7600	1.75	**KF**	**47**	**DRN**	**71MS6**	27	645
8.8	196	104.37	7790	2.0	**KA**	**47**	**DRN**	**71MS6**	23	646
					KAF	**47**	**DRN**	**71MS6**	26	645
					K	**47**	**DRN**	**71MS6**	24	644
10	171	90.86	7920	2.3	**KF**	**47**	**DRN**	**71MS6**	27	645
11	160	85.12*	7960	2.5	**KA**	**47**	**DRN**	**71MS6**	23	646
					KAF	**47**	**DRN**	**71MS6**	26	645
10	165	131.87*	7940	2.4	**K**	**47**	**DRN**	**63M4**	23	644
11	152	121.48*	8000	2.6	**KF**	**47**	**DRN**	**63M4**	26	645
13	130	104.37	8080	3.1	**KA**	**47**	**DRN**	**63M4**	22	646
					KAF	**47**	**DRN**	**63M4**	25	645
					K	**47**	**DRN**	**63M4**	23	644
15	114	90.86	8130	3.5	**KF**	**47**	**DRN**	**63M4**	26	645
16	106	85.12*	8150	3.8	**KA**	**47**	**DRN**	**63M4**	22	646
					KAF	**47**	**DRN**	**63M4**	25	645
8.6	200	106.38	5210	1.00	**K**	**37**	**DRN**	**71MS6**	18	634
9.4	184	97.81	5360	1.10	**KF**	**37**	**DRN**	**71MS6**	20	635
11	157	83.69	5600	1.25	**KA**	**37**	**DRN**	**71MS6**	17	636
13	136	72.54	5790	1.45	**KAF**	**37**	**DRN**	**71MS6**	19	635
13	133	106.38	5820	1.50						
14	122	97.81	5920	1.65						
16	105	83.69	6080	1.90						
19	91	72.54	6200	2.2	**K**	**37**	**DRN**	**63M4**	17	634
20	85	67.80	6260	2.4	**KF**	**37**	**DRN**	**63M4**	19	635
23	73	58.60	6210	2.7	**KA**	**37**	**DRN**	**63M4**	17	636
28	62	49.79	5950	3.2	**KAF**	**37**	**DRN**	**63M4**	18	635
31	56	44.46	5770	3.6						
36	47	37.97	5520	4.2						
25	69	54.89	5160	1.90						
27	63	50.35	5180	2.1						
32	54	42.87	5210	2.4	**K**	**29**	**DRN**	**63M4**	11	627
37	46	36.96	5230	2.6	**KF**	**29**	**DRN**	**63M4**	12	631
46	38	30.11	5050	3.0	**KA**	**29**	**DRN**	**63M4**	11	633
46	37	29.69	5070	3.5	**KAF**	**29**	**DRN**	**63M4**	12	631
50	34	27.23	4950	3.8						
55	31	24.91	4790	3.5						
31	56	44.48	4420	1.25						
34	51	40.63	4450	1.30						
40	43	34.29	4490	1.50						
47	37	29.29	4500	1.65						
51	34	27.16	4440	1.75						
57	30	24.06	4360	2.7						
63	27	21.98	4240	2.9	**K**	**19**	**DRN**	**63M4**	9.5	621
74	23	18.55	4040	3.5	**KF**	**19**	**DRN**	**63M4**	9.8	624
87	20	15.84	3860	4.0	**KA**	**19**	**DRN**	**63M4**	9.0	626
94	18	14.69	3770	4.4	**KAF**	**19**	**DRN**	**63M4**	9.4	624
108	16	12.70	3610	5.0						
116	15	11.84	3530	5.3						
133	13	10.32	3390	5.9						
143	12	9.58	3340	5.3						
170	10	8.09	3160	7.9						
199	8.6	6.91	3010	9.3						

24832936/EN – 09/2018

P_m = 0.25 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.14	13900	9819	78100	0.95						
0.17	11900	8443	79700	1.10						
0.19	10600	7482	80400	1.20						
0.21	9320	6565	81000	1.40	**K**	**127R77**	**DRN**	**71MS4**	470	713
0.24	7990	5804	81400	1.65	**KF**	**127R77**	**DRN**	**71MS4**	510	713
0.28	7040	5027	81800	1.85	**KA**	**127R77**	**DRN**	**71MS4**	445	713
0.32	6090	4423	82000	2.1	**KAF**	**127R77**	**DRN**	**71MS4**	480	713
0.36	5320	3889	82200	2.4						
0.42	4440	3311	82400	2.9						
0.23	8660	6184	65000	0.90						
0.25	7740	5662	65000	1.05						
0.27	7030	5138	65000	1.15						
0.32	6170	4359	65000	1.30	**K**	**107R77**	**DRN**	**71MS4**	310	713
0.37	5390	3810	65000	1.50	**KF**	**107R77**	**DRN**	**71MS4**	325	713
0.42	4620	3358	65000	1.75	**KA**	**107R77**	**DRN**	**71MS4**	285	713
0.47	4170	2977	65000	1.90	**KAF**	**107R77**	**DRN**	**71MS4**	310	713
0.54	3640	2599	65000	2.2						
0.61	3150	2286	65000	2.5						
0.72	2670	1939	65000	3.0						
					K	**107R77**	**DRN**	**71MS4**	310	713
0.82	2450	1713	65000	3.3	**KF**	**107R77**	**DRN**	**71MS4**	320	713
0.90	2220	1554	65000	3.6	**KA**	**107R77**	**DRN**	**71MS4**	280	713
1.1	1910	1336	65000	4.2	**KAF**	**107R77**	**DRN**	**71MS4**	305	713
					K	**97R57**	**DRN**	**71MS4**	180	713
0.45	4580	3108	40000	0.95	**KF**	**97R57**	**DRN**	**71MS4**	200	713
0.51	4000	2757	40000	1.05	**KA**	**97R57**	**DRN**	**71MS4**	160	713
					KAF	**97R57**	**DRN**	**71MS4**	185	713
0.58	3610	2419	40000	1.20						
0.66	3140	2123	40000	1.35						
0.76	2770	1856	40000	1.55						
0.86	2360	1625	40000	1.80	**K**	**97R57**	**DRN**	**71MS4**	180	713
0.98	2050	1430	40000	2.1	**KF**	**97R57**	**DRN**	**71MS4**	200	713
1.1	1880	1261	40000	2.3	**KA**	**97R57**	**DRN**	**71MS4**	160	713
1.3	1640	1102	40000	2.6	**KAF**	**97R57**	**DRN**	**71MS4**	185	713
1.5	1440	957	40000	3.0						
1.6	1290	855	40000	3.3						
0.67	3120	2088	26700	0.85						
0.76	2770	1854	27200	0.95						
0.85	2480	1657	27500	1.10						
0.99	2110	1415	27900	1.30	**K**	**87R57**	**DRN**	**71MS4**	120	713
1.1	1830	1229	28200	1.45	**KF**	**87R57**	**DRN**	**71MS4**	130	713
1.3	1590	1078	28400	1.70	**KA**	**87R57**	**DRN**	**71MS4**	105	713
1.5	1380	951	28600	1.95	**KAF**	**87R57**	**DRN**	**71MS4**	120	713
1.7	1200	837	28700	2.2						
1.9	1040	726	28800	2.6						
2.2	920	638	28800	2.9						
1.3	1590	1053	15100	0.95						
1.5	1390	924	16400	1.10						
1.7	1230	815	17300	1.25						
2.0	1020	709	18200	1.50						
2.3	890	622	18700	1.75						
2.5	800	552	19000	1.90						
2.9	705	485	19200	2.2	**K**	**77R37**	**DRN**	**71MS4**	71	713
3.3	620	428	19400	2.5	**KF**	**77R37**	**DRN**	**71MS4**	79	713
3.8	545	367	19600	2.8	**KA**	**77R37**	**DRN**	**71MS4**	63	713
4.3	480	328	19700	3.2	**KAF**	**77R37**	**DRN**	**71MS4**	71	713
4.8	430	290	19800	3.6						
5.6	365	252	19900	4.2						
6.3	320	221	20000	4.8						
7.2	285	195	20000	5.4						
8.1	250	175	20000	6.2						

24832936/EN – 09/2018

P_m = 0.25 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
2.3	890	613	9540	0.90						
2.6	790	542	10600	1.05						
3.0	715	471	11200	1.15						
3.4	610	420	11800	1.35	**K**	**67R37**	**DRN**	**71MS4**	47	713
3.9	540	361	12200	1.50	**KF**	**67R37**	**DRN**	**71MS4**	52	713
4.3	480	323	12500	1.70	**KA**	**67R37**	**DRN**	**71MS4**	44	713
5.0	405	279	12800	2.0	**KAF**	**67R37**	**DRN**	**71MS4**	50	713
5.7	355	246	13000	2.3						
6.5	315	217	13000	2.6						
3.3	610	421	7520	1.00						
3.9	540	362	8070	1.10						
4.4	475	319	8520	1.25						
5.0	405	280	8850	1.45						
5.7	355	246	9050	1.65	**K**	**57R37**	**DRN**	**71MS4**	41	713
6.5	315	215	9220	1.90	**KF**	**57R37**	**DRN**	**71MS4**	45	713
7.3	280	192	9350	2.1	**KA**	**57R37**	**DRN**	**71MS4**	39	713
8.4	240	166	9490	2.5	**KAF**	**57R37**	**DRN**	**71MS4**	44	713
9.7	210	145	9590	2.8						
11	194	129	9650	3.1						
13	163	111	9740	3.7						
14	143	97	9800	4.2						
3.5	560	401	9000	0.90						
3.9	505	360	9000	1.00						
4.3	465	330	9000	1.05						
4.7	430	300	9000	1.15						
5.1	385	274	9000	1.30	**K**	**49R37**	**DRN**	**71MS4**	44	713
5.8	340	243	9000	1.45	**KF**	**49R37**	**DRN**	**71MS4**	46	713
6.5	305	217	9000	1.60	**KA**	**49R37**	**DRN**	**71MS4**	42	713
7.3	280	193	9000	1.80	**KAF**	**49R37**	**DRN**	**71MS4**	46	713
8.0	250	176	9000	2.0						
9.3	210	152	9000	2.4						
11	178	125	9000	2.8						
14	138	99	9000	3.6						
6.0	335	234	7500	0.90						
6.7	305	210	7500	1.00						
7.4	275	189	7500	1.10	**K**	**39R17**	**DRN**	**71MS4**	26	713
8.1	255	174	7500	1.15	**KF**	**39R17**	**DRN**	**71MS4**	27	713
9.0	225	156	7500	1.30	**KA**	**39R17**	**DRN**	**71MS4**	25	713
9.9	205	142	7500	1.45	**KAF**	**39R17**	**DRN**	**71MS4**	26	713
12	170	117	7500	1.75						
19	108	75	7500	2.7						
4.8	500	192.18	19700	2.9	**K**	**77**	**DRN**	**71M6**	63	667
5.1	465	179.37	19800	3.1	**KF**	**77**	**DRN**	**71M6**	71	668
5.9	400	154.02	19900	3.9	**KA**	**77**	**DRN**	**71M6**	55	670
6.8	350	135.28	19900	4.4	**KAF**	**77**	**DRN**	**71M6**	63	668
6.3	375	144.79*	12900	2.2	**K**	**67**	**DRN**	**71M6**	37	660
7.4	320	123.54	13000	2.5	**KF**	**67**	**DRN**	**71M6**	42	661
8.5	280	108.03	13000	2.9	**KA**	**67**	**DRN**	**71M6**	34	663
8.9	265	102.62	13000	3.1	**KAF**	**67**	**DRN**	**71M6**	40	661
9.7	245	144.79*	13000	3.3	**K**	**67**	**DRN**	**71MS4**	35	660
11	205	123.54	13000	3.9	**KF**	**67**	**DRN**	**71MS4**	41	661
13	184	108.03	13000	4.5	**KA**	**67**	**DRN**	**71MS4**	33	663
14	174	102.62	13000	4.7	**KAF**	**67**	**DRN**	**71MS4**	38	661
6.3	375	145.14*	8970	1.60						
7.4	320	123.85	9200	1.85	**K**	**57**	**DRN**	**71M6**	31	654
8.4	280	108.29	9350	2.1	**KF**	**57**	**DRN**	**71M6**	36	655
8.9	265	102.88*	9400	2.2	**KA**	**57**	**DRN**	**71M6**	29	656
10	235	90.26*	9520	2.5	**KAF**	**57**	**DRN**	**71M6**	34	655
12	200	76.56*	9630	3.0						
9.7	245	145.14*	9480	2.4						
11	210	123.85	9600	2.9	**K**	**57**	**DRN**	**71MS4**	30	654
13	184	108.29	9680	3.3	**KF**	**57**	**DRN**	**71MS4**	34	655
14	175	102.88*	9710	3.4	**KA**	**57**	**DRN**	**71MS4**	28	656
16	153	90.26*	9770	3.9	**KAF**	**57**	**DRN**	**71MS4**	33	655
18	130	76.56*	9840	4.6						

24832936/EN – 09/2018

P_m = 0.25 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
					K	**49**	**DRN**	**71MS4**	36	650
19	128	75.20	9000	3.7	**KF**	**49**	**DRN**	**71MS4**	38	651
20	119	70.19	9000	3.7	**KA**	**49**	**DRN**	**71MS4**	33	652
					KAF	**49**	**DRN**	**71MS4**	38	651
					K	**47**	**DRN**	**71M6**	25	644
6.9	340	131.87*	6620	1.15	**KF**	**47**	**DRN**	**71M6**	28	645
7.5	315	121.48*	6900	1.25	**KA**	**47**	**DRN**	**71M6**	24	646
8.8	270	104.37	7290	1.45	**KAF**	**47**	**DRN**	**71M6**	27	645
					K	**47**	**DRN**	**71M6**	25	644
10	235	90.86	7550	1.70	**KF**	**47**	**DRN**	**71M6**	28	645
11	220	85.12*	7640	1.80	**KA**	**47**	**DRN**	**71M6**	24	646
					KAF	**47**	**DRN**	**71M6**	27	645
					K	**47**	**DRN**	**71MS4**	24	644
11	220	131.87*	7630	1.80	**KF**	**47**	**DRN**	**71MS4**	27	645
12	205	121.48*	7740	1.95	**KA**	**47**	**DRN**	**71MS4**	23	646
13	177	104.37	7890	2.3	**KAF**	**47**	**DRN**	**71MS4**	26	645
					K	**47**	**DRN**	**71MS4**	24	644
15	154	90.86	7990	2.6	**KF**	**47**	**DRN**	**71MS4**	27	645
17	145	85.12*	8020	2.8	**KA**	**47**	**DRN**	**71MS4**	23	646
					KAF	**47**	**DRN**	**71MS4**	26	645
					K	**39**	**DRN**	**71MS4**	23	640
24	99	58.24	7500	3.0	**KF**	**39**	**DRN**	**71MS4**	24	641
28	84	49.69	7500	3.5	**KA**	**39**	**DRN**	**71MS4**	22	642
					KAF	**39**	**DRN**	**71MS4**	23	641
11	215	83.69	5040	0.90						
13	189	72.54	5310	1.05	**K**	**37**	**DRN**	**71M6**	19	634
14	177	67.80	5420	1.15	**KF**	**37**	**DRN**	**71M6**	21	635
16	153	58.60	5640	1.30	**KA**	**37**	**DRN**	**71M6**	19	636
18	130	49.79	5850	1.55	**KAF**	**37**	**DRN**	**71M6**	20	635
13	181	106.38	5380	1.10						
14	166	97.81	5520	1.20						
17	142	83.69	5740	1.40						
19	123	72.54	5910	1.60						
21	115	67.80	5980	1.75	**K**	**37**	**DRN**	**71MS4**	18	634
24	100	58.60	5920	2.0	**KF**	**37**	**DRN**	**71MS4**	20	635
28	85	49.79	5700	2.4	**KA**	**37**	**DRN**	**71MS4**	17	636
32	76	44.46	5540	2.6	**KAF**	**37**	**DRN**	**71MS4**	19	635
37	65	37.97	5320	3.1						
40	60	35.57	5230	3.3						
47	51	29.96	5000	3.9						
49	49	28.83	4940	4.1						
26	93	54.89	5090	1.40						
28	86	50.35	5110	1.50						
33	73	42.87	5150	1.75						
38	63	36.96	5140	1.95						
47	51	30.11	4880	2.2	**K**	**29**	**DRN**	**71MS4**	12	627
47	50	29.69	4920	2.6	**KF**	**29**	**DRN**	**71MS4**	13	631
52	46	27.23	4800	2.8	**KA**	**29**	**DRN**	**71MS4**	11	633
56	42	24.91	4640	2.6	**KAF**	**29**	**DRN**	**71MS4**	12	631
61	39	23.19	4590	3.3						
64	38	22.08	4490	2.8						
70	34	19.99	4400	3.8						

24832936/EN – 09/2018

P_m = 0.25 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
32	76	44.48	4290	0.90						
35	69	40.63	4330	0.95						
41	58	34.29	4400	1.10						
48	50	29.29	4330	1.25						
52	46	27.16	4250	1.30						
58	41	24.06	4210	1.95						
64	37	21.98	4110	2.1						
76	32	18.55	3920	2.5						
89	27	15.84	3750	3.0	**K**	**19**	**DRN**	**71MS4**	10	621
96	25	14.69	3670	3.2	**KF**	**19**	**DRN**	**71MS4**	10	624
111	22	12.70	3520	3.7	**KA**	**19**	**DRN**	**71MS4**	9.6	626
119	20	11.84	3450	3.9	**KAF**	**19**	**DRN**	**71MS4**	10.0	624
136	18	10.32	3310	4.3						
147	16	9.58	3280	3.9						
174	14	8.09	3110	5.8						
203	12	6.91	2960	6.8						
219	11	6.41	2890	7.3						
254	9.4	5.54	2760	8.5						
272	8.8	5.16	2700	9.1						

P_m = 0.37 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.19	16100	7482	73600	0.80						
0.22	14100	6565	77700	0.90						
0.24	12200	5804	79600	1.05	**K**	**127R77**	**DRN**	**71M4**	475	713
0.28	10700	5027	80300	1.20	**KF**	**127R77**	**DRN**	**71M4**	510	713
0.32	9340	4423	80900	1.40	**KA**	**127R77**	**DRN**	**71M4**	445	713
0.36	8180	3889	81400	1.60	**KAF**	**127R77**	**DRN**	**71M4**	480	713
0.43	6880	3311	81800	1.90						
0.73	4160	1926	82500	3.1	**K**	**127R77**	**DRN**	**71M4**	470	713
0.81	3790	1757	82500	3.4	**KF**	**127R77**	**DRN**	**71M4**	510	713
0.92	3290	1541	82600	3.9	**KA**	**127R77**	**DRN**	**71M4**	445	713
					KAF	**127R77**	**DRN**	**71M4**	480	713
0.37	8190	3810	65000	1.00						
0.42	7090	3358	65000	1.15	**K**	**107R77**	**DRN**	**71M4**	310	713
0.48	6360	2977	65000	1.25	**KF**	**107R77**	**DRN**	**71M4**	325	713
0.54	5550	2599	65000	1.45	**KA**	**107R77**	**DRN**	**71M4**	285	713
0.62	4830	2286	65000	1.65	**KAF**	**107R77**	**DRN**	**71M4**	310	713
0.73	4090	1939	65000	1.95						
0.83	3730	1713	65000	2.1	**K**	**107R77**	**DRN**	**71M4**	310	713
0.91	3380	1554	65000	2.4	**KF**	**107R77**	**DRN**	**71M4**	325	713
1.1	2900	1336	65000	2.8	**KA**	**107R77**	**DRN**	**71M4**	285	713
1.2	2530	1166	65000	3.1	**KAF**	**107R77**	**DRN**	**71M4**	310	713
0.67	4720	2123	40000	0.90						
0.76	4160	1856	40000	1.05						
0.87	3570	1625	40000	1.20						
0.99	3110	1430	40000	1.40						
1.1	2820	1261	40000	1.50	**K**	**97R57**	**DRN**	**71M4**	180	713
1.3	2470	1102	40000	1.75	**KF**	**97R57**	**DRN**	**71M4**	200	713
1.5	2160	957	40000	2.0	**KA**	**97R57**	**DRN**	**71M4**	165	713
1.6	1930	855	40000	2.2	**KAF**	**97R57**	**DRN**	**71M4**	190	713
1.9	1590	743	40000	2.7						
2.2	1410	652	40000	3.0						
2.5	1270	573	40000	3.4						

24832936/EN – 09/2018

P_m = 0.37 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
1.0	3160	1415	26600	0.85						
1.1	2750	1229	27200	1.00						
1.3	2400	1078	27600	1.10						
1.5	2090	951	28000	1.30						
1.7	1820	837	28200	1.50	**K**	**87R57**	**DRN**	**71M4**	120	713
1.9	1580	726	28400	1.70	**KF**	**87R57**	**DRN**	**71M4**	130	713
2.2	1400	638	28500	1.90	**KA**	**87R57**	**DRN**	**71M4**	110	713
2.5	1220	562	28700	2.2	**KAF**	**87R57**	**DRN**	**71M4**	120	713
3.0	1030	474	28800	2.6						
3.3	920	426	28800	2.9						
3.8	810	373	28900	3.3						
1.7	1830	815	11900	0.85						
2.0	1550	709	15400	1.00						
2.3	1360	622	16600	1.15						
2.6	1210	552	17400	1.25						
2.9	1060	485	18000	1.45						
3.3	940	428	18500	1.65	**K**	**77R37**	**DRN**	**71M4**	72	713
3.9	810	367	18900	1.90	**KF**	**77R37**	**DRN**	**71M4**	80	713
4.3	725	328	19200	2.1	**KA**	**77R37**	**DRN**	**71M4**	64	713
4.9	645	290	19400	2.4	**KAF**	**77R37**	**DRN**	**71M4**	72	713
5.6	555	252	19600	2.8						
6.4	485	221	19700	3.2						
7.2	430	195	19800	3.6						
8.1	380	175	19900	4.1						
9.2	335	154	19900	4.6						
3.4	920	420	9250	0.90						
3.9	810	361	10300	1.00						
4.4	725	323	11100	1.15						
5.1	610	279	11800	1.35	**K**	**67R37**	**DRN**	**71M4**	48	713
5.8	540	246	12200	1.50	**KF**	**67R37**	**DRN**	**71M4**	53	713
6.5	480	217	12500	1.70	**KA**	**67R37**	**DRN**	**71M4**	45	713
7.4	420	191	12700	1.95	**KAF**	**67R37**	**DRN**	**71M4**	51	713
8.5	360	166	12900	2.2						
9.8	320	144	13000	2.6						
12	270	122	13000	3.0						
5.1	615	280	7490	0.95						
5.8	540	246	8090	1.10						
6.6	475	215	8520	1.25						
7.4	420	192	8770	1.40	**K**	**57R37**	**DRN**	**71M4**	42	713
8.5	365	166	9020	1.65	**KF**	**57R37**	**DRN**	**71M4**	47	713
9.8	320	145	9200	1.85	**KA**	**57R37**	**DRN**	**71M4**	40	713
11	290	129	9320	2.1	**KAF**	**57R37**	**DRN**	**71M4**	46	713
13	245	111	9480	2.4						
15	215	97	9580	2.8						
5.2	585	274	9000	0.85						
5.8	515	243	9000	0.95						
6.5	465	217	9000	1.05	**K**	**49R37**	**DRN**	**71M4**	46	713
7.3	420	193	9000	1.20	**KF**	**49R37**	**DRN**	**71M4**	47	713
8.0	380	176	9000	1.30	**KA**	**49R37**	**DRN**	**71M4**	43	713
9.3	320	152	9000	1.55	**KAF**	**49R37**	**DRN**	**71M4**	48	713
11	265	125	9000	1.85						
14	205	99	9000	2.4						
9.1	340	156	7500	0.90	**K**	**39R17**	**DRN**	**71M4**	27	713
10.0	310	142	7500	0.95	**KF**	**39R17**	**DRN**	**71M4**	29	713
12	255	117	7500	1.20	**KA**	**39R17**	**DRN**	**71M4**	26	713
19	162	75	7500	1.80	**KAF**	**39R17**	**DRN**	**71M4**	28	713
					K	**87**	**DRN**	**80MK6**	100	674
4.7	745	197.37	28900	3.6	**KF**	**87**	**DRN**	**80MK6**	110	675
5.4	655	174.19	28900	4.1	**KA**	**87**	**DRN**	**80MK6**	89	677
					KAF	**87**	**DRN**	**80MK6**	100	675
6.1	580	154.02	19500	2.7	**K**	**77**	**DRN**	**80MK6**	65	667
6.9	510	135.28	19700	3.0	**KF**	**77**	**DRN**	**80MK6**	73	668
7.3	485	128.52	19700	3.2	**KA**	**77**	**DRN**	**80MK6**	58	670
8.2	425	113.56	19800	3.6	**KAF**	**77**	**DRN**	**80MK6**	65	668

24832936/EN – 09/2018

P_m = 0.37 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
7.4	475	192.18	19700	3.0	**K**	**77**	**DRN**	**71M4**	63	667
7.9	445	179.37	19800	3.2	**KF**	**77**	**DRN**	**71M4**	71	668
9.2	380	154.02	19900	4.0	**KA**	**77**	**DRN**	**71M4**	55	670
					KAF	**77**	**DRN**	**71M4**	63	668
7.6	465	123.54	12600	1.75	**K**	**67**	**DRN**	**80MK6**	39	660
8.7	405	108.03	12800	2.0	**KF**	**67**	**DRN**	**80MK6**	45	661
9.1	385	102.62	12900	2.1	**KA**	**67**	**DRN**	**80MK6**	36	663
10	340	90.04	13000	2.4	**KAF**	**67**	**DRN**	**80MK6**	42	661
9.8	360	144.79*	12900	2.3						
11	305	123.54	13000	2.7	**K**	**67**	**DRN**	**71M4**	37	660
13	265	108.03	13000	3.0	**KF**	**67**	**DRN**	**71M4**	42	661
16	220	90.04	13000	3.6	**KA**	**67**	**DRN**	**71M4**	34	663
19	191	76.37	13000	4.3	**KAF**	**67**	**DRN**	**71M4**	40	661
7.5	465	123.85	8570	1.30						
8.6	405	108.29	8840	1.45	**K**	**57**	**DRN**	**80MK6**	33	654
9.1	385	102.88*	8930	1.55	**KF**	**57**	**DRN**	**80MK6**	38	655
10	340	90.26*	9130	1.75	**KA**	**57**	**DRN**	**80MK6**	31	656
12	285	76.56*	9320	2.1	**KAF**	**57**	**DRN**	**80MK6**	37	655
14	260	69.12	9430	2.3						
9.8	360	145.14*	9040	1.65						
11	305	123.85	9250	1.95						
13	270	108.29	9390	2.2	**K**	**57**	**DRN**	**71M4**	31	654
14	255	102.88*	9440	2.3	**KF**	**57**	**DRN**	**71M4**	36	655
16	225	90.26*	9550	2.7	**KA**	**57**	**DRN**	**71M4**	29	656
18	191	76.56*	9660	3.1	**KAF**	**57**	**DRN**	**71M4**	34	655
20	173	69.12	9720	3.5						
19	188	75.20	9000	2.5	**K**	**49**	**DRN**	**71M4**	37	650
20	175	70.19	9000	2.5	**KF**	**49**	**DRN**	**71M4**	39	651
23	150	60.27	9000	3.3	**KA**	**49**	**DRN**	**71M4**	35	652
					KAF	**49**	**DRN**	**71M4**	39	651
9.0	390	104.37	6000	1.00	**K**	**47**	**DRN**	**80MK6**	27	644
10	340	90.86	6630	1.15	**KF**	**47**	**DRN**	**80MK6**	31	645
11	320	85.12*	6860	1.25	**KA**	**47**	**DRN**	**80MK6**	27	646
12	280	75.20*	7200	1.40	**KAF**	**47**	**DRN**	**80MK6**	29	645
11	325	131.87*	6780	1.20	**K**	**47**	**DRN**	**71M4**	25	644
12	300	121.48*	7030	1.30	**KF**	**47**	**DRN**	**71M4**	28	645
14	260	104.37	7380	1.55	**KA**	**47**	**DRN**	**71M4**	24	646
					KAF	**47**	**DRN**	**71M4**	27	645
16	225	90.86	7610	1.75						
17	210	85.12*	7700	1.90	**K**	**47**	**DRN**	**71M4**	25	644
19	188	75.20*	7840	2.1	**KF**	**47**	**DRN**	**71M4**	28	645
20	174	69.84	7900	2.3	**KA**	**47**	**DRN**	**71M4**	24	646
22	158	63.30*	7970	2.5	**KAF**	**47**	**DRN**	**71M4**	27	645
24	145	58.24	7500	2.1						
28	124	49.69	7500	2.4	**K**	**39**	**DRN**	**71M4**	24	640
33	108	43.45	7500	2.8	**KF**	**39**	**DRN**	**71M4**	25	641
34	103	41.28	7500	2.9	**KA**	**39**	**DRN**	**71M4**	23	642
39	90	36.22	7500	3.3	**KAF**	**39**	**DRN**	**71M4**	24	641
14	240	97.81	3550	0.80						
17	205	83.69	5130	0.95						
20	181	72.54	5380	1.10						
21	169	67.80	5490	1.20						
24	146	58.60	5480	1.35						
28	124	49.79	5320	1.60						
32	111	44.46	5200	1.80	**K**	**37**	**DRN**	**71M4**	19	634
37	95	37.97	5030	2.1	**KF**	**37**	**DRN**	**71M4**	21	635
40	89	35.57	4960	2.2	**KA**	**37**	**DRN**	**71M4**	19	636
47	75	29.96	4770	2.7	**KAF**	**37**	**DRN**	**71M4**	20	635
49	72	28.83	4720	2.8						
57	62	24.99	4560	3.2						
61	58	23.36	4480	3.3						
70	50	20.19	4320	3.7						
82	43	17.15	4130	4.2						

24832936/EN – 09/2018

P_m = 0.37 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
26	137	54.89	4950	0.95						
28	126	50.35	4990	1.05						
33	107	42.87	4980	1.20						
38	92	36.96	4840	1.30						
47	75	30.11	4630	1.55	**K**	**29**	**DRN**	**71M4**	13	627
48	74	29.69	4690	1.75	**KF**	**29**	**DRN**	**71M4**	14	631
52	68	27.23	4590	1.90	**KA**	**29**	**DRN**	**71M4**	13	633
57	62	24.91	4430	1.75	**KAF**	**29**	**DRN**	**71M4**	13	631
61	58	23.19	4410	2.2						
64	55	22.08	4300	1.90						
71	50	19.99	4250	2.6						
87	41	16.29	4020	3.2						
48	73	29.29	4030	0.85						
52	68	27.16	3980	0.90						
59	60	24.06	4000	1.35						
64	55	21.98	3920	1.45						
76	46	18.55	3760	1.75						
89	40	15.84	3610	2.0						
96	37	14.69	3540	2.2						
111	32	12.70	3410	2.5	**K**	**19**	**DRN**	**71M4**	11	621
120	30	11.84	3340	2.7	**KF**	**19**	**DRN**	**71M4**	12	624
137	26	10.32	3220	3.0	**KA**	**19**	**DRN**	**71M4**	11	626
148	24	9.58	3210	2.6	**KAF**	**19**	**DRN**	**71M4**	11	624
175	20	8.09	3050	4.0						
205	17	6.91	2910	4.6						
221	16	6.41	2850	5.0						
255	14	5.54	2720	5.8						
274	13	5.16	2660	6.2						
314	11	4.50	2550	7.1						

P_m = 0.55 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.07	58400	19144	190000	0.90						
0.08	51800	16978	190000	1.00						
0.10	43400	14272	190000	1.20	**K**	**187R97**	**DRN**	**80MK4**	1770	713
0.11	39400	13116	190000	1.35	**KH**	**187R97**	**DRN**	**80MK4**	1700	713
0.12	34300	11647	190000	1.55						
0.20	22300	7343	190000	2.4						
0.11	40400	13238	150000	0.85						
0.12	35300	11573	150000	1.00						
0.14	31300	10264	150000	1.10						
0.17	26200	8628	150000	1.35	**K**	**167R97**	**DRN**	**80MK4**	1190	713
0.22	19900	6562	150000	1.75	**KH**	**167R97**	**DRN**	**80MK4**	1150	713
0.27	15700	5355	150000	2.2						
0.35	12200	4079	150000	2.9						
0.19	23500	7734	108900	0.85						
0.21	20900	6881	110600	0.95	**K**	**157R97**	**DRN**	**80MK4**	790	713
0.24	18000	5931	112200	1.10	**KF**	**157R97**	**DRN**	**80MK4**	870	713
0.36	12100	3979	114600	1.65	**KA**	**157R97**	**DRN**	**80MK4**	750	713
0.47	9270	3051	115500	2.2	**KAF**	**157R97**	**DRN**	**80MK4**	810	713
0.32	14000	4423	77800	0.90						
0.37	12300	3889	79500	1.05	**K**	**127R77**	**DRN**	**80MK4**	475	713
0.43	10400	3311	80500	1.25	**KF**	**127R77**	**DRN**	**80MK4**	520	713
0.48	9430	3009	80900	1.40	**KA**	**127R77**	**DRN**	**80MK4**	445	713
0.55	8090	2607	81400	1.60	**KAF**	**127R77**	**DRN**	**80MK4**	485	713
0.74	6250	1926	82000	2.1						
0.82	5700	1757	82100	2.3	**K**	**127R77**	**DRN**	**80MK4**	475	713
0.93	4970	1541	82300	2.6	**KF**	**127R77**	**DRN**	**80MK4**	520	713
1.1	4350	1342	82400	3.0	**KA**	**127R77**	**DRN**	**80MK4**	445	713
1.2	3790	1177	82500	3.4	**KAF**	**127R77**	**DRN**	**80MK4**	485	713
1.4	3320	1025	82600	3.9						

24832936/EN – 09/2018

P_m = 0.55 kW										
n_a min^{-1}	M_a Nm	i	F_{Ra}[1] N	SEW f_B					m kg	
0.48	9550	2977	65000	0.85	**K**	**107R77**	**DRN**	**80MK4**	315	713
0.55	8330	2599	65000	0.95	**KF**	**107R77**	**DRN**	**80MK4**	325	713
0.63	7280	2286	65000	1.10	**KA**	**107R77**	**DRN**	**80MK4**	285	713
0.74	6170	1939	65000	1.30	**KAF**	**107R77**	**DRN**	**80MK4**	310	713
0.84	5590	1713	65000	1.45						
0.92	5070	1554	65000	1.60						
1.1	4360	1336	65000	1.85						
1.2	3800	1166	65000	2.1	**K**	**107R77**	**DRN**	**80MK4**	315	713
1.4	3260	1030	65000	2.5	**KF**	**107R77**	**DRN**	**80MK4**	325	713
1.6	2840	904	65000	2.8	**KA**	**107R77**	**DRN**	**80MK4**	285	713
1.8	2570	793	65000	3.1	**KAF**	**107R77**	**DRN**	**80MK4**	310	713
2.1	2240	696	65000	3.6						
2.3	1930	615	65000	4.1						
1.0	4670	1430	40000	0.90						
1.1	4190	1261	40000	1.00						
1.3	3660	1102	40000	1.15						
1.5	3210	957	40000	1.35						
1.7	2870	855	40000	1.50	**K**	**97R57**	**DRN**	**80MK4**	185	713
1.9	2400	743	40000	1.80	**KF**	**97R57**	**DRN**	**80MK4**	205	713
2.2	2120	652	40000	2.0	**KA**	**97R57**	**DRN**	**80MK4**	165	713
2.5	1900	573	40000	2.2	**KAF**	**97R57**	**DRN**	**80MK4**	190	713
2.9	1620	504	40000	2.6						
3.3	1390	437	40000	3.1						
3.8	1240	382	40000	3.4						
4.7	1000	305	40000	4.3						
1.5	3120	951	26700	0.85						
1.7	2730	837	27200	1.00						
2.0	2370	726	27700	1.15						
2.2	2090	638	28000	1.30						
2.5	1830	562	28200	1.45						
3.0	1540	474	28400	1.75	**K**	**87R57**	**DRN**	**80MK4**	125	713
3.4	1380	426	28500	1.95	**KF**	**87R57**	**DRN**	**80MK4**	130	713
3.9	1210	373	28700	2.2	**KA**	**87R57**	**DRN**	**80MK4**	110	713
4.3	1060	330	28700	2.5	**KAF**	**87R57**	**DRN**	**80MK4**	125	713
4.9	940	294	28800	2.8						
5.7	820	250	28900	3.3						
6.1	775	236	28900	3.5						
7.1	655	201	28900	4.1						
3.0	1590	485	15100	0.95						
3.4	1400	428	16300	1.10						
3.9	1210	367	17400	1.25						
4.4	1080	328	18000	1.45	**K**	**77R37**	**DRN**	**80MK4**	74	713
5.0	960	290	18400	1.60	**KF**	**77R37**	**DRN**	**80MK4**	82	713
5.7	830	252	18900	1.85	**KA**	**77R37**	**DRN**	**80MK4**	67	713
6.5	725	221	19200	2.1	**KAF**	**77R37**	**DRN**	**80MK4**	75	713
7.3	640	195	19400	2.4						
8.2	570	175	19600	2.7						
9.3	500	154	19700	3.1						
5.1	910	279	9330	0.90						
5.8	800	246	10400	1.00						
6.6	715	217	11100	1.15	**K**	**67R37**	**DRN**	**80MK4**	50	713
7.5	630	191	11700	1.30	**KF**	**67R37**	**DRN**	**80MK4**	56	713
8.6	540	166	12200	1.50	**KA**	**67R37**	**DRN**	**80MK4**	47	713
10.0	475	144	12500	1.70	**KAF**	**67R37**	**DRN**	**80MK4**	53	713
12	405	122	12800	2.0						
7.5	630	192	7360	0.95						
8.6	545	166	8050	1.10	**K**	**57R37**	**DRN**	**80MK4**	44	713
9.9	480	145	8510	1.25	**KF**	**57R37**	**DRN**	**80MK4**	49	713
11	430	129	8740	1.40	**KA**	**57R37**	**DRN**	**80MK4**	42	713
13	365	111	9020	1.65	**KAF**	**57R37**	**DRN**	**80MK4**	48	713
15	320	97	9200	1.85						
8.2	565	176	9000	0.90	**K**	**49R37**	**DRN**	**80MK4**	48	713
9.5	480	152	9000	1.05	**KF**	**49R37**	**DRN**	**80MK4**	50	713
11	400	125	9000	1.25	**KA**	**49R37**	**DRN**	**80MK4**	45	713
15	310	99	9000	1.60	**KAF**	**49R37**	**DRN**	**80MK4**	50	713

24832936/EN – 09/2018

P_m = 0.55 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
4.9	1070	197.37	28700	2.5	**K**	**87**	**DRN**	**90SR6**	110	674
5.5	940	174.19	28800	2.9	**KF**	**87**	**DRN**	**90SR6**	120	675
5.9	890	164.34*	28800	3.0	**KA**	**87**	**DRN**	**90SR6**	97	677
6.6	800	147.32*	28900	3.4	**KAF**	**87**	**DRN**	**90SR6**	110	675
6.3	830	154.02	18900	1.85	**K**	**77**	**DRN**	**90SR6**	73	667
7.1	735	135.28	19200	2.1	**KF**	**77**	**DRN**	**90SR6**	82	668
7.5	695	128.52	19300	2.2	**KA**	**77**	**DRN**	**90SR6**	66	670
8.5	615	113.56	19500	2.5	**KAF**	**77**	**DRN**	**90SR6**	74	668
9.3	560	154.02	19600	2.8						
11	495	135.28	19700	3.1	**K**	**77**	**DRN**	**80MK4**	65	667
11	470	128.52	19700	3.3	**KF**	**77**	**DRN**	**80MK4**	73	668
13	415	113.56	19800	3.7	**KA**	**77**	**DRN**	**80MK4**	58	670
15	355	97.05	19900	4.4	**KAF**	**77**	**DRN**	**80MK4**	65	668
7.8	670	123.54	11500	1.20	**K**	**67**	**DRN**	**90SR6**	47	660
8.9	585	108.03	12000	1.40	**KF**	**67**	**DRN**	**90SR6**	53	661
9.4	555	102.62	12100	1.45	**KA**	**67**	**DRN**	**90SR6**	44	663
11	485	90.04	12500	1.70	**KAF**	**67**	**DRN**	**90SR6**	50	661
					K	**67**	**DRN**	**90SR6**	47	660
13	415	76.37	12800	1.95	**KF**	**67**	**DRN**	**90SR6**	53	661
					KA	**67**	**DRN**	**90SR6**	44	663
					KAF	**67**	**DRN**	**90SR6**	50	661
12	450	123.54	12600	1.80	**K**	**67**	**DRN**	**80MK4**	39	660
13	395	108.03	12800	2.1	**KF**	**67**	**DRN**	**80MK4**	45	661
16	325	90.04	13000	2.5	**KA**	**67**	**DRN**	**80MK4**	36	663
19	275	76.37	13000	2.9	**KAF**	**67**	**DRN**	**80MK4**	42	661
8.9	585	108.29	7720	1.00						
9.4	555	102.88*	7960	1.05						
11	490	90.26*	8460	1.20	**K**	**57**	**DRN**	**90SR6**	41	654
13	415	76.56*	8810	1.45	**KF**	**57**	**DRN**	**90SR6**	46	655
14	375	69.12	8980	1.60	**KA**	**57**	**DRN**	**90SR6**	39	656
16	330	60.81*	9170	1.80	**KAF**	**57**	**DRN**	**90SR6**	45	655
17	310	57.42*	9240	1.90						
12	450	123.85	8640	1.30						
13	395	108.29	8900	1.50						
14	375	102.88*	8980	1.60	**K**	**57**	**DRN**	**80MK4**	33	654
16	330	90.26*	9170	1.80	**KF**	**57**	**DRN**	**80MK4**	38	655
19	280	76.56*	9360	2.1	**KA**	**57**	**DRN**	**80MK4**	31	656
21	250	69.12	9460	2.4	**KAF**	**57**	**DRN**	**80MK4**	37	655
24	220	60.81*	9560	2.7						
25	210	57.42*	9600	2.9						
19	275	75.20	9000	1.75						
20	255	70.19	9000	1.75						
24	220	60.27	9000	2.3	**K**	**49**	**DRN**	**80MK4**	40	650
27	194	52.94	9000	2.6	**KF**	**49**	**DRN**	**80MK4**	41	651
29	184	50.29	9000	2.7	**KA**	**49**	**DRN**	**80MK4**	37	652
32	163	44.44	9000	3.1	**KAF**	**49**	**DRN**	**80MK4**	42	651
38	139	37.98	9000	3.6						
14	380	104.37	6170	1.05						
16	330	90.86	6750	1.20	**K**	**47**	**DRN**	**80MK4**	27	644
17	310	85.12*	6950	1.30	**KF**	**47**	**DRN**	**80MK4**	31	645
19	275	75.20*	7270	1.45	**KA**	**47**	**DRN**	**80MK4**	27	646
21	255	69.84	7420	1.55	**KAF**	**47**	**DRN**	**80MK4**	29	645
23	230	63.30*	7580	1.75	**K**	**47**	**DRN**	**80MK4**	27	644
25	205	56.83	7730	1.90	**KF**	**47**	**DRN**	**80MK4**	31	645
29	179	48.95*	7880	2.2	**KA**	**47**	**DRN**	**80MK4**	27	646
31	168	46.03*	7930	2.4	**KAF**	**47**	**DRN**	**80MK4**	29	645
25	210	58.24	7500	1.40						
29	182	49.69	7500	1.65						
33	159	43.45	7500	1.90						
35	151	41.28	7500	2.0	**K**	**39**	**DRN**	**80MK4**	26	640
40	133	36.22	7500	2.3	**KF**	**39**	**DRN**	**80MK4**	28	641
47	112	30.72	7500	2.7	**KA**	**39**	**DRN**	**80MK4**	25	642
52	102	27.73	7310	3.0	**KAF**	**39**	**DRN**	**80MK4**	27	641
59	89	24.40	7070	3.4						
62	84	23.04	6970	3.6						

24832936/EN – 09/2018

P_m = 0.55 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
24	210	58.60	4830	0.95						
29	182	49.79	4760	1.10						
32	163	44.46	4700	1.25						
38	139	37.97	4600	1.45						
40	130	35.57	4560	1.55						
48	110	29.96	4420	1.80	**K**	**37**	**DRN**	**80MK4**	21	634
50	106	28.83	4390	1.90	**KF**	**37**	**DRN**	**80MK4**	23	635
57	91	24.99	4270	2.2	**KA**	**37**	**DRN**	**80MK4**	21	636
61	85	23.36	4210	2.3	**KAF**	**37**	**DRN**	**80MK4**	23	635
71	74	20.19	4080	2.5						
84	63	17.15	3930	2.9						
94	56	15.31	3830	3.1						
110	48	13.08	3680	3.5						
118	44	12.14	3610	3.6						
137	38	10.49	3470	4.2						
39	135	36.96	4380	0.90						
48	110	30.11	4250	1.05						
48	109	29.69	4360	1.20						
53	100	27.23	4290	1.30						
58	91	24.91	4120	1.20						
62	85	23.19	4150	1.55	**K**	**29**	**DRN**	**80MK4**	15	627
65	81	22.08	4020	1.30	**KF**	**29**	**DRN**	**80MK4**	16	631
72	73	19.99	4020	1.80	**KA**	**29**	**DRN**	**80MK4**	15	633
88	60	16.29	3830	2.2	**KAF**	**29**	**DRN**	**80MK4**	16	631
107	49	13.47	3650	2.6						
120	44	11.94	3540	3.0						
145	36	9.90	3460	3.0						
168	31	8.53	3310	3.9						
60	88	24.06	3700	0.90						
65	80	21.98	3640	1.00						
77	68	18.55	3520	1.20						
91	58	15.84	3410	1.40						
98	54	14.69	3350	1.50						
113	46	12.70	3240	1.70						
121	43	11.84	3190	1.80	**K**	**19**	**DRN**	**80MK4**	14	621
139	38	10.32	3080	2.0	**KF**	**19**	**DRN**	**80MK4**	14	624
150	35	9.58	3100	1.80	**KA**	**19**	**DRN**	**80MK4**	13	626
177	30	8.09	2960	2.7	**KAF**	**19**	**DRN**	**80MK4**	13	624
208	25	6.91	2830	3.2						
224	23	6.41	2770	3.4						
259	20	5.54	2660	4.0						
278	19	5.16	2600	4.2						
319	16	4.50	2500	4.9						
295	18	9.58	2560	3.5	**K**	**19**	**DRN**	**71M2**	11	621
349	15	8.09	2430	5.3	**KF**	**19**	**DRN**	**71M2**	12	624
409	13	6.91	2320	6.2	**KA**	**19**	**DRN**	**71M2**	11	626
441	12	6.41	2270	6.7	**KAF**	**19**	**DRN**	**71M2**	11	624

P_m = 0.75 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.10	60600	14272	190000	0.85						
0.11	55300	13116	190000	0.95						
0.12	48400	11647	190000	1.10						
0.14	42700	10413	190000	1.25						
0.15	37800	9363	190000	1.40	**K**	**187R97**	**DRN**	**80M4**	1770	713
0.18	32000	8126	190000	1.65	**KH**	**187R97**	**DRN**	**80M4**	1700	713
0.20	31200	7343	190000	1.70						
0.21	28400	6747	190000	1.85						
0.24	24900	5991	190000	2.1						

24832936/EN – 09/2018

P_m = 0.75 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.14	43700	10264	150000	0.80						
0.17	36600	8628	150000	0.95						
0.22	27900	6562	150000	1.25						
0.27	22200	5355	150000	1.55	**K**	**167R97**	**DRN**	**80M4**	1190	713
0.30	19600	4788	150000	1.80	**KH**	**167R97**	**DRN**	**80M4**	1150	713
0.35	17200	4079	150000	2.0						
0.43	14300	3376	150000	2.4						
0.28	20400	5074	110800	1.00						
0.32	18200	4514	112100	1.10	**K**	**157R97**	**DRN**	**80M4**	800	713
0.36	16900	3979	112700	1.20	**KF**	**157R97**	**DRN**	**80M4**	870	713
0.41	14400	3516	113800	1.40	**KA**	**157R97**	**DRN**	**80M4**	760	713
0.47	12900	3051	114300	1.55	**KAF**	**157R97**	**DRN**	**80M4**	820	713
					K	**157R97**	**DRN**	**80M4**	790	713
0.87	7130	1659	115900	2.8	**KF**	**157R97**	**DRN**	**80M4**	870	713
1.1	5740	1365	116200	3.5	**KA**	**157R97**	**DRN**	**80M4**	760	713
					KAF	**157R97**	**DRN**	**80M4**	810	713
0.43	14400	3311	77100	0.90	**K**	**127R77**	**DRN**	**80M4**	480	713
0.48	13000	3009	79100	1.00	**KF**	**127R77**	**DRN**	**80M4**	520	713
0.55	11200	2607	80100	1.15	**KA**	**127R77**	**DRN**	**80M4**	450	713
					KAF	**127R77**	**DRN**	**80M4**	490	713
0.75	8610	1926	81200	1.50						
0.82	7860	1757	81500	1.65						
0.93	6860	1541	81800	1.90	**K**	**127R77**	**DRN**	**80M4**	475	713
1.1	6000	1342	82100	2.2	**KF**	**127R77**	**DRN**	**80M4**	520	713
1.2	5240	1177	82200	2.5	**KA**	**127R77**	**DRN**	**80M4**	450	713
1.4	4580	1025	82400	2.8	**KAF**	**127R77**	**DRN**	**80M4**	485	713
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	713
1.4	4530	1030	65000	1.75	**KF**	**107R77**	**DRN**	**80M4**	330	713
1.6	3940	904	65000	2.0	**KA**	**107R77**	**DRN**	**80M4**	290	713
1.8	3540	793	65000	2.3	**KAF**	**107R77**	**DRN**	**80M4**	315	713
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	713
2.9	2240	504	40000	1.90	**KF**	**97R57**	**DRN**	**80M4**	205	713
3.3	1930	437	40000	2.2	**KA**	**97R57**	**DRN**	**80M4**	170	713
3.8	1710	382	40000	2.5	**KAF**	**97R57**	**DRN**	**80M4**	195	713
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	713
3.9	1680	373	28300	1.60	**KF**	**87R57**	**DRN**	**80M4**	135	713
4.4	1460	330	28500	1.85	**KA**	**87R57**	**DRN**	**80M4**	115	713
4.9	1310	294	28600	2.1	**KAF**	**87R57**	**DRN**	**80M4**	125	713
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	713
5.0	1310	290	16800	1.20	**KF**	**77R37**	**DRN**	**80M4**	86	713
5.7	1130	252	17700	1.35	**KA**	**77R37**	**DRN**	**80M4**	70	713
6.5	1000	221	18300	1.55	**KAF**	**77R37**	**DRN**	**80M4**	78	713

24832936/EN – 09/2018

P_m = 0.75 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
					K	**49R37**	**DRN**	**80M4**	51	713
12	545	125	9000	0.90	**KF**	**49R37**	**DRN**	**80M4**	53	713
15	430	99	9000	1.15	**KA**	**49R37**	**DRN**	**80M4**	48	713
					KAF	**49R37**	**DRN**	**80M4**	53	713
					K	**39R17**	**DRN**	**80M4**	32	713
19	330	75	7500	0.90	**KF**	**39R17**	**DRN**	**80M4**	34	713
					KA	**39R17**	**DRN**	**80M4**	31	713
					KAF	**39R17**	**DRN**	**80M4**	33	713
5.5	1300	174.19	28600	2.1	**K**	**87**	**DRN**	**90S6**	110	674
5.8	1220	164.34*	28700	2.2	**KF**	**87**	**DRN**	**90S6**	120	675
6.5	1100	147.32*	28700	2.5	**KA**	**87**	**DRN**	**90S6**	97	677
7.5	940	126.91*	28800	2.8	**KAF**	**87**	**DRN**	**90S6**	110	675
7.3	980	197.37	28800	2.8	**K**	**87**	**DRN**	**80M4**	105	674
8.3	860	174.19	28800	3.1	**KF**	**87**	**DRN**	**80M4**	115	675
8.8	810	164.34*	28900	3.3	**KA**	**87**	**DRN**	**80M4**	92	677
9.8	730	147.32*	28900	3.7	**KAF**	**87**	**DRN**	**80M4**	105	675
					K	**77**	**DRN**	**90S6**	73	667
7.1	1010	135.28	18300	1.55	**KF**	**77**	**DRN**	**90S6**	82	668
7.5	960	128.52	18400	1.60	**KA**	**77**	**DRN**	**90S6**	66	670
8.4	840	113.56	18800	1.80	**KAF**	**77**	**DRN**	**90S6**	74	668
					K	**77**	**DRN**	**90S6**	73	667
9.9	725	97.05	19200	2.1	**KF**	**77**	**DRN**	**90S6**	82	668
11	665	88.97	19300	2.3	**KA**	**77**	**DRN**	**90S6**	66	670
					KAF	**77**	**DRN**	**90S6**	74	668
9.3	765	154.02	19100	2.0						
11	670	135.28	19300	2.3	**K**	**77**	**DRN**	**80M4**	68	667
11	635	128.52	19400	2.4	**KF**	**77**	**DRN**	**80M4**	77	668
13	560	113.56	19600	2.7	**KA**	**77**	**DRN**	**80M4**	61	670
15	480	97.05	19700	3.2	**KAF**	**77**	**DRN**	**80M4**	69	668
					K	**67**	**DRN**	**80M4**	43	660
12	610	123.54	11800	1.35	**KF**	**67**	**DRN**	**80M4**	48	661
13	535	108.03	12200	1.55	**KA**	**67**	**DRN**	**80M4**	40	663
16	445	90.04	12600	1.85	**KAF**	**67**	**DRN**	**80M4**	46	661
19	375	76.37	12900	2.2	**K**	**67**	**DRN**	**80M4**	43	660
21	340	68.95	13000	2.4	**KF**	**67**	**DRN**	**80M4**	48	661
24	300	60.66	13000	2.7	**KA**	**67**	**DRN**	**80M4**	40	663
25	280	57.28	13000	2.9	**KAF**	**67**	**DRN**	**80M4**	46	661
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	654
19	380	76.56*	8960	1.60	**KF**	**57**	**DRN**	**80M4**	41	655
21	340	69.12	9120	1.75	**KA**	**57**	**DRN**	**80M4**	35	656
24	300	60.81*	9280	2.0	**KAF**	**57**	**DRN**	**80M4**	40	655
25	285	57.42*	9340	2.1						
29	240	48.89	9490	2.5						
32	220	44.43	9560	2.7						
24	295	60.27	9000	1.65						
27	260	52.94	9000	1.90						
29	250	50.29	9000	2.0	**K**	**49**	**DRN**	**80M4**	43	650
32	220	44.44	9000	2.3	**KF**	**49**	**DRN**	**80M4**	45	651
38	189	37.98	9000	2.6	**KA**	**49**	**DRN**	**80M4**	40	652
41	173	34.81	9000	2.9	**KAF**	**49**	**DRN**	**80M4**	45	651
47	152	30.55	8960	3.3						
50	144	28.95	8840	3.5						
					K	**47**	**DRN**	**80M4**	31	644
19	370	75.20*	6270	1.05	**KF**	**47**	**DRN**	**80M4**	34	645
21	345	69.84	6590	1.15	**KA**	**47**	**DRN**	**80M4**	30	646
23	310	63.30*	6920	1.25	**KAF**	**47**	**DRN**	**80M4**	33	645
25	280	56.83	7210	1.40						
29	240	48.95*	7500	1.65	**K**	**47**	**DRN**	**80M4**	31	644
31	225	46.03*	7600	1.75	**KF**	**47**	**DRN**	**80M4**	34	645
36	197	39.61	7790	2.0	**KA**	**47**	**DRN**	**80M4**	30	646
41	176	35.39	7690	2.3	**KAF**	**47**	**DRN**	**80M4**	33	645
46	156	31.30	7480	2.6						

24832936/EN – 09/2018

P_m = 0.75 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
29	245	49.69	7500	1.20						
33	215	43.45	7500	1.40						
35	205	41.28	7500	1.45						
40	180	36.22	7390	1.65						
47	153	30.72	7140	1.95	**K**	**39**	**DRN**	**80M4**	30	640
52	138	27.73	6990	2.2	**KF**	**39**	**DRN**	**80M4**	31	641
59	121	24.40	6790	2.5	**KA**	**39**	**DRN**	**80M4**	29	642
62	115	23.04	6700	2.6	**KAF**	**39**	**DRN**	**80M4**	30	641
73	98	19.62	6440	3.0						
81	89	17.83	6290	3.3						
93	77	15.44	6060	3.6						
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	634
71	100	20.19	3840	1.85	**KF**	**37**	**DRN**	**80M4**	27	635
84	85	17.15	3720	2.1	**KA**	**37**	**DRN**	**80M4**	24	636
94	76	15.31	3640	2.3	**KAF**	**37**	**DRN**	**80M4**	26	635
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						
58	124	24.91	3780	0.90						
62	115	23.19	3870	1.15						
65	110	22.08	3720	0.95						
72	99	19.99	3780	1.30						
88	81	16.29	3630	1.60	**K**	**29**	**DRN**	**80M4**	19	627
107	67	13.47	3490	1.95	**KF**	**29**	**DRN**	**80M4**	20	631
121	59	11.94	3400	2.2	**KA**	**29**	**DRN**	**80M4**	18	633
146	49	9.90	3370	2.2	**KAF**	**29**	**DRN**	**80M4**	19	631
157	46	9.17	3190	2.9						
169	42	8.53	3230	2.9						
193	37	7.48	3030	3.3						
207	35	6.95	3050	3.2						
298	24	9.58	2500	2.6	**K**	**19**	**DRN**	**80MS2**	17	621
353	20	8.09	2380	3.9	**KF**	**19**	**DRN**	**80MS2**	17	624
413	17	6.91	2280	4.6	**KA**	**19**	**DRN**	**80MS2**	16	626
446	16	6.41	2220	5.0	**KAF**	**19**	**DRN**	**80MS2**	17	624
78	92	18.55	3260	0.85						
91	79	15.84	3190	1.00						
98	73	14.69	3150	1.10						
113	63	12.70	3060	1.25						
122	59	11.84	3020	1.35	**K**	**19**	**DRN**	**80M4**	17	621
140	51	10.32	2940	1.50	**KF**	**19**	**DRN**	**80M4**	17	624
178	40	8.09	2870	2.0	**KA**	**19**	**DRN**	**80M4**	16	626
208	34	6.91	2760	2.3	**KAF**	**19**	**DRN**	**80M4**	17	624
225	32	6.41	2700	2.5						
260	28	5.54	2600	2.9						
279	26	5.16	2550	3.1						
320	22	4.50	2450	3.6						

24832936/EN – 09/2018

P_m = 1.1 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.14	64200	10413	190000	0.80						
0.16	57100	9363	190000	0.95						
0.18	48800	8126	190000	1.10						
0.20	46400	7343	190000	1.15						
0.22	42400	6747	190000	1.25	**K**	**187R97**	**DRN**	**90S4**	1780	713
0.24	37300	5991	190000	1.40	**KH**	**187R97**	**DRN**	**90S4**	1710	713
0.27	33000	5358	190000	1.60						
0.30	29400	4817	190000	1.80						
0.33	26600	4370	190000	2.0						
0.22	41400	6562	150000	0.85						
0.27	33300	5355	150000	1.05						
0.30	29500	4788	150000	1.20	**K**	**167R97**	**DRN**	**90S4**	1190	713
0.36	25600	4079	150000	1.35	**KH**	**167R97**	**DRN**	**90S4**	1160	713
0.43	21300	3376	150000	1.65						
0.53	17100	2755	150000	2.0						
0.67	13900	2182	150000	2.5						
0.85	10800	1704	150000	3.2	**K**	**167R97**	**DRN**	**90S4**	1190	713
1.0	9000	1408	150000	3.9	**KH**	**167R97**	**DRN**	**90S4**	1150	713
1.1	8240	1296	150000	4.2						
0.37	25100	3979	107800	0.80						
0.41	21600	3516	110100	0.90	**K**	**157R97**	**DRN**	**90S4**	800	713
0.48	19200	3051	111500	1.05	**KF**	**157R97**	**DRN**	**90S4**	880	713
0.56	15900	2610	113200	1.25	**KA**	**157R97**	**DRN**	**90S4**	760	713
0.63	14100	2322	113900	1.40	**KAF**	**157R97**	**DRN**	**90S4**	820	713
0.88	10600	1659	115100	1.90						
1.1	8600	1365	115600	2.3	**K**	**157R97**	**DRN**	**90S4**	800	713
1.2	7670	1229	115800	2.6	**KF**	**157R97**	**DRN**	**90S4**	880	713
1.3	6820	1093	116000	2.9	**KA**	**157R97**	**DRN**	**90S4**	760	713
1.5	5880	942	116200	3.4	**KAF**	**157R97**	**DRN**	**90S4**	820	713
1.7	5270	854	116300	3.8						
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	713
1.4	6730	1025	81900	1.95	**KF**	**127R77**	**DRN**	**90S4**	520	713
1.6	5880	899	82100	2.2	**KA**	**127R77**	**DRN**	**90S4**	455	713
1.8	5060	790	82300	2.6	**KAF**	**127R77**	**DRN**	**90S4**	490	713
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	713
2.4	3970	615	65000	2.0	**KF**	**107R77**	**DRN**	**90S4**	335	713
2.8	3370	522	65000	2.4	**KA**	**107R77**	**DRN**	**90S4**	295	713
3.2	2960	461	65000	2.7	**KAF**	**107R77**	**DRN**	**90S4**	320	713
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	713
2.9	3300	504	40000	1.30	**KF**	**97R57**	**DRN**	**90S4**	215	713
3.3	2840	437	40000	1.50	**KA**	**97R57**	**DRN**	**90S4**	175	713
3.8	2510	382	40000	1.70	**KAF**	**97R57**	**DRN**	**90S4**	200	713
4.2	2220	342	40000	1.95						

24832936/EN – 09/2018

P_m = 1.1 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
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	713
4.4	2160	330	27900	1.25	**KF**	**87R57**	**DRN**	**90S4**	140	713
5.0	1930	294	28100	1.40	**KA**	**87R57**	**DRN**	**90S4**	120	713
5.8	1660	250	28300	1.60	**KAF**	**87R57**	**DRN**	**90S4**	135	713
6.2	1570	236	28400	1.70						
7.2	1330	201	28600	2.0						
5.4	1930	176.05*	40000	2.2	**K**	**97**	**DRN**	**90L6**	170	681
6.2	1680	153.21*	40000	2.6	**KF**	**97**	**DRN**	**90L6**	190	682
6.8	1530	140.28	40000	2.8	**KA**	**97**	**DRN**	**90L6**	155	684
7.7	1360	123.93*	40000	3.2	**KAF**	**97**	**DRN**	**90L6**	180	682
					K	**97**	**DRN**	**90S4**	170	681
8.3	1270	176.05*	40000	3.4	**KF**	**97**	**DRN**	**90S4**	190	682
9.5	1100	153.21*	40000	3.9	**KA**	**97**	**DRN**	**90S4**	150	684
10	1010	140.28	40000	4.2	**KAF**	**97**	**DRN**	**90S4**	175	682
					K	**87**	**DRN**	**90L6**	110	674
6.5	1610	147.32*	28400	1.65	**KF**	**87**	**DRN**	**90L6**	120	675
7.5	1390	126.91*	28500	1.95	**KA**	**87**	**DRN**	**90L6**	100	677
					KAF	**87**	**DRN**	**90L6**	115	675
8.3	1250	174.19	28600	2.1						
8.8	1180	164.34*	28700	2.3	**K**	**87**	**DRN**	**90S4**	110	674
9.9	1060	147.32*	28800	2.5	**KF**	**87**	**DRN**	**90S4**	120	675
11	910	126.91*	28800	3.0	**KA**	**87**	**DRN**	**90S4**	97	677
13	830	115.82	28900	3.2	**KAF**	**87**	**DRN**	**90S4**	110	675
					K	**77**	**DRN**	**90L6**	77	667
8.4	1240	113.56	17200	1.25	**KF**	**77**	**DRN**	**90L6**	85	668
9.9	1060	97.05	18000	1.45	**KA**	**77**	**DRN**	**90L6**	69	670
					KAF	**77**	**DRN**	**90L6**	77	668
					K	**77**	**DRN**	**90S4**	73	667
11	970	135.28	18400	1.60	**KF**	**77**	**DRN**	**90S4**	82	668
11	920	128.52	18600	1.65	**KA**	**77**	**DRN**	**90S4**	66	670
13	810	113.56	18900	1.90	**KAF**	**77**	**DRN**	**90S4**	74	668
15	700	97.05	19300	2.2	**K**	**77**	**DRN**	**90S4**	73	667
16	640	88.97	19400	2.4	**KF**	**77**	**DRN**	**90S4**	82	668
19	560	78.07	19600	2.8	**KA**	**77**	**DRN**	**90S4**	66	670
20	530	73.99	19600	2.9	**KAF**	**77**	**DRN**	**90S4**	74	668
13	775	108.03	10700	1.05						
14	740	102.62	11000	1.10	**K**	**67**	**DRN**	**90S4**	49	660
16	650	90.04	11600	1.25	**KF**	**67**	**DRN**	**90S4**	54	661
19	550	76.37	12200	1.50	**KA**	**67**	**DRN**	**90S4**	46	663
21	495	68.95	12400	1.65	**KAF**	**67**	**DRN**	**90S4**	52	661
24	435	60.66	12700	1.85						
25	410	57.28	12800	2.0	**K**	**67**	**DRN**	**90S4**	49	660
30	350	48.77	13000	2.3	**KF**	**67**	**DRN**	**90S4**	54	661
33	315	44.32	13000	2.6	**KA**	**67**	**DRN**	**90S4**	46	663
38	275	38.39	13000	2.9	**KAF**	**67**	**DRN**	**90S4**	52	661
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	654
24	435	60.81*	8710	1.35	**KF**	**57**	**DRN**	**90S4**	48	655
25	410	57.42*	8820	1.45	**KA**	**57**	**DRN**	**90S4**	41	656
30	350	48.89	9080	1.70	**KAF**	**57**	**DRN**	**90S4**	47	655
33	320	44.43	9210	1.85						

24832936/EN – 09/2018

P_m = 1.1 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
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	654
96	110	15.22	8100	4.9	**KF**	**57**	**DRN**	**90S4**	48	655
110	96	13.25	7790	5.3	**KA**	**57**	**DRN**	**90S4**	41	656
122	86	11.92	7490	4.8	**KAF**	**57**	**DRN**	**90S4**	47	655
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						
24	435	60.27	9000	1.15						
27	380	52.94	9000	1.30						
29	360	50.29	9000	1.40						
33	320	44.44	9000	1.55						
38	270	37.98	8800	1.80	**K**	**49**	**DRN**	**90S4**	48	650
42	250	34.81	8660	2.0	**KF**	**49**	**DRN**	**90S4**	50	651
48	220	30.55	8430	2.3	**KA**	**49**	**DRN**	**90S4**	45	652
50	205	28.95	8340	2.4	**KAF**	**49**	**DRN**	**90S4**	50	651
57	183	25.34	8100	2.7						
64	165	22.83	7900	3.0						
73	145	20.03	7660	3.5						
26	410	56.83	5430	0.95	**K**	**47**	**DRN**	**90S4**	37	644
30	350	48.95*	6520	1.15	**KF**	**47**	**DRN**	**90S4**	40	645
32	330	46.03*	6750	1.20	**KA**	**47**	**DRN**	**90S4**	36	646
					KAF	**47**	**DRN**	**90S4**	39	645
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	644
50	210	29.32	6840	1.90	**KF**	**47**	**DRN**	**90S4**	40	645
56	187	25.91	6690	2.1	**KA**	**47**	**DRN**	**90S4**	36	646
67	157	21.81	6460	2.5	**KAF**	**47**	**DRN**	**90S4**	39	645
74	141	19.58	6310	2.8						
29	355	49.69	6810	0.85						
33	310	43.45	6760	0.95						
35	295	41.28	6740	1.00						
40	260	36.22	6660	1.15						
47	220	30.72	6520	1.35						
52	200	27.73	6420	1.50						
60	176	24.40	6290	1.70	**K**	**39**	**DRN**	**90S4**	36	640
63	166	23.04	6230	1.80	**KF**	**39**	**DRN**	**90S4**	38	641
74	142	19.62	6040	2.1	**KA**	**39**	**DRN**	**90S4**	35	642
82	129	17.83	5920	2.2	**KAF**	**39**	**DRN**	**90S4**	37	641
94	111	15.44	5740	2.5						
108	97	13.44	5560	2.8						
114	92	12.73	5760	2.7						
120	87	12.09	5680	2.9						
137	77	10.61	5480	3.7						

24832936/EN – 09/2018

P_m = 1.1 kW

n_a min^{-1}	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	634
111	94	13.08	3240	1.75	**KF**	**37**	**DRN**	**90S4**	33	635
120	88	12.14	3200	1.85	**KA**	**37**	**DRN**	**90S4**	30	636
139	76	10.49	3120	2.1	**KAF**	**37**	**DRN**	**90S4**	32	635
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	3.1						
271	39	5.36	2690	3.6						
366	29	3.98	2490	4.3						
73	144	19.99	3360	0.90						
89	118	16.29	3290	1.10						
108	97	13.47	3210	1.35						
122	86	11.94	3150	1.50						
147	71	9.90	3210	1.55	**K**	**29**	**DRN**	**90S4**	25	627
159	66	9.17	2990	1.95	**KF**	**29**	**DRN**	**90S4**	26	631
171	62	8.53	3100	2.0	**KA**	**29**	**DRN**	**90S4**	24	633
195	54	7.48	2870	2.3	**KAF**	**29**	**DRN**	**90S4**	25	631
209	50	6.95	2940	2.2						
253	42	5.75	2800	2.7						
285	37	5.10	2710	3.0						
115	92	12.70	2760	0.85						
123	85	11.84	2740	0.90						
141	74	10.32	2690	1.00						
180	58	8.09	2720	1.35	**K**	**19**	**DRN**	**90S4**	23	621
211	50	6.91	2620	1.60	**KF**	**19**	**DRN**	**90S4**	23	624
227	46	6.41	2580	1.75	**KA**	**19**	**DRN**	**90S4**	22	626
263	40	5.54	2490	2.0	**KAF**	**19**	**DRN**	**90S4**	23	624
282	37	5.16	2440	2.1						
323	32	4.50	2360	2.5						

P_m = 1.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.20	63900	7343	190000	0.85						
0.22	58500	6747	190000	0.90						
0.24	51600	5991	190000	1.05	**K**	**187R97**	**DRN**	**90L4**	1780	713
0.27	45800	5358	190000	1.15	**KH**	**187R97**	**DRN**	**90L4**	1710	713
0.30	40800	4817	190000	1.30						
0.33	37100	4370	190000	1.45						
0.40	31800	3609	190000	1.65						
0.48	26900	3062	190000	1.95	**K**	**187R97**	**DRN**	**90L4**	1780	713
0.58	21900	2519	190000	2.4	**KH**	**187R97**	**DRN**	**90L4**	1710	713
0.64	19600	2268	190000	2.7						
0.31	40900	4788	150000	0.85						
0.36	35300	4079	150000	1.00	**K**	**167R97**	**DRN**	**90L4**	1200	713
0.43	29300	3376	150000	1.20	**KH**	**167R97**	**DRN**	**90L4**	1160	713
0.53	23700	2755	150000	1.45						
0.67	19200	2182	150000	1.80						
0.86	14900	1704	150000	2.3	**K**	**167R97**	**DRN**	**90L4**	1190	713
1.0	12400	1408	150000	2.8	**KH**	**167R97**	**DRN**	**90L4**	1160	713
1.1	11300	1296	150000	3.1						
					K	**157R97**	**DRN**	**90L4**	800	713
0.56	22100	2610	109800	0.90	**KF**	**157R97**	**DRN**	**90L4**	880	713
0.63	19700	2322	111300	1.00	**KA**	**157R97**	**DRN**	**90L4**	770	713
					KAF	**157R97**	**DRN**	**90L4**	830	713

24832936/EN – 09/2018

P_m = 1.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.88	14600	1659	113700	1.35						
1.1	11900	1365	114700	1.70						
1.2	10600	1229	115100	1.90	**K**	**157R97**	**DRN**	**90L4**	800	713
1.3	9460	1093	115400	2.1	**KF**	**157R97**	**DRN**	**90L4**	880	713
1.6	8150	942	115700	2.5	**KA**	**157R97**	**DRN**	**90L4**	760	713
1.7	7330	854	115900	2.7	**KAF**	**157R97**	**DRN**	**90L4**	820	713
2.6	4810	567	116300	4.2						
2.9	4280	504	116400	4.7						
					K	**127R87**	**DRN**	**90L4**	510	713
2.7	4640	536	82400	2.8	**KF**	**127R87**	**DRN**	**90L4**	550	713
3.5	3660	418	82600	3.5	**KA**	**127R87**	**DRN**	**90L4**	480	713
4.0	3220	367	82600	4.0	**KAF**	**127R87**	**DRN**	**90L4**	520	713
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	713
1.6	8050	899	81400	1.60	**KF**	**127R77**	**DRN**	**90L4**	530	713
1.9	6970	790	81800	1.85	**KA**	**127R77**	**DRN**	**90L4**	455	713
2.1	6280	704	82000	2.1	**KAF**	**127R77**	**DRN**	**90L4**	495	713
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	713
2.4	5460	615	65000	1.45	**KF**	**107R77**	**DRN**	**90L4**	335	713
2.8	4630	522	65000	1.75	**KA**	**107R77**	**DRN**	**90L4**	300	713
3.2	4070	461	65000	1.95	**KAF**	**107R77**	**DRN**	**90L4**	320	713
3.6	3600	408	65000	2.2						
4.0	3240	364	65000	2.5						
4.6	2830	318	65000	2.8						
2.5	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	713
4.3	3040	342	40000	1.40	**KF**	**97R57**	**DRN**	**90L4**	215	713
4.8	2770	305	40000	1.55	**KA**	**97R57**	**DRN**	**90L4**	180	713
5.7	2340	258	40000	1.85	**KAF**	**97R57**	**DRN**	**90L4**	205	713
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	713
5.8	2270	250	27800	1.20	**KF**	**87R57**	**DRN**	**90L4**	145	713
6.2	2140	236	27900	1.25	**KA**	**87R57**	**DRN**	**90L4**	125	713
7.3	1820	201	28200	1.50	**KAF**	**87R57**	**DRN**	**90L4**	135	713
8.0	1650	183	28400	1.65						
5.5	2620	176.05*	40000	1.65	**K**	**97**	**DRN**	**100L6**	185	681
6.3	2280	153.21*	40000	1.90	**KF**	**97**	**DRN**	**100L6**	205	682
6.8	2090	140.28	40000	2.1	**KA**	**97**	**DRN**	**100L6**	165	684
7.8	1840	123.93*	40000	2.3	**KAF**	**97**	**DRN**	**100L6**	190	682
8.3	1720	176.05*	40000	2.5	**K**	**97**	**DRN**	**90L4**	170	681
9.5	1500	153.21*	40000	2.9	**KF**	**97**	**DRN**	**90L4**	190	682
10	1370	140.28	40000	3.1	**KA**	**97**	**DRN**	**90L4**	155	684
12	1210	123.93*	40000	3.5	**KAF**	**97**	**DRN**	**90L4**	180	682
6.5	2190	147.32*	27900	1.25	**K**	**87**	**DRN**	**100L6**	125	674
7.6	1890	126.91*	28200	1.45	**KF**	**87**	**DRN**	**100L6**	135	675
8.3	1720	115.82	28300	1.55	**KA**	**87**	**DRN**	**100L6**	110	677
9.4	1530	102.71*	28400	1.75	**KAF**	**87**	**DRN**	**100L6**	125	675

24832936/EN – 09/2018

P_m = 1.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
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	674
12	1240	126.91*	28600	2.2	**KF**	**87**	**DRN**	**90L4**	120	675
13	1130	115.82	28700	2.4	**KA**	**87**	**DRN**	**90L4**	100	677
14	1000	102.71*	28800	2.7	**KAF**	**87**	**DRN**	**90L4**	115	675
17	840	86.34	28900	3.2						
8.5	1690	113.56	14300	0.90	**K**	**77**	**DRN**	**100L6**	88	667
9.9	1440	97.05	16100	1.05	**KF**	**77**	**DRN**	**100L6**	96	668
11	1320	88.97	16800	1.15	**KA**	**77**	**DRN**	**100L6**	80	670
12	1160	78.07	17600	1.35	**KAF**	**77**	**DRN**	**100L6**	88	668
11	1320	135.28	16800	1.15						
11	1260	128.52	17100	1.25	**K**	**77**	**DRN**	**90L4**	77	667
13	1110	113.56	17800	1.40	**KF**	**77**	**DRN**	**90L4**	85	668
15	950	97.05	18500	1.65	**KA**	**77**	**DRN**	**90L4**	69	670
16	870	88.97	18800	1.80	**KAF**	**77**	**DRN**	**90L4**	77	668
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	667
25	570	58.34	19600	2.7	**KF**	**77**	**DRN**	**90L4**	85	668
29	500	51.18	19700	3.1	**KA**	**77**	**DRN**	**90L4**	69	670
32	440	45.16	19800	3.5	**KAF**	**77**	**DRN**	**90L4**	77	668
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	660
21	675	68.95	11400	1.20	**KF**	**67**	**DRN**	**90L4**	58	661
24	590	60.66	11900	1.40	**KA**	**67**	**DRN**	**90L4**	49	663
26	560	57.28	12100	1.45	**KAF**	**67**	**DRN**	**90L4**	55	661
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	660
41	345	35.62	13000	2.4	**KF**	**67**	**DRN**	**90L4**	58	661
48	295	30.22	13000	2.8	**KA**	**67**	**DRN**	**90L4**	49	663
54	265	27.28	13000	3.1	**KAF**	**67**	**DRN**	**90L4**	55	661
61	235	24.00	13000	3.4						
24	595	60.81*	7660	1.00	**K**	**57**	**DRN**	**90L4**	46	654
25	560	57.42*	7930	1.05	**KF**	**57**	**DRN**	**90L4**	51	655
30	475	48.89	8520	1.25	**KA**	**57**	**DRN**	**90L4**	44	656
33	435	44.43	8720	1.40	**KAF**	**57**	**DRN**	**90L4**	50	655
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	654
53	265	27.34	8950	2.2	**KF**	**57**	**DRN**	**90L4**	51	655
61	235	24.05	8710	2.5	**KA**	**57**	**DRN**	**90L4**	44	656
64	220	22.71	8600	2.7	**KAF**	**57**	**DRN**	**90L4**	50	655
76	190	19.34	8300	3.0						
28	515	52.94	8280	0.95						
29	490	50.29	8260	1.00						
33	435	44.44	8200	1.15						
38	370	37.98	8080	1.35						
42	340	34.81	7990	1.45						
48	295	30.55	7850	1.65	**K**	**49**	**DRN**	**90L4**	51	650
50	280	28.95	7780	1.75	**KF**	**49**	**DRN**	**90L4**	53	651
58	245	25.34	7610	2.0	**KA**	**49**	**DRN**	**90L4**	48	652
64	220	22.83	7470	2.2	**KAF**	**49**	**DRN**	**90L4**	53	651
73	196	20.03	7280	2.5						
83	173	17.67	7090	2.9						
93	154	15.67	6900	3.2						
109	131	13.38	6650	3.6						
37	385	39.61	6080	1.05	**K**	**47**	**DRN**	**90L4**	40	644
41	345	35.39	6340	1.15	**KF**	**47**	**DRN**	**90L4**	44	645
47	305	31.30	6290	1.30	**KA**	**47**	**DRN**	**90L4**	39	646
					KAF	**47**	**DRN**	**90L4**	42	645

24832936/EN – 09/2018

P_m = 1.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
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	644
87	165	16.86	5760	2.3	**KF**	**47**	**DRN**	**90L4**	44	645
92	155	15.86	5690	2.4	**KA**	**47**	**DRN**	**90L4**	39	646
107	134	13.65	5520	2.7	**KAF**	**47**	**DRN**	**90L4**	42	645
120	120	12.19	5390	2.9						
124	115	11.77	5300	2.4						
40	355	36.22	5840	0.85						
48	300	30.72	5830	1.00						
53	270	27.73	5800	1.10						
60	235	24.40	5740	1.25						
63	225	23.04	5700	1.35						
74	192	19.62	5600	1.55	**K**	**39**	**DRN**	**90L4**	39	640
82	175	17.83	5520	1.65	**KF**	**39**	**DRN**	**90L4**	41	641
95	151	15.44	5390	1.85	**KA**	**39**	**DRN**	**90L4**	38	642
109	132	13.44	5260	2.0	**KAF**	**39**	**DRN**	**90L4**	40	641
115	125	12.73	5560	2.0						
121	119	12.09	5490	2.1						
138	104	10.61	5310	2.7						
162	88	9.00	5080	3.4						
180	80	8.12	4950	3.8						
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	634
139	103	10.49	2870	1.55	**KF**	**37**	**DRN**	**90L4**	36	635
164	87	8.91	2810	1.85	**KA**	**37**	**DRN**	**90L4**	33	636
184	78	7.96	2760	2.0	**KAF**	**37**	**DRN**	**90L4**	35	635
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						
90	160	16.29	2910	0.80						
108	132	13.47	2890	1.00						
122	117	11.94	2860	1.10						
159	90	9.17	2780	1.45						
171	84	8.53	2940	1.45	**K**	**29**	**DRN**	**90L4**	28	627
195	73	7.48	2690	1.70	**KF**	**29**	**DRN**	**90L4**	29	631
210	68	6.95	2820	1.65	**KA**	**29**	**DRN**	**90L4**	27	633
254	56	5.75	2690	2.0	**KAF**	**29**	**DRN**	**90L4**	28	631
287	50	5.10	2620	2.2						
373	38	3.92	2440	3.3						
458	31	3.19	2310	3.5						

P_m = 2.2 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.30	61700	4817	190000	0.85	**K**	**187R97**	**DRN**	**100LS4**	1780	713
0.33	56000	4370	190000	0.95	**KH**	**187R97**	**DRN**	**100LS4**	1720	713
0.51	35200	2818	190000	1.50						
0.40	47600	3609	190000	1.10						
0.47	40300	3062	190000	1.30						
0.58	32900	2519	190000	1.60						
0.64	29500	2268	190000	1.80	**K**	**187R97**	**DRN**	**100LS4**	1780	713
0.71	26600	2054	190000	2.0	**KH**	**187R97**	**DRN**	**100LS4**	1710	713
0.80	23400	1821	190000	2.3						
0.90	20800	1605	190000	2.5						
0.43	43900	3376	150000	0.80						
0.53	35600	2755	150000	1.00	**K**	**167R97**	**DRN**	**100LS4**	1200	713
0.64	28600	2263	150000	1.20	**KH**	**167R97**	**DRN**	**100LS4**	1160	713

24832936/EN – 09/2018

P_m = 2.2 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.66	28800	2182	150000	1.20						
0.85	22400	1704	150000	1.55						
1.0	18500	1408	150000	1.90	**K**	**167R97**	**DRN**	**100LS4**	1200	713
1.1	17000	1296	150000	2.0	**KH**	**167R97**	**DRN**	**100LS4**	1160	713
1.3	14100	1101	150000	2.5						
1.5	12200	944	150000	2.9						
0.87	21800	1659	110000	0.90						
1.1	17800	1365	112200	1.10						
1.2	16000	1229	113100	1.25	**K**	**157R97**	**DRN**	**100LS4**	800	713
1.3	14200	1093	113900	1.40	**KF**	**157R97**	**DRN**	**100LS4**	880	713
1.5	12200	942	114600	1.65	**KA**	**157R97**	**DRN**	**100LS4**	770	713
1.7	11000	854	115000	1.80	**KAF**	**157R97**	**DRN**	**100LS4**	830	713
1.9	9570	756	115400	2.1						
2.7	6980	536	81800	1.85						
3.1	6110	473	82000	2.1	**K**	**127R87**	**DRN**	**100LS4**	510	713
3.5	5500	418	82200	2.4	**KF**	**127R87**	**DRN**	**100LS4**	550	713
4.0	4830	367	82300	2.7	**KA**	**127R87**	**DRN**	**100LS4**	480	713
4.4	4320	330	82400	3.0	**KAF**	**127R87**	**DRN**	**100LS4**	520	713
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	713
2.1	9360	704	80900	1.40	**KF**	**127R77**	**DRN**	**100LS4**	530	713
2.4	8090	610	81400	1.60	**KA**	**127R77**	**DRN**	**100LS4**	460	713
2.6	7290	549	81700	1.80	**KAF**	**127R77**	**DRN**	**100LS4**	500	713
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						
3.1	6080	461	65000	1.30	**K**	**107R77**	**DRN**	**100LS4**	330	713
3.5	5380	408	65000	1.50	**KF**	**107R77**	**DRN**	**100LS4**	340	713
4.0	4830	364	65000	1.65	**KA**	**107R77**	**DRN**	**100LS4**	300	713
4.6	4220	318	65000	1.90	**KAF**	**107R77**	**DRN**	**100LS4**	325	713
5.1	3800	286	65000	2.1						
5.8	3330	251	65000	2.4						
3.8	5110	382	39800	0.85						
4.2	4540	342	40000	0.95	**K**	**97R57**	**DRN**	**100LS4**	200	713
4.8	4120	305	40000	1.05	**KF**	**97R57**	**DRN**	**100LS4**	220	713
5.6	3470	258	40000	1.25	**KA**	**97R57**	**DRN**	**100LS4**	180	713
6.2	3130	232	40000	1.35	**KAF**	**97R57**	**DRN**	**100LS4**	205	713
7.3	2680	199	40000	1.60						
6.3	3300	153.21*	40000	1.30	**K**	**97**	**DRN**	**112M6**	190	681
6.9	3020	140.28	40000	1.40	**KF**	**97**	**DRN**	**112M6**	210	682
7.8	2670	123.93*	40000	1.60	**KA**	**97**	**DRN**	**112M6**	175	684
					KAF	**97**	**DRN**	**112M6**	200	682
9.3	2260	105.13	40000	1.90	**K**	**97**	**DRN**	**112M6**	190	681
					KF	**97**	**DRN**	**112M6**	210	682
					KA	**97**	**DRN**	**112M6**	175	684
					KAF	**97**	**DRN**	**112M6**	200	682
8.2	2550	176.05*	40000	1.70	**K**	**97**	**DRN**	**100LS4**	175	681
9.5	2210	153.21*	40000	1.95	**KF**	**97**	**DRN**	**100LS4**	195	682
10	2030	140.28	40000	2.1	**KA**	**97**	**DRN**	**100LS4**	160	684
12	1790	123.93*	40000	2.4	**KAF**	**97**	**DRN**	**100LS4**	185	682
14	1520	105.13	40000	2.8	**K**	**97**	**DRN**	**100LS4**	175	681
15	1400	96.80	40000	3.1	**KF**	**97**	**DRN**	**100LS4**	195	682
					KA	**97**	**DRN**	**100LS4**	160	684
					KAF	**97**	**DRN**	**100LS4**	185	682
9.8	2130	147.32*	27900	1.25	**K**	**87**	**DRN**	**100LS4**	115	674
11	1830	126.91*	28200	1.45	**KF**	**87**	**DRN**	**100LS4**	125	675
13	1670	115.82	28300	1.60	**KA**	**87**	**DRN**	**100LS4**	105	677
					KAF	**87**	**DRN**	**100LS4**	120	675
14	1480	102.71*	28500	1.80	**K**	**87**	**DRN**	**100LS4**	115	674
17	1250	86.34	28600	2.2	**KF**	**87**	**DRN**	**100LS4**	125	675
18	1140	79.34	28700	2.4	**KA**	**87**	**DRN**	**100LS4**	105	677
21	1020	70.46	28800	2.6	**KAF**	**87**	**DRN**	**100LS4**	120	675
23	910	63.00*	28800	3.0						

24832936/EN – 09/2018

P_m = 2.2 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
13	1640	113.56	14700	0.95						
15	1400	97.05	16300	1.10	**K**	**77**	**DRN**	**100LS4**	81	667
16	1280	88.97	17000	1.20	**KF**	**77**	**DRN**	**100LS4**	89	668
19	1130	78.07	17800	1.35	**KA**	**77**	**DRN**	**100LS4**	73	670
20	1070	73.99	18000	1.45	**KAF**	**77**	**DRN**	**100LS4**	81	668
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	667
36	580	40.04	19500	2.7	**KF**	**77**	**DRN**	**100LS4**	89	668
41	505	35.20	19700	3.0	**KA**	**77**	**DRN**	**100LS4**	73	670
47	445	30.89	19800	3.5	**KAF**	**77**	**DRN**	**100LS4**	81	668
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	660
33	640	44.32	11600	1.30	**KF**	**67**	**DRN**	**100LS4**	61	661
38	555	38.39	12100	1.45	**KA**	**67**	**DRN**	**100LS4**	53	663
41	515	35.62	12300	1.60	**KAF**	**67**	**DRN**	**100LS4**	59	661
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	660
110	191	13.22	13000	3.5	**KF**	**67**	**DRN**	**100LS4**	61	661
116	181	12.48	13000	2.9	**KA**	**67**	**DRN**	**100LS4**	53	663
136	154	10.63	13000	3.2	**KAF**	**67**	**DRN**	**100LS4**	59	661
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	654
38	555	38.49	7970	1.10	**KF**	**57**	**DRN**	**100LS4**	55	655
41	515	35.70	8290	1.15	**KA**	**57**	**DRN**	**100LS4**	48	656
48	435	30.28	8230	1.35	**KAF**	**57**	**DRN**	**100LS4**	54	655
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	654
83	250	17.57	7590	2.2	**KF**	**57**	**DRN**	**100LS4**	55	655
95	220	15.22	7380	2.4	**KA**	**57**	**DRN**	**100LS4**	48	656
109	192	13.25	7170	2.7	**KAF**	**57**	**DRN**	**100LS4**	54	655
122	173	11.92	6850	2.4						
129	163	11.26	6770	2.5						
38	550	37.98	6820	0.90						
42	500	34.81	6840	1.00						
47	440	30.55	6840	1.15						
50	415	28.95	6830	1.20						
57	365	25.34	6780	1.35						
64	330	22.83	6720	1.50	**K**	**49**	**DRN**	**100LS4**	55	650
72	290	20.03	6620	1.70	**KF**	**49**	**DRN**	**100LS4**	57	651
82	255	17.67	6510	1.95	**KA**	**49**	**DRN**	**100LS4**	53	652
93	225	15.67	6400	2.2	**KAF**	**49**	**DRN**	**100LS4**	58	651
108	194	13.38	6220	2.4						
128	165	11.37	6450	3.0						
139	151	10.42	6310	3.2						
159	132	9.14	6090	3.8						
56	375	25.91	5260	1.05	**K**	**47**	**DRN**	**100LS4**	44	644
66	315	21.81	5260	1.25	**KF**	**47**	**DRN**	**100LS4**	47	645
74	280	19.58	5240	1.40	**KA**	**47**	**DRN**	**100LS4**	43	646
					KAF	**47**	**DRN**	**100LS4**	46	645

24832936/EN – 09/2018

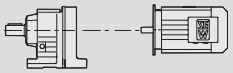
P_m = 2.2 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
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	644
119	177	12.19	4970	2.0	**KF**	**47**	**DRN**	**100LS4**	47	645
123	170	11.77	4870	1.65	**KA**	**47**	**DRN**	**100LS4**	43	646
137	153	10.56	4790	1.85	**KAF**	**47**	**DRN**	**100LS4**	46	645
159	132	9.10	4660	2.1						
59	350	24.40	4770	0.85						
63	330	23.04	4800	0.90						
74	280	19.62	4820	1.05						
81	255	17.83	4820	1.10						
94	220	15.44	4790	1.25						
108	195	13.44	4730	1.40						
137	154	10.61	5040	1.85	**K**	**39**	**DRN**	**100LS4**	43	640
161	130	9.00	4860	2.3	**KF**	**39**	**DRN**	**100LS4**	45	641
178	118	8.12	4740	2.5	**KA**	**39**	**DRN**	**100LS4**	42	642
203	104	7.15	4600	2.9	**KAF**	**39**	**DRN**	**100LS4**	44	641
215	98	6.75	4530	3.1						
252	83	5.75	4350	3.3						
278	76	5.22	4240	3.4						
320	66	4.52	4080	3.7						
368	57	3.94	3930	3.8						
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	634
182	115	7.96	2430	1.35	**KF**	**37**	**DRN**	**100LS4**	40	635
213	98	6.80	2400	1.50	**KA**	**37**	**DRN**	**100LS4**	37	636
228	92	6.37	2390	1.55	**KAF**	**37**	**DRN**	**100LS4**	39	635
270	78	5.36	2340	1.80						
364	58	3.98	2240	2.2						

P_m = 3.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.52	48700	2818	190000	1.10	**K**	**187R97**	**DRN**	**100L4**	1790	713
					KH	**187R97**	**DRN**	**100L4**	1720	713
0.40	65100	3609	190000	0.80						
0.48	55100	3062	190000	0.95						
0.58	45100	2519	190000	1.15						
0.64	40500	2268	190000	1.30						
0.71	36500	2054	190000	1.45	**K**	**187R97**	**DRN**	**100L4**	1790	713
0.80	32200	1821	190000	1.65	**KH**	**187R97**	**DRN**	**100L4**	1720	713
0.91	28500	1605	190000	1.85						
1.0	24400	1395	190000	2.2						
1.2	21100	1196	190000	2.5						
0.67	39300	2182	150000	0.90						
0.85	30600	1704	150000	1.15						
1.0	25300	1408	150000	1.40						
1.1	23300	1296	150000	1.50	**K**	**167R97**	**DRN**	**100L4**	1210	713
1.3	19500	1101	150000	1.80	**KH**	**167R97**	**DRN**	**100L4**	1170	713
1.5	16800	944	150000	2.1						
1.7	14700	843	150000	2.4						
1.9	13300	757	150000	2.6						
1.1	24400	1365	108200	0.80						
1.2	21900	1229	109900	0.90						
1.3	19500	1093	111400	1.00	**K**	**157R97**	**DRN**	**100L4**	810	713
1.5	16800	942	112700	1.20	**KF**	**157R97**	**DRN**	**100L4**	890	713
1.7	15200	854	113500	1.30	**KA**	**157R97**	**DRN**	**100L4**	780	713
1.9	13200	756	114200	1.50	**KAF**	**157R97**	**DRN**	**100L4**	830	713
2.6	10000	567	115300	2.0						
2.9	8930	504	115600	2.2						

24832936/EN – 09/2018

P_m = 3.0 kW										
n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
2.7	9580	536	80900	1.35						
3.1	8400	473	81300	1.55	**K**	**127R87**	**DRN**	**100L4**	520	713
3.5	7550	418	81600	1.70	**KF**	**127R87**	**DRN**	**100L4**	560	713
4.0	6610	367	81900	1.95	**KA**	**127R87**	**DRN**	**100L4**	490	713
4.4	5920	330	82100	2.2	**KAF**	**127R87**	**DRN**	**100L4**	530	713
5.1	5080	287	82300	2.6						
1.8	14200	790	77400	0.90						
2.1	12700	704	79300	1.00	**K**	**127R77**	**DRN**	**100L4**	495	713
2.4	11000	610	80200	1.20	**KF**	**127R77**	**DRN**	**100L4**	540	713
2.6	9950	549	80700	1.30	**KA**	**127R77**	**DRN**	**100L4**	470	713
3.0	8610	477	81200	1.50	**KAF**	**127R77**	**DRN**	**100L4**	510	713
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	713
5.8	4540	251	65000	1.75	**KF**	**107R77**	**DRN**	**100L4**	350	713
6.6	4000	222	65000	2.0	**KA**	**107R77**	**DRN**	**100L4**	310	713
7.4	3540	196	65000	2.3	**KAF**	**107R77**	**DRN**	**100L4**	335	713
8.4	3170	174	65000	2.3						
9.4	2800	154	65000	2.6						
10	2540	140	65000	2.8						
5.7	4730	258	40000	0.90	**K**	**97R57**	**DRN**	**100L4**	205	713
6.3	4260	232	40000	1.00	**KF**	**97R57**	**DRN**	**100L4**	225	713
7.3	3660	199	40000	1.15	**KA**	**97R57**	**DRN**	**100L4**	190	713
					KAF	**97R57**	**DRN**	**100L4**	215	713
6.8	4210	143.47*	65000	1.90	**K**	**107**	**DRN**	**132S6**	315	688
8.0	3570	121.46	65000	2.2	**KF**	**107**	**DRN**	**132S6**	330	689
8.7	3300	112.41*	65000	2.4	**KA**	**107**	**DRN**	**132S6**	290	691
9.7	2960	100.75	65000	2.7	**KAF**	**107**	**DRN**	**132S6**	315	689
					K	**107**	**DRN**	**100L4**	300	688
10	2820	143.47*	65000	2.8	**KF**	**107**	**DRN**	**100L4**	310	689
12	2380	121.46	65000	3.4	**KA**	**107**	**DRN**	**100L4**	270	691
					KAF	**107**	**DRN**	**100L4**	295	689
					K	**97**	**DRN**	**132S6**	205	681
7.9	3640	123.93*	40000	1.20	**KF**	**97**	**DRN**	**132S6**	225	682
					KA	**97**	**DRN**	**132S6**	185	684
					KAF	**97**	**DRN**	**132S6**	210	682
9.3	3090	105.13	40000	1.40	**K**	**97**	**DRN**	**132S6**	205	681
10	2840	96.80	40000	1.50	**KF**	**97**	**DRN**	**132S6**	225	682
11	2540	86.52	40000	1.70	**KA**	**97**	**DRN**	**132S6**	185	684
					KAF	**97**	**DRN**	**132S6**	210	682
8.3	3460	176.05*	40000	1.25	**K**	**97**	**DRN**	**100L4**	185	681
9.5	3010	153.21*	40000	1.45	**KF**	**97**	**DRN**	**100L4**	205	682
10	2760	140.28	40000	1.55	**KA**	**97**	**DRN**	**100L4**	165	684
12	2430	123.93*	40000	1.75	**KAF**	**97**	**DRN**	**100L4**	190	682
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	681
19	1530	77.89*	40000	2.8	**KF**	**97**	**DRN**	**100L4**	205	682
21	1380	70.54	40000	3.1	**KA**	**97**	**DRN**	**100L4**	165	684
23	1230	62.55	40000	3.5	**KAF**	**97**	**DRN**	**100L4**	190	682
26	1110	56.55	40000	3.9						
9.9	2890	147.32*	27000	0.95	**K**	**87**	**DRN**	**100L4**	125	674
11	2490	126.91*	27500	1.10	**KF**	**87**	**DRN**	**100L4**	135	675
13	2270	115.82	27800	1.20	**KA**	**87**	**DRN**	**100L4**	110	677
14	2020	102.71*	28000	1.35	**KAF**	**87**	**DRN**	**100L4**	125	675

24832936/EN – 09/2018

P_m = 3.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
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	674
23	1230	63.00*	28600	2.2	**KF**	**87**	**DRN**	**100L4**	135	675
26	1110	56.64	28700	2.4	**KA**	**87**	**DRN**	**100L4**	110	677
30	960	49.16	28800	2.8	**KAF**	**87**	**DRN**	**100L4**	125	675
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	667
20	1450	73.99	16000	1.05	**KF**	**77**	**DRN**	**100L4**	96	668
22	1270	64.75	17100	1.20	**KA**	**77**	**DRN**	**100L4**	80	670
25	1140	58.34	17700	1.35	**KAF**	**77**	**DRN**	**100L4**	88	668
28	1000	51.18	18300	1.55						
32	880	45.16	18700	1.75	**K**	**77**	**DRN**	**100L4**	88	667
36	785	40.04	19000	1.95	**KF**	**77**	**DRN**	**100L4**	96	668
41	690	35.20	19300	2.2	**KA**	**77**	**DRN**	**100L4**	80	670
47	605	30.89	19500	2.5	**KAF**	**77**	**DRN**	**100L4**	88	668
33	870	44.32	9820	0.95						
38	755	38.39	10900	1.05	**K**	**67**	**DRN**	**100L4**	63	660
41	700	35.62	11300	1.15	**KF**	**67**	**DRN**	**100L4**	69	661
48	590	30.22	11900	1.40	**KA**	**67**	**DRN**	**100L4**	60	663
53	535	27.28	12200	1.55	**KAF**	**67**	**DRN**	**100L4**	66	661
61	470	24.00	12500	1.70						
64	445	22.66	12600	1.75						
75	375	19.30	12900	2.0						
83	340	17.54	13000	2.1	**K**	**67**	**DRN**	**100L4**	63	660
96	295	15.19	13000	2.3	**KF**	**67**	**DRN**	**100L4**	69	661
110	260	13.22	13000	2.6	**KA**	**67**	**DRN**	**100L4**	60	663
117	245	12.48	13000	2.2	**KAF**	**67**	**DRN**	**100L4**	66	661
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	654
53	535	27.34	7190	1.10	**KF**	**57**	**DRN**	**100L4**	62	655
61	470	24.05	7170	1.25	**KA**	**57**	**DRN**	**100L4**	55	656
					KAF	**57**	**DRN**	**100L4**	61	655
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	654
122	230	11.92	6380	1.75	**KF**	**57**	**DRN**	**100L4**	62	655
129	220	11.26	6330	1.85	**KA**	**57**	**DRN**	**100L4**	55	656
152	189	9.59	6160	2.1	**KAF**	**57**	**DRN**	**100L4**	61	655
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						
48	600	30.55	5690	0.85						
50	565	28.95	5740	0.90						
57	495	25.34	5820	1.00						
64	445	22.83	5860	1.10						
73	390	20.03	5860	1.25						
82	345	17.67	5840	1.45	**K**	**49**	**DRN**	**100L4**	63	650
93	305	15.67	5800	1.60	**KF**	**49**	**DRN**	**100L4**	64	651
109	260	13.38	5710	1.80	**KA**	**49**	**DRN**	**100L4**	60	652
128	220	11.37	6160	2.2	**KAF**	**49**	**DRN**	**100L4**	65	651
140	200	10.42	6050	2.3						
159	180	9.14	5860	2.8						
168	170	8.66	5790	2.9						
192	149	7.58	5600	3.4						
213	134	6.83	5460	3.7						
74	385	19.58	4450	1.05	**K**	**47**	**DRN**	**100L4**	51	644
86	330	16.86	4500	1.15	**KF**	**47**	**DRN**	**100L4**	55	645
92	310	15.86	4510	1.20	**KA**	**47**	**DRN**	**100L4**	50	646
					KAF	**47**	**DRN**	**100L4**	53	645

24832936/EN – 09/2018

P_m = 3.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
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	644
160	179	9.10	4280	1.55	**KF**	**47**	**DRN**	**100L4**	55	645
170	168	8.56	4250	1.60	**KA**	**47**	**DRN**	**100L4**	50	646
198	145	7.36	4160	1.75	**KAF**	**47**	**DRN**	**100L4**	53	645
221	129	6.58	4090	1.85						
250	114	5.81	4000	2.0						
314	91	4.64	3830	2.2						
82	350	17.83	4010	0.85						
94	300	15.44	4090	0.90						
108	260	13.44	4120	1.00						
137	205	10.61	4720	1.35						
162	177	9.00	4580	1.70						
179	160	8.12	4490	1.90	**K**	**39**	**DRN**	**100L4**	50	640
204	141	7.15	4380	2.1	**KF**	**39**	**DRN**	**100L4**	52	641
216	133	6.75	4320	2.3	**KA**	**39**	**DRN**	**100L4**	49	642
253	113	5.75	4170	2.4	**KAF**	**39**	**DRN**	**100L4**	51	641
279	103	5.22	4080	2.5						
322	89	4.52	3940	2.7						
370	77	3.94	3800	2.8						
518	55	2.81	3480	3.1						
163	175	8.91	2020	0.90						
183	157	7.96	2050	1.00	**K**	**37**	**DRN**	**100L4**	45	634
214	134	6.80	2080	1.10	**KF**	**37**	**DRN**	**100L4**	47	635
229	125	6.37	2090	1.15	**KA**	**37**	**DRN**	**100L4**	44	636
271	106	5.36	2090	1.35	**KAF**	**37**	**DRN**	**100L4**	46	635
366	78	3.98	2040	1.60						

P_m = 4.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
1.8	19400	835	190000	2.7	**K**	**187R107**	**DRN**	**112M4**	1840	713
2.8	12200	520	190000	4.3	**KH**	**187R107**	**DRN**	**112M4**	1780	713
0.52	65300	2818	190000	0.80	**K**	**187R97**	**DRN**	**112M4**	1800	713
					KH	**187R97**	**DRN**	**112M4**	1730	713
0.58	60200	2519	190000	0.90						
0.65	54100	2268	190000	1.00						
0.71	48800	2054	190000	1.10						
0.80	43100	1821	190000	1.25						
0.91	38200	1605	190000	1.40	**K**	**187R97**	**DRN**	**112M4**	1800	713
1.1	32700	1395	190000	1.60	**KH**	**187R97**	**DRN**	**112M4**	1730	713
1.2	28300	1196	190000	1.85						
1.4	24700	1046	190000	2.1						
1.6	22300	945	190000	2.4						
0.86	40800	1704	150000	0.85						
1.0	33800	1408	150000	1.05						
1.1	31000	1296	150000	1.15						
1.3	26100	1101	150000	1.35	**K**	**167R97**	**DRN**	**112M4**	1210	713
1.6	22400	944	150000	1.55	**KH**	**167R97**	**DRN**	**112M4**	1180	713
1.7	19800	843	150000	1.75						
1.9	17800	757	150000	1.95						
2.3	14900	632	150000	2.3						
1.6	22400	942	109600	0.90						
1.7	20300	854	110900	1.00	**K**	**157R97**	**DRN**	**112M4**	820	713
1.9	17700	756	112300	1.15	**KF**	**157R97**	**DRN**	**112M4**	900	713
2.6	13400	567	114200	1.50	**KA**	**157R97**	**DRN**	**112M4**	780	713
2.9	11900	504	114700	1.65	**KAF**	**157R97**	**DRN**	**112M4**	840	713
3.4	10100	434	115200	1.95						

24832936/EN – 09/2018

P_m = 4.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
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	713
4.0	8810	367	81200	1.50	**KF**	**127R87**	**DRN**	**112M4**	570	713
4.4	7900	330	81500	1.65	**KA**	**127R87**	**DRN**	**112M4**	500	713
5.1	6800	287	81800	1.90	**KAF**	**127R87**	**DRN**	**112M4**	540	713
5.8	6010	253	82100	2.2						
2.4	14700	610	76600	0.90	**K**	**127R77**	**DRN**	**112M4**	510	713
2.7	13200	549	79000	1.00	**KF**	**127R77**	**DRN**	**112M4**	550	713
3.1	11400	477	80000	1.15	**KA**	**127R77**	**DRN**	**112M4**	480	713
3.5	10000	418	80600	1.30	**KAF**	**127R77**	**DRN**	**112M4**	520	713
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	713
6.6	5330	222	65000	1.50	**KF**	**107R77**	**DRN**	**112M4**	360	713
7.5	4720	196	65000	1.70	**KA**	**107R77**	**DRN**	**112M4**	320	713
8.4	4220	174	65000	1.70	**KAF**	**107R77**	**DRN**	**112M4**	340	713
9.5	3730	154	65000	1.95						
10	3390	140	65000	2.1						
6.6	5760	146.07	82100	2.3	**K**	**127**	**DRN**	**132S6**	480	695
7.1	5370	136.14	82200	2.4	**KF**	**127**	**DRN**	**132S6**	520	696
7.9	4830	122.48	82300	2.7	**KA**	**127**	**DRN**	**132S6**	450	698
8.8	4340	110.18	82400	3.0	**KAF**	**127**	**DRN**	**132S6**	485	696
6.8	5660	143.47*	65000	1.40						
8.0	4790	121.46	65000	1.65	**K**	**107**	**DRN**	**132S6**	315	688
8.6	4430	112.41*	65000	1.80	**KF**	**107**	**DRN**	**132S6**	330	689
9.6	3970	100.75	65000	2.0	**KA**	**107**	**DRN**	**132S6**	290	691
11	3580	90.96*	65000	2.2	**KAF**	**107**	**DRN**	**132S6**	315	689
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	688
15	2620	100.75	65000	3.0	**KF**	**107**	**DRN**	**112M4**	320	689
16	2370	90.96*	65000	3.4	**KA**	**107**	**DRN**	**112M4**	280	691
18	2150	82.61	65000	3.7	**KAF**	**107**	**DRN**	**112M4**	305	689
20	1910	73.30	65000	4.2						
9.6	3990	153.21*	40000	1.10	**K**	**97**	**DRN**	**112M4**	190	681
10	3660	140.28	40000	1.15	**KF**	**97**	**DRN**	**112M4**	210	682
12	3230	123.93*	40000	1.35	**KA**	**97**	**DRN**	**112M4**	175	684
					KAF	**97**	**DRN**	**112M4**	200	682
14	2740	105.13	40000	1.55						
15	2520	96.80	40000	1.70	**K**	**97**	**DRN**	**112M4**	190	681
17	2250	86.52	40000	1.90	**KF**	**97**	**DRN**	**112M4**	210	682
19	2030	77.89*	40000	2.1	**KA**	**97**	**DRN**	**112M4**	175	684
21	1840	70.54	40000	2.3	**KAF**	**97**	**DRN**	**112M4**	200	682
13	3020	115.82	26900	0.90	**K**	**87**	**DRN**	**112M4**	135	674
14	2670	102.71*	27300	1.00	**KF**	**87**	**DRN**	**112M4**	140	675
17	2250	86.34	27800	1.20	**KA**	**87**	**DRN**	**112M4**	120	677
18	2070	79.34	28000	1.30	**KAF**	**87**	**DRN**	**112M4**	135	675
21	1830	70.46	28200	1.45						
23	1640	63.00*	28400	1.65	**K**	**87**	**DRN**	**112M4**	135	674
26	1470	56.64	28500	1.85	**KF**	**87**	**DRN**	**112M4**	140	675
30	1280	49.16	28600	2.1	**KA**	**87**	**DRN**	**112M4**	120	677
33	1140	44.02	28200	2.3	**KAF**	**87**	**DRN**	**112M4**	135	675
40	950	36.52*	27200	2.6						
23	1680	64.75	14300	0.90						
25	1520	58.34	15600	1.00	**K**	**77**	**DRN**	**112M4**	97	667
29	1330	51.18	16700	1.15	**KF**	**77**	**DRN**	**112M4**	105	668
32	1170	45.16	17500	1.30	**KA**	**77**	**DRN**	**112M4**	90	670
37	1040	40.04	18100	1.50	**KAF**	**77**	**DRN**	**112M4**	98	668
38	1000	38.39	18300	1.50						

24832936/EN – 09/2018

P_m = 4.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
42	910	35.20	18600	1.70						
47	800	30.89	19000	1.90	**K**	**77**	**DRN**	**112M4**	97	667
50	760	29.27	19100	2.0	**KF**	**77**	**DRN**	**112M4**	105	668
57	665	25.62	19300	2.3	**KA**	**77**	**DRN**	**112M4**	90	670
63	600	23.08	19500	2.6	**KAF**	**77**	**DRN**	**112M4**	98	668
72	525	20.25	19600	2.8						
48	785	30.22	10600	1.05	**K**	**67**	**DRN**	**112M4**	72	660
54	710	27.28	11200	1.15	**KF**	**67**	**DRN**	**112M4**	78	661
61	625	24.00	11700	1.30	**KA**	**67**	**DRN**	**112M4**	70	663
65	590	22.66	11900	1.30	**KAF**	**67**	**DRN**	**112M4**	76	661
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	660
117	325	12.48	13000	1.65	**KF**	**67**	**DRN**	**112M4**	78	661
138	275	10.63	13000	1.80	**KA**	**67**	**DRN**	**112M4**	70	663
152	250	9.66	12800	1.90	**KAF**	**67**	**DRN**	**112M4**	76	661
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	654
123	310	11.92	5800	1.35	**KF**	**57**	**DRN**	**112M4**	71	655
130	290	11.26	5780	1.40	**KA**	**57**	**DRN**	**112M4**	65	656
153	250	9.59	5680	1.60	**KAF**	**57**	**DRN**	**112M4**	70	655
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	2.5						
64	595	22.83	4780	0.85						
73	520	20.03	4920	0.95						
83	460	17.67	5010	1.10						
93	405	15.67	5060	1.20						
109	345	13.38	5080	1.35						
129	295	11.37	5810	1.65	**K**	**49**	**DRN**	**112M4**	72	650
141	270	10.42	5720	1.75	**KF**	**49**	**DRN**	**112M4**	73	651
160	235	9.14	5580	2.1	**KA**	**49**	**DRN**	**112M4**	69	652
169	225	8.66	5520	2.2	**KAF**	**49**	**DRN**	**112M4**	74	651
193	198	7.58	5360	2.5						
214	178	6.83	5240	2.8						
244	156	5.99	5080	3.2						
277	138	5.29	4930	3.5						
312	122	4.69	4780	3.8						
163	230	9.00	4240	1.30						
180	210	8.12	4180	1.40						
205	187	7.15	4100	1.60						
217	176	6.75	4060	1.70	**K**	**39**	**DRN**	**112M4**	60	640
255	150	5.75	3950	1.85	**KF**	**39**	**DRN**	**112M4**	61	641
280	136	5.22	3880	1.90	**KA**	**39**	**DRN**	**112M4**	59	642
324	118	4.52	3760	2.0	**KAF**	**39**	**DRN**	**112M4**	60	641
372	103	3.94	3650	2.1						
521	73	2.81	3370	2.3						

24832936/EN – 09/2018

P_m = 5.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.80	59900	1821	190000	0.90						
0.91	52900	1605	190000	1.00						
1.1	45600	1395	190000	1.15						
1.2	39300	1196	190000	1.35	**K**	**187R97**	**DRN**	**132S4**	1810	713
1.4	34400	1046	190000	1.55	**KH**	**187R97**	**DRN**	**132S4**	1740	713
1.6	31000	945	190000	1.70						
2.0	24200	738	190000	2.2						
2.4	20300	621	190000	2.6						
1.1	43000	1296	150000	0.80						
1.3	36200	1101	150000	0.95						
1.6	31100	944	150000	1.10						
1.7	27500	843	150000	1.25						
1.9	24800	757	150000	1.40	**K**	**167R97**	**DRN**	**132S4**	1230	713
2.3	20800	632	150000	1.70	**KH**	**167R97**	**DRN**	**132S4**	1190	713
2.6	18200	561	150000	1.90						
3.0	15800	481	150000	2.2						
3.5	13700	423	150000	2.5						
1.9	24700	756	108100	0.80						
2.2	21500	661	110200	0.95						
2.6	18600	567	111800	1.05	**K**	**157R97**	**DRN**	**132S4**	830	713
2.9	16500	504	112900	1.20	**KF**	**157R97**	**DRN**	**132S4**	910	713
3.4	14100	434	113900	1.40	**KA**	**157R97**	**DRN**	**132S4**	800	713
3.9	12300	379	114600	1.60	**KAF**	**157R97**	**DRN**	**132S4**	850	713
4.4	10800	333	115000	1.85						
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	713
5.8	8350	253	81300	1.55	**KF**	**127R87**	**DRN**	**132S4**	580	713
6.9	7010	213	81800	1.85	**KA**	**127R87**	**DRN**	**132S4**	510	713
7.3	6680	200	81900	1.80	**KAF**	**127R87**	**DRN**	**132S4**	550	713
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	713
8.4	5830	174	65000	1.25	**KF**	**107R77**	**DRN**	**132S4**	370	713
9.5	5170	154	65000	1.40	**KA**	**107R77**	**DRN**	**132S4**	330	713
10	4690	140	65000	1.55	**KAF**	**107R77**	**DRN**	**132S4**	355	713
7.2	7330	136.14	81700	1.75	**K**	**127**	**DRN**	**132L6**	500	695
8.0	6590	122.48	81900	1.95	**KF**	**127**	**DRN**	**132L6**	540	696
8.8	5930	110.18	82100	2.2	**KA**	**127**	**DRN**	**132L6**	470	698
11	4840	89.89	82300	2.7	**KAF**	**127**	**DRN**	**132L6**	510	696
8.7	6050	112.41*	65000	1.30	**K**	**107**	**DRN**	**132L6**	345	688
9.7	5420	100.75	65000	1.45	**KF**	**107**	**DRN**	**132L6**	355	689
11	4890	90.96*	65000	1.65	**KA**	**107**	**DRN**	**132L6**	315	691
					KAF	**107**	**DRN**	**132L6**	340	689
12	4450	82.61	65000	1.80	**K**	**107**	**DRN**	**132L6**	345	688
					KF	**107**	**DRN**	**132L6**	355	689
					KA	**107**	**DRN**	**132L6**	315	691
					KAF	**107**	**DRN**	**132L6**	340	689
10	5150	143.47*	65000	1.55						
12	4360	121.46	65000	1.85	**K**	**107**	**DRN**	**132S4**	315	688
13	4040	112.41*	65000	2.0	**KF**	**107**	**DRN**	**132S4**	330	689
14	3620	100.75	65000	2.2	**KA**	**107**	**DRN**	**132S4**	290	691
16	3260	90.96*	65000	2.5	**KAF**	**107**	**DRN**	**132S4**	315	689
18	2960	82.61	65000	2.7						
12	4450	123.93*	40000	0.95	**K**	**97**	**DRN**	**132S4**	205	681
14	3770	105.13	40000	1.15	**KF**	**97**	**DRN**	**132S4**	225	682
15	3470	96.80	40000	1.25	**KA**	**97**	**DRN**	**132S4**	185	684
17	3110	86.52	40000	1.40	**KAF**	**97**	**DRN**	**132S4**	210	682
19	2800	77.89*	40000	1.55						
21	2530	70.54	40000	1.70	**K**	**97**	**DRN**	**132S4**	205	681
23	2240	62.55	40000	1.90	**KF**	**97**	**DRN**	**132S4**	225	682
26	2030	56.55	39600	2.1	**KA**	**97**	**DRN**	**132S4**	185	684
30	1720	47.93*	38400	2.5	**KAF**	**97**	**DRN**	**132S4**	210	682

24832936/EN – 09/2018

P_m = 5.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
17	3100	86.34	26700	0.85	**K**	**87**	**DRN**	**132S4**	145	674
18	2850	79.34	27100	0.95	**KF**	**87**	**DRN**	**132S4**	155	675
21	2530	70.46	27500	1.05	**KA**	**87**	**DRN**	**132S4**	130	677
23	2260	63.00*	27400	1.20	**KAF**	**87**	**DRN**	**132S4**	145	675
26	2030	56.64	27200	1.35						
30	1760	49.16	26800	1.55						
33	1580	44.02	26400	1.65	**K**	**87**	**DRN**	**132S4**	145	674
40	1310	36.52*	25700	1.90	**KF**	**87**	**DRN**	**132S4**	155	675
47	1120	31.39	25100	2.4	**KA**	**87**	**DRN**	**132S4**	130	677
52	1000	27.88	24600	2.6	**KAF**	**87**	**DRN**	**132S4**	145	675
32	1620	45.16	14800	0.95						
36	1430	40.04	16100	1.10	**K**	**77**	**DRN**	**132S4**	110	667
47	1110	30.89	17900	1.40	**KF**	**77**	**DRN**	**132S4**	115	668
50	1050	29.27	18100	1.45	**KA**	**77**	**DRN**	**132S4**	100	670
57	920	25.62	18600	1.70	**KAF**	**77**	**DRN**	**132S4**	110	668
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	667
92	565	15.84	19100	2.5	**KF**	**77**	**DRN**	**132S4**	115	668
108	485	13.52	18500	2.8	**KA**	**77**	**DRN**	**132S4**	100	670
118	440	12.36	17800	2.2	**KAF**	**77**	**DRN**	**132S4**	110	668
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	660
76	690	19.30	11300	1.10	**KF**	**67**	**DRN**	**132S4**	90	661
83	630	17.54	11700	1.15	**KA**	**67**	**DRN**	**132S4**	81	663
96	545	15.19	12200	1.30	**KAF**	**67**	**DRN**	**132S4**	87	661
111	475	13.22	12500	1.40						
117	445	12.48	12600	1.20						
137	380	10.63	12400	1.30	**K**	**67**	**DRN**	**132S4**	84	660
151	345	9.66	12200	1.40	**KF**	**67**	**DRN**	**132S4**	90	661
175	300	8.37	11900	1.45	**KA**	**67**	**DRN**	**132S4**	81	663
201	260	7.28	11600	1.60	**KAF**	**67**	**DRN**	**132S4**	87	661
281	187	5.20	10800	1.85						
93	560	15.67	3950	0.85						
109	480	13.38	4130	1.00						
160	325	9.14	5160	1.50						
169	310	8.66	5130	1.60	**K**	**49**	**DRN**	**132S4**	83	650
193	270	7.58	5020	1.85	**KF**	**49**	**DRN**	**132S4**	85	651
214	245	6.83	4930	2.0	**KA**	**49**	**DRN**	**132S4**	80	652
244	215	5.99	4810	2.3	**KAF**	**49**	**DRN**	**132S4**	85	651
276	190	5.29	4690	2.5						
312	169	4.69	4570	2.8						
365	144	4.00	4410	3.1						

P_m = 7.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
1.8	37100	835	190000	1.45	**K**	**187R107**	**DRN**	**132M4**	1870	713
2.0	32200	729	190000	1.65	**KH**	**187R107**	**DRN**	**132M4**	1810	713
2.4	27500	622	190000	1.95						
1.1	62300	1395	190000	0.85						
1.2	53700	1196	190000	1.00						
1.4	46900	1046	190000	1.15						
1.6	42300	945	190000	1.25	**K**	**187R97**	**DRN**	**132M4**	1830	713
2.0	33100	738	190000	1.60	**KH**	**187R97**	**DRN**	**132M4**	1760	713
2.4	27800	621	190000	1.90						
2.8	23500	527	190000	2.2						

24832936/EN – 09/2018

P_m = 7.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
1.6	42400	944	150000	0.80						
1.7	37700	843	150000	0.95						
1.9	33900	757	150000	1.05						
2.3	28300	632	150000	1.25	**K**	**167R97**	**DRN**	**132M4**	1240	713
2.6	24900	561	150000	1.40	**KH**	**167R97**	**DRN**	**132M4**	1210	713
3.0	21500	481	150000	1.60						
3.5	18800	423	150000	1.85						
4.0	16400	369	150000	2.1						
2.9	22600	504	109500	0.90						
3.4	19300	434	111400	1.05	**K**	**157R97**	**DRN**	**132M4**	850	713
3.9	16800	379	112700	1.20	**KF**	**157R97**	**DRN**	**132M4**	930	713
4.4	14800	333	113600	1.35	**KA**	**157R97**	**DRN**	**132M4**	810	713
5.0	12900	291	114400	1.55	**KAF**	**157R97**	**DRN**	**132M4**	870	713
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	713
6.9	9570	213	80900	1.35	**KF**	**127R87**	**DRN**	**132M4**	600	713
7.3	9110	200	81000	1.30	**KA**	**127R87**	**DRN**	**132M4**	530	713
8.8	7540	166	81600	1.60	**KAF**	**127R87**	**DRN**	**132M4**	560	713
10	6650	147	81900	1.80						
6.0	12000	164.50	150000	2.8	**K**	**167**	**DRN**	**160M6**	1160	709
7.2	9870	134.99	150000	3.5	**KH**	**167**	**DRN**	**160M6**	1120	710
6.5	11000	150.41	115000	1.80						
8.0	8950	122.39	115600	2.2	**K**	**157**	**DRN**	**160M6**	760	702
9.8	7330	100.22	115900	2.7	**KF**	**157**	**DRN**	**160M6**	840	703
11	6700	91.65	116000	3.0	**KA**	**157**	**DRN**	**160M6**	730	705
12	5830	79.75	116200	3.4	**KAF**	**157**	**DRN**	**160M6**	780	703
7.2	9950	136.14	80700	1.30	**K**	**127**	**DRN**	**160M6**	530	695
8.0	8960	122.48	81100	1.45	**KF**	**127**	**DRN**	**160M6**	570	696
8.9	8060	110.18	81400	1.60	**KA**	**127**	**DRN**	**160M6**	500	698
11	6570	89.89	81900	2.0	**KAF**	**127**	**DRN**	**160M6**	540	696
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	695
13	5370	110.18	82200	2.4	**KF**	**127**	**DRN**	**132M4**	530	696
16	4380	89.89	82400	3.0	**KA**	**127**	**DRN**	**132M4**	460	698
18	3990	81.98	82500	3.2	**KAF**	**127**	**DRN**	**132M4**	500	696
21	3460	70.95*	82600	3.8						
10	6990	143.47*	65000	1.15	**K**	**107**	**DRN**	**132M4**	335	688
12	5920	121.46	65000	1.35	**KF**	**107**	**DRN**	**132M4**	350	689
13	5480	112.41*	65000	1.45	**KA**	**107**	**DRN**	**132M4**	310	691
					KAF	**107**	**DRN**	**132M4**	330	689
15	4910	100.75	65000	1.65						
16	4430	90.96*	64000	1.80						
18	4030	82.61	63000	2.0						
20	3570	73.30	61700	2.2	**K**	**107**	**DRN**	**132M4**	335	688
22	3240	66.52*	60600	2.5	**KF**	**107**	**DRN**	**132M4**	350	689
26	2780	57.17*	58800	2.9	**KA**	**107**	**DRN**	**132M4**	310	691
29	2430	49.90	57100	3.2	**KAF**	**107**	**DRN**	**132M4**	330	689
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	681
19	3800	77.89*	38100	1.15	**KF**	**97**	**DRN**	**132M4**	240	682
21	3440	70.54	37800	1.25	**KA**	**97**	**DRN**	**132M4**	205	684
23	3050	62.55	37400	1.40	**KAF**	**97**	**DRN**	**132M4**	230	682
26	2750	56.55	37000	1.55						
31	2330	47.93*	36200	1.85	**K**	**97**	**DRN**	**132M4**	220	681
35	2040	41.87	35500	2.1	**KF**	**97**	**DRN**	**132M4**	240	682
38	1860	38.30	35000	2.3	**KA**	**97**	**DRN**	**132M4**	205	684
43	1660	34.23	34300	2.6	**KAF**	**97**	**DRN**	**132M4**	230	682

24832936/EN – 09/2018

P_m = 7.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
23	3070	63.00*	24100	0.90	**K**	**87**	**DRN**	**132M4**	160	674
26	2760	56.64	24200	1.00	**KF**	**87**	**DRN**	**132M4**	170	675
30	2390	49.16	24200	1.15	**KA**	**87**	**DRN**	**132M4**	150	677
33	2140	44.02	24100	1.20	**KAF**	**87**	**DRN**	**132M4**	165	675
40	1780	36.52*	23800	1.40						
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	674
66	1090	22.41	22400	2.1	**KF**	**87**	**DRN**	**132M4**	170	675
75	940	19.45	21800	2.4	**KA**	**87**	**DRN**	**132M4**	150	677
84	840	17.42	21400	2.6	**KAF**	**87**	**DRN**	**132M4**	165	675
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	667
57	1240	25.62	17200	1.25	**KF**	**77**	**DRN**	**132M4**	135	668
64	1120	23.08	17800	1.40	**KA**	**77**	**DRN**	**132M4**	120	670
73	980	20.25	18400	1.50	**KAF**	**77**	**DRN**	**132M4**	125	668
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	667
119	600	12.36	17000	1.65	**KF**	**77**	**DRN**	**132M4**	135	668
135	525	10.84	16600	1.85	**KA**	**77**	**DRN**	**132M4**	120	670
154	465	9.56	16200	2.0	**KAF**	**77**	**DRN**	**132M4**	125	668
173	410	8.48	15800	2.1						
203	350	7.24	15300	2.3						
161	445	9.14	4610	1.10						
169	420	8.66	4600	1.20						
194	365	7.58	4560	1.35	**K**	**49**	**DRN**	**132M4**	100	650
215	330	6.83	4510	1.50	**KF**	**49**	**DRN**	**132M4**	105	651
245	290	5.99	4440	1.70	**KA**	**49**	**DRN**	**132M4**	98	652
278	255	5.29	4370	1.90	**KAF**	**49**	**DRN**	**132M4**	105	651
313	225	4.69	4280	2.0						
367	195	4.00	4170	2.2						

P_m = 9.2 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
1.8	45700	835	190000	1.15						
2.0	39700	729	190000	1.35						
2.4	33900	622	190000	1.55	**K**	**187R107**	**DRN**	**132L4**	1880	713
2.8	28700	520	190000	1.85	**KH**	**187R107**	**DRN**	**132L4**	1810	713
3.2	25000	454	190000	2.1						
1.2	65900	1196	190000	0.80						
1.4	57600	1046	190000	0.90						
1.6	52000	945	190000	1.00	**K**	**187R97**	**DRN**	**132L4**	1830	713
2.0	40600	738	190000	1.30	**KH**	**187R97**	**DRN**	**132L4**	1770	713
2.4	34100	621	190000	1.55						
2.8	28900	527	190000	1.85						
4.6	17500	318	150000	2.0						
5.3	15200	278	150000	2.3						
6.0	13200	244	150000	2.6	**K**	**167R107**	**DRN**	**132L4**	1300	713
6.9	11500	213	150000	3.0	**KH**	**167R107**	**DRN**	**132L4**	1260	713
7.1	11200	206	150000	3.1						
1.9	41600	757	150000	0.85						
2.3	34800	632	150000	1.00						
2.6	30700	561	150000	1.15	**K**	**167R97**	**DRN**	**132L4**	1250	713
3.1	26500	481	150000	1.30	**KH**	**167R97**	**DRN**	**132L4**	1210	713
3.5	23100	423	150000	1.50						
4.0	20200	369	150000	1.75						

24832936/EN – 09/2018

P_m = 9.2 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
3.8	20800	385	110600	0.95						
4.5	17400	325	112400	1.15	**K**	**157R107**	**DRN**	**132L4**	910	713
4.9	16200	299	113000	1.25	**KF**	**157R107**	**DRN**	**132L4**	980	713
5.8	13700	253	114100	1.45	**KA**	**157R107**	**DRN**	**132L4**	870	713
6.4	12300	230	114600	1.60	**KAF**	**157R107**	**DRN**	**132L4**	930	713
3.4	23800	434	108700	0.85						
3.9	20700	379	110700	0.95	**K**	**157R97**	**DRN**	**132L4**	860	713
4.4	18200	333	112000	1.10	**KF**	**157R97**	**DRN**	**132L4**	940	713
5.0	15900	291	113200	1.25	**KA**	**157R97**	**DRN**	**132L4**	820	713
					KAF	**157R97**	**DRN**	**132L4**	880	713
5.8	13900	253	78000	0.95						
6.9	11700	213	79900	1.10	**K**	**127R87**	**DRN**	**132L4**	560	713
7.3	11100	200	80100	1.05	**KF**	**127R87**	**DRN**	**132L4**	610	713
8.8	9260	166	81000	1.30	**KA**	**127R87**	**DRN**	**132L4**	540	713
10	8170	147	81400	1.45	**KAF**	**127R87**	**DRN**	**132L4**	570	713
11	8130	136.14	81400	1.60						
12	7320	122.48	81700	1.80	**K**	**127**	**DRN**	**132L4**	500	695
13	6580	110.18	81900	1.95	**KF**	**127**	**DRN**	**132L4**	540	696
16	5370	89.89	82200	2.4	**KA**	**127**	**DRN**	**132L4**	470	698
18	4890	81.98	82300	2.6	**KAF**	**127**	**DRN**	**132L4**	510	696
					K	**107**	**DRN**	**132L4**	345	688
13	6710	112.41*	62300	1.20	**KF**	**107**	**DRN**	**132L4**	355	689
15	6020	100.75	61700	1.35	**KA**	**107**	**DRN**	**132L4**	315	691
16	5430	90.96*	61000	1.45	**KAF**	**107**	**DRN**	**132L4**	340	689
18	4930	82.61	60300	1.60						
20	4380	73.30	59300	1.85	**K**	**107**	**DRN**	**132L4**	345	688
22	3970	66.52*	58400	2.0	**KF**	**107**	**DRN**	**132L4**	355	689
26	3410	57.17*	56900	2.3	**KA**	**107**	**DRN**	**132L4**	315	691
29	2980	49.90	55500	2.6	**KAF**	**107**	**DRN**	**132L4**	340	689
35	2520	42.33*	53700	2.9						
19	4650	77.89*	35100	0.90	**K**	**97**	**DRN**	**132L4**	230	681
21	4210	70.54	35100	1.00	**KF**	**97**	**DRN**	**132L4**	250	682
24	3730	62.55	35000	1.15	**KA**	**97**	**DRN**	**132L4**	210	684
26	3370	56.55	34800	1.25	**KAF**	**97**	**DRN**	**132L4**	235	682
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	681
43	2040	34.23	33000	2.1	**KF**	**97**	**DRN**	**132L4**	250	682
48	1840	30.82	32400	2.3	**KA**	**97**	**DRN**	**132L4**	210	684
53	1660	27.91	31900	2.6	**KAF**	**97**	**DRN**	**132L4**	235	682
59	1470	24.75	31200	2.9						
30	2930	49.16	22000	0.90	**K**	**87**	**DRN**	**132L4**	170	674
33	2630	44.02	22200	1.00	**KF**	**87**	**DRN**	**132L4**	180	675
40	2180	36.52*	22200	1.15	**KA**	**87**	**DRN**	**132L4**	160	677
47	1870	31.39	22000	1.45	**KAF**	**87**	**DRN**	**132L4**	170	675
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	2.0	**K**	**87**	**DRN**	**132L4**	170	674
84	1040	17.42	20600	2.1	**KF**	**87**	**DRN**	**132L4**	180	675
92	950	16.00	19700	1.90	**KA**	**87**	**DRN**	**132L4**	160	677
102	860	14.45	20000	2.4	**KAF**	**87**	**DRN**	**132L4**	170	675
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	667
73	1200	20.25	17400	1.25	**KF**	**77**	**DRN**	**132L4**	145	668
82	1060	17.87	17600	1.35	**KA**	**77**	**DRN**	**132L4**	125	670
93	940	15.84	17300	1.50	**KAF**	**77**	**DRN**	**132L4**	135	668
109	800	13.52	17000	1.65						
119	735	12.36	16200	1.35	**K**	**77**	**DRN**	**132L4**	135	667
136	645	10.84	15900	1.55	**KF**	**77**	**DRN**	**132L4**	145	668
154	570	9.56	15600	1.65	**KA**	**77**	**DRN**	**132L4**	125	670
173	505	8.48	15300	1.75	**KAF**	**77**	**DRN**	**132L4**	135	668
203	430	7.24	14900	1.90						

24832936/EN – 09/2018

P_m = 11.0 kW											
n_a min^{-1}	M_a Nm	i	F_{Ra}[1] N	SEW f_B						m kg	
1.8	54700	835	190000	0.95							
2.0	47600	729	190000	1.10							
2.4	40600	622	190000	1.30	**K**	**187R107**	**DRN**	**160M4**		1910	713
2.8	34400	520	190000	1.55	**KH**	**187R107**	**DRN**	**160M4**		1850	713
3.2	29900	454	190000	1.75							
4.1	23100	355	190000	2.3							
1.6	62200	945	190000	0.85							
2.0	48600	738	190000	1.10	**K**	**187R97**	**DRN**	**160M4**		1870	713
2.4	40800	621	190000	1.30	**KH**	**187R97**	**DRN**	**160M4**		1800	713
2.8	34500	527	190000	1.55							
4.6	21000	318	150000	1.65							
5.3	18300	278	150000	1.90							
6.0	15800	244	150000	2.2	**K**	**167R107**	**DRN**	**160M4**		1330	713
6.9	13800	213	150000	2.5	**KH**	**167R107**	**DRN**	**160M4**		1290	713
7.2	13400	206	150000	2.6							
2.3	41600	632	150000	0.85							
2.6	36700	561	150000	0.95							
3.1	31600	481	150000	1.10	**K**	**167R97**	**DRN**	**160M4**		1280	713
3.5	27700	423	150000	1.25	**KH**	**167R97**	**DRN**	**160M4**		1250	713
4.0	24200	369	150000	1.45							
3.9	24800	379	108000	0.80	**K**	**157R97**	**DRN**	**160M4**		890	713
4.4	21800	333	110000	0.90	**KF**	**157R97**	**DRN**	**160M4**		970	713
5.1	19000	291	111600	1.05	**KA**	**157R97**	**DRN**	**160M4**		850	713
					KAF	**157R97**	**DRN**	**160M4**		910	713
6.9	14000	213	77900	0.95	**K**	**127R87**	**DRN**	**160M4**		600	713
7.3	13300	200	79000	0.90	**KF**	**127R87**	**DRN**	**160M4**		640	713
8.9	11000	166	80200	1.10	**KA**	**127R87**	**DRN**	**160M4**		570	713
10	9770	147	80800	1.25	**KAF**	**127R87**	**DRN**	**160M4**		610	713
8.9	11700	164.50	150000	2.9	**K**	**167**	**DRN**	**160M4**		1160	709
11	9620	134.99	150000	3.6	**KH**	**167**	**DRN**	**160M4**		1120	710
9.8	10700	150.41	115100	1.85	**K**	**157**	**DRN**	**160M4**		760	702
12	8720	122.39	115600	2.3	**KF**	**157**	**DRN**	**160M4**		840	703
15	7140	100.22	115900	2.8	**KA**	**157**	**DRN**	**160M4**		730	705
16	6530	91.65	116100	3.1	**KAF**	**157**	**DRN**	**160M4**		780	703
11	9700	136.14	80800	1.35							
12	8730	122.48	81200	1.50	**K**	**127**	**DRN**	**160M4**		530	695
13	7850	110.18	81500	1.65	**KF**	**127**	**DRN**	**160M4**		570	696
16	6410	89.89	82000	2.0	**KA**	**127**	**DRN**	**160M4**		500	698
18	5840	81.98	82100	2.2	**KAF**	**127**	**DRN**	**160M4**		540	696
21	5050	70.95*	82300	2.6							
13	8010	112.41*	57800	1.00	**K**	**107**	**DRN**	**160M4**		375	688
15	7180	100.75	58200	1.10	**KF**	**107**	**DRN**	**160M4**		390	689
16	6480	90.96*	57900	1.25	**KA**	**107**	**DRN**	**160M4**		350	691
18	5890	82.61	57400	1.35	**KAF**	**107**	**DRN**	**160M4**		375	689
20	5220	73.30	56700	1.55							
22	4740	66.52*	56100	1.70	**K**	**107**	**DRN**	**160M4**		375	688
26	4070	57.17*	54900	1.95	**KF**	**107**	**DRN**	**160M4**		390	689
30	3550	49.90	53800	2.2	**KA**	**107**	**DRN**	**160M4**		350	691
35	3010	42.33*	52300	2.4	**KAF**	**107**	**DRN**	**160M4**		375	689
40	2630	37.00*	51000	2.7							
21	5030	70.54	32300	0.85	**K**	**97**	**DRN**	**160M4**		265	681
24	4460	62.55	32500	0.95	**KF**	**97**	**DRN**	**160M4**		285	682
26	4030	56.55	32500	1.05	**KA**	**97**	**DRN**	**160M4**		245	684
31	3410	47.93*	32400	1.25	**KAF**	**97**	**DRN**	**160M4**		270	682
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	681
48	2190	30.82	31200	1.95	**KF**	**97**	**DRN**	**160M4**		285	682
53	1980	27.91	30700	2.2	**KA**	**97**	**DRN**	**160M4**		245	684
60	1760	24.75	30200	2.4	**KAF**	**97**	**DRN**	**160M4**		270	682
66	1590	22.37	29700	2.7							

24832936/EN – 09/2018

P_m = 11.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
33	3130	44.02	20100	0.85						
40	2600	36.52*	20500	0.95	**K**	**87**	**DRN**	**160M4**	205	674
47	2230	31.39	20600	1.20	**KF**	**87**	**DRN**	**160M4**	210	675
53	1980	27.88	20500	1.30	**KA**	**87**	**DRN**	**160M4**	190	677
59	1770	24.92	20400	1.40	**KAF**	**87**	**DRN**	**160M4**	205	675
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	674
102	1030	14.45	19300	2.0	**KF**	**87**	**DRN**	**160M4**	210	675
117	890	12.56	18900	2.2	**KA**	**87**	**DRN**	**160M4**	190	677
132	795	11.17	17900	1.90	**KAF**	**87**	**DRN**	**160M4**	205	675
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	667
109	960	13.52	16200	1.40	**KF**	**77**	**DRN**	**160M4**	175	668
119	880	12.36	15500	1.15	**KA**	**77**	**DRN**	**160M4**	160	670
136	770	10.84	15300	1.30	**KAF**	**77**	**DRN**	**160M4**	165	668
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 min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
2.0	65200	729	190000	0.80						
2.4	55600	622	190000	0.95						
2.8	47100	520	190000	1.15	**K**	**187R107**	**DRN**	**160L4**	1930	713
3.2	41000	454	190000	1.30	**KH**	**187R107**	**DRN**	**160L4**	1860	713
4.2	31700	355	190000	1.65						
5.7	23500	261	190000	2.2						
4.6	28800	318	150000	1.20						
5.3	25000	278	150000	1.40						
6.0	21700	244	150000	1.60						
6.9	18900	213	150000	1.85	**K**	**167R107**	**DRN**	**160L4**	1350	713
7.2	18400	206	150000	1.90	**KH**	**167R107**	**DRN**	**160L4**	1310	713
8.2	15900	180	150000	2.2						
9.2	14400	160	150000	2.4						
5.8	22600	253	109500	0.90						
6.4	20400	230	110900	1.00						
6.9	19100	213	111600	1.05	**K**	**157R107**	**DRN**	**160L4**	950	713
7.9	16500	187	112900	1.20	**KF**	**157R107**	**DRN**	**160L4**	1030	713
9.4	14000	157	113900	1.40	**KA**	**157R107**	**DRN**	**160L4**	920	713
12	11000	122	115000	1.80	**KAF**	**157R107**	**DRN**	**160L4**	980	713
14	9610	107	115400	2.1						
9.0	15900	164.50	150000	2.1	**K**	**167**	**DRN**	**160L4**	1170	709
11	13100	134.99	150000	2.7	**KH**	**167**	**DRN**	**160L4**	1130	710
9.8	14600	150.41	113700	1.35						
12	11800	122.39	114700	1.70	**K**	**157**	**DRN**	**160L4**	780	702
15	9730	100.22	114000	2.0	**KF**	**157**	**DRN**	**160L4**	860	703
16	8900	91.65	112300	2.2	**KA**	**157**	**DRN**	**160L4**	740	705
18	7750	79.75	109400	2.6	**KAF**	**157**	**DRN**	**160L4**	800	703
11	13200	136.14	79000	1.00	**K**	**127**	**DRN**	**160L4**	550	695
12	11900	122.48	79800	1.10	**KF**	**127**	**DRN**	**160L4**	590	696
13	10700	110.18	80400	1.20	**KA**	**127**	**DRN**	**160L4**	520	698
					KAF	**127**	**DRN**	**160L4**	560	696

24832936/EN – 09/2018

P_m = 15.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
16	8730	89.89	81200	1.50						
18	7960	81.98	81500	1.65	**K**	**127**	**DRN**	**160L4**	550	695
21	6890	70.95*	81400	1.90	**KF**	**127**	**DRN**	**160L4**	590	696
24	6080	62.60	79800	2.1	**KA**	**127**	**DRN**	**160L4**	520	698
27	5250	54.07	77800	2.5	**KAF**	**127**	**DRN**	**160L4**	560	696
31	4640	47.82	76100	2.8						
16	8830	90.96*	48300	0.90	**K**	**107**	**DRN**	**160L4**	395	688
18	8020	82.61	49500	1.00	**KF**	**107**	**DRN**	**160L4**	405	689
20	7120	73.30	50500	1.10	**KA**	**107**	**DRN**	**160L4**	365	691
22	6460	66.52*	51000	1.25	**KAF**	**107**	**DRN**	**160L4**	390	689
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	688
40	3590	37.00*	48100	2.0	**KF**	**107**	**DRN**	**160L4**	405	689
45	3170	32.69	47200	2.3	**KA**	**107**	**DRN**	**160L4**	365	691
47	3030	31.28*	46900	2.2	**KAF**	**107**	**DRN**	**160L4**	390	689
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	681
38	3720	38.30	28500	1.15	**KF**	**97**	**DRN**	**160L4**	300	682
43	3320	34.23	28500	1.30	**KA**	**97**	**DRN**	**160L4**	260	684
48	2990	30.82	28400	1.45	**KAF**	**97**	**DRN**	**160L4**	285	682
53	2710	27.91	28200	1.60						
60	2400	24.75	28000	1.80	**K**	**97**	**DRN**	**160L4**	280	681
66	2170	22.37	27700	2.0	**KF**	**97**	**DRN**	**160L4**	300	682
78	1840	18.96	27100	2.3	**KA**	**97**	**DRN**	**160L4**	260	684
89	1600	16.56	26600	2.7	**KAF**	**97**	**DRN**	**160L4**	285	682
47	3040	31.39	17300	0.90						
53	2700	27.88	17600	0.95	**K**	**87**	**DRN**	**160L4**	220	674
59	2420	24.92	17900	1.05	**KF**	**87**	**DRN**	**160L4**	230	675
66	2170	22.41	18000	1.05	**KA**	**87**	**DRN**	**160L4**	205	677
76	1880	19.45	18000	1.20	**KAF**	**87**	**DRN**	**160L4**	220	675
85	1690	17.42	18000	1.30						
92	1550	16.00	16800	1.15						
102	1400	14.45	17800	1.50						
117	1220	12.56	17600	1.65	**K**	**87**	**DRN**	**160L4**	220	674
132	1080	11.17	16600	1.40	**KF**	**87**	**DRN**	**160L4**	230	675
147	970	10.00	16400	1.55	**KA**	**87**	**DRN**	**160L4**	205	677
178	800	8.29	16000	1.75	**KAF**	**87**	**DRN**	**160L4**	220	675
204	700	7.21	15700	1.85						

P_m = 18.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
2.8	58000	520	190000	0.90						
3.3	50500	454	190000	1.05						
4.2	39100	355	190000	1.35	**K**	**187R107**	**DRN**	**180M4**	1950	713
5.7	29000	261	190000	1.80	**KH**	**187R107**	**DRN**	**180M4**	1880	713
6.7	24600	221	190000	2.1						
4.7	35500	318	150000	1.00						
5.3	30900	278	150000	1.15						
6.1	26800	244	150000	1.30						
6.9	23400	213	150000	1.50						
7.2	22800	206	150000	1.55	**K**	**167R107**	**DRN**	**180M4**	1370	713
8.2	19700	180	150000	1.75	**KH**	**167R107**	**DRN**	**180M4**	1330	713
9.3	17700	160	150000	1.95						
11	15000	135	150000	2.3						
12	13100	118	150000	2.7						
6.9	23600	213	108800	0.85						
7.9	20400	187	110800	1.00	**K**	**157R107**	**DRN**	**180M4**	980	713
9.4	17300	157	112500	1.15	**KF**	**157R107**	**DRN**	**180M4**	1050	713
12	13600	122	113800	1.45	**KA**	**157R107**	**DRN**	**180M4**	940	713
14	11800	107	111900	1.70	**KAF**	**157R107**	**DRN**	**180M4**	1000	713

24832936/EN – 09/2018

P_m = 18.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
8.2	21400	179.86	190000	2.5						
8.9	19700	165.21	190000	2.7	**K**	**187**	**DRN**	**180M4**	1780	711
10	17200	144.59	190000	3.1	**KH**	**187**	**DRN**	**180M4**	1710	712
11	15500	129.69	190000	3.4						
11	16100	134.99	150000	2.2						
13	13100	109.83	150000	2.7	**K**	**167**	**DRN**	**180M4**	1200	709
17	10500	87.86	150000	3.3	**KH**	**167**	**DRN**	**180M4**	1160	710
12	14600	122.39	111600	1.35						
15	11900	100.22	109000	1.65						
16	10900	91.65	107700	1.85						
19	9530	79.75	105400	2.1	**K**	**157**	**DRN**	**180M4**	800	702
21	8410	70.38	103200	2.4	**KF**	**157**	**DRN**	**180M4**	880	703
24	7290	61.02	100600	2.7	**KA**	**157**	**DRN**	**180M4**	770	705
27	6480	54.29	98300	3.1	**KAF**	**157**	**DRN**	**180M4**	820	703
32	5590	46.79	95400	3.6						
39	4540	38.02	91200	4.4						
					K	**127**	**DRN**	**180M4**	570	695
13	13100	110.18	79100	1.00	**KF**	**127**	**DRN**	**180M4**	610	696
16	10700	89.89	79000	1.20	**KA**	**127**	**DRN**	**180M4**	540	698
18	9790	81.98	78500	1.35	**KAF**	**127**	**DRN**	**180M4**	580	696
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	695
31	5710	47.82	73300	2.3	**KF**	**127**	**DRN**	**180M4**	610	696
37	4800	40.19	71100	2.7	**KA**	**127**	**DRN**	**180M4**	540	698
41	4330	36.25	69800	3.0	**KAF**	**127**	**DRN**	**180M4**	580	696
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	688
22	7950	66.52*	44300	1.00	**KF**	**107**	**DRN**	**180M4**	425	689
26	6830	57.17*	45800	1.15	**KA**	**107**	**DRN**	**180M4**	385	691
30	5960	49.90	46600	1.30	**KAF**	**107**	**DRN**	**180M4**	410	689
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	688
51	3460	29.00	44300	2.1	**KF**	**107**	**DRN**	**180M4**	425	689
56	3140	26.32	43700	2.3	**KA**	**107**	**DRN**	**180M4**	385	691
65	2700	22.62	42700	2.7	**KAF**	**107**	**DRN**	**180M4**	410	689
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	681
48	3680	30.82	26000	1.15	**KF**	**97**	**DRN**	**180M4**	320	682
53	3330	27.91	26000	1.30	**KA**	**97**	**DRN**	**180M4**	280	684
60	2950	24.75	26000	1.45	**KAF**	**97**	**DRN**	**180M4**	305	682
66	2670	22.37	25900	1.60						
78	2260	18.96	25600	1.90	**K**	**97**	**DRN**	**180M4**	300	681
89	1970	16.56	25300	2.2	**KF**	**97**	**DRN**	**180M4**	320	682
107	1650	13.85	24700	2.6	**KA**	**97**	**DRN**	**180M4**	280	684
123	1430	11.99	24200	2.7	**KAF**	**97**	**DRN**	**180M4**	305	682
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	674
102	1720	14.45	16500	1.20	**KF**	**87**	**DRN**	**180M4**	250	675
118	1500	12.56	16400	1.35	**KA**	**87**	**DRN**	**180M4**	230	677
132	1330	11.17	15400	1.10	**KAF**	**87**	**DRN**	**180M4**	240	675
148	1190	10.00	15300	1.25						
178	990	8.29	15100	1.40						
205	860	7.21	14900	1.50						

24832936/EN – 09/2018

P_m = 22 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
3.2	60300	454	190000	0.90						
4.2	46600	355	190000	1.15						
5.7	34600	261	190000	1.55	**K**	**187R107**	**DRN**	**180L4**	1970	713
6.7	29300	221	190000	1.80	**KH**	**187R107**	**DRN**	**180L4**	1900	713
7.6	25600	193	190000	2.1						
9.0	21500	163	190000	2.5						
4.6	42300	318	150000	0.85						
5.3	36800	278	150000	0.95						
6.1	32000	244	150000	1.10						
6.9	27900	213	150000	1.25						
7.2	27200	206	150000	1.30	**K**	**167R107**	**DRN**	**180L4**	1380	713
8.2	23500	180	150000	1.50	**KH**	**167R107**	**DRN**	**180L4**	1350	713
9.2	21200	160	150000	1.65						
11	17900	135	150000	1.95						
12	15600	118	150000	2.2						
7.9	24400	187	108300	0.80	**K**	**157R107**	**DRN**	**180L4**	990	713
9.4	20700	157	109400	0.95	**KF**	**157R107**	**DRN**	**180L4**	1070	713
12	16200	122	108100	1.25	**KA**	**157R107**	**DRN**	**180L4**	950	713
14	14100	107	106900	1.40	**KAF**	**157R107**	**DRN**	**180L4**	1010	713
8.2	25500	179.86	190000	2.1						
8.9	23400	165.21	190000	2.3	**K**	**187**	**DRN**	**180L4**	1790	711
10	20500	144.59	190000	2.6	**KH**	**187**	**DRN**	**180L4**	1730	712
11	18400	129.69	190000	2.9						
11	19100	134.99	150000	1.80						
13	15600	109.83	150000	2.2	**K**	**167**	**DRN**	**180L4**	1210	709
17	12400	87.86	150000	2.8	**KH**	**167**	**DRN**	**180L4**	1170	710
19	11100	78.14	150000	3.1						
12	17400	122.39	105500	1.15						
15	14200	100.22	104000	1.40						
16	13000	91.65	103100	1.55						
19	11300	79.75	101500	1.75	**K**	**157**	**DRN**	**180L4**	820	702
21	10000	70.38	99700	2.0	**KF**	**157**	**DRN**	**180L4**	900	703
24	8670	61.02	97600	2.3	**KA**	**157**	**DRN**	**180L4**	780	705
27	7720	54.29	95600	2.6	**KAF**	**157**	**DRN**	**180L4**	840	703
32	6650	46.79	93100	3.0						
39	5400	38.02	89300	3.7						
16	12700	89.89	73900	1.00	**K**	**127**	**DRN**	**180L4**	580	695
18	11600	81.98	73800	1.10	**KF**	**127**	**DRN**	**180L4**	630	696
21	10000	70.95*	73400	1.30	**KA**	**127**	**DRN**	**180L4**	560	698
24	8900	62.60	72700	1.45	**KAF**	**127**	**DRN**	**180L4**	590	696
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	695
41	5150	36.25	67700	2.5	**KF**	**127**	**DRN**	**180L4**	630	696
47	4460	31.37	66100	2.9	**KA**	**127**	**DRN**	**180L4**	560	698
53	3930	27.68	64500	3.3	**KAF**	**127**	**DRN**	**180L4**	590	696
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	688
30	7090	49.90	41600	1.10	**KF**	**107**	**DRN**	**180L4**	440	689
35	6020	42.33*	42900	1.20	**KA**	**107**	**DRN**	**180L4**	400	691
					KAF	**107**	**DRN**	**180L4**	425	689
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	688
65	3210	22.62	41200	2.2	**KF**	**107**	**DRN**	**180L4**	440	689
75	2800	19.74	40300	2.6	**KA**	**107**	**DRN**	**180L4**	400	691
88	2380	16.75	39300	3.0	**KAF**	**107**	**DRN**	**180L4**	425	689
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						

24832936/EN – 09/2018

P_m = 22 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
48	4380	30.82	23500	1.00	**K**	**97**	**DRN**	**180L4**	315	681
53	3960	27.91	23800	1.10	**KF**	**97**	**DRN**	**180L4**	335	682
60	3510	24.75	24100	1.20	**KA**	**97**	**DRN**	**180L4**	300	684
66	3180	22.37	24200	1.35	**KAF**	**97**	**DRN**	**180L4**	325	682
78	2690	18.96	24100	1.60						
89	2350	16.56	24000	1.85	**K**	**97**	**DRN**	**180L4**	315	681
107	1960	13.85	23700	2.2	**KF**	**97**	**DRN**	**180L4**	335	682
123	1700	11.99	23300	2.3	**KA**	**97**	**DRN**	**180L4**	300	684
142	1480	10.41	21800	1.95	**KAF**	**97**	**DRN**	**180L4**	325	682
170	1230	8.71	21300	2.1						
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	674
118	1780	12.56	15300	1.10	**KF**	**87**	**DRN**	**180L4**	265	675
132	1580	11.17	14200	0.95	**KA**	**87**	**DRN**	**180L4**	245	677
148	1420	10.00	14300	1.05	**KAF**	**87**	**DRN**	**180L4**	255	675
178	1170	8.29	14300	1.20						
205	1020	7.21	14200	1.25						

P_m = 30 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
4.2	63700	355	190000	0.85						
5.7	47300	261	190000	1.10						
6.7	40000	221	190000	1.30	**K**	**187R107**	**DRN**	**200L4**	2080	713
7.7	34900	193	190000	1.50	**KH**	**187R107**	**DRN**	**200L4**	2010	713
9.1	29500	163	190000	1.80						
6.1	43700	244	150000	0.80						
6.9	38100	213	150000	0.90						
7.2	37200	206	150000	0.95						
8.2	32100	180	150000	1.10	**K**	**167R107**	**DRN**	**200L4**	1490	713
9.3	28900	160	150000	1.20	**KH**	**167R107**	**DRN**	**200L4**	1460	713
11	24500	135	150000	1.45						
13	21300	118	150000	1.65						
8.2	34800	179.86	190000	1.50						
9.0	31900	165.21	190000	1.65						
10	27900	144.59	190000	1.90						
11	25100	129.69	190000	2.1	**K**	**187**	**DRN**	**200L4**	1900	711
13	21700	112.60	190000	2.4	**KH**	**187**	**DRN**	**200L4**	1830	712
14	19700	102.16	190000	2.7						
17	17000	88.00	190000	3.1						
13	21200	109.83	150000	1.65						
17	17000	87.86	150000	2.1						
19	15100	78.14	150000	2.3	**K**	**167**	**DRN**	**200L4**	1320	709
22	13100	68.07	150000	2.7	**KH**	**167**	**DRN**	**200L4**	1280	710
24	11700	60.74	150000	3.0						
15	19400	100.22	92700	1.05						
16	17700	91.65	92800	1.15						
19	15400	79.75	92400	1.30						
21	13600	70.38	91700	1.45	**K**	**157**	**DRN**	**200L4**	930	702
24	11800	61.02	90600	1.70	**KF**	**157**	**DRN**	**200L4**	1000	703
27	10500	54.29	89500	1.90	**KA**	**157**	**DRN**	**200L4**	890	705
32	9050	46.79	87700	2.2	**KAF**	**157**	**DRN**	**200L4**	950	703
39	7350	38.02	85000	2.7						
47	6050	31.30	82100	3.1						
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	695
37	7770	40.19	63700	1.65	**KF**	**127**	**DRN**	**200L4**	730	696
41	7010	36.25	63000	1.85	**KA**	**127**	**DRN**	**200L4**	660	698
47	6070	31.37	62000	2.1	**KAF**	**127**	**DRN**	**200L4**	700	696
53	5350	27.68	60900	2.4						
62	4620	23.91	59600	2.8						

24832936/EN – 09/2018

P_m = 30 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
35	8190	42.33*	32500	0.90	**K**	**107**	**DRN**	**200L4**	540	688
40	7160	37.00*	34800	1.00	**KF**	**107**	**DRN**	**200L4**	550	689
47	6050	31.28*	36600	1.10	**KA**	**107**	**DRN**	**200L4**	510	691
					KAF	**107**	**DRN**	**200L4**	540	689
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	688
88	3240	16.75	36700	2.2	**KF**	**107**	**DRN**	**200L4**	550	689
101	2830	14.64	36100	2.4	**KA**	**107**	**DRN**	**200L4**	510	691
110	2590	13.43	34300	1.65	**KAF**	**107**	**DRN**	**200L4**	540	689
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	681
89	3200	16.56	21000	1.35	**KF**	**97**	**DRN**	**200L4**	445	682
107	2680	13.85	21200	1.60	**KA**	**97**	**DRN**	**200L4**	405	684
123	2320	11.99	21100	1.70	**KAF**	**97**	**DRN**	**200L4**	430	682
142	2010	10.41	19500	1.40						
170	1680	8.71	19400	1.60						

P_m = 37 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
5.7	58300	261	190000	0.90						
6.7	49400	221	190000	1.05	**K**	**187R107**	**DRN**	**225S4**	2110	713
7.7	43100	193	190000	1.25	**KH**	**187R107**	**DRN**	**225S4**	2040	713
9.1	36400	163	190000	1.45						
8.2	39700	180	150000	0.90						
9.3	35600	160	150000	1.00	**K**	**167R107**	**DRN**	**225S4**	1530	713
11	30200	135	150000	1.15	**KH**	**167R107**	**DRN**	**225S4**	1490	713
13	26400	118	150000	1.35						
8.2	42800	179.86	190000	1.25						
9.0	39300	165.21	190000	1.35						
10	34400	144.59	190000	1.55						
11	30900	129.69	190000	1.70	**K**	**187**	**DRN**	**225S4**	1930	711
13	26800	112.60	190000	1.95	**KH**	**187**	**DRN**	**225S4**	1870	712
15	24300	102.16	190000	2.2						
17	20900	88.00	190000	2.5						
13	26100	109.83	150000	1.35						
17	20900	87.86	150000	1.65						
19	18600	78.14	150000	1.90	**K**	**167**	**DRN**	**225S4**	1350	709
22	16200	68.07	150000	2.2	**KH**	**167**	**DRN**	**225S4**	1310	710
24	14400	60.74	150000	2.4						
29	12300	51.77	150000	2.8						
15	23800	100.22	82800	0.85	**K**	**157**	**DRN**	**225S4**	960	702
16	21800	91.65	83700	0.90	**KF**	**157**	**DRN**	**225S4**	1040	703
19	19000	79.75	84500	1.05	**KA**	**157**	**DRN**	**225S4**	920	705
					KAF	**157**	**DRN**	**225S4**	980	703
21	16700	70.38	84800	1.20						
24	14500	61.02	84600	1.35	**K**	**157**	**DRN**	**225S4**	960	702
27	12900	54.29	84100	1.55	**KF**	**157**	**DRN**	**225S4**	1040	703
32	11100	46.79	83100	1.80	**KA**	**157**	**DRN**	**225S4**	920	705
39	9060	38.02	81200	2.2	**KAF**	**157**	**DRN**	**225S4**	980	703
47	7460	31.30	79000	2.5						
24	14900	62.60	57500	0.85	**K**	**127**	**DRN**	**225S4**	720	695
27	12800	54.07	58600	1.00	**KF**	**127**	**DRN**	**225S4**	770	696
31	11400	47.82	59000	1.15	**KA**	**127**	**DRN**	**225S4**	700	698
37	9580	40.19	59100	1.35	**KAF**	**127**	**DRN**	**225S4**	730	696

24832936/EN – 09/2018

P_m = 37 kW

n_a min^{-1}	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	695
70	5040	21.15	55900	2.6	**KF**	**127**	**DRN**	**225S4**	770	696
83	4230	17.77	54500	3.1	**KA**	**127**	**DRN**	**225S4**	700	698
103	3420	14.35	52500	3.5	**KAF**	**127**	**DRN**	**225S4**	730	696
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	688
75	4700	19.74	34400	1.55	**KF**	**107**	**DRN**	**225S4**	580	689
89	3990	16.75	34500	1.75	**KA**	**107**	**DRN**	**225S4**	540	691
101	3480	14.64	34100	1.95	**KAF**	**107**	**DRN**	**225S4**	570	689
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 min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
6.7	60200	221	190000	0.90						
7.7	52500	193	190000	1.00	**K**	**187R107**	**DRN**	**225M4**	2110	713
9.1	44300	163	190000	1.20	**KH**	**187R107**	**DRN**	**225M4**	2040	713
9.3	43400	160	150000	0.80						
11	36800	135	150000	0.95	**K**	**167R107**	**DRN**	**225M4**	1530	713
13	32100	118	150000	1.10	**KH**	**167R107**	**DRN**	**225M4**	1490	713
8.2	52100	179.86	190000	1.00						
9.0	47900	165.21	190000	1.10						
10	41900	144.59	190000	1.25						
11	37600	129.69	190000	1.40	**K**	**187**	**DRN**	**225M4**	1930	711
13	32600	112.60	189800	1.60	**KH**	**187**	**DRN**	**225M4**	1870	712
15	29600	102.16	187600	1.80						
17	25500	88.00	183700	2.1						
20	21400	73.96	178700	2.5						
13	31800	109.83	150000	1.10						
17	25400	87.86	150000	1.35						
19	22600	78.14	150000	1.55						
22	19700	68.07	150000	1.75	**K**	**167**	**DRN**	**225M4**	1350	709
24	17600	60.74	148900	2.0	**KH**	**167**	**DRN**	**225M4**	1310	710
29	15000	51.77	145100	2.3						
35	12400	42.89	140400	2.8						
19	23100	79.75	75500	0.85						
21	20400	70.38	76800	1.00						
24	17600	61.02	77700	1.15						
27	15700	54.29	78000	1.25						
32	13500	46.79	77800	1.45	**K**	**157**	**DRN**	**225M4**	960	702
39	11000	38.02	76900	1.80	**KF**	**157**	**DRN**	**225M4**	1040	703
47	9070	31.30	75400	2.1	**KA**	**157**	**DRN**	**225M4**	920	705
54	8000	27.62	74300	2.5	**KAF**	**157**	**DRN**	**225M4**	980	703
62	6940	23.95	72700	2.9						
70	6170	21.31	71400	3.2						
81	5320	18.37	69600	3.8						
31	13800	47.82	52800	0.95	**K**	**127**	**DRN**	**225M4**	720	695
37	11600	40.19	53900	1.10	**KF**	**127**	**DRN**	**225M4**	770	696
41	10500	36.25	54300	1.25	**KA**	**127**	**DRN**	**225M4**	700	698
					KAF	**127**	**DRN**	**225M4**	730	696

24832936/EN – 09/2018

P_m = 45 kW

n_a min^{-1}	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	695
83	5150	17.77	52200	2.5	**KF**	**127**	**DRN**	**225M4**	770	696
103	4160	14.35	50600	2.9	**KA**	**127**	**DRN**	**225M4**	700	698
116	3700	12.79	48300	2.3	**KAF**	**127**	**DRN**	**225M4**	730	696
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	688
56	7620	26.32	25400	0.95	**KF**	**107**	**DRN**	**225M4**	580	689
66	6550	22.62	28100	1.10	**KA**	**107**	**DRN**	**225M4**	540	691
75	5720	19.74	29800	1.25	**KAF**	**107**	**DRN**	**225M4**	570	689
89	4850	16.75	31100	1.45						
101	4240	14.64	31700	1.60	**K**	**107**	**DRN**	**225M4**	570	688
110	3890	13.43	29900	1.10	**KF**	**107**	**DRN**	**225M4**	580	689
126	3390	11.73	29900	1.25	**KA**	**107**	**DRN**	**225M4**	540	691
149	2880	9.94	29600	1.45	**KAF**	**107**	**DRN**	**225M4**	570	689
171	2510	8.69	29300	1.60						

P_m = 55 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
10	51200	144.59	179800	1.05						
11	45900	129.69	179600	1.15						
13	39900	112.60	178600	1.35						
15	36200	102.16	177400	1.45	**K**	**187**	**DRN**	**250M4**	2080	711
17	31100	88.00	174900	1.70	**KH**	**187**	**DRN**	**250M4**	2020	712
20	26200	73.96	171300	2.0						
23	22600	64.04	167800	2.3						
17	31100	87.86	145300	1.10						
19	27600	78.14	144600	1.25						
22	24100	68.07	143200	1.45						
24	21500	60.74	141700	1.65	**K**	**167**	**DRN**	**250M4**	1500	709
29	18300	51.77	139000	1.90	**KH**	**167**	**DRN**	**250M4**	1460	710
35	15200	42.89	135300	2.3						
40	12900	36.61	131800	2.7						
21	24900	70.38	66900	0.80						
24	21600	61.02	69100	0.90						
27	19200	54.29	70300	1.05						
32	16500	46.79	71200	1.20						
39	13400	38.02	71500	1.50	**K**	**157**	**DRN**	**250M4**	1110	702
47	11000	31.30	71000	1.70	**KF**	**157**	**DRN**	**250M4**	1190	703
54	9780	27.62	70400	2.0	**KA**	**157**	**DRN**	**250M4**	1070	705
62	8480	23.95	69400	2.4	**KAF**	**157**	**DRN**	**250M4**	1130	703
70	7550	21.31	68400	2.6						
81	6500	18.37	67000	3.1						
99	5280	14.92	64700	3.8						
117	4480	12.65	62800	4.2						
37	14200	40.19	47400	0.90	**K**	**127**	**DRN**	**250M4**	870	695
47	11100	31.37	49300	1.15	**KF**	**127**	**DRN**	**250M4**	920	696
54	9800	27.68	49700	1.35	**KA**	**127**	**DRN**	**250M4**	850	698
					KAF	**127**	**DRN**	**250M4**	880	696
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	695
103	5080	14.35	48300	2.4	**KF**	**127**	**DRN**	**250M4**	920	696
116	4530	12.79	45900	1.90	**KA**	**127**	**DRN**	**250M4**	850	698
138	3800	10.74	45000	2.1	**KAF**	**127**	**DRN**	**250M4**	880	696
171	3070	8.68	43600	2.4						

24832936/EN – 09/2018

P_m = 75 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
11	62600	129.69	153800	0.85						
13	54400	112.60	156100	0.95						
15	49300	102.16	157000	1.05						
17	42500	88.00	157400	1.25	**K**	**187**	**DRN**	**280S4**	2130	711
20	35700	73.96	156600	1.50	**KH**	**187**	**DRN**	**280S4**	2070	712
23	30900	64.04	155000	1.70						
28	25700	53.36	152200	2.1						
33	21900	45.50*	149100	2.4						
17	42400	87.86	124500	0.80						
19	37700	78.14	126200	0.95						
22	32800	68.07	127200	1.05						
24	29300	60.74	127300	1.20						
29	25000	51.77	126800	1.40	**K**	**167**	**DRN**	**280S4**	1550	709
35	20700	42.89	125200	1.70	**KH**	**167**	**DRN**	**280S4**	1510	710
40	17600	36.61	123200	2.0						
46	15500	32.25	121200	2.2						
52	13900	28.77	119300	2.5						
60	11800	24.52	116300	3.0						
32	22600	46.79	58000	0.90						
39	18300	38.02	60800	1.10						
47	15100	31.30	62200	1.25						
54	13300	27.62	62600	1.50	**K**	**157**	**DRN**	**280S4**	1160	702
62	11500	23.95	62600	1.75	**KF**	**157**	**DRN**	**280S4**	1240	703
70	10200	21.31	62400	1.95	**KA**	**157**	**DRN**	**280S4**	1120	705
81	8870	18.37	61800	2.2	**KAF**	**157**	**DRN**	**280S4**	1180	703
99	7210	14.92	60500	2.8						
117	6110	12.65	59200	3.1						
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	695
83	8580	17.77	43600	1.50	**KF**	**127**	**DRN**	**280S4**	960	696
103	6930	14.35	43700	1.75	**KA**	**127**	**DRN**	**280S4**	890	698
116	6170	12.79	41100	1.40	**KAF**	**127**	**DRN**	**280S4**	930	696
138	5190	10.74	41000	1.55						
171	4190	8.68	40400	1.70						

P_m = 90 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
13	65300	112.60	139300	0.80						
14	59200	102.16	141700	0.90						
17	51000	88.00	144200	1.05						
20	42900	73.96	145500	1.25	**K**	**187**	**DRN**	**280M4**	2250	711
23	37100	64.04	145400	1.45	**KH**	**187**	**DRN**	**280M4**	2180	712
28	30900	53.36	144200	1.70						
33	26400	45.50*	142300	2.0						
35	24600	42.51	141300	2.1						
38	22300	38.57	139700	2.4						
22	39500	68.07	115100	0.90						
24	35200	60.74	116600	1.00						
29	30000	51.77	117600	1.15						
35	24800	42.89	117600	1.40						
40	21200	36.61	116700	1.65	**K**	**167**	**DRN**	**280M4**	1670	709
46	18700	32.25	115500	1.85	**KH**	**167**	**DRN**	**280M4**	1630	710
51	16600	28.77	114200	2.1						
60	14200	24.52	111900	2.5						
73	11700	20.32	108800	3.0						
85	10000	17.34	105900	3.5						

24832936/EN – 09/2018

P_m = 90 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
39	22000	38.02	52700	0.90						
54	16000	27.62	56700	1.25						
62	13800	23.95	57500	1.45	**K**	**157**	**DRN**	**280M4**	1270	702
70	12300	21.31	57900	1.60	**KF**	**157**	**DRN**	**280M4**	1350	703
81	10600	18.37	57900	1.90	**KA**	**157**	**DRN**	**280M4**	1230	705
99	8650	14.92	57400	2.3	**KAF**	**157**	**DRN**	**280M4**	1290	703
117	7340	12.65	56600	2.5						
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	695
103	8320	14.35	40200	1.45	**KF**	**127**	**DRN**	**280M4**	1080	696
116	7410	12.79	37600	1.15	**KA**	**127**	**DRN**	**280M4**	1010	698
138	6230	10.74	38000	1.30	**KAF**	**127**	**DRN**	**280M4**	1050	696
171	5030	8.68	38000	1.45						

P_m = 110 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
17	62100	88.00	126800	0.85						
20	52200	73.96	130800	1.00						
23	45200	64.04	132700	1.15	**K**	**187**	**DRN**	**315S4**	2490	711
28	37600	53.36	133600	1.40	**KH**	**187**	**DRN**	**315S4**	2420	712
33	32100	45.50*	133200	1.65						
35	30000	42.51	132800	1.75	**K**	**187**	**DRN**	**315S4/ERF/NS**	2490	711
					KH	**187**	**DRN**	**315S4/ERF/NS**	2420	712
39	27200	38.57	131900	1.95						
45	23400	33.23	130100	2.3	**K**	**187**	**DRN**	**315S4**	2490	711
53	19700	27.92	127500	2.7	**KH**	**187**	**DRN**	**315S4**	2420	712
24	42800	60.74	102400	0.80						
29	36500	51.77	105500	0.95	**K**	**167**	**DRN**	**315S4**	1910	709
35	30200	42.89	107500	1.15	**KH**	**167**	**DRN**	**315S4**	1870	710
41	25800	36.61	108100	1.35						
46	22700	32.25	107900	1.55	**K**	**167**	**DRN**	**315S4/ERF/NS**	1910	709
					KH	**167**	**DRN**	**315S4/ERF/NS**	1870	710
52	20300	28.77	107400	1.70						
61	17300	24.52	106100	2.0	**K**	**167**	**DRN**	**315S4**	1910	709
73	14300	20.32	104000	2.4	**KH**	**167**	**DRN**	**315S4**	1870	710
86	12200	17.34	101800	2.9						
62	16900	23.95	50800	1.20	**K**	**157**	**DRN**	**315S4/ERF/NS**	1520	702
					KF	**157**	**DRN**	**315S4/ERF/NS**	1590	703
					KA	**157**	**DRN**	**315S4/ERF/NS**	1480	705
					KAF	**157**	**DRN**	**315S4/ERF/NS**	1540	703
70	15000	21.31	51900	1.35	**K**	**157**	**DRN**	**315S4**	1520	702
81	12900	18.37	52700	1.55	**KF**	**157**	**DRN**	**315S4**	1590	703
100	10500	14.92	53200	1.90	**KA**	**157**	**DRN**	**315S4**	1480	705
118	8930	12.65	53000	2.1	**KAF**	**157**	**DRN**	**315S4**	1540	703

P_m = 132 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
20	62600	73.96	114700	0.85						
23	54200	64.04	118700	1.00	**K**	**187**	**DRN**	**315M4**	2510	711
28	45200	53.36	121900	1.15	**KH**	**187**	**DRN**	**315M4**	2450	712
33	38500	45.50*	123300	1.40						
35	36000	42.51	123500	1.45	**K**	**187**	**DRN**	**315M4/ERF/NS**	2510	711
39	32600	38.57	123500	1.60	**KH**	**187**	**DRN**	**315M4/ERF/NS**	2450	712
45	28100	33.23	122900	1.90						
53	23600	27.92	121400	2.2						
62	20400	24.18	119600	2.6	**K**	**187**	**DRN**	**315M4**	2510	711
74	17000	20.15	116800	2.9	**KH**	**187**	**DRN**	**315M4**	2450	712
87	14500	17.18	114000	3.2						

24832936/EN – 09/2018

P_m = 132 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B						m kg	
29	43800	51.77	92100	0.80	**K**	**167**	**DRN**	**315M4**		1930	709
35	36300	42.89	96400	0.95	**KH**	**167**	**DRN**	**315M4**		1890	710
41	31000	36.61	98600	1.15							
46	27300	32.25	99600	1.30	**K**	**167**	**DRN**	**315M4/ERF/NS**		1930	709
52	24300	28.77	99900	1.45	**KH**	**167**	**DRN**	**315M4/ERF/NS**		1890	710
61	20700	24.52	99800	1.70							
73	17200	20.32	98700	2.0	**K**	**167**	**DRN**	**315M4**		1930	709
86	14600	17.34	97300	2.4	**KH**	**167**	**DRN**	**315M4**		1890	710
					K	**157**	**DRN**	**315M4/ERF/NS**		1540	702
62	20200	23.95	43400	1.00	**KF**	**157**	**DRN**	**315M4/ERF/NS**		1610	703
70	18000	21.31	45300	1.10	**KA**	**157**	**DRN**	**315M4/ERF/NS**		1500	705
					KAF	**157**	**DRN**	**315M4/ERF/NS**		1560	703
					K	**157**	**DRN**	**315M4**		1540	702
81	15500	18.37	47000	1.30	**KF**	**157**	**DRN**	**315M4**		1610	703
100	12600	14.92	48500	1.60	**KA**	**157**	**DRN**	**315M4**		1500	705
118	10700	12.65	49100	1.75	**KAF**	**157**	**DRN**	**315M4**		1560	703

P_m = 160 kW

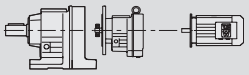
n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B						m kg	
23	65800	64.04	100900	0.80							
28	54800	53.36	107100	0.95							
33	46700	45.50*	110600	1.15							
45	34100	33.23	113700	1.55	**K**	**187**	**DRN**	**315L4**		2640	711
53	28700	27.92	113600	1.85	**KH**	**187**	**DRN**	**315L4**		2580	712
61	24800	24.18	112900	2.1							
74	20700	20.15	111300	2.4							
86	17600	17.18	109300	2.6							
41	37600	36.61	86500	0.95							
61	25200	24.52	91700	1.40	**K**	**167**	**DRN**	**315L4**		2060	709
73	20800	20.32	92000	1.70	**KH**	**167**	**DRN**	**315L4**		2020	710
86	17800	17.34	91600	1.95							
					K	**157**	**DRN**	**315L4**		1670	702
81	18800	18.37	39800	1.05	**KF**	**157**	**DRN**	**315L4**		1750	703
100	15300	14.92	42600	1.30	**KA**	**157**	**DRN**	**315L4**		1630	705
117	13000	12.65	44100	1.45	**KAF**	**157**	**DRN**	**315L4**		1690	703

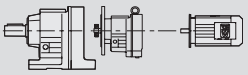
P_m = 200 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B						m kg	
33	58300	45.50*	92600	0.90	**K**	**187**	**DRN**	**315H4**		2760	711
					KH	**187**	**DRN**	**315H4**		2700	712
45	42600	33.23	100500	1.25	**K**	**187**	**DRN**	**315H4/ERF/NS**		2760	711
					KH	**187**	**DRN**	**315H4/ERF/NS**		2700	712
53	35800	27.92	102500	1.50							
62	31000	24.18	103300	1.70	**K**	**187**	**DRN**	**315H4**		2760	711
74	25800	20.15	103200	1.90	**KH**	**187**	**DRN**	**315H4**		2700	712
87	22000	17.18	102400	2.1							
61	31400	24.52	80200	1.10	**K**	**167**	**DRN**	**315H4/ERF/NS**		2180	709
					KH	**167**	**DRN**	**315H4/ERF/NS**		2140	710
73	26000	20.32	82500	1.35	**K**	**167**	**DRN**	**315H4**		2180	709
86	22200	17.34	83400	1.55	**KH**	**167**	**DRN**	**315H4**		2140	710
					K	**157**	**DRN**	**315H4**		1790	702
81	23500	18.37	23200	0.85	**KF**	**157**	**DRN**	**315H4**		1860	703
100	19100	14.92	34300	1.05	**KA**	**157**	**DRN**	**315H4**		1750	705
118	16200	12.65	37000	1.15	**KAF**	**157**	**DRN**	**315H4**		1810	703

24832936/EN – 09/2018

10.4 K..R..DRN.. selection tables for low output speeds in Nm

$M_{a\,max}$ = 200 Nm									
n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.20	6832	5210						
0.23	5922	5210						
0.25	5491	5210						
0.29	4759	5210						
0.33	4160	5210						
0.38	3645	5210						
0.43	3205	5210	**K**	**37R17**	**DRN**	**63MS4**	20	713
0.49	2801	5210	**KF**	**37R17**	**DRN**	**63MS4**	22	713
0.56	2454	5210	**KA**	**37R17**	**DRN**	**63MS4**	19	713
0.64	2166	5210	**KAF**	**37R17**	**DRN**	**63MS4**	21	713
0.73	1891	5210						
0.83	1660	5210						
0.94	1466	5210						
1.1	1288	5210						
1.2	1136	5210						
1.4	996	5210						
1.6	876	5210						
1.8	761	5210						
2.1	671	5210	**K**	**37R17**	**DRN**	**63MS4**	19	713
2.4	585	5210	**KF**	**37R17**	**DRN**	**63MS4**	22	713
2.7	512	5210	**KA**	**37R17**	**DRN**	**63MS4**	19	713
3.1	451	5210	**KAF**	**37R17**	**DRN**	**63MS4**	21	713
3.5	396	5210						
4.0	346	5210						
4.5	304	5210						
5.2	267	5210	**K**	**37R17**	**DRN**	**63M4**	20	713
5.9	234	5210	**KF**	**37R17**	**DRN**	**63M4**	23	713
6.7	205	5210	**KA**	**37R17**	**DRN**	**63M4**	20	713
			KAF	**37R17**	**DRN**	**63M4**	22	713
7.8	181	5210	**K**	**37R17**	**DRN**	**71MS4**	21	713
8.8	160	5210	**KF**	**37R17**	**DRN**	**71MS4**	23	713
10	136	5210	**KA**	**37R17**	**DRN**	**71MS4**	21	713
			KAF	**37R17**	**DRN**	**71MS4**	22	713
11	127	5210	**K**	**37R17**	**DRN**	**71M4**	22	713
13	110	5210	**KF**	**37R17**	**DRN**	**71M4**	24	713
15	96	5210	**KA**	**37R17**	**DRN**	**71M4**	22	713
			KAF	**37R17**	**DRN**	**71M4**	24	713

$M_{a\,max}$ = 295 Nm									
n_a min^{-1}	i	F_{Ra} [1] N					m kg	
19	75	7500	**K**	**39R17**	**DRN**	**80M4**	32	713
			KF	**39R17**	**DRN**	**80M4**	34	713
			KA	**39R17**	**DRN**	**80M4**	31	713
			KAF	**39R17**	**DRN**	**80M4**	33	713

24832936/EN – 09/2018

$M_{a\ max}$ = 300 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.34	4057	7500						
0.41	3370	7500						
0.47	2906	7500						
0.55	2508	7500						
0.58	2367	7500	**K**	**39R17**	**DRN**	**63MS4**	25	713
0.64	2162	7500	**KF**	**39R17**	**DRN**	**63MS4**	26	713
0.73	1881	7500	**KA**	**39R17**	**DRN**	**63MS4**	24	713
0.78	1762	7500	**KAF**	**39R17**	**DRN**	**63MS4**	25	713
0.85	1622	7500						
0.92	1494	7500						
1.0	1321	7500						
1.2	1169	7500						
1.3	1093	7500						
1.4	956	7500						
1.7	814	7500	**K**	**39R17**	**DRN**	**63MS4**	24	713
1.9	711	7500	**KF**	**39R17**	**DRN**	**63MS4**	26	713
2.3	605	7500	**KA**	**39R17**	**DRN**	**63MS4**	23	713
2.7	504	7500	**KAF**	**39R17**	**DRN**	**63MS4**	25	713
3.0	454	7500						
3.5	399	7500	**K**	**39R17**	**DRN**	**63M4**	25	713
3.8	365	7500	**KF**	**39R17**	**DRN**	**63M4**	27	713
4.4	312	7500	**KA**	**39R17**	**DRN**	**63M4**	24	713
4.6	299	7500	**KAF**	**39R17**	**DRN**	**63M4**	26	713
5.5	254	7500	**K**	**39R17**	**DRN**	**71MS4**	26	713
6.0	234	7500	**KF**	**39R17**	**DRN**	**71MS4**	27	713
6.7	210	7500	**KA**	**39R17**	**DRN**	**71MS4**	25	713
			KAF	**39R17**	**DRN**	**71MS4**	26	713
7.5	189	7500	**K**	**39R17**	**DRN**	**71M4**	27	713
8.1	174	7500	**KF**	**39R17**	**DRN**	**71M4**	29	713
9.1	156	7500	**KA**	**39R17**	**DRN**	**71M4**	26	713
10.0	142	7500	**KAF**	**39R17**	**DRN**	**71M4**	28	713
12	117	7500	**K**	**39R17**	**DRN**	**80M4**	32	713
			KF	**39R17**	**DRN**	**80M4**	34	713
			KA	**39R17**	**DRN**	**80M4**	31	713
			KAF	**39R17**	**DRN**	**80M4**	33	713

$M_{a\ max}$ = 400 Nm

n_a min^{-1}	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**	**DRN**	**63MS4**	34	713
0.35	3940	5920	**KF**	**47R37**	**DRN**	**63MS4**	37	713
0.40	3477	5920	**KA**	**47R37**	**DRN**	**63MS4**	33	713
0.45	3043	5920	**KAF**	**47R37**	**DRN**	**63MS4**	36	713
0.51	2733	5920						
0.59	2354	5920						
0.67	2063	5920						
0.76	1819	5920						
0.87	1586	5920						
0.99	1388	5920						
1.1	1222	5920						
1.3	1097	5920	**K**	**47R37**	**DRN**	**63MS4**	33	713
1.5	945	5920	**KF**	**47R37**	**DRN**	**63MS4**	37	713
1.7	831	5920	**KA**	**47R37**	**DRN**	**63MS4**	33	713
1.9	718	5920	**KAF**	**47R37**	**DRN**	**63MS4**	35	713
2.2	639	5920						
2.5	552	5920	**K**	**47R37**	**DRN**	**63M4**	34	713
2.8	495	5920	**KF**	**47R37**	**DRN**	**63M4**	37	713
3.2	426	5920	**KA**	**47R37**	**DRN**	**63M4**	33	713
			KAF	**47R37**	**DRN**	**63M4**	36	713

$M_{a\ max}$ = 400 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
3.8	375	5920	**K**	**47R37**	**DRN**	**71MS4**	35	713
4.3	327	5920	**KF**	**47R37**	**DRN**	**71MS4**	38	713
4.9	289	5920	**KA**	**47R37**	**DRN**	**71MS4**	34	713
			KAF	**47R37**	**DRN**	**71MS4**	37	713
5.5	256	5920	**K**	**47R37**	**DRN**	**71M4**	36	713
6.3	225	5920	**KF**	**47R37**	**DRN**	**71M4**	39	713
7.1	198	5920	**KA**	**47R37**	**DRN**	**71M4**	35	713
			KAF	**47R37**	**DRN**	**71M4**	38	713
8.4	171	5920	**K**	**47R37**	**DRN**	**80MK4**	38	713
9.4	153	5920	**KF**	**47R37**	**DRN**	**80MK4**	42	713
11	131	5920	**KA**	**47R37**	**DRN**	**80MK4**	37	713
			KAF	**47R37**	**DRN**	**80MK4**	40	713
13	112	5920	**K**	**47R37**	**DRN**	**80M4**	42	713
15	99	5920	**KF**	**47R37**	**DRN**	**80M4**	45	713
15	94	5920	**KA**	**47R37**	**DRN**	**80M4**	41	713
			KAF	**47R37**	**DRN**	**80M4**	44	713

$M_{a\ max}$ = 500 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.19	7137	9000						
0.23	5991	9000						
0.27	5120	9000						
0.34	4034	9000						
0.39	3580	9000						
0.45	3081	9000						
0.50	2773	9000	**K**	**49R37**	**DRN**	**63MS4**	43	713
0.54	2545	9000	**KF**	**49R37**	**DRN**	**63MS4**	45	713
0.58	2372	9000	**KA**	**49R37**	**DRN**	**63MS4**	40	713
0.65	2118	9000	**KAF**	**49R37**	**DRN**	**63MS4**	45	713
0.71	1941	9000						
0.79	1741	9000						
0.85	1632	9000						
0.91	1521	9000						
1.1	1228	9000						
1.4	1000	9000						
0.97	1424	9000						
1.1	1309	9000	**K**	**49R37**	**DRN**	**63MS4**	43	713
1.2	1120	9000	**KF**	**49R37**	**DRN**	**63MS4**	45	713
1.5	908	9000	**KA**	**49R37**	**DRN**	**63MS4**	40	713
1.7	802	9000	**KAF**	**49R37**	**DRN**	**63MS4**	45	713
2.0	701	9000						
2.1	645	9000	**K**	**49R37**	**DRN**	**63M4**	44	713
2.3	595	9000	**KF**	**49R37**	**DRN**	**63M4**	46	713
2.5	543	9000	**KA**	**49R37**	**DRN**	**63M4**	41	713
2.7	501	9000	**KAF**	**49R37**	**DRN**	**63M4**	46	713
3.1	449	9000	**K**	**49R37**	**DRN**	**71MS4**	44	713
3.5	401	9000	**KF**	**49R37**	**DRN**	**71MS4**	46	713
3.9	360	9000	**KA**	**49R37**	**DRN**	**71MS4**	42	713
			KAF	**49R37**	**DRN**	**71MS4**	46	713
4.3	330	9000	**K**	**49R37**	**DRN**	**71M4**	46	713
4.7	300	9000	**KF**	**49R37**	**DRN**	**71M4**	47	713
5.2	274	9000	**KA**	**49R37**	**DRN**	**71M4**	43	713
5.8	243	9000	**KAF**	**49R37**	**DRN**	**71M4**	48	713
6.6	217	9000	**K**	**49R37**	**DRN**	**80MK4**	48	713
7.4	193	9000	**KF**	**49R37**	**DRN**	**80MK4**	50	713
8.2	176	9000	**KA**	**49R37**	**DRN**	**80MK4**	45	713
			KAF	**49R37**	**DRN**	**80MK4**	50	713
			K	**49R37**	**DRN**	**80M4**	51	713
9.5	152	9000	**KF**	**49R37**	**DRN**	**80M4**	53	713
12	125	9000	**KA**	**49R37**	**DRN**	**80M4**	48	713
			KAF	**49R37**	**DRN**	**80M4**	53	713

24832936/EN – 09/2018

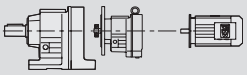
$M_{a\ max}$ = 500 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
15	99	9000	**K**	**49R37**	**DRN**	**90S4**	57	713
			KF	**49R37**	**DRN**	**90S4**	59	713
			KA	**49R37**	**DRN**	**90S4**	54	713
			KAF	**49R37**	**DRN**	**90S4**	59	713

$M_{a\ max}$ = 600 Nm

n_a min^{-1}	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**	**DRN**	**63MS4**	40	713
0.27	5033	7630	**KF**	**57R37**	**DRN**	**63MS4**	44	713
0.32	4340	7630	**KA**	**57R37**	**DRN**	**63MS4**	37	713
0.36	3854	7630	**KAF**	**57R37**	**DRN**	**63MS4**	43	713
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**	**DRN**	**63MS4**	39	713
1.0	1354	7630	**KF**	**57R37**	**DRN**	**63MS4**	44	713
1.2	1174	7630	**KA**	**57R37**	**DRN**	**63MS4**	37	713
1.3	1036	7630	**KAF**	**57R37**	**DRN**	**63MS4**	43	713
1.5	906	7630						
1.7	806	7630	**K**	**57R37**	**DRN**	**63M4**	40	713
2.0	699	7630	**KF**	**57R37**	**DRN**	**63M4**	45	713
2.2	615	7630	**KA**	**57R37**	**DRN**	**63M4**	38	713
			KAF	**57R37**	**DRN**	**63M4**	44	713
2.6	544	7630	**K**	**57R37**	**DRN**	**71MS4**	41	713
3.0	473	7630	**KF**	**57R37**	**DRN**	**71MS4**	45	713
3.3	421	7630	**KA**	**57R37**	**DRN**	**71MS4**	39	713
			KAF	**57R37**	**DRN**	**71MS4**	44	713
3.9	362	7630	**K**	**57R37**	**DRN**	**71M4**	42	713
4.4	319	7630	**KF**	**57R37**	**DRN**	**71M4**	47	713
5.1	280	7630	**KA**	**57R37**	**DRN**	**71M4**	40	713
			KAF	**57R37**	**DRN**	**71M4**	46	713
5.8	246	7630	**K**	**57R37**	**DRN**	**80MK4**	44	713
6.7	215	7630	**KF**	**57R37**	**DRN**	**80MK4**	49	713
7.5	192	7630	**KA**	**57R37**	**DRN**	**80MK4**	42	713
			KAF	**57R37**	**DRN**	**80MK4**	48	713
			K	**57R37**	**DRN**	**80M4**	48	713
8.7	166	7630	**KF**	**57R37**	**DRN**	**80M4**	52	713
10.0	145	7630	**KA**	**57R37**	**DRN**	**80M4**	45	713
			KAF	**57R37**	**DRN**	**80M4**	51	713
11	129	7630	**K**	**57R37**	**DRN**	**90S4**	53	713
13	111	7630	**KF**	**57R37**	**DRN**	**90S4**	58	713
15	97	7630	**KA**	**57R37**	**DRN**	**90S4**	51	713
			KAF	**57R37**	**DRN**	**90S4**	57	713

24832936/EN – 09/2018

$M_{a\ max}$ = 820 Nm								
n_a min^{-1}	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	**K**	**67R37**	**DRN**	**63MS4**	45	713
0.24	5648	10300	**KF**	**67R37**	**DRN**	**63MS4**	51	713
0.28	4846	10300	**KA**	**67R37**	**DRN**	**63MS4**	43	713
0.32	4329	10300	**KAF**	**67R37**	**DRN**	**63MS4**	48	713
0.37	3750	10300						
0.42	3315	10300						
0.47	2917	10300						
0.55	2532	10300						
0.62	2244	10300						
0.70	1981	10300						
0.79	1739	10300	**K**	**67R37**	**DRN**	**63MS4**	45	713
0.90	1535	10300	**KF**	**67R37**	**DRN**	**63MS4**	51	713
1.0	1351	10300	**KA**	**67R37**	**DRN**	**63MS4**	42	713
1.2	1171	10300	**KAF**	**67R37**	**DRN**	**63MS4**	48	713
1.3	1034	10300	**K**	**67R37**	**DRN**	**63M4**	46	713
1.5	903	10300	**KF**	**67R37**	**DRN**	**63M4**	52	713
1.7	793	10300	**KA**	**67R37**	**DRN**	**63M4**	43	713
			KAF	**67R37**	**DRN**	**63M4**	49	713
			K	**67R37**	**DRN**	**71MS4**	47	713
2.0	697	10300	**KF**	**67R37**	**DRN**	**71MS4**	52	713
2.3	613	10300	**KA**	**67R37**	**DRN**	**71MS4**	44	713
			KAF	**67R37**	**DRN**	**71MS4**	50	713
2.6	542	10300	**K**	**67R37**	**DRN**	**71M4**	48	713
3.0	471	10300	**KF**	**67R37**	**DRN**	**71M4**	53	713
3.4	420	10300	**KA**	**67R37**	**DRN**	**71M4**	45	713
			KAF	**67R37**	**DRN**	**71M4**	51	713
4.0	361	10300	**K**	**67R37**	**DRN**	**80MK4**	50	713
4.5	323	10300	**KF**	**67R37**	**DRN**	**80MK4**	56	713
5.1	279	10300	**KA**	**67R37**	**DRN**	**80MK4**	47	713
			KAF	**67R37**	**DRN**	**80MK4**	53	713
5.9	246	10300	**K**	**67R37**	**DRN**	**80M4**	53	713
6.6	217	10300	**KF**	**67R37**	**DRN**	**80M4**	59	713
7.5	191	10300	**KA**	**67R37**	**DRN**	**80M4**	51	713
			KAF	**67R37**	**DRN**	**80M4**	56	713
8.8	166	10300	**K**	**67R37**	**DRN**	**90S4**	59	713
10	144	10300	**KF**	**67R37**	**DRN**	**90S4**	65	713
			KA	**67R37**	**DRN**	**90S4**	57	713
			KAF	**67R37**	**DRN**	**90S4**	62	713
12	122	10300	**K**	**67R37**	**DRN**	**90L4**	62	713
			KF	**67R37**	**DRN**	**90L4**	68	713
			KA	**67R37**	**DRN**	**90L4**	60	713
			KAF	**67R37**	**DRN**	**90L4**	65	713

24832936/EN – 09/2018

$M_{a\ max}$ = 1550 Nm

n_a min^{-1}	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**	**DRN**	**63MS4**	70	713
0.21	6606	15400	**KF**	**77R37**	**DRN**	**63MS4**	78	713
0.24	5774	15400	**KA**	**77R37**	**DRN**	**63MS4**	62	713
0.27	5089	15400	**KAF**	**77R37**	**DRN**	**63MS4**	70	713
0.31	4489	15400						
0.35	3961	15400						
0.40	3485	15400						
0.48	2901	15400						
0.51	2717	15400						
0.58	2370	15400	**K**	**77R37**	**DRN**	**63M4**	70	713
			KF	**77R37**	**DRN**	**63M4**	79	713
			KA	**77R37**	**DRN**	**63M4**	63	713
			KAF	**77R37**	**DRN**	**63M4**	71	713
0.67	2050	15400	**K**	**77R37**	**DRN**	**63M4**	70	713
0.78	1772	15400	**KF**	**77R37**	**DRN**	**63M4**	78	713
0.91	1514	15400	**KA**	**77R37**	**DRN**	**63M4**	63	713
			KAF	**77R37**	**DRN**	**63M4**	71	713
1.0	1388	15400	**K**	**77R37**	**DRN**	**71MS4**	71	713
1.1	1218	15400	**KF**	**77R37**	**DRN**	**71MS4**	79	713
1.3	1053	15400	**KA**	**77R37**	**DRN**	**71MS4**	63	713
			KAF	**77R37**	**DRN**	**71MS4**	71	713
1.5	924	15400	**K**	**77R37**	**DRN**	**71M4**	72	713
1.7	815	15400	**KF**	**77R37**	**DRN**	**71M4**	80	713
2.0	709	15400	**KA**	**77R37**	**DRN**	**71M4**	64	713
			KAF	**77R37**	**DRN**	**71M4**	72	713
2.3	622	15400	**K**	**77R37**	**DRN**	**80MK4**	74	713
2.6	552	15400	**KF**	**77R37**	**DRN**	**80MK4**	82	713
3.0	485	15400	**KA**	**77R37**	**DRN**	**80MK4**	67	713
			KAF	**77R37**	**DRN**	**80MK4**	75	713
3.4	428	15400	**K**	**77R37**	**DRN**	**80M4**	78	713
3.9	367	15400	**KF**	**77R37**	**DRN**	**80M4**	86	713
			KA	**77R37**	**DRN**	**80M4**	70	713
			KAF	**77R37**	**DRN**	**80M4**	78	713
4.4	328	15400	**K**	**77R37**	**DRN**	**90S4**	83	713
5.0	290	15400	**KF**	**77R37**	**DRN**	**90S4**	92	713
5.8	252	15400	**KA**	**77R37**	**DRN**	**90S4**	76	713
			KAF	**77R37**	**DRN**	**90S4**	84	713
6.6	221	15400	**K**	**77R37**	**DRN**	**90L4**	87	713
7.5	195	15400	**KF**	**77R37**	**DRN**	**90L4**	95	713
8.4	175	15400	**KA**	**77R37**	**DRN**	**90L4**	79	713
			KAF	**77R37**	**DRN**	**90L4**	87	713
9.4	154	15400	**K**	**77R37**	**DRN**	**100LS4**	91	713
			KF	**77R37**	**DRN**	**100LS4**	99	713
			KA	**77R37**	**DRN**	**100LS4**	83	713
			KAF	**77R37**	**DRN**	**100LS4**	91	713

$M_{a\ max}$ = 2600 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
10	141	27400	**K**	**87R57**	**DRN**	**112M4**	155	713
			KF	**87R57**	**DRN**	**112M4**	165	713
			KA	**87R57**	**DRN**	**112M4**	145	713
			KAF	**87R57**	**DRN**	**112M4**	155	713

24832936/EN – 09/2018

$M_{a\ max}$ = 2700 Nm

n_a min^{-1}	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**	**DRN**	**63MS4**	120	713
0.15	9073	27300	**KF**	**87R57**	**DRN**	**63MS4**	130	713
0.18	7854	27300	**KA**	**87R57**	**DRN**	**63MS4**	105	713
0.20	6832	27300	**KAF**	**87R57**	**DRN**	**63MS4**	120	713
0.23	5930	27300						
0.26	5240	27300						
0.30	4562	27300						
0.34	4037	27300	**K**	**87R57**	**DRN**	**63M4**	120	713
0.38	3609	27300	**KF**	**87R57**	**DRN**	**63M4**	130	713
0.44	3107	27300	**KA**	**87R57**	**DRN**	**63M4**	105	713
0.50	2728	27300	**KAF**	**87R57**	**DRN**	**63M4**	120	713
			K	**87R57**	**DRN**	**71MS4**	120	713
			KF	**87R57**	**DRN**	**71MS4**	130	713
0.59	2371	27300	**KA**	**87R57**	**DRN**	**71MS4**	110	713
			KAF	**87R57**	**DRN**	**71MS4**	120	713
			K	**87R57**	**DRN**	**71MS4**	120	713
0.67	2088	27300	**KF**	**87R57**	**DRN**	**71MS4**	130	713
0.76	1854	27300	**KA**	**87R57**	**DRN**	**71MS4**	105	713
			KAF	**87R57**	**DRN**	**71MS4**	120	713
			K	**87R57**	**DRN**	**71M4**	120	713
0.85	1657	27300	**KF**	**87R57**	**DRN**	**71M4**	130	713
1.0	1415	27300	**KA**	**87R57**	**DRN**	**71M4**	110	713
1.1	1229	27300	**KAF**	**87R57**	**DRN**	**71M4**	120	713
			K	**87R57**	**DRN**	**80MK4**	125	713
1.3	1078	27300	**KF**	**87R57**	**DRN**	**80MK4**	130	713
1.5	951	27300	**KA**	**87R57**	**DRN**	**80MK4**	110	713
1.7	837	27300	**KAF**	**87R57**	**DRN**	**80MK4**	125	713
			K	**87R57**	**DRN**	**80M4**	125	713
2.0	726	27300	**KF**	**87R57**	**DRN**	**80M4**	135	713
2.3	638	27300	**KA**	**87R57**	**DRN**	**80M4**	115	713
			KAF	**87R57**	**DRN**	**80M4**	125	713
			K	**87R57**	**DRN**	**90S4**	130	713
2.6	562	27300	**KF**	**87R57**	**DRN**	**90S4**	140	713
3.1	474	27300	**KA**	**87R57**	**DRN**	**90S4**	120	713
3.4	426	27300	**KAF**	**87R57**	**DRN**	**90S4**	135	713
			K	**87R57**	**DRN**	**90L4**	135	713
3.9	373	27300	**KF**	**87R57**	**DRN**	**90L4**	145	713
4.4	330	27300	**KA**	**87R57**	**DRN**	**90L4**	125	713
			KAF	**87R57**	**DRN**	**90L4**	135	713
4.9	294	27300	**K**	**87R57**	**DRN**	**100LS4**	140	713
5.8	250	27300	**KF**	**87R57**	**DRN**	**100LS4**	150	713
6.1	236	27300	**KA**	**87R57**	**DRN**	**100LS4**	125	713
7.2	201	27300	**KAF**	**87R57**	**DRN**	**100LS4**	140	713
			K	**87R57**	**DRN**	**100L4**	145	713
8.0	183	27300	**KF**	**87R57**	**DRN**	**100L4**	155	713
9.2	159	27300	**KA**	**87R57**	**DRN**	**100L4**	135	713
			KAF	**87R57**	**DRN**	**100L4**	150	713

$M_{a\ max}$ = 4300 Nm

n_a min^{-1}	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**	**DRN**	**63MS4**	180	713
0.12	11677	40000	**KF**	**97R57**	**DRN**	**63MS4**	200	713
0.13	10317	40000	**KA**	**97R57**	**DRN**	**63MS4**	160	713
0.15	9083	40000	**KAF**	**97R57**	**DRN**	**63MS4**	185	713
0.17	8054	40000						
0.20	6970	40000						

24832936/EN – 09/2018

$M_{a\ max}$ = 4300 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.23	6027	40000	**K**	**97R57**	**DRN**	**63M4**	180	713
0.26	5391	40000	**KF**	**97R57**	**DRN**	**63M4**	200	713
0.29	4669	40000	**KA**	**97R57**	**DRN**	**63M4**	160	713
0.34	4082	40000	**KAF**	**97R57**	**DRN**	**63M4**	185	713
			K	**97R57**	**DRN**	**71MS4**	180	713
0.39	3583	40000	**KF**	**97R57**	**DRN**	**71MS4**	200	713
0.45	3108	40000	**KA**	**97R57**	**DRN**	**71MS4**	160	713
			KAF	**97R57**	**DRN**	**71MS4**	185	713
			K	**97R57**	**DRN**	**71M4**	180	713
0.51	2757	40000	**KF**	**97R57**	**DRN**	**71M4**	200	713
			KA	**97R57**	**DRN**	**71M4**	165	713
			KAF	**97R57**	**DRN**	**71M4**	190	713
			K	**97R57**	**DRN**	**71M4**	180	713
0.58	2419	40000	**KF**	**97R57**	**DRN**	**71M4**	200	713
0.67	2123	40000	**KA**	**97R57**	**DRN**	**71M4**	165	713
			KAF	**97R57**	**DRN**	**71M4**	190	713
			K	**97R57**	**DRN**	**80MK4**	185	713
0.77	1856	40000	**KF**	**97R57**	**DRN**	**80MK4**	205	713
0.88	1625	40000	**KA**	**97R57**	**DRN**	**80MK4**	165	713
1.0	1430	40000	**KAF**	**97R57**	**DRN**	**80MK4**	190	713
			K	**97R57**	**DRN**	**80M4**	185	713
1.1	1261	40000	**KF**	**97R57**	**DRN**	**80M4**	205	713
1.3	1102	40000	**KA**	**97R57**	**DRN**	**80M4**	170	713
1.5	957	40000	**KAF**	**97R57**	**DRN**	**80M4**	195	713
			K	**97R57**	**DRN**	**90S4**	195	713
1.7	855	40000	**KF**	**97R57**	**DRN**	**90S4**	215	713
2.0	743	40000	**KA**	**97R57**	**DRN**	**90S4**	175	713
			KAF	**97R57**	**DRN**	**90S4**	200	713
			K	**97R57**	**DRN**	**90L4**	195	713
2.2	652	40000	**KF**	**97R57**	**DRN**	**90L4**	215	713
2.5	573	40000	**KA**	**97R57**	**DRN**	**90L4**	180	713
2.9	504	40000	**KAF**	**97R57**	**DRN**	**90L4**	205	713
			K	**97R57**	**DRN**	**100LS4**	200	713
3.3	437	40000	**KF**	**97R57**	**DRN**	**100LS4**	220	713
3.8	382	40000	**KA**	**97R57**	**DRN**	**100LS4**	180	713
4.2	342	40000	**KAF**	**97R57**	**DRN**	**100LS4**	205	713
			K	**97R57**	**DRN**	**100L4**	205	713
4.8	305	40000	**KF**	**97R57**	**DRN**	**100L4**	225	713
5.7	258	40000	**KA**	**97R57**	**DRN**	**100L4**	190	713
			KAF	**97R57**	**DRN**	**100L4**	215	713
			K	**97R57**	**DRN**	**112M4**	215	713
6.3	232	40000	**KF**	**97R57**	**DRN**	**112M4**	235	713
7.3	199	40000	**KA**	**97R57**	**DRN**	**112M4**	200	713
			KAF	**97R57**	**DRN**	**112M4**	225	713

$M_{a\ max}$ = 7200 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
			K	**107R77**	**DRN**	**132M4**	375	713
8.4	174	65000	**KF**	**107R77**	**DRN**	**132M4**	385	713
			KA	**107R77**	**DRN**	**132M4**	350	713
			KAF	**107R77**	**DRN**	**132M4**	370	713
			K	**107R77**	**DRN**	**132L4**	385	713
9.5	154	65000	**KF**	**107R77**	**DRN**	**132L4**	395	713
11	140	65000	**KA**	**107R77**	**DRN**	**132L4**	355	713
			KAF	**107R77**	**DRN**	**132L4**	380	713

24832936/EN – 09/2018

$M_{a\ max}$ = 8000 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.10	14311	65000	K	107R77	DRN	63MS4	310	713
			KF	107R77	DRN	63MS4	320	713
			KA	107R77	DRN	63MS4	280	713
			KAF	107R77	DRN	63MS4	305	713
0.11	12211	65000	K	107R77	DRN	63M4	310	713
0.13	10677	65000	KF	107R77	DRN	63M4	320	713
0.14	9524	65000	KA	107R77	DRN	63M4	285	713
0.17	8328	65000	KAF	107R77	DRN	63M4	305	713
			K	107R77	DRN	71MS4	310	713
0.19	7270	65000	KF	107R77	DRN	71MS4	325	713
0.23	6184	65000	KA	107R77	DRN	71MS4	285	713
			KAF	107R77	DRN	71MS4	310	713
0.25	5662	65000	K	107R77	DRN	71M4	310	713
0.28	5138	65000	KF	107R77	DRN	71M4	325	713
0.32	4359	65000	KA	107R77	DRN	71M4	285	713
0.37	3810	65000	KAF	107R77	DRN	71M4	310	713
			K	107R77	DRN	80MK4	315	713
0.43	3358	65000	KF	107R77	DRN	80MK4	325	713
0.48	2977	65000	KA	107R77	DRN	80MK4	285	713
0.55	2599	65000	KAF	107R77	DRN	80MK4	310	713
			K	107R77	DRN	80M4	320	713
0.63	2286	65000	KF	107R77	DRN	80M4	330	713
0.74	1939	65000	KA	107R77	DRN	80M4	290	713
			KAF	107R77	DRN	80M4	315	713
0.85	1713	65000	K	107R77	DRN	90S4	320	713
0.94	1554	65000	KF	107R77	DRN	90S4	335	713
1.1	1336	65000	KA	107R77	DRN	90S4	295	713
			KAF	107R77	DRN	90S4	320	713
1.2	1166	65000	K	107R77	DRN	90L4	325	713
1.4	1030	65000	KF	107R77	DRN	90L4	335	713
1.6	904	65000	KA	107R77	DRN	90L4	300	713
			KAF	107R77	DRN	90L4	320	713
1.8	793	65000	K	107R77	DRN	100LS4	330	713
2.1	696	65000	KF	107R77	DRN	100LS4	340	713
2.4	615	65000	KA	107R77	DRN	100LS4	300	713
			KAF	107R77	DRN	100LS4	325	713
			K	107R77	DRN	100L4	335	713
2.8	522	65000	KF	107R77	DRN	100L4	350	713
3.2	461	65000	KA	107R77	DRN	100L4	310	713
			KAF	107R77	DRN	100L4	335	713
			K	107R77	DRN	112M4	345	713
3.6	408	65000	KF	107R77	DRN	112M4	360	713
4.0	364	65000	KA	107R77	DRN	112M4	320	713
			KAF	107R77	DRN	112M4	340	713
4.6	318	65000	K	107R77	DRN	132S4	355	713
5.1	286	65000	KF	107R77	DRN	132S4	370	713
5.8	251	65000	KA	107R77	DRN	132S4	330	713
			KAF	107R77	DRN	132S4	355	713
			K	107R77	DRN	132M4	375	713
6.6	222	65000	KF	107R77	DRN	132M4	385	713
7.5	196	65000	KA	107R77	DRN	132M4	350	713
			KAF	107R77	DRN	132M4	370	713

$M_{a\ max}$ = 12000 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
7.3	200	79700	K	127R87	DRN	160M4	600	713
			KF	127R87	DRN	160M4	640	713
			KA	127R87	DRN	160M4	570	713
			KAF	127R87	DRN	160M4	610	713

24832936/EN – 09/2018

$M_{a\ max}$ = 12000 Nm

n_a min^{-1}	i	F_{Ra} [1] N						m kg	
			K	**127R87**	**DRN**	**160L4**		610	713
8.9	166	79700	**KF**	**127R87**	**DRN**	**160L4**		650	713
10	147	79700	**KA**	**127R87**	**DRN**	**160L4**		580	713
			KAF	**127R87**	**DRN**	**160L4**		620	713

$M_{a\ max}$ = 13000 Nm

n_a min^{-1}	i	F_{Ra} [1] N						m kg	
0.08	17550	79200	**K**	**127R77**	**DRN**	**63M4**		470	713
0.09	16006	79200	**KF**	**127R77**	**DRN**	**63M4**		510	713
0.09	14975	79200	**KA**	**127R77**	**DRN**	**63M4**		445	713
			KAF	**127R77**	**DRN**	**63M4**		480	713
0.11	12440	79200	**K**	**127R77**	**DRN**	**71MS4**		470	713
0.13	10915	79200	**KF**	**127R77**	**DRN**	**71MS4**		510	713
0.14	9819	79200	**KA**	**127R77**	**DRN**	**71MS4**		445	713
			KAF	**127R77**	**DRN**	**71MS4**		480	713
0.17	8443	79200	**K**	**127R77**	**DRN**	**71M4**		475	713
0.19	7482	79200	**KF**	**127R77**	**DRN**	**71M4**		510	713
0.22	6565	79200	**KA**	**127R77**	**DRN**	**71M4**		445	713
			KAF	**127R77**	**DRN**	**71M4**		480	713
0.25	5804	79200	**K**	**127R77**	**DRN**	**80MK4**		475	713
0.29	5027	79200	**KF**	**127R77**	**DRN**	**80MK4**		520	713
0.32	4423	79200	**KA**	**127R77**	**DRN**	**80MK4**		445	713
			KAF	**127R77**	**DRN**	**80MK4**		485	713
0.37	3889	79200	**K**	**127R77**	**DRN**	**80M4**		480	713
0.43	3311	79200	**KF**	**127R77**	**DRN**	**80M4**		520	713
0.48	3009	79200	**KA**	**127R77**	**DRN**	**80M4**		450	713
			KAF	**127R77**	**DRN**	**80M4**		490	713
0.56	2607	79200	**K**	**127R77**	**DRN**	**90S4**		485	713
0.64	2268	79200	**KF**	**127R77**	**DRN**	**90S4**		530	713
			KA	**127R77**	**DRN**	**90S4**		455	713
			KAF	**127R77**	**DRN**	**90S4**		495	713
0.76	1926	79200	**K**	**127R77**	**DRN**	**90L4**		485	713
0.83	1757	79200	**KF**	**127R77**	**DRN**	**90L4**		530	713
0.95	1541	79200	**KA**	**127R77**	**DRN**	**90L4**		455	713
			KAF	**127R77**	**DRN**	**90L4**		495	713
1.1	1342	79200	**K**	**127R77**	**DRN**	**100LS4**		490	713
1.2	1177	79200	**KF**	**127R77**	**DRN**	**100LS4**		530	713
1.4	1025	79200	**KA**	**127R77**	**DRN**	**100LS4**		460	713
			KAF	**127R77**	**DRN**	**100LS4**		500	713
			K	**127R77**	**DRN**	**100L4**		495	713
1.6	899	79200	**KF**	**127R77**	**DRN**	**100L4**		540	713
1.8	790	79200	**KA**	**127R77**	**DRN**	**100L4**		470	713
			KAF	**127R77**	**DRN**	**100L4**		510	713
2.1	704	79200	**K**	**127R77**	**DRN**	**112M4**		510	713
2.4	610	79200	**KF**	**127R77**	**DRN**	**112M4**		550	713
2.7	549	79200	**KA**	**127R77**	**DRN**	**112M4**		480	713
			KAF	**127R77**	**DRN**	**112M4**		520	713
3.1	477	79200	**K**	**127R77**	**DRN**	**132S4**		520	713
3.5	418	79200	**KF**	**127R77**	**DRN**	**132S4**		560	713
			KA	**127R77**	**DRN**	**132S4**		490	713
			KAF	**127R77**	**DRN**	**132S4**		530	713
2.7	536	79200	**K**	**127R87**	**DRN**	**132S4**		540	713
3.1	473	79200	**KF**	**127R87**	**DRN**	**132S4**		580	713
3.5	418	79200	**KA**	**127R87**	**DRN**	**132S4**		510	713
			KAF	**127R87**	**DRN**	**132S4**		550	713
4.0	367	79200	**K**	**127R87**	**DRN**	**132M4**		560	713
4.4	330	79200	**KF**	**127R87**	**DRN**	**132M4**		600	713
			KA	**127R87**	**DRN**	**132M4**		530	713
			KAF	**127R87**	**DRN**	**132M4**		560	713

24832936/EN – 09/2018

$M_{a\ max}$ = 13000 Nm									
n_a min^{-1}	i	F_{Ra} [1] N						m kg	
5.1 5.8	287 253	79200 79200	K KF KA KAF	127R87 127R87 127R87 127R87	DRN DRN DRN DRN	132L4 132L4 132L4 132L4	560 610 540 570	713 713 713 713
6.9	213	79200	K KF KA KAF	127R87 127R87 127R87 127R87	DRN DRN DRN DRN	160M4 160M4 160M4 160M4	600 640 570 610	713 713 713 713

$M_{a\ max}$ = 20000 Nm									
n_a min^{-1}	i	F_{Ra} [1] N						m kg	
0.08	17679	111100	K KF KA KAF	157R97 157R97 157R97 157R97	DRN DRN DRN DRN	71MS4 71MS4 71MS4 71MS4	790 870 750 810	713 713 713 713
0.09 0.10 0.11 0.12 0.14	15729 14721 13097 11368 10114	111100 111100 111100 111100 111100	K KF KA KAF	157R97 157R97 157R97 157R97	DRN DRN DRN DRN	71M4 71M4 71M4 71M4	790 870 750 810	713 713 713 713
0.16 0.19 0.21	8718 7734 6881	111100 111100 111100	K KF KA KAF	157R97 157R97 157R97 157R97	DRN DRN DRN DRN	80MK4 80MK4 80MK4 80MK4	790 870 750 810	713 713 713 713
0.24 0.28	5931 5074	111100 111100	K KF KA KAF	157R97 157R97 157R97 157R97	DRN DRN DRN DRN	80M4 80M4 80M4 80M4	800 870 760 820	713 713 713 713
0.32 0.37 0.41	4514 3979 3516	111100 111100 111100	K KF KA KAF	157R97 157R97 157R97 157R97	DRN DRN DRN DRN	90S4 90S4 90S4 90S4	800 880 760 820	713 713 713 713
0.48 0.56	3051 2610	111100 111100	K KF KA KAF	157R97 157R97 157R97 157R97	DRN DRN DRN DRN	90L4 90L4 90L4 90L4	800 880 770 830	713 713 713 713
0.62 0.71 0.80	2322 2029 1805	111100 111100 111100	K KF KA KAF	157R97 157R97 157R97 157R97	DRN DRN DRN DRN	100LS4 100LS4 100LS4 100LS4	810 890 770 830	713 713 713 713
0.87	1659	111100	K KF KA KAF	157R97 157R97 157R97 157R97	DRN DRN DRN DRN	100LS4 100LS4 100LS4 100LS4	800 880 770 830	713 713 713 713
1.1 1.2	1365 1229	111100 111100	K KF KA KAF	157R97 157R97 157R97 157R97	DRN DRN DRN DRN	100L4 100L4 100L4 100L4	810 890 780 830	713 713 713 713
1.3 1.6 1.7	1093 942 854	111100 111100 111100	K KF KA KAF	157R97 157R97 157R97 157R97	DRN DRN DRN DRN	112M4 112M4 112M4 112M4	820 900 780 840	713 713 713 713
1.9 2.2	756 661	111100 111100	K KF KA KAF	157R97 157R97 157R97 157R97	DRN DRN DRN DRN	132S4 132S4 132S4 132S4	830 910 800 850	713 713 713 713
2.6 2.9	567 504	111100 111100	K KF KA KAF	157R97 157R97 157R97 157R97	DRN DRN DRN DRN	132M4 132M4 132M4 132M4	850 930 810 870	713 713 713 713

24832936/EN – 09/2018

$M_{a\ max}$ = 20000 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
			K	157R97	DRN	132L4	860	713
3.4	434	111100	KF	157R97	DRN	132L4	940	713
3.9	379	111100	KA	157R97	DRN	132L4	820	713
			KAF	157R97	DRN	132L4	880	713
			K	157R97	DRN	160M4	890	713
4.4	333	111100	KF	157R97	DRN	160M4	970	713
			KA	157R97	DRN	160M4	850	713
			KAF	157R97	DRN	160M4	910	713
			K	157R97	DRN	160L4	910	713
5.1	291	111100	KF	157R97	DRN	160L4	990	713
			KA	157R97	DRN	160L4	870	713
			KAF	157R97	DRN	160L4	930	713
			K	157R107	DRN	132L4	910	713
3.8	385	111100	KF	157R107	DRN	132L4	980	713
			KA	157R107	DRN	132L4	870	713
			KAF	157R107	DRN	132L4	930	713
			K	157R107	DRN	160M4	940	713
4.5	325	111100	KF	157R107	DRN	160M4	1020	713
			KA	157R107	DRN	160M4	900	713
			KAF	157R107	DRN	160M4	960	713
			K	157R107	DRN	160L4	950	713
4.9	299	111100	KF	157R107	DRN	160L4	1030	713
5.8	253	111100	KA	157R107	DRN	160L4	920	713
6.4	230	111100	KAF	157R107	DRN	160L4	980	713
			K	157R107	DRN	180M4	980	713
6.9	213	111100	KF	157R107	DRN	180M4	1050	713
7.9	187	111100	KA	157R107	DRN	180M4	940	713
			KAF	157R107	DRN	180M4	1000	713
			K	157R107	DRN	180L4	990	713
9.4	157	111000	KF	157R107	DRN	180L4	1070	713
			KA	157R107	DRN	180L4	950	713
			KAF	157R107	DRN	180L4	1010	713
			K	157R107	DRN	200L4	1100	713
12	122	99700	KF	157R107	DRN	200L4	1180	713
			KA	157R107	DRN	200L4	1060	713
			KAF	157R107	DRN	200L4	1120	713
			K	157R107	DRN	225S4	1130	713
14	107	94000	KF	157R107	DRN	225S4	1210	713
			KA	157R107	DRN	225S4	1090	713
			KAF	157R107	DRN	225S4	1150	713

$M_{a\ max}$ = 35000 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.07	19723	150000	K	167R97	DRN	71M4	1180	713
			KH	167R97	DRN	71M4	1150	713
0.08	17406	150000						
0.10	15000	150000	K	167R97	DRN	80MK4	1190	713
0.11	13238	150000	KH	167R97	DRN	80MK4	1150	713
0.12	11573	150000						
0.14	10264	150000	K	167R97	DRN	80M4	1190	713
0.17	8628	150000	KH	167R97	DRN	80M4	1150	713
0.22	6562	150000	K	167R97	DRN	90S4	1190	713
			KH	167R97	DRN	90S4	1160	713
0.27	5355	150000						
0.31	4788	150000	K	167R97	DRN	90L4	1200	713
0.36	4079	150000	KH	167R97	DRN	90L4	1160	713
0.43	3376	150000	K	167R97	DRN	100LS4	1200	713
0.53	2755	150000	KH	167R97	DRN	100LS4	1160	713
0.64	2263	150000	K	167R97	DRN	100L4	1210	713
			KH	167R97	DRN	100L4	1170	713

24832936/EN – 09/2018

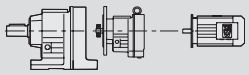
$M_{a\ max}$ = 35000 Nm

n_a min^{-1}	i	F_{Ra} [1] N						m kg	
0.67	2182	150000	**K**	**167R97**	**DRN**	**100L4**		1210	713
			KH	**167R97**	**DRN**	**100L4**		1170	713
0.86	1704	150000	**K**	**167R97**	**DRN**	**112M4**		1210	713
			KH	**167R97**	**DRN**	**112M4**		1180	713
1.0	1408	150000							
1.1	1296	150000	**K**	**167R97**	**DRN**	**132S4**		1230	713
1.3	1101	150000	**KH**	**167R97**	**DRN**	**132S4**		1190	713
1.6	944	150000	**K**	**167R97**	**DRN**	**132M4**		1240	713
1.7	843	150000	**KH**	**167R97**	**DRN**	**132M4**		1210	713
1.9	757	150000	**K**	**167R97**	**DRN**	**132L4**		1250	713
			KH	**167R97**	**DRN**	**132L4**		1210	713
2.3	632	150000	**K**	**167R97**	**DRN**	**160M4**		1280	713
2.6	561	150000	**KH**	**167R97**	**DRN**	**160M4**		1250	713
3.1	481	150000	**K**	**167R97**	**DRN**	**160L4**		1300	713
3.5	423	150000	**KH**	**167R97**	**DRN**	**160L4**		1260	713
4.0	369	150000	**K**	**167R97**	**DRN**	**180M4**		1320	713
			KH	**167R97**	**DRN**	**180M4**		1280	713
4.7	318	150000	**K**	**167R107**	**DRN**	**180M4**		1370	713
			KH	**167R107**	**DRN**	**180M4**		1330	713
5.3	278	150000	**K**	**167R107**	**DRN**	**180L4**		1380	713
			KH	**167R107**	**DRN**	**180L4**		1350	713
6.1	244	150000							
6.9	213	150000	**K**	**167R107**	**DRN**	**200L4**		1490	713
7.2	206	150000	**KH**	**167R107**	**DRN**	**200L4**		1460	713
8.2	180	150000	**K**	**167R107**	**DRN**	**225S4**		1530	713
9.3	160	150000	**KH**	**167R107**	**DRN**	**225S4**		1490	713
11	135	150000	**K**	**167R107**	**DRN**	**225M4**		1530	713
			KH	**167R107**	**DRN**	**225M4**		1490	713

$M_{a\ max}$ = 53000 Nm

n_a min^{-1}	i	F_{Ra} [1] N						m kg	
0.04	32625	190000	**K**	**187R97**	**DRN**	**71M4**		1770	713
0.05	27165	190000	**KH**	**187R97**	**DRN**	**71M4**		1700	713
0.06	24353	190000	**K**	**187R97**	**DRN**	**80MK4**		1770	713
0.07	19144	190000	**KH**	**187R97**	**DRN**	**80MK4**		1700	713
0.08	16978	190000							
0.10	14272	190000	**K**	**187R97**	**DRN**	**80M4**		1770	713
0.11	13116	190000	**KH**	**187R97**	**DRN**	**80M4**		1700	713
0.12	11647	190000							
0.14	10413	190000	**K**	**187R97**	**DRN**	**90S4**		1780	713
0.16	9363	190000	**KH**	**187R97**	**DRN**	**90S4**		1710	713
0.18	8126	190000							
0.20	7343	190000	**K**	**187R97**	**DRN**	**90L4**		1780	713
0.22	6747	190000	**KH**	**187R97**	**DRN**	**90L4**		1710	713
0.24	5991	190000							
0.27	5358	190000	**K**	**187R97**	**DRN**	**100LS4**		1780	713
0.30	4817	190000	**KH**	**187R97**	**DRN**	**100LS4**		1720	713
0.33	4370	190000							
0.52	2818	190000	**K**	**187R97**	**DRN**	**112M4**		1800	713
			KH	**187R97**	**DRN**	**112M4**		1730	713
0.40	3609	190000	**K**	**187R97**	**DRN**	**100L4**		1790	713
0.48	3062	190000	**KH**	**187R97**	**DRN**	**100L4**		1720	713
0.58	2519	190000	**K**	**187R97**	**DRN**	**112M4**		1800	713
0.65	2268	190000	**KH**	**187R97**	**DRN**	**112M4**		1730	713
0.71	2054	190000	**K**	**187R97**	**DRN**	**132S4**		1810	713
0.80	1821	190000	**KH**	**187R97**	**DRN**	**132S4**		1740	713
0.91	1605	190000							
1.1	1395	190000	**K**	**187R97**	**DRN**	**132M4**		1830	713
1.2	1196	190000	**KH**	**187R97**	**DRN**	**132M4**		1760	713

24832936/EN – 09/2018

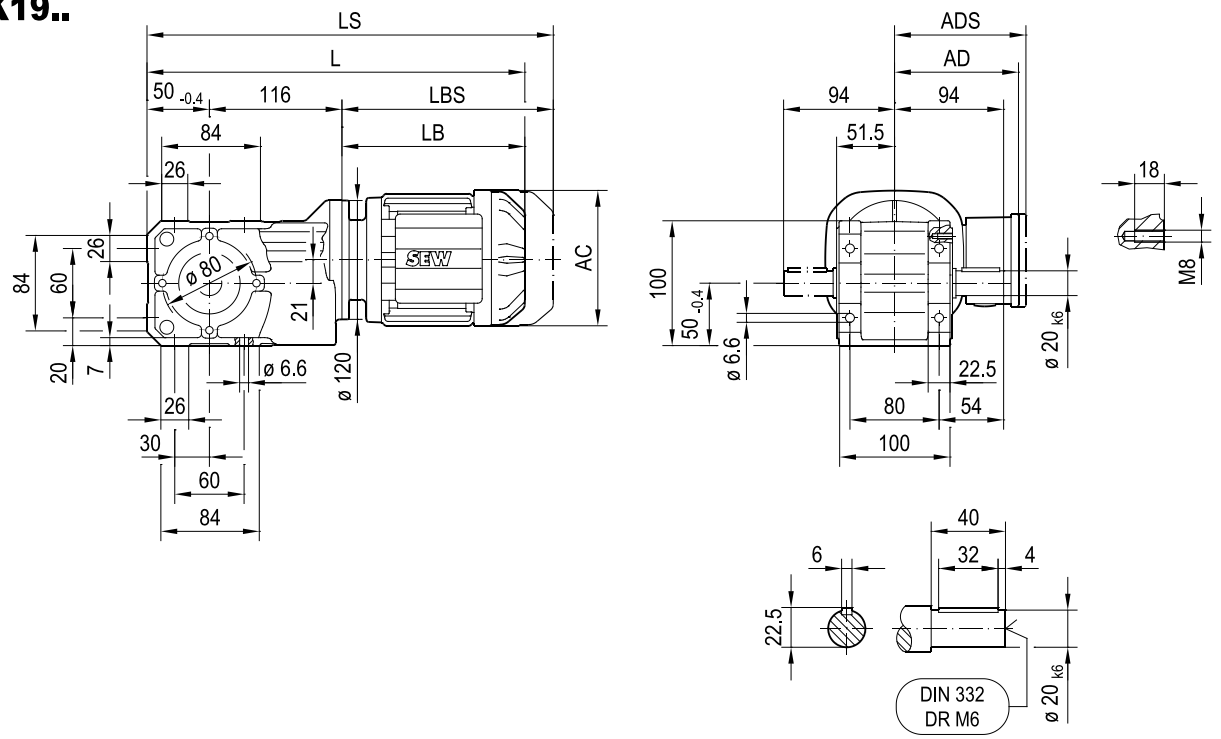
$M_{a\ max}$ = 53000 Nm									
n_a min^{-1}	i	F_{Ra} [1] N						m kg	
1.4	1046	190000	**K**	**187R97**	**DRN**	**132L4**		1830	713
			KH	**187R97**	**DRN**	**132L4**		1770	713
1.6	945	190000	**K**	**187R97**	**DRN**	**160M4**		1870	713
			KH	**187R97**	**DRN**	**160M4**		1800	713
2.0	738	190000	**K**	**187R97**	**DRN**	**160L4**		1880	713
2.4	621	190000	**KH**	**187R97**	**DRN**	**160L4**		1820	713
2.8	527	190000	**K**	**187R97**	**DRN**	**180M4**		1900	713
			KH	**187R97**	**DRN**	**180M4**		1840	713
1.8	835	190000	**K**	**187R107**	**DRN**	**160M4**		1910	713
			KH	**187R107**	**DRN**	**160M4**		1850	713
2.0	729	190000	**K**	**187R107**	**DRN**	**160L4**		1930	713
2.4	622	190000	**KH**	**187R107**	**DRN**	**160L4**		1860	713
2.8	520	190000	**K**	**187R107**	**DRN**	**180M4**		1950	713
			KH	**187R107**	**DRN**	**180M4**		1880	713
3.2	454	190000	**K**	**187R107**	**DRN**	**180L4**		1970	713
			KH	**187R107**	**DRN**	**180L4**		1900	713
4.2	355	190000	**K**	**187R107**	**DRN**	**200L4**		2080	713
			KH	**187R107**	**DRN**	**200L4**		2010	713
5.7	261	190000	**K**	**187R107**	**DRN**	**225S4**		2110	713
			KH	**187R107**	**DRN**	**225S4**		2040	713
6.7	221	190000	**K**	**187R107**	**DRN**	**225M4**		2110	713
			KH	**187R107**	**DRN**	**225M4**		2040	713

24832936/EN – 09/2018

10.5 K..DRN.. dimension sheets in mm

33 008 01 15

K19..



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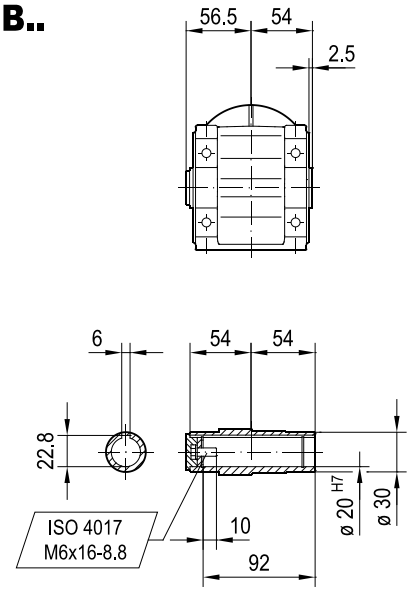

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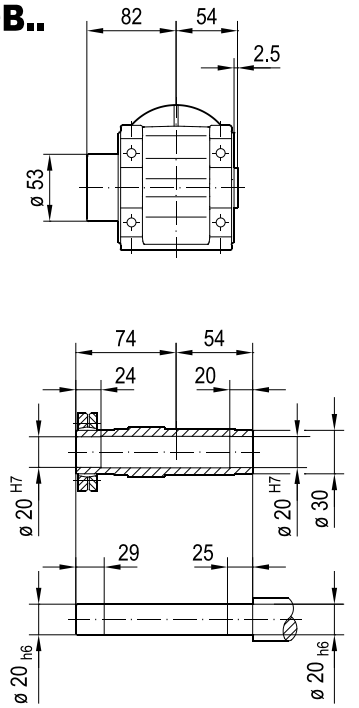
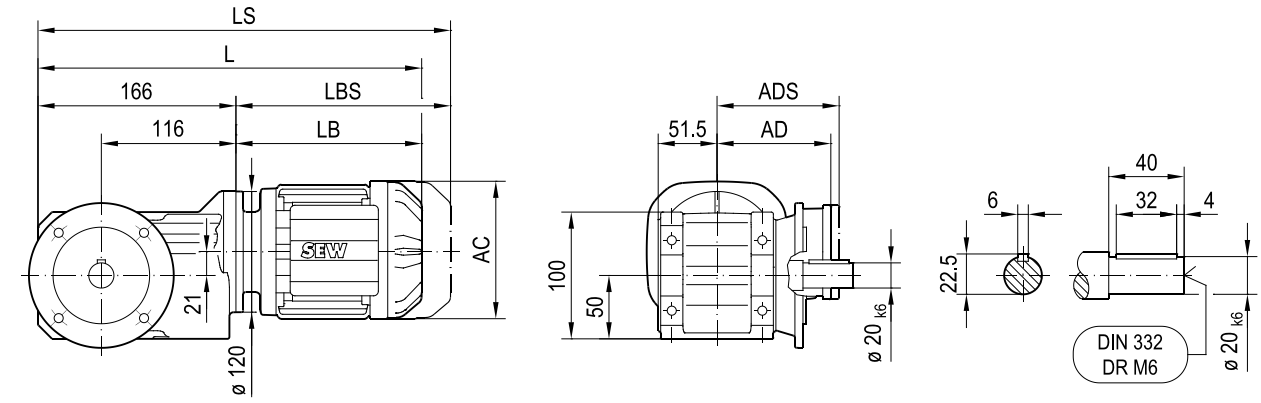


(→ 📖 7.3)	DRN							
	63MS	63M	71MS	71M	80MK	80M	90S	
AC	115	115	139	139	156	156	179	
AD	98	98	118	118	128	128	140	
ADS	98	98	129	129	139	139	150	
L	356	370	372	392	403	448	449	
LS	412	426	439	459	484	529	543	
LB	190	204	206	226	237	282	283	
LBS	246	260	273	293	318	363	377	

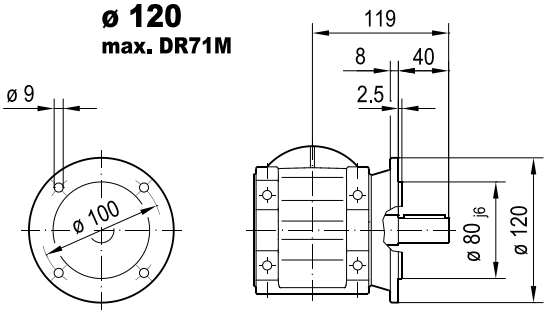
24832936/EN – 09/2018

33 009 00 15

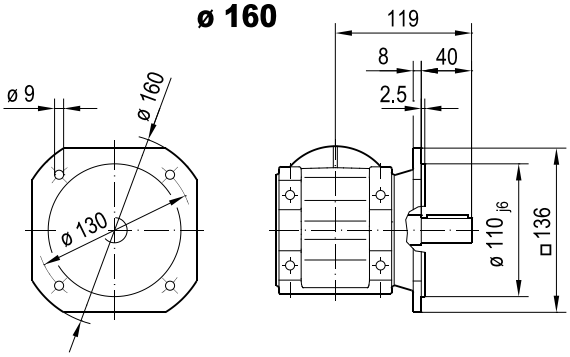
KF19B..



ø 120
max. DR71M



ø 160



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ø 120
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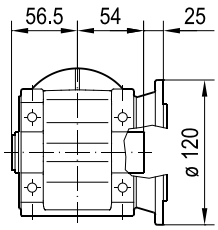

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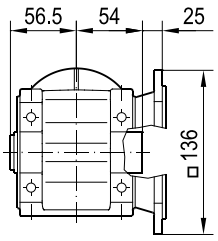
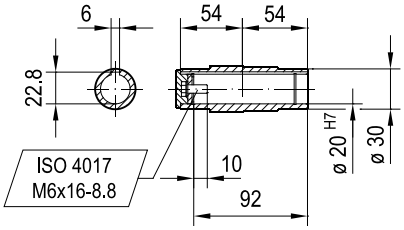
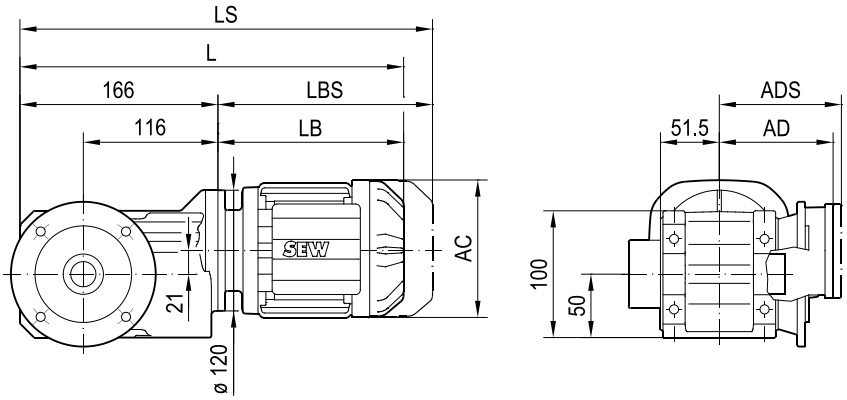




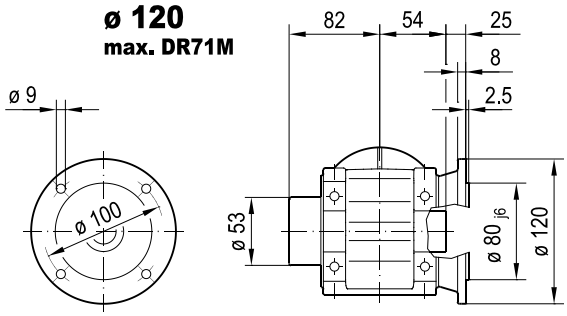
(→ 📖 7.3)	DRN							
	63MS	63M	71MS	71M	80MK	80M	90S	
AC	115	115	139	139	156	156	179	
AD	98	98	118	118	128	128	140	
ADS	98	98	129	129	139	139	150	
L	356	370	372	392	403	448	449	
LS	412	426	439	459	484	529	543	
LB	190	204	206	226	237	282	283	
LBS	246	260	273	293	318	363	377	

33 010 01 15

KHF19B..



ø 120
max. DR71M



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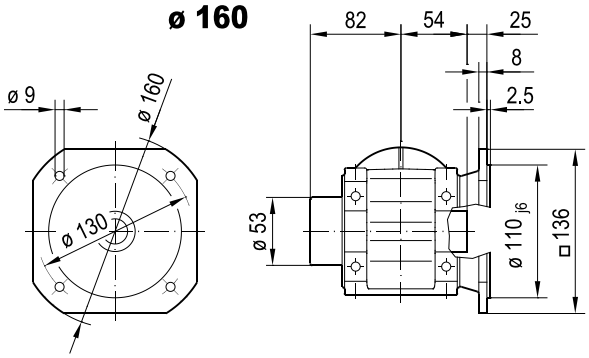
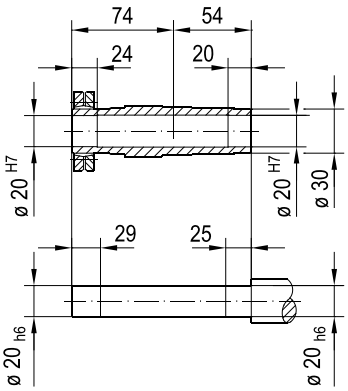


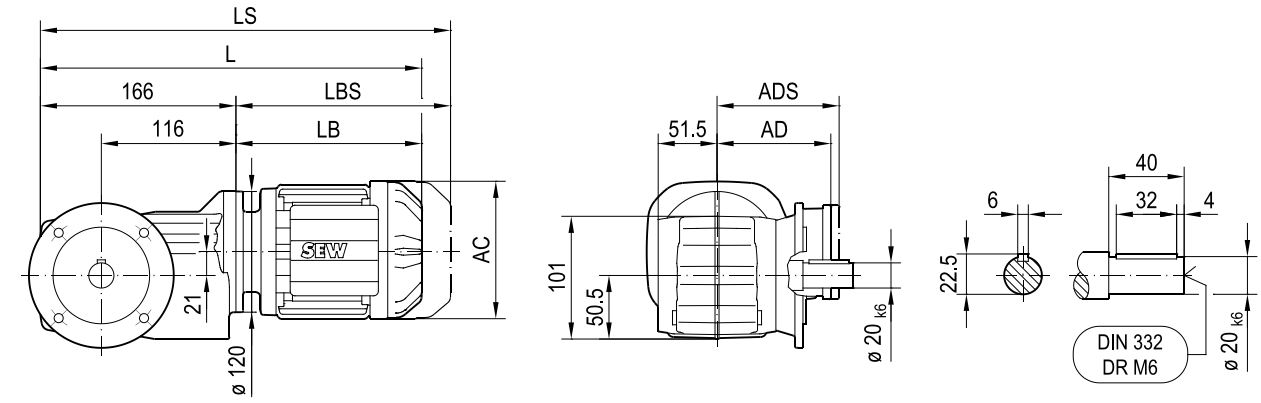


(→ 📖 7.3)	DRN							
	63MS	63M	71MS	71M	80MK	80M	90S	
AC	115	115	139	139	156	156	179	
AD	98	98	118	118	128	128	140	
ADS	98	98	129	129	139	139	150	
L	356	370	372	392	403	448	449	
LS	412	426	439	459	484	529	543	
LB	190	204	206	226	237	282	283	
LBS	246	260	273	293	318	363	377	

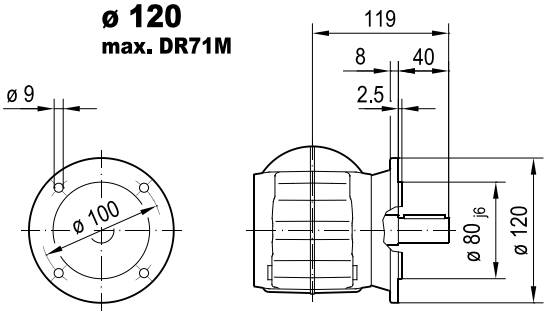
24832936/EN – 09/2018

33 011 00 15

KF19..



ø 120
max. DR71M



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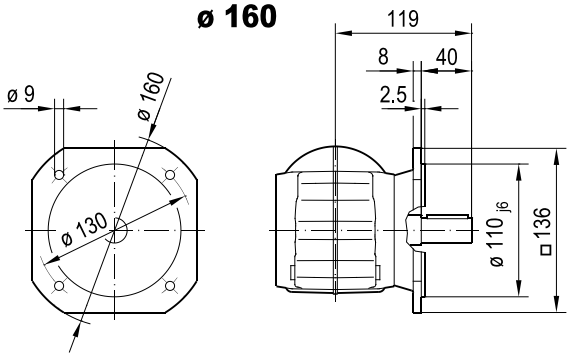

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ø 120
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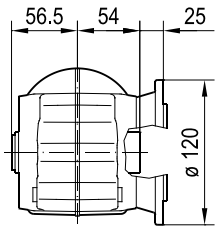

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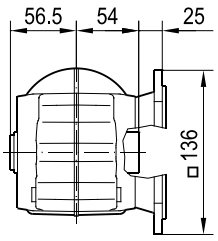
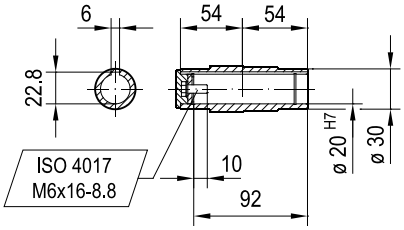


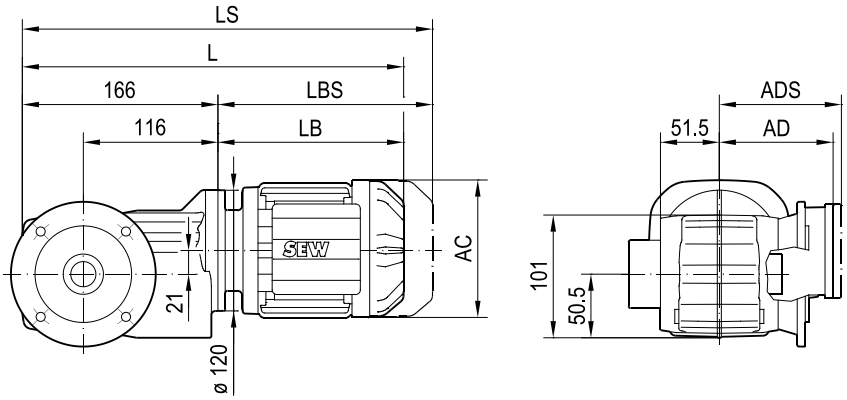


(→ 📖 7.3)	DRN							
	63MS	63M	71MS	71M	80MK	80M	90S	
AC	115	115	139	139	156	156	179	
AD	98	98	118	118	128	128	140	
ADS	98	98	129	129	139	139	150	
L	356	370	372	392	403	448	449	
LS	412	426	439	459	484	529	543	
LB	190	204	206	226	237	282	283	
LBS	246	260	273	293	318	363	377	

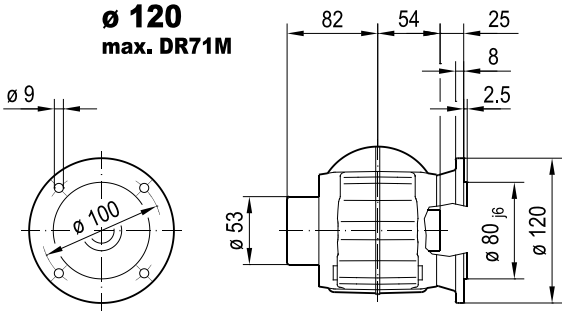
24832936/EN – 09/2018

KHF19..

33 013 01 15



ø 120
max. DR71M



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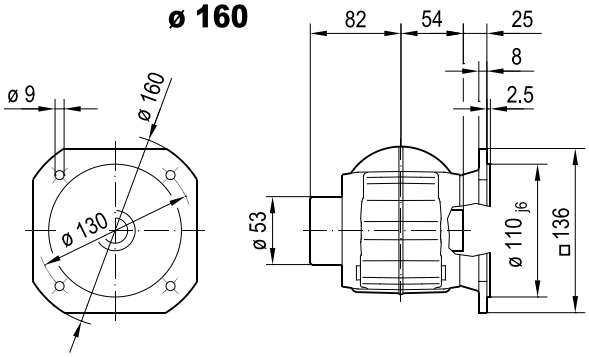
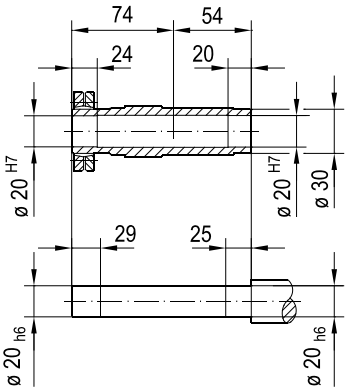


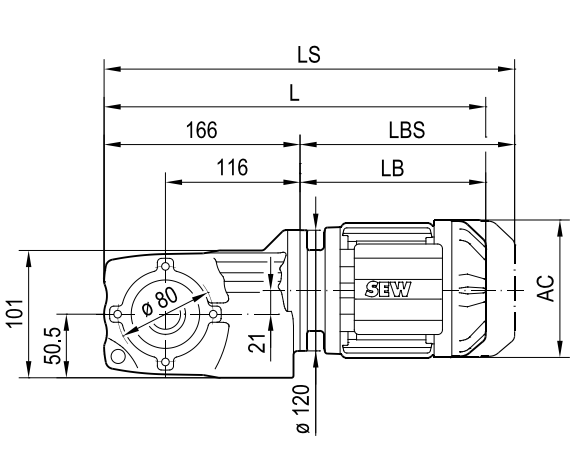


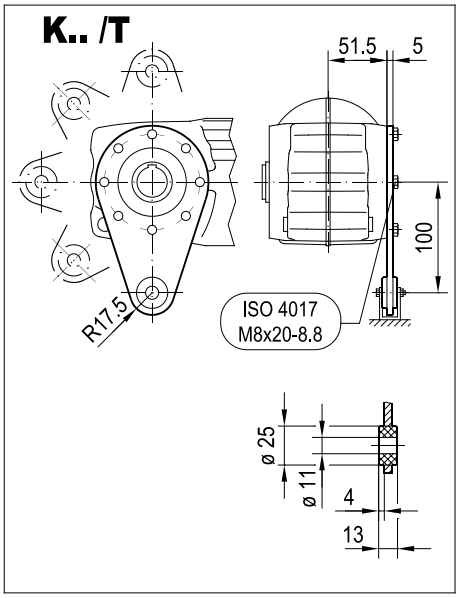
(→ 📖 7.3)	DRN							
	63MS	63M	71MS	71M	80MK	80M	90S	
AC	115	115	139	139	156	156	179	
AD	98	98	118	118	128	128	140	
ADS	98	98	129	129	139	139	150	
L	356	370	372	392	403	448	449	
LS	412	426	439	459	484	529	543	
LB	190	204	206	226	237	282	283	
LBS	246	260	273	293	318	363	377	

24832936/EN – 09/2018

33 014 01 15

KA19..





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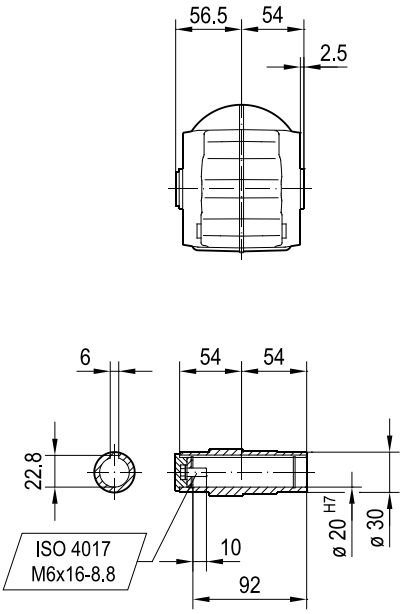

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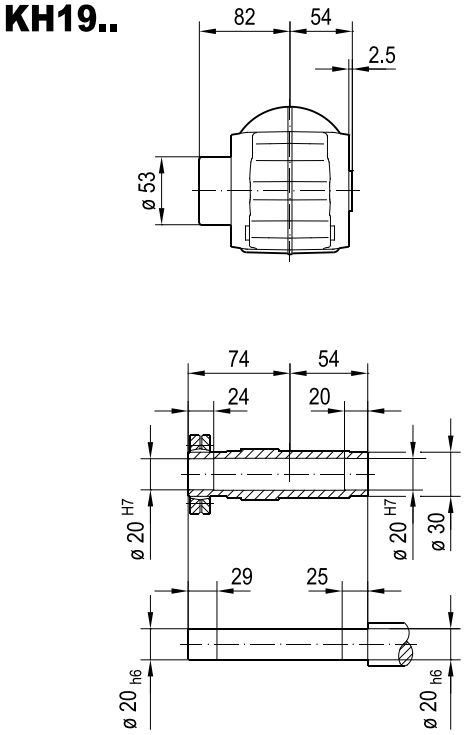
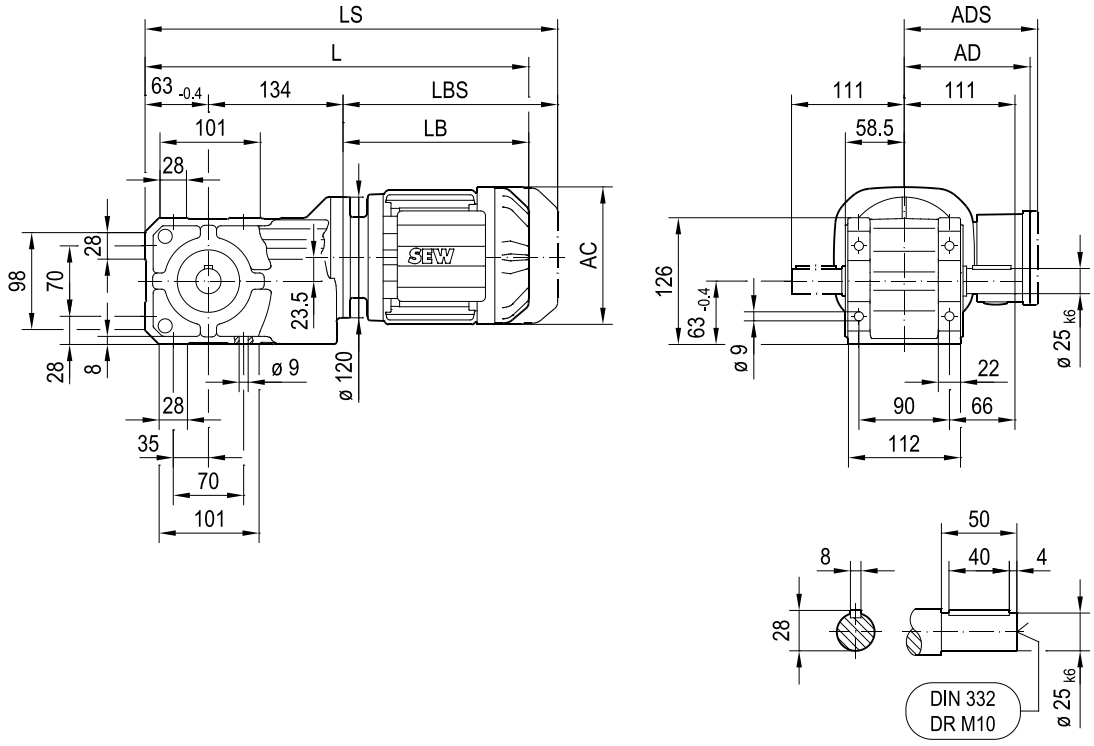


(→ 📖 7.3)	DRN							
	63MS	63M	71MS	71M	80MK	80M	90S	
AC	115	115	139	139	156	156	179	
AD	98	98	118	118	128	128	140	
ADS	98	98	129	129	139	139	150	
L	356	370	372	392	403	448	449	
LS	412	426	439	459	484	529	543	
LB	190	204	206	226	237	282	283	
LBS	246	260	273	293	318	363	377	

24832936/EN – 09/2018

K29..

33 015 01 15



(→ 📖 7.3)	DRN							
	63MS	63M	71MS	71M	80MK	80M	90S	90L
AC	115	115	139	139	156	156	179	179
AD	98	98	118	118	128	128	140	140
ADS	98	98	129	129	139	139	150	150
L	387	401	403	423	434	479	480	512
LS	443	457	470	490	515	560	574	606
LB	190	204	206	226	237	282	283	315
LBS	246	260	273	293	318	363	377	409

24832936/EN – 09/2018

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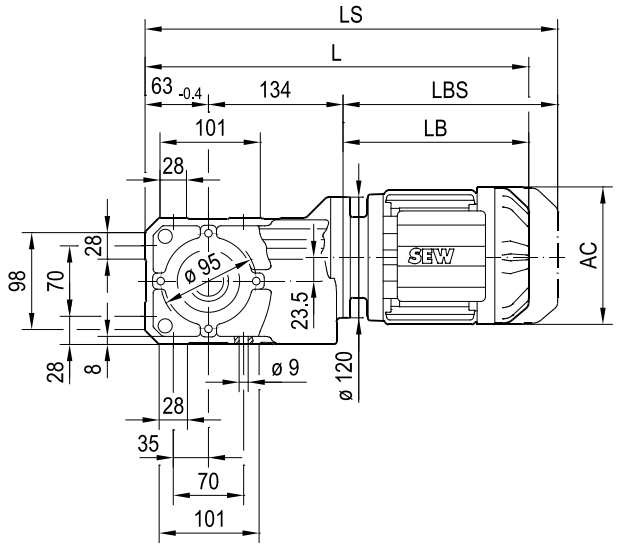
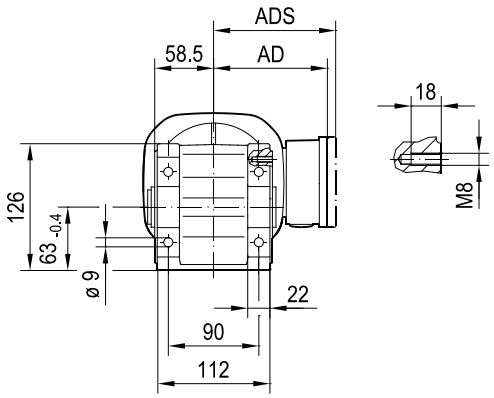
KA29B..





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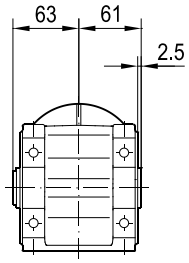
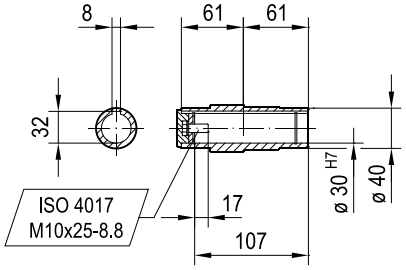
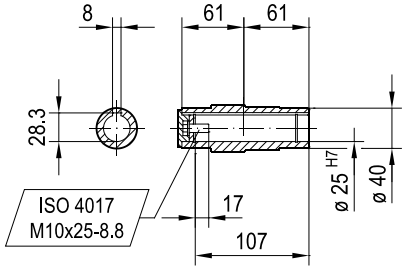


ø 30 H7
DIN 6885-3



ø 25 H7



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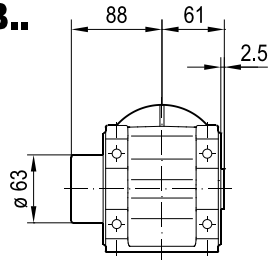

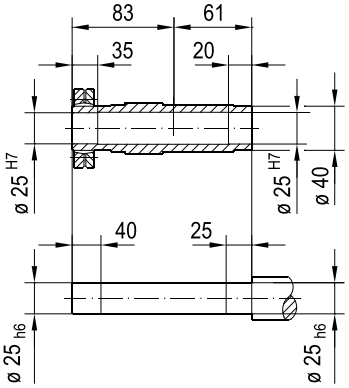

(→ 📖 7.3)	DRN							
	63MS	63M	71MS	71M	80MK	80M	90S	90L
AC	115	115	139	139	156	156	179	179
AD	98	98	118	118	128	128	140	140
ADS	98	98	129	129	139	139	150	150
L	387	401	403	423	434	479	480	512
LS	443	457	470	490	515	560	574	606
LB	190	204	206	226	237	282	283	315
LBS	246	260	273	293	318	363	377	409

24832936/EN – 09/2018

33 016 00 15

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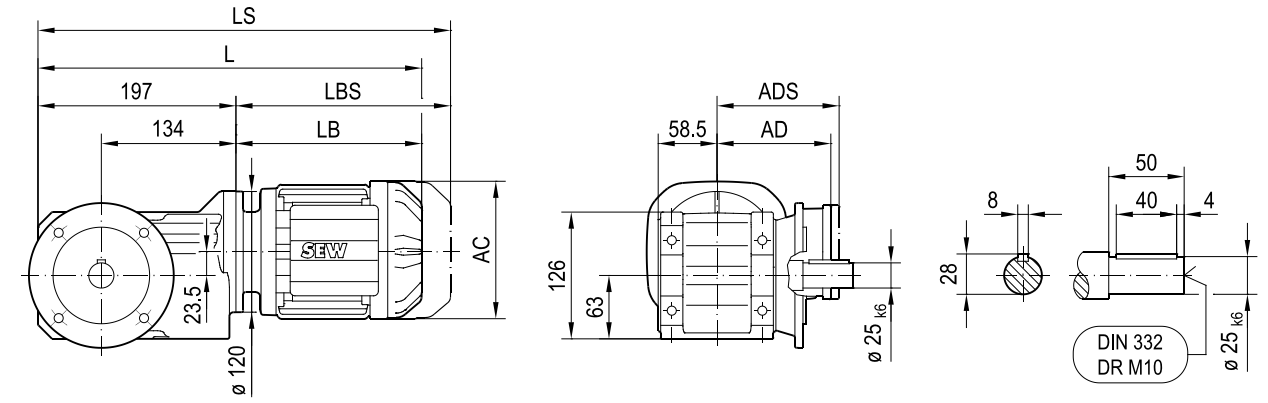

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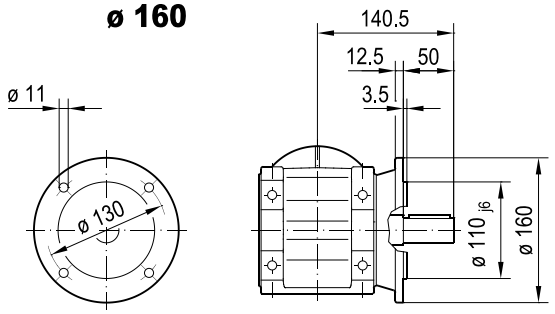

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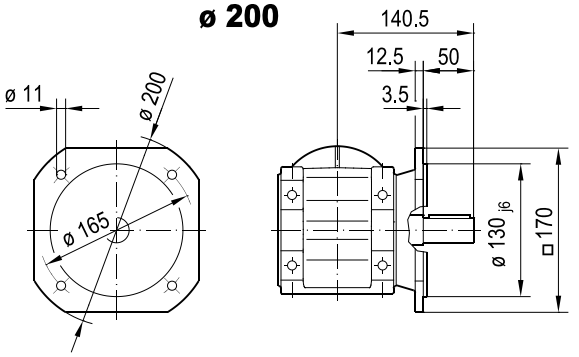

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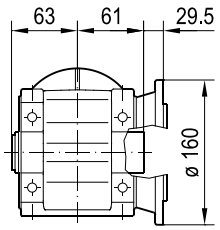

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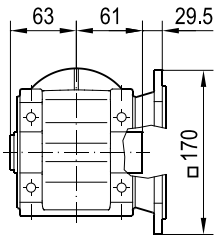
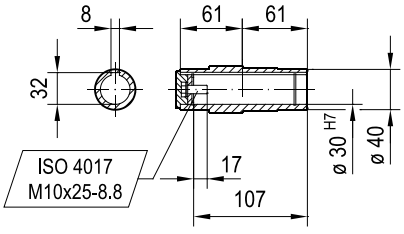
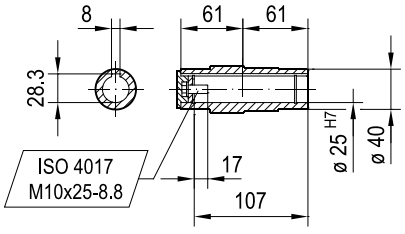


ø 30 H7
DIN 6885-3



ø 25 H7



(→ 📖 7.3)	DRN							
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AC	115	115	139	139	156	156	179	179
AD	98	98	118	118	128	128	140	140
ADS	98	98	129	129	139	139	150	150
L	387	401	403	423	434	479	480	512
LS	443	457	470	490	515	560	574	606
LB	190	204	206	226	237	282	283	315
LBS	246	260	273	293	318	363	377	409

24832936/EN – 09/2018

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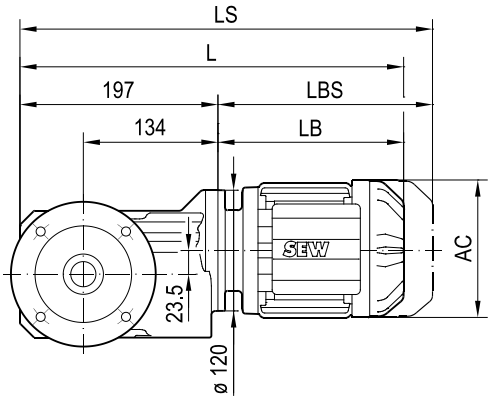

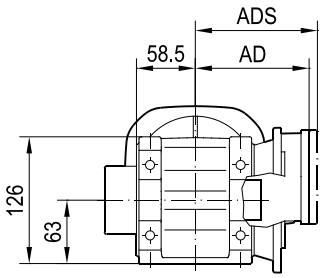

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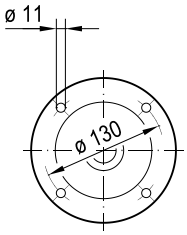

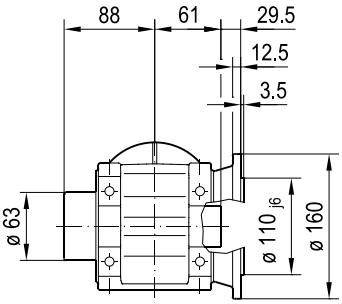

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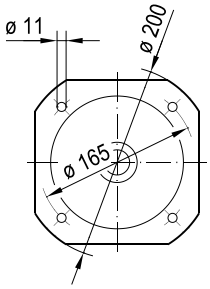

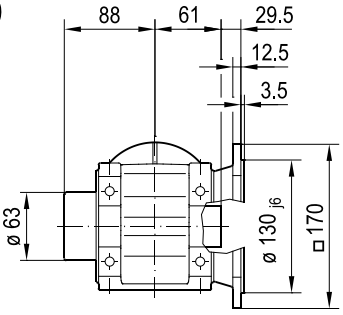

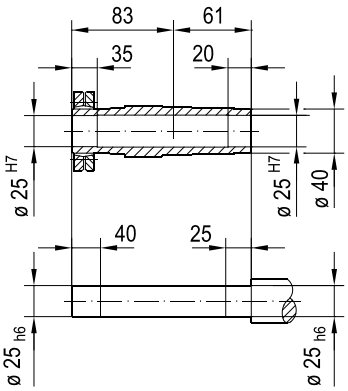

(→ 📖 7.3)	DRN							
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AC	115	115	139	139	156	156	179	179
AD	98	98	118	118	128	128	140	140
ADS	98	98	129	129	139	139	150	150
L	387	401	403	423	434	479	480	512
LS	443	457	470	490	515	560	574	606
LB	190	204	206	226	237	282	283	315
LBS	246	260	273	293	318	363	377	409

24832936/EN – 09/2018

33 018 00 15

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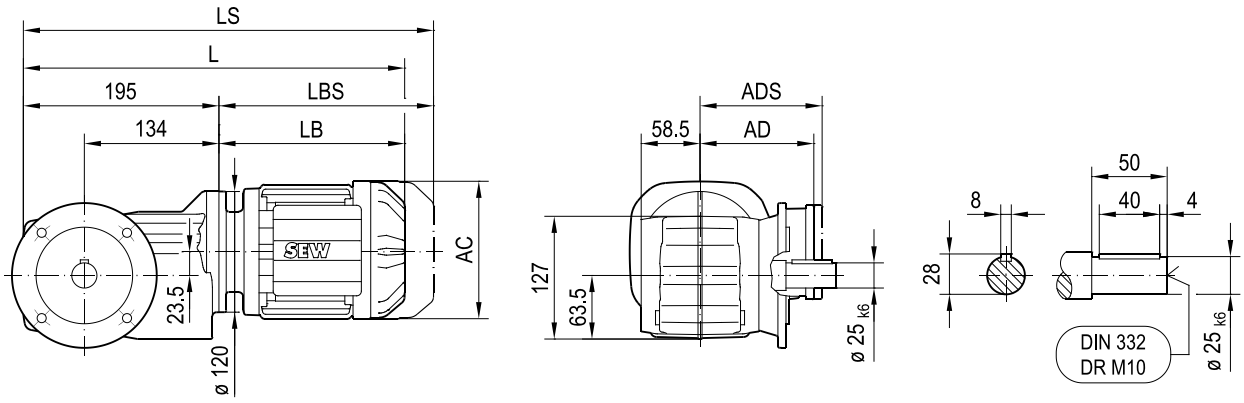

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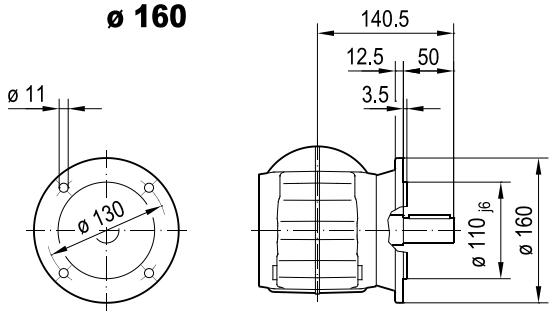

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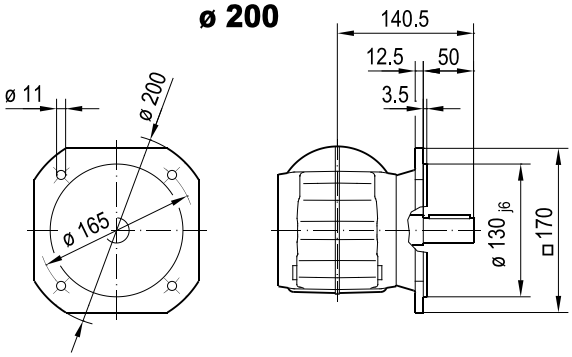

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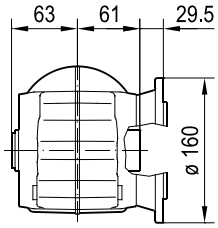

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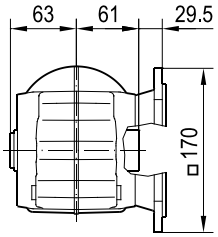
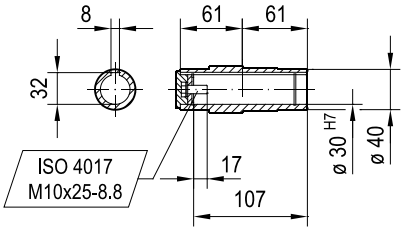
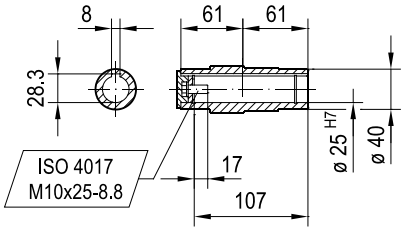


ø 30 H7
DIN 6885-3



ø 25 H7



(→ 📖 7.3)	DRN							
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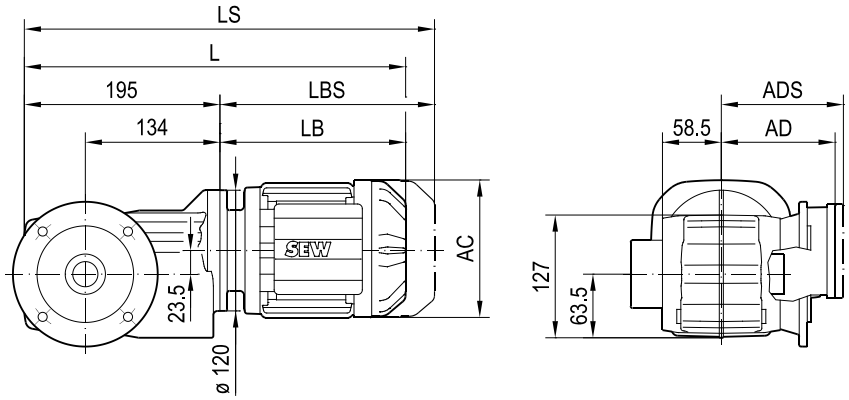
AC	115	115	139	139	156	156	179	179
AD	98	98	118	118	128	128	140	140
ADS	98	98	129	129	139	139	150	150
L	385	399	401	421	432	477	478	510
LS	441	455	468	488	513	558	572	604
LB	190	204	206	226	237	282	283	315
LBS	246	260	273	293	318	363	377	409

24832936/EN – 09/2018

33 019 01 15

KHF29..



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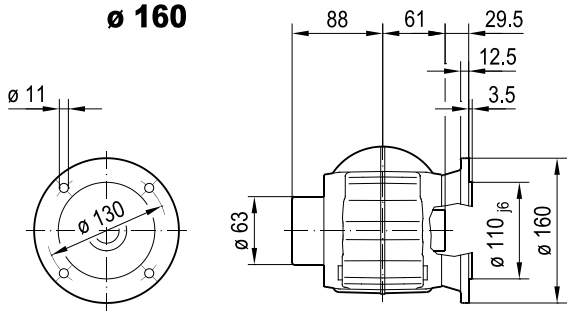

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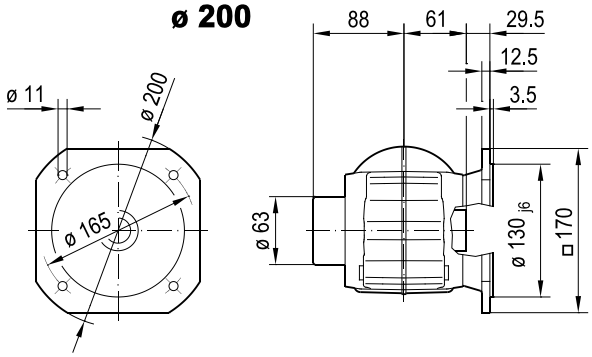

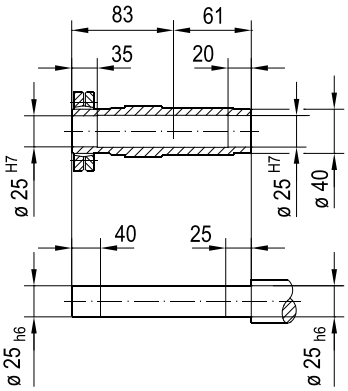

(→ 📖 7.3)	DRN							
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AC	115	115	139	139	156	156	179	179
AD	98	98	118	118	128	128	140	140
ADS	98	98	129	129	139	139	150	150
L	385	399	401	421	432	477	478	510
LS	441	455	468	488	513	558	572	604
LB	190	204	206	226	237	282	283	315
LBS	246	260	273	293	318	363	377	409

24832936/EN – 09/2018

33 020 01 15

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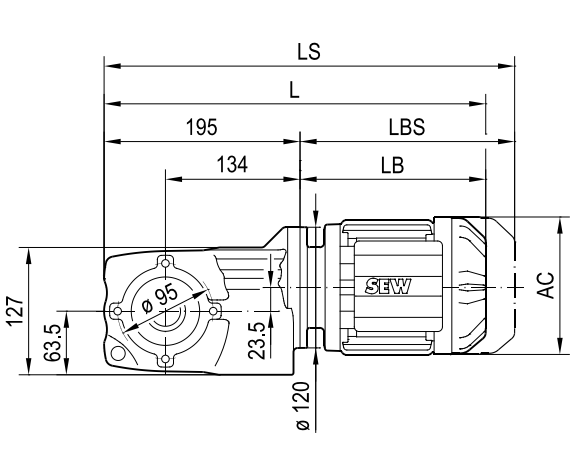

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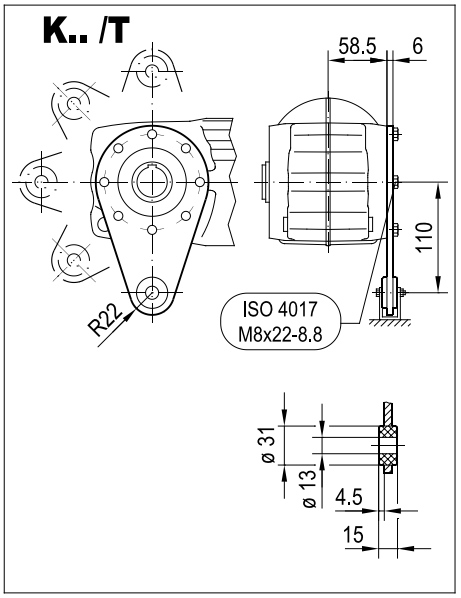

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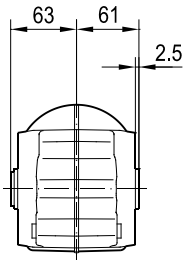
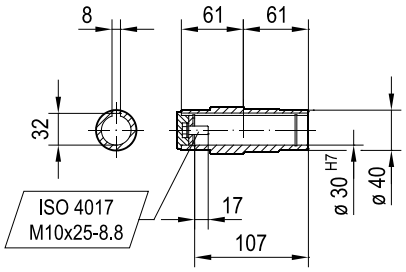


ø 30 H7
DIN 6885-3



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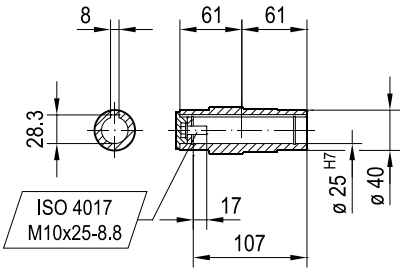

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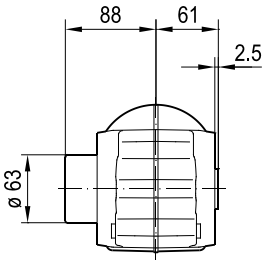

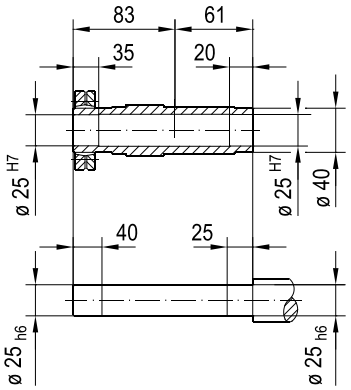

(→ 📖 7.3)	DRN							
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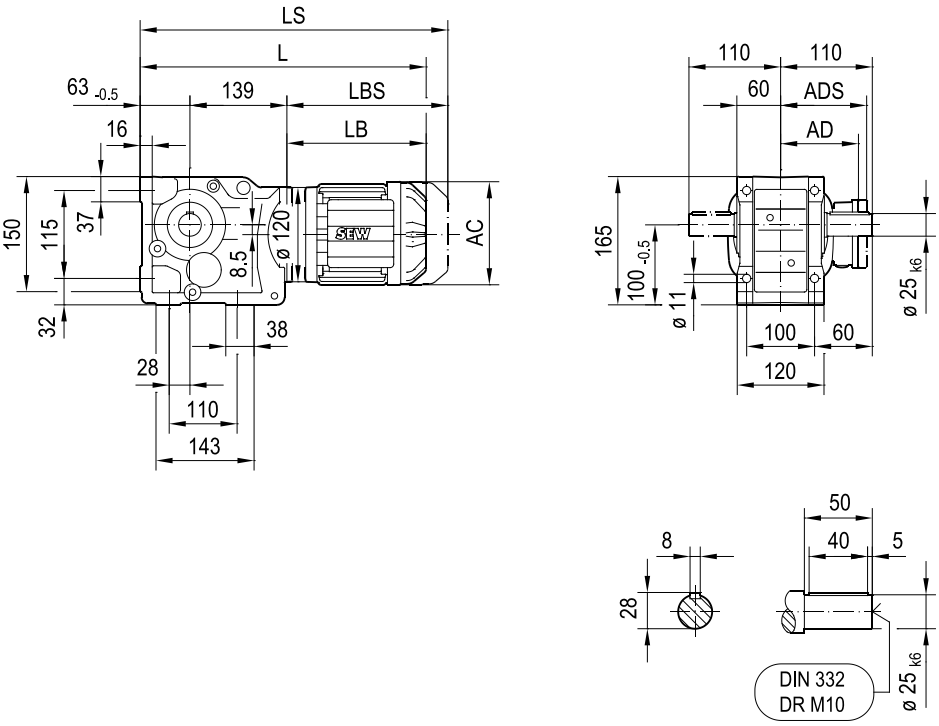
AC	115	115	139	139	156	156	179	179
AD	98	98	118	118	128	128	140	140
ADS	98	98	129	129	139	139	150	150
L	385	399	401	421	432	477	478	510
LS	441	455	468	488	513	558	572	604
LB	190	204	206	226	237	282	283	315
LBS	246	260	273	293	318	363	377	409

24832936/EN – 09/2018

33 037 00 14

K37..

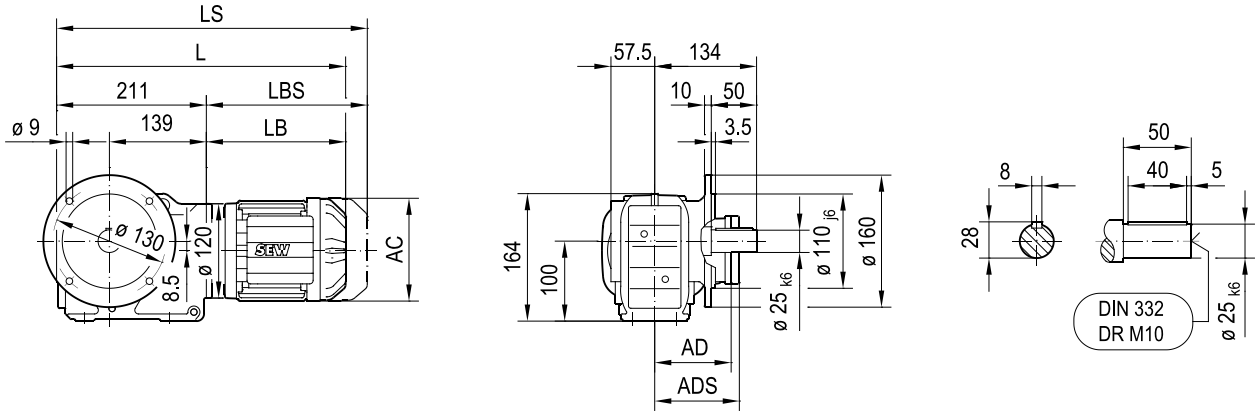


(→ 📖 7.3)	DRN									
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	179	179	197	197
AD	98	98	118	118	128	128	140	140	157	157
ADS	98	98	129	129	139	139	150	150	158	158
L	392	406	408	428	439	484	485	517	516	566
LS	448	462	475	495	520	565	579	611	610	660
LB	190	204	206	226	237	282	283	315	314	364
LBS	246	260	273	293	318	363	377	409	408	458

24832936/EN – 09/2018

33 038 00 14

KF37..



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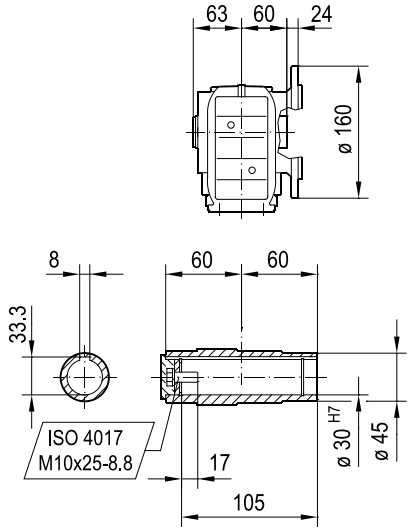

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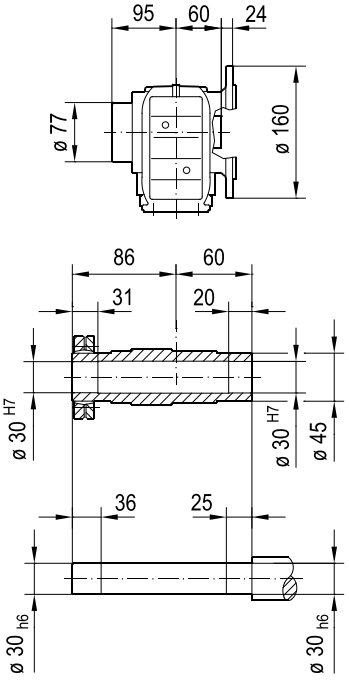

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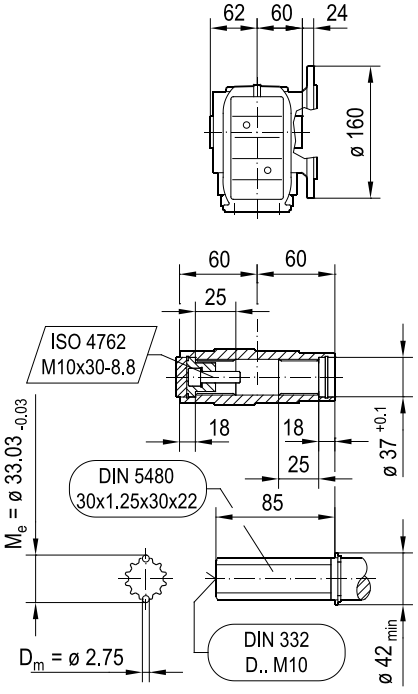
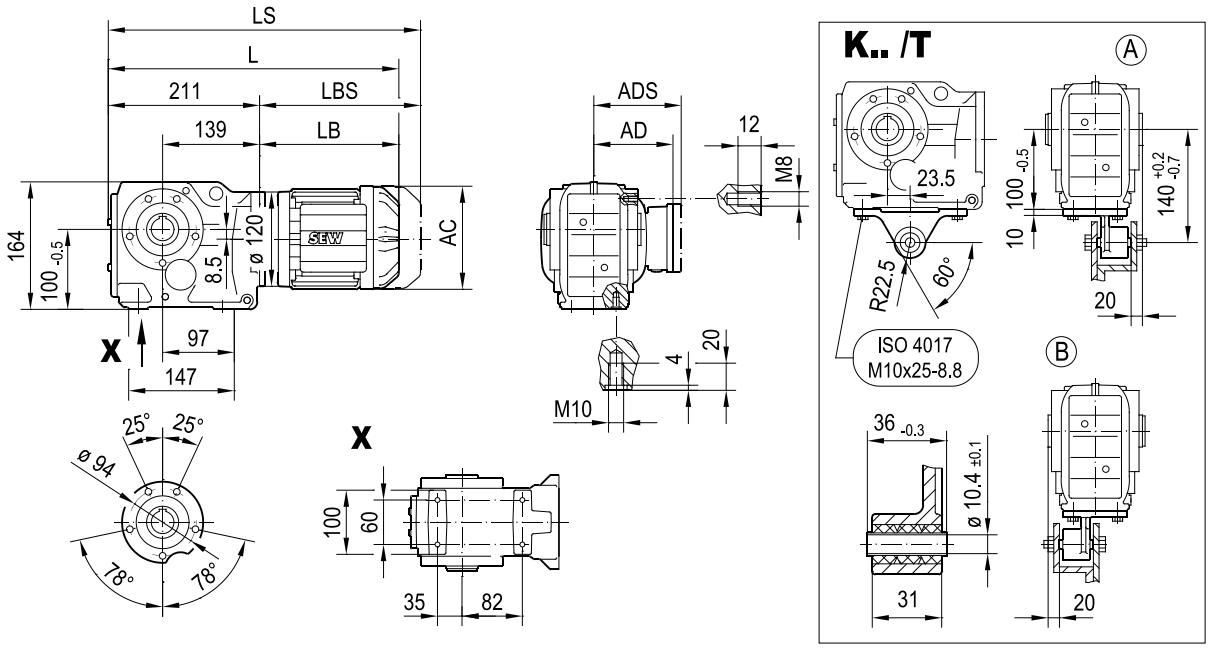


(→ 📖 7.3)	DRN									
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	179	179	197	197
AD	98	98	118	118	128	128	140	140	157	157
ADS	98	98	129	129	139	139	150	150	158	158
L	401	415	417	437	448	493	494	526	525	575
LS	457	471	484	504	529	574	588	620	619	669
LB	190	204	206	226	237	282	283	315	314	364
LBS	246	260	273	293	318	363	377	409	408	458

24832936/EN – 09/2018

33 039 00 14

KA37..



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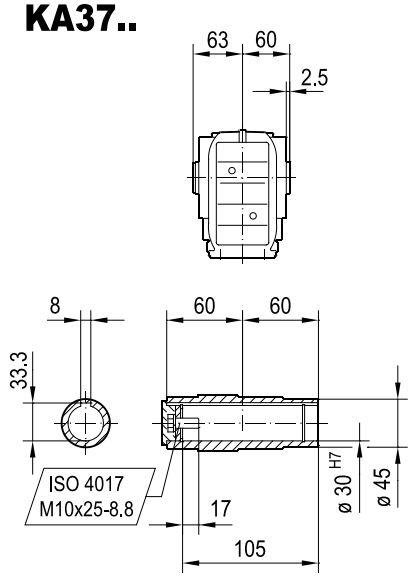

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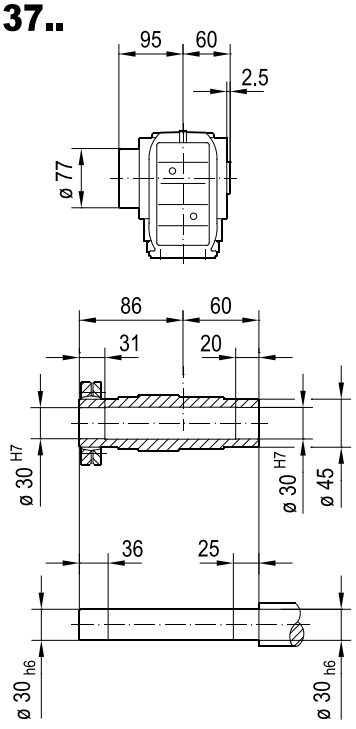

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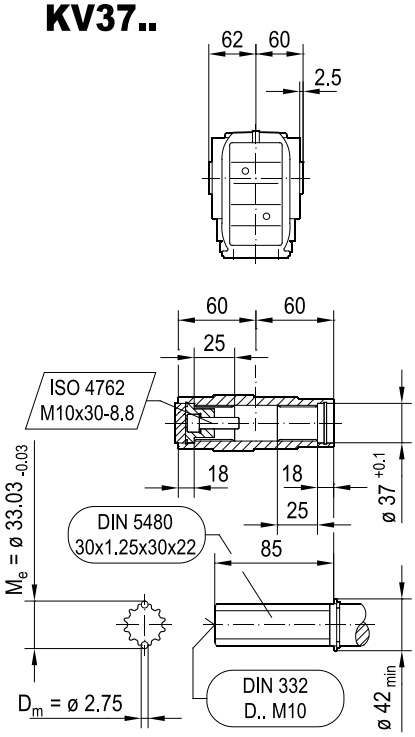
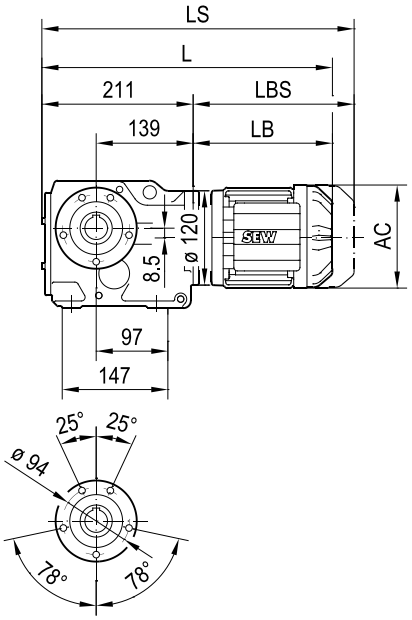


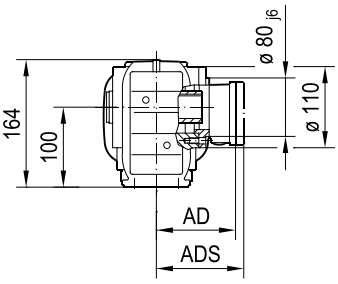
(→ 📖 7.3)	DRN									
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	179	179	197	197
AD	98	98	118	118	128	128	140	140	157	157
ADS	98	98	129	129	139	139	150	150	158	158
L	401	415	417	437	448	493	494	526	525	575
LS	457	471	484	504	529	574	588	620	619	669
LB	190	204	206	226	237	282	283	315	314	364
LBS	246	260	273	293	318	363	377	409	408	458

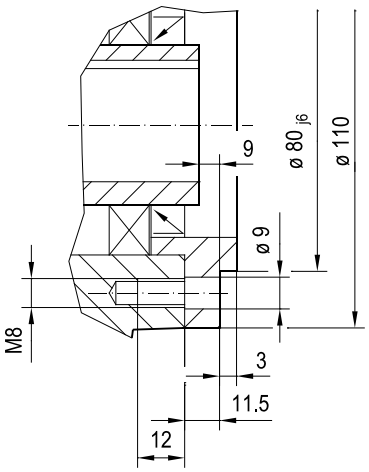
24832936/EN – 09/2018

33 040 00 14

KAZ37..







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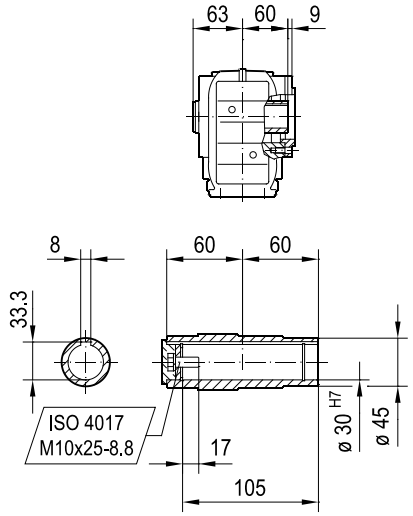

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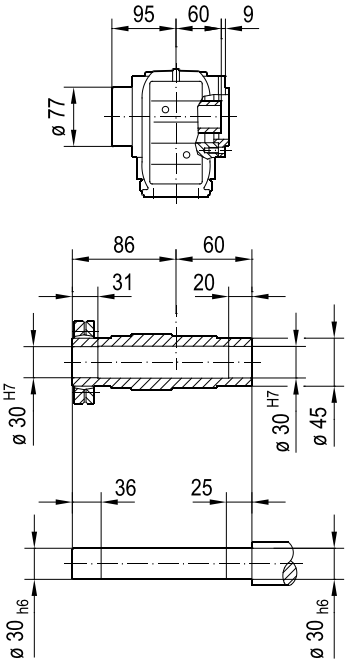

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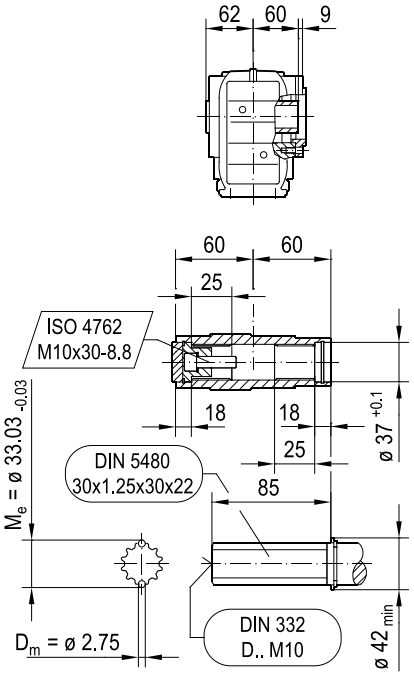
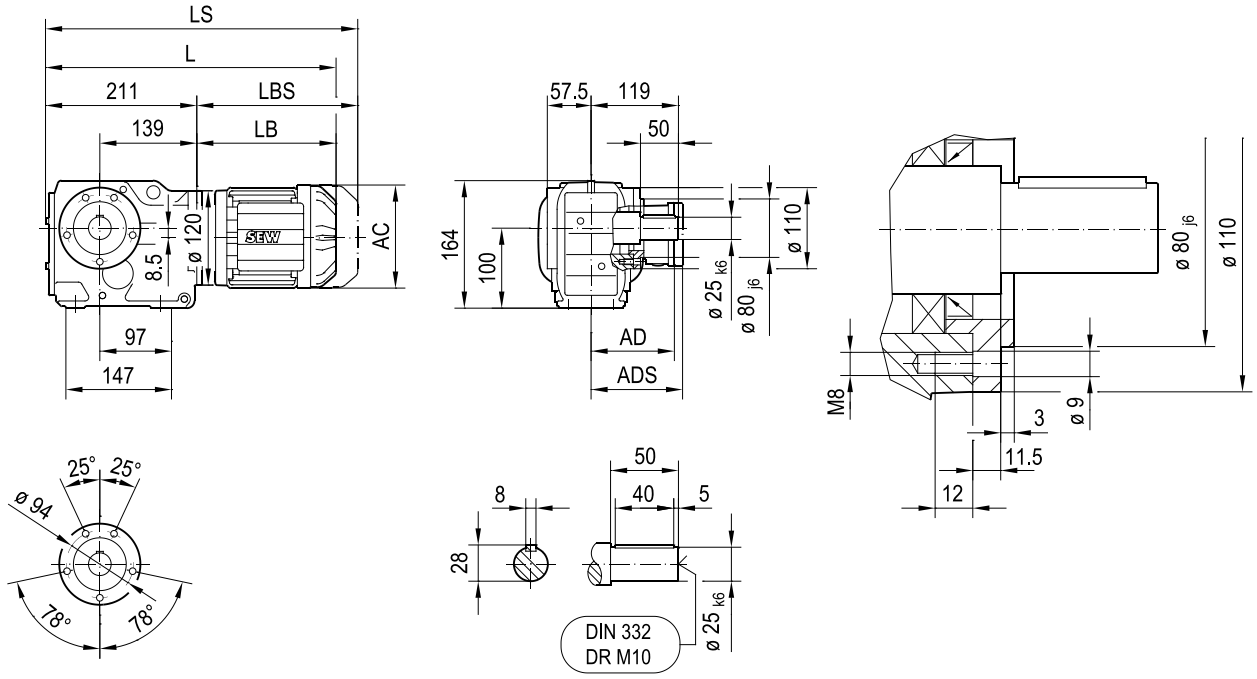


(→ 📖 7.3)	DRN									
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	179	179	197	197
AD	98	98	118	118	128	128	140	140	157	157
ADS	98	98	129	129	139	139	150	150	158	158
L	401	415	417	437	448	493	494	526	525	575
LS	457	471	484	504	529	574	588	620	619	669
LB	190	204	206	226	237	282	283	315	314	364
LBS	246	260	273	293	318	363	377	409	408	458

24832936/EN – 09/2018

33 232 00 15

KZ37..

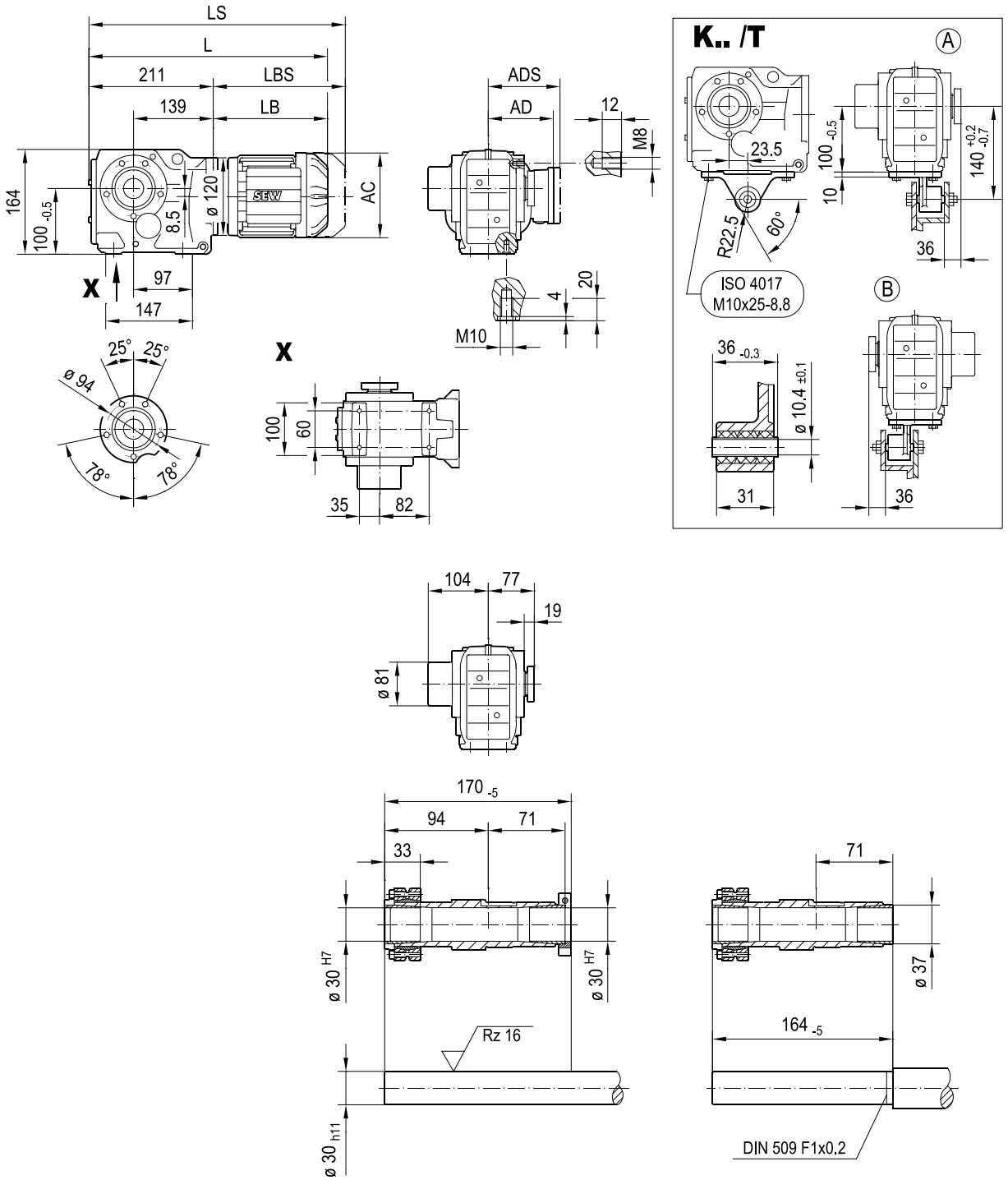


(→ 7.3)	DRN									
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	179	179	197	197
AD	98	98	118	118	128	128	140	140	157	157
ADS	98	98	129	129	139	139	150	150	158	158
L	401	415	417	437	448	493	494	526	525	575
LS	457	471	484	504	529	574	588	620	619	669
LB	190	204	206	226	237	282	283	315	314	364
LBS	246	260	273	293	318	363	377	409	408	458

24832936/EN – 09/2018

KT37..

33 041 01 14



(→ 📖 7.3)	DRN									
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	179	179	197	197
AD	98	98	118	118	128	128	140	140	157	157
ADS	98	98	129	129	139	139	150	150	158	158
L	401	415	417	437	448	493	494	526	525	575
LS	457	471	484	504	529	574	588	620	619	669
LB	190	204	206	226	237	282	283	315	314	364
LBS	246	260	273	293	318	363	377	409	408	458

24832936/EN – 09/2018

33 021 01 14

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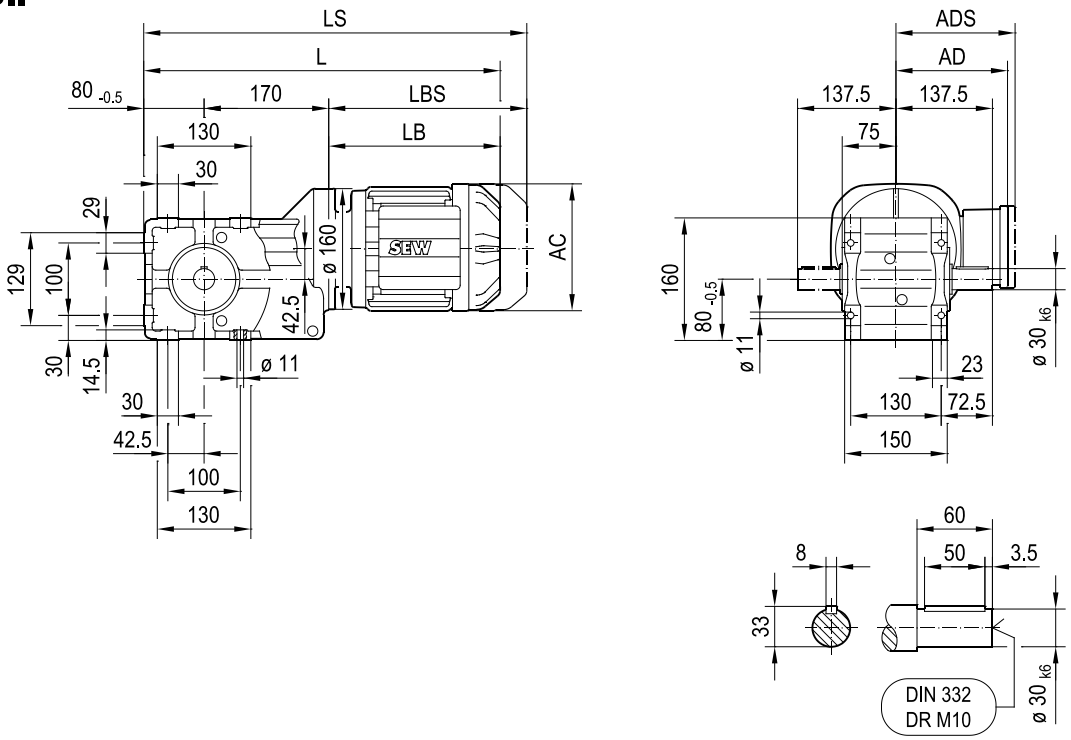

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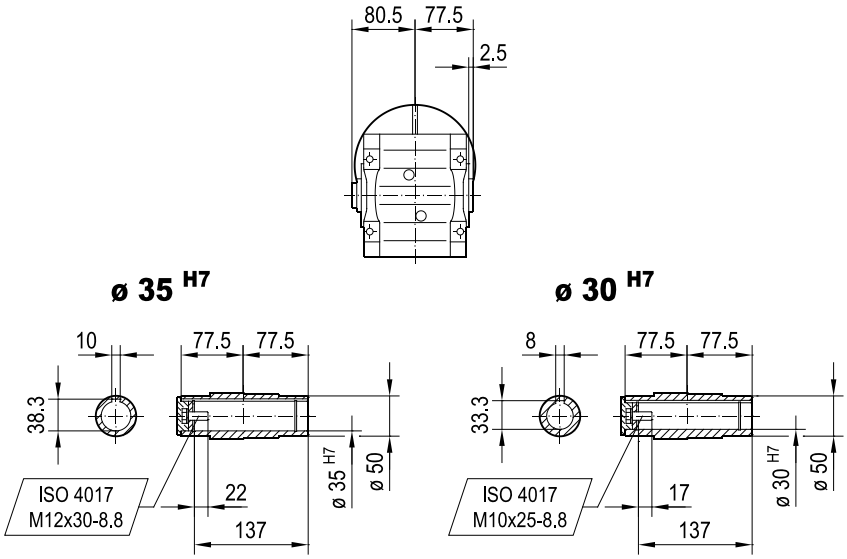
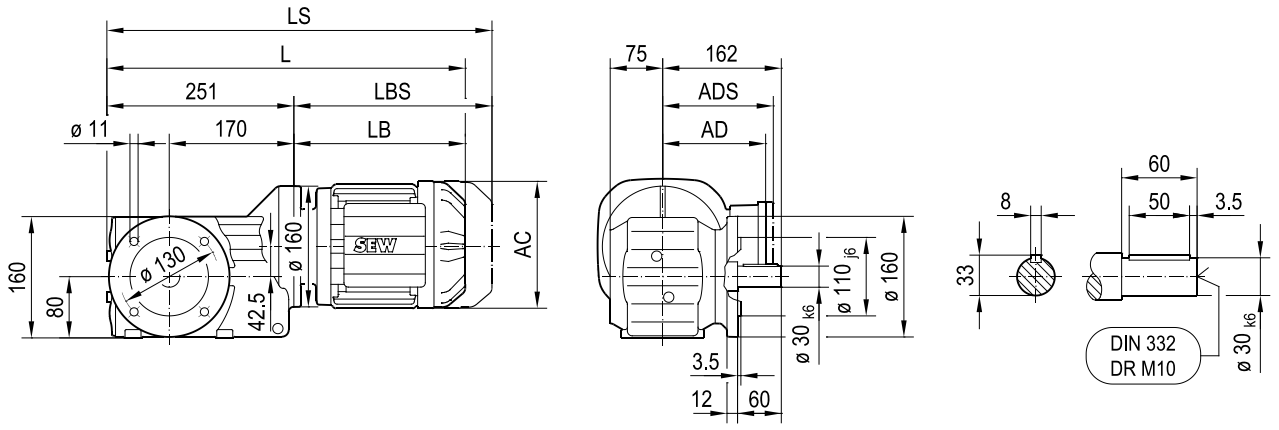


(→ 📖 7.3)	DRN								
	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M
AC	139	139	156	156	179	179	197	197	221
AD	118	118	128	128	140	140	157	157	170
ADS	129	129	139	139	150	150	158	158	172
L	449	469	480	525	527	559	555	605	636
LS	517	537	561	606	620	652	649	699	748
LB	199	219	230	275	277	309	305	355	386
LBS	267	287	311	356	370	402	399	449	498

24832936/EN – 09/2018

33 022 01 14

KF39..



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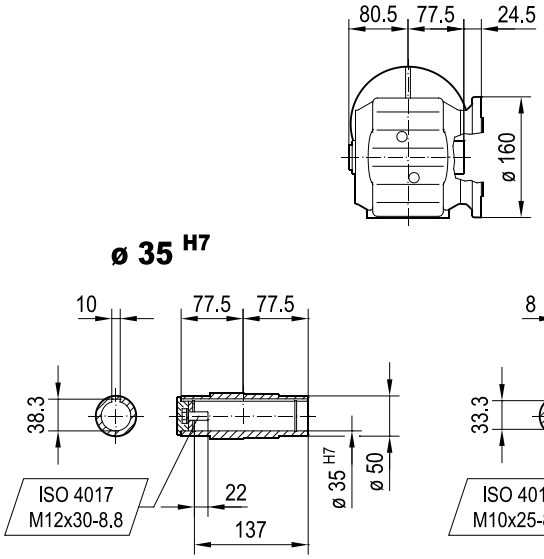

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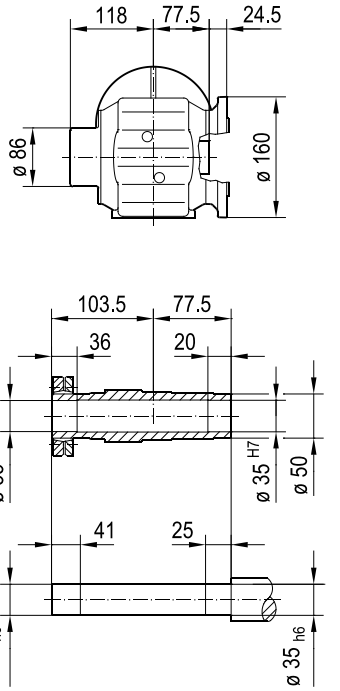
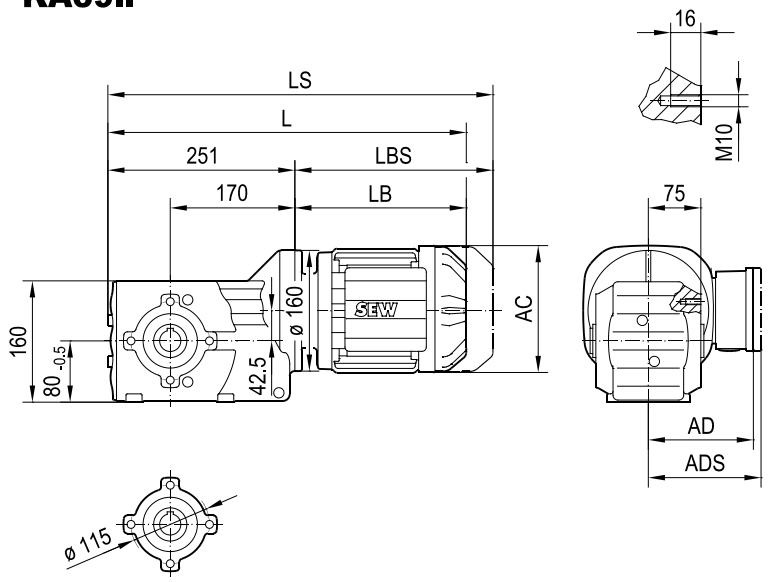


(→ 📖 7.3)	DRN								
	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M
AC	139	139	156	156	179	179	197	197	221
AD	118	118	128	128	140	140	157	157	170
ADS	129	129	139	139	150	150	158	158	172
L	450	470	481	526	528	560	556	606	637
LS	518	538	562	607	621	653	650	700	749
LB	199	219	230	275	277	309	305	355	386
LBS	267	287	311	356	370	402	399	449	498

24832936/EN – 09/2018

33 023 01 14

KA39..



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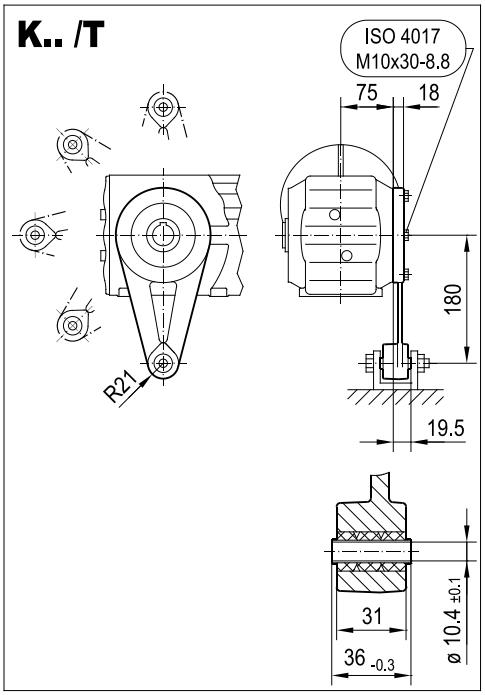

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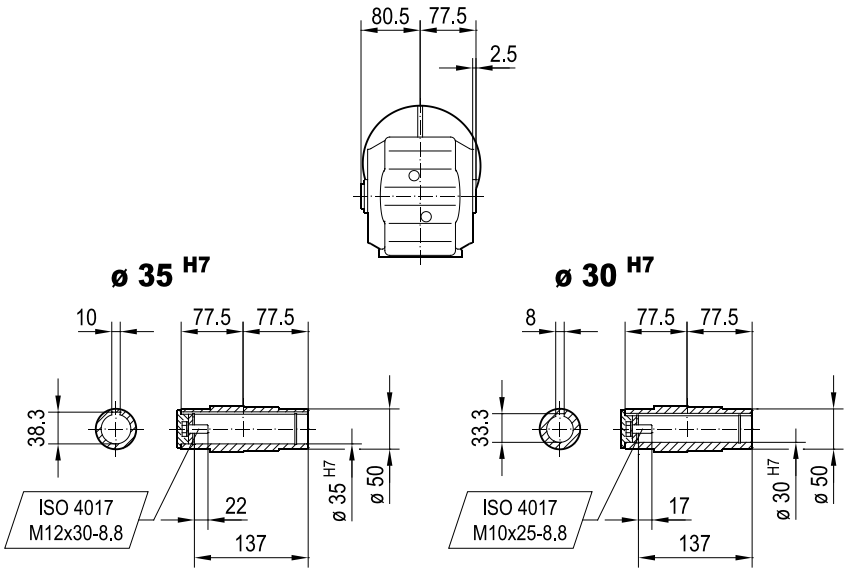

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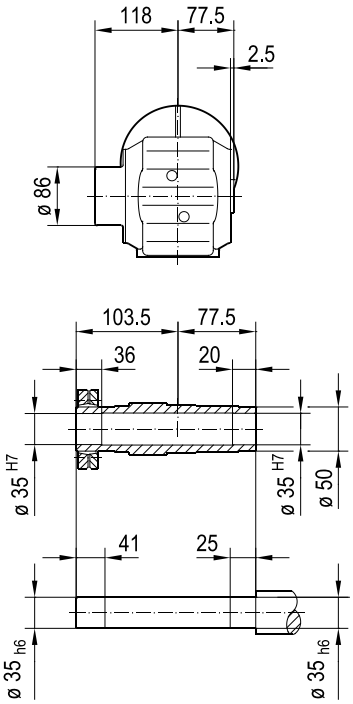

(→ 📖 7.3)	DRN								
	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M
AC	139	139	156	156	179	179	197	197	221
AD	118	118	128	128	140	140	157	157	170
ADS	129	129	139	139	150	150	158	158	172
L	450	470	481	526	528	560	556	606	637
LS	518	538	562	607	621	653	650	700	749
LB	199	219	230	275	277	309	305	355	386
LBS	267	287	311	356	370	402	399	449	498

24832936/EN – 09/2018

33 024 01 14

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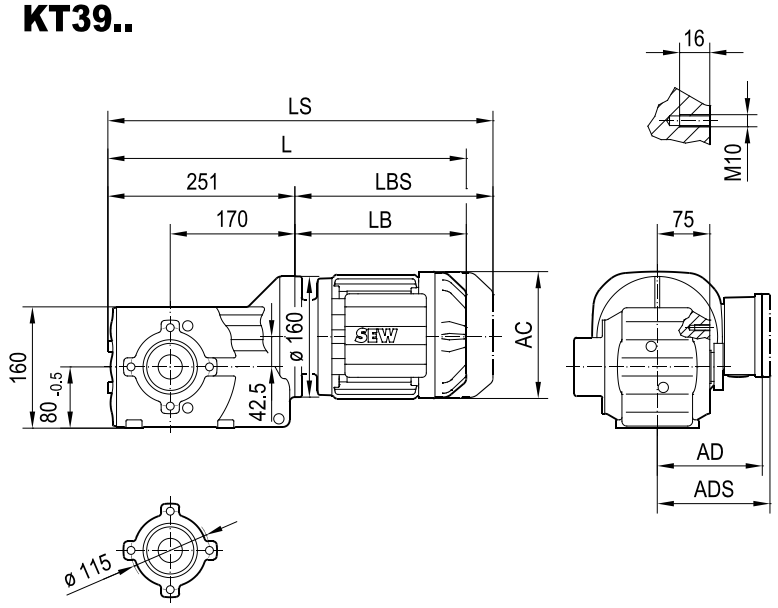

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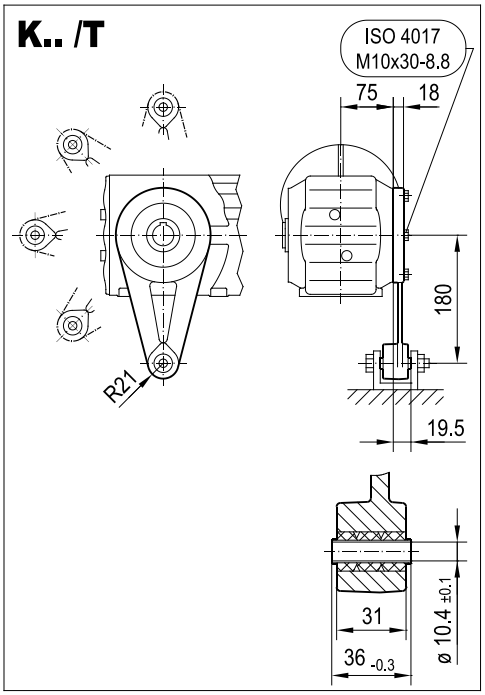
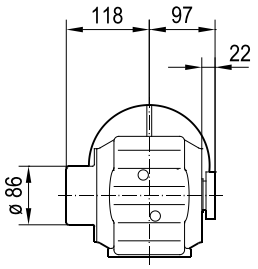
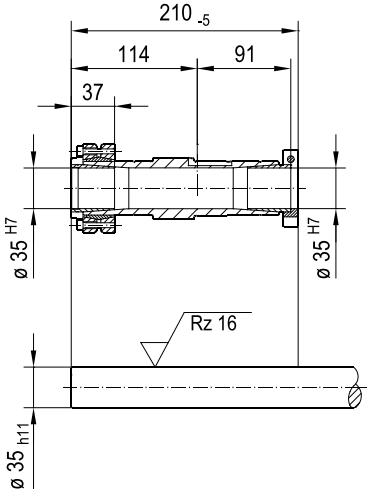
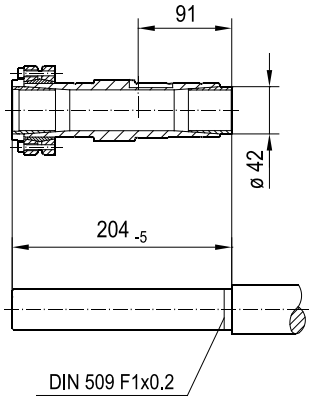






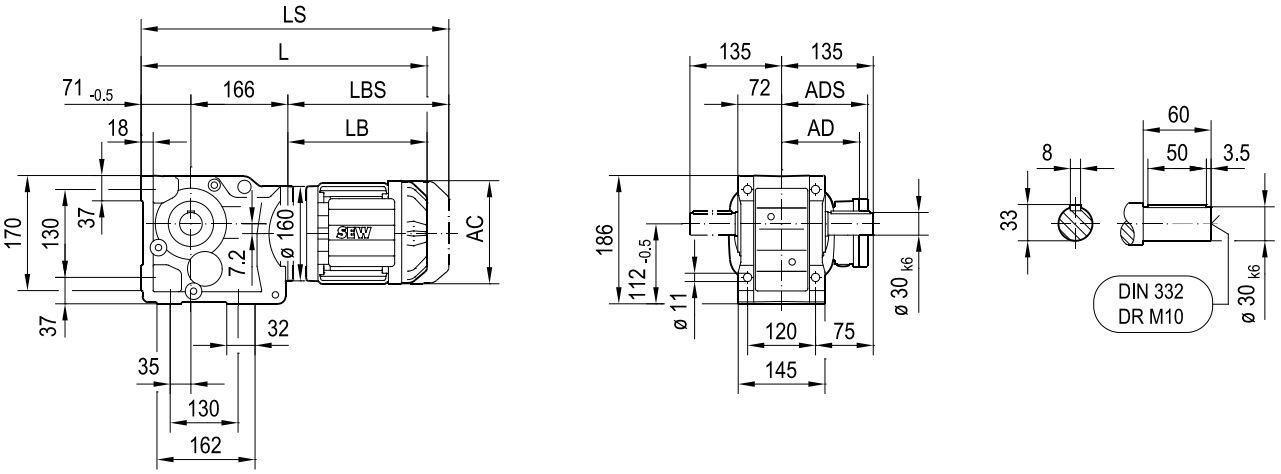


(→ 📖 7.3)	DRN								
	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M
AC	139	139	156	156	179	179	197	197	221
AD	118	118	128	128	140	140	157	157	170
ADS	129	129	139	139	150	150	158	158	172
L	450	470	481	526	528	560	556	606	637
LS	518	538	562	607	621	653	650	700	749
LB	199	219	230	275	277	309	305	355	386
LBS	267	287	311	356	370	402	399	449	498

24832936/EN – 09/2018

33 042 00 14

K47..



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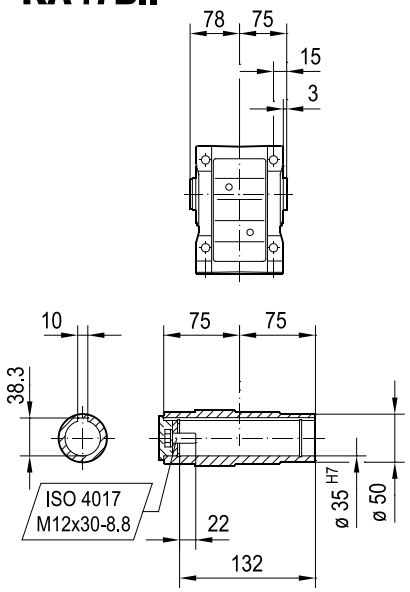

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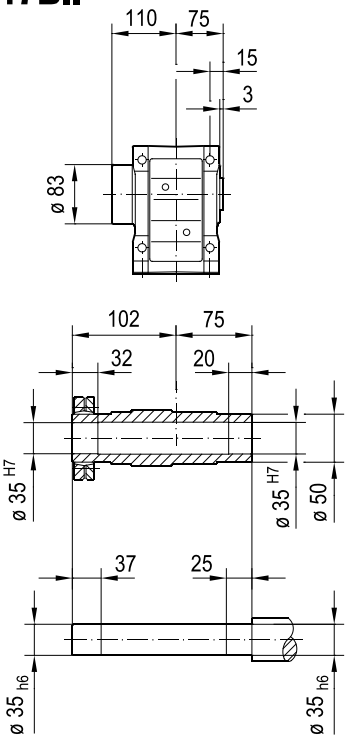

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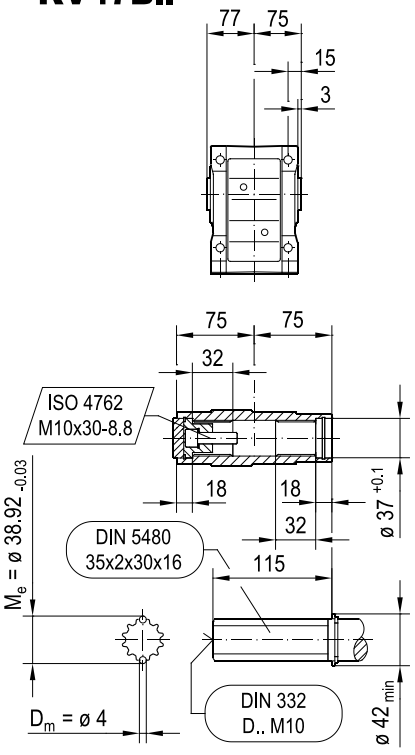

(→ 📖 7.3)	DRN									
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	179	179	197	197
AD	98	98	118	118	128	128	140	140	157	157
ADS	98	98	129	129	139	139	150	150	158	158
L	421	435	436	456	467	512	514	546	542	592
LS	477	491	504	524	548	593	607	639	636	686
LB	184	198	199	219	230	275	277	309	305	355
LBS	240	254	267	287	311	356	370	402	399	449

24832936/EN – 09/2018

33 043 00 14

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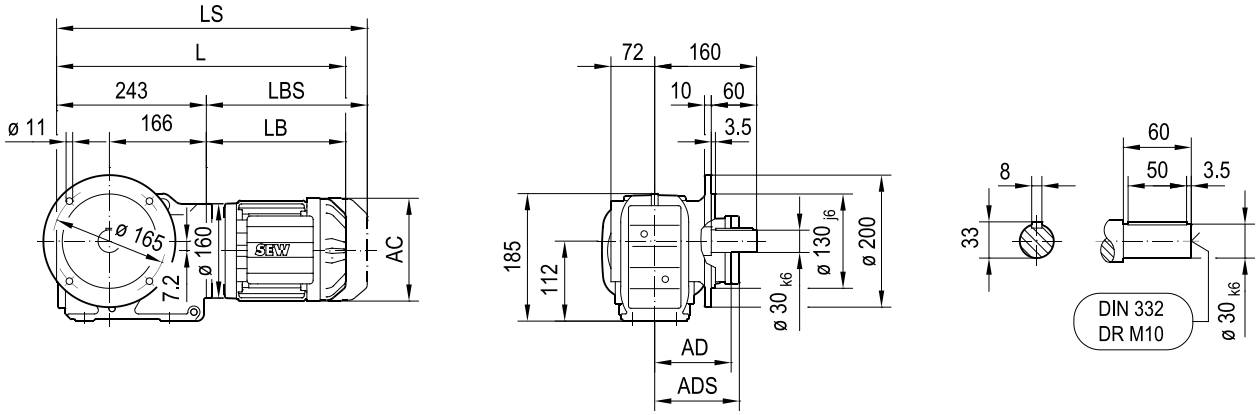

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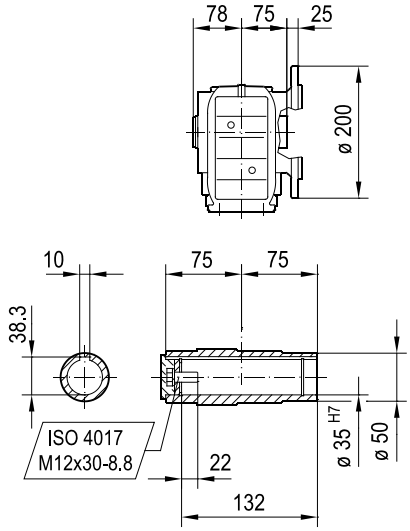

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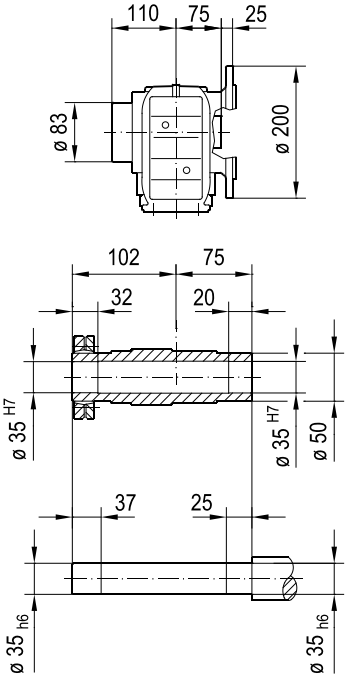

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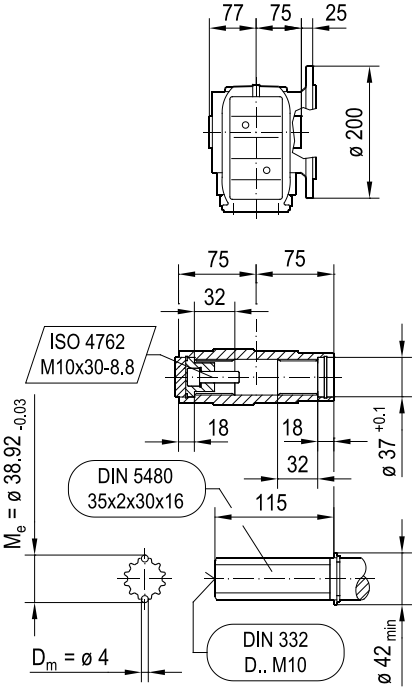

(→ 📖 7.3)	DRN									
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	179	179	197	197
AD	98	98	118	118	128	128	140	140	157	157
ADS	98	98	129	129	139	139	150	150	158	158
L	427	441	442	462	473	518	520	552	548	598
LS	483	497	510	530	554	599	613	645	642	692
LB	184	198	199	219	230	275	277	309	305	355
LBS	240	254	267	287	311	356	370	402	399	449

24832936/EN – 09/2018

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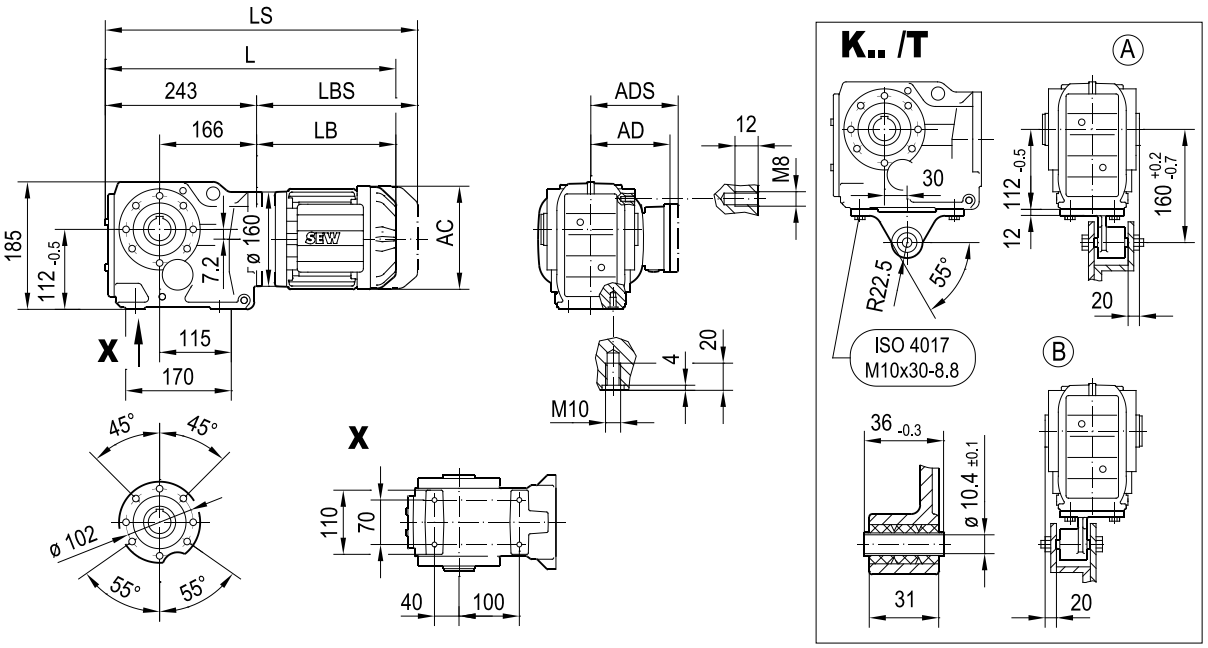
KA47..



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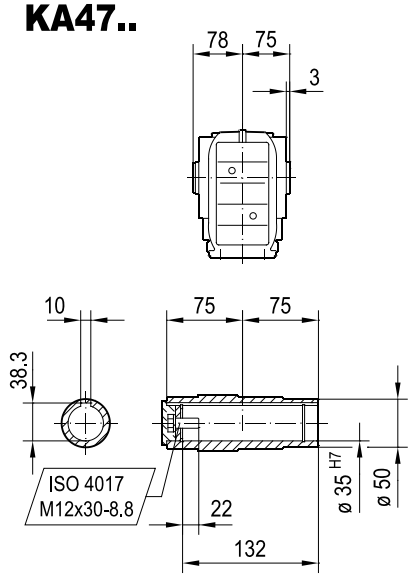

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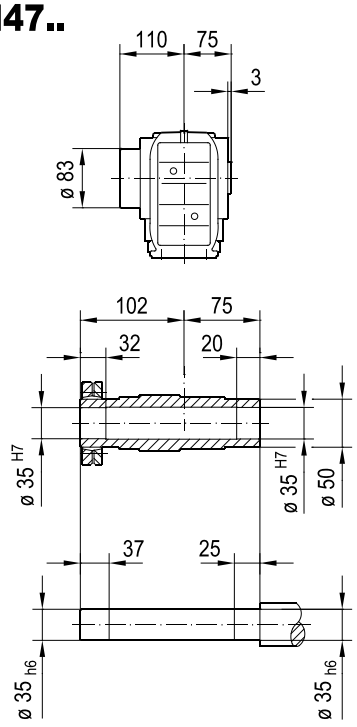

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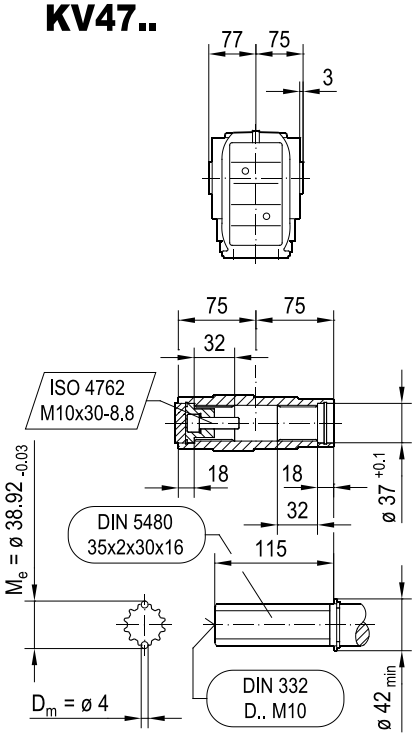
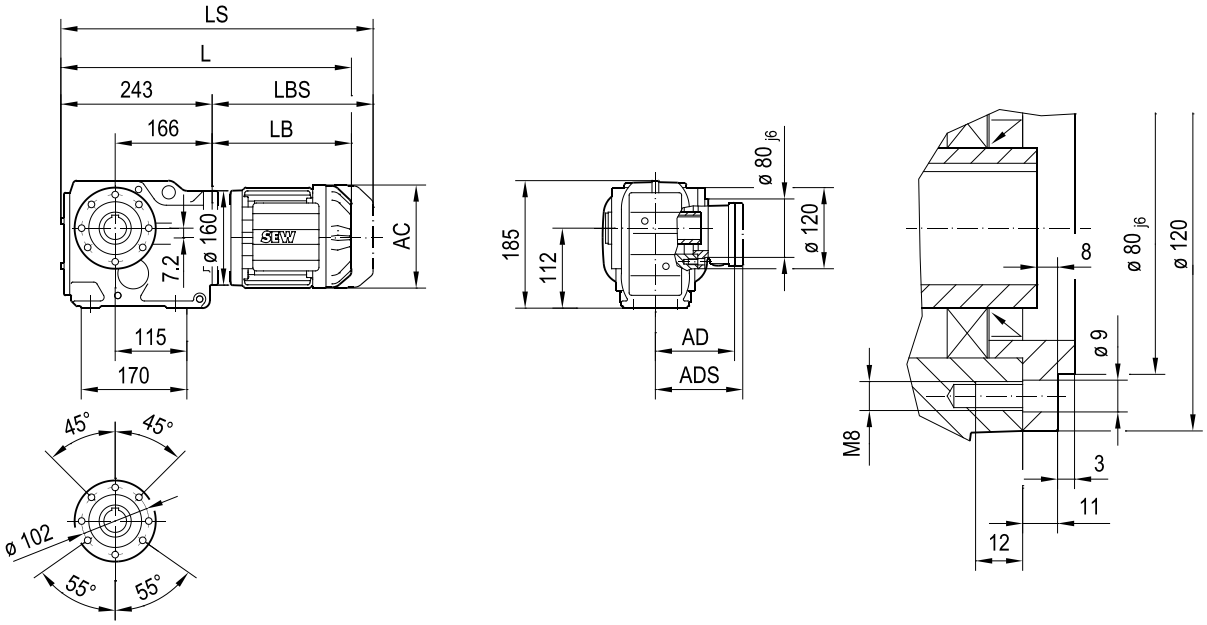


(→ 📖 7.3)	DRN									
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	179	179	197	197
AD	98	98	118	118	128	128	140	140	157	157
ADS	98	98	129	129	139	139	150	150	158	158
L	427	441	442	462	473	518	520	552	548	598
LS	483	497	510	530	554	599	613	645	642	692
LB	184	198	199	219	230	275	277	309	305	355
LBS	240	254	267	287	311	356	370	402	399	449

24832936/EN – 09/2018

33 045 00 14

KAZ47..



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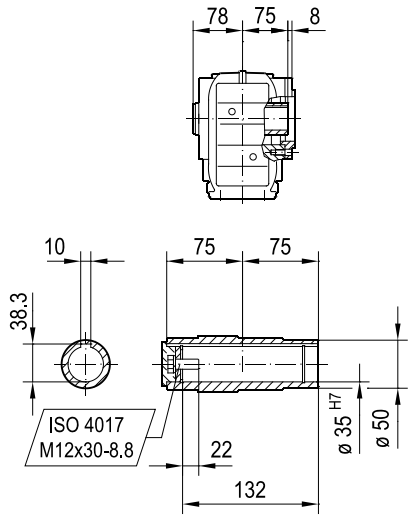

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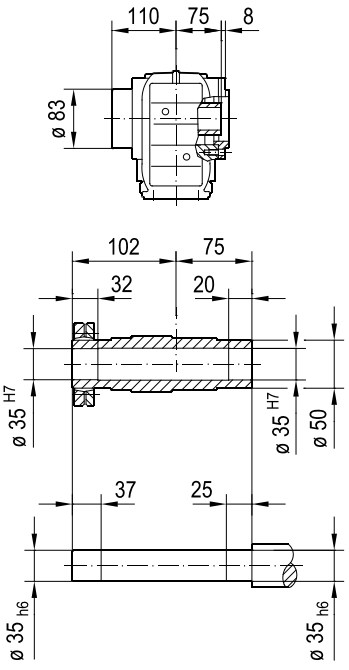

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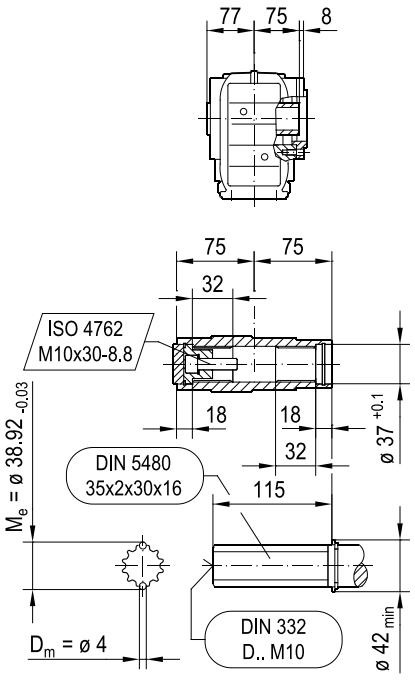

(→ 📖 7.3)	DRN									
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	179	179	197	197
AD	98	98	118	118	128	128	140	140	157	157
ADS	98	98	129	129	139	139	150	150	158	158
L	427	441	442	462	473	518	520	552	548	598
LS	483	497	510	530	554	599	613	645	642	692
LB	184	198	199	219	230	275	277	309	305	355
LBS	240	254	267	287	311	356	370	402	399	449

24832936/EN – 09/2018

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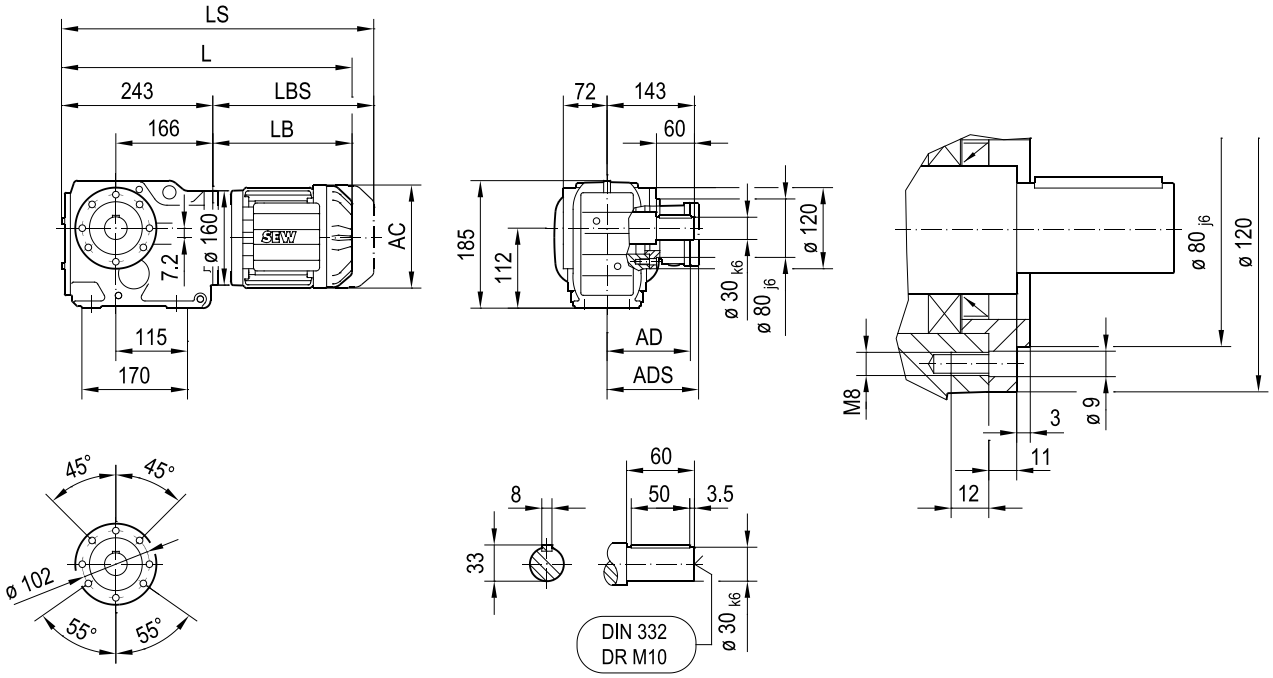
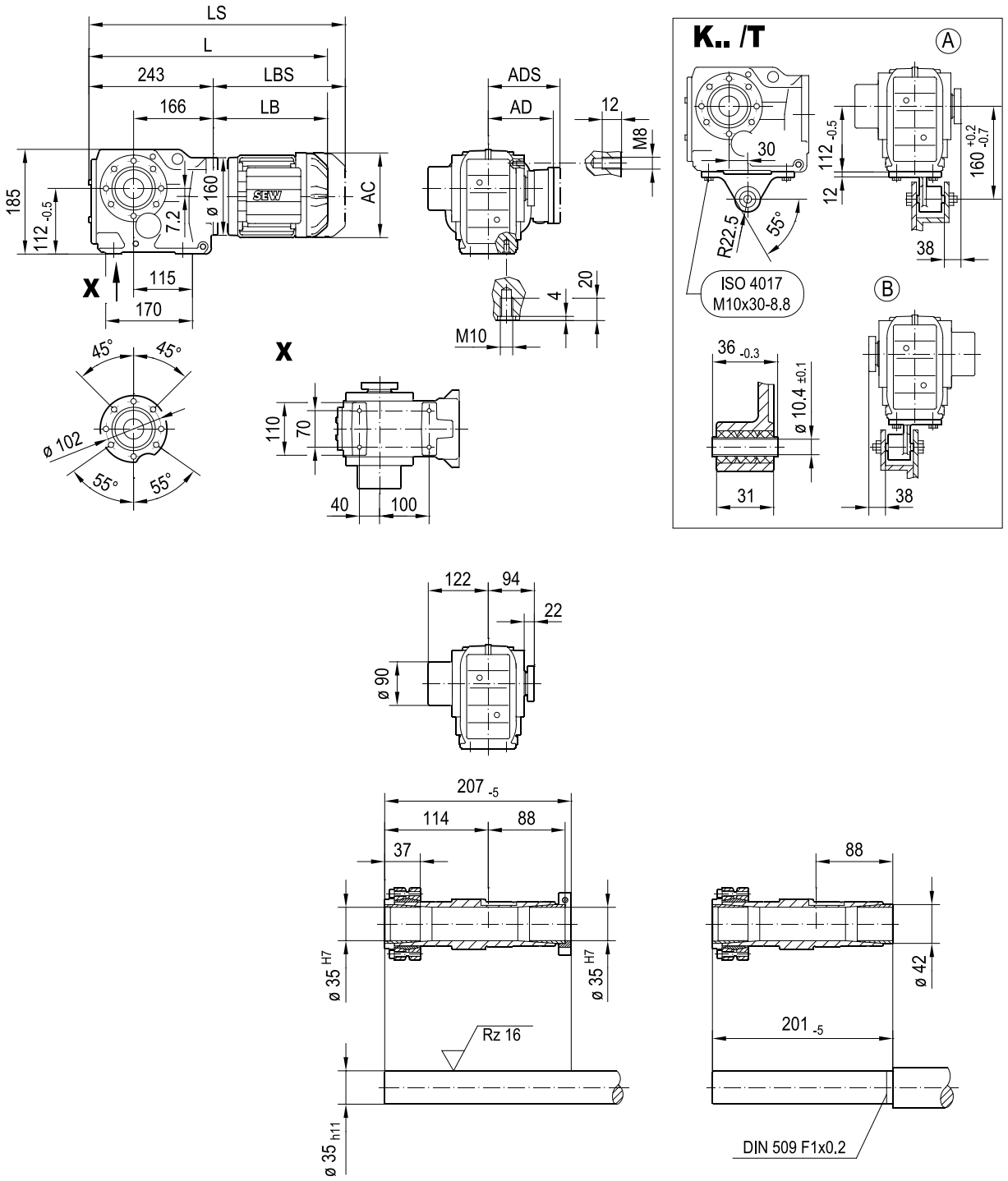
KZ47..



(→ 📖 7.3)	DRN									
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	179	179	197	197
AD	98	98	118	118	128	128	140	140	157	157
ADS	98	98	129	129	139	139	150	150	158	158
L	427	441	442	462	473	518	520	552	548	598
LS	483	497	510	530	554	599	613	645	642	692
LB	184	198	199	219	230	275	277	309	305	355
LBS	240	254	267	287	311	356	370	402	399	449

KT47..

33 046 01 14

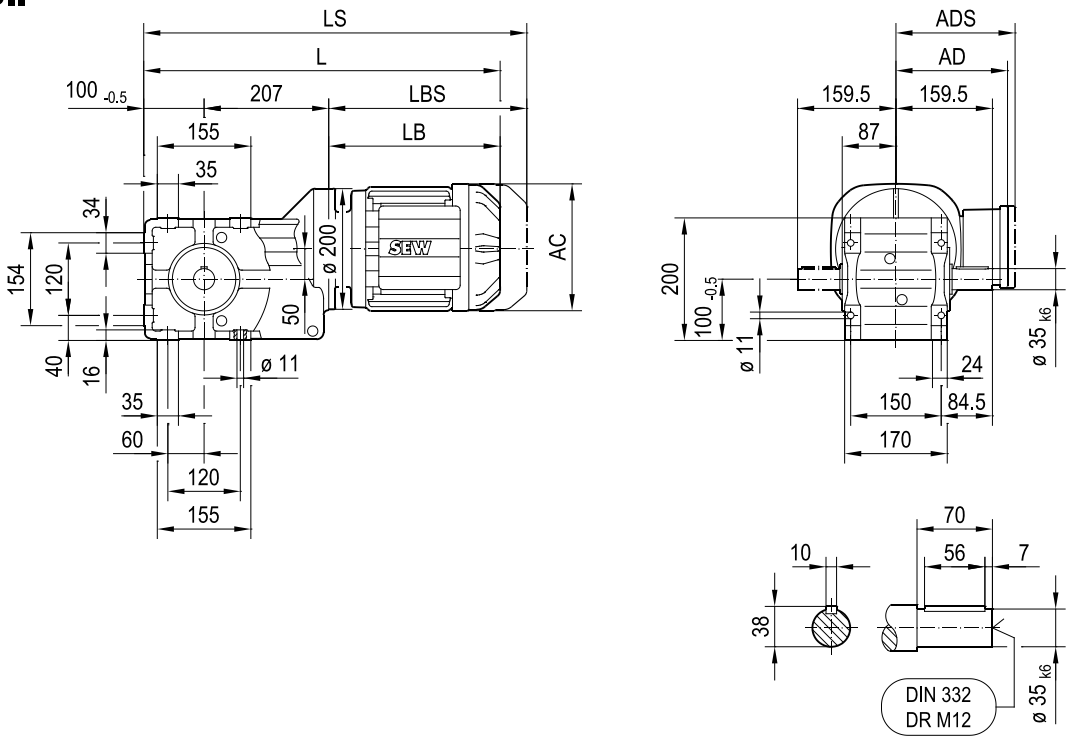


(→ 📖 7.3)	DRN									
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM
AC	115	115	139	139	156	156	179	179	197	197
AD	98	98	118	118	128	128	140	140	157	157
ADS	98	98	129	129	139	139	150	150	158	158
L	427	441	442	462	473	518	520	552	548	598
LS	483	497	510	530	554	599	613	645	642	692
LB	184	198	199	219	230	275	277	309	305	355
LBS	240	254	267	287	311	356	370	402	399	449

24832936/EN – 09/2018

33 025 01 14

K49..



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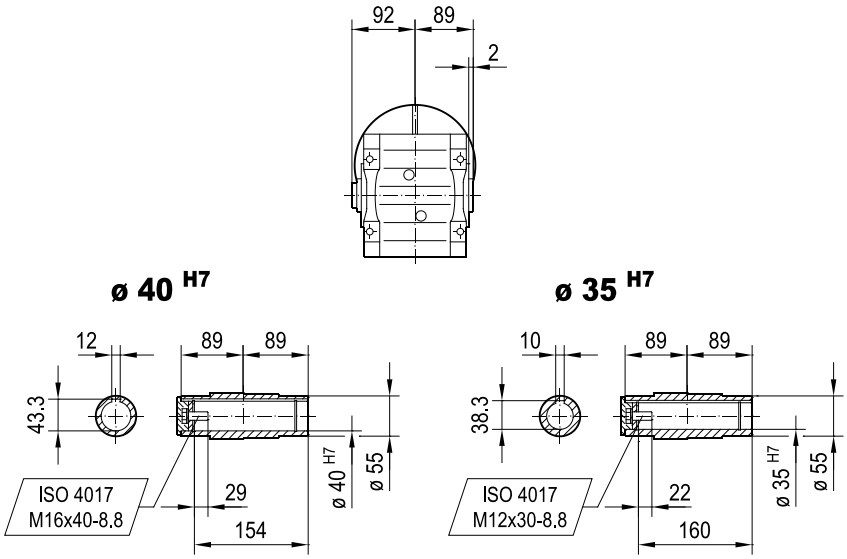
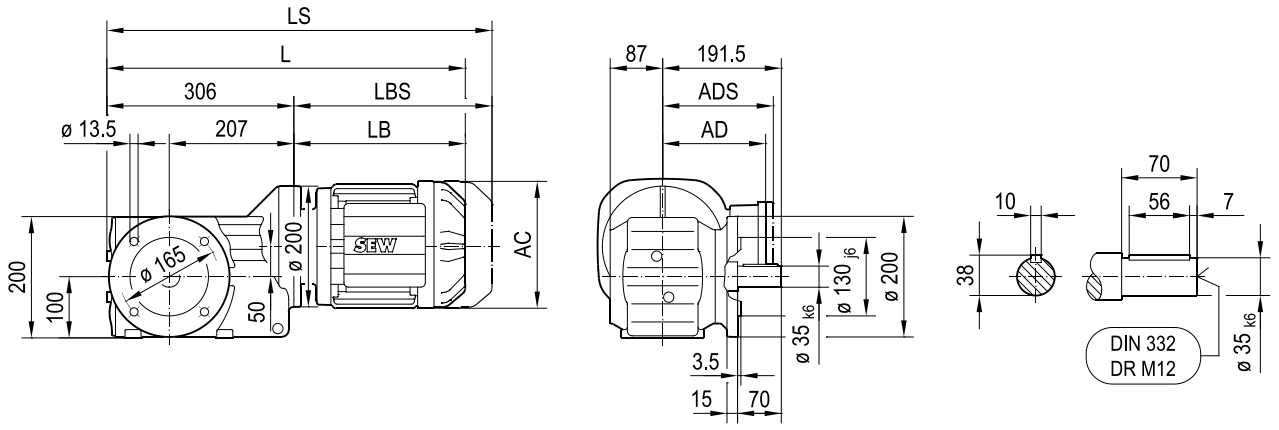


(→ 📖 7.3)	DRN										
	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M
AC	139	139	156	156	179	179	197	197	221	221	261
AD	118	118	128	128	140	140	157	157	170	170	228
ADS	129	129	139	139	150	150	158	158	172	172	228
L	499	519	530	575	577	609	605	655	686	736	754
LS	567	587	611	656	670	702	699	749	798	848	892
LB	192	212	223	268	270	302	298	348	379	429	447
LBS	260	280	304	349	363	395	392	442	491	541	585

24832936/EN – 09/2018

33 026 02 14

KF49..



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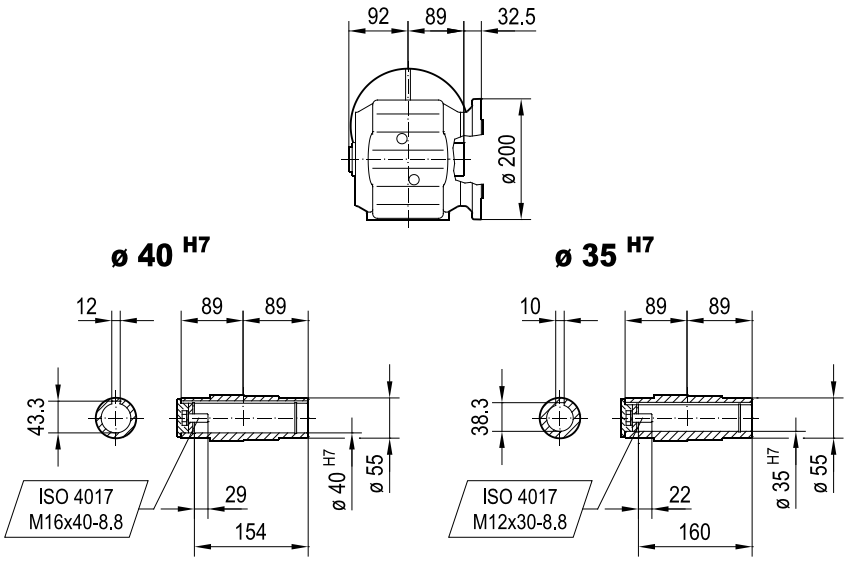

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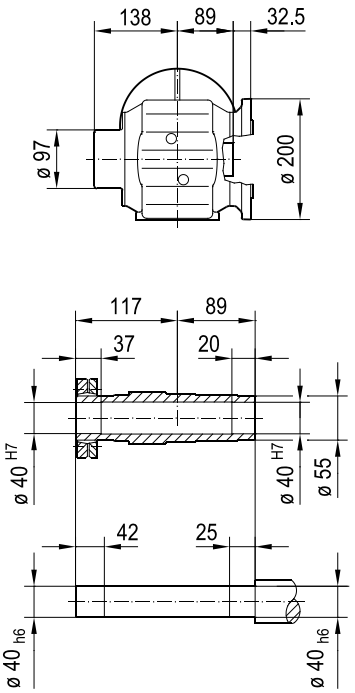
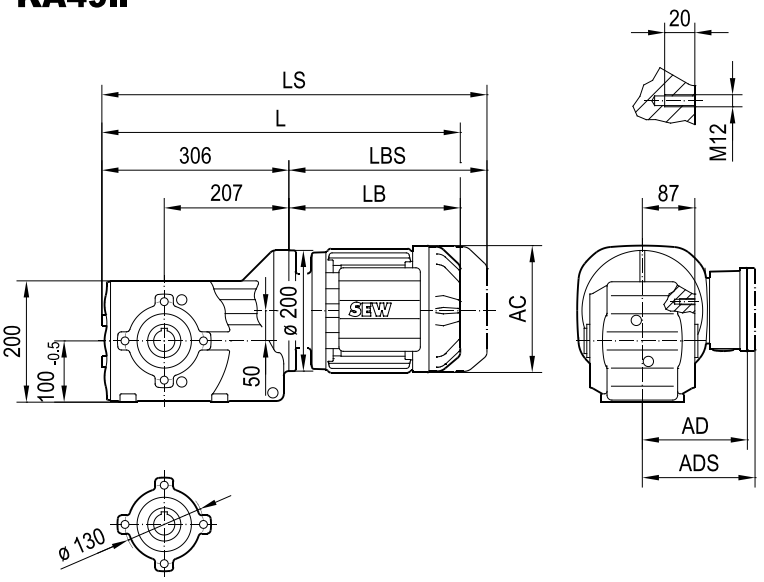


(→ 📖 7.3)	DRN										
	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M
AC	139	139	156	156	179	179	197	197	221	221	261
AD	118	118	128	128	140	140	157	157	170	170	228
ADS	129	129	139	139	150	150	158	158	172	172	228
L	498	518	529	574	576	608	604	654	685	735	753
LS	566	586	610	655	669	701	698	748	797	847	891
LB	192	212	223	268	270	302	298	348	379	429	447
LBS	260	280	304	349	363	395	392	442	491	541	585

24832936/EN – 09/2018

33 027 02 14

KA49..



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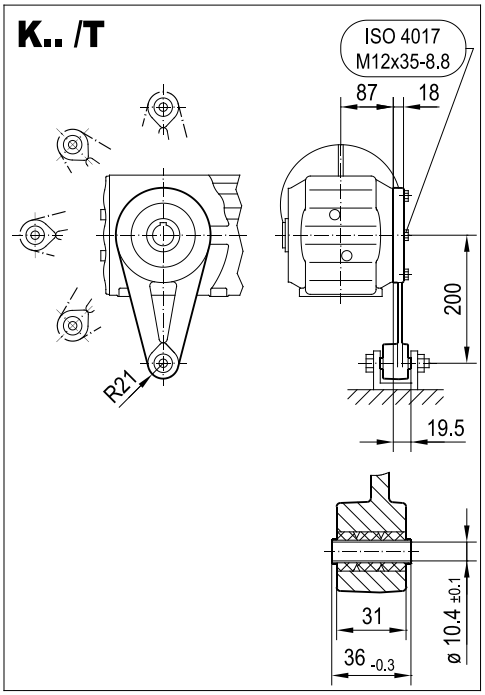

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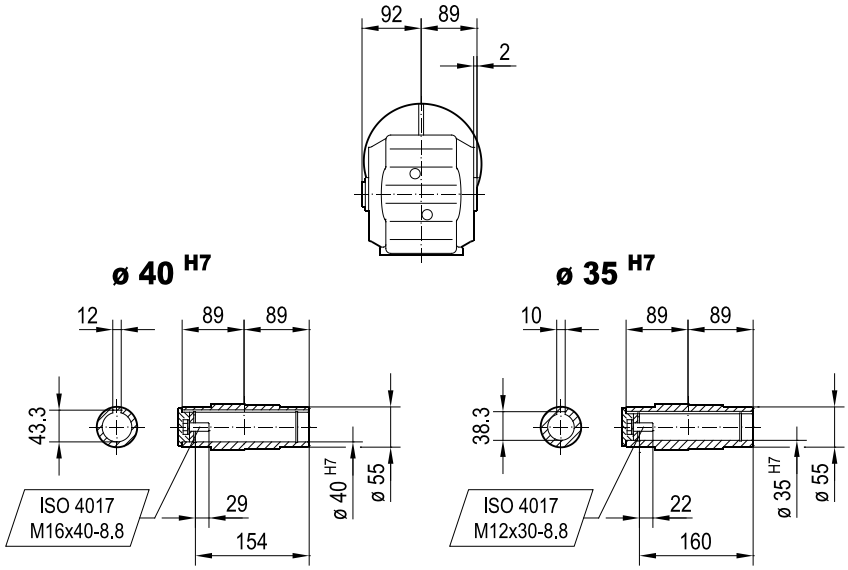

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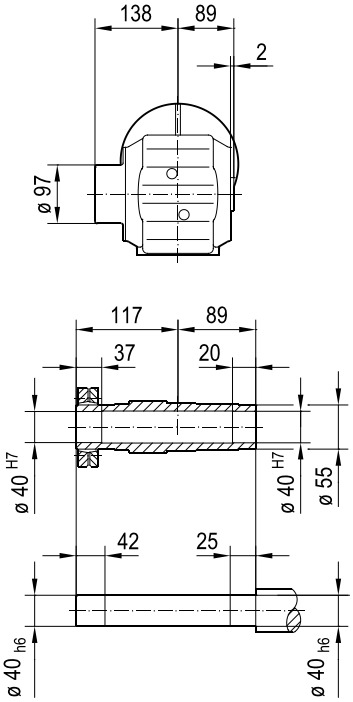
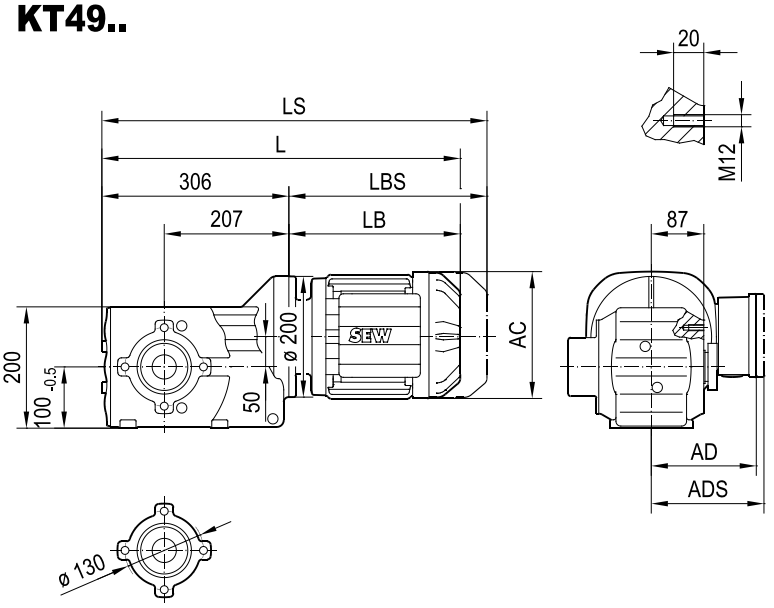


(→ 📖 7.3)	DRN										
	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M
AC	139	139	156	156	179	179	197	197	221	221	261
AD	118	118	128	128	140	140	157	157	170	170	228
ADS	129	129	139	139	150	150	158	158	172	172	228
L	498	518	529	574	576	608	604	654	685	735	753
LS	566	586	610	655	669	701	698	748	797	847	891
LB	192	212	223	268	270	302	298	348	379	429	447
LBS	260	280	304	349	363	395	392	442	491	541	585

24832936/EN – 09/2018

33 028 01 14

KT49..



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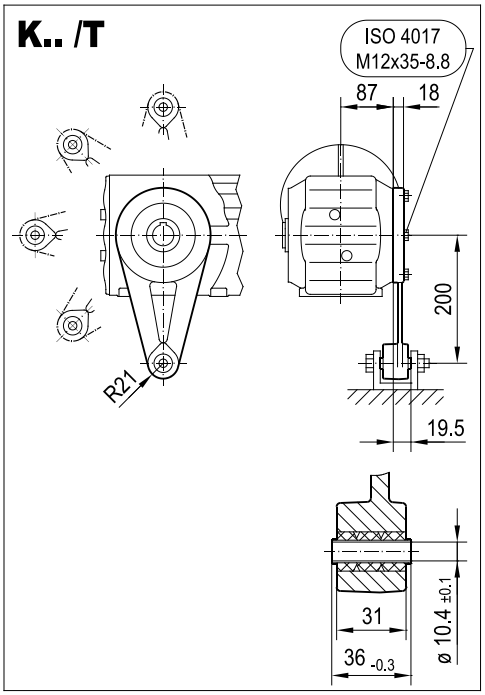
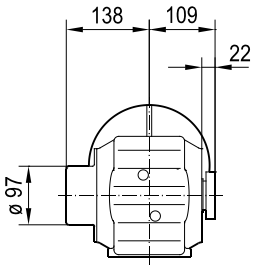
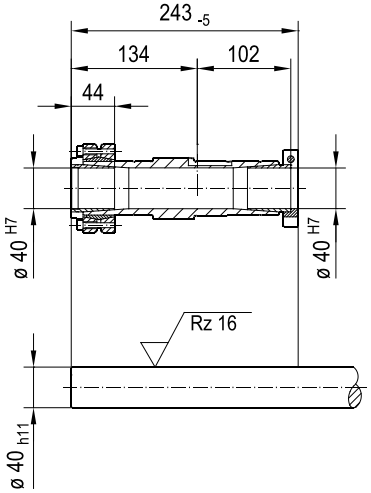
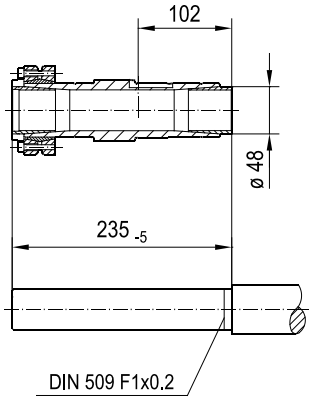






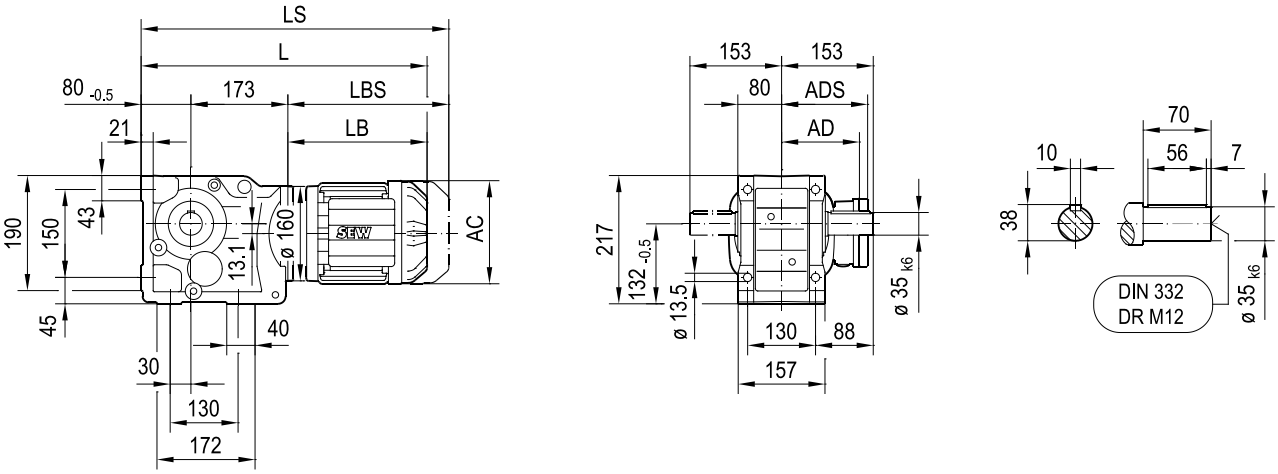


(→ 📖 7.3)	DRN										
	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M
AC	139	139	156	156	179	179	197	197	221	221	261
AD	118	118	128	128	140	140	157	157	170	170	228
ADS	129	129	139	139	150	150	158	158	172	172	228
L	498	518	529	574	576	608	604	654	685	735	753
LS	566	586	610	655	669	701	698	748	797	847	891
LB	192	212	223	268	270	302	298	348	379	429	447
LBS	260	280	304	349	363	395	392	442	491	541	585

24832936/EN – 09/2018

33 047 00 14

K57..



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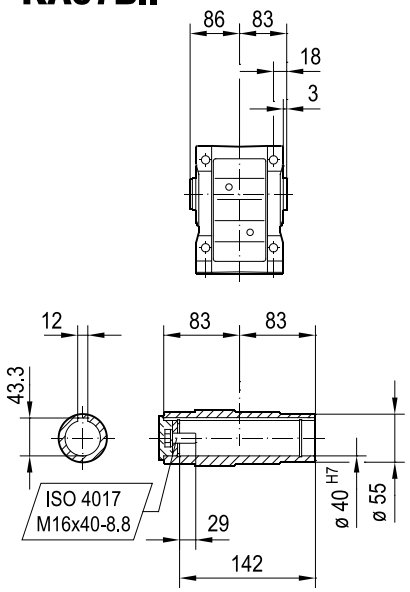

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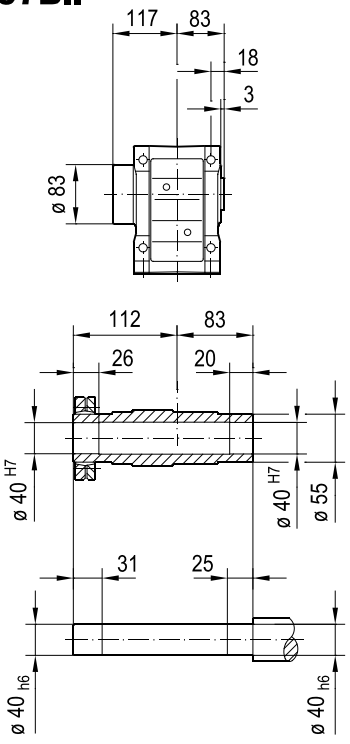

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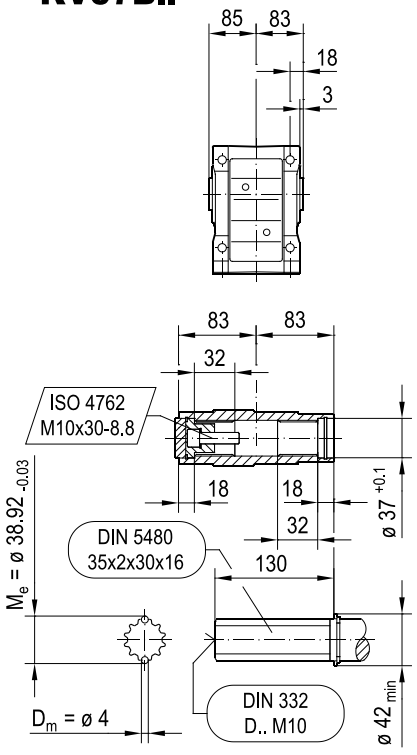

(→ 📖 7.3)	DRN										
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M
AC	115	115	139	139	156	156	179	179	197	197	221
AD	98	98	118	118	128	128	140	140	157	157	170
ADS	98	98	129	129	139	139	150	150	158	158	172
L	437	451	452	472	483	528	530	562	558	608	639
LS	493	507	520	540	564	609	623	655	652	702	751
LB	184	198	199	219	230	275	277	309	305	355	386
LBS	240	254	267	287	311	356	370	402	399	449	498

33 048 00 14

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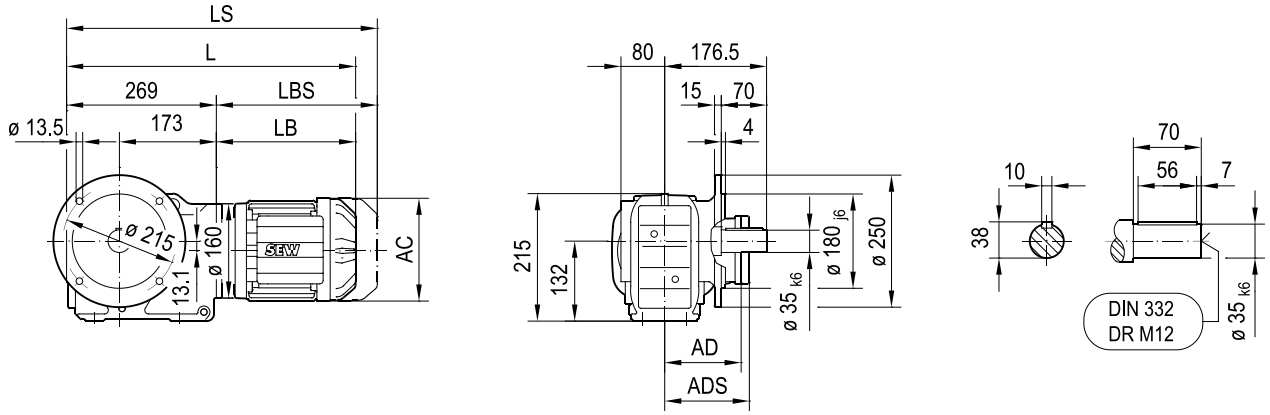

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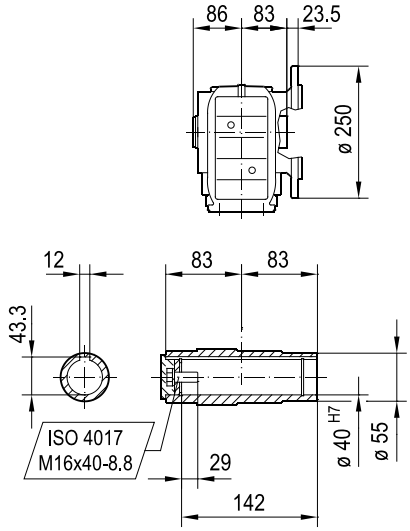

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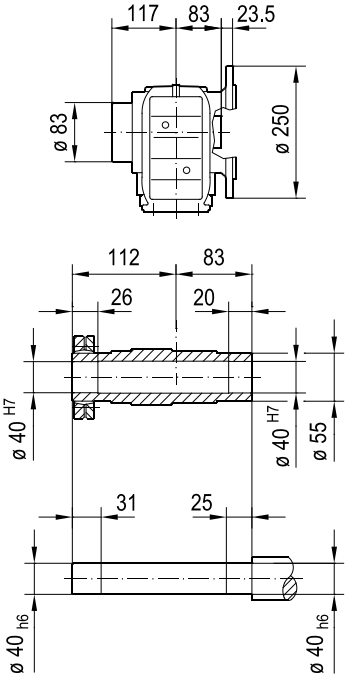

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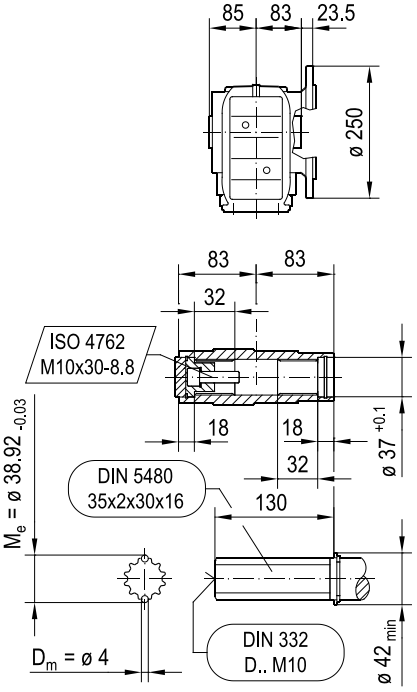
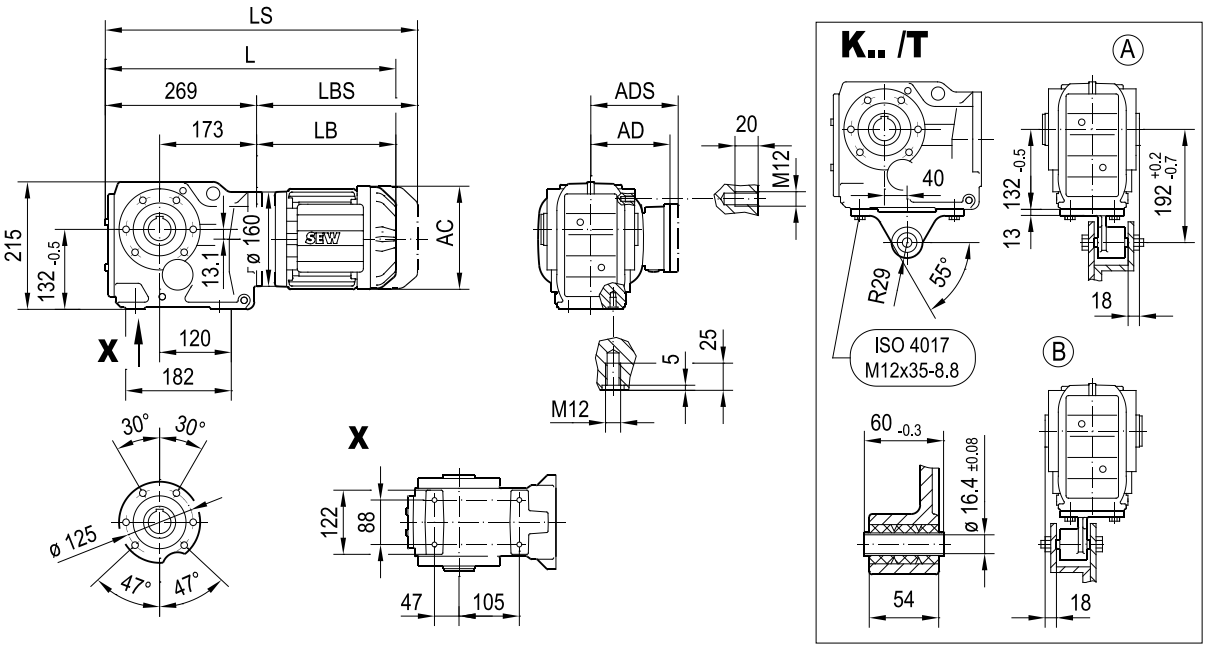


(→ 📖 7.3)	DRN										
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M
AC	115	115	139	139	156	156	179	179	197	197	221
AD	98	98	118	118	128	128	140	140	157	157	170
ADS	98	98	129	129	139	139	150	150	158	158	172
L	453	467	468	488	499	544	546	578	574	624	655
LS	509	523	536	556	580	625	639	671	668	718	767
LB	184	198	199	219	230	275	277	309	305	355	386
LBS	240	254	267	287	311	356	370	402	399	449	498

24832936/EN – 09/2018

33 049 00 14

KA57..



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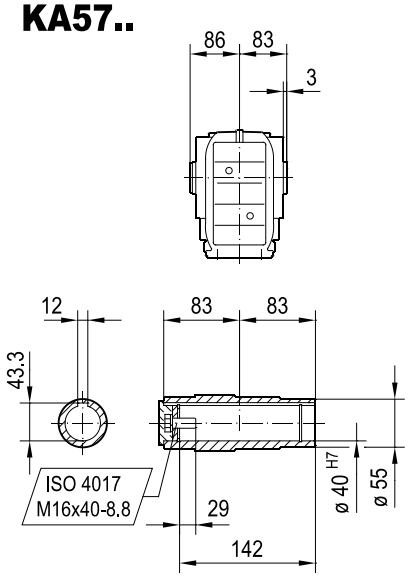

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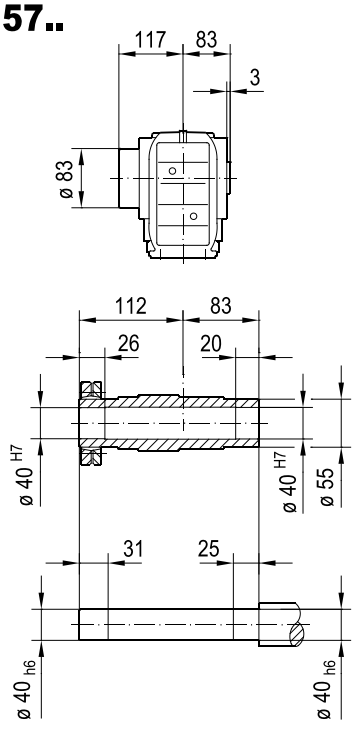

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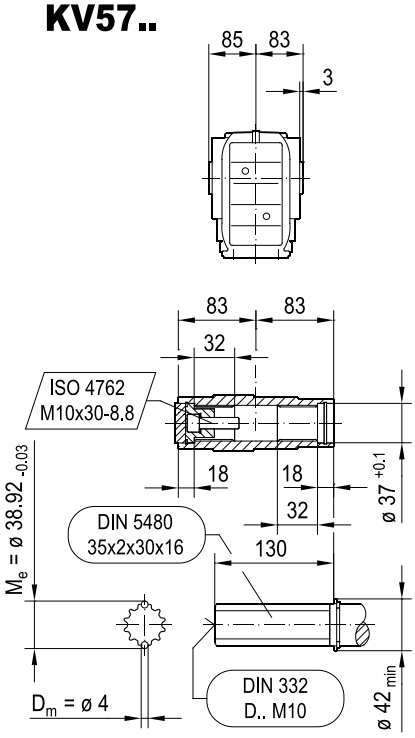
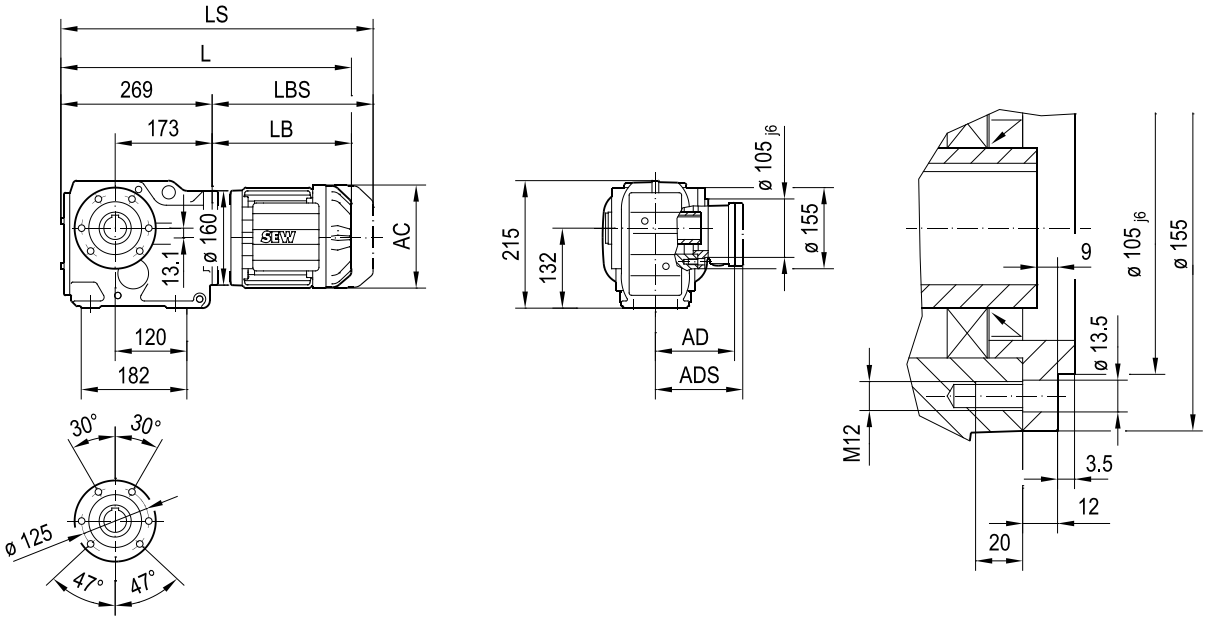


(→ 📖 7.3)	DRN										
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M
AC	115	115	139	139	156	156	179	179	197	197	221
AD	98	98	118	118	128	128	140	140	157	157	170
ADS	98	98	129	129	139	139	150	150	158	158	172
L	453	467	468	488	499	544	546	578	574	624	655
LS	509	523	536	556	580	625	639	671	668	718	767
LB	184	198	199	219	230	275	277	309	305	355	386
LBS	240	254	267	287	311	356	370	402	399	449	498

24832936/EN – 09/2018

33 050 00 14

KAZ57..



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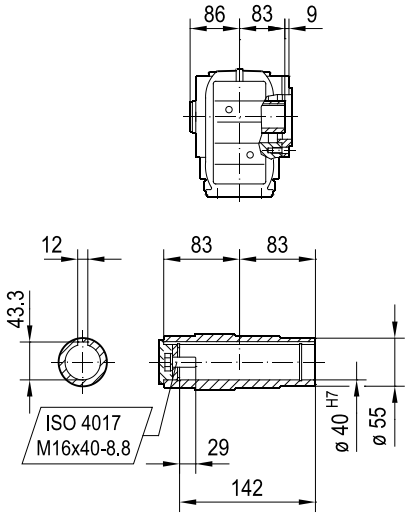

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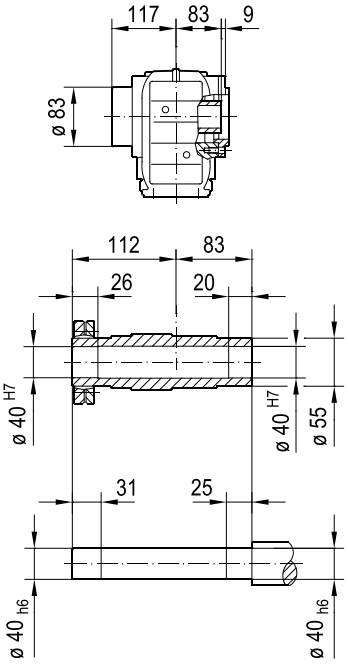

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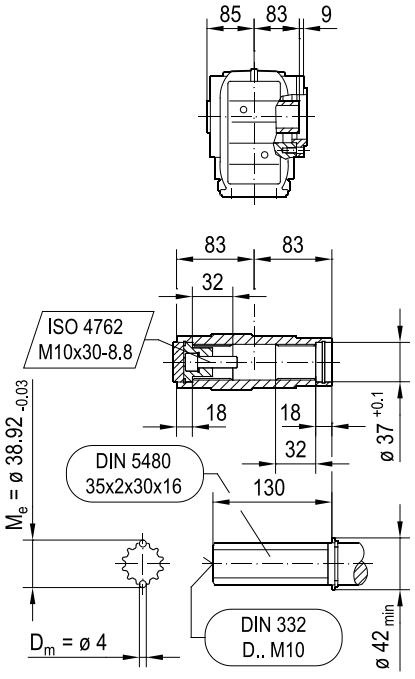
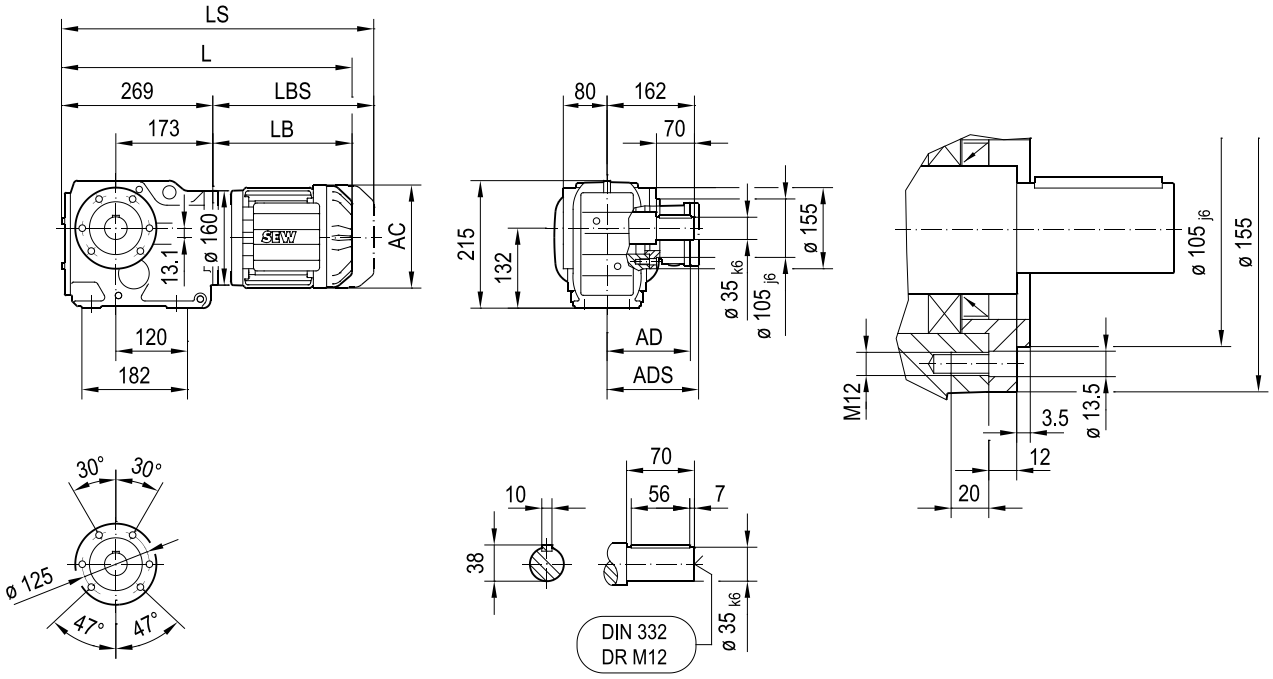


(→ 📖 7.3)	DRN										
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M
AC	115	115	139	139	156	156	179	179	197	197	221
AD	98	98	118	118	128	128	140	140	157	157	170
ADS	98	98	129	129	139	139	150	150	158	158	172
L	453	467	468	488	499	544	546	578	574	624	655
LS	509	523	536	556	580	625	639	671	668	718	767
LB	184	198	199	219	230	275	277	309	305	355	386
LBS	240	254	267	287	311	356	370	402	399	449	498

24832936/EN – 09/2018

KZ57..

33 234 01 15

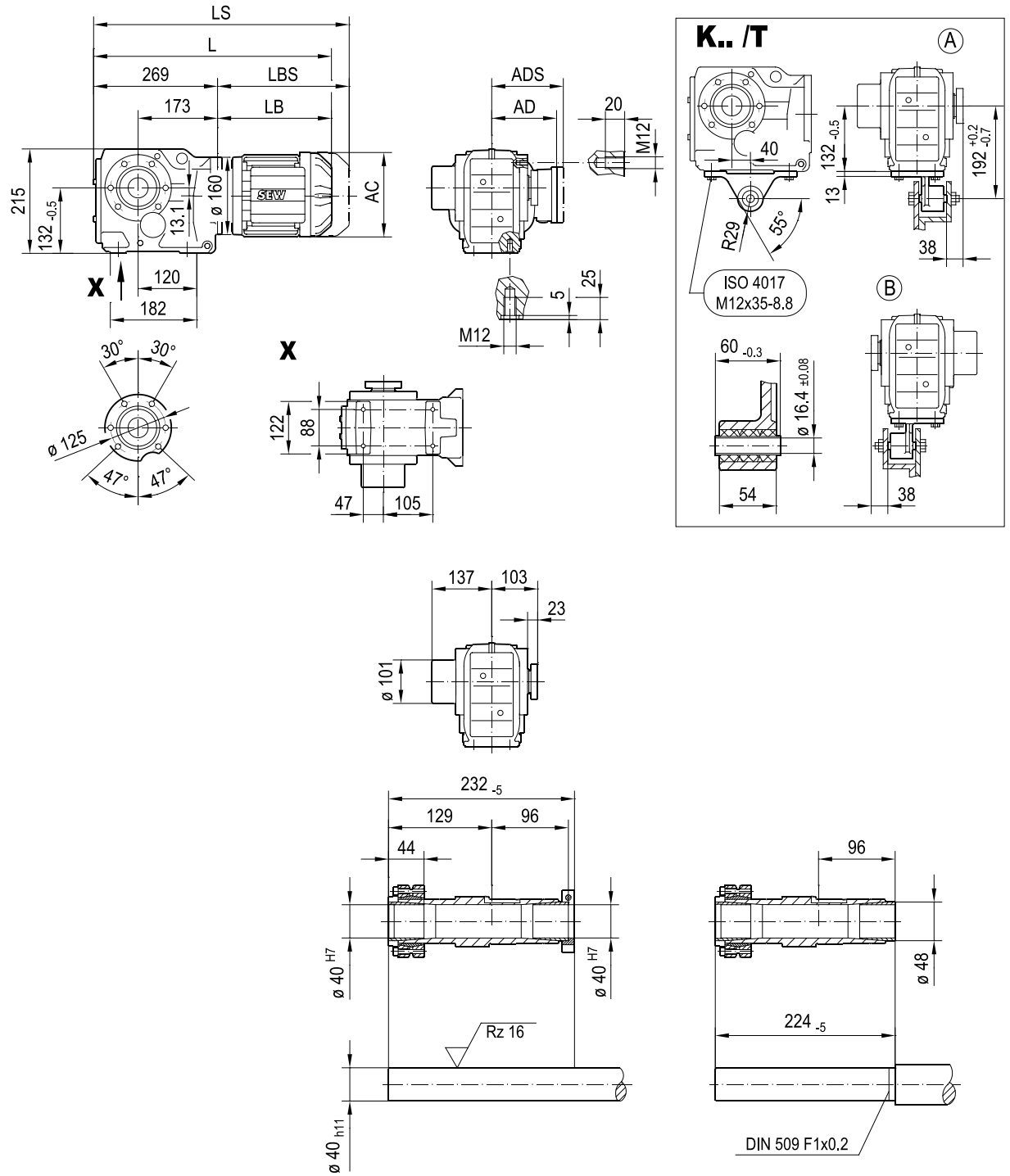


(→ 7.3)	DRN										
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M
AC	115	115	139	139	156	156	179	179	197	197	221
AD	98	98	118	118	128	128	140	140	157	157	170
ADS	98	98	129	129	139	139	150	150	158	158	172
L	453	467	468	488	499	544	546	578	574	624	655
LS	509	523	536	556	580	625	639	671	668	718	767
LB	184	198	199	219	230	275	277	309	305	355	386
LBS	240	254	267	287	311	356	370	402	399	449	498

24832936/EN – 09/2018

KT57..

33 051 01 14

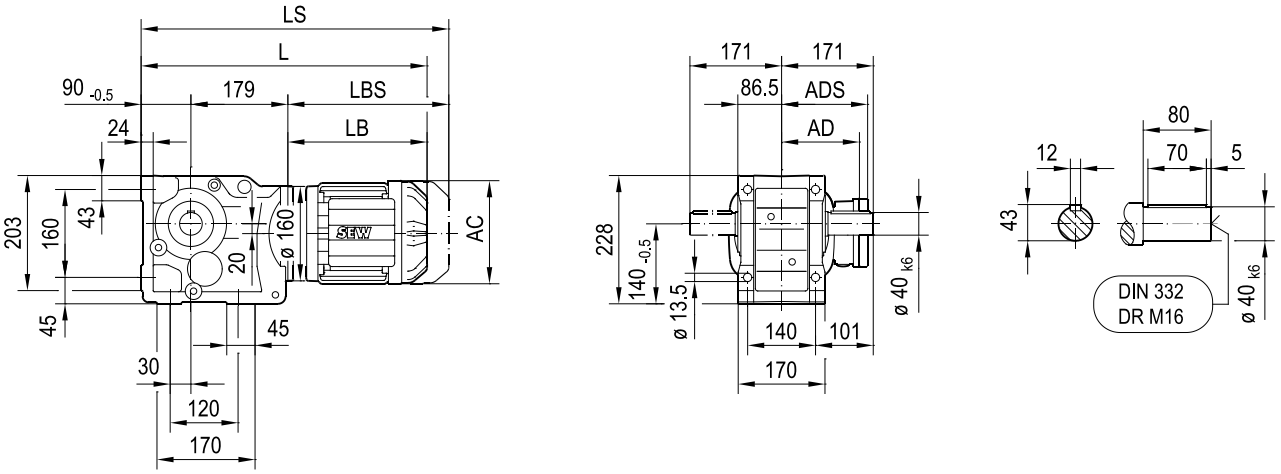


(→ 📖 7.3)	DRN										
	63MS	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M
AC	115	115	139	139	156	156	179	179	197	197	221
AD	98	98	118	118	128	128	140	140	157	157	170
ADS	98	98	129	129	139	139	150	150	158	158	172
L	453	467	468	488	499	544	546	578	574	624	655
LS	509	523	536	556	580	625	639	671	668	718	767
LB	184	198	199	219	230	275	277	309	305	355	386
LBS	240	254	267	287	311	356	370	402	399	449	498

24832936/EN – 09/2018

33 052 00 14

K67..



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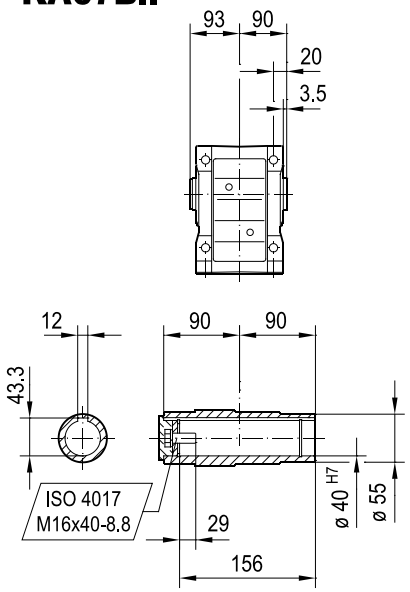

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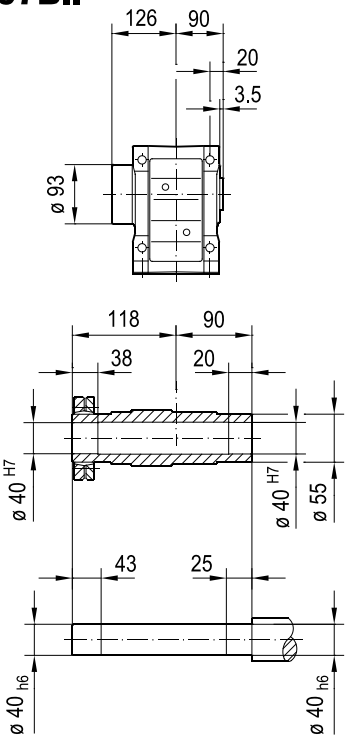

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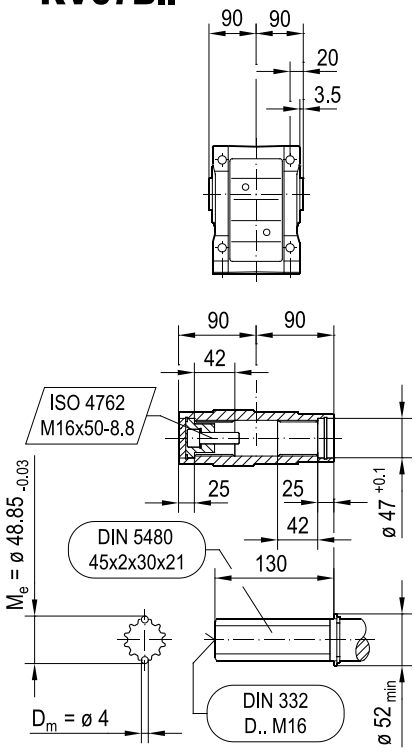
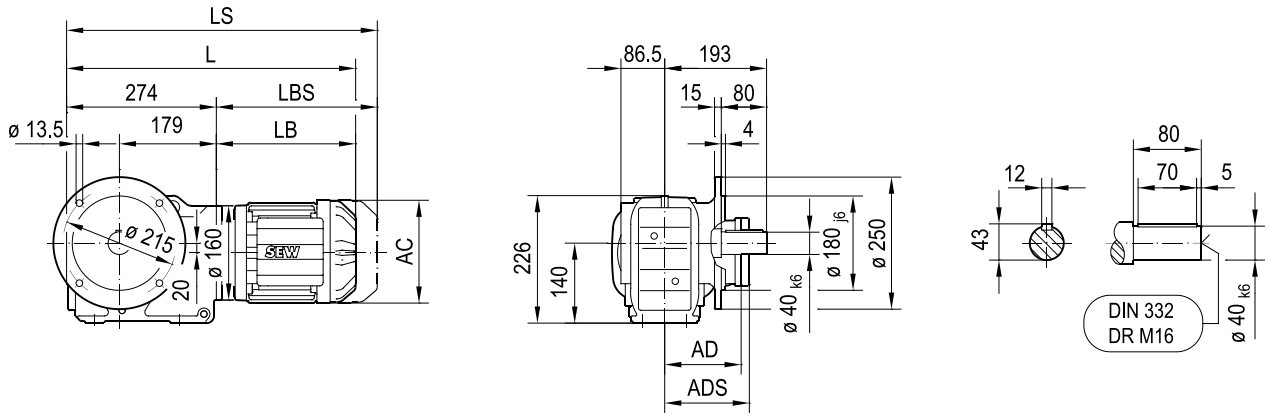


(→ 📖 7.3)	DRN										
	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S
AC	115	139	139	156	156	179	179	197	197	221	221
AD	98	118	118	128	128	140	140	157	157	170	170
ADS	98	129	129	139	139	150	150	158	158	172	172
L	467	468	488	499	544	546	578	574	624	655	709
LS	523	536	556	580	625	639	671	668	718	767	821
LB	198	199	219	230	275	277	309	305	355	386	440
LBS	254	267	287	311	356	370	402	399	449	498	552

33 053 00 14

KF67..



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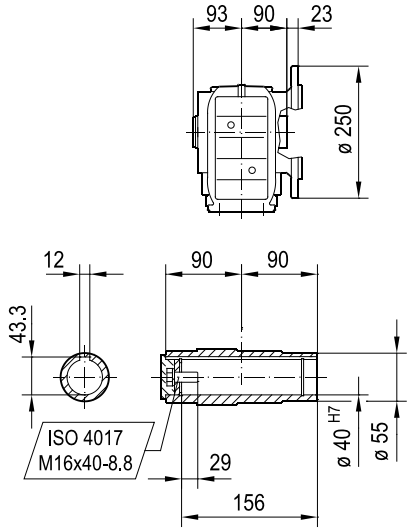

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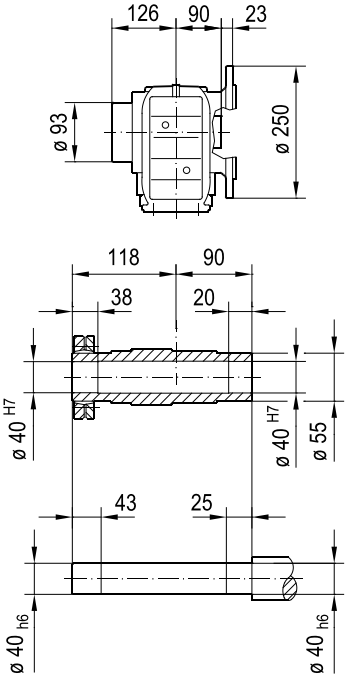

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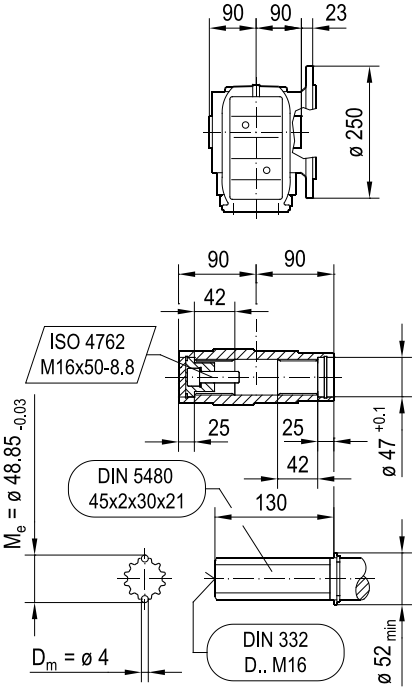

(→ 📖 7.3)	DRN										
	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S
AC	115	139	139	156	156	179	179	197	197	221	221
AD	98	118	118	128	128	140	140	157	157	170	170
ADS	98	129	129	139	139	150	150	158	158	172	172
L	472	473	493	504	549	551	583	579	629	660	714
LS	528	541	561	585	630	644	676	673	723	772	826
LB	198	199	219	230	275	277	309	305	355	386	440
LBS	254	267	287	311	356	370	402	399	449	498	552

24832936/EN – 09/2018

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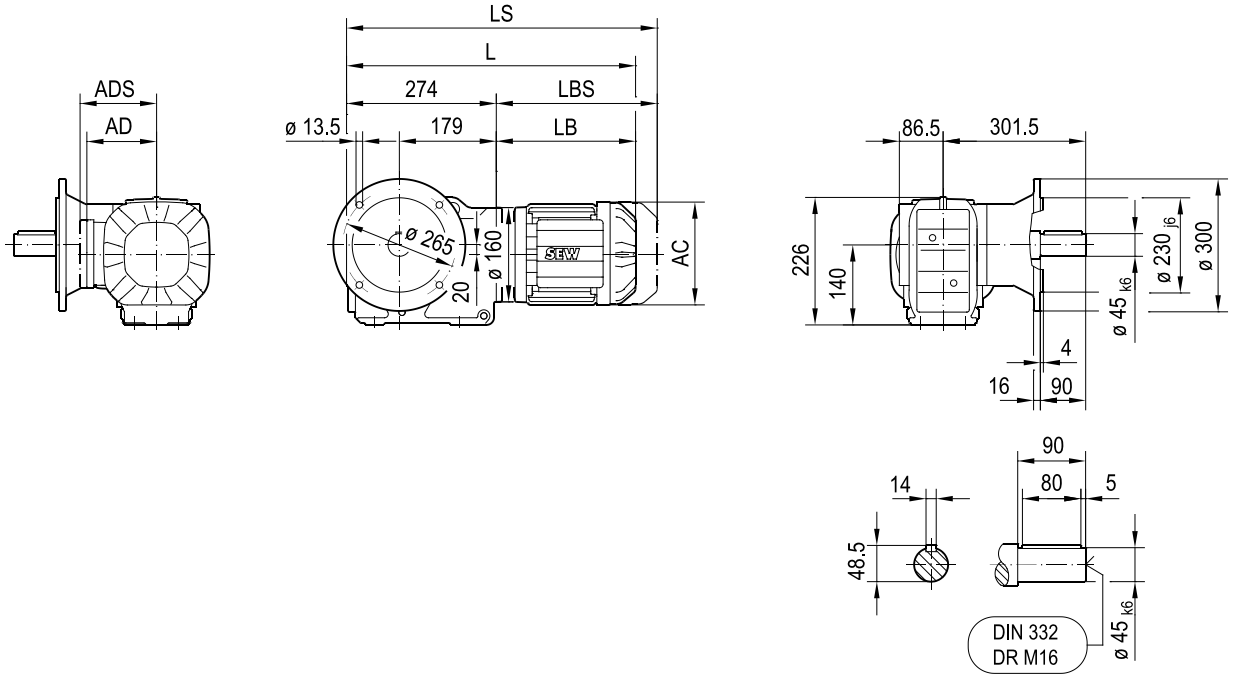

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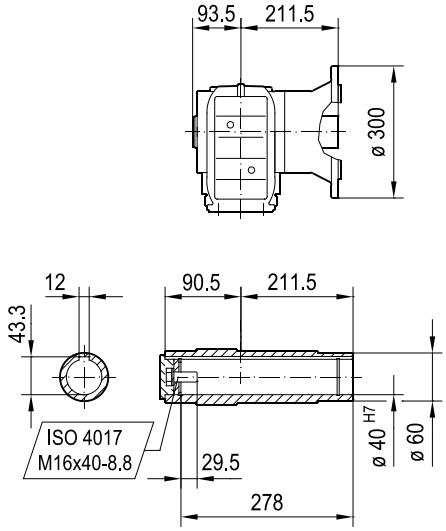

(→ 📖 7.3)	DRN										
	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S
AC	115	139	139	156	156	179	179	197	197	221	221
AD	98	118	118	128	128	140	140	157	157	170	170
ADS	98	129	129	139	139	150	150	158	158	172	172
L	472	473	493	504	549	551	583	579	629	660	714
LS	528	541	561	585	630	644	676	673	723	772	826
LB	198	199	219	230	275	277	309	305	355	386	440
LBS	254	267	287	311	356	370	402	399	449	498	552

24832936/EN – 09/2018

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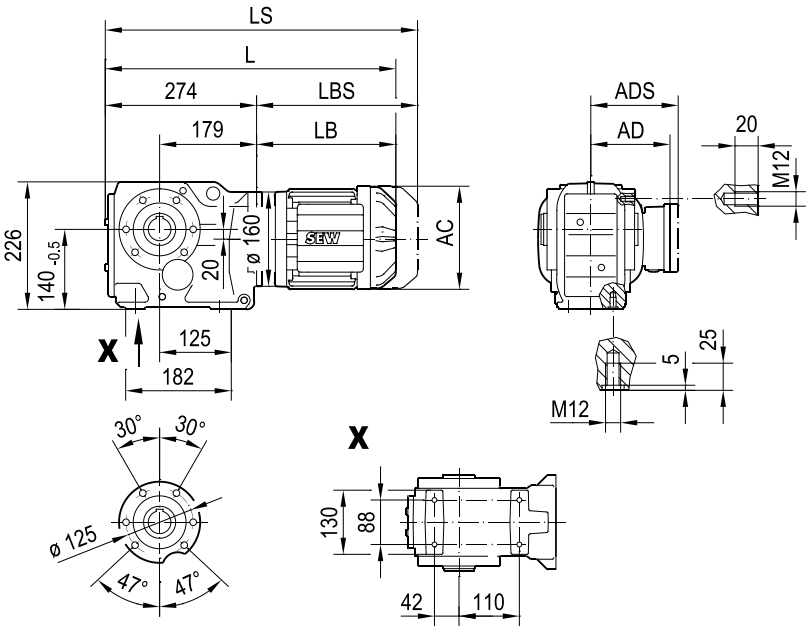

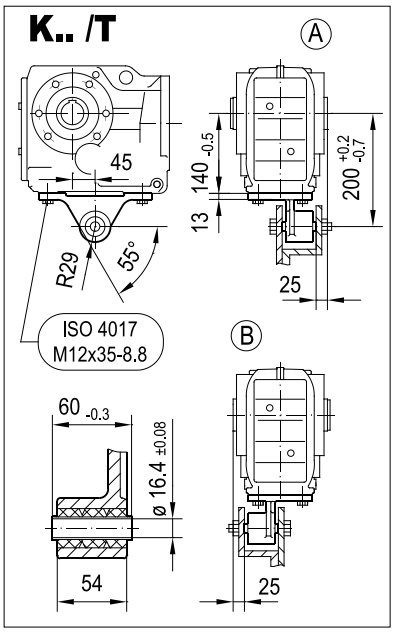

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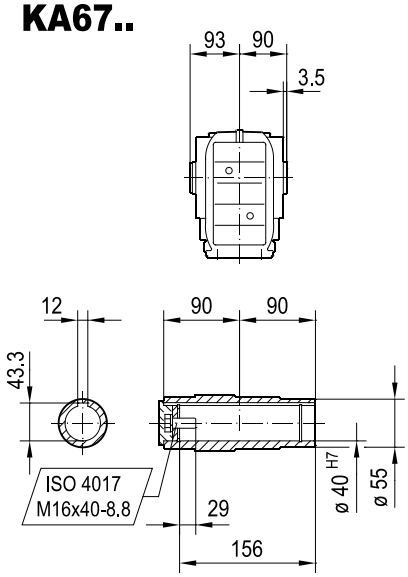

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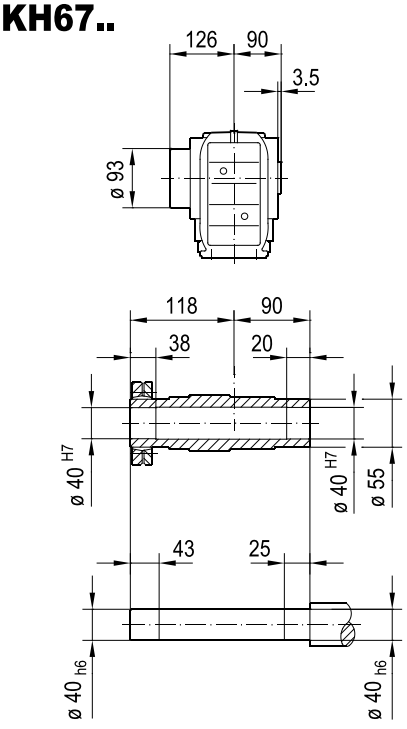

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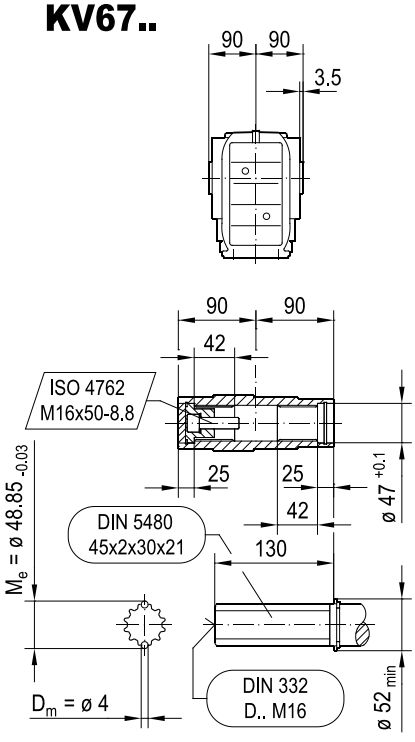

(→ 📖 7.3)	DRN										
	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S
AC	115	139	139	156	156	179	179	197	197	221	221
AD	98	118	118	128	128	140	140	157	157	170	170
ADS	98	129	129	139	139	150	150	158	158	172	172
L	472	473	493	504	549	551	583	579	629	660	714
LS	528	541	561	585	630	644	676	673	723	772	826
LB	198	199	219	230	275	277	309	305	355	386	440
LBS	254	267	287	311	356	370	402	399	449	498	552

24832936/EN – 09/2018

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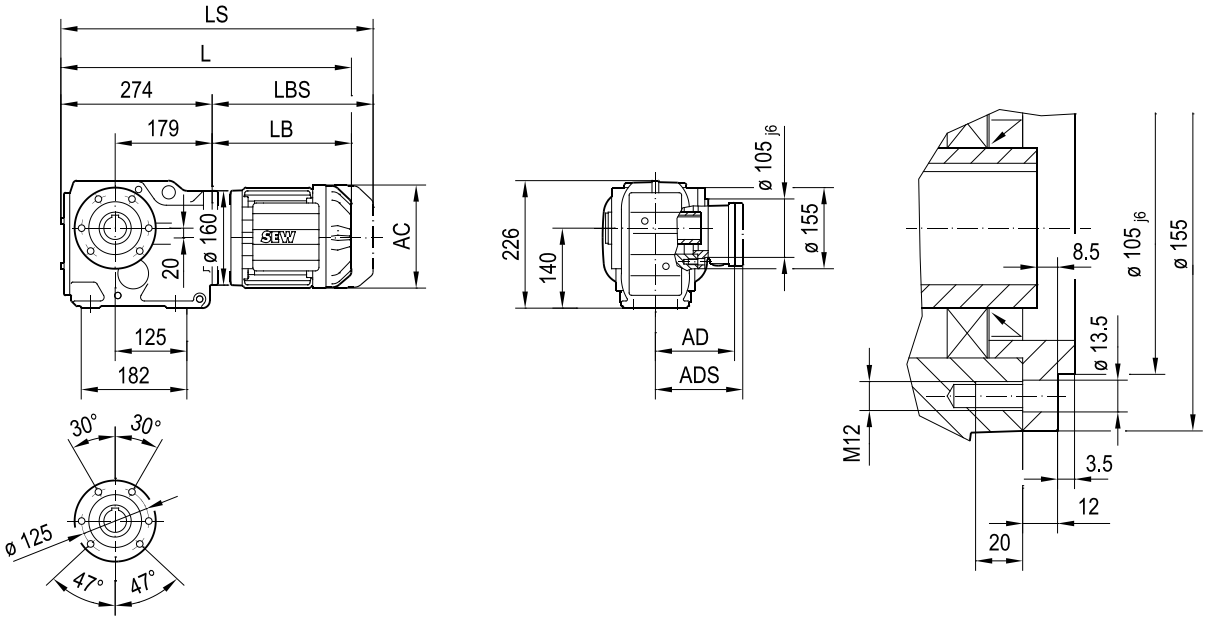

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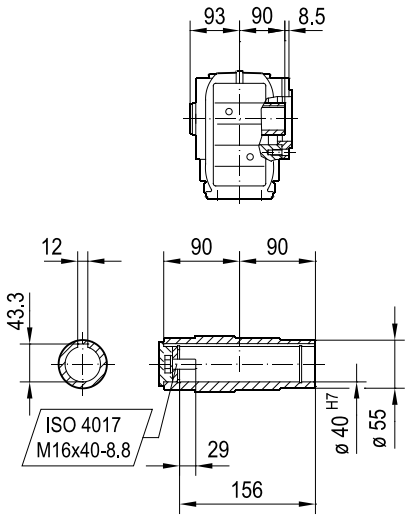

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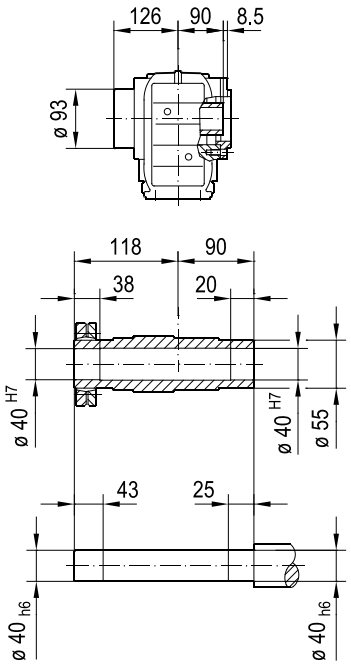

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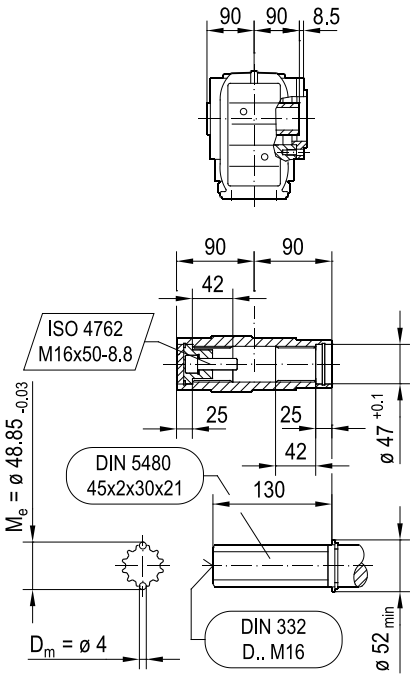

(→ 📖 7.3)	DRN										
	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S
AC	115	139	139	156	156	179	179	197	197	221	221
AD	98	118	118	128	128	140	140	157	157	170	170
ADS	98	129	129	139	139	150	150	158	158	172	172
L	472	473	493	504	549	551	583	579	629	660	714
LS	528	541	561	585	630	644	676	673	723	772	826
LB	198	199	219	230	275	277	309	305	355	386	440
LBS	254	267	287	311	356	370	402	399	449	498	552

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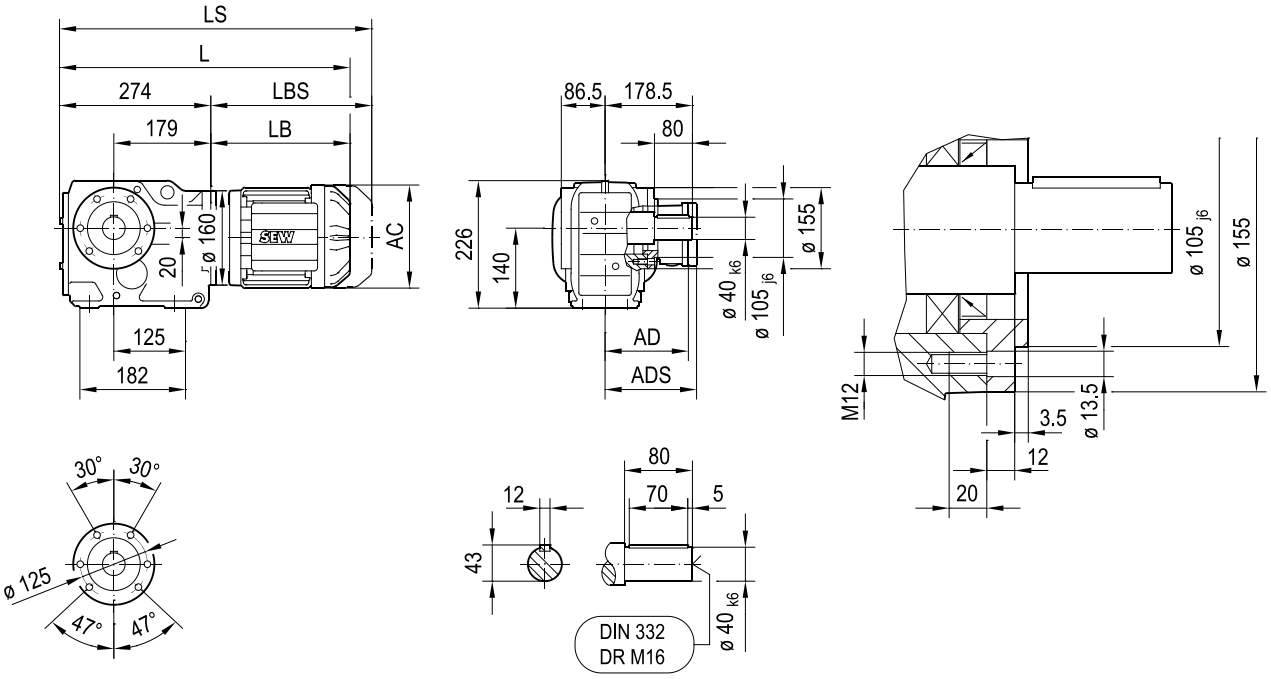
33 235 00 15

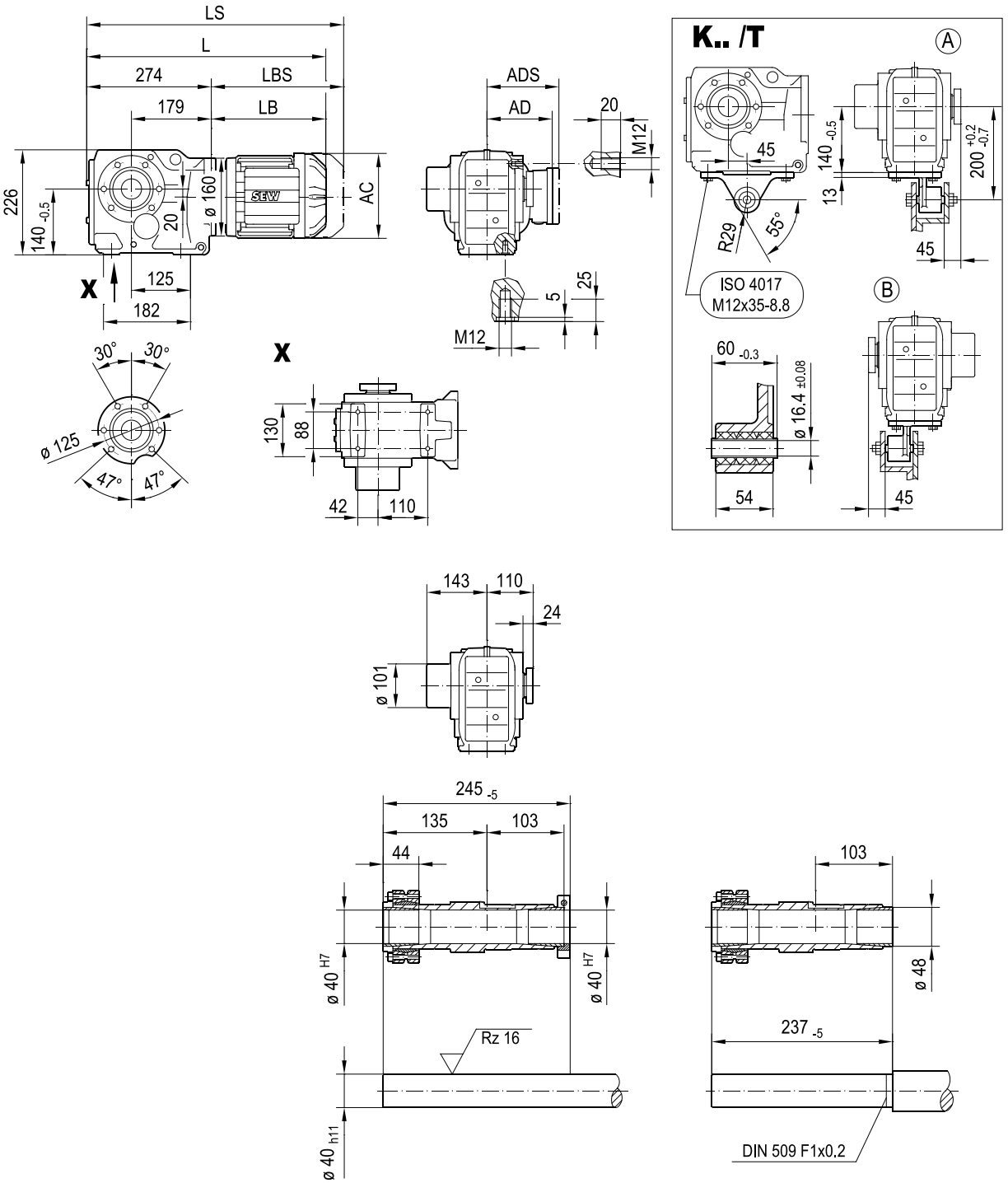


(→ 📖 7.3)	DRN										
	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S
AC	115	139	139	156	156	179	179	197	197	221	221
AD	98	118	118	128	128	140	140	157	157	170	170
ADS	98	129	129	139	139	150	150	158	158	172	172
L	472	473	493	504	549	551	583	579	629	660	714
LS	528	541	561	585	630	644	676	673	723	772	826
LB	198	199	219	230	275	277	309	305	355	386	440
LBS	254	267	287	311	356	370	402	399	449	498	552

24832936/EN – 09/2018

KT67..

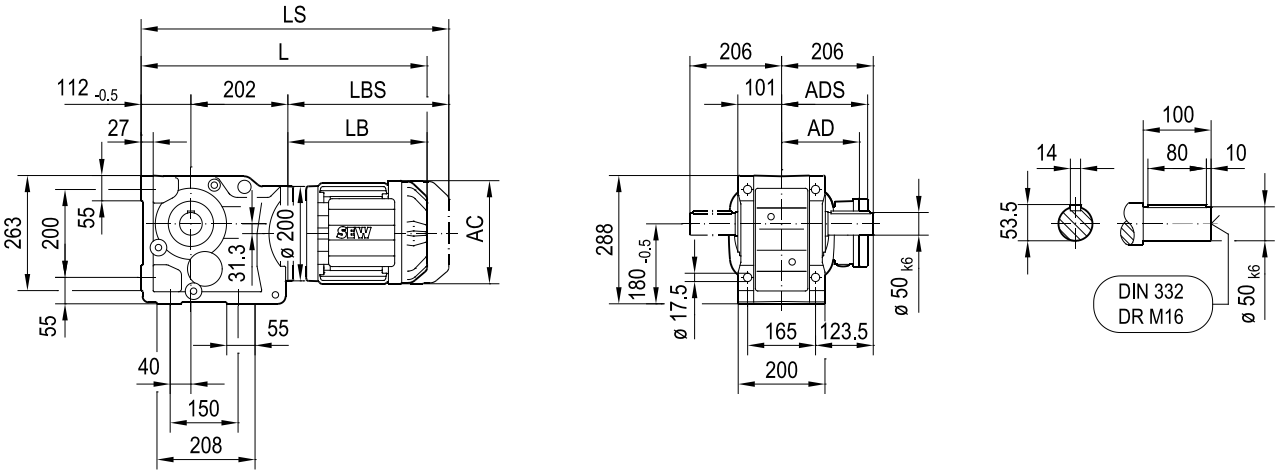
33 056 01 14



(→ 📖 7.3)	DRN										
	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S
AC	115	139	139	156	156	179	179	197	197	221	221
AD	98	118	118	128	128	140	140	157	157	170	170
ADS	98	129	129	139	139	150	150	158	158	172	172
L	472	473	493	504	549	551	583	579	629	660	714
LS	528	541	561	585	630	644	676	673	723	772	826
LB	198	199	219	230	275	277	309	305	355	386	440
LBS	254	267	287	311	356	370	402	399	449	498	552

33 057 00 14

K77..



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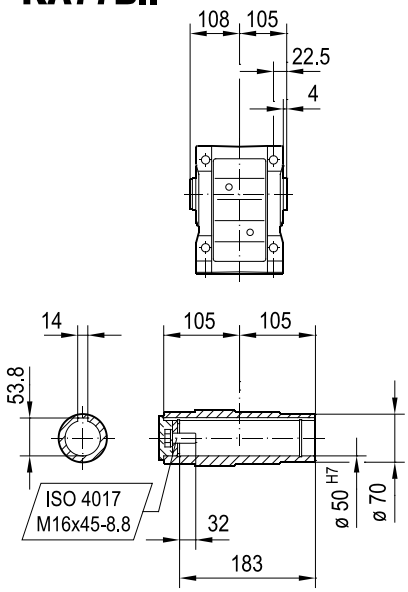

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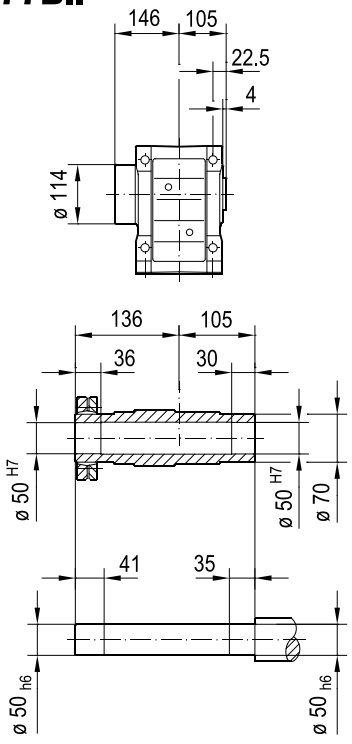

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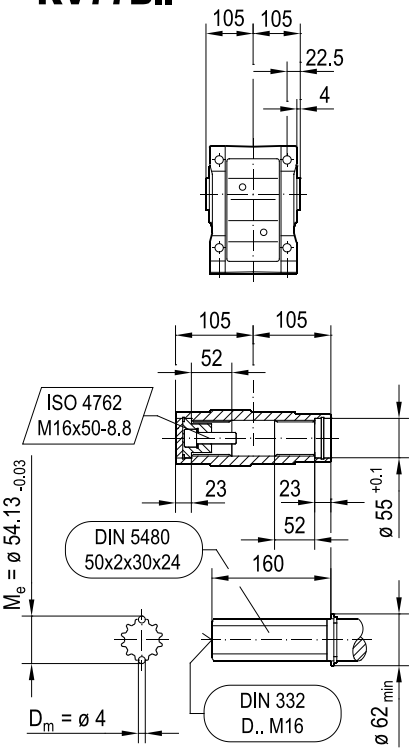

(→ 📖 7.3)	DRN											
	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..
AC	139	156	156	179	179	197	197	221	221	261	261	314
AD	118	128	128	140	140	157	157	170	170	228	228	253
ADS	129	139	139	150	150	158	158	172	172	228	228	253
L	526	537	582	584	616	612	662	693	743	761	787	853
LS	594	618	663	677	709	706	756	805	855	899	924	1042
LB	212	223	268	270	302	298	348	379	429	447	473	539
LBS	280	304	349	363	395	392	442	491	541	585	610	728

24832936/EN – 09/2018

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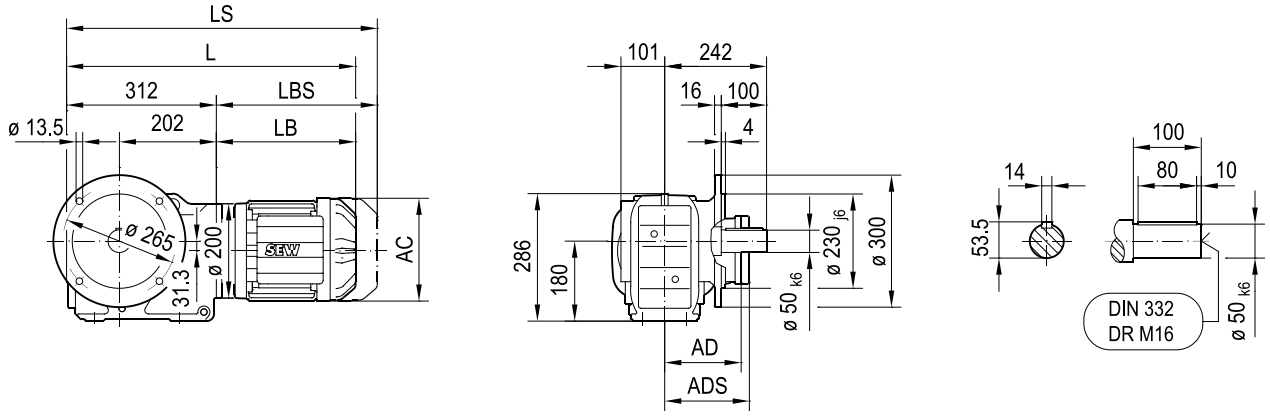

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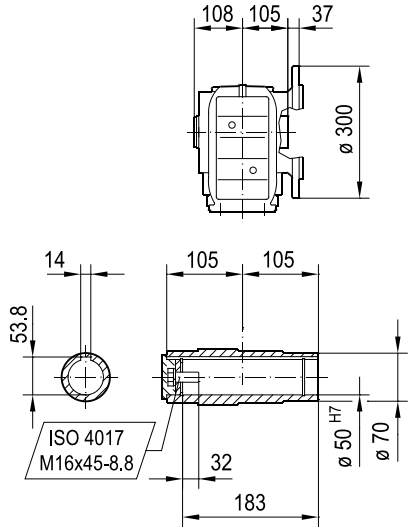

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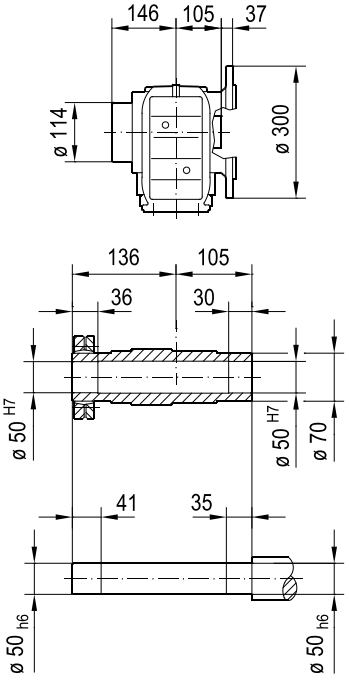

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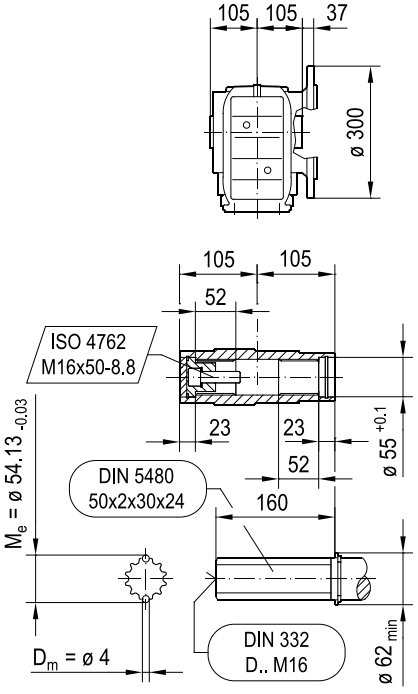

(→ 📖 7.3)	DRN											
	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..
AC	139	156	156	179	179	197	197	221	221	261	261	314
AD	118	128	128	140	140	157	157	170	170	228	228	253
ADS	129	139	139	150	150	158	158	172	172	228	228	253
L	524	535	580	582	614	610	660	691	741	759	785	851
LS	592	616	661	675	707	704	754	803	853	897	922	1040
LB	212	223	268	270	302	298	348	379	429	447	473	539
LBS	280	304	349	363	395	392	442	491	541	585	610	728

24832936/EN – 09/2018

KM77..

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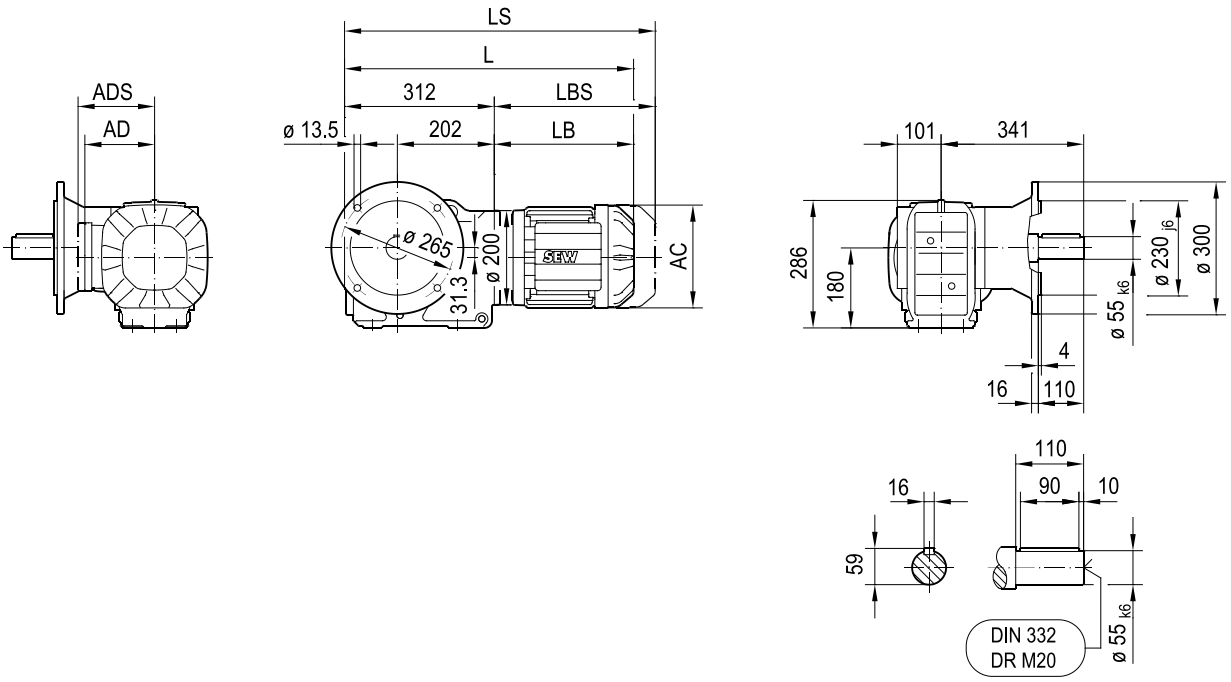

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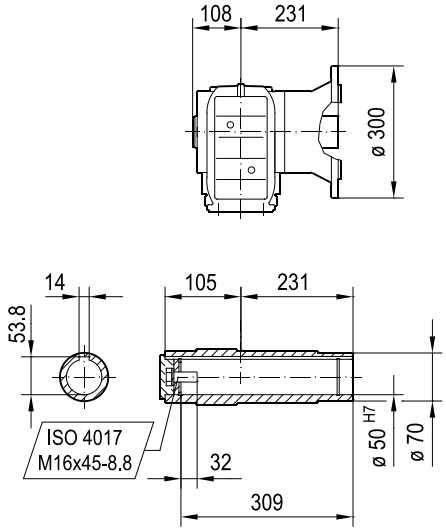

(→ 📖 7.3)	DRN											
	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..
AC	139	156	156	179	179	197	197	221	221	261	261	314
AD	118	128	128	140	140	157	157	170	170	228	228	253
ADS	129	139	139	150	150	158	158	172	172	228	228	253
L	524	535	580	582	614	610	660	691	741	759	785	851
LS	592	616	661	675	707	704	754	803	853	897	922	1040
LB	212	223	268	270	302	298	348	379	429	447	473	539
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24832936/EN – 09/2018

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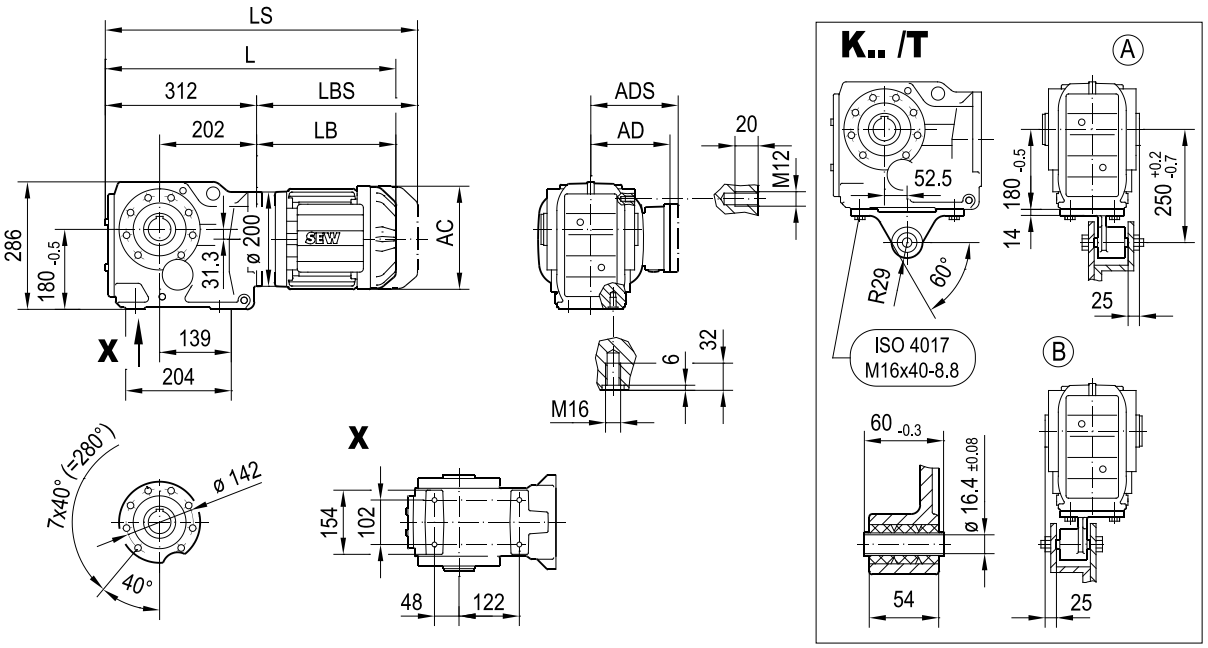
KA77..



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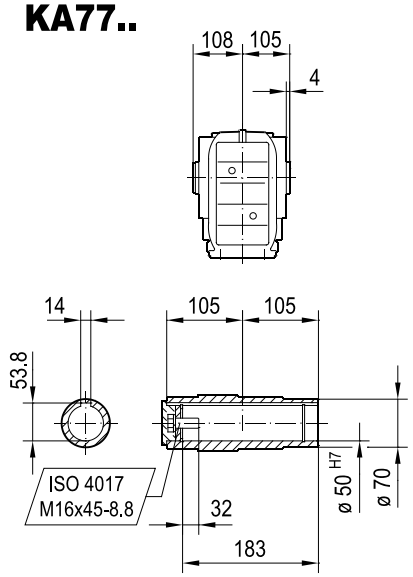

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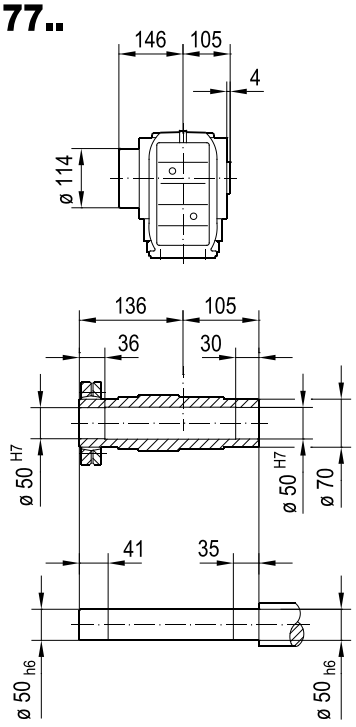

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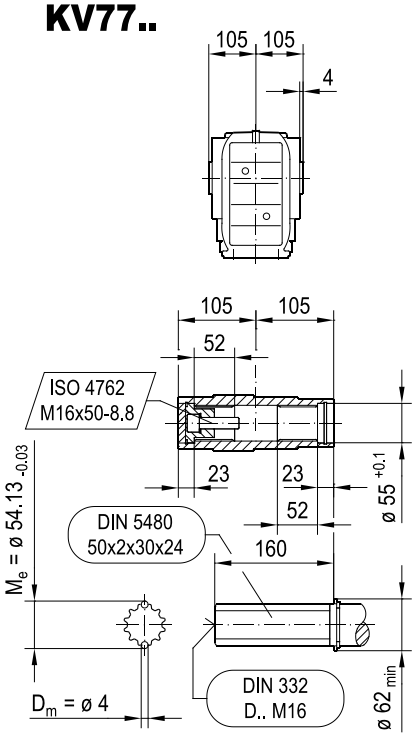
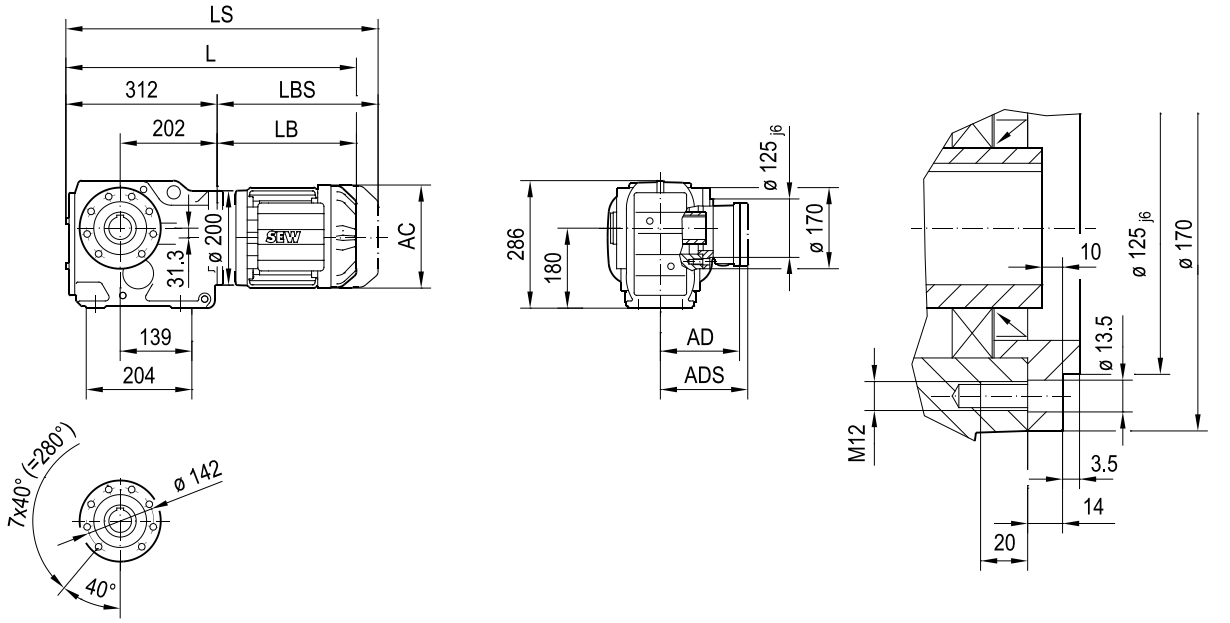


(→ 📖 7.3)	DRN											
	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..
AC	139	156	156	179	179	197	197	221	221	261	261	314
AD	118	128	128	140	140	157	157	170	170	228	228	253
ADS	129	139	139	150	150	158	158	172	172	228	228	253
L	524	535	580	582	614	610	660	691	741	759	785	851
LS	592	616	661	675	707	704	754	803	853	897	922	1040
LB	212	223	268	270	302	298	348	379	429	447	473	539
LBS	280	304	349	363	395	392	442	491	541	585	610	728

33 060 00 14

KAZ77..



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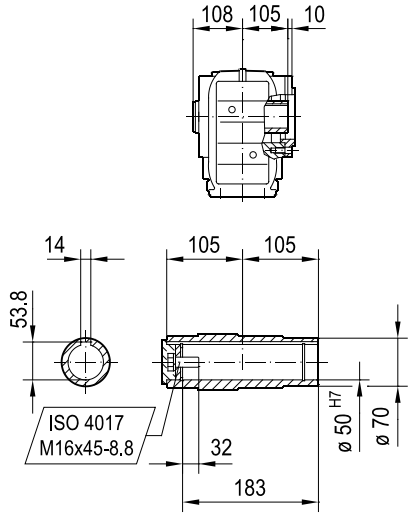

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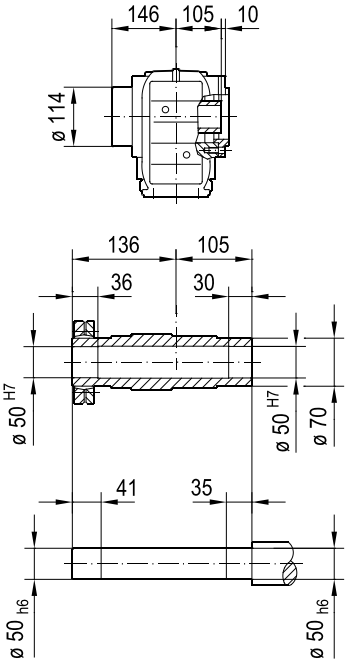

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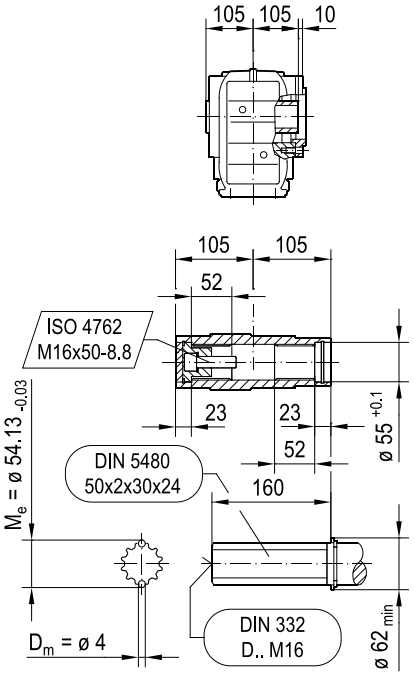

(→ 📖 7.3)	DRN											
	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..
AC	139	156	156	179	179	197	197	221	221	261	261	314
AD	118	128	128	140	140	157	157	170	170	228	228	253
ADS	129	139	139	150	150	158	158	172	172	228	228	253
L	524	535	580	582	614	610	660	691	741	759	785	851
LS	592	616	661	675	707	704	754	803	853	897	922	1040
LB	212	223	268	270	302	298	348	379	429	447	473	539
LBS	280	304	349	363	395	392	442	491	541	585	610	728

24832936/EN – 09/2018

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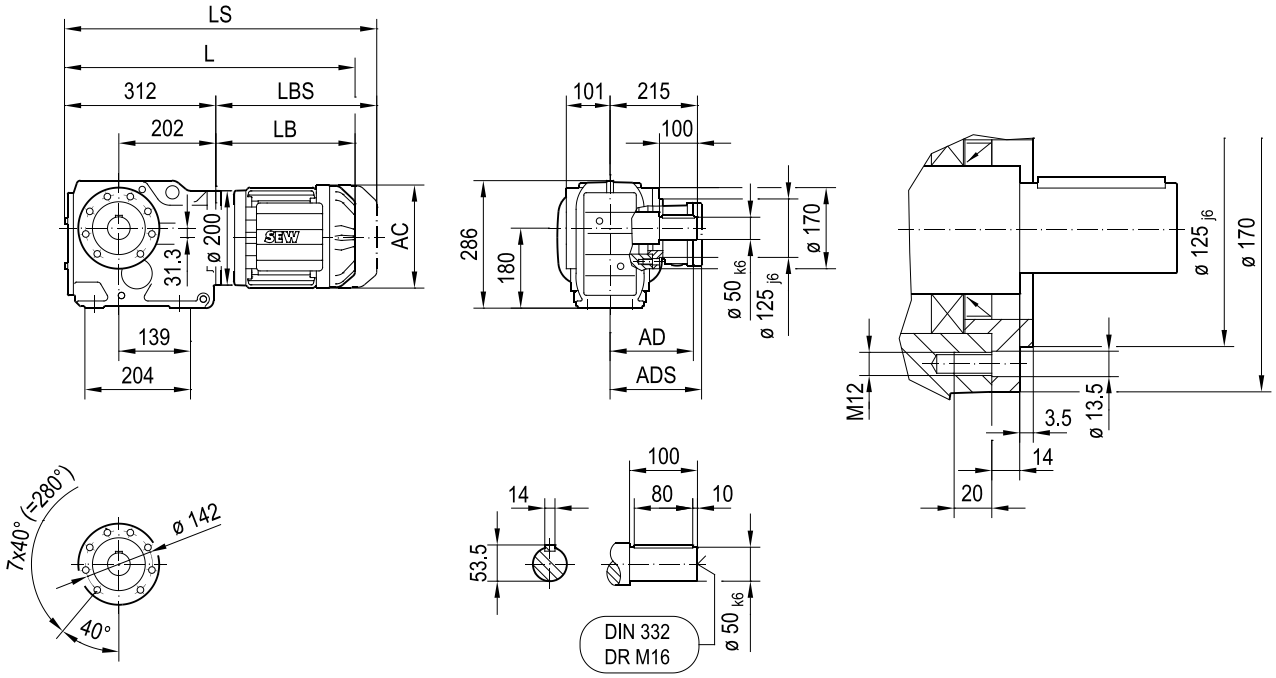
KZ77..



(→ 📖 7.3)	DRN											
	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..
AC	139	156	156	179	179	197	197	221	221	261	261	314
AD	118	128	128	140	140	157	157	170	170	228	228	253
ADS	129	139	139	150	150	158	158	172	172	228	228	253
L	524	535	580	582	614	610	660	691	741	759	785	851
LS	592	616	661	675	707	704	754	803	853	897	922	1040
LB	212	223	268	270	302	298	348	379	429	447	473	539
LBS	280	304	349	363	395	392	442	491	541	585	610	728

KT77..

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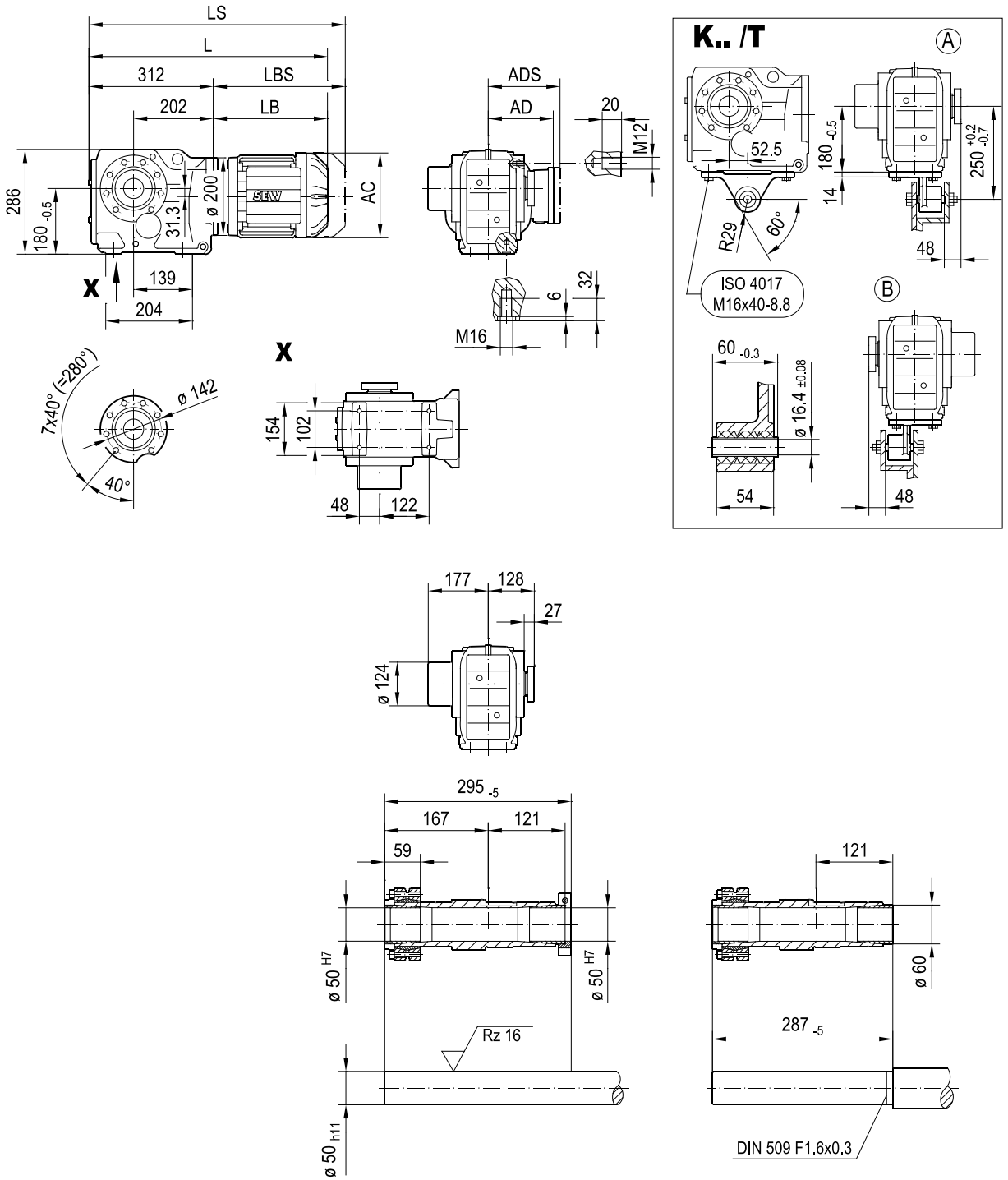
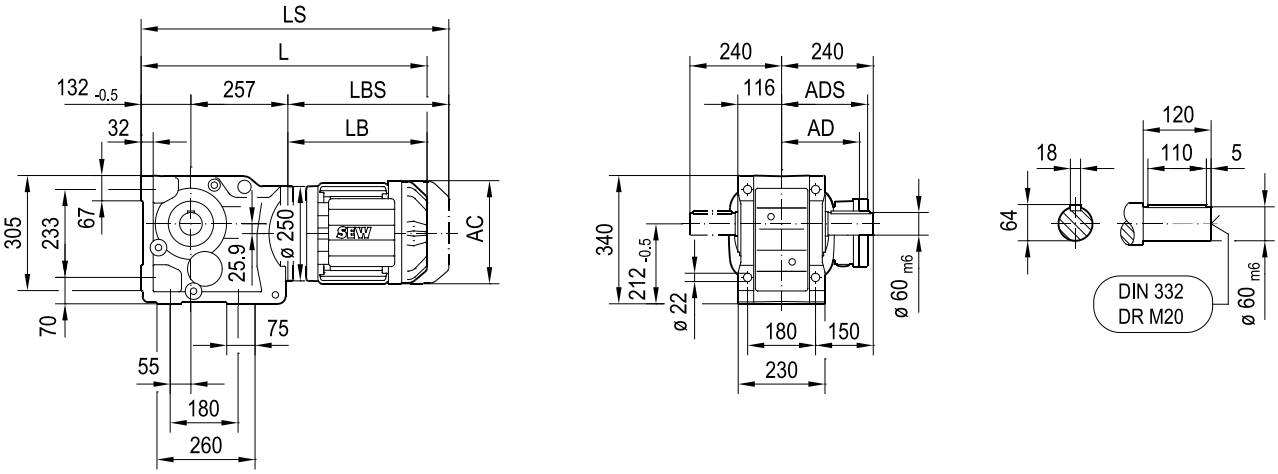


(→ 📖 7.3)	DRN											
	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..
AC	139	156	156	179	179	197	197	221	221	261	261	314
AD	118	128	128	140	140	157	157	170	170	228	228	253
ADS	129	139	139	150	150	158	158	172	172	228	228	253
L	524	535	580	582	614	610	660	691	741	759	785	851
LS	592	616	661	675	707	704	754	803	853	897	922	1040
LB	212	223	268	270	302	298	348	379	429	447	473	539
LBS	280	304	349	363	395	392	442	491	541	585	610	728

24832936/EN – 09/2018

33 062 00 14

K87..



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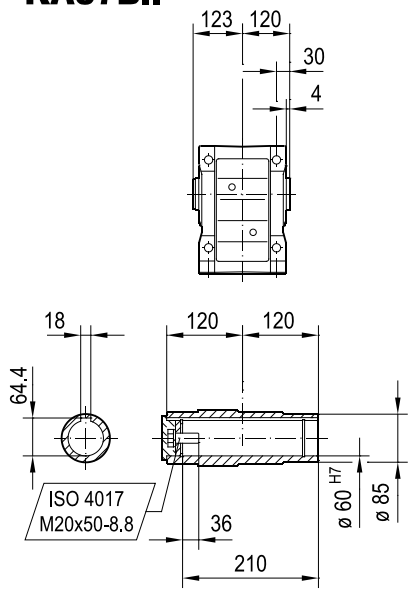

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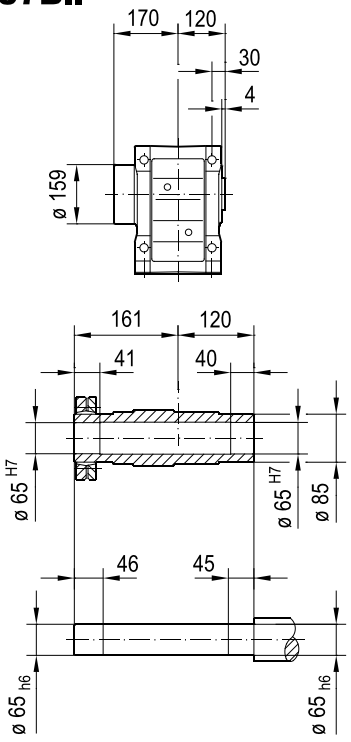

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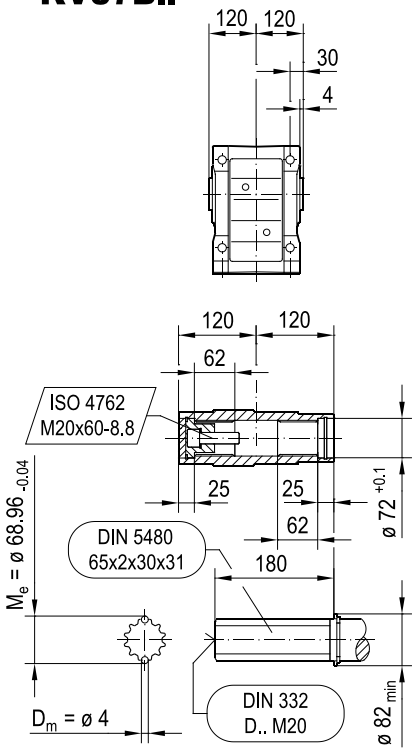
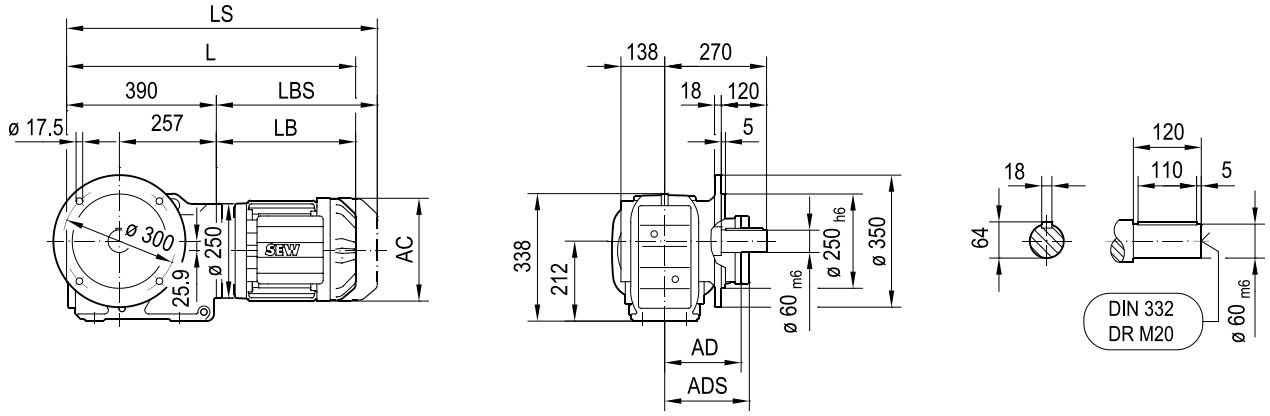


(→ 📖 7.3)	DRN											
	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..
AC	156	156	179	179	197	197	221	221	261	261	314	357
AD	128	128	140	140	157	157	170	170	228	228	253	268
ADS	139	139	150	150	158	158	172	172	228	228	253	268
L	607	652	654	686	682	732	763	813	831	857	923	946
LS	688	733	747	779	776	826	875	925	969	994	1112	1135
LB	218	263	265	297	293	343	374	424	442	468	534	557
LBS	299	344	358	390	387	437	486	536	580	605	723	746

24832936/EN – 09/2018

33 063 00 14

KF87..



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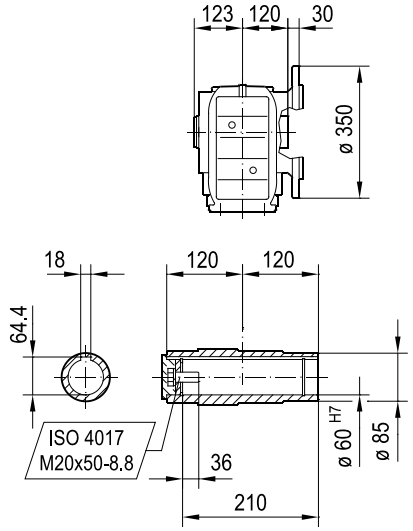

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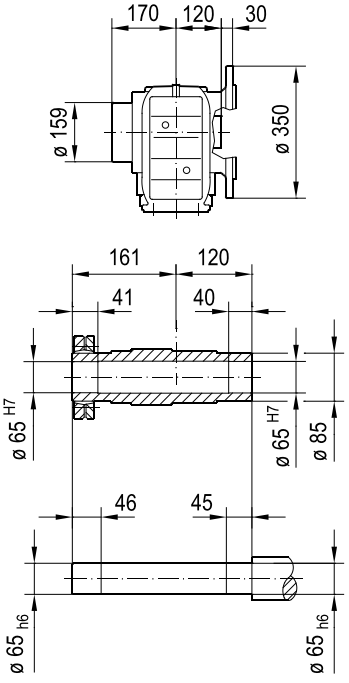

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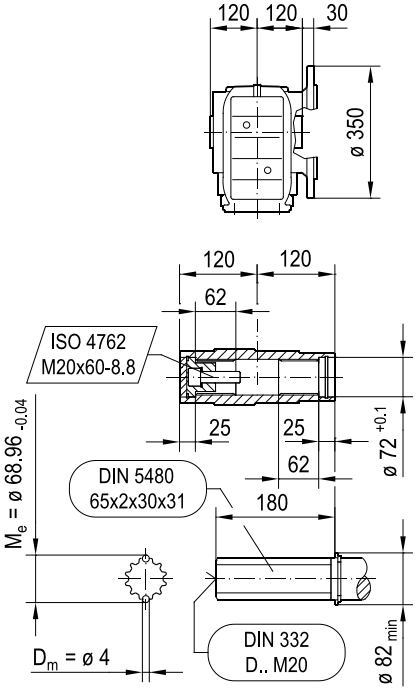

(→ 📖 7.3)	DRN											
	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..
AC	156	156	179	179	197	197	221	221	261	261	314	357
AD	128	128	140	140	157	157	170	170	228	228	253	268
ADS	139	139	150	150	158	158	172	172	228	228	253	268
L	608	653	655	687	683	733	764	814	832	858	924	947
LS	689	734	748	780	777	827	876	926	970	995	1113	1136
LB	218	263	265	297	293	343	374	424	442	468	534	557
LBS	299	344	358	390	387	437	486	536	580	605	723	746

24832936/EN – 09/2018

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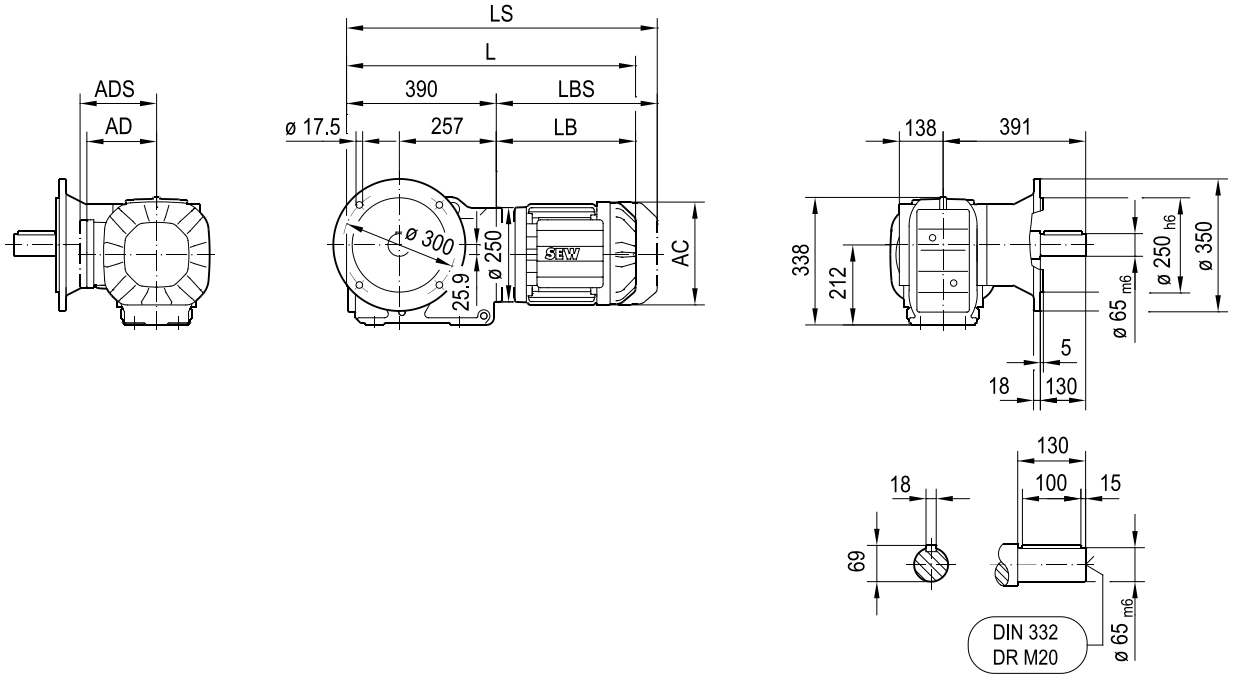
KM87..



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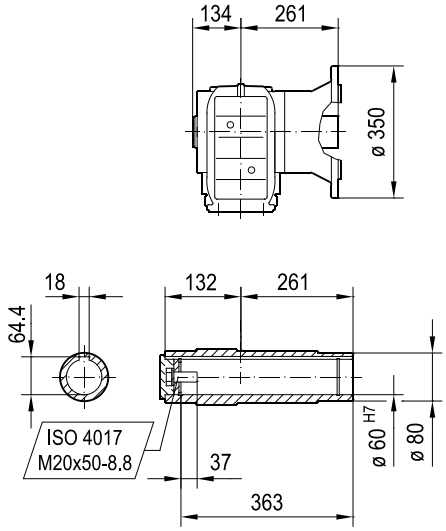

(→ 📖 7.3)	DRN											
	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..
AC	156	156	179	179	197	197	221	221	261	261	314	357
AD	128	128	140	140	157	157	170	170	228	228	253	268
ADS	139	139	150	150	158	158	172	172	228	228	253	268
L	608	653	655	687	683	733	764	814	832	858	924	947
LS	689	734	748	780	777	827	876	926	970	995	1113	1136
LB	218	263	265	297	293	343	374	424	442	468	534	557
LBS	299	344	358	390	387	437	486	536	580	605	723	746

33 064 00 14

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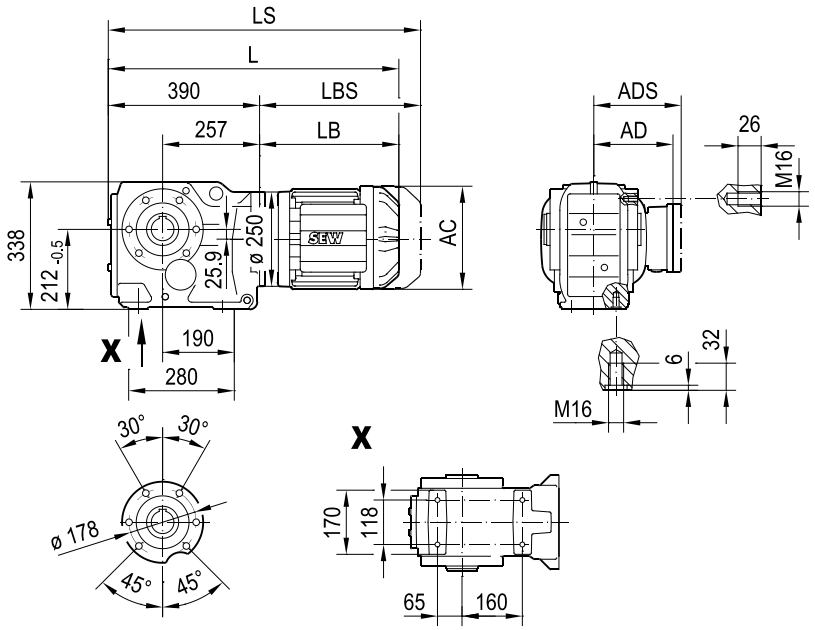

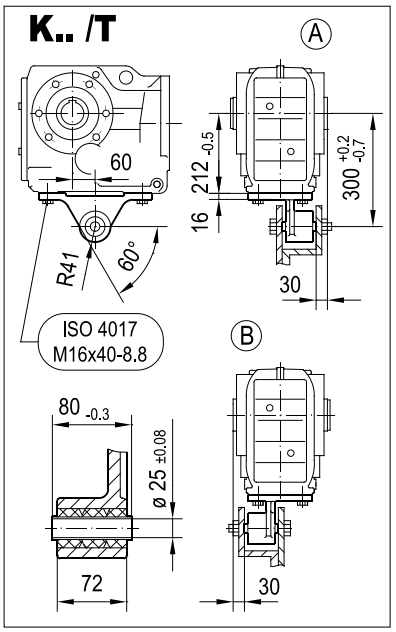

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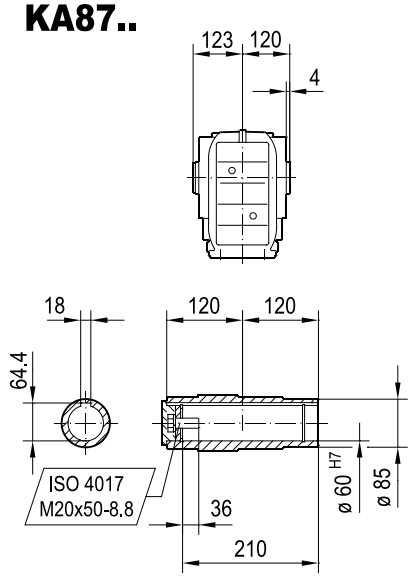

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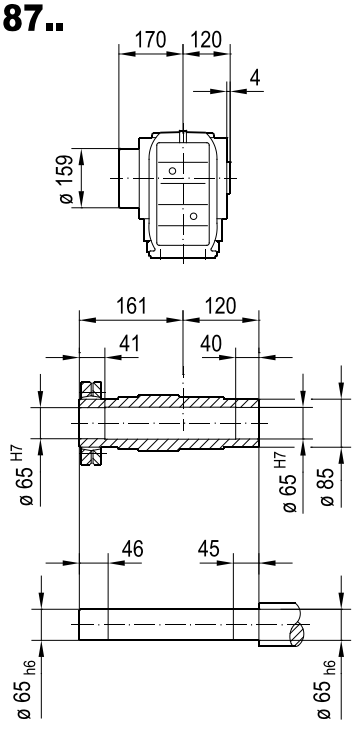

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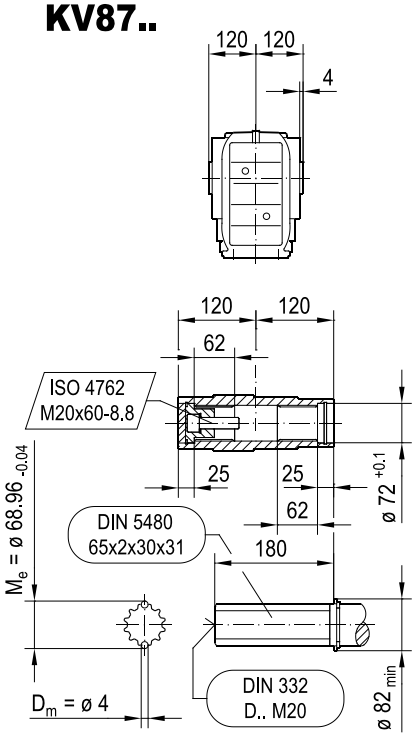

(→ 📖 7.3)	DRN											
	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..
AC	156	156	179	179	197	197	221	221	261	261	314	357
AD	128	128	140	140	157	157	170	170	228	228	253	268
ADS	139	139	150	150	158	158	172	172	228	228	253	268
L	608	653	655	687	683	733	764	814	832	858	924	947
LS	689	734	748	780	777	827	876	926	970	995	1113	1136
LB	218	263	265	297	293	343	374	424	442	468	534	557
LBS	299	344	358	390	387	437	486	536	580	605	723	746

24832936/EN – 09/2018

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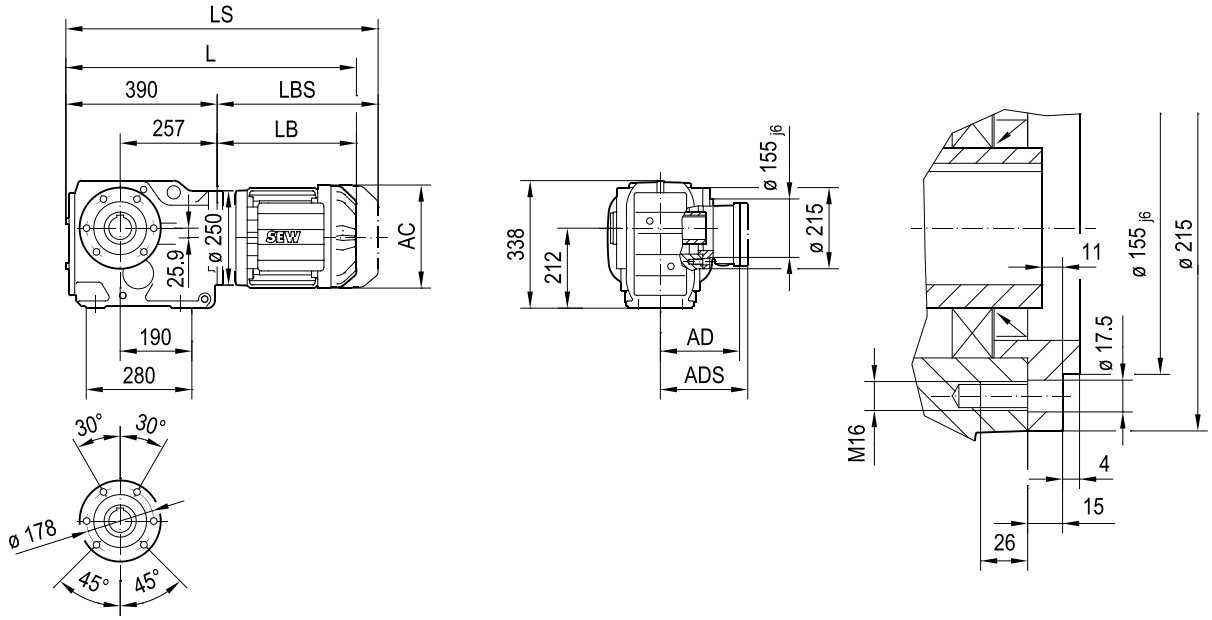

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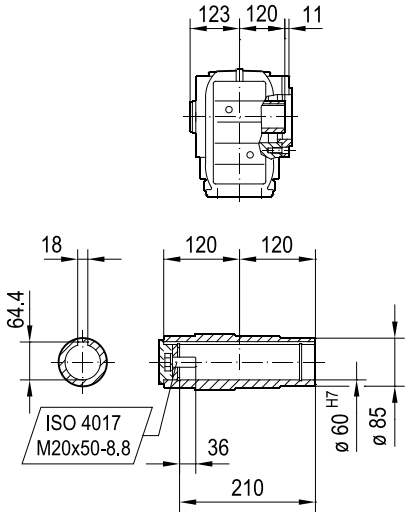

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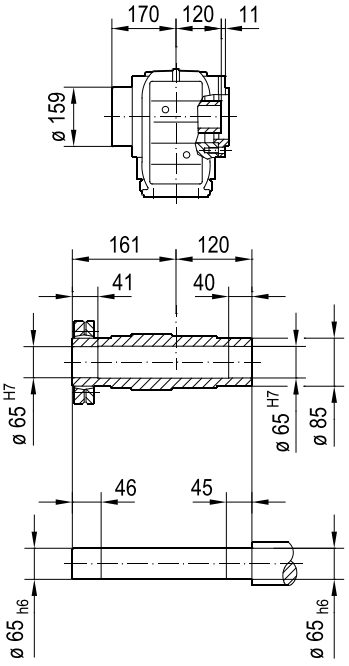

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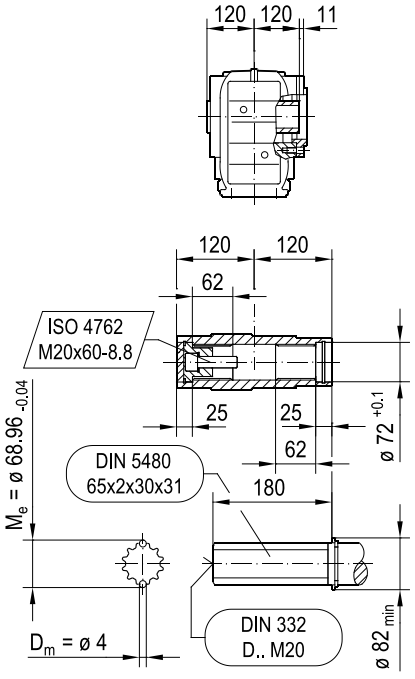
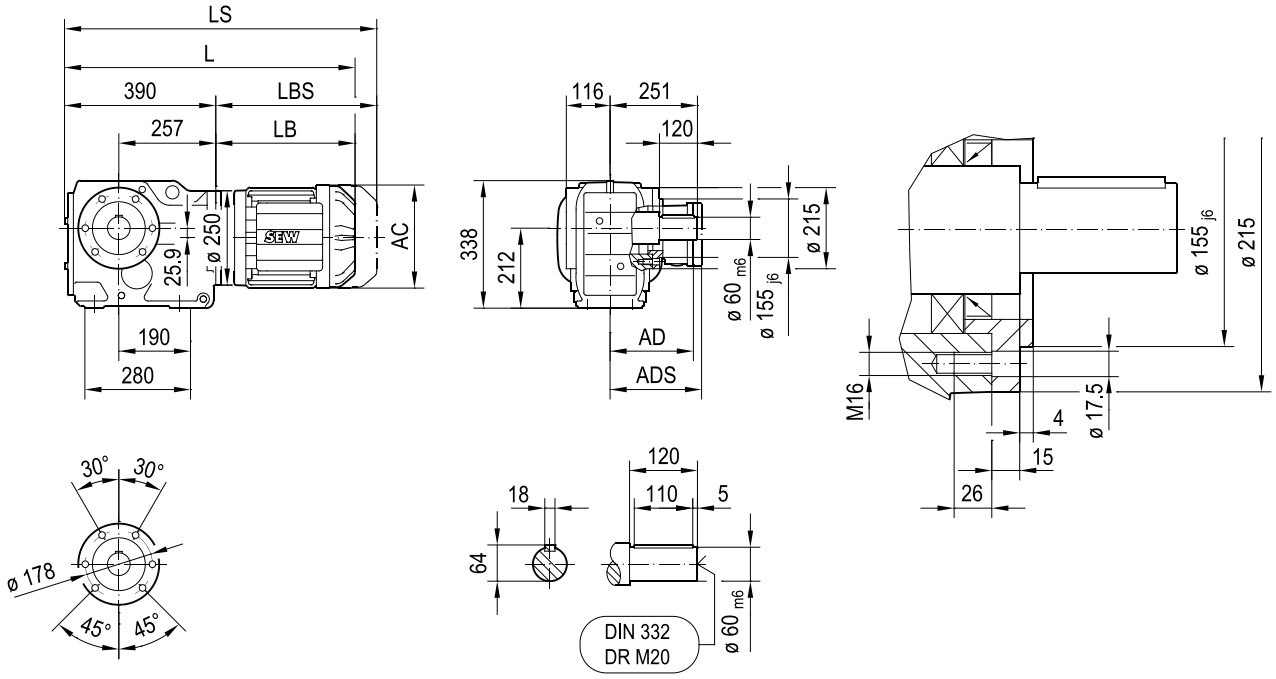


(→ 📖 7.3)	DRN											
	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..
AC	156	156	179	179	197	197	221	221	261	261	314	357
AD	128	128	140	140	157	157	170	170	228	228	253	268
ADS	139	139	150	150	158	158	172	172	228	228	253	268
L	608	653	655	687	683	733	764	814	832	858	924	947
LS	689	734	748	780	777	827	876	926	970	995	1113	1136
LB	218	263	265	297	293	343	374	424	442	468	534	557
LBS	299	344	358	390	387	437	486	536	580	605	723	746

KZ87..

33 237 00 15

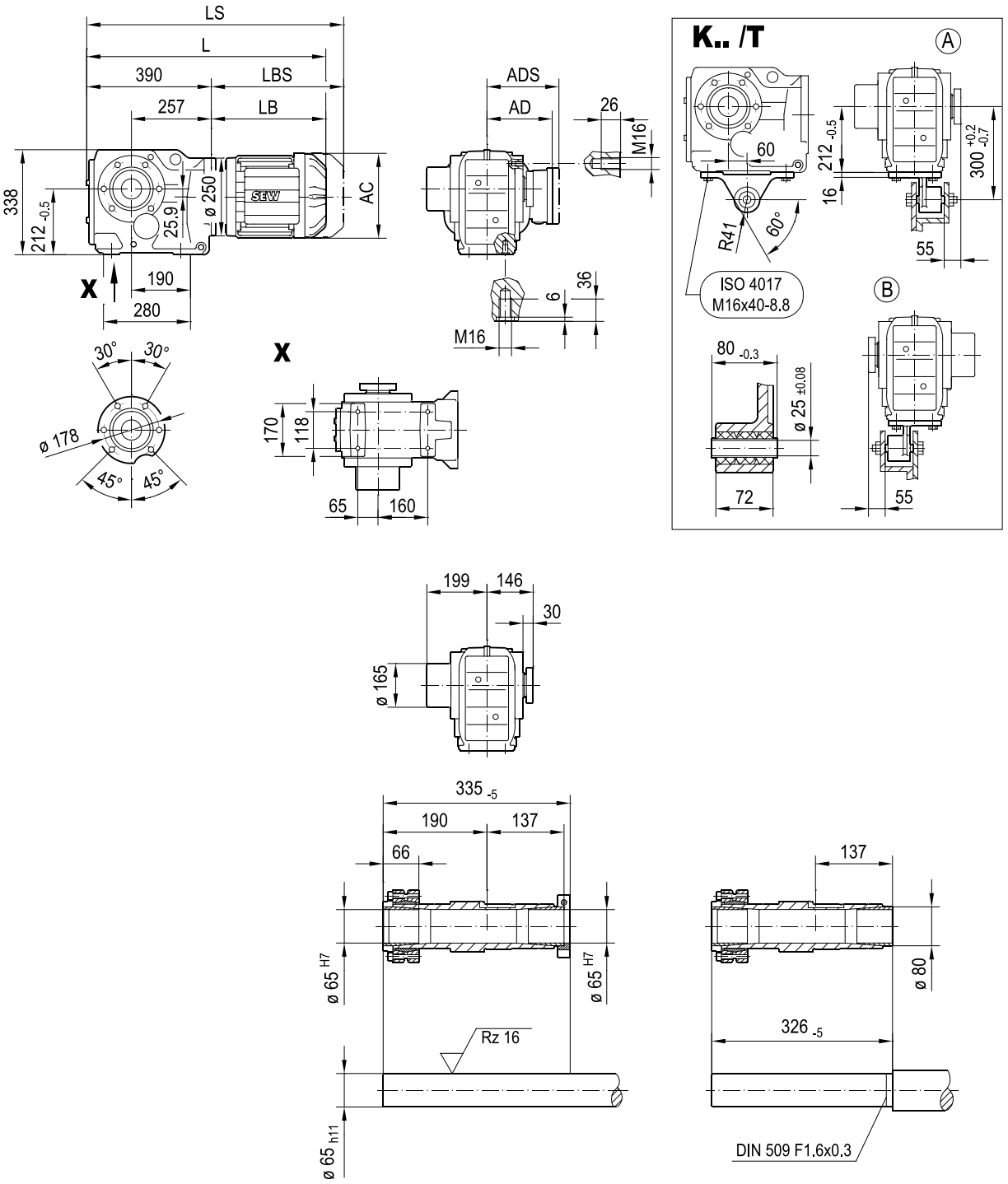


(→ 📖 7.3)	DRN											
	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..
AC	156	156	179	179	197	197	221	221	261	261	314	357
AD	128	128	140	140	157	157	170	170	228	228	253	268
ADS	139	139	150	150	158	158	172	172	228	228	253	268
L	608	653	655	687	683	733	764	814	832	858	924	947
LS	689	734	748	780	777	827	876	926	970	995	1113	1136
LB	218	263	265	297	293	343	374	424	442	468	534	557
LBS	299	344	358	390	387	437	486	536	580	605	723	746

24832936/EN – 09/2018

KT87..

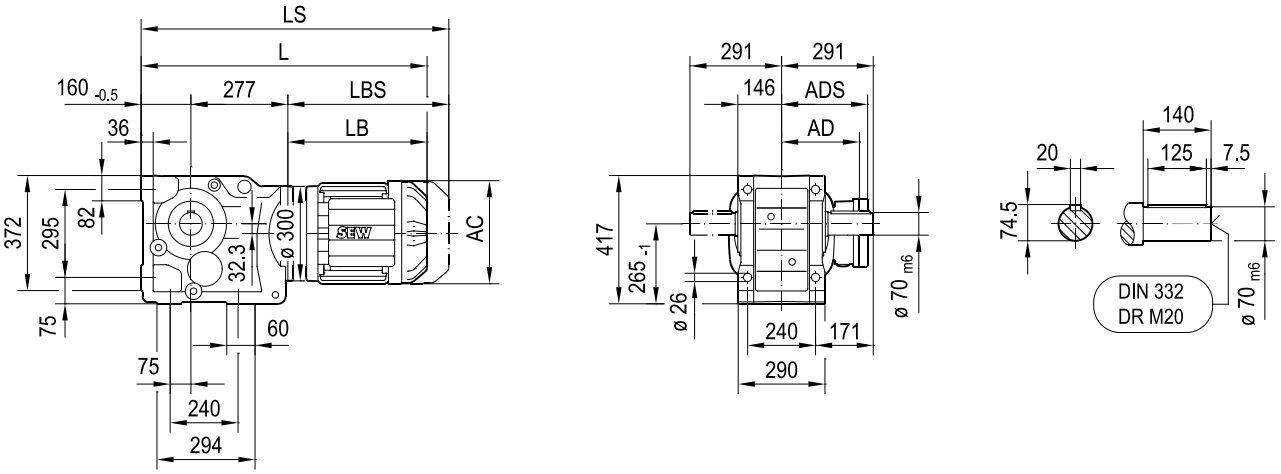
33 066 01 14



(→ 📖 7.3)	DRN											
	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..
AC	156	156	179	179	197	197	221	221	261	261	314	357
AD	128	128	140	140	157	157	170	170	228	228	253	268
ADS	139	139	150	150	158	158	172	172	228	228	253	268
L	608	653	655	687	683	733	764	814	832	858	924	947
LS	689	734	748	780	777	827	876	926	970	995	1113	1136
LB	218	263	265	297	293	343	374	424	442	468	534	557
LBS	299	344	358	390	387	437	486	536	580	605	723	746

33 067 00 14

K97..



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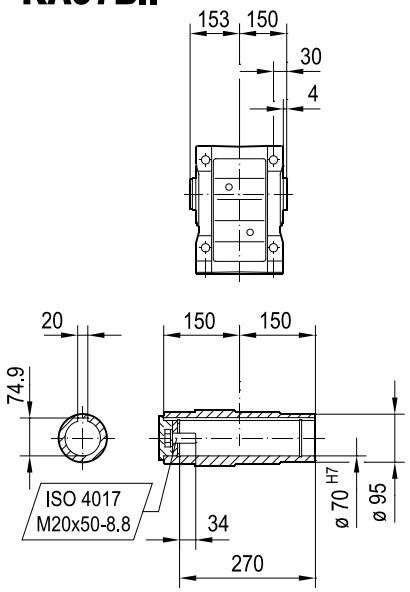

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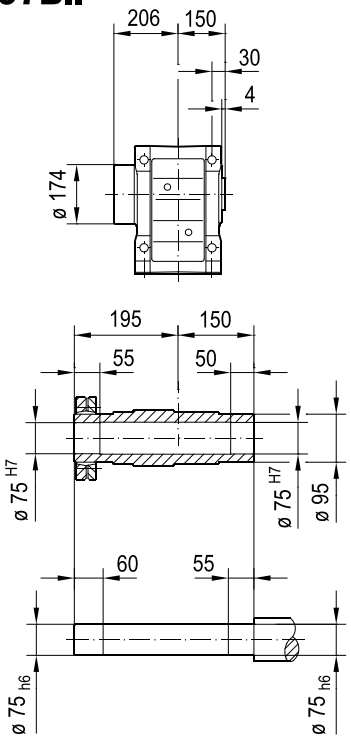

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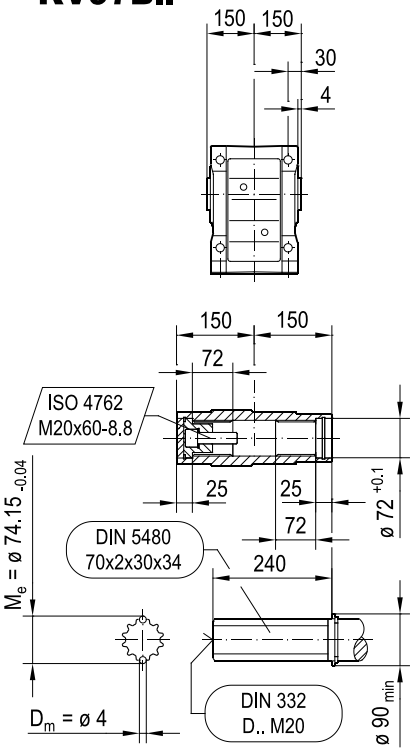
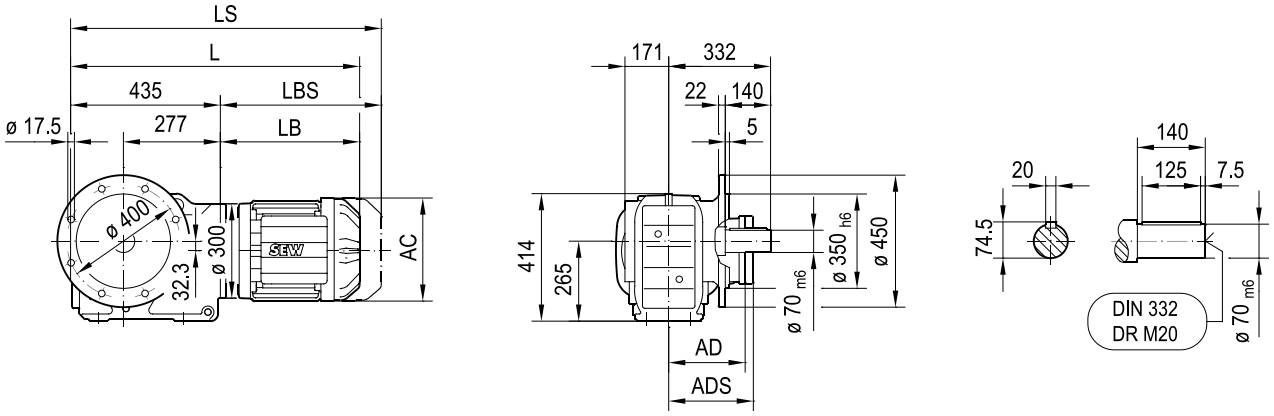


(→ 📖 7.3)	DRN										
	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L
AC	179	179	197	197	221	221	261	261	314	357	394
AD	140	140	157	157	170	170	228	228	253	268	283
ADS	150	150	158	158	172	172	228	228	253	268	283
L	697	729	725	775	806	856	874	900	966	989	1099
LS	790	822	819	869	918	968	1012	1037	1155	1178	1304
LB	260	292	288	338	369	419	437	463	529	552	662
LBS	353	385	382	432	481	531	575	600	718	741	867

24832936/EN – 09/2018

33 068 00 14

KF97..



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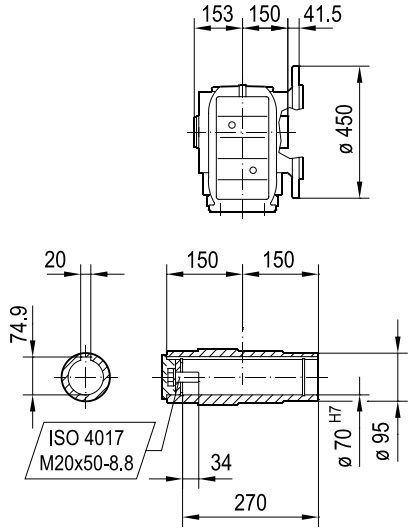

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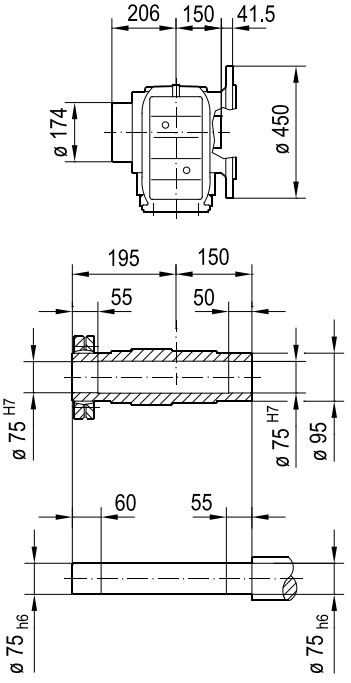

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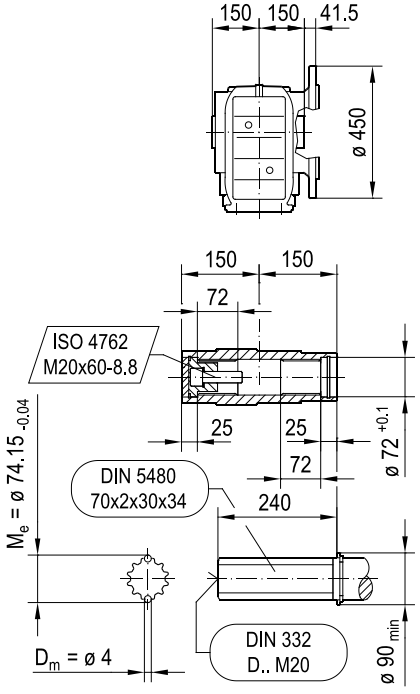
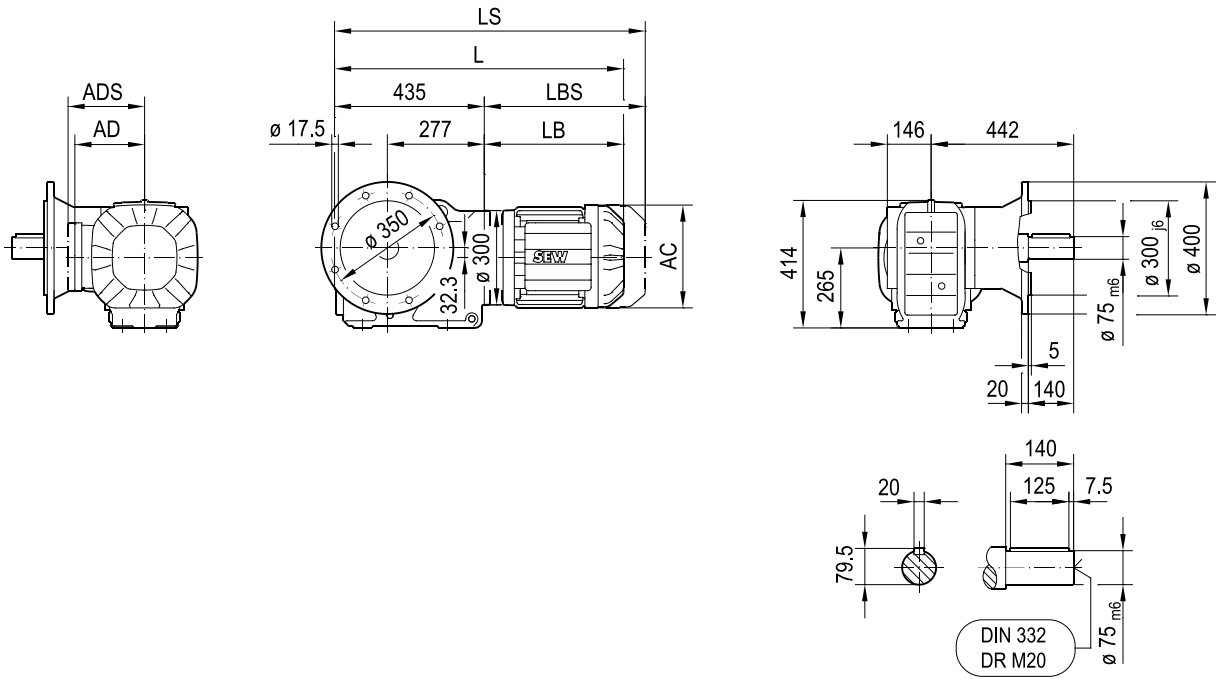


(→ 📖 7.3)	DRN										
	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L
AC	179	179	197	197	221	221	261	261	314	357	394
AD	140	140	157	157	170	170	228	228	253	268	283
ADS	150	150	158	158	172	172	228	228	253	268	283
L	695	727	723	773	804	854	872	898	964	987	1097
LS	788	820	817	867	916	966	1010	1035	1153	1176	1302
LB	260	292	288	338	369	419	437	463	529	552	662
LBS	353	385	382	432	481	531	575	600	718	741	867

KM97..

33 273 00 17



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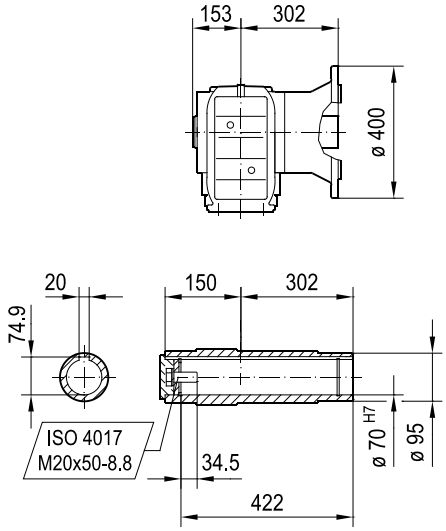
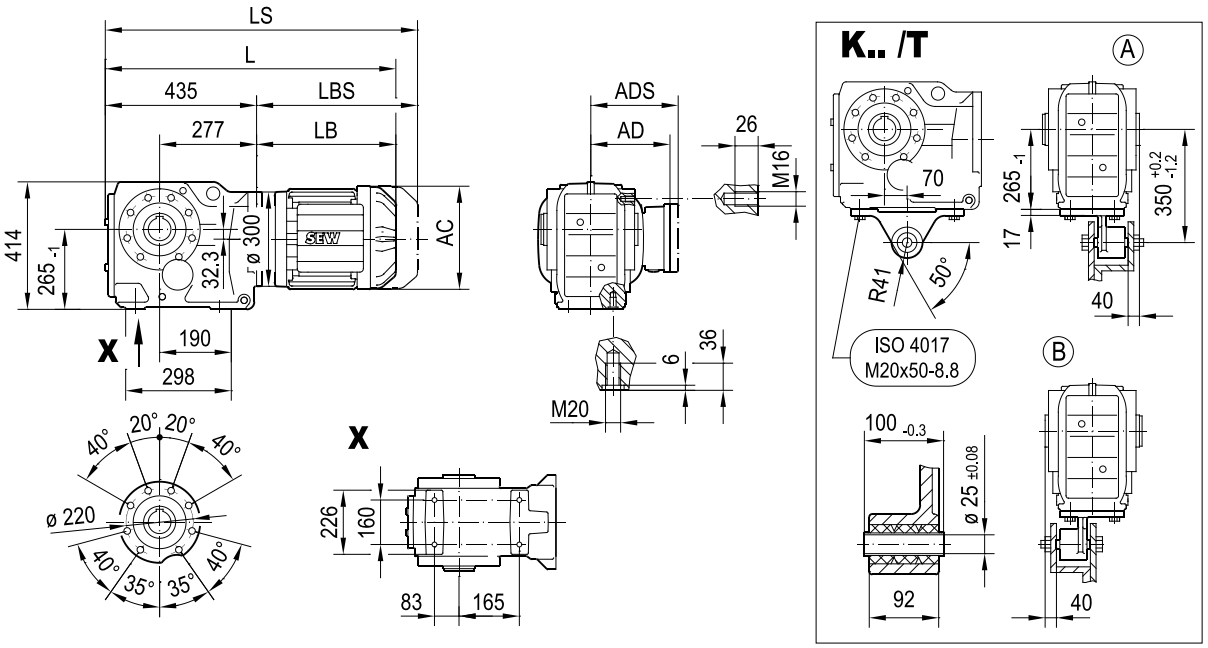


(→ 📖 7.3)	DRN										
	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L
AC	179	179	197	197	221	221	261	261	314	357	394
AD	140	140	157	157	170	170	228	228	253	268	283
ADS	150	150	158	158	172	172	228	228	253	268	283
L	695	727	723	773	804	854	872	898	964	987	1097
LS	788	820	817	867	916	966	1010	1035	1153	1176	1302
LB	260	292	288	338	369	419	437	463	529	552	662
LBS	353	385	382	432	481	531	575	600	718	741	867

24832936/EN – 09/2018

33 069 00 14

KA97..



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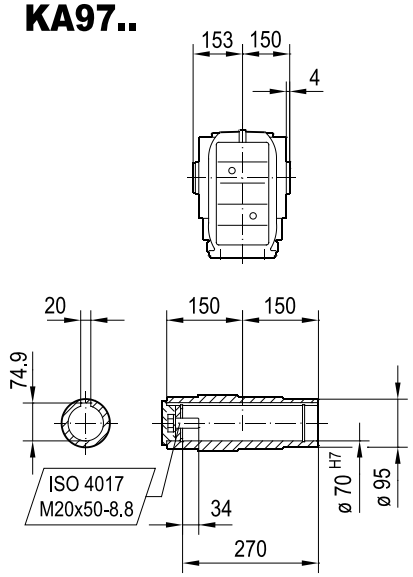

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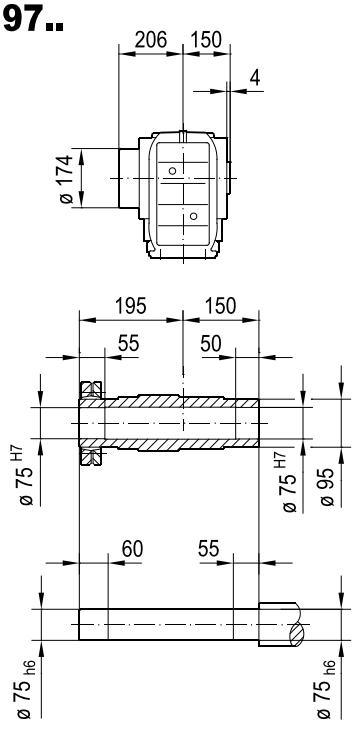

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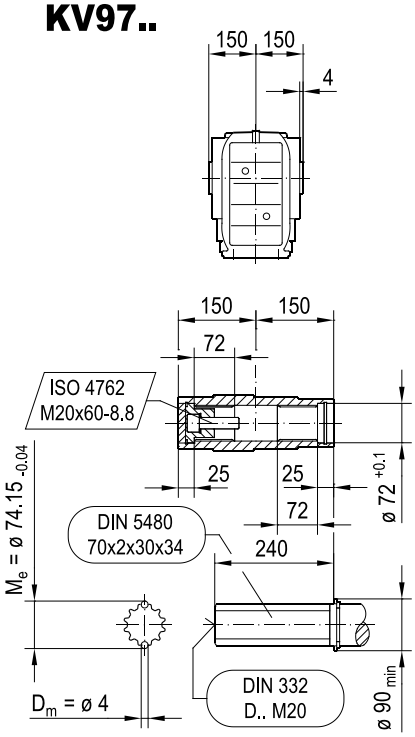

(→ 📖 7.3)	DRN										
	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L
AC	179	179	197	197	221	221	261	261	314	357	394
AD	140	140	157	157	170	170	228	228	253	268	283
ADS	150	150	158	158	172	172	228	228	253	268	283
L	695	727	723	773	804	854	872	898	964	987	1097
LS	788	820	817	867	916	966	1010	1035	1153	1176	1302
LB	260	292	288	338	369	419	437	463	529	552	662
LBS	353	385	382	432	481	531	575	600	718	741	867

33 070 00 14

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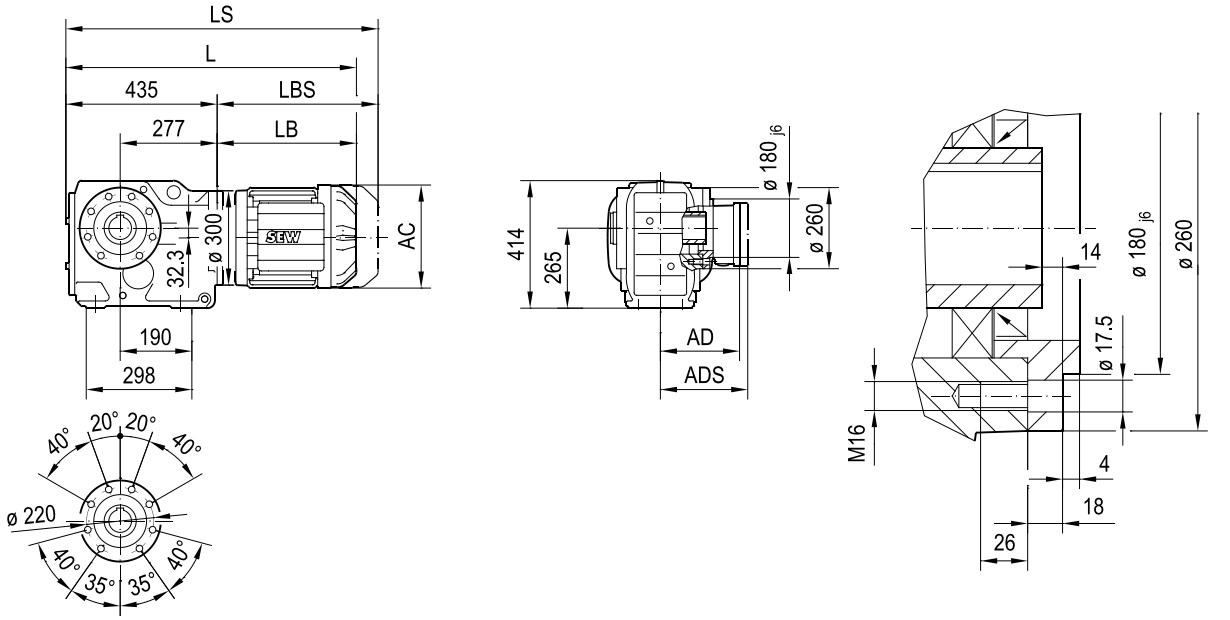

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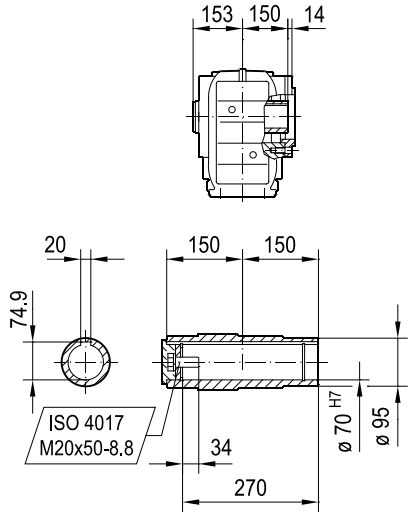

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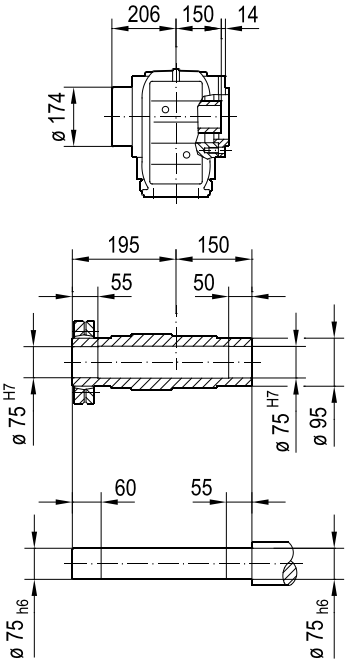

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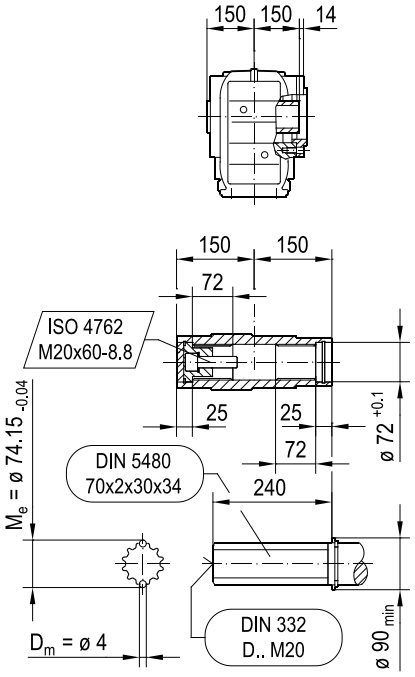

(→ 📖 7.3)	DRN										
	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L
AC	179	179	197	197	221	221	261	261	314	357	394
AD	140	140	157	157	170	170	228	228	253	268	283
ADS	150	150	158	158	172	172	228	228	253	268	283
L	695	727	723	773	804	854	872	898	964	987	1097
LS	788	820	817	867	916	966	1010	1035	1153	1176	1302
LB	260	292	288	338	369	419	437	463	529	552	662
LBS	353	385	382	432	481	531	575	600	718	741	867

24832936/EN – 09/2018

33 238 00 15

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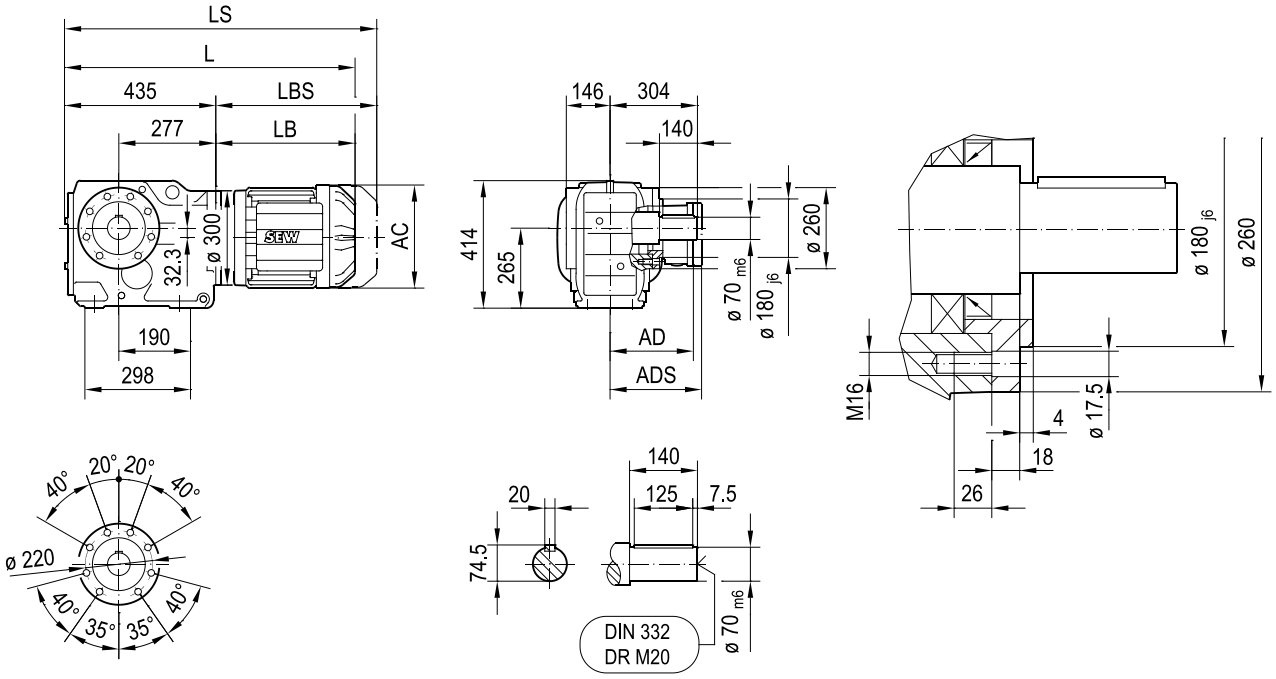

(→ 📖 7.3)	DRN										
	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L
AC	179	179	197	197	221	221	261	261	314	357	394
AD	140	140	157	157	170	170	228	228	253	268	283
ADS	150	150	158	158	172	172	228	228	253	268	283
L	695	727	723	773	804	854	872	898	964	987	1097
LS	788	820	817	867	916	966	1010	1035	1153	1176	1302
LB	260	292	288	338	369	419	437	463	529	552	662
LBS	353	385	382	432	481	531	575	600	718	741	867

24832936/EN – 09/2018

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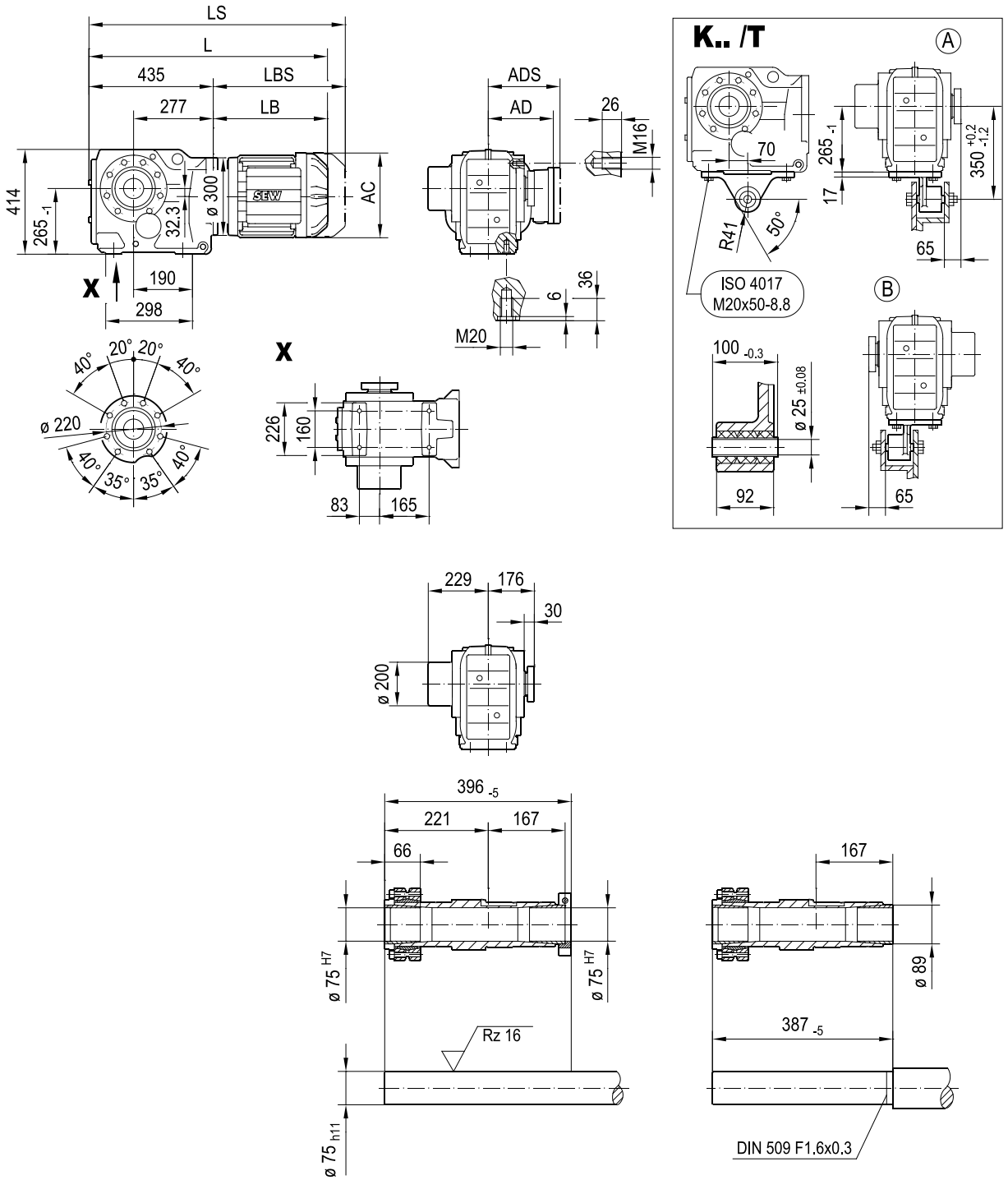
33 071 01 14

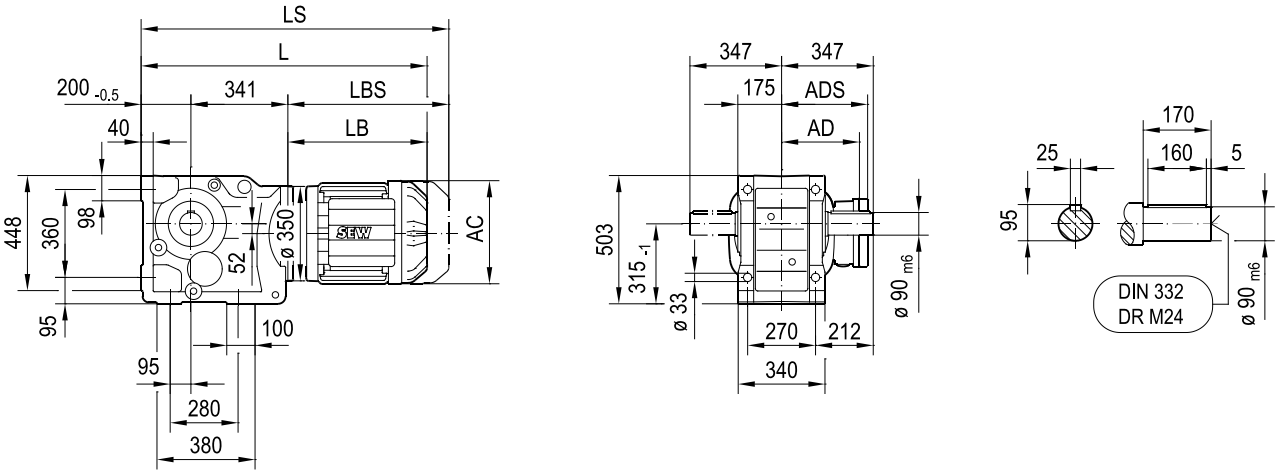


(→ 📖 7.3)	DRN										
	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..	200L
AC	179	179	197	197	221	221	261	261	314	357	394
AD	140	140	157	157	170	170	228	228	253	268	283
ADS	150	150	158	158	172	172	228	228	253	268	283
L	695	727	723	773	804	854	872	898	964	987	1097
LS	788	820	817	867	916	966	1010	1035	1153	1176	1302
LB	260	292	288	338	369	419	437	463	529	552	662
LBS	353	385	382	432	481	531	575	600	718	741	867

24832936/EN – 09/2018

33 072 00 14

K107..



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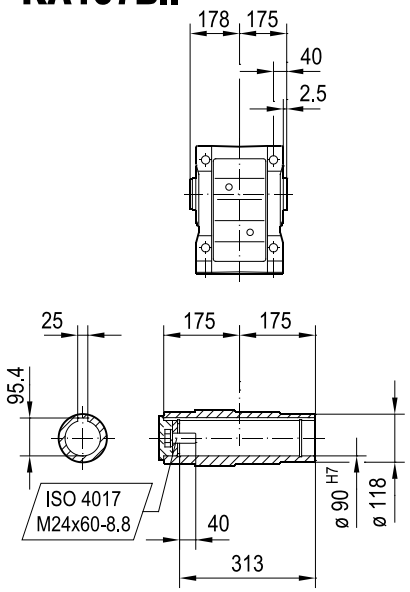

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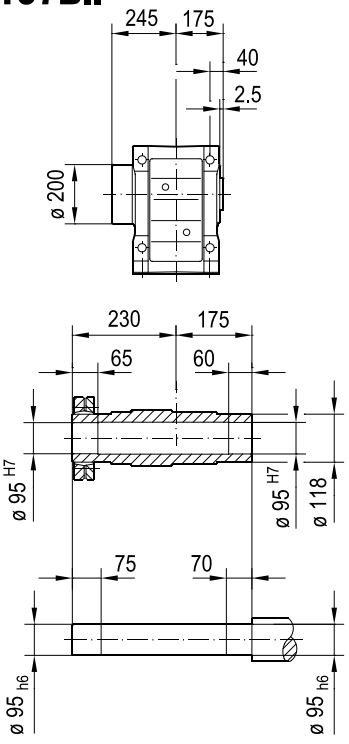

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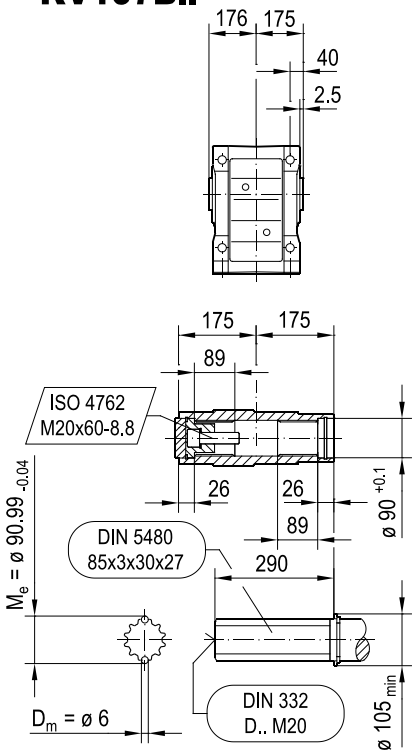
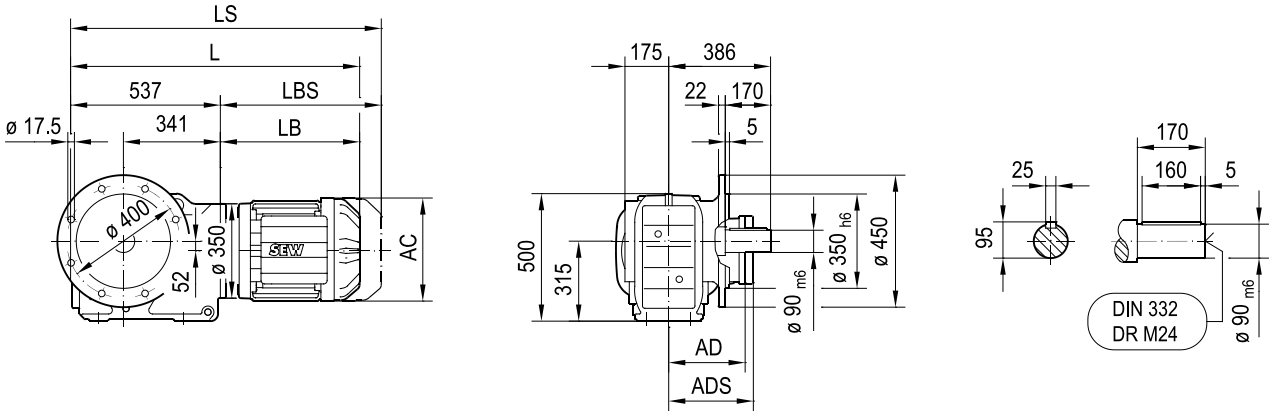


(→ 📖 7.3)	DRN								
	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..
AC	197	221	221	261	261	314	357	394	434
AD	157	170	170	228	228	253	268	283	305
ADS	158	172	172	228	228	253	268	283	305
L	873	904	954	972	998	1064	1087	1197	1171
LS	967	1016	1066	1110	1135	1253	1276	1402	1376
LB	332	363	413	431	457	523	546	656	630
LBS	426	475	525	569	594	712	735	861	835

KF107..

33 073 00 14



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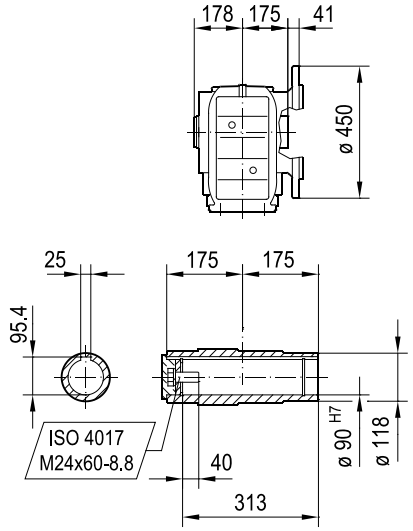

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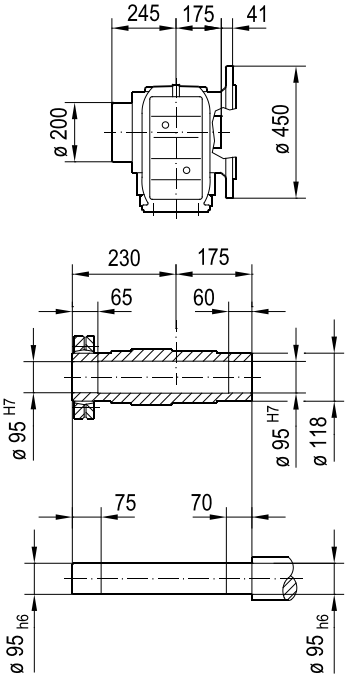

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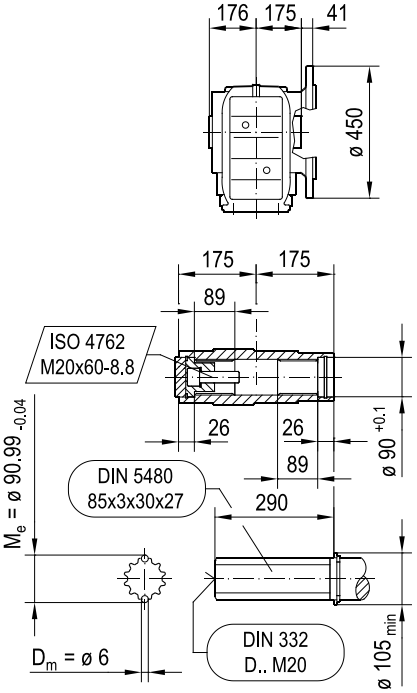
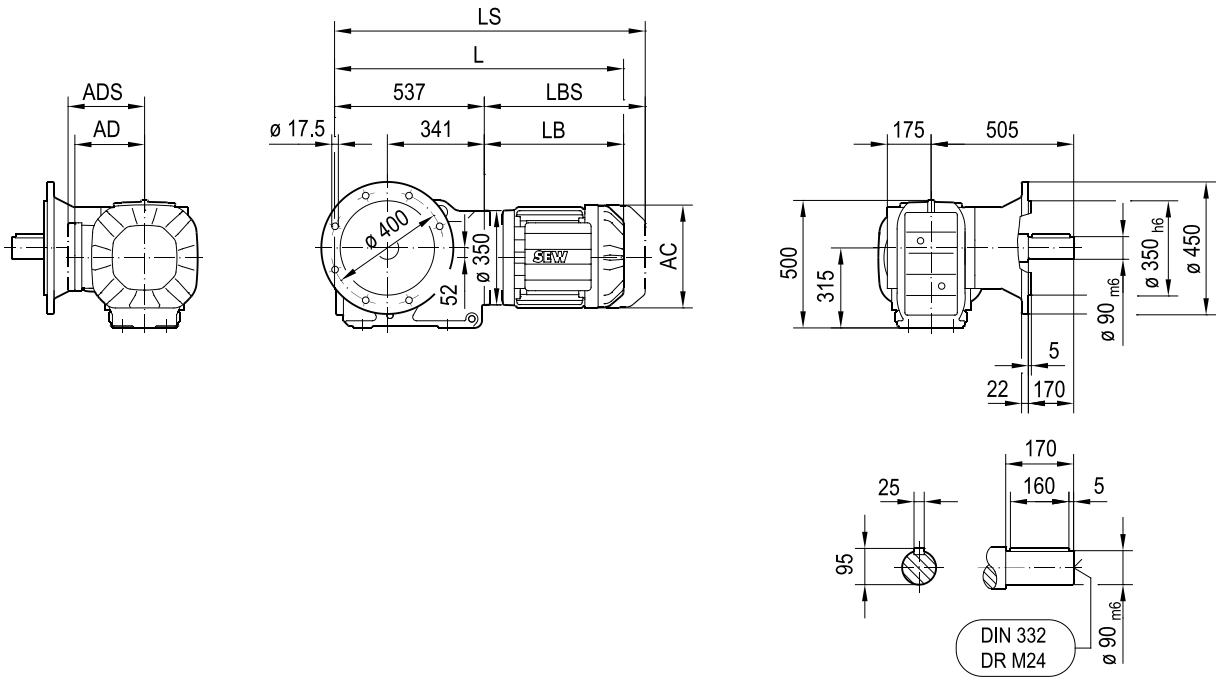


(→ 📖 7.3)	DRN								
	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..
AC	197	221	221	261	261	314	357	394	434
AD	157	170	170	228	228	253	268	283	305
ADS	158	172	172	228	228	253	268	283	305
L	869	900	950	968	994	1060	1083	1193	1167
LS	963	1012	1062	1106	1131	1249	1272	1398	1372
LB	332	363	413	431	457	523	546	656	630
LBS	426	475	525	569	594	712	735	861	835

24832936/EN – 09/2018

KM107..

33 274 00 17



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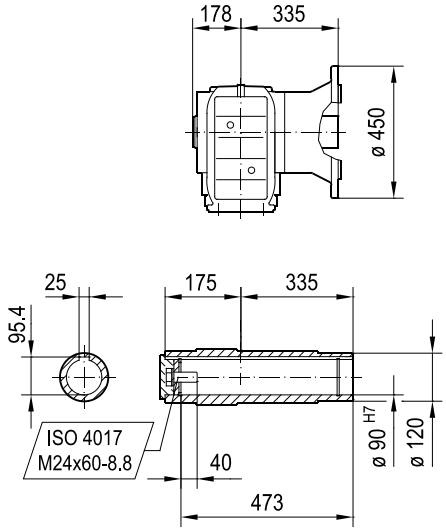
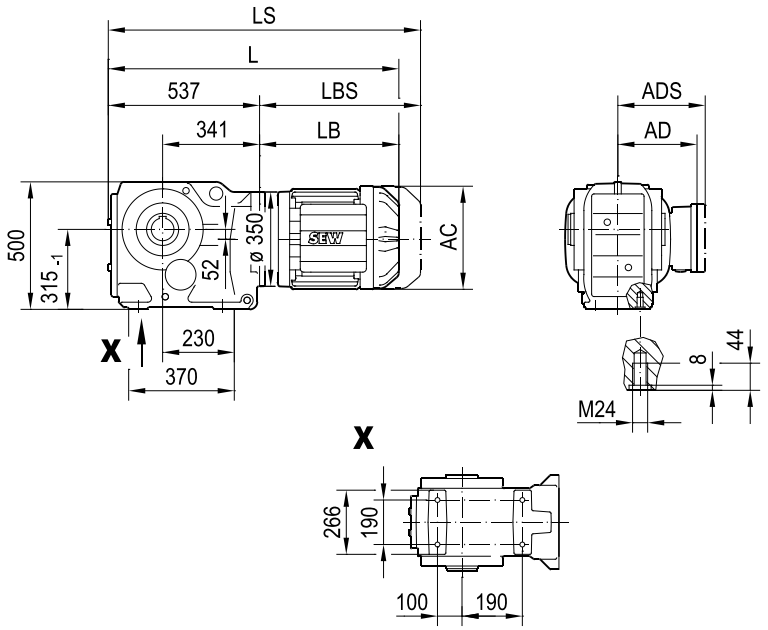


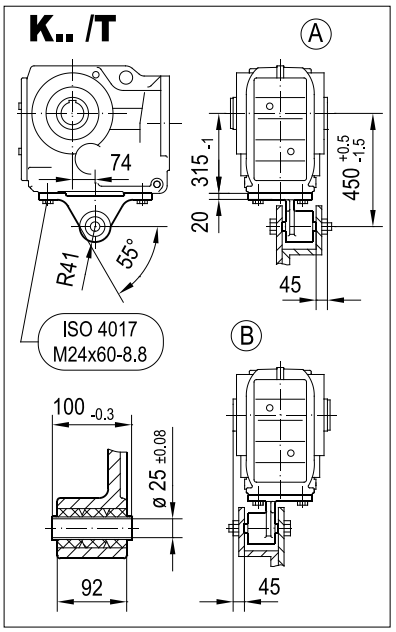
(→ 📖 7.3)	DRN								
	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..
AC	197	221	221	261	261	314	357	394	434
AD	157	170	170	228	228	253	268	283	305
ADS	158	172	172	228	228	253	268	283	305
L	869	900	950	968	994	1060	1083	1193	1167
LS	963	1012	1062	1106	1131	1249	1272	1398	1372
LB	332	363	413	431	457	523	546	656	630
LBS	426	475	525	569	594	712	735	861	835

24832936/EN – 09/2018

33 074 00 14

KA107..





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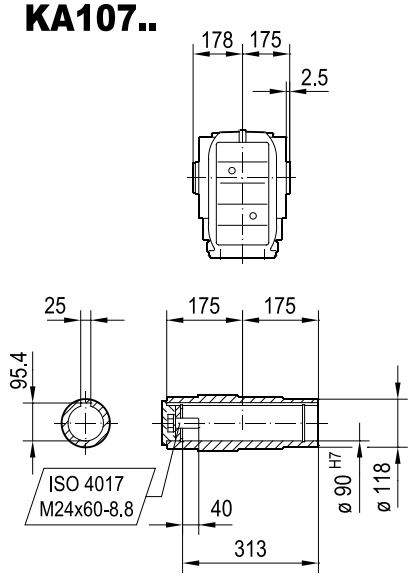

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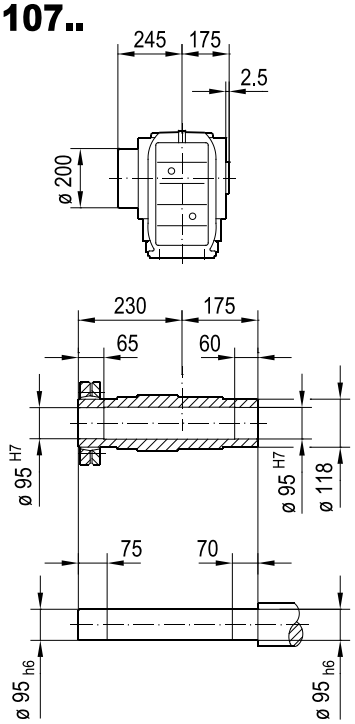

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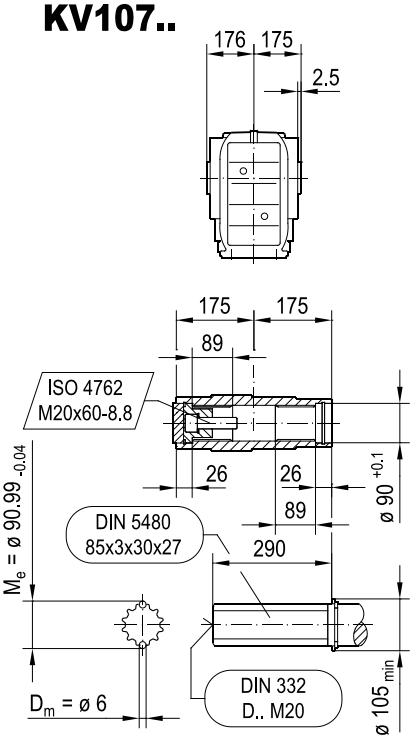
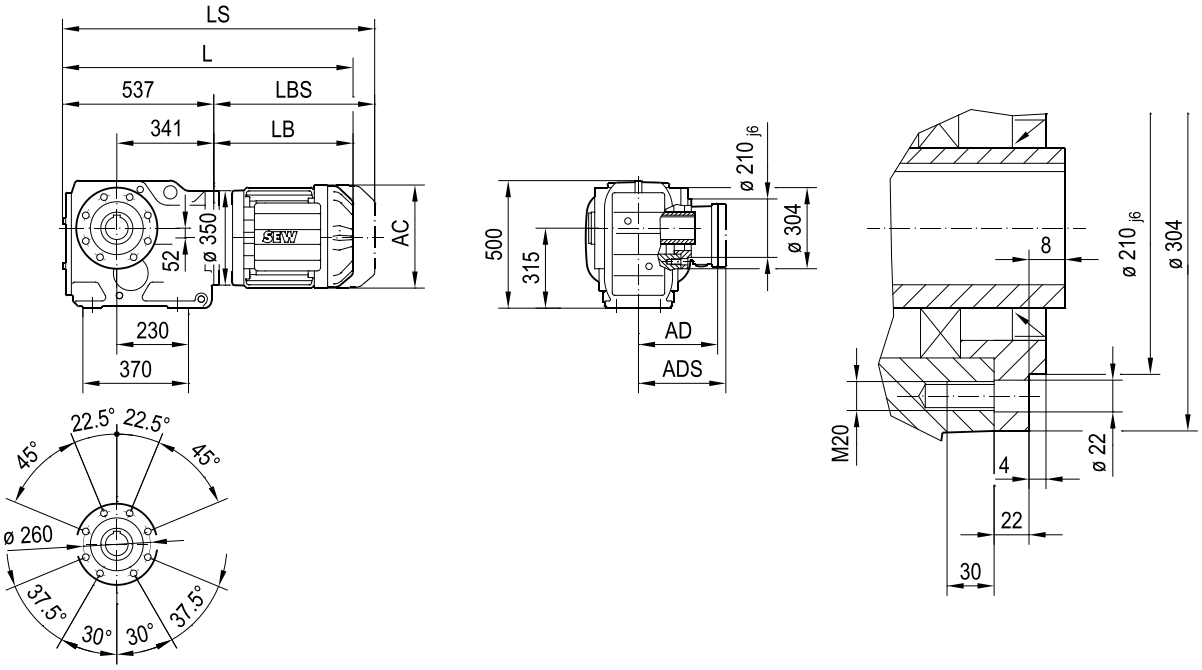


(→ 📖 7.3)	DRN								
	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..
AC	197	221	221	261	261	314	357	394	434
AD	157	170	170	228	228	253	268	283	305
ADS	158	172	172	228	228	253	268	283	305
L	869	900	950	968	994	1060	1083	1193	1167
LS	963	1012	1062	1106	1131	1249	1272	1398	1372
LB	332	363	413	431	457	523	546	656	630
LBS	426	475	525	569	594	712	735	861	835

24832936/EN – 09/2018

33 075 00 14

KAZ107..



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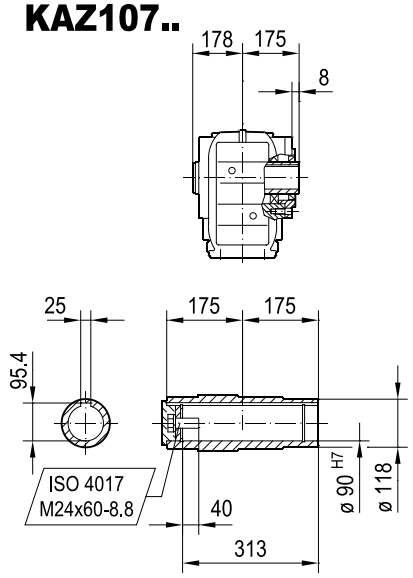

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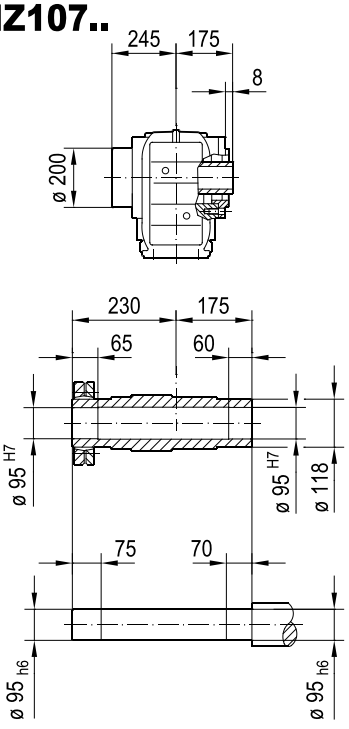

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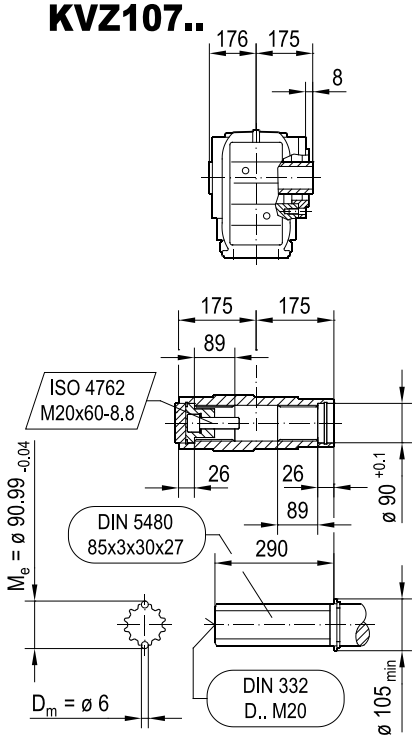
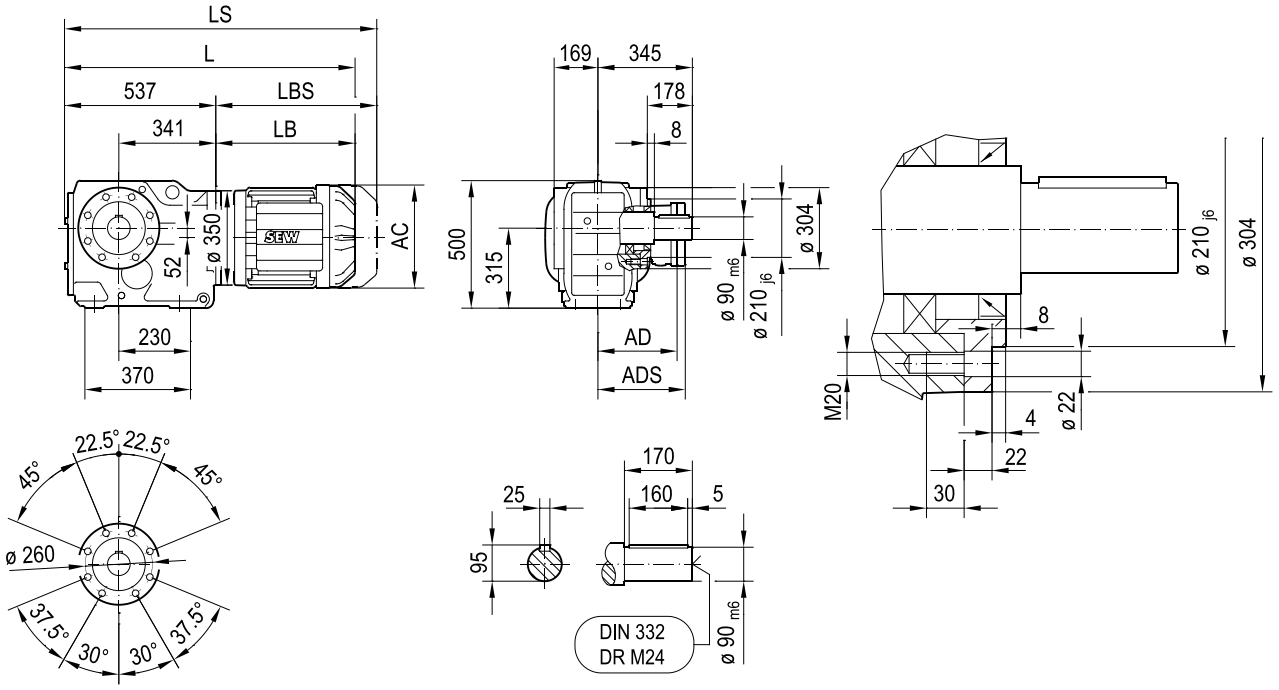


(→ 📖 7.3)	DRN								
	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..
AC	197	221	221	261	261	314	357	394	434
AD	157	170	170	228	228	253	268	283	305
ADS	158	172	172	228	228	253	268	283	305
L	869	900	950	968	994	1060	1083	1193	1167
LS	963	1012	1062	1106	1131	1249	1272	1398	1372
LB	332	363	413	431	457	523	546	656	630
LBS	426	475	525	569	594	712	735	861	835

24832936/EN – 09/2018

KZ107..

33 239 01 15

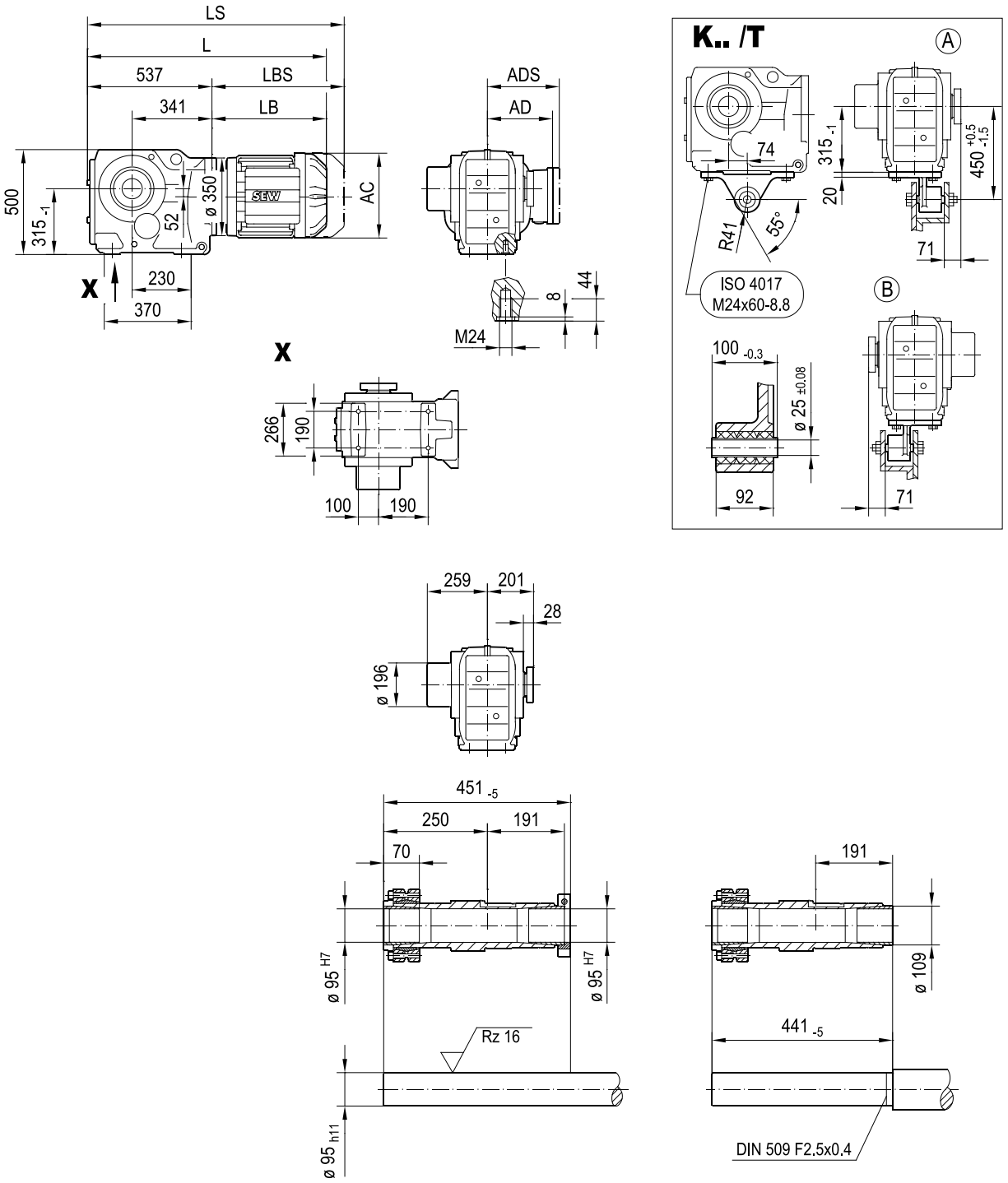


(→ 📖 7.3)	DRN								
	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..
AC	197	221	221	261	261	314	357	394	434
AD	157	170	170	228	228	253	268	283	305
ADS	158	172	172	228	228	253	268	283	305
L	869	900	950	968	994	1060	1083	1193	1167
LS	963	1012	1062	1106	1131	1249	1272	1398	1372
LB	332	363	413	431	457	523	546	656	630
LBS	426	475	525	569	594	712	735	861	835

24832936/EN – 09/2018

KT107..

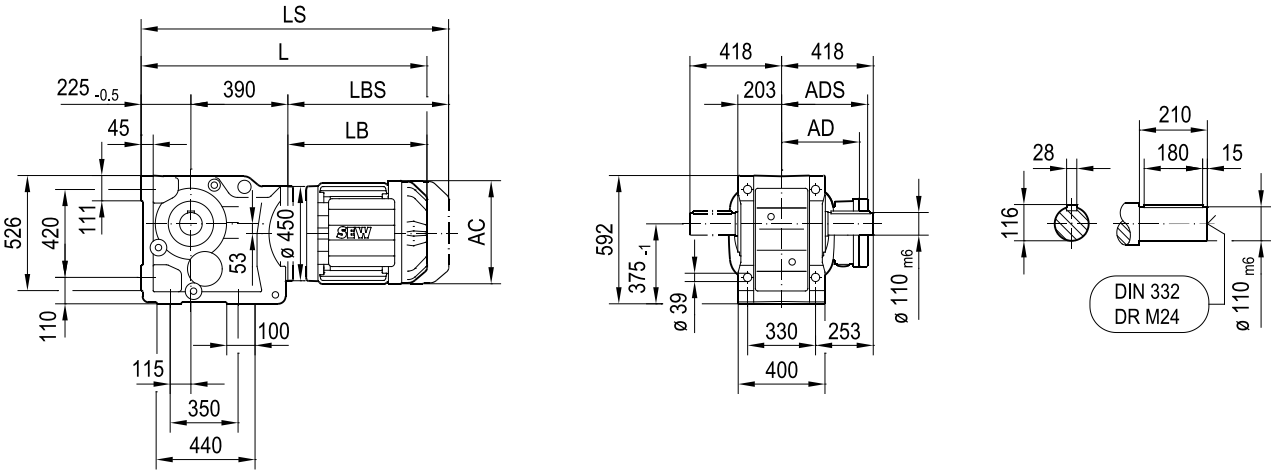
33 076 01 14



(→ 📖 7.3)	DRN								
	100L/LM	112M	132S	132M	132L	160..	180..	200L	225..
AC	197	221	221	261	261	314	357	394	434
AD	157	170	170	228	228	253	268	283	305
ADS	158	172	172	228	228	253	268	283	305
L	869	900	950	968	994	1060	1083	1193	1167
LS	963	1012	1062	1106	1131	1249	1272	1398	1372
LB	332	363	413	431	457	523	546	656	630
LBS	426	475	525	569	594	712	735	861	835

33 077 00 14

K127..



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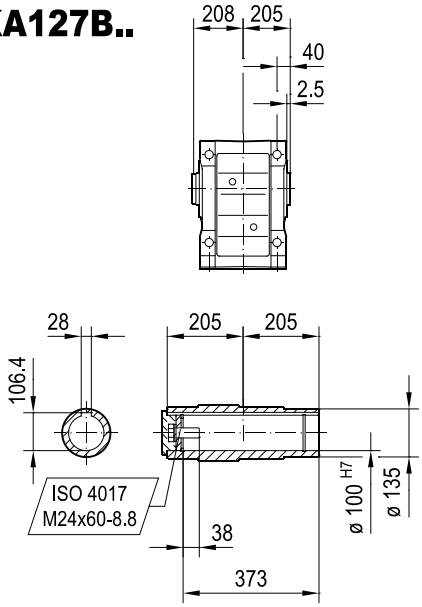

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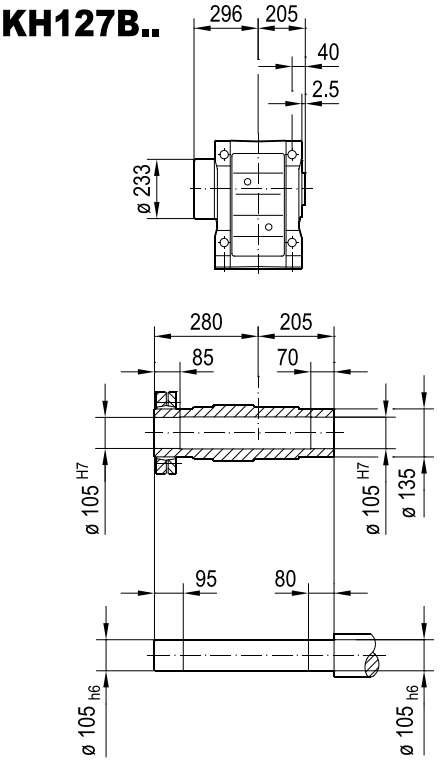
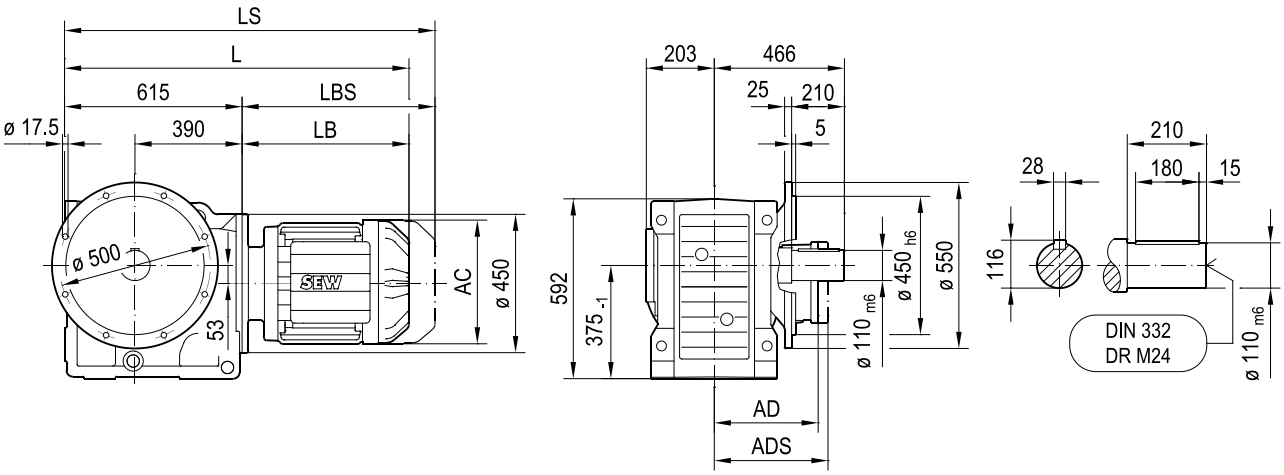


(→ 📖 7.3)	DRN									
	132S	132M	132L	160..	180..	200L	225..	250M	280S	280M
AC	221	261	261	314	357	394	434	495	495	495
AD	170	228	228	253	268	283	305	394	394	394
ADS	172	228	228	253	268	283	305	394	394	394
L	1013	1031	1057	1123	1146	1256	1230	1367	1367	1462
LS	1125	1169	1194	1312	1335	1461	1435	1607	1607	1702
LB	398	416	442	508	531	641	615	752	752	847
LBS	510	554	579	697	720	846	820	992	992	1087

24832936/EN – 09/2018

33 078 00 14

KF127..



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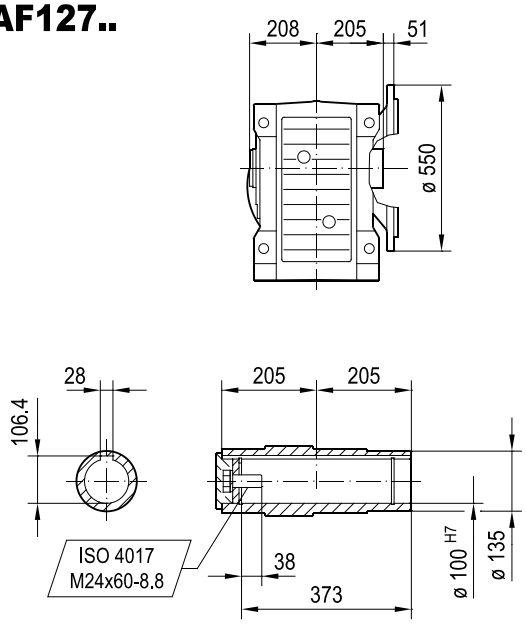

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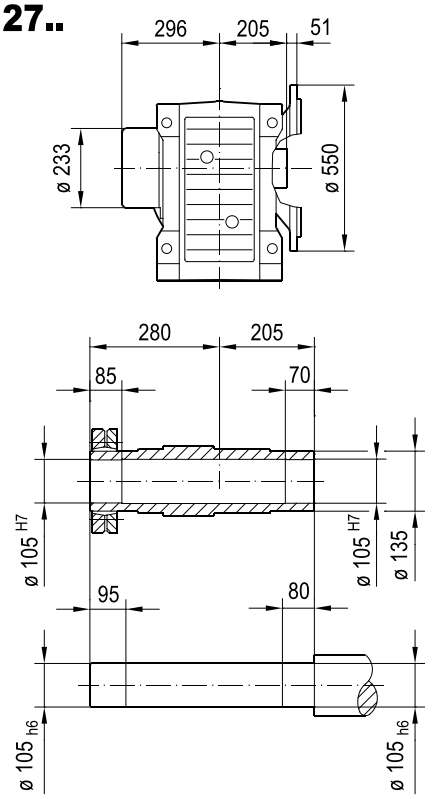
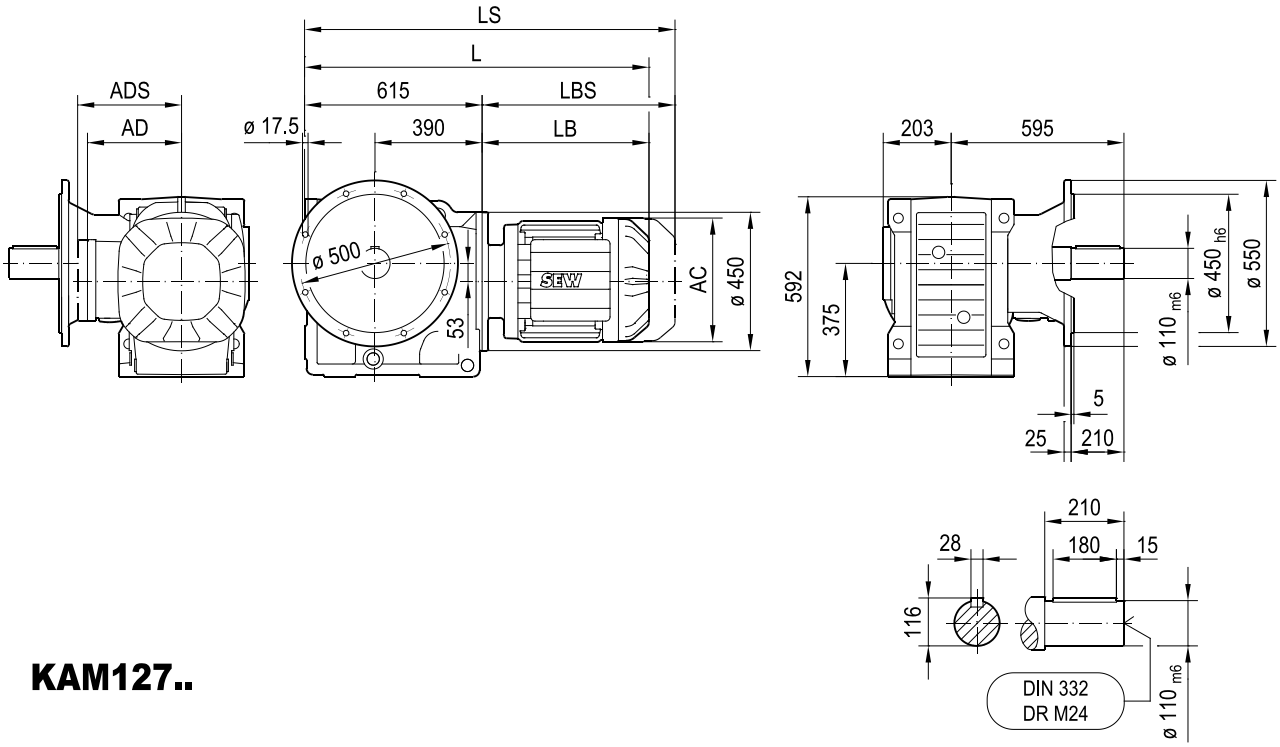


(→ 📖 7.3)	DRN									
	132S	132M	132L	160..	180..	200L	225..	250M	280S	280M
AC	221	261	261	314	357	394	434	495	495	495
AD	170	228	228	253	268	283	305	394	394	394
ADS	172	228	228	253	268	283	305	394	394	394
L	1013	1031	1057	1123	1146	1256	1230	1367	1367	1462
LS	1125	1169	1194	1312	1335	1461	1435	1607	1607	1702
LB	398	416	442	508	531	641	615	752	752	847
LBS	510	554	579	697	720	846	820	992	992	1087

33 275 00 17

KM127..



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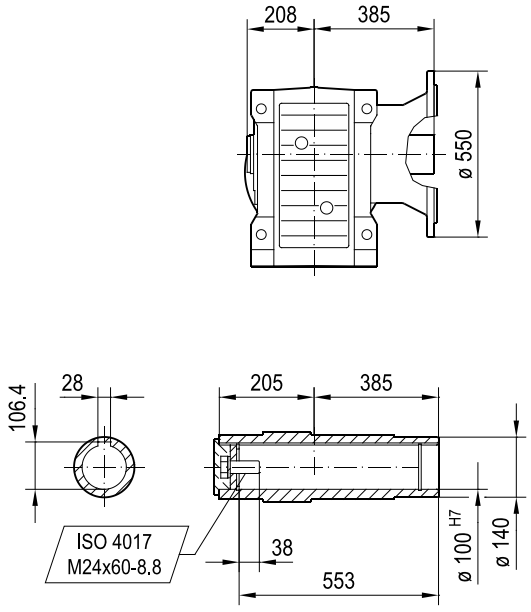

(→ 📖 7.3)	DRN									
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AC	221	261	261	314	357	394	434	495	495	495
AD	170	228	228	253	268	283	305	394	394	394
ADS	172	228	228	253	268	283	305	394	394	394
L	1013	1031	1057	1123	1146	1256	1230	1367	1367	1462
LS	1125	1169	1194	1312	1335	1461	1435	1607	1607	1702
LB	398	416	442	508	531	641	615	752	752	847
LBS	510	554	579	697	720	846	820	992	992	1087

24832936/EN – 09/2018

33 079 00 14

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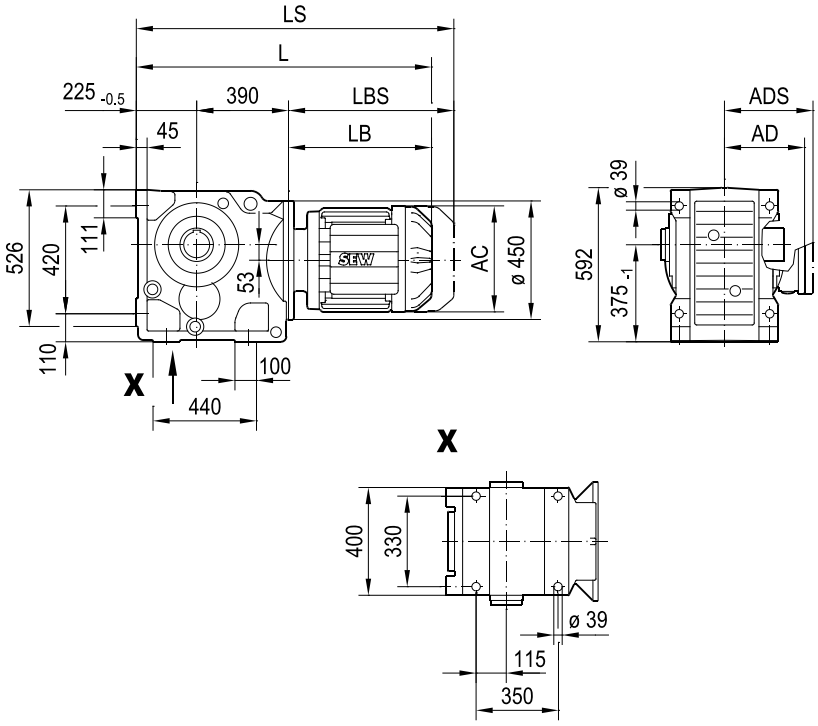

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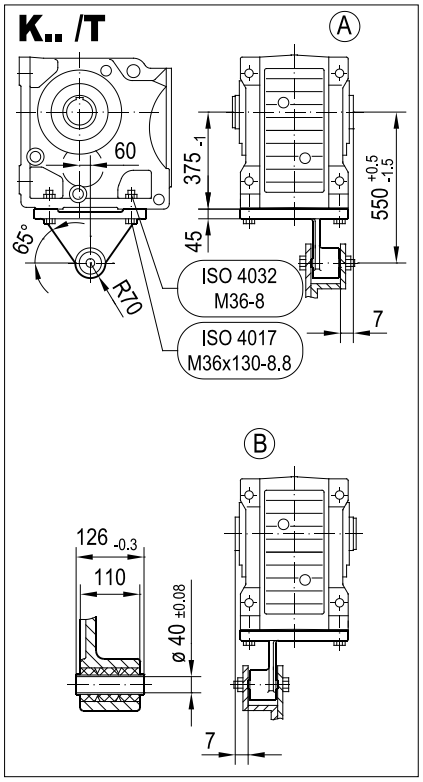

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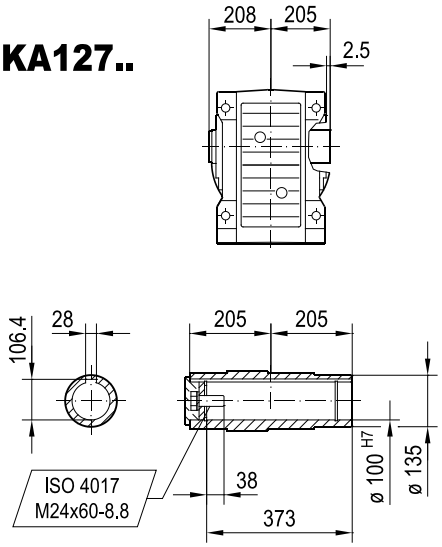

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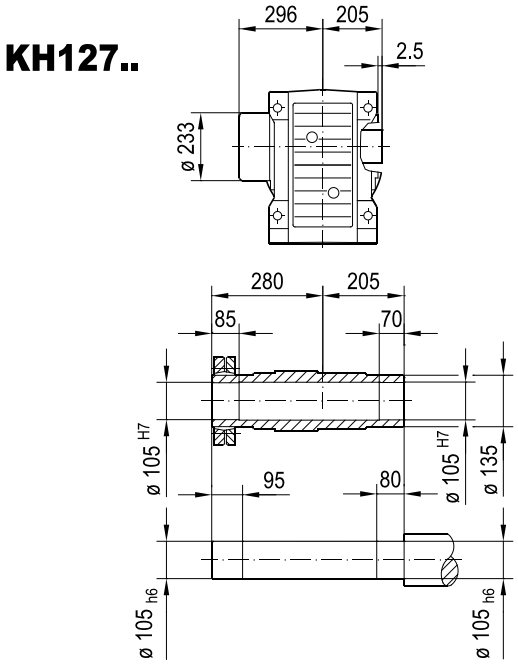

(→ 📖 7.3)	DRN									
	132S	132M	132L	160..	180..	200L	225..	250M	280S	280M
AC	221	261	261	314	357	394	434	495	495	495
AD	170	228	228	253	268	283	305	394	394	394
ADS	172	228	228	253	268	283	305	394	394	394
L	1013	1031	1057	1123	1146	1256	1230	1367	1367	1462
LS	1125	1169	1194	1312	1335	1461	1435	1607	1607	1702
LB	398	416	442	508	531	641	615	752	752	847
LBS	510	554	579	697	720	846	820	992	992	1087

24832936/EN – 09/2018

33 080 00 14

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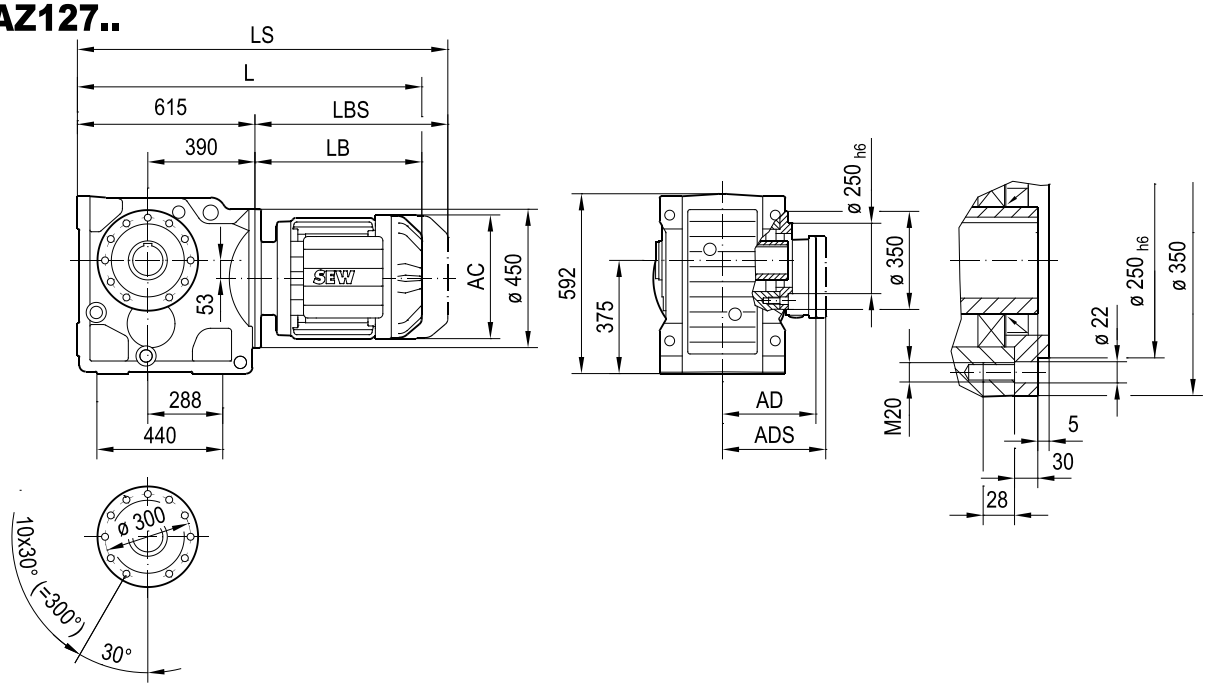

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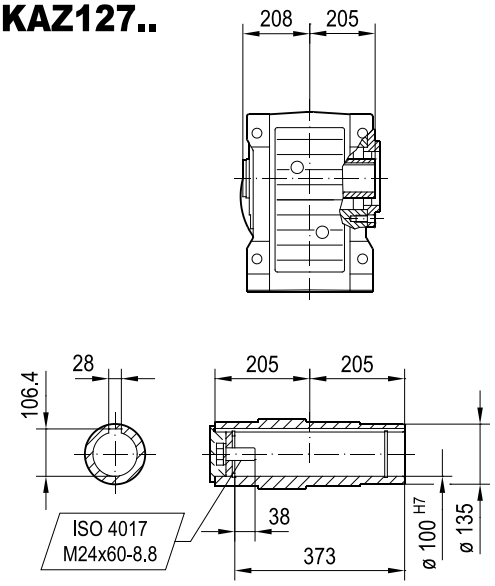

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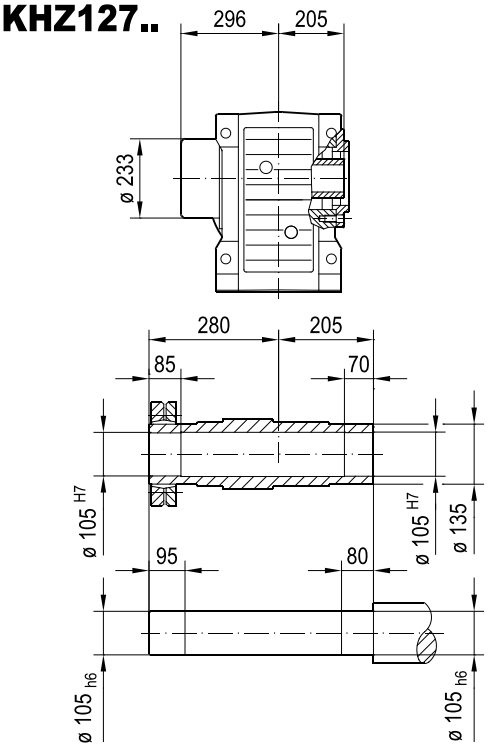

(→ 📖 7.3)	DRN									
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AC	221	261	261	314	357	394	434	495	495	495
AD	170	228	228	253	268	283	305	394	394	394
ADS	172	228	228	253	268	283	305	394	394	394
L	1013	1031	1057	1123	1146	1256	1230	1367	1367	1462
LS	1125	1169	1194	1312	1335	1461	1435	1607	1607	1702
LB	398	416	442	508	531	641	615	752	752	847
LBS	510	554	579	697	720	846	820	992	992	1087

24832936/EN – 09/2018

33 240 00 15

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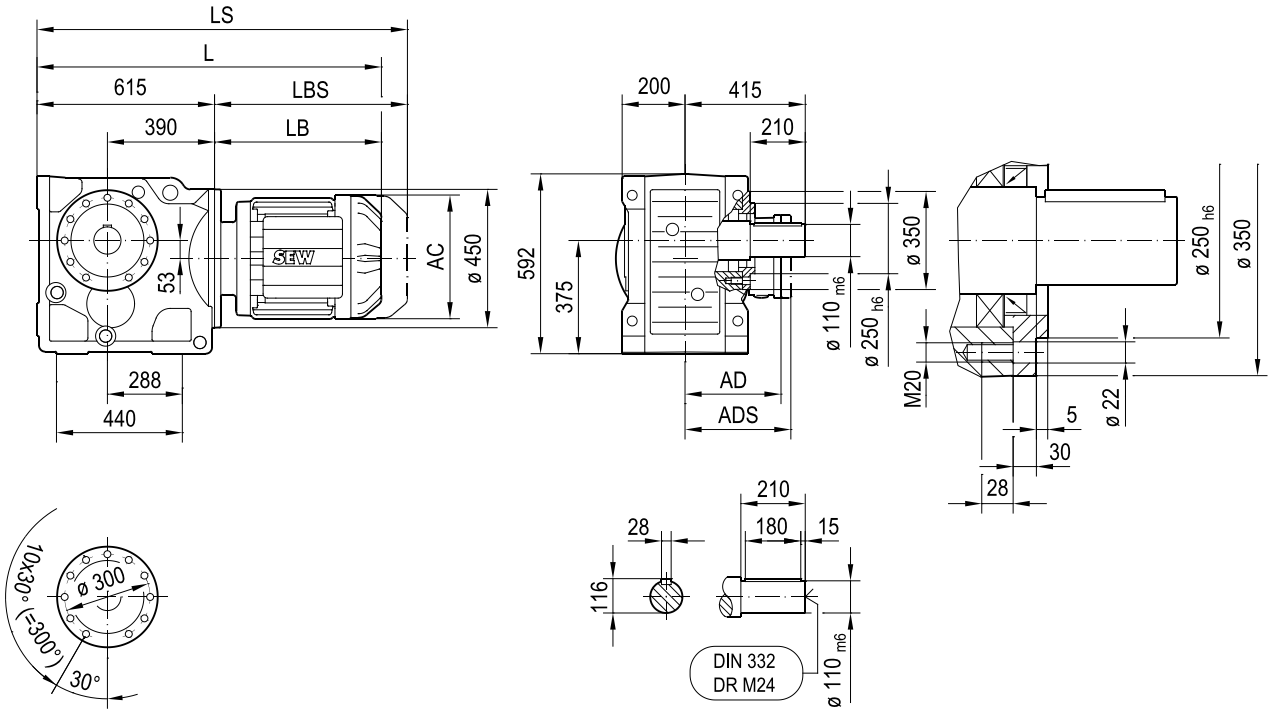
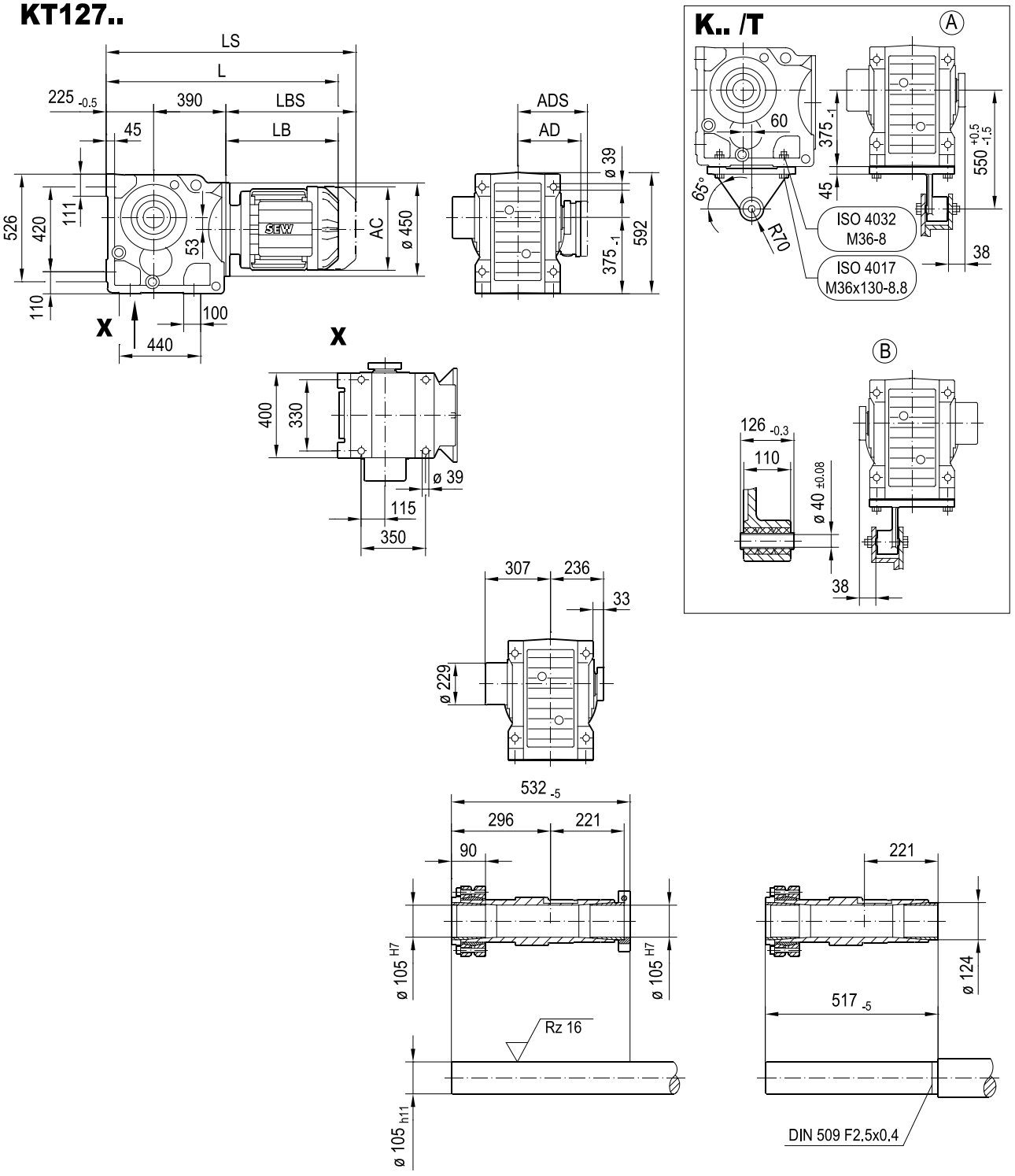


(→ 📖 7.3)	DRN									
	132S	132M	132L	160..	180..	200L	225..	250M	280S	280M
AC	221	261	261	314	357	394	434	495	495	495
AD	170	228	228	253	268	283	305	394	394	394
ADS	172	228	228	253	268	283	305	394	394	394
L	1013	1031	1057	1123	1146	1256	1230	1367	1367	1462
LS	1125	1169	1194	1312	1335	1461	1435	1607	1607	1702
LB	398	416	442	508	531	641	615	752	752	847
LBS	510	554	579	697	720	846	820	992	992	1087

24832936/EN – 09/2018

33 081 01 14



(→ 📖 7.3)	DRN									
	132S	132M	132L	160..	180..	200L	225..	250M	280S	280M
AC	221	261	261	314	357	394	434	495	495	495
AD	170	228	228	253	268	283	305	394	394	394
ADS	172	228	228	253	268	283	305	394	394	394
L	1013	1031	1057	1123	1146	1256	1230	1367	1367	1462
LS	1125	1169	1194	1312	1335	1461	1435	1607	1607	1702
LB	398	416	442	508	531	641	615	752	752	847
LBS	510	554	579	697	720	846	820	992	992	1087

24832936/EN – 09/2018

33 082 00 14

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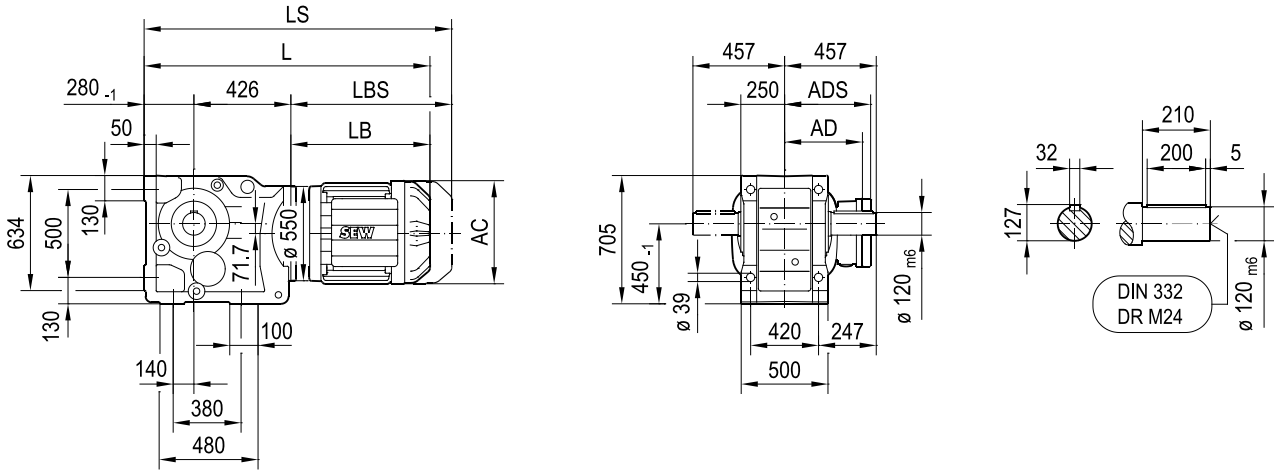

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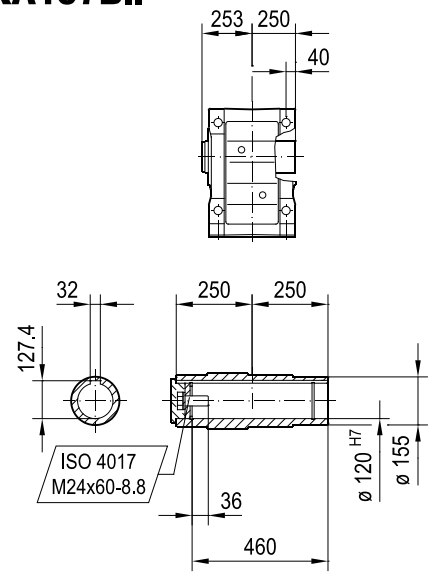

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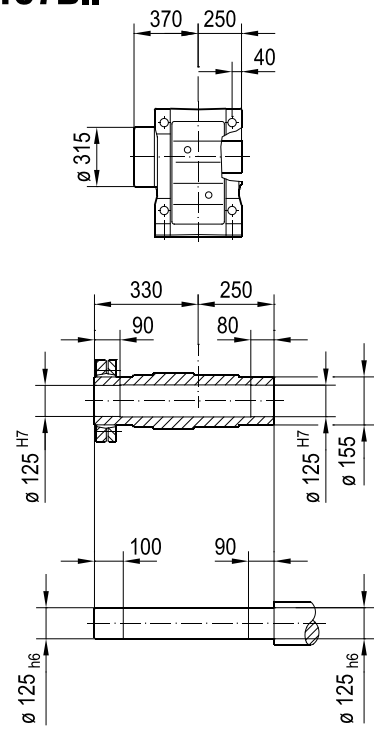

(→ 📖 7.3)	DRN								
	160..	180..	200L	225..	250M	280S	280M	315S-M	315ME-H
AC	314	357	394	434	495	495	495	624	624
AD	253	268	283	305	394	394	394	506	506
ADS	253	268	283	305	394	394	394	506	506
L	1206	1229	1339	1313	1450	1450	1545	1647	1777
LS	1395	1418	1544	1518	1690	1690	1785	1898	2028
LB	500	523	633	607	744	744	839	941	1071
LBS	689	712	838	812	984	984	1079	1192	1322

33 083 00 14

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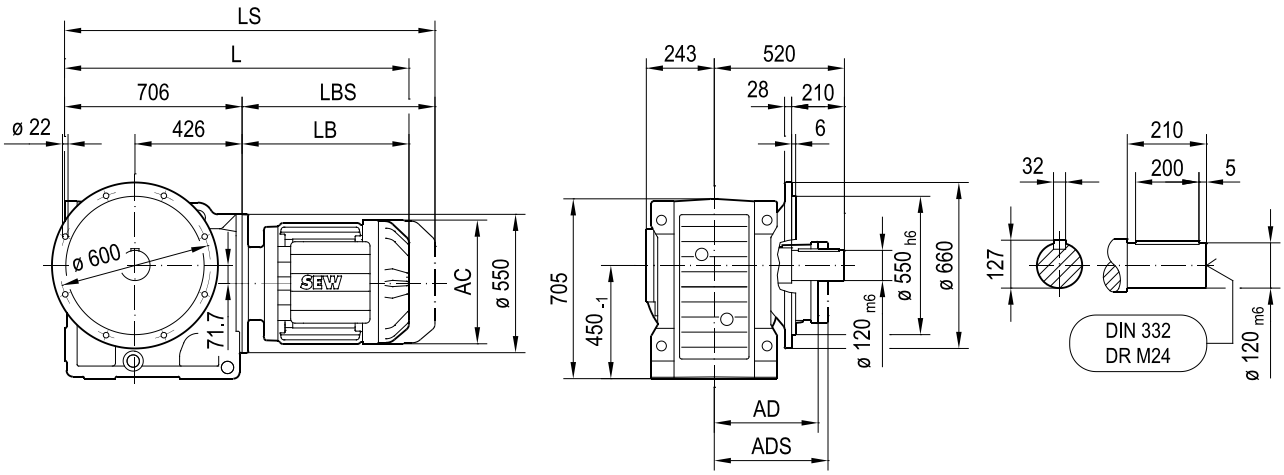

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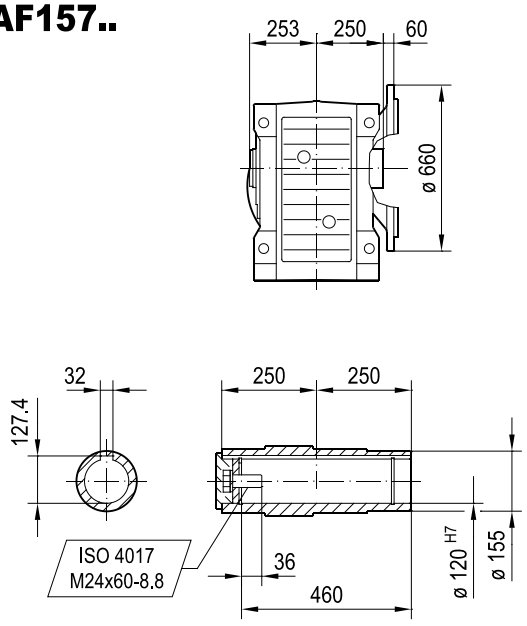

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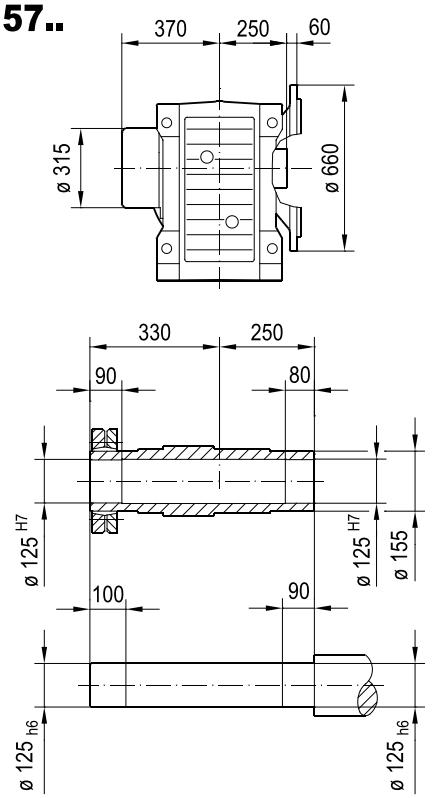

(→ 📖 7.3)	DRN								
	160..	180..	200L	225..	250M	280S	280M	315S-M	315ME-H
AC	314	357	394	434	495	495	495	624	624
AD	253	268	283	305	394	394	394	506	506
ADS	253	268	283	305	394	394	394	506	506
L	1206	1229	1339	1313	1450	1450	1545	1647	1777
LS	1395	1418	1544	1518	1690	1690	1785	1898	2028
LB	500	523	633	607	744	744	839	941	1071
LBS	689	712	838	812	984	984	1079	1192	1322

24832936/EN – 09/2018

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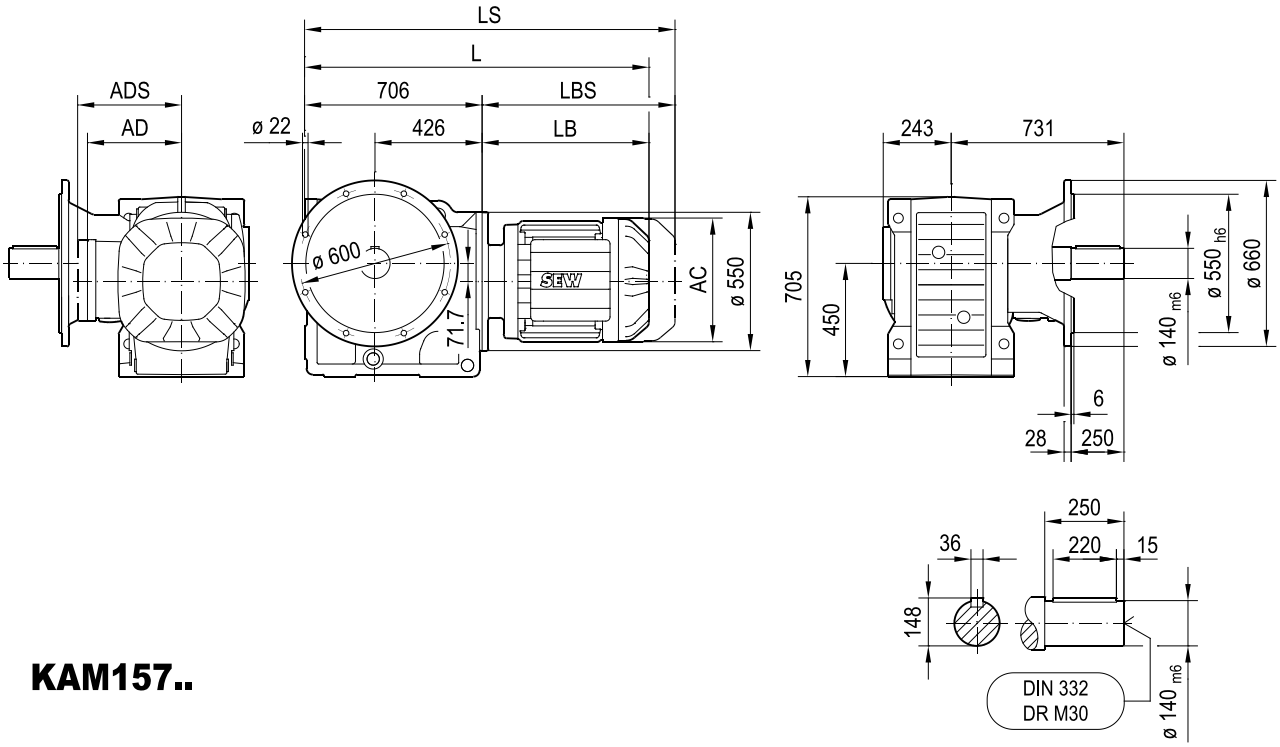

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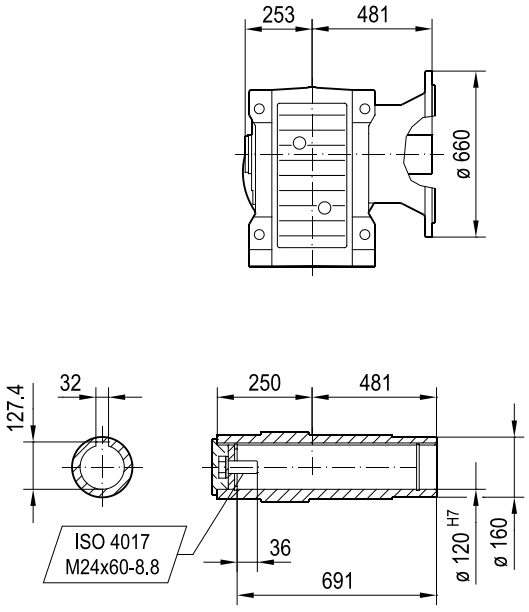

(→ 📖 7.3)	DRN								
	160..	180..	200L	225..	250M	280S	280M	315S-M	315ME-H
AC	314	357	394	434	495	495	495	624	624
AD	253	268	283	305	394	394	394	506	506
ADS	253	268	283	305	394	394	394	506	506
L	1206	1229	1339	1313	1450	1450	1545	1647	1777
LS	1395	1418	1544	1518	1690	1690	1785	1898	2028
LB	500	523	633	607	744	744	839	941	1071
LBS	689	712	838	812	984	984	1079	1192	1322

24832936/EN – 09/2018

33 084 00 14

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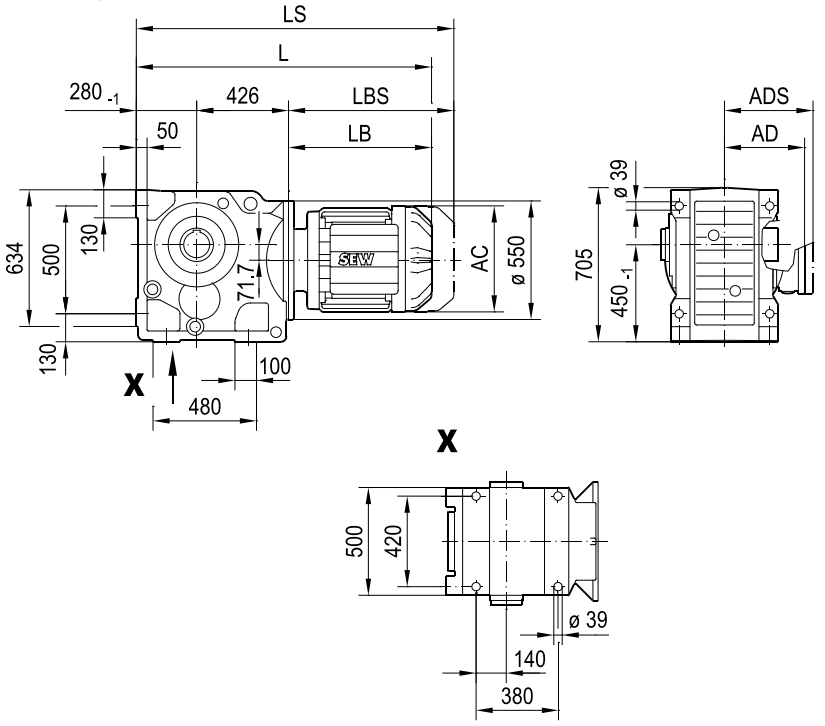

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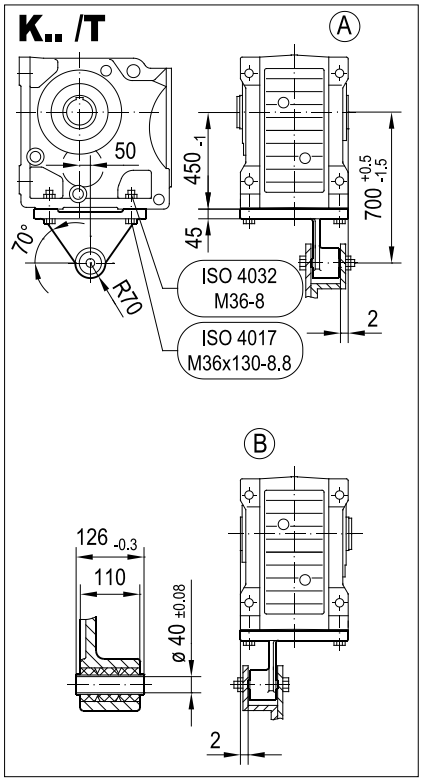

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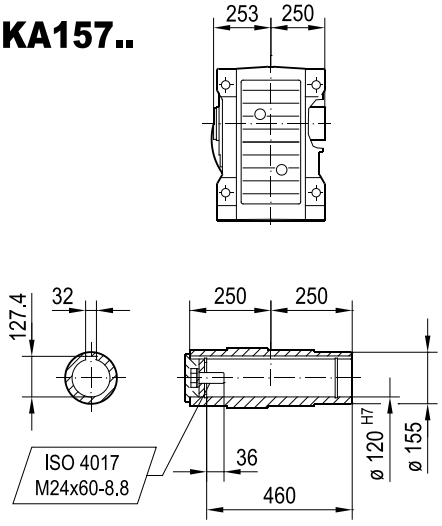

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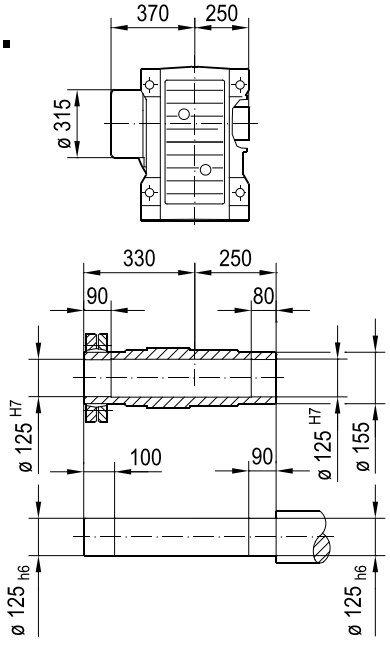

(→ 📖 7.3)	DRN								
	160..	180..	200L	225..	250M	280S	280M	315S-M	315ME-H
AC	314	357	394	434	495	495	495	624	624
AD	253	268	283	305	394	394	394	506	506
ADS	253	268	283	305	394	394	394	506	506
L	1206	1229	1339	1313	1450	1450	1545	1647	1777
LS	1395	1418	1544	1518	1690	1690	1785	1898	2028
LB	500	523	633	607	744	744	839	941	1071
LBS	689	712	838	812	984	984	1079	1192	1322

24832936/EN – 09/2018

33 085 00 14

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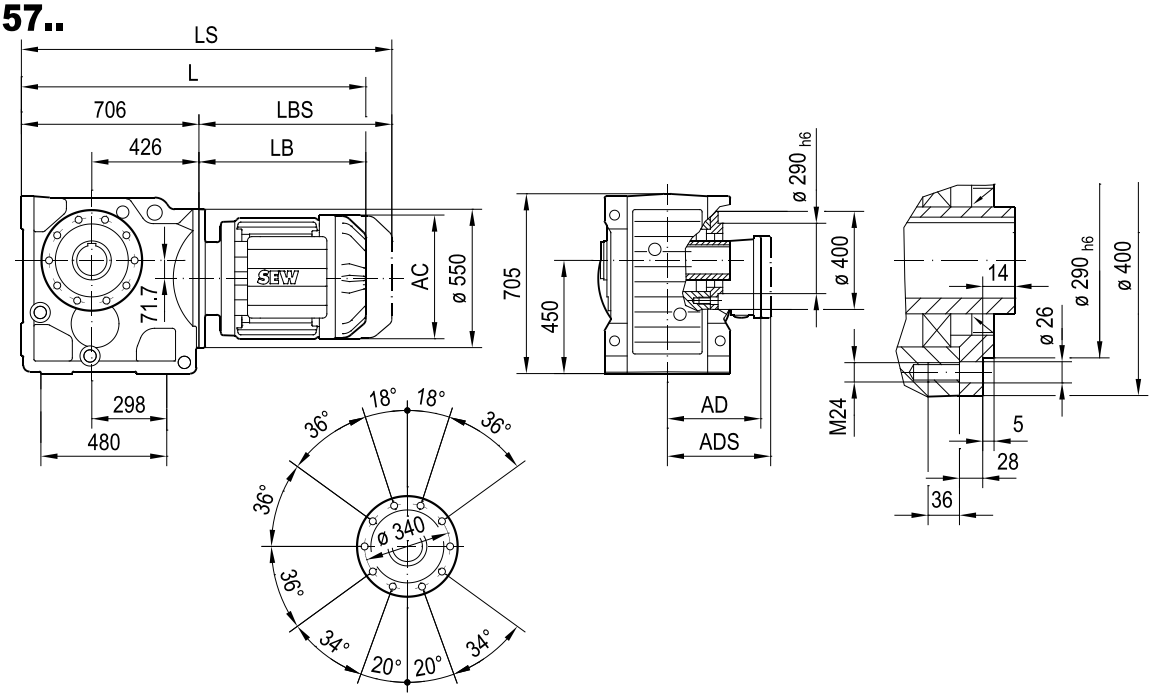

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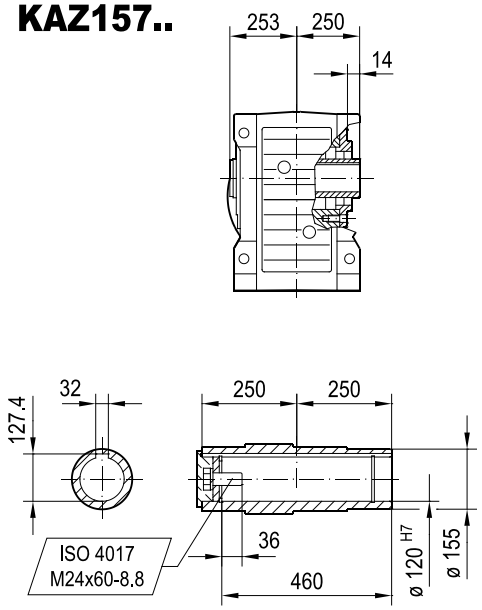

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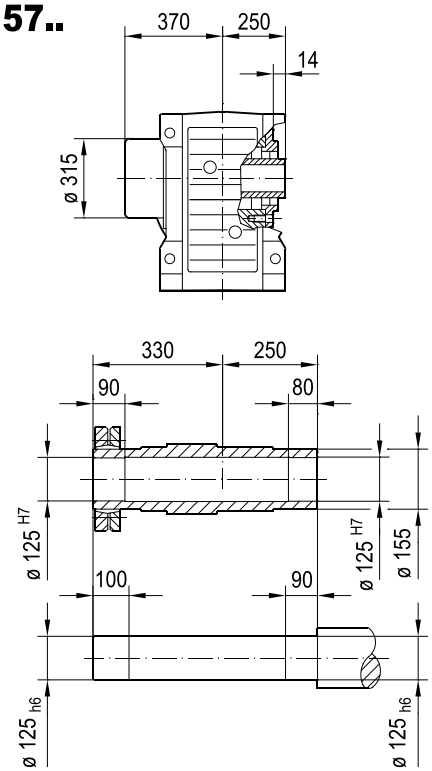
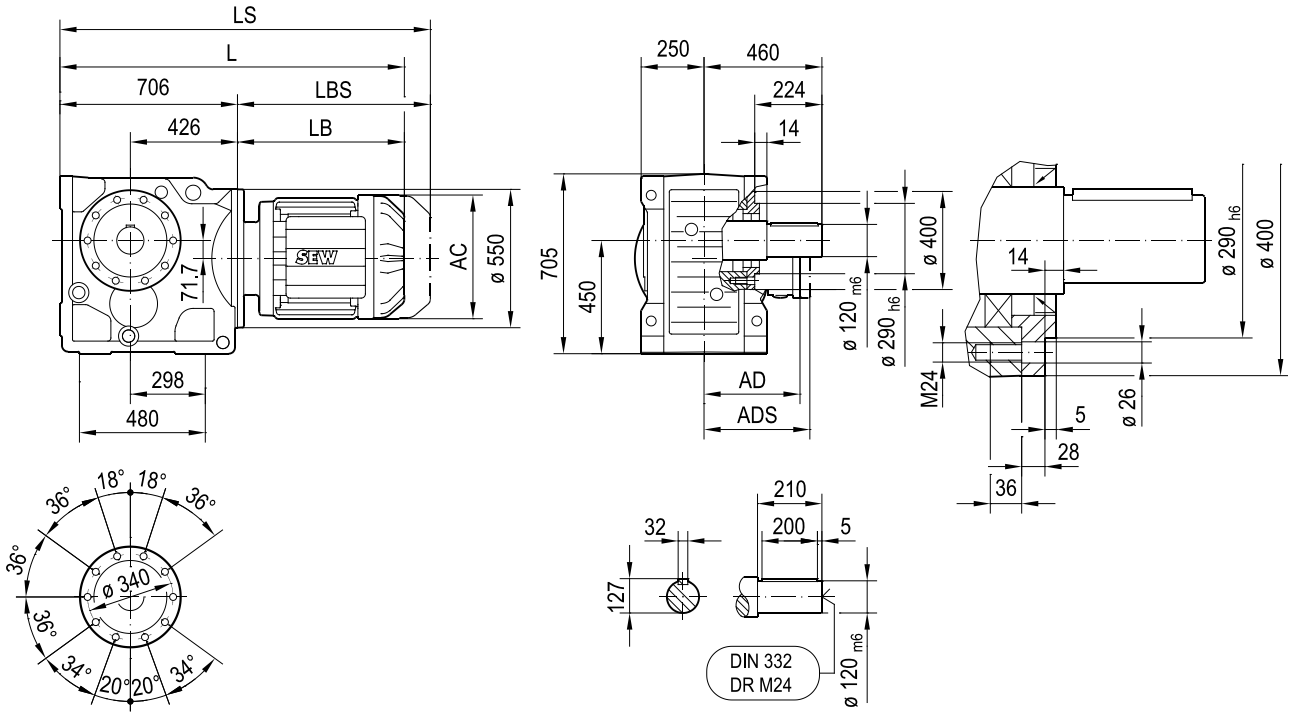


(→ 📖 7.3)	DRN								
	160..	180..	200L	225..	250M	280S	280M	315S-M	315ME-H
AC	314	357	394	434	495	495	495	624	624
AD	253	268	283	305	394	394	394	506	506
ADS	253	268	283	305	394	394	394	506	506
L	1206	1229	1339	1313	1450	1450	1545	1647	1777
LS	1395	1418	1544	1518	1690	1690	1785	1898	2028
LB	500	523	633	607	744	744	839	941	1071
LBS	689	712	838	812	984	984	1079	1192	1322

33 241 01 15

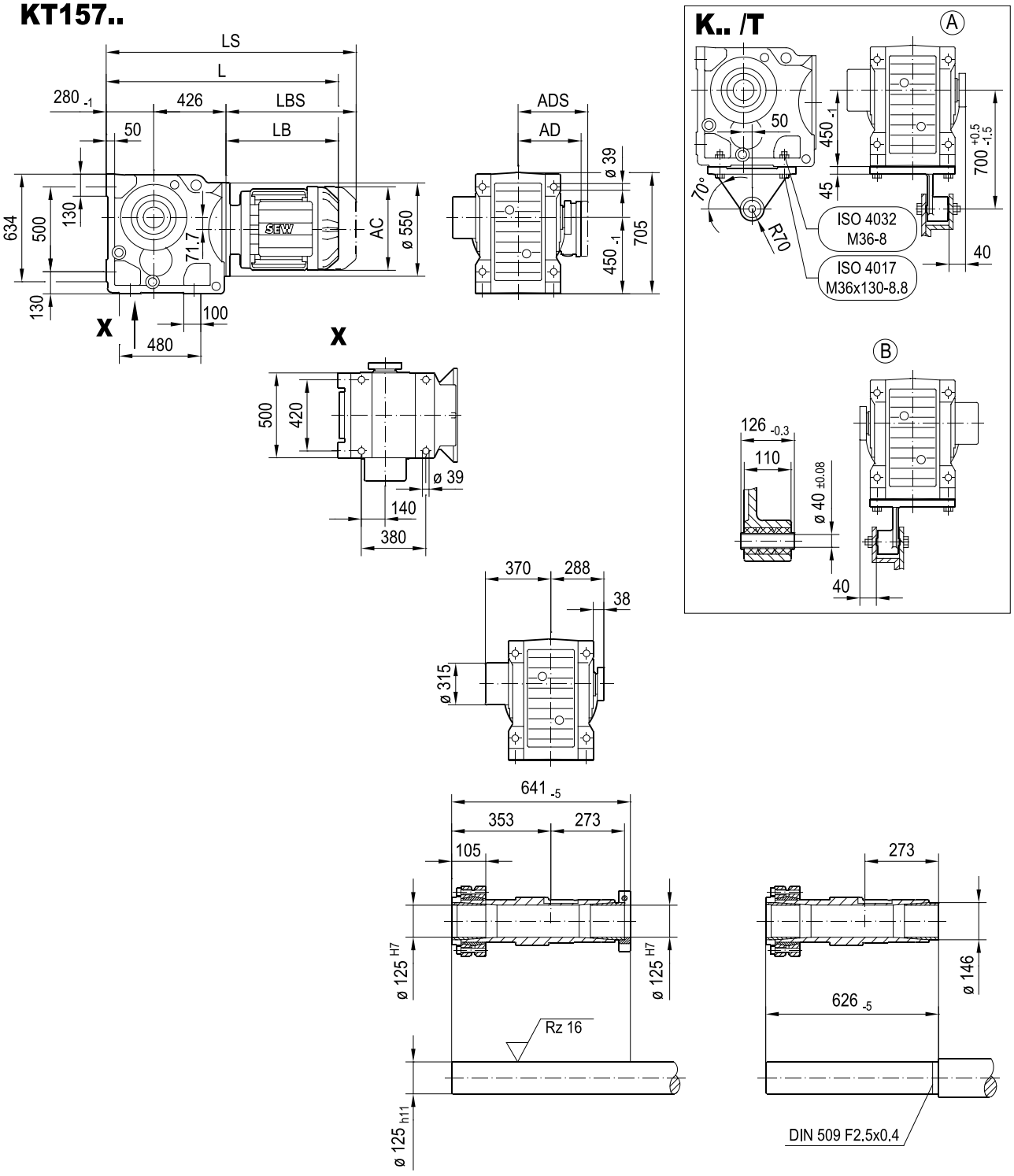
KZ157..



(→ 📖 7.3)	DRN								
	160..	180..	200L	225..	250M	280S	280M	315S-M	315ME-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

24832936/EN – 09/2018

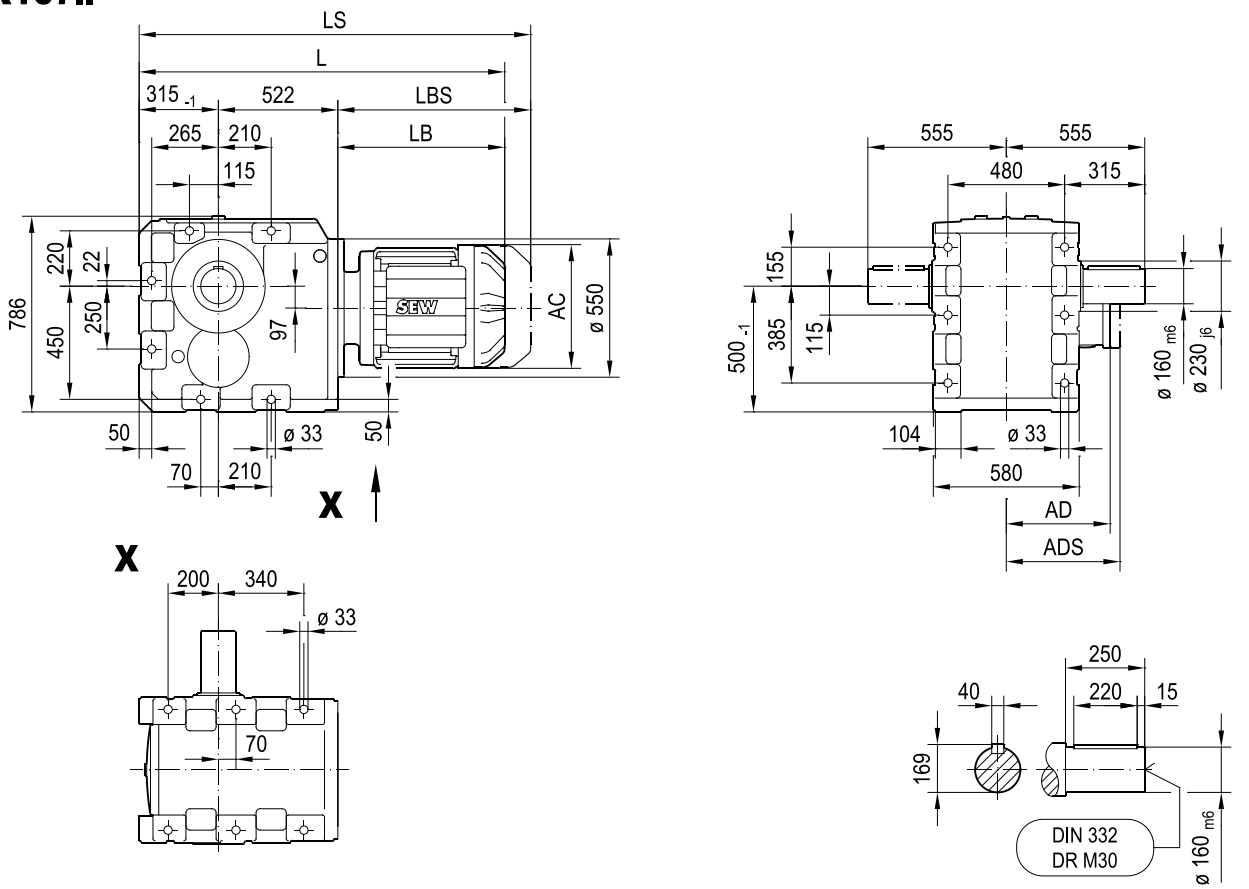
33 086 01 14



(→ 📖 7.3)	DRN								
	160..	180..	200L	225..	250M	280S	280M	315S-M	315ME-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

33 087 00 14

K167..



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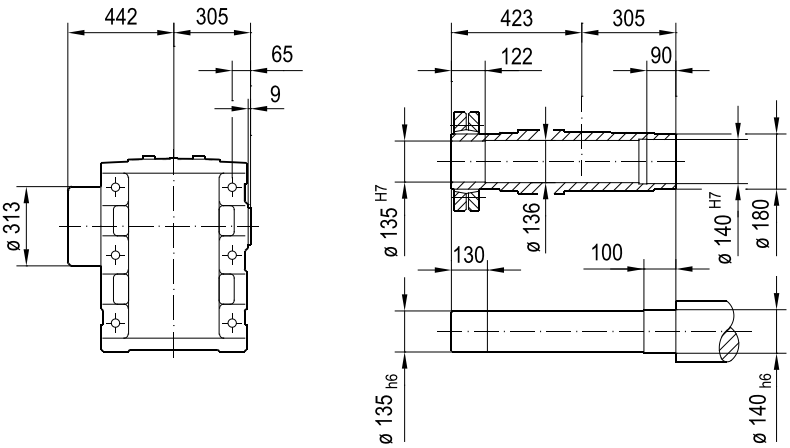

(→ 📖 7.3)	DRN								
	160..	180..	200L	225..	250M	280S	280M	315S-M	315ME-H
AC	314	357	394	434	495	495	495	624	624
AD	253	268	283	305	394	394	394	506	506
ADS	253	268	283	305	394	394	394	506	506
L	1337	1360	1470	1444	1581	1581	1676	1778	1908
LS	1526	1549	1675	1649	1821	1821	1916	2029	2159
LB	500	523	633	607	744	744	839	941	1071
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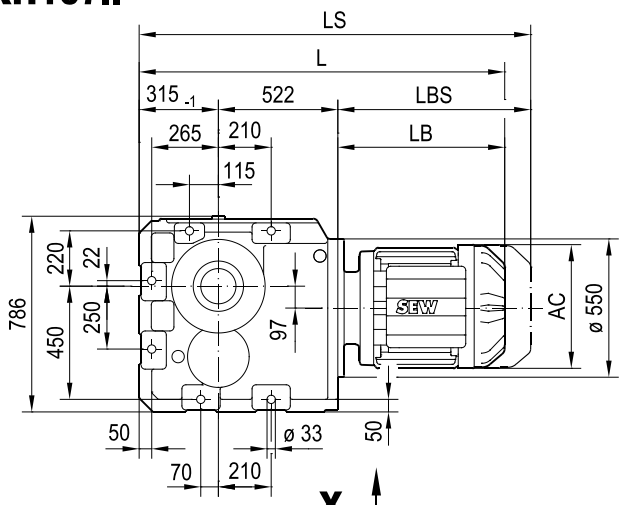
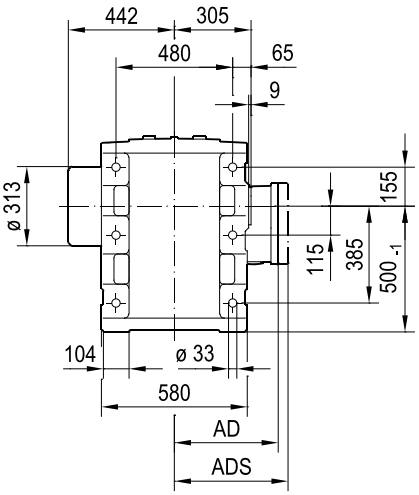
24832936/EN – 09/2018

33 088 00 14

KH167..





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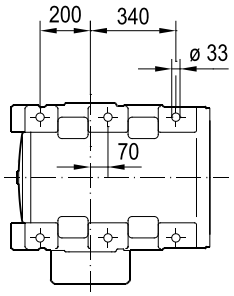
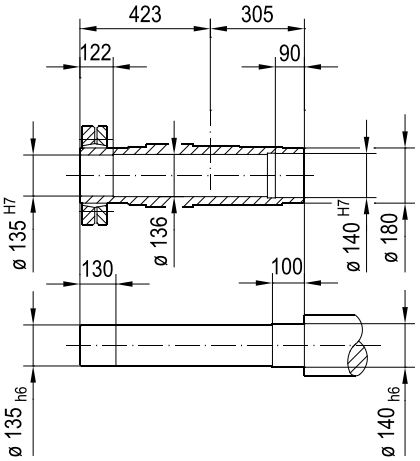


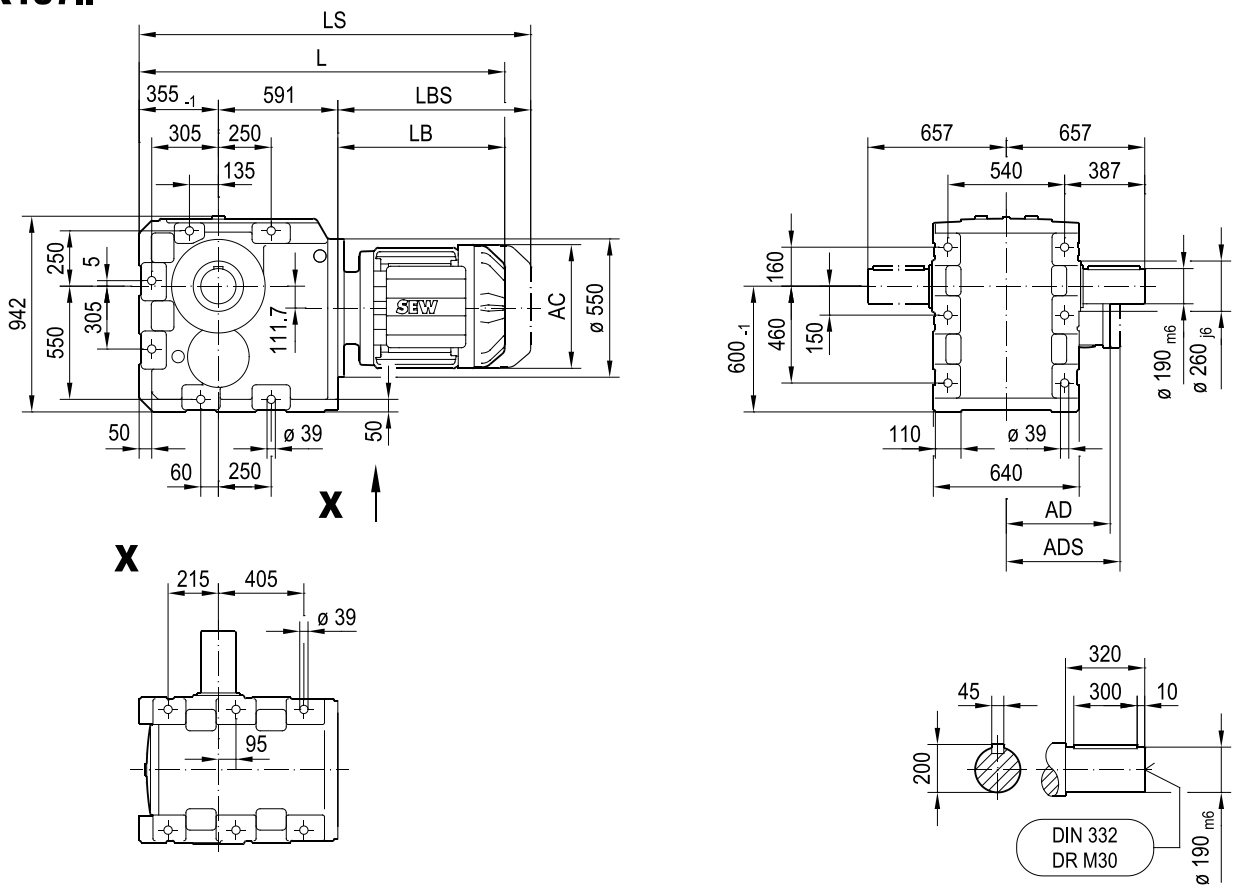


(→ 📖 7.3)	DRN								
	160..	180..	200L	225..	250M	280S	280M	315S-M	315ME-H
AC	314	357	394	434	495	495	495	624	624
AD	253	268	283	305	394	394	394	506	506
ADS	253	268	283	305	394	394	394	506	506
L	1337	1360	1470	1444	1581	1581	1676	1778	1908
LS	1526	1549	1675	1649	1821	1821	1916	2029	2159
LB	500	523	633	607	744	744	839	941	1071
LBS	689	712	838	812	984	984	1079	1192	1322

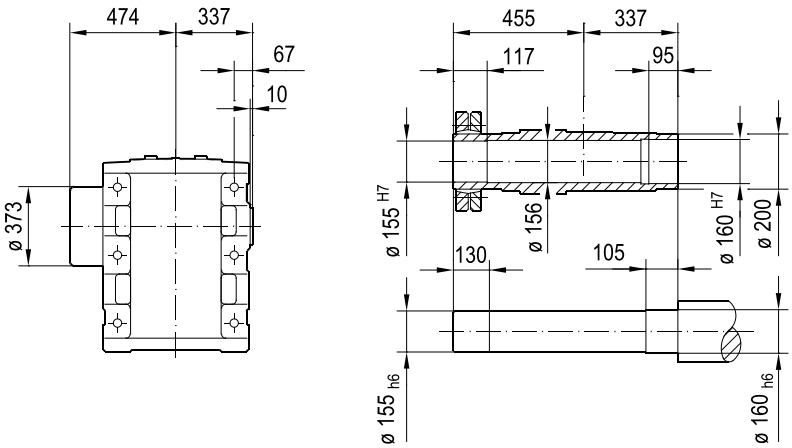
24832936/EN – 09/2018

33 089 00 14

K187..



KH187B..



(→ 📖 7.3)	DRN							
	180..	200L	225..	250M	280S	280M	315S-M	315ME-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

24832936/EN – 09/2018

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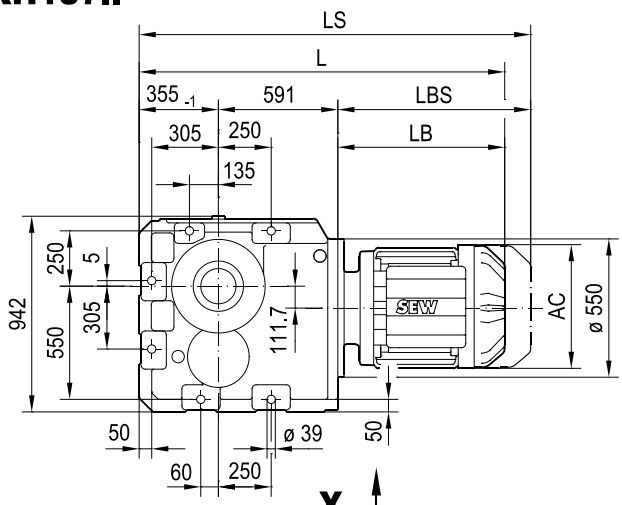
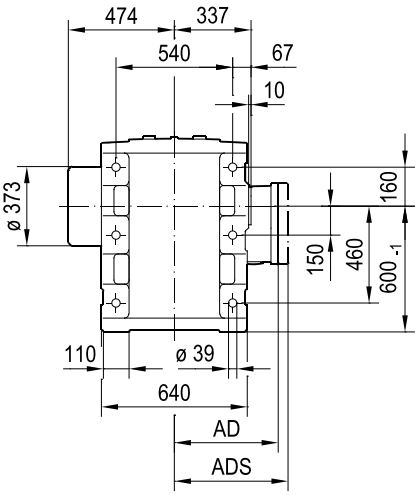
KH187..





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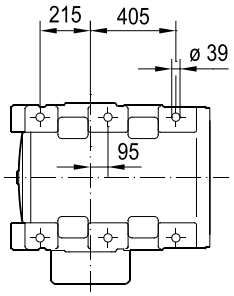
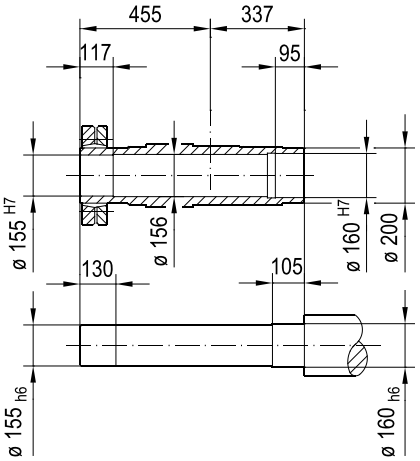
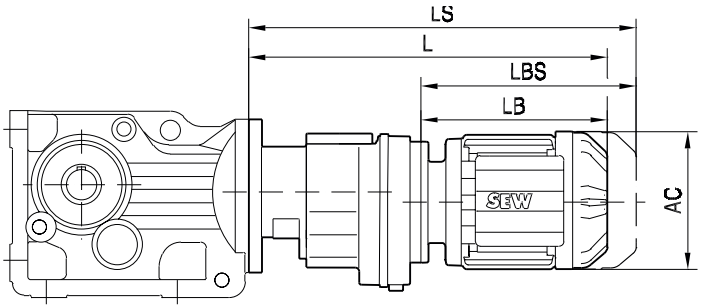




(→ 📖 7.3)	DRN							
	180..	200L	225..	250M	280S	280M	315S-M	315ME-H
AC	357	394	434	495	495	495	624	624
AD	268	283	305	394	394	394	506	506
ADS	268	283	305	394	394	394	506	506
L	1469	1579	1553	1690	1690	1785	1887	2017
LS	1658	1784	1758	1930	1930	2025	2138	2268
LB	523	633	607	744	744	839	941	1071
LBS	712	838	812	984	984	1079	1192	1322

24832936/EN – 09/2018

10.6 K..R..DRN.. dimension sheets in mm



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(→ 🗎 181)		AC	L	LS	LB	LBS
K....37R17	**DRN63MS**	115	365	421	190	246
	DRN63M	115	379	435	204	260
	DRN71MS	139	381	448	206	273
	DRN71M	139	401	468	226	293
	DRN80M	156	452	533	277	358
K..39R17	**DRN63MS**	115	365	421	190	246
	DRN63M	115	379	435	204	260
	DRN71MS	139	381	448	206	273
	DRN71M	139	401	468	226	293
	DRN80M	156	452	533	277	358
K..47R37	**DRN63MS**	115	355	411	190	246
	DRN63M	115	369	425	204	260
	DRN71MS	139	371	438	206	273
	DRN71M	139	391	458	226	293
	DRN80MK..	156	402	483	237	318
	DRN80M	156	447	528	282	363
	DRN90S	179	448	542	283	377
K..49R37	**DRN63MS**	115	347	403	190	246
	DRN63M	115	361	417	204	260
	DRN71MS	139	363	430	206	273
	DRN71M	139	383	450	226	293
	DRN80MK..	156	394	475	237	318
	DRN80M	156	439	520	282	363
	DRN90S	179	440	534	283	377
K..57R37	**DRN63MS**	115	355	411	190	246
	DRN63M	115	369	425	204	260
	DRN71MS	139	371	438	206	273
	DRN71M	139	391	458	226	293
	DRN80MK..	156	402	483	237	318
	DRN80M	156	447	528	282	363
	DRN90S	179	448	542	283	377
	DRN90L	179	480	574	315	409
K..67R37	**DRN63MS**	115	355	411	190	246
	DRN63M	115	369	425	204	260
	DRN71MS	139	371	438	206	273
	DRN71M	139	391	458	226	293
	DRN80MK..	156	402	483	237	318
	DRN80M	156	447	528	282	363
	DRN90S	179	448	542	283	377
	DRN90L	179	480	574	315	409

24832936/EN – 09/2018

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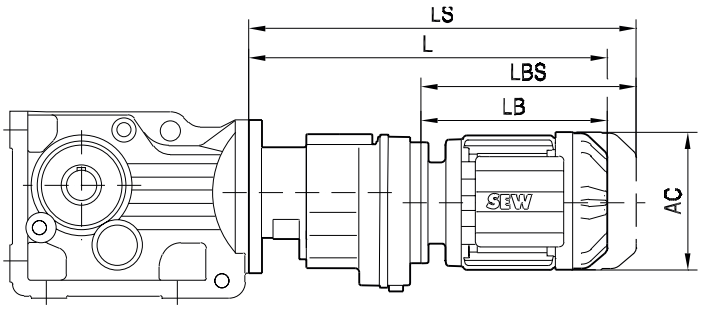

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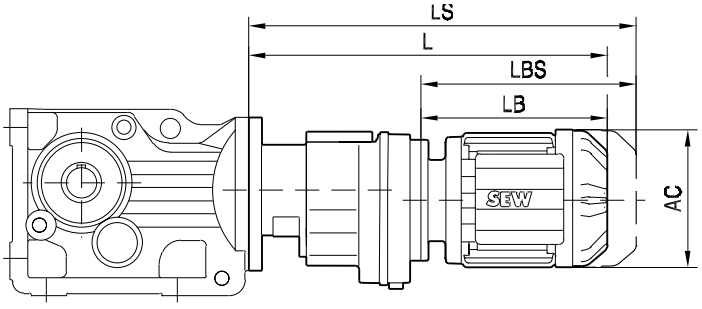
(→ 🗎 181)		AC	L	LS	LB	LBS
K..77R37	**DRN63MS**	115	347	403	190	246
	DRN63M	115	361	417	204	260
	DRN71MS	139	363	430	206	273
	DRN71M	139	383	450	226	293
	DRN80MK..	156	394	475	237	318
	DRN80M	156	439	520	282	363
	DRN90S	179	440	534	283	377
	DRN90L	179	472	566	315	409
	DRN100LS	197	471	565	314	408
	DRN100L/LM	197	521	615	364	458
K..87R57	**DRN63MS**	115	411	467	184	240
	DRN63M	115	425	481	198	254
	DRN71MS	139	427	494	199	267
	DRN71M	139	447	514	219	287
	DRN80MK..	156	458	539	230	311
	DRN80M	156	503	584	275	356
	DRN90S	179	504	598	277	370
	DRN90L	179	536	630	309	402
	DRN100LS	197	533	626	305	399
	DRN100L/LM	197	583	676	355	449
	DRN112M	221	614	726	386	498
K..97R57	**DRN63MS**	115	406	462	184	240
	DRN63M	115	420	476	198	254
	DRN71MS	139	422	489	199	267
	DRN71M	139	442	509	219	287
	DRN80MK..	156	453	534	230	311
	DRN80M	156	498	579	275	356
	DRN90S	179	499	593	277	370
	DRN90L	179	531	625	309	402
	DRN100LS	197	528	621	305	399
	DRN100L/LM	197	578	671	355	449
	DRN112M	221	609	721	386	498
	DRN132S	221	663	775	440	552

33 133 00 06



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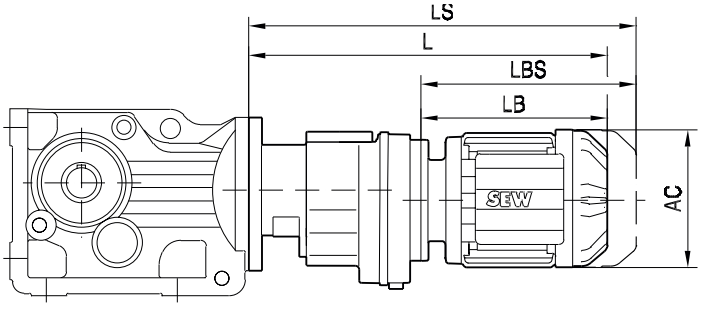
24832936/EN – 09/2018

(→ 181)		AC	L	LS	LB	LBS
K..107R77	**DRN63MS**	115	424	480	177	233
	DRN63M	115	438	494	191	247
	DRN71MS	139	439	507	192	260
	DRN71M	139	459	527	212	280
	DRN80MK..	156	470	551	223	304
	DRN80M	156	515	596	268	349
	DRN90S	179	517	610	270	363
	DRN90L	179	549	642	302	395
	DRN100LS	197	545	639	298	392
	DRN100L/LM	197	595	689	348	442
	DRN112M	221	626	738	379	491
	DRN132S	221	676	788	429	541
	DRN132M	261	694	832	447	585
	DRN132L	261	720	857	473	610
	DRN160..	314	786	975	539	728
K..127R77	**DRN63MS**	115	409	465	177	233
	DRN63M	115	423	479	191	247
	DRN71MS	139	424	492	192	260
	DRN71M	139	444	512	212	280
	DRN80MK..	156	455	536	223	304
	DRN80M	156	500	581	268	349
	DRN90S	179	502	595	270	363
	DRN90L	179	534	627	302	395
	DRN100LS	197	530	624	298	392
	DRN100L/LM	197	580	674	348	442
	DRN112M	221	611	723	379	491
	DRN132S	221	661	773	429	541
	DRN132M	261	679	817	447	585
K..127R87	**DRN90L**	179	577	670	297	390
	DRN100LS	197	573	667	293	387
	DRN100L/LM	197	623	717	343	437
	DRN112M	221	654	766	374	486
	DRN132S	221	704	816	424	536
	DRN132M	261	722	860	442	580
	DRN132L	261	748	885	468	605
	DRN160..	314	814	1003	534	723
	DRN180..	357	837	1026	557	746

33 133 00 06



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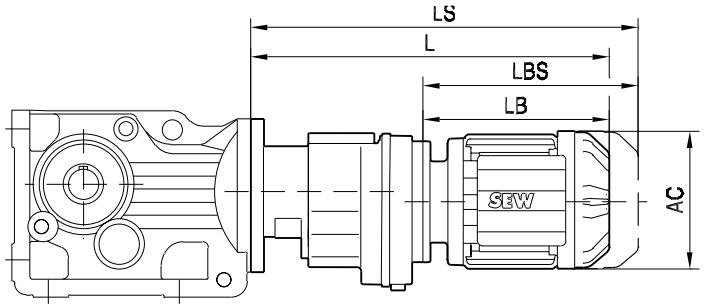
24832936/EN – 09/2018

(→ 181)		AC	L	LS	LB	LBS
K..157R97	**DRN71MS**	139	507	575	182	250
	DRN71M	139	527	595	202	270
	DRN80MK..	156	538	619	213	294
	DRN80M	156	583	664	258	339
	DRN90S	179	585	678	260	353
	DRN90L	179	617	710	292	385
	DRN100LS	197	613	707	288	382
	DRN100L/LM	197	663	757	338	432
	DRN112M	221	694	806	369	481
	DRN132S	221	744	856	419	531
	DRN132M	261	762	900	437	575
	DRN132L	261	788	925	463	600
	DRN160..	314	854	1043	529	718
K..157R107	**DRN132S**	221	795	907	413	525
	DRN132M	261	813	951	431	569
	DRN132L	261	839	976	457	594
	DRN160..	314	905	1094	523	712
	DRN180..	357	928	1117	546	735
	DRN200L	394	1038	1243	656	861
	DRN225..	434	1012	1217	630	835
K..167R97	**DRN71M**	139	527	595	202	270
	DRN80MK..	156	538	619	213	294
	DRN80M	156	583	664	258	339
	DRN90S	179	585	678	260	353
	DRN90L	179	617	710	292	385
	DRN100LS	197	613	707	288	382
	DRN100L/LM	197	663	757	338	432
	DRN112M	221	694	806	369	481
	DRN132S	221	744	856	419	531
	DRN132M	261	762	900	437	575
	DRN132L	261	788	925	463	600
	DRN160..	314	854	1043	529	718
	DRN180..	357	877	1066	552	741
K..167R107	**DRN132M**	261	813	951	431	569
	DRN132L	261	839	976	457	594
	DRN160..	314	905	1094	523	712
	DRN180..	357	928	1117	546	735
	DRN200L	394	1038	1243	656	861
	DRN225..	434	1012	1217	630	835
	DRN250M	495	1149	1389	767	1007

33 133 00 06



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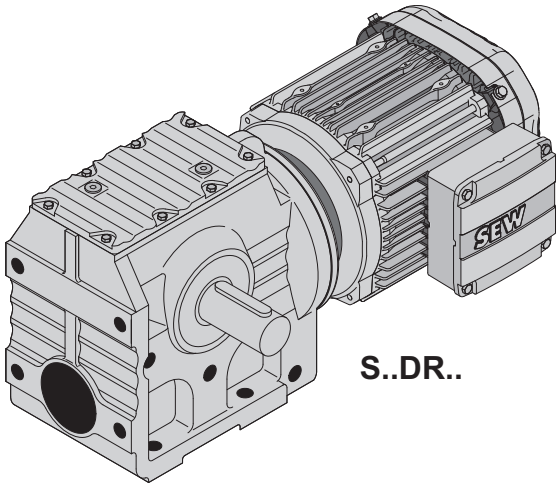
(→ 🗎 181)		AC	L	LS	LB	LBS
K..187R97	**DRN71M**	139	527	595	202	270
	DRN80MK..	156	538	619	213	294
	DRN80M	156	583	664	258	339
	DRN90S	179	585	678	260	353
	DRN90L	179	617	710	292	385
	DRN100LS	197	613	707	288	382
	DRN100L/LM	197	663	757	338	432
	DRN112M	221	694	806	369	481
	DRN132S	221	744	856	419	531
	DRN132M	261	762	900	437	575
	DRN132L	261	788	925	463	600
	DRN160..	314	854	1043	529	718
	DRN180..	357	877	1066	552	741
K..187R107	**DRN100L/LM**	197	714	808	332	426
	DRN112M	221	745	857	363	475
	DRN132S	221	795	907	413	525
	DRN132M	261	813	951	431	569
	DRN132L	261	839	976	457	594
	DRN160..	314	905	1094	523	712
	DRN180..	357	928	1117	546	735
	DRN200L	394	1038	1243	656	861
	DRN225..	434	1012	1217	630	835
	DRN250M	495	1149	1389	767	1007

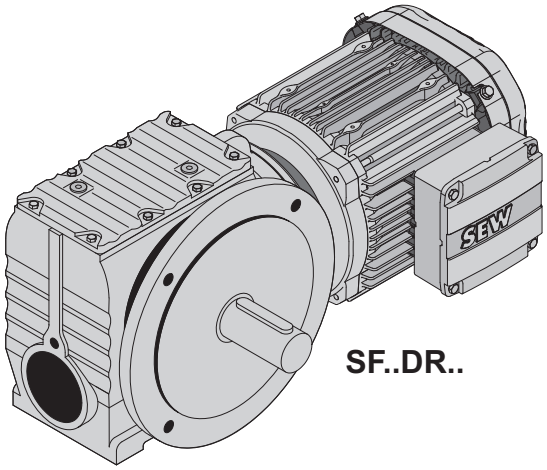
24832936/EN – 09/2018

11 Helical-worm gearmotors

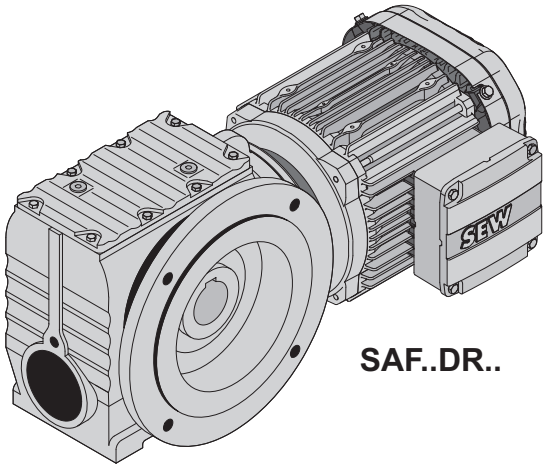
11.1 S..DRN.. designs



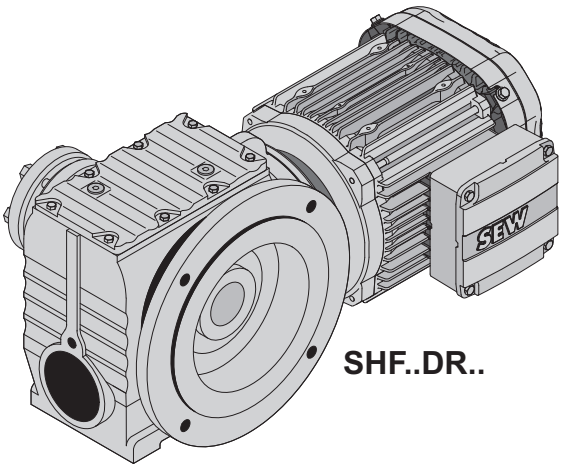
S..DR..



SF..DR..



SAF..DR..



SHF..DR..

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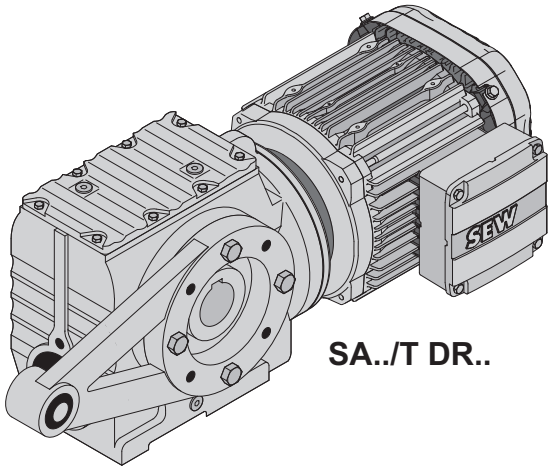
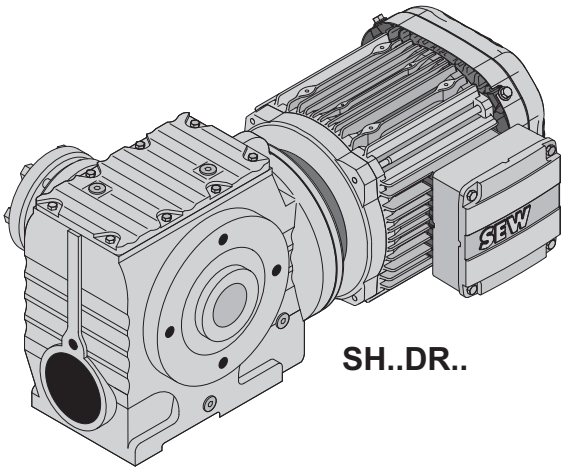
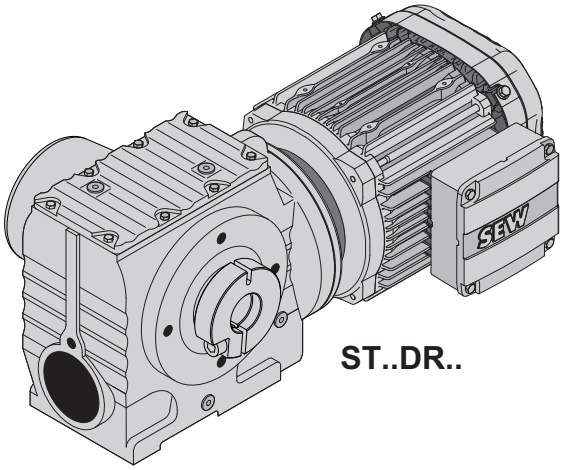
24832936/EN – 09/2018



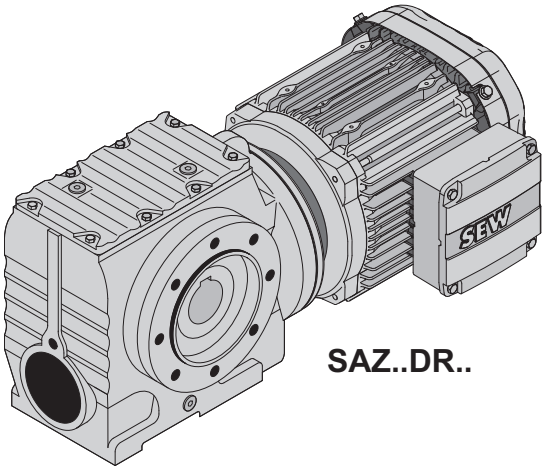
SA../T DR..



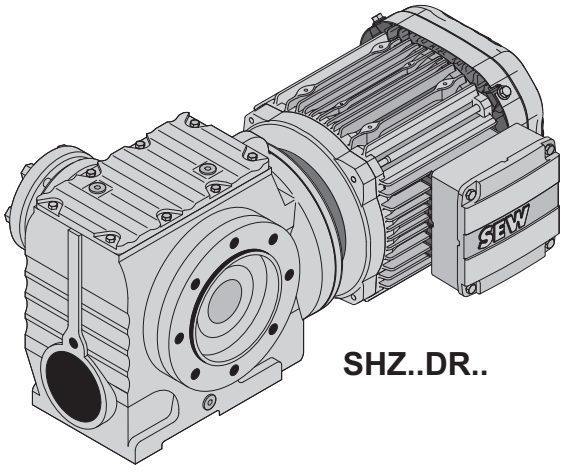
SH..DR..



ST..DR..



SAZ..DR..



SHZ..DR..

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24832936/EN – 09/2018

11.2 Possible geometrical combinations of S..DRN..

S37, n_e=1400 min^{-1}							92 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L
					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 min^{-1}							92 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M 80MK	DRN 80M
					2 3		
0.14	92	3000	-	10037			
0.16	92	3000	-	8654			
0.17	92	3000	-	8066			

S37R17, n_e=1400 min^{-1}							92 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M 80MK	DRN 80M
0.20	92	3000	-	7051			
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 min^{-1}								170 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
					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*				

24832936/EN – 09/2018

S47, n_e=1400 min^{-1} — 170 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
17	167	5360	-	84.00*				
20	167	5360	-	71.75*				
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 min^{-1} — 185 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M 80MK	DRN 80M
					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			

24832936/EN – 09/2018

S47R17, n_e=1400 min^{-1}							185 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M 80MK	DRN 80M
0.52	185	5200	-	2714			
0.58	185	5200	-	2412			
0.66	185	5200	-	2131			
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 min^{-1}								295 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
					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*				

24832936/EN – 09/2018

S57, n_e=1400 min^{-1} — 295 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
25	265	7370	-	56.61				
26	245	7520	-	54.59				
30	245	7520	-	47.32				
32	245	7520	-	44.22*				
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 min^{-1} — 330 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M 80MK	DRN 80M
					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			

24832936/EN – 09/2018

S57R17, n_e=1400 min^{-1}							330 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M 80MK	DRN 80M
0.98	300	7080	-	1435			
1.1	300	7080	-	1254			
1.3	300	7080	-	1083			
					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 min^{-1}										520 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
						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*						

24832936/EN – 09/2018

S67, n_e=1400 min^{-1}										520 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
47	480	6540	-	29.63						
52	480	6240	-	26.93						
57	340	6040	-	24.44						
60	480	5810	-	23.33						
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 min^{-1}								570 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
					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				

24832936/EN – 09/2018

S67R37, n_e=1400 min^{-1}								570 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
					2	2		
1.7	570	8190	-	809				
2.0	570	8190	-	712				
2.3	570	8190	-	615				
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 min^{-1}											1270 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L
					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							

24832936/EN – 09/2018

S77, n_e=1400 min^{-1} — 1270 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L
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							
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 min^{-1} — 1270 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
					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				

24832936/EN – 09/2018

S77R37, n_e=1400 min^{-1}								1270 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L
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				
4.3	1240	12000	-	327				
4.8	1240	12000	-	289				
5.6	1240	12000	-	250				
6.4	1240	12000	-	219				

S87, n_e=1400 min^{-1}												2280 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L
							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*								

24832936/EN – 09/2018

S87, n_e=1400 min^{-1}												2280 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L
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								

S87R57, n_e=1400 min^{-1}										2500 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
					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						

24832936/EN – 09/2018

S87R57, n_e=1400 min^{-1}										2500 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
5.5	1980	28400	-	255						
6.3	1980	28400	-	222						
6.8	1980	28400	-	205						

S97, n_e=1400 min^{-1}													4000 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M	DRN 132L 160M 160L	DRN 180M 180L	DRN 200L 225S
							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									

24832936/EN – 09/2018

S97R57, n_e=1400 min^{-1}										4200 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M	DRN 132S 132M
					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*						
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*						
					2 2					
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						

24832936/EN – 09/2018

11.3 S..DRN.. selection tables in kW

P_m = 0.12 kW											
n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B						m kg	
0.12	4740	11267	25100	0.90	**S**	**97R57**	**DRN**	**63MS4**		170	797
0.14	4330	10078	32500	0.95	**SF**	**97R57**	**DRN**	**63MS4**		200	797
0.16	3590	8608	34000	1.15	**SA**	**97R57**	**DRN**	**63MS4**		165	797
0.18	3180	7554	34700	1.30	**SAF**	**97R57**	**DRN**	**63MS4**		190	797
0.21	2690	6706	27100	0.95							
0.23	2400	5875	27700	1.05	**S**	**87R57**	**DRN**	**63MS4**		110	797
0.27	1980	5187	28500	1.25	**SF**	**87R57**	**DRN**	**63MS4**		130	797
0.30	1760	4606	28800	1.40	**SA**	**87R57**	**DRN**	**63MS4**		105	797
0.36	1460	3872	29200	1.70	**SAF**	**87R57**	**DRN**	**63MS4**		120	797
0.39	1370	3540	7230	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**	**DRN**	**63MS4**		59	797
0.76	980	1813	13900	1.25	**SF**	**77R37**	**DRN**	**63MS4**		68	797
0.79	930	1745	14200	1.30	**SA**	**77R37**	**DRN**	**63MS4**		58	797
0.86	860	1600	14600	1.45	**SAF**	**77R37**	**DRN**	**63MS4**		65	797
0.98	755	1404	15100	1.65							
1.1	660	1245	15500	1.90							
1.2	585	1194	7990	0.95	**S**	**67R37**	**DRN**	**63MS4**		40	797
1.3	530	1045	8560	1.05	**SF**	**67R37**	**DRN**	**63MS4**		46	797
1.5	455	914	9180	1.25	**SA**	**67R37**	**DRN**	**63MS4**		41	797
					SAF	**67R37**	**DRN**	**63MS4**		45	797
1.7	415	809	9460	1.35							
1.9	365	712	9770	1.55							
2.2	305	615	10100	1.85	**S**	**67R37**	**DRN**	**63MS4**		39	797
2.5	275	543	10200	2.1	**SF**	**67R37**	**DRN**	**63MS4**		46	797
2.9	225	469	10400	2.5	**SA**	**67R37**	**DRN**	**63MS4**		40	797
3.3	200	424	10500	2.8	**SAF**	**67R37**	**DRN**	**63MS4**		45	797
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**	**DRN**	**63MS4**		21	797
3.1	215	438	7700	1.40	**SF**	**57R17**	**DRN**	**63MS4**		25	797
3.6	189	388	7850	1.60	**SA**	**57R17**	**DRN**	**63MS4**		21	797
4.1	169	336	7950	1.75	**SAF**	**57R17**	**DRN**	**63MS4**		23	797
4.7	145	294	8050	2.1							
5.1	139	269	8070	2.2							
3.1	215	438	4920	0.85							
3.6	189	388	5160	1.00							
4.1	169	336	5290	1.10	**S**	**47R17**	**DRN**	**63MS4**		17	797
4.7	143	294	5420	1.30	**SF**	**47R17**	**DRN**	**63MS4**		21	797
5.4	98	257	5660	1.90	**SA**	**47R17**	**DRN**	**63MS4**		18	797
6.0	118	229	5550	1.55	**SAF**	**47R17**	**DRN**	**63MS4**		20	797
6.9	102	200	5620	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**	**DRN**	**63MS4**		14	797
8.7	82	158	3000	1.15	**SF**	**37R17**	**DRN**	**63MS4**		15	797
9.6	75	144	3000	1.20	**SA**	**37R17**	**DRN**	**63MS4**		14	797
12	61	118	3000	1.50	**SAF**	**37R17**	**DRN**	**63MS4**		15	797
13	57	110	3000	1.60							
4.3	148	201.00*	8040	2.0	**S**	**57**	**DRN**	**63M6**		18	772
4.7	137	184.80*	8080	2.2	**SF**	**57**	**DRN**	**63M6**		22	773
5.5	120	158.12	8130	2.5	**SA**	**57**	**DRN**	**63M6**		18	774
6.3	106	137.05	8170	2.8	**SAF**	**57**	**DRN**	**63M6**		21	773
4.3	142	201.00*	5470	1.25							
4.7	132	184.80*	5520	1.35	**S**	**47**	**DRN**	**63M6**		15	767
5.5	116	158.12	5590	1.50	**SF**	**47**	**DRN**	**63M6**		18	768
6.3	102	137.05	5650	1.70	**SA**	**47**	**DRN**	**63M6**		16	769
6.8	96	128.10*	5670	1.80	**SAF**	**47**	**DRN**	**63M6**		17	768

24832936/EN – 09/2018

P_m = 0.12 kW

n_a min^{-1}	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**	**DRN**	**63MS4**	14	767
8.7	77	158.12	5740	2.2	**SF**	**47**	**DRN**	**63MS4**	17	768
10	68	137.05	5770	2.5	**SA**	**47**	**DRN**	**63MS4**	15	769
11	64	128.10*	5790	2.6	**SAF**	**47**	**DRN**	**63MS4**	17	768
12	57	110.73	5810	3.0						
5.5	110	157.43	3000	0.85						
6.0	102	144.40*	3000	0.90	**S**	**37**	**DRN**	**63M6**	12	763
7.1	89	122.94	3000	1.05	**SF**	**37**	**DRN**	**63M6**	13	764
8.2	78	106.00*	3000	1.20	**SA**	**37**	**DRN**	**63M6**	11	765
8.8	73	98.80*	3000	1.25	**SAF**	**37**	**DRN**	**63M6**	13	764
10	65	86.36	3000	1.40						
8.8	74	157.43	3000	1.25						
9.6	68	144.40*	3000	1.35						
11	59	122.94	3000	1.55						
13	52	106.00*	3000	1.70						
14	49	98.80*	3000	1.75						
16	44	86.36	3000	1.95						
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	**S**	**37**	**DRN**	**63MS4**	11	763
27	33	51.30*	3000	2.5	**SF**	**37**	**DRN**	**63MS4**	12	764
32	28	43.68	3000	2.9	**SA**	**37**	**DRN**	**63MS4**	10	765
37	25	37.66	3000	3.2	**SAF**	**37**	**DRN**	**63MS4**	12	764
39	23	35.10*	3000	3.4						
45	20	30.68	3000	3.8						
48	19	28.76	3000	3.9						
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	4.0						
89	11	15.53	2870	4.4						

P_m = 0.18 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
					S	**87R57**	**DRN**	**63M4**	110	797
0.30	2870	4606	24000	0.85	**SF**	**87R57**	**DRN**	**63M4**	130	797
0.36	2390	3872	27700	1.05	**SA**	**87R57**	**DRN**	**63M4**	105	797
					SAF	**87R57**	**DRN**	**63M4**	125	797
0.40	2310	3475	27900	1.10						
0.47	1940	2905	28500	1.30	**S**	**87R57**	**DRN**	**63M4**	110	797
0.53	1680	2586	28900	1.50	**SF**	**87R57**	**DRN**	**63M4**	130	797
0.59	1500	2335	29200	1.65	**SA**	**87R57**	**DRN**	**63M4**	105	797
0.67	1290	2054	29400	1.95	**SAF**	**87R57**	**DRN**	**63M4**	120	797
0.75	1150	1824	29500	2.2						
0.84	1030	1631	29700	2.4						
					S	**77R37**	**DRN**	**63M4**	60	797
0.98	1190	1404	12400	1.05	**SF**	**77R37**	**DRN**	**63M4**	69	797
1.1	1040	1245	13500	1.20	**SA**	**77R37**	**DRN**	**63M4**	59	797
					SAF	**77R37**	**DRN**	**63M4**	66	797
1.2	970	1100	14000	1.25						
1.4	830	954	14700	1.50	**S**	**77R37**	**DRN**	**63M4**	59	797
1.6	735	837	15200	1.70	**SF**	**77R37**	**DRN**	**63M4**	69	797
1.9	610	714	15700	2.0	**SA**	**77R37**	**DRN**	**63M4**	59	797
2.2	540	637	15900	2.3	**SAF**	**77R37**	**DRN**	**63M4**	66	797
2.4	490	574	16000	2.5						
1.9	570	712	8140	1.00						
2.2	480	615	8990	1.20	**S**	**67R37**	**DRN**	**63M4**	40	797
2.5	430	543	9370	1.30	**SF**	**67R37**	**DRN**	**63M4**	47	797
2.9	360	469	9820	1.60	**SA**	**67R37**	**DRN**	**63M4**	41	797
3.2	325	424	10000	1.75	**SAF**	**67R37**	**DRN**	**63M4**	46	797
3.8	290	365	10200	1.95						

24832936/EN – 09/2018

P_m = 0.18 kW										
n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
3.1	335	438	6700	0.90						
3.5	295	388	7100	1.00						
4.1	260	336	7380	1.15	**S**	**57R17**	**DRN**	**63M4**	22	797
4.7	225	294	7620	1.30	**SF**	**57R17**	**DRN**	**63M4**	25	797
5.1	215	269	7700	1.40	**SA**	**57R17**	**DRN**	**63M4**	21	797
6.0	185	229	7870	1.60	**SAF**	**57R17**	**DRN**	**63M4**	24	797
6.7	167	204	7960	1.80						
7.3	152	187	8020	1.95						
4.7	225	294	4820	0.80						
5.3	155	257	5410	1.20						
6.0	183	229	5210	1.00	**S**	**47R17**	**DRN**	**63M4**	18	797
6.9	160	200	5340	1.15	**SF**	**47R17**	**DRN**	**63M4**	21	797
7.3	150	187	5390	1.25	**SA**	**47R17**	**DRN**	**63M4**	19	797
8.3	132	165	5480	1.40	**SAF**	**47R17**	**DRN**	**63M4**	21	797
9.3	119	148	5540	1.55						
11	106	131	5600	1.75						
4.2	240	217.41	10400	2.3	**S**	**67**	**DRN**	**71MS6**	30	777
4.8	215	190.11	10400	2.6	**SF**	**67**	**DRN**	**71MS6**	36	778
5.1	205	180.60*	10500	2.7	**SA**	**67**	**DRN**	**71MS6**	31	779
					SAF	**67**	**DRN**	**71MS6**	35	778
4.5	210	201.00*	7730	1.40	**S**	**57**	**DRN**	**71MS6**	19	772
5.0	197	184.80*	7810	1.50	**SF**	**57**	**DRN**	**71MS6**	23	773
5.8	172	158.12	7930	1.70	**SA**	**57**	**DRN**	**71MS6**	19	774
6.7	152	137.05	8020	1.95	**SAF**	**57**	**DRN**	**71MS6**	22	773
6.8	149	201.00*	8030	2.0	**S**	**57**	**DRN**	**63M4**	18	772
7.4	138	184.80*	8070	2.1	**SF**	**57**	**DRN**	**63M4**	22	773
8.7	120	158.12	8130	2.5	**SA**	**57**	**DRN**	**63M4**	18	774
10	106	137.05	8170	2.8	**SAF**	**57**	**DRN**	**63M4**	21	773
4.5	200	201.00*	5140	0.90						
5.0	190	184.80*	5230	0.95	**S**	**47**	**DRN**	**71MS6**	15	767
5.8	166	158.12	5360	1.05	**SF**	**47**	**DRN**	**71MS6**	19	768
6.7	147	137.05	5450	1.15	**SA**	**47**	**DRN**	**71MS6**	16	769
7.1	138	128.10*	5490	1.25	**SAF**	**47**	**DRN**	**71MS6**	18	768
6.8	143	201.00*	5470	1.20						
7.4	133	184.80*	5520	1.25						
8.7	116	158.12	5590	1.45						
10	103	137.05	5650	1.65	**S**	**47**	**DRN**	**63M4**	15	767
11	97	128.10*	5670	1.75	**SF**	**47**	**DRN**	**63M4**	18	768
12	85	110.73	5710	1.95	**SA**	**47**	**DRN**	**63M4**	16	769
15	74	94.08*	5760	2.3	**SAF**	**47**	**DRN**	**63M4**	17	768
16	67	84.00*	5780	2.5						
19	58	71.75*	5810	2.9						
20	67	69.39	5760	2.3						
8.7	111	157.43	3000	0.85						
9.5	103	144.40*	3000	0.90						
11	90	122.94	3000	1.00	**S**	**37**	**DRN**	**63M4**	12	763
13	79	106.00*	3000	1.10	**SF**	**37**	**DRN**	**63M4**	13	764
14	74	98.80*	3000	1.20	**SA**	**37**	**DRN**	**63M4**	11	765
16	66	86.36	3000	1.30	**SAF**	**37**	**DRN**	**63M4**	13	764
17	62	80.96	3000	1.35						

24832936/EN – 09/2018

P_m = 0.18 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
19	56	71.44*	3000	1.50						
22	50	63.33	3000	1.65						
25	53	55.93	3000	1.50						
27	49	51.30*	3000	1.65						
31	42	43.68	3000	1.90						
37	37	37.66	3000	2.1						
39	35	35.10*	3000	2.3						
45	30	30.68	3000	2.5	**S**	**37**	**DRN**	**63M4**	12	763
48	29	28.76	3000	2.6	**SF**	**37**	**DRN**	**63M4**	13	764
54	26	25.38*	3000	2.9	**SA**	**37**	**DRN**	**63M4**	11	765
61	23	22.50*	3000	3.2	**SAF**	**37**	**DRN**	**63M4**	13	764
69	22	19.89	2980	2.4						
75	20	18.24*	2920	2.6						
89	17	15.53	2790	2.9						
103	15	13.39	2680	3.3						
110	14	12.48*	2630	3.5						
126	12	10.91	2530	4.0						
134	11	10.23	2480	4.1						

P_m = 0.25 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.48	2700	2905	27000	0.95						
0.54	2350	2586	27800	1.05						
0.60	2100	2335	28300	1.20	**S**	**87R57**	**DRN**	**71MS4**	110	797
0.68	1830	2054	28700	1.35	**SF**	**87R57**	**DRN**	**71MS4**	130	797
0.77	1620	1824	29000	1.55	**SA**	**87R57**	**DRN**	**71MS4**	105	797
0.86	1450	1631	29200	1.70	**SAF**	**87R57**	**DRN**	**71MS4**	120	797
1.5	850	930	29800	2.9						
1.5	1160	954	12700	1.05						
1.7	1010	837	13700	1.20	**S**	**77R37**	**DRN**	**71MS4**	60	797
2.0	850	714	14600	1.45	**SF**	**77R37**	**DRN**	**71MS4**	70	797
2.2	755	637	15100	1.65	**SA**	**77R37**	**DRN**	**71MS4**	59	797
2.5	685	574	15400	1.80	**SAF**	**77R37**	**DRN**	**71MS4**	66	797
2.8	585	499	15800	2.1						
2.6	600	543	7860	0.95						
3.0	505	469	8810	1.15	**S**	**67R37**	**DRN**	**71MS4**	41	797
3.3	455	424	9200	1.25	**SF**	**67R37**	**DRN**	**71MS4**	47	797
3.9	405	365	9540	1.40	**SA**	**67R37**	**DRN**	**71MS4**	42	797
4.4	350	319	9860	1.60	**SAF**	**67R37**	**DRN**	**71MS4**	46	797
5.0	305	281	10100	1.85						
4.8	315	294	6910	0.95						
5.2	295	269	7100	1.00						
6.2	255	229	7440	1.15	**S**	**57R17**	**DRN**	**71MS4**	22	797
6.9	230	204	7610	1.30	**SF**	**57R17**	**DRN**	**71MS4**	26	797
7.5	210	187	7730	1.40	**SA**	**57R17**	**DRN**	**71MS4**	22	797
8.5	187	165	7860	1.60	**SAF**	**57R17**	**DRN**	**71MS4**	25	797
11	150	131	8030	2.0						
4.2	335	217.41	9950	1.65	**S**	**67**	**DRN**	**71M6**	31	777
4.8	295	190.11	10100	1.85	**SF**	**67**	**DRN**	**71M6**	37	778
5.1	285	180.60*	10200	1.95	**SA**	**67**	**DRN**	**71M6**	32	779
5.8	250	158.45	10300	2.2	**SAF**	**67**	**DRN**	**71M6**	36	778
6.5	230	217.41	10400	2.3						
7.4	200	190.11	10500	2.5						
7.8	196	180.60*	10500	2.7	**S**	**67**	**DRN**	**71MS4**	30	777
8.9	174	158.45	10600	3.0	**SF**	**67**	**DRN**	**71MS4**	36	778
10	151	134.40*	10600	3.5	**SA**	**67**	**DRN**	**71MS4**	31	779
12	137	121.33	10600	3.8	**SAF**	**67**	**DRN**	**71MS4**	35	778
13	122	106.75*	10700	4.2						
4.5	290	201.00*	7140	1.00						
5.0	270	184.80*	7310	1.10	**S**	**57**	**DRN**	**71M6**	20	772
5.8	235	158.12	7560	1.25	**SF**	**57**	**DRN**	**71M6**	24	773
6.7	210	137.05	7730	1.40	**SA**	**57**	**DRN**	**71M6**	20	774
7.1	199	128.10*	7800	1.50	**SAF**	**57**	**DRN**	**71M6**	23	773

24832936/EN – 09/2018

P_m = 0.25 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
7.0	200	201.00*	7780	1.45						
7.6	188	184.80*	7860	1.55						
8.9	164	158.12	7970	1.80	**S**	**57**	**DRN**	**71MS4**	19	772
10	145	137.05	8050	2.0	**SF**	**57**	**DRN**	**71MS4**	23	773
11	136	128.10*	8080	2.2	**SA**	**57**	**DRN**	**71MS4**	19	774
13	120	110.73	8130	2.5	**SAF**	**57**	**DRN**	**71MS4**	22	773
15	104	94.08*	8180	2.8						
17	94	84.00*	8200	3.1						
7.0	196	201.00*	5200	0.85						
7.6	182	184.80*	5280	0.95						
8.9	159	158.12	5400	1.05						
10	140	137.05	5490	1.20						
11	132	128.10*	5520	1.25						
13	116	110.73	5590	1.45	**S**	**47**	**DRN**	**71MS4**	15	767
15	101	94.08*	5660	1.65	**SF**	**47**	**DRN**	**71MS4**	19	768
17	91	84.00*	5690	1.85	**SA**	**47**	**DRN**	**71MS4**	16	769
20	79	71.75*	5740	2.1	**SAF**	**47**	**DRN**	**71MS4**	18	768
20	91	69.39	5670	1.70						
21	75	67.20*	5750	2.2						
22	84	63.80*	5700	1.85						
26	73	54.59	5740	2.1						
30	64	47.32	5670	2.4						
					S	**37**	**DRN**	**71MS4**	12	763
14	101	98.80*	3000	0.85	**SF**	**37**	**DRN**	**71MS4**	13	764
16	90	86.36	3000	0.95	**SA**	**37**	**DRN**	**71MS4**	12	765
17	85	80.96	3000	1.00	**SAF**	**37**	**DRN**	**71MS4**	13	764
20	76	71.44*	3000	1.10						
22	68	63.33	3000	1.20						
25	73	55.93	3000	1.10						
27	67	51.30*	3000	1.20						
32	58	43.68	3000	1.40						
37	50	37.66	3000	1.55						
40	47	35.10*	3000	1.65						
46	42	30.68	3000	1.85						
49	39	28.76	3000	1.90						
55	35	25.38*	3000	2.1						
62	31	22.50*	3000	2.4	**S**	**37**	**DRN**	**71MS4**	12	763
71	29	19.89	2840	1.75	**SF**	**37**	**DRN**	**71MS4**	13	764
77	27	18.24*	2780	1.95	**SA**	**37**	**DRN**	**71MS4**	12	765
90	23	15.53	2680	2.2	**SAF**	**37**	**DRN**	**71MS4**	13	764
105	20	13.39	2580	2.4						
113	19	12.48*	2530	2.6						
129	16	10.91	2440	2.9						
137	15	10.23	2400	3.0						
156	14	9.02*	2320	3.4						
176	12	8.00*	2240	3.7						
207	10	6.80*	2140	4.1						
222	9.8	6.33	2090	3.6						
261	8.3	5.38	2000	4.1						
289	7.5	4.86*	1940	4.4						
354	6.2	3.97	1820	5.2						
96	21	28.76	2720	3.1						
109	18	25.38*	2620	3.4						
122	16	22.50*	2540	3.5	**S**	**37**	**DRN**	**63M2**	12	763
139	15	19.89	2390	2.9	**SF**	**37**	**DRN**	**63M2**	13	764
151	14	18.24*	2340	3.1	**SA**	**37**	**DRN**	**63M2**	11	765
177	12	15.53	2240	3.5	**SAF**	**37**	**DRN**	**63M2**	13	764
206	10	13.39	2140	3.9						
221	9.8	12.48*	2100	4.1						

24832936/EN – 09/2018

P_m = 0.37 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
0.69	2780	2054	25800	0.90	**S**	**87R57**	**DRN**	**71M4**	110	797
0.78	2460	1824	27600	1.00	**SF**	**87R57**	**DRN**	**71M4**	130	797
0.87	2200	1631	28100	1.15	**SA**	**87R57**	**DRN**	**71M4**	105	797
1.5	1300	930	29400	1.90	**SAF**	**87R57**	**DRN**	**71M4**	125	797
1.7	1180	831	29500	2.1						
2.0	1280	714	11600	0.95						
2.2	1130	637	12800	1.10	**S**	**77R37**	**DRN**	**71M4**	61	797
2.5	1020	574	13600	1.20	**SF**	**77R37**	**DRN**	**71M4**	71	797
2.8	880	499	14500	1.40	**SA**	**77R37**	**DRN**	**71M4**	61	797
3.2	775	438	15000	1.60	**SAF**	**77R37**	**DRN**	**71M4**	67	797
3.6	690	389	15400	1.80						
3.9	605	365	7750	0.95	**S**	**67R37**	**DRN**	**71M4**	42	797
4.4	530	319	8570	1.05	**SF**	**67R37**	**DRN**	**71M4**	48	797
5.0	465	281	9120	1.20	**SA**	**67R37**	**DRN**	**71M4**	43	797
5.8	420	246	9450	1.35	**SAF**	**67R37**	**DRN**	**71M4**	47	797
					S	**77**	**DRN**	**80MK6**	54	782
3.6	620	256.47	15600	2.0	**SF**	**77**	**DRN**	**80MK6**	64	783
4.2	550	225.26	15900	2.3	**SA**	**77**	**DRN**	**80MK6**	54	784
4.4	525	214.00*	15900	2.4	**SAF**	**77**	**DRN**	**80MK6**	60	783
4.3	485	217.41	8950	1.15	**S**	**67**	**DRN**	**80MK6**	33	777
4.9	430	190.11	9360	1.30	**SF**	**67**	**DRN**	**80MK6**	40	778
5.2	410	180.60*	9490	1.35	**SA**	**67**	**DRN**	**80MK6**	34	779
5.9	365	158.45	9770	1.50	**SAF**	**67**	**DRN**	**80MK6**	39	778
6.5	335	217.41	9940	1.55						
7.4	300	190.11	10100	1.75	**S**	**67**	**DRN**	**71M4**	31	777
7.8	285	180.60*	10200	1.80	**SF**	**67**	**DRN**	**71M4**	37	778
8.9	255	158.45	10300	2.0	**SA**	**67**	**DRN**	**71M4**	32	779
11	220	134.40*	10400	2.4	**SAF**	**67**	**DRN**	**71M4**	36	778
12	200	121.33	10500	2.6						
5.9	345	158.12	6620	0.85						
6.8	305	137.05	7030	0.95	**S**	**57**	**DRN**	**80MK6**	22	772
7.3	285	128.10*	7180	1.00	**SF**	**57**	**DRN**	**80MK6**	26	773
8.4	250	110.73	7450	1.15	**SA**	**57**	**DRN**	**80MK6**	22	774
9.9	220	94.08*	7680	1.35	**SAF**	**57**	**DRN**	**80MK6**	25	773
11	199	84.00*	7800	1.50						
7.0	295	201.00*	7100	1.00						
7.7	275	184.80*	7280	1.05						
8.9	240	158.12	7540	1.20						
10	210	137.05	7720	1.40						
11	200	128.10*	7790	1.45	**S**	**57**	**DRN**	**71M4**	20	772
13	176	110.73	7910	1.65	**SF**	**57**	**DRN**	**71M4**	24	773
15	153	94.08*	8020	1.95	**SA**	**57**	**DRN**	**71M4**	20	774
17	138	84.00*	8070	2.1	**SAF**	**57**	**DRN**	**71M4**	23	773
20	120	71.75*	8130	2.4						
20	135	69.39	8080	1.80						
21	113	67.20*	8150	2.5						
22	125	63.80*	8120	1.95						

24832936/EN – 09/2018

P_m = 0.37 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
10	205	137.05	5140	0.80						
11	194	128.10*	5210	0.85						
13	171	110.73	5340	1.00						
15	148	94.08*	5450	1.15						
17	134	84.00*	5520	1.25						
20	116	71.75*	5590	1.45						
20	133	69.39	5480	1.15						
21	110	67.20*	5620	1.50						
22	123	63.80*	5530	1.25	**S**	**47**	**DRN**	**71M4**	16	767
26	107	54.59	5570	1.45	**SF**	**47**	**DRN**	**71M4**	20	768
30	93	47.32	5390	1.65	**SA**	**47**	**DRN**	**71M4**	17	769
32	88	44.22*	5300	1.75	**SAF**	**47**	**DRN**	**71M4**	19	768
37	76	38.23	5110	2.0						
44	66	32.48*	4900	2.4						
49	59	29.00*	4760	2.6						
57	51	24.77	4560	3.0						
61	48	23.20*	4480	3.2						
70	45	20.33	4170	2.5						
80	39	17.62	4020	2.8						
86	36	16.47*	3950	3.0						
22	100	63.33	3000	0.80						
28	98	51.30*	3000	0.80						
32	85	43.68	3000	0.95						
38	74	37.66	3000	1.05						
40	69	35.10*	3000	1.15						
46	61	30.68	3000	1.25						
49	57	28.76	3000	1.30						
56	51	25.38*	2930	1.45						
63	46	22.50*	2860	1.60						
71	43	19.89	2620	1.20	**S**	**37**	**DRN**	**71M4**	13	763
78	40	18.24*	2580	1.30	**SF**	**37**	**DRN**	**71M4**	15	764
91	34	15.53	2500	1.45	**SA**	**37**	**DRN**	**71M4**	13	765
106	29	13.39	2430	1.65	**SAF**	**37**	**DRN**	**71M4**	15	764
113	28	12.48*	2390	1.75						
130	24	10.91	2320	2.0						
138	23	10.23	2280	2.1						
157	20	9.02*	2220	2.3						
177	18	8.00*	2150	2.5						
208	15	6.80*	2060	2.8						
223	14	6.33	2010	2.4						
263	12	5.38	1930	2.8						
291	11	4.86*	1880	3.0						
357	9.1	3.97	1770	3.5						
111	27	25.38*	2500	2.3						
125	24	22.50*	2430	2.4						
141	22	19.89	2270	1.95						
154	20	18.24*	2230	2.1	**S**	**37**	**DRN**	**71MS2**	12	763
181	18	15.53	2140	2.4	**SF**	**37**	**DRN**	**71MS2**	13	764
210	15	13.39	2060	2.7	**SA**	**37**	**DRN**	**71MS2**	12	765
225	14	12.48*	2020	2.8	**SAF**	**37**	**DRN**	**71MS2**	13	764
258	12	10.91	1950	3.1						
275	12	10.23	1920	3.2						
311	10	9.02*	1850	3.5						

P_m = 0.55 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
1.1	2700	1332	27000	0.95						
1.2	2430	1191	27600	1.05						
1.4	2120	1032	28200	1.20	**S**	**87R57**	**DRN**	**80MK4**	110	797
1.5	1960	930	28500	1.25	**SF**	**87R57**	**DRN**	**80MK4**	135	797
1.7	1770	831	28800	1.40	**SA**	**87R57**	**DRN**	**80MK4**	110	797
2.0	1540	719	29100	1.60	**SAF**	**87R57**	**DRN**	**80MK4**	125	797
2.3	1340	624	29400	1.85						
2.6	1210	558	29500	2.1						
3.3	970	435	29700	2.5						

24832936/EN – 09/2018

P_m = 0.55 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
3.3	1150	438	12700	1.05	**S**	**77R37**	**DRN**	**80MK4**	63	797
3.7	1030	389	13600	1.20	**SF**	**77R37**	**DRN**	**80MK4**	73	797
4.4	870	327	14500	1.40	**SA**	**77R37**	**DRN**	**80MK4**	63	797
5.0	785	289	15000	1.55	**SAF**	**77R37**	**DRN**	**80MK4**	70	797
5.7	680	250	15400	1.80						
5.8	625	246	7560	0.90	**S**	**67R37**	**DRN**	**80MK4**	44	797
6.5	555	221	8310	1.00	**SF**	**67R37**	**DRN**	**80MK4**	51	797
7.3	510	198	8760	1.10	**SA**	**67R37**	**DRN**	**80MK4**	45	797
8.6	435	168	9340	1.30	**SAF**	**67R37**	**DRN**	**80MK4**	50	797
3.4	1060	288.00*	29600	2.3	**S**	**87**	**DRN**	**90SR6**	99	787
3.7	960	258.18	29700	2.5	**SF**	**87**	**DRN**	**90SR6**	120	788
4.3	840	222.40*	29800	2.9	**SA**	**87**	**DRN**	**90SR6**	96	789
4.8	770	202.96	29900	3.1	**SAF**	**87**	**DRN**	**90SR6**	110	788
3.8	890	256.47	14400	1.40						
4.3	795	225.26	14900	1.60	**S**	**77**	**DRN**	**90SR6**	63	782
4.5	760	214.00*	15100	1.65	**SF**	**77**	**DRN**	**90SR6**	72	783
5.1	680	189.09	15400	1.85	**SA**	**77**	**DRN**	**90SR6**	62	784
6.0	590	161.60*	15700	2.1	**SAF**	**77**	**DRN**	**90SR6**	69	783
5.6	625	256.47	15600	2.0	**S**	**77**	**DRN**	**80MK4**	54	782
6.4	560	225.26	15800	2.3	**SF**	**77**	**DRN**	**80MK4**	64	783
6.7	535	214.00*	15900	2.4	**SA**	**77**	**DRN**	**80MK4**	54	784
7.6	475	189.09	16000	2.6	**SAF**	**77**	**DRN**	**80MK4**	60	783
6.6	495	217.41	8870	1.05						
7.5	440	190.11	9300	1.20						
8.0	420	180.60*	9440	1.25						
9.1	375	158.45	9730	1.40	**S**	**67**	**DRN**	**80MK4**	33	777
11	320	134.40*	10000	1.60	**SF**	**67**	**DRN**	**80MK4**	40	778
12	295	121.33	10100	1.75	**SA**	**67**	**DRN**	**80MK4**	34	779
13	260	106.75*	10300	1.95	**SAF**	**67**	**DRN**	**80MK4**	39	778
14	250	100.80*	10300	2.1						
17	215	85.83	10400	2.4						
19	220	75.06	10400	2.2						
22	194	65.63	10500	2.5						
10	315	94.08*	6920	0.95						
12	285	84.00*	7190	1.00						
13	250	71.75*	7480	1.20	**S**	**57**	**DRN**	**90SR6**	30	772
14	235	67.20*	7580	1.25	**SF**	**57**	**DRN**	**90SR6**	34	773
18	225	54.59	7620	1.20	**SA**	**57**	**DRN**	**90SR6**	30	774
20	200	47.32	7790	1.35	**SAF**	**57**	**DRN**	**90SR6**	33	773
22	189	44.22*	7850	1.45						
25	165	38.23	7960	1.65						
9.1	350	158.12	6530	0.85						
10	310	137.05	6970	0.95						
11	290	128.10*	7130	1.00						
13	255	110.73	7420	1.15						
15	220	94.08*	7650	1.30						
17	200	84.00*	7780	1.45						
20	176	71.75*	7920	1.65						
21	166	67.20*	7960	1.70	**S**	**57**	**DRN**	**80MK4**	22	772
26	159	54.59	7990	1.55	**SF**	**57**	**DRN**	**80MK4**	26	773
30	139	47.32	8070	1.75	**SA**	**57**	**DRN**	**80MK4**	22	774
32	130	44.22*	8100	1.90	**SAF**	**57**	**DRN**	**80MK4**	25	773
38	114	38.23	8150	2.1						
44	97	32.48*	7860	2.5						
49	88	29.00*	7610	2.8						
58	75	24.77	7280	3.2						
62	71	23.20*	7140	3.5						
71	66	20.33	6690	2.6						

24832936/EN – 09/2018

P_m = 0.55 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
17	197	84.00*	5200	0.85						
20	171	71.75*	5340	1.00						
21	161	67.20*	5390	1.05						
26	156	54.59	5090	1.00						
30	137	47.32	4970	1.15						
32	129	44.22*	4900	1.20						
38	112	38.23	4770	1.40						
44	96	32.48*	4600	1.60	**S**	**47**	**DRN**	**80MK4**	19	767
49	87	29.00*	4490	1.80	**SF**	**47**	**DRN**	**80MK4**	22	768
58	75	24.77	4330	2.1	**SA**	**47**	**DRN**	**80MK4**	20	769
62	70	23.20*	4260	2.2	**SAF**	**47**	**DRN**	**80MK4**	21	768
71	65	20.33	3910	1.70						
81	57	17.62	3790	1.95						
87	53	16.47*	3730	2.1						
101	46	14.24	3610	2.4						
119	40	12.10*	3470	2.8						
133	36	10.80*	3370	3.1						
156	30	9.23*	3240	3.6						
47	90	30.68	2670	0.85						
50	84	28.76	2660	0.90						
57	75	25.38*	2620	1.00						
64	67	22.50*	2580	1.10						
75	57	19.13*	2520	1.25						
92	50	15.53	2250	1.00						
107	43	13.39	2210	1.15						
115	40	12.48*	2180	1.20	**S**	**37**	**DRN**	**80MK4**	16	763
132	35	10.91	2140	1.35	**SF**	**37**	**DRN**	**80MK4**	17	764
140	33	10.23	2110	1.40	**SA**	**37**	**DRN**	**80MK4**	15	765
159	30	9.02*	2060	1.55	**SAF**	**37**	**DRN**	**80MK4**	17	764
179	26	8.00*	2010	1.70						
211	22	6.80*	1940	1.90						
227	21	6.33	1900	1.65						
267	18	5.38	1830	1.90						
295	16	4.86*	1790	2.0						
362	13	3.97	1700	2.4						
98	44	28.76	2400	1.45						
111	39	25.38*	2340	1.55						
126	35	22.50*	2280	1.60						
142	33	19.89	2110	1.35						
155	30	18.24*	2070	1.45						
182	26	15.53	2010	1.60	**S**	**37**	**DRN**	**71M2**	13	763
211	22	13.39	1940	1.85	**SF**	**37**	**DRN**	**71M2**	15	764
226	21	12.48*	1920	1.90	**SA**	**37**	**DRN**	**71M2**	13	765
259	18	10.91	1860	2.1	**SAF**	**37**	**DRN**	**71M2**	15	764
276	17	10.23	1830	2.2						
313	15	9.02*	1770	2.4						
353	14	8.00*	1720	2.6						
415	12	6.80*	1650	2.5						

P_m = 0.75 kW

n_a min^{-1}	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	797
1.8	3130	824	34800	1.35	**SF**	**97R57**	**DRN**	**80M4**	210	797
2.0	2230	714	35900	1.90	**SA**	**97R57**	**DRN**	**80M4**	170	797
2.3	2380	626	35800	1.75	**SAF**	**97R57**	**DRN**	**80M4**	195	797
2.7	2040	538	36100	2.1						
3.0	1840	484	36300	2.3						

24832936/EN – 09/2018

P_m = 0.75 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
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	797
2.0	2120	719	28200	1.15	**SF**	**87R57**	**DRN**	**80M4**	135	797
2.3	1860	624	28700	1.35	**SA**	**87R57**	**DRN**	**80M4**	115	797
2.6	1680	558	28900	1.50	**SAF**	**87R57**	**DRN**	**80M4**	130	797
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	797
5.0	1070	289	13300	1.15	**SF**	**77R37**	**DRN**	**80M4**	77	797
5.8	930	250	14200	1.35	**SA**	**77R37**	**DRN**	**80M4**	66	797
6.6	820	219	14800	1.50	**SAF**	**77R37**	**DRN**	**80M4**	73	797
3.3	1450	288.00*	29200	1.70	**S**	**87**	**DRN**	**90S6**	99	787
3.7	1320	258.18	29400	1.85	**SF**	**87**	**DRN**	**90S6**	120	788
4.3	1150	222.40*	29500	2.1	**SA**	**87**	**DRN**	**90S6**	96	789
4.7	1060	202.96	29600	2.2	**SAF**	**87**	**DRN**	**90S6**	110	788
5.0	1000	288.00*	29700	2.3	**S**	**87**	**DRN**	**80M4**	94	787
5.6	910	258.18	29800	2.5	**SF**	**87**	**DRN**	**80M4**	115	788
6.5	795	222.40*	29800	2.9	**SA**	**87**	**DRN**	**80M4**	91	789
7.1	730	202.96	29900	3.1	**SAF**	**87**	**DRN**	**80M4**	105	788
4.2	1090	225.26	13100	1.15	**S**	**77**	**DRN**	**90S6**	63	782
4.5	1040	214.00*	13500	1.20	**SF**	**77**	**DRN**	**90S6**	72	783
5.1	930	189.09	14200	1.35	**SA**	**77**	**DRN**	**90S6**	62	784
5.9	810	161.60*	14800	1.55	**SAF**	**77**	**DRN**	**90S6**	69	783
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	1.95	**S**	**77**	**DRN**	**80M4**	58	782
8.9	560	161.60*	15800	2.2	**SF**	**77**	**DRN**	**80M4**	67	783
9.7	520	148.15	16000	2.4	**SA**	**77**	**DRN**	**80M4**	57	784
11	460	130.00*	16000	2.6	**SAF**	**77**	**DRN**	**80M4**	64	783
12	440	123.20*	16000	2.7						
13	390	107.83	16000	3.0						
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	777
14	340	100.80*	9930	1.50	**SF**	**67**	**DRN**	**80M4**	43	778
17	290	85.83	10100	1.75	**SA**	**67**	**DRN**	**80M4**	38	779
19	295	75.06	10100	1.60	**SAF**	**67**	**DRN**	**80M4**	42	778
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	340	71.75*	6650	0.85	**S**	**57**	**DRN**	**90S6**	30	772
14	320	67.20*	6850	0.90	**SF**	**57**	**DRN**	**90S6**	34	773
17	275	56.61	7270	1.10	**SA**	**57**	**DRN**	**90S6**	30	774
20	275	47.32	7280	1.00	**SAF**	**57**	**DRN**	**90S6**	33	773
					S	**57**	**DRN**	**90S6**	30	772
22	255	44.22*	7410	1.05	**SF**	**57**	**DRN**	**90S6**	34	773
					SA	**57**	**DRN**	**90S6**	30	774
					SAF	**57**	**DRN**	**90S6**	33	773

24832936/EN – 09/2018

P_m = 0.75 kW											
n_a min^{-1}	M_a Nm	i	F_{Ra}[1] N	SEW f_B						m kg	
13	350	110.73	6560	0.85							
15	300	94.08*	7040	0.95							
17	275	84.00*	7290	1.05							
20	235	71.75*	7560	1.20							
21	225	67.20*	7650	1.25							
26	215	54.59	7700	1.15							
30	189	47.32	7850	1.30	**S**	**57**	**DRN**	**80M4**		26	772
33	177	44.22*	7910	1.40	**SF**	**57**	**DRN**	**80M4**		30	773
38	155	38.23	7910	1.60	**SA**	**57**	**DRN**	**80M4**		26	774
44	132	32.48*	7590	1.85	**SAF**	**57**	**DRN**	**80M4**		28	773
50	119	29.00*	7370	2.1							
58	102	24.77	7070	2.4							
62	96	23.20*	6950	2.5							
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							
30	186	47.32	4520	0.85	**S**	**47**	**DRN**	**80M4**		22	767
33	175	44.22*	4490	0.90	**SF**	**47**	**DRN**	**80M4**		26	768
38	153	38.23	4400	1.00	**SA**	**47**	**DRN**	**80M4**		23	769
44	131	32.48*	4290	1.20	**SAF**	**47**	**DRN**	**80M4**		25	768
50	118	29.00*	4210	1.30							
58	101	24.77	4080	1.55							
62	95	23.20*	4030	1.60							
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	**S**	**47**	**DRN**	**80M4**		22	767
119	54	12.10*	3300	2.0	**SF**	**47**	**DRN**	**80M4**		26	768
133	48	10.80*	3220	2.3	**SA**	**47**	**DRN**	**80M4**		23	769
156	41	9.23*	3110	2.6	**SAF**	**47**	**DRN**	**80M4**		25	768
167	39	8.64*	3060	2.8							
198	33	7.28	2940	3.1							
225	29	6.40*	2830	2.6							
267	25	5.39	2700	3.0							
302	22	4.76	2620	3.3							
360	18	4.00*	2500	3.3							
149	41	19.13*	2070	1.10							
184	35	15.53	1860	1.20							
213	30	13.39	1820	1.35							
229	28	12.48*	1800	1.40	**S**	**37**	**DRN**	**80MS2**		19	763
262	25	10.91	1750	1.55	**SF**	**37**	**DRN**	**80MS2**		20	764
279	23	10.23	1730	1.65	**SA**	**37**	**DRN**	**80MS2**		19	765
316	21	9.02*	1680	1.75	**SAF**	**37**	**DRN**	**80MS2**		20	764
357	18	8.00*	1640	1.90							
420	16	6.80*	1580	1.85							
75	78	19.13*	2260	0.90							
115	55	12.48*	1960	0.85							
132	48	10.91	1940	1.00							
141	45	10.23	1930	1.05							
160	40	9.02*	1900	1.15	**S**	**37**	**DRN**	**80M4**		19	763
180	36	8.00*	1870	1.25	**SF**	**37**	**DRN**	**80M4**		20	764
212	31	6.80*	1820	1.40	**SA**	**37**	**DRN**	**80M4**		19	765
227	29	6.33	1780	1.20	**SAF**	**37**	**DRN**	**80M4**		20	764
267	24	5.38	1730	1.40							
296	22	4.86*	1690	1.50							
363	18	3.97	1620	1.75							

24832936/EN – 09/2018

P_m = 1.1 kW

n_a min^{-1}	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	797
2.3	3490	626	34200	1.20	**SF**	**97R57**	**DRN**	**90S4**	215	797
2.7	3000	538	34900	1.40	**SA**	**97R57**	**DRN**	**90S4**	175	797
3.0	2710	484	35400	1.55	**SAF**	**97R57**	**DRN**	**90S4**	200	797
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	797
3.9	1740	378	28800	1.40	**SF**	**87R57**	**DRN**	**90S4**	145	797
4.5	1510	323	29100	1.60	**SA**	**87R57**	**DRN**	**90S4**	120	797
5.2	1330	281	29400	1.80	**SAF**	**87R57**	**DRN**	**90S4**	135	797
5.7	1420	255	29200	1.40						
6.5	1240	222	29400	1.60						
7.1	1160	205	29500	1.70						
6.6	1200	219	12200	1.05	**S**	**77R37**	**DRN**	**90S4**	73	797
					SF	**77R37**	**DRN**	**90S4**	82	797
					SA	**77R37**	**DRN**	**90S4**	72	797
					SAF	**77R37**	**DRN**	**90S4**	79	797
3.3	2220	286.40*	35900	1.90	**S**	**97**	**DRN**	**90L6**	160	792
3.6	2050	262.22	36100	2.0	**SF**	**97**	**DRN**	**90L6**	195	793
4.1	1830	231.67	36300	2.3	**SA**	**97**	**DRN**	**90L6**	155	794
					SAF	**97**	**DRN**	**90L6**	180	793
3.7	1930	258.18	28500	1.25	**S**	**87**	**DRN**	**90L6**	100	787
4.3	1690	222.40*	28900	1.40	**SF**	**87**	**DRN**	**90L6**	125	788
4.7	1560	202.96	29100	1.55	**SA**	**87**	**DRN**	**90L6**	99	789
					SAF	**87**	**DRN**	**90L6**	115	788
5.0	1460	288.00*	29200	1.55						
5.6	1320	258.18	29400	1.70	**S**	**87**	**DRN**	**90S4**	99	787
6.5	1150	222.40*	29500	1.95	**SF**	**87**	**DRN**	**90S4**	120	788
7.2	1060	202.96	29600	2.1	**SA**	**87**	**DRN**	**90S4**	96	789
8.1	950	180.00*	29700	2.3	**SAF**	**87**	**DRN**	**90S4**	110	788
9.6	810	151.30	29800	2.6						
6.5	1100	225.26	13100	1.15						
6.8	1050	214.00*	13400	1.20						
7.7	940	189.09	14100	1.35						
9.0	820	161.60*	14800	1.55	**S**	**77**	**DRN**	**90S4**	63	782
9.8	755	148.15	15100	1.65	**SF**	**77**	**DRN**	**90S4**	72	783
11	670	130.00*	15500	1.80	**SA**	**77**	**DRN**	**90S4**	62	784
12	640	123.20*	15600	1.85	**SAF**	**77**	**DRN**	**90S4**	69	783
13	565	107.83	15800	2.1						
15	510	97.14	16000	2.2						
17	455	85.22	16000	2.4						
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	777
23	365	62.35*	9750	1.30	**SF**	**67**	**DRN**	**90S4**	50	778
27	320	54.70	9500	1.50	**SA**	**67**	**DRN**	**90S4**	44	779
31	275	46.40*	9170	1.75	**SAF**	**67**	**DRN**	**90S4**	48	778
35	250	41.89	8960	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	0.85	**S**	**57**	**DRN**	**90S4**	32	772
22	325	67.20*	6830	0.85	**SF**	**57**	**DRN**	**90S4**	35	773
26	275	56.61	7260	0.95	**SA**	**57**	**DRN**	**90S4**	31	774
31	270	47.32	7300	0.90	**SAF**	**57**	**DRN**	**90S4**	34	773

24832936/EN – 09/2018

P_m = 1.1 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
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	1.65	**S**	**57**	**DRN**	**90S4**	32	772
63	140	23.20*	6610	1.75	**SF**	**57**	**DRN**	**90S4**	35	773
74	119	19.54	6340	1.80	**SA**	**57**	**DRN**	**90S4**	31	774
83	113	17.62	5860	1.50	**SAF**	**57**	**DRN**	**90S4**	34	773
88	106	16.47*	5780	1.60						
102	92	14.24	5590	1.85						
120	78	12.10*	5380	2.1						
135	70	10.80*	5230	2.4						
158	60	9.23*	5030	2.8						
50	171	29.00*	3720	0.90						
59	147	24.77	3660	1.05	**S**	**47**	**DRN**	**90S4**	28	767
63	138	23.20*	3630	1.10	**SF**	**47**	**DRN**	**90S4**	32	768
74	117	19.54	3550	1.25	**SA**	**47**	**DRN**	**90S4**	29	769
83	113	17.62	3120	1.00	**SAF**	**47**	**DRN**	**90S4**	31	768
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	1.80	**S**	**47**	**DRN**	**90S4**	28	767
168	56	8.64*	2850	1.95	**SF**	**47**	**DRN**	**90S4**	32	768
200	48	7.28	2750	2.2	**SA**	**47**	**DRN**	**90S4**	29	769
227	42	6.40*	2660	1.80	**SAF**	**47**	**DRN**	**90S4**	31	768
270	36	5.39	2560	2.1						
306	32	4.76	2490	2.3						
364	27	4.00*	2390	2.3						
182	52	8.00*	1620	0.85						
214	44	6.80*	1610	0.95	**S**	**37**	**DRN**	**90S4**	25	763
230	42	6.33	1570	0.85	**SF**	**37**	**DRN**	**90S4**	26	764
270	35	5.38	1540	0.95	**SA**	**37**	**DRN**	**90S4**	25	765
299	32	4.86*	1530	1.05	**SAF**	**37**	**DRN**	**90S4**	26	764
367	26	3.97	1490	1.20						
214	44	13.39	1610	0.90						
229	41	12.48*	1600	0.95	**S**	**37**	**DRN**	**80M2**	19	763
262	36	10.91	1580	1.05	**SF**	**37**	**DRN**	**80M2**	20	764
280	34	10.23	1570	1.10	**SA**	**37**	**DRN**	**80M2**	19	765
317	30	9.02*	1540	1.20	**SAF**	**37**	**DRN**	**80M2**	20	764
358	27	8.00*	1510	1.30						
421	23	6.80*	1470	1.25						

P_m = 1.5 kW

n_a min^{-1}	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	797
3.0	3710	484	33700	1.15	**SF**	**97R57**	**DRN**	**90L4**	220	797
3.5	3230	420	34600	1.30	**SA**	**97R57**	**DRN**	**90L4**	180	797
3.9	2920	376	35100	1.45	**SAF**	**97R57**	**DRN**	**90L4**	205	797
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	797
4.5	2070	323	28300	1.15	**SF**	**87R57**	**DRN**	**90L4**	145	797
5.2	1820	281	28700	1.30	**SA**	**87R57**	**DRN**	**90L4**	125	797
5.7	1940	255	28500	1.00	**SAF**	**87R57**	**DRN**	**90L4**	140	797
6.6	1700	222	28900	1.15						
7.1	1590	205	29000	1.25						
3.4	3020	286.40*	34900	1.40	**S**	**97**	**DRN**	**100L6**	170	792
3.7	2790	262.22	35200	1.50	**SF**	**97**	**DRN**	**100L6**	205	793
4.2	2490	231.67	35600	1.70	**SA**	**97**	**DRN**	**100L6**	165	794
4.9	2140	196.52	36000	1.95	**SAF**	**97**	**DRN**	**100L6**	195	793

24832936/EN – 09/2018

P_m = 1.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
5.1	2060	286.40*	36100	1.95	**S**	**97**	**DRN**	**90L4**	160	792
5.6	1900	262.22	36300	2.1	**SF**	**97**	**DRN**	**90L4**	195	793
6.3	1690	231.67	36400	2.4	**SA**	**97**	**DRN**	**90L4**	155	794
7.4	1450	196.52	36600	2.7	**SAF**	**97**	**DRN**	**90L4**	180	793
3.7	2630	258.18	27200	0.90	**S**	**87**	**DRN**	**100L6**	115	787
4.3	2300	222.40*	27900	1.05	**SF**	**87**	**DRN**	**100L6**	135	788
4.7	2110	202.96	28200	1.10	**SA**	**87**	**DRN**	**100L6**	110	789
5.3	1900	180.00*	28600	1.25	**SAF**	**87**	**DRN**	**100L6**	125	788
5.1	1990	288.00*	28500	1.15						
5.7	1800	258.18	28800	1.25						
6.6	1570	222.40*	29100	1.45						
7.2	1440	202.96	29200	1.55	**S**	**87**	**DRN**	**90L4**	100	787
8.1	1290	180.00*	29400	1.70	**SF**	**87**	**DRN**	**90L4**	125	788
9.7	1100	151.30	29600	1.95	**SA**	**87**	**DRN**	**90L4**	99	789
11	1020	139.05	29700	2.0	**SAF**	**87**	**DRN**	**90L4**	115	788
12	910	123.48	29800	2.2						
13	820	110.40*	29800	2.4						
15	745	99.26	29900	2.6						
7.7	1280	189.09	11500	1.00						
9.0	1110	161.60*	13000	1.15						
9.9	1030	148.15	13600	1.20						
11	910	130.00*	14300	1.30						
12	870	123.20*	14600	1.40						
14	765	107.83	15000	1.50						
15	695	97.14	15300	1.65	**S**	**77**	**DRN**	**90L4**	66	782
17	615	85.22	15300	1.80	**SF**	**77**	**DRN**	**90L4**	76	783
19	625	75.09	14100	1.75	**SA**	**77**	**DRN**	**90L4**	65	784
20	595	71.33	13900	1.85	**SAF**	**77**	**DRN**	**90L4**	72	783
22	490	66.67	14400	2.1						
23	530	63.03	13600	2.1						
26	420	56.92	13900	2.3						
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	777
19	530	78.00*	8560	1.00	**SF**	**67**	**DRN**	**90L4**	53	778
22	520	65.63	8670	0.90	**SA**	**67**	**DRN**	**90L4**	47	779
					SAF	**67**	**DRN**	**90L4**	52	778
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	777
49	245	29.63	7850	1.95	**SF**	**67**	**DRN**	**90L4**	53	778
54	220	26.93	7690	2.1	**SA**	**67**	**DRN**	**90L4**	47	779
60	210	24.44	7040	1.60	**SAF**	**67**	**DRN**	**90L4**	52	778
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	2.5						
106	123	13.73*	6250	2.8						
45	260	32.48*	6610	0.95						
50	230	29.00*	6490	1.05						
59	200	24.77	6310	1.20						
63	190	23.20*	6230	1.30						
75	161	19.54	6020	1.35	**S**	**57**	**DRN**	**90L4**	35	772
83	153	17.62	5460	1.10	**SF**	**57**	**DRN**	**90L4**	39	773
89	144	16.47*	5400	1.15	**SA**	**57**	**DRN**	**90L4**	35	774
103	125	14.24	5260	1.35	**SAF**	**57**	**DRN**	**90L4**	37	773
121	107	12.10*	5100	1.60						
135	95	10.80*	4980	1.75						
158	82	9.23*	4810	2.1						

24832936/EN – 09/2018

P_m = 1.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
103	124	14.24	2680	0.90	**S**	**47**	**DRN**	**90L4**	31	767
121	106	12.10*	2680	1.05	**SF**	**47**	**DRN**	**90L4**	35	768
135	95	10.80*	2660	1.15	**SA**	**47**	**DRN**	**90L4**	32	769
					SAF	**47**	**DRN**	**90L4**	34	768
158	82	9.23*	2630	1.35						
169	77	8.64*	2610	1.40						
201	65	7.28	2550	1.60	**S**	**47**	**DRN**	**90L4**	31	767
228	58	6.40*	2470	1.30	**SF**	**47**	**DRN**	**90L4**	35	768
271	49	5.39	2400	1.50	**SA**	**47**	**DRN**	**90L4**	32	769
307	43	4.76	2350	1.65	**SAF**	**47**	**DRN**	**90L4**	34	768
365	36	4.00*	2270	1.70						
320	41	9.02*	1380	0.90	**S**	**37**	**DRN**	**90S2**	25	763
361	36	8.00*	1370	0.95	**SF**	**37**	**DRN**	**90S2**	26	764
424	31	6.80*	1350	0.95	**SA**	**37**	**DRN**	**90S2**	25	765
					SAF	**37**	**DRN**	**90S2**	26	764

P_m = 2.2 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
3.5	4810	420	22200	0.85	**S**	**97R57**	**DRN**	**100LS4**	190	797
3.9	4340	376	29600	0.95	**SF**	**97R57**	**DRN**	**100LS4**	220	797
4.4	3800	327	33600	1.10	**SA**	**97R57**	**DRN**	**100LS4**	185	797
5.0	3360	287	34400	1.25	**SAF**	**97R57**	**DRN**	**100LS4**	210	797
5.8	2940	252	35000	1.40						
3.4	4380	286.40*	32200	0.95	**S**	**97**	**DRN**	**112M6**	180	792
3.7	4040	262.22	33100	1.05	**SF**	**97**	**DRN**	**112M6**	215	793
4.2	3610	231.67	33900	1.15	**SA**	**97**	**DRN**	**112M6**	175	794
5.0	3110	196.52	34800	1.35	**SAF**	**97**	**DRN**	**112M6**	200	793
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	1.85						
8.0	1990	180.95	36200	1.95	**S**	**97**	**DRN**	**100LS4**	165	792
9.0	1790	161.74	36300	2.1	**SF**	**97**	**DRN**	**100LS4**	200	793
10.0	1620	145.60*	36500	2.3	**SA**	**97**	**DRN**	**100LS4**	160	794
11	1480	131.85	36600	2.5	**SAF**	**97**	**DRN**	**100LS4**	185	793
12	1320	116.92	36700	2.6						
14	1200	105.71	36800	2.9						
16	1020	89.60*	36900	3.1						
5.6	2660	258.18	27100	0.85						
6.5	2320	222.40*	27900	1.00						
7.1	2130	202.96	28200	1.05						
8.1	1910	180.00*	28600	1.15						
9.6	1630	151.30	29000	1.30						
10	1500	139.05	29200	1.40	**S**	**87**	**DRN**	**100LS4**	105	787
12	1350	123.48	29300	1.50	**SF**	**87**	**DRN**	**100LS4**	130	788
13	1210	110.40*	29500	1.65	**SA**	**87**	**DRN**	**100LS4**	105	789
15	1100	99.26	29600	1.80	**SAF**	**87**	**DRN**	**100LS4**	120	788
17	960	86.15	29700	1.95						
18	1030	81.76	29600	1.55						
19	860	77.14	29800	2.1						
21	890	70.43	29800	1.80						
23	810	64.27	29800	1.95						
25	730	57.00*	29900	2.2						

24832936/EN – 09/2018

P_m = 2.2 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
11	1350	130.00*	9150	0.90						
12	1280	123.20*	11500	0.95						
13	1130	107.83	12800	1.05						
15	1030	97.14	13600	1.10						
17	910	85.22	14000	1.20						
19	810	75.20*	13800	1.30						
22	725	66.67	13500	1.45						
23	780	63.03	12400	1.40						
25	625	56.92	13000	1.60	**S**	**77**	**DRN**	**100LS4**	70	782
27	670	53.87	12100	1.65	**SF**	**77**	**DRN**	**100LS4**	80	783
29	620	49.38	11900	1.75	**SA**	**77**	**DRN**	**100LS4**	69	784
33	545	43.33	11700	2.0	**SAF**	**77**	**DRN**	**100LS4**	76	783
35	515	41.07	11500	2.1						
40	455	35.94	11200	2.4						
45	410	32.38	11000	2.6						
51	360	28.41	10700	2.9						
58	320	25.07	10400	3.2						
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	1.45						
62	285	23.33	6900	1.65	**S**	**67**	**DRN**	**100LS4**	50	777
71	265	20.37	6130	1.30	**SF**	**67**	**DRN**	**100LS4**	57	778
84	225	17.28*	6010	1.50	**SA**	**67**	**DRN**	**100LS4**	51	779
93	205	15.60*	5920	1.65	**SAF**	**67**	**DRN**	**100LS4**	55	778
106	181	13.73*	5800	1.90						
112	171	12.96*	5740	2.0						
131	146	11.03	5570	2.3						
145	133	10.03	5470	2.5						
167	116	8.69	5300	2.9						
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	1.40	**S**	**57**	**DRN**	**100LS4**	39	772
168	114	8.64*	4400	1.45	**SF**	**57**	**DRN**	**100LS4**	43	773
199	96	7.28	4270	1.50	**SA**	**57**	**DRN**	**100LS4**	39	774
227	85	6.40*	4120	1.15	**SAF**	**57**	**DRN**	**100LS4**	41	773
269	72	5.39	3980	1.30						
304	64	4.76	3870	1.45						
362	54	4.00*	3720	1.65						

P_m = 3.0 kW

n_a min^{-1}	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	797
5.8	4020	252	33100	1.05	**SF**	**97R57**	**DRN**	**100L4**	230	797
6.7	3510	219	34100	1.20	**SA**	**97R57**	**DRN**	**100L4**	190	797
7.1	3300	205	34500	1.25	**SAF**	**97R57**	**DRN**	**100L4**	215	797
5.1	4140	286.40*	32900	0.95						
5.5	3820	262.22	33600	1.05						
6.3	3400	231.67	34300	1.15						
7.4	2920	196.52	35100	1.35						
8.1	2710	180.95	35400	1.45	**S**	**97**	**DRN**	**100L4**	170	792
9.0	2440	161.74	35700	1.55	**SF**	**97**	**DRN**	**100L4**	205	793
10	2210	145.60*	36000	1.70	**SA**	**97**	**DRN**	**100L4**	165	794
11	2010	131.85	36200	1.80	**SAF**	**97**	**DRN**	**100L4**	195	793
12	1790	116.92	36300	1.95						
14	1630	105.71	36500	2.1						
16	1390	89.60*	36600	2.3						
18	1410	80.85	36600	2.3						

24832936/EN – 09/2018

P_m = 3.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
8.1	2600	180.00*	27300	0.85						
9.6	2210	151.30	28100	0.95						
10	2050	139.05	28400	1.00						
12	1830	123.48	28700	1.10						
13	1650	110.40*	29000	1.20						
15	1490	99.26	29200	1.30						
17	1310	86.15	29400	1.45	**S**	**87**	**DRN**	**100L4**	115	787
18	1400	81.76	29300	1.15	**SF**	**87**	**DRN**	**100L4**	135	788
19	1180	77.14	29500	1.55	**SA**	**87**	**DRN**	**100L4**	110	789
21	1210	70.43	29500	1.30	**SAF**	**87**	**DRN**	**100L4**	125	788
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	29800	2.1						
37	685	39.10	29900	2.3						
42	615	34.96*	29900	2.6						
17	1240	85.22	12000	0.90	**S**	**77**	**DRN**	**100L4**	77	782
19	1100	75.20*	12500	0.95	**SF**	**77**	**DRN**	**100L4**	87	783
22	980	66.67	12300	1.05	**SA**	**77**	**DRN**	**100L4**	77	784
23	1060	63.03	10900	1.05	**SAF**	**77**	**DRN**	**100L4**	83	783
26	850	56.92	12000	1.15						
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	1.75						
45	560	32.38	10200	1.95						
51	490	28.41	10000	2.1	**S**	**77**	**DRN**	**100L4**	77	782
58	435	25.07	9790	2.3	**SF**	**77**	**DRN**	**100L4**	87	783
64	410	22.89	8790	1.70	**SA**	**77**	**DRN**	**100L4**	77	784
69	375	20.99	8690	1.85	**SAF**	**77**	**DRN**	**100L4**	83	783
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	2.8						
121	220	12.07	7880	3.3						
137	195	10.65	7670	3.7						
42	570	34.80*	6370	0.85	**S**	**67**	**DRN**	**100L4**	57	777
49	490	29.63	6350	1.00	**SF**	**67**	**DRN**	**100L4**	64	778
54	445	26.93	6320	1.05	**SA**	**67**	**DRN**	**100L4**	58	779
					SAF	**67**	**DRN**	**100L4**	63	778
62	390	23.33	6260	1.25						
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	777
106	245	13.73*	5270	1.40	**SF**	**67**	**DRN**	**100L4**	64	778
112	230	12.96*	5240	1.45	**SA**	**67**	**DRN**	**100L4**	58	779
132	199	11.03	5150	1.70	**SAF**	**67**	**DRN**	**100L4**	63	778
145	181	10.03	5080	1.90						
168	157	8.69	4960	2.1						
193	137	7.56*	4840	2.1						
135	192	10.80*	4060	0.90						
158	164	9.23*	4030	1.05						
169	154	8.64*	4000	1.10	**S**	**57**	**DRN**	**100L4**	46	772
200	130	7.28	3930	1.10	**SF**	**57**	**DRN**	**100L4**	50	773
228	116	6.40*	3810	0.85	**SA**	**57**	**DRN**	**100L4**	46	774
270	98	5.39	3710	0.95	**SAF**	**57**	**DRN**	**100L4**	49	773
306	87	4.76	3630	1.05						
364	73	4.00*	3520	1.20						

24832936/EN – 09/2018

P_m = 4.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
					S	**97R57**	**DRN**	**112M4**	205	797
6.7	4670	219	24500	0.90	**SF**	**97R57**	**DRN**	**112M4**	240	797
7.1	4390	205	28900	0.95	**SA**	**97R57**	**DRN**	**112M4**	200	797
					SAF	**97R57**	**DRN**	**112M4**	225	797
6.3	4520	231.67	30300	0.90						
7.5	3880	196.52	33400	1.05						
8.1	3590	180.95	34000	1.10						
9.1	3230	161.74	34600	1.20						
10	2930	145.60*	35000	1.25						
11	2670	131.85	35400	1.35	**S**	**97**	**DRN**	**112M4**	180	792
13	2380	116.92	35800	1.45	**SF**	**97**	**DRN**	**112M4**	215	793
14	2170	105.71	36000	1.60	**SA**	**97**	**DRN**	**112M4**	175	794
16	1850	89.60*	36300	1.75	**SAF**	**97**	**DRN**	**112M4**	200	793
18	1880	80.85	36300	1.70						
20	1660	71.43	36400	2.0						
24	1420	60.59	36600	2.3						
26	1310	55.79	36700	2.5						
12	2430	123.48	27600	0.85						
13	2190	110.40*	28100	0.90						
15	1980	99.26	28500	1.00						
17	1730	86.15	28800	1.10						
19	1560	77.14	29100	1.15						
21	1610	70.43	29000	1.00						
23	1470	64.27	29200	1.10	**S**	**87**	**DRN**	**112M4**	125	787
26	1310	57.00*	29400	1.20	**SF**	**87**	**DRN**	**112M4**	145	788
31	1110	47.91	29600	1.45	**SA**	**87**	**DRN**	**112M4**	120	789
33	1020	44.03	29700	1.55	**SAF**	**87**	**DRN**	**112M4**	135	788
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	0.90	**S**	**77**	**DRN**	**112M4**	86	782
27	1210	53.87	9340	0.90	**SF**	**77**	**DRN**	**112M4**	96	783
30	1110	49.38	9390	1.00	**SA**	**77**	**DRN**	**112M4**	86	784
34	980	43.33	9420	1.10	**SAF**	**77**	**DRN**	**112M4**	93	783
36	930	41.07	9410	1.15						
41	820	35.94	9370	1.35						
45	740	32.38	9300	1.45						
52	655	28.41	9190	1.60						
58	580	25.07	9060	1.75						
64	545	22.89	7840	1.30						
70	500	20.99	7820	1.40	**S**	**77**	**DRN**	**112M4**	86	782
79	440	18.42	7760	1.60	**SF**	**77**	**DRN**	**112M4**	96	783
84	415	17.45	7720	1.70	**SA**	**77**	**DRN**	**112M4**	86	784
96	365	15.28	7620	1.95	**SAF**	**77**	**DRN**	**112M4**	93	783
106	330	13.76	7520	2.1						
121	290	12.07	7380	2.5						
137	255	10.65	7220	2.8						
155	225	9.44	7070	3.1						
182	197	8.06	6850	3.5						
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	777
113	305	12.96*	4620	1.10	**SF**	**67**	**DRN**	**112M4**	73	778
133	260	11.03	4620	1.30	**SA**	**67**	**DRN**	**112M4**	68	779
146	240	10.03	4600	1.40	**SAF**	**67**	**DRN**	**112M4**	72	778
169	205	8.69	4540	1.60						
194	182	7.56*	4480	1.60						

24832936/EN – 09/2018

P_m = 5.5 kW											
n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B						m kg	
9.0	4460	161.74	31200	0.85							
10	4040	145.60*	33100	0.90							
11	3680	131.85	33800	1.00							
12	3280	116.92	34500	1.05							
14	2980	105.71	35000	1.15							
16	2550	89.60*	35600	1.25	**S**	**97**	**DRN**	**132S4**		190	792
19	2240	78.26	35900	1.35	**SF**	**97**	**DRN**	**132S4**		225	793
20	2290	71.43	35900	1.45	**SA**	**97**	**DRN**	**132S4**		185	794
22	1890	65.45	36300	1.55	**SAF**	**97**	**DRN**	**132S4**		215	793
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	2.5							
19	2150	77.14	28200	0.85	**S**	**87**	**DRN**	**132S4**		135	787
23	1800	64.00*	28700	0.95	**SF**	**87**	**DRN**	**132S4**		155	788
26	1810	57.00*	28700	0.90	**SA**	**87**	**DRN**	**132S4**		130	789
30	1530	47.91	29100	1.05	**SAF**	**87**	**DRN**	**132S4**		150	788
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	787
68	715	21.43	24600	1.75	**SF**	**87**	**DRN**	**132S4**		155	788
74	655	19.70	24200	1.90	**SA**	**87**	**DRN**	**132S4**		130	789
84	585	17.49	23600	2.1	**SAF**	**87**	**DRN**	**132S4**		150	788
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	3.4							
36	1290	41.07	7660	0.85	**S**	**77**	**DRN**	**132S4**		98	782
41	1130	35.94	7830	0.95	**SF**	**77**	**DRN**	**132S4**		105	783
45	1020	32.38	7910	1.05	**SA**	**77**	**DRN**	**132S4**		97	784
					SAF	**77**	**DRN**	**132S4**		105	783
51	900	28.41	7970	1.15							
58	800	25.07	7980	1.25							
66	710	22.22	7950	1.40							
79	605	18.42	6230	1.15	**S**	**77**	**DRN**	**132S4**		98	782
84	575	17.45	6460	1.25	**SF**	**77**	**DRN**	**132S4**		105	783
96	505	15.28	6680	1.40	**SA**	**77**	**DRN**	**132S4**		97	784
106	455	13.76	6670	1.55	**SAF**	**77**	**DRN**	**132S4**		105	783
121	400	12.07	6630	1.80							
137	355	10.65	6570	2.0							
155	315	9.44	6490	2.3							
181	270	8.06	6360	2.5							
132	360	11.03	3120	0.95	**S**	**67**	**DRN**	**132S4**		78	777
146	330	10.03	3430	1.05	**SF**	**67**	**DRN**	**132S4**		85	778
168	285	8.69	3820	1.15	**SA**	**67**	**DRN**	**132S4**		79	779
193	250	7.56*	3940	1.20	**SAF**	**67**	**DRN**	**132S4**		84	778

24832936/EN – 09/2018

P_m = 7.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
14	4050	105.71	33100	0.85						
16	3460	89.60*	34200	0.95						
19	3040	78.26	34900	1.00						
21	3120	71.43	34800	1.05						
22	2560	65.45	35500	1.15						
24	2660	60.59	35400	1.25						
26	2450	55.79	35700	1.35	**S**	**97**	**DRN**	**132M4**	210	792
29	2200	49.87	36000	1.50	**SF**	**97**	**DRN**	**132M4**	245	793
33	1980	44.89	36200	1.65	**SA**	**97**	**DRN**	**132M4**	205	794
36	1800	40.65	36300	1.85	**SAF**	**97**	**DRN**	**132M4**	230	793
41	1600	36.05	36100	2.1						
45	1450	32.60	35300	2.2						
56	1210	26.39	32100	2.1						
62	1080	23.59	31400	2.4						
69	970	21.23	30800	2.7						
76	880	19.23	30100	2.9						
33	1910	44.03	27800	0.85	**S**	**87**	**DRN**	**132M4**	150	787
38	1700	39.10	27400	0.95	**SF**	**87**	**DRN**	**132M4**	175	788
42	1530	34.96*	26900	1.05	**SA**	**87**	**DRN**	**132M4**	150	789
					SAF	**87**	**DRN**	**132M4**	165	788
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	787
84	795	17.49	22400	1.55	**SF**	**87**	**DRN**	**132M4**	175	788
94	710	15.64*	22000	1.75	**SA**	**87**	**DRN**	**132M4**	150	789
104	640	14.06	21600	1.95	**SAF**	**87**	**DRN**	**132M4**	165	788
120	555	12.21	21000	2.2						
134	500	10.93	20500	2.5						
162	415	9.07	19700	2.7						
186	360	7.88	19100	2.8						
52	1220	28.41	6340	0.85	**S**	**77**	**DRN**	**132M4**	115	782
59	1080	25.07	6540	0.95	**SF**	**77**	**DRN**	**132M4**	125	783
66	960	22.22	6670	1.00	**SA**	**77**	**DRN**	**132M4**	115	784
80	820	18.42	2360	0.85	**SAF**	**77**	**DRN**	**132M4**	120	783
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	782
122	545	12.07	4880	1.30	**SF**	**77**	**DRN**	**132M4**	125	783
138	480	10.65	5380	1.50	**SA**	**77**	**DRN**	**132M4**	115	784
155	425	9.44	5710	1.70	**SAF**	**77**	**DRN**	**132M4**	120	783
182	365	8.06	5690	1.85						

P_m = 9.2 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
19	3730	78.26	33700	0.80	**S**	**97**	**DRN**	**132L4**	220	792
22	3140	65.45	34700	0.90	**SF**	**97**	**DRN**	**132L4**	250	793
26	3000	55.79	34900	1.10	**SA**	**97**	**DRN**	**132L4**	215	794
					SAF	**97**	**DRN**	**132L4**	240	793
29	2690	49.87	35400	1.20						
33	2430	44.89	35700	1.35						
36	2210	40.65	35700	1.50						
41	1960	36.05	34900	1.70						
45	1780	32.60	34300	1.80	**S**	**97**	**DRN**	**132L4**	220	792
56	1480	26.39	30900	1.75	**SF**	**97**	**DRN**	**132L4**	250	793
62	1320	23.59	30400	1.95	**SA**	**97**	**DRN**	**132L4**	215	794
69	1190	21.23	29800	2.2	**SAF**	**97**	**DRN**	**132L4**	240	793
76	1080	19.23	29300	2.4						
86	960	17.05	28600	2.7						
95	870	15.42	28000	2.8						
112	740	13.07	27000	3.1						
129	645	11.41	26200	3.4						

24832936/EN – 09/2018

P_m = 9.2 kW

n_a min^{-1}	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	787
47	1690	31.43	25300	0.95	**SF**	**87**	**DRN**	**132L4**	180	788
54	1470	27.28	24800	1.10	**SA**	**87**	**DRN**	**132L4**	160	789
60	1320	24.43	24400	1.20	**SAF**	**87**	**DRN**	**132L4**	175	788
73	1100	20.27	23600	1.45						
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	787
105	785	14.06	20800	1.55	**SF**	**87**	**DRN**	**132L4**	180	788
120	680	12.21	20300	1.80	**SA**	**87**	**DRN**	**132L4**	160	789
135	610	10.93	19900	2.0	**SAF**	**87**	**DRN**	**132L4**	175	788
162	510	9.07	19200	2.2						
186	440	7.88	18600	2.3						
77	1010	18.97	5840	0.90						
107	760	13.76	1770	0.95	**S**	**77**	**DRN**	**132L4**	125	782
122	670	12.07	2660	1.05	**SF**	**77**	**DRN**	**132L4**	135	783
138	590	10.65	3380	1.20	**SA**	**77**	**DRN**	**132L4**	125	784
156	525	9.44	3970	1.40	**SAF**	**77**	**DRN**	**132L4**	130	783
182	450	8.06	4590	1.50						

P_m = 11.0 kW

n_a min^{-1}	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	1.25						
41	2340	36.05	33700	1.40						
45	2120	32.60	33200	1.50	**S**	**97**	**DRN**	**160M4**	250	792
56	1760	26.39	29700	1.45	**SF**	**97**	**DRN**	**160M4**	285	793
62	1580	23.59	29200	1.65	**SA**	**97**	**DRN**	**160M4**	245	794
69	1420	21.23	28800	1.80	**SAF**	**97**	**DRN**	**160M4**	270	793
77	1290	19.23	28300	2.0						
86	1150	17.05	27800	2.2						
96	1040	15.42	27300	2.4						
113	880	13.07	26400	2.6						
129	770	11.41	25700	2.9						
54	1750	27.28	23700	0.90	**S**	**87**	**DRN**	**160M4**	190	787
60	1570	24.43	23400	1.00	**SF**	**87**	**DRN**	**160M4**	215	788
73	1310	20.27	22800	1.20	**SA**	**87**	**DRN**	**160M4**	190	789
					SAF	**87**	**DRN**	**160M4**	205	788
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	787
105	930	14.06	20000	1.30	**SF**	**87**	**DRN**	**160M4**	215	788
121	810	12.21	19600	1.50	**SA**	**87**	**DRN**	**160M4**	190	789
135	730	10.93	19300	1.70	**SAF**	**87**	**DRN**	**160M4**	205	788
162	605	9.07	18700	1.85						
187	530	7.88	18200	1.90						

P_m = 15.0 kW

n_a min^{-1}	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	792
36	3590	40.65	31400	0.90	**SF**	**97**	**DRN**	**160L4**	300	793
41	3190	36.05	31100	1.05	**SA**	**97**	**DRN**	**160L4**	260	794
					SAF	**97**	**DRN**	**160L4**	290	793

24832936/EN – 09/2018

P_m = 15.0 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
45	2890	32.60	30800	1.10						
56	2410	26.39	26900	1.10						
62	2150	23.59	26700	1.20						
69	1940	21.23	26600	1.35						
77	1760	19.23	26300	1.45	**S**	**97**	**DRN**	**160L4**	265	792
86	1560	17.05	26000	1.65	**SF**	**97**	**DRN**	**160L4**	300	793
96	1410	15.42	25600	1.75	**SA**	**97**	**DRN**	**160L4**	260	794
113	1200	13.07	25000	1.95	**SAF**	**97**	**DRN**	**160L4**	290	793
129	1050	11.41	24500	2.1						
154	880	9.55	23700	2.3						
178	765	8.26	23000	2.3						
94	1420	15.64*	16800	0.85	**S**	**87**	**DRN**	**160L4**	210	787
105	1280	14.06	17900	0.95	**SF**	**87**	**DRN**	**160L4**	230	788
121	1110	12.21	18000	1.10	**SA**	**87**	**DRN**	**160L4**	205	789
					SAF	**87**	**DRN**	**160L4**	220	788
135	990	10.93	17900	1.25	**S**	**87**	**DRN**	**160L4**	210	787
163	830	9.07	17500	1.35	**SF**	**87**	**DRN**	**160L4**	230	788
187	720	7.88	17200	1.40	**SA**	**87**	**DRN**	**160L4**	205	789
					SAF	**87**	**DRN**	**160L4**	220	788

P_m = 18.5 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
41	3930	36.05	28800	0.85						
45	3560	32.60	28700	0.90						
54	3020	27.63	28500	1.00						
61	2650	24.13	28100	1.10						
70	2390	21.23	24500	1.10	**S**	**97**	**DRN**	**180M4**	290	792
77	2170	19.23	24500	1.20	**SF**	**97**	**DRN**	**180M4**	320	793
87	1920	17.05	24400	1.35	**SA**	**97**	**DRN**	**180M4**	285	794
96	1740	15.42	24200	1.40	**SAF**	**97**	**DRN**	**180M4**	310	793
113	1480	13.07	23800	1.55						
130	1290	11.41	23400	1.70						
155	1080	9.55	22800	1.90						
179	940	8.26	22300	1.90						

P_m = 22 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
53	3600	27.63	26700	0.85	**S**	**97**	**DRN**	**180L4**	305	792
61	3150	24.13	26600	0.90	**SF**	**97**	**DRN**	**180L4**	340	793
70	2840	21.23	18600	0.90	**SA**	**97**	**DRN**	**180L4**	300	794
77	2580	19.23	20500	1.00	**SAF**	**97**	**DRN**	**180L4**	325	793
87	2290	17.05	22400	1.10						
96	2070	15.42	22800	1.20	**S**	**97**	**DRN**	**180L4**	305	792
113	1760	13.07	22600	1.30	**SF**	**97**	**DRN**	**180L4**	340	793
129	1540	11.41	22400	1.45	**SA**	**97**	**DRN**	**180L4**	300	794
155	1290	9.55	21900	1.60	**SAF**	**97**	**DRN**	**180L4**	325	793
179	1120	8.26	21500	1.60						

24832936/EN – 09/2018

11.4 S..R..DRN.. selection tables for low output speeds in Nm

$M_{a\ max}$ = 92 Nm

n_a min^{-1}	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**	**DRN**	**63MS4**	14	797
0.48	2866	3000	**SF**	**37R17**	**DRN**	**63MS4**	16	797
0.56	2471	3000	**SA**	**37R17**	**DRN**	**63MS4**	14	797
0.64	2160	3000	**SAF**	**37R17**	**DRN**	**63MS4**	16	797
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**	**DRN**	**63MS4**	14	797
3.5	398	3000	**SF**	**37R17**	**DRN**	**63MS4**	15	797
3.9	351	3000	**SA**	**37R17**	**DRN**	**63MS4**	14	797
4.6	303	3000	**SAF**	**37R17**	**DRN**	**63MS4**	15	797
5.2	265	3000						
6.0	232	3000						
6.8	202	3000						
7.7	179	3000	**S**	**37R17**	**DRN**	**63M4**	15	797
8.7	158	3000	**SF**	**37R17**	**DRN**	**63M4**	16	797
9.5	144	3000	**SA**	**37R17**	**DRN**	**63M4**	15	797
12	118	3000	**SAF**	**37R17**	**DRN**	**63M4**	16	797
			S	**37R17**	**DRN**	**71MS4**	15	797
13	110	3000	**SF**	**37R17**	**DRN**	**71MS4**	17	797
			SA	**37R17**	**DRN**	**71MS4**	15	797
			SAF	**37R17**	**DRN**	**71MS4**	17	797

$M_{a\ max}$ = 183 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
			S	**47R17**	**DRN**	**63MS4**	17	797
1.4	956	5210	**SF**	**47R17**	**DRN**	**63MS4**	21	797
			SA	**47R17**	**DRN**	**63MS4**	18	797
			SAF	**47R17**	**DRN**	**63MS4**	20	797

24832936/EN – 09/2018

$M_{a\ max}$ = 185 Nm

n_a min^{-1}	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**	**DRN**	**63MS4**	17	797
0.39	3582	5200	**SF**	**47R17**	**DRN**	**63MS4**	21	797
0.44	3131	5200	**SA**	**47R17**	**DRN**	**63MS4**	18	797
0.51	2714	5200	**SAF**	**47R17**	**DRN**	**63MS4**	20	797
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						
1.4	965	5200						
1.6	865	5200						
1.8	750	5200	**S**	**47R17**	**DRN**	**63MS4**	17	797
2.1	655	5200	**SF**	**47R17**	**DRN**	**63MS4**	21	797
2.4	574	5200	**SA**	**47R17**	**DRN**	**63MS4**	18	797
2.7	506	5200	**SAF**	**47R17**	**DRN**	**63MS4**	20	797
3.1	438	5200						
3.6	388	5200						
			S	**47R17**	**DRN**	**63M4**	18	797
4.1	336	5200	**SF**	**47R17**	**DRN**	**63M4**	21	797
4.7	294	5200	**SA**	**47R17**	**DRN**	**63M4**	19	797
			SAF	**47R17**	**DRN**	**63M4**	21	797
5.5	257	5260	**S**	**47R17**	**DRN**	**71MS4**	18	797
6.2	229	5200	**SF**	**47R17**	**DRN**	**71MS4**	22	797
7.0	200	5200	**SA**	**47R17**	**DRN**	**71MS4**	20	797
7.5	187	5200	**SAF**	**47R17**	**DRN**	**71MS4**	21	797
			S	**47R17**	**DRN**	**71M4**	20	797
8.6	165	5200	**SF**	**47R17**	**DRN**	**71M4**	23	797
9.6	148	5200	**SA**	**47R17**	**DRN**	**71M4**	21	797
11	131	5200	**SAF**	**47R17**	**DRN**	**71M4**	22	797

$M_{a\ max}$ = 300 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.44	3131	7080						
0.51	2714	7080						
0.57	2412	7080						
0.65	2131	7080	**S**	**57R17**	**DRN**	**63MS4**	21	797
0.74	1863	7080	**SF**	**57R17**	**DRN**	**63MS4**	25	797
0.83	1663	7080	**SA**	**57R17**	**DRN**	**63MS4**	21	797
0.96	1435	7080	**SAF**	**57R17**	**DRN**	**63MS4**	24	797
1.1	1254	7080						
1.3	1083	7080						
1.4	965	7080	**S**	**57R17**	**DRN**	**63MS4**	21	797
1.6	865	7080	**SF**	**57R17**	**DRN**	**63MS4**	25	797
1.8	750	7080	**SA**	**57R17**	**DRN**	**63MS4**	21	797
2.1	655	7080	**SAF**	**57R17**	**DRN**	**63MS4**	23	797
			S	**57R17**	**DRN**	**63M4**	22	797
2.4	574	7080	**SF**	**57R17**	**DRN**	**63M4**	25	797
2.7	506	7080	**SA**	**57R17**	**DRN**	**63M4**	21	797
3.1	438	7080	**SAF**	**57R17**	**DRN**	**63M4**	24	797

$M_{a\ max}$ = 300 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
3.6	388	7080	**S**	**57R17**	**DRN**	**71MS4**	22	797
			SF	**57R17**	**DRN**	**71MS4**	26	797
4.2	336	7080	**SA**	**57R17**	**DRN**	**71MS4**	22	797
4.8	294	7080	**SAF**	**57R17**	**DRN**	**71MS4**	25	797
5.3	269	7080	**S**	**57R17**	**DRN**	**71M4**	23	797
6.2	229	7080	**SF**	**57R17**	**DRN**	**71M4**	27	797
6.9	204	7080	**SA**	**57R17**	**DRN**	**71M4**	23	797
7.6	187	7080	**SAF**	**57R17**	**DRN**	**71M4**	26	797
			S	**57R17**	**DRN**	**80M4**	29	797
8.7	165	7080	**SF**	**57R17**	**DRN**	**80M4**	32	797
11	131	7080	**SA**	**57R17**	**DRN**	**80M4**	28	797
			SAF	**57R17**	**DRN**	**80M4**	31	797

$M_{a\ max}$ = 330 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.11	12909	6800						
0.12	11189	6800						
0.13	10374	6800						
0.15	8992	6800						
0.18	7860	6800	**S**	**57R17**	**DRN**	**63MS4**	21	797
0.20	6887	6800	**SF**	**57R17**	**DRN**	**63MS4**	25	797
0.23	6055	6800	**SA**	**57R17**	**DRN**	**63MS4**	21	797
0.26	5292	6800	**SAF**	**57R17**	**DRN**	**63MS4**	24	797
0.30	4637	6800						
0.34	4092	6800						
0.38	3628	6800						

$M_{a\ max}$ = 570 Nm

n_a min^{-1}	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**	**DRN**	**63MS4**	40	797
0.24	5759	8190	**SF**	**67R37**	**DRN**	**63MS4**	46	797
0.28	4965	8190	**SA**	**67R37**	**DRN**	**63MS4**	41	797
0.31	4410	8190	**SAF**	**67R37**	**DRN**	**63MS4**	45	797
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**	**DRN**	**63M4**	40	797
1.3	1045	8190	**SF**	**67R37**	**DRN**	**63M4**	47	797
1.5	914	8190	**SA**	**67R37**	**DRN**	**63M4**	41	797
			SAF	**67R37**	**DRN**	**63M4**	46	797
			S	**67R37**	**DRN**	**63M4**	40	797
1.7	809	8190	**SF**	**67R37**	**DRN**	**63M4**	47	797
1.9	712	8190	**SA**	**67R37**	**DRN**	**63M4**	41	797
			SAF	**67R37**	**DRN**	**63M4**	46	797

24832936/EN – 09/2018

$M_{a\ max}$ = 570 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
			S	67R37	DRN	71MS4	41	797
2.3	615	8190	SF	67R37	DRN	71MS4	47	797
2.6	543	8190	SA	67R37	DRN	71MS4	42	797
			SAF	67R37	DRN	71MS4	46	797
			S	67R37	DRN	71M4	42	797
3.0	469	8190	SF	67R37	DRN	71M4	48	797
3.3	424	8190	SA	67R37	DRN	71M4	43	797
3.9	365	8190	SAF	67R37	DRN	71M4	47	797
			S	67R37	DRN	80MK4	44	797
4.5	319	8190	SF	67R37	DRN	80MK4	51	797
5.1	281	8190	SA	67R37	DRN	80MK4	45	797
5.8	246	8190	SAF	67R37	DRN	80MK4	50	797
			S	67R37	DRN	80M4	48	797
6.5	221	8190	SF	67R37	DRN	80M4	54	797
7.3	198	8190	SA	67R37	DRN	80M4	49	797
8.6	168	8190	SAF	67R37	DRN	80M4	53	797
			S	67R37	DRN	90S4	53	797
9.3	156	8190	SF	67R37	DRN	90S4	60	797
			SA	67R37	DRN	90S4	54	797
			SAF	67R37	DRN	90S4	59	797

$M_{a\ max}$ = 1240 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
			S	77R37	DRN	63MS4	59	797
0.50	2753	12000	SF	77R37	DRN	63MS4	68	797
0.58	2374	12000	SA	77R37	DRN	63MS4	58	797
			SAF	77R37	DRN	63MS4	65	797
0.66	2083	12000	S	77R37	DRN	63M4	60	797
0.76	1813	12000	SF	77R37	DRN	63M4	69	797
0.79	1745	12000	SA	77R37	DRN	63M4	59	797
0.86	1600	12000	SAF	77R37	DRN	63M4	66	797
			S	77R37	DRN	71MS4	60	797
1.0	1404	12000	SF	77R37	DRN	71MS4	70	797
1.1	1245	12000	SA	77R37	DRN	71MS4	60	797
			SAF	77R37	DRN	71MS4	66	797
			S	77R37	DRN	71MS4	60	797
1.3	1100	12000	SF	77R37	DRN	71MS4	70	797
			SA	77R37	DRN	71MS4	59	797
			SAF	77R37	DRN	71MS4	66	797
			S	77R37	DRN	71M4	61	797
1.5	954	12000	SF	77R37	DRN	71M4	71	797
1.7	837	12000	SA	77R37	DRN	71M4	61	797
2.0	714	12000	SAF	77R37	DRN	71M4	67	797
			S	77R37	DRN	80MK4	63	797
2.2	637	12000	SF	77R37	DRN	80MK4	73	797
2.5	574	12000	SA	77R37	DRN	80MK4	63	797
2.9	499	12000	SAF	77R37	DRN	80MK4	70	797
			S	77R37	DRN	80M4	67	797
3.3	438	12000	SF	77R37	DRN	80M4	77	797
3.7	389	12000	SA	77R37	DRN	80M4	66	797
			SAF	77R37	DRN	80M4	73	797
			S	77R37	DRN	90S4	73	797
4.4	327	12000	SF	77R37	DRN	90S4	82	797
5.0	289	12000	SA	77R37	DRN	90S4	72	797
5.8	250	12000	SAF	77R37	DRN	90S4	79	797
			S	77R37	DRN	90L4	76	797
6.7	219	12000	SF	77R37	DRN	90L4	86	797
			SA	77R37	DRN	90L4	75	797
			SAF	77R37	DRN	90L4	82	797

24832936/EN – 09/2018

$M_{a\ max}$ = 1270 Nm

n_a min^{-1}	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**	**DRN**	**63MS4**	59	797
0.14	9887	11700	**SF**	**77R37**	**DRN**	**63MS4**	68	797
0.16	8817	11700	**SA**	**77R37**	**DRN**	**63MS4**	58	797
0.18	7735	11700	**SAF**	**77R37**	**DRN**	**63MS4**	65	797
0.20	6735	11700						
0.23	5943	11700						
0.26	5214	11700						
0.30	4618	11700						
0.35	3992	11700						
0.39	3540	11700						
0.44	3098	11700	**S**	**77R37**	**DRN**	**63M4**	60	797
			SF	**77R37**	**DRN**	**63M4**	69	797
			SA	**77R37**	**DRN**	**63M4**	59	797
			SAF	**77R37**	**DRN**	**63M4**	66	797

$M_{a\ max}$ = 1980 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
5.7	255	28400	**S**	**87R57**	**DRN**	**100LS4**	130	797
6.5	222	28400	**SF**	**87R57**	**DRN**	**100LS4**	150	797
7.1	205	28400	**SA**	**87R57**	**DRN**	**100LS4**	125	797
			SAF	**87R57**	**DRN**	**100LS4**	145	797

$M_{a\ max}$ = 2400 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
4.5	323	27700	**S**	**87R57**	**DRN**	**100LS4**	130	797
5.2	281	27700	**SF**	**87R57**	**DRN**	**100LS4**	150	797
			SA	**87R57**	**DRN**	**100LS4**	125	797
			SAF	**87R57**	**DRN**	**100LS4**	145	797

$M_{a\ max}$ = 2450 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
3.4	435	27600	**S**	**87R57**	**DRN**	**90L4**	125	797
			SF	**87R57**	**DRN**	**90L4**	145	797
			SA	**87R57**	**DRN**	**90L4**	125	797
			SAF	**87R57**	**DRN**	**90L4**	140	797
3.8	378	27600	**S**	**87R57**	**DRN**	**100LS4**	130	797
			SF	**87R57**	**DRN**	**100LS4**	150	797
			SA	**87R57**	**DRN**	**100LS4**	125	797
			SAF	**87R57**	**DRN**	**100LS4**	145	797

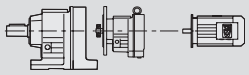
24832936/EN – 09/2018

$M_{a\ max}$ = 2500 Nm

n_a min^{-1}	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**	**DRN**	**63MS4**	110	797
0.09	14820	27500	**SF**	**87R57**	**DRN**	**63MS4**	130	797
0.10	13160	27500	**SA**	**87R57**	**DRN**	**63MS4**	105	797
0.12	11200	27500	**SAF**	**87R57**	**DRN**	**63MS4**	120	797
0.14	9904	27500						
0.16	8549	27500						
0.18	7643	27500						
0.21	6706	27500						
0.23	5875	27500	**S**	**87R57**	**DRN**	**63M4**	110	797
0.27	5187	27500	**SF**	**87R57**	**DRN**	**63M4**	130	797
0.30	4606	27500	**SA**	**87R57**	**DRN**	**63M4**	105	797
			SAF	**87R57**	**DRN**	**63M4**	125	797
0.36	3872	27500	**S**	**87R57**	**DRN**	**71MS4**	110	797
			SF	**87R57**	**DRN**	**71MS4**	130	797
			SA	**87R57**	**DRN**	**71MS4**	105	797
			SAF	**87R57**	**DRN**	**71MS4**	125	797
0.40	3475	27500	**S**	**87R57**	**DRN**	**71MS4**	110	797
0.48	2905	27500	**SF**	**87R57**	**DRN**	**71MS4**	130	797
			SA	**87R57**	**DRN**	**71MS4**	105	797
			SAF	**87R57**	**DRN**	**71MS4**	120	797
0.55	2586	27500	**S**	**87R57**	**DRN**	**71M4**	110	797
0.61	2335	27500	**SF**	**87R57**	**DRN**	**71M4**	130	797
0.69	2054	27500	**SA**	**87R57**	**DRN**	**71M4**	105	797
			SAF	**87R57**	**DRN**	**71M4**	125	797
0.79	1824	27500	**S**	**87R57**	**DRN**	**80MK4**	110	797
0.88	1631	27500	**SF**	**87R57**	**DRN**	**80MK4**	135	797
1.1	1332	27500	**SA**	**87R57**	**DRN**	**80MK4**	110	797
			SAF	**87R57**	**DRN**	**80MK4**	125	797
1.2	1191	27500	**S**	**87R57**	**DRN**	**80M4**	115	797
1.4	1032	27500	**SF**	**87R57**	**DRN**	**80M4**	135	797
1.6	930	27500	**SA**	**87R57**	**DRN**	**80M4**	115	797
			SAF	**87R57**	**DRN**	**80M4**	130	797
1.8	831	27500	**S**	**87R57**	**DRN**	**90S4**	120	797
2.0	719	27500	**SF**	**87R57**	**DRN**	**90S4**	145	797
2.3	624	27500	**SA**	**87R57**	**DRN**	**90S4**	120	797
			SAF	**87R57**	**DRN**	**90S4**	135	797
2.6	558	27500	**S**	**87R57**	**DRN**	**90L4**	125	797
3.0	485	27500	**SF**	**87R57**	**DRN**	**90L4**	145	797
			SA	**87R57**	**DRN**	**90L4**	125	797
			SAF	**87R57**	**DRN**	**90L4**	140	797

$M_{a\ max}$ = 4200 Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.04	33818	32800						
0.04	31154	32800						
0.05	27847	32800						
0.06	24641	32800						
0.06	21537	32800	**S**	**97R57**	**DRN**	**63MS4**	170	797
0.07	18749	32800	**SF**	**97R57**	**DRN**	**63MS4**	200	797
0.09	16233	32800	**SA**	**97R57**	**DRN**	**63MS4**	165	797
0.09	14576	32800	**SAF**	**97R57**	**DRN**	**63MS4**	190	797
0.11	12752	32800						
0.12	11267	32800						
0.14	10078	32800						
0.16	8608	32800	**S**	**97R57**	**DRN**	**63M4**	170	797
0.18	7554	32800	**SF**	**97R57**	**DRN**	**63M4**	200	797
0.21	6640	31500	**SA**	**97R57**	**DRN**	**63M4**	165	797
0.24	5780	31500	**SAF**	**97R57**	**DRN**	**63M4**	190	797
0.28	4937	31500						

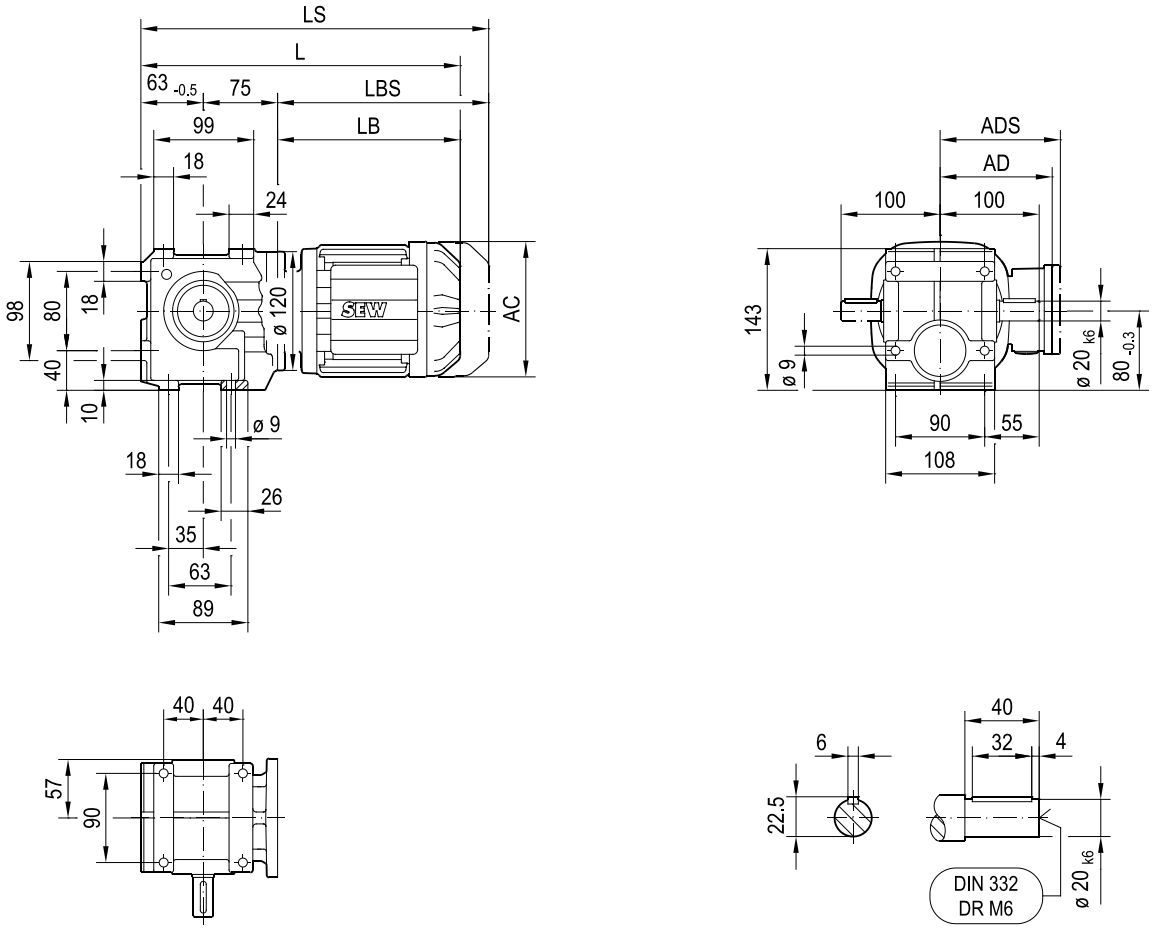
$M_{a\ max}$ = 4200 Nm								
n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.32	4444	31500	**S**	**97R57**	**DRN**	**71MS4**	170	797
0.35	4017	31500	**SF**	**97R57**	**DRN**	**71MS4**	200	797
0.41	3453	31500	**SA**	**97R57**	**DRN**	**71MS4**	165	797
			SAF	**97R57**	**DRN**	**71MS4**	190	797
0.46	3108	31500	**S**	**97R57**	**DRN**	**71M4**	170	797
0.53	2654	31500	**SF**	**97R57**	**DRN**	**71M4**	205	797
0.61	2329	31500	**SA**	**97R57**	**DRN**	**71M4**	165	797
			SAF	**97R57**	**DRN**	**71M4**	190	797
0.69	2081	31500	**S**	**97R57**	**DRN**	**80MK4**	175	797
0.77	1860	31500	**SF**	**97R57**	**DRN**	**80MK4**	205	797
0.91	1574	31500	**SA**	**97R57**	**DRN**	**80MK4**	170	797
			SAF	**97R57**	**DRN**	**80MK4**	195	797
			S	**97R57**	**DRN**	**80M4**	175	797
1.0	1394	31500	**SF**	**97R57**	**DRN**	**80M4**	210	797
1.2	1223	31500	**SA**	**97R57**	**DRN**	**80M4**	170	797
			SAF	**97R57**	**DRN**	**80M4**	195	797
1.4	1070	31500	**S**	**97R57**	**DRN**	**90S4**	180	797
1.6	928	31500	**SF**	**97R57**	**DRN**	**90S4**	215	797
1.8	824	31500	**SA**	**97R57**	**DRN**	**90S4**	175	797
			SAF	**97R57**	**DRN**	**90S4**	200	797
			S	**97R57**	**DRN**	**90L4**	185	797
2.0	714	32800	**SF**	**97R57**	**DRN**	**90L4**	220	797
2.3	626	31500	**SA**	**97R57**	**DRN**	**90L4**	180	797
			SAF	**97R57**	**DRN**	**90L4**	205	797
2.7	538	31600	**S**	**97R57**	**DRN**	**100LS4**	190	797
3.0	484	31600	**SF**	**97R57**	**DRN**	**100LS4**	220	797
3.5	420	31600	**SA**	**97R57**	**DRN**	**100LS4**	185	797
3.9	376	31700	**SAF**	**97R57**	**DRN**	**100LS4**	210	797
			S	**97R57**	**DRN**	**100L4**	195	797
4.5	327	31700	**SF**	**97R57**	**DRN**	**100L4**	230	797
5.1	287	31700	**SA**	**97R57**	**DRN**	**100L4**	190	797
			SAF	**97R57**	**DRN**	**100L4**	215	797
5.8	252	31800	**S**	**97R57**	**DRN**	**112M4**	205	797
6.7	219	31800	**SF**	**97R57**	**DRN**	**112M4**	240	797
7.1	205	31800	**SA**	**97R57**	**DRN**	**112M4**	200	797
			SAF	**97R57**	**DRN**	**112M4**	225	797

24832936/EN – 09/2018

11.5 S..DRN.. dimension sheets in mm

02 047 01 16

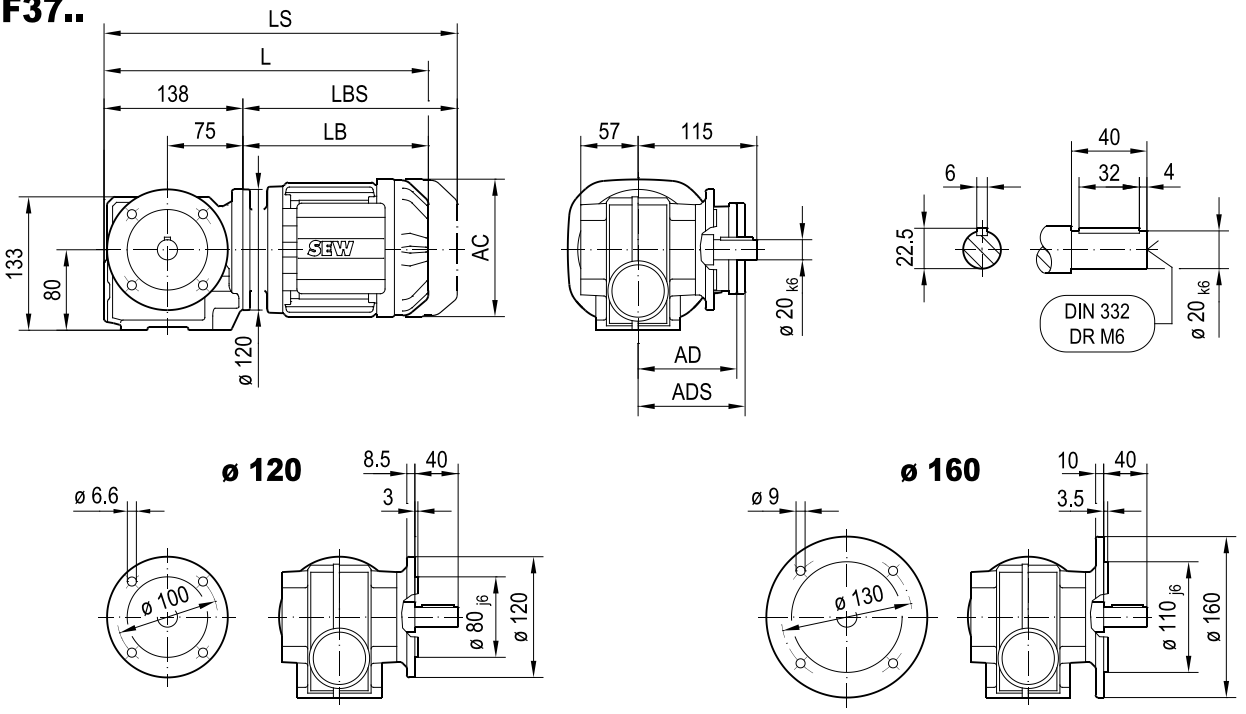
S37..



(→ 📖 7.3)	DRN							
	63MS	63M	71MS	71M	80MK	80MS	80M	90S
AC	115	115	139	139	156	156	156	179
AD	98	98	118	118	128	128	128	140
ADS	98	98	129	129	139	139	139	150
L	328	342	344	364	375	392	420	421
LS	384	398	411	431	456	473	501	515
LB	190	204	206	226	237	254	282	283
LBS	246	260	273	293	318	335	363	377

02 048 01 16

SF37..



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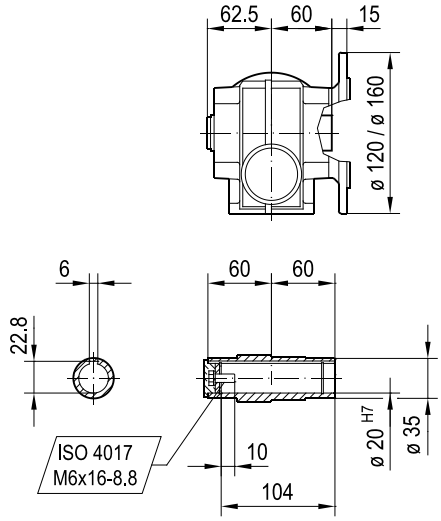
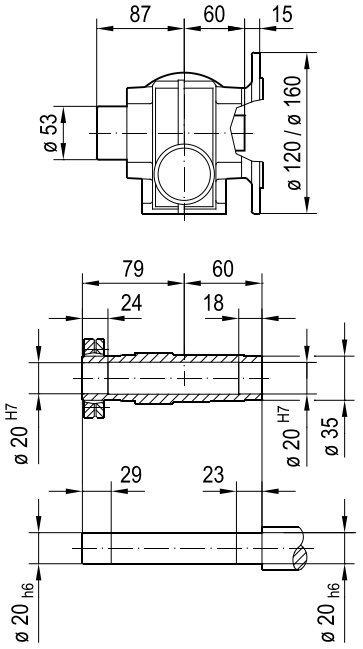


SHF37..

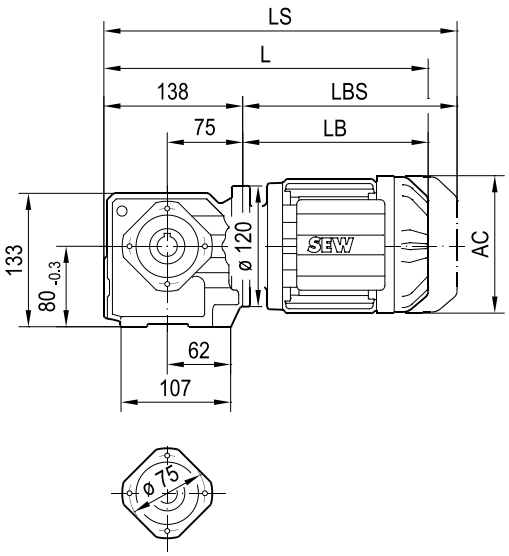


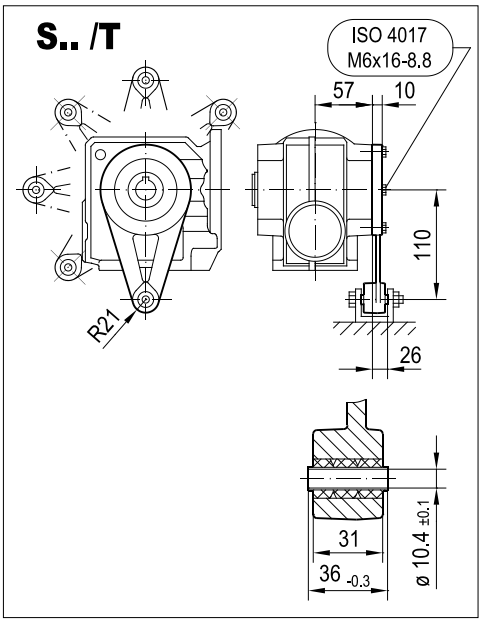
(→ 📖 7.3)	DRN							
	63MS	63M	71MS	71M	80MK	80MS	80M	90S
AC	115	115	139	139	156	156	156	179
AD	98	98	118	118	128	128	128	140
ADS	98	98	129	129	139	139	139	150
L	328	342	344	364	375	392	420	421
LS	384	398	411	431	456	473	501	515
LB	190	204	206	226	237	254	282	283
LBS	246	260	273	293	318	335	363	377

24832936/EN – 09/2018

02 049 01 16

SA37..





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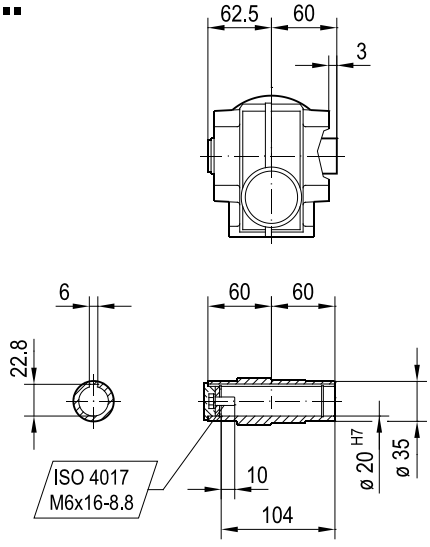
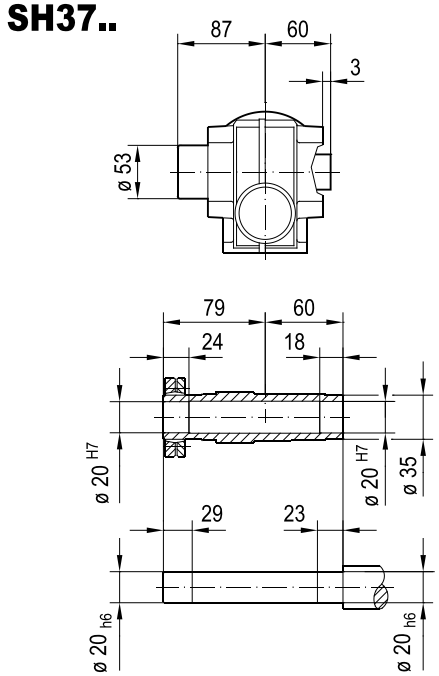


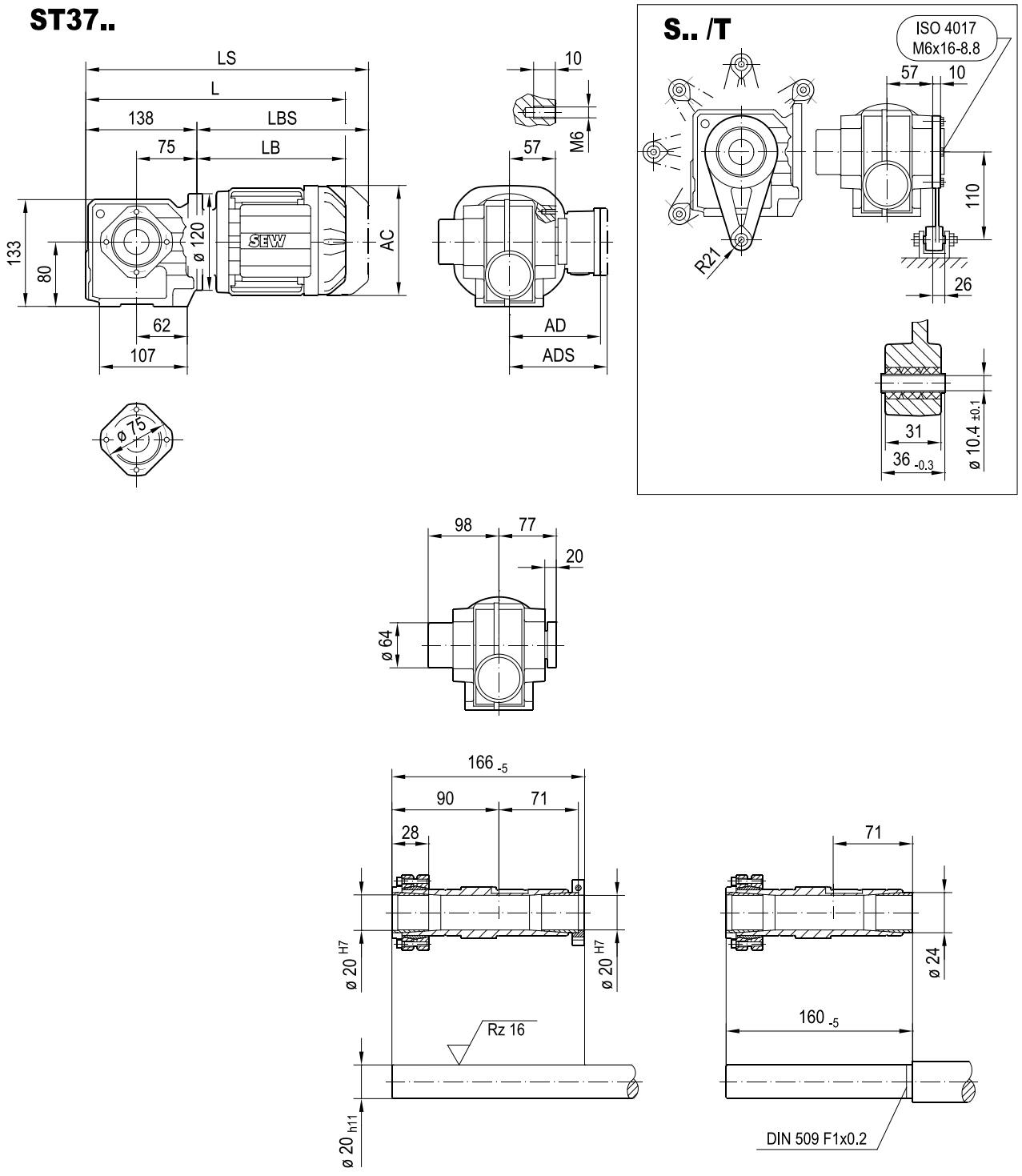
SH37..



(→ 📖 7.3)	DRN							
	63MS	63M	71MS	71M	80MK	80MS	80M	90S
AC	115	115	139	139	156	156	156	179
AD	98	98	118	118	128	128	128	140
ADS	98	98	129	129	139	139	139	150
L	328	342	344	364	375	392	420	421
LS	384	398	411	431	456	473	501	515
LB	190	204	206	226	237	254	282	283
LBS	246	260	273	293	318	335	363	377

24832936/EN – 09/2018

02 050 01 16

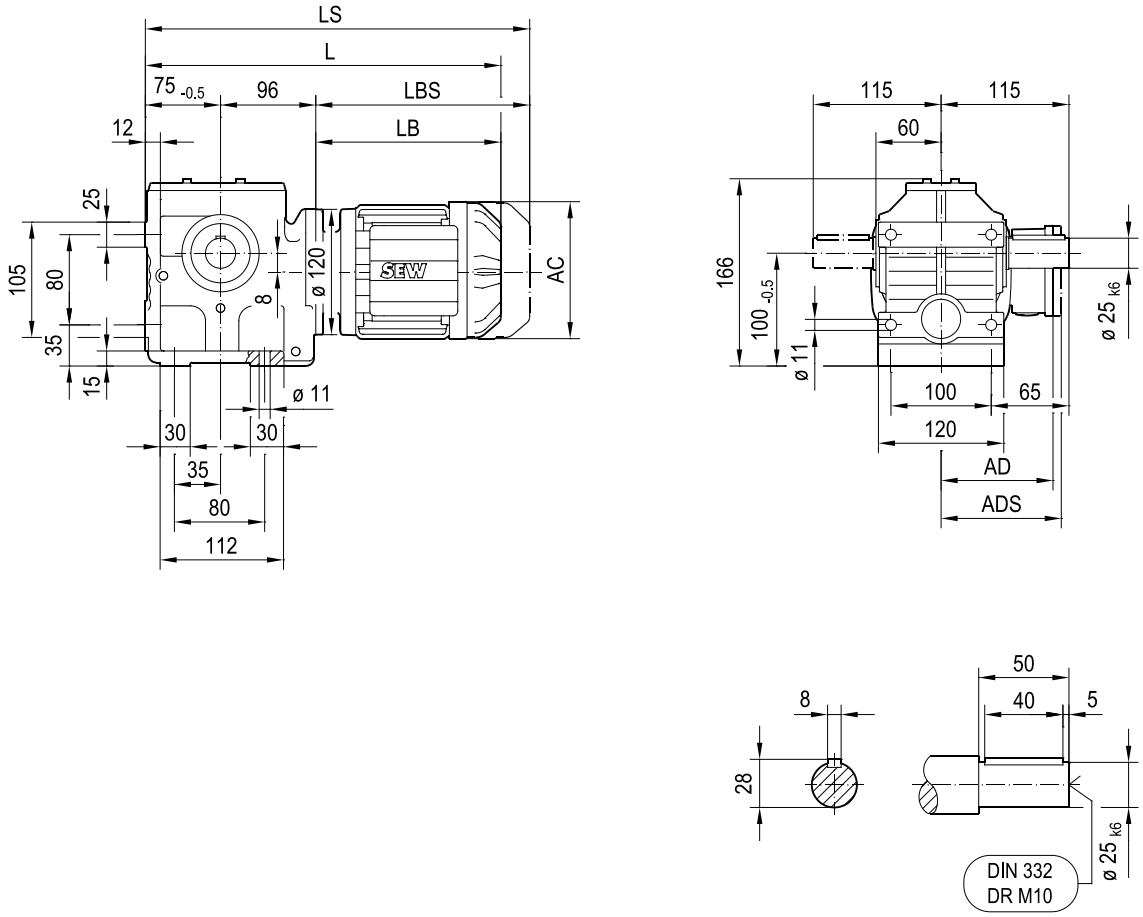


(→ 📖 7.3)	DRN							
	63MS	63M	71MS	71M	80MK	80MS	80M	90S
AC	115	115	139	139	156	156	156	179
AD	98	98	118	118	128	128	128	140
ADS	98	98	129	129	139	139	139	150
L	328	342	344	364	375	392	420	421
LS	384	398	411	431	456	473	501	515
LB	190	204	206	226	237	254	282	283
LBS	246	260	273	293	318	335	363	377

24832936/EN – 09/2018

02 051 01 16

S47..

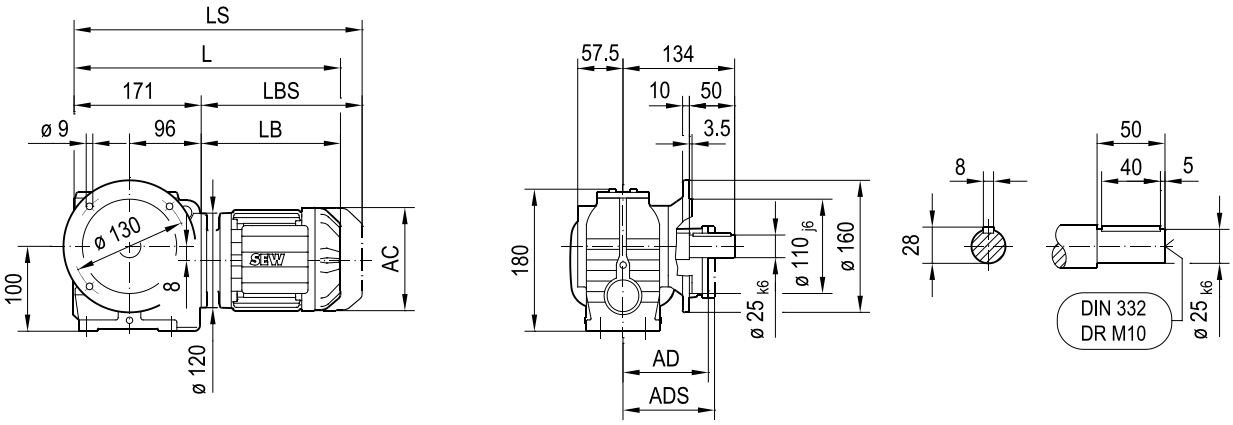


(→ 📖 7.3)	DRN							
	63MS	63M	71MS	71M	80MK	80M	90S	90L
AC	115	115	139	139	156	156	179	179
AD	98	98	118	118	128	128	140	140
ADS	98	98	129	129	139	139	150	150
L	361	375	377	397	408	453	454	486
LS	417	431	444	464	489	534	548	580
LB	190	204	206	226	237	282	283	315
LBS	246	260	273	293	318	363	377	409

24832936/EN – 09/2018

02 052 00 16

SF47..



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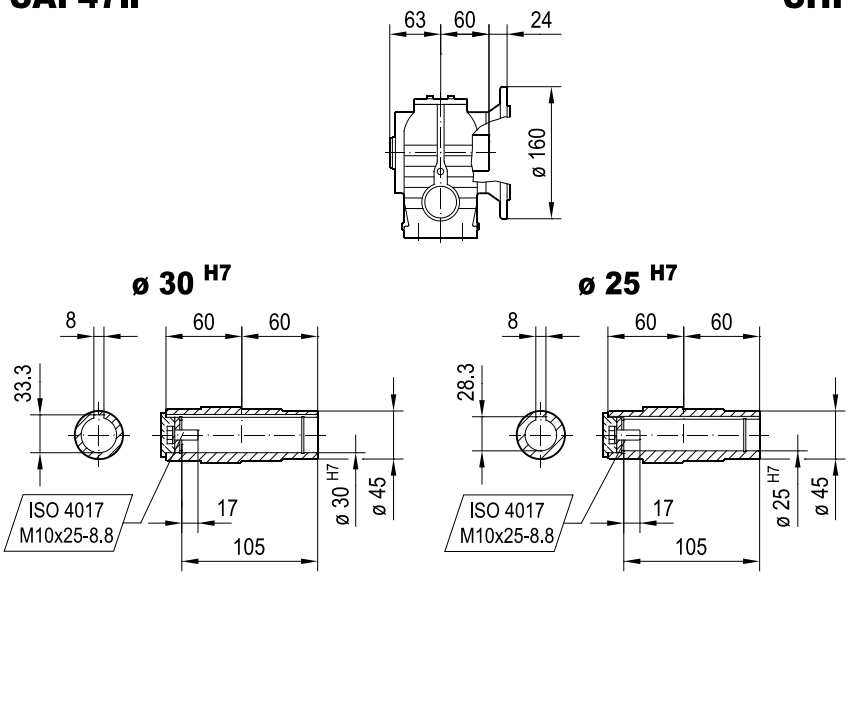

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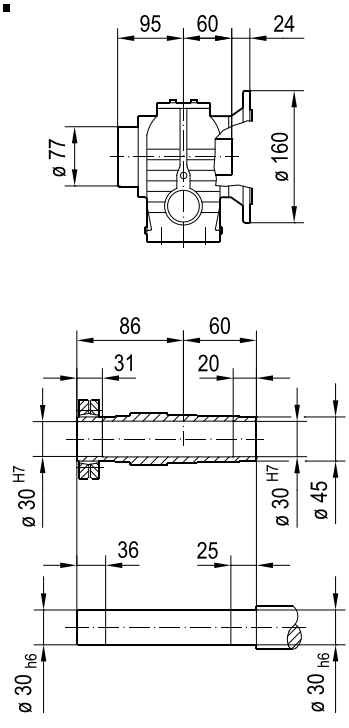

(→ 📖 7.3)	DRN							
	63MS	63M	71MS	71M	80MK	80M	90S	90L
AC	115	115	139	139	156	156	179	179
AD	98	98	118	118	128	128	140	140
ADS	98	98	129	129	139	139	150	150
L	361	375	377	397	408	453	454	486
LS	417	431	444	464	489	534	548	580
LB	190	204	206	226	237	282	283	315
LBS	246	260	273	293	318	363	377	409

24832936/EN – 09/2018

02 053 00 16

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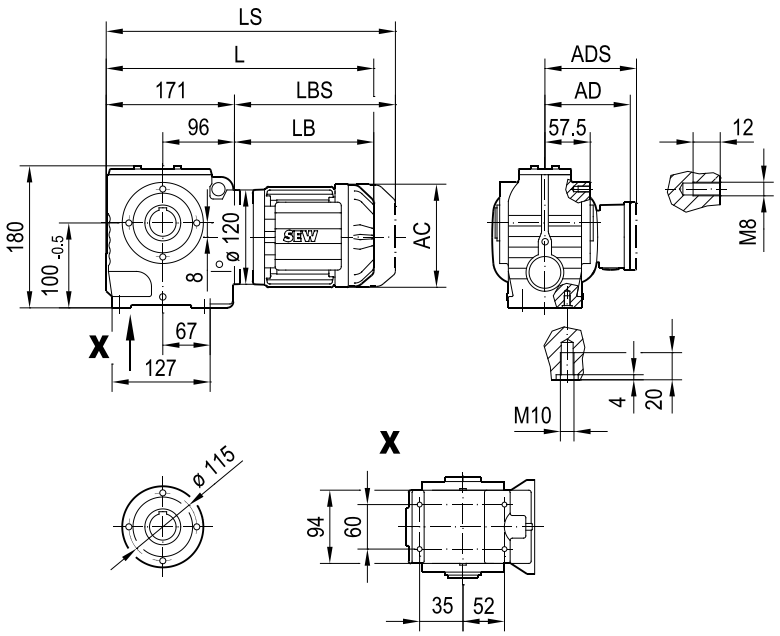

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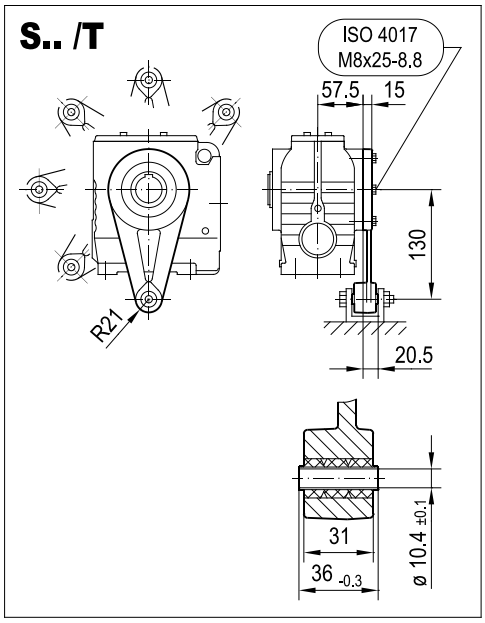

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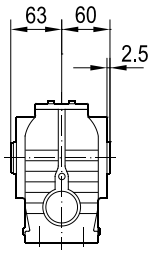

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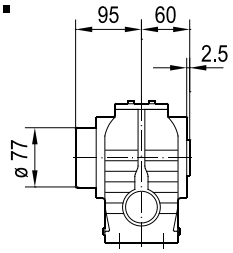
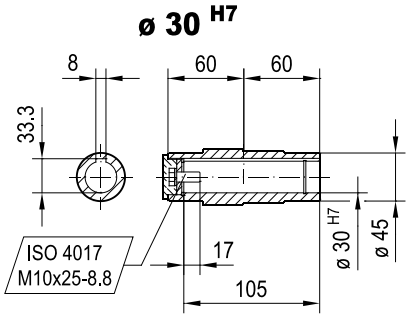
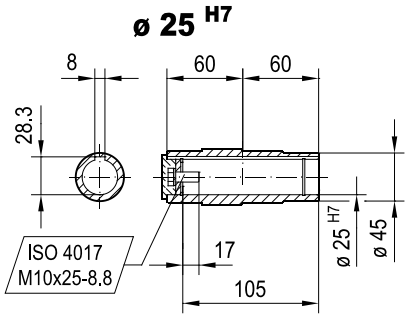
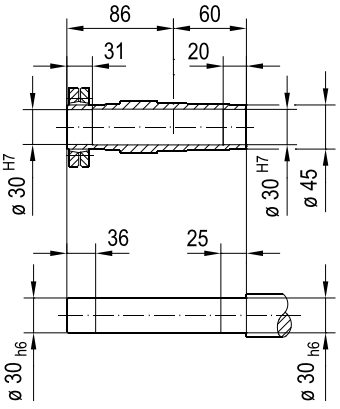






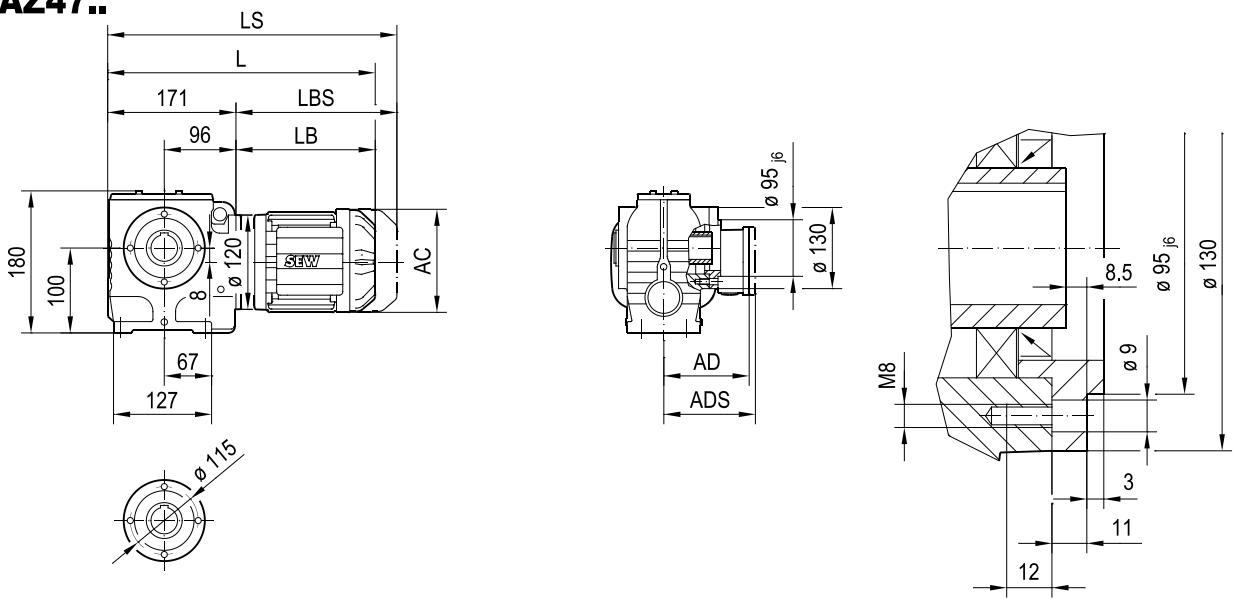


(→ 📖 7.3)	DRN							
	63MS	63M	71MS	71M	80MK	80M	90S	90L
AC	115	115	139	139	156	156	179	179
AD	98	98	118	118	128	128	140	140
ADS	98	98	129	129	139	139	150	150
L	361	375	377	397	408	453	454	486
LS	417	431	444	464	489	534	548	580
LB	190	204	206	226	237	282	283	315
LBS	246	260	273	293	318	363	377	409

24832936/EN – 09/2018

02 054 00 16

SAZ47..



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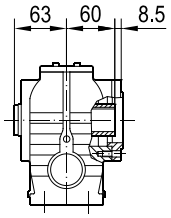

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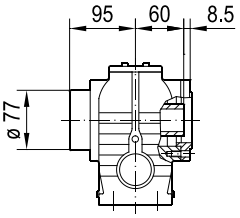
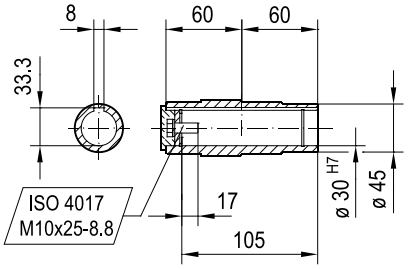
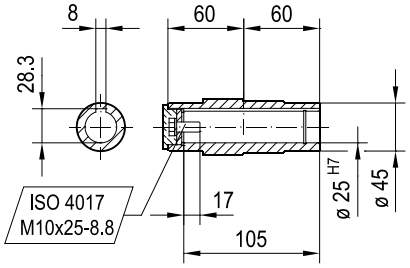
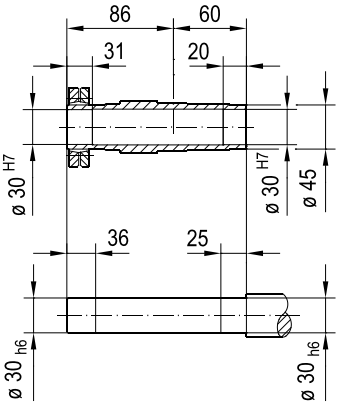


ø 30 H7



ø 25 H7



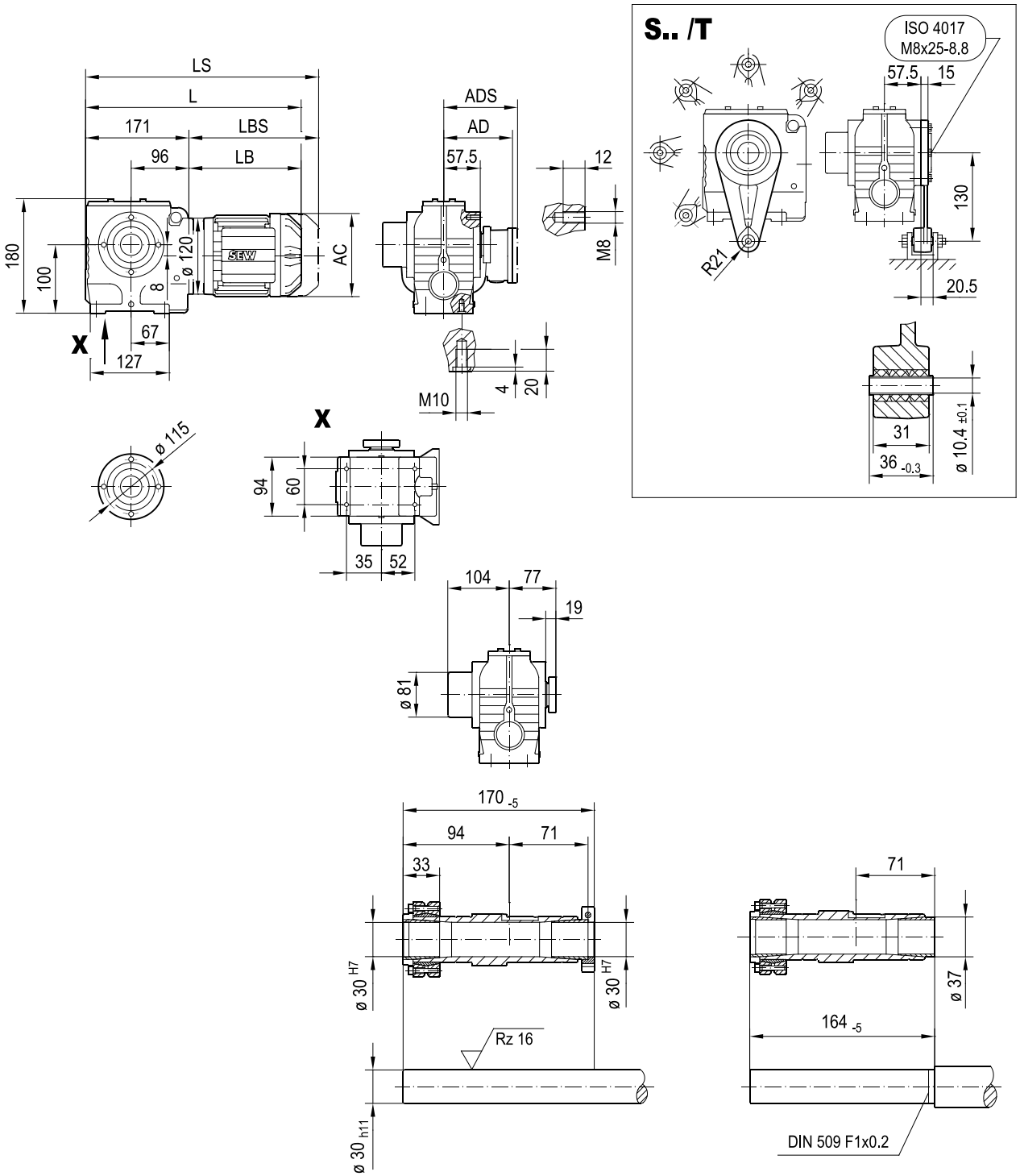


(→ 📖 7.3)	DRN							
	63MS	63M	71MS	71M	80MK	80M	90S	90L
AC	115	115	139	139	156	156	179	179
AD	98	98	118	118	128	128	140	140
ADS	98	98	129	129	139	139	150	150
L	361	375	377	397	408	453	454	486
LS	417	431	444	464	489	534	548	580
LB	190	204	206	226	237	282	283	315
LBS	246	260	273	293	318	363	377	409

24832936/EN – 09/2018

02 055 00 16

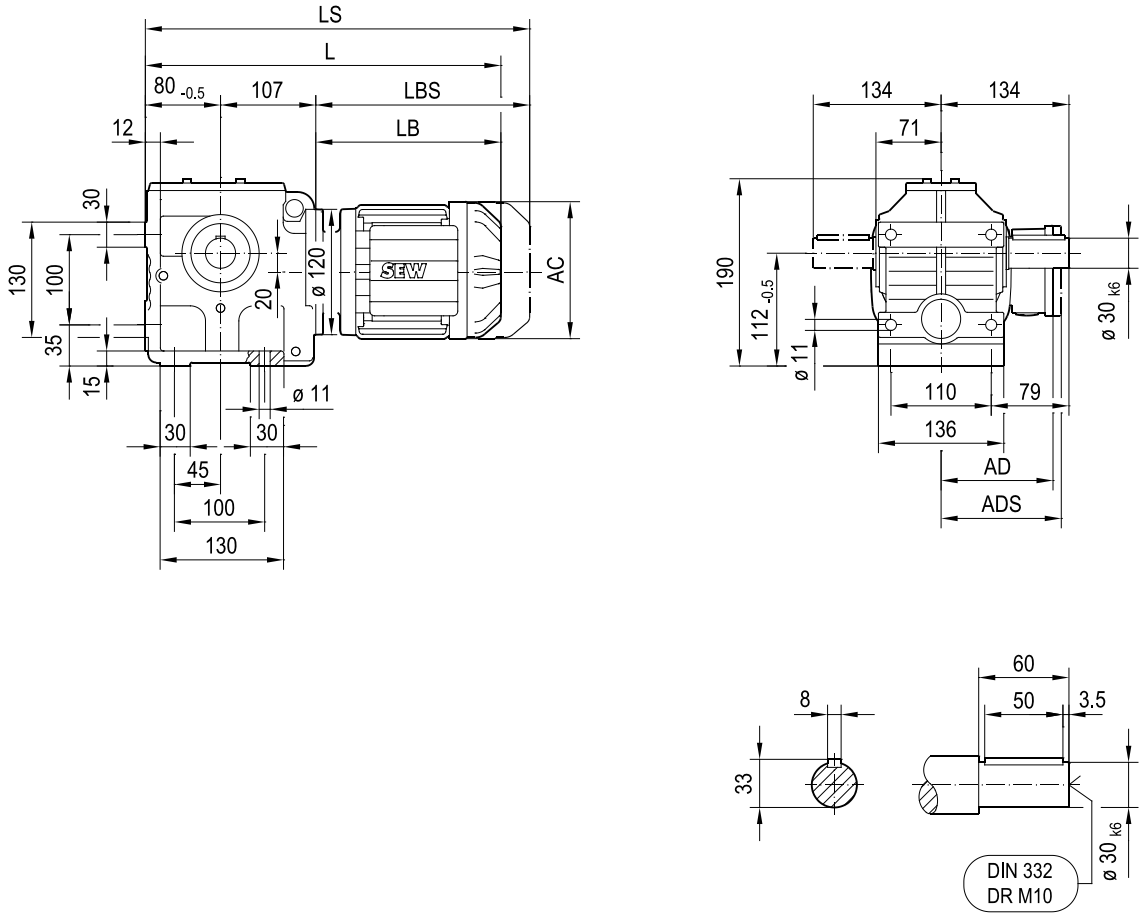
ST47..



(→ 📖 7.3)	DRN							
	63MS	63M	71MS	71M	80MK	80M	90S	90L
AC	115	115	139	139	156	156	179	179
AD	98	98	118	118	128	128	140	140
ADS	98	98	129	129	139	139	150	150
L	361	375	377	397	408	453	454	486
LS	417	431	444	464	489	534	548	580
LB	190	204	206	226	237	282	283	315
LBS	246	260	273	293	318	363	377	409

02 017 00 14

S57..

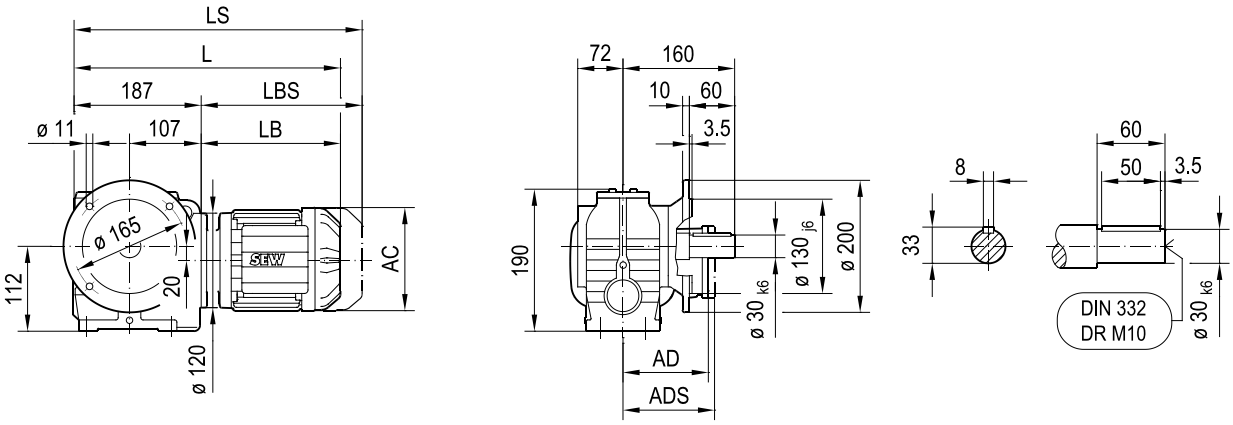


(→ 📖 7.3)	DRN								
	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM
AC	115	139	139	156	156	179	179	197	197
AD	98	118	118	128	128	140	140	157	157
ADS	98	129	129	139	139	150	150	158	158
L	391	393	413	424	469	470	502	501	551
LS	447	460	480	505	550	564	596	595	645
LB	204	206	226	237	282	283	315	314	364
LBS	260	273	293	318	363	377	409	408	458

24832936/EN – 09/2018

02 018 01 14

SF57..



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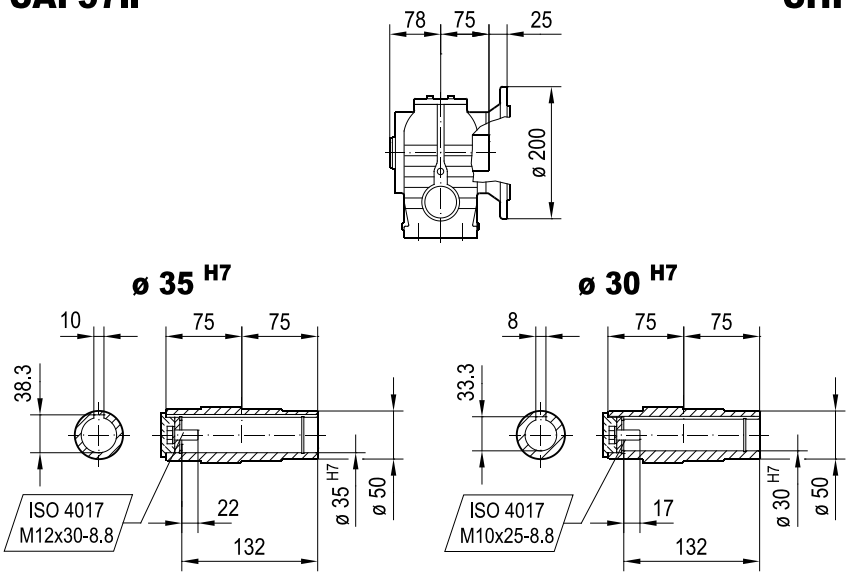

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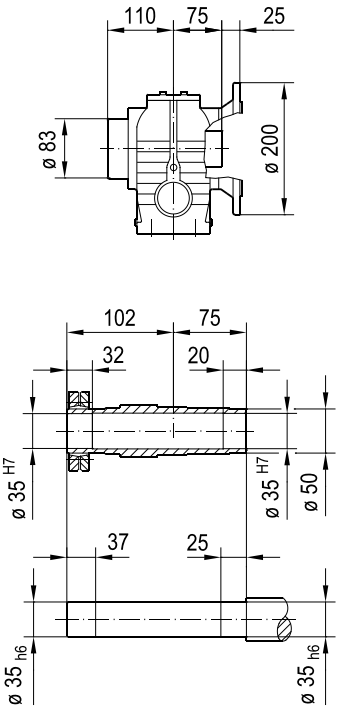
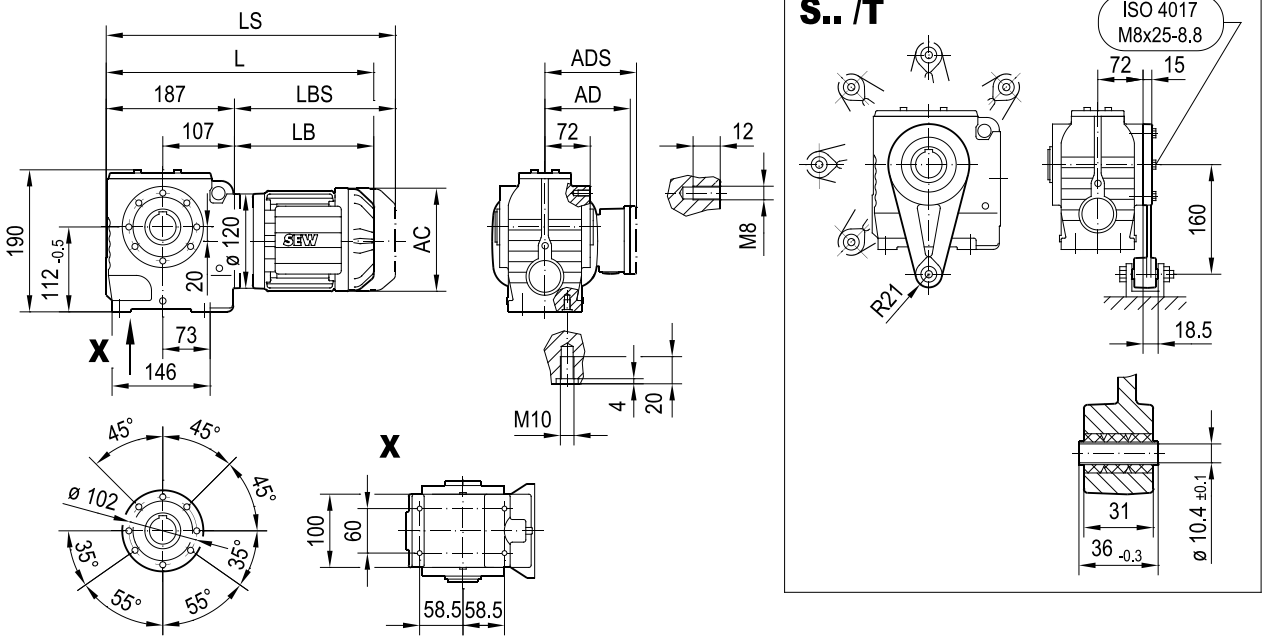


(→ 📖 7.3)	DRN								
	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM
AC	115	139	139	156	156	179	179	197	197
AD	98	118	118	128	128	140	140	157	157
ADS	98	129	129	139	139	150	150	158	158
L	391	393	413	424	469	470	502	501	551
LS	447	460	480	505	550	564	596	595	645
LB	204	206	226	237	282	283	315	314	364
LBS	260	273	293	318	363	377	409	408	458

24832936/EN – 09/2018

02 019 01 14

SA57..



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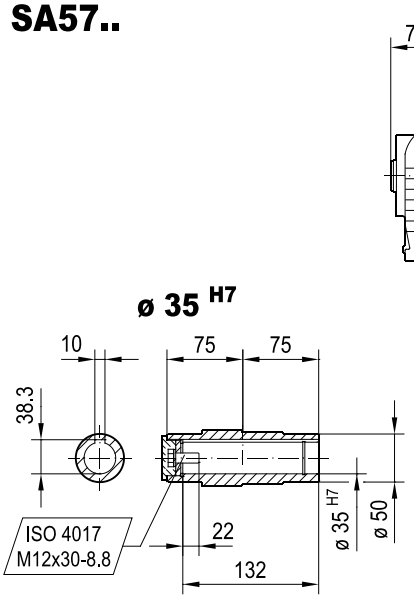

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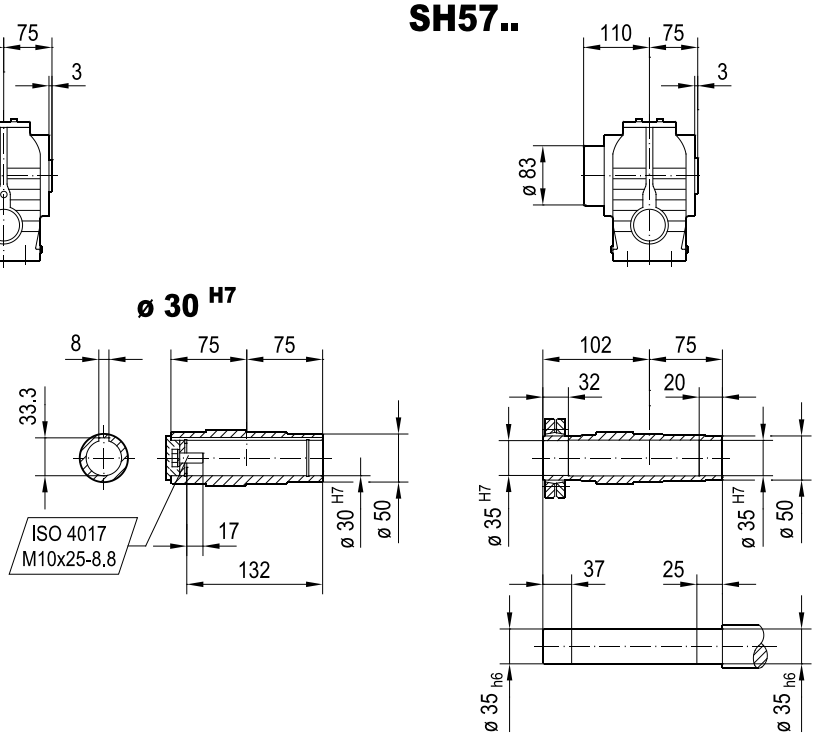
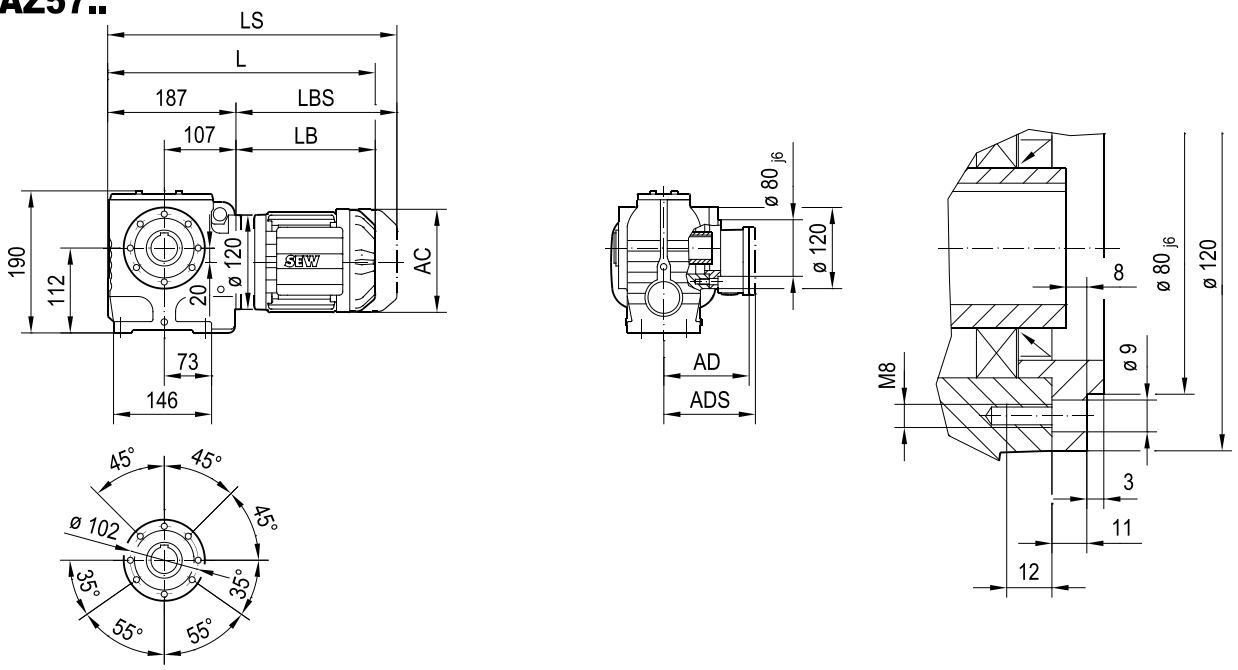


(→ 📖 7.3)	DRN								
	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM
AC	115	139	139	156	156	179	179	197	197
AD	98	118	118	128	128	140	140	157	157
ADS	98	129	129	139	139	150	150	158	158
L	391	393	413	424	469	470	502	501	551
LS	447	460	480	505	550	564	596	595	645
LB	204	206	226	237	282	283	315	314	364
LBS	260	273	293	318	363	377	409	408	458

24832936/EN – 09/2018

02 020 00 14

SAZ57..



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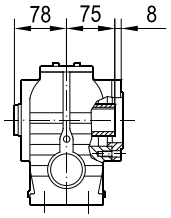

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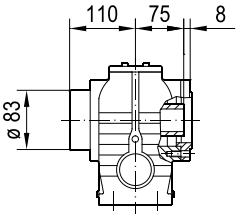
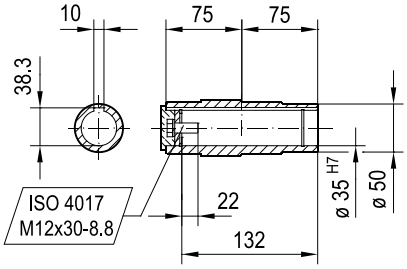
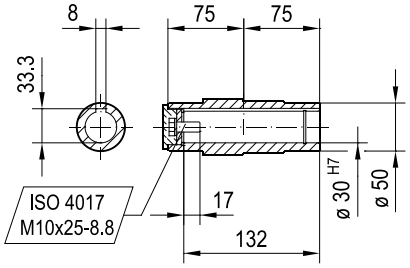
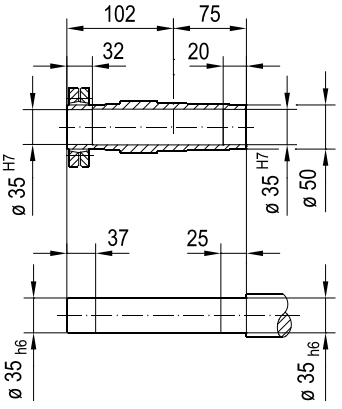


ø 35 H7



ø 30 H7



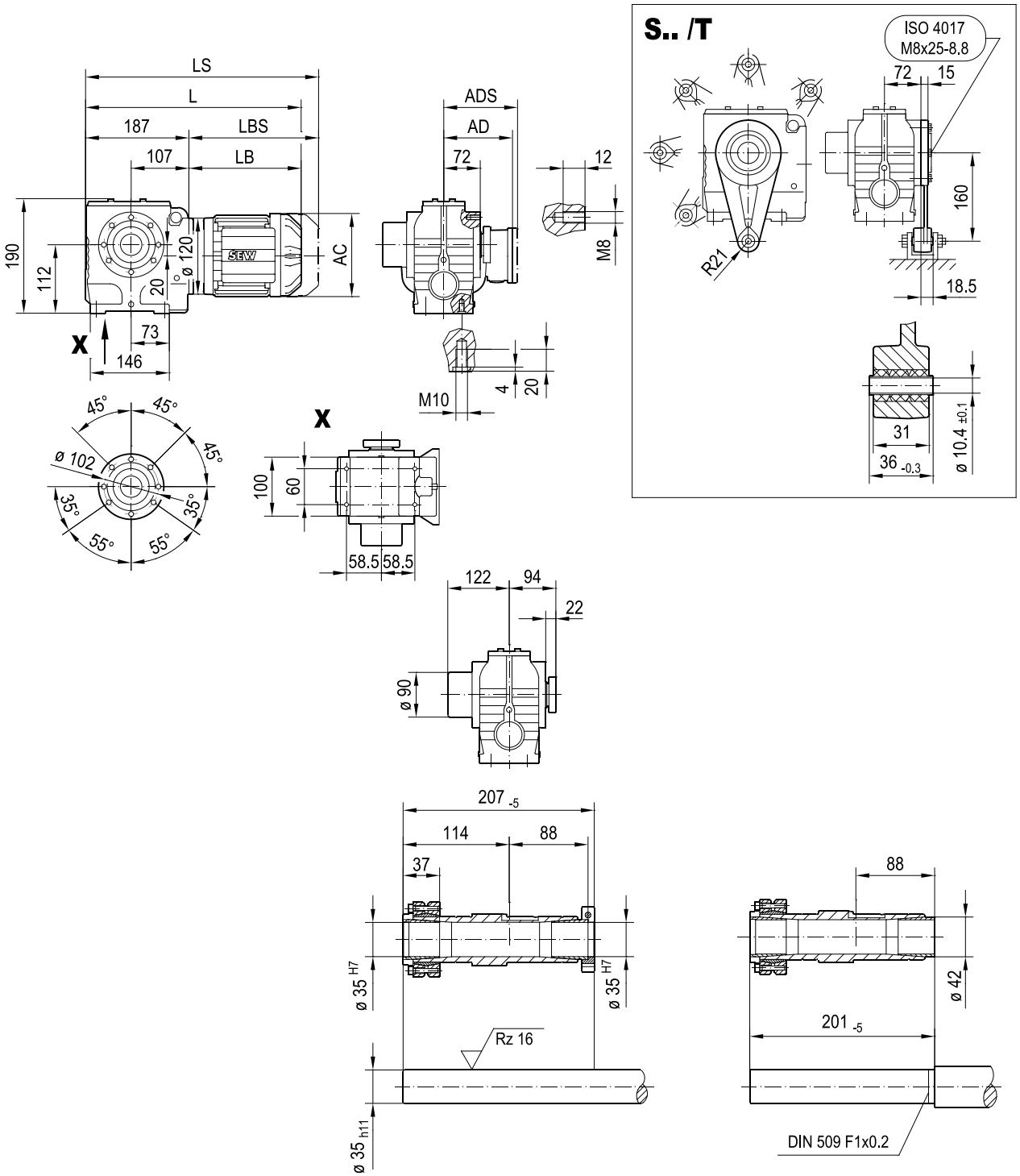


(→ 📖 7.3)	DRN								
	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM
AC	115	139	139	156	156	179	179	197	197
AD	98	118	118	128	128	140	140	157	157
ADS	98	129	129	139	139	150	150	158	158
L	391	393	413	424	469	470	502	501	551
LS	447	460	480	505	550	564	596	595	645
LB	204	206	226	237	282	283	315	314	364
LBS	260	273	293	318	363	377	409	408	458

24832936/EN – 09/2018

02 021 01 14

ST57..

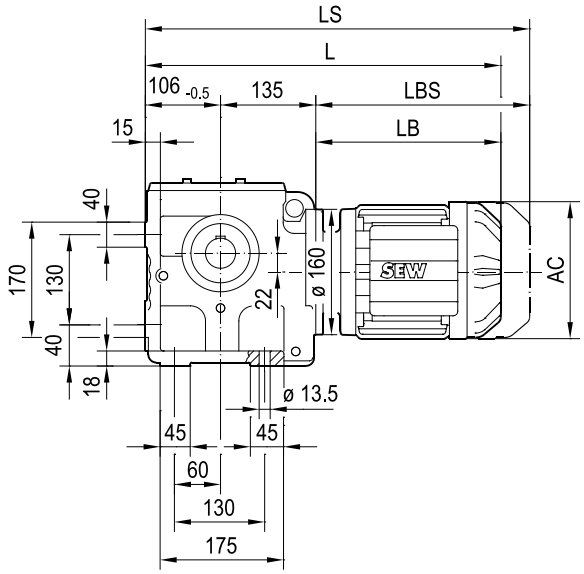


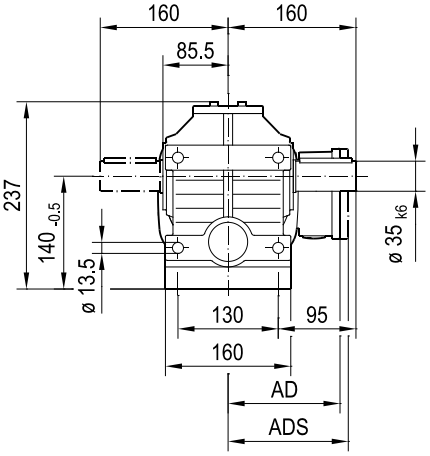
(→ 📖 7.3)	DRN								
	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM
AC	115	139	139	156	156	179	179	197	197
AD	98	118	118	128	128	140	140	157	157
ADS	98	129	129	139	139	150	150	158	158
L	391	393	413	424	469	470	502	501	551
LS	447	460	480	505	550	564	596	595	645
LB	204	206	226	237	282	283	315	314	364
LBS	260	273	293	318	363	377	409	408	458

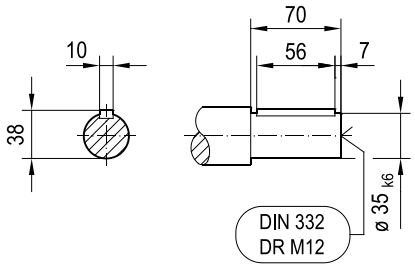
24832936/EN – 09/2018

02 022 00 14

S67..





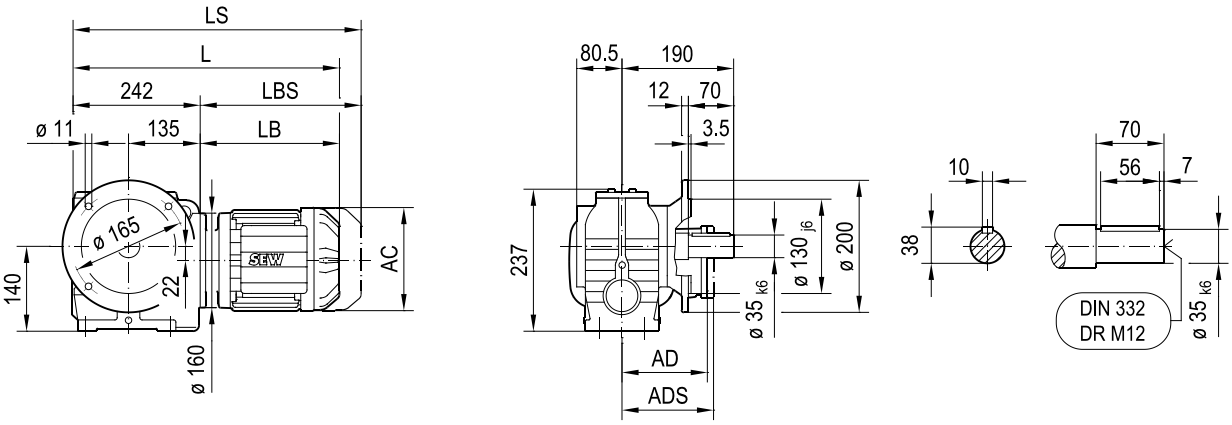


(→ 📖 7.3)	DRN									
	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S
AC	139	139	156	156	179	179	197	197	221	221
AD	118	118	128	128	140	140	157	157	170	170
ADS	129	129	139	139	150	150	158	158	172	172
L	440	460	471	516	518	550	546	596	627	681
LS	508	528	552	597	611	643	640	690	739	793
LB	199	219	230	275	277	309	305	355	386	440
LBS	267	287	311	356	370	402	399	449	498	552

24832936/EN – 09/2018

02 023 00 14

SF67..



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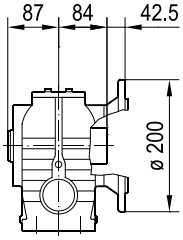
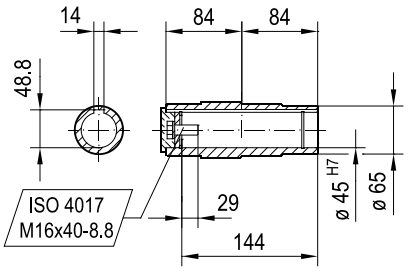
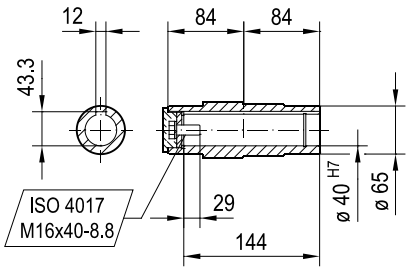


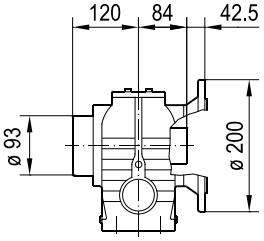
ø 45 H7

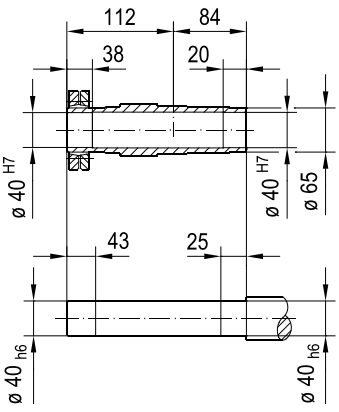


ø 40 H7



SHF67..



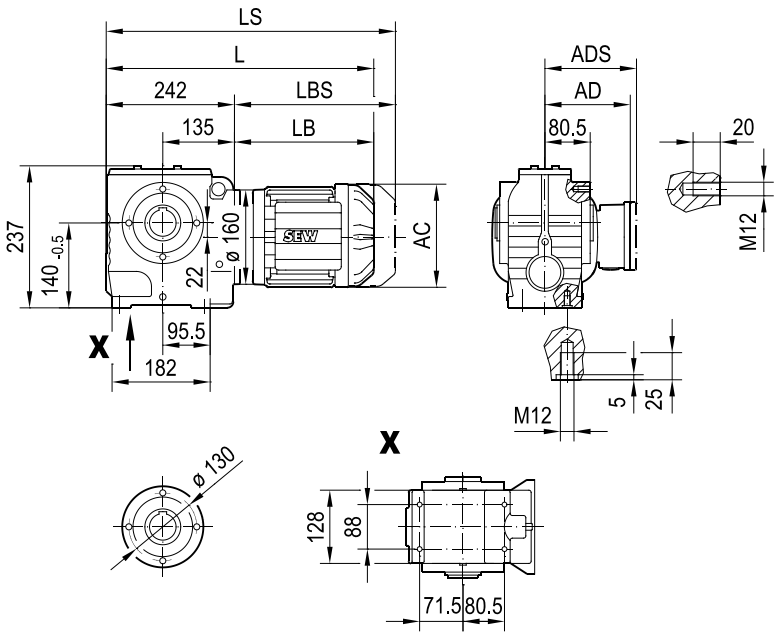


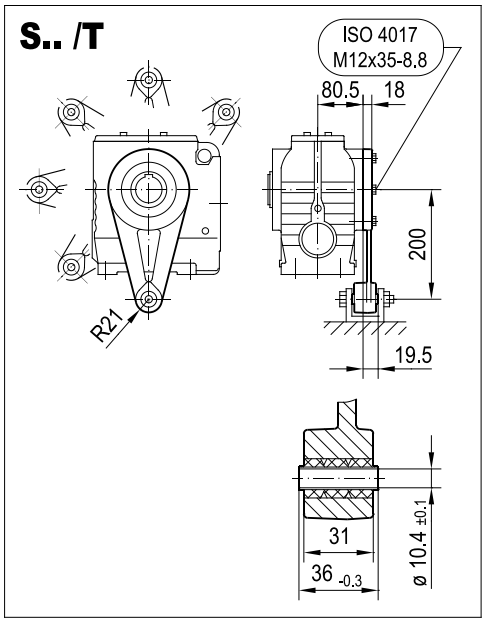
(→ 📖 7.3)	DRN									
	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S
AC	139	139	156	156	179	179	197	197	221	221
AD	118	118	128	128	140	140	157	157	170	170
ADS	129	129	139	139	150	150	158	158	172	172
L	441	461	472	517	519	551	547	597	628	682
LS	509	529	553	598	612	644	641	691	740	794
LB	199	219	230	275	277	309	305	355	386	440
LBS	267	287	311	356	370	402	399	449	498	552

24832936/EN – 09/2018

02 024 01 14

SA67..





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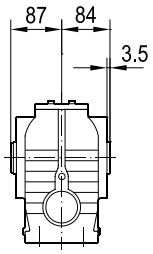

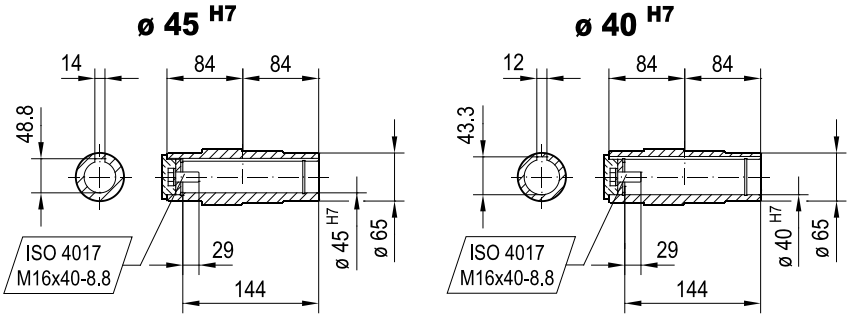

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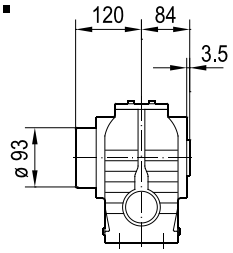
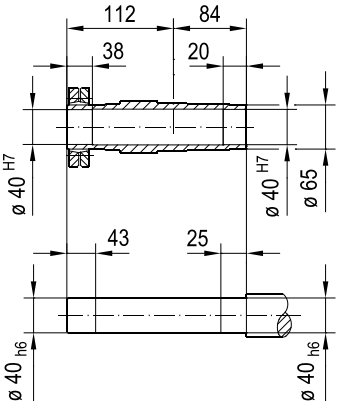


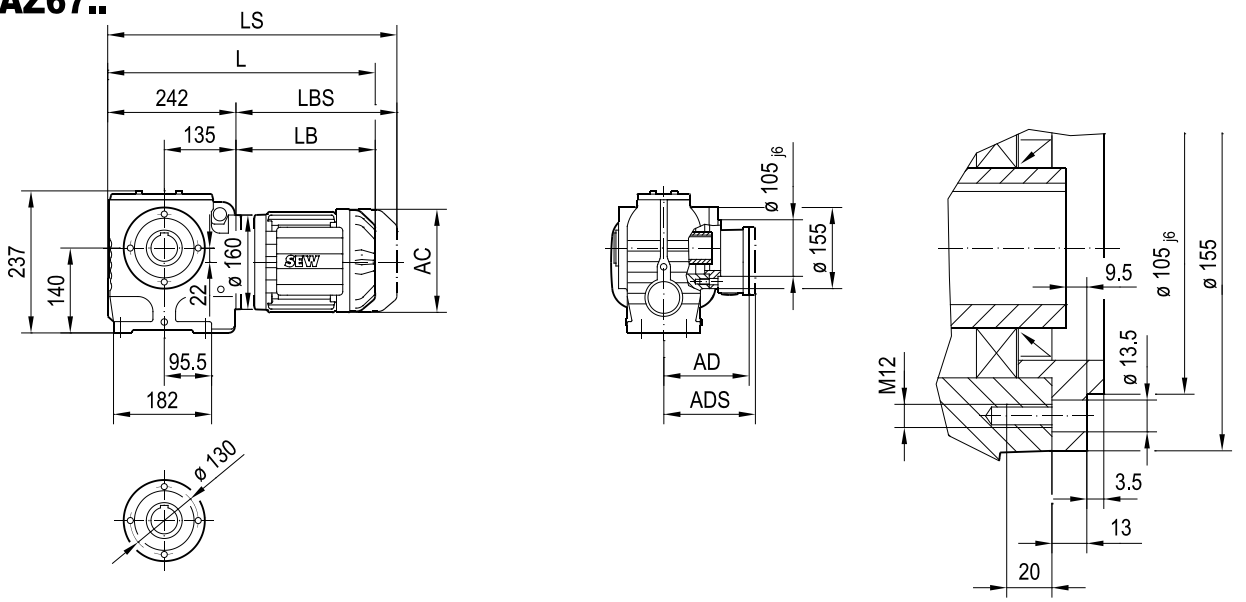


(→ 📖 7.3)	DRN									
	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S
AC	139	139	156	156	179	179	197	197	221	221
AD	118	118	128	128	140	140	157	157	170	170
ADS	129	129	139	139	150	150	158	158	172	172
L	441	461	472	517	519	551	547	597	628	682
LS	509	529	553	598	612	644	641	691	740	794
LB	199	219	230	275	277	309	305	355	386	440
LBS	267	287	311	356	370	402	399	449	498	552

24832936/EN – 09/2018

02 025 00 14

SAZ67..



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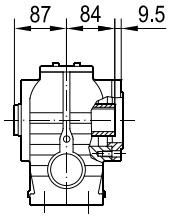

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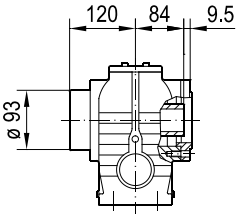
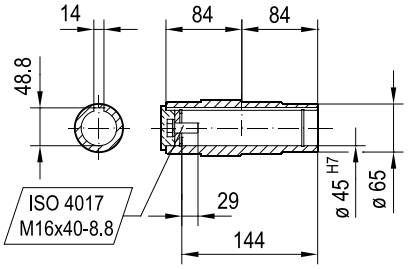
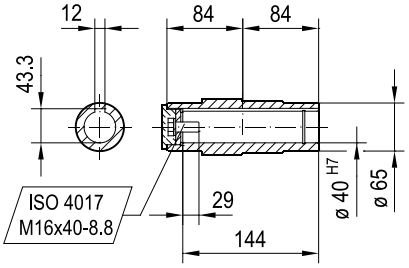
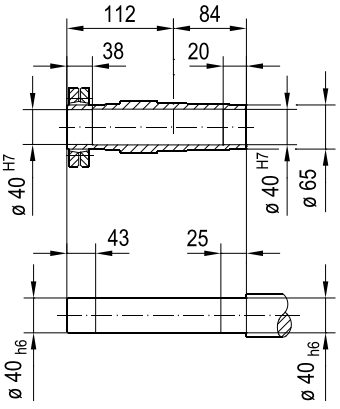


ø 45 H7



ø 40 H7



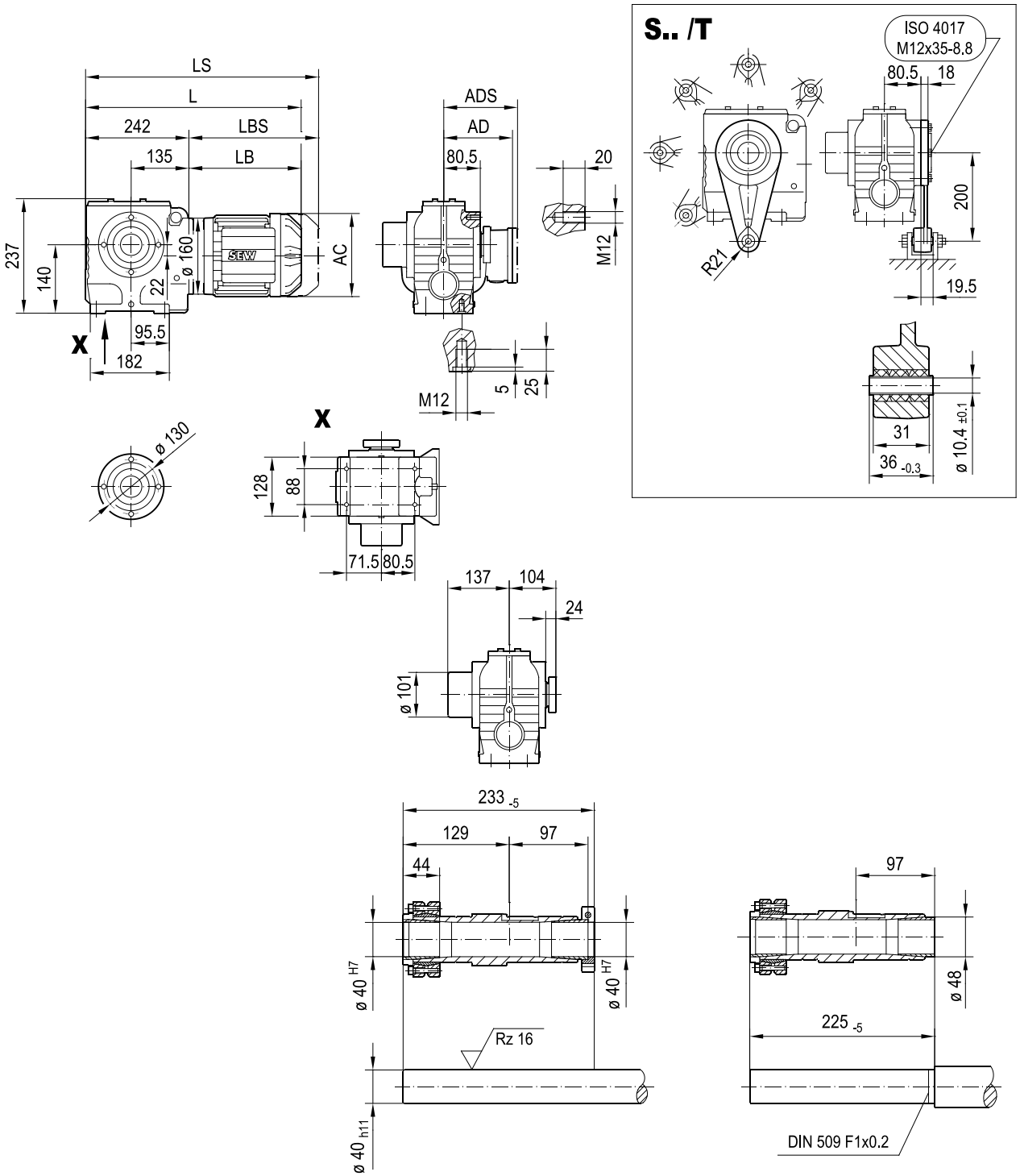


(→ 📖 7.3)	DRN									
	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S
AC	139	139	156	156	179	179	197	197	221	221
AD	118	118	128	128	140	140	157	157	170	170
ADS	129	129	139	139	150	150	158	158	172	172
L	441	461	472	517	519	551	547	597	628	682
LS	509	529	553	598	612	644	641	691	740	794
LB	199	219	230	275	277	309	305	355	386	440
LBS	267	287	311	356	370	402	399	449	498	552

24832936/EN – 09/2018

02 026 01 14

ST67..

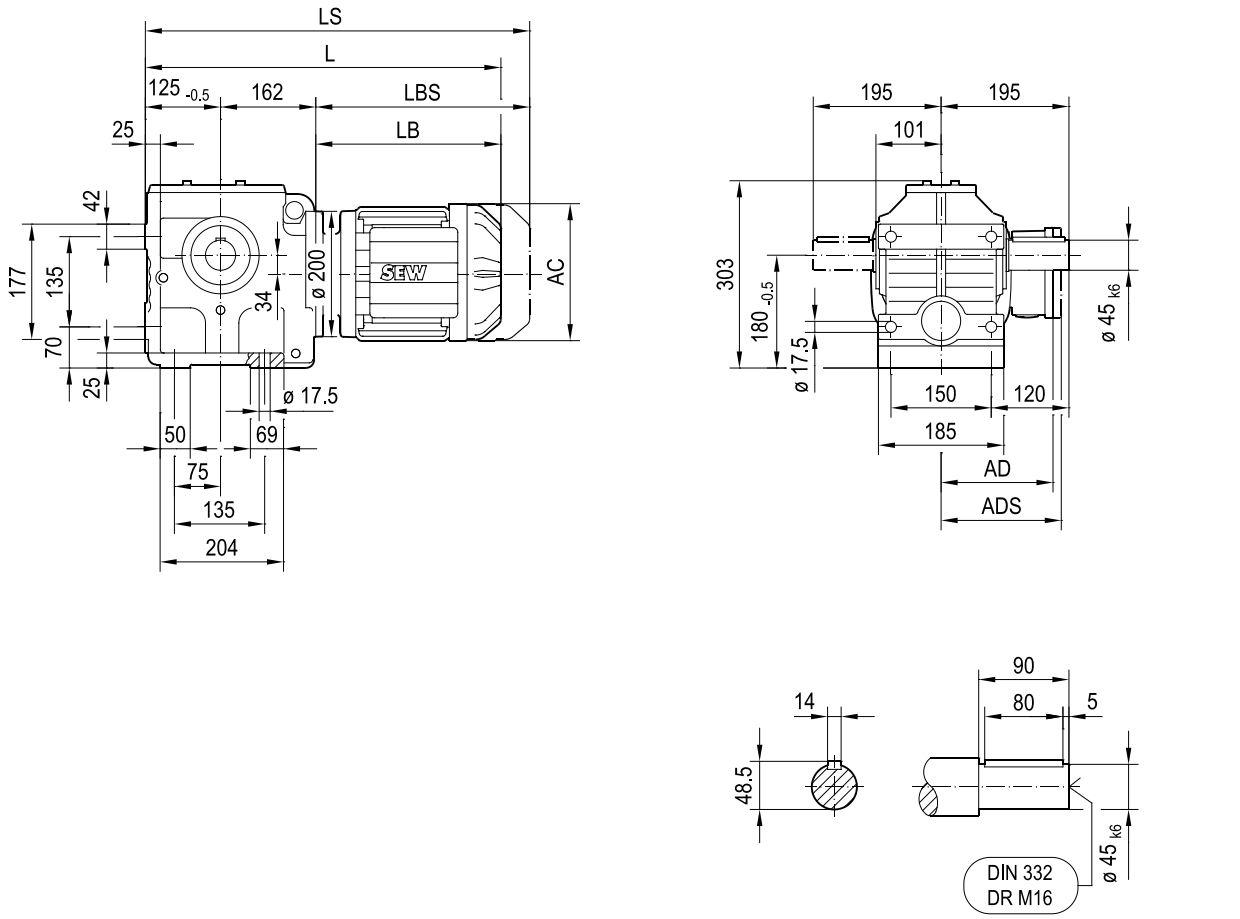


(→ 📖 7.3)	DRN									
	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M	132S
AC	139	139	156	156	179	179	197	197	221	221
AD	118	118	128	128	140	140	157	157	170	170
ADS	129	129	139	139	150	150	158	158	172	172
L	441	461	472	517	519	551	547	597	628	682
LS	509	529	553	598	612	644	641	691	740	794
LB	199	219	230	275	277	309	305	355	386	440
LBS	267	287	311	356	370	402	399	449	498	552

24832936/EN – 09/2018

02 027 00 14

S77..

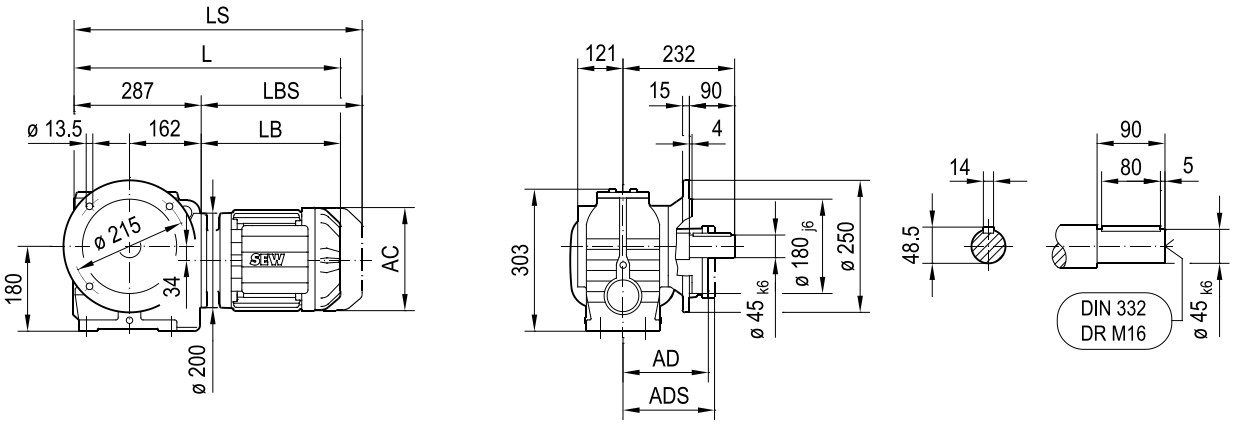


(→ 📖 7.3)	DRN									
	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L
AC	156	156	179	179	197	197	221	221	261	261
AD	128	128	140	140	157	157	170	170	228	228
ADS	139	139	150	150	158	158	172	172	228	228
L	510	555	557	589	585	635	666	716	734	760
LS	591	636	650	682	679	729	778	828	872	897
LB	223	268	270	302	298	348	379	429	447	473
LBS	304	349	363	395	392	442	491	541	585	610

24832936/EN – 09/2018

02 028 00 14

SF77..



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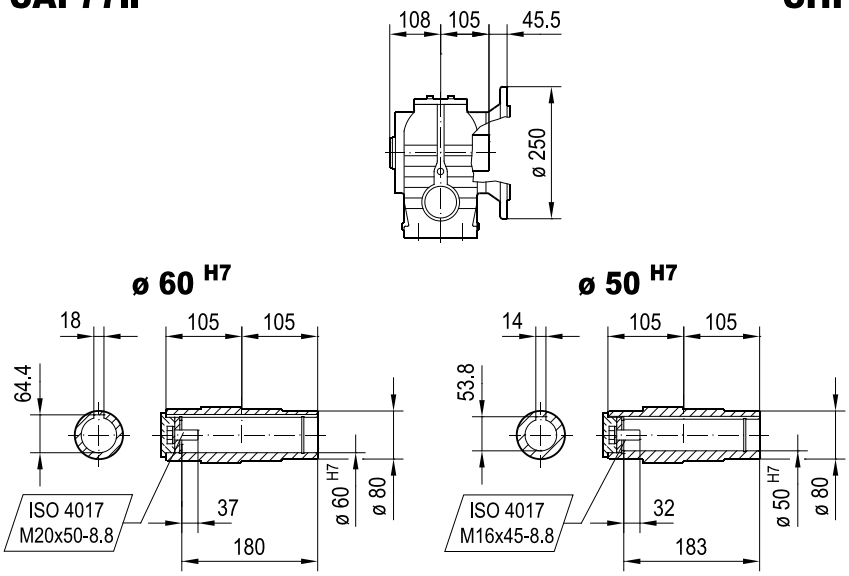
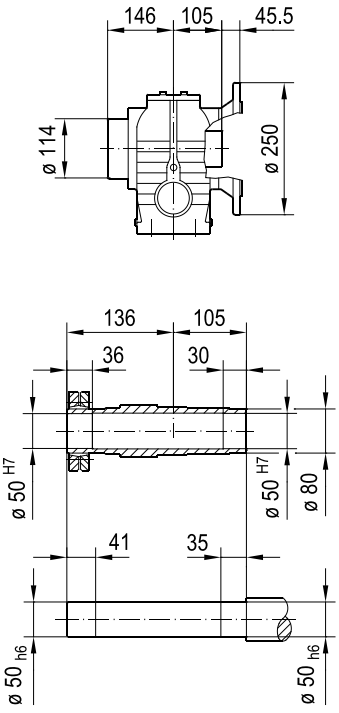


SHF77..

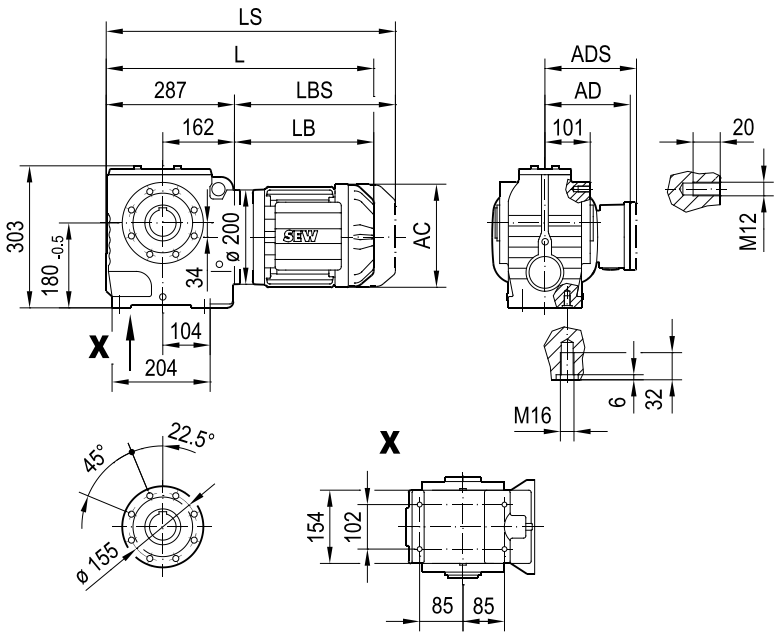


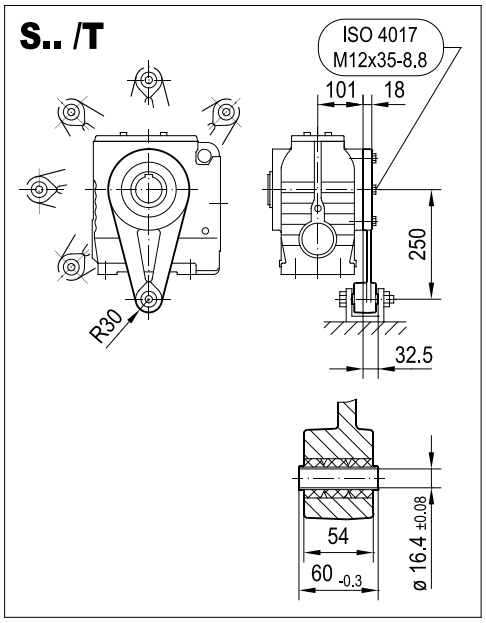
(→ 📖 7.3)	DRN									
	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L
AC	156	156	179	179	197	197	221	221	261	261
AD	128	128	140	140	157	157	170	170	228	228
ADS	139	139	150	150	158	158	172	172	228	228
L	510	555	557	589	585	635	666	716	734	760
LS	591	636	650	682	679	729	778	828	872	897
LB	223	268	270	302	298	348	379	429	447	473
LBS	304	349	363	395	392	442	491	541	585	610

24832936/EN – 09/2018

02 029 01 14

SA77..





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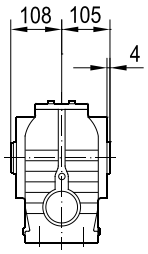
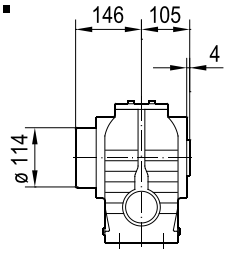
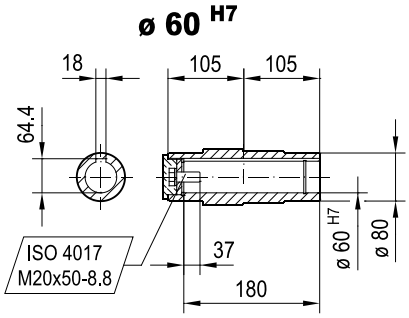
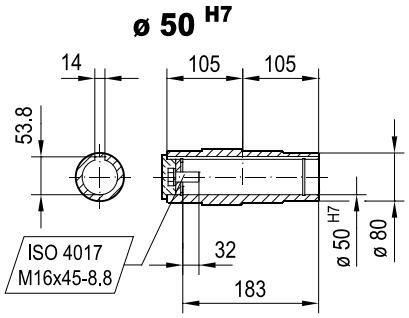
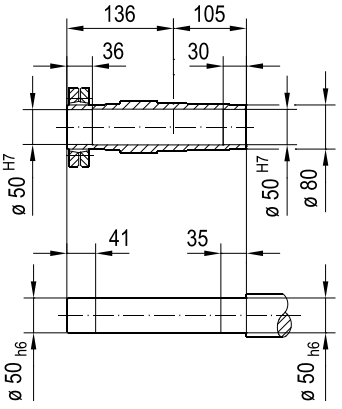


SH77..







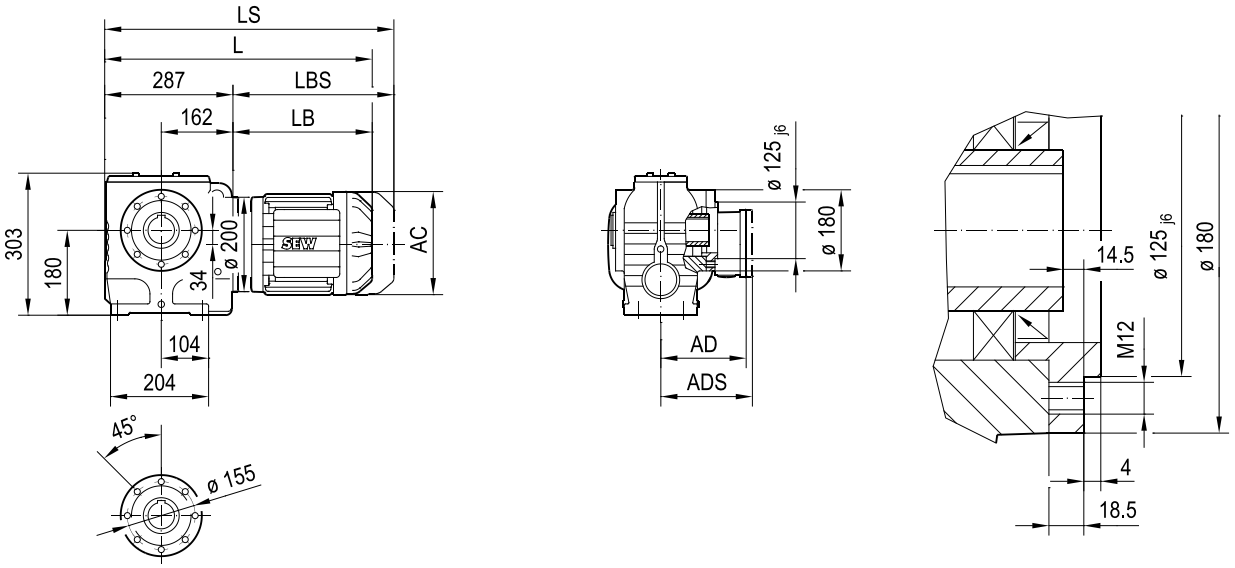


(→ 📖 7.3)	DRN									
	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L
AC	156	156	179	179	197	197	221	221	261	261
AD	128	128	140	140	157	157	170	170	228	228
ADS	139	139	150	150	158	158	172	172	228	228
L	510	555	557	589	585	635	666	716	734	760
LS	591	636	650	682	679	729	778	828	872	897
LB	223	268	270	302	298	348	379	429	447	473
LBS	304	349	363	395	392	442	491	541	585	610

24832936/EN – 09/2018

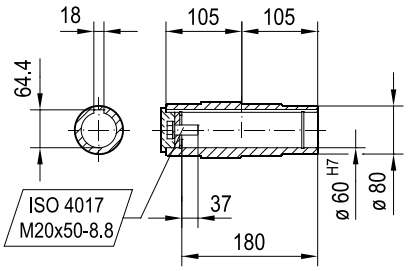
02 030 00 14

SAZ77..

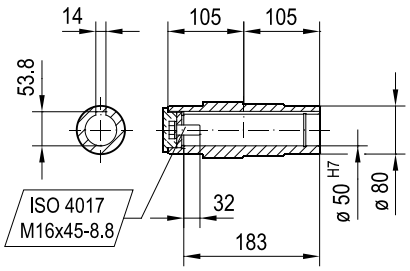


SAZ77..

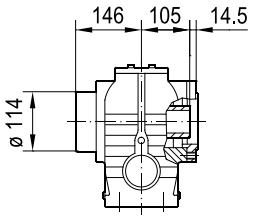
ø 60 H7

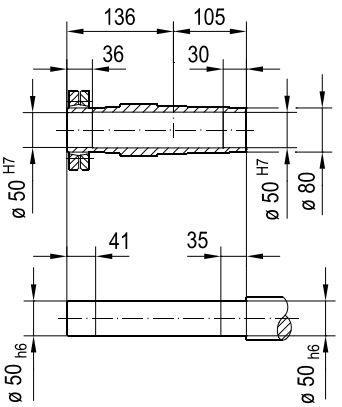


ø 50 H7



SHZ77..



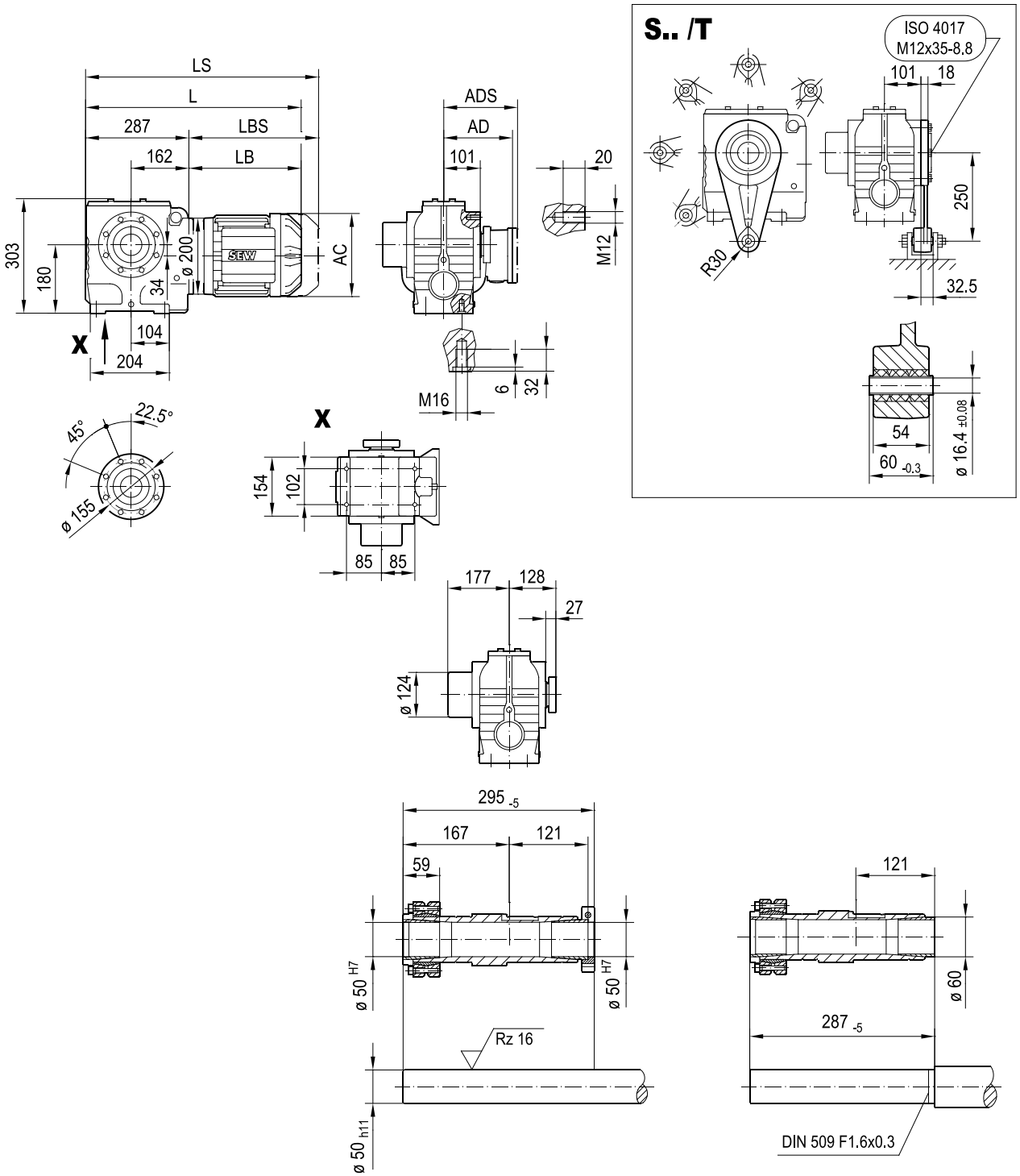


(→ 📖 7.3)	DRN									
	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L
AC	156	156	179	179	197	197	221	221	261	261
AD	128	128	140	140	157	157	170	170	228	228
ADS	139	139	150	150	158	158	172	172	228	228
L	510	555	557	589	585	635	666	716	734	760
LS	591	636	650	682	679	729	778	828	872	897
LB	223	268	270	302	298	348	379	429	447	473
LBS	304	349	363	395	392	442	491	541	585	610

24832936/EN – 09/2018

02 031 01 14

ST77..

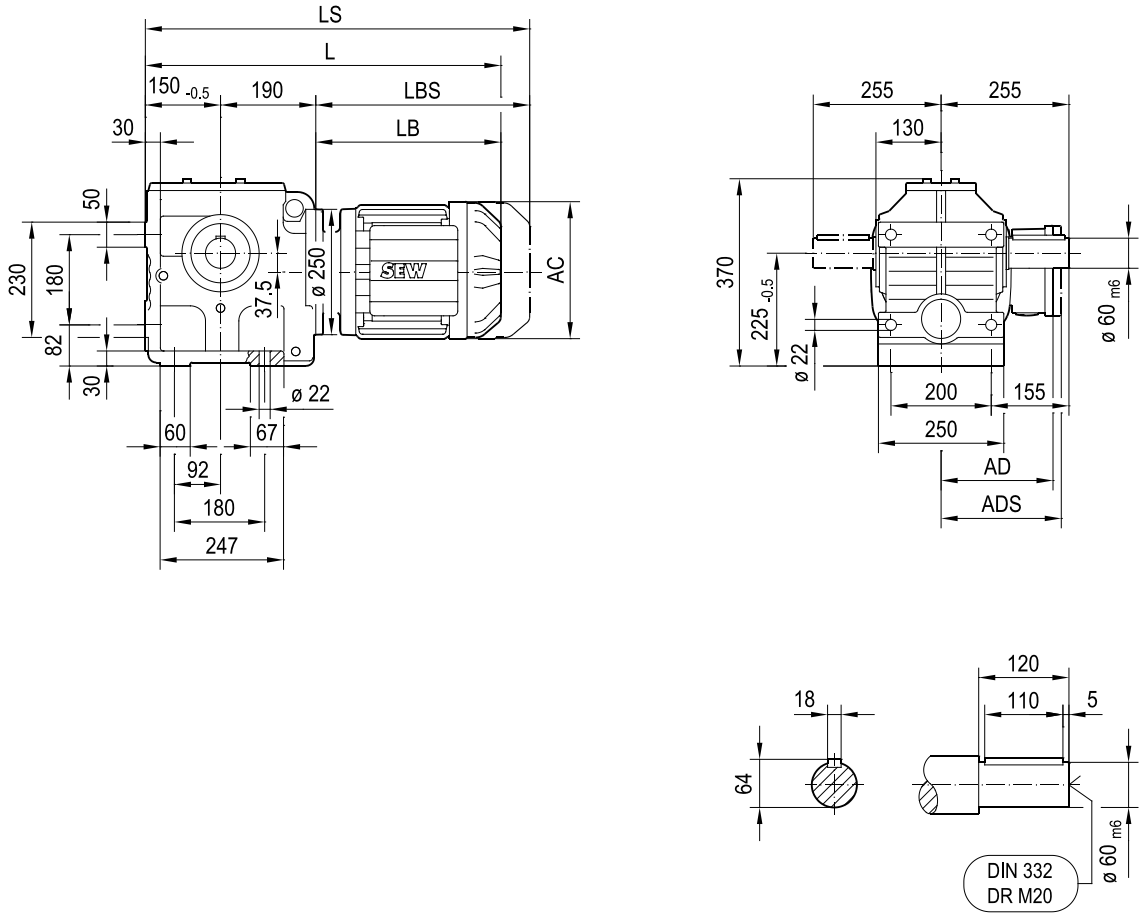


(→ 7.3)	DRN									
	80MK	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L
AC	156	156	179	179	197	197	221	221	261	261
AD	128	128	140	140	157	157	170	170	228	228
ADS	139	139	150	150	158	158	172	172	228	228
L	510	555	557	589	585	635	666	716	734	760
LS	591	636	650	682	679	729	778	828	872	897
LB	223	268	270	302	298	348	379	429	447	473
LBS	304	349	363	395	392	442	491	541	585	610

24832936/EN – 09/2018

02 032 00 14

S87..

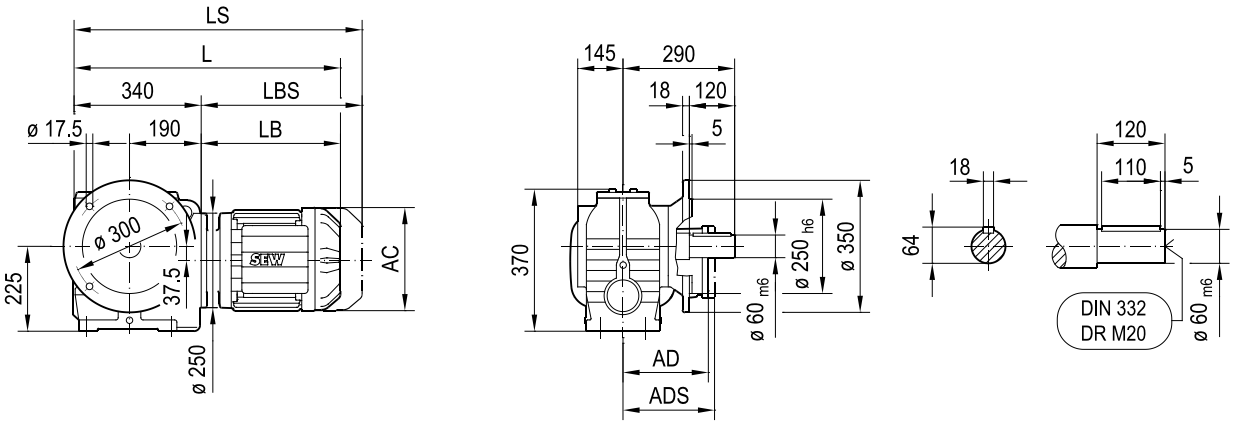


(→ 📖 7.3)	DRN									
	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..
AC	156	179	179	197	197	221	221	261	261	314
AD	128	140	140	157	157	170	170	228	228	253
ADS	139	150	150	158	158	172	172	228	228	253
L	603	605	637	633	683	714	764	782	808	874
LS	684	698	730	727	777	826	876	920	945	1063
LB	263	265	297	293	343	374	424	442	468	534
LBS	344	358	390	387	437	486	536	580	605	723

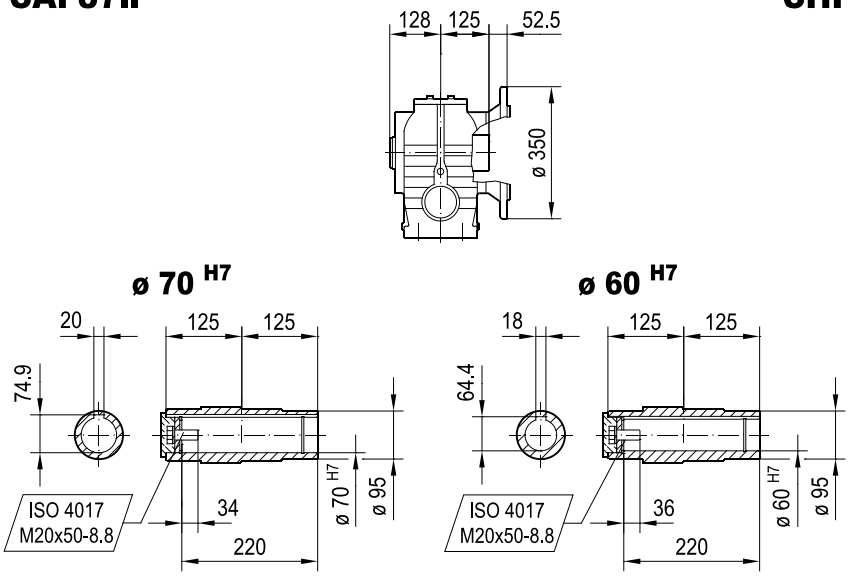
24832936/EN – 09/2018

02 033 00 14

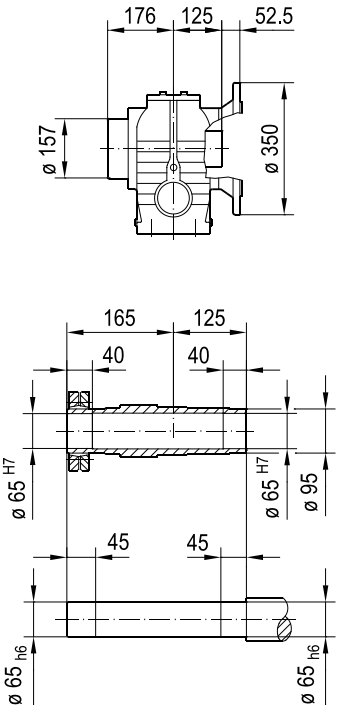
SF87..



SAF87..



SHF87..

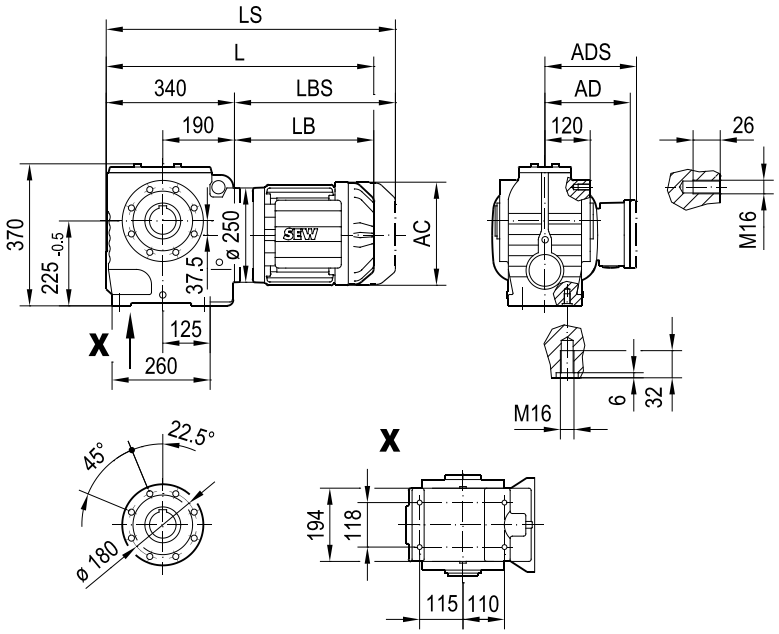


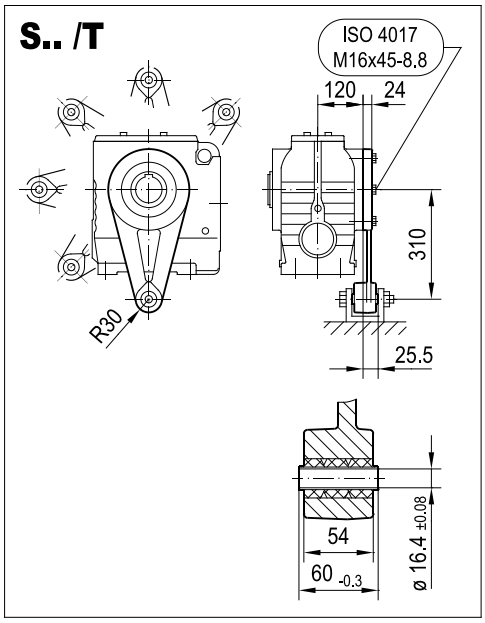
(→ 📖 7.3)	DRN									
	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..
AC	156	179	179	197	197	221	221	261	261	314
AD	128	140	140	157	157	170	170	228	228	253
ADS	139	150	150	158	158	172	172	228	228	253
L	603	605	637	633	683	714	764	782	808	874
LS	684	698	730	727	777	826	876	920	945	1063
LB	263	265	297	293	343	374	424	442	468	534
LBS	344	358	390	387	437	486	536	580	605	723

24832936/EN – 09/2018

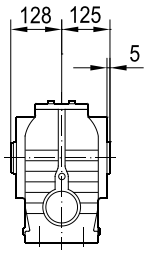
02 034 01 14

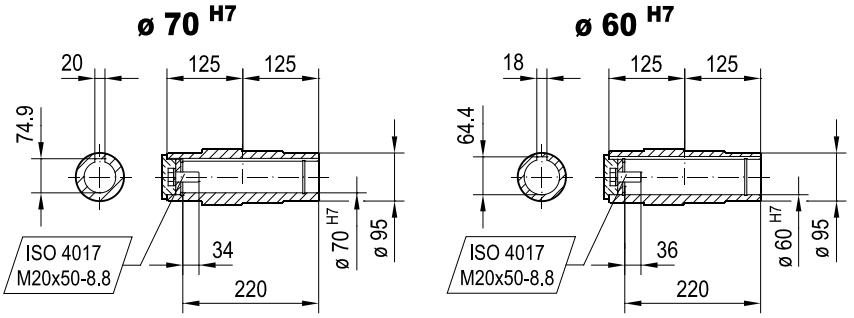
SA87..



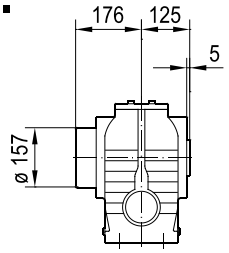


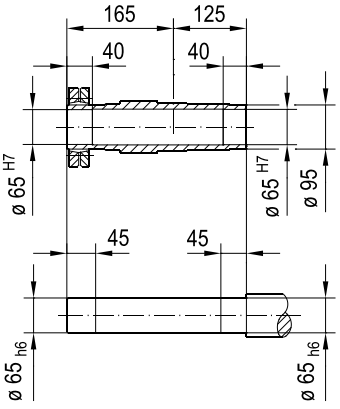
SA87..





SH87..

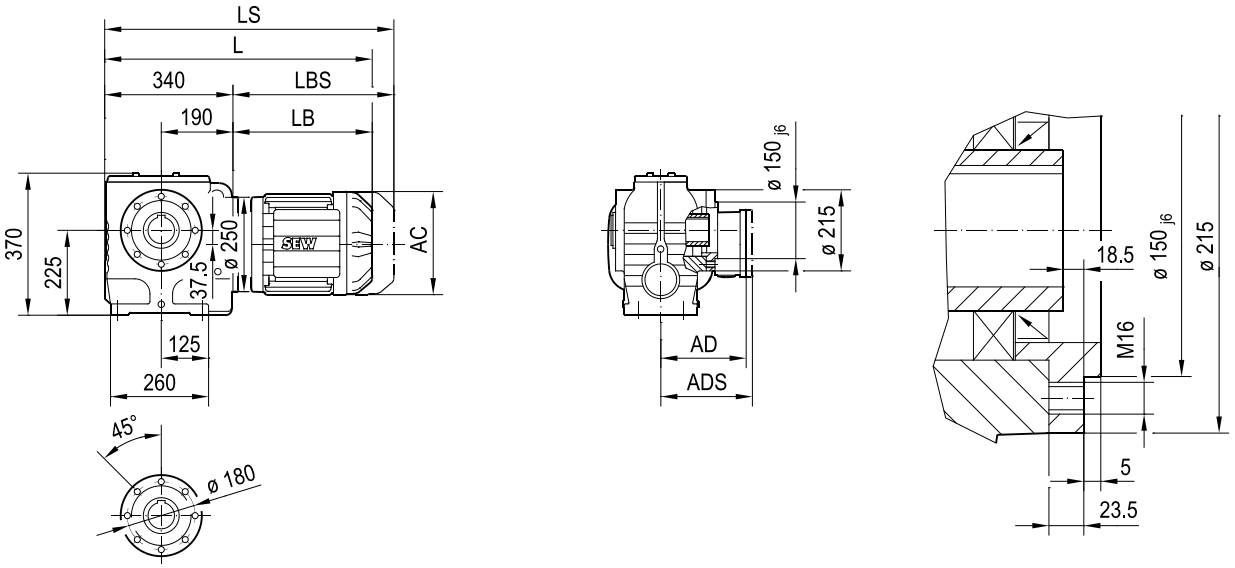




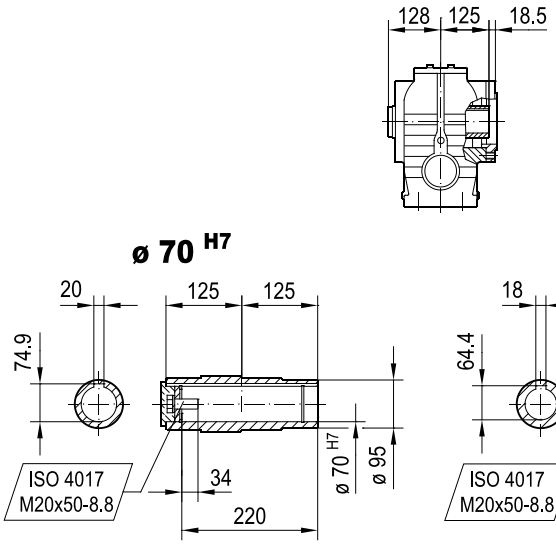
(→ 📖 7.3)	DRN									
	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..
AC	156	179	179	197	197	221	221	261	261	314
AD	128	140	140	157	157	170	170	228	228	253
ADS	139	150	150	158	158	172	172	228	228	253
L	603	605	637	633	683	714	764	782	808	874
LS	684	698	730	727	777	826	876	920	945	1063
LB	263	265	297	293	343	374	424	442	468	534
LBS	344	358	390	387	437	486	536	580	605	723

02 035 00 14

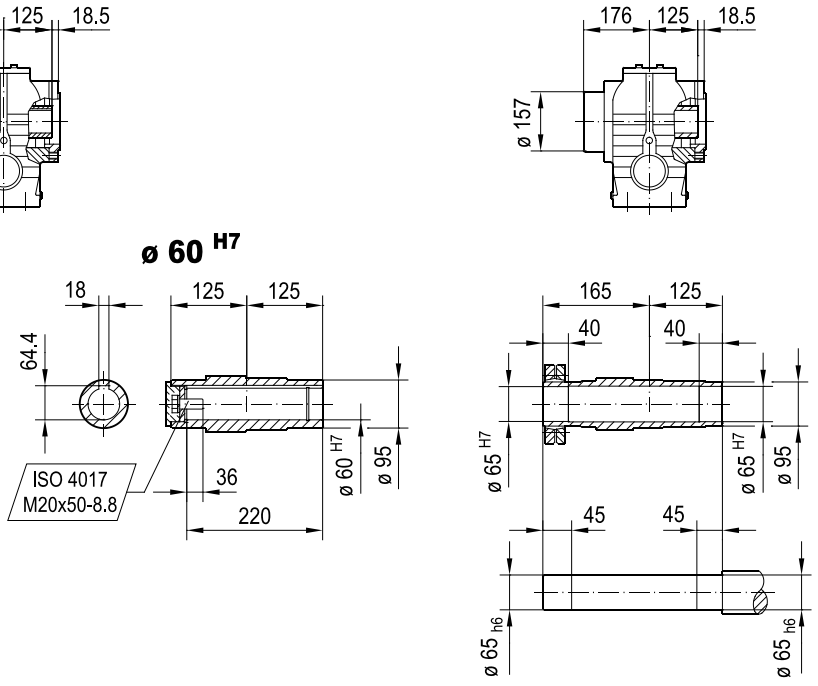
SAZ87..



SAZ87..



SHZ87..

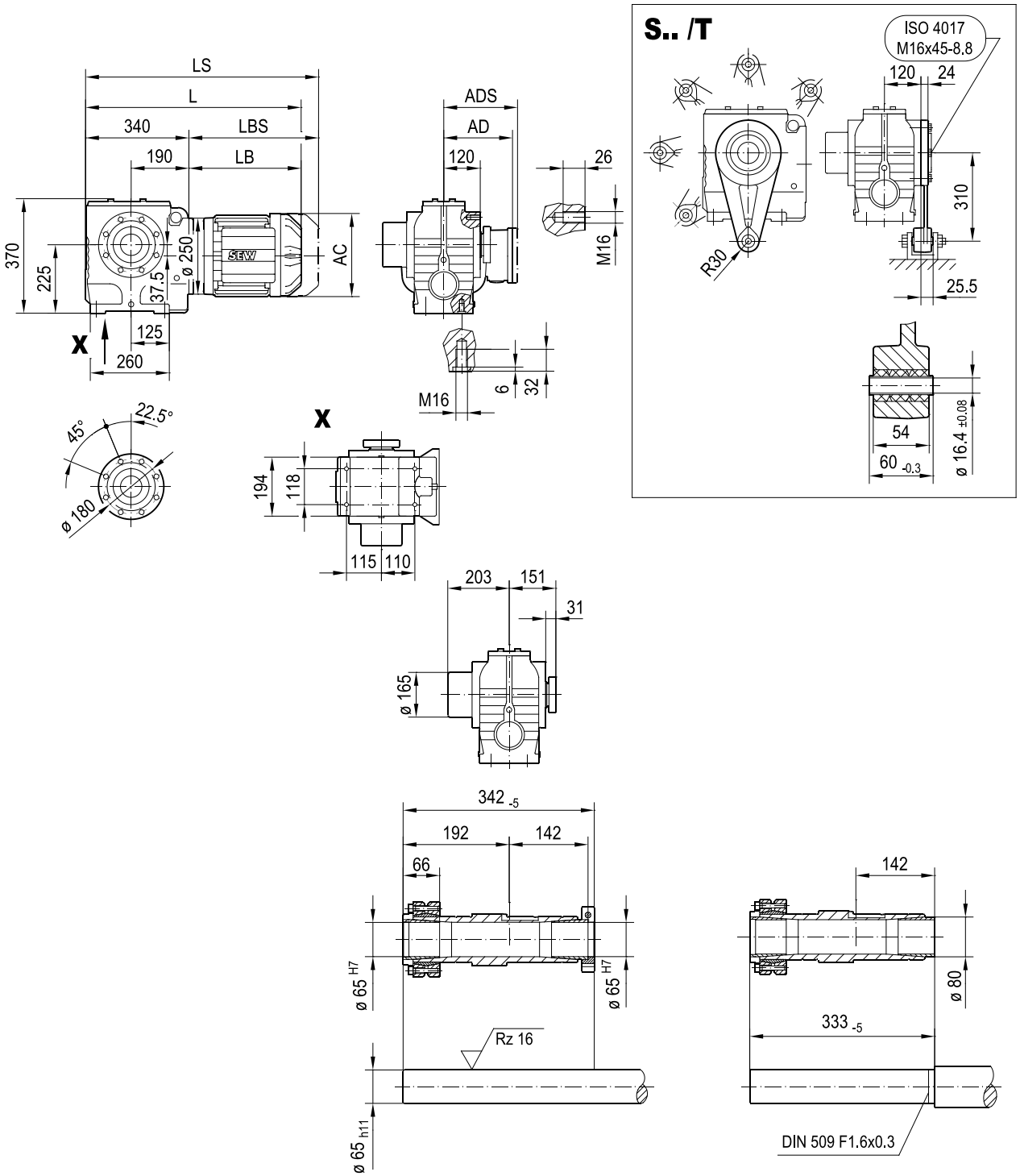


(→ 7.3)	DRN									
	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..
AC	156	179	179	197	197	221	221	261	261	314
AD	128	140	140	157	157	170	170	228	228	253
ADS	139	150	150	158	158	172	172	228	228	253
L	603	605	637	633	683	714	764	782	808	874
LS	684	698	730	727	777	826	876	920	945	1063
LB	263	265	297	293	343	374	424	442	468	534
LBS	344	358	390	387	437	486	536	580	605	723

24832936/EN – 09/2018

02 036 01 14

ST87..

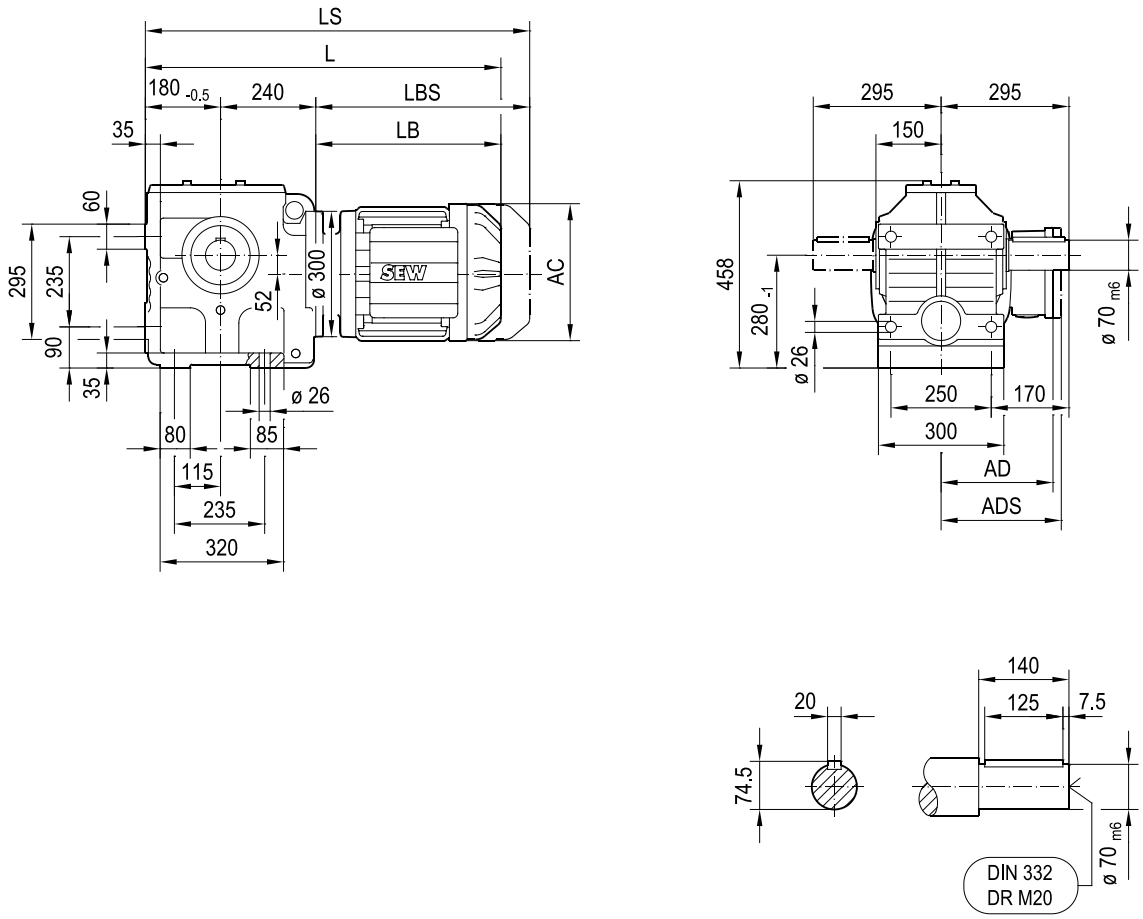


(→ 7.3)	DRN									
	80M	90S	90L	100LS	100L/LM	112M	132S	132M	132L	160..
AC	156	179	179	197	197	221	221	261	261	314
AD	128	140	140	157	157	170	170	228	228	253
ADS	139	150	150	158	158	172	172	228	228	253
L	603	605	637	633	683	714	764	782	808	874
LS	684	698	730	727	777	826	876	920	945	1063
LB	263	265	297	293	343	374	424	442	468	534
LBS	344	358	390	387	437	486	536	580	605	723

24832936/EN – 09/2018

02 037 00 14

S97..

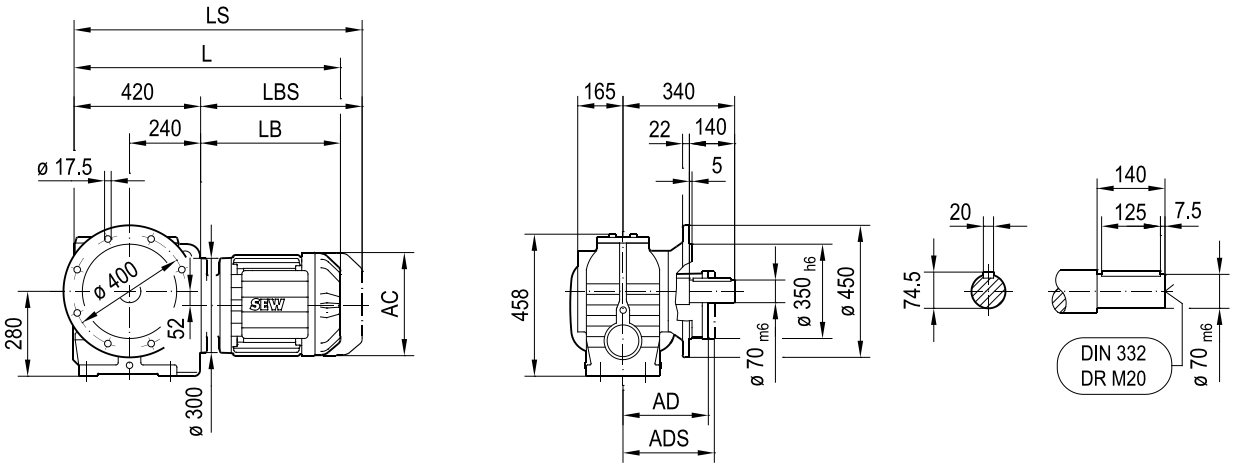


(→ 📖 7.3)	DRN								
	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..
AC	179	197	197	221	221	261	261	314	357
AD	140	157	157	170	170	228	228	253	268
ADS	150	158	158	172	172	228	228	253	268
L	712	708	758	789	839	857	883	949	972
LS	805	802	852	901	951	995	1020	1138	1161
LB	292	288	338	369	419	437	463	529	552
LBS	385	382	432	481	531	575	600	718	741

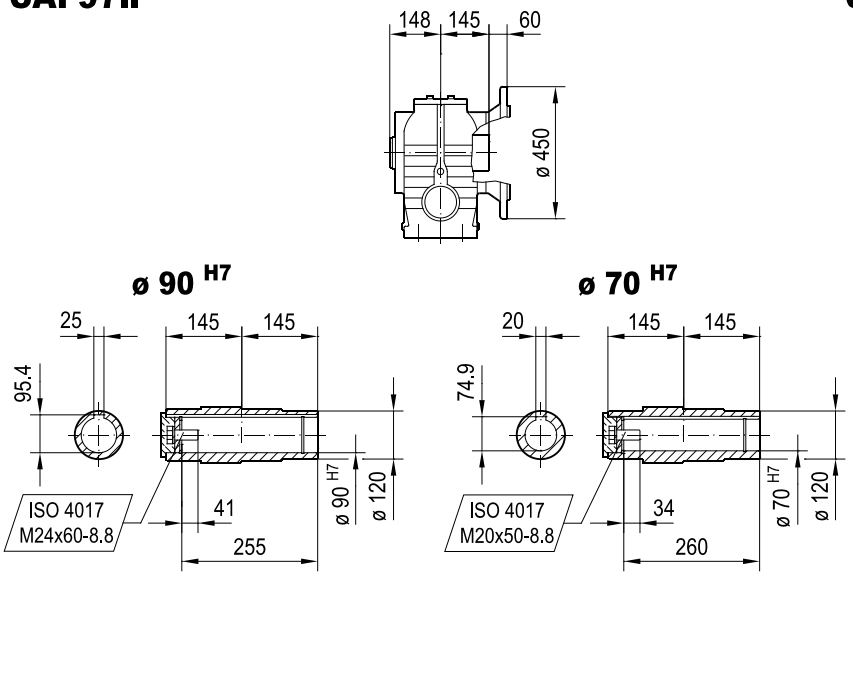
24832936/EN – 09/2018

SF97..

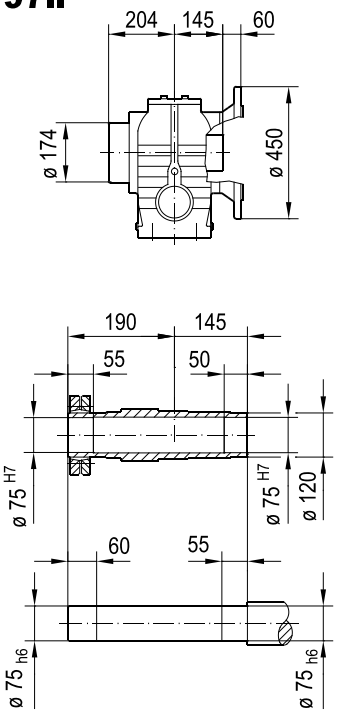
02 038 00 14



SAF97..



SHF97..

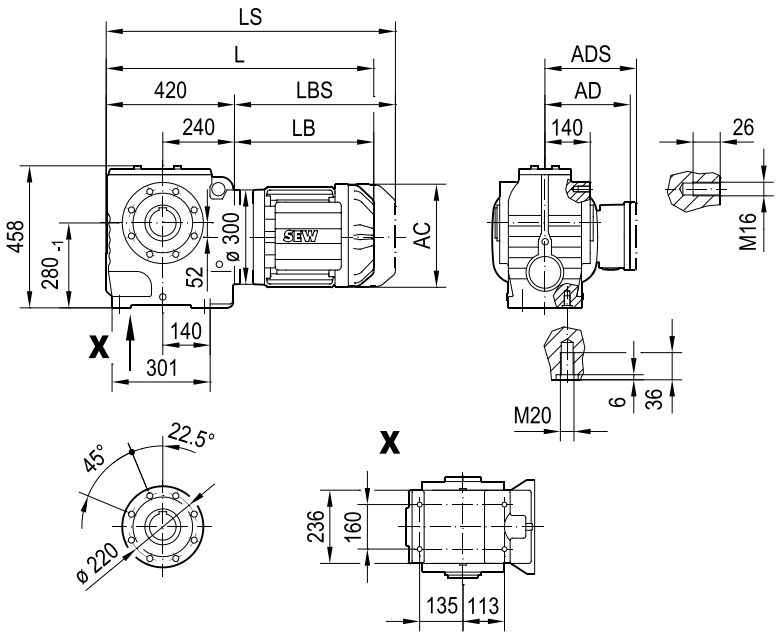


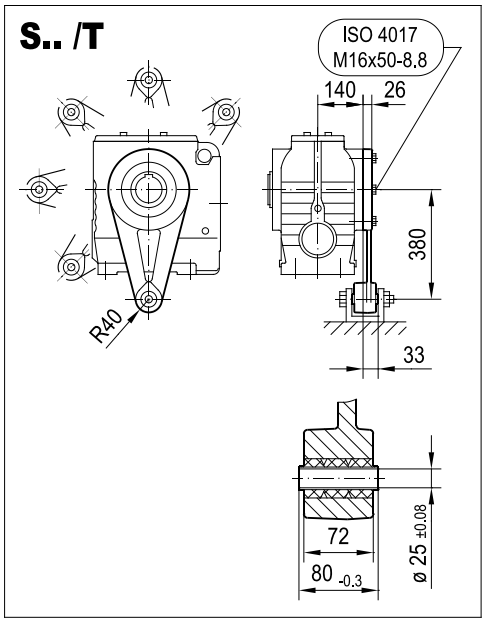
(→ 📖 7.3)	DRN								
	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..
AC	179	197	197	221	221	261	261	314	357
AD	140	157	157	170	170	228	228	253	268
ADS	150	158	158	172	172	228	228	253	268
L	712	708	758	789	839	857	883	949	972
LS	805	802	852	901	951	995	1020	1138	1161
LB	292	288	338	369	419	437	463	529	552
LBS	385	382	432	481	531	575	600	718	741

24832936/EN – 09/2018

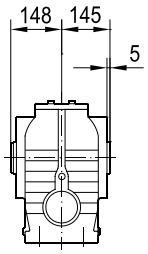
02 039 01 14

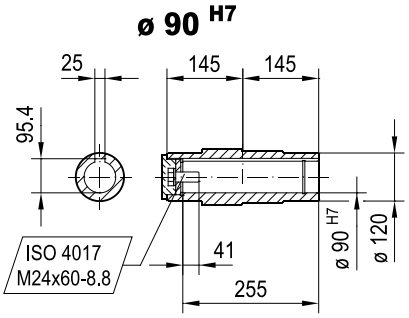
SA97..

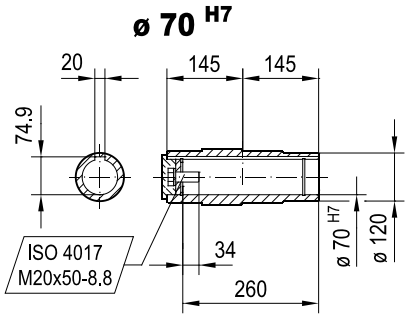




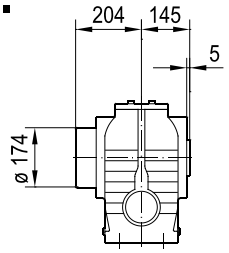
SA97..

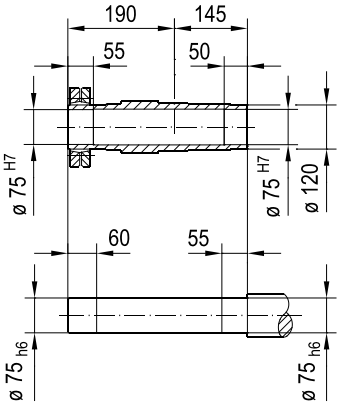






SH97..



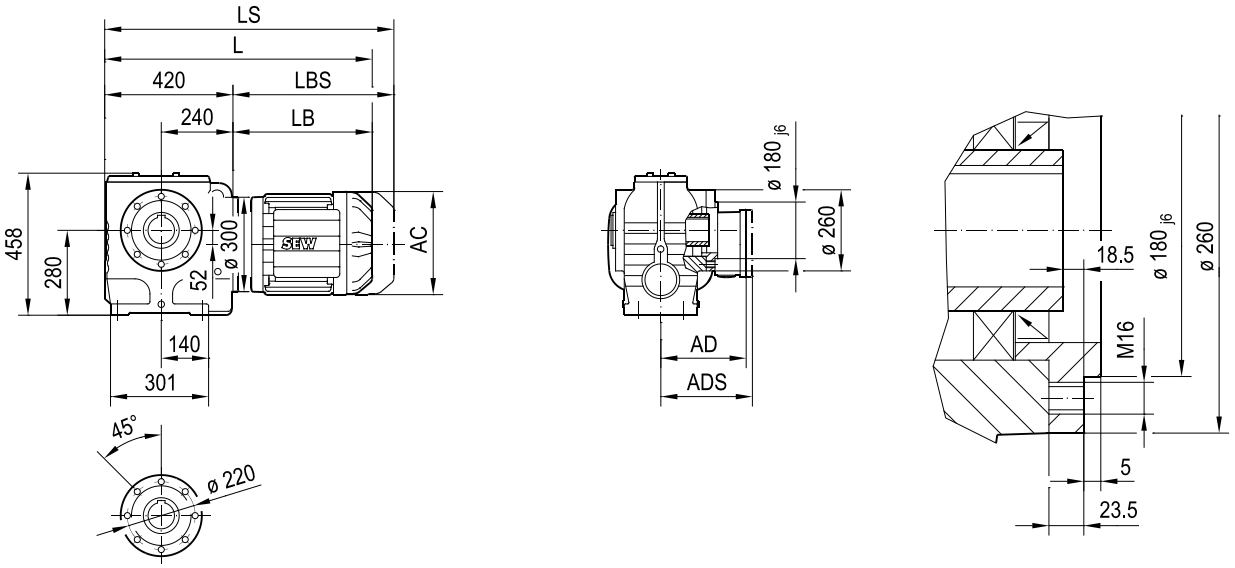


(→ 📖 7.3)	DRN								
	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..
AC	179	197	197	221	221	261	261	314	357
AD	140	157	157	170	170	228	228	253	268
ADS	150	158	158	172	172	228	228	253	268
L	712	708	758	789	839	857	883	949	972
LS	805	802	852	901	951	995	1020	1138	1161
LB	292	288	338	369	419	437	463	529	552
LBS	385	382	432	481	531	575	600	718	741

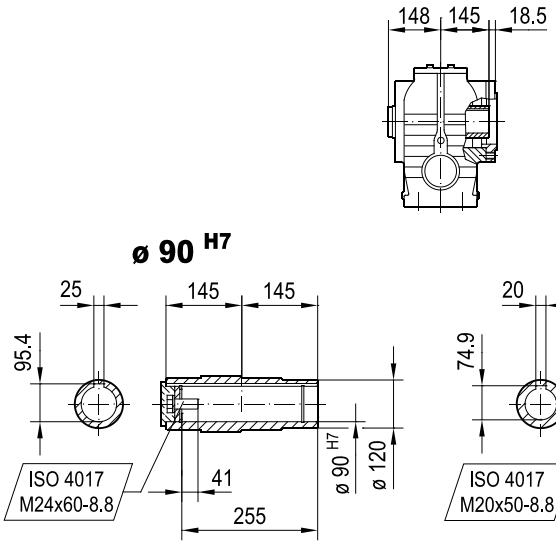
24832936/EN – 09/2018

02 040 00 14

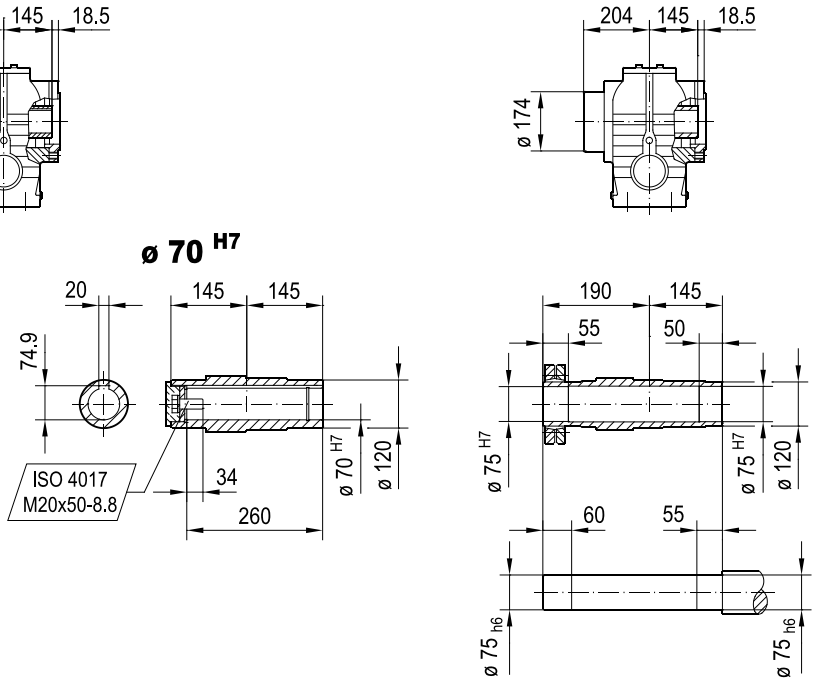
SAZ97..



SAZ97..



SHZ97..

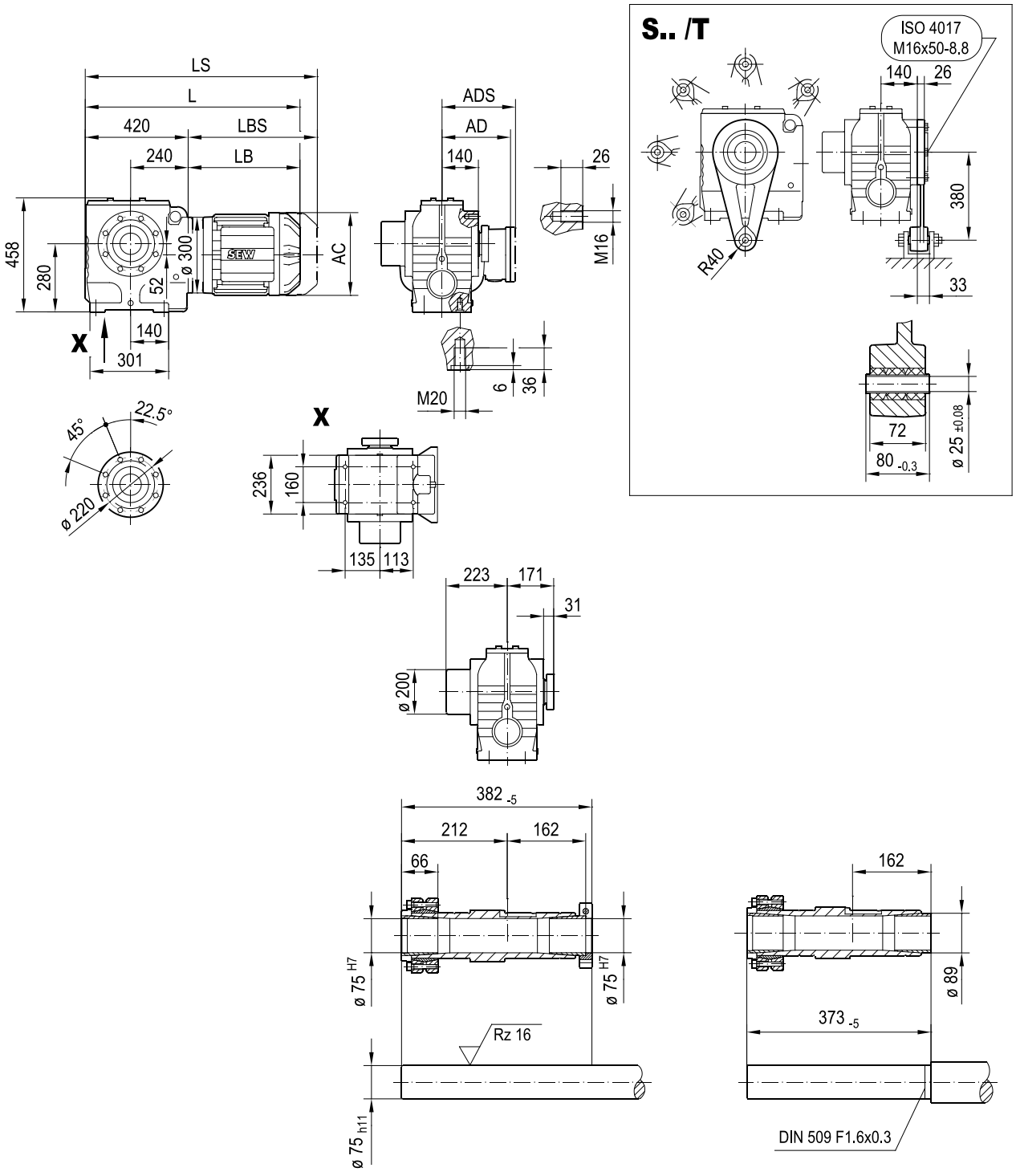


(→ 📖 7.3)	DRN								
	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..
AC	179	197	197	221	221	261	261	314	357
AD	140	157	157	170	170	228	228	253	268
ADS	150	158	158	172	172	228	228	253	268
L	712	708	758	789	839	857	883	949	972
LS	805	802	852	901	951	995	1020	1138	1161
LB	292	288	338	369	419	437	463	529	552
LBS	385	382	432	481	531	575	600	718	741

24832936/EN – 09/2018

02 041 01 14

ST97..

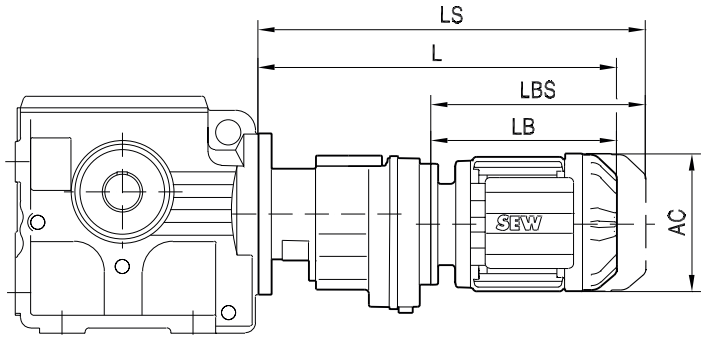


(→ 📖 7.3)	DRN								
	90L	100LS	100L/LM	112M	132S	132M	132L	160..	180..
AC	179	197	197	221	221	261	261	314	357
AD	140	157	157	170	170	228	228	253	268
ADS	150	158	158	172	172	228	228	253	268
L	712	708	758	789	839	857	883	949	972
LS	805	802	852	901	951	995	1020	1138	1161
LB	292	288	338	369	419	437	463	529	552
LBS	385	382	432	481	531	575	600	718	741

24832936/EN – 09/2018

11.6 S..R..DRN.. dimension sheets in mm

02 080 00 06

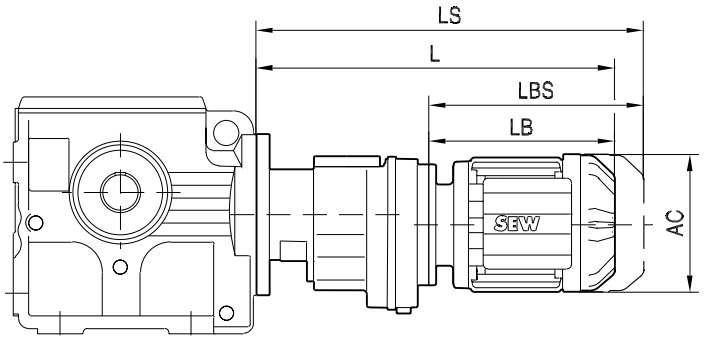


9007211764273291

(→ 🗎 181)		AC	L	LS	LB	LBS
S..37R17	**DRN63MS**	115	365	421	190	246
	DRN63M	115	379	435	204	260
	DRN71MS	139	381	448	206	273
	DRN80M	156	452	533	277	358
S..47R17	**DRN63MS**	115	365	421	190	246
	DRN63M	115	379	435	204	260
	DRN71MS	139	381	448	206	273
	DRN71M	139	401	468	226	293
	DRN80M	156	452	533	277	358
S..57R17	**DRN63MS**	115	365	421	190	246
	DRN63M	115	379	435	204	260
	DRN71MS	139	381	448	206	273
	DRN71M	139	401	468	226	293
	DRN80M	156	452	533	277	358
S..67R37	**DRN63MS**	115	355	411	190	246
	DRN63M	115	369	425	204	260
	DRN71MS	139	371	438	206	273
	DRN71M	139	391	458	226	293
	DRN80MK	156	402	483	237	318
	DRN80M	156	447	528	282	363
	DRN90S	179	448	542	283	377
S..77R37	**DRN63MS**	115	347	403	190	246
	DRN63M	115	361	417	204	260
	DRN71MS	139	363	430	206	273
	DRN71M	139	383	450	226	293
	DRN80MK	156	394	475	237	318
	DRN80M	156	439	520	282	363
	DRN90S	179	440	534	283	377
	DRN90L	179	472	566	315	409
S..87R57	**DRN63MS**	115	411	467	184	240
	DRN63M	115	425	481	198	254
	DRN71MS	139	427	494	199	267
	DRN71M	139	447	514	219	287
	DRN80MK	156	458	539	230	311
	DRN80M	156	503	584	275	356
	DRN90S	179	504	598	277	370
	DRN90L	179	536	630	309	402
	DRN100LS	197	533	626	305	399
	DRN100L/LM	197	583	676	355	449

24832936/EN – 09/2018

02 080 00 06



9007211764273291

(→ 181)		AC	L	LS	LB	LBS
S..97R57	**DRN63MS**	115	406	462	184	240
	DRN63M	115	420	476	198	254
	DRN71MS	139	422	489	199	267
	DRN71M	139	442	509	219	287
	DRN80MK	156	453	534	230	311
	DRN80M	156	498	579	275	356
	DRN90S	179	499	593	277	370
	DRN90L	179	531	625	309	402
	DRN100LS	197	528	621	305	399
	DRN100L/LM	197	578	671	355	449

24832936/EN – 09/2018

11.7 Technical data of S., SF., SA., SAF 37

3400 - 2800 min^{-1}

i_{tot}	i_s	n_e = 3400 min^{-1}				n_e = 3200 min^{-1}				n_e = 2800 min^{-1}			
		n_a min^{-1}	M_{a_max} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{a_max} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{a_max} Nm	P_{Mot} 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_{Mot_max} = 1.1 kW

24832936/EN – 09/2018

2200 - 1400 min^{-1}

i_{tot}	i_s	n_e = 2200 min^{-1}				n_e = 1700 min^{-1}				n_e = 1400 min^{-1}			
		n_a min^{-1}	M_{a_max} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{a_max} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{a_max} Nm	P_{Mot} 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_{Mot_max} = 1.1 kW

24832936/EN – 09/2018

1100 - 700 min^{-1}

i_{tot}	i_s	n_e = 1100 min^{-1}				n_e = 900 min^{-1}				n_e = 700 min^{-1}			
		n_a min^{-1}	M_{a_max} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{a_max} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{a_max} Nm	P_{Mot} 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_{Mot_max} = 1.1 kW

24832936/EN – 09/2018

500 - 10 min^{-1}

i_{tot}	i_s	n_e = 500 min^{-1}				n_e = 250 min^{-1}				n_e = 10 min^{-1}			
		n_a min^{-1}	M_{a_max} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{a_max} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{a_max} Nm	P_{Mot} 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

24832936/EN – 09/2018

11.8 Technical data of S., SF., SA., SAF 47

3400 - 2800 min^{-1}

i_{tot}	i_s	n_e = 3400 min^{-1}				n_e = 3200 min^{-1}				n_e = 2800 min^{-1}			
		n_a min^{-1}	M_{a_max} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{a_max} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{a_max} Nm	P_{Mot} 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_{Mot_max} = 1.5 kW

24832936/EN – 09/2018

2200 - 1400 min^{-1}

i_{tot}	i_s	n_e = 2200 min^{-1}				n_e = 1700 min^{-1}				n_e = 1400 min^{-1}			
		n_a min^{-1}	M_{a_max} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{a_max} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{a_max} Nm	P_{Mot} 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_{Mot_max} = 1.5 kW

24832936/EN – 09/2018

1100 - 700 min^{-1}

i_{tot}	i_s	n_e = 1100 min^{-1}				n_e = 900 min^{-1}				n_e = 700 min^{-1}			
		n_a min^{-1}	M_{a_max} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{a_max} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{a_max} Nm	P_{Mot} 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_{Mot_max} = 1.5 kW

24832936/EN – 09/2018

500 - 10 min^{-1}

i_{tot}	i_s	n_e = 500 min^{-1}				n_e = 250 min^{-1}				n_e = 10 min^{-1}			
		n_a min^{-1}	M_{a_max} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{a_max} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{a_max} Nm	P_{Mot} 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

24832936/EN – 09/2018

11.9 Technical data of S., SF., SA., SAF 57

3400 - 2800 min^{-1}

i_{tot}	i_s	n_e = 3400 min^{-1}				n_e = 3200 min^{-1}				n_e = 2800 min^{-1}			
		n_a min^{-1}	M_{a_max} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{a_max} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{a_max} Nm	P_{Mot} 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_{Mot_max} = 3.0 kW

24832936/EN – 09/2018

2200 - 1400 min^{-1}

i_{tot}	i_s	n_e = 2200 min^{-1}				n_e = 1700 min^{-1}				n_e = 1400 min^{-1}			
		n_a min^{-1}	M_{a_max} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{a_max} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{a_max} Nm	P_{Mot} 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_{Mot_max} = 3.0 kW

24832936/EN – 09/2018

1100 - 700 1/min^{-1}

i_{tot}	i_s	n_e = 1100 min^{-1}				n_e = 900 min^{-1}				n_e = 700 min^{-1}			
		n_a min^{-1}	M_{a_max} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{a_max} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{a_max} Nm	P_{Mot} 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_{Mot_max} = 3.0 kW

24832936/EN – 09/2018

500 - 10 min^{-1}

i_{tot}	i_s	n_e = 500 min^{-1}				n_e = 250 min^{-1}				n_e = 10 min^{-1}			
		n_a min^{-1}	M_{a_max} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{a_max} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{a_max} Nm	P_{Mot} 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

24832936/EN – 09/2018

11.10 Technical data of S., SF., SA., SAF 67

3400 - 2800 min^{-1}

i_{tot}	i_s	n_e = 3400 min^{-1}				n_e = 3200 min^{-1}				n_e = 2800 min^{-1}			
		n_a min^{-1}	M_{a_max} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{a_max} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{a_max} Nm	P_{Mot} 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_{Mot_max} = 5.5 kW

24832936/EN – 09/2018

2200 - 1400 min^{-1}

i_{tot}	i_s	n_e = 2200 min^{-1}				n_e = 1700 min^{-1}				n_e = 1400 min^{-1}			
		n_a min^{-1}	M_{a_max} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{a_max} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{a_max} Nm	P_{Mot} 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_{Mot_max} = 5.5 kW

24832936/EN – 09/2018

1100 - 700 min^{-1}

i_{tot}	i_s	n_e = 1100 min^{-1}				n_e = 900 min^{-1}				n_e = 700 min^{-1}			
		n_a min^{-1}	M_{a_max} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{a_max} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{a_max} Nm	P_{Mot} 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_{Mot_max} = 5.5 kW

24832936/EN – 09/2018

500 - 10 min^{-1}

i_{tot}	i_s	n_e = 500 min^{-1}				n_e = 250 min^{-1}				n_e = 10 min^{-1}			
		n_a min^{-1}	M_{a_max} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{a_max} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{a_max} Nm	P_{Mot} 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

24832936/EN – 09/2018

11.11 Technical data of S., SF., SA., SAF 77

3400 - 2800 min^{-1}

i_{tot}	i_s	n_e = 3400 min^{-1}				n_e = 3200 min^{-1}				n_e = 2800 min^{-1}			
		n_a min^{-1}	M_{a_max} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{a_max} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{a_max} Nm	P_{Mot} 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_{Mot_max} = 9.2 kW

24832936/EN – 09/2018

2200 - 1400 min^{-1}

i_{tot}	i_s	n_e = 2200 min^{-1}				n_e = 1700 min^{-1}				n_e = 1400 min^{-1}			
		n_a min^{-1}	M_{a_max} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{a_max} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{a_max} Nm	P_{Mot} 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_{Mot_max} = 9.2 kW

24832936/EN – 09/2018

1100 - 700 min^{-1}

i_{tot}	i_s	n_e = 1100 min^{-1}				n_e = 900 min^{-1}				n_e = 700 min^{-1}			
		n_a min^{-1}	M_{a_max} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{a_max} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{a_max} Nm	P_{Mot} 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_{Mot_max} = 9.2 kW

24832936/EN – 09/2018

500 - 10 min^{-1}

i_{tot}	i_s	n_e = 500 min^{-1}				n_e = 250 min^{-1}				n_e = 10 min^{-1}			
		n_a min^{-1}	M_{a_max} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{a_max} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{a_max} Nm	P_{Mot} 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

24832936/EN – 09/2018

11.12 Technical data of S., SF., SA., SAF 87

3400 - 2800 min^{-1}

i_{tot}	i_s	n_e = 3400 min^{-1}				n_e = 3200 min^{-1}				n_e = 2800 min^{-1}			
		n_a min^{-1}	M_{a_max} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{a_max} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{a_max} Nm	P_{Mot} 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	11.1	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_{Mot_max} =15 kW

24832936/EN – 09/2018

2200 - 1400 min^{-1}

i_{tot}	i_s	n_e = 2200 min^{-1}				n_e = 1700 min^{-1}				n_e = 1400 min^{-1}			
		n_a min^{-1}	M_{a_max} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{a_max} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{a_max} Nm	P_{Mot} 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_{Mot_max} = 15 kW

24832936/EN – 09/2018

1100 - 700 min^{-1}

i_{tot}	i_s	n_e = 1100 min^{-1}				n_e = 900 min^{-1}				n_e = 700 min^{-1}			
		n_a min^{-1}	M_{a_max} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{a_max} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{a_max} Nm	P_{Mot} 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_{Mot_max} = 15 kW

24832936/EN – 09/2018

500 - 10 min^{-1}

i_{tot}	i_s	n_e = 500 min^{-1}				n_e = 250 min^{-1}				n_e = 10 min^{-1}			
		n_a min^{-1}	M_{a_max} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{a_max} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{a_max} Nm	P_{Mot} 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

24832936/EN – 09/2018

11.13 Technical data of S., SF., SA., SAF 97

3400 - 2800 min^{-1}

i_{tot}	i_s	n_e = 3400 min^{-1}				n_e = 3200 min^{-1}				n_e = 2800 min^{-1}			
		n_a min^{-1}	M_{a_max} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{a_max} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{a_max} Nm	P_{Mot} 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_{Mot_max} = 22 kW

24832936/EN – 09/2018

2200 - 1400 min^{-1}

i_{tot}	i_s	n_e = 2200 min^{-1}				n_e = 1700 min^{-1}				n_e = 1400 min^{-1}			
		n_a min^{-1}	M_{a_max} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{a_max} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{a_max} Nm	P_{Mot} 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_{Mot_max} = 22 kW

24832936/EN – 09/2018

1100 - 700 min^{-1}

i_{tot}	i_s	n_e = 1100 min^{-1}				n_e = 900 min^{-1}				n_e = 700 min^{-1}			
		n_a min^{-1}	M_{a_max} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{a_max} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{a_max} Nm	P_{Mot} 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_{Mot_max} = 22 kW

24832936/EN – 09/2018

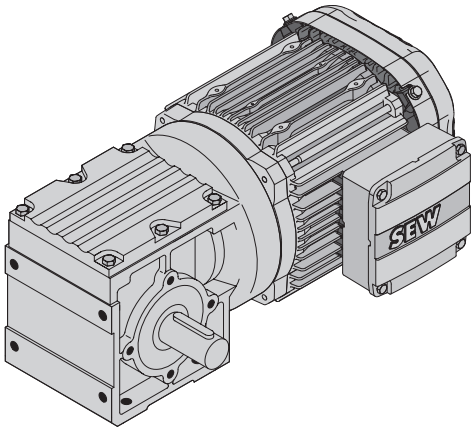
500 - 10 min^{-1}

i_{tot}	i_s	n_e = 500 min^{-1}				n_e = 250 min^{-1}				n_e = 10 min^{-1}			
		n_a min^{-1}	M_{a_max} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{a_max} Nm	P_{Mot} kW	η %	n_a min^{-1}	M_{a_max} Nm	P_{Mot} 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

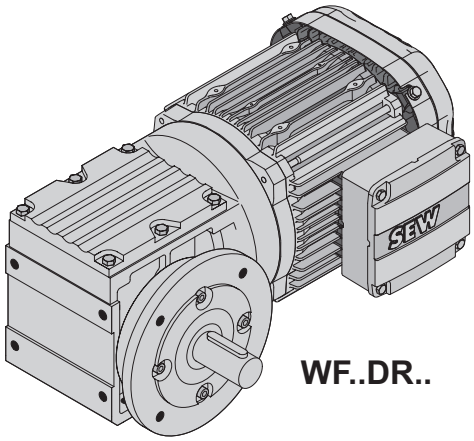
24832936/EN – 09/2018

12 SPIROPLAN® gearmotors

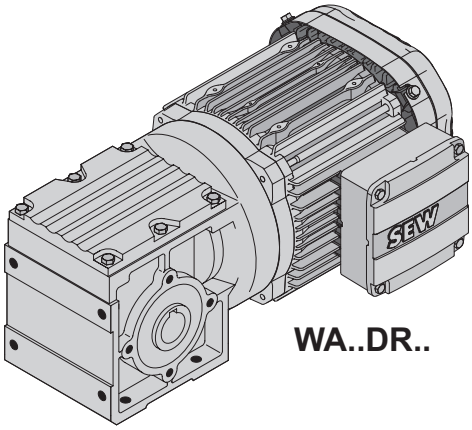
12.1 W..DRN.. designs



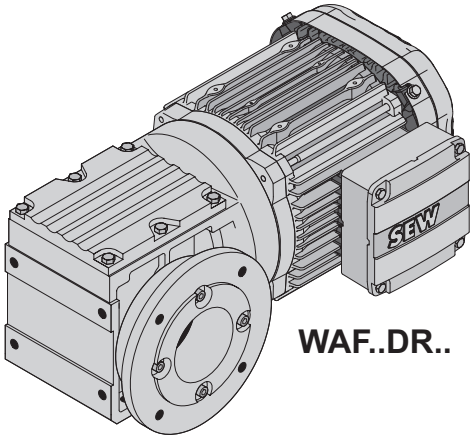
W..DR..



WF..DR..



WA..DR..



WAF..DR..

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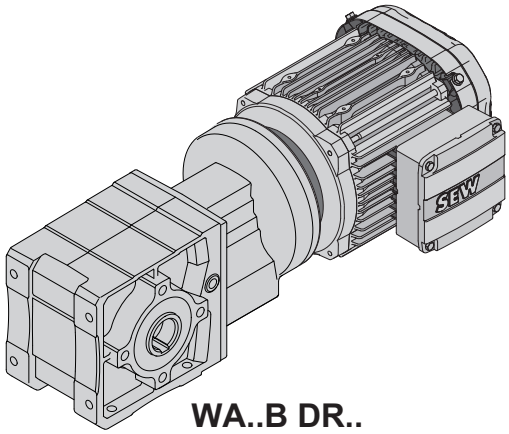
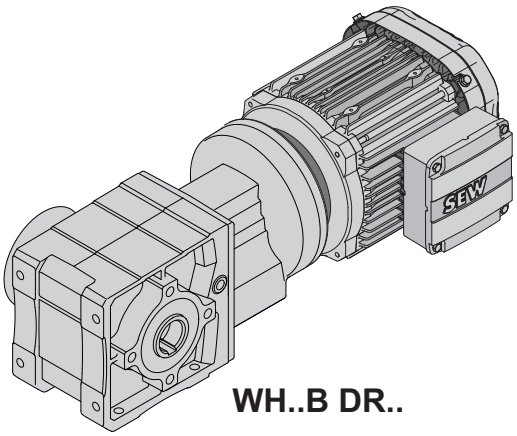
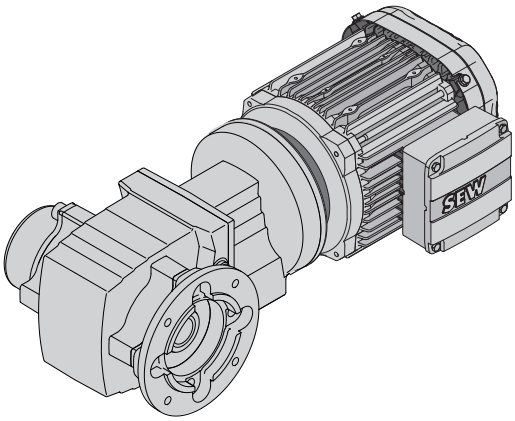
24832936/EN – 09/2018



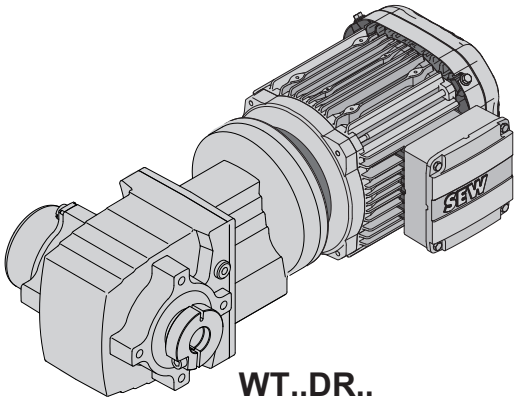
WA..B DR..



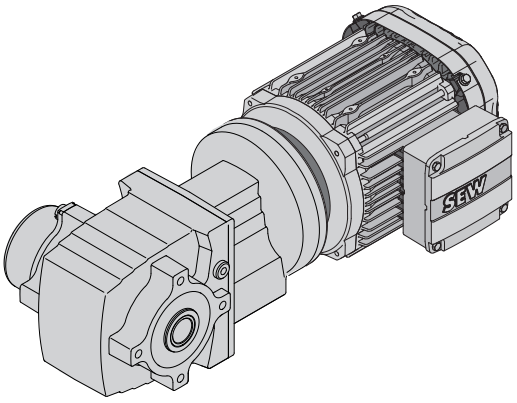
WH..B DR..



WHF..DR..



WT..DR..



WH..DR..

8665100939

24832936/EN – 09/2018

12.2 Possible geometrical combinations of W..DRN..

W10, n_e=1400 min^{-1}						25 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M
					1	
19	25	1800	-	75.00*		
23	25	1800	-	60.00*		
29	25	1800	-	48.00*		
36	25	1800	-	39.00*		
43	25	1800	-	32.50*		
51	24	1800	-	27.50*		
57	25	1800	-	24.50*		
72	25	1800	-	19.50*		
85	20	1800	-	16.50*		
98	22	1800	-	14.33		
137	13	1800	-	10.25*		
171	12	1800	-	8.20*		
213	12	1740	-	6.57		

W20, n_e=1400 min^{-1}						40 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M	DRN 80MK
					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 min^{-1}						70 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M	DRN 80M 80MK
					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*		

24832936/EN – 09/2018

W30, n_e=1400 min^{-1} — 70 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M	DRN 80M 80MK
51	70	3000	-	27.50*		
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 min^{-1} — 110 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L
					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 min^{-1} — 110 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M 80MK
					2 3	

24832936/EN – 09/2018

W37R17, n_e=1400 min^{-1}						110 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR2S	DRN
					56M	63MS 63M 71MS 71M 80MK
0.32	110	3320	-	4402		
0.37	110	3320	-	3795		
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		

24832936/EN – 09/2018

W47, n_e=1400 min^{-1} — 180 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DRN 63MS 63M 71MS 71M 80MK	DRN 80M 90S	DRN 90L	DRN 100LS 100L	DRN 112M
					2				
19	180	6400	-	74.98					
20	180	6400	-	68.93					
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 min^{-1} — 180 Nm

n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M 80MK	DRN 80M
					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			

24832936/EN – 09/2018

W47R17, n_e=1400 min^{-1}							180 Nm
n_a min^{-1}	M_{amax} Nm	F_{Ra} N	$\varphi_{(/R)}$ '	i	DR2S 56M	DRN 63MS 63M 71MS 71M 80MK	DRN 80M
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			
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			

24832936/EN – 09/2018

12.3 W..DRN.. selection tables in kW

P_m = 0.09 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
18	19	75.00*	1800	1.30						
23	17	60.00*	1800	1.50						
29	15	48.00*	1800	1.65						
35	14	39.00*	1800	1.80						
42	13	32.50*	1800	2.0						
50	11	27.50*	1800	2.2	**W**	**10**	**DR2S**	**56MR4**	5.3	846
56	10	24.50*	1800	2.4	**WF**	**10**	**DR2S**	**56MR4**	5.5	847
71	8.9	19.50*	1800	2.8	**WA**	**10**	**DR2S**	**56MR4**	5.3	849
84	8.0	16.50*	1800	2.5	**WAF**	**10**	**DR2S**	**56MR4**	5.5	848
96	7.1	14.33	1800	3.1						
135	5.5	10.25*	1800	2.4						
168	4.5	8.20*	1800	2.7						
210	3.7	6.57	1800	3.2						

P_m = 0.12 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
3.9	135	359	-	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						
8.6	68	160	3850	1.60	**W**	**37R17**	**DRN**	**63MS4**	13	867
9.8	60	141	3910	1.80	**WF**	**37R17**	**DRN**	**63MS4**	13	867
11	54	125	3960	2.0	**WA**	**37R17**	**DRN**	**63MS4**	13	867
13	48	109	4000	2.3	**WAF**	**37R17**	**DRN**	**63MS4**	13	867
14	43	96	4030	2.5						
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	2.9						
22	36	63.33	4060	3.1						
26	31	53.92	4080	3.5	**W**	**37**	**DRN**	**63MS4**	10	858
30	27	46.49	4100	4.0	**WF**	**37**	**DRN**	**63MS4**	10	859
36	23	37.88	4110	4.8	**WA**	**37**	**DRN**	**63MS4**	10	861
40	24	34.52	4110	3.8	**WAF**	**37**	**DRN**	**63MS4**	10	859
44	22	31.67	4110	4.1						
12	42	75.00*	3000	1.70	**W**	**30**	**DRN**	**63M6**	10.0	854
14	39	60.00*	3000	1.80	**WF**	**30**	**DRN**	**63M6**	10	855
27	26	32.50*	3000	2.7	**WA**	**30**	**DRN**	**63M6**	9.7	857
32	24	27.50*	3000	2.9	**WAF**	**30**	**DRN**	**63M6**	10.0	856
18	28	75.00*	3000	2.5						
23	26	60.00*	3000	2.7	**W**	**30**	**DRN**	**63MS4**	9.1	854
29	23	48.00*	3000	3.1	**WF**	**30**	**DRN**	**63MS4**	9.5	855
35	20	39.00*	3000	3.4	**WA**	**30**	**DRN**	**63MS4**	8.8	857
42	17	32.50*	3000	4.1	**WAF**	**30**	**DRN**	**63MS4**	9.2	856
12	37	75.00*	2200	1.10	**W**	**20**	**DRN**	**63M6**	7.5	850
14	33	60.00*	2200	1.25	**WF**	**20**	**DRN**	**63M6**	7.7	851
27	28	32.50*	2200	1.45	**WA**	**20**	**DRN**	**63M6**	7.2	853
32	23	27.50*	2200	1.75	**WAF**	**20**	**DRN**	**63M6**	7.2	852

24832936/EN – 09/2018

P_m = 0.12 kW

n_a min^{-1}	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**	**DRN**	**63MS4**	6.7	850
56	14	24.50*	2200	2.9	**WF**	**20**	**DRN**	**63MS4**	6.8	851
71	12	19.50*	2200	3.0	**WA**	**20**	**DRN**	**63MS4**	6.4	853
84	10	16.50*	2200	2.9	**WAF**	**20**	**DRN**	**63MS4**	6.4	852
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						
18	25	75.00*	1800	1.00						
23	22	60.00*	1800	1.15						
29	20	48.00*	1800	1.25						
35	19	39.00*	1800	1.35						
42	17	32.50*	1800	1.50						
50	15	27.50*	1800	1.60	**W**	**10**	**DRN**	**63MS4**	6.0	846
56	14	24.50*	1800	1.80	**WF**	**10**	**DRN**	**63MS4**	6.2	847
71	12	19.50*	1800	2.1	**WA**	**10**	**DRN**	**63MS4**	6.0	849
84	11	16.50*	1800	1.90	**WAF**	**10**	**DRN**	**63MS4**	6.2	848
96	9.5	14.33	1800	2.3						
135	7.3	10.25*	1800	1.80						
168	6.0	8.20*	1800	2.0						
210	5.0	6.57	1800	2.4						

P_m = 0.18 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
4.3	215	318	6140	0.85						
5.1	185	270	6360	1.00						
5.8	171	237	6460	1.05						
6.5	150	210	6590	1.20						
7.5	130	183	6710	1.40						
8.6	117	159	6790	1.55	**W**	**47R17**	**DRN**	**63M4**	20	867
9.7	104	141	6860	1.75	**WF**	**47R17**	**DRN**	**63M4**	20	867
11	109	124	6920	1.45	**WA**	**47R17**	**DRN**	**63M4**	18	867
11	89	120	6950	2.0	**WAF**	**47R17**	**DRN**	**63M4**	19	867
13	92	105	7000	1.75						
15	86	95	7030	1.85						
16	76	85	7080	2.1						
18	71	77	7100	2.3						
19	64	72	7130	2.5						
6.7	128	207	1770	0.85						
7.5	116	184	3030	0.95						
8.6	106	160	3380	1.05						
9.7	95	141	3550	1.15						
11	85	125	3670	1.30	**W**	**37R17**	**DRN**	**63M4**	14	867
13	76	109	3770	1.45	**WF**	**37R17**	**DRN**	**63M4**	14	867
14	68	96	3850	1.60	**WA**	**37R17**	**DRN**	**63M4**	14	867
17	59	82	3930	1.90	**WAF**	**37R17**	**DRN**	**63M4**	14	867
19	61	73	3910	1.45						
22	54	63	3960	1.65						
26	46	53	4010	1.95						
29	43	48	4030	2.1						
18	67	74.98	7070	2.7						
20	62	68.93	7090	2.9						
23	54	58.98	7140	3.3	**W**	**47**	**DRN**	**63M4**	17	863
27	48	51.12	7170	3.8	**WF**	**47**	**DRN**	**63M4**	17	864
29	45	47.78	7180	4.0	**WA**	**47**	**DRN**	**63M4**	15	865
33	39	41.30	7210	4.6	**WAF**	**47**	**DRN**	**63M4**	16	864
43	34	31.62	6930	4.8						

24832936/EN – 09/2018

P_m = 0.18 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
20	58	69.05	3930	1.90						
22	54	63.33	3960	2.0						
26	47	53.92	4010	2.4						
30	41	46.49	4040	2.7						
36	34	37.88	4070	3.2	**W**	**37**	**DRN**	**63M4**	11	858
40	36	34.52	4070	2.5	**WF**	**37**	**DRN**	**63M4**	11	859
43	33	31.67	4080	2.8	**WA**	**37**	**DRN**	**63M4**	11	861
50	26	27.78	4100	4.2	**WAF**	**37**	**DRN**	**63M4**	11	859
51	28	26.96	4090	3.2						
59	25	23.25	4110	3.7						
64	20	21.33	4120	5.4						
73	20	18.94	4120	4.4						
12	60	75.00*	3000	1.15	**W**	**30**	**DRN**	**71MS6**	11	854
15	55	60.00*	3000	1.25	**WF**	**30**	**DRN**	**71MS6**	11	855
28	37	32.50*	3000	1.90	**WA**	**30**	**DRN**	**71MS6**	10	857
33	35	27.50*	3000	2.0	**WAF**	**30**	**DRN**	**71MS6**	11	856
18	42	75.00*	3000	1.65						
23	39	60.00*	3000	1.80						
29	34	48.00*	3000	2.1						
35	31	39.00*	3000	2.3						
42	26	32.50*	3000	2.7						
50	24	27.50*	3000	2.9	**W**	**30**	**DRN**	**63M4**	10.0	854
56	22	24.50*	3000	3.1	**WF**	**30**	**DRN**	**63M4**	10	855
71	19	19.50*	3000	3.7	**WA**	**30**	**DRN**	**63M4**	9.7	857
84	16	16.33	3000	3.7	**WAF**	**30**	**DRN**	**63M4**	10.0	856
96	15	14.33	3000	4.0						
134	11	10.25*	3000	4.5						
168	9.1	8.20*	3000	4.4						
209	7.7	6.57	2940	5.2						
111	12	24.50*	3000	6.0						
140	9.9	19.50*	3000	7.1	**W**	**30**	**DRN**	**63MS2**	9.1	854
167	8.5	16.33	3000	7.1	**WF**	**30**	**DRN**	**63MS2**	9.5	855
190	7.7	14.33	3000	7.8	**WA**	**30**	**DRN**	**63MS2**	8.8	857
266	5.7	10.25*	2720	8.7	**WAF**	**30**	**DRN**	**63MS2**	9.2	856
332	4.7	8.20*	2540	8.6						
15	47	60.00*	2200	0.85	**W**	**20**	**DRN**	**71MS6**	8.1	850
33	33	27.50*	2200	1.20	**WF**	**20**	**DRN**	**71MS6**	8.2	851
47	26	19.50*	2200	1.35	**WA**	**20**	**DRN**	**71MS6**	7.8	853
					WAF	**20**	**DRN**	**71MS6**	7.8	852
18	38	75.00*	2200	1.05						
23	33	60.00*	2200	1.20						
29	31	48.00*	2200	1.30						
35	28	39.00*	2200	1.45						
42	27	32.50*	2200	1.45						
50	23	27.50*	2200	1.75	**W**	**20**	**DRN**	**63M4**	7.5	850
56	21	24.50*	2200	1.90	**WF**	**20**	**DRN**	**63M4**	7.7	851
71	18	19.50*	2200	1.95	**WA**	**20**	**DRN**	**63M4**	7.2	853
83	16	16.50*	2200	1.90	**WAF**	**20**	**DRN**	**63M4**	7.2	852
96	14	14.33	2200	2.1						
134	11	10.25*	2110	2.3						
168	8.9	8.20*	1980	2.3						
209	7.4	6.57	1870	2.7						
111	11	24.50*	2200	3.6						
140	9.4	19.50*	2090	3.7	**W**	**20**	**DRN**	**63MS2**	6.7	850
165	8.2	16.50*	1980	3.7	**WF**	**20**	**DRN**	**63MS2**	6.8	851
190	7.5	14.33	1900	4.0	**WA**	**20**	**DRN**	**63MS2**	6.4	853
266	5.6	10.25*	1720	4.5	**WAF**	**20**	**DRN**	**63MS2**	6.4	852
332	4.6	8.20*	1610	4.4						

24832936/EN – 09/2018

P_m = 0.18 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
42	25	32.50*	1800	1.00						
50	22	27.50*	1800	1.05						
56	21	24.50*	1800	1.20						
71	18	19.50*	1800	1.40	**W**	**10**	**DRN**	**63M4**	6.8	846
83	16	16.50*	1800	1.25	**WF**	**10**	**DRN**	**63M4**	7.0	847
96	14	14.33	1800	1.55	**WA**	**10**	**DRN**	**63M4**	6.8	849
134	11	10.25*	1800	1.20	**WAF**	**10**	**DRN**	**63M4**	7.0	848
168	9.0	8.20*	1800	1.35						
209	7.5	6.57	1790	1.60						
190	7.5	14.33	1800	2.9	**W**	**10**	**DRN**	**63MS2**	6.0	846
266	5.7	10.25*	1650	2.3	**WF**	**10**	**DRN**	**63MS2**	6.2	847
332	4.7	8.20*	1540	2.6	**WA**	**10**	**DRN**	**63MS2**	6.0	849
415	3.9	6.57	1450	3.1	**WAF**	**10**	**DRN**	**63MS2**	6.2	848

P_m = 0.25 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
7.7	182	183	6380	1.00						
8.8	163	159	6510	1.10						
9.9	145	141	6620	1.25						
11	152	124	6690	1.05	**W**	**47R17**	**DRN**	**71MS4**	20	867
12	125	120	6740	1.45	**WF**	**47R17**	**DRN**	**71MS4**	21	867
13	129	105	6820	1.25	**WA**	**47R17**	**DRN**	**71MS4**	19	867
15	120	95	6860	1.35	**WAF**	**47R17**	**DRN**	**71MS4**	20	867
17	106	85	6940	1.50						
18	98	77	6970	1.65						
19	90	72	7010	1.80						
11	119	125	2820	0.95						
13	106	109	3390	1.05						
15	95	96	3550	1.15	**W**	**37R17**	**DRN**	**71MS4**	15	867
17	82	82	3710	1.35	**WF**	**37R17**	**DRN**	**71MS4**	15	867
19	86	73	3670	1.05	**WA**	**37R17**	**DRN**	**71MS4**	15	867
22	75	63	3780	1.20	**WAF**	**37R17**	**DRN**	**71MS4**	15	867
26	65	53	3880	1.40						
29	59	48	3920	1.50						
					W	**47**	**DRN**	**71M6**	18	863
12	134	74.98	6680	1.35	**WF**	**47**	**DRN**	**71M6**	19	864
13	124	68.93	6740	1.45	**WA**	**47**	**DRN**	**71M6**	17	865
					WAF	**47**	**DRN**	**71M6**	18	864
19	92	74.98	6930	1.95						
20	85	68.93	6970	2.1	**W**	**47**	**DRN**	**71MS4**	17	863
24	74	58.98	7030	2.4	**WF**	**47**	**DRN**	**71MS4**	18	864
27	65	51.12	7080	2.8	**WA**	**47**	**DRN**	**71MS4**	16	865
29	61	47.78	7100	2.9	**WAF**	**47**	**DRN**	**71MS4**	16	864
20	79	69.05	3740	1.40						
22	73	63.33	3800	1.50						
26	64	53.92	3890	1.70						
30	56	46.49	3950	1.95						
37	47	37.88	4010	2.4						
41	48	34.52	4000	1.85						
44	45	31.67	4020	2.0						
51	35	27.78	4070	3.1	**W**	**37**	**DRN**	**71MS4**	12	858
52	38	26.96	4050	2.3	**WF**	**37**	**DRN**	**71MS4**	12	859
60	33	23.25	4070	2.7	**WA**	**37**	**DRN**	**71MS4**	12	861
66	28	21.33	4100	3.9	**WAF**	**37**	**DRN**	**71MS4**	12	859
74	28	18.94	4100	3.3						
90	23	15.67	4110	3.9						
101	21	13.89	4120	4.4						
111	20	12.70	4120	3.5						
121	18	11.65	4020	3.8						
132	16	10.67	3820	5.6						
142	16	9.92	3820	4.4						

24832936/EN – 09/2018

P_m = 0.25 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
12	83	75.00*	3000	0.85						
15	77	60.00*	3000	0.90	**W**	**30**	**DRN**	**71M6**	12	854
28	52	32.50*	3000	1.35	**WF**	**30**	**DRN**	**71M6**	12	855
37	45	24.50*	3000	1.55	**WA**	**30**	**DRN**	**71M6**	11	857
47	39	19.50*	3000	1.80	**WAF**	**30**	**DRN**	**71M6**	12	856
19	57	75.00*	3000	1.20						
23	53	60.00*	3000	1.30						
29	46	48.00*	3000	1.50						
36	42	39.00*	3000	1.65						
43	35	32.50*	3000	2.0						
51	33	27.50*	3000	2.1	**W**	**30**	**DRN**	**71MS4**	11	854
57	30	24.50*	3000	2.3	**WF**	**30**	**DRN**	**71MS4**	11	855
72	26	19.50*	3000	2.7	**WA**	**30**	**DRN**	**71MS4**	10	857
86	22	16.33	3000	2.7	**WAF**	**30**	**DRN**	**71MS4**	11	856
98	20	14.33	3000	3.0						
137	15	10.25*	3000	3.3						
171	12	8.20*	3000	3.2						
214	10	6.57	2900	3.8						
112	16	24.50*	3000	4.3						
141	14	19.50*	3000	5.2	**W**	**30**	**DRN**	**63M2**	10.0	854
169	12	16.33	3000	5.2	**WF**	**30**	**DRN**	**63M2**	10	855
192	11	14.33	2980	5.7	**WA**	**30**	**DRN**	**63M2**	9.7	857
269	7.9	10.25*	2690	6.4	**WAF**	**30**	**DRN**	**63M2**	10.0	856
336	6.4	8.20*	2510	6.2						
33	46	27.50*	2200	0.85						
37	42	24.50*	2200	0.95						
47	36	19.50*	2200	0.95	**W**	**20**	**DRN**	**71M6**	9.3	850
64	29	14.33	2200	1.05	**WF**	**20**	**DRN**	**71M6**	9.5	851
89	22	10.25*	2200	1.15	**WA**	**20**	**DRN**	**71M6**	9.1	853
112	18	8.20*	2180	1.10	**WAF**	**20**	**DRN**	**71M6**	9.1	852
139	15	6.57	2080	1.30						
23	45	60.00*	2200	0.90						
29	42	48.00*	2200	0.95						
36	38	39.00*	2200	1.05						
43	37	32.50*	2200	1.10						
51	31	27.50*	2200	1.30	**W**	**20**	**DRN**	**71MS4**	8.1	850
57	28	24.50*	2200	1.40	**WF**	**20**	**DRN**	**71MS4**	8.2	851
72	24	19.50*	2200	1.45	**WA**	**20**	**DRN**	**71MS4**	7.8	853
85	21	16.50*	2200	1.40	**WAF**	**20**	**DRN**	**71MS4**	7.8	852
98	20	14.33	2200	1.55						
137	15	10.25*	2050	1.70						
171	12	8.20*	1930	1.65						
214	10	6.57	1830	2.0						
85	20	32.50*	2200	2.0						
100	17	27.50*	2200	2.4						
112	15	24.50*	2170	2.6	**W**	**20**	**DRN**	**63M2**	7.5	850
141	13	19.50*	2030	2.7	**WF**	**20**	**DRN**	**63M2**	7.7	851
167	11	16.50*	1930	2.7	**WA**	**20**	**DRN**	**63M2**	7.2	853
192	10	14.33	1860	2.9	**WAF**	**20**	**DRN**	**63M2**	7.2	852
269	7.7	10.25*	1690	3.3						
336	6.3	8.20*	1580	3.2						
98	20	14.33	1800	1.15	**W**	**10**	**DRN**	**71MS4**	7.4	846
137	15	10.25*	1800	0.85	**WF**	**10**	**DRN**	**71MS4**	7.6	847
171	12	8.20*	1800	1.00	**WA**	**10**	**DRN**	**71MS4**	7.4	849
214	10	6.57	1750	1.20	**WAF**	**10**	**DRN**	**71MS4**	7.6	848
192	10	14.33	1780	2.1	**W**	**10**	**DRN**	**63M2**	6.8	846
269	7.8	10.25*	1620	1.65	**WF**	**10**	**DRN**	**63M2**	7.0	847
336	6.4	8.20*	1520	1.85	**WA**	**10**	**DRN**	**63M2**	6.8	849
419	5.3	6.57	1430	2.3	**WAF**	**10**	**DRN**	**63M2**	7.0	848

24832936/EN – 09/2018

P_m = 0.37 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
10	215	141	6130	0.85						
12	188	120	6340	0.95						
13	193	105	6450	0.85	**W**	**47R17**	**DRN**	**71M4**	22	867
15	178	95	6540	0.90	**WF**	**47R17**	**DRN**	**71M4**	22	867
17	159	85	6660	1.00	**WA**	**47R17**	**DRN**	**71M4**	20	867
18	146	77	6720	1.10	**WAF**	**47R17**	**DRN**	**71M4**	21	867
20	135	72	6780	1.20						
17	124	82	2360	0.90	**W**	**37R17**	**DRN**	**71M4**	16	867
27	97	53	3520	0.95	**WF**	**37R17**	**DRN**	**71M4**	16	867
29	89	48	3630	1.00	**WA**	**37R17**	**DRN**	**71M4**	16	867
					WAF	**37R17**	**DRN**	**71M4**	16	867
12	194	74.98	6300	0.95						
14	180	68.93	6390	1.00	**W**	**47**	**DRN**	**80MK6**	21	863
16	157	58.98	6540	1.15	**WF**	**47**	**DRN**	**80MK6**	21	864
18	138	51.12	6660	1.30	**WA**	**47**	**DRN**	**80MK6**	19	865
20	130	47.78	6710	1.40	**WAF**	**47**	**DRN**	**80MK6**	20	864
19	135	74.98	6680	1.35						
21	125	68.93	6740	1.45						
24	109	58.98	6830	1.65						
28	96	51.12	6910	1.90						
30	90	47.78	6940	2.0						
34	79	41.30	6880	2.3						
40	68	35.09	6610	2.6						
45	67	31.62	6510	2.4						
45	62	31.33	6410	2.9	**W**	**47**	**DRN**	**71M4**	18	863
52	59	27.41	6260	2.7	**WF**	**47**	**DRN**	**71M4**	19	864
53	53	26.76	6150	3.4	**WA**	**47**	**DRN**	**71M4**	17	865
55	55	25.62	6150	2.9	**WAF**	**47**	**DRN**	**71M4**	18	864
56	50	25.07	6040	3.6						
64	48	22.15	5900	3.3						
75	41	18.82	5640	3.9						
84	37	16.80	5460	4.3						
99	32	14.35	5210	5.0						
115	29	12.30	5070	3.8						
133	25	10.66	4850	4.4						
142	24	9.96	4750	4.7						
22	108	63.33	3360	1.00						
26	94	53.92	3560	1.15						
30	82	46.49	3700	1.35						
37	69	37.88	3840	1.60						
41	71	34.52	3820	1.25						
45	66	31.67	3870	1.35						
51	52	27.78	3970	2.1						
52	56	26.96	3940	1.60	**W**	**37**	**DRN**	**71M4**	13	858
61	49	23.25	3990	1.85	**WF**	**37**	**DRN**	**71M4**	13	859
66	41	21.33	4040	2.7	**WA**	**37**	**DRN**	**71M4**	13	861
75	41	18.94	4040	2.2	**WAF**	**37**	**DRN**	**71M4**	13	859
90	34	15.67	4070	2.6						
102	30	13.89	4000	3.0						
111	30	12.70	4060	2.4						
121	27	11.65	3950	2.6						
133	24	10.67	3720	3.8						
143	23	9.92	3760	3.0						
165	20	8.55	3600	3.5						
19	85	75.00*	3000	0.85						
24	78	60.00*	3000	0.90						
29	68	48.00*	3000	1.05						
36	62	39.00*	3000	1.15						
44	52	32.50*	3000	1.35						
51	48	27.50*	3000	1.45	**W**	**30**	**DRN**	**71M4**	12	854
58	45	24.50*	3000	1.55	**WF**	**30**	**DRN**	**71M4**	12	855
73	38	19.50*	3000	1.85	**WA**	**30**	**DRN**	**71M4**	11	857
87	33	16.33	3000	1.85	**WAF**	**30**	**DRN**	**71M4**	12	856
99	30	14.33	3000	2.0						
138	22	10.25*	3000	2.2						
173	18	8.20*	3000	2.2						
215	15	6.57	2850	2.6						

24832936/EN – 09/2018

P_m = 0.37 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
115	23	24.50*	3000	3.0						
144	20	19.50*	3000	3.5	**W**	**30**	**DRN**	**71MS2**	11	854
172	17	16.33	3000	3.5	**WF**	**30**	**DRN**	**71MS2**	11	855
196	15	14.33	2910	3.9	**WA**	**30**	**DRN**	**71MS2**	10	857
274	11	10.25*	2640	4.4	**WAF**	**30**	**DRN**	**71MS2**	11	856
343	9.3	8.20*	2460	4.3						
51	46	27.50*	2200	0.85						
58	42	24.50*	2200	0.95						
73	36	19.50*	2200	1.00	**W**	**20**	**DRN**	**71M4**	9.3	850
86	31	16.50*	2170	0.95	**WF**	**20**	**DRN**	**71M4**	9.5	851
99	29	14.33	2120	1.05	**WA**	**20**	**DRN**	**71M4**	9.1	853
138	22	10.25*	1960	1.15	**WAF**	**20**	**DRN**	**71M4**	9.1	852
173	18	8.20*	1860	1.15						
215	15	6.57	1780	1.35						
115	22	24.50*	2060	1.80						
144	19	19.50*	1940	1.85	**W**	**20**	**DRN**	**71MS2**	8.1	850
170	16	16.50*	1850	1.85	**WF**	**20**	**DRN**	**71MS2**	8.2	851
196	15	14.33	1790	2.0	**WA**	**20**	**DRN**	**71MS2**	7.8	853
274	11	10.25*	1630	2.2	**WAF**	**20**	**DRN**	**71MS2**	7.8	852
343	9.1	8.20*	1540	2.2						

P_m = 0.55 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} [1] N	SEW f_B					m kg	
19	200	51.12	6260	0.90						
20	188	47.78	6340	0.95						
23	165	41.30	6490	1.10	**W**	**47**	**DRN**	**90SR6**	29	863
28	143	35.09	6630	1.25	**WF**	**47**	**DRN**	**90SR6**	29	864
31	143	31.62	6680	1.10	**WA**	**47**	**DRN**	**90SR6**	27	865
31	129	31.33	6530	1.40	**WAF**	**47**	**DRN**	**90SR6**	28	864
35	125	27.41	6490	1.30						
38	117	25.62	6400	1.35						
19	198	74.98	6280	0.90						
21	184	68.93	6370	1.00						
24	160	58.98	6520	1.15						
28	141	51.12	6640	1.30						
30	132	47.78	6560	1.35	**W**	**47**	**DRN**	**80MK4**	21	863
35	116	41.30	6380	1.55	**WF**	**47**	**DRN**	**80MK4**	21	864
41	100	35.09	6160	1.80	**WA**	**47**	**DRN**	**80MK4**	19	865
45	98	31.62	6140	1.65	**WAF**	**47**	**DRN**	**80MK4**	20	864
46	90	31.33	6010	2.0						
52	86	27.41	5940	1.85						
56	81	25.62	5840	2.0						
38	101	37.88	3460	1.10						
45	96	31.67	3530	0.95						
52	76	27.78	3770	1.45						
53	83	26.96	3700	1.10						
62	72	23.25	3810	1.25						
67	60	21.33	3920	1.85						
76	60	18.94	3920	1.50						
92	50	15.67	3910	1.80	**W**	**37**	**DRN**	**80MK4**	15	858
103	44	13.89	3800	2.0	**WF**	**37**	**DRN**	**80MK4**	15	859
113	43	12.70	3940	1.60	**WA**	**37**	**DRN**	**80MK4**	15	861
123	40	11.65	3850	1.75	**WAF**	**37**	**DRN**	**80MK4**	15	859
135	35	10.67	3560	2.6						
145	34	9.92	3670	2.1						
168	29	8.55	3520	2.4						
206	24	6.97	3310	2.9						
249	20	5.77	3120	3.5						
281	18	5.11	3010	4.0						
366	14	3.93	2770	5.2						

24832936/EN – 09/2018

P_m = 0.55 kW

n_a min^{-1}	M_a Nm	i	F_{Ra} 1) N	SEW f_B					m kg	
44	76	32.50*	3000	0.90						
52	71	27.50*	3000	1.00						
59	66	24.50*	3000	1.05						
74	56	19.50*	3000	1.25	**W**	**30**	**DRN**	**80MK4**	14	854
88	48	16.33	3000	1.25	**WF**	**30**	**DRN**	**80MK4**	14	855
100	43	14.33	3000	1.40	**WA**	**30**	**DRN**	**80MK4**	14	857
140	33	10.25*	3000	1.55	**WAF**	**30**	**DRN**	**80MK4**	14	856
175	27	8.20*	2940	1.50						
218	22	6.57	2770	1.80						
115	35	24.50*	3000	2.0						
145	29	19.50*	3000	2.4	**W**	**30**	**DRN**	**71M2**	12	854
173	25	16.33	2930	2.4	**WF**	**30**	**DRN**	**71M2**	12	855
197	23	14.33	2830	2.6	**WA**	**30**	**DRN**	**71M2**	11	857
276	17	10.25*	2580	3.0	**WAF**	**30**	**DRN**	**71M2**	12	856
345	14	8.20*	2420	2.9						
115	33	24.50*	1900	1.25						
145	28	19.50*	1810	1.25						
171	24	16.50*	1740	1.25	**W**	**20**	**DRN**	**71M2**	9.3	850
197	22	14.33	1690	1.35	**WF**	**20**	**DRN**	**71M2**	9.5	851
276	16	10.25*	1560	1.50	**WA**	**20**	**DRN**	**71M2**	9.1	853
345	13	8.20*	1480	1.50	**WAF**	**20**	**DRN**	**71M2**	9.1	852
430	11	6.57	1420	1.75						

P_m = 0.75 kW

n_a min^{-1}	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	863
46	123	31.33	5600	1.45	**WF**	**47**	**DRN**	**80M4**	25	864
53	117	27.41	5610	1.35	**WA**	**47**	**DRN**	**80M4**	23	865
54	106	26.76	5450	1.70	**WAF**	**47**	**DRN**	**80M4**	24	864
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	858
135	47	10.67	3390	1.90	**WF**	**37**	**DRN**	**80M4**	18	859
145	45	9.92	3590	1.55	**WA**	**37**	**DRN**	**80M4**	18	861
168	39	8.55	3440	1.80	**WAF**	**37**	**DRN**	**80M4**	18	859
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						
117	47	24.50*	3000	1.50						
175	34	16.33	2830	1.80	**W**	**30**	**DRN**	**80MS2**	17	854
199	31	14.33	2740	1.95	**WF**	**30**	**DRN**	**80MS2**	18	855
279	23	10.25*	2520	2.2	**WA**	**30**	**DRN**	**80MS2**	17	857
348	19	8.20*	2370	2.1	**WAF**	**30**	**DRN**	**80MS2**	17	856
88	65	16.33	3000	0.90						
100	59	14.33	3000	1.00	**W**	**30**	**DRN**	**80M4**	17	854
140	44	10.25*	3000	1.15	**WF**	**30**	**DRN**	**80M4**	18	855
176	36	8.20*	2850	1.10	**WA**	**30**	**DRN**	**80M4**	17	857
219	31	6.57	2700	1.30	**WAF**	**30**	**DRN**	**80M4**	17	856

24832936/EN – 09/2018

P_m = 1.1 kW

n_a min^{-1}	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	863
66	139	22.15	4890	1.15	**WF**	**47**	**DRN**	**90S4**	31	864
77	119	18.82	4760	1.35	**WA**	**47**	**DRN**	**90S4**	29	865
87	107	16.80	4670	1.50	**WAF**	**47**	**DRN**	**90S4**	30	864
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	858
170	57	8.55	3310	1.25	**WF**	**37**	**DRN**	**90S4**	24	859
209	47	6.97	3140	1.50	**WA**	**37**	**DRN**	**90S4**	24	861
252	39	5.77	2980	1.80	**WAF**	**37**	**DRN**	**90S4**	24	859
285	34	5.11	2880	2.0						
371	26	3.93	2670	2.6						
455	22	3.20*	2520	3.2						
175	49	16.33	2660	1.20	**W**	**30**	**DRN**	**80M2**	17	854
200	45	14.33	2590	1.35	**WF**	**30**	**DRN**	**80M2**	18	855
279	33	10.25*	2410	1.50	**WA**	**30**	**DRN**	**80M2**	17	857
349	27	8.20*	2280	1.45	**WAF**	**30**	**DRN**	**80M2**	17	856

P_m = 1.5 kW

n_a min^{-1}	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	**W**	**47**	**DRN**	**90L4**	34	863
102	125	14.35	4180	1.30	**WF**	**47**	**DRN**	**90L4**	34	864
109	117	13.44	4140	1.35	**WA**	**47**	**DRN**	**90L4**	32	865
129	99	11.32	4020	1.60	**WAF**	**47**	**DRN**	**90L4**	33	864
137	99	10.66	4310	1.10						
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	858
253	53	5.77	2880	1.35	**WF**	**37**	**DRN**	**90L4**	27	859
286	47	5.11	2790	1.50	**WA**	**37**	**DRN**	**90L4**	27	861
372	36	3.93	2600	1.95	**WAF**	**37**	**DRN**	**90L4**	27	859
457	29	3.20*	2460	2.4						

24832936/EN – 09/2018

P_m = 2.2 kW

n_a min^{-1}	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	863
222	91	6.53	3620	1.20	**WF**	**47**	**DRN**	**100LS4**	38	864
260	78	5.58	3500	1.40	**WA**	**47**	**DRN**	**100LS4**	36	865
277	73	5.23	3440	1.50	**WAF**	**47**	**DRN**	**100LS4**	37	864
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 min^{-1}	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	863
279	99	5.23	3260	1.10	**WF**	**47**	**DRN**	**100L4**	45	864
331	83	4.40	3150	1.30	**WA**	**47**	**DRN**	**100L4**	43	865
374	74	3.89	3060	1.50	**WAF**	**47**	**DRN**	**100L4**	44	864
446	62	3.27	2940	1.75						

P_m = 4.0 kW

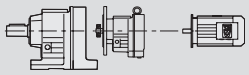
n_a min^{-1}	M_a Nm	i	F_{Ra} 1) N	SEW f_B					m kg	
280	131	5.23	3040	0.85	**W**	**47**	**DRN**	**112M4**	54	863
333	111	4.40	2960	1.00	**WF**	**47**	**DRN**	**112M4**	55	864
376	98	3.89	2890	1.10	**WA**	**47**	**DRN**	**112M4**	53	865
448	82	3.27	2800	1.35	**WAF**	**47**	**DRN**	**112M4**	53	864

24832936/EN – 09/2018

12.4 W..R..DRN.. selection tables for low output speeds in Nm

n_a min^{-1}	i	F_{Ra} [1] N					m kg	
$M_{a\,max}$ = 90 Nm								
19	73	3610	**W**	**37R17**	**DRN**	**71M4**	16	867
23	63	3610	**WF**	**37R17**	**DRN**	**71M4**	16	867
27	53	3610	**WA**	**37R17**	**DRN**	**71M4**	16	867
			WAF	**37R17**	**DRN**	**71M4**	16	867
$M_{a\,max}$ = 110 Nm								
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**	**DRN**	**63MS4**	14	867
0.64	2172	3320	**WF**	**37R17**	**DRN**	**63MS4**	14	867
0.71	1952	3320	**WA**	**37R17**	**DRN**	**63MS4**	14	867
0.77	1795	3320	**WAF**	**37R17**	**DRN**	**63MS4**	14	867
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**	**DRN**	**63MS4**	13	867
2.6	532	3320	**WF**	**37R17**	**DRN**	**63MS4**	13	867
2.9	472	3320	**WA**	**37R17**	**DRN**	**63MS4**	13	867
3.2	434	3320	**WAF**	**37R17**	**DRN**	**63MS4**	13	867
3.6	384	3320						
3.9	359	3320						
4.2	327	3320						
4.8	286	3320						
5.2	267	3320	**W**	**37R17**	**DRN**	**63M4**	14	867
5.9	233	3320	**WF**	**37R17**	**DRN**	**63M4**	14	867
6.7	207	3320	**WA**	**37R17**	**DRN**	**63M4**	14	867
7.5	184	3320	**WAF**	**37R17**	**DRN**	**63M4**	14	867
8.8	160	3320	**W**	**37R17**	**DRN**	**71MS4**	15	867
9.9	141	3320	**WF**	**37R17**	**DRN**	**71MS4**	15	867
11	125	3320	**WA**	**37R17**	**DRN**	**71MS4**	15	867
			WAF	**37R17**	**DRN**	**71MS4**	15	867
13	109	3320	**W**	**37R17**	**DRN**	**71M4**	16	867
15	96	3320	**WF**	**37R17**	**DRN**	**71M4**	16	867
17	82	3320	**WA**	**37R17**	**DRN**	**71M4**	16	867
			WAF	**37R17**	**DRN**	**71M4**	16	867
$M_{a\,max}$ = 160 Nm								
11	124	6650	**W**	**47R17**	**DRN**	**71M4**	22	867
13	105	6650	**WF**	**47R17**	**DRN**	**71M4**	22	867
15	95	6650	**WA**	**47R17**	**DRN**	**71M4**	20	867
			WAF	**47R17**	**DRN**	**71M4**	21	867
17	85	6650	**W**	**47R17**	**DRN**	**80M4**	27	867
19	77	6650	**WF**	**47R17**	**DRN**	**80M4**	27	867
20	72	6650	**WA**	**47R17**	**DRN**	**80M4**	25	867
			WAF	**47R17**	**DRN**	**80M4**	26	867

24832936/EN – 09/2018

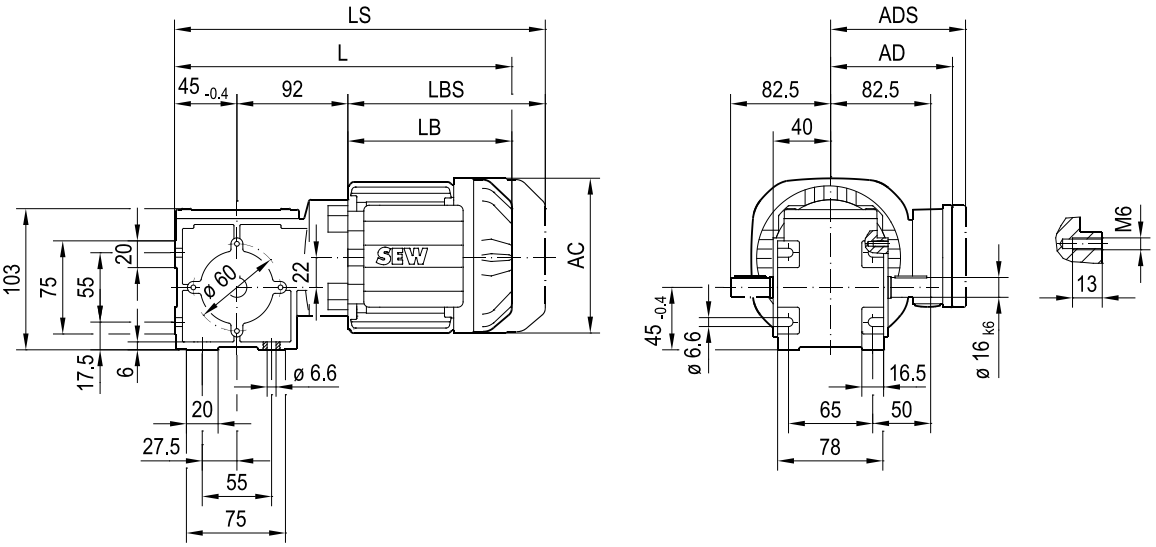
$M_{a\ max}$ = 180 Nm									
n_a min^{-1}	i	F_{Ra} [1] N					m kg	
0.29	4815	6390						
0.33	4173	6390						
0.36	3870	6390						
0.38	3598	6390						
0.41	3354	6390						
0.44	3171	6390						
0.50	2748	6390	**W**	**47R17**	**DRN**	**63MS4**	19	867
0.57	2425	6390	**WF**	**47R17**	**DRN**	**63MS4**	20	867
0.61	2258	6390	**WA**	**47R17**	**DRN**	**63MS4**	18	867
0.65	2111	6390	**WAF**	**47R17**	**DRN**	**63MS4**	19	867
0.70	1959	6390						
0.77	1797	6390						
0.87	1595	6390						
0.93	1486	6390						
0.95	1448	6390						
1.2	1170	6390						
1.8	754	6390						
1.1	1290	6390						
1.2	1183	6390						
1.3	1042	6390						
1.4	956	6390	**W**	**47R17**	**DRN**	**63MS4**	19	867
1.6	869	6390	**WF**	**47R17**	**DRN**	**63MS4**	19	867
2.1	661	6390	**WA**	**47R17**	**DRN**	**63MS4**	17	867
2.3	596	6390	**WAF**	**47R17**	**DRN**	**63MS4**	18	867
2.6	536	6390						
2.9	473	6390						
3.2	434	6390						
3.6	386	6390						
3.8	359	6390	**W**	**47R17**	**DRN**	**63M4**	20	867
4.3	318	6390	**WF**	**47R17**	**DRN**	**63M4**	20	867
4.7	291	6390	**WA**	**47R17**	**DRN**	**63M4**	18	867
5.1	270	6390	**WAF**	**47R17**	**DRN**	**63M4**	19	867
5.2	265	6390						
5.9	237	6390	**W**	**47R17**	**DRN**	**71MS4**	20	867
6.7	210	6390	**WF**	**47R17**	**DRN**	**71MS4**	21	867
7.7	183	6390	**WA**	**47R17**	**DRN**	**71MS4**	19	867
			WAF	**47R17**	**DRN**	**71MS4**	20	867
8.9	159	6390	**W**	**47R17**	**DRN**	**71M4**	22	867
10	141	6390	**WF**	**47R17**	**DRN**	**71M4**	22	867
12	120	6390	**WA**	**47R17**	**DRN**	**71M4**	20	867
			WAF	**47R17**	**DRN**	**71M4**	21	867

24832936/EN – 09/2018

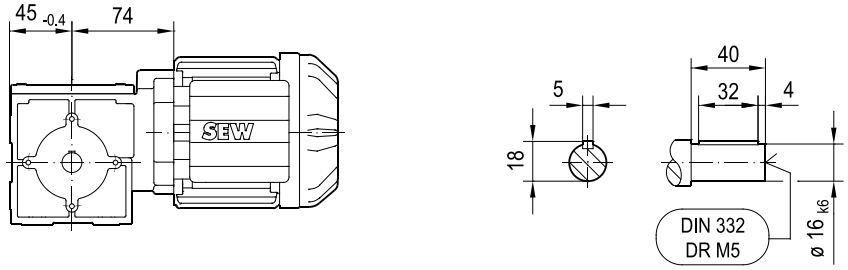
12.5 W..DRN.. dimension sheets in mm

20 001 02 14

W10..



DR2S56..

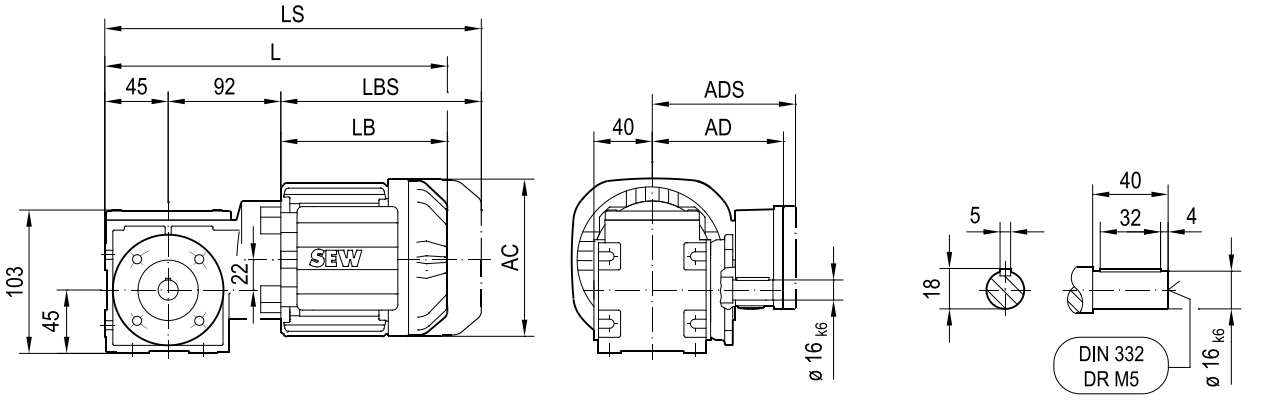


(→ 📖 7.3)	DR2S	DRN						
	56..	63MS	63M	71MS				
AC	109	115	115	139				
AD	87	98	98	118				
ADS	87	98	98	129				
L	273	285	299	301				
LS	309	341	355	368				
LB	136	148	162	164				
LBS	172	204	218	231				

24832936/EN – 09/2018

WF10..

20 002 02 14



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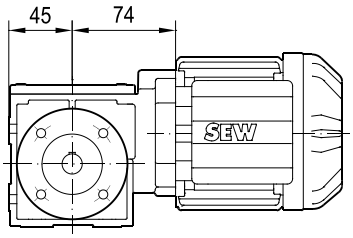
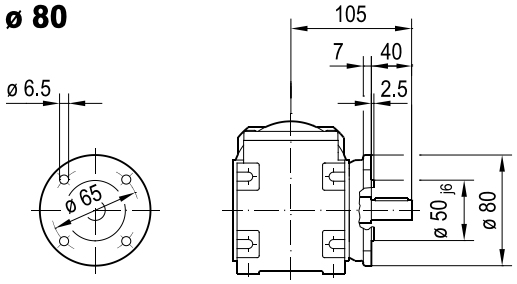
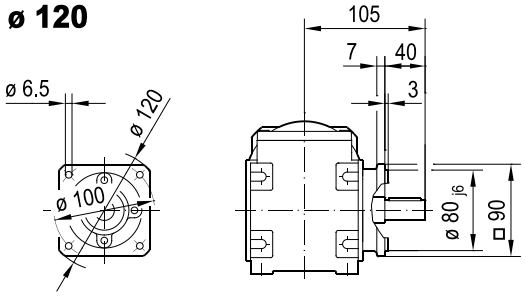


ø 80



ø 120

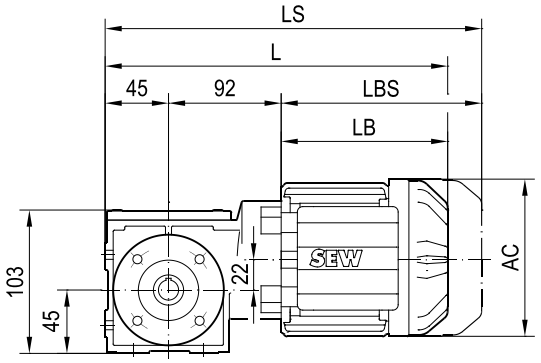


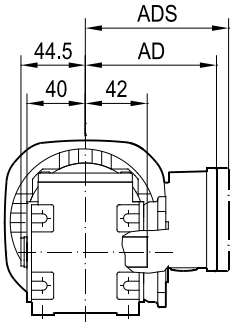
(→ 📖 7.3)	DR2S	DRN						
	56..	63MS	63M	71MS				
AC	109	115	115	139				
AD	87	98	98	118				
ADS	87	98	98	129				
L	273	285	299	301				
LS	309	341	355	368				
LB	136	148	162	164				
LBS	172	204	218	231				

24832936/EN – 09/2018

WAF10..

20 058 00 17





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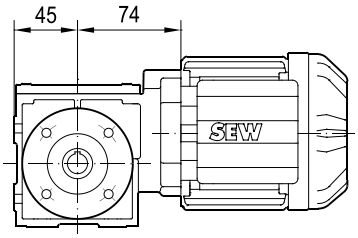

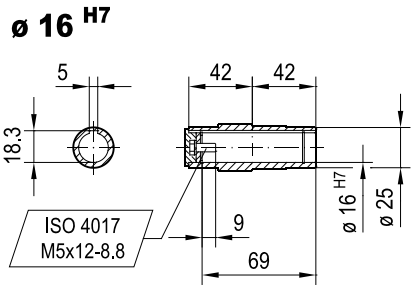

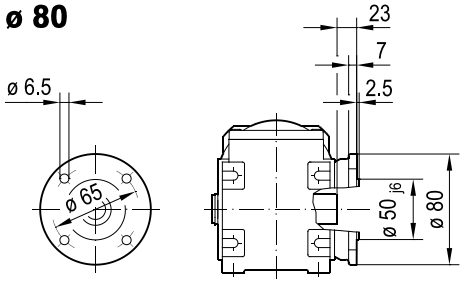

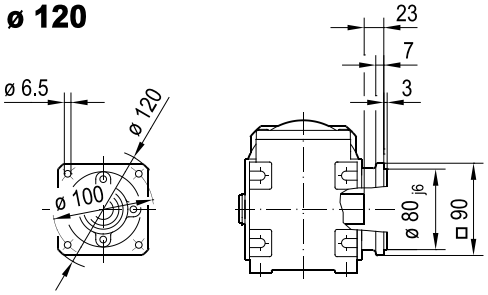

(→ 📖 7.3)	DR2S	DRN						
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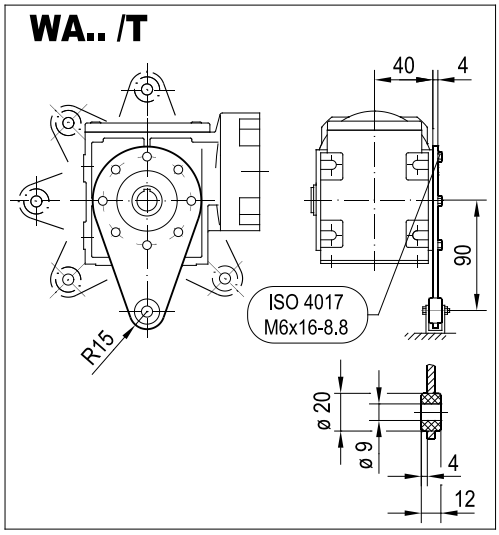
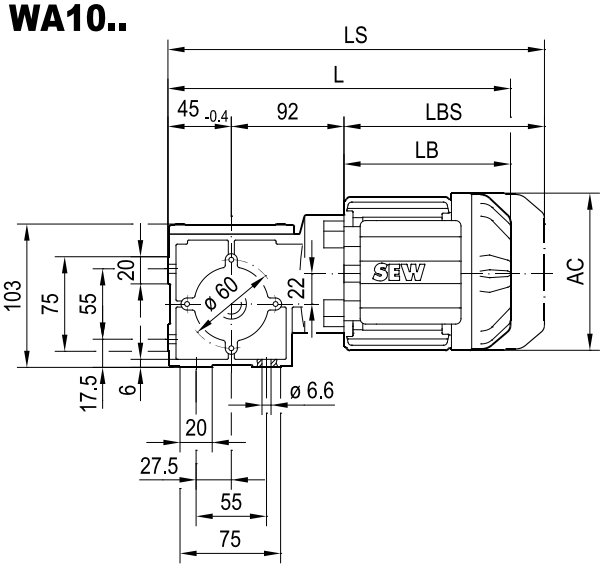
AC	109	115	115	139				
AD	87	98	98	118				
ADS	87	98	98	129				
L	273	285	299	301				
LS	309	341	355	368				
LB	136	148	162	164				
LBS	172	204	218	231				

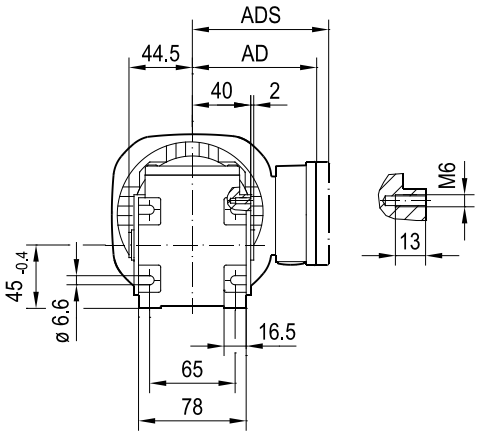
24832936/EN – 09/2018

20 003 02 14



WA10..





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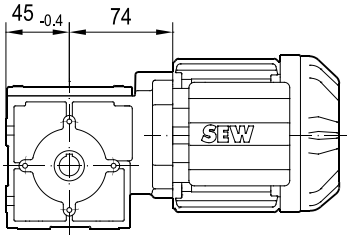
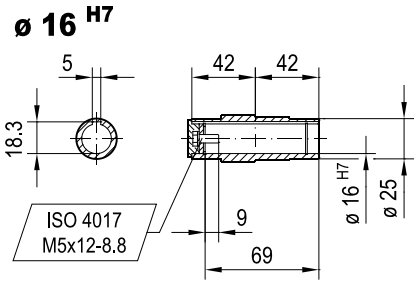
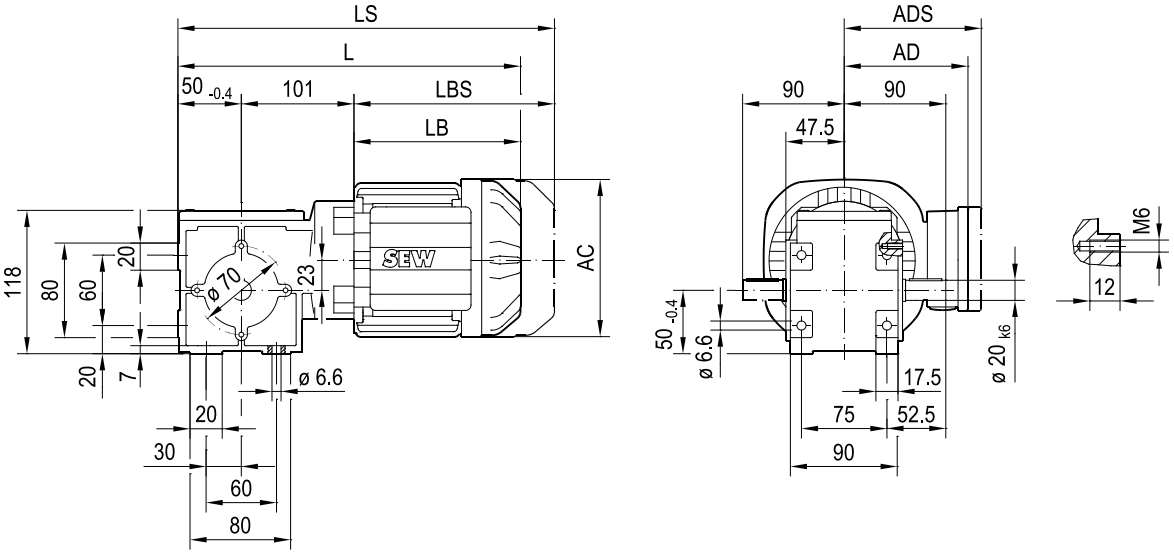




(→ 📖 7.3)	DR2S	DRN						
	56..	63MS	63M	71MS				
AC	109	115	115	139				
AD	87	98	98	118				
ADS	87	98	98	129				
L	273	285	299	301				
LS	309	341	355	368				
LB	136	148	162	164				
LBS	172	204	218	231				

20 004 01 14

W20..



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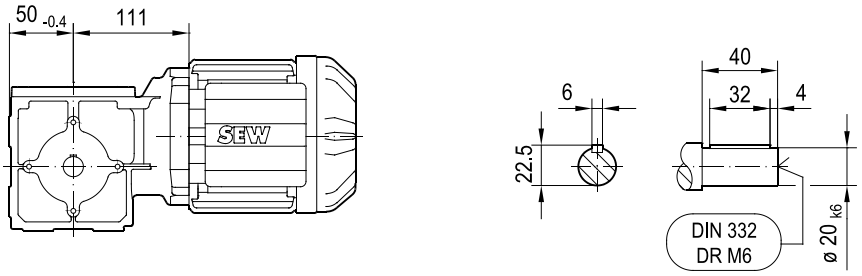
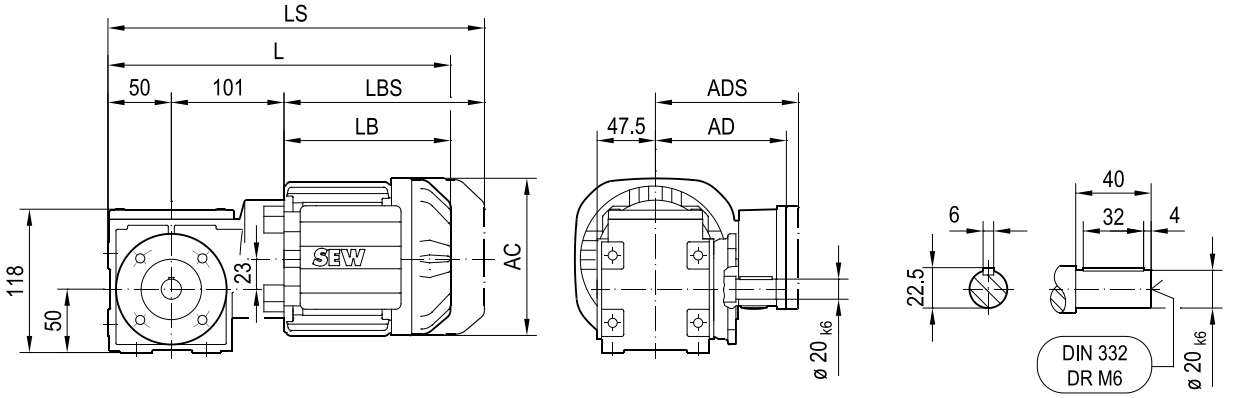


(→ 📖 7.3)	DRN							
	63MS	63M	71MS	71M				
AC	115	115	139	139				
AD	98	98	118	118				
ADS	98	98	129	129				
L	299	313	315	335				
LS	355	369	382	402				
LB	148	162	164	184				
LBS	204	218	231	251				

24832936/EN – 09/2018

WF20..

20 005 02 14



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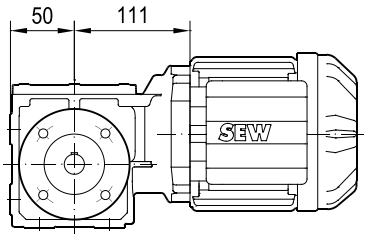

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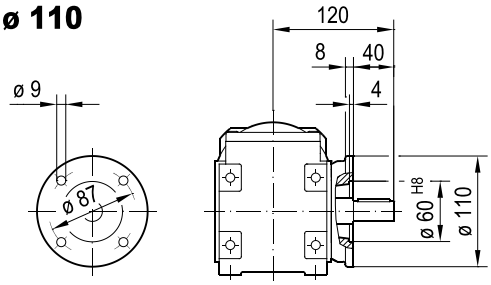

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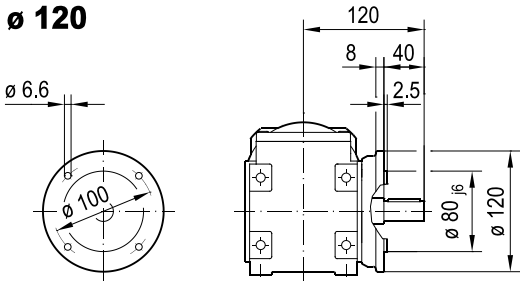
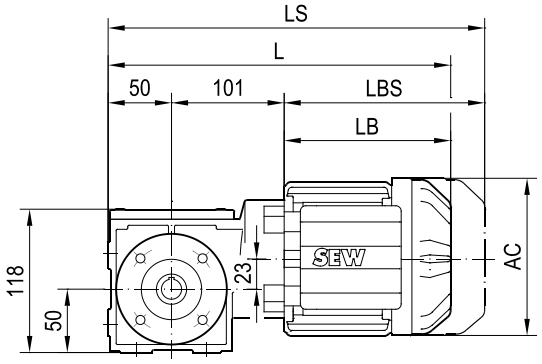


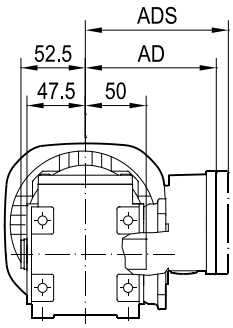
(→ 📖 7.3)	DRN							
	63MS	63M	71MS	71M				
AC	115	115	139	139				
AD	98	98	118	118				
ADS	98	98	129	129				
L	299	313	315	335				
LS	355	369	382	402				
LB	148	162	164	184				
LBS	204	218	231	251				

24832936/EN – 09/2018

WAF20..

20 059 00 17





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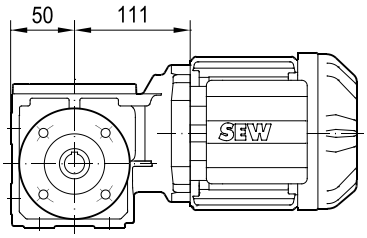
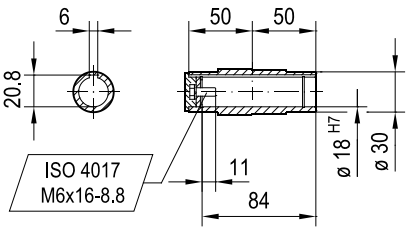


ø 18 H7



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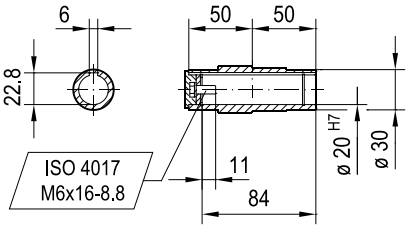

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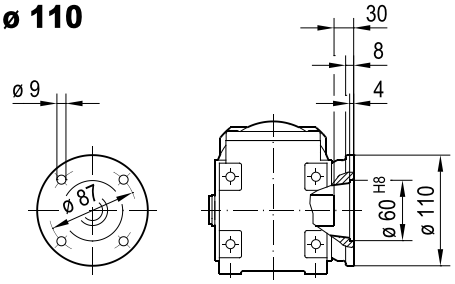

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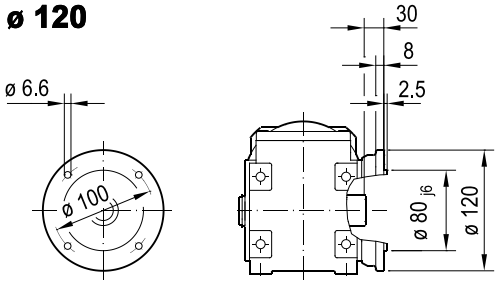
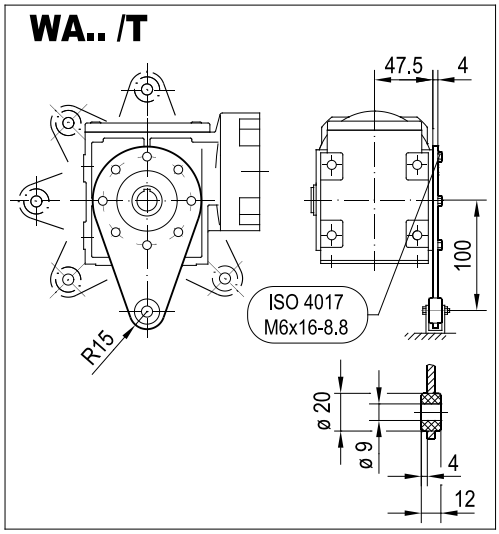


(→ 📖 7.3)	DRN							
	63MS	63M	71MS	71M				
AC	115	115	139	139				
AD	98	98	118	118				
ADS	98	98	129	129				
L	299	313	315	335				
LS	355	369	382	402				
LB	148	162	164	184				
LBS	204	218	231	251				

24832936/EN – 09/2018

20 006 01 14



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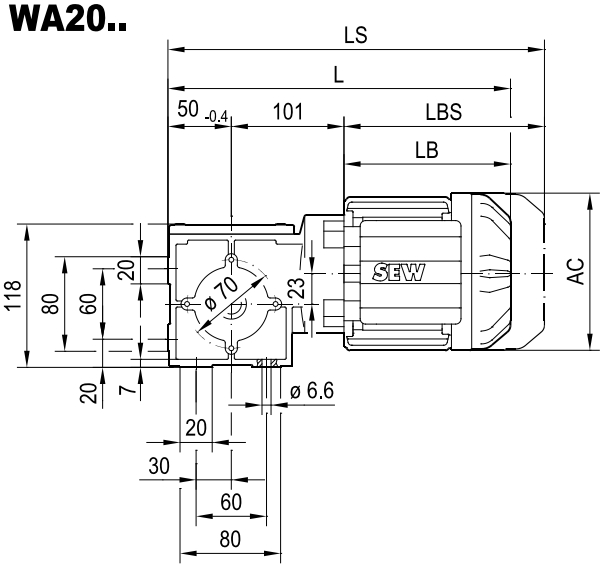

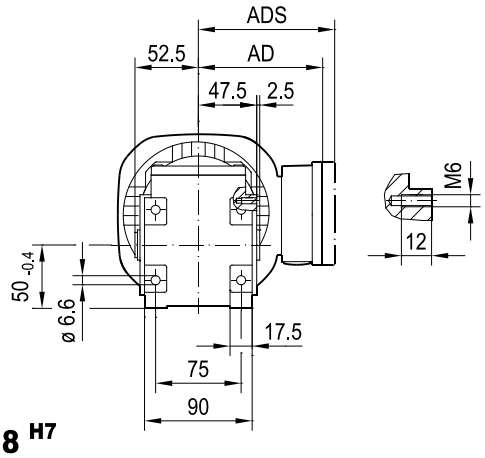

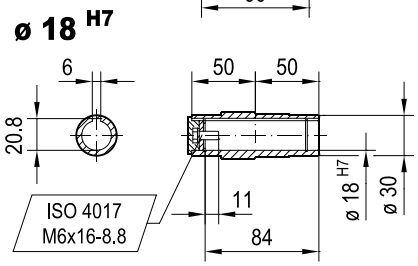

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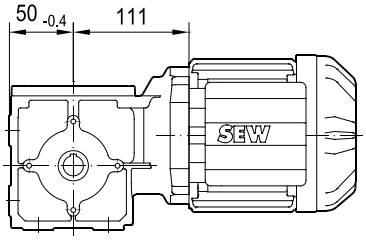
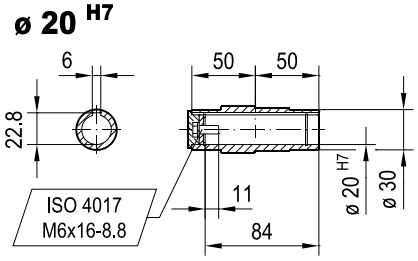
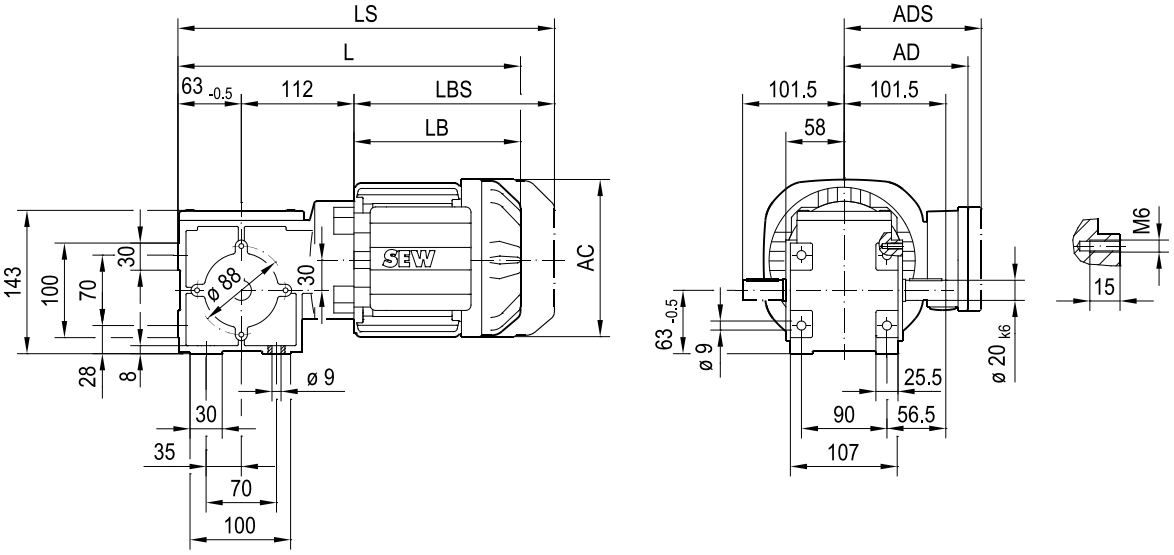




(→ 📖 7.3)	DRN							
	63MS	63M	71MS	71M				
AC	115	115	139	139				
AD	98	98	118	118				
ADS	98	98	129	129				
L	299	313	315	335				
LS	355	369	382	402				
LB	148	162	164	184				
LBS	204	218	231	251				

20 007 00 14

W30..



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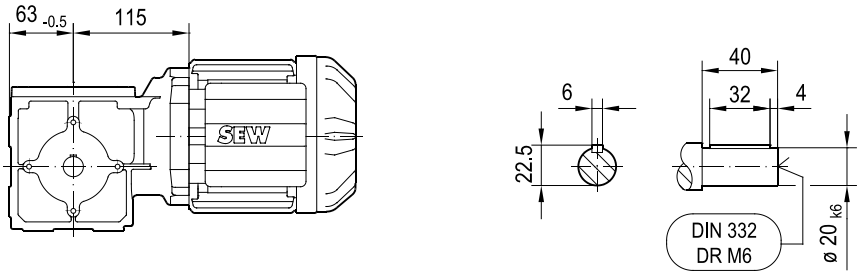

(→ 📖 7.3)	DRN							
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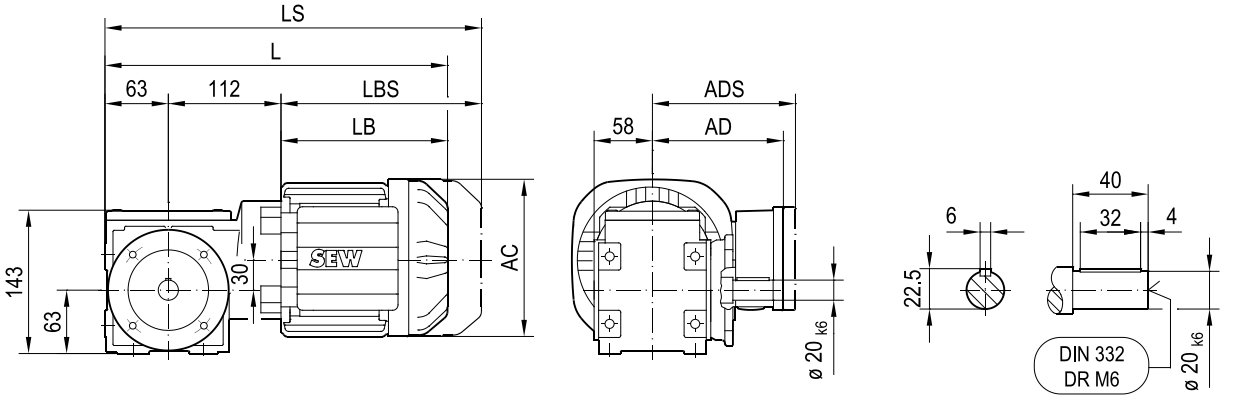
AC	115	115	139	139	156	156	156	
AD	98	98	118	118	128	128	128	
ADS	98	98	129	129	139	139	139	
L	323	337	339	359	364	382	410	
LS	379	393	406	426	445	463	491	
LB	148	162	164	184	189	207	235	
LBS	204	218	231	251	270	288	316	

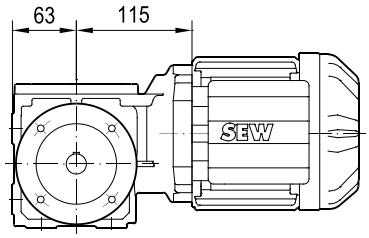
24832936/EN – 09/2018

WF30..

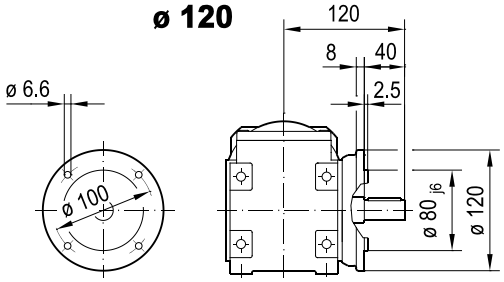
20 008 01 14



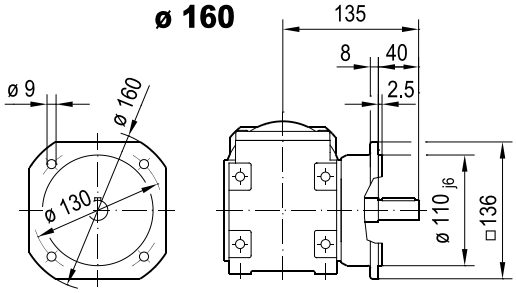
DRN80..



ø 120



ø 160

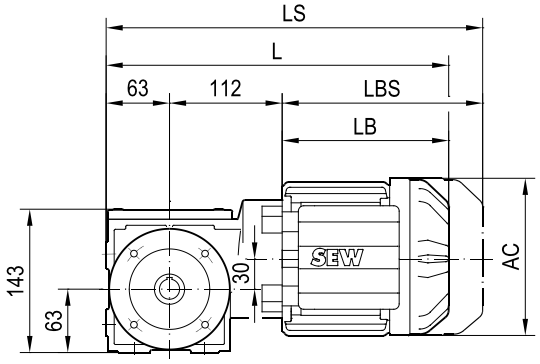


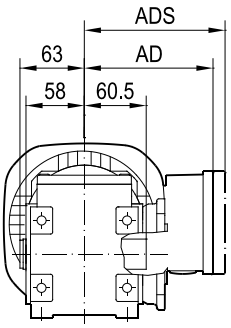
(→ 📖 7.3)	DRN							
	63MS	63M	71MS	71M	80MK	80MS	80M	
AC	115	115	139	139	156	156	156	
AD	98	98	118	118	128	128	128	
ADS	98	98	129	129	139	139	139	
L	323	337	339	359	364	382	410	
LS	379	393	406	426	445	463	491	
LB	148	162	164	184	189	207	235	
LBS	204	218	231	251	270	288	316	

24832936/EN – 09/2018

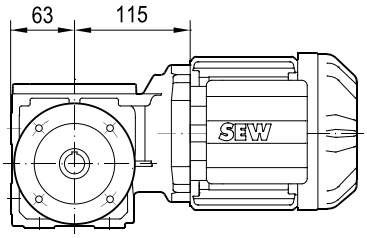
WAF30..

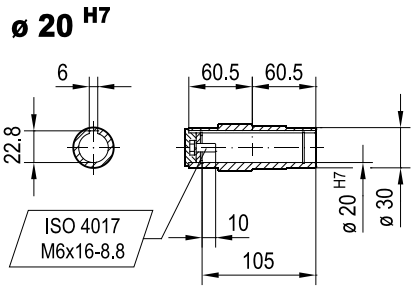
20 009 01 14

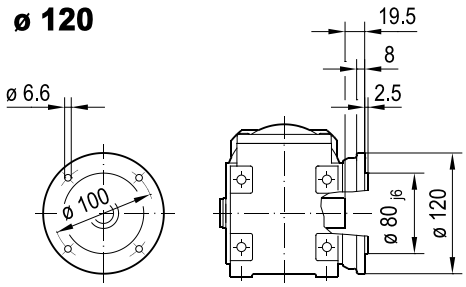


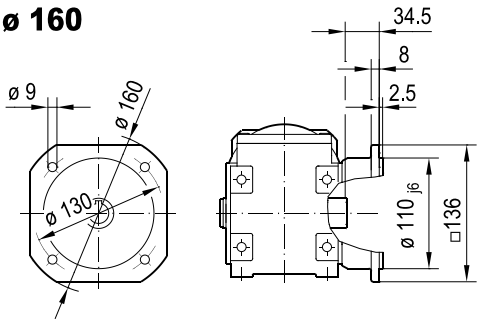


DRN80..





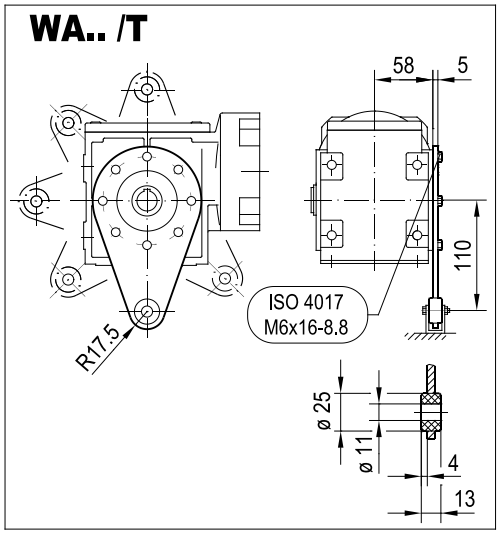




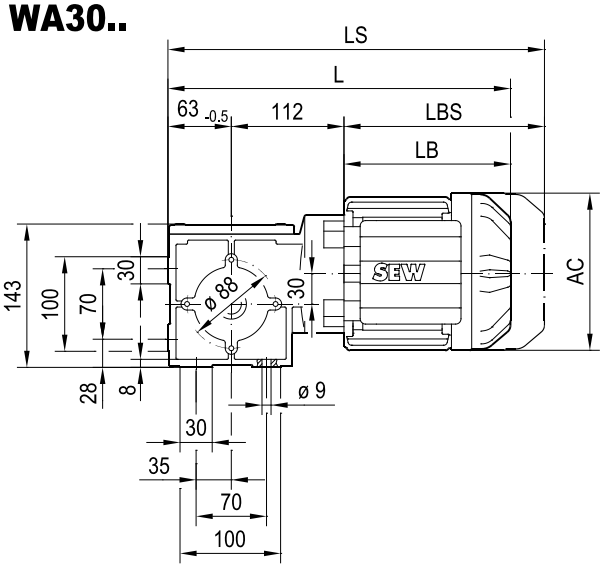
(→ 📖 7.3)	DRN							
	63MS	63M	71MS	71M	80MK	80MS	80M	
AC	115	115	139	139	156	156	156	
AD	98	98	118	118	128	128	128	
ADS	98	98	129	129	139	139	139	
L	323	337	339	359	364	382	410	
LS	379	393	406	426	445	463	491	
LB	148	162	164	184	189	207	235	
LBS	204	218	231	251	270	288	316	

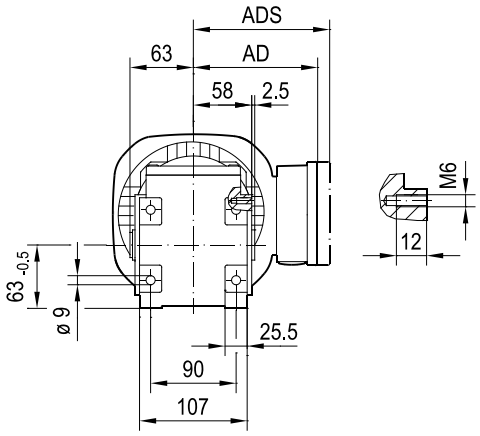
24832936/EN – 09/2018

20 010 01 14

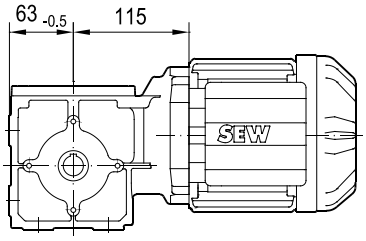


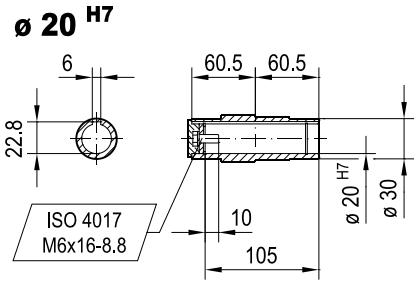
WA30..





DRN80..



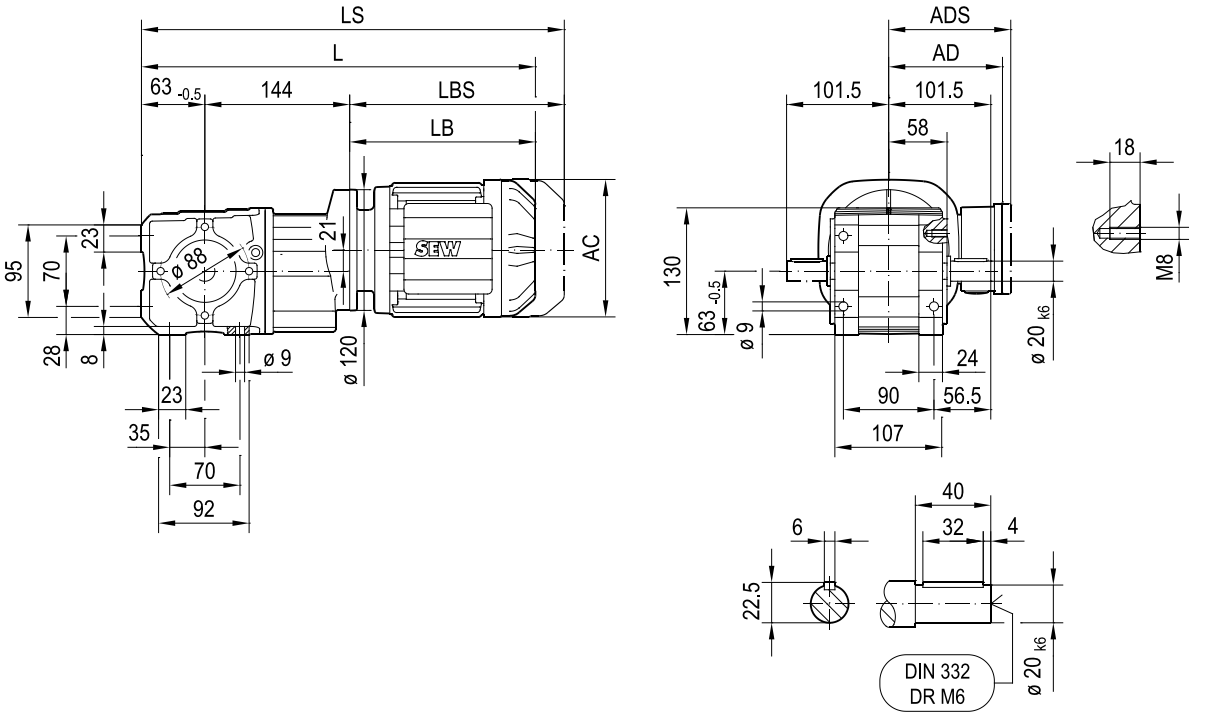


(→ 📖 7.3)	DRN							
	63MS	63M	71MS	71M	80MK	80MS	80M	
AC	115	115	139	139	156	156	156	
AD	98	98	118	118	128	128	128	
ADS	98	98	129	129	139	139	139	
L	323	337	339	359	364	382	410	
LS	379	393	406	426	445	463	491	
LB	148	162	164	184	189	207	235	
LBS	204	218	231	251	270	288	316	

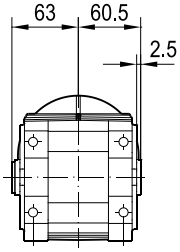
24832936/EN – 09/2018

20 011 01 14

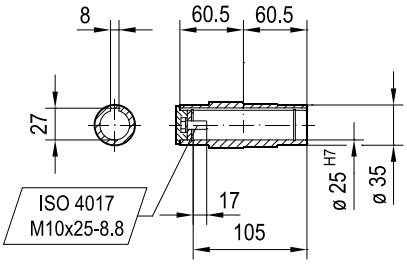
W37..



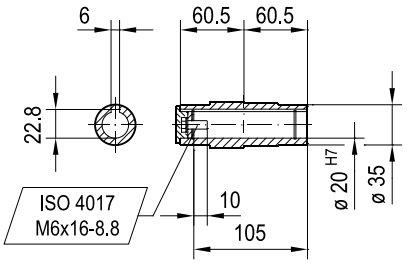
WA37B..



ø 25 H7
DIN 6885-3



ø 20 H7



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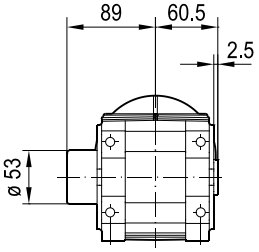
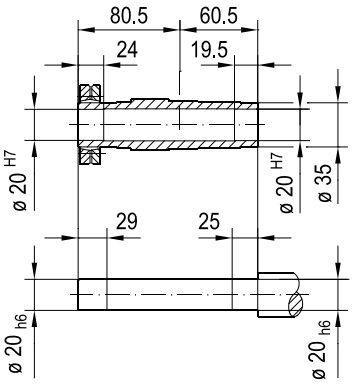


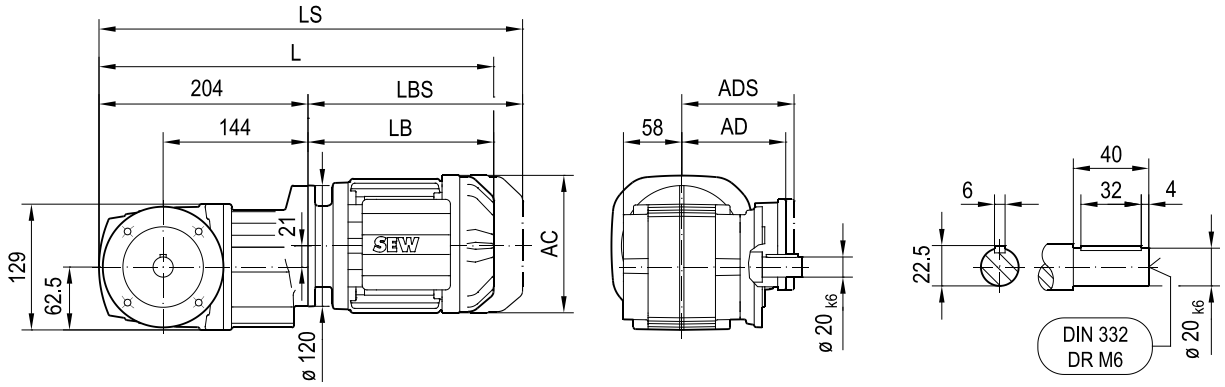


(→ 📖 7.3)	DRN							
	63MS	63M	71MS	71M	80MK	80M	90S	90L
AC	115	115	139	139	156	156	179	179
AD	98	98	118	118	128	128	140	140
ADS	98	98	129	129	139	139	150	150
L	397	411	413	433	444	489	490	522
LS	453	467	480	500	525	570	584	616
LB	190	204	206	226	237	282	283	315
LBS	246	260	273	293	318	363	377	409

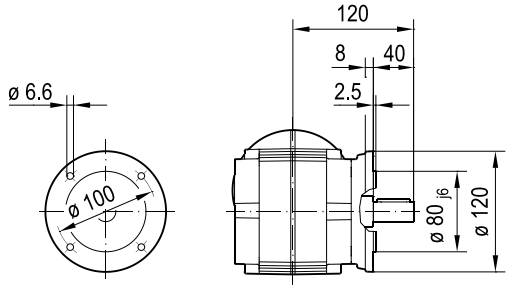
24832936/EN – 09/2018

20 012 01 14

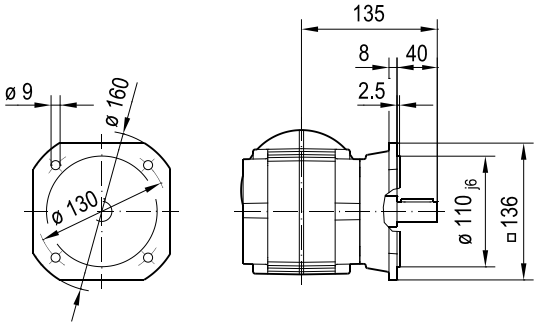
WF37..



ø 120
max. DR71..

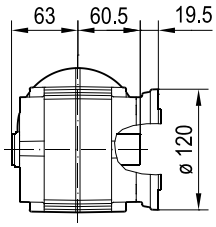


ø 160



WAF37..

ø 120
max. DR71..



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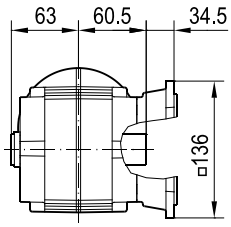
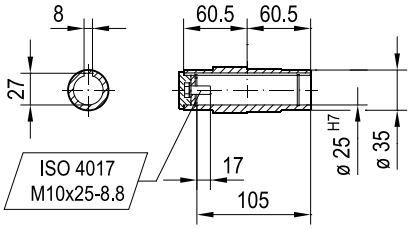
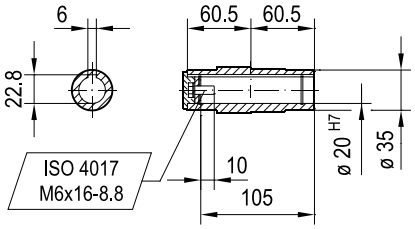


ø 25 H7
DIN 6885-3



ø 20 H7

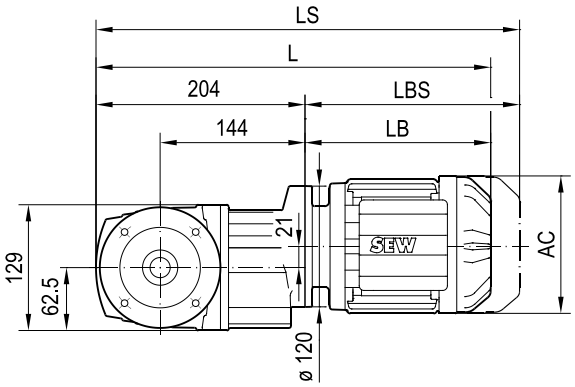


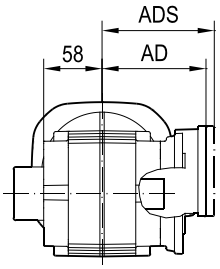
(→ 📖 7.3)	DRN							
	63MS	63M	71MS	71M	80MK	80M	90S	90L
AC	115	115	139	139	156	156	179	179
AD	98	98	118	118	128	128	140	140
ADS	98	98	129	129	139	139	150	150
L	394	408	410	430	441	486	487	519
LS	450	464	477	497	522	567	581	613
LB	190	204	206	226	237	282	283	315
LBS	246	260	273	293	318	363	377	409

24832936/EN – 09/2018

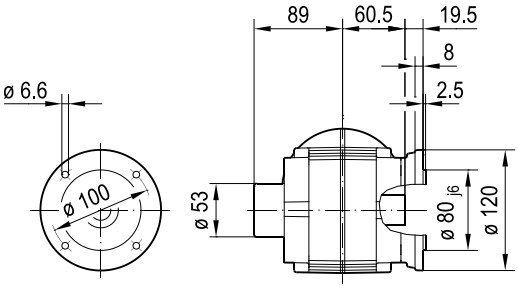
20 013 01 14

WHF37..

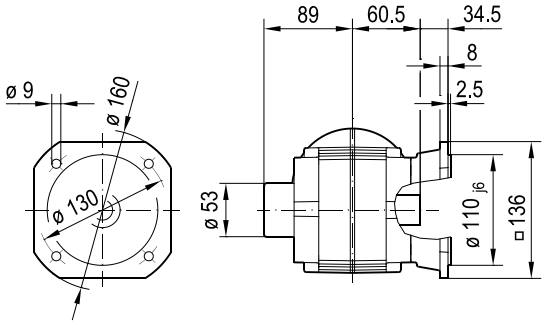


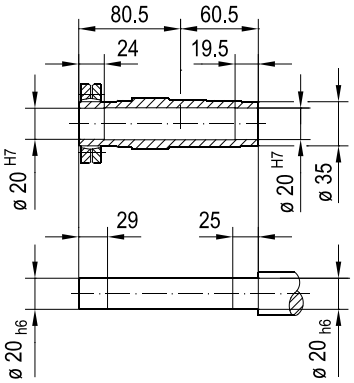


ø 120
max. DR71..



ø 160



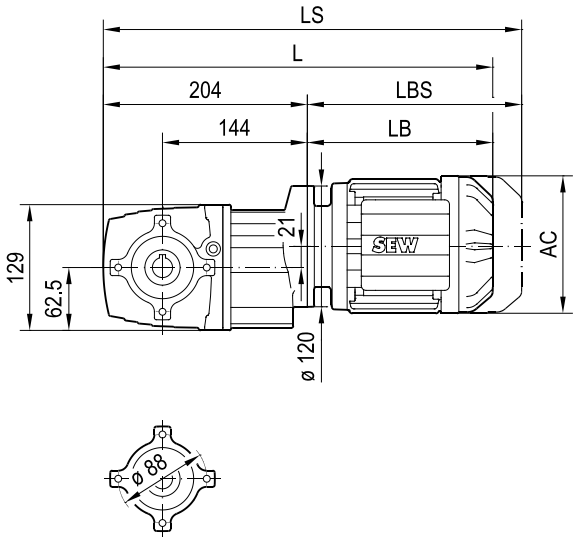


(→ 📖 7.3)	DRN							
	63MS	63M	71MS	71M	80MK	80M	90S	90L
AC	115	115	139	139	156	156	179	179
AD	98	98	118	118	128	128	140	140
ADS	98	98	129	129	139	139	150	150
L	394	408	410	430	441	486	487	519
LS	450	464	477	497	522	567	581	613
LB	190	204	206	226	237	282	283	315
LBS	246	260	273	293	318	363	377	409

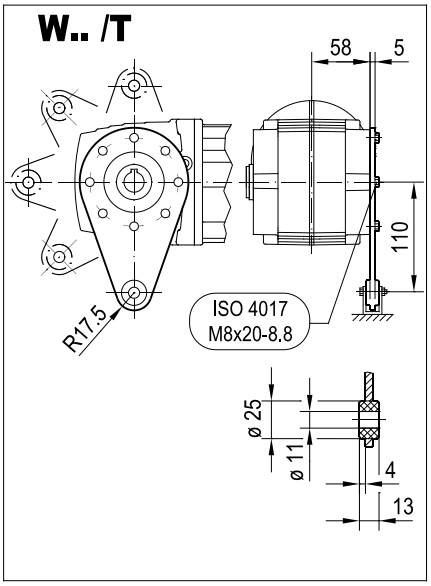
24832936/EN – 09/2018

20 014 01 14

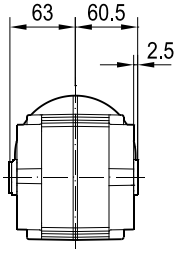
WA37..



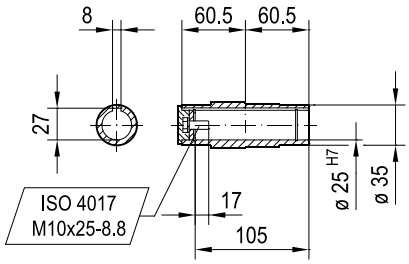
W.. /T



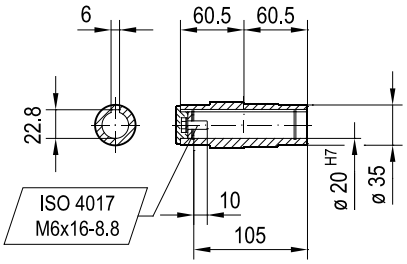
WA37..



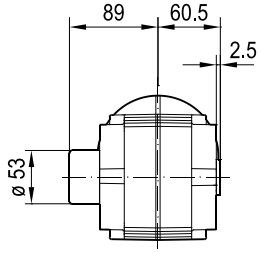
ø 25 H7
DIN 6885-3

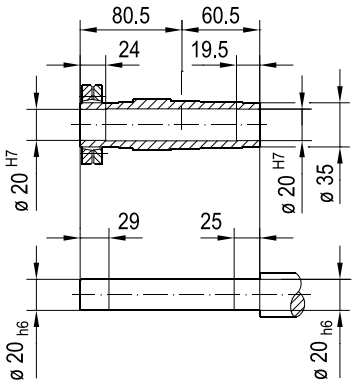


ø 20 H7



WH37..



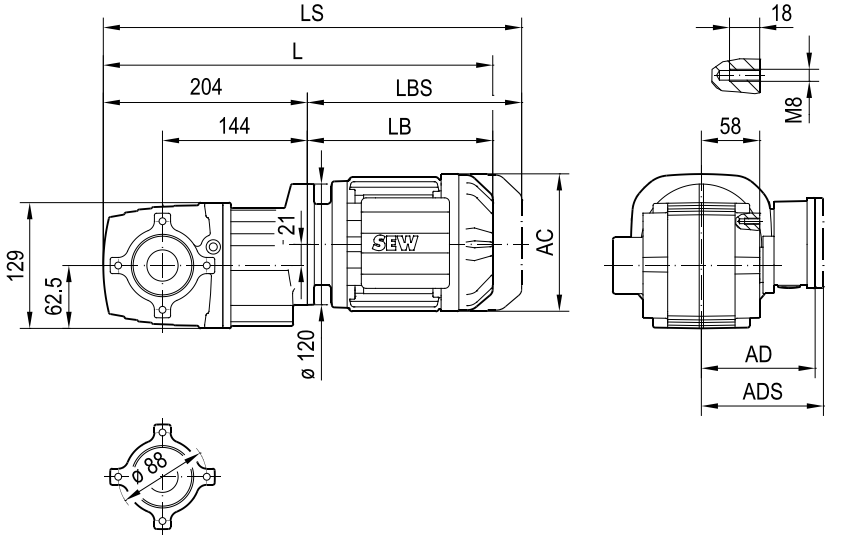


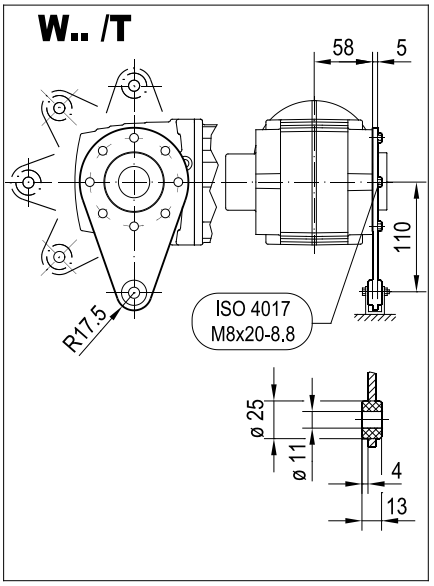
(→ 📖 7.3)	DRN							
	63MS	63M	71MS	71M	80MK	80M	90S	90L
AC	115	115	139	139	156	156	179	179
AD	98	98	118	118	128	128	140	140
ADS	98	98	129	129	139	139	150	150
L	394	408	410	430	441	486	487	519
LS	450	464	477	497	522	567	581	613
LB	190	204	206	226	237	282	283	315
LBS	246	260	273	293	318	363	377	409

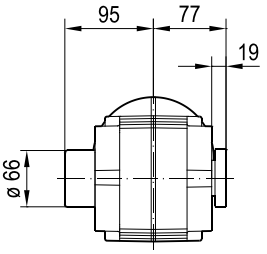
24832936/EN – 09/2018

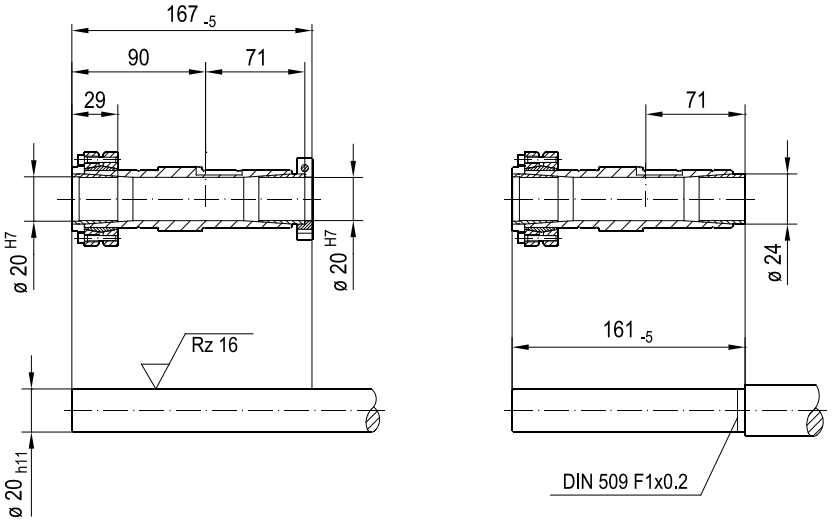
20 015 01 14

WT37..







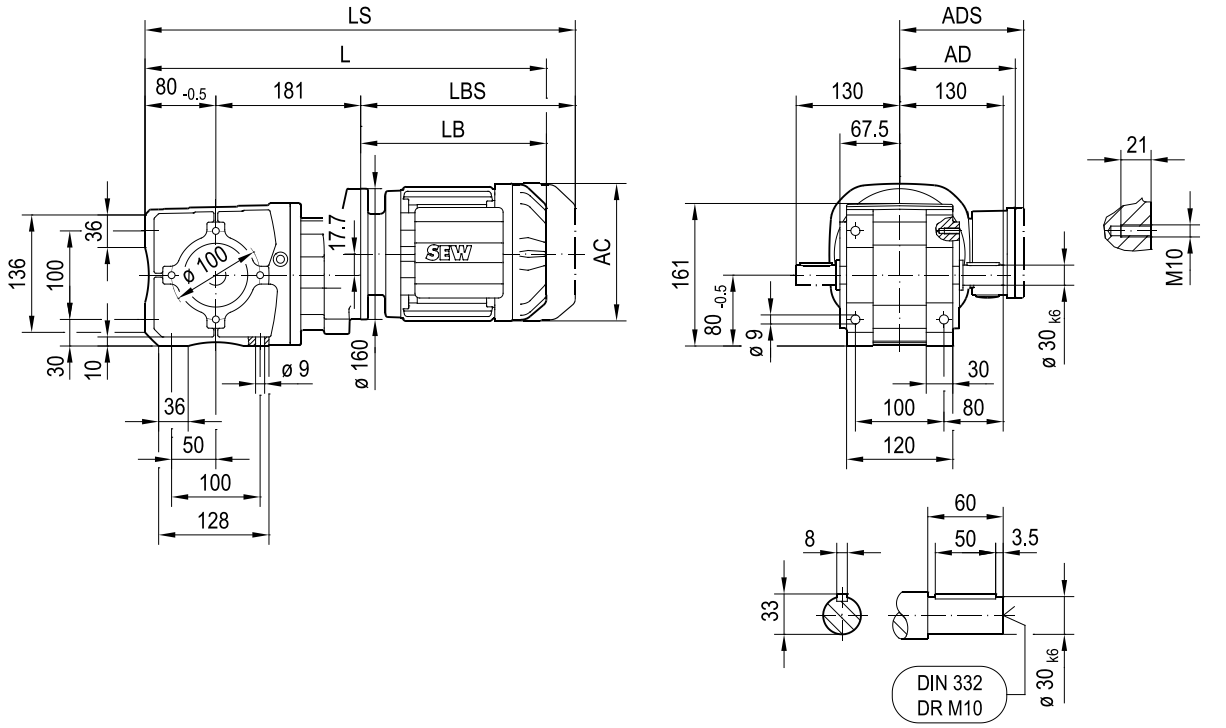


(→ 📖 7.3)	DRN							
	63MS	63M	71MS	71M	80MK	80M	90S	90L
AC	115	115	139	139	156	156	179	179
AD	98	98	118	118	128	128	140	140
ADS	98	98	129	129	139	139	150	150
L	394	408	410	430	441	486	487	519
LS	450	464	477	497	522	567	581	613
LB	190	204	206	226	237	282	283	315
LBS	246	260	273	293	318	363	377	409

24832936/EN – 09/2018

20 016 01 14

W47..



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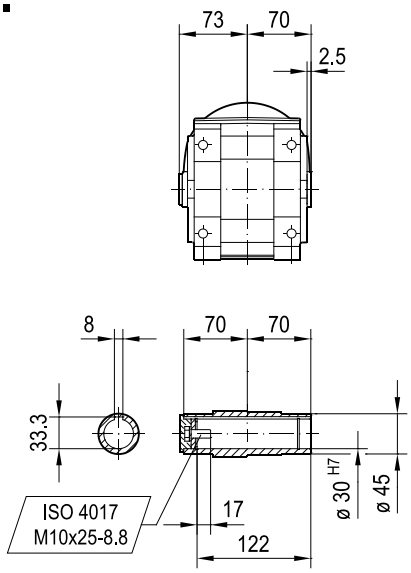
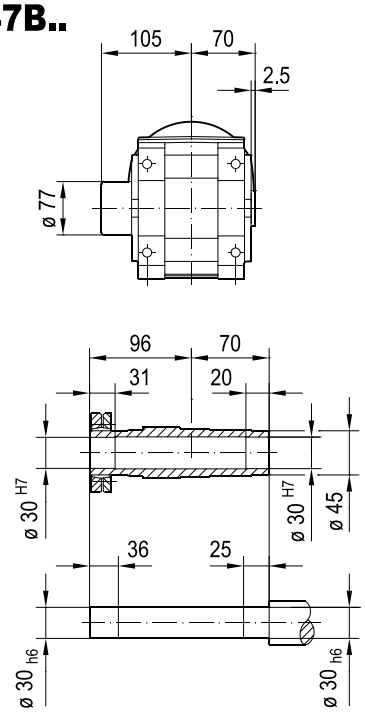


WH47B..



(→ 📖 7.3)	DRN									
	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M
AC	115	139	139	156	156	179	179	197	197	221
AD	98	118	118	128	128	140	140	157	157	170
ADS	98	129	129	139	139	150	150	158	158	172
L	459	460	480	491	536	538	570	566	616	647
LS	515	528	548	572	617	631	663	660	710	759
LB	198	199	219	230	275	277	309	305	355	386
LBS	254	267	287	311	356	370	402	399	449	498

24832936/EN – 09/2018

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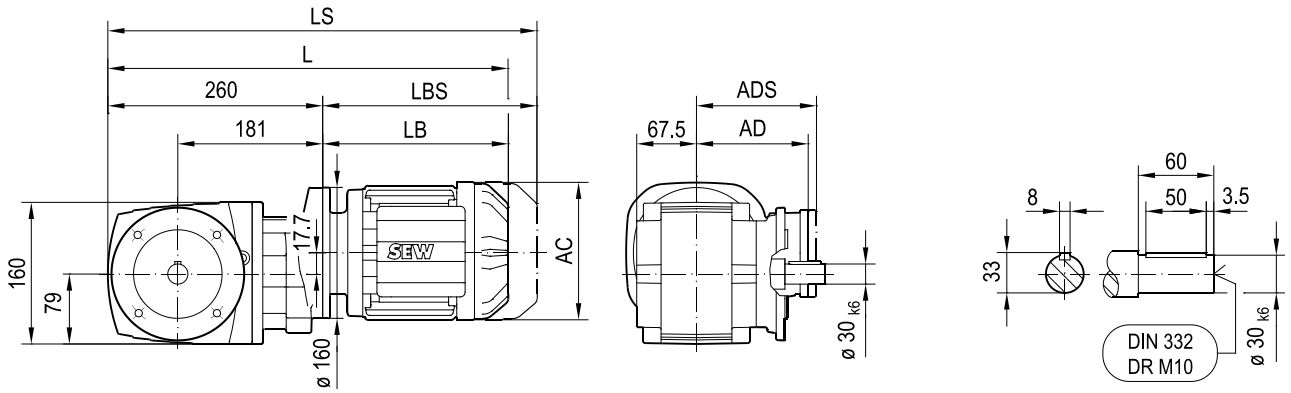
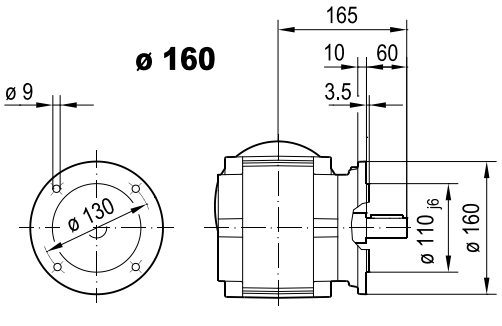
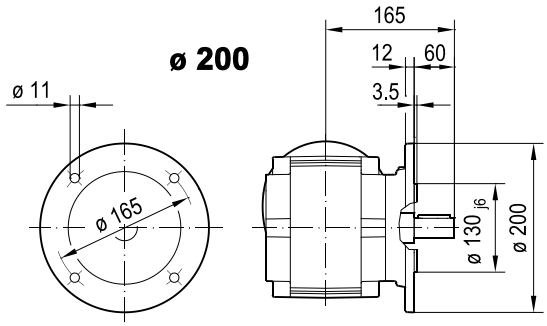
WF47..







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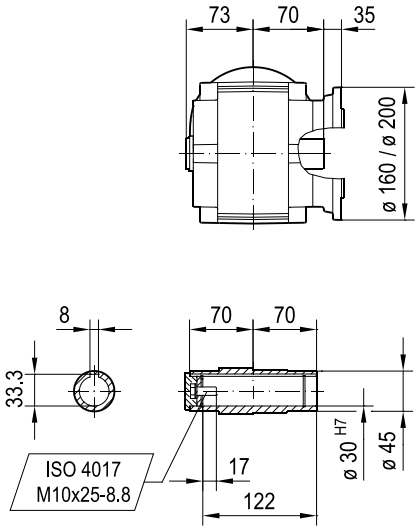

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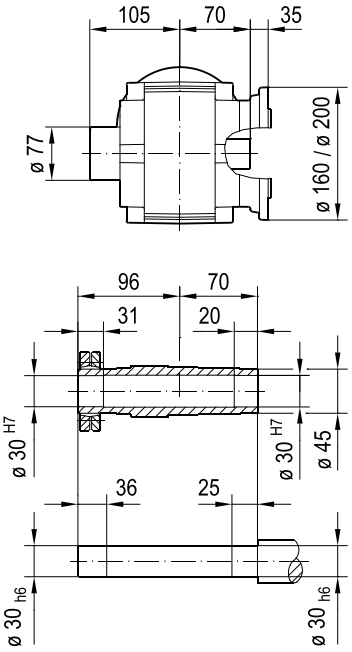

(→ 📖 7.3)	DRN									
	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M
AC	115	139	139	156	156	179	179	197	197	221
AD	98	118	118	128	128	140	140	157	157	170
ADS	98	129	129	139	139	150	150	158	158	172
L	458	459	479	490	535	537	569	565	615	646
LS	514	527	547	571	616	630	662	659	709	758
LB	198	199	219	230	275	277	309	305	355	386
LBS	254	267	287	311	356	370	402	399	449	498

24832936/EN – 09/2018

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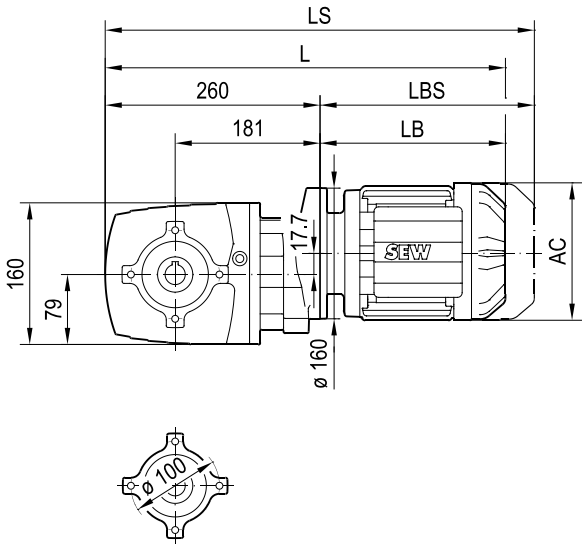
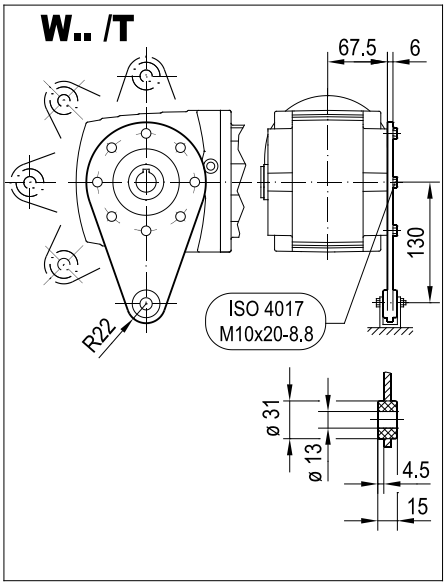
WA47..



W.. /T



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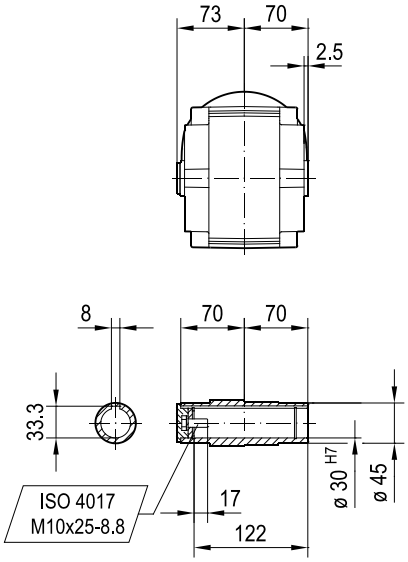

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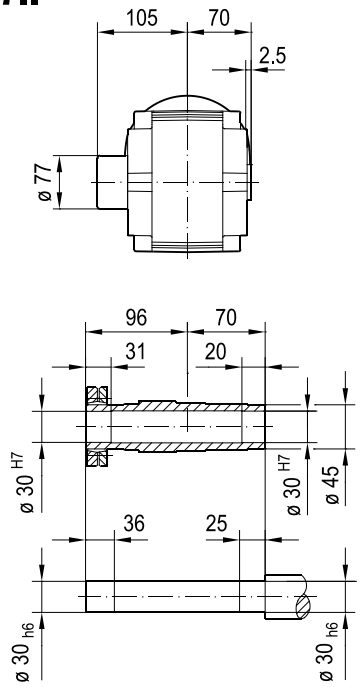

(→ 📖 7.3)	DRN									
	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M
AC	115	139	139	156	156	179	179	197	197	221
AD	98	118	118	128	128	140	140	157	157	170
ADS	98	129	129	139	139	150	150	158	158	172
L	458	459	479	490	535	537	569	565	615	646
LS	514	527	547	571	616	630	662	659	709	758
LB	198	199	219	230	275	277	309	305	355	386
LBS	254	267	287	311	356	370	402	399	449	498

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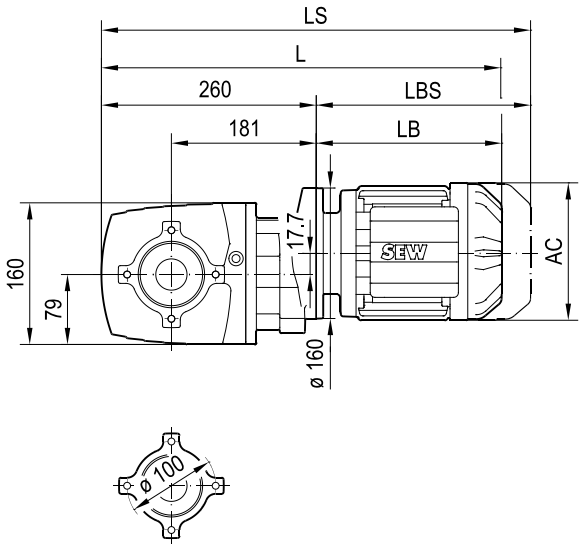
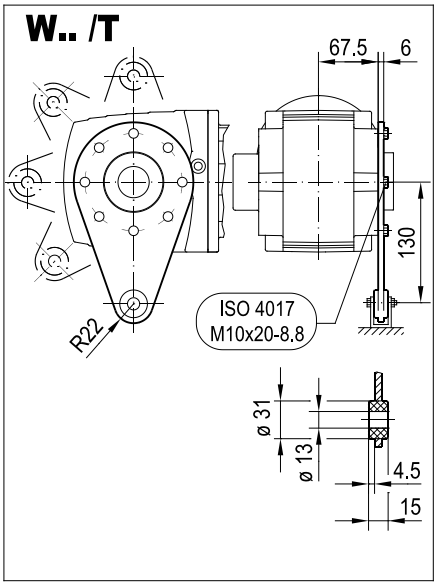
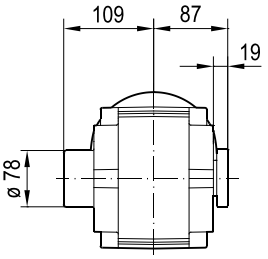
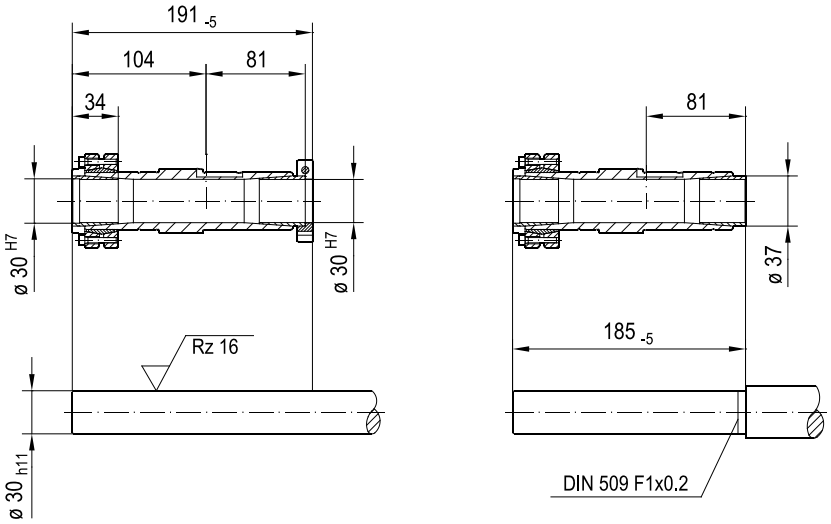
WT47..





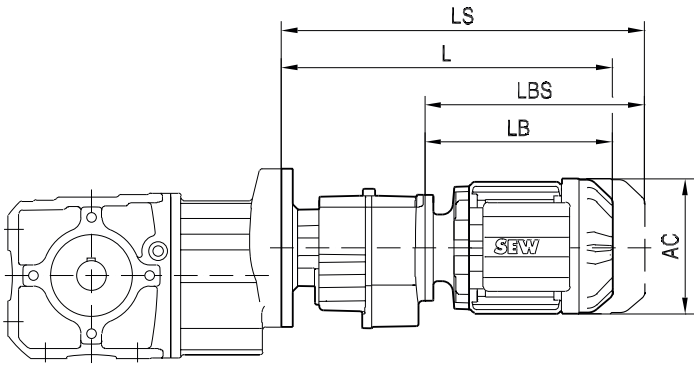




(→ 📖 7.3)	DRN									
	63M	71MS	71M	80MK	80M	90S	90L	100LS	100L/LM	112M
AC	115	139	139	156	156	179	179	197	197	221
AD	98	118	118	128	128	140	140	157	157	170
ADS	98	129	129	139	139	150	150	158	158	172
L	458	459	479	490	535	537	569	565	615	646
LS	514	527	547	571	616	630	662	659	709	758
LB	198	199	219	230	275	277	309	305	355	386
LBS	254	267	287	311	356	370	402	399	449	498

24832936/EN – 09/2018

12.6 W..R..DRN.. dimension sheets in mm



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(→ 🗎 181)		AC	L	LS	LB	LBS
W..37RF17	**DRN63MS**	115	365	421	190	246
	DRN63M	115	379	435	204	260
	DRN71MS	139	381	448	206	273
	DRN71M	139	401	468	226	293
W..47RF17	**DRN63MS**	115	365	421	190	246
	DRN63M	115	379	435	204	260
	DRN71MS	139	381	448	206	273
	DRN71M	139	401	468	226	293
	DRN80M	156	452	533	277	358

24832936/EN – 09/2018

13 Technical data of the motors

INFORMATION

You find more information in the "AC Motors" catalog.

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
$\eta_{50\%}$	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_K/M_N	Breakdown torque ratio
m_{Mot}	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 controller
Z_0 BGE	Switching frequency for operation with BGE brake controller
M_B	Braking torque
m_{BMot}	Mass of the brakemotor
J_{BMot}	Mass moment of inertia of the brakemotor

24832936/EN – 09/2018

13.2 IE1 DR2S.. motors. 400 V, 50 Hz, 4-pole

13.2.1 Information on motors

DR2S.. motor type	P_N	M_N	n_N	I_N 400 V	cosφ	$\eta_{50\%}$	$\eta_{75\%}$	$\eta_{100\%}$	I_A/I_N	M_A/M_N M_H/M_N	M_K/M_N
	kW	Nm	min^{-1}	A		%	%	%			
DR2S56MR4[1)]	0.09	0.62	1380	0.35	0.61	43.9	51.4	54.8	3.0	2.8 2.8	2.9

1) DR2S56.. motors will be available in spring 2019.

13.2.2 Further information for motors and brakemotors

DR2S.. motor type	P_N	M_N	n_N	m_{Mot}	J_{Mot}	BE..	Z_0 BG BGE	M_B	m_{BMot}	J_{BMot}
	kW	Nm	min^{-1}	kg	10^{-4} kgm^2		h^{-1}	Nm	kg	10^{-4} kgm^2
DR2S56MR4[1)]	0.09	0.62	1380	[2)]	1.2	BE02	10000 -	0.8	[2)]	1.3

1) DR2S56.. motors will be available in spring 2019.

2) Only available as gearmotor

24832936/EN – 09/2018

13.3 IE3 DRN.. motors, 400 V, 50 Hz, 2-pole

13.3.1 Information for motors

Motor	P_N kW	M_N Nm	n_N min^{-1}	I_N A	cosφ	$\eta_{50\%}$ %	$\eta_{75\%}$ %	$\eta_{100\%}$ %	I_A/I_N	M_A/M_N M_H/M_N	M_K/M_N
DRN63MS2	0.18	0.63	2725	0.465	0.78	62.7	66.2	65.9	4.2	2.6 2.6	2.6
DRN63M2	0.25	0.87	2755	0.57	0.81	69.2	70.9	69.7	4.9	2.7 2.6	2.7
DRN71MS2	0.37	1.26	2810	0.87	0.78	70.7	73.8	73.8	5.4	3.1 2.7	3.1
DRN71M2	0.55	1.86	2825	1.24	0.81	75.7	78.0	77.8	5.9	3.2 3.0	3.2
DRN80MS2	0.75	2.5	2855	1.58	0.84	80.2	82.0	81.4	5.9	2.8 2.5	2.9
DRN80M2	1.1	3.65	2860	2.2	0.85	83.1	84.1	83.0	6.6	3.0 2.5	2.9
DRN90S2	1.5	4.95	2886	3.1	0.83	83.7	85.0	84.2	6.6	2.7 2.5	2.9
DRN90L2	2.2	7.2	2905	4.3	0.85	86.1	86.7	85.9	7.4	2.5 2.1	3.0
DRN100LM2	3	9.9	2894	5.8	0.85	88.9	88.7	87.2	7.7	3.3 2.6	3.5
DRN112M2	4	13	2948	7.5	0.86	88.1	88.7	88.1	10.6	2.9 1.3	3.3
DRN132S2	5.5	17.9	2935	9.4	0.92	90.3	90.2	89.2	10.0	3.0 2.1	3.7
DRN132S2	7.5	24.5	2936	14.1	0.85	90.6	90.8	90.1	9.6	3.3 2.0	3.4

24832936/EN – 09/2018

13.3.2 Further information for motors and brakemotors

Motor	P_N	M_N	n_N	m_{Mot}	J_{Mot}	BE..	Z_0 BG BGE	M_B	m_{BMot}	J_{BMot}
	kW	Nm	min^{-1}	kg	10^{-4} kgm^2		h^{-1}	Nm	kg	10^{-4} kgm^2
DRN63MS2	0.18	0.63	2725	4.9	2.95	BE03	5000 6000	1.3	6.8	3.63
DRN63M2	0.25	0.87	2755	5.8	3.76	BE03	4500 6000	1.7	7.6	4.44
DRN71MS2	0.37	1.26	2810	6.8	2.93	BE03	6000 3600	2.7	8.6	3.61
DRN71M2	0.55	1.86	2825	8	3.71	BE05	2600 5500	5	10	5.01
DRN80MS2	0.75	2.5	2855	11	18.5	BE05	1200 3400	5	15	20
DRN80M2	1.1	3.65	2860	14	24.1	BE1	1000 2600	7	18	25.6
DRN90S2	1.5	4.95	2886	20	53.1	BE1	600 1300	10	22	54.7
DRN90L2	2.2	7.2	2905	23	66.3	BE2	- 1000	14	27	71
DRN100LM2	3	9.9	2894	33	89.7	BE2	- 750	20	37	94.4
DRN112M2	4	13	2948	45	178	BE5	- 400	28	52	183
DRN132S2	5.5	17.9	2935	56	241	BE5	- 300	40	64	246
DRN132S2	7.5	24.5	2936	56	241	BE5	- 300	55	64	246

24832936/EN – 09/2018

13.4 IE3 DRN.. motors, 400 V, 50 Hz, 4-pole

13.4.1 Information on motors

Motor	P_N kW	M_N Nm	n_N min^{-1}	I_N A	cosφ	$\eta_{50\%}$ %	$\eta_{75\%}$ %	$\eta_{100\%}$ %	I_A/I_N	M_A/M_N M_H/M_N	M_K/M_N
DRN63MS4	0.12	0.83	1380	0.4	0.64	58.3	63.9	64.8	3.6	2.7 2.6	2.7
DRN63M4	0.18	1.25	1375	0.57	0.65	65.1	69.4	69.9	3.7	2.6 2.6	2.6
DRN71MS4	0.25	1.7	1405	0.72	0.66	70.1	73.5	73.5	4.3	2.5 2.3	2.5
DRN71M4	0.37	2.5	1415	1.02	0.66	74.3	77.3	77.3	4.8	2.8 2.4	2.8
DRN80MK4	0.55	3.65	1435	1.29	0.75	78.6	81.0	80.8	6.1	2.7 2.1	3.1
DRN80M4	0.75	4.95	1440	1.75	0.74	80.7	82.9	82.9	6.7	3.1 2.7	3.4
DRN90S4	1.1	7.2	1455	2.55	0.73	83.5	85.0	84.5	6.9	2.7 2.1	3.3
DRN90L4	1.5	9.8	1461	3.4	0.74	84.6	86.1	85.6	7.5	2.7 2.0	3.3
DRN100LS4	2.2	14.5	1450	4.75	0.76	86.4	87.5	86.9	7.1	2.9 2.2	3.3
DRN100L4	3	19.7	1456	6.4	0.76	87.3	88.3	87.8	8.2	3.4 2.3	3.7
DRN112M4	4	26	1464	7.9	0.81	88.6	89.4	88.7	8.2	2.4 1.6	3.6
DRN132S4	5.5	36	1461	10.5	0.84	90.6	90.6	89.6	8.3	2.8 2.2	3.5
DRN132M4	7.5	49	1468	15.2	0.78	90.8	91.1	90.4	7.8	3.1 2.4	3.3
DRN132L4	9.2	60	1470	18.7	0.77	90.8	91.6	91.0	8.4	3.7 1.8	3.7
DRN160M4	11	71	1473	21	0.81	91.1	91.7	91.4	7.3	2.6 2.2	3.0
DRN160L4	15	97	1474	29	0.80	91.9	92.5	92.1	8.0	3.0 2.0	3.4
DRN180M4	18.5	120	1478	33.5	0.85	92.8	93.1	92.6	9.5	3.6 2.9	3.6
DRN180L4	22	142	1477	38.5	0.87	93.4	93.6	93.0	9.6	3.5 2.1	3.4
DRN200L4	30	194	1480	56	0.82	93.3	93.9	93.6	8.2	2.9 2.5	3.3
DRN225S4	37	240	1482	64	0.88	94.3	94.4	93.9	8.4	3.0 2.3	2.7
DRN225M4	45	290	1482	81	0.85	94.1	94.5	94.2	8.8	3.0 2.2	2.7
DRN250M4	55	355	1482	104	0.80	94.4	94.8	94.6	8.2	4.0 2.5	2.9
DRN280S4	75	485	1482	143	0.79	94.9	95.3	95.0	7.6	3.7 2.6	2.9
DRN280M4	90	580	1481	161	0.84	95.4	95.6	95.2	7.7	3.6 2.0	2.7
DRN315S4	110	710	1488	189	0.87	95.4	95.7	95.5	6.7	2.9 2.1	3.1
DRN315M4	132	850	1487	230	0.87	95.6	95.9	95.6	6.5	2.7 2.0	2.9
DRN315L4	160	1030	1486	275	0.87	95.9	96.1	95.9	6.5	2.7 2.0	2.8
DRN315H4	200	1280	1489	355	0.84	95.4	96.0	96.0	8.1	3.7 2.8	3.8

24832936/EN – 09/2018

13.4.2 Further information on motors and brakemotors

Motor	P_N	M_N	n_N	m_{Mot}	J_{Mot}	BE..	Z_0 BG BGE	M_B	m_{BMot}	J_{BMot}
	kW	Nm	min^{-1}	kg	10^{-4} kgm^2		h^{-1}	Nm	kg	10^{-4} kgm^2
DRN63MS4	0.12	0.83	1380	4.9	2.95	BE03	10000 10000	1.7	6.8	3.63
DRN63M4	0.18	1.25	1375	5.8	3.76	BE03	10000 10000	2.7	7.6	4.44
DRN71MS4	0.25	1.7	1405	6.8	5.42	BE03	6200 9700	3.4	8.6	6.11
DRN71M4	0.37	2.5	1415	8	7.14	BE05	5000 9000	5	10	8.44
DRN80MK4	0.55	3.65	1435	11	17.1	BE1	3500 8500	7	14	18.6
DRN80M4	0.75	4.95	1440	14	24.7	BE1	3200 8200	10	18	26.2
DRN90S4	1.1	7.2	1455	20	54	BE2	2300 6000	14	24	58.7
DRN90L4	1.5	9.8	1461	23	67.2	BE2	2200 5800	20	27	71.9
DRN100LS4	2.2	14.5	1450	27	81.4	BE5	- 6100	28	33	87.4
DRN100L4	3	19.7	1456	34	112	BE5	- 3700	40	40	118
DRN112M4	4	26	1464	45	178	BE5	- 2900	55	52	183
DRN132S4	5.5	36	1461	56	241	BE11	- 2100	80	71	251
DRN132M4	7.5	49	1468	73	381	BE11	- 1100	110	91	403
DRN132L4	9.2	60	1470	81	439	BE20	- 980	150	110	490
DRN160M4	11	71	1473	115	817	BE20	- 900	150	145	877
DRN160L4	15	97	1474	130	1040	BE20	- 800	200	165	1100
DRN180M4	18.5	120	1478	155	1630	BE30	- 510	300	195	1770
DRN180L4	22	142	1477	170	1950	BE30	- 470	300	210	2090
DRN200L4	30	194	1480	280	2660	BE32	- 500	400	335	2890
DRN225S4	37	240	1482	310	4350	BE32	- 230	500	365	4580
DRN225M4	45	290	1482	310	4350	BE32	- 200	600	365	4580
DRN250M4	55	355	1482	460	7360	BE62	- 180	800	550	7960
DRN280S4	75	485	1482	520	8940	BE62	- 150	1000	600	9530
DRN280M4	90	580	1481	630	12000	BE62	- 79	1200	720	12600
DRN315S4	110	710	1488	870	23400	BE122	- 53	1600	1000	24400
DRN315M4	132	850	1487	890	24800	BE122	- 46	2000	1020	25800
DRN315L4	160	1030	1486	1020	28600	BE122	- 34	2000	1150	29600
DRN315H4	200	1280	1489	1130	35200	BE122	- 23	2000	1270	36200

24832936/EN – 09/2018

13.5 IE3 DRN.. motors, 400 V, 50 Hz, 6-pole

13.5.1 Information for motors

Motor	P_N kW	M_N Nm	n_N min^{-1}	I_N A	cosφ	$\eta_{50\%}$ %	$\eta_{75\%}$ %	$\eta_{100\%}$ %	I_A/I_N	M_A/M_N M_H/M_N	M_K/M_N
DRN63MR6	0.09	0.93	920	0.36	0.58	44.3	51.7	55.0	2.9	2.7 2.6	2.8
DRN63M6	0.12	1.32	870	0.4	0.71	51.9	57.5	57.7	2.6	1.9 1.8	1.9
DRN71MS6	0.18	1.88	915	0.55	0.69	59.4	63.7	63.9	3.4	1.9 1.9	2.2
DRN71M6	0.25	2.6	915	0.76	0.68	63.5	68.2	68.6	3.4	2.0 1.9	2.3
DRN80MK6	0.37	3.8	935	1.05	0.68	70.8	73.8	73.5	4.1	2.1 2.1	2.4
DRN90SR6	0.55	5.4	966	1.52	0.65	73.5	76.7	77.2	5.2	2.3 2.2	2.8
DRN90S6	0.75	7.5	957	2	0.68	77.4	79.8	78.9	4.8	2.0 2.0	2.4
DRN90L6	1.1	11	957	2.95	0.67	78.8	81.3	81.0	5.0	2.4 2.3	2.8
DRN100L6	1.5	14.9	961	4.1	0.63	80.7	82.8	82.5	4.7	2.2 2.2	2.9
DRN112M6	2.2	21.5	973	5.5	0.66	83.6	85.0	84.3	6.5	2.4 1.9	3.2
DRN132S6	3	29.5	974	7.4	0.66	84.8	86.0	85.6	6.2	2.6 2.5	3.4
DRN132S6	4	39.5	968	9.7	0.68	86.4	87.5	86.8	5.5	2.5 2.5	3.2
DRN132L6	5.5	54	975	13.8	0.64	86.9	88.3	88.0	5.6	2.7 2.5	2.8
DRN160M6	7.5	73	979	15.8	0.74	88.4	89.4	89.1	8.2	2.7 1.6	4.0

24832936/EN – 09/2018

13.5.2 Further information for motors and brakemotors

Motor	P_N	M_N	n_N	m_{Mot}	J_{Mot}	BE..	Z_0 BG BGE	M_B	m_{BMot}	J_{BMot}
	kW	Nm	min^{-1}	kg	10^{-4} kgm^2		h^{-1}	Nm	kg	10^{-4} kgm^2
DRN63MR6	0.09	0.93	920	5.8	6.47	BE03	12000 12000	2.1	7.6	7.16
DRN63M6	0.12	1.32	870	5.8	6.47	BE03	12000 12000	2.7	7.6	7.16
DRN71MS6	0.18	1.88	915	6.8	8.29	BE05	7000 12000	5	9.2	9.59
DRN71M6	0.25	2.6	915	8	10.4	BE05	5200 12000	5	10	11.7
DRN80MK6	0.37	3.8	935	11	17.1	BE1	3000 9000	10	14	18.6
DRN90SR6	0.55	5.4	966	20	54	BE2	2400 5000	14	24	58.7
DRN90S6	0.75	7.5	957	20	54	BE2	2400 5000	20	24	58.7
DRN90L6	1.1	11	957	23	67.4	BE5	2200 4400	28	29	73.4
DRN100L6	1.5	14.9	961	34	112	BE5	- 3400	40	40	118
DRN112M6	2.2	21.5	973	45	178	BE5	- 2500	55	52	183
DRN132S6	3	29.5	974	56	245	BE11	- 2300	80	71	256
DRN132S6	4	39.5	968	56	245	BE11	- 2100	80	71	256
DRN132L6	5.5	54	975	81	439	BE11	- 1700	110	100	461
DRN160M6	7.5	73	979	115	1290	BE20	- 1200	150	145	1350

24832936/EN – 09/2018

13.6 IE3 DRN.. motors, 400 V, 50 Hz, 8-pole

13.6.1 Information on motors

DRN.. motor type	P_N kW	M_N Nm	n_N min^{-1}	I_N A	cosφ	$\eta_{50\%}$ %	$\eta_{75\%}$ %	$\eta_{100\%}$ %	I_A/I_N	M_A/M_N M_H/M_N	M_K/M_N
DRN71MSR8	0.09	1.24	695	0.435	0.53	39.0	46.7	50.7	2.4	2.3 2.3	2.6
DRN71MS8	0.12	1.72	665	0.47	0.64	46.2	52.4	53.5	2.3	1.6 1.6	1.8
DRN80MK8	0.18	2.45	705	0.76	0.54	49.4	56.1	58.7	3.0	1.8 1.8	2.4
DRN80M8	0.25	3.4	702	1.02	0.53	55.8	62.0	64.1	3.1	2.0 1.9	2.3

13.6.2 Further information on motors and brakemotors

DRN.. motor type	P_N kW	M_N Nm	n_N min^{-1}	m_{Mot} kg	J_{Mot} 10^{-4} kgm^2	BE..	Z_0 BG BGE h^{-1}	M_B Nm	m_{BMot} kg	J_{BMot} 10^{-4} kgm^2
DRN71MSR8	0.09	1.24	695	6.8	8.29	BE03	6000 16000	2.7	8.6	8.98
DRN71MS8	0.12	1.72	665	6.8	8.29	BE03	6000 16000	3.4	8.6	8.98
DRN80MK8	0.18	2.45	705	11	17.1	BE05	5000 11500	5	14	18.6
DRN80M8	0.25	3.4	702	14	24.7	BE1	3700 10500	7	18	26.2

24832936/EN – 09/2018

14 Address directory SEW-EURODRIVE

Algeria			
Sales	Algiers	REDUCOM Sarl 16, rue des Frères Zaghnoune Bellevue 16200 El Harrach Alger	Tel. +213 21 8214-91 Fax +213 21 8222-84 http://www.reducom-dz.com info@reducom-dz.com

24832936/EN – 09/2018

Index

A

Abbreviation Key 44
Adapter 15
Adapter for mounting of
  IEC motors 146
  NEMA motors 149
  Servomotors 151
Additional documentation 9
Additional documentation for
  Project Planning for Drives 44
Agitator drive
  Strength class of the screws 154
Agitator gear unit 22

B

Backstop 15
Bearing greases 109
Brakemotors 14
Breather valve 127, 179
  Compound gear unit 62
Breather valve in motor flange 64

C

Centering shoulder 15
Certification 14
Changing the mounting position 64
Churning losses 49
Combination options 175
Combinations, possible
  Helical gearmotors 184
  Helical-bevel gearmotors 526
  Helical-worm gearmotors 715
  Parallel-shaft helical gearmotors 366
  SPIROPLAN® gearmotors 823
  Structure of the tables 175
Compound gear unit
  Breather valve 62
  Oil drain plug 62
  Oil level plug 62
  Screw plug bore 62
Condition monitoring 25
  DUO 10A 20
  Oil aging sensor 20
  Vibration SmartCheck 20
Copyright notice 10

D

Designs
  Helical gearmotors 33, 182
  Helical-bevel gearmotors 36, 37, 38
  Helical-worm gearmotors 40, 713
  Parallel-shaft helical gearmotors 34, 363
  SPIROPLAN® gearmotors 41, 821
Designs, possible
  SPIROPLAN® gear units 13
Diagnostic unit
  Oil aging sensor DUO10A 20
  Vibration SmartCheck 20
Dimension sheets
  Helical gearmotors 308
  Helical-bevel gearmotors 616
  Helical-worm gearmotors 757
  Parallel-shaft helical gearmotors 448
  SPIROPLAN® gearmotors 840
Dismounting using the SEW-EURODRIVE assembly/disassembly kit 133
Documentation, additional 9
Drive and gear unit selection data 44
Drive solution 6
DUO 10A
  Technical data 169

E

EDR type designation
  Motor series 26
Efficiency 49
Efficiency of R, F, K, S, W gear units 48
Encoder 27
Extended storage 19

F

Fixed safety cover 164
  Part numbers and dimensions 166, 167, 168
Flange contours
  FAF.., KAF.., SAF.. and WAF 161
  FF.., KF.., SF.. and WF.. 159
  RF.. and R..F 157
Food-grade lubricant
  SPIROPLAN® gear units 54

24832936/EN – 09/18

Force application - definition 57

G

Gear ratios, max. torques
- Helical gearmotors 184
- Helical-bevel gearmotors 526
- Helical-worm gearmotors 715
- Parallel-shaft helical gearmotors 366
- SPIROPLAN® gearmotors 823
- Structure of the tables 175

Gear unit mounting 154
- Strength class 154

Gear units
- Extended storage 19

Gear units with hollow shaft 135
- Special motor/gear unit combinations 136

Gear units with hollow shafts and key
- Installation/removal kit 129

Gearmotor
- Accessibility 12
- Heat dissipation 12
- Installation altitude 12
- Noise 12
- Painting 12

Grease filling 109

H

Heavy load range 9

Helical gear units
- Type designation 23

Helical gearmotors 182
- Designs 182
- Dimension sheets 308
- Mounting positions 74
- Possible geometrical combinations 184
- Selection tables 220
- Selection tables for low output speeds 292

Helical-bevel gear units
- Type designation 24

Helical-bevel gearmotors 523
- Designs 36, 37, 38
- Dimension sheets 616
- Mounting positions 82
- Possible geometrical combinations 526
- Selection tables 551
- Selection tables for low output speeds 602
- Variants 523

Helical-worm gear units
- Type designation 24

Helical-worm gearmotors 713
- Designs 40, 713
- Dimension sheets 757
- Mounting positions 95
- Possible geometrical combinations 715
- Selection tables 728
- Selection tables for low output speeds 750

Higher permitted overhung loads
- Gear units 57

Hollow shaft and key, mounting/dismounting 129

I

Installation altitude 12

Installation kit for gear units with hollow shaft and key 129

International markets 14

L

Light load range 9

Lubricant
- Compatibility with oil seal 111
- Lubricant table 110

Lubricant fill quantities 122

Lubricant table
- Notes 110

M

Modular automation system 6

Motor
- Operating temperature 11

Motor flange
- Breather valve, oil drain plug 64

Motor mounting positions 107

Motor platform 15

Mounting gear units with hollow shaft and key
- Supplied fastening parts 129
- Using the assembly/disassembly kit by SEW-EURODRIVE 131

Mounting of gear units 154

Mounting position
- Mounting position M0 64
- Mounting position MX 64

Mounting position sheets, key 73

24832936/EN – 09/18

Mounting positions
Helical gearmotors 74
Helical-bevel gearmotors 82
Helical-worm gearmotors 95
Overview 63
Parallel-shaft helical gearmotors 79
SPIROPLAN® gearmotors 101
Multi-stage gearmotors 61

N

NOCO® fluid 18
Notes on the gearmotor dimension sheets 178

O

Oil aging sensor 20
Oil aging sensor DUO10A
Technical data 169
Oil drain plug
Compound gear unit 62
Oil drain plug in motor flange 64
Oil expansion tank 21
Oil level plug
Compound gear unit 62
Oil quantity 122
Oil seal
Lubricant compatibility 111
Operating temperature
Gear units 11
Motor 11
Options
TorcLOC® 138
Type designation 25
Order information 68
Output designs 26
Overhung load
Permitted overhung load 55
Reduced overhung load 55
Overhung load conversion, gear unit constants .. 59

P

Parallel-shaft helical gear units
Type designation 23
Parallel-shaft helical gearmotors 363
Designs 34, 363
Dimension sheets 448
Mounting positions 79
Possible geometrical combinations 366
Selection tables 392
Selection tables for low output speeds 432
Permitted axial load 57
Position of the torque arm 180
Possible geometrical combinations
Helical gearmotors 184
Helical-bevel gearmotors 526
Helical-worm gearmotors 715
Parallel-shaft helical gearmotors 366
SPIROPLAN® gearmotors 823
Product names 10
Project Planning for Drives
Additional documentation 44
Multi-stage gearmotors 61
Project planning procedure 45
Project Planning for Gear Units
Service factor 51

R

R, F, K, S, W gear units
Operating temperature 11
Reduced backlash gear units 13, 128
Removal kit for gear units with hollow shaft and key 129
Rubber buffer for FA/FH/FV/FT 180

S

Safety cover 163
Fixed 163
Flat 164
Rotating 163
Screw plug bore
Compound gear unit 62
Selection tables
Gearmotors, structure of the selection tables 176
Helical gearmotors 220
Helical-bevel gearmotors 551
Helical-worm gearmotors 728
Parallel-shaft helical gearmotors 392
SPIROPLAN® gearmotors 828
Selection tables for low output speeds
Helical gearmotors 292
Helical-bevel gearmotors 602
Helical-worm gearmotors 750

24832936/EN – 09/18

Parallel-shaft helical gearmotors 432
SPIROPLAN® gearmotors 838
Self-locking helical-worm or SPIROPLAN® gear units 48
Service factor
Determining the service factor 51
SEW fB 51
SPIROPLAN® gear units 54
SEW service factor 51
SEW-EURODRIVE
Group of companies 6
Shouldered hollow shaft with shrink disk 139
Helical-bevel gear unit 142
Helical-worm gear unit 144
Parallel-shaft helical gear units 140
Shrink disk connection 180
SPIROPLAN® gear units
Mounting position M0 64
Service factor 54
Type designation 25
SPIROPLAN® gearmotors 821
Designs 41, 821
Dimension sheets 840
Mounting positions 101
Possible geometrical combinations 823
Selection tables 828
Selection tables for low output speeds 838
Splined hollow shaft 180
Storage conditions 19
Strength class
Gear unit mounting 154
Structure of the selection tables 176
Surface protection 19
Swing base 15

T

Technical data 862
DUO 10A 169
Oil aging sensor DUO10A 169
Vibration SmartCheck 171
Technical data of DR2S.. motors 863
Thermal rating 49
Tolerances 178
Shaft heights 178
Flanges 179
Hollow shafts 178
Multiple-spline shafts 179
Shaft ends 178
TorqLOC®
Options 138
TorqLOC® hollow shaft mounting system 137
Torque arm 180
Trademarks 10
Type designation 31
Helical gear units 23
Helical-bevel gear units 24
Helical-worm gear units 24
Options 25
Parallel-shaft helical gear units 23
SPIROPLAN® gear units 25
Temperature detection 28
Type designation AC motors and options 26
Type designation DR..
Condition monitoring 30
Encoder 27
Storage 29
Temperature sensor and temperature detection 28
Ventilation 29

U

Universal mounting position M0 64

V

Variants
Helical-bevel gearmotors 523
Variants, possible
Brakemotors 14
Reduced backlash 128
RM Gearmotors 13
Vibration SmartCheck 20
Technical data 171

24832936/EN – 09/18

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:

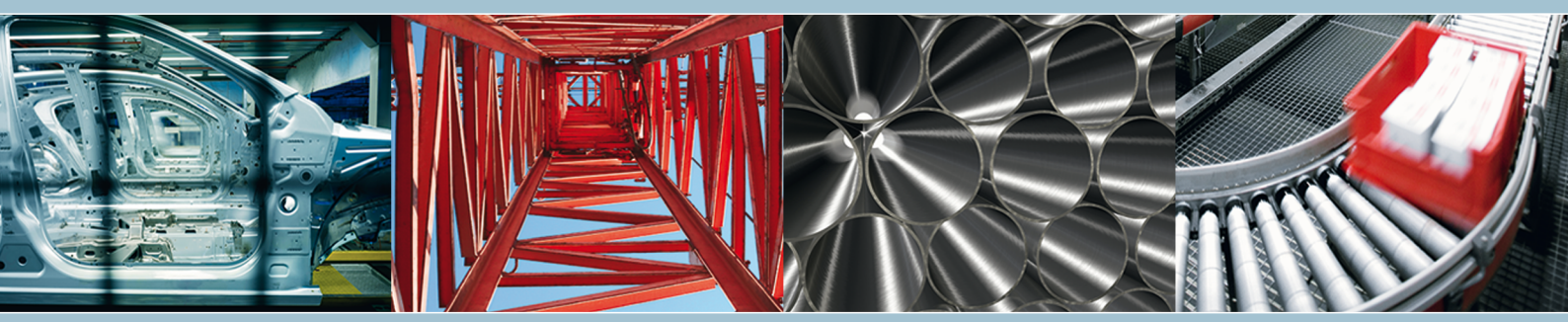
Special ambient conditions:

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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