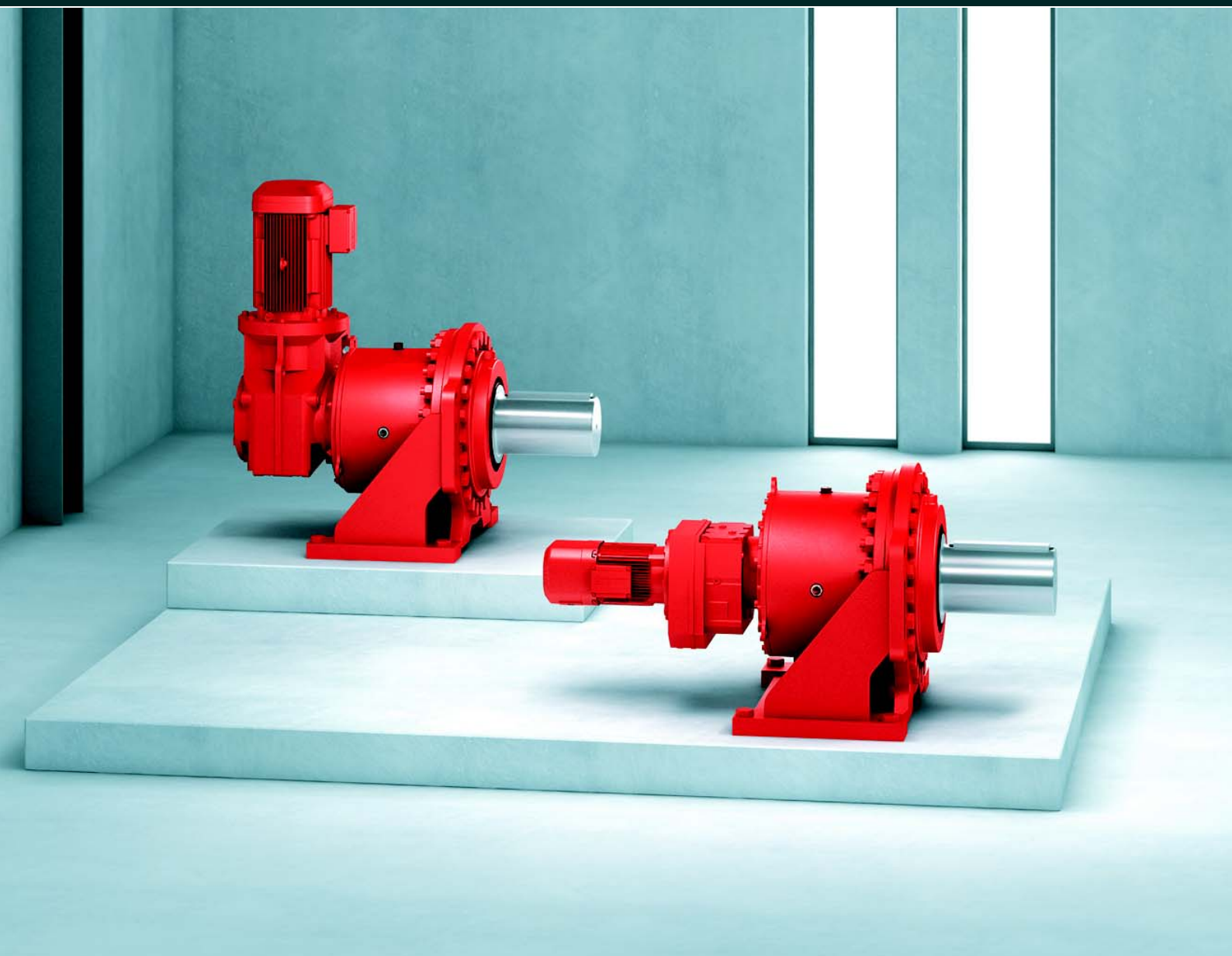
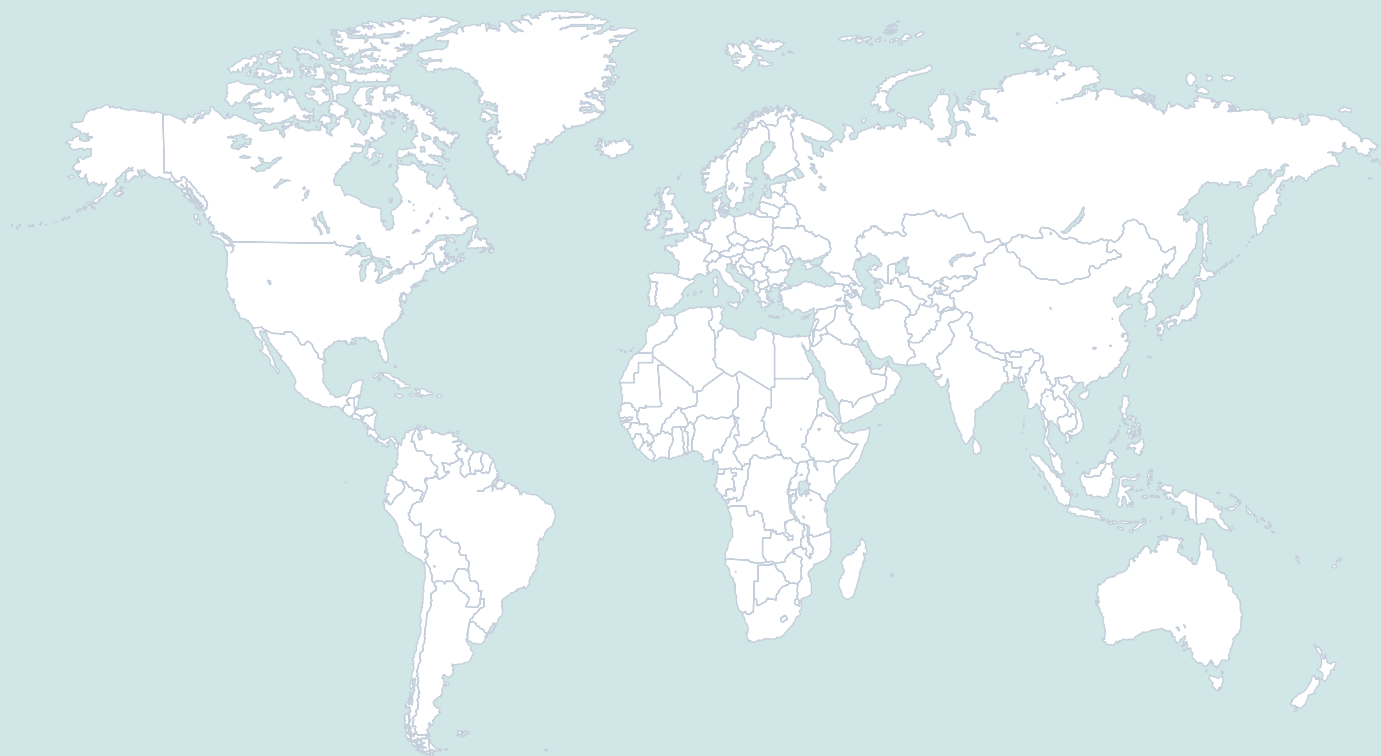




Catalog



Industrial Gear Units
Planetary Gearmotors (IE1 / IE2 / IE3)
P.002 – P.102 Series
Torque Range from 24 to 500 kNm





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1 Introduction

1.1 The SEW-EURODRIVE group of companies

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

Not only are we represented in all important industries of our time, we are also present all over the world: with 15 production plants and 67 assembly plants in 45 countries and our customer service, which we see as an integrative part of our portfolio that extends our high quality standards.

Always the right drive

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

Our electronic components – MOVITRAC[®] frequency inverters, MOVIDRIVE[®] drive inverters and MOVIAXIS[®] multi-axis servo inverters – enhance the gearmotors, forming a combination that blends perfectly with the existing SEW-EURODRIVE systems program. As in the case for mechanical systems, the development, production and assembly is also carried out completely by SEW-EURODRIVE. In combination with our drive electronics, these drives provide the utmost in flexibility.

Products of the servo drive system, such as low backlash servo gear units, compact servomotors or MOVIAXIS[®] multi-axis servo inverters provide precision and dynamics. From single-axis or multi-axis applications all the way to synchronized process sequences, servo drive systems by SEW-EURODRIVE offer a flexible and customized implementation of your application.

For economical, decentralized installations, SEW-EURODRIVE offers components from its decentralized drive system, such as MOVIMOT[®], the gearmotor with integrated frequency inverter or MOVI-SWITCH[®], the gearmotor with integrated switching and protection function. SEW-EURODRIVE hybrid cables have been designed specifically to ensure cost-effective solutions, independent of the philosophy behind or the size of the system. The latest developments from SEW-EURODRIVE: MOVITRANS[®] – system components for contactless energy transfer, MOVIPRO[®] – the decentralized drive controller, and MOVIFIT[®] – the new decentralized intelligence.

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 once again provides optimum adaptation of industrial gear units to meet a wide range of the most varying applications.

Your ideal partner Its global presence, extensive product range 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 applications in all branches of industries and applications.



1.2 Products and systems from SEW-EURODRIVE

The products and systems from SEW-EURODRIVE are divided into four product groups. These four product groups are:

1. Gearmotors and frequency inverters
2. Servo drive systems
3. Decentralized drive systems
4. Industrial gear units

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

1. Gearmotors and frequency inverters		
Gear units / gearmotors	Motors	Frequency inverters
- Helical gear units / helical gearmotors - Parallel shaft helical gear units / parallel shaft helical gearmotors - Helical-bevel gear units / helical-bevel gearmotors - Helical-worm gear units / helical-worm gearmotors - Spiroplan® right-angle gearmotors - Drives for overhead trolley systems - Geared torque motors - Pole-changing gearmotors - Variable speed gear units / variable speed gearmotors - Aseptic gearmotors - Gear units / gearmotors to ATEX standard - Variable speed gear units / variable speed gearmotors to ATEX standard	- Asynchronous AC motors / AC brakemotors - Pole-changing AC motors / AC brakemotors - Energy-efficient motors - Explosion-proof AC motors / AC brakemotors - Torque motors - Single-phase motors / single-phase brakemotors - Asynchronous linear motors	- MOVITRAC® frequency inverters - MOVIDRIVE® drive inverters - Control, technology and communication options for inverters

2. Servo drive systems		
Servo gear units / servo gearmotors	Servomotors	Servo drive inverters / servo inverters
- Low backlash planetary servo gear units / planetary gearmotors - Low backlash helical-bevel servo gear units / helical-bevel gearmotors - Explosion-proof servo gear units / servo gearmotors	- Asynchronous servomotors / servo brakemotors - Synchronous servomotors / servo brakemotors - Explosion-proof servomotors / servo brakemotors - Synchronous linear motors	- MOVIDRIVE® servo inverters - MOVIAxis® multi-axis servo inverters - Control, technology and communication options for servo drive inverters and servo inverters



3. Decentralized drive systems		
Decentralized drives	Communication and installation	Contactless energy transfer
• MOVIMOT® gearmotors with integrated frequency inverter • MOVIMOT® motors/brakemotors with integrated frequency inverter • MOVI-SWITCH® gearmotors with integrated switching and protection function • MOVI-SWITCH® motors/brakemotors with integrated switching and protection function • Explosion-proof MOVIMOT® and MOVI-SWITCH® gearmotors	• Fieldbus interfaces • Field distributors for decentralized installation • MOVIFIT® product range – MOVIFIT® MC for controlling MOVIMOT® drives – MOVIFIT® SC with integrated electronic motor switch – MOVIFIT® FC with integrated frequency inverter	• MOVITRANS® system – Stationary components for energy supply – Mobile components for energy consumption – Line cables and installation material

4. Industrial gear units		
Helical and bevel-helical gear units • X series • MC series • ML series	Helical and bevel-helical planetary gear units • P series (also as planetary gearmotors) • PMC series	Drive packages • Application solutions with - Swing base - Gearmotors - Motors - Couplings - Drum and disk brakes - Lubrication systems For conveyor drives, bucket elevators, crushers, agitators, cooling towers, crane systems and much more

Products and systems covering several product groups
• Operator terminals • MOVI-PLC® drive-based control system

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

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

Visit our homepage at

→ www.sew-eurodrive.com

The website provides comprehensive information and services.

1.3 Copyright

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2 Product Description and Overview of Types

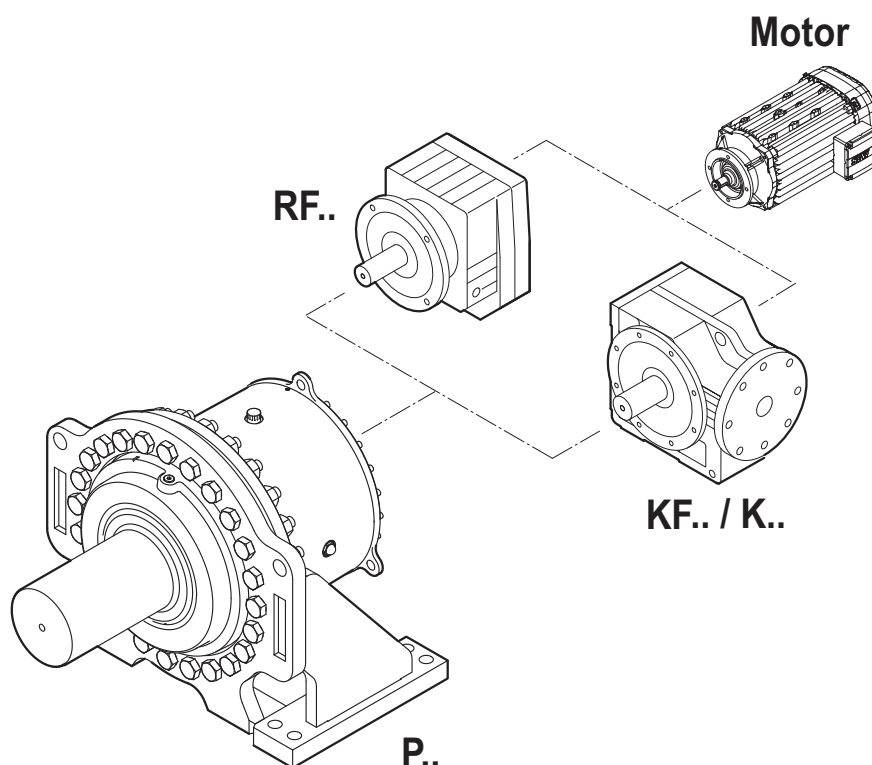
Planetary gearmotors are a combination of

- P.. planetary gear unit output stage
- KF.., / K.. or RF. primary gear unit
- Mount-on components: motor, coupling, adapter and backstop

The planetary gear unit series comprises 11 sizes with a nominal torque from 24,830 Nm to 500,000 Nm.

The load distribution to several planet wheels results in a significantly higher power density and consequently in smaller dimensions compared to helical and bevel-helical gear units.

The following figure shows a sample combination of a planetary gear unit, a primary gear unit and a motor.



64404ADE

- | | |
|-------------------|--|
| P.. | Planetary gear unit |
| RF.. | Helical gear unit (flange-mounted) |
| KF.. / K.. | Helical-bevel gear unit (flange-mounted) |



2.1 Design features

Planetary gear units

- Can transmit a high torque
- Are very compact
- Offer a high degree of torsional rigidity

Primary gearmotors ...

- Offer a large variance on the input side
- Are variable in their reduction gear ratio
- Can be combined with the planetary gear unit in helical or bevel designs

2.2 Your benefits at a glance

- Perfectly matched units (gear unit and motor)
- Large range of options thanks to the SEW-EURODRIVE modular concept
- Short, compact design because there is no need for couplings and adapter flanges
- Standardized units, which means excellent price/performance ratio and short delivery times

2.3 Application areas

Planetary gearmotors are mainly used in applications where low output speeds and high torques are required.

For example:

- For drying processes in the construction materials industry
- For filling processes in the cement industry
- For slow-running material processing systems, e.g. mixers, rotary filters
- For all branches of industry with similar requirements
- In the food industry



2.4 General information

2.4.1 Structure of the notes

The notes in this catalog are designed as follows:

Pictogram	Signal word	Meaning
	INFORMATION	Useful information or tip. Simplifies the handling of the drive system.

2.4.2 Important information

Note the following points:



INFORMATION

- The illustrations in the catalog are examples and are not binding.
- The specified lubricant quantities are guide values only. Use the marks on the oil dipstick or oil level glass to determine the oil level.
- On delivery, the planetary gear units are ready for operation, but not filled with oil. However, it is possible to have the gear units delivered filled with oil.
- Oil viscosity and grade must comply with those specified on the nameplate.
- The weights shown are non-binding average values.
- The buyer must provide protection against unintentional contact with moving parts. The applicable safety regulations of the country in which the unit will be used are to be followed.

2.4.3 Power and torque

The power and torque values listed in the catalogs apply to standard design and standard lubrication of the gearmotors under normal environmental conditions.

Please note that the motor power shown in the selection tables for gearmotors is subject to selection. However, the output torque and the desired output speed are essential for the application and need to be checked.

2.4.4 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 ratio. Please note that the actual output speed depends on the motor load and the supply system conditions.



2.4.5 Noise

The noise levels of all gearmotors and motors (brakemotors) are well within the maximum permitted noise levels set forth in ISO 8579-1 for gear units and EN 60034 for motors.

2.4.6 Painting

Gearmotors and motors (brakemotors) are painted in "blue gray" / RAL 7031 as per DIN 1843 as standard. Special paints are available on request.

2.4.7 Weight information



INFORMATION

Please note that all weights shown in the catalog exclude the oil fill because the lubricant fill quantity depends on the mounting position.

2.4.8 Air admission and accessibility

The gearmotors/brakemotors must be mounted on the driven machine in such a way that both axially and radially there is enough space left for unimpeded air admission and for the purposes of maintenance of the brake. Please also refer to the notes in the motor dimension sheets.

2.4.9 Primary gearmotor

All the possibilities and restrictions specified in the SEW "Gearmotors" catalog apply.

2.4.10 Brakemotors

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

2.4.11 International markets

Upon request, we deliver motors with connection requirements according to CSA and NEMA guidelines (UL listed).

For the Japanese market, we offer motors conforming to JIS standard. Contact your sales representative to assist you in such cases.



2.5 Sizes, torque ratings

With the new P.092 and P.102 units, there are now 11 sizes of planetary gearmotors available. The nominal output torque ratings are listed in the table below.

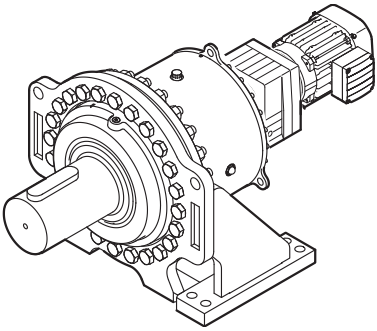
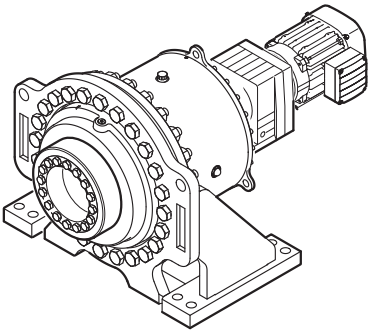
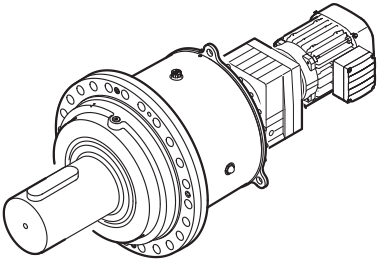
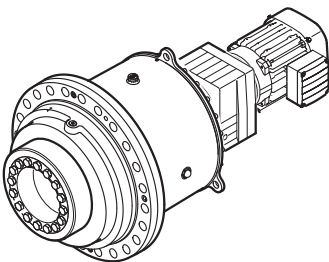
Size	M _{N2} [Nm]
P.002	24 830
P.012	36 810
P.022	51 190
P.032	69 620
P.042	100 170
P.052	124 060
P.062	185 660
P.072	245 660
P.082	359 400
P.092	423 000
P.102	500 000



2.6 Basic design variants of the planetary gearmotors

2.6.1 P..RF.. helical planetary gearmotors

Helical planetary gearmotors are available in the following design:

P..RF.. DR.	
 64110AXX	Foot-mounted helical planetary gearmotor
PH..RF.. DR.	
 64111AXX	Foot-mounted helical planetary gearmotor with hollow shaft and shrink disk
PF..RF.. DR.	
 64112AXX	Flange-mounted helical planetary gearmotor
PHF..RF.. DR.	
 64113AXX	Flange-mounted helical planetary gearmotor with hollow shaft and shrink disk



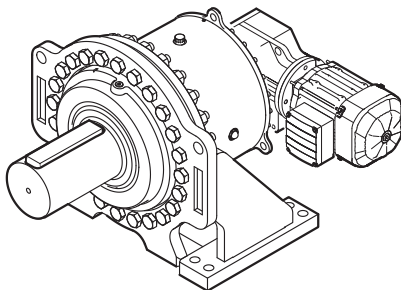
Product Description and Overview of Types

Basic design variants of the planetary gearmotors

2.6.2 P..KF.. bevel planetary gearmotors / P..K..

The following variants of bevel planetary gearmotors can be supplied:

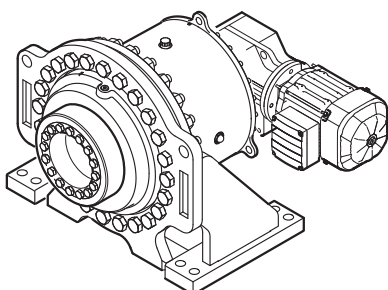
P..KF.. DR. / P..K.. DR.



64114AXX

Foot-mounted bevel planetary gearmotor

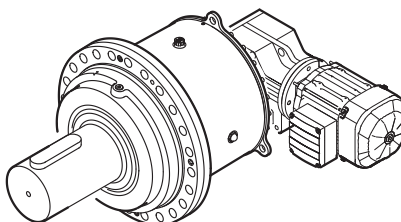
PH..KF.. DR. / PH..K.. DR.



64107AXX

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

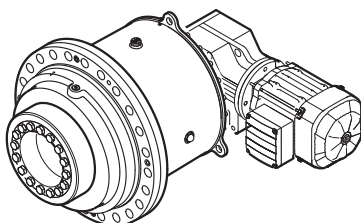
PF..KF.. DR. / PF..K.. DR.



64108AXX

Flange-mounted bevel planetary gearmotor

PHF..KF.. DR. / PHF..K.. DR.



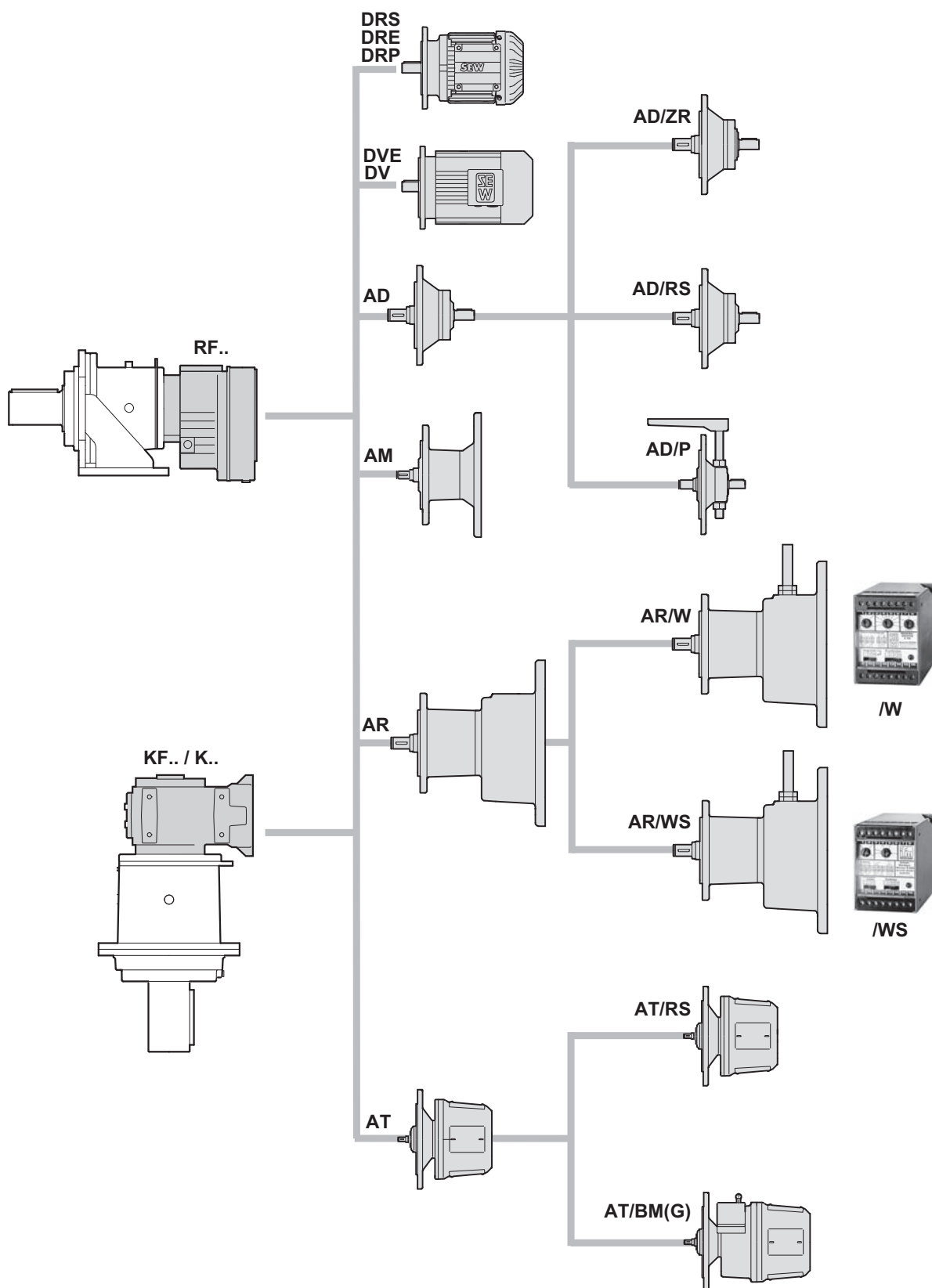
64109AXX

Flange-mounted bevel planetary gearmotor with hollow shaft and shrink disk



2.6.3 Components on the input side

The following figure shows the components on the input end.



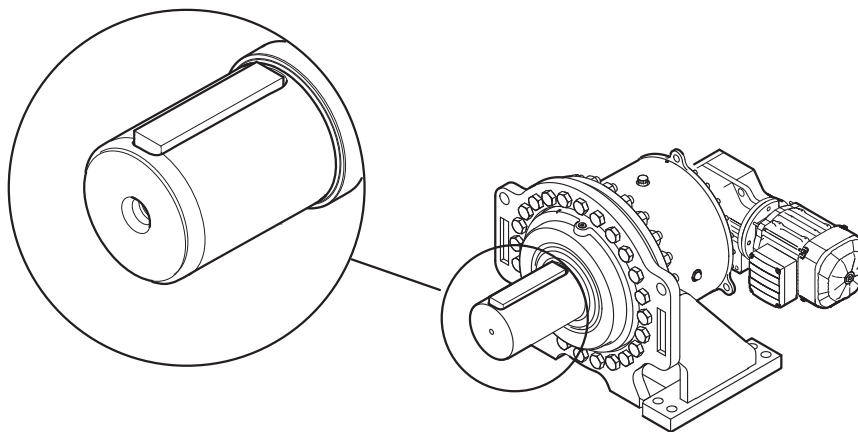
68888AXX



2.6.4 Output shaft variants

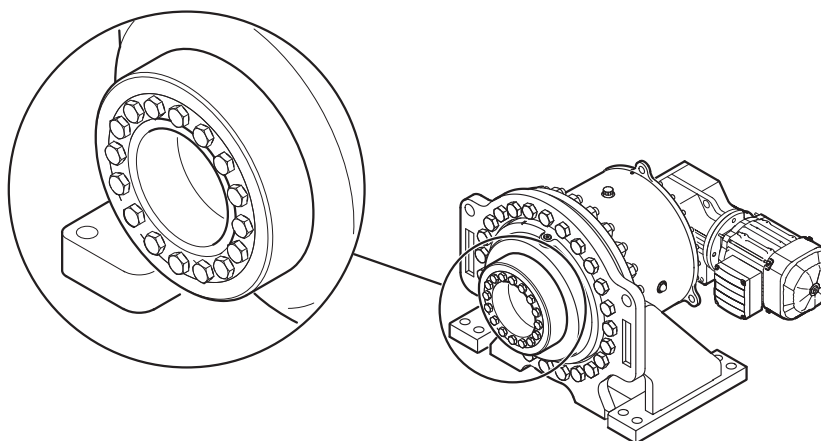
The output shaft [LSS] of the planetary gearmotor can have the following design as standard:

- Solid shaft with key



64115AXX

- Hollow shaft with shrink disk



64116AXX



2.7 Type designations for gear units and options

2.7.1 P..RF.. helical planetary gear units

Designation	
P..RF..	Foot-mounted, solid shaft
PH..RF..	Foot-mounted, hollow shaft with shrink disk
PF..RF..	Flange-mounted, solid shaft
PHF..RF..	Flange-mounted, hollow shaft with shrink disk

2

2.7.2 P..KF.. / P..K.. bevel planetary gear units

Designation	
P..KF.. / P..K..	Foot-mounted, solid shaft
PH..KF.. / PH..K..	Foot-mounted, hollow shaft with shrink disk
PF..KF.. / PF..K..	Flange-mounted, solid shaft
PHF..KF.. / PHF..K..	Flange-mounted, hollow shaft with shrink disk

2.7.3 Additional features of gear units

Designation	
/T	With torque arm

2.7.4 Input shaft assembly

Designation	
AD	Input shaft assembly
.../P	With motor mounting platform
.../RS	With backstop
.../ZR	With centering shoulder

2.7.5 Adapter

Designation	
AM	Adapter for mounting IEC/NEMA motors
AQ	Adapter for mounting servomotors
AT	Adapter with hydraulic centrifugal coupling
.../RS	and backstop
.../BM(G)	and disk brake
.../HF	With manual brake release, lockable
.../HR	Manual brake release with automatic re-engaging function

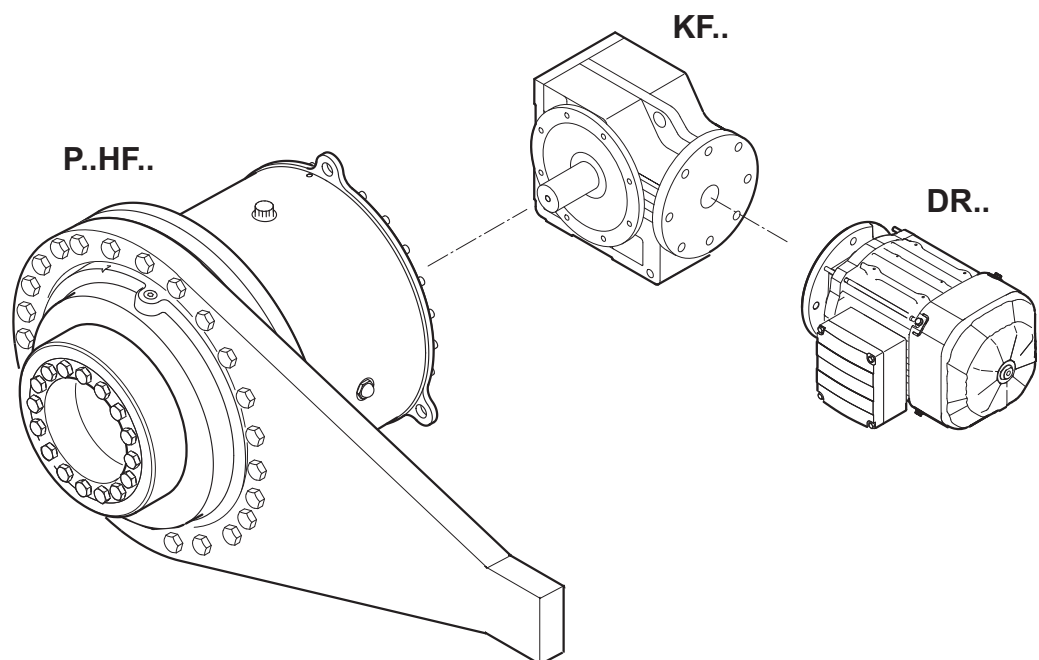
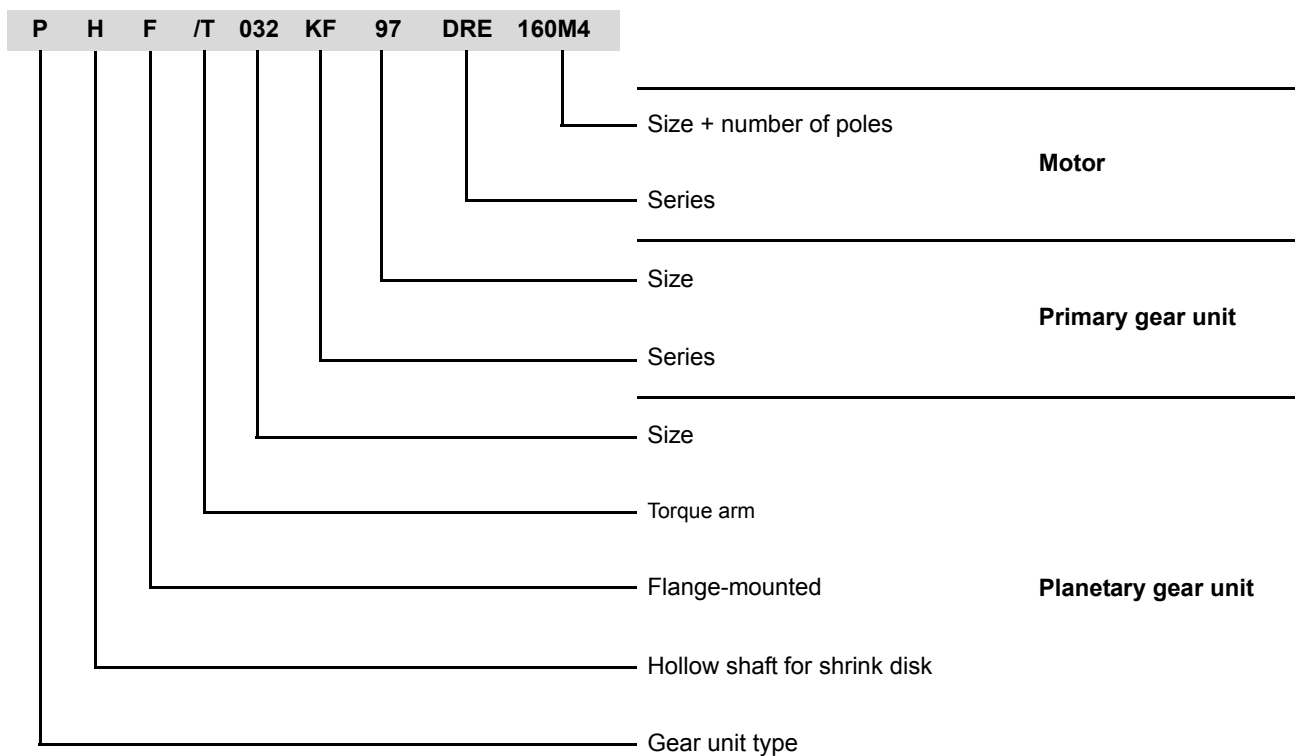


2.8 Type designation

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

Example: Type designation for a PHF.. planetary gear unit with KF.. primary gear unit

The type designation of the gear unit is structured as follows.



64117AXX



2.9 Nameplate

2.9.1 Planetary gear unit

The following example shows the layout of the nameplate.

○
SEW-EURODRIVE
Bruchsal / Germany
○

Type PF042 KF97 DRE132 ML4 / TF

Nr. 1 01.1101687801.0001.06 / 12345678

	norm.	min.	max.	i	1 :	
PK1 [kW]	6.6	1.3	6.6	FS		1880
MK2 [Nm]	77000	77000	77000	FR1 [N]		0
n1 [1/min]	1430	285	1430	FR2 [N]		0
n2 [1/min]	0.77	0.15	0.77	FA1 [N]		0
Operation instruction have to be observed!				FA2 [N]		50000
Made in Germany				Mass [kg]		840

Qty of greasing points 0 Fans 0

CLP HC VG220 synth. Oil - 29 ltr.

Year 2008

○

○

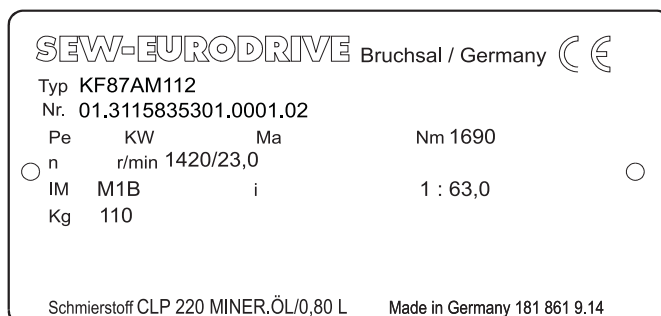
63654AXX

Type		Type designation
No. 1		Manufacturing number
P _{K1}	[kW]	Operating power on the input shaft (HSS)
M _{K2}	[Nm]	Gear unit output torque
n ₁	[rpm]	Input speed (HSS)
n ₂	[rpm]	Output speed (LSS)
norm.		Normal operating point
min.		Operating point at minimum speed
max.		Operating point at maximum speed
i		Exact gear unit reduction ratio
F _S		Service factor
F _{R1}	[N]	Actual overhung load acting on the input shaft
F _{R2}	[N]	Actual overhung load acting on the output shaft
F _{A1}	[N]	Actual axial load acting on the input shaft
F _{A2}	[N]	Actual axial load acting on the output shaft
Mass	[kg]	Weight of the gear unit
Number of greasing points		Number of regreasing points
Fans		Number of installed fans
		Oil grade and viscosity class / oil volume
Year		Year of manufacture



2.9.2 KF.. primary gear unit

The following example shows the layout of the nameplate.

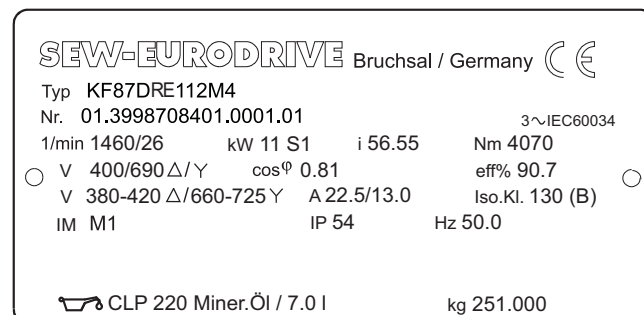


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Type		Type designation
No.		Serial number of primary gear unit
Pe	[kW]	Input power of the gear unit
Ma	[Nm]	Output torque
n	[rpm]	Input/output speed
IM		Mounting position
i		Gear ratio
Kg	[Kg]	Weight

2.9.3 RF../KF.. primary gear unit as gearmotor

The following example shows the layout of the nameplate.



69048AXX

Type		Type designation
No.		Serial number of primary gearmotor
i		Gear ratio
1/min	[rpm]	Input/output speed
Nm	[Nm]	Output torque
kW	[kW]	Input power of the gear unit
S1		Operating type
cos φ		Power factor of the motor
V	[V]	Supply voltage in delta/star connection
A	[A]	Rated motor current in delta/star connection
Hz	[Hz]	Line frequency
IM		Mounting position
kg	[kg]	Weight of the primary gearmotor
IP		Degree of protection of the motor
Brake V	[V]	Brake connection voltage
Nm	[Nm]	Braking torque
		Oil grade and viscosity class / oil volume



2.10 Corrosion and surface protection

2.10.1 General information

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

The protective measures comprise two groups:

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

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

2.10.2 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.
- A top coating is applied to various motor parts.
- The flange contact surfaces and shaft ends are treated with a temporary anti-corrosion agent.
- Additional measures for brakemotors.

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

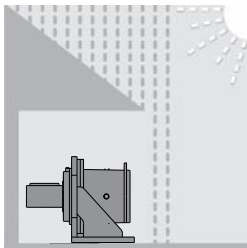
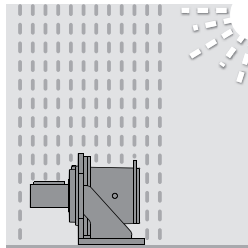
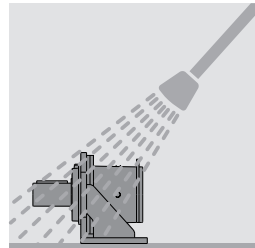
Motors with a forced cooling fan and motors with a spread shaft encoder (ES..) cannot be supplied with KS corrosion protection.



2.10.3 OS surface protection

Gear units are available with surface protection OS1, OS2, and OS3.

The following table gives an overview of coating and surface protection systems.

SEW design	OS1 Low environmental impact	OS2 Medium environmental impact	OS3 High environmental impact
Used as surface protection with typical ambient conditions Corrosion categories DIN EN ISO 12944-2	 Suited for environments prone to condensation and atmospheres with low humidity or contamination, such as outdoor applications under roof or with protection, unheated buildings where condensation can build up. According to corrosivity category C2 (low)	 Suited for environments with high humidity or moderate atmospheric contamination, such as applications outdoors subject to direct weathering. According to corrosivity category C3 (moderate)	 Suited 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 C4 (high)
Sample applications	• Systems in saw mills • Agitators and mixers	• Applications in gravel plants • Cable cars	• Port cranes • Sewage treatment plants • Mining applications
Condensation test ISO 6270	120 h	120 h	240 h
Salt spray test ISO 7253	-	240 h	480 h
Color top coat ¹⁾	RAL 7031	RAL 7031	RAL 7031
Color according to RAL	Yes	Yes	Yes
Uncoated parts: shaft end / flanges	Water and hand perspiration repelling anticorrosion agent applied at the factory for external preservation.		

1) Standard color

INFORMATION



Sheet metal parts (e.g. protection covers) are painted in RAL 1003.



2.11 Storage and transport conditions

The gear units can be provided with the following protection and packaging types depending on the storage and transport conditions.

2.11.1 Internal conservation

Standard corrosion protection

After the test run, the test oil fill is drained out of the gear unit. The remaining oil film protects the gear unit against corrosion for a limited period of time.

Long-term corrosion protection

After the test run, the test oil fill is drained out of the gear unit and the interior space is filled with a vapor phase inhibitor. The breather filter is replaced by a screw plug and enclosed with the gear unit.

2.11.2 External conservation

The following measures are generally taken for external corrosion protection:

- Corrosion protection is applied to bare, non-painted functional surfaces of shafts, flanges, mounting and foot surfaces on the gear unit. Remove it only using an appropriate solvent which is not harmful to the oil seal.
- Small spare parts and loose pieces, such as bolts, nuts, etc., are packed in corrosion protection plastic bags (VCI corrosion protection bags).
- Threaded holes and blind holes are covered by plastic plugs.

INFORMATION



- If the gear unit is stored longer than 6 months, you must check the protective coating of unpainted areas as well as the paint at regular intervals. Areas with protective coating and/or paint that has been removed may have to be repainted.

2.11.3 Packaging

Standard packaging

The gear unit is delivered on a pallet without cover.

Application: Land transport

Long-term packaging

The gear unit is delivered in a wooden box that is also appropriate for sea transport.

Application: Sea transport and/or for long-term storage



2.11.4 Storage conditions

INFORMATION



- During storage up to startup, the gear unit must be stored in a shock-free manner in order to prevent damage to the rolling bearing races.
- The output shaft must be rotated at least one full rotation every six months so that the position of the roller elements in the bearings of the input and output shafts changes.
- The gear units are delivered without oil; different protection systems are required depending on the storage period and storage conditions as shown in the table below.

Corrosion protection + packaging	Storage location	Storage duration
Standard corrosion protection + Standard packaging	With roof, enclosed at constant temperature and atmospheric humidity (5 °C < ϑ < 60 °C, < 50 % relative atmospheric humidity). No sudden temperature fluctuations. Controlled ventilation with filter (free from dust and dirt). Protected against aggressive vapors and shocks.	Max. 6 months with intact surface corrosion protection
Long-term corrosion protection + Standard packaging	With roof, enclosed at constant temperature and atmospheric humidity (5 °C < ϑ < 60 °C, < 50 % relative atmospheric humidity). No sudden temperature fluctuations. Controlled ventilation with filter (free from dust and dirt). Protected against aggressive vapors and shocks.	Max. 3 years with regular inspection and checking for intactness.
Long-term corrosion protection + Long-term packaging	With roof, protected against rain and shocks.	Max. 3 years with regular inspection and checking for intactness.

INFORMATION



If stored in tropical zones, provide for sufficient protection against insect damage. Contact SEW-EURODRIVE for differing requirements.



2.12 DR series primary gearmotor

The DR motors complies with all international standards and meets the new parts of the IEC motor standard already today.

The planetary gear units can be combined with three variants of energy-efficient motors (IE1, IE2 and IE3). These are shown in the following table.

IE1 motor standard: Standard Efficiency
• Improved levels of efficiency • DRS-type AC motors (standard motor) • Copper or aluminum die-cast rotor cage
IE2 motor standard: High Efficiency
• High levels of efficiency • DRE-type AC motors (energy-efficient motors) • Copper or aluminum die-cast rotor cage
IE3 motor standard: Premium Efficiency
• Extremely high levels of efficiency • DRP-type AC motors (energy-efficient motors) • Copper or aluminum die-cast rotor cage

Note the following:



INFORMATION

- As the typical duty type of the auxiliary drive is not continuous duty, the motor can also be labeled with duty type S2 according to the intended use. This means: An IE1 motor can also be used in countries in which an IE1 motor in S1 duty is no longer permitted due to efficiency regulations. Please contact SEW-EURODRIVE in this case.
- The SEW homepage (www.sew-eurodrive.com) provides further information regarding the DR motors. If you are unclear about any of the information in this documentation, or if you require further information, consult SEW-EURODRIVE.
- The DR motor combinations with the planetary gear unit are listed in the selection tables, see chapters 10 and 11.
- The dimensions for the motor series DRS, DRE and DRP are listed in the dimension sheets, see chapters 10.5 and 11.5.



2.13 Sealing system

2.13.1 Standard

For the planetary gearmotor, radial oil seals according to DIN 3770 of type AS (dust lip) are used as standard.

2.13.2 Option

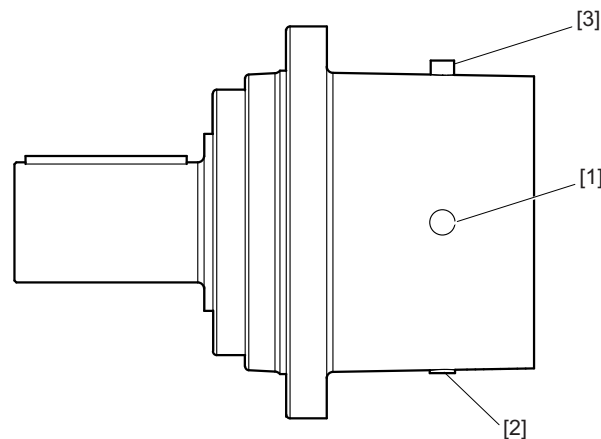
If high demands are placed on the sealing system, e.g. in case of high dust loads with abrasive particles at the place of operation, a labyrinth seal is used to protect the radial oil seal. In this sealing variant, only one radial oil seal is used irrespective of the mounting position. The grease-filled labyrinth protects the oil seal from dirt.

2.14 Lubrication concept

Depending on the mounting position of the planetary gear unit, two different standard lubrication variants are possible.

2.14.1 Splash lubrication for horizontal mounting positions (M1 / M3 / M5 / M6):

The gear unit is half filled with oil. Gearing and bearing parts that are not immersed in oil are lubricated by splashing oil. The oil level is checked at the oil sight glass [1] on the housing gear rim. Oil is filled in via the breather valve [3].



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2.14.2 Bath lubrication for vertical mounting positions (M2 / M4):

The gear unit is (nearly complete) filled with oil, All tooth engagement or bearing points are immersed in the oil bath completely or partly.



INFORMATION

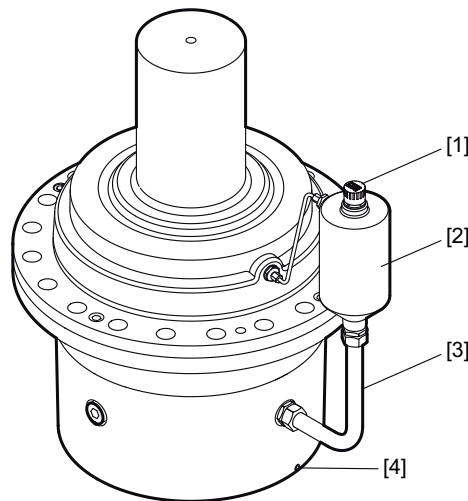
- Any deviations from the standard mounting positions, standard temperature ranges or standard primary gear units must be clarified with SEW-EURODRIVE first.
- If there is little space available for installing the oil expansion tank (M2 mounting position) or the oil riser pipes (M4 mounting positions), you can request an order-specific dimension drawing from SEW-EURODRIVE.
- See chapters 10.5 and 11.5 for detailed dimensions of the oil expansion tank / oil riser pipe.

M2 mounting position

Standard lubrication type with oil expansion tank:

- Oil expansion tank [2] for volume compensation.
- The oil level is checked by means of an oil dipstick via the breather valve [1].
- Oil is filled in via the oil expansion tank.

Sizes **P.002 - P.082**:



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- [1] Oil dipstick with breather plug
[2] Oil expansion tank

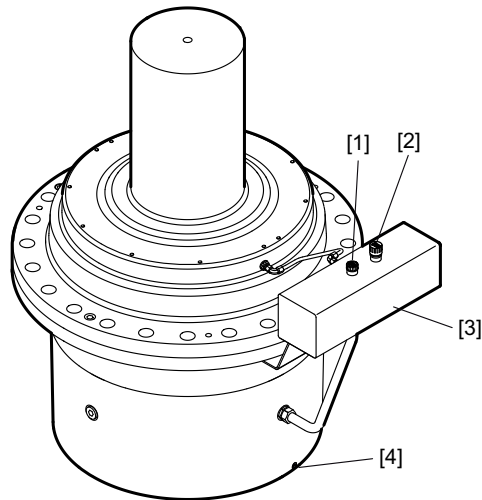
- [3] Riser pipe
[4] Oil drain plug



Product Description and Overview of Types

Lubrication concept

Sizes **P.092 - P.102:**



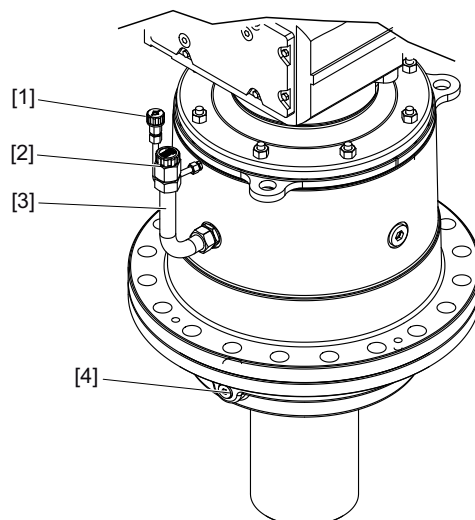
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- | | |
|-------------------|------------------------|
| [1] Oil dipstick | [3] Oil expansion tank |
| [2] Breather plug | [4] Oil drain plug |

Mounting position M4

Standard lubrication type without oil expansion tank:

- Oil level is checked using an oil dipstick.
- Separate breather valve.
- Oil is filled in via the riser pipe.



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- | | |
|--------------------|--------------------|
| [1] Breather valve | [3] Riser pipe |
| [2] Oil dipstick | [4] Oil drain plug |

3 Mounting Positions

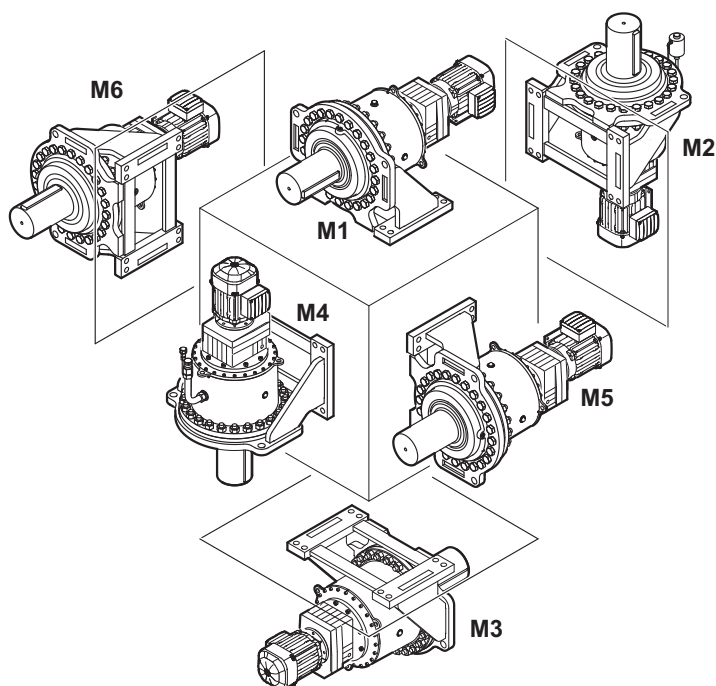
3.1 Standard mounting position

3.1.1 Definition

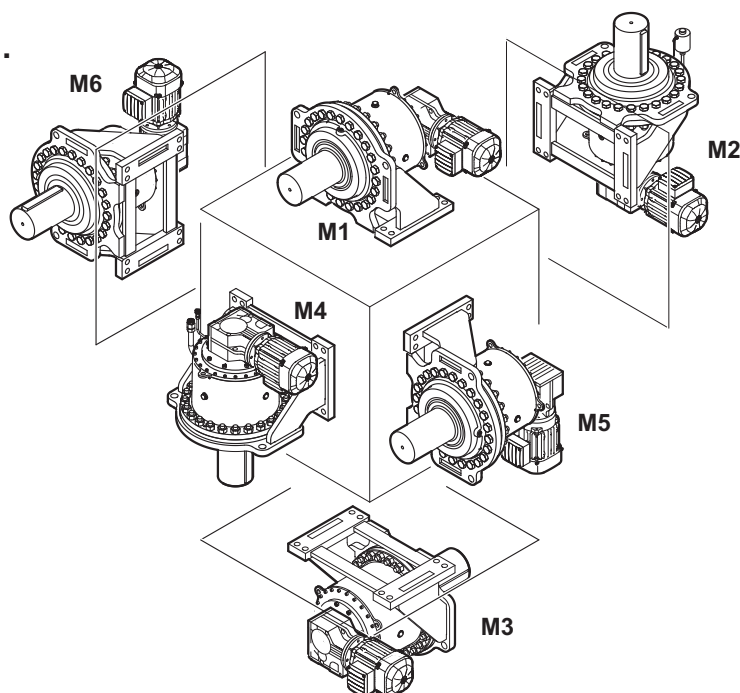
The mounting position defines the spatial orientation of the gear unit housing and is designated **M1...M6**. The mounting positions apply to planetary gear units with solid shafts and hollows shafts.

For mounting position M2, an oil expansion tank is necessary. Mounting position M4 requires a rising pipe. For dimensions, refer to the dimension sheets in chapters 10.2 and 11.2.

P..RF..



P..KF..



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3.2 Pivoted mounting positions and variable mounting positions

Mounting positions other than standard mounting positions are referred to as pivoted or variable mounting positions.

Gear units with pivoted mounting position have a **fixed** mounting position that differs from the standard.

Gear units with variable mounting position can change the mounting position **variably** during operation within the specified range.

The designation of pivoted and variable mounting positions is set up as follows:

M1 - M2/20°/V

[1] [2] [3] [4]

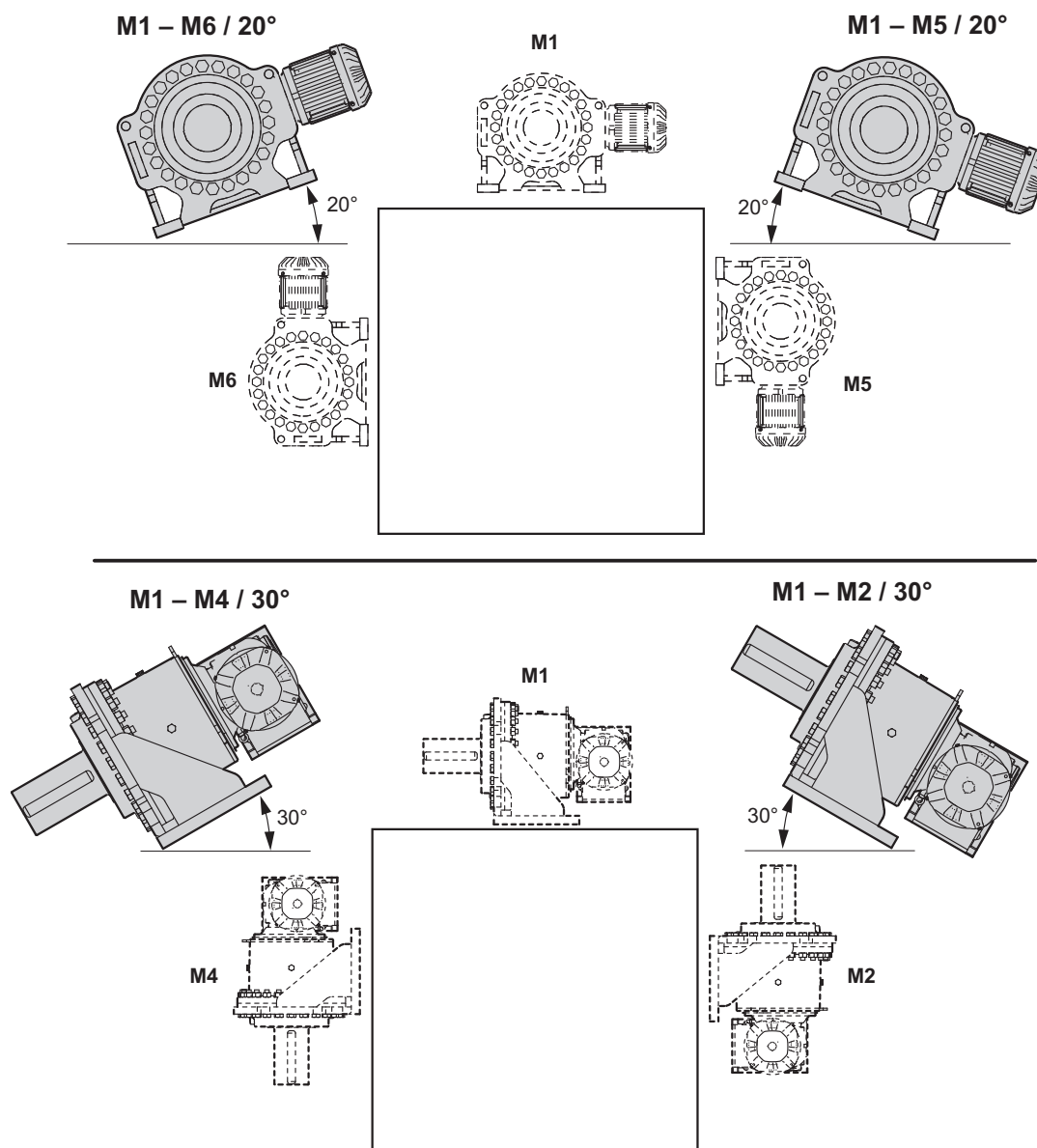
[1] Initial mounting position

[2] Desired mounting position

[3] Pivoting angle

[4] F = Fixed final position; V = Variable final position

The following figure shows 4 examples:



All final positions have to be specified if the mounting position of the gear unit deviates from standard mounting positions in several directions. Combinations of fixed and variable final positions are possible.

Example of a gear unit based on M1 that is tilted by $\pm 20^\circ$ around the drive shaft during operation and is mounted in a fixed angle of 30° around the longitudinal axis:

M1 - M2/20°/V - M4/20°/V - M5/30°/F



INFORMATION

Pivoted and variable mounting positions might involve restrictions concerning accessories and technical data. Also, delivery times might be longer. Consult SEW-EURODRIVE.

3.3 Mounting position sheets

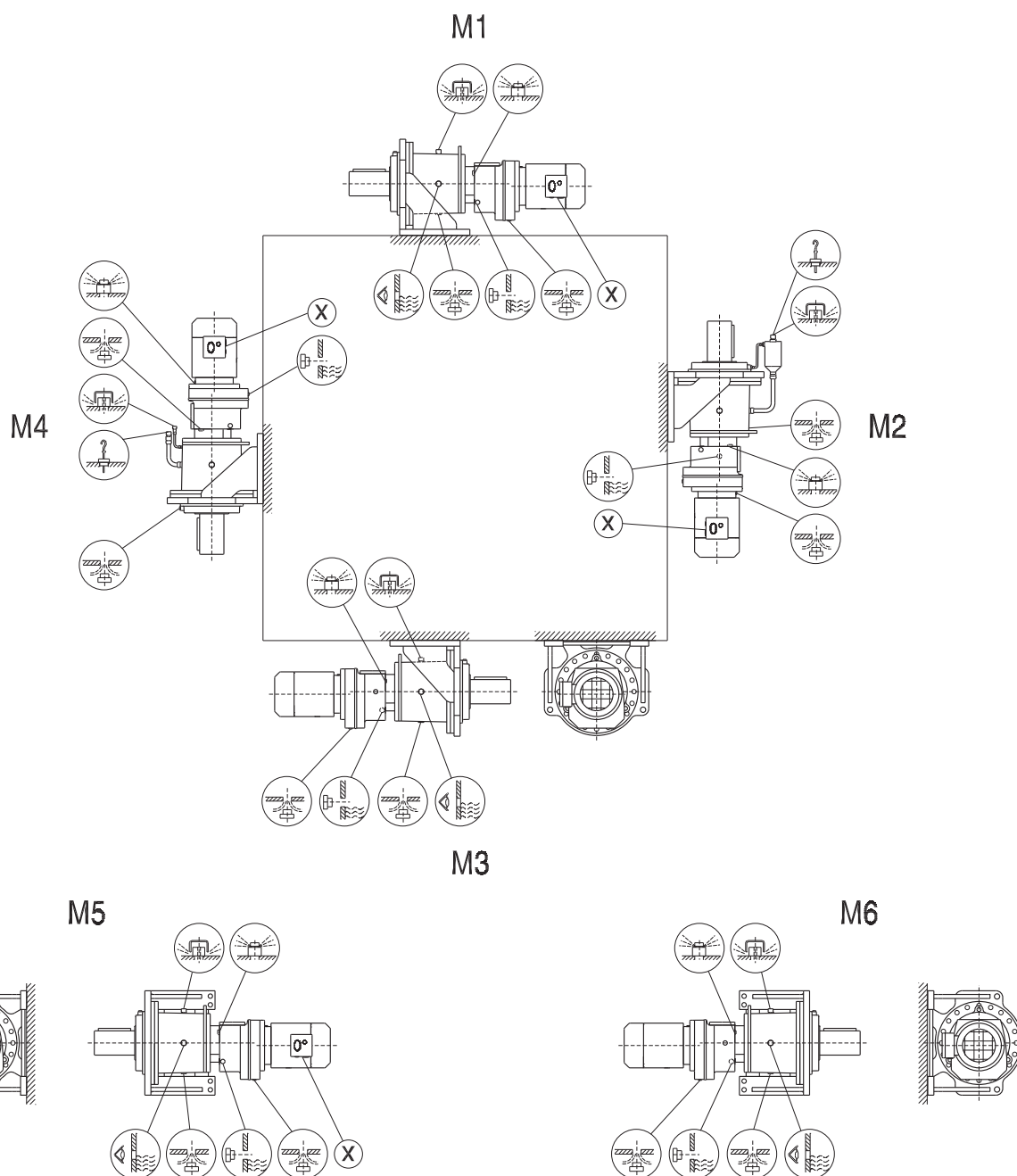
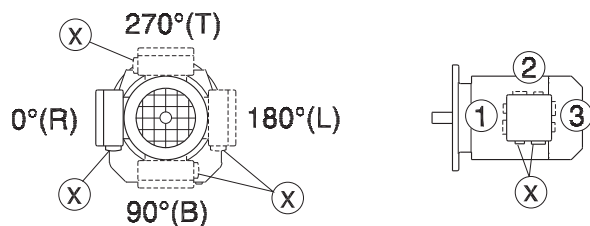
3.3.1 Key to the mounting position sheets

The table shows the symbols and their meaning for the mounting position sheets on the following pages:

Symbol	Meaning
	Breather valve
	Oil level plug
	Oil drain plug
	Breather
	Oil dipstick
	Oil sight glass

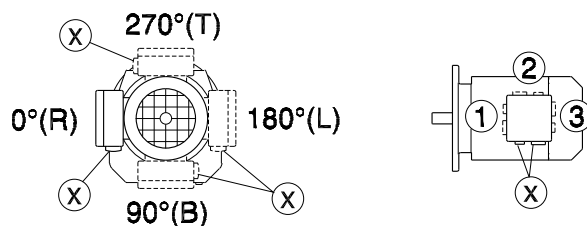
3.3.2 P..RF..

45 129 00 08

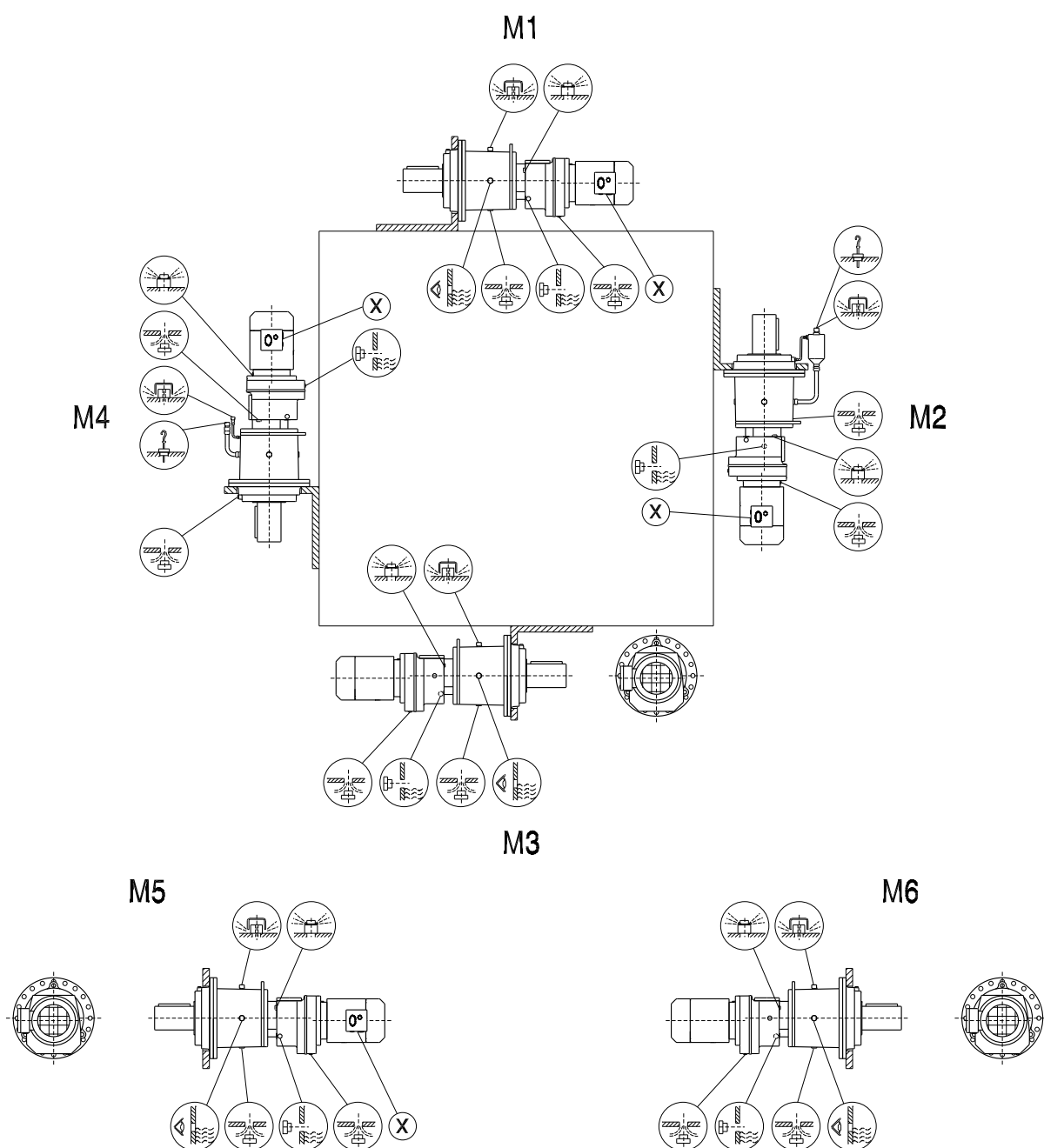


3.3.3 PF..RF..

45 130 00 08

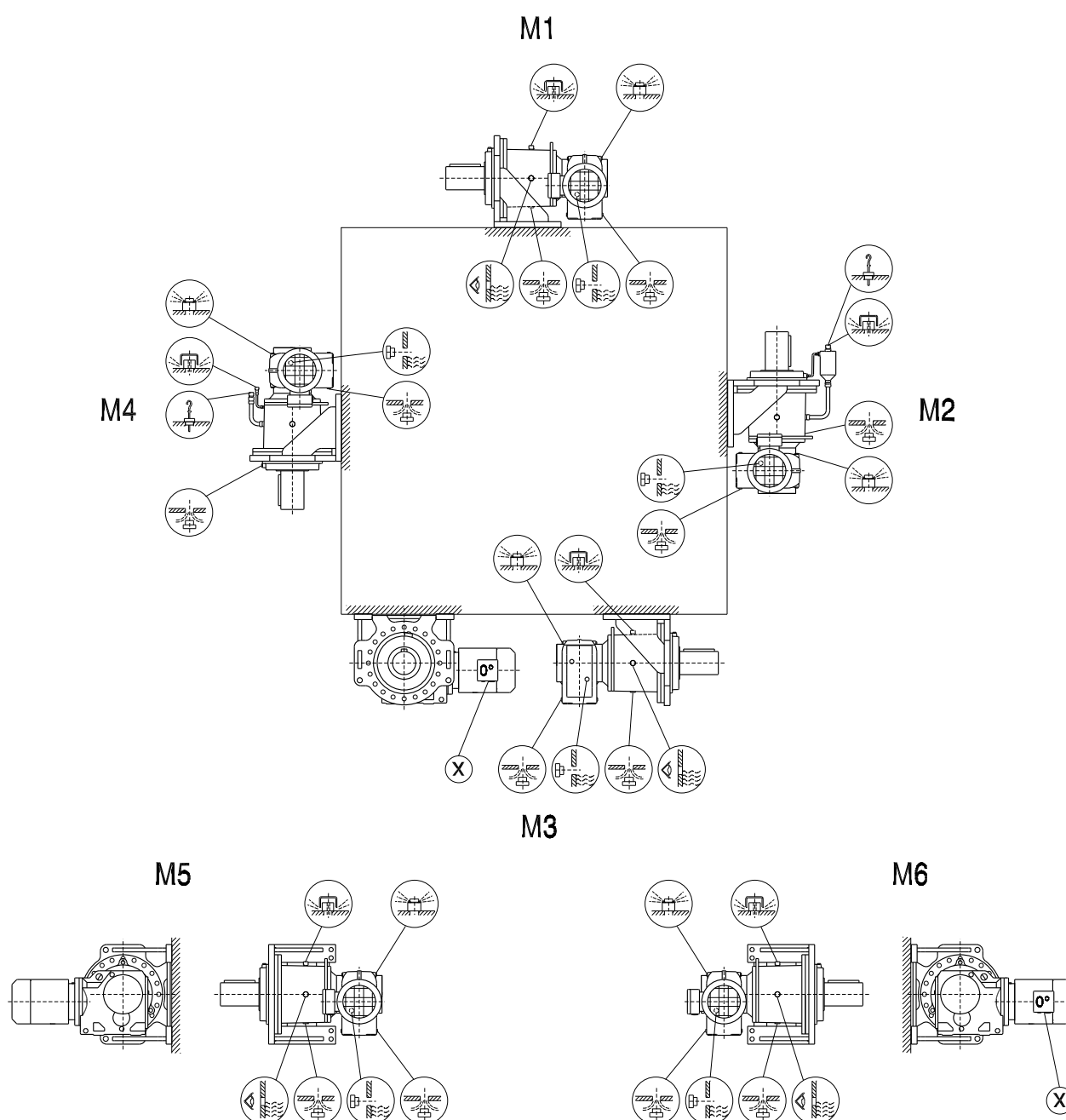
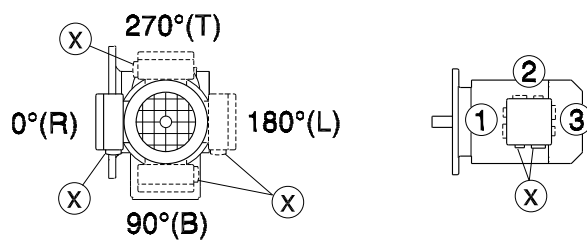


3



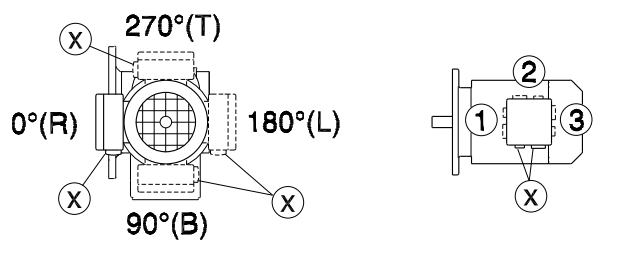
3.3.4 P..KF..

45 131 00 08

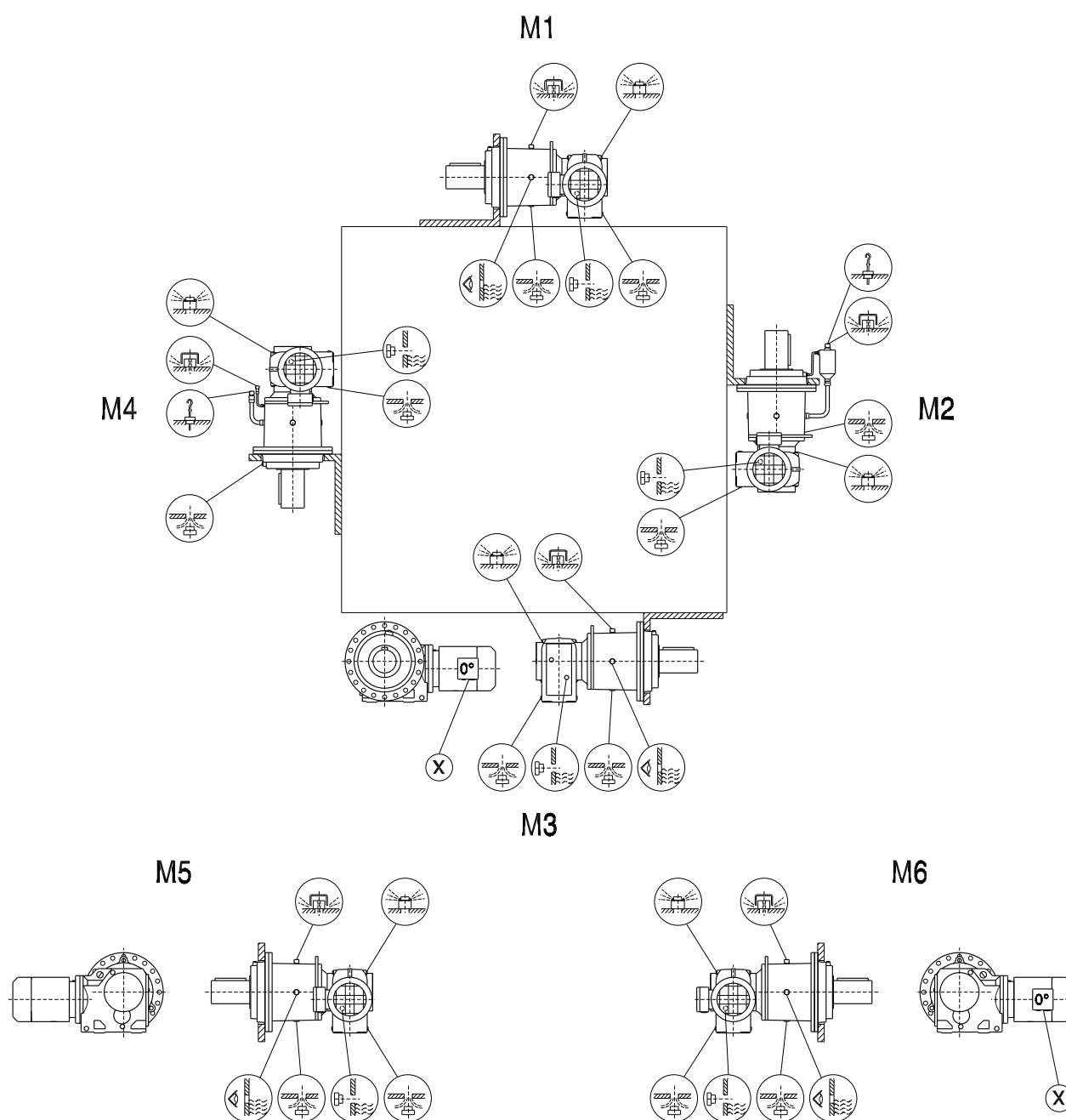


3.3.5 PF..KF..

45 132 00 08



3





Important Order Information

For all gearmotors

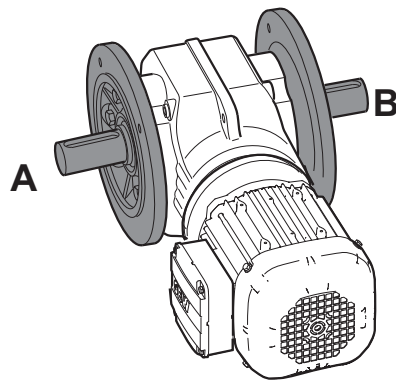
4 Important Order Information

4.1 For all gearmotors

The following order information is required for planetary gearmotors in addition to the mounting position for an accurate configuration of the drive.

4.2 Mounting position of KF.. helical-bevel primary gear units

For the primary bevel gear units KF.., positions **0°**, **90°**, **180°** or **270°** are fixed.
Also define the position of the mounting flange on the **A** or **B** side.



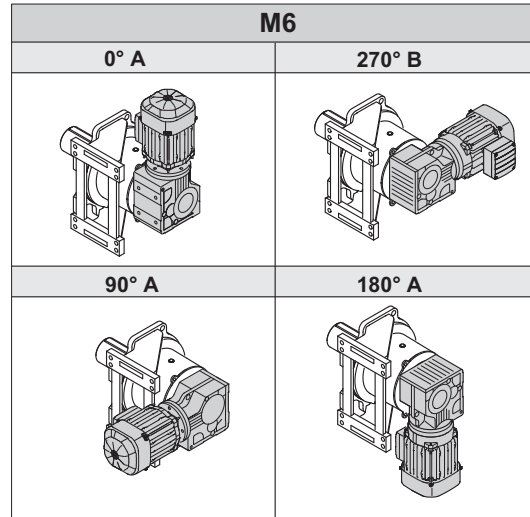
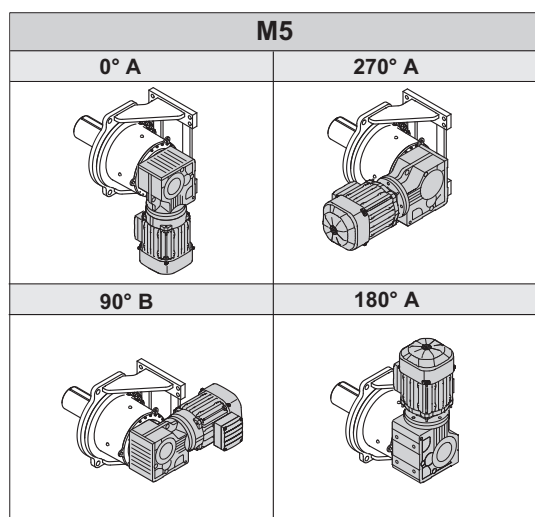
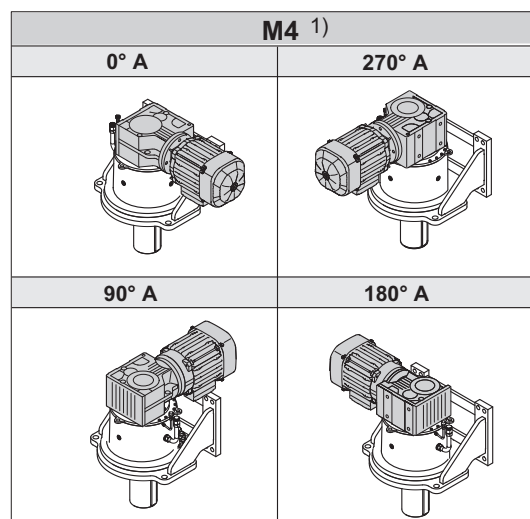
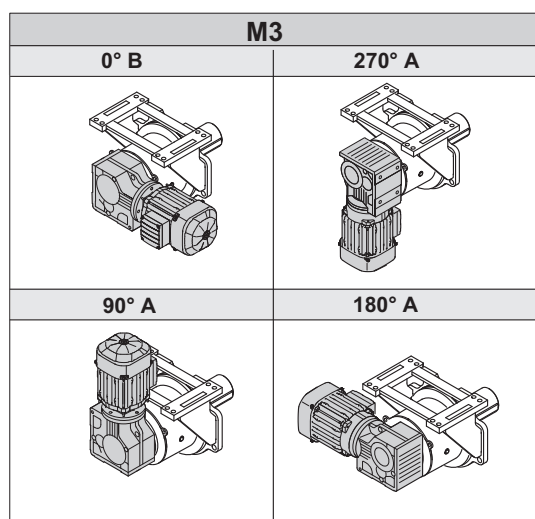
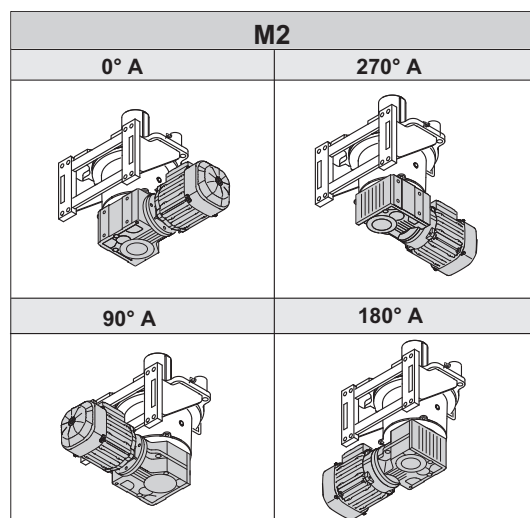
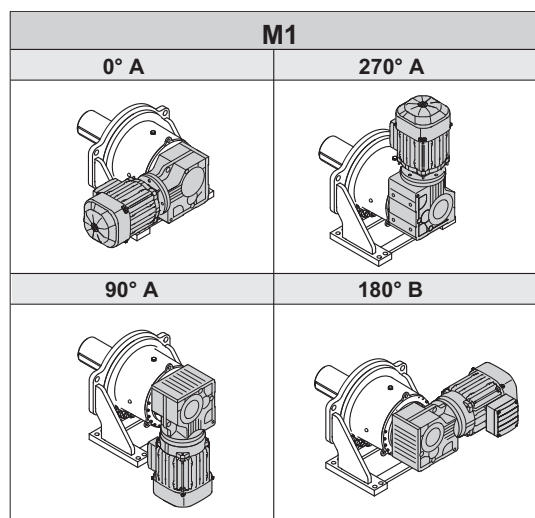
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To reduce the churning losses in the primary gear unit to a minimum, SEW-EURODRIVE recommends to choose from the standard mounting positions displayed below.

INFORMATION



Contact SEW-EURODRIVE in case of deviating mounting conditions.



Key	
M1 / M2 / M3 / M4 / M5 / M6	= Mounting position of planetary gear unit
0° / 90° / 180° / 270°	= Mounting position of primary bevel gear unit
A / B	= Position of the mounting flange at the primary bevel gear unit
1) Example position; the position of the piping deviates from the figure.	



Important Order Information

Mounting position RF.. primary helical gear unit

4.3 Mounting position RF.. primary helical gear unit

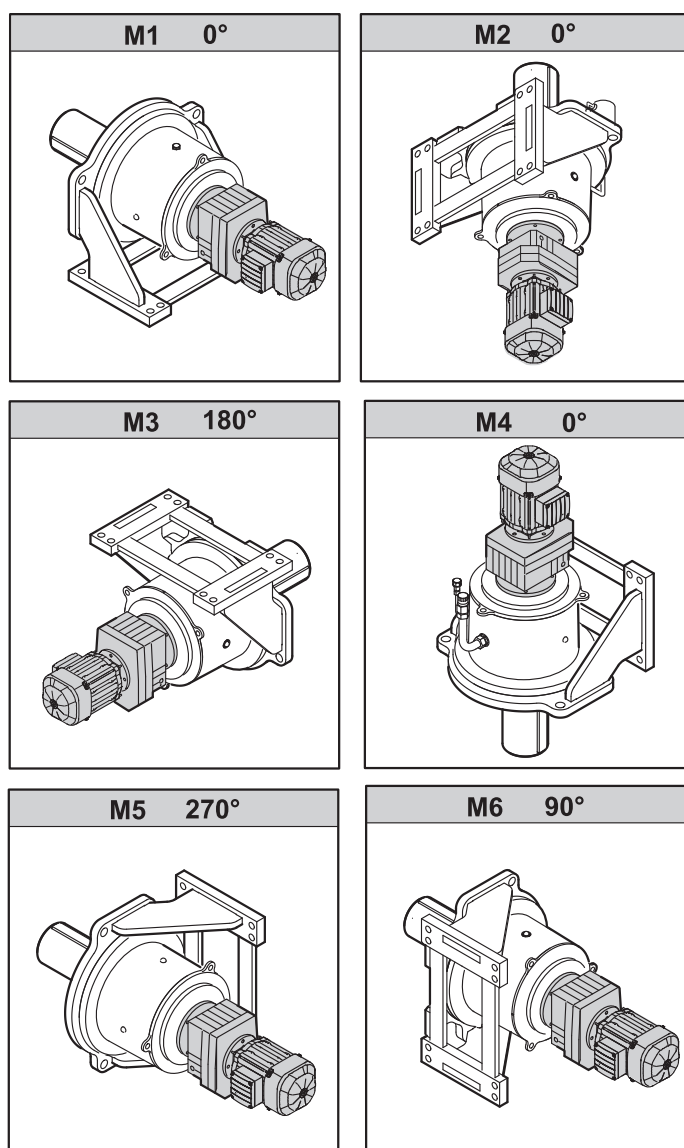
For the primary helical gear units RF.., you have to specify the position **0°**, **90°**, **180°** or **270°**.

To reduce the churning losses in the primary gear unit to a minimum, SEW-EURODRIVE recommends to choose from the standard mounting positions displayed below.

INFORMATION



Contact SEW-EURODRIVE in case of deviating mounting conditions.



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Key	
M1 / M2 / M3 / M4 / M5 / M6	= Mounting position of planetary gear unit
0° / 90° / 180° / 270°	= Mounting position of primary helical gear unit



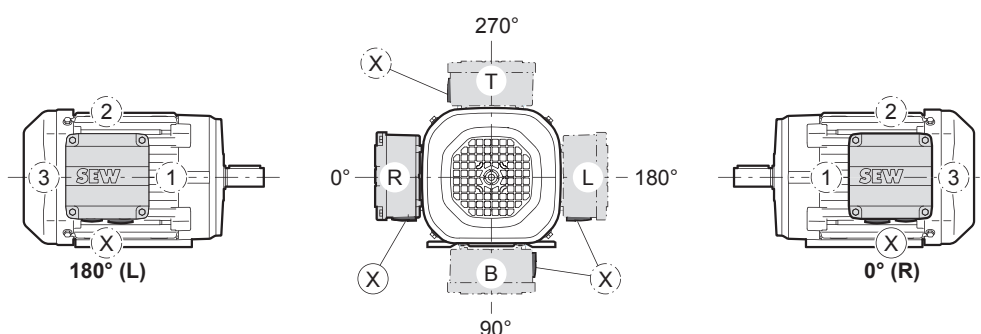
4.4 Position of motor terminal box and cable entry

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

- As viewed onto the output shaft = A-end
- 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). The previous designation is maintained for gearmotors. The following figure shows both designations. If the mounting position of the motor changes, R, B, L and T are rotated accordingly.

The position of the cable entry can be selected as well. The possibilities are "X" (= standard position), "1", "2" or "3" (see following figure).



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Unless indicated otherwise, you will receive the terminal box type 0° (R) with cable entry "X".



INFORMATION

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



Important Order Information

Torque arm

4.5 Torque arm

The torque arm can be enclosed in the delivery or can be mounted according to customer requirements.

The retaining screws are included in the scope of delivery.

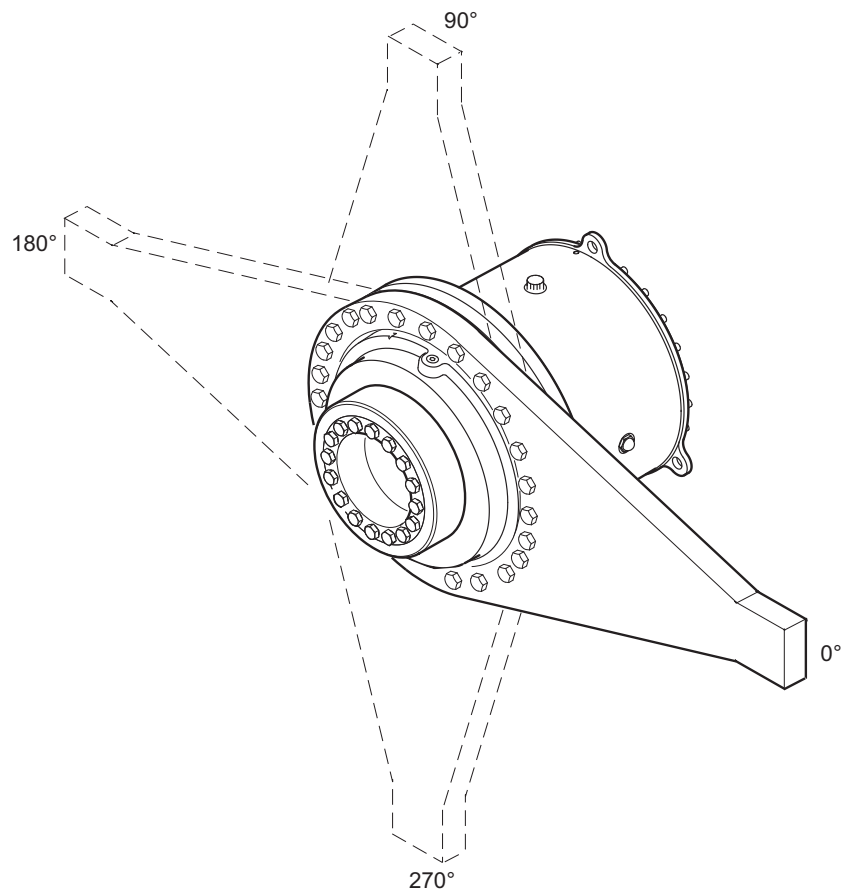
The position of the torque arm is determined as looking onto the output shaft (mounting position **0°**, **90°**, **180°**, **270°**).

INFORMATION



Different mounting positions are possible depending on the angle division (number of retaining screws).

The following figure shows a sample mounting position and combination of a planetary gear unit and a torque arm.

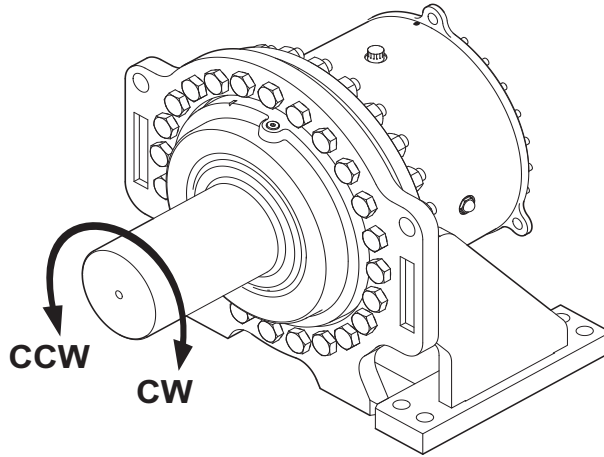


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4.6 Output direction of rotation of drives with backstop

With planetary gear units, specify the required direction of rotation of the output shaft. The direction of rotation is specified as viewed onto the output shaft.



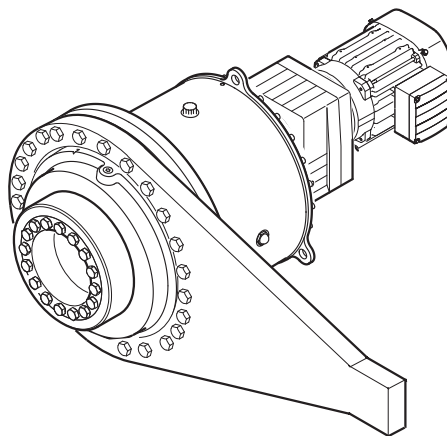
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As viewed at the output shaft: Clockwise (**CW**) = Rotating clockwise
Counterclockwise (**CCW**) = Rotating counterclockwise

4.7 Sample orders

The following order examples show a combination of a planetary gear unit, a primary gear unit and a motor.

Type	Mounting position of planetary gear unit	Mounting position					Option
		Primary gear unit	Mounting flange	Terminal box	Cable entry	Torque arm	
PHF042/T RF107DRE160M4	M1	0°	-	0°	X	0°	LSS labyrinth seal



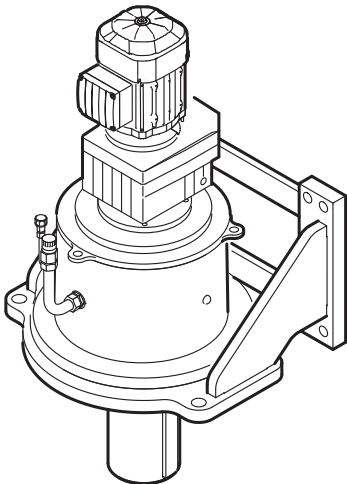
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Important Order Information

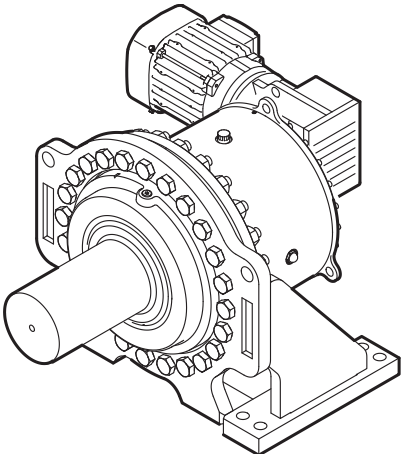
Sample orders

Type	Mounting position of planetary gear unit	Mounting position					Option
		Primary gear unit	Mounting flange	Terminal box	Cable entry	Torque arm	
P032 RF97DRS180LC4	M4	0°	-	0°	X	-	



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Type	Mounting position of planetary gear unit	Mounting position					Option
		Primary gear unit	Mounting flange	Terminal box	Cable entry	Torque arm	
P082 KF157DRP225M4	M1	180 °	B	180 °	X	-	



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5 Guidelines for Gear Unit Selection

5.1 Additional documentation

In addition to the information in this catalog, SEW-EURODRIVE offers extensive documentation covering the entire topic of electrical drive engineering. This is primarily documentation from the "Drive Engineering - Practical Implementation" series. You can order the latest documentation from SEW-EURODRIVE. The documentation can also be downloaded in PDF from the SEW-EURODRIVE homepage (<http://www.sew-eurodrive.com>).

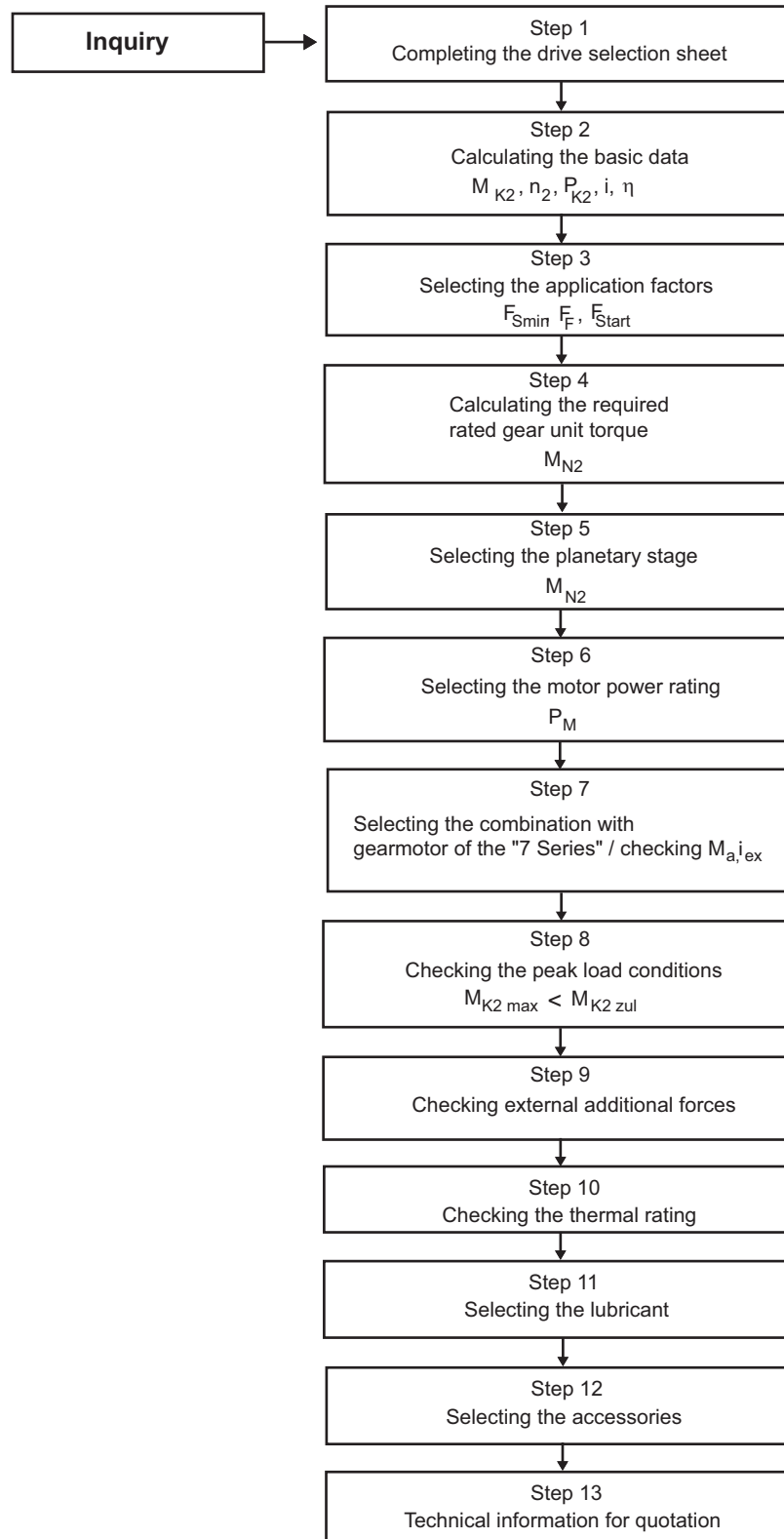
Drive Engineering - Practical Implementation

The publication "Drive Engineering - Practical Implementation – Drive Selection with SEW-EURODRIVE Gearmotors" features extensive information on characteristics, differentiating features and application areas of SEW drives. A comprehensive collection and assignment of the most important formulae for drive calculation as well as detailed examples for the most frequently used applications make this documentation an important tool for project planning and an essential addition to SEW-EURODRIVE product catalogs.



5.2 Project planning procedure

The following flow diagram illustrates the project planning procedure for a planetary gear unit.



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Step 1: Drive selection data:

1.0 Machine on LSS (normally the driven machine)

Legend: [...] = fill in values
[X] = make your selections by ☒

1.1 Field of application/industry [...]

1.2 Application [...]

1.3 Ambient temperature [°C] [...]

normal	min.	max.

1.4 Altitude [m] [...]

1.5 Installation [X]

- ☐ small rooms ($v_a \geq 0.5$ m/s)
☐ large rooms and halls ($v_a \geq 1.4$ m/s)
☐ outdoors with protection from the sun ($v \geq 3$ m/s)

1.6 Ambient conditions [X]

- ☐ normal
☐ dusty
☐ moist
☐ corrosive
☐ dry

2.0 Load characteristics

2.1 Required speed n_2 [1/min] [...]

normal	min.	max.

2.2 Input power P_{K1} [kW] [...]

normal	min.	max.

2.3 Output torque M_{K2} [kNm] [...]

normal	min.	max.

2.4 Frequency of peak load ($M_{K2 \text{ max.}}$ or $P_{K1 \text{ max.}}$) [...]

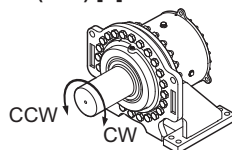
 per hour

2.5 Number of starts per hour [...]

 starts

2.6 Rotation direction under load (LSS) [X]

- ☐ clockwise (CW)
☐ counter-clockwise (CCW)
☐ both directions
☐ reversible



2.7 Operating period/day [X]

- ☐ ≤ 3 hours
☐ 3 ... 10 hours
☐ > 10 hours

2.8 Backstop required in gear unit [X]

- ☐ No
☐ Yes

2.9 Exact load cycle attached [X]

- ☐ No
☐ Yes

3.0 Machine on HSS (normally the driving machine)

3.1 Type: [X]

- ☐ AC motor ☐ AC motor/inverter ☐ DC motor
☐ Hydraulic motor ☐ Servomotor

3.2 Motor power P_M [kW] [...]

normal	min.	max.

3.3 Motor speed n_M [kW] [...]

normal	min.	max.

3.4 Motor torque M_M [kNm] [...]

normal	min.	max.

3.5 Input speed n_1 [1/min] [...]

normal	min.	max.

3.6 If electric motor: [X] [...]

- ☐ IEC
☐ NEMA

Motor size (IEC- or NEMA code):

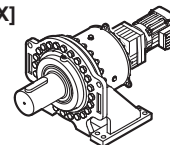
3.7 Mounting of motor [X] [...]

- ☐ B3
☐ B5
☐ V1
☐ other:

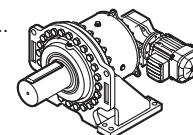
4.0 Gear unit requirements

4.1 Gear Unit Type [X]

- ☐ Inline P.. RF..



- ☐ Right-Angle P..KF..





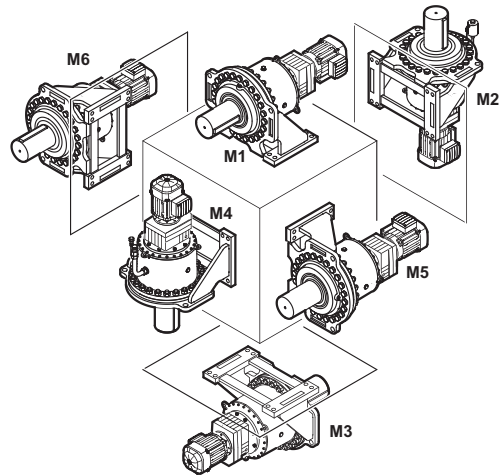
Guidelines for Gear Unit Selection

Project planning procedure

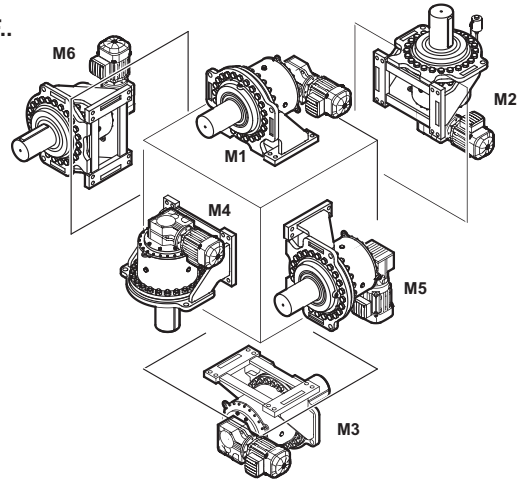
4.2 Mounting position [X]

- ☐ M1
☐ M2
☐ M3
☐ M4
☐ M5
☐ M6

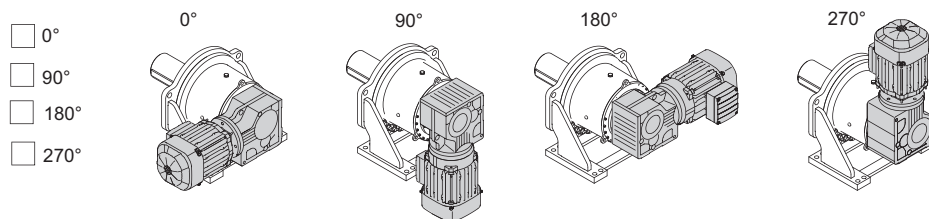
P..RF..



P..KF..



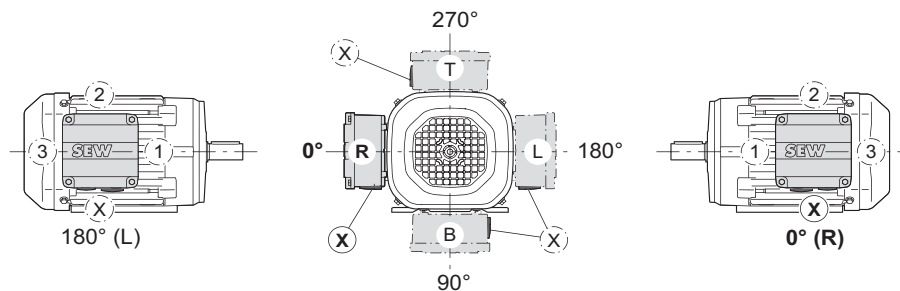
4.3 Mounting positions for primary stage RF/KF gearmotors [X]



4.4 Position of motor terminal box and cable entry [X]

- ☐ 0° (R)
☐ 90° (B)
☐ 180° (L)
☐ 270° (T)

- ☐ X
☐ 1
☐ 2
☐ 3



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4.6 Service factor requirements $F_{S \min.}$ [X] [...]

- ☐ On motor power P_M /
motor torque M_M
- ☐ On operating power at LSS P_{K2} /
operating torque at LSS M_{K2}

4.7 Required bearing life $L_{h \min}$ [...]

 hours

4.8 Mounting of gear unit housing [X]

- ☐ Foot
- ☐ Flange
- ☐ Torque arm

4.9 LSS connection to customer machine shaft [X] [...]

- ☐ Elastic coupling (claw or pin type)
- ☐ Flexible coupling
- ☐ Rigid flange coupling
- ☐ Barrel coupling
- ☐ Chain sprocket
- ☐ Pinion

- ☐ Hollow shaft - torque arm
- ☐ Hollow shaft - foot-mounted
- ☐ Hollow shaft - flange-mounted

- ☐ Other

4.10 LSS gear unit design [X] [...]

LSS design (if solid shaft)

- ☐ Solid shaft with key
- ☐ Solid shaft without keyway
- ☐ Solid shaft with spline DIN 5480

- ☐ Other

LSS connection (if hollow shaft)

- ☐ Hollow shaft with keyway
- ☐ Hollow shaft for shrink disk connection,
shrink disk included
- ☐ Hollow shaft with spline DIN 5480

- ☐ Other

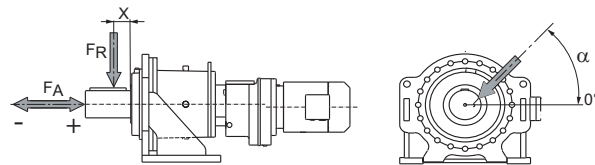
4.11 HSS connection to motor [X]

- ☐ Customer installation (foundation base frame)
- ☐ Motor adapter with elastic coupling
- ☐ Swing base/base frame
- ☐ Motor bracket with V-belt drive
- ☐ Motor scoop
- ☐ Other, see sketch

4.12 Machine shaft bearing

- ☐ 2 bearings, gear unit only transmits torque
- ☐ 1 bearing opposite to gear unit, gear unit acts as bearing support
- ☐ 1 bearing next to gear unit, gear unit acts as bearing support

4.13 Loads on LSS [X] [...]



Axial load F_{A2} [N]

normal	min.	max.

Radial load F_{R2} [N]

normal	min.	max.

Distance from shaft shoulder X [mm]

normal	min.	max.

Application angle of radial load α [°]

or rotating ☐

4.15 Electrical supply [X] [...]

Line voltage V_{line}

AC		DC
3-phase	1-phase	
☐	☐	☐

 V HZ

Auxiliary voltage V_{aux}

AC		DC
3-phase	1-phase	
☐	☐	☐

 V HZ

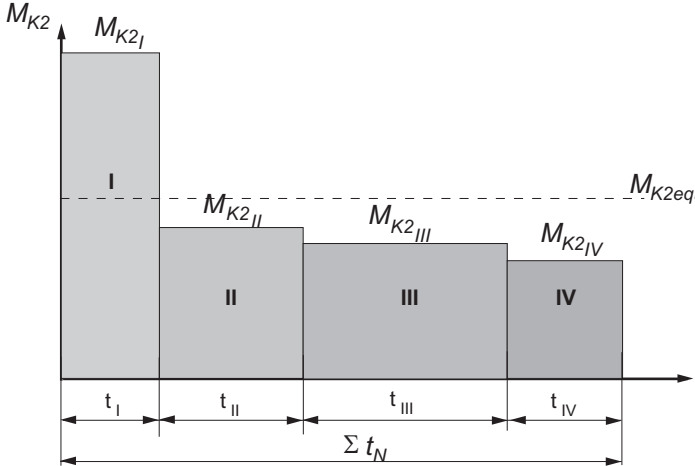
Degree of protection IP

Explosions protection required ☐ Yes ☐ No

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Step 2: Calculating the basic data - M_{K2} , n_2 , i , η

Constant torque	$M_{K2} = \frac{P_{K1} \times 9550 \times \eta}{n_2} \text{ [Nm]}$ Comment: If P_{K1} is not known $\rightarrow P_{K1} = P_M$ M_{K2} = Required output torque [Nm] P_{K1} = Required operating power on HSS [kW] n_2 = Output speed (LSS) rpm
Equivalent torque with load spectrum and constant speed n_2	$M_{K2equiv} = \sqrt[6.6]{(M_{K2I})^{6.6} \times \frac{t_I}{\sum t_N} + (M_{K2II})^{6.6} \times \frac{t_{II}}{\sum t_N} + \dots (M_{K2n})^{6.6} \times \frac{t_n}{\sum t_N}}$ The following figure shows a load example:  M_{K2} = Operating torque on LSS [Nm] $\frac{t_I}{\sum t_N} \dots \frac{t_n}{\sum t_N}$ = Time slice of the load I, II,...n = Types of load
Gear ratio	$i = \frac{n_1}{n_2}$ n_1 = Input speed (HSS) rpm n_2 = Output speed (LSS) rpm
Efficiency η	$h = f(i; \text{gear unit type})$ The efficiency of the gear unit is mainly determined by the gearing and bearing friction as well by churning losses. For the calculation, a reference value of 98% is used.



Step 3: Select the application factors

Application-specific service factor	$F_{S \min}$
Peak load factor	F_F see page 52
Startup factor	F_{Start} see page 52

$F_{S \min}$ -
application-spe-
cific service factor

The application-specific service factor F_S considers the typical load behavior with regard to the drive machine.

Recommended values with reference to

- Field of application
- Type of driven machine
- Operating time / day

are given in the following table.

5

INFORMATION



These tables apply only to gear units driven by electric motors. For other types of drive motors, the following correction values apply:

- Combustion engines with four or more cylinders:
 - $F_{S \min}$ (selection table) + 0.25
- Combustion engines with one to three cylinders:
 - $F_{S \min}$ (selection table) + 0.5

INFORMATION



In the event of deviations from the typical load behavior, please consult SEW-EURODRIVE.



Guidelines for Gear Unit Selection

Project planning procedure

Field of application	Type of application (driven machine)	Application-specific service factor $F_{S \min}$ Operating period / day		
		< 3 h	3-10 h	> 10 h
Waste water treatment	Impeller aerator	-	1.80	2.00
	Thickeners	1.15	1.25	1.50
	Vacuum filters	1.15	1.30	1.50
	Collectors	1.15	1.25	1.50
	Screw pump	-	1.30	1.50
	Brush aerators	-	-	2.00
Mining	Crushers	1.55	1.75	2.00
	Screens and shakers	1.55	1.75	2.00
	Slewing drives	-	1.55	1.80
	Bucket wheel excavators	1)	1)	1)
Power	Frequency inverters	-	1.80	2.00
	Water wheels (low speed)	-	-	1.70
	Water turbines	-	-	1)
Conveyors	Bucket elevators	-	1.40	1.50
	Vertical conveyors other	-	1.50	1.80
	Belt conveyors ≤ 100 kW	1.15	1.25	1.40
	Belt conveyors > 100 kW	1.15	1.30	1.50
	Apron feeders	-	1.25	1.50
	Screw feeders	1.15	1.25	1.50
	Shakers, screens	1.55	1.75	2.00
	Escalators	1.25	1.25	1.50
	Passenger elevators	1)	1)	1)
Rubber and plastic industry	Extruders (plastic)	-	1.40	1.60
	Extruders (rubber)	-	1.50	1.80
	Rubber rollers (2 in a row)	1.55	1.75	2.00
	Rubber rollers (3 in a row)	-	1.50	1.75
	Heated rollers	1.35	1.50	1.75
	Calender	-	1.65	1.65
	Mills	1.55	1.75	2.00
	Mixing rollers	1)	1)	1)
	Slab rollers	1.55	1.75	2.00
	Refiners	1.55	1.75	2.00
	Tire machines	1)	1)	1)
Timber industry	Timber industry	1)	1)	1)
Cranes	Cranes and hoists	2)	2)	2)
Food industry	Crushers and mills	-	-	1.75
	Beet slicers	-	1.25	1.50
	Drying drums	-	1.25	1.50
Metal production and processing	Winders	-	1.60	1.75
	Cutting rollers	1.55	1.75	2.00
	Table conveyors, individual drives	1)	1)	1)
	Table conveyors, group drives	1)	1)	1)
	Table conveyors, reciprocating	1)	1)	1)
	Wire drawing machines	1.35	1.50	1.75
	Rollers	1)	1)	1)



Field of application	Type of application (driven machine)	Application-specific service factor $F_{S \min}$ Operating period / day		
		< 3 h	3-10 h	> 10 h
Mills and drums	Cooling and drying drums	-	1.50	1.60
	Rotary kilns	-	-	2.00
	Ball mills	-	-	2.00
	Coal mills	-	1.50	1.75
Pulp and paper industry	Debarking drums and machines	1.55	1.80	-
	Rollers (pick-up, wire drive, wire suction)	-	1.80	2.00
	Drying cylinders (anti-friction bearings)	-	1.80	2.00
	Calenders (anti-friction bearings)	-	1.80	2.00
	Filters (pressure and vacuum)	-	1.80	2.00
	Beaters and chippers	1.55	1.75	2.00
	Jordan mills	-	1.50	1.75
	Presses (bark, felt, glue, suction)	-	-	1.75
	Reels	-	-	1.75
	Pulpers	1)	1)	1)
	Washer filters	-	-	1.50
	Yankee cylinders (dryers)	1)	1)	1)
Pumps	Centrifugal pumps	1.15	1.35	1.45
	Reciprocating pumps (single-cylinder)	1.35	1.50	1.80
	Reciprocating pumps (multi-cylinder)	1.20	1.40	1.50
	Screw pumps	-	1.25	1.50
	Rotary pumps (gear type, vane)	-	-	1.25
Agitators and mixers	Agitators for liquids	1.00	1.25	1.50
	Agitators for liquids (variable density)	1.20	1.50	1.65
	Agitators for solids (non-uniform material)	1.40	1.60	1.70
	Agitators for solids (uniform material)	-	1.35	1.40
	Concrete mixers	-	1.50	1.50
Cable cars	Material ropeways	-	1.40	1.50
	Aerial tramways		1)	1)
	Surface lifts	1)	1)	1)
	Continuous aerial tramways	1)	1)	1)
	Funicular railways	1)	1)	1)
Fans	Heat exchangers	1.50	1.50	1.50
	Dry cooling towers	-	-	2.00
	Wet cooling towers	2.00	2.00	2.00
	Blowers (axial and radial)	1.50	1.50	1.50
Compressors	Reciprocating compressors	-	1.80	1.90
	Radial compressors	-	1.40	1.50
	Screw-type compressors	-	1.50	1.75

1) Consult SEW-EURODRIVE

2) Please contact SEW-EURODRIVE; dimensioning according to FEM1001



Guidelines for Gear Unit Selection

Project planning procedure

Peak factor F_F

The peak load factor F_F takes account of the overload capacity of the gearing and the rotating parts.

Type / size of planetary gear unit	Peak factor - F_F					
	Frequency of peak load per hour					
	1...5	6...20	21...40	41...80	81...160	> 160
Output shaft as solid shaft P.002...P.102	1	1.2	1.3	1.5	1.75	2.0
Hollow shaft with shrink disk connection P.002	1.25	1.25	1.3	1.5	1.75	2.0
Hollow shaft with shrink disk connection P.012...P.102	1.1	1.2	1.3	1.5	1.75	2.0

Start factor - F_{Start}

The start factor F_{Start} takes account of the overload caused by startup.

Start mode	Start factor - F_{Start}
Direct	3.0
Soft start	1.8
Frequency inverter	1.5...2.0 ¹⁾
Star/delta	1.3
Hydraulic coupling without delay chamber	2.0
Hydraulic coupling with delay chamber	1.6

1) Dependent on setting

Step 4: Calculating the required nominal gear unit torque M_{N2}

Constant load direction – constant torque:

$$M_{N2} \geq M_{K2} \times F_{S \min} [Nm]$$

M_{N2} = Nominal gear unit torque [Nm]
 M_{K2} = Operating torque at LSS [Nm]
 $F_{S \min}$ = Application-specific service factor

Reversing direction of load – constant torque:

$$M_{N2} \geq M_{K2} \times F_{S \min} \times 1.43 [Nm]$$

M_{N2} = Nominal gear unit torque [Nm]
 M_{K2} = Operating torque at LSS [Nm]
 $F_{S \min}$ = Application-specific service factor



Step 5: Selecting the planetary gear unit - M_{N2}

The selection is based on M_{N2} according to the table.

Size	M_{N2} [Nm]
P.002	24 830
P.012	36 810
P.022	51 190
P.032	69 620
P.042	100 170
P.052	124 060
P.062	185 660
P.072	245 660
P.082	359 400
P.092	423 000
P.102	500 000

Step 6: Selecting the nominal motor power P_M

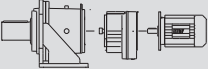
$$P_M \geq P_{K1} = \frac{P_{K2}}{\eta} \text{ [kW]}$$

P_M = Nominal motor power [kW]
 P_{K1} = Operating power on HSS [kW]
 P_{K2} = Operating power on LSS [kW]
 η = Efficiency

Step 7: Selecting the combination with gearmotor

Exact gear unit reduction ratio i_{ex}

Check M_a

P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]	[1]				m [kg]	
0.75	0.44	16200	3197	124000	24830						
	0.46	15300	3018	124000	24830						
	0.54	13000	2570	124000	24830						
	0.62	11400	2254	124000	24830						
	0.69	10300	2035	124000	24830						
	0.78	9070	1790	124000	24830						
	0.83	8560	1691	124000	24830						
	0.97	7290	1439	124000	24830						
						P	002RF77	DRS	80S4	285	
						PF	002RF77	DRS	80S4	230	
						PH	002RF77	DRS	80S4	290	
						PHF	002RF77	DRS	80S4	230	

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[1] see P_M and planetary stage

[2] see selection of the gearmotor / n_2 / gear ratio i_{ex}

[3] see $M_a > M_{K2}$



Step 8: Checking the peak load conditions - $M_{K2\ zul}$; $M_{K2\ max}$

Permitted peak output torque $M_{K2\ zul}$:

$$M_{K2\ zul} = \frac{2 \times M_{N2}}{F_F} \text{ [kNm]}$$

$M_{K2\ zul}$ = Permitted peak output torque [Nm]
 M_{N2} = Nominal gear unit torque [Nm]
 F_F = Peak load factor

Calculate the peak load $M_{K2\ max}$:

$$M_{K2\ max} = M_a \times F_{Start} \text{ [Nm]}$$

$M_{K2\ max}$ = Peak output torque [Nm]
 M_a = Output torque in relation to motor power [Nm]
 F_{start} = Startup factor

* If F_{start} is not specified, take account of the start factors according to the table page 52.

Check the gear unit selection:

$$M_{K2\ max} \leq M_{K2\ zul}$$

Step 9: Check the external additional forces

Influences and dependencies:

The permitted additional forces depend on the following factors:

- Existing service factor of the gear unit with respect to the selection data
- Required bearing life
- Direction of the axial load (from or towards gear unit)
- Application angle of the radial force (rotating or at a specific position)
- Point of force application
- Ratio between radial and axial force
- Gear unit mounting



Determining the overhung load

An important factor for determining the resulting overhung load is the type of transmission element mounted to the shaft end. The following transmission element factors f_z must be considered for various transmission elements.

Transmission element	Transmission element factor f_z	Comments
Gears	1.15	< 17 teeth
Chain sprockets	1.40	< 13 teeth
Chain sprockets	1.25	< 20 teeth
Narrow V-belt pulleys	1.75	Influence of the pre-tensioning
Flat-belt pulleys	2.50	Influence of the pre-tensioning
Toothed belt pulleys	1.50	Influence of the pre-tensioning

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

$$F_R = \frac{M_d \times 2000}{d_0} \times f_z \quad [N]$$

F_R = Overhung load [N]

M_d = Torque [Nm]

d_0 = Mean diameter of the installed transmission element [mm]

f_z = Transmission element factor

5

Permitted overhung load

The basis for determining the permitted overhung loads in the roller bearing calculation is the nominal bearing service life L_{H10} (according to ISO 281).

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

Permitted overhung loads on the output

The permitted overhung loads $F_{R\,zul}$ for solid shaft gear units can be calculated exactly. The force values relate to the force application in the middle of the shaft end for solid shafts and to the gear unit flange contact point for hollow shafts. In planetary gear units, the force application angle and direction of rotation do not influence the permitted values as there are no inner forces from the gear unit acting on the output bearing.

Permitted overhung loads and axial loads on the input

All the possibilities and restrictions specified in the SEW "Gearmotors" catalog apply.

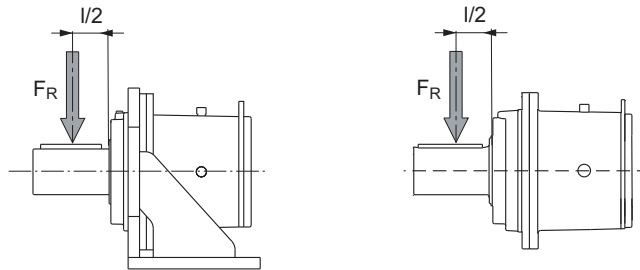


Guidelines for Gear Unit Selection

Project planning procedure

Checking the permitted overhung load on the output

The permitted overhung load F_R on the center of the shaft end is checked according to the following table. The load is permitted if $F_{R\ zul} \geq F_R$.



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Permitted overhung loads for solid shafts:

The values apply to force application to the middle of the shaft end and an output speed of $n = 10$ rpm.

Size P..	002	012	022	032	042	052	062	072	082	092	102
$F_{R\ zul}$ [kN]	96	134	183	194	249	280	364	403	526	580	680

Calculating $F_{R\ zul}$ [N] for different output speeds n^* (rpm)

$$F_{R\ zul}^* = F_{R\ zul} \times \left(\frac{10}{n^*} \right)^{\left(\frac{1}{3.33} \right)} \leq F_{R\ max} \text{ [N]}$$

$F_{R\ zul}^*$ = Permitted overhung load [N] for different output speed

$F_{R\ zul}$ = Permitted overhung load [N]

$F_{R\ max}$ = Maximum overhung load [N] (see following table)

n^* = differing output speed [rpm]

Size P..	002	012	022	032	042	052	062	072	082	092	102
$F_{R\ max}$ [kN]	124	156	197	252	323	364	473	523	683	720	850

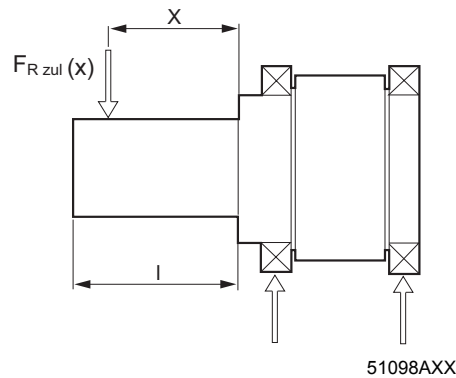
Note

$$F_R \leq F_{R\ zul}^* \leq F_{R\ max}$$

However, if $F_{R\ zul}^* > F_{R\ max}$, you have to check: $F_R \leq F_{R\ max}$



Conversion of permitted overhung load on the output for force application away from the middle of the shaft end



Size	$F_{R\ zul} [N]$	a	b	l
P.002	960 00	173	163	200
P.012	134 000	188.5	177	220
P.022	183 000	211	179	220
P.032	194 000	231.5	194	250
P.042	249 000	268	229	300
P.052	280 000	283	260	350
P.062	364 000	308	287	400
P.072	403 000	334	291	400
P.082	526 000	377	321	450
P.092	580 000	445	343	450
P.102	680 000	473	375	550

5

Calculating the off-center force application:

$$F_{R\ zul} (x) = F_{R\ zul} \times \frac{(a + b)}{(a + b^*)} \leq F_{R\ max} [N]$$

$$b^* = (b - l/2) + x [mm]$$

$F_{R\ zul}(x)$ = Permitted overhung load [N] of the off-centre force application

$F_{R\ zul}$ = Permitted overhung load [N]

$F_{R\ max}$ = Maximum overhung load [N]

Note

$$F_R \leq F_{R\ zul} (x) \leq F_{R\ max}$$

However, if $F_{R\ zul} (x) > F_{R\ max}$, you will have to check: $F_R \leq F_{R\ max}$

Permitted axial force

The permitted axial force is 20% of the effective radial force.

INFORMATION



- Please consult SEW-EURODRIVE if you use the PH.. variant subject to overhung loads, or the PHF.. variant with flange mounting.
- Please contact SEW-EURODRIVE if a purely axial force is applied.



Step 10: Checking the thermal rating / heating



INFORMATION

For the following operating conditions:

- High ambient temperatures (above 45 °C)
 - Vertical mounting position and/or motor speed over 1800 rpm
- please contact SEW-EURODRIVE.

Step 11: Selecting the lubricant

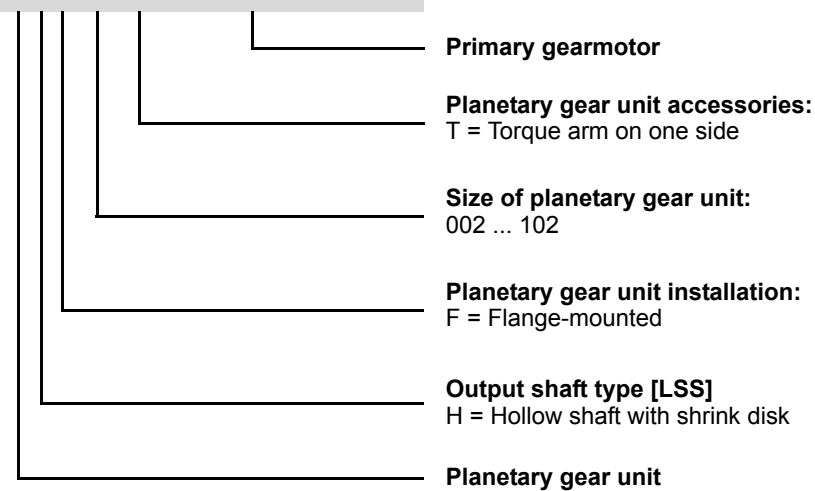
Lubricants can be chosen according to the lubricant table (see page 65).

Output speeds $n_2 < 1.0$ rpm:

We recommend using MOBIL SHC XMP 460 synthetic lubricant in conjunction with Viton oil seals to ensure lubricating properties at low output speeds.

Step 12: Technical specifications

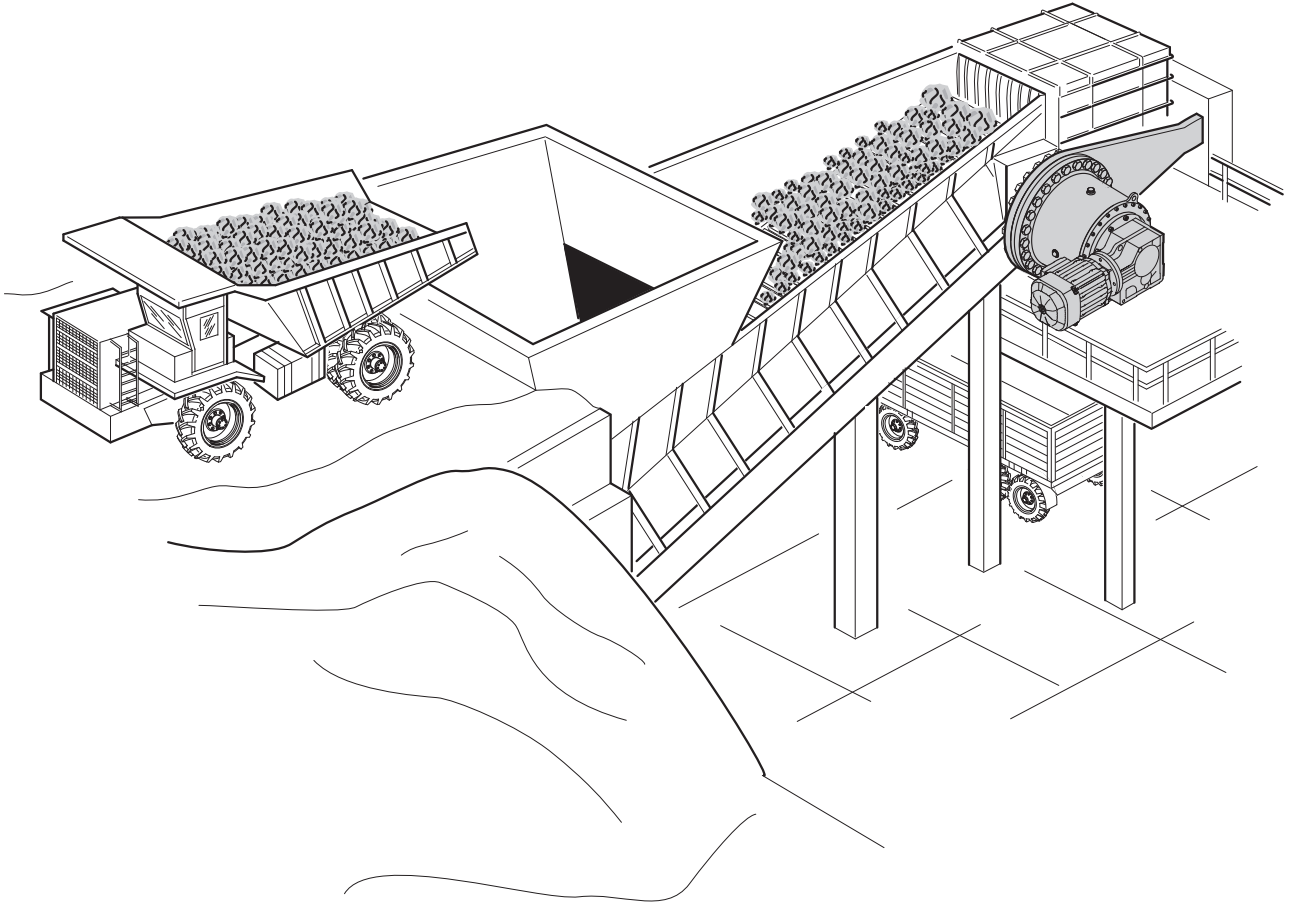
P H F 042 /... KF107DRE160M4





5.3 Selection example

Step 1: Drive selection data



5

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- Application: Apron feeders
- Bevel-helical planetary gear unit
- Hollow shaft with shrink disk and torque arm
- Required output speed $n_2 = 1.5 \text{ rpm}$
- Required output power at LSS $P_{K2} = 10 \text{ kW}$
- Motor 4-pole/50 Hz in star/delta connection
- Operating period: 24 hours a day
- Cyclic duration factor: 100 % cdf, 10 starts per hour
- Outdoors, dusty environment
- Ambient temperature = $0 \text{ }^{\circ}\text{C} \dots 40 \text{ }^{\circ}\text{C}$
- Installation altitude $H = 10 \text{ m}$
- No axial or radial forces acting on the output shaft



Step 2: Calculating the basic data M_{K2} , i , η

Output torque on LSS:

$$M_{K2} = \frac{P_{K2} \times 9550}{n_2} \text{ [Nm]}$$

M_{K2} = Operating torque at LSS [Nm]
 P_{K2} = Operating power on LSS [kW]
 n_2 = Output speed (LSS) [rpm]

$$M_{K2} = \frac{10 \times 9550}{1.5} = 63667 \text{ Nm}$$

Required reduction ratio:

$$i = \frac{n_1}{n_2} = \frac{1440}{1.5} = 960$$

n_1 = Input speed (HSS) [rpm]
 n_2 = Output speed (LSS) [rpm]

Efficiency:

$$\eta = 0.98 \text{ (page 48)}$$

Step 3: Selecting the application factors $F_{S \min}$, F_F , F_{Start}

Application-specific service factor $F_{S \min}$

Application: Apron feeder $t > 10 \text{ h} \rightarrow F_{S \min} = 1.5$ (page 49)

Peak load factor F_F

Hollow shaft with shrink disk

Load per hour = 1...5 $\rightarrow F_F = 1.2$ (page 52)

Start factor F_{Start}

Motor in star/delta $\rightarrow F_{Start} = 1.3$ (page 52)

Step 4: Calculating the required nominal output torque M_{N2}

Constant direction of the load - constant torque:

$$M_{N2} \geq M_{K2} \times F_{S \min} = 63667 \times 1.5 = 95500 \text{ Nm}$$

M_{N2} = Nominal torque [Nm]
 M_{K2} = Operating torque at LSS [Nm]
 $F_{S \min}$ = Application-specific service factor



Step 5: Selecting the planetary gear unit size M_{N2}

PHF 042 $\rightarrow M_{N2} = 100170$ [Nm]

Size	M_{N2} [Nm]
P.002	24 830
P.012	36 810
P.022	51 190
P.032	69 620
P.042	100 170
P.052	124 060
P.062	185 660
P.072	245 660
P.082	359 400
P.092	423 000
P.102	500 000

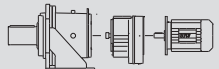
Step 6: Selecting the motor power P_M

$$P_M \geq P_{K1} = \frac{P_{K2}}{\eta} = \frac{10}{0.98} = 10.2 \text{ [kW]}$$

P_M = Nominal motor power [kW]
 P_{K2} = Operating power on LSS [kW]

Motor selection $\rightarrow P_M = 11$ [kW]

Step 7: Selecting the combination with gearmotor

P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]		m [kg]	
11.0	1.2	86100	1209	308900	100170	P 042KF97 DRS 160M4	1050	
	1.5	69100	971	322500	100170	PF 042KF97 DRS 160M4	860	
						PH 042KF97 DRS 160M4	1060	
[1]	[2]	[3]	[4]			[1]		

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[1+2] Combination selection:

PHF042 KF97 DRS160M4

[3] Checking the output torque:

$M_a = 69100 \text{ Nm} > M_{K2} = 56026 \text{ Nm} \rightarrow \text{ok}$

[4] Exact gear ratio:

$i_{ex} = 971$ (required= 960 $\rightarrow \text{ok}$)



Guidelines for Gear Unit Selection

Selection example

Step 8: Checking the peak load conditions $M_{K2\ max} < M_{K2\ zul}$

Permitted peak output torque $M_{K2\ zul}$:

$$M_{K2\ zul} = \frac{2 \times M_{N2}}{F_F} = \frac{2 \times 100170}{1.2} = 166950\ \text{Nm}$$

$M_{K2\ zul}$ = Permitted peak output torque [Nm]
 M_{N2} = Nominal gear unit torque [Nm]
 F_F = Peak load factor

Calculate the peak load $M_{K2\ max}$:

$$M_{K2\ max} = M_a \times F_{Start} = 69100 \times 1.3\ \text{[Nm]} = 89830\ \text{[Nm]}$$

$M_{K2\ max}$ = Peak output torque [Nm]
 M_a = Output torque in relation to the motor power [Nm]
 F_{Start} = Startup factor

$$M_{K2\ max} < M_{K2\ zul} \rightarrow \text{OK}$$

$M_{K2\ max}$ = Peak output torque
 $M_{K2\ zul}$ = Permitted peak output torque

Step 9: Check the external additional forces

There are no overhung loads or axial forces in this case $\rightarrow$ OK

Step 10: Checking the thermal rating / heating

The ambient temperature is below 45 °C

Horizontal mounting position

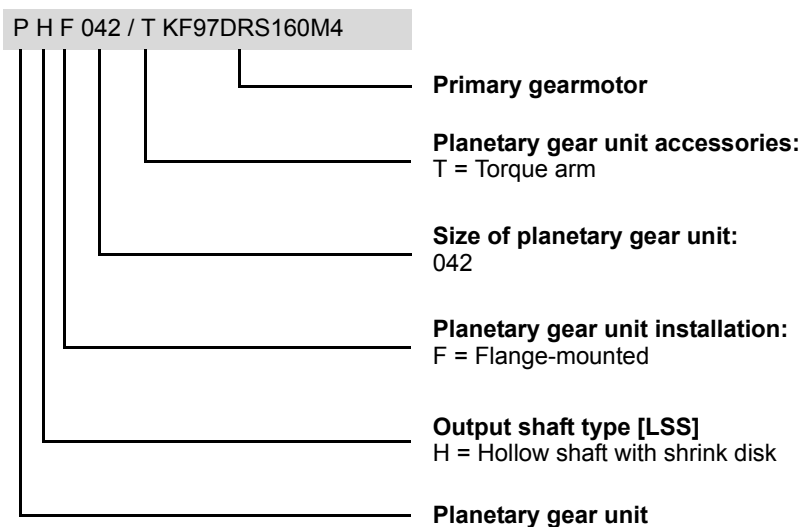
$\rightarrow$ Thermal limit rating OK

Step 11: Selecting the lubricant:

As $n_2 = 1.5\ \text{rpm}$ ($n_2 > 1.0\ \text{rpm}$), you can choose the lubricants according to the lubricant table (see chapter 6.2).



Step 12: Technical specification:



With labyrinth seal on the output shaft



6 Lubricants

6.1 Guidelines for lubricant selection

SEW-EURODRIVE delivers the planetary gear units without oil and the primary gear units filled with oil.

Generally it is possible to have the planetary gear unit delivered with oil.

INFORMATION



- The oil viscosity and type (mineral/synthetic) that are 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.

You must contact SEW-EURODRIVE in case of a deviation from this specification.

This lubricant recommendation in chapter "Lubricant table" in no way represents a guarantee as to the quality of the lubricant delivered by each respective supplier. Each lubricant manufacturer is responsible for the quality of its product.

- Ensure that the planetary gear units and primary gear units are filled with the correct oil grade and volume before startup. You can obtain the corresponding information from the gear unit nameplate and the lubricant table on the following pages.
 - Do not mix different synthetic lubricants and do not mix synthetic with mineral lubricants.
 - Check the compatibility of the used greases and oils.
-



6.2 Lubricant tables

6.2.1 General information

The lubricant table on the following page shows the permitted lubricants for planetary gear units with output speeds ≥ 1.0 rpm. Observe the following key to the lubricant table.

6.2.2 Permitted lubricants

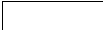


INFORMATION

- The standard for viscosity and oil grade is the type of oil that is specified by SEW-EURODRIVE in the order (see order confirmation and nameplate).
- Consult SEW-EURODRIVE if you use bio and food grade lubricants or polyglycol oils.
- Check the compatibility of the greases and oils used.
- At least one manufacturer-specific oil type is available for each permitted lubricant variant for planetary gear units delivered with oil.

Information and key to the lubricant table

The lubricant table shows the permitted lubricants for SEW-EURODRIVE gear units. Consider the used abbreviations, meaning of shading and notes.

CLP	= Mineral oil
CLP HC	= Synthetic polyalphaolefin
E	= Ester oil (water hazard classification 1)
	= Mineral lubricant
	= Synthetic lubricant

3) = Lubricants may only be used if service factor $F_s = 1.3$

4) = Take into account critical startup behavior at low ambient temperatures

6) = Ambient temperature



= Lubricant for the food industry (food grade oil)



= Biodegradable oil (lubricant for agriculture, forestry, and water management)



Lubricants

Lubricant tables

6.2.3 Lubricant table

6)		DIN (ISO)	ISO, NLGI	Mobil®	Shell	bp	KLÜBER LUBRICATION	TEXACO	Castrol	Optimol	FUCHS	Q8	TOTAL
°C	-50	-10	VG 320	Mobilgear 600XP 320	Shell Omala F 320	BP Energol GR-XP-320	Klüberoil GEM 1-320 N	Meropa 320	Alpha SP 320	Optigear BM 320	Renolin CLP 320 Plus	Goya NT 320	Carter EP 320
	0	+40	CLP CC	Mobilgear 600XP 150		BP Energol GR-XP-150	Klüberoil GEM 1-150 N	Meropa 150	Alpha SP 150	Optigear BM 150	Renolin CLP 150 Plus	Goya NT 150	
	-20	+20	CLP CC	Mobilgear 600XP 220	Shell Omala F 220	BP Energol GR-XP-220	Klüberoil GEM 1-220 N	Meropa 220	Alpha SP 220	Optigear BM 220	Renolin CLP 220 Plus	Goya NT 220	Carter EP 220
	-15	+30	CLP CC	Mobilgear 600XP 460	Shell Omala F 460	BP Energol GR-XP-460	Klüberoil GEM 1-460 N	Meropa 460	Alpha SP 460	Optigear BM 460	Renolin CLP 460 Plus	Goya NT 460	Carter EP 460
	-5	+45	CLP CC	Mobilgear 600XP 680		BP Energol GR-XP-680	Klüberoil GEM 1-680 N	Meropa 680	Alpha SP 680	Optigear BM 680	Renolin CLP 680 Plus	Goya NT 680	Carter EP 680
	0	+50	CLP CC						Tribol 1100/1000				
	+5	+60	CLP CC										
	+25	+40	CLP HC	Mobil SHC Gear 320	Shell Omala S4 GX 320	BP Energol EP-XF-320	Klüberoil GEM 4-320 N	Pinnacle EP 320	Alphasyn EP 320	Optigear Synthetic X 320	Renolin Unisyn CLP 220	El Greco 320	Carter SH 320
3) 4)	-40	-10	CLP HC	Mobil SHC 624									
	-35	+10	CLP HC	Mobil SHC 626	Shell Omala S4 GX 68	BP Energol EP-XF-68	Klüberoil GEM 4-68 N			Optigear Synthetic X 68	Reolin Unisyn CLP 68		
	-30	+20	CLP HC	Mobil SHC Gear 150	Shell Omala S4 GX 150	BP Energol EP-XF-150	Klüberoil GEM 4-150 N	Pinnacle EP 150	Alphasyn EP 150	Optigear Synthetic X 150	Reolin Unisyn CLP 150	El Greco 150	Carter SH 150
	-30	+30	CLP HC	Mobil SHC Gear 220	Shell Omala S4 GX 220	BP Energol EP-XF-220	Klüberoil GEM 4-220 N	Pinnacle EP 220	Alphasyn EP 220	Optigear Synthetic X 220	Reolin Unisyn CLP 220	El Greco 220	Carter SH 220
	-20	+50	CLP HC	Mobil SHC Gear 460	Shell Omala S4 GX 460	BP Energol EP-XF-460	Klüberoil GEM 4-460 N	Pinnacle EP 460	Alphasyn EP 460	Optigear Synthetic X 460	Reolin Unisyn CLP 460	El Greco 460	Carter SH 460
	-10	+60	CLP HC	Mobil SHC Gear 680	Shell Omala S4 GX 680	BP Energol EP-XF-680	Klüberoil GEM 4-680 N	Pinnacle EP 680		Optigear Synthetic X 680	Reolin Unisyn CLP 680	El Greco 680	Carter SH 680
	0	+70	CLP HC	Mobil SHC Gear 1000			Klüberoil GEM 4-1000 N						
	-10	+30	CLP HC				Klüberoil 4UHT-460 N			Optileb GT 460	Cassida Fluid GL 460		
3)	-20	+20	CLP HC				Klüberoil 4UHT-220 N			Optileb GT 220	Cassida Fluid GL 220		
	-40	+40	CLP HC				Klüberoil 4UHT-68 N			Optileb HT 68	Cassida Fluid GL 68		
3) 4)	-20	+40	CLP HC				Klüberoil 4UHT-68 N				Plantogear 460 S		
	-20	+40	CLP HC				Klüberoil 4UHT-68 N						

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6.3 Lubricant fill quantity

The specified fill quantities are **recommended values**. The precise values vary depending on the number of stages and gear ratios.

INFORMATION



- The oil chambers of the primary and planetary gear units are separate.
- Planetary gear units are supplied without lubricant!
- RF..., KF.. and K.. gear units are filled with lubricant at the factory depending on the mounting position.
- In case of a pivoted mounting position, refer to the lubricant fill quantity specified on the nameplate.

6.3.1 Planetary gear unit

The table below shows the lubricant fill quantities of the planetary gear units.

Size	Mounting position					
	M1	M2	M3	M4	M5	M6
	Liter [l]					
P.002	4.5	9	4.5	7	4.5	4.5
P.012	7	12	7	10	7	7
P.022	9	14	9	11	9	9
P.032	12	21	12	18	12	12
P.042	16	30	16	25	16	16
P.052	20	36	20	30	20	20
P.062	28	54	28	49	28	28
P.072	35	67	35	59	35	35
P.082	49	94	49	81	49	49
P.092	62	134	62	103	62	62
P.102	71	153	71	121	71	71

6

6.3.2 Primary helical (RF-) gear units

INFORMATION



The lubricant fill quantity depends on the mounting position of the planetary gear unit and the mounting position of the RF primary gear unit. For notes on the mounting positions of RF primary gear units, refer to chapter 4.3.

The table below shows the lubricant fill quantities.

Size	Fill quantities in liters					
	M1	M2	M3	M4	M5	M6
	0°	0°	180°	0°	270°	90°
RF77	1.2	3.10	3.30	3.60	2.40	3.00
RF87	2.4	6.4	7.1	7.2	6.3	6.4
RF97	5.1	11.9	11.2	14.0	11.2	11.8
RF107	6.3	15.9	17.0	19.2	13.1	15.9
RF137	9.5	27.0	29.0	32.5	25.0	25.0
RF147	16.4	47.0	48.0	52.0	42.0	42.0
RF167	26.0	82.0	78.0	88.0	65.0	71.0

Key:

M1 / M2 / M3 / M4 / M5 / M6	= Mounting position of planetary gear unit
0° / 90° / 180° / 270°	= Mounting position of helical (RF-) primary gear units



6.3.3 Primary bevel (KF-/K-) gear units

INFORMATION



The lubricant fill quantity depends on the mounting position of the planetary gear unit and the mounting position of the KF and K primary gear unit. For notes on the mounting positions of KF and K primary gear units, refer to chapter 4.2.

The table below shows the lubricant fill quantities.

Size	Fill quantity in liters											
	M1				M2				M3			
	0° A	90° A	180° B	270° A	0° A	90° A	180° A	270° A	0° B	90° A	180° A	270° A
KF67	1.1	2.4	1.1	3.7	2.7	2.7	2.7	2.7	1.1	3.7	1.1	2.4
KF77	2.1	4.1	2.1	5.9	4.5	4.5	4.5	4.5	2.1	5.9	2.1	4.1
KF87	3.7	8.2	3.7	11.9	8.4	8.4	8.4	8.4	3.7	11.9	3.7	8.2
KF97	7.0	14.7	7.0	21.5	16.5	16.5	16.5	16.5	7.0	21.5	7.0	14.7
KF107	10.0	21.8	10.0	35.1	25.2	25.2	25.2	25.2	10.0	35.1	10.0	21.8
KF127	21.0	41.5	21.0	55.0	41.0	41.0	41.0	41.0	21.0	55.0	21.0	41.5
KF157	31.0	66	31.0	92.0	62.0	62.0	62.0	62.0	31.0	92.0	31.0	66.0
K167	33	95	33	123	95	84	84	84	105	33	105	85
K187	53	152	53	200	152	143	143	143	167	53	167	143

Size	Fill quantity in liters											
	M4				M5				M6			
	0° A	90° A	180° B	270° A	0° A	90° B	180° A	270° A	0° B	90° A	180° A	270° B
KF67	2.7	2.7	2.7	2.7	2.4	1.1	3.7	1.1	3.7	1.1	2.4	1.1
KF77	4.5	4.5	4.5	4.5	4.1	2.1	5.9	2.1	5.9	2.1	4.1	2.1
KF87	8.4	8.4	8.4	8.4	8.2	3.7	11.9	3.7	11.9	3.7	8.2	3.7
KF97	15.7	15.7	15.7	15.7	14.7	7.0	21.5	7.0	21.5	7.0	14.7	7.0
KF107	25.2	25.2	25.2	25.2	21.8	10.0	35.1	10.0	35.1	10.0	21.8	10.0
KF127	41.0	41.0	41.0	41.0	41.5	21.0	55.0	21.0	55.0	21.0	41.5	21.0
KF157	62.0	62.0	62.0	62.0	66.0	31.0	92.0	31.0	92.0	31.0	66.0	31.0
K167	123	123	123	123	85	33	123	33	84	33	95	33
K187	200	200	200	200	143	53	200	53	143	53	152	53

Key:

M1 / M2 / M3 / M4 / M5 / M6	= Mounting position of planetary gear unit
0° / 90° / 180° / 270°	= Mounting position of primary bevel (KF-/K-) gear units
A / B	= Position of the mounting flange at the primary bevel gear unit



6.4 Sealing grease / rolling bearing grease

The following overview shows the greases recommended by SEW-EURODRIVE. They are recommended for operating temperatures from -20 °C to 100 °C.

Manufacturer	Grease
ARAL	ARALUB HLP 2
BP	Energrease LS-EPS
Castrol	Spheerol EPL2
Fuchs	Renolit CX TOM 15 OEM
Klüber	Centoplex EP2
Kuwait	Q8 Rembrandt EP2
Mobile	Mobilux EP 2
Shell	Alvania EP2
Texaco	Mulifak EP 2
Total	Multis EP 2

INFORMATION



If users want to use another grease, they are responsible for obtaining a confirmation from the lubricant manufacturer or supplier approving that the chosen grease is suited for the intended application and that the grease properties meet at least the requirements of the greases listed in the table.

6.5 Comments

6.5.1 Planetary gearmotor with common oil chamber (special design)

INFORMATION



Lubricant fill quantity and viscosity depend on the data given on the nameplate of the planetary gear unit. The planetary gear unit and the primary gear unit will be delivered without oil fill.

6.5.2 Selecting the viscosity when using mineral oil

INFORMATION



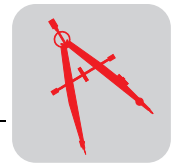
If surface temperatures exceed 100 °C, contact SEW-EURODRIVE.



7 Options

The following additional options are available. Please contact SEW-EURODRIVE if you need them.

- ATEX version
- Double-sided torque arm
- Output shaft types
 - Solid shaft design
 - Two keys
 - Smooth shaft (no key)
 - Splined shaft according to DIN 5480
 - Hollow shaft version
 - Splined shaft according to DIN 5480
 - Protection cover for shrink disk
- Output shaft (LSS) sealing system
 - Labyrinth seal



7.1 Torque arm

7.1.1 Single-sided torque arm

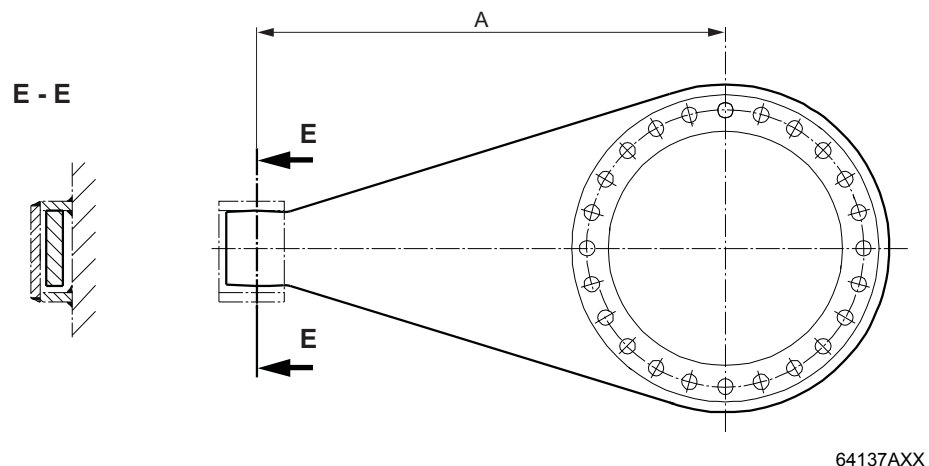
The reaction torque to the gear unit output torque is absorbed by the torque arm fixture via lever arm A. The illustration shows an example of absorption in a welded construction with design dimensions. Two supporting plates with the suggested dimensions are welded onto the customer's structure. Once the gear unit has been mounted, a connecting cover plate is welded onto the two supporting plates. The force acting on the fixture is the gear unit torque divided by the length of the lever arm A. The reaction force acts on the gear unit and customer bearings.

INFORMATION



See chapters 10.2 and 11.2 for detailed dimensions of the torque arm.

The following figure shows a sample torque arm.



Weights

Size	Weight [kg]
P.002	25
P.012	25
P.022	48
P.032	58
P.042	93
P.052	102
P.062	183
P.072	317
P.082	420
P.092	440
P.102	510



Options

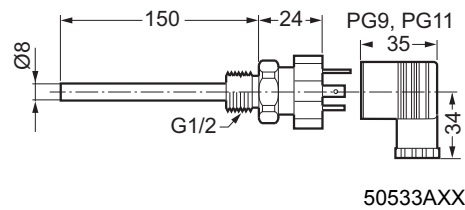
PT100 temperature sensor

7.2 PT100 temperature sensor

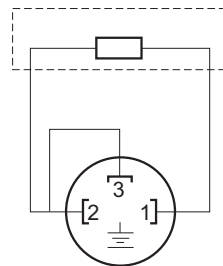
The temperature sensor PT100 can be used to measure the temperature of the oil in the gear unit.

The temperature sensor is located in the gear unit's oil sump. The exact position depends on the gear unit variant.

7.2.1 Dimensions



7.2.2 Electrical connection



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[1] / [2] Resistor element connection

7.2.3 Technical data

- Design with thermometer pocket and changeable measuring insert
- Sensor tolerance [K] $\pm (0.3 + 0.005 \times T)$, (corresponds to DIN IEC 751 class B),
T = Oil temperature [°C]
- Plug connector DIN 43650 PG9 (IP65)
- The tightening torque for the retaining screw in the back of the plug connector for electrical connection is 0.25 Nm.

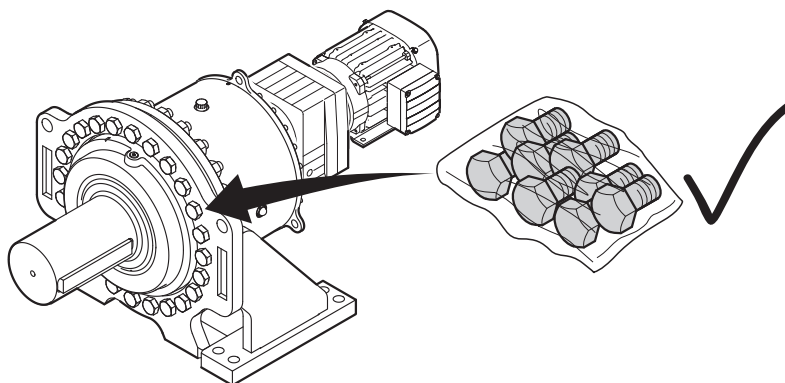


8 Design and Operating Notes

8.1 General information

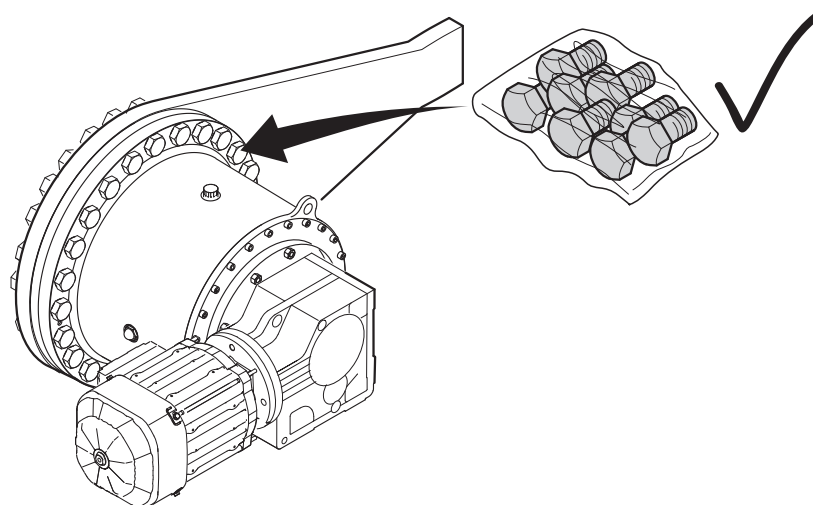
For the following gear unit variants, the screws are included in the **scope of delivery**:

- Foot-mounted gear unit



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- Gear unit with torque arm



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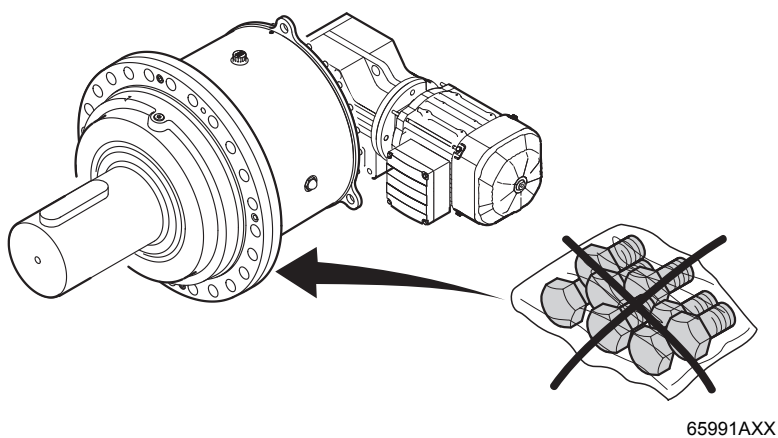


Design and Operating Notes

General information

Not included in the scope of delivery:

- Set of wrenches
- Torque wrench
- Mounting device
- Compensation elements (shims, spacing rings)
- Fasteners for input and output elements
- Lubricant (e.g. NOCO[®] fluid from SEW-EURODRIVE)
- Aids for assembly/disassembly onto the machine shaft
- Fastening parts for the gear unit base
- Flange-mounted gear units are delivered without the connection screws.





9 Important Information on Selection Tables and Dimension Sheets

The following pages contain important information for chapters 10 and 11.

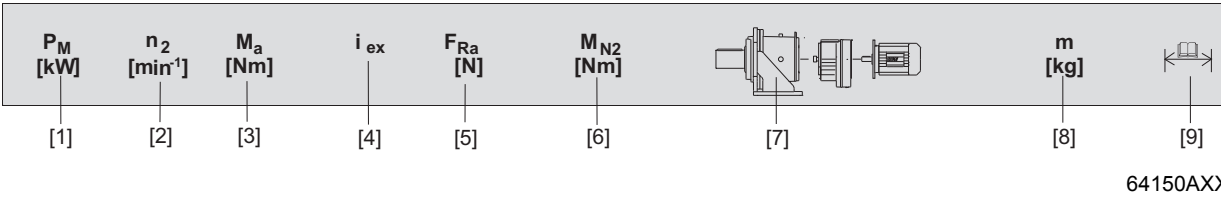


INFORMATION

Unless specified otherwise, all dimensions are given in mm.

9.1 Selection tables

The following figure shows the structure of the selection tables in chapters 10 and 11.



- [1] Nominal motor power
- [2] Output speed
- [3] Output torque in relation to motor power
- [4] Gear unit reduction ratio
- [5] Permitted radial force at LSS center
- [6] Nominal gear unit torque
- [7] Gear unit type
- [8] Weight
- [9] Dimension sheet page number



9.2 Dimension sheets

9.2.1 Scope of delivery



= Standard parts supplied by SEW-EURODRIVE.



= Standard parts not supplied by SEW-EURODRIVE.

9.2.2 Tolerances

Keys

Keys according to DIN 6885 (domed type)

9.2.3 Foot-mounted variant

In case of the following combinations of foot-mounted planetary gear units with RF.. / KF.. / K.. primary gear units, the primary gear unit can be lower than the mounting surface.



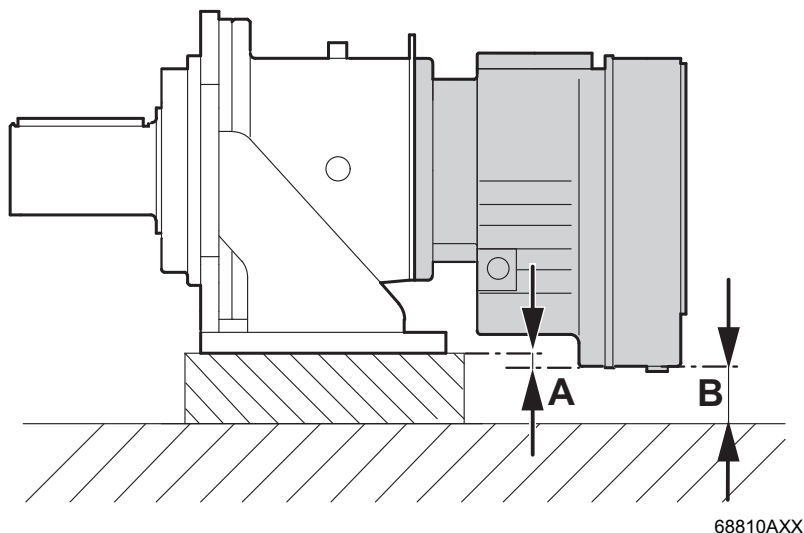
INFORMATION

Observe the **dimension A** in the following gear unit combinations. The customer base construction must be prepared accordingly.

In addition, you need enough room to perform an oil change. The customer has to specify a **dimension B**.

	Sizes / combinations		Dimension A [mm]
	RF..	KF.. / K..	
P.002	-	97	10
P.012	-	107	32.5
P.022	-	107	2.5
P.022	137	-	7.5
P.032	147	-	18.5
P.092	-	187	15

The figure shows an example of a planetary gear unit with RF.. primary gear unit.





9.2.4 Oil expansion tank / oil riser pipe

In mounting position M2, there is an oil expansion tank mounted on the gear unit and in mounting position M4, an oil riser pipe is fitted. The dimensions specified in chapters 10.5 and 11.5 are guide values. Please contact SEW-EURODRIVE if there is little space available for installing.

9.2.5 Dimensions for motors and planetary gear units

Motor options

The motor dimensions may change due to motor options. Refer to the dimension drawings of the motor options.

Special designs

The dimensions of the terminal box on special designs such as KS, CSA, VIK, low voltage or voltage changeover may deviate from the standard dimensions.

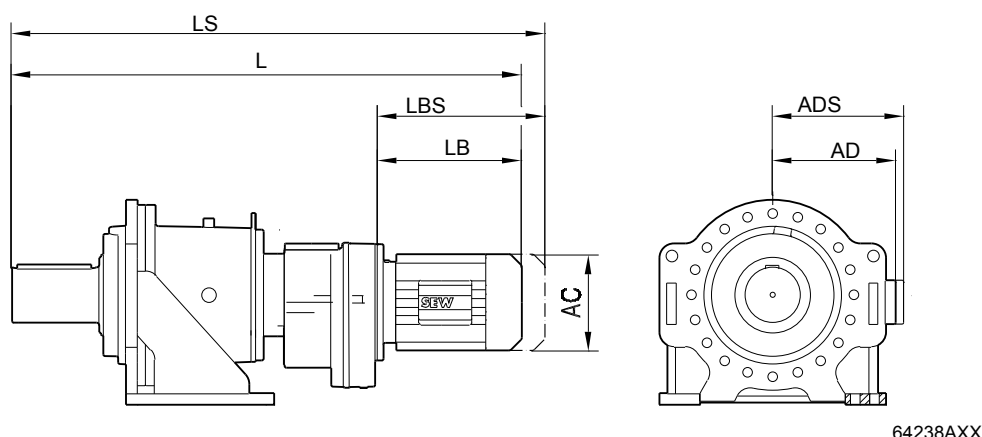
EN 50347

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

In the dimension tables of the dimension sheets, the new dimension designations according to EN 50347 / IEC 72-1 are used for the respective dimensions.

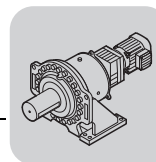
Dimension designations

The dimension designations of the planetary gearmotor are described below:



- L** = Total length
- LS** = Total length of planetary gearmotor including brake
- LB** = Length of the motor
- LBS** = Length of the brakemotor
- AC** = Diameter of the motor
- AD** = Distance between the center of the motor shaft and the top part of the terminal box
- ADS** = Distance between the center of the brakemotor shaft and the top part of the terminal box





10 P.RF.. Helical Planetary Gearmotors

10.1 Guide to the dimension sheets

10.1.1 Foot-mounted gear unit P..

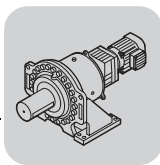
Size	M _{N2} [Nm]	Dimension sheets / page 						
		RF77	RF87	RF97	RF107	RF137	RF147	RF167
P002	24830	144	146	148	150	-	-	-
P012	36810	152	154	156	158	-	-	-
P022	51190	-	160	162	164	166	-	-
P032	69620	-	-	168	170	172	174	-
P042	100170	-	-	-	176	178	180	-
P052	124060	-	-	-	182	184	186	-
P062	185660	-	-	-	-	188	190	-
P072	245660	-	-	-	-	-	192	194
P082	359400	-	-	-	-	-	196	198
P092	423000	-	-	-	-	-	-	200
P102	500000	-	-	-	-	-	-	202

10.1.2 Flange-mounted gear unit PF..

Size	M _{N2} [Nm]	Dimension sheets / page 						
		RF77	RF87	RF97	RF107	RF137	RF147	RF167
PF002	24830	145	147	149	151	-	-	-
PF012	36810	153	155	157	159	-	-	-
PF022	51190	-	161	163	165	167	-	-
PF032	69620	-	-	169	171	173	175	-
PF042	100170	-	-	-	177	179	181	-
PF052	124060	-	-	-	183	185	187	-
PF062	185660	-	-	-	-	189	191	-
PF072	245660	-	-	-	-	-	193	195
PF082	359400	-	-	-	-	-	197	199
PF092	423000	-	-	-	-	-	-	201
PF102	500000	-	-	-	-	-	-	203

10.1.3 Motor adapter

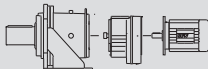
	Dimension sheets / page 						
	RF77	RF87	RF97	RF107	RF137	RF147	RF167
Adapter for mounting IEC motors P..RF..AM..	206	206	206	207	207	207	207
Adapter for mounting NEMA motors P..RF..AM..	208	208	208	209	209	209	209
Input shaft assembly P..RF..AD..	210	210	210	210	210	210	210
Motor adapter AQA	211	211	212	212	212	212	-

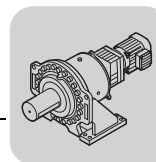


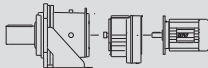
P.RF.. Helical Planetary Gearmotors

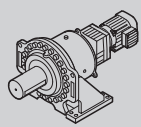
IE1 motor standard – selection tables

10.2 IE1 motor standard – selection tables

P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]		m [kg]	
0.75	0.34	20300	4066	156000	36810	P 012RF87 DRS 80S4	395	154
	0.38	18300	3663	156000	36810	PF 012RF87 DRS 80S4	325	155
	0.44	16100	3214	156000	36810	PH 012RF87 DRS 80S4	410	154
	0.49	14200	2847	156000	36810	PHF 012RF87 DRS 80S4	340	155
	0.44	16000	3209	156000	31500	P 012RF77 DRS 80S4	365	152
	0.46	15100	3030	156000	31500	PF 012RF77 DRS 80S4	295	153
						PH 012RF77 DRS 80S4	380	152
						PHF 012RF77 DRS 80S4	310	153
	0.35	20300	4051	123800	24830	P 002RF87 DRS 80S4	315	146
	0.38	18200	3649	124000	24830	PF 002RF87 DRS 80S4	255	147
						PH 002RF87 DRS 80S4	320	146
						PHF 002RF87 DRS 80S4	260	147
	0.44	16000	3197	124000	24830	P 002RF77 DRS 80S4	285	144
	0.46	15100	3018	124000	24830		230	145
	0.54	12800	2570	124000	24830		290	144
	0.62	11300	2254	124000	24830		230	145
	0.69	10200	2035	124000	24830		290	144
	0.78	8970	1790	124000	24830		230	145
	0.83	8470	1691	124000	24830			
	0.97	7210	1439	124000	24830			
1.1	0.35	29600	4066	197000	51190	P 022RF87 DRS 80M4	550	160
	0.38	26700	3663	197000	51190	PF 022RF87 DRS 80M4	445	161
						PH 022RF87 DRS 80M4	560	160
						PHF 022RF87 DRS 80M4	460	161
	0.35	29600	4066	156000	36810	P 012RF87 DRS 80M4	400	154
	0.38	26700	3663	156000	36810		330	155
	0.44	23400	3214	156000	36810		410	154
	0.50	20700	2847	156000	36810		340	155
	0.56	18200	2498	156000	36810			
	0.60	17200	2368	156000	36810			
	0.68	15100	2072	156000	36810			
	0.62	16500	2263	156000	31500	P 012RF77 DRS 80M4	370	152
	0.69	14900	2043	156000	31500	PF 012RF77 DRS 80M4	300	153
						PH 012RF77 DRS 80M4	385	152
						PHF 012RF77 DRS 80M4	315	153
	0.44	23300	3201	119800	24830	P 002RF87 DRS 80M4	320	146
	0.50	20700	2836	123300	24830	PF 002RF87 DRS 80M4	260	147
	0.57	18100	2489	124000	24830	PH 002RF87 DRS 80M4	320	146
						PHF 002RF87 DRS 80M4	265	147
	0.63	16400	2254	124000	24830	P 002RF77 DRS 80M4	290	144
	0.69	14800	2035	124000	24830		230	145
	0.79	13000	1790	124000	24830		295	144
	0.83	12300	1691	124000	24830		235	145
	0.98	10500	1439	124000	24830			
	1.1	9550	1308	124000	24830			
	1.2	8270	1133	124000	24830			
	1.4	7200	986	124000	24830			
1.5	0.34	40800	4058	197000	51190	P 022RF97 DRS 90M4	600	162
	0.38	36500	3628	197000	51190	PF 022RF97 DRS 90M4	500	163
						PH 022RF97 DRS 90M4	620	162
						PHF 022RF97 DRS 90M4	520	163
	0.43	32300	3214	197000	51190	P 022RF87 DRS 90M4	550	160
	0.49	28600	2847	197000	51190	PF 022RF87 DRS 90M4	450	161
	0.56	25100	2498	197000	51190	PH 022RF87 DRS 90M4	570	160
						PHF 022RF87 DRS 90M4	465	161
	0.34	40800	4058	156000	36810	P 012RF97 DRS 90M4	455	156
						PF 012RF97 DRS 90M4	385	157
						PH 012RF97 DRS 90M4	470	156
						PHF 012RF97 DRS 90M4	400	157

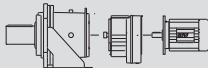


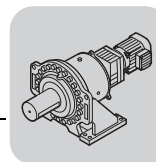
P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]		m [kg]	
1.5	0.38	36800	3663	156000	36810			
	0.43	32300	3214	156000	36810			
	0.49	28600	2847	156000	36810	P 012RF87 DRS 90M4	400	154
	0.56	25100	2498	156000	36810	PF 012RF87 DRS 90M4	330	155
	0.59	23800	2368	156000	36810	PH 012RF87 DRS 90M4	415	154
	0.67	20800	2072	156000	36810	PHF 012RF87 DRS 90M4	345	155
	0.75	18700	1867	156000	36810			
	0.85	16400	1637	156000	36810			
	0.82	17000	1697	156000	31500	P 012RF77 DRS 90M4	375	152
	0.97	14500	1445	156000	31500	PF 012RF77 DRS 90M4	305	153
						PH 012RF77 DRS 90M4	385	152
						PHF 012RF77 DRS 90M4	315	153
	0.59	23700	2358	119300	24830	P 002RF87 DRS 90M4	320	146
	0.68	20700	2064	123200	24830	PF 002RF87 DRS 90M4	265	147
						PH 002RF87 DRS 90M4	325	146
						PHF 002RF87 DRS 90M4	270	147
	0.78	18000	1790	124000	24830			
	0.83	17000	1691	124000	24830	P 002RF77 DRS 90M4	295	144
	0.97	14400	1439	124000	24830	PF 002RF77 DRS 90M4	235	145
	1.1	13100	1308	124000	24830	PH 002RF77 DRS 90M4	295	144
	1.2	11400	1133	124000	24830	PHF 002RF77 DRS 90M4	240	145
	1.4	9920	986	124000	24830			
	1.5	9190	913	124000	24830	P 002RF77 DRS 90M4	290	144
	1.7	8420	837	124000	24830	PF 002RF77 DRS 90M4	235	145
	1.9	7390	735	124000	24830	PH 002RF77 DRS 90M4	295	144
						PHF 002RF77 DRS 90M4	235	145
2.2	0.35	59100	4022	323000	100170	P 042RF107 DRS 90L4	980	176
	0.38	53400	3637	323000	100170	PF 042RF107 DRS 90L4	790	177
						PH 042RF107 DRS 90L4	990	176
						PHF 042RF107 DRS 90L4	800	177
	0.35	59100	4022	235800	69620	P 032RF107 DRS 90L4	740	170
	0.38	53400	3637	241800	69620	PF 032RF107 DRS 90L4	610	171
	0.45	45300	3082	249400	69620	PH 032RF107 DRS 90L4	760	170
	0.49	42000	2859	252000	69620	PHF 032RF107 DRS 90L4	640	171
	0.43	47900	3262	247100	69620	P 032RF97 DRS 90L4	690	168
	0.55	37600	2558	252000	69620	PF 032RF97 DRS 90L4	560	169
						PH 032RF97 DRS 90L4	710	168
						PHF 032RF97 DRS 90L4	590	169
	0.34	59600	4058	176900	51190			
	0.39	53300	3628	187500	51190	P 022RF97 DRS 90L4	610	162
	0.43	47900	3262	195400	51190	PF 022RF97 DRS 90L4	500	163
	0.49	41600	2831	197000	51190	PH 022RF97 DRS 90L4	620	162
	0.55	37600	2558	197000	51190	PHF 022RF97 DRS 90L4	520	163
	0.60	34500	2351	197000	51190			
	0.67	30700	2087	197000	51190			
	0.68	30400	2072	197000	51190	P 022RF87 DRS 90L4	550	160
						PF 022RF87 DRS 90L4	450	161
						PH 022RF87 DRS 90L4	570	160
						PHF 022RF87 DRS 90L4	465	161
	0.49	41600	2831	156000	36810	P 012RF97 DRS 90L4	455	156
	0.67	30700	2087	156000	36810	PF 012RF97 DRS 90L4	385	157
						PH 012RF97 DRS 90L4	470	156
						PHF 012RF97 DRS 90L4	400	157
	0.56	36700	2498	156000	36810			
	0.59	34800	2368	156000	36810	P 012RF87 DRS 90L4	405	154
	0.68	30400	2072	156000	36810	PF 012RF87 DRS 90L4	335	155
	0.75	27400	1867	156000	36810	PH 012RF87 DRS 90L4	420	154
	0.85	24000	1637	156000	36810	PHF 012RF87 DRS 90L4	350	155
	0.97	21200	1445	156000	36810			
	1.1	18800	1281	156000	36810			
	1.3	16000	1094	156000	36810			
	1.2	16700	1138	156000	31500	P 012RF77 DRS 90L4	375	152
	1.4	14500	990	156000	29900	PF 012RF77 DRS 90L4	305	153
						PH 012RF77 DRS 90L4	390	152
						PHF 012RF77 DRS 90L4	320	153

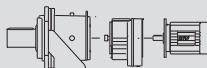


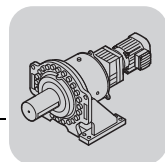
P.RF.. Helical Planetary Gearmotors

IE1 motor standard – selection tables

P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]		m [kg]	
2.2	0.86	23900	1631	118900	24830	P 002RF87 DRS 90L4	325	146
	0.97	21100	1440	122700	24830	PF 002RF87 DRS 90L4	265	147
	1.1	18700	1276	124000	24830	PH 002RF87 DRS 90L4	330	146
						PHF 002RF87 DRS 90L4	270	147
	1.2	16600	1133	124000	24830	P 002RF77 DRS 90L4	295	144
	1.4	14500	986	124000	24830	PF 002RF77 DRS 90L4	235	145
						PH 002RF77 DRS 90L4	300	144
						PHF 002RF77 DRS 90L4	240	145
	1.5	13400	913	124000	24830	P 002RF77 DRS 90L4	295	144
	1.7	12300	837	124000	24830	PF 002RF77 DRS 90L4	235	145
	1.9	10800	735	124000	24830	PH 002RF77 DRS 90L4	300	144
	2.3	8960	610	124000	24830	PHF 002RF77 DRS 90L4	240	145
	2.6	8070	549	124000	24830			
	2.9	7080	482	124000	24830			
3.0	0.35	80600	4022	364000	124060	P 052RF107 DRS 100M4	1130	182
	0.38	72900	3637	364000	124060	PF 052RF107 DRS 100M4	930	183
						PH 052RF107 DRS 100M4	1120	182
						PHF 052RF107 DRS 100M4	920	183
	0.35	80600	4022	313500	100170	P 042RF107 DRS 100M4	990	176
	0.38	72900	3637	319600	100170	PF 042RF107 DRS 100M4	800	177
	0.45	61800	3082	323000	100170	PH 042RF107 DRS 100M4	990	176
	0.49	57300	2859	323000	100170	PHF 042RF107 DRS 100M4	800	177
	0.54	51600	2573	323000	100170			
	0.35	80600	4022	207400	69620	P 032RF107 DRS 100M4	740	170
	0.38	72900	3637	218800	69620	PF 032RF107 DRS 100M4	620	171
	0.45	61800	3082	232800	69620	PH 032RF107 DRS 100M4	760	170
	0.49	57300	2859	237800	69620	PHF 032RF107 DRS 100M4	640	171
	0.60	46700	2331	248200	69620			
	0.68	41400	2067	252000	69620			
	0.43	65400	3262	228600	69620	P 032RF97 DRS 100M4	690	168
	0.49	56700	2831	238400	69620	PF 032RF97 DRS 100M4	570	169
	0.55	51300	2558	244000	69620	PH 032RF97 DRS 100M4	710	168
	0.60	47100	2351	247800	69620	PHF 032RF97 DRS 100M4	590	169
	0.67	41800	2087	252000	69620			
	0.75	37400	1867	252000	69620			
	0.49	56700	2831	181900	51190	P 022RF97 DRS 100M4	610	162
	0.55	51300	2558	190600	51190	PF 022RF97 DRS 100M4	510	163
	0.60	47100	2351	196600	51190	PH 022RF97 DRS 100M4	620	162
	0.67	41800	2087	197000	51190	PHF 022RF97 DRS 100M4	520	163
	0.75	37400	1867	197000	51190			
	0.83	33600	1678	197000	51190			
	0.96	29200	1457	197000	51190			
	1.1	26100	1304	197000	51190			
	0.85	32800	1637	197000	51190	P 022RF87 DRS 100M4	560	160
	0.97	28900	1445	197000	51190	PF 022RF87 DRS 100M4	455	161
						PH 022RF87 DRS 100M4	570	160
						PHF 022RF87 DRS 100M4	470	161
	1.0	27000	1350	197000	51190	P 022RF87 DRS 100M4	560	160
						PF 022RF87 DRS 100M4	455	161
						PH 022RF87 DRS 100M4	570	160
						PHF 022RF87 DRS 100M4	470	161
	0.67	41800	2087	156000	36810	P 012RF97 DRS 100M4	460	156
	1.3	21700	1082	156000	36810	PF 012RF97 DRS 100M4	390	157
						PH 012RF97 DRS 100M4	475	156
						PHF 012RF97 DRS 100M4	405	157
	1.4	19600	982	156000	36810	P 012RF97 DRS 100M4	460	156
						PF 012RF97 DRS 100M4	390	157
						PH 012RF97 DRS 100M4	475	156
						PHF 012RF97 DRS 100M4	405	157
	0.75	37400	1867	156000	36810	P 012RF87 DRS 100M4	410	154
	0.85	32800	1637	156000	36810	PF 012RF87 DRS 100M4	340	155
	0.97	28900	1445	156000	36810	PH 012RF87 DRS 100M4	425	154
	1.1	25600	1281	156000	36810	PHF 012RF87 DRS 100M4	355	155
	1.1	24700	1232	156000	36810	P 012RF87 DRS 100M4	410	154
	1.3	21900	1092	156000	36810	PF 012RF87 DRS 100M4	340	155
	1.5	18400	918	156000	36810	PH 012RF87 DRS 100M4	420	154
	1.7	16900	844	156000	36810	PHF 012RF87 DRS 100M4	350	155
	1.9	15000	749	156000	36810			

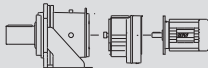


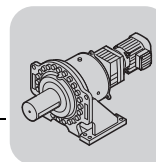
P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]		m [kg]												
3.0	1.3	21800	1090	121800	24830	P 002RF87 DRS 100M4	330	146											
						PF 002RF87 DRS 100M4	270	147											
						PH 002RF87 DRS 100M4	335	146											
						PHF 002RF87 DRS 100M4	275	147											
	1.5	18300	914	124000	24830	P 002RF87 DRS 100M4	330	146											
						PF 002RF87 DRS 100M4	270	147											
						PH 002RF87 DRS 100M4	330	146											
						PHF 002RF87 DRS 100M4	275	147											
	1.7	16700	837	124000	24830	P 002RF77 DRS 100M4	300	144											
									PF 002RF77 DRS 100M4	240	145								
									PH 002RF77 DRS 100M4	305	144								
									PHF 002RF77 DRS 100M4	245	145								
									2.3	12200	610	124000	24830	P 002RF77 DRS 100M4	300	144			
																	PF 002RF77 DRS 100M4	240	145
																	PH 002RF77 DRS 100M4	305	144
																	PHF 002RF77 DRS 100M4	245	145
2.6	11000	549	124000	24830	P 002RF77 DRS 100M4	300	144												
								PF 002RF77 DRS 100M4	240	145									
								PH 002RF77 DRS 100M4	305	144									
								PHF 002RF77 DRS 100M4	245	145									
2.9	9660	482	124000	24830	P 002RF77 DRS 100M4	300	144												
								PF 002RF77 DRS 100M4	240	145									
								PH 002RF77 DRS 100M4	305	144									
								PHF 002RF77 DRS 100M4	245	145									
3.3	8520	425	124000	24830	P 002RF77 DRS 100M4	300	144												
								PF 002RF77 DRS 100M4	240	145									
								PH 002RF77 DRS 100M4	305	144									
								PHF 002RF77 DRS 100M4	245	145									
3.7	7550	377	124000	24100	P 002RF77 DRS 100M4	300	144												
								PF 002RF77 DRS 100M4	240	145									
								PH 002RF77 DRS 100M4	305	144									
								PHF 002RF77 DRS 100M4	245	145									
4.2	6730	336	124000	24100	P 002RF77 DRS 100M4	300	144												
								PF 002RF77 DRS 100M4	240	145									
								PH 002RF77 DRS 100M4	305	144									
								PHF 002RF77 DRS 100M4	245	145									
4.0	0.51	74000	2859	364000	124060	P 052RF107 DRS 100LC4	1140	182											
						PF 052RF107 DRS 100LC4	940	183											
						PH 052RF107 DRS 100LC4	1130	182											
						PHF 052RF107 DRS 100LC4	930	183											
	0.56	66600	2573	364000	124060	P 052RF107 DRS 100LC4	1140	182											
						PF 052RF107 DRS 100LC4	940	183											
						PH 052RF107 DRS 100LC4	1130	182											
						PHF 052RF107 DRS 100LC4	930	183											
	0.36	104200	4022	291400	100170	P 042RF107 DRS 100LC4	990	176											
						PF 042RF107 DRS 100LC4	800	177											
						PH 042RF107 DRS 100LC4	1000	176											
						PHF 042RF107 DRS 100LC4	810	177											
	0.40	94200	3637	301500	100170	P 042RF107 DRS 100LC4	990	176											
						PF 042RF107 DRS 100LC4	800	177											
						PH 042RF107 DRS 100LC4	1000	176											
						PHF 042RF107 DRS 100LC4	810	177											
	0.70	53500	2067	323000	100170	P 042RF107 DRS 100LC4	990	176											
						PF 042RF107 DRS 100LC4	800	177											
						PH 042RF107 DRS 100LC4	1000	176											
						PHF 042RF107 DRS 100LC4	810	177											
	0.77	48400	1869	323000	100170	P 042RF107 DRS 100LC4	990	176											
						PF 042RF107 DRS 100LC4	800	177											
						PH 042RF107 DRS 100LC4	1000	176											
						PHF 042RF107 DRS 100LC4	810	177											
	0.47	79800	3082	208700	69620	P 032RF107 DRS 100LC4	750	170											
						PF 032RF107 DRS 100LC4	620	171											
						PH 032RF107 DRS 100LC4	770	170											
						PHF 032RF107 DRS 100LC4	650	171											
	0.51	74000	2859	217200	69620	P 032RF107 DRS 100LC4	750	170											
						PF 032RF107 DRS 100LC4	620	171											
						PH 032RF107 DRS 100LC4	770	170											
						PHF 032RF107 DRS 100LC4	650	171											
	0.91	41000	1584	252000	69620	P 032RF107 DRS 100LC4	750	170											
						PF 032RF107 DRS 100LC4	620	171											
						PH 032RF107 DRS 100LC4	770	170											
						PHF 032RF107 DRS 100LC4	650	171											
	0.56	66200	2558	227500	69620	P 032RF97 DRS 100LC4	690	168											
						PF 032RF97 DRS 100LC4	570	169											
						PH 032RF97 DRS 100LC4	720	168											
						PHF 032RF97 DRS 100LC4	590	169											
	0.86	43400	1678	251000	69620	P 032RF97 DRS 100LC4	690	168											
						PF 032RF97 DRS 100LC4	570	169											
						PH 032RF97 DRS 100LC4	720	168											
						PHF 032RF97 DRS 100LC4	590	169											
	0.99	37700	1457	252000	69620	P 032RF97 DRS 100LC4	690	168											
						PF 032RF97 DRS 100LC4	570	169											
						PH 032RF97 DRS 100LC4	720	168											
						PHF 032RF97 DRS 100LC4	590	169											
	1.2	31200	1207	197000	51190	P 022RF107 DRS 100LC4	660	164											
						PF 022RF107 DRS 100LC4	560	165											
						PH 022RF107 DRS 100LC4	670	164											
						PHF 022RF107 DRS 100LC4	570	165											
0.61	60900	2351	174600	51190	P 022RF107 DRS 100LC4	660	164												
					PF 022RF107 DRS 100LC4	560	165												
					PH 022RF107 DRS 100LC4	670	164												
					PHF 022RF107 DRS 100LC4	570	165												
0.69	54000	2087	186300	51190	P 022RF107 DRS 100LC4	660	164												
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					PH 022RF107 DRS 100LC4	670	164												
					PHF 022RF107 DRS 100LC4	570	165												
0.77	48300	1867	194900	51190	P 022RF107 DRS 100LC4	660	164												
					PF 022RF107 DRS 100LC4	560	165												
					PH 022RF107 DRS 100LC4	670	164												
					PHF 022RF107 DRS 100LC4	570	165												
0.86	43400	1678	197000	51190	P 022RF107 DRS 100LC4	660	164												
					PF 022RF107 DRS 100LC4	560	165												
					PH 022RF107 DRS 100LC4	670	164												
					PHF 022RF107 DRS 100LC4	570	165												
1.1	33700	1304	197000	51190	P 022RF107 DRS 100LC4	660	164												
					PF 022RF107 DRS 100LC4	560	165												
					PH 022RF107 DRS 100LC4	670	164												
					PHF 022RF107 DRS 100LC4	570	165												
1.3	28000	1082	197000	51190	P 022RF107 DRS 100LC4	660	164												
					PF 022RF107 DRS 100LC4	560	165												
					PH 022RF107 DRS 100LC4	670	164												
					PHF 022RF107 DRS 100LC4	570	165												
1.5	25400	982	197000	51190	P 022RF107 DRS 100LC4	660	164												
					PF 022RF107 DRS 100LC4	560	165												
					PH 022RF107 DRS 100LC4	670	164												
					PHF 022RF107 DRS 100LC4	570	165												
1.6	22700	878	197000	51190	P 022RF107 DRS 100LC4	660	164												
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					PH 022RF107 DRS 100LC4	670	164												
					PHF 022RF107 DRS 100LC4	570	165												
1.2	31900	1232	197000	51190	P 022RF87 DRS 100LC4	560	160												
					PF 022RF87 DRS 100LC4	460	161												
					PH 022RF87 DRS 100LC4	580	160												
					PHF 022RF87 DRS 100LC4	475	161												
1.3	28300	1092	197000	51190	P 022RF87 DRS 100LC4	560	160												
					PF 022RF87 DRS 100LC4	460	161												
					PH 022RF87 DRS 100LC4	580	160												
					PHF 022RF87 DRS 100LC4	475	161												
1.6	23700	918	197000	51190	P 022RF87 DRS 100LC4	560	160												
					PF 022RF87 DRS 100LC4	460	161												
					PH 022RF87 DRS 100LC4	580	160												
					PHF 022RF87 DRS 100LC4	475	161												
0.99	37700	1457	156000	36810	P 012RF97 DRS 100LC4	465	156												
					PF 012RF97 DRS 100LC4	395	157												
					PH 012RF97 DRS 100LC4	480	156												
					PHF 012RF97 DRS 100LC4	410	157												
1.8	20400	790	156000	36810	P 012RF97 DRS 100LC4	465	156												
					PF 012RF97 DRS 100LC4	395	157												
					PH 012RF97 DRS 100LC4	480	156												
					PHF 012RF97 DRS 100LC4	410	157												
2.0	18500	716	156000	36810	P 012RF97 DRS 100LC4	465	156												
					PF 012RF97 DRS 100LC4	395	157												
					PH 012RF97 DRS 100LC4	480	156												
					PHF 012RF97 DRS 100LC4	410	157												
2.3	16400	634	156000	36810	P 012RF97 DRS 100LC4	465	156												
					PF 012RF97 DRS 100LC4	395	157												
					PH 012RF97 DRS 100LC4	480	156												
					PHF 012RF97 DRS 100LC4	410	157												
1.1	33100	1281	156000	36810	P 012RF87 DRS 100LC4	415	154												
					PF 012RF87 DRS 100LC4	345	155												
					PH 012RF87 DRS 100LC4	430	154												
					PHF 012RF87 DRS 100LC4	360	155												
1.3	28300	1094	156000	36810	P 012RF87 DRS 100LC4	415	154												
					PF 012RF87 DRS 100LC4	345	155												
					PH 012RF87 DRS 100LC4	430	154												
					PHF 012RF87 DRS 100LC4	360	155												
1.7	21800	844	156000	36810	P 012RF87 DRS 100LC4	415	154												
					PF 012RF87 DRS 100LC4	345	155												
					PH 012RF87 DRS 100LC4	425	154												
					PHF 012RF87 DRS 100LC4	355	155												
1.9	19400	749	156000	36810	P 012RF87 DRS 100LC4	415	154												
					PF 012RF87 DRS 100LC4	345	155												
					PH 012RF87 DRS 100LC4	425	154												
					PHF 012RF87 DRS 100LC4	355	155												
2.2	17300	670	156000	36810	P 012RF87 DRS 100LC4	415	154												
					PF 012RF87 DRS 100LC4	345	155												
					PH 012RF87 DRS 100LC4	425	154												
					PHF 012RF87 DRS 100LC4	355	155												
2.4	15600	602	156000	36810	P 012RF87 DRS 100LC4	415	154												
					PF 012RF87 DRS 100LC4	345	155												
					PH 012RF87 DRS 100LC4	425	154												
					PHF 012RF87 DRS 100LC4	355	155												
2.8	13500	523	156000	36810	P 012RF87 DRS 100LC4	415	154												
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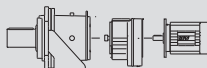


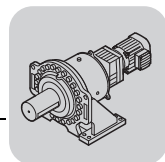
P.RF.. Helical Planetary Gearmotors

IE1 motor standard – selection tables

P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]		m [kg]	
4.0	2.6	14200	551	156000	27600	P 012RF77 DRS 100LC4	385	152
						PF 012RF77 DRS 100LC4	315	153
						PH 012RF77 DRS 100LC4	400	152
						PHF 012RF77 DRS 100LC4	330	153
	1.6	23700	914	119300	24830	P 002RF87 DRS 100LC4	335	146
	1.7	21700	841	121900	24830	PF 002RF87 DRS 100LC4	275	147
	1.9	19300	746	124000	24830	PH 002RF87 DRS 100LC4	335	146
	2.2	17200	667	124000	24830	PHF 002RF87 DRS 100LC4	280	147
	2.4	15700	610	124000	24830	P 002RF77 DRS 100LC4 PF 002RF77 DRS 100LC4 PH 002RF77 DRS 100LC4 PHF 002RF77 DRS 100LC4	305 245 310 250	144 145 144 145
	2.6	14200	549	124000	24830			
	3.0	12400	482	124000	24830			
	3.4	11000	425	124000	24830			
	3.8	9760	377	124000	24100			
	4.3	8700	336	124000	24100			
	4.8	7830	302	124000	23300			
	5.4	6870	265	124000	22200			
5.5	0.36	144200	4049	466600	185660	P 062RF137 DRS 132S4	1740	188
	0.42	123900	3480	473000	185660	PF 062RF137 DRS 132S4	1380	189
	0.46	113000	3174	473000	185660	PH 062RF137 DRS 132S4	1730	188
						PHF 062RF137 DRS 132S4	1370	189
	0.36	144200	4049	338400	124060	P 052RF137 DRS 132S4	1260	184
	0.42	123900	3480	356400	124060	PF 052RF137 DRS 132S4	1060	185
	0.50	102700	2883	364000	124060	PH 052RF137 DRS 132S4	1250	184
	0.56	91100	2558	364000	124060	PHF 052RF137 DRS 132S4	1050	185
	0.51	101800	2859	364000	124060	P 052RF107 DRS 132S4	1150	182
	0.56	91600	2573	364000	124060	PF 052RF107 DRS 132S4	950	183
						PH 052RF107 DRS 132S4	1140	182
						PHF 052RF107 DRS 132S4	940	183
	0.46	113000	3174	281500	100170	P 042RF137 DRS 132S4	1110	178
	0.62	82700	2321	311800	100170	PF 042RF137 DRS 132S4	920	179
						PH 042RF137 DRS 132S4	1120	178
						PHF 042RF137 DRS 132S4	930	179
	0.51	101800	2859	293800	100170	P 042RF107 DRS 132S4	1000	176
	0.56	91600	2573	303900	100170	PF 042RF107 DRS 132S4	810	177
	0.62	83000	2331	311600	100170	PH 042RF107 DRS 132S4	1010	176
	0.70	73600	2067	319100	100170	PHF 042RF107 DRS 132S4	820	177
	0.77	66500	1869	323000	100170			
	0.62	83000	2331	203600	69620	P 032RF107 DRS 132S4	760	170
	0.70	73600	2067	217800	69620	PF 032RF107 DRS 132S4	640	171
	0.91	56400	1584	238800	69620	PH 032RF107 DRS 132S4	780	170
	1.0	49200	1383	245900	69620	PHF 032RF107 DRS 132S4	660	171
	1.2	43000	1207	251400	69620	P 032RF107 DRS 132S4	750	170
						PF 032RF107 DRS 132S4	630	171
						PH 032RF107 DRS 132S4	770	170
						PHF 032RF107 DRS 132S4	650	171
	0.77	66500	1867	227200	69620	P 032RF97 DRS 132S4	710	168
	0.86	59700	1678	235100	69620	PF 032RF97 DRS 132S4	590	169
	0.99	51800	1457	243400	69620	PH 032RF97 DRS 132S4	730	168
	1.3	38500	1082	252000	69620	PHF 032RF97 DRS 132S4	610	169
	1.2	44700	1257	249900	69620	P 032RF97 DRS 132S4	700	168
						PF 032RF97 DRS 132S4	580	169
						PH 032RF97 DRS 132S4	730	168
						PHF 032RF97 DRS 132S4	600	169
	0.86	59700	1678	176700	51190	P 022RF97 DRS 132S4	630	162
	0.99	51800	1457	189800	51190	PF 022RF97 DRS 132S4	530	163
	1.1	46400	1304	197000	51190	PH 022RF97 DRS 132S4	640	162
						PHF 022RF97 DRS 132S4	540	163
	1.5	34900	982	197000	51190	P 022RF97 DRS 132S4	620	162
	1.6	31200	878	197000	51190	PF 022RF97 DRS 132S4	520	163
						PH 022RF97 DRS 132S4	640	162
						PHF 022RF97 DRS 132S4	540	163
	1.6	32700	918	197000	51190	P 022RF87 DRS 132S4	570	160
						PF 022RF87 DRS 132S4	470	161
						PH 022RF87 DRS 132S4	590	160
						PHF 022RF87 DRS 132S4	485	161

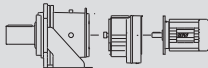


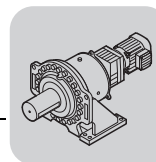
P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]		m [kg]	
5.5	1.3	38500	1082	156000	36810	P 012RF97 DRS 132S4	480	156
						PF 012RF97 DRS 132S4	410	157
						PH 012RF97 DRS 132S4	495	156
						PHF 012RF97 DRS 132S4	425	157
	1.5	34900	982	156000	36810	P 012RF97 DRS 132S4	475	156
	1.8	28100	790	156000	36810	PF 012RF97 DRS 132S4	405	157
	2.0	25400	716	156000	36810	PH 012RF97 DRS 132S4	490	156
	2.3	22600	634	156000	36810	PHF 012RF97 DRS 132S4	420	157
	1.6	32700	918	156000	36810	P 012RF87 DRS 132S4	425	154
	1.7	30000	844	156000	36810		355	155
	1.9	26600	749	156000	36810		440	154
	2.2	23800	670	156000	36810		370	155
	2.4	21400	602	156000	36810	P 012RF87 DRS 132S4	345	146
	2.8	18600	523	156000	36810		290	147
	2.2	23700	667	119200	24830		350	146
	2.4	21300	600	122400	24830		290	147
	2.8	18500	521	124000	24830	P 002RF87 DRS 132S4	350	146
	3.1	16600	466	124000	24830		290	147
	3.7	13700	387	124000	24830		350	146
	4.0	12700	357	124000	24830		290	147
	4.5	11400	321	124000	24830	P 002RF87 DRS 132S4	315	144
	5.2	9930	279	124000	24830		260	145
	5.6	9270	260	124000	24400		320	144
	6.2	8300	233	122400	23500		265	145
	7.7	6700	188	114900	12000	P 002RF77 DRS 132S4	315	144
	8.6	5970	168	110900	12000		260	145
	PH 002RF77 DRS 132S4	320	144					
	PHF 002RF77 DRS 132S4	265	145					
7.5	0.42	169000	3480	450600	185660	P 062RF137 DRS 132M4	1760	188
	0.46	154200	3174	460400	185660	PF 062RF137 DRS 132M4	1390	189
	0.50	140000	2883	469000	185660	PH 062RF137 DRS 132M4	1740	188
	0.56	124200	2558	473000	185660	PHF 062RF137 DRS 132M4	1380	189
	0.62	112700	2321	473000	185660	P 052RF137 DRS 132M4	1270	184
	0.50	140000	2883	342400	124060		1070	185
	0.56	124200	2558	356200	124060		1260	184
	0.72	96900	1995	364000	124060		1060	185
	0.83	84600	1741	364000	124060	P 052RF137 DRS 132M4	1160	182
	0.77	90700	1869	364000	124060		960	183
	PH 052RF107 DRS 132M4	1150	182					
	PHF 052RF107 DRS 132M4	950	183					
	0.62	112700	2321	281800	100170	P 042RF137 DRS 132M4	1130	178
	0.98	71700	1477	320500	100170		940	179
	PH 042RF137 DRS 132M4	1130	178					
	PHF 042RF137 DRS 132M4	940	179					
	0.70	100400	2067	295300	100170	P 042RF107 DRS 132M4	1020	176
	0.77	90700	1869	304700	100170		830	177
	0.91	76900	1584	316600	100170		1020	176
	1.0	67200	1383	323000	100170		830	177
	1.2	58600	1207	323000	100170	P 042RF107 DRS 132M4	1010	176
	0.91	76900	1584	213100	69620		820	177
							1010	176
							820	177
						820	177	
	0.91	76900	1584	213100	69620	P 032RF107 DRS 132M4	770	170
	1.0	67200	1383	226400	69620		650	171
	PH 032RF107 DRS 132M4	790	170					
	PHF 032RF107 DRS 132M4	670	171					
	1.3	52500	1082	242700	69620	P 032RF107 DRS 132M4	760	170
	1.5	47400	977	247500	69620		640	171
	1.4	51800	1067	243500	69620		780	170
							660	171
						720	168	
						600	169	
	1.5	47700	982	247300	69620	P 032RF97 DRS 132M4	740	168
1.6	42600	878	251700	69620	620		169	
PH 032RF97 DRS 132M4	740	168						
PHF 032RF97 DRS 132M4	620	169						

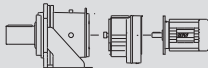


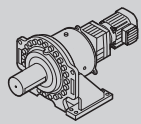
P.RF.. Helical Planetary Gearmotors

IE1 motor standard – selection tables

P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]		m [kg]	
7.5	1.2	58600	1207	178700	51190	P 022RF107 DRS 132M4	680	164
						PF 022RF107 DRS 132M4	580	165
						PH 022RF107 DRS 132M4	700	164
						PHF 022RF107 DRS 132M4	600	165
	1.3	52500	1082	188700	51190	P 022RF97 DRS 132M4	640	162
						PF 022RF97 DRS 132M4	540	163
						PH 022RF97 DRS 132M4	660	162
						PHF 022RF97 DRS 132M4	550	163
	1.5	47700	982	195800	51190	P 022RF97 DRS 132M4	640	162
	1.6	42600	878	197000	51190	PF 022RF97 DRS 132M4	540	163
	1.8	38300	790	197000	51190	PH 022RF97 DRS 132M4	650	162
	2.0	34700	716	197000	51190	PHF 022RF97 DRS 132M4	550	163
	2.3	30800	634	197000	51190			
	1.8	38300	790	156000	36810	P 012RF97 DRS 132M4	490	156
	2.0	34700	716	156000	36810	PF 012RF97 DRS 132M4	420	157
	2.3	30800	634	156000	36810	PH 012RF97 DRS 132M4	500	156
	2.5	27800	574	156000	36810	PHF 012RF97 DRS 132M4	435	157
	3.0	23600	486	156000	36810			
	3.4	20600	425	156000	36810			
	2.4	29200	602	156000	36810			
	2.8	25400	523	156000	36810	P 012RF87 DRS 132M4	440	154
	3.1	22700	468	156000	36810	PF 012RF87 DRS 132M4	370	155
	3.7	18800	388	156000	36810	PH 012RF87 DRS 132M4	455	154
	4.0	17400	359	156000	36810	PHF 012RF87 DRS 132M4	385	155
	4.5	15600	322	156000	36810			
	3.1	22600	466	120800	24830			
	3.7	18700	387	124000	24830			
	4.0	17300	357	124000	24830			
	4.5	15600	321	124000	24830			
	5.2	13500	279	124000	24830	P 002RF87 DRS 132M4	360	146
	5.6	12600	260	124000	24400	PF 002RF87 DRS 132M4	300	147
	6.2	11300	233	122400	23500	PH 002RF87 DRS 132M4	365	146
	7.5	9390	193	115800	22500	PHF 002RF87 DRS 132M4	305	147
	8.1	8670	178	113000	23100			
	9.0	7790	161	109500	22200			
	10	6760	139	104900	20400			
	12	6060	125	101500	19500			
	14	5020	104	96000	17400			
9.2	0.35	244700	4165	523000	245660	P 072RF147 DRS 132MC4	2300	192
	0.53	161300	2747	523000	245660	PF 072RF147 DRS 132MC4	1810	193
	0.57	149900	2552	523000	245660	PH 072RF147 DRS 132MC4	2360	192
	0.63	136700	2328	523000	245660	PHF 072RF147 DRS 132MC4	1870	193
	0.39	218100	3711	411800	185660	P 062RF147 DRS 132MC4	1880	190
	0.45	192400	3275	433400	185660	PF 062RF147 DRS 132MC4	1520	191
	0.71	121900	2074	473000	185660	PH 062RF147 DRS 132MC4	1870	190
						PHF 062RF147 DRS 132MC4	1510	191
	0.51	169400	2883	450400	185660	P 062RF137 DRS 132MC4	1760	188
	0.84	102300	1741	473000	185660	PF 062RF137 DRS 132MC4	1390	189
						PH 062RF137 DRS 132MC4	1750	188
						PHF 062RF137 DRS 132MC4	1380	189
	0.57	150300	2558	332400	124060	P 052RF137 DRS 132MC4	1270	184
	0.63	136400	2321	345700	124060	PF 052RF137 DRS 132MC4	1070	185
	0.99	86800	1477	364000	124060	PH 052RF137 DRS 132MC4	1270	184
	1.1	75800	1291	364000	124060	PHF 052RF137 DRS 132MC4	1070	185
	1.1	81300	1383	364000	124060	P 052RF107 DRS 132MC4	1160	182
						PF 052RF107 DRS 132MC4	960	183
						PH 052RF107 DRS 132MC4	1160	182
						PHF 052RF107 DRS 132MC4	960	183
	1.2	70900	1207	364000	124060	P 052RF107 DRS 132MC4	1160	182
						PF 052RF107 DRS 132MC4	960	183
						PH 052RF107 DRS 132MC4	1150	182
						PHF 052RF107 DRS 132MC4	950	183
	0.73	117200	1995	276400	100170	P 042RF137 DRS 132MC4	1130	178
	0.84	102300	1741	293300	100170	PF 042RF137 DRS 132MC4	940	179
	1.3	64100	1092	323000	100170	PH 042RF137 DRS 132MC4	1130	178
						PHF 042RF137 DRS 132MC4	940	179

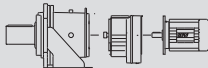


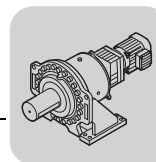
P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]		m [kg]	
9.2	0.92	93100	1584	302500	100170	P 042RF107 DRS 132MC4	1020	176
	1.1	81300	1383	313000	100170	PF 042RF107 DRS 132MC4	830	177
						PH 042RF107 DRS 132MC4	1020	176
						PHF 042RF107 DRS 132MC4	830	177
	1.4	63600	1082	323000	100170	P 042RF107 DRS 132MC4	1010	176
	1.5	57400	977	323000	100170	PF 042RF107 DRS 132MC4	820	177
	1.6	52100	887	323000	100170	PH 042RF107 DRS 132MC4	1020	176
						PHF 042RF107 DRS 132MC4	830	177
	1.2	70900	1207	221500	69620	P 032RF107 DRS 132MC4	770	170
	1.4	63600	1082	230800	69620	PF 032RF107 DRS 132MC4	650	171
	1.9	46200	787	248600	69620	PH 032RF107 DRS 132MC4	790	170
	2.0	41900	714	252000	69620	PHF 032RF107 DRS 132MC4	670	171
	2.0	42000	716	252000	69620	P 032RF97 DRS 132MC4	720	168
	2.3	37300	634	252000	69620	PF 032RF97 DRS 132MC4	600	169
						PH 032RF97 DRS 132MC4	740	168
						PHF 032RF97 DRS 132MC4	620	169
	2.4	36000	614	197000	51190	P 022RF107 DRS 132MC4	690	164
	2.7	31500	536	197000	51190	PF 022RF107 DRS 132MC4	580	165
						PH 022RF107 DRS 132MC4	700	164
						PHF 022RF107 DRS 132MC4	600	165
	1.5	57700	982	180300	51190	P 022RF97 DRS 132MC4	640	162
	1.7	51500	878	190200	51190	PF 022RF97 DRS 132MC4	540	163
	1.8	46400	790	197000	51190	PH 022RF97 DRS 132MC4	660	162
	2.0	42000	716	197000	51190	PHF 022RF97 DRS 132MC4	550	163
	2.6	33700	574	197000	51190			
	3.0	28500	486	197000	51190			
	3.8	22800	388	197000	45300	P 022RF87 DRS 132MC4	590	160
						PF 022RF87 DRS 132MC4	490	161
						PH 022RF87 DRS 132MC4	610	160
						PHF 022RF87 DRS 132MC4	500	161
	2.3	37300	634	156000	36810	P 012RF97 DRS 132MC4	495	156
	2.6	33700	574	156000	36810	PF 012RF97 DRS 132MC4	425	157
	3.0	28500	486	156000	36810	PH 012RF97 DRS 132MC4	510	156
	3.4	24900	425	156000	36810	PHF 012RF97 DRS 132MC4	435	157
	4.0	21400	364	156000	36810			
	4.4	19300	329	156000	36810			
	5.2	16400	279	156000	36810			
	4.1	21000	359	156000	36810	P 012RF87 DRS 132MC4	445	154
	4.5	18900	322	156000	36810	PF 012RF87 DRS 132MC4	375	155
	5.2	16400	280	156000	36810	PH 012RF87 DRS 132MC4	455	154
						PHF 012RF87 DRS 132MC4	385	155
	6.0	14200	243	123400	24830	P 002RF97 DRS 132MC4	415	148
						PF 002RF97 DRS 132MC4	355	149
						PH 002RF97 DRS 132MC4	415	148
						PHF 002RF97 DRS 132MC4	360	149
	3.8	22700	387	120600	24830			
	4.1	21000	357	122900	24830			
	4.6	18800	321	124000	24830			
	5.2	16300	279	124000	24830			
	5.9	14600	250	124000	24830	P 002RF87 DRS 132MC4	365	146
	7.1	12100	207	117700	24830	PF 002RF87 DRS 132MC4	305	147
	7.6	11300	193	115300	22500	PH 002RF87 DRS 132MC4	365	146
	8.2	10400	178	112500	23100	PHF 002RF87 DRS 132MC4	310	147
	9.1	9430	161	109000	22200			
	11	8180	139	104500	20400			
	12	7330	125	101100	19500			
	14	6080	104	95600	17400			
11.0	0.40	254400	3608	850000	500000	P 102RF167 DRS 160M4	4590	202
	0.45	226300	3210	850000	500000	PF 102RF167 DRS 160M4	3630	203
	0.51	201200	2854	850000	500000	PH 102RF167 DRS 160M4	4650	202
	0.64	160100	2271	850000	500000	PHF 102RF167 DRS 160M4	3690	203
	0.73	141300	2004	850000	500000			
	0.82	125500	1781	850000	500000	P 102RF167 DRS 160M4	4580	202
						PF 102RF167 DRS 160M4	3630	203
						PH 102RF167 DRS 160M4	4640	202
						PHF 102RF167 DRS 160M4	3690	203

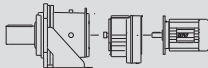


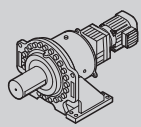
P.RF.. Helical Planetary Gearmotors

IE1 motor standard – selection tables

P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]		m [kg]	
11.0	0.40	257800	3656	720000	423000			
	0.45	229400	3253	720000	423000	P	092RF167 DRS 160M4	3740 200
	0.50	203900	2891	720000	423000	PF	092RF167 DRS 160M4	3040 201
	0.63	162200	2301	720000	423000	PH	092RF167 DRS 160M4	3750 200
	0.72	143100	2031	720000	423000	PHF	092RF167 DRS 160M4	3050 201
	0.93	110400	1566	720000	423000			
	0.81	127200	1805	720000	423000	P	092RF167 DRS 160M4	3730 200
						PF	092RF167 DRS 160M4	3030 201
						PH	092RF167 DRS 160M4	3740 200
						PHF	092RF167 DRS 160M4	3040 201
	0.36	284400	4034	683000	359400	P	082RF167 DRS 160M4	3240 198
	0.42	246600	3497	683000	359400	PF	082RF167 DRS 160M4	2590 199
						PH	082RF167 DRS 160M4	3230 198
						PHF	082RF167 DRS 160M4	2580 199
	0.46	222600	3159	523000	245660	P	072RF167 DRS 160M4	2580 194
						PF	072RF167 DRS 160M4	2090 195
						PH	072RF167 DRS 160M4	2630 194
						PHF	072RF167 DRS 160M4	2140 195
	0.35	293500	4165	494200	245660			
	0.41	254000	3604	523000	245660	P	072RF147 DRS 160M4	2320 192
	0.46	224100	3180	523000	245660	PF	072RF147 DRS 160M4	1830 193
	0.53	193600	2747	523000	245660	PH	072RF147 DRS 160M4	2370 192
	0.57	179900	2552	523000	245660	PHF	072RF147 DRS 160M4	1880 193
	0.63	164000	2328	523000	245660			
	0.52	199400	2828	427900	185660	P	062RF147 DRS 160M4	1900 190
	0.70	146200	2074	465300	185660	PF	062RF147 DRS 160M4	1530 191
						PH	062RF147 DRS 160M4	1890 190
						PHF	062RF147 DRS 160M4	1520 191
	0.57	180400	2558	442600	185660	P	062RF137 DRS 160M4	1780 188
	0.63	163700	2321	454300	185660	PF	062RF137 DRS 160M4	1410 189
	0.73	140700	1995	468600	185660	PH	062RF137 DRS 160M4	1770 188
	0.84	122800	1741	473000	185660	PHF	062RF137 DRS 160M4	1400 189
	0.73	140700	1995	341800	124060	P	052RF137 DRS 160M4	1290 184
	0.84	122800	1741	357300	124060	PF	052RF137 DRS 160M4	1090 185
	0.99	104100	1477	364000	124060	PH	052RF137 DRS 160M4	1280 184
	1.1	91000	1291	364000	124060	PHF	052RF137 DRS 160M4	1090 185
	0.99	104100	1477	291400	100170	P	042RF137 DRS 160M4	1150 178
	1.3	76900	1092	316500	100170	PF	042RF137 DRS 160M4	960 179
						PH	042RF137 DRS 160M4	1150 178
						PHF	042RF137 DRS 160M4	960 179
	1.1	97500	1383	298200	100170	P	042RF107 DRS 160M4	1040 176
						PF	042RF107 DRS 160M4	850 177
						PH	042RF107 DRS 160M4	1050 176
						PHF	042RF107 DRS 160M4	860 177
	1.2	85100	1207	309800	100170	P	042RF107 DRS 160M4	1030 176
	1.4	76300	1082	317100	100170	PF	042RF107 DRS 160M4	840 177
	1.5	68800	977	322600	100170	PH	042RF107 DRS 160M4	1040 176
	1.6	62500	887	323000	100170	PHF	042RF107 DRS 160M4	850 177
	1.4	76300	1082	214000	69620	P	032RF107 DRS 160M4	790 170
	1.5	68800	977	224200	69620	PF	032RF107 DRS 160M4	670 171
	1.8	55500	787	239700	69620	PH	032RF107 DRS 160M4	810 170
	2.0	50300	714	244800	69620	PHF	032RF107 DRS 160M4	690 171
	1.7	61900	878	232800	69620	P	032RF97 DRS 160M4	740 168
						PF	032RF97 DRS 160M4	620 169
						PH	032RF97 DRS 160M4	760 168
						PHF	032RF97 DRS 160M4	640 169
	2.4	43300	614	197000	51190	P	022RF107 DRS 160M4	710 164
	2.7	37700	536	197000	51190	PF	022RF107 DRS 160M4	610 165
						PH	022RF107 DRS 160M4	720 164
						PHF	022RF107 DRS 160M4	620 165
	1.8	55700	790	183700	51190	P	022RF97 DRS 160M4	660 162
	2.0	50400	716	191900	51190	PF	022RF97 DRS 160M4	560 163
	2.3	44700	634	197000	51190	PH	022RF97 DRS 160M4	680 162
	2.5	40400	574	197000	51190	PHF	022RF97 DRS 160M4	580 163
	3.0	34200	486	197000	51190			

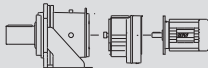


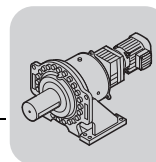
P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]		m [kg]	
11.0	2.5	40400	574	156000	36810			
	3.0	34200	486	156000	36810			
	3.4	29900	425	156000	36810	P 012RF97 DRS 160M4	510	156
	4.0	25600	364	156000	36810	PF 012RF97 DRS 160M4	445	157
	4.4	23200	329	156000	36810	PH 012RF97 DRS 160M4	530	156
	5.2	19600	279	156000	36810	PHF 012RF97 DRS 160M4	460	157
	6.0	17100	244	152800	36810			
	7.2	14300	204	144900	36810			
	3.8	27300	388	156000	36810			
	4.1	25200	359	156000	36810	P 012RF87 DRS 160M4	465	154
	4.5	22700	322	156000	36810	PF 012RF87 DRS 160M4	395	155
	5.2	19700	280	156000	36810	PH 012RF87 DRS 160M4	475	154
	5.8	17600	251	154100	36810	PHF 012RF87 DRS 160M4	405	155
	7.0	14600	208	145700	34900			
	4.5	22600	321	120800	24830			
	5.2	19600	279	124000	24830			
	5.8	17600	250	124000	24830			
	7.0	14600	207	117800	24830	P 002RF87 DRS 160M4	385	146
	7.6	13600	193	115400	22500	PF 002RF87 DRS 160M4	325	147
	8.2	12500	178	112700	23100	PH 002RF87 DRS 160M4	385	146
	9.1	11300	161	109100	22200	PHF 002RF87 DRS 160M4	330	147
	10	9820	139	104600	20400			
	12	8790	125	101200	19500			
	14	7290	104	95700	17400			
15.0	0.41	344600	3608	850000	500000			
	0.46	306600	3210	850000	500000			
	0.52	272500	2854	850000	500000	P 102RF167 DRS 160MC4	4590	202
	0.65	216800	2271	850000	500000	PF 102RF167 DRS 160MC4	3640	203
	0.73	191300	2004	850000	500000	PH 102RF167 DRS 160MC4	4650	202
	0.95	147600	1546	850000	500000	PHF 102RF167 DRS 160MC4	3700	203
	1.1	127200	1332	850000	500000			
	0.83	170000	1781	850000	500000			
						P 102RF167 DRS 160MC4	4590	202
						PF 102RF167 DRS 160MC4	3630	203
						PH 102RF167 DRS 160MC4	4650	202
						PHF 102RF167 DRS 160MC4	3690	203
	0.40	349200	3656	720000	423000			
	0.45	310600	3253	720000	423000			
	0.51	276100	2891	720000	423000	P 092RF167 DRS 160MC4	3740	200
	0.64	219700	2301	720000	423000	PF 092RF167 DRS 160MC4	3040	201
	0.72	193900	2031	720000	423000	PH 092RF167 DRS 160MC4	3750	200
	0.94	149500	1566	720000	423000	PHF 092RF167 DRS 160MC4	3050	201
	1.1	128900	1350	720000	423000			
	0.81	172300	1805	720000	423000			
	1.2	115000	1205	720000	423000			
						P 092RF167 DRS 160MC4	3730	200
						PF 092RF167 DRS 160MC4	3040	201
						PH 092RF167 DRS 160MC4	3740	200
						PHF 092RF167 DRS 160MC4	3050	201
	0.36	385200	4034	630300	359400			
	0.42	334000	3497	676200	359400			
	0.47	297100	3112	683000	359400	P 082RF167 DRS 160MC4	3240	198
	0.53	264100	2766	683000	359400	PF 082RF167 DRS 160MC4	2590	199
	0.58	241500	2530	683000	359400	PH 082RF167 DRS 160MC4	3230	198
	0.64	218900	2293	683000	359400	PHF 082RF167 DRS 160MC4	2580	199
						P 082RF147 DRS 160MC4	2980	196
						PF 082RF147 DRS 160MC4	2330	197
						PH 082RF147 DRS 160MC4	2970	196
						PHF 082RF147 DRS 160MC4	2320	197
	0.47	301600	3159	484300	245660			
	0.57	245100	2568	523000	245660			
						P 072RF167 DRS 160MC4	2580	194
						PF 072RF167 DRS 160MC4	2090	195
						PH 072RF167 DRS 160MC4	2640	194
						PHF 072RF167 DRS 160MC4	2150	195
	0.54	262200	2747	523000	245660			
	0.58	243600	2552	523000	245660			
	0.63	222200	2328	523000	245660	P 072RF147 DRS 160MC4	2320	192
	0.73	192300	2014	523000	245660	PF 072RF147 DRS 160MC4	1830	193
	0.83	169700	1777	523000	245660	PH 072RF147 DRS 160MC4	2380	192
						PHF 072RF147 DRS 160MC4	1890	193
	0.71	198100	2074	428900	185660			
	0.80	174800	1830	446600	185660			
	0.93	150900	1581	462500	185660	P 062RF147 DRS 160MC4	1900	190
	1.0	133500	1398	472700	185660	PF 062RF147 DRS 160MC4	1540	191
	1.2	112200	1175	473000	185660	PH 062RF147 DRS 160MC4	1890	190
						PHF 062RF147 DRS 160MC4	1530	191

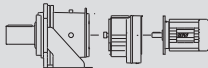


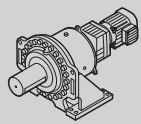
P.RF.. Helical Planetary Gearmotors

IE1 motor standard – selection tables

P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]		m [kg]	
15.0	0.84	166300	1741	452500	185660	P 062RF137 DRS 160MC4	1780	188
	0.99	141000	1477	468400	185660	PF 062RF137 DRS 160MC4	1420	189
	1.1	123300	1291	473000	185660	PH 062RF137 DRS 160MC4	1770	188
	1.4	104200	1092	473000	185660	PHF 062RF137 DRS 160MC4	1410	189
	1.3	110800	1160	473000	185660	P 062RF137 DRS 160MC4	1770	188
						PF 062RF137 DRS 160MC4	1410	189
						PH 062RF137 DRS 160MC4	1760	188
						PHF 062RF137 DRS 160MC4	1400	189
	0.99	141000	1477	341400	124060	P 052RF137 DRS 160MC4	1300	184
	1.1	123300	1291	356900	124060	PF 052RF137 DRS 160MC4	1100	185
						PH 052RF137 DRS 160MC4	1290	184
						PHF 052RF137 DRS 160MC4	1090	185
	1.6	90300	946	364000	124060	P 052RF137 DRS 160MC4	1290	184
	1.7	82400	863	364000	124060	PF 052RF137 DRS 160MC4	1090	185
						PH 052RF137 DRS 160MC4	1280	184
						PHF 052RF137 DRS 160MC4	1080	185
	1.4	104200	1092	291300	100170	P 042RF137 DRS 160MC4	1150	178
						PF 042RF137 DRS 160MC4	960	179
						PH 042RF137 DRS 160MC4	1160	178
						PHF 042RF137 DRS 160MC4	970	179
	1.6	90300	946	305100	100170	P 042RF137 DRS 160MC4	1140	178
						PF 042RF137 DRS 160MC4	950	179
						PH 042RF137 DRS 160MC4	1150	178
						PHF 042RF137 DRS 160MC4	960	179
	2.0	71300	747	320900	100170	P 042RF137 DRS 160MC4	1140	178
						PF 042RF137 DRS 160MC4	950	179
						PH 042RF137 DRS 160MC4	1150	178
						PHF 042RF137 DRS 160MC4	960	179
	1.5	93300	977	302300	100170	P 042RF107 DRS 160MC4	1040	176
	1.7	84700	887	310100	100170	PF 042RF107 DRS 160MC4	850	177
	1.9	75100	787	317900	100170	PH 042RF107 DRS 160MC4	1040	176
	2.1	68200	714	323000	100170	PHF 042RF107 DRS 160MC4	850	177
	2.4	58600	614	323000	100170	P 042RF107 DRS 160MC4	1040	176
						PF 042RF107 DRS 160MC4	850	177
						PH 042RF107 DRS 160MC4	1040	176
						PHF 042RF107 DRS 160MC4	850	177
	1.9	75100	787	215600	69620	P 032RF107 DRS 160MC4	790	170
	2.1	68200	714	225100	69620	PF 032RF107 DRS 160MC4	670	171
						PH 032RF107 DRS 160MC4	810	170
						PHF 032RF107 DRS 160MC4	690	171
	2.4	58600	614	236400	69620	P 032RF107 DRS 160MC4	790	170
	2.7	51100	536	244100	69620	PF 032RF107 DRS 160MC4	670	171
						PH 032RF107 DRS 160MC4	810	170
						PHF 032RF107 DRS 160MC4	690	171
	3.0	46400	486	248400	69620	P 032RF97 DRS 160MC4	750	168
						PF 032RF97 DRS 160MC4	630	169
						PH 032RF97 DRS 160MC4	770	168
						PHF 032RF97 DRS 160MC4	650	169
	2.4	58600	614	178700	51190	P 022RF107 DRS 160MC4	710	164
	2.7	51100	536	190800	51190	PF 022RF107 DRS 160MC4	610	165
	3.2	43400	455	197000	51190	PH 022RF107 DRS 160MC4	730	164
	3.7	37900	397	197000	51190	PHF 022RF107 DRS 160MC4	630	165
	4.4	32000	336	197000	51190	P 022RF107 DRS 160MC4	710	164
						PF 022RF107 DRS 160MC4	610	165
						PH 022RF107 DRS 160MC4	730	164
						PHF 022RF107 DRS 160MC4	630	165
	3.0	46400	486	197000	51190	P 022RF97 DRS 160MC4	670	162
	3.5	40500	425	197000	51190	PF 022RF97 DRS 160MC4	560	163
						PH 022RF97 DRS 160MC4	680	162
						PHF 022RF97 DRS 160MC4	580	163
	4.0	34700	364	197000	51190	P 022RF97 DRS 160MC4	670	162
	4.5	31400	329	197000	51190	PF 022RF97 DRS 160MC4	560	163
						PH 022RF97 DRS 160MC4	680	162
						PHF 022RF97 DRS 160MC4	580	163
	5.3	26600	279	197000	51190	P 022RF97 DRS 160MC4	670	162
	3.5	40500	425	156000	36810	PF 022RF97 DRS 160MC4	560	163
						PH 022RF97 DRS 160MC4	680	162
						PHF 022RF97 DRS 160MC4	580	163
	4.0	34700	364	156000	36810	P 012RF97 DRS 160MC4	520	156
	4.5	31400	329	156000	36810	PF 012RF97 DRS 160MC4	450	157
						PH 012RF97 DRS 160MC4	530	156
						PHF 012RF97 DRS 160MC4	465	157
	6.0	23200	244	152500	36810	P 012RF97 DRS 160MC4	520	156
	7.2	19400	204	144600	36810	PF 012RF97 DRS 160MC4	450	157
						PH 012RF97 DRS 160MC4	530	156
						PHF 012RF97 DRS 160MC4	465	157
	8.3	16800	177	138400	36810	P 012RF97 DRS 160MC4	520	156
	8.7	16100	169	136600	36810	PF 012RF97 DRS 160MC4	450	157
						PH 012RF97 DRS 160MC4	530	156
						PHF 012RF97 DRS 160MC4	465	157
	10	13600	143	130000	36810	P 012RF97 DRS 160MC4	520	156
	12	11900	125	124800	36810	PF 012RF97 DRS 160MC4	450	157
						PH 012RF97 DRS 160MC4	530	156
						PHF 012RF97 DRS 160MC4	465	157
	14	9980	105	118300	35000	P 012RF97 DRS 160MC4	520	156
	6.0	23100	243	120000	24830	PF 012RF97 DRS 160MC4	450	157
						PH 012RF97 DRS 160MC4	530	156
						PHF 012RF97 DRS 160MC4	465	157
	7.2	19400	203	116900	24830	P 002RF97 DRS 160MC4	440	148
	8.1	17300	181	112900	24830	PF 002RF97 DRS 160MC4	380	149
						PH 002RF97 DRS 160MC4	445	148
						PHF 002RF97 DRS 160MC4	385	149
	8.4	16700	176	111900	24830	P 002RF97 DRS 160MC4	440	148
	9.0	15600	164	109600	24830	PF 002RF97 DRS 160MC4	380	149
						PH 002RF97 DRS 160MC4	445	148
						PHF 002RF97 DRS 160MC4	385	149
	11	13200	139	104300	24830	P 002RF97 DRS 160MC4	440	148
	12	11500	121	100100	24830	PF 002RF97 DRS 160MC4	380	149
						PH 002RF97 DRS 160MC4	445	148
						PHF 002RF97 DRS 160MC4	385	149
	14	9690	102	94900	24830	P 002RF97 DRS 160MC4	440	148
						PF 002RF97 DRS 160MC4	380	149
	17	8390	88	90900	24830	PH 002RF97 DRS 160MC4	445	148

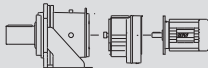


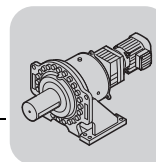
P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]		m [kg]	
15.0	14	9880	104	95500	17400	P 002RF87 DRS 160MC4	390	146
						PF 002RF87 DRS 160MC4	330	147
						PH 002RF87 DRS 160MC4	390	146
						PHF 002RF87 DRS 160MC4	335	147
18.5	0.46	379400	3210	850000	500000	P 102RF167 DRS 180M4	4640	202
	0.51	337200	2854	850000	500000	PF 102RF167 DRS 180M4	3680	203
	0.65	268300	2271	850000	500000	PH 102RF167 DRS 180M4	4700	202
	0.73	236800	2004	850000	500000	PHF 102RF167 DRS 180M4	3740	203
	0.95	182600	1546	850000	500000			
	1.1	157400	1332	850000	500000			
	1.2	140500	1189	850000	500000	P 102RF167 DRS 180M4	4630	202
						PF 102RF167 DRS 180M4	3670	203
						PH 102RF167 DRS 180M4	4690	202
						PHF 102RF167 DRS 180M4	3730	203
	0.45	384500	3253	720000	423000	P 092RF167 DRS 180M4	3780	200
	0.51	341700	2891	720000	423000	PF 092RF167 DRS 180M4	3080	201
	0.64	271900	2301	720000	423000	PH 092RF167 DRS 180M4	3790	200
	0.72	240000	2031	720000	423000	PHF 092RF167 DRS 180M4	3100	201
	0.94	185100	1566	720000	423000			
	1.1	159500	1350	720000	423000			
	1.2	142400	1205	720000	423000	P 092RF167 DRS 180M4	3780	200
	1.5	113900	964	720000	423000	PF 092RF167 DRS 180M4	3080	201
						PH 092RF167 DRS 180M4	3790	200
						PHF 092RF167 DRS 180M4	3090	201
	0.42	413300	3497	601600	359400	P 082RF167 DRS 180M4	3280	198
	0.47	367700	3112	646900	359400	PF 082RF167 DRS 180M4	2630	199
	0.53	326900	2766	680900	359400	PH 082RF167 DRS 180M4	3280	198
	0.58	298900	2530	683000	359400	PHF 082RF167 DRS 180M4	2630	199
	0.67	260100	2201	683000	359400			
	0.75	229500	1943	683000	359400			
	0.87	199000	1684	683000	359400			
	0.64	271000	2293	683000	359400	P 082RF147 DRS 180M4	3020	196
						PF 082RF147 DRS 180M4	2380	197
						PH 082RF147 DRS 180M4	3020	196
						PHF 082RF147 DRS 180M4	2370	197
	0.57	303400	2568	482100	245660	P 072RF167 DRS 180M4	2630	194
	0.96	179700	1521	523000	245660	PF 072RF167 DRS 180M4	2140	195
						PH 072RF167 DRS 180M4	2680	194
						PHF 072RF167 DRS 180M4	2190	195
	0.63	275000	2328	515600	245660	P 072RF147 DRS 180M4	2370	192
	0.73	238000	2014	523000	245660	PF 072RF147 DRS 180M4	1880	193
	0.82	210000	1777	523000	245660	PH 072RF147 DRS 180M4	2420	192
	0.95	181300	1535	523000	245660	PHF 072RF147 DRS 180M4	1930	193
	1.1	160400	1358	523000	245660			
	1.3	134800	1141	523000	245660			
	0.80	216300	1830	413400	185660	P 062RF147 DRS 180M4	1940	190
	0.93	186800	1581	437800	185660	PF 062RF147 DRS 180M4	1580	191
	1.0	165200	1398	453200	185660	PH 062RF147 DRS 180M4	1930	190
	1.2	138800	1175	469700	185660	PHF 062RF147 DRS 180M4	1570	191
	1.5	112100	949	473000	185660			
	0.99	174600	1477	446800	185660	P 062RF137 DRS 180M4	1820	188
	1.1	152600	1291	461400	185660	PF 062RF137 DRS 180M4	1460	189
	1.3	129000	1092	473000	185660	PH 062RF137 DRS 180M4	1810	188
						PHF 062RF137 DRS 180M4	1450	189
	1.3	137100	1160	470700	185660	P 062RF137 DRS 180M4	1820	188
	1.6	111800	946	473000	185660	PF 062RF137 DRS 180M4	1450	189
	1.7	102000	863	473000	185660	PH 062RF137 DRS 180M4	1800	188
						PHF 062RF137 DRS 180M4	1440	189
	1.3	129000	1092	352200	124060	P 052RF137 DRS 180M4	1340	184
						PF 052RF137 DRS 180M4	1140	185
						PH 052RF137 DRS 180M4	1330	184
						PHF 052RF137 DRS 180M4	1130	185
	1.6	111800	946	364000	124060	P 052RF137 DRS 180M4	1330	184
	1.7	102000	863	364000	124060	PF 052RF137 DRS 180M4	1130	185
	2.0	88200	747	364000	124060	PH 052RF137 DRS 180M4	1320	184
	2.2	77900	659	364000	124060	PHF 052RF137 DRS 180M4	1120	185

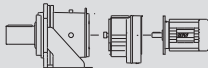


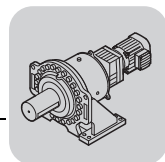
P.RF.. Helical Planetary Gearmotors

IE1 motor standard – selection tables

P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]		m [kg]	
18.5	2.0	84400	714	364000	124060	P 052RF107 DRS 180M4	1230	182
	2.4	72500	614	364000	124060	PF 052RF107 DRS 180M4	1030	183
						PH 052RF107 DRS 180M4	1220	182
						PHF 052RF107 DRS 180M4	1020	183
	1.6	111800	946	282900	100170	P 042RF137 DRS 180M4	1190	178
	1.7	102000	863	293700	100170	PF 042RF137 DRS 180M4	1000	179
	2.0	88200	747	307000	100170	PH 042RF137 DRS 180M4	1190	178
	2.6	67200	569	323000	100170	PHF 042RF137 DRS 180M4	1000	179
	1.9	93000	787	302600	100170	P 042RF107 DRS 180M4	1080	176
	2.0	84400	714	310400	100170	PF 042RF107 DRS 180M4	890	177
	2.4	72500	614	319900	100170	PH 042RF107 DRS 180M4	1090	176
	2.7	63300	536	323000	100170	PHF 042RF107 DRS 180M4	900	177
	3.2	53700	455	323000	100170			
	2.4	72500	614	219300	69620	P 032RF107 DRS 180M4	840	170
	2.7	63300	536	231100	69620	PF 032RF107 DRS 180M4	720	171
	3.2	53700	455	241600	69620	PH 032RF107 DRS 180M4	860	170
	3.7	46900	397	248000	69620	PHF 032RF107 DRS 180M4	740	171
	4.4	39700	336	249300	69620			
	4.4	38900	329	247800	69620	P 032RF97 DRS 180M4	790	168
	5.2	32900	279	235800	69620	PF 032RF97 DRS 180M4	670	169
						PH 032RF97 DRS 180M4	810	168
						PHF 032RF97 DRS 180M4	690	169
	3.2	53700	455	186900	51190	P 022RF107 DRS 180M4	760	164
	3.7	46900	397	196800	51190	PF 022RF107 DRS 180M4	660	165
	4.4	39700	336	197000	51190	PH 022RF107 DRS 180M4	770	164
	4.8	36400	308	197000	51190	PHF 022RF107 DRS 180M4	670	165
	5.6	30900	261	197000	51190			
	6.4	27000	228	197000	51190			
	7.6	22800	193	197000	51190			
	4.0	43000	364	197000	51190	P 022RF97 DRS 180M4	710	162
	4.4	38900	329	197000	51190	PF 022RF97 DRS 180M4	610	163
	5.2	32900	279	197000	51190	PH 022RF97 DRS 180M4	730	162
	6.0	28800	244	197000	51190	PHF 022RF97 DRS 180M4	620	163
	7.2	24100	204	197000	51190			
	8.3	20800	177	197000	51190			
	8.7	19900	169	197000	40000			
	8.5	20300	172	137500	36810	P 012RF107 DRS 180M4	610	158
	9.3	18600	158	134100	36810	PF 012RF107 DRS 180M4	540	159
	11	15800	134	127600	36810	PH 012RF107 DRS 180M4	620	158
	13	13800	117	122500	36810	PHF 012RF107 DRS 180M4	550	159
	4.4	38900	329	156000	36810	P 012RF97 DRS 180M4	560	156
	5.2	32900	279	156000	36810	PF 012RF97 DRS 180M4	495	157
	6.0	28800	244	152700	36810	PH 012RF97 DRS 180M4	580	156
	7.2	24100	204	144700	36810	PHF 012RF97 DRS 180M4	510	157
	8.3	20800	177	138600	36810			
	8.7	19900	169	136700	36810			
	10	16900	143	130100	36810			
	12	14700	125	124900	36810			
	14	12300	105	118400	35000			
	16	10600	91	113400	32100			
	7.2	24000	203	117000	24830	P 002RF97 DRS 180M4	485	148
	8.3	20700	176	112000	24830	PF 002RF97 DRS 180M4	425	149
	8.9	19300	164	109700	24830	PH 002RF97 DRS 180M4	485	148
	11	16400	139	104400	24830	PHF 002RF97 DRS 180M4	430	149
	12	14300	121	100200	24830			
	14	11900	102	95000	24830			
	17	10300	88	91000	24830			
22	0.46	451200	3210	850000	500000	P 102RF167 DRS 180L4	4650	202
	0.51	401000	2854	850000	500000	PF 102RF167 DRS 180L4	3690	203
	0.65	319100	2271	850000	500000	PH 102RF167 DRS 180L4	4710	202
	0.73	281600	2004	850000	500000	PHF 102RF167 DRS 180L4	3750	203
	0.95	217200	1546	850000	500000			
	1.1	187200	1332	850000	500000			
	1.2	167100	1189	850000	500000	P 102RF167 DRS 180L4	4640	202
	1.5	133600	951	850000	500000	PF 102RF167 DRS 180L4	3680	203
						PH 102RF167 DRS 180L4	4700	202
						PHF 102RF167 DRS 180L4	3740	203

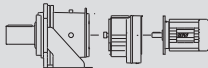


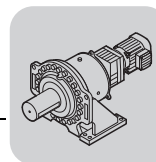
P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]		m [kg]	
22	0.45	457200	3253	720000	423000			
	0.51	406400	2891	720000	423000	P 092RF167 DRS 180L4	3790	200
	0.64	323400	2301	720000	423000	PF 092RF167 DRS 180L4	3100	201
	0.72	285400	2031	720000	423000	PH 092RF167 DRS 180L4	3800	200
	0.94	220100	1566	720000	423000	PHF 092RF167 DRS 180L4	3110	201
	1.1	189700	1350	720000	423000			
	1.2	169300	1205	720000	423000	P 092RF167 DRS 180L4	3790	200
	1.5	135400	964	720000	423000	PF 092RF167 DRS 180L4	3090	201
	1.7	120400	857	720000	423000	PH 092RF167 DRS 180L4	3800	200
	2.0	104900	747	720000	423000	PHF 092RF167 DRS 180L4	3100	201
	0.53	388700	2766	626900	359400			
	0.58	355500	2530	657900	359400	P 082RF167 DRS 180L4	3290	198
	0.67	309300	2201	683000	359400	PF 082RF167 DRS 180L4	2640	199
	0.75	273000	1943	683000	359400	PH 082RF167 DRS 180L4	3290	198
	0.87	236600	1684	683000	359400	PHF 082RF167 DRS 180L4	2640	199
	0.98	210500	1498	683000	359400			
	1.1	181500	1291	683000	359400			
	0.64	322200	2293	683000	359400	P 082RF147 DRS 180L4	3040	196
	0.84	246100	1751	683000	359400	PF 082RF147 DRS 180L4	2390	197
	0.97	212500	1512	683000	359400	PH 082RF147 DRS 180L4	3030	196
	1.1	187900	1338	683000	359400	PHF 082RF147 DRS 180L4	2380	197
	1.3	157900	1141	683000	359400			
	0.96	213700	1521	523000	245660	P 072RF167 DRS 180L4	2640	194
	1.4	149600	1065	523000	245660	PF 072RF167 DRS 180L4	2150	195
						PH 072RF167 DRS 180L4	2690	194
						PHF 072RF167 DRS 180L4	2200	195
	0.73	283000	2014	506600	245660	P 072RF147 DRS 180L4	2380	192
	0.82	249700	1777	523000	245660	PF 072RF147 DRS 180L4	1890	193
	1.1	190700	1358	523000	245660	PH 072RF147 DRS 180L4	2430	192
	1.3	160300	1141	523000	245660	PHF 072RF147 DRS 180L4	1940	193
	1.6	129500	922	523000	245660			
	0.93	222200	1581	408100	185660	P 062RF147 DRS 180L4	1960	190
	1.0	196500	1398	430200	185660	PF 062RF147 DRS 180L4	1590	191
	1.2	165100	1175	453300	185660	PH 062RF147 DRS 180L4	1940	190
	1.5	133400	949	472800	185660	PHF 062RF147 DRS 180L4	1580	191
	1.8	112700	802	473000	185660	P 062RF147 DRS 180L4	1940	190
						PF 062RF147 DRS 180L4	1580	191
						PH 062RF147 DRS 180L4	1930	190
						PHF 062RF147 DRS 180L4	1570	191
	1.3	153400	1092	460900	185660	P 062RF137 DRS 180L4	1840	188
						PF 062RF137 DRS 180L4	1470	189
						PH 062RF137 DRS 180L4	1820	188
						PHF 062RF137 DRS 180L4	1460	189
	1.7	121300	863	473000	185660	P 062RF137 DRS 180L4	1830	188
	2.0	105000	747	473000	185660	PF 062RF137 DRS 180L4	1460	189
	2.2	92600	659	473000	185660	PH 062RF137 DRS 180L4	1820	188
						PHF 062RF137 DRS 180L4	1450	189
	1.6	133000	946	348700	124060	P 052RF137 DRS 180L4	1340	184
	1.7	121300	863	358600	124060	PF 052RF137 DRS 180L4	1140	185
	2.0	105000	747	364000	124060	PH 052RF137 DRS 180L4	1330	184
	2.2	92600	659	364000	124060	PHF 052RF137 DRS 180L4	1130	185
	2.6	80000	569	364000	124060			
	2.9	70700	503	364000	124060			
	2.7	75300	536	364000	124060	P 052RF107 DRS 180L4	1240	182
	3.2	63900	455	364000	124060	PF 052RF107 DRS 180L4	1040	183
						PH 052RF107 DRS 180L4	1230	182
						PHF 052RF107 DRS 180L4	1030	183
	2.0	105000	747	290500	100170	P 042RF137 DRS 180L4	1200	178
	2.6	80000	569	314100	100170	PF 042RF137 DRS 180L4	1010	179
	3.5	59400	423	323000	100170	PH 042RF137 DRS 180L4	1200	178
						PHF 042RF137 DRS 180L4	1010	179
	2.0	100400	714	295300	100170	P 042RF107 DRS 180L4	1100	176
	2.4	86300	614	308700	100170	PF 042RF107 DRS 180L4	910	177
	2.7	75300	536	317800	100170	PH 042RF107 DRS 180L4	1100	176
	3.2	63900	455	323000	100170	PHF 042RF107 DRS 180L4	910	177
	3.7	55800	397	323000	100170			

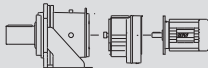


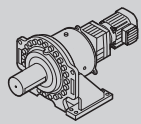
P.RF.. Helical Planetary Gearmotors

IE1 motor standard – selection tables

P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]		m [kg]	
22	2.7	75300	536	215400	69620			
	3.2	63900	455	230400	69620			
	3.7	55800	397	239400	69620	P 032RF107 DRS 180L4	850	170
	4.4	47200	336	247800	69620	PF 032RF107 DRS 180L4	730	171
	4.8	43300	308	242900	69620	PH 032RF107 DRS 180L4	870	170
	5.6	36700	261	231200	69620	PHF 032RF107 DRS 180L4	750	171
	6.4	32100	228	222100	69620			
	3.7	55800	397	183500	51190			
	4.4	47200	336	196500	51190			
	4.8	43300	308	197000	51190	P 022RF107 DRS 180L4	770	164
	5.6	36700	261	197000	51190	PF 022RF107 DRS 180L4	670	165
	6.4	32100	228	197000	51190	PH 022RF107 DRS 180L4	780	164
	7.6	27100	193	197000	51190	PHF 022RF107 DRS 180L4	680	165
	8.5	24200	172	197000	51190			
	9.3	22200	158	197000	51190			
	4.4	46200	329	197000	51190			
	5.2	39200	279	197000	51190	P 022RF97 DRS 180L4	720	162
	6.0	34200	244	197000	51190	PF 022RF97 DRS 180L4	620	163
	7.2	28600	204	197000	51190	PH 022RF97 DRS 180L4	740	162
	8.3	24800	177	197000	51190	PHF 022RF97 DRS 180L4	640	163
	8.5	24200	172	137500	36810			
	9.3	22200	158	134100	36810	P 012RF107 DRS 180L4	620	158
	11	18800	134	127600	36810	PF 012RF107 DRS 180L4	550	159
	13	16400	117	122500	36810	PH 012RF107 DRS 180L4	630	158
	15	13900	99	116500	36810	PHF 012RF107 DRS 180L4	560	159
	6.0	34200	244	152700	36810			
	7.2	28600	204	144700	36810			
	8.3	24800	177	138600	36810	P 012RF97 DRS 180L4	570	156
	8.7	23700	169	136700	36810	PF 012RF97 DRS 180L4	500	157
	10	20100	143	130100	36810	PH 012RF97 DRS 180L4	590	156
	12	17500	125	124900	36810	PHF 012RF97 DRS 180L4	520	157
	14	14600	105	118400	35000			
	16	12700	91	113400	32100			
	8.9	23000	164	109700	24830			
	11	19500	139	104400	24830	P 002RF97 DRS 180L4	495	148
	12	17000	121	100200	24830	PF 002RF97 DRS 180L4	435	149
	14	14200	102	95000	24830	PH 002RF97 DRS 180L4	500	148
	17	12300	88	91000	24830	PHF 002RF97 DRS 180L4	440	149
30	0.46	613200	3210	802400	500000			
	0.52	545000	2854	850000	500000	P 102RF167 DRS 180LC4	4660	202
	0.65	433700	2271	850000	500000	PF 102RF167 DRS 180LC4	3700	203
	0.73	382700	2004	850000	500000	PH 102RF167 DRS 180LC4	4720	202
	0.95	295200	1546	850000	500000	PHF 102RF167 DRS 180LC4	3760	203
	1.1	254400	1332	850000	500000			
	1.2	227100	1189	850000	500000			
	1.6	181600	951	850000	500000	P 102RF167 DRS 180LC4	4650	202
	1.7	161500	846	850000	500000	PF 102RF167 DRS 180LC4	3700	203
	2.0	140700	737	850000	500000	PH 102RF167 DRS 180LC4	4710	202
	2.2	125600	657	850000	500000	PHF 102RF167 DRS 180LC4	3760	203
	0.64	439500	2301	720000	423000			
	0.72	387800	2031	720000	423000	P 092RF167 DRS 180LC4	3800	200
	0.94	299100	1566	720000	423000	PF 092RF167 DRS 180LC4	3110	201
	1.1	257800	1350	720000	423000	PH 092RF167 DRS 180LC4	3820	200
						PHF 092RF167 DRS 180LC4	3120	201
	1.2	230100	1205	720000	423000			
	1.5	184100	964	720000	423000	P 092RF167 DRS 180LC4	3800	200
	1.7	163700	857	720000	423000	PF 092RF167 DRS 180LC4	3100	201
	2.0	142600	747	720000	423000	PH 092RF167 DRS 180LC4	3810	200
	2.2	127200	666	720000	423000	PHF 092RF167 DRS 180LC4	3110	201
	2.6	108400	568	720000	423000			
	0.67	420400	2201	593900	359400			
	0.76	371000	1943	643900	359400	P 082RF167 DRS 180LC4	3300	198
	0.87	321600	1684	683000	359400	PF 082RF167 DRS 180LC4	2660	199
	0.98	286100	1498	683000	359400	PH 082RF167 DRS 180LC4	3300	198
	1.1	246600	1291	683000	359400	PHF 082RF167 DRS 180LC4	2650	199
	1.4	200400	1049	683000	359400			
	0.97	290400	1521	498000	245660			
	1.4	203400	1065	523000	245660	P 072RF167 DRS 180LC4	2650	194
						PF 072RF167 DRS 180LC4	2160	195
						PH 072RF167 DRS 180LC4	2700	194
						PHF 072RF167 DRS 180LC4	2210	195

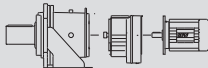


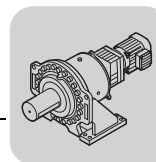
P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]		m [kg]	
30	1.1	259200	1358	523000	245660	P 072RF147 DRS 180LC4	2390	192
	1.3	217900	1141	523000	245660	PF 072RF147 DRS 180LC4	1900	193
	1.6	175900	922	523000	245660	PH 072RF147 DRS 180LC4	2440	192
						PHF 072RF147 DRS 180LC4	1950	193
	1.9	148600	779	523000	245660	P 072RF147 DRS 180LC4	2380	192
						PF 072RF147 DRS 180LC4	1890	193
						PH 072RF147 DRS 180LC4	2430	192
						PHF 072RF147 DRS 180LC4	1940	193
	1.6	181300	949	441900	185660	P 062RF147 DRS 180LC4	1970	190
						PF 062RF147 DRS 180LC4	1600	191
						PH 062RF147 DRS 180LC4	1960	190
						PHF 062RF147 DRS 180LC4	1590	191
	1.8	153100	802	461100	185660	P 062RF147 DRS 180LC4	1960	190
	2.1	135100	708	471800	185660	PF 062RF147 DRS 180LC4	1590	191
	2.4	117100	614	473000	185660	PH 062RF147 DRS 180LC4	1940	190
						PHF 062RF147 DRS 180LC4	1580	191
	1.7	164800	863	453500	185660	P 062RF137 DRS 180LC4	1840	188
	2.0	142600	747	467500	185660	PF 062RF137 DRS 180LC4	1470	189
	2.2	125900	659	473000	185660	PH 062RF137 DRS 180LC4	1830	188
	2.6	108700	569	473000	185660	PHF 062RF137 DRS 180LC4	1460	189
	2.9	96100	503	473000	185660			
	2.0	142600	747	339900	124060	P 052RF137 DRS 180LC4	1350	184
	2.2	125900	659	354800	124060	PF 052RF137 DRS 180LC4	1150	185
	2.6	108700	569	364000	124060	PH 052RF137 DRS 180LC4	1350	184
	2.9	96100	503	364000	124060	PHF 052RF137 DRS 180LC4	1150	185
	3.5	80800	423	364000	124060			
	2.6	108700	569	286400	100170	P 042RF137 DRS 180LC4	1210	178
	3.5	80800	423	313400	100170	PF 042RF137 DRS 180LC4	1020	179
	4.3	65200	342	309200	100170	PH 042RF137 DRS 180LC4	1210	178
	4.9	56800	298	296600	100170	PHF 042RF137 DRS 180LC4	1020	179
	5.9	47800	250	281700	100170			
	2.7	102300	536	293300	100170			
	3.2	86800	455	308300	100170	P 042RF107 DRS 180LC4	1110	176
	3.7	75900	397	317400	100170	PF 042RF107 DRS 180LC4	920	177
	4.4	64100	336	307700	100170	PH 042RF107 DRS 180LC4	1110	176
	4.8	58800	308	299800	100170	PHF 042RF107 DRS 180LC4	920	177
	5.6	49900	261	285400	100170			
	3.7	75900	397	214600	69620			
	4.4	64100	336	230100	69620			
	4.8	58800	308	236200	69620			
	5.6	49900	261	231000	69620	P 032RF107 DRS 180LC4	860	170
	6.4	43600	228	221900	69620	PF 032RF107 DRS 180LC4	740	171
	7.6	36900	193	210900	69620	PH 032RF107 DRS 180LC4	880	170
	8.5	32800	172	203700	69620	PHF 032RF107 DRS 180LC4	760	171
	9.3	30100	158	198600	58500			
	11	25500	134	189000	58500			
	13	22300	117	181500	58500			
	15	18900	99	172600	57100			
	16	17200	91	168000	32100	P 032RF97 DRS 180LC4	810	168
						PF 032RF97 DRS 180LC4	690	169
						PH 032RF97 DRS 180LC4	840	168
						PHF 032RF97 DRS 180LC4	710	169
	4.8	58800	308	178300	51190			
	5.6	49900	261	192700	51190	P 022RF107 DRS 180LC4	780	164
	6.4	43600	228	197000	51190	PF 022RF107 DRS 180LC4	680	165
	7.6	36900	193	197000	51190	PH 022RF107 DRS 180LC4	790	164
	8.5	32800	172	197000	51190	PHF 022RF107 DRS 180LC4	690	165
	9.3	30100	158	197000	51190			
	8.5	32800	172	137400	36810	P 012RF107 DRS 180LC4	630	158
	9.3	30100	158	133900	36810	PF 012RF107 DRS 180LC4	560	159
	11	25500	134	127500	36810	PH 012RF107 DRS 180LC4	650	158
	13	22300	117	122400	36810	PHF 012RF107 DRS 180LC4	580	159
	15	18900	99	116400	36810			
	16	17200	91	113300	32100	P 012RF97 DRS 180LC4	590	156
						PF 012RF97 DRS 180LC4	520	157
						PH 012RF97 DRS 180LC4	600	156
						PHF 012RF97 DRS 180LC4	530	157

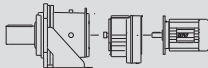


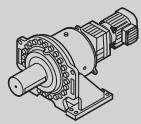
P.RF.. Helical Planetary Gearmotors

IE1 motor standard – selection tables

P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]		m [kg]	
30	11	24800	130	102200	24830	P 002RF107 DRS 180LC4	550	150
	13	21700	114	98200	24830	PF 002RF107 DRS 180LC4	495	151
	15	18300	96	93400	24830	PH 002RF107 DRS 180LC4	560	150
						PHF 002RF107 DRS 180LC4	500	151
	17	16700	88	90900	24830	P 002RF97 DRS 180LC4	510	148
						PF 002RF97 DRS 180LC4	450	149
						PH 002RF97 DRS 180LC4	510	148
						PHF 002RF97 DRS 180LC4	450	149
	0.65	533100	2271	850000	500000	P 102RF167 DRS 225S4	4780	202
	0.74	470400	2004	850000	500000	PF 102RF167 DRS 225S4	3830	203
37	0.95	362900	1546	850000	500000	PH 102RF167 DRS 225S4	4850	202
	1.1	312800	1332	850000	500000	PHF 102RF167 DRS 225S4	3890	203
	1.2	279100	1189	850000	500000	P 102RF167 DRS 225S4	4780	202
	1.6	223300	951	850000	500000	PF 102RF167 DRS 225S4	3820	203
	1.7	198600	846	850000	500000	PH 102RF167 DRS 225S4	4840	202
	2.0	173000	737	850000	500000	PHF 102RF167 DRS 225S4	3880	203
	2.2	154300	657	850000	500000			
	2.6	131500	561	850000	500000			
	0.73	476700	2031	705500	423000	P 092RF167 DRS 225S4	3930	200
	0.94	367700	1566	720000	423000	PF 092RF167 DRS 225S4	3230	201
45	1.1	316900	1350	720000	423000	PH 092RF167 DRS 225S4	3940	200
						PHF 092RF167 DRS 225S4	3250	201
	1.2	282800	1205	720000	423000	P 092RF167 DRS 225S4	3920	200
	1.5	226300	964	720000	423000	PF 092RF167 DRS 225S4	3230	201
	1.7	201200	857	720000	423000	PH 092RF167 DRS 225S4	3940	200
	2.0	175300	747	720000	423000	PHF 092RF167 DRS 225S4	3240	201
	2.2	156400	666	720000	423000			
	2.6	133300	568	720000	423000			
	3.1	110400	470	720000	423000			
	0.88	395300	1684	620300	359400	P 082RF167 DRS 225S4	3430	198
55	0.98	351700	1498	661200	359400	PF 082RF167 DRS 225S4	2780	199
	1.1	303200	1291	683000	359400	PH 082RF167 DRS 225S4	3430	198
	1.4	246300	1049	683000	359400	PHF 082RF167 DRS 225S4	2780	199
	1.7	208900	890	683000	359400			
	1.8	192500	820	683000	359400	P 082RF167 DRS 225S4	3430	198
						PF 082RF167 DRS 225S4	2780	199
						PH 082RF167 DRS 225S4	3420	198
						PHF 082RF167 DRS 225S4	2770	199
	1.4	250000	1065	523000	245660	P 072RF167 DRS 225S4	2780	194
						PF 072RF167 DRS 225S4	2280	195
75						PH 072RF167 DRS 225S4	2830	194
						PHF 072RF167 DRS 225S4	2340	195
	1.6	216300	922	523000	245660	P 072RF147 DRS 225S4	2520	192
						PF 072RF147 DRS 225S4	2030	193
						PH 072RF147 DRS 225S4	2570	192
						PHF 072RF147 DRS 225S4	2080	193
	1.9	182700	779	523000	245660	P 072RF147 DRS 225S4	2500	192
	2.2	161200	687	523000	245660	PF 072RF147 DRS 225S4	2010	193
						PH 072RF147 DRS 225S4	2560	192
						PHF 072RF147 DRS 225S4	2070	193
90	1.8	188200	802	436700	185660	P 062RF147 DRS 225S4	2080	190
	2.1	166100	708	452600	185660	PF 062RF147 DRS 225S4	1720	191
	2.4	144000	614	466700	185660	PH 062RF147 DRS 225S4	2070	190
	2.7	128100	546	473000	185660	PHF 062RF147 DRS 225S4	1710	191
	2.0	175300	747	446200	185660	P 062RF137 DRS 225S4	1960	188
	2.2	154700	659	460100	185660	PF 062RF137 DRS 225S4	1600	189
	2.6	133600	569	472700	185660	PH 062RF137 DRS 225S4	1950	188
	2.9	118200	503	473000	185660	PHF 062RF137 DRS 225S4	1590	189
	3.5	99300	423	473000	185660			
	2.6	133600	569	348200	124060	P 052RF137 DRS 225S4	1480	184
110	2.9	118200	503	361000	124060	PF 052RF137 DRS 225S4	1280	185
	3.5	99300	423	364000	124060	PH 052RF137 DRS 225S4	1470	184
	4.3	80200	342	356100	124060	PHF 052RF137 DRS 225S4	1270	185
	3.5	99300	423	296400	100170	P 042RF137 DRS 225S4	1340	178
	4.3	80200	342	308800	100170	PF 042RF137 DRS 225S4	1150	179
	5.0	69900	298	296400	100170	PH 042RF137 DRS 225S4	1340	178
	5.9	58700	250	281400	100170	PHF 042RF137 DRS 225S4	1150	179
	7.3	47400	202	263800	100170			

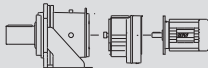


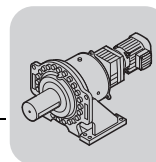
P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]		m [kg]	
37	3.7	93200	397	302400	100170	P 042RF107 DRS 225S4	1230	176
	4.4	78800	336	307300	100170	PF 042RF107 DRS 225S4	1040	177
						PH 042RF107 DRS 225S4	1240	176
						PHF 042RF107 DRS 225S4	1050	177
	8.4	41100	175	204600	69620	P 032RF137 DRS 225S4	1090	172
	9.7	35800	153	196400	69620	PF 032RF137 DRS 225S4	970	173
						PH 032RF137 DRS 225S4	1110	172
						PHF 032RF137 DRS 225S4	990	173
	4.4	78800	336	210200	69620			
	4.8	72300	308	219600	69620			
	5.6	61300	261	230700	69620			
	6.4	53600	228	221600	69620			
	7.6	45300	193	210800	69620			
	11	31400	134	188800	58500	P 032RF107 DRS 225S4	990	170
	13	27400	117	181300	58500	PF 032RF107 DRS 225S4	860	171
	15	23200	99	172400	57100	PH 032RF107 DRS 225S4	1010	170
						PHF 032RF107 DRS 225S4	890	171
	7.6	45300	193	197000	51190	P 022RF107 DRS 225S4	910	164
	8.6	40400	172	197000	51190	PF 022RF107 DRS 225S4	800	165
	9.3	37000	158	197000	51190	PH 022RF107 DRS 225S4	920	164
						PHF 022RF107 DRS 225S4	820	165
	11	31400	134	127300	36810	P 012RF107 DRS 225S4	760	158
	13	27400	117	122300	36810	PF 012RF107 DRS 225S4	690	159
	15	23200	99	116300	36810	PH 012RF107 DRS 225S4	770	158
						PHF 012RF107 DRS 225S4	700	159
45	0.74	570200	2004	835000	500000	P 102RF167 DRS 225M4	4810	202
	0.96	439800	1546	850000	500000	PF 102RF167 DRS 225M4	3850	203
	1.1	379100	1332	850000	500000	PH 102RF167 DRS 225M4	4870	202
						PHF 102RF167 DRS 225M4	3910	203
	1.2	338300	1189	850000	500000			
	1.6	270600	951	850000	500000			
	1.8	240700	846	850000	500000			
	2.0	209700	737	850000	500000			
	2.2	187100	657	850000	500000			
	2.6	159500	561	850000	500000	P 102RF167 DRS 225M4	4800	202
	3.2	132100	464	850000	500000	PF 102RF167 DRS 225M4	3840	203
						PH 102RF167 DRS 225M4	4860	202
						PHF 102RF167 DRS 225M4	3900	203
	0.94	445700	1566	720000	423000	P 092RF167 DRS 225M4	3950	200
	1.1	384200	1350	720000	423000	PF 092RF167 DRS 225M4	3260	201
						PH 092RF167 DRS 225M4	3960	200
						PHF 092RF167 DRS 225M4	3270	201
	1.2	342800	1205	720000	423000			
	1.5	274300	964	720000	423000			
	1.7	243900	857	720000	423000			
	2.0	212500	747	720000	423000			
	2.2	189600	666	720000	423000			
	2.6	161600	568	720000	423000	P 092RF167 DRS 225M4	3950	200
	3.1	133900	470	720000	423000	PF 092RF167 DRS 225M4	3250	201
	3.7	114200	402	720000	423000	PH 092RF167 DRS 225M4	3960	200
						PHF 092RF167 DRS 225M4	3260	201
	1.2	367500	1291	647100	359400	P 082RF167 DRS 225M4	3450	198
	1.4	298600	1049	683000	359400	PF 082RF167 DRS 225M4	2800	199
	1.7	253200	890	683000	359400	PH 082RF167 DRS 225M4	3450	198
						PHF 082RF167 DRS 225M4	2800	199
	1.8	233300	820	683000	359400	P 082RF167 DRS 225M4	3450	198
	2.1	203200	714	683000	359400	PF 082RF167 DRS 225M4	2800	199
	2.3	181300	637	683000	359400	PH 082RF167 DRS 225M4	3440	198
						PHF 082RF167 DRS 225M4	2790	199
	1.6	262200	922	523000	245660	P 072RF147 DRS 225M4	2540	192
						PF 072RF147 DRS 225M4	2050	193
						PH 072RF147 DRS 225M4	2590	192
						PHF 072RF147 DRS 225M4	2100	193
	1.9	221500	779	523000	245660	P 072RF147 DRS 225M4	2520	192
	2.2	195400	687	523000	245660	PF 072RF147 DRS 225M4	2030	193
	2.8	150700	530	523000	245660	PH 072RF147 DRS 225M4	2580	192
	3.2	129900	457	523000	245660	PHF 072RF147 DRS 225M4	2090	193

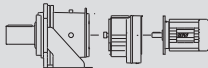


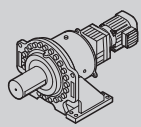
P.RF.. Helical Planetary Gearmotors

IE1 motor standard – selection tables

P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]		m [kg]	
45	2.1	201300	708	426300	185660			
	2.4	174500	614	446800	185660	P 062RF147 DRS 225M4	2100	190
	2.7	155300	546	459700	185660	PF 062RF147 DRS 225M4	1740	191
	3.9	108700	382	460100	185660	PH 062RF147 DRS 225M4	2090	190
	4.6	92200	324	438000	185660	PHF 062RF147 DRS 225M4	1730	191
	5.2	80900	284	421100	185660			
	2.6	162000	569	455400	185660	P 062RF137 DRS 225M4	1980	188
	2.9	143200	503	467100	185660	PF 062RF137 DRS 225M4	1620	189
	3.5	120400	423	473000	185660	PH 062RF137 DRS 225M4	1970	188
						PHF 062RF137 DRS 225M4	1610	189
	6.4	65700	231	316500	124060	P 052RF147 DRS 225M4	1620	186
						PF 052RF147 DRS 225M4	1420	187
						PH 052RF147 DRS 225M4	1610	186
						PHF 052RF147 DRS 225M4	1410	187
	3.5	120400	423	359300	124060	P 052RF137 DRS 225M4	1500	184
	4.3	97200	342	355900	124060	PF 052RF137 DRS 225M4	1300	185
						PH 052RF137 DRS 225M4	1490	184
						PHF 052RF137 DRS 225M4	1290	185
	7.6	55700	196	261200	100170	P 042RF147 DRS 225M4	1470	180
						PF 042RF147 DRS 225M4	1280	181
						PH 042RF147 DRS 225M4	1480	180
						PHF 042RF147 DRS 225M4	1290	181
	4.3	97200	342	298500	100170	P 042RF137 DRS 225M4	1360	178
	5.0	84700	298	296100	100170	PF 042RF137 DRS 225M4	1170	179
	5.9	71200	250	281100	100170	PH 042RF137 DRS 225M4	1360	178
	7.3	57500	202	263600	100170	PHF 042RF137 DRS 225M4	1170	179
	5.9	71200	250	221100	69620	P 032RF137 DRS 225M4	1110	172
	7.3	57500	202	213400	69620	PF 032RF137 DRS 225M4	990	173
	8.4	49800	175	204400	69620	PH 032RF137 DRS 225M4	1130	172
	9.7	43400	153	196200	69620	PHF 032RF137 DRS 225M4	1010	173
	12	36500	128	186200	69620			
	14	29400	104	174600	69620			
	6.5	65000	228	221300	69620	P 032RF107 DRS 225M4	1010	170
	7.7	54900	193	210500	69620	PF 032RF107 DRS 225M4	890	171
						PH 032RF107 DRS 225M4	1030	170
						PHF 032RF107 DRS 225M4	910	171
	8.4	49800	175	192800	51190	P 022RF137 DRS 225M4	1030	166
	9.7	43400	153	197000	51190	PF 022RF137 DRS 225M4	930	167
	12	36500	128	197000	51190	PH 022RF137 DRS 225M4	1040	166
						PHF 022RF137 DRS 225M4	940	167
	13	33300	117	191700	51190	P 022RF107 DRS 225M4	930	164
	15	28100	99	182400	51190	PF 022RF107 DRS 225M4	820	165
						PH 022RF107 DRS 225M4	940	164
						PHF 022RF107 DRS 225M4	840	165
	13	33300	117	122100	36810	P 012RF107 DRS 225M4	780	158
	15	28100	99	116200	36810	PF 012RF107 DRS 225M4	710	159
						PH 012RF107 DRS 225M4	790	158
						PHF 012RF107 DRS 225M4	720	159
55	0.96	537600	1546	850000	500000	P 102RF167 DRS 225MC4	4830	202
	1.1	463400	1332	850000	500000	PF 102RF167 DRS 225MC4	3870	203
						PH 102RF167 DRS 225MC4	4890	202
						PHF 102RF167 DRS 225MC4	3930	203
	1.6	330800	951	850000	500000			
	1.8	294200	846	850000	500000	P 102RF167 DRS 225MC4	4820	202
	2.0	256300	737	850000	500000	PF 102RF167 DRS 225MC4	3860	203
	2.2	228700	657	850000	500000	PH 102RF167 DRS 225MC4	4880	202
	2.6	194900	561	850000	500000	PHF 102RF167 DRS 225MC4	3920	203
	3.2	161500	464	850000	500000			
	3.7	137800	396	850000	500000			
	1.1	469600	1350	712800	423000	P 092RF167 DRS 225MC4	3970	200
						PF 092RF167 DRS 225MC4	3280	201
						PH 092RF167 DRS 225MC4	3990	200
						PHF 092RF167 DRS 225MC4	3290	201

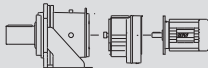


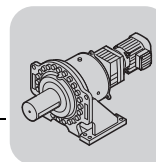
P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]		m [kg]	
55	1.5	335200	964	720000	423000			
	1.7	298100	857	720000	423000			
	2.0	259700	747	720000	423000	P 092RF167 DRS 225MC4	3970	200
	2.2	231700	666	720000	423000	PF 092RF167 DRS 225MC4	3270	201
	2.6	197500	568	720000	423000	PH 092RF167 DRS 225MC4	3980	200
	3.1	163600	470	720000	423000	PHF 092RF167 DRS 225MC4	3280	201
	3.7	139600	402	720000	423000			
	1.4	364900	1049	649500	359400	P 082RF167 DRS 225MC4	3480	198
	1.7	309500	890	683000	359400	PF 082RF167 DRS 225MC4	2820	199
						PH 082RF167 DRS 225MC4	3470	198
						PHF 082RF167 DRS 225MC4	2820	199
	1.8	285200	820	683000	359400	P 082RF167 DRS 225MC4	3470	198
	2.1	248400	714	683000	359400	PF 082RF167 DRS 225MC4	2820	199
	2.3	221600	637	683000	359400	PH 082RF167 DRS 225MC4	3460	198
	2.7	188900	543	683000	359400	PHF 082RF167 DRS 225MC4	2810	199
	2.5	204100	587	683000	359400	P 082RF147 DRS 225MC4	3200	196
	2.8	181600	522	683000	359400	PF 082RF147 DRS 225MC4	2550	197
						PH 082RF147 DRS 225MC4	3200	196
						PHF 082RF147 DRS 225MC4	2550	197
	1.9	270700	779	520300	245660	P 072RF147 DRS 225MC4	2550	192
	2.2	238900	687	520300	245660	PF 072RF147 DRS 225MC4	2060	193
	2.8	184300	530	520300	245660	PH 072RF147 DRS 225MC4	2600	192
	3.2	158800	457	520300	245660	PHF 072RF147 DRS 225MC4	2110	193
	4.0	129000	371	520300	245660			
	2.4	213300	614	416100	185660	P 062RF147 DRS 225MC4	2120	190
	2.7	189800	546	435500	185660	PF 062RF147 DRS 225MC4	1760	191
	3.9	132900	382	460100	185660	PH 062RF147 DRS 225MC4	2110	190
	4.6	112700	324	438000	185660	PHF 062RF147 DRS 225MC4	1750	191
	5.2	98900	284	421100	185660			
	6.4	80300	231	395700	185660			
	2.9	175100	503	446400	185660	P 062RF137 DRS 225MC4	2010	188
	3.5	147100	423	464800	185660	PF 062RF137 DRS 225MC4	1640	189
	4.3	118800	342	444900	185660	PH 062RF137 DRS 225MC4	2000	188
	5.0	103500	298	426900	185660	PHF 062RF137 DRS 225MC4	1630	189
	6.4	80300	231	316500	124060	P 052RF147 DRS 225MC4	1640	186
	7.6	68100	196	301200	124060	PF 052RF147 DRS 225MC4	1440	187
						PH 052RF147 DRS 225MC4	1630	186
						PHF 052RF147 DRS 225MC4	1430	187
	4.3	118800	342	355900	124060	P 052RF137 DRS 225MC4	1520	184
	5.0	103500	298	341500	124060	PF 052RF137 DRS 225MC4	1320	185
	5.9	87000	250	324200	124060	PH 052RF137 DRS 225MC4	1510	184
	6.8	75400	217	310500	124060	PHF 052RF137 DRS 225MC4	1310	185
	7.3	70300	202	304000	124060			
	7.6	68100	196	261200	100170	P 042RF147 DRS 225MC4	1490	180
	8.9	57700	166	248500	100170	PF 042RF147 DRS 225MC4	1300	181
	10	50700	146	239000	100170	PH 042RF147 DRS 225MC4	1500	180
	12	41200	118	224600	100170	PHF 042RF147 DRS 225MC4	1310	181
	15	34900	101	213700	100170			
	5.0	103500	298	292000	100170	P 042RF137 DRS 225MC4	1380	178
	5.9	87000	250	281100	100170	PF 042RF137 DRS 225MC4	1190	179
	7.3	70300	202	263600	100170	PH 042RF137 DRS 225MC4	1380	178
	8.4	60900	175	252500	100170	PHF 042RF137 DRS 225MC4	1190	179
	9.7	53100	153	242300	100170			
	12	44600	128	230000	100170			
	14	36000	104	215700	90600			
	8.4	60900	175	204400	69620	P 032RF137 DRS 225MC4	1130	172
	9.7	53100	153	196200	69620	PF 032RF137 DRS 225MC4	1010	173
						PH 032RF137 DRS 225MC4	1150	172
						PHF 032RF137 DRS 225MC4	1030	173
	12	44600	128	197000	51190	P 022RF137 DRS 225MC4	1050	166
	14	36000	104	184800	51190	PF 022RF137 DRS 225MC4	950	167
						PH 022RF137 DRS 225MC4	1070	166
						PHF 022RF137 DRS 225MC4	960	167

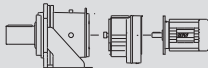


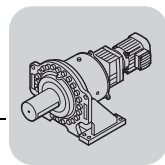
P.RF.. Helical Planetary Gearmotors

IE1 motor standard – selection tables

P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]		m [kg]	
75	1.6	451100	951	850000	500000			
	1.8	401200	846	850000	500000			
	2.0	349500	737	850000	500000	P 102RF167 DV 280S4	5070	202
	2.2	311800	657	850000	500000	PF 102RF167 DV 280S4	4120	203
	2.6	265800	561	850000	500000	PH 102RF167 DV 280S4	5130	202
	3.2	220200	464	850000	500000	PHF 102RF167 DV 280S4	4180	203
	3.7	187900	396	850000	500000			
	1.5	457100	964	720000	423000			
	1.7	406500	857	720000	423000	P 092RF167 DV 280S4	4220	200
	2.0	354200	747	720000	423000	PF 092RF167 DV 280S4	3520	201
	2.2	316000	666	720000	423000	PH 092RF167 DV 280S4	4230	200
	2.6	269300	568	720000	423000	PHF 092RF167 DV 280S4	3530	201
	3.1	223200	470	720000	423000			
	3.7	190400	402	720000	423000			
	2.1	338800	714	672200	359400	P 082RF167 DV 280S4	3720	198
	2.3	302300	637	683000	359400	PF 082RF167 DV 280S4	3070	199
	2.7	257600	543	683000	359400	PH 082RF167 DV 280S4	3710	198
						PHF 082RF167 DV 280S4	3060	199
	2.8	251300	530	523000	245660	P 072RF147 DV 280S4	2800	192
	3.2	216600	457	523000	245660	PF 072RF147 DV 280S4	2310	193
	4.0	176000	371	523000	245660	PH 072RF147 DV 280S4	2850	192
						PHF 072RF147 DV 280S4	2360	193
	3.9	181300	382	441900	185660	P 062RF147 DV 280S4	2380	190
	4.6	153700	324	438000	185660	PF 062RF147 DV 280S4	2010	191
	5.2	134900	284	421100	185660	PH 062RF147 DV 280S4	2360	190
	6.4	109600	231	395700	185660	PHF 062RF147 DV 280S4	2000	191
	6.4	109600	231	316500	124060	P 052RF147 DV 280S4	1890	186
	7.6	92900	196	301200	124060	PF 052RF147 DV 280S4	1690	187
	8.9	78800	166	286600	124060	PH 052RF147 DV 280S4	1880	186
						PHF 052RF147 DV 280S4	1680	187
	7.6	92900	196	261200	100170	P 042RF147 DV 280S4	1750	180
	8.9	78800	166	248500	100170	PF 042RF147 DV 280S4	1560	181
	10	69100	146	239000	100170	PH 042RF147 DV 280S4	1750	180
	12	56100	118	224600	100170	PHF 042RF147 DV 280S4	1560	181
	15	47600	101	213700	100170			
	10	69100	146	193500	69620	P 032RF147 DV 280S4	1500	174
	12	56100	118	181800	69620	PF 032RF147 DV 280S4	1380	175
	15	47600	101	173000	69620	PH 032RF147 DV 280S4	1520	174
						PHF 032RF147 DV 280S4	1400	175
90	1.6	541300	951	850000	500000			
	1.8	481400	846	850000	500000			
	2.0	419400	737	850000	500000	P 102RF167 DV 280M4	5080	202
	2.2	374200	657	850000	500000	PF 102RF167 DV 280M4	4120	203
	2.6	319000	561	850000	500000	PH 102RF167 DV 280M4	5140	202
	3.2	264300	464	850000	500000	PHF 102RF167 DV 280M4	4180	203
	3.7	225500	396	850000	500000			
	1.7	487900	857	693900	423000			
	2.0	425000	747	720000	423000	P 092RF167 DV 280M4	4220	200
	2.2	379200	666	720000	423000	PF 092RF167 DV 280M4	3520	201
	2.6	323200	568	720000	423000	PH 092RF167 DV 280M4	4230	200
	3.1	267800	470	720000	423000	PHF 092RF167 DV 280M4	3540	201
	3.7	228500	402	720000	423000			
	2.3	362700	637	651500	359400	P 082RF167 DV 280M4	3720	198
	2.7	309200	543	683000	359400	PF 082RF167 DV 280M4	3070	199
						PH 082RF167 DV 280M4	3720	198
						PHF 082RF167 DV 280M4	3070	199
	3.2	259900	457	523000	245660	P 072RF147 DV 280M4	2800	192
	4.0	211200	371	523000	245660	PF 072RF147 DV 280M4	2310	193
						PH 072RF147 DV 280M4	2860	192
						PHF 072RF147 DV 280M4	2360	193
	4.6	184500	324	438000	185660	P 062RF147 DV 280M4	2380	190
	5.2	161900	284	421100	185660	PF 062RF147 DV 280M4	2020	191
	6.4	131500	231	395700	185660	PH 062RF147 DV 280M4	2370	190
						PHF 062RF147 DV 280M4	2000	191
	7.6	111500	196	301200	124060	P 052RF147 DV 280M4	1900	186
						PF 052RF147 DV 280M4	1700	187
						PH 052RF147 DV 280M4	1890	186
						PHF 052RF147 DV 280M4	1690	187



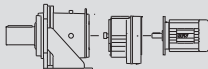
P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]		m [kg]	
90	8.9	94500	166	248500	100170	P 042RF147 DV 280M4	1750	180
	10	82900	146	239000	100170	PF 042RF147 DV 280M4	1560	181
	12	67400	118	224600	100170	PH 042RF147 DV 280M4	1750	180
	15	57100	101	213700	100170	PHF 042RF147 DV 280M4	1560	181
	15	57100	101	173000	69620	P 032RF147 DV 280M4	1500	174
						PF 032RF147 DV 280M4	1380	175
						PH 032RF147 DV 280M4	1520	174
						PHF 032RF147 DV 280M4	1400	175
	2.0	511900	737	850000	500000	P 102RF167 DRS 315K4	5310	202
	2.2	456800	657	850000	500000	PF 102RF167 DRS 315K4	4350	203
110	2.6	389300	561	850000	500000	PH 102RF167 DRS 315K4	5370	202
	3.2	322600	464	850000	500000	PHF 102RF167 DRS 315K4	4410	203
	3.7	275300	396	850000	500000			
	2.0	518800	747	659400	423000	P 092RF167 DRS 315K4	4450	200
	2.2	462900	666	719400	423000	PF 092RF167 DRS 315K4	3760	201
	2.6	394500	568	720000	423000	PH 092RF167 DRS 315K4	4470	200
	3.2	326900	470	720000	423000	PHF 092RF167 DRS 315K4	3770	201
	3.7	279000	402	720000	423000			
	2.0	613500	737	802100	500000	P 102RF167 DRS 315S4	5390	202
	2.3	547400	657	850000	500000	PF 102RF167 DRS 315S4	4430	203
132	2.6	466600	561	850000	500000	PH 102RF167 DRS 315S4	5450	202
	3.2	386600	464	850000	500000	PHF 102RF167 DRS 315S4	4490	203
	3.7	329900	396	850000	500000			
	2.6	472800	568	709500	423000	P 092RF167 DRS 315S4	4530	200
	3.2	391700	470	720000	423000	PF 092RF167 DRS 315S4	3840	201
	3.7	334300	402	720000	423000	PH 092RF167 DRS 315S4	4550	200
						PHF 092RF167 DRS 315S4	3850	201
	2.6	565900	561	838100	500000	P 102RF167 DRS 315M4	5550	202
	3.2	468900	464	850000	500000	PF 102RF167 DRS 315M4	4590	203
	3.7	400200	396	850000	500000	PH 102RF167 DRS 315M4	5610	202
160						PHF 102RF167 DRS 315M4	4650	203
	3.2	475200	470	707100	423000	P 092RF167 DRS 315M4	4690	200
	3.7	405500	402	720000	423000	PF 092RF167 DRS 315M4	4000	201
						PH 092RF167 DRS 315M4	4700	200
						PHF 092RF167 DRS 315M4	4010	201
	3.2	586900	464	822700	500000	P 102RF167 DRS 315L4	5630	202
	3.7	500900	396	850000	500000	PF 102RF167 DRS 315L4	4670	203
						PH 102RF167 DRS 315L4	5690	202
						PHF 102RF167 DRS 315L4	4730	203
	3.7	507600	402	672300	423000	P 092RF167 DRS 315L4	4770	200
200						PF 092RF167 DRS 315L4	4080	201
						PH 092RF167 DRS 315L4	4780	200
						PHF 092RF167 DRS 315L4	4090	201

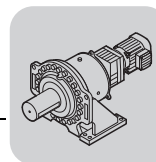


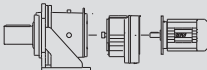
P.RF.. Helical Planetary Gearmotors

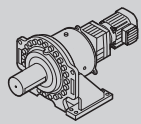
IE2 motor standard – selection tables

10.3 IE2 motor standard – selection tables

P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]					m [kg]	
0.75	0.35	19800	4066	156000	36810	P	012RF87	DRE	80M4	400	154
	0.39	17900	3663	156000	36810	PF	012RF87	DRE	80M4	330	155
	0.45	15700	3214	156000	36810	PH	012RF87	DRE	80M4	410	154
	0.50	13900	2847	156000	36810	PHF	012RF87	DRE	80M4	340	155
	0.45	15700	3209	156000	31500	P	012RF77	DRE	80M4	370	152
	0.47	14800	3030	156000	31500	PF	012RF77	DRE	80M4	300	153
						PH	012RF77	DRE	80M4	385	152
						PHF	012RF77	DRE	80M4	315	153
	0.35	19800	4051	124000	24830	P	002RF87	DRE	80M4	320	146
	0.39	17800	3649	124000	24830	PF	002RF87	DRE	80M4	260	147
						PH	002RF87	DRE	80M4	320	146
						PHF	002RF87	DRE	80M4	265	147
	0.45	15600	3197	124000	24830	P	002RF77	DRE	80M4	290	144
	0.48	14700	3018	124000	24830						
	0.56	12500	2570	124000	24830						
	0.64	11000	2254	124000	24830						
	0.71	9950	2035	124000	24830						
	0.80	8750	1790	124000	24830						
	0.85	8270	1691	124000	24830						
	1.0	7040	1439	124000	24830	PF	002RF77	DRE	80M4	230	145
1.1	0.35	29400	4066	197000	51190	PH	002RF77	DRE	80M4	295	144
	0.39	26500	3663	197000	51190	PHF	002RF77	DRE	80M4	235	145
	0.35	29400	4066	156000	36810	P	022RF87	DRE	90M4	550	160
	0.39	26500	3663	156000	36810	PF	022RF87	DRE	90M4	450	161
						PH	022RF87	DRE	90M4	570	160
						PHF	022RF87	DRE	90M4	465	161
	0.35	29400	4066	156000	36810	P	012RF87	DRE	90M4	400	154
	0.39	26500	3663	156000	36810						
	0.44	23300	3214	156000	36810						
	0.50	20600	2847	156000	36810						
	0.57	18100	2498	156000	36810						
	0.60	17100	2368	156000	36810						
	0.69	15000	2072	156000	36810						
	0.63	16400	2263	156000	31500	P	012RF77	DRE	90M4	375	152
	0.70	14800	2043	156000	31500	PF	012RF77	DRE	90M4	305	153
						PH	012RF77	DRE	90M4	385	152
						PHF	012RF77	DRE	90M4	315	153
	0.44	23200	3201	120000	24830	P	002RF87	DRE	90M4	320	146
	0.50	20500	2836	123500	24830	PF	002RF87	DRE	90M4	265	147
	0.57	18000	2489	124000	24830	PH	002RF87	DRE	90M4	325	146
						PHF	002RF87	DRE	90M4	270	147
	0.63	16300	2254	124000	24830	P	002RF77	DRE	90M4	295	144
	0.70	14700	2035	124000	24830						
	0.79	12900	1790	124000	24830						
	0.84	12200	1691	124000	24830						
	0.99	10400	1439	124000	24830						
	1.1	9480	1308	124000	24830						
	1.2	8210	1133	124000	24830						
	1.4	7150	986	124000	24830	PF	002RF77	DRE	90M4	235	145
1.5	0.35	39800	4058	197000	51190	PH	002RF77	DRE	90M4	295	144
	0.39	35600	3628	197000	51190	PHF	002RF77	DRE	90M4	240	145
	0.35	39800	4058	156000	36810	P	022RF97	DRE	90L4	610	162
						PF	022RF97	DRE	90L4	500	163
						PH	022RF97	DRE	90L4	620	162
						PHF	022RF97	DRE	90L4	520	163
	0.44	31500	3214	197000	51190	P	022RF87	DRE	90L4	550	160
	0.50	27900	2847	197000	51190	PF	022RF87	DRE	90L4	450	161
	0.57	24500	2498	197000	51190	PH	022RF87	DRE	90L4	570	160
						PHF	022RF87	DRE	90L4	465	161
	0.35	39800	4058	156000	36810	P	012RF97	DRE	90L4	455	156
						PF	012RF97	DRE	90L4	385	157
						PH	012RF97	DRE	90L4	470	156
						PHF	012RF97	DRE	90L4	400	157

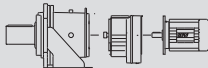


P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]						m [kg]	
1.5	0.39	35900	3663	156000	36810							
	0.44	31500	3214	156000	36810							
	0.50	27900	2847	156000	36810	P	012RF87	DRE	90L4	405	154	
	0.57	24500	2498	156000	36810	PF	012RF87	DRE	90L4	335	155	
	0.60	23200	2368	156000	36810	PH	012RF87	DRE	90L4	420	154	
	0.69	20300	2072	156000	36810	PHF	012RF87	DRE	90L4	350	155	
	0.77	18300	1867	156000	36810							
	0.87	16000	1637	156000	36810							
	0.84	16600	1697	156000	31500	P	012RF77	DRE	90L4	375	152	
	0.99	14100	1445	156000	31500	PF	012RF77	DRE	90L4	305	153	
						PH	012RF77	DRE	90L4	390	152	
						PHF	012RF77	DRE	90L4	320	153	
	0.61	23100	2358	120100	24830	P	002RF87	DRE	90L4	325	146	
	0.69	20200	2064	123800	24830	PF	002RF87	DRE	90L4	265	147	
						PH	002RF87	DRE	90L4	330	146	
						PHF	002RF87	DRE	90L4	270	147	
	0.80	17500	1790	124000	24830							
	0.85	16500	1691	124000	24830	P	002RF77	DRE	90L4	295	144	
	0.99	14100	1439	124000	24830	PF	002RF77	DRE	90L4	235	145	
	1.1	12800	1308	124000	24830	PH	002RF77	DRE	90L4	300	144	
	1.3	11100	1133	124000	24830	PHF	002RF77	DRE	90L4	240	145	
	1.4	9680	986	124000	24830							
	1.6	8960	913	124000	24830	P	002RF77	DRE	90L4	295	144	
	1.7	8220	837	124000	24830	PF	002RF77	DRE	90L4	235	145	
	2.0	7210	735	124000	24830	PH	002RF77	DRE	90L4	300	144	
						PHF	002RF77	DRE	90L4	240	145	
2.2	0.35	58100	4022	323000	100170	P	042RF107	DRE	100M4	990	176	
	0.39	52500	3637	323000	100170	PF	042RF107	DRE	100M4	800	177	
						PH	042RF107	DRE	100M4	990	176	
						PHF	042RF107	DRE	100M4	800	177	
	0.35	58100	4022	237000	69620	P	032RF107	DRE	100M4	740	170	
	0.39	52500	3637	242700	69620	PF	032RF107	DRE	100M4	620	171	
	0.46	44500	3082	250100	69620	PH	032RF107	DRE	100M4	760	170	
	0.50	41300	2859	252000	69620	PHF	032RF107	DRE	100M4	640	171	
	0.44	47100	3262	247800	69620	P	032RF97	DRE	100M4	690	168	
	0.56	36900	2558	252000	69620	PF	032RF97	DRE	100M4	570	169	
						PH	032RF97	DRE	100M4	710	168	
						PHF	032RF97	DRE	100M4	590	169	
	0.35	58600	4058	178700	51190							
	0.39	52400	3628	188900	51190	P	022RF97	DRE	100M4	610	162	
	0.44	47100	3262	196600	51190	PF	022RF97	DRE	100M4	510	163	
	0.50	40900	2831	197000	51190	PH	022RF97	DRE	100M4	620	162	
	0.56	36900	2558	197000	51190	PHF	022RF97	DRE	100M4	520	163	
	0.61	33900	2351	197000	51190							
	0.68	30100	2087	197000	51190							
	0.69	29900	2072	197000	51190	P	022RF87	DRE	100M4	560	160	
						PF	022RF87	DRE	100M4	455	161	
						PH	022RF87	DRE	100M4	570	160	
						PHF	022RF87	DRE	100M4	470	161	
	0.50	40900	2831	156000	36810	P	012RF97	DRE	100M4	460	156	
	0.68	30100	2087	156000	36810	PF	012RF97	DRE	100M4	390	157	
						PH	012RF97	DRE	100M4	475	156	
						PHF	012RF97	DRE	100M4	405	157	
	0.57	36100	2498	156000	36810							
	0.60	34200	2368	156000	36810							
	0.69	29900	2072	156000	36810	P	012RF87	DRE	100M4	410	154	
	0.76	26900	1867	156000	36810	PF	012RF87	DRE	100M4	340	155	
	0.87	23600	1637	156000	36810	PH	012RF87	DRE	100M4	425	154	
	0.99	20800	1445	156000	36810	PHF	012RF87	DRE	100M4	355	155	
	1.1	18500	1281	156000	36810							
	1.3	15800	1094	156000	36810							
	1.2	16400	1138	156000	31500	P	012RF77	DRE	100M4	380	152	
1.4	14300	990	156000	29900	PF	012RF77	DRE	100M4	310	153		
					PH	012RF77	DRE	100M4	395	152		
					PHF	012RF77	DRE	100M4	325	153		

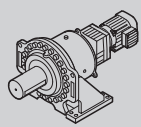


P.RF.. Helical Planetary Gearmotors

IE2 motor standard – selection tables

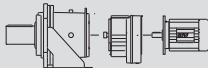
P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]		m [kg]	
2.2	0.87	23500	1631	119500	24830	P 002RF87 DRE 100M4	330	146
	0.99	20800	1440	123200	24830	PF 002RF87 DRE 100M4	270	147
	1.1	18400	1276	124000	24830	PH 002RF87 DRE 100M4	335	146
						PHF 002RF87 DRE 100M4	275	147
	1.3	16300	1133	124000	24830	P 002RF77 DRE 100M4	300	144
	1.4	14200	986	124000	24830	PF 002RF77 DRE 100M4	240	145
						PH 002RF77 DRE 100M4	305	144
						PHF 002RF77 DRE 100M4	245	145
	1.6	13200	913	124000	24830	P 002RF77 DRE 100M4	300	144
	1.7	12100	837	124000	24830	PF 002RF77 DRE 100M4	240	145
	1.9	10600	735	124000	24830	PH 002RF77 DRE 100M4	305	144
	2.3	8800	610	124000	24830	PHF 002RF77 DRE 100M4	245	145
	2.6	7930	549	124000	24830			
	3.0	6960	482	124000	24830			
3.0	0.36	77600	4022	364000	124060	P 052RF107 DRE 100LC4	1140	182
	0.40	70100	3637	364000	124060	PF 052RF107 DRE 100LC4	940	183
						PH 052RF107 DRE 100LC4	1130	182
						PHF 052RF107 DRE 100LC4	930	183
	0.36	77600	4022	316000	100170	P 042RF107 DRE 100LC4	990	176
	0.40	70100	3637	321700	100170	PF 042RF107 DRE 100LC4	800	177
	0.47	59400	3082	323000	100170	PH 042RF107 DRE 100LC4	1000	176
	0.51	55100	2859	323000	100170	PHF 042RF107 DRE 100LC4	810	177
	0.57	49600	2573	323000	100170			
	0.36	77600	4022	212100	69620	P 032RF107 DRE 100LC4	750	170
	0.40	70100	3637	222500	69620	PF 032RF107 DRE 100LC4	620	171
	0.47	59400	3082	235500	69620	PH 032RF107 DRE 100LC4	770	170
	0.51	55100	2859	240100	69620	PHF 032RF107 DRE 100LC4	650	171
	0.62	44900	2331	249700	69620			
	0.70	39800	2067	252000	69620			
	0.45	62900	3262	231500	69620	P 032RF97 DRE 100LC4	690	168
	0.51	54600	2831	240600	69620	PF 032RF97 DRE 100LC4	570	169
	0.57	49300	2558	245800	69620	PH 032RF97 DRE 100LC4	720	168
	0.62	45300	2351	249400	69620	PHF 032RF97 DRE 100LC4	590	169
	0.70	40200	2087	252000	69620			
	0.78	36000	1867	252000	69620			
	0.51	54600	2831	185500	51190	P 022RF97 DRE 100LC4	610	162
	0.57	49300	2558	193500	51190	PF 022RF97 DRE 100LC4	510	163
	0.62	45300	2351	197000	51190	PH 022RF97 DRE 100LC4	630	162
	0.70	40200	2087	197000	51190	PHF 022RF97 DRE 100LC4	530	163
	0.78	36000	1867	197000	51190			
	0.87	32300	1678	197000	51190			
	1.0	28100	1457	197000	51190			
	1.1	25100	1304	197000	51190			
	0.89	31600	1637	197000	51190	P 022RF87 DRE 100LC4	560	160
	1.0	27800	1445	197000	51190	PF 022RF87 DRE 100LC4	460	161
						PH 022RF87 DRE 100LC4	580	160
						PHF 022RF87 DRE 100LC4	475	161
	1.1	26000	1350	197000	51190	P 022RF87 DRE 100LC4	560	160
						PF 022RF87 DRE 100LC4	460	161
						PH 022RF87 DRE 100LC4	580	160
						PHF 022RF87 DRE 100LC4	475	161
	0.70	40200	2087	156000	36810	P 012RF97 DRE 100LC4	465	156
	1.3	20800	1082	156000	36810	PF 012RF97 DRE 100LC4	395	157
						PH 012RF97 DRE 100LC4	480	156
						PHF 012RF97 DRE 100LC4	410	157
	1.5	18900	982	156000	36810	P 012RF97 DRE 100LC4	465	156
						PF 012RF97 DRE 100LC4	395	157
						PH 012RF97 DRE 100LC4	480	156
						PHF 012RF97 DRE 100LC4	410	157
	0.78	36000	1867	156000	36810	P 012RF87 DRE 100LC4	415	154
	0.89	31600	1637	156000	36810	PF 012RF87 DRE 100LC4	345	155
	1.0	27800	1445	156000	36810	PH 012RF87 DRE 100LC4	430	154
	1.1	24700	1281	156000	36810	PHF 012RF87 DRE 100LC4	360	155
	1.2	23700	1232	156000	36810	P 012RF87 DRE 100LC4	415	154
	1.3	21000	1092	156000	36810	PF 012RF87 DRE 100LC4	345	155
	1.6	17700	918	156000	36810	PH 012RF87 DRE 100LC4	425	154
	1.7	16200	844	156000	36810	PHF 012RF87 DRE 100LC4	355	155
	1.9	14400	749	156000	36810			

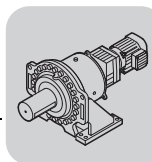
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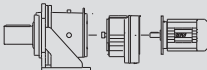


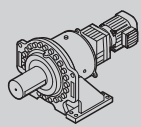
P.RF.. Helical Planetary Gearmotors

IE2 motor standard – selection tables

P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]		m [kg]	
4.0	2.6	14100	551	156000	27600	P 012RF77 DRE 132S4	400	152
						PF 012RF77 DRE 132S4	330	153
						PH 012RF77 DRE 132S4	410	152
						PHF 012RF77 DRE 132S4	340	153
	1.6	23400	914	119700	24830	P 002RF87 DRE 132S4	350	146
	1.7	21500	841	122200	24830	PF 002RF87 DRE 132S4	290	147
	2.0	19100	746	124000	24830	PH 002RF87 DRE 132S4	350	146
	2.2	17100	667	124000	24830	PHF 002RF87 DRE 132S4	295	147
	2.4	15600	610	124000	24830	P 002RF77 DRE 132S4	320	144
	2.7	14000	549	124000	24830		260	145
	3.0	12300	482	124000	24830		320	144
	3.4	10900	425	124000	24830		265	145
	3.9	9660	377	124000	24100			
	4.4	8610	336	124000	24100			
	4.8	7750	302	124000	23300			
	5.5	6800	265	124000	22200			
5.5	0.36	143200	4049	467100	185660	P 062RF137 DRE 132M4	1760	188
	0.42	123100	3480	473000	185660	PF 062RF137 DRE 132M4	1390	189
	0.46	112300	3174	473000	185660	PH 062RF137 DRE 132M4	1740	188
						PHF 062RF137 DRE 132M4	1380	189
	0.36	143200	4049	339400	124060	P 052RF137 DRE 132M4	1270	184
	0.42	123100	3480	357100	124060	PF 052RF137 DRE 132M4	1070	185
	0.50	102000	2883	364000	124060	PH 052RF137 DRE 132M4	1260	184
	0.57	90500	2558	364000	124060	PHF 052RF137 DRE 132M4	1060	185
	0.51	101100	2859	364000	124060	P 052RF107 DRE 132M4	1160	182
	0.57	91000	2573	364000	124060	PF 052RF107 DRE 132M4	960	183
						PH 052RF107 DRE 132M4	1150	182
						PHF 052RF107 DRE 132M4	950	183
	0.46	112300	3174	282400	100170	P 042RF137 DRE 132M4	1130	178
	0.63	82100	2321	312300	100170	PF 042RF137 DRE 132M4	940	179
						PH 042RF137 DRE 132M4	1130	178
						PHF 042RF137 DRE 132M4	940	179
	0.51	101100	2859	294600	100170	P 042RF107 DRE 132M4	1020	176
	0.57	91000	2573	304400	100170	PF 042RF107 DRE 132M4	830	177
	0.62	82400	2331	312000	100170	PH 042RF107 DRE 132M4	1020	176
	0.70	73100	2067	319500	100170	PHF 042RF107 DRE 132M4	830	177
	0.78	66100	1869	323000	100170			
	0.62	82400	2331	204600	69620	P 032RF107 DRE 132M4	770	170
	0.70	73100	2067	218500	69620	PF 032RF107 DRE 132M4	650	171
	0.92	56000	1584	239200	69620	PH 032RF107 DRE 132M4	790	170
	1.0	48900	1383	246200	69620	PHF 032RF107 DRE 132M4	670	171
	1.2	42700	1207	251600	69620	P 032RF107 DRE 132M4	760	170
						PF 032RF107 DRE 132M4	640	171
						PH 032RF107 DRE 132M4	780	170
						PHF 032RF107 DRE 132M4	660	171
	0.78	66000	1867	227800	69620	P 032RF97 DRE 132M4	720	168
	0.87	59300	1678	235600	69620	PF 032RF97 DRE 132M4	600	169
	1.0	51500	1457	243700	69620	PH 032RF97 DRE 132M4	740	168
	1.3	38200	1082	252000	69620	PHF 032RF97 DRE 132M4	620	169
	1.2	44400	1257	250200	69620	P 032RF97 DRE 132M4	720	168
						PF 032RF97 DRE 132M4	600	169
						PH 032RF97 DRE 132M4	740	168
						PHF 032RF97 DRE 132M4	620	169
	0.87	59300	1678	177400	51190	P 022RF97 DRE 132M4	640	162
	1.0	51500	1457	190300	51190	PF 022RF97 DRE 132M4	540	163
	1.1	46100	1304	197000	51190	PH 022RF97 DRE 132M4	660	162
						PHF 022RF97 DRE 132M4	550	163
	1.5	34700	982	197000	51190	P 022RF97 DRE 132M4	640	162
	1.7	31000	878	197000	51190	PF 022RF97 DRE 132M4	540	163
						PH 022RF97 DRE 132M4	650	162
						PHF 022RF97 DRE 132M4	550	163
	1.6	32400	918	197000	51190	P 022RF87 DRE 132M4	590	160
						PF 022RF87 DRE 132M4	485	161
						PH 022RF87 DRE 132M4	600	160
						PHF 022RF87 DRE 132M4	500	161

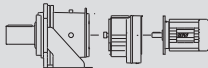
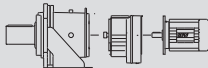
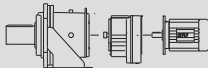
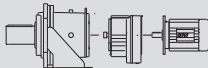
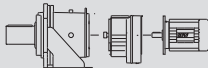
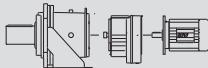
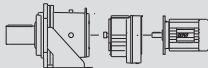
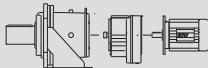
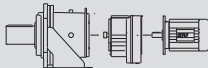
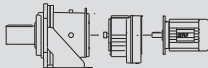
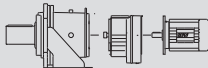
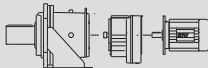
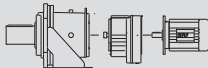
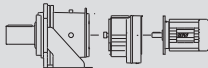
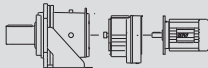
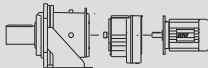


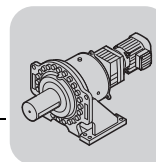
P _M [kW]	n ₂ [min ⁻¹]	M _a [Nm]	i _{ex}	F _{Ra} [N]	M _{N2} [Nm]					m [kg]							
5.5	1.3	38200	1082	156000	36810	P	012RF97	DRE	132M4	495	156						
						PF	012RF97	DRE	132M4	425	157						
						PH	012RF97	DRE	132M4	510	156						
						PHF	012RF97	DRE	132M4	435	157						
	1.5	34700	982	156000	36810	P	012RF97	DRE	132M4	490	156						
	1.8	27900	790	156000	36810	PF	012RF97	DRE	132M4	420	157						
	2.0	25300	716	156000	36810	PH	012RF97	DRE	132M4	500	156						
	2.3	22400	634	156000	36810	PHF	012RF97	DRE	132M4	435	157						
	1.6	32400	918	156000	36810	P	012RF87	DRE	132M4	440	154						
	1.7	29800	844	156000	36810												
	1.9	26500	749	156000	36810												
	2.2	23700	670	156000	36810												
	2.4	21300	602	156000	36810	PH	012RF87	DRE	132M4	455	154						
	2.8	18500	523	156000	36810	PHF	012RF87	DRE	132M4	385	155						
	2.2	23600	667	119400	24830	P	002RF87	DRE	132M4	360	146						
	2.4	21200	600	122600	24830												
	2.8	18400	521	124000	24830												
	3.1	16500	466	124000	24830												
	3.8	13600	387	124000	24830												
	4.1	12600	357	124000	24830												
	4.5	11300	321	124000	24830												
	5.2	9860	279	124000	24830												
	5.6	9200	260	124000	24400	PF	002RF77	DRE	132M4	270	145						
	6.2	8240	233	122200	23500												
	7.7	6660	188	114600	12000												
	8.7	5930	168	110700	12000												
	7.5	0.42	166200	3480	452600	185660	P	062RF137	DRE	132MC4	1760	188					
		0.46	151500	3174	462100	185660	PF	062RF137	DRE	132MC4	1390	189					
0.51		137600	2883	470400	185660	PH	062RF137	DRE	132MC4	1750	188						
0.57		122100	2558	473000	185660	PHF	062RF137	DRE	132MC4	1380	189						
0.63		110800	2321	473000	185660	P	052RF137	DRE	132MC4	1270	184						
0.51		137600	2883	344600	124060												
0.57		122100	2558	357900	124060												
0.74		95200	1995	364000	124060												
0.84		83100	1741	364000	124060	PHF	052RF137	DRE	132MC4	1070	185						
0.79		89200	1869	364000	124060	P	052RF107	DRE	132MC4	1160	182						
0.63		110800	2321	284000	100170	PF	052RF107	DRE	132MC4	960	183						
						PH	052RF107	DRE	132MC4	1160	182						
						PHF	052RF107	DRE	132MC4	960	183						
						P	042RF137	DRE	132MC4	1130	178						
0.99		70500	1477	321400	100170	PF	042RF137	DRE	132MC4	940	179						
0.71		98700	2067	297100	100170	PH	042RF137	DRE	132MC4	1130	178						
						PHF	042RF137	DRE	132MC4	940	179						
						P	042RF107	DRE	132MC4	1020	176						
						PF	042RF107	DRE	132MC4	830	177						
0.79		89200	1869	306100	100170	PH	042RF107	DRE	132MC4	1020	176						
0.93		75600	1584	317600	100170	PHF	042RF107	DRE	132MC4	830	177						
1.1		66000	1383	323000	100170	P	042RF107	DRE	132MC4	1010	176						
1.2		57600	1207	323000	100170												
0.93		75600	1584	215000	69620	PF	032RF107	DRE	132MC4	770	170						
1.1		66000	1383	227800	69620	PH	032RF107	DRE	132MC4	650	171						
1.4		51600	1082	243600	69620	PHF	032RF107	DRE	132MC4	790	170						
						P	032RF107	DRE	132MC4	670	171						
						PF	032RF107	DRE	132MC4	770	170						
						PH	032RF107	DRE	132MC4	650	171						
1.5		46600	977	248300	69620	PHF	032RF107	DRE	132MC4	790	170						
1.4	50900	1067	244300	69620	P	032RF97	DRE	132MC4	720	168							
					PF	032RF97	DRE	132MC4	600	169							
					PH	032RF97	DRE	132MC4	740	168							
					PHF	032RF97	DRE	132MC4	620	169							

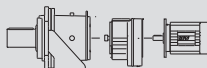


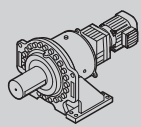
P.RF.. Helical Planetary Gearmotors

IE2 motor standard – selection tables

P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]						m [kg]	
7.5	1.2	57600	1207	180400	51190		P	022RF107	DRE	132MC4	690	164
							PF	022RF107	DRE	132MC4	580	165
							PH	022RF107	DRE	132MC4	700	164
							PHF	022RF107	DRE	132MC4	600	165
	1.4	51600	1082	190100	51190		P	022RF97	DRE	132MC4	640	162
							PF	022RF97	DRE	132MC4	540	163
							PH	022RF97	DRE	132MC4	660	162
							PHF	022RF97	DRE	132MC4	560	163
	1.5	46900	982	196900	51190		P	022RF97	DRE	132MC4	640	162
	1.7	41900	878	197000	51190		PF	022RF97	DRE	132MC4	540	163
	1.9	37700	790	197000	51190		PH	022RF97	DRE	132MC4	660	162
	2.0	34100	716	197000	51190		PHF	022RF97	DRE	132MC4	550	163
	2.3	30300	634	197000	51190		P	012RF97	DRE	132MC4	495	156
	1.9	37700	790	156000	36810		PF	012RF97	DRE	132MC4	425	157
	2.0	34100	716	156000	36810		PH	012RF97	DRE	132MC4	510	156
	2.3	30300	634	156000	36810		PHF	012RF97	DRE	132MC4	435	157
	2.6	27300	574	156000	36810		P	012RF87	DRE	132MC4	445	154
	3.0	23200	486	156000	36810		PF	012RF87	DRE	132MC4	375	155
	3.5	20200	425	156000	36810		PH	012RF87	DRE	132MC4	455	154
	4.6	15400	322	156000	36810		PHF	012RF87	DRE	132MC4	385	155
	3.2	22200	466	121300	24830		P	002RF87	DRE	132MC4	365	146
	3.8	18400	387	124000	24830		PF	002RF87	DRE	132MC4	305	147
	4.1	17000	357	124000	24830		PH	002RF87	DRE	132MC4	365	146
	4.6	15300	321	124000	24830		PHF	002RF87	DRE	132MC4	310	147
	5.3	13300	279	124000	24830		P	002RF87	DRE	132MC4	365	146
	5.6	12400	260	124000	24400		PF	002RF87	DRE	132MC4	305	147
	6.3	11100	233	121800	23500		PH	002RF87	DRE	132MC4	365	146
	7.6	9230	193	115200	22500		PHF	002RF87	DRE	132MC4	310	147
	8.2	8520	178	112400	23100		P	002RF87	DRE	132MC4	365	146
	9.2	7660	161	108900	22200		PF	002RF87	DRE	132MC4	305	147
	11	6650	139	104400	20400		PH	002RF87	DRE	132MC4	365	146
	12	5950	125	101000	19500		PHF	002RF87	DRE	132MC4	310	147
	14	4940	104	95500	17400		P	102RF167	DRE	160M4	4590	202
	0.41	211300	3608	850000	500000		PF	102RF167	DRE	160M4	3630	203
	0.46	188000	3210	850000	500000		PH	102RF167	DRE	160M4	4650	202
	0.52	167100	2854	850000	500000		PHF	102RF167	DRE	160M4	3690	203
9.2	0.65	133000	2271	850000	500000		P	092RF167	DRE	160M4	3740	200
	0.40	214100	3656	720000	423000		PF	092RF167	DRE	160M4	3040	201
	0.45	190500	3253	720000	423000		PH	092RF167	DRE	160M4	3750	200
	0.51	169300	2891	720000	423000		PHF	092RF167	DRE	160M4	3050	201
	0.64	134700	2301	720000	423000		P	092RF167	DRE	160M4	3730	200
	0.72	118900	2031	720000	423000		PF	092RF167	DRE	160M4	3030	201
	0.81	105700	1805	720000	423000		PH	092RF167	DRE	160M4	3740	200
							PHF	092RF167	DRE	160M4	3040	201
	0.35	243800	4165	523000	245660		P	072RF147	DRE	160M4	2320	192
	0.54	160800	2747	523000	245660		PF	072RF147	DRE	160M4	1830	193
	0.58	149400	2552	523000	245660		PH	072RF147	DRE	160M4	2370	192
	0.63	136300	2328	523000	245660		PHF	072RF147	DRE	160M4	1880	193
	0.40	217400	3711	412500	185660		P	062RF147	DRE	160M4	1900	190
	0.45	191800	3275	433900	185660		PF	062RF147	DRE	160M4	1530	191
	0.71	121500	2074	473000	185660		PH	062RF147	DRE	160M4	1890	190
							PHF	062RF147	DRE	160M4	1520	191
	0.51	168900	2883	450800	185660		P	062RF137	DRE	160M4	1780	188
	0.84	102000	1741	473000	185660		PF	062RF137	DRE	160M4	1410	189
							PH	062RF137	DRE	160M4	1770	188
							PHF	062RF137	DRE	160M4	1400	189
	0.57	149800	2558	332900	124060		P	052RF137	DRE	160M4	1290	184
	0.63	135900	2321	346100	124060		PF	052RF137	DRE	160M4	1090	185
	0.99	86500	1477	364000	124060		PH	052RF137	DRE	160M4	1280	184
	1.1	75600	1291	364000	124060		PHF	052RF137	DRE	160M4	1090	185

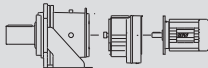
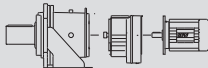
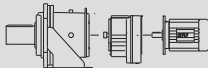
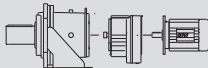
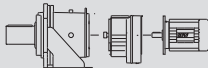
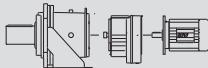


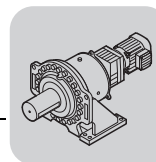
P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]				m [kg]									
9.2	1.1	81000	1383	364000	124060	P	052RF107	DRE	160M4	1190	182							
						PF	052RF107	DRE	160M4	990	183							
						PH	052RF107	DRE	160M4	1180	182							
						PHF	052RF107	DRE	160M4	980	183							
	1.2	70700	1207	364000	124060	P	052RF107	DRE	160M4	1180	182							
						PF	052RF107	DRE	160M4	980	183							
						PH	052RF107	DRE	160M4	1170	182							
						PHF	052RF107	DRE	160M4	970	183							
	0.74	116800	1995	276900	100170	P	042RF137	DRE	160M4	1150	178							
		0.84	102000	1741	293700	100170	PF	042RF137	DRE	160M4	960	179						
			1.4	63900	1092	323000	100170	PH	042RF137	DRE	160M4	1150	178					
								PHF	042RF137	DRE	160M4	960	179					
	0.93	92700	1584	302800	100170	P	042RF107	DRE	160M4	1040	176							
		1.1	81000	1383	313200	100170	PF	042RF107	DRE	160M4	850	177						
							PH	042RF107	DRE	160M4	1050	176						
							PHF	042RF107	DRE	160M4	860	177						
	1.4	63300	1082	323000	100170	P	042RF107	DRE	160M4	1030	176							
		1.5	57200	977	323000	100170	PF	042RF107	DRE	160M4	840	177						
							1.7	51900	887	323000	100170	PH	042RF107	DRE	160M4	1040	176	
												PHF	042RF107	DRE	160M4	850	177	
	1.2	70700	1207	221800	69620	P	032RF107	DRE	160M4	790	170							
		1.4	63300	1082	231000	69620	PF	032RF107	DRE	160M4	670	171						
							1.9	46100	787	248700	69620	PH	032RF107	DRE	160M4	810	170	
												PHF	032RF107	DRE	160M4	690	171	
	2.0	41900	716	252000	69620	P	032RF97	DRE	160M4	740	168							
		2.3	37100	634	252000	69620	PF	032RF97	DRE	160M4	620	169						
							PH	032RF97	DRE	160M4	760	168						
							PHF	032RF97	DRE	160M4	640	169						
	2.4	35900	614	197000	51190	P	022RF107	DRE	160M4	710	164							
		2.7	31300	536	197000	51190	PF	022RF107	DRE	160M4	610	165						
							PH	022RF107	DRE	160M4	720	164						
							PHF	022RF107	DRE	160M4	620	165						
	1.5	57500	982	180700	51190	P	022RF97	DRE	160M4	660	162							
		1.7	51400	878	190500							51190	PF	022RF97	DRE	160M4	560	163
		1.9	46200	790	197000							51190	PH	022RF97	DRE	160M4	680	162
		2.0	41900	716	197000							51190	PHF	022RF97	DRE	160M4	580	163
		2.6	33600	574	197000							51190						
		3.0	28400	486	197000							51190						
	3.8	22700	388	197000	45300	P	022RF87	DRE	160M4	610	160							
						PF	022RF87	DRE	160M4	510	161							
						PH	022RF87	DRE	160M4	630	160							
						PHF	022RF87	DRE	160M4	520	161							
	2.3	37100	634	156000	36810	P	012RF97	DRE	160M4	510	156							
		2.6	33600	574	156000							36810	PF	012RF97	DRE	160M4	445	157
		3.0	28400	486	156000							36810	PH	012RF97	DRE	160M4	530	156
		3.5	24800	425	156000							36810	PHF	012RF97	DRE	160M4	460	157
		4.0	21300	364	156000							36810						
		4.5	19200	329	156000							36810						
		5.3	16300	279	156000							36810						
	4.1	21000	359	156000	36810	P	012RF87	DRE	160M4	465	154							
		4.6	18800	322	156000	36810	PF	012RF87	DRE	160M4	395	155						
							5.2	16300	280	156000	36810	PH	012RF87	DRE	160M4	475	154	
												PHF	012RF87	DRE	160M4	405	155	
	6.0	14200	243	123300	24830	P	002RF97	DRE	160M4	435	148							
						PF	002RF97	DRE	160M4	375	149							
						PH	002RF97	DRE	160M4	440	148							
						PHF	002RF97	DRE	160M4	380	149							

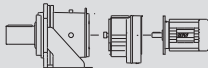


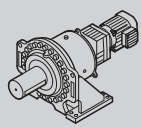
P.RF.. Helical Planetary Gearmotors

IE2 motor standard – selection tables

P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]					m [kg]	
9.2	3.8	22600	387	120700	24830						
	4.1	20900	357	123000	24830						
	4.6	18800	321	124000	24830						
	5.3	16300	279	124000	24830						
	5.9	14600	250	124000	24830						
	7.1	12100	207	117500	24830						
	7.6	11300	193	115200	22500						
	8.2	10400	178	112400	23100						
	9.2	9400	161	108900	22200						
	11	8160	139	104400	20400						
	12	7300	125	101000	19500						
11.0	14	6060	104	95500	17400						
	0.41	251800	3608	850000	500000						
	0.46	224000	3210	850000	500000						
	0.52	199100	2854	850000	500000						
	0.65	158500	2271	850000	500000						
	0.74	139800	2004	850000	500000						
	0.83	124300	1781	850000	500000						
	0.40	255200	3656	720000	423000						
	0.45	227000	3253	720000	423000						
	0.51	201800	2891	720000	423000						
	0.64	160600	2301	720000	423000						
11.0	0.73	141700	2031	720000	423000						
	0.94	109300	1566	720000	423000						
	0.82	125900	1805	720000	423000						
	0.37	281500	4034	683000	359400						
	0.42	244100	3497	683000	359400						
	0.47	220400	3159	523000	245660						
	0.35	290600	4165	497800	245660						
	0.41	251500	3604	523000	245660						
	0.46	221900	3180	523000	245660						
	0.54	191600	2747	523000	245660						
	0.58	178000	2552	523000	245660						
11.0	0.63	162400	2328	523000	245660						
	0.52	197400	2828	429500	185660						
	0.71	144800	2074	466200	185660						
	0.58	178500	2558	443900	185660						
	0.64	162000	2321	455400	185660						
	0.74	139200	1995	469500	185660						
	0.85	121500	1741	473000	185660						
	0.74	139200	1995	343100	124060						
	0.85	121500	1741	358400	124060						
	1.0	103100	1477	364000	124060						
	1.1	90100	1291	364000	124060						
11.0	1.0	103100	1477	292500	100170						
	1.4	76200	1092	317100	100170						
	1.1	96500	1383	299200	100170						
	0.41	251800	3608	850000	500000						
	0.46	224000	3210	850000	500000						
	0.52	199100	2854	850000	500000						
	0.65	158500	2271	850000	500000						
	0.74	139800	2004	850000	500000						
	0.83	124300	1781	850000	500000						
	0.40	255200	3656	720000	423000						
	0.45	227000	3253	720000	423000						

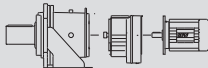


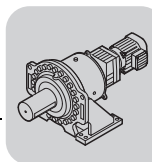
P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]					m [kg]	
11.0	1.2	84200	1207	310500	100170	P	042RF107	DRE	160MC4	1040	176
	1.4	75500	1082	317700	100170	PF	042RF107	DRE	160MC4	850	177
	1.5	68100	977	323000	100170	PH	042RF107	DRE	160MC4	1040	176
	1.7	61900	887	323000	100170	PHF	042RF107	DRE	160MC4	850	177
	1.4	75500	1082	215100	69620	P	032RF107	DRE	160MC4	790	170
	1.5	68100	977	225100	69620	PF	032RF107	DRE	160MC4	670	171
	1.9	54900	787	240300	69620	PH	032RF107	DRE	160MC4	810	170
	2.1	49800	714	245300	69620	PHF	032RF107	DRE	160MC4	690	171
	1.7	61200	878	233500	69620	P	032RF97	DRE	160MC4	750	168
						PF	032RF97	DRE	160MC4	630	169
						PH	032RF97	DRE	160MC4	770	168
						PHF	032RF97	DRE	160MC4	650	169
	2.4	42800	614	197000	51190	P	022RF107	DRE	160MC4	710	164
	2.8	37400	536	197000	51190	PF	022RF107	DRE	160MC4	610	165
						PH	022RF107	DRE	160MC4	730	164
						PHF	022RF107	DRE	160MC4	630	165
	1.9	55100	790	184600	51190	P	022RF97	DRE	160MC4	670	162
	2.1	49900	716	192600	51190	PF	022RF97	DRE	160MC4	560	163
	2.3	44200	634	197000	51190	PH	022RF97	DRE	160MC4	680	162
	2.6	40000	574	197000	51190	PHF	022RF97	DRE	160MC4	580	163
	3.0	33900	486	197000	51190						
	2.6	40000	574	156000	36810						
	3.0	33900	486	156000	36810	P	012RF97	DRE	160MC4	520	156
	3.5	29600	425	156000	36810	PF	012RF97	DRE	160MC4	450	157
	4.0	25400	364	156000	36810	PH	012RF97	DRE	160MC4	530	156
	4.5	22900	329	156000	36810	PHF	012RF97	DRE	160MC4	465	157
	5.3	19400	279	156000	36810						
	6.0	17000	244	152400	36810						
	7.2	14200	204	144400	36810						
	3.8	27100	388	156000	36810						
	4.1	25000	359	156000	36810	P	012RF87	DRE	160MC4	470	154
	4.6	22500	322	156000	36810	PF	012RF87	DRE	160MC4	400	155
	5.3	19500	280	156000	36810	PH	012RF87	DRE	160MC4	480	154
	5.9	17400	251	153700	36810	PHF	012RF87	DRE	160MC4	410	155
	7.1	14500	208	145300	34900						
	4.6	22400	321	121100	24830						
	5.3	19400	279	124000	24830						
	5.9	17400	250	124000	24830						
	7.1	14400	207	117400	24830	P	002RF87	DRE	160MC4	390	146
	7.6	13400	193	115000	22500	PF	002RF87	DRE	160MC4	330	147
	8.3	12400	178	112300	23100	PH	002RF87	DRE	160MC4	390	146
	9.2	11200	161	108800	22200	PHF	002RF87	DRE	160MC4	335	147
	11	9720	139	104300	20400						
	12	8700	125	100900	19500						
	14	7220	104	95400	17400						
15.0	0.41	344600	3608	850000	500000						
	0.46	306600	3210	850000	500000	P	102RF167	DRE	180M4	4640	202
	0.52	272500	2854	850000	500000	PF	102RF167	DRE	180M4	3680	203
	0.65	216800	2271	850000	500000	PH	102RF167	DRE	180M4	4700	202
	0.73	191300	2004	850000	500000	PHF	102RF167	DRE	180M4	3740	203
	0.95	147600	1546	850000	500000						
	1.1	127200	1332	850000	500000						
	0.83	170000	1781	850000	500000	P	102RF167	DRE	180M4	4630	202
						PF	102RF167	DRE	180M4	3670	203
						PH	102RF167	DRE	180M4	4690	202
						PHF	102RF167	DRE	180M4	3730	203
	0.40	349200	3656	720000	423000						
	0.45	310600	3253	720000	423000	P	092RF167	DRE	180M4	3780	200
	0.51	276100	2891	720000	423000	PF	092RF167	DRE	180M4	3080	201
	0.64	219700	2301	720000	423000	PH	092RF167	DRE	180M4	3790	200
	0.72	193900	2031	720000	423000	PHF	092RF167	DRE	180M4	3100	201
	0.94	149500	1566	720000	423000						
	1.1	128900	1350	720000	423000						
	0.81	172300	1805	720000	423000	P	092RF167	DRE	180M4	3780	200
	1.2	115000	1205	720000	423000	PF	092RF167	DRE	180M4	3080	201
						PH	092RF167	DRE	180M4	3790	200
						PHF	092RF167	DRE	180M4	3090	201

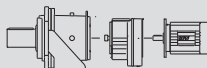


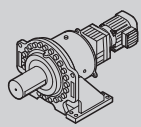
P.RF.. Helical Planetary Gearmotors

IE2 motor standard – selection tables

P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]					m [kg]	
15.0	0.36	385200	4034	630300	359400	P	082RF167	DRE	180M4	3280	198
	0.42	334000	3497	676200	359400	PF	082RF167	DRE	180M4	2630	199
	0.47	297100	3112	683000	359400	PH	082RF167	DRE	180M4	3280	198
	0.53	264100	2766	683000	359400	PHF	082RF167	DRE	180M4	2630	199
	0.58	241500	2530	683000	359400						
	0.64	218900	2293	683000	359400	P	082RF147	DRE	180M4	3020	196
						PF	082RF147	DRE	180M4	2380	197
						PH	082RF147	DRE	180M4	3020	196
						PHF	082RF147	DRE	180M4	2370	197
	0.47	301600	3159	484300	245660	P	072RF167	DRE	180M4	2630	194
	0.57	245100	2568	523000	245660	PF	072RF167	DRE	180M4	2140	195
						PH	072RF167	DRE	180M4	2680	194
						PHF	072RF167	DRE	180M4	2190	195
	0.54	262200	2747	523000	245660	P	072RF147	DRE	180M4	2370	192
	0.58	243600	2552	523000	245660	PF	072RF147	DRE	180M4	1880	193
	0.63	222200	2328	523000	245660	PH	072RF147	DRE	180M4	2420	192
	0.73	192300	2014	523000	245660	PHF	072RF147	DRE	180M4	1930	193
	0.83	169700	1777	523000	245660						
	0.71	198100	2074	428900	185660	P	062RF147	DRE	180M4	1940	190
	0.80	174800	1830	446600	185660	PF	062RF147	DRE	180M4	1580	191
	0.93	150900	1581	462500	185660	PH	062RF147	DRE	180M4	1930	190
	1.0	133500	1398	472700	185660	PHF	062RF147	DRE	180M4	1570	191
	1.2	112200	1175	473000	185660						
	0.84	166300	1741	452500	185660	P	062RF137	DRE	180M4	1820	188
	0.99	141000	1477	468400	185660	PF	062RF137	DRE	180M4	1460	189
	1.1	123300	1291	473000	185660	PH	062RF137	DRE	180M4	1810	188
	1.4	104200	1092	473000	185660	PHF	062RF137	DRE	180M4	1450	189
	1.3	110800	1160	473000	185660	P	062RF137	DRE	180M4	1820	188
						PF	062RF137	DRE	180M4	1450	189
						PH	062RF137	DRE	180M4	1800	188
						PHF	062RF137	DRE	180M4	1440	189
	0.99	141000	1477	341400	124060	P	052RF137	DRE	180M4	1340	184
	1.1	123300	1291	356900	124060	PF	052RF137	DRE	180M4	1140	185
	1.4	104200	1092	364000	124060	PH	052RF137	DRE	180M4	1330	184
						PHF	052RF137	DRE	180M4	1130	185
	1.6	90300	946	364000	124060	P	052RF137	DRE	180M4	1330	184
	1.7	82400	863	364000	124060	PF	052RF137	DRE	180M4	1130	185
						PH	052RF137	DRE	180M4	1320	184
						PHF	052RF137	DRE	180M4	1120	185
	1.4	104200	1092	291300	100170	P	042RF137	DRE	180M4	1200	178
						PF	042RF137	DRE	180M4	1010	179
						PH	042RF137	DRE	180M4	1200	178
						PHF	042RF137	DRE	180M4	1010	179
	1.6	90300	946	305100	100170	P	042RF137	DRE	180M4	1190	178
	1.7	82400	863	312100	100170	PF	042RF137	DRE	180M4	1000	179
	2.0	71300	747	320900	100170	PH	042RF137	DRE	180M4	1190	178
						PHF	042RF137	DRE	180M4	1000	179
	1.5	93300	977	302300	100170	P	042RF107	DRE	180M4	1080	176
	1.7	84700	887	310100	100170	PF	042RF107	DRE	180M4	890	177
	1.9	75100	787	317900	100170	PH	042RF107	DRE	180M4	1090	176
	2.1	68200	714	323000	100170	PHF	042RF107	DRE	180M4	900	177
	2.4	58600	614	323000	100170						
	1.9	75100	787	215600	69620	P	032RF107	DRE	180M4	840	170
	2.1	68200	714	225100	69620	PF	032RF107	DRE	180M4	720	171
	2.4	58600	614	236400	69620	PH	032RF107	DRE	180M4	860	170
	2.7	51100	536	244100	69620	PHF	032RF107	DRE	180M4	740	171
	3.2	43400	455	251000	69620						
	3.0	46400	486	248400	69620	P	032RF97	DRE	180M4	790	168
						PF	032RF97	DRE	180M4	670	169
						PH	032RF97	DRE	180M4	810	168
						PHF	032RF97	DRE	180M4	690	169
	2.4	58600	614	178700	51190	P	022RF107	DRE	180M4	760	164
	2.7	51100	536	190800	51190	PF	022RF107	DRE	180M4	660	165
	3.2	43400	455	197000	51190	PH	022RF107	DRE	180M4	770	164
	3.7	37900	397	197000	51190	PHF	022RF107	DRE	180M4	670	165
	4.4	32000	336	197000	51190						

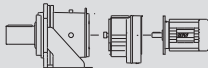


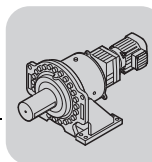
P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]						m [kg]																											
15.0	3.0	46400	486	197000	51190	P PF PH PHF	022RF97	DRE	180M4	710	162																											
	3.5	40500	425	197000	51190							180M4	610	163																								
	4.0	34700	364	197000	51190										180M4	730	162																					
	4.5	31400	329	197000	51190													180M4	620	163																		
	5.3	26600	279	197000	51190																180M4																	
	3.5	40500	425	156000	36810	P PF PH PHF	012RF97	DRE	180M4	560	156																											
	4.0	34700	364	156000	36810							180M4	495	157																								
	4.5	31400	329	156000	36810										180M4	580	156																					
	5.3	26600	279	156000	36810													180M4	510	157																		
	6.0	23200	244	152500	36810																180M4																	
	7.2	19400	204	144600	36810																			180M4														
	8.3	16800	177	138400	36810																						180M4											
	8.7	16100	169	136600	36810																									180M4								
	10	13600	143	130000	36810																												180M4					
	12	11900	125	124800	36810																															180M4		
	14	9980	105	118300	35000																																	
	6.0	23100	243	120000	24830	P PF PH PHF	002RF97	DRE	180M4	485	148																											
	7.2	19400	203	116900	24830							180M4	425	149																								
	8.1	17300	181	112900	24830										180M4	485	148																					
	8.4	16700	176	111900	24830													180M4	430	149																		
	9.0	15600	164	109600	24830																180M4																	
	11	13200	139	104300	24830																			180M4														
	12	11500	121	100100	24830																						180M4											
	14	9690	102	94900	24830																									180M4								
	17	8390	88	90900	24830																												180M4					
	14	9880	104	95500	17400																															P PF PH PHF	002RF87	DRE
					180M4	375	147																															
								180M4	435	146																												
											180M4	380	147																									
	18.5	0.46	378100	3210										850000	500000	P PF PH PHF	102RF167	DRE	180L4	4650																202		
0.52		336100	2854	850000	500000	180L4	3690							203																								
0.65		267400	2271	850000	500000			180L4	4710	202																												
0.73		236000	2004	850000	500000						180L4	3750	203																									
0.95		182000	1546	850000	500000										180L4																							
1.1		156900	1332	850000	500000											P PF PH PHF	102RF167	DRE	180L4	4640			202															
1.2		140000	1189	850000	500000	180L4	3680							203																								
					180L4			4700	202																													
										180L4	3740	203																										
													180L4																									
0.45		383100	3253	720000												423000	P PF PH PHF	092RF167	DRE	180L4		3790	200															
0.51		340600	2891	720000		423000	180L4							3100		201																						
0.64		271000	2301	720000	423000	180L4		3800	200																													
0.72		239100	2031	720000	423000					180L4	3110	201																										
0.94		184500	1566	720000	423000								180L4																									
1.1		159000	1350	720000	423000												P PF PH PHF	092RF167	DRE	180L4		3790	200															
1.2		141900	1205	720000	423000		180L4							3090		201																						
1.5		113500	964	720000	423000	180L4		3800	200																													
					180L4					3100	201																											
												180L4																										
0.42		411900	3497	603100													359400	P PF PH PHF	082RF167	DRE	180L4	3290	198															
0.47		366500	3112	648000			359400							180L4		2640	199																					
0.53		325800	2766	681600		359400	180L4	3290	198																													
0.58		297900	2530	683000	359400	180L4				2640	199																											
0.67		259200	2201	683000	359400							180L4																										
0.76		228800	1943	683000	359400																			180L4														
0.87		198300	1684	683000	359400																						180L4											
0.64		270000	2293	683000	359400																									P PF PH PHF	082RF147	DRE	180L4	3040	196			
					180L4													2390	197																			
														180L4		3030	196																					
				180L4			2380	197																														
0.57	302300	2568	483400			245660			P PF PH PHF	072RF167	DRE									180L4	2640	194																
0.97	179100	1521	523000		245660	180L4						2150	195																									
					180L4									2690	194																							
				180L4			2200	195																														

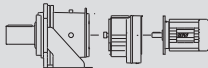


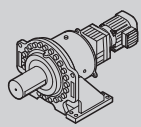
P.RF.. Helical Planetary Gearmotors

IE2 motor standard – selection tables

P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]					m [kg]	
18.5	0.63	274000	2328	516600	245660						
	0.73	237200	2014	523000	245660	P	072RF147	DRE	180L4	2380	192
	0.83	209300	1777	523000	245660	PF	072RF147	DRE	180L4	1890	193
	0.96	180700	1535	523000	245660	PH	072RF147	DRE	180L4	2430	192
	1.1	159800	1358	523000	245660	PHF	072RF147	DRE	180L4	1940	193
	1.3	134300	1141	523000	245660						
	0.80	215600	1830	414100	185660	P	062RF147	DRE	180L4	1960	190
	0.93	186200	1581	438300	185660	PF	062RF147	DRE	180L4	1590	191
	1.0	164700	1398	453600	185660	PH	062RF147	DRE	180L4	1940	190
	1.2	138400	1175	470000	185660	PHF	062RF147	DRE	180L4	1580	191
	1.6	111800	949	473000	185660						
	0.99	174000	1477	447200	185660	P	062RF137	DRE	180L4	1840	188
	1.1	152000	1291	461800	185660	PF	062RF137	DRE	180L4	1470	189
	1.4	128600	1092	473000	185660	PH	062RF137	DRE	180L4	1820	188
						PHF	062RF137	DRE	180L4	1460	189
	1.3	136600	1160	471000	185660	P	062RF137	DRE	180L4	1830	188
	1.6	111400	946	473000	185660	PF	062RF137	DRE	180L4	1460	189
	1.7	101600	863	473000	185660	PH	062RF137	DRE	180L4	1820	188
						PHF	062RF137	DRE	180L4	1450	189
	1.4	128600	1092	352600	124060	P	052RF137	DRE	180L4	1350	184
						PF	052RF137	DRE	180L4	1150	185
						PH	052RF137	DRE	180L4	1340	184
						PHF	052RF137	DRE	180L4	1140	185
	1.6	111400	946	364000	124060	P	052RF137	DRE	180L4	1340	184
	1.7	101600	863	364000	124060	PF	052RF137	DRE	180L4	1140	185
	2.0	87900	747	364000	124060	PH	052RF137	DRE	180L4	1330	184
	2.2	77600	659	364000	124060	PHF	052RF137	DRE	180L4	1130	185
	2.1	84100	714	364000	124060	P	052RF107	DRE	180L4	1240	182
	2.4	72300	614	364000	124060	PF	052RF107	DRE	180L4	1040	183
						PH	052RF107	DRE	180L4	1230	182
						PHF	052RF107	DRE	180L4	1030	183
	1.6	111400	946	283300	100170	P	042RF137	DRE	180L4	1200	178
	1.7	101600	863	294000	100170	PF	042RF137	DRE	180L4	1010	179
	2.0	87900	747	307200	100170	PH	042RF137	DRE	180L4	1200	178
	2.6	67000	569	323000	100170	PHF	042RF137	DRE	180L4	1010	179
	1.9	92700	787	302900	100170	P	042RF107	DRE	180L4	1100	176
	2.1	84100	714	310600	100170	PF	042RF107	DRE	180L4	910	177
	2.4	72300	614	320100	100170	PH	042RF107	DRE	180L4	1100	176
	2.7	63100	536	323000	100170	PHF	042RF107	DRE	180L4	910	177
	3.2	53500	455	323000	100170						
	2.4	72300	614	219600	69620	P	032RF107	DRE	180L4	850	170
	2.7	63100	536	231300	69620	PF	032RF107	DRE	180L4	730	171
	3.2	53500	455	241700	69620	PH	032RF107	DRE	180L4	870	170
	3.7	46800	397	248100	69620	PHF	032RF107	DRE	180L4	750	171
	4.4	39500	336	249100	69620						
	4.5	38700	329	247600	69620	P	032RF97	DRE	180L4	800	168
	5.3	32800	279	235500	69620	PF	032RF97	DRE	180L4	680	169
						PH	032RF97	DRE	180L4	820	168
						PHF	032RF97	DRE	180L4	700	169
	3.2	53500	455	187200	51190						
	3.7	46800	397	197000	51190	P	022RF107	DRE	180L4	770	164
	4.4	39500	336	197000	51190	PF	022RF107	DRE	180L4	670	165
	4.8	36300	308	197000	51190	PH	022RF107	DRE	180L4	780	164
	5.6	30700	261	197000	51190	PHF	022RF107	DRE	180L4	680	165
	6.4	26900	228	197000	51190						
	7.6	22700	193	197000	51190						
	4.0	42900	364	197000	51190						
	4.5	38700	329	197000	51190	P	022RF97	DRE	180L4	720	162
	5.3	32800	279	197000	51190	PF	022RF97	DRE	180L4	620	163
	6.0	28700	244	197000	51190	PH	022RF97	DRE	180L4	740	162
	7.2	24000	204	197000	51190	PHF	022RF97	DRE	180L4	640	163
	8.3	20700	177	197000	51190						
	8.7	19800	169	197000	40000						
	8.5	20200	172	137400	36810	P	012RF107	DRE	180L4	620	158
	9.3	18600	158	133900	36810	PF	012RF107	DRE	180L4	550	159
	11	15700	134	127500	36810	PH	012RF107	DRE	180L4	630	158
	13	13700	117	122400	36810	PHF	012RF107	DRE	180L4	560	159

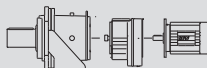


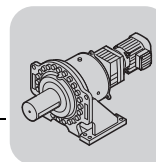
P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]		m [kg]	
18.5	4.5	38700	329	156000	36810			
	5.3	32800	279	156000	36810			
	6.0	28700	244	152500	36810			
	7.2	24000	204	144600	36810	P 012RF97 DRE 180L4	570	156
	8.3	20700	177	138400	36810	PF 012RF97 DRE 180L4	500	157
	8.7	19800	169	136600	36810	PH 012RF97 DRE 180L4	590	156
	10	16800	143	130000	36810	PHF 012RF97 DRE 180L4	520	157
	12	14700	125	124800	36810			
	14	12300	105	118300	35000			
	16	10600	91	113300	32100			
	7.2	23900	203	116900	24830			
	8.4	20700	176	111900	24830	P 002RF97 DRE 180L4	495	148
	9.0	19300	164	109600	24830	PF 002RF97 DRE 180L4	435	149
	11	16300	139	104300	24830	PH 002RF97 DRE 180L4	500	148
	12	14200	121	100100	24830	PHF 002RF97 DRE 180L4	440	149
	14	11900	102	94900	24830			
	17	10300	88	90900	24830			
22	0.46	446600	3210	850000	500000			
	0.52	397000	2854	850000	500000	P 102RF167 DRE 180LC4	4660	202
	0.65	315900	2271	850000	500000	PF 102RF167 DRE 180LC4	3700	203
	0.74	278800	2004	850000	500000	PH 102RF167 DRE 180LC4	4720	202
	0.96	215000	1546	850000	500000	PHF 102RF167 DRE 180LC4	3760	203
	1.1	185300	1332	850000	500000			
	1.2	165400	1189	850000	500000	P 102RF167 DRE 180LC4	4650	202
	1.6	132300	951	850000	500000	PF 102RF167 DRE 180LC4	3690	203
						PH 102RF167 DRE 180LC4	4710	202
						PHF 102RF167 DRE 180LC4	3750	203
	0.45	452600	3253	720000	423000			
	0.51	402300	2891	720000	423000	P 092RF167 DRE 180LC4	3800	200
	0.64	320100	2301	720000	423000	PF 092RF167 DRE 180LC4	3100	201
	0.73	282500	2031	720000	423000	PH 092RF167 DRE 180LC4	3810	200
	0.94	217900	1566	720000	423000	PHF 092RF167 DRE 180LC4	3120	201
	1.1	187800	1350	720000	423000			
	1.2	167600	1205	720000	423000	P 092RF167 DRE 180LC4	3800	200
	1.5	134100	964	720000	423000	PF 092RF167 DRE 180LC4	3100	201
	1.7	119200	857	720000	423000	PH 092RF167 DRE 180LC4	3810	200
	2.0	103900	747	720000	423000	PHF 092RF167 DRE 180LC4	3110	201
	0.54	384800	2766	630800	359400			
	0.59	351900	2530	661100	359400	P 082RF167 DRE 180LC4	3300	198
	0.67	306200	2201	683000	359400	PF 082RF167 DRE 180LC4	2650	199
	0.76	270200	1943	683000	359400	PH 082RF167 DRE 180LC4	3300	198
	0.88	234200	1684	683000	359400	PHF 082RF167 DRE 180LC4	2650	199
	0.99	208400	1498	683000	359400			
	1.2	179600	1291	683000	359400			
	0.65	319000	2293	683000	359400	P 082RF147 DRE 180LC4	3040	196
	0.85	243600	1751	683000	359400	PF 082RF147 DRE 180LC4	2400	197
	0.98	210300	1512	683000	359400	PH 082RF147 DRE 180LC4	3040	196
	1.1	186000	1338	683000	359400	PHF 082RF147 DRE 180LC4	2390	197
	1.3	156300	1141	683000	359400			
	0.97	211500	1521	523000	245660	P 072RF167 DRE 180LC4	2650	194
	1.4	148100	1065	523000	245660	PF 072RF167 DRE 180LC4	2160	195
						PH 072RF167 DRE 180LC4	2700	194
						PHF 072RF167 DRE 180LC4	2210	195
	0.73	280100	2014	509900	245660	P 072RF147 DRE 180LC4	2390	192
	0.83	247200	1777	523000	245660	PF 072RF147 DRE 180LC4	1900	193
	1.1	188800	1358	523000	245660	PH 072RF147 DRE 180LC4	2440	192
	1.3	158700	1141	523000	245660	PHF 072RF147 DRE 180LC4	1950	193
	1.6	128100	922	523000	245660			
	0.94	219900	1581	410200	185660	P 062RF147 DRE 180LC4	1960	190
	1.1	194500	1398	431800	185660	PF 062RF147 DRE 180LC4	1600	191
	1.3	163400	1175	454400	185660	PH 062RF147 DRE 180LC4	1950	190
	1.6	132000	949	473000	185660	PHF 062RF147 DRE 180LC4	1590	191
	1.8	111500	802	473000	185660	P 062RF147 DRE 180LC4	1950	190
						PF 062RF147 DRE 180LC4	1590	191
						PH 062RF147 DRE 180LC4	1940	190
						PHF 062RF147 DRE 180LC4	1580	191

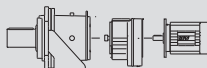


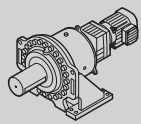
P.RF.. Helical Planetary Gearmotors

IE2 motor standard – selection tables

P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]						m [kg]				
22	1.4	151800	1092	461900	185660	P	062RF137	DRE	180LC4	1840	188				
						PF	062RF137	DRE	180LC4	1480	189				
						PH	062RF137	DRE	180LC4	1830	188				
						PHF	062RF137	DRE	180LC4	1470	189				
	1.7	120000	863	473000	185660	P	062RF137	DRE	180LC4	1840	188				
	2.0	103900	747	473000	185660	PF	062RF137	DRE	180LC4	1470	189				
	2.2	91700	659	473000	185660	PH	062RF137	DRE	180LC4	1820	188				
						PHF	062RF137	DRE	180LC4	1460	189				
	1.6	131600	946	349900	124060	P	052RF137	DRE	180LC4	1350	184				
	1.7	120000	863	359500	124060		PF	052RF137	DRE	180LC4	1150	185			
	2.0	103900	747	364000	124060		PH	052RF137	DRE	180LC4	1340	184			
	2.2	91700	659	364000	124060		PHF	052RF137	DRE	180LC4	1140	185			
	2.6	79200	569	364000	124060										
	2.9	70000	503	364000	124060										
	2.8	74500	536	364000	124060	P	052RF107	DRE	180LC4	1250	182				
	3.3	63200	455	364000	124060	PF	052RF107	DRE	180LC4	1050	183				
						PH	052RF107	DRE	180LC4	1240	182				
						PHF	052RF107	DRE	180LC4	1040	183				
	2.0	103900	747	291700	100170	P	042RF137	DRE	180LC4	1210	178				
	2.6	79200	569	314700	100170	PF	042RF137	DRE	180LC4	1020	179				
	3.5	58800	423	323000	100170	PH	042RF137	DRE	180LC4	1210	178				
						PHF	042RF137	DRE	180LC4	1020	179				
	2.1	99400	714	296400	100170	P	042RF107	DRE	180LC4	1100	176				
	2.4	85400	614	309500	100170		PF	042RF107	DRE	180LC4	910	177			
	2.8	74500	536	318400	100170		PH	042RF107	DRE	180LC4	1110	176			
	3.3	63200	455	323000	100170		PHF	042RF107	DRE	180LC4	920	177			
	3.7	55200	397	323000	100170										
	2.8	74500	536	216500	69620	P	032RF107	DRE	180LC4	860	170				
	3.3	63200	455	231200	69620					PF	032RF107	DRE	180LC4	740	171
	3.7	55200	397	240000	69620					PH	032RF107	DRE	180LC4	880	170
	4.4	46700	336	248200	69620					PHF	032RF107	DRE	180LC4	760	171
	4.8	42800	308	242200	69620										
	5.7	36300	261	230500	69620										
	6.5	31700	228	221300	69620										
	3.7	55200	397	184400	51190	P	022RF107	DRE	180LC4	780	164				
	4.4	46700	336	197000	51190					PF	022RF107	DRE	180LC4	680	165
	4.8	42800	308	197000	51190					PH	022RF107	DRE	180LC4	790	164
	5.7	36300	261	197000	51190					PHF	022RF107	DRE	180LC4	690	165
	6.5	31700	228	197000	51190										
	7.7	26800	193	197000	51190										
	8.6	23900	172	197000	51190										
	9.4	21900	158	197000	51190										
	4.5	45800	329	197000	51190					P	022RF97	DRE	180LC4	730	162
	5.3	38800	279	197000	51190	PF	022RF97	DRE	180LC4	630	163				
	6.1	33900	244	197000	51190	PH	022RF97	DRE	180LC4	750	162				
	7.3	28300	204	197000	51190	PHF	022RF97	DRE	180LC4	640	163				
	8.4	24500	177	197000	51190										
	8.6	23900	172	137200	36810	P	012RF107	DRE	180LC4	630	158				
	9.4	21900	158	133600	36810					PF	012RF107	DRE	180LC4	560	159
	11	18600	134	127200	36810					PH	012RF107	DRE	180LC4	640	158
	13	16200	117	122100	36810					PHF	012RF107	DRE	180LC4	570	159
	15	13700	99	116200	36810										
	6.1	33900	244	152200	36810	P	012RF97	DRE	180LC4	580	156				
	7.3	28300	204	144300	36810					PF	012RF97	DRE	180LC4	510	157
	8.4	24500	177	138200	36810					PH	012RF97	DRE	180LC4	600	156
	8.8	23400	169	136300	36810					PHF	012RF97	DRE	180LC4	530	157
	10	19900	143	129700	36810										
	12	17300	125	124600	36810										
	14	14500	105	118100	35000										
	16	12500	91	113100	32100										
	9.0	22800	164	109400	24830					P	002RF97	DRE	180LC4	500	148
	11	19300	139	104100	24830					PF	002RF97	DRE	180LC4	445	149
	12	16800	121	99900	24830	PH	002RF97	DRE	180LC4	510	148				
	15	14100	102	94700	24830	PHF	002RF97	DRE	180LC4	450	149				
	17	12200	88	90700	24830										

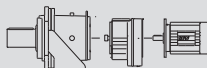


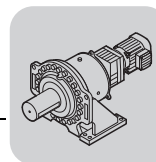
P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]						m [kg]	
30	0.46	611100	3210	804000	500000							
	0.52	543200	2854	850000	500000	P	102RF167	DRE	200L4	4760	202	
	0.65	432200	2271	850000	500000	PF	102RF167	DRE	200L4	3800	203	
	0.74	381400	2004	850000	500000	PH	102RF167	DRE	200L4	4820	202	
	0.95	294200	1546	850000	500000	PHF	102RF167	DRE	200L4	3860	203	
	1.1	253600	1332	850000	500000							
	1.2	226300	1189	850000	500000	P	102RF167	DRE	200L4	4750	202	
	1.6	181000	951	850000	500000	PF	102RF167	DRE	200L4	3790	203	
	1.7	161000	846	850000	500000	PH	102RF167	DRE	200L4	4810	202	
	2.0	140200	737	850000	500000	PHF	102RF167	DRE	200L4	3850	203	
	2.2	125100	657	850000	500000							
	0.64	438000	2301	720000	423000	P	092RF167	DRE	200L4	3900	200	
	0.73	386500	2031	720000	423000	PF	092RF167	DRE	200L4	3200	201	
	0.94	298100	1566	720000	423000	PH	092RF167	DRE	200L4	3910	200	
	1.1	257000	1350	720000	423000	PHF	092RF167	DRE	200L4	3220	201	
	1.2	229300	1205	720000	423000							
	1.5	183400	964	720000	423000	P	092RF167	DRE	200L4	3900	200	
	1.7	163100	857	720000	423000	PF	092RF167	DRE	200L4	3200	201	
	2.0	142100	747	720000	423000	PH	092RF167	DRE	200L4	3910	200	
	2.2	126800	666	720000	423000	PHF	092RF167	DRE	200L4	3210	201	
	2.6	108100	568	720000	423000							
	0.67	419000	2201	595400	359400							
	0.76	369700	1943	645100	359400	P	082RF167	DRE	200L4	3400	198	
	0.88	320500	1684	683000	359400	PF	082RF167	DRE	200L4	2750	199	
	0.98	285200	1498	683000	359400	PH	082RF167	DRE	200L4	3400	198	
	1.1	245800	1291	683000	359400	PHF	082RF167	DRE	200L4	2750	199	
	1.4	199700	1049	683000	359400							
	0.97	289400	1521	499100	245660	P	072RF167	DRE	200L4	2750	194	
	1.4	202700	1065	523000	245660	PF	072RF167	DRE	200L4	2260	195	
						PH	072RF167	DRE	200L4	2800	194	
						PHF	072RF167	DRE	200L4	2310	195	
	1.1	258400	1358	523000	245660	P	072RF147	DRE	200L4	2490	192	
	1.3	217100	1141	523000	245660	PF	072RF147	DRE	200L4	2000	193	
	1.6	175400	922	523000	245660	PH	072RF147	DRE	200L4	2540	192	
						PHF	072RF147	DRE	200L4	2050	193	
	1.9	148100	779	523000	245660	P	072RF147	DRE	200L4	2470	192	
						PF	072RF147	DRE	200L4	1980	193	
						PH	072RF147	DRE	200L4	2530	192	
						PHF	072RF147	DRE	200L4	2040	193	
	1.6	180600	949	442400	185660	P	062RF147	DRE	200L4	2060	190	
						PF	062RF147	DRE	200L4	1700	191	
						PH	062RF147	DRE	200L4	2050	190	
						PHF	062RF147	DRE	200L4	1690	191	
	1.8	152600	802	461400	185660	P	062RF147	DRE	200L4	2050	190	
	2.1	134700	708	472100	185660	PF	062RF147	DRE	200L4	1690	191	
	2.4	116700	614	473000	185660	PH	062RF147	DRE	200L4	2040	190	
						PHF	062RF147	DRE	200L4	1680	191	
	1.7	164300	863	453900	185660	P	062RF137	DRE	200L4	1930	188	
	2.0	142200	747	467800	185660	PF	062RF137	DRE	200L4	1570	189	
	2.2	125400	659	473000	185660	PH	062RF137	DRE	200L4	1920	188	
	2.6	108300	569	473000	185660	PHF	062RF137	DRE	200L4	1560	189	
	2.9	95800	503	473000	185660							
	2.0	142200	747	340400	124060	P	052RF137	DRE	200L4	1450	184	
	2.2	125400	659	355200	124060	PF	052RF137	DRE	200L4	1250	185	
	2.6	108300	569	364000	124060	PH	052RF137	DRE	200L4	1440	184	
	2.9	95800	503	364000	124060	PHF	052RF137	DRE	200L4	1240	185	
	3.5	80500	423	364000	124060							
	2.6	108300	569	286800	100170	P	042RF137	DRE	200L4	1300	178	
	3.5	80500	423	313600	100170	PF	042RF137	DRE	200L4	1120	179	
	4.3	65000	342	308800	100170	PH	042RF137	DRE	200L4	1310	178	
	5.0	56600	298	296400	100170	PHF	042RF137	DRE	200L4	1120	179	
	5.9	47600	250	281400	100170							
	2.8	102000	536	293700	100170	P	042RF107	DRE	200L4	1200	176	
	3.2	86500	455	308500	100170	PF	042RF107	DRE	200L4	1010	177	
	3.7	75600	397	317600	100170	PH	042RF107	DRE	200L4	1210	176	
	4.4	63900	336	307300	100170	PHF	042RF107	DRE	200L4	1020	177	
	4.8	58600	308	299400	100170							
	5.6	49700	261	285100	100170							

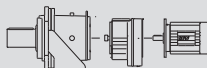


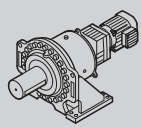
P.RF.. Helical Planetary Gearmotors

IE2 motor standard – selection tables

P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]						m [kg]	
30	3.7	75600	397	215000	69620							
	4.4	63900	336	230300	69620							
	4.8	58600	308	236400	69620							
	5.6	49700	261	230700	69620							
	6.4	43400	228	221600	69620	P	032RF107	DRE	200L4	960	170	
	7.6	36700	193	210800	69620	PF	032RF107	DRE	200L4	840	171	
	8.6	32700	172	203600	69620	PH	032RF107	DRE	200L4	980	170	
	9.3	30000	158	198300	58500	PHF	032RF107	DRE	200L4	860	171	
	11	25500	134	188800	58500							
	13	22200	117	181300	58500							
	15	18800	99	172400	57100							
	16	17200	91	167800	32100	P	032RF97	DRE	200L4	910	168	
						PF	032RF97	DRE	200L4	790	169	
						PH	032RF97	DRE	200L4	930	168	
						PHF	032RF97	DRE	200L4	810	169	
	4.8	58600	308	178700	51190							
	5.6	49700	261	192900	51190	P	022RF107	DRE	200L4	880	164	
	6.4	43400	228	197000	51190	PF	022RF107	DRE	200L4	770	165	
	7.6	36700	193	197000	51190	PH	022RF107	DRE	200L4	890	164	
	8.6	32700	172	197000	51190	PHF	022RF107	DRE	200L4	790	165	
	9.3	30000	158	197000	51190							
	8.6	32700	172	137300	36810	P	012RF107	DRE	200L4	730	158	
	9.3	30000	158	133800	36810	PF	012RF107	DRE	200L4	660	159	
	11	25500	134	127300	36810	PH	012RF107	DRE	200L4	740	158	
	13	22200	117	122300	36810	PHF	012RF107	DRE	200L4	670	159	
	15	18800	99	116300	36810							
	16	17200	91	113200	32100	P	012RF97	DRE	200L4	680	156	
						PF	012RF97	DRE	200L4	610	157	
						PH	012RF97	DRE	200L4	700	156	
						PHF	012RF97	DRE	200L4	630	157	
	11	24700	130	102100	24830	P	002RF107	DRE	200L4	650	150	
	13	21600	114	98100	24830	PF	002RF107	DRE	200L4	590	151	
	15	18300	96	93300	24830	PH	002RF107	DRE	200L4	650	150	
						PHF	002RF107	DRE	200L4	590	151	
	17	16700	88	90800	24830	P	002RF97	DRE	200L4	600	148	
						PF	002RF97	DRE	200L4	540	149	
						PH	002RF97	DRE	200L4	610	148	
						PHF	002RF97	DRE	200L4	550	149	
37	0.65	532400	2271	850000	500000	P	102RF167	DRE	225S4	4790	202	
	0.74	469800	2004	850000	500000	PF	102RF167	DRE	225S4	3830	203	
	0.96	362400	1546	850000	500000	PH	102RF167	DRE	225S4	4850	202	
	1.1	312300	1332	850000	500000	PHF	102RF167	DRE	225S4	3890	203	
	1.2	278700	1189	850000	500000							
	1.6	223000	951	850000	500000	P	102RF167	DRE	225S4	4780	202	
	1.8	198300	846	850000	500000	PF	102RF167	DRE	225S4	3820	203	
	2.0	172700	737	850000	500000	PH	102RF167	DRE	225S4	4840	202	
	2.2	154100	657	850000	500000	PHF	102RF167	DRE	225S4	3880	203	
	2.6	131400	561	850000	500000							
	0.73	476100	2031	706100	423000	P	092RF167	DRE	225S4	3930	200	
	0.94	367200	1566	720000	423000	PF	092RF167	DRE	225S4	3240	201	
	1.1	316500	1350	720000	423000	PH	092RF167	DRE	225S4	3950	200	
						PHF	092RF167	DRE	225S4	3250	201	
	1.2	282500	1205	720000	423000							
	1.5	226000	964	720000	423000	P	092RF167	DRE	225S4	3930	200	
	1.7	200900	857	720000	423000	PF	092RF167	DRE	225S4	3230	201	
	2.0	175100	747	720000	423000	PH	092RF167	DRE	225S4	3940	200	
	2.2	156200	666	720000	423000	PHF	092RF167	DRE	225S4	3240	201	
	2.6	133100	568	720000	423000							
	3.1	110300	470	720000	423000							
	0.88	394800	1684	620900	359400	P	082RF167	DRE	225S4	3440	198	
	0.99	351200	1498	661600	359400	PF	082RF167	DRE	225S4	2780	199	
	1.1	302700	1291	683000	359400	PH	082RF167	DRE	225S4	3430	198	
	1.4	246000	1049	683000	359400	PHF	082RF167	DRE	225S4	2780	199	
	1.7	208600	890	683000	359400							
	1.8	192200	820	683000	359400	P	082RF167	DRE	225S4	3430	198	
						PF	082RF167	DRE	225S4	2780	199	
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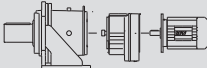


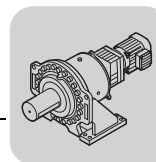
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37	1.4	249600	1065	523000	245660	P	072RF167	DRE	225S4	2780	194	
						PF	072RF167	DRE	225S4	2290	195	
						PH	072RF167	DRE	225S4	2830	194	
						PHF	072RF167	DRE	225S4	2340	195	
	1.6	216000	922	523000	245660	P	072RF147	DRE	225S4	2520	192	
						PF	072RF147	DRE	225S4	2030	193	
						PH	072RF147	DRE	225S4	2570	192	
						PHF	072RF147	DRE	225S4	2080	193	
	1.9	182500	779	523000	245660	P	072RF147	DRE	225S4	2510	192	
						PF	072RF147	DRE	225S4	2020	193	
						PH	072RF147	DRE	225S4	2560	192	
						PHF	072RF147	DRE	225S4	2070	193	
	2.2	161000	687	523000	245660	P	072RF147	DRE	225S4	2510	192	
						PF	072RF147	DRE	225S4	2020	193	
						PH	072RF147	DRE	225S4	2560	192	
						PHF	072RF147	DRE	225S4	2070	193	
	1.8	188000	802	436900	185660	P	062RF147	DRE	225S4	2080	190	
						PF	062RF147	DRE	225S4	1720	191	
						PH	062RF147	DRE	225S4	2070	190	
						PHF	062RF147	DRE	225S4	1710	191	
	2.1	165900	708	452800	185660	P	062RF147	DRE	225S4	2080	190	
						PF	062RF147	DRE	225S4	1720	191	
						PH	062RF147	DRE	225S4	2070	190	
						PHF	062RF147	DRE	225S4	1710	191	
	2.4	143800	614	466800	185660	P	062RF147	DRE	225S4	2080	190	
						PF	062RF147	DRE	225S4	1720	191	
						PH	062RF147	DRE	225S4	2070	190	
						PHF	062RF147	DRE	225S4	1710	191	
	2.7	127900	546	473000	185660	P	062RF147	DRE	225S4	2080	190	
						PF	062RF147	DRE	225S4	1720	191	
						PH	062RF147	DRE	225S4	2070	190	
						PHF	062RF147	DRE	225S4	1710	191	
	2.0	175100	747	446400	185660	P	062RF137	DRE	225S4	1970	188	
						PF	062RF137	DRE	225S4	1600	189	
						PH	062RF137	DRE	225S4	1960	188	
						PHF	062RF137	DRE	225S4	1590	189	
	2.2	154500	659	460200	185660	P	062RF137	DRE	225S4	1970	188	
						PF	062RF137	DRE	225S4	1600	189	
						PH	062RF137	DRE	225S4	1960	188	
						PHF	062RF137	DRE	225S4	1590	189	
	2.6	133400	569	472800	185660	P	062RF137	DRE	225S4	1970	188	
						PF	062RF137	DRE	225S4	1600	189	
						PH	062RF137	DRE	225S4	1960	188	
						PHF	062RF137	DRE	225S4	1590	189	
	2.9	118000	503	473000	185660	P	062RF137	DRE	225S4	1970	188	
						PF	062RF137	DRE	225S4	1600	189	
						PH	062RF137	DRE	225S4	1960	188	
						PHF	062RF137	DRE	225S4	1590	189	
	3.5	99200	423	473000	185660	P	062RF137	DRE	225S4	1970	188	
						PF	062RF137	DRE	225S4	1600	189	
						PH	062RF137	DRE	225S4	1960	188	
						PHF	062RF137	DRE	225S4	1590	189	
	2.6	133400	569	348300	124060	P	052RF137	DRE	225S4	1480	184	
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						PH	052RF137	DRE	225S4	1480	184	
						PHF	052RF137	DRE	225S4	1280	185	
2.9	118000	503	361100	124060	P	052RF137	DRE	225S4	1480	184		
					PF	052RF137	DRE	225S4	1280	185		
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					PHF	052RF137	DRE	225S4	1280	185		
3.5	99200	423	296600	100170	P	052RF137	DRE	225S4	1480	184		
					PF	052RF137	DRE	225S4	1280	185		
					PH	052RF137	DRE	225S4	1480	184		
					PHF	052RF137	DRE	225S4	1280	185		
4.3	80100	342	356100	124060	P	052RF137	DRE	225S4	1480	184		
					PF	052RF137	DRE	225S4	1280	185		
					PH	052RF137	DRE	225S4	1480	184		
					PHF	052RF137	DRE	225S4	1280	185		
3.5	99200	423	296600	100170	P	042RF137	DRE	225S4	1340	178		
					PF	042RF137	DRE	225S4	1150	179		
					PH	042RF137	DRE	225S4	1340	178		
					PHF	042RF137	DRE	225S4	1150	179		
4.3	80100	342	308800	100170	P	042RF137	DRE	225S4	1340	178		
					PF	042RF137	DRE	225S4	1150	179		
					PH	042RF137	DRE	225S4	1340	178		
					PHF	042RF137	DRE	225S4	1150	179		
5.0	69800	298	296300	100170	P	042RF137	DRE	225S4	1340	178		
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					PH	042RF137	DRE	225S4	1340	178		
					PHF	042RF137	DRE	225S4	1150	179		
5.9	58600	250	281200	100170	P	042RF137	DRE	225S4	1340	178		
					PF	042RF137	DRE	225S4	1150	179		
					PH	042RF137	DRE	225S4	1340	178		
					PHF	042RF137	DRE	225S4	1150	179		
7.3	47400	202	263700	100170	P	042RF137	DRE	225S4	1340	178		
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					PH	042RF137	DRE	225S4	1340	178		
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3.7	93100	397	302500	100170	P	042RF107	DRE	225S4	1240	176		
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					PHF	042RF107	DRE	225S4	1050	177		
4.4	78700	336	307100	100170	P	042RF107	DRE	225S4	1240	176		
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					PH	042RF107	DRE	225S4	1240	176		
					PHF	042RF107	DRE	225S4	1050	177		
8.4	41000	175	204500	69620	P	032RF137	DRE	225S4	1090	172		
					PF	032RF137	DRE	225S4	970	173		
					PH	032RF137	DRE	225S4	1110	172		
					PHF	032RF137	DRE	225S4	990	173		
9.7	35700	153	196300	69620	P	032RF137	DRE	225S4	1090	172		
					PF	032RF137	DRE	225S4	970	173		
					PH	032RF137	DRE	225S4	1110	172		
					PHF	032RF137	DRE	225S4	990	173		
4.4	78700	336	210300	69620	P	032RF137	DRE	225S4	1090	172		
					PF	032RF137	DRE	225S4	970	173		
					PH	032RF137	DRE	225S4	1110	172		
					PHF	032RF137	DRE	225S4	990	173		
4.8	72200	308	219700	69620	P	032RF107	DRE	225S4	990	170		
					PF	032RF107	DRE	225S4	870	171		
					PH	032RF107	DRE	225S4	1010	170		
					PHF	032RF107	DRE	225S4	890	171		
5.6	61200	261	230600	69620	P	032RF107	DRE	225S4	990	170		
					PF	032RF107	DRE	225S4	870	171		
					PH	032RF107	DRE	225S4	1010	170		
					PHF	032RF107	DRE	225S4	890	171		
6.5	53500	228	221500	69620	P	032RF107	DRE	225S4	990	170		
					PF	032RF107	DRE	225S4	870	171		
					PH	032RF107	DRE	225S4	1010	170		
					PHF	032RF107	DRE	225S4	890	171		
7.6	45300	193	210700	69620	P	032RF107	DRE	225S4	990	170		
					PF	032RF107	DRE	225S4	870	171		
					PH	032RF107	DRE	225S4	1010	170		
					PHF	032RF107	DRE	225S4	890	171		
11	31400	134	188700	58500	P	032RF107	DRE	225S4	990	170		
					PF	032RF107	DRE	225S4	870	171		
					PH	032RF107	DRE	225S4	1010	170		
					PHF	032RF107	DRE	225S4	890	171		
13	27400	117	181300	58500	P	032RF107	DRE	225S4	990	170		
					PF	032RF107	DRE	225S4	870	171		
					PH	032RF107	DRE	225S4	1010	170		
					PHF	032RF107	DRE	225S4	890	171		
15	23200	99	172400	57100	P	032RF107	DRE	225S4	990	170		
					PF	032RF107	DRE	225S4	870	171		
					PH	032RF107	DRE	225S4	1010	170		
					PHF	032RF107	DRE	225S4	890	171		
7.6	45300	193	197000	51190	P	022RF107	DRE	225S4	910	164		
					PF	022RF107	DRE	225S4	810	165		
					PH	022RF107	DRE	225S4	920	164		
					PHF	022RF107	DRE	225S4	820	165		
8.6	40300	172	197000	51190	P	022RF107	DRE	225S4	910	164		
					PF	022RF107	DRE	225S4	810	165		
					PH	022RF107	DRE	225S4	920	164		
					PHF	022RF107	DRE	225S4	820	165		
9.4	37000	158	197000	51190	P	022RF107	DRE	225S4	910	164		
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					PH	022RF107	DRE	225S4	920	164		
					PHF	022RF107	DRE	225S4	820	165		
11	31400	134	127300	36810	P	012RF107	DRE	225S4	760	158		
					PF	012RF107	DRE	225S4	690	159		
					PH	012RF107	DRE	225S4	770	158		
					PHF	012RF107	DRE	225S4	700	159		
13	27400	117	122200	36810	P	012RF107	DRE	225S4	760	158		
					PF	012RF107	DRE	225S4	690	159		
					PH	012RF107	DRE	225S4	770	158		
					PHF	012RF107	DRE	225S4	700	159		
15	23200	99	116200	36810	P	012RF107	DRE	225S4	760	158		
					PF	012RF107	DRE	225S4	690	159		
					PH	012RF107	DRE	225S4	770	158		
					PHF	012RF107	DRE	225S4	700	159		
45	0.74	571000	2004	834400	500000	P	102RF167	DRE	225M4	4810	202	
						PF	102RF167	DRE	225M4	3850	203	
						PH	102RF167	DRE	225M4	4870	202	
						PHF	102RF167	DRE	225M4	3910	203	
	0.96	440400	1546	850000	500000	P	102RF167	DRE	225M4	4810	202	
						PF	102RF167	DRE	225M4	3850	203	
						PH	102RF167	DRE	225M4	4870	202	
						PHF	102RF167	DRE	225M4	3910	203	
	1.1	379600	1332	850000	500000	P	102RF167	DRE	225M4	4810	202	
						PF	102RF167	DRE	225M4	3850	203	
						PH	102RF167	DRE	225M4	4870	202	
						PHF	102RF167	DRE	225M4	3910	203	
	1.2	338800	1189									

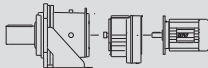


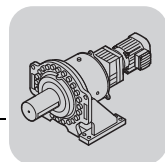
P.RF.. Helical Planetary Gearmotors

IE2 motor standard – selection tables

P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]						m [kg]	
45	0.94	446300	1566	720000	423000	P	092RF167	DRE	225M4	3950	200	
	1.1	384700	1350	720000	423000	PF	092RF167	DRE	225M4	3260	201	
						PH	092RF167	DRE	225M4	3960	200	
						PHF	092RF167	DRE	225M4	3270	201	
	1.2	343300	1205	720000	423000							
	1.5	274600	964	720000	423000							
	1.7	244200	857	720000	423000	P	092RF167	DRE	225M4	3950	200	
	2.0	212800	747	720000	423000	PF	092RF167	DRE	225M4	3250	201	
	2.2	189800	666	720000	423000	PH	092RF167	DRE	225M4	3960	200	
	2.6	161800	568	720000	423000	PHF	092RF167	DRE	225M4	3260	201	
	3.1	134100	470	720000	423000							
	3.7	114400	402	720000	423000							
	1.1	368000	1291	646700	359400	P	082RF167	DRE	225M4	3450	198	
	1.4	299000	1049	683000	359400	PF	082RF167	DRE	225M4	2800	199	
	1.7	253500	890	683000	359400	PH	082RF167	DRE	225M4	3450	198	
						PHF	082RF167	DRE	225M4	2800	199	
	1.8	233600	820	683000	359400	P	082RF167	DRE	225M4	3450	198	
	2.1	203500	714	683000	359400	PF	082RF167	DRE	225M4	2800	199	
	2.3	181600	637	683000	359400	PH	082RF167	DRE	225M4	3440	198	
						PHF	082RF167	DRE	225M4	2790	199	
	1.6	262500	922	523000	245660	P	072RF147	DRE	225M4	2540	192	
						PF	072RF147	DRE	225M4	2050	193	
						PH	072RF147	DRE	225M4	2590	192	
						PHF	072RF147	DRE	225M4	2100	193	
	1.9	221800	779	523000	245660	P	072RF147	DRE	225M4	2520	192	
	2.2	195700	687	523000	245660	PF	072RF147	DRE	225M4	2030	193	
	2.8	150900	530	523000	245660	PH	072RF147	DRE	225M4	2580	192	
	3.2	130100	457	523000	245660	PHF	072RF147	DRE	225M4	2090	193	
	2.1	201600	708	426100	185660							
	2.4	174800	614	446600	185660	P	062RF147	DRE	225M4	2100	190	
	2.7	155500	546	459600	185660	PF	062RF147	DRE	225M4	1740	191	
	3.9	108900	382	460100	185660	PH	062RF147	DRE	225M4	2090	190	
	4.6	92300	324	438000	185660	PHF	062RF147	DRE	225M4	1730	191	
	5.2	81000	284	421100	185660							
	2.6	162200	569	455300	185660	P	062RF137	DRE	225M4	1980	188	
	2.9	143400	503	467000	185660	PF	062RF137	DRE	225M4	1620	189	
	3.5	120500	423	473000	185660	PH	062RF137	DRE	225M4	1970	188	
						PHF	062RF137	DRE	225M4	1610	189	
	6.4	65800	231	316700	124060	P	052RF147	DRE	225M4	1620	186	
						PF	052RF147	DRE	225M4	1420	187	
						PH	052RF147	DRE	225M4	1610	186	
						PHF	052RF147	DRE	225M4	1410	187	
	3.5	120500	423	359100	124060	P	052RF137	DRE	225M4	1500	184	
	4.3	97300	342	356100	124060	PF	052RF137	DRE	225M4	1300	185	
						PH	052RF137	DRE	225M4	1490	184	
						PHF	052RF137	DRE	225M4	1290	185	
	7.5	55800	196	261300	100170	P	042RF147	DRE	225M4	1470	180	
						PF	042RF147	DRE	225M4	1280	181	
						PH	042RF147	DRE	225M4	1480	180	
						PHF	042RF147	DRE	225M4	1290	181	
	4.3	97300	342	298400	100170	P	042RF137	DRE	225M4	1360	178	
	5.0	84800	298	296300	100170	PF	042RF137	DRE	225M4	1170	179	
	5.9	71300	250	281200	100170	PH	042RF137	DRE	225M4	1360	178	
	7.3	57600	202	263700	100170	PHF	042RF137	DRE	225M4	1170	179	
	5.9	71300	250	221000	69620							
	7.3	57600	202	213500	69620	P	032RF137	DRE	225M4	1110	172	
	8.4	49900	175	204500	69620	PF	032RF137	DRE	225M4	990	173	
	9.7	43500	153	196200	69620	PH	032RF137	DRE	225M4	1130	172	
	12	36500	128	186200	69620	PHF	032RF137	DRE	225M4	1010	173	
	14	29500	104	174700	69620							
	6.5	65100	228	221400	69620	P	032RF107	DRE	225M4	1010	170	
	7.6	55000	193	210600	69620	PF	032RF107	DRE	225M4	890	171	
						PH	032RF107	DRE	225M4	1030	170	
						PHF	032RF107	DRE	225M4	910	171	
	8.4	49900	175	192700	51190	P	022RF137	DRE	225M4	1030	166	
	9.7	43500	153	197000	51190	PF	022RF137	DRE	225M4	930	167	
	12	36500	128	197000	51190	PH	022RF137	DRE	225M4	1040	166	
						PHF	022RF137	DRE	225M4	940	167	

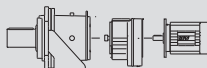


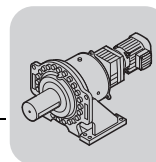
P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]		m [kg]	
45	13	33300	117	191800	51190	P 022RF107 DRE 225M4	930	164
	15	28200	99	182400	51190	PF 022RF107 DRE 225M4	820	165
						PH 022RF107 DRE 225M4	940	164
						PHF 022RF107 DRE 225M4	840	165
	13	33300	117	122200	36810	P 012RF107 DRE 225M4	780	158
	15	28200	99	116200	36810	PF 012RF107 DRE 225M4	710	159
						PH 012RF107 DRE 225M4	790	158
						PHF 012RF107 DRE 225M4	720	159
	0.95	539400	1546	850000	500000	P 102RF167 DVE 250M4	4930	202
	1.1	464900	1332	850000	500000	PF 102RF167 DVE 250M4	3980	203
55						PH 102RF167 DVE 250M4	5000	202
						PHF 102RF167 DVE 250M4	4040	203
	1.6	331900	951	850000	500000	P 102RF167 DVE 250M4	4930	202
	1.7	295200	846	850000	500000	PF 102RF167 DVE 250M4	3970	203
	2.0	257200	737	850000	500000	PH 102RF167 DVE 250M4	4990	202
	2.2	229400	657	850000	500000	PHF 102RF167 DVE 250M4	4030	203
	2.6	195600	561	850000	500000			
	3.2	162000	464	850000	500000			
	3.7	138300	396	850000	500000			
	1.1	471100	1350	711200	423000	P 092RF167 DVE 250M4	4080	200
63						PF 092RF167 DVE 250M4	3380	201
						PH 092RF167 DVE 250M4	4090	200
						PHF 092RF167 DVE 250M4	3400	201
	1.5	336400	964	720000	423000	P 092RF167 DVE 250M4	4070	200
	1.7	299100	857	720000	423000	PF 092RF167 DVE 250M4	3380	201
	2.0	260600	747	720000	423000	PH 092RF167 DVE 250M4	4090	200
	2.2	232500	666	720000	423000	PHF 092RF167 DVE 250M4	3390	201
	2.6	198200	568	720000	423000			
	3.1	164200	470	720000	423000			
	3.7	140100	402	720000	423000			
75	1.4	366200	1049	648300	359400	P 082RF167 DVE 250M4	3580	198
	1.7	310500	890	683000	359400	PF 082RF167 DVE 250M4	2930	199
						PH 082RF167 DVE 250M4	3580	198
						PHF 082RF167 DVE 250M4	2920	199
	1.8	286100	820	683000	359400	P 082RF167 DVE 250M4	3580	198
	2.1	249300	714	683000	359400	PF 082RF167 DVE 250M4	2920	199
	2.3	222400	637	683000	359400	PH 082RF167 DVE 250M4	3570	198
	2.7	189600	543	683000	359400	PHF 082RF167 DVE 250M4	2920	199
	2.5	204800	587	683000	359400	P 082RF147 DVE 250M4	3300	196
	2.8	182200	522	683000	359400	PF 082RF147 DVE 250M4	2660	197
90						PH 082RF147 DVE 250M4	3300	196
						PHF 082RF147 DVE 250M4	2650	197
	1.9	271600	779	519300	245660	P 072RF147 DVE 250M4	2650	192
	2.2	239700	687	523000	245660	PF 072RF147 DVE 250M4	2160	193
	2.8	184900	530	523000	245660	PH 072RF147 DVE 250M4	2700	192
	3.2	159400	457	523000	245660	PHF 072RF147 DVE 250M4	2210	193
	4.0	129500	371	523000	245660			
	2.4	214100	614	415400	185660	P 062RF147 DVE 250M4	2220	190
	2.7	190500	546	435000	185660	PF 062RF147 DVE 250M4	1860	191
	3.9	133400	382	460500	185660	PH 062RF147 DVE 250M4	2210	190
112	4.6	113100	324	438300	185660	PHF 062RF147 DVE 250M4	1850	191
	5.2	99200	284	421600	185660			
	6.4	80600	231	396000	185660			
	2.9	175700	503	446000	185660	P 062RF137 DVE 250M4	2110	188
	3.5	147600	423	464500	185660	PF 062RF137 DVE 250M4	1740	189
	4.3	119200	342	445200	185660	PH 062RF137 DVE 250M4	2100	188
	5.0	103900	298	427400	185660	PHF 062RF137 DVE 250M4	1730	189
	6.4	80600	231	316800	124060	P 052RF147 DVE 250M4	1740	186
	7.5	68400	196	301600	124060	PF 052RF147 DVE 250M4	1540	187
						PH 052RF147 DVE 250M4	1730	186
132						PHF 052RF147 DVE 250M4	1530	187
	4.3	119200	342	356100	124060	P 052RF137 DVE 250M4	1620	184
	5.0	103900	298	341900	124060	PF 052RF137 DVE 250M4	1420	185
	5.9	87300	250	324500	124060	PH 052RF137 DVE 250M4	1620	184
	6.8	75700	217	310800	124060	PHF 052RF137 DVE 250M4	1420	185
	7.3	70500	202	304300	124060			

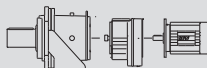


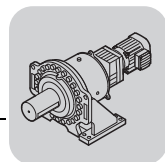
P.RF.. Helical Planetary Gearmotors

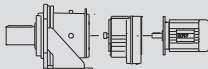
IE2 motor standard – selection tables

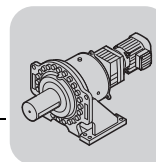
P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]						m [kg]	
55	7.5	68400	196	261500	100170							
	8.9	57900	166	248800	100170	P	042RF147	DVE	250M4	1600	180	
	10	50800	146	239300	100170	PF	042RF147	DVE	250M4	1410	181	
	12	41300	118	224800	100170	PH	042RF147	DVE	250M4	1600	180	
	15	35000	101	213900	100170	PHF	042RF147	DVE	250M4	1410	181	
	5.0	103900	298	291700	100170							
	5.9	87300	250	281400	100170							
	7.3	70500	202	263800	100170	P	042RF137	DVE	250M4	1480	178	
	8.4	61100	175	252800	100170	PF	042RF137	DVE	250M4	1290	179	
	9.7	53200	153	242600	100170	PH	042RF137	DVE	250M4	1480	178	
	12	44700	128	230200	100170	PHF	042RF137	DVE	250M4	1290	179	
	14	36100	104	216000	90600							
	8.4	61100	175	204600	69620	P	032RF137	DVE	250M4	1230	172	
	9.7	53200	153	196400	69620	PF	032RF137	DVE	250M4	1110	173	
						PH	032RF137	DVE	250M4	1250	172	
						PHF	032RF137	DVE	250M4	1130	173	
		12	44700	128	197000	51190	P	022RF137	DVE	250M4	1150	166
		14	36100	104	185000	51190	PF	022RF137	DVE	250M4	1050	167
					PH	022RF137	DVE	250M4	1170	166		
					PHF	022RF137	DVE	250M4	1070	167		
75	1.6	451100	951	850000	500000							
	1.8	401200	846	850000	500000							
	2.0	349500	737	850000	500000	P	102RF167	DVE	280S4	4990	202	
	2.2	311800	657	850000	500000	PF	102RF167	DVE	280S4	4040	203	
	2.6	265800	561	850000	500000	PH	102RF167	DVE	280S4	5050	202	
	3.2	220200	464	850000	500000	PHF	102RF167	DVE	280S4	4100	203	
	3.7	187900	396	850000	500000							
	1.5	457100	964	720000	423000							
	1.7	406500	857	720000	423000							
	2.0	354200	747	720000	423000	P	092RF167	DVE	280S4	4140	200	
	2.2	316000	666	720000	423000	PF	092RF167	DVE	280S4	3440	201	
	2.6	269300	568	720000	423000	PH	092RF167	DVE	280S4	4150	200	
	3.1	223200	470	720000	423000	PHF	092RF167	DVE	280S4	3450	201	
	3.7	190400	402	720000	423000							
	2.1	338800	714	672200	359400	P	082RF167	DVE	280S4	3640	198	
	2.3	302300	637	683000	359400	PF	082RF167	DVE	280S4	2990	199	
	2.7	257600	543	683000	359400	PH	082RF167	DVE	280S4	3630	198	
						PHF	082RF167	DVE	280S4	2980	199	
	2.8	251300	530	523000	245660	P	072RF147	DVE	280S4	2720	192	
	3.2	216600	457	523000	245660	PF	072RF147	DVE	280S4	2220	193	
	4.0	176000	371	523000	245660	PH	072RF147	DVE	280S4	2770	192	
						PHF	072RF147	DVE	280S4	2280	193	
	3.9	181300	382	441900	185660	P	062RF147	DVE	280S4	2290	190	
	4.6	153700	324	438000	185660	PF	062RF147	DVE	280S4	1930	191	
	5.2	134900	284	421100	185660	PH	062RF147	DVE	280S4	2280	190	
	6.4	109600	231	395700	185660	PHF	062RF147	DVE	280S4	1920	191	
	6.4	109600	231	316500	124060	P	052RF147	DVE	280S4	1810	186	
	7.6	92900	196	301200	124060	PF	052RF147	DVE	280S4	1610	187	
	8.9	78800	166	286600	124060	PH	052RF147	DVE	280S4	1800	186	
						PHF	052RF147	DVE	280S4	1600	187	
	7.6	92900	196	261200	100170	P	042RF147	DVE	280S4	1660	180	
	8.9	78800	166	248500	100170	PF	042RF147	DVE	280S4	1470	181	
	10	69100	146	239000	100170	PH	042RF147	DVE	280S4	1670	180	
	12	56100	118	224600	100170	PHF	042RF147	DVE	280S4	1480	181	
	15	47600	101	213700	100170							
	10	69100	146	193500	69620	P	032RF147	DVE	280S4	1420	174	
	12	56100	118	181800	69620	PF	032RF147	DVE	280S4	1300	175	
	15	47600	101	173000	69620	PH	032RF147	DVE	280S4	1440	174	
						PHF	032RF147	DVE	280S4	1320	175	
90	1.6	541300	951	850000	500000							
	1.8	481400	846	850000	500000							
	2.0	419400	737	850000	500000	P	102RF167	DVE	280M4	5080	202	
	2.2	374200	657	850000	500000	PF	102RF167	DVE	280M4	4120	203	
	2.6	319000	561	850000	500000	PH	102RF167	DVE	280M4	5140	202	
	3.2	264300	464	850000	500000	PHF	102RF167	DVE	280M4	4180	203	
	3.7	225500	396	850000	500000							

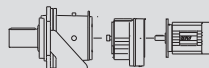


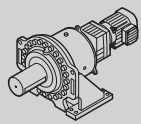
P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]						m [kg]	
90	1.7	487900	857	693900	423000							
	2.0	425000	747	720000	423000	P	092RF167	DVE	280M4	4220	200	
	2.2	379200	666	720000	423000	PF	092RF167	DVE	280M4	3520	201	
	2.6	323200	568	720000	423000	PH	092RF167	DVE	280M4	4230	200	
	3.1	267800	470	720000	423000	PHF	092RF167	DVE	280M4	3540	201	
	3.7	228500	402	720000	423000							
	2.3	362700	637	651500	359400	P	082RF167	DVE	280M4	3720	198	
	2.7	309200	543	683000	359400	PF	082RF167	DVE	280M4	3070	199	
						PH	082RF167	DVE	280M4	3720	198	
						PHF	082RF167	DVE	280M4	3070	199	
	3.2	259900	457	523000	245660	P	072RF147	DVE	280M4	2800	192	
	4.0	211200	371	523000	245660	PF	072RF147	DVE	280M4	2310	193	
						PH	072RF147	DVE	280M4	2860	192	
						PHF	072RF147	DVE	280M4	2360	193	
	4.6	184500	324	438000	185660	P	062RF147	DVE	280M4	2380	190	
	5.2	161900	284	421100	185660	PF	062RF147	DVE	280M4	2020	191	
	6.4	131500	231	395700	185660	PH	062RF147	DVE	280M4	2370	190	
						PHF	062RF147	DVE	280M4	2000	191	
	7.6	111500	196	301200	124060	P	052RF147	DVE	280M4	1900	186	
						PF	052RF147	DVE	280M4	1700	187	
						PH	052RF147	DVE	280M4	1890	186	
						PHF	052RF147	DVE	280M4	1690	187	
	8.9	94500	166	248500	100170	P	042RF147	DVE	280M4	1750	180	
	10	82900	146	239000	100170	PF	042RF147	DVE	280M4	1560	181	
	12	67400	118	224600	100170	PH	042RF147	DVE	280M4	1750	180	
	15	57100	101	213700	100170	PHF	042RF147	DVE	280M4	1560	181	
	15	57100	101	173000	69620	P	032RF147	DVE	280M4	1500	174	
						PF	032RF147	DVE	280M4	1380	175	
						PH	032RF147	DVE	280M4	1520	174	
						PHF	032RF147	DVE	280M4	1400	175	
110	2.0	511600	737	850000	500000	P	102RF167	DRE	315K4	5310	202	
	2.3	456500	657	850000	500000	PF	102RF167	DRE	315K4	4350	203	
	2.6	389100	561	850000	500000	PH	102RF167	DRE	315K4	5370	202	
	3.2	322400	464	850000	500000	PHF	102RF167	DRE	315K4	4410	203	
	3.7	275100	396	850000	500000							
	2.0	518400	747	659900	423000	P	092RF167	DRE	315K4	4450	200	
	2.2	462500	666	719700	423000	PF	092RF167	DRE	315K4	3760	201	
	2.6	394200	568	720000	423000	PH	092RF167	DRE	315K4	4470	200	
	3.2	326700	470	720000	423000	PHF	092RF167	DRE	315K4	3770	201	
	3.7	278800	402	720000	423000							
	132	2.0	612300	737	803100	500000	P	102RF167	DRE	315S4	5390	202
		2.3	546300	657	850000	500000	PF	102RF167	DRE	315S4	4430	203
2.6		465600	561	850000	500000	PH	102RF167	DRE	315S4	5450	202	
3.2		385800	464	850000	500000	PHF	102RF167	DRE	315S4	4490	203	
3.8		329200	396	850000	500000							
2.6		471800	568	710500	423000	P	092RF167	DRE	315S4	4530	200	
3.2		390900	470	720000	423000	PF	092RF167	DRE	315S4	3840	201	
3.7		333600	402	720000	423000	PH	092RF167	DRE	315S4	4550	200	
						PHF	092RF167	DRE	315S4	3850	201	
160		2.6	565500	561	838300	500000	P	102RF167	DRE	315M4	5550	202
		3.2	468600	464	850000	500000	PF	102RF167	DRE	315M4	4590	203
		3.7	399900	396	850000	500000	PH	102RF167	DRE	315M4	5610	202
						PHF	102RF167	DRE	315M4	4650	203	
	3.2	474800	470	707400	423000	P	092RF167	DRE	315M4	4690	200	
	3.7	405200	402	720000	423000	PF	092RF167	DRE	315M4	4000	201	
						PH	092RF167	DRE	315M4	4700	200	
						PHF	092RF167	DRE	315M4	4010	201	
	200	3.2	586500	464	823000	500000	P	102RF167	DRE	315L4	5630	202
		3.7	500600	396	850000	500000	PF	102RF167	DRE	315L4	4670	203
							PH	102RF167	DRE	315L4	5690	202
							PHF	102RF167	DRE	315L4	4730	203
3.7		507200	402	672700	423000	P	092RF167	DRE	315L4	4770	200	
						PF	092RF167	DRE	315L4	4080	201	
						PH	092RF167	DRE	315L4	4780	200	
						PHF	092RF167	DRE	315L4	4090	201	


10.4 IE3 motor standard – selection tables

P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]					m [kg]	
0.75	0.36	19600	4066	156000	36810	P	012RF87	DRP	90M4	400	154
	0.40	17700	3663	156000	36810	PF	012RF87	DRP	90M4	330	155
	0.45	15500	3214	156000	36810	PH	012RF87	DRP	90M4	415	154
	0.51	13700	2847	156000	36810	PHF	012RF87	DRP	90M4	345	155
	0.45	15500	3209	156000	31500	P	012RF77	DRP	90M4	375	152
	0.48	14600	3030	156000	31500	PF	012RF77	DRP	90M4	305	153
						PH	012RF77	DRP	90M4	385	152
						PHF	012RF77	DRP	90M4	315	153
	0.36	19600	4051	124000	24830	P	002RF87	DRP	90M4	320	146
	0.40	17600	3649	124000	24830	PF	002RF87	DRP	90M4	265	147
						PH	002RF87	DRP	90M4	325	146
						PHF	002RF87	DRP	90M4	270	147
	0.45	15400	3197	124000	24830	P	002RF77	DRP	90M4	295	144
	0.48	14600	3018	124000	24830						
	0.56	12400	2570	124000	24830						
	0.64	10900	2254	124000	24830						
	0.71	9850	2035	124000	24830						
	0.81	8660	1790	124000	24830						
	0.86	8180	1691	124000	24830						
	1.0	6960	1439	124000	24830	PHF	002RF77	DRP	90M4	240	145
1.1	0.35	29000	4066	197000	51190	P	022RF87	DRP	90L4	550	160
	0.39	26100	3663	197000	51190	PF	022RF87	DRP	90L4	450	161
						PH	022RF87	DRP	90L4	570	160
						PHF	022RF87	DRP	90L4	465	161
	0.35	29000	4066	156000	36810	P	012RF87	DRP	90L4	405	154
	0.39	26100	3663	156000	36810						
	0.45	22900	3214	156000	36810						
	0.51	20300	2847	156000	36810						
	0.58	17800	2498	156000	36810						
	0.61	16900	2368	156000	36810						
	0.69	14800	2072	156000	36810						
	0.64	16100	2263	156000	31500	P	012RF77	DRP	90L4	375	152
	0.70	14600	2043	156000	31500	PF	012RF77	DRP	90L4	305	153
						PH	012RF77	DRP	90L4	390	152
						PHF	012RF77	DRP	90L4	320	153
	0.45	22800	3201	120400	24830	P	002RF87	DRP	90L4	325	146
	0.51	20200	2836	123800	24830	PF	002RF87	DRP	90L4	265	147
	0.58	17700	2489	124000	24830	PH	002RF87	DRP	90L4	330	146
						PHF	002RF87	DRP	90L4	270	147
	0.64	16100	2254	124000	24830	P	002RF77	DRP	90L4	295	144
	0.71	14500	2035	124000	24830						
	0.80	12800	1790	124000	24830						
	0.85	12000	1691	124000	24830						
	1.0	10200	1439	124000	24830						
	1.1	9350	1308	124000	24830						
	1.3	8100	1133	124000	24830						
	1.5	7050	986	124000	24830	PHF	002RF77	DRP	90L4	240	145
1.5	0.35	39500	4058	197000	51190	P	022RF97	DRP	100M4	610	162
	0.40	35300	3628	197000	51190	PF	022RF97	DRP	100M4	510	163
						PH	022RF97	DRP	100M4	620	162
						PHF	022RF97	DRP	100M4	520	163
	0.45	31300	3214	197000	51190	P	022RF87	DRP	100M4	560	160
	0.51	27700	2847	197000	51190	PF	022RF87	DRP	100M4	455	161
	0.58	24300	2498	197000	51190	PH	022RF87	DRP	100M4	570	160
						PHF	022RF87	DRP	100M4	470	161
	0.35	39500	4058	156000	36810	P	012RF97	DRP	100M4	460	156
						PF	012RF97	DRP	100M4	390	157
						PH	012RF97	DRP	100M4	475	156
						PHF	012RF97	DRP	100M4	405	157

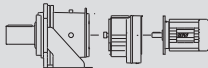


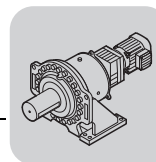
P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]				m [kg]		
1.5	0.39	35700	3663	156000	36810	P PF PH PHF	012RF87	DRP	100M4	410	154
	0.45	31300	3214	156000	36810				100M4	340	155
	0.51	27700	2847	156000	36810				100M4	420	154
	0.58	24300	2498	156000	36810				100M4	350	155
	0.61	23000	2368	156000	36810						
	0.69	20200	2072	156000	36810						
	0.77	18200	1867	156000	36810						
	0.88	15900	1637	156000	36810						
	0.85	16500	1697	156000	31500	P PF PH PHF	012RF77	DRP	100M4	380	152
	1.0	14000	1445	156000	31500				100M4	310	153
									100M4	390	152
									100M4	320	153
	0.61	22900	2358	120300	24830	P PF PH PHF	002RF87	DRP	100M4	330	146
	0.70	20100	2064	124000	24830				100M4	270	147
									100M4	330	146
									100M4	275	147
	0.80	17400	1790	124000	24830	P PF PH PHF	002RF77	DRP	100M4	300	144
	0.85	16400	1691	124000	24830				100M4	240	145
	1.0	14000	1439	124000	24830				100M4	300	144
	1.1	12700	1308	124000	24830				100M4	300	144
	1.3	11000	1133	124000	24830				100M4	245	145
	1.5	9610	986	124000	24830						
	1.6	8900	913	124000	24830	P PF PH PHF	002RF77	DRP	100M4	295	144
	1.7	8160	837	124000	24830				100M4	240	145
	2.0	7160	735	124000	24830				100M4	300	144
									100M4	245	145
2.2	0.36	57500	4022	323000	100170	P PF PH PHF	042RF107	DRP	100L4	990	176
	0.40	52000	3637	323000	100170				100L4	800	177
									100L4	990	176
									100L4	800	177
	0.36	57500	4022	237600	69620	P PF PH PHF	032RF107	DRP	100L4	740	170
	0.40	52000	3637	243300	69620				100L4	620	171
	0.47	44000	3082	250500	69620				100L4	760	170
	0.50	40800	2859	252000	69620				100L4	640	171
	0.44	46600	3262	248300	69620	P PF PH PHF	032RF97	DRP	100L4	690	168
	0.56	36500	2558	252000	69620				100L4	570	169
									100L4	710	168
									100L4	590	169
	0.35	58000	4058	179800	51190	P PF PH PHF	022RF97	DRP	100L4	610	162
	0.40	51800	3628	189800	51190				100L4	510	163
	0.44	46600	3262	197000	51190				100L4	630	162
	0.51	40400	2831	197000	51190				100L4	530	163
	0.56	36500	2558	197000	51190						
	0.61	33600	2351	197000	51190						
	0.69	29800	2087	197000	51190	P PF PH PHF	022RF87	DRP	100L4	560	160
	0.69	29600	2072	197000	51190				100L4	460	161
									100L4	580	160
									100L4	475	161
	0.51	40400	2831	156000	36810	P PF PH PHF	012RF97	DRP	100L4	465	156
	0.69	29800	2087	156000	36810				100L4	395	157
									100L4	480	156
									100L4	410	157
	0.58	35700	2498	156000	36810	P PF PH PHF	012RF87	DRP	100L4	415	154
	0.61	33800	2368	156000	36810				100L4	345	155
	0.69	29600	2072	156000	36810				100L4	425	154
	0.77	26600	1867	156000	36810				100L4	355	155
	0.88	23400	1637	156000	36810						
	1.0	20600	1445	156000	36810						
	1.1	18300	1281	156000	36810						
	1.3	15600	1094	156000	36810						
	1.3	16200	1138	156000	31500	P PF PH PHF	012RF77	DRP	100L4	385	152
	1.4	14100	990	156000	29900				100L4	315	153
									100L4	395	152
									100L4	325	153

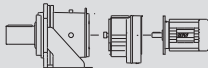


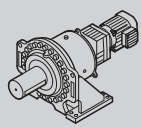
P.RF.. Helical Planetary Gearmotors

IE3 motor standard – selection tables

P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]						m [kg]	
2.2	0.88	23300	1631	119800	24830	P	002RF87	DRP	100L4	335	146	
	1.0	20500	1440	123400	24830	PF	002RF87	DRP	100L4	275	147	
	1.1	18200	1276	124000	24830	PH	002RF87	DRP	100L4	335	146	
						PHF	002RF87	DRP	100L4	280	147	
	1.3	16200	1133	124000	24830	P	002RF77	DRP	100L4	305	144	
	1.5	14100	986	124000	24830	PF	002RF77	DRP	100L4	245	145	
						PH	002RF77	DRP	100L4	305	144	
						PHF	002RF77	DRP	100L4	250	145	
	1.6	13000	913	124000	24830	P	002RF77	DRP	100L4	300	144	
	1.7	11900	837	124000	24830	PF	002RF77	DRP	100L4	245	145	
	2.0	10500	735	124000	24830	PH	002RF77	DRP	100L4	305	144	
	2.4	8710	610	124000	24830	PHF	002RF77	DRP	100L4	250	145	
	2.6	7850	549	124000	24830							
	3.0	6880	482	124000	24830							
3.0	0.36	77600	4022	364000	124060	P	052RF107	DRP	112M4	1140	182	
	0.40	70100	3637	364000	124060	PF	052RF107	DRP	112M4	940	183	
						PH	052RF107	DRP	112M4	1140	182	
						PHF	052RF107	DRP	112M4	940	183	
	0.36	77600	4022	316000	100170	P	042RF107	DRP	112M4	1000	176	
	0.40	70100	3637	321700	100170	PF	042RF107	DRP	112M4	810	177	
	0.47	59400	3082	323000	100170	PH	042RF107	DRP	112M4	1000	176	
	0.51	55100	2859	323000	100170	PHF	042RF107	DRP	112M4	810	177	
	0.57	49600	2573	323000	100170							
	0.36	77600	4022	212100	69620	P	032RF107	DRP	112M4	750	170	
	0.40	70100	3637	222500	69620	PF	032RF107	DRP	112M4	630	171	
	0.47	59400	3082	235500	69620	PH	032RF107	DRP	112M4	770	170	
	0.51	55100	2859	240100	69620	PHF	032RF107	DRP	112M4	650	171	
	0.62	44900	2331	249700	69620							
	0.70	39800	2067	252000	69620							
	0.45	62900	3262	231500	69620	P	032RF97	DRP	112M4	700	168	
	0.51	54600	2831	240600	69620	PF	032RF97	DRP	112M4	580	169	
	0.57	49300	2558	245800	69620	PH	032RF97	DRP	112M4	730	168	
	0.62	45300	2351	249400	69620	PHF	032RF97	DRP	112M4	600	169	
	0.70	40200	2087	252000	69620							
	0.78	36000	1867	252000	69620							
	0.51	54600	2831	185500	51190							
	0.57	49300	2558	193500	51190	P	022RF97	DRP	112M4	620	162	
	0.62	45300	2351	197000	51190	PF	022RF97	DRP	112M4	520	163	
	0.70	40200	2087	197000	51190	PH	022RF97	DRP	112M4	640	162	
	0.78	36000	1867	197000	51190	PHF	022RF97	DRP	112M4	540	163	
	0.87	32300	1678	197000	51190							
	1.0	28100	1457	197000	51190							
	1.1	25100	1304	197000	51190							
	0.89	31600	1637	197000	51190	P	022RF87	DRP	112M4	570	160	
	1.0	27800	1445	197000	51190	PF	022RF87	DRP	112M4	470	161	
						PH	022RF87	DRP	112M4	590	160	
						PHF	022RF87	DRP	112M4	485	161	
	1.1	26000	1350	197000	51190	P	022RF87	DRP	112M4	570	160	
						PF	022RF87	DRP	112M4	470	161	
						PH	022RF87	DRP	112M4	590	160	
						PHF	022RF87	DRP	112M4	485	161	
	0.70	40200	2087	156000	36810	P	012RF97	DRP	112M4	475	156	
	1.3	20800	1082	156000	36810	PF	012RF97	DRP	112M4	405	157	
						PH	012RF97	DRP	112M4	490	156	
						PHF	012RF97	DRP	112M4	420	157	
	1.5	18900	982	156000	36810	P	012RF97	DRP	112M4	475	156	
						PF	012RF97	DRP	112M4	405	157	
						PH	012RF97	DRP	112M4	485	156	
						PHF	012RF97	DRP	112M4	415	157	
	0.78	36000	1867	156000	36810	P	012RF87	DRP	112M4	425	154	
	0.89	31600	1637	156000	36810	PF	012RF87	DRP	112M4	355	155	
	1.0	27800	1445	156000	36810	PH	012RF87	DRP	112M4	440	154	
	1.1	24700	1281	156000	36810	PHF	012RF87	DRP	112M4	370	155	
	1.2	23700	1232	156000	36810	P	012RF87	DRP	112M4	425	154	
	1.3	21000	1092	156000	36810	PF	012RF87	DRP	112M4	355	155	
	1.6	17700	918	156000	36810	PH	012RF87	DRP	112M4	435	154	
	1.7	16200	844	156000	36810	PHF	012RF87	DRP	112M4	365	155	
	1.9	14400	749	156000	36810							

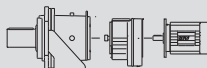


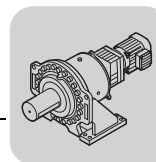
P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]						m [kg]	
3.0	1.3	21000	1090	122900	24830	P	002RF87	DRP	112M4	345	146	
						PF	002RF87	DRP	112M4	285	147	
						PH	002RF87	DRP	112M4	350	146	
						PHF	002RF87	DRP	112M4	290	147	
	1.6	17600	914	124000	24830	P	002RF87	DRP	112M4	345	146	
						PF	002RF87	DRP	112M4	285	147	
						PH	002RF87	DRP	112M4	345	146	
						PHF	002RF87	DRP	112M4	290	147	
	1.7	16100	837	124000	24830	P	002RF77	DRP	112M4	315	144	
	2.0	14100	735	124000	24830							
	2.4	11700	610	124000	24830							
	2.6	10500	549	124000	24830							
	3.0	9290	482	124000	24830							
	3.4	8200	425	124000	24830							
	3.9	7270	377	124000	24100							
	4.3	6480	336	124000	24100							
4.0	0.51	73000	2859	364000	124060	P	052RF107	DRP	132M4	1160	182	
						PF	052RF107	DRP	132M4	960	183	
						PH	052RF107	DRP	132M4	1150	182	
						PHF	052RF107	DRP	132M4	950	183	
	0.36	102800	4022	292900	100170	P	042RF107	DRP	132M4	1010	176	
						PF	042RF107	DRP	132M4	820	177	
						PH	042RF107	DRP	132M4	1020	176	
						PHF	042RF107	DRP	132M4	830	177	
	0.48	78700	3082	210300	69620	P	032RF107	DRP	132M4	770	170	
						PF	032RF107	DRP	132M4	650	171	
						PH	032RF107	DRP	132M4	790	170	
						PHF	032RF107	DRP	132M4	670	171	
	0.57	65300	2558	228600	69620	P	032RF97	DRP	132M4	720	168	
						PF	032RF97	DRP	132M4	600	169	
						PH	032RF97	DRP	132M4	740	168	
						PHF	032RF97	DRP	132M4	620	169	
	1.2	30800	1207	197000	51190	P	022RF107	DRP	132M4	680	164	
						PF	022RF107	DRP	132M4	580	165	
						PH	022RF107	DRP	132M4	700	164	
						PHF	022RF107	DRP	132M4	590	165	
	0.62	60000	2351	176100	51190	P	022RF97	DRP	132M4	640	162	
						PF	022RF97	DRP	132M4	540	163	
						PH	022RF97	DRP	132M4	650	162	
						PHF	022RF97	DRP	132M4	550	163	
	1.1	33300	1304	197000	51190	P	022RF97	DRP	132M4	640	162	
						PF	022RF97	DRP	132M4	530	163	
						PH	022RF97	DRP	132M4	650	162	
						PHF	022RF97	DRP	132M4	550	163	
	1.5	25000	982	197000	51190	P	022RF97	DRP	132M4	640	162	
						PF	022RF97	DRP	132M4	530	163	
						PH	022RF97	DRP	132M4	650	162	
						PHF	022RF97	DRP	132M4	550	163	
	1.2	31400	1232	197000	51190	P	022RF87	DRP	132M4	590	160	
						PF	022RF87	DRP	132M4	485	161	
						PH	022RF87	DRP	132M4	600	160	
						PHF	022RF87	DRP	132M4	500	161	
	1.0	37200	1457	156000	36810	P	012RF97	DRP	132M4	490	156	
						PF	012RF97	DRP	132M4	420	157	
						PH	012RF97	DRP	132M4	510	156	
						PHF	012RF97	DRP	132M4	435	157	
	1.8	20100	790	156000	36810	P	012RF97	DRP	132M4	490	156	
						PF	012RF97	DRP	132M4	420	157	
						PH	012RF97	DRP	132M4	500	156	
						PHF	012RF97	DRP	132M4	430	157	
	1.1	32700	1281	156000	36810	P	012RF87	DRP	132M4	440	154	
						PF	012RF87	DRP	132M4	370	155	
						PH	012RF87	DRP	132M4	455	154	
						PHF	012RF87	DRP	132M4	385	155	
	1.7	21500	844	156000	36810	P	012RF87	DRP	132M4	440	154	
						PF	012RF87	DRP	132M4	370	155	
						PH	012RF87	DRP	132M4	450	154	
						PHF	012RF87	DRP	132M4	380	155	

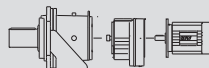


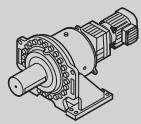
P.RF.. Helical Planetary Gearmotors

IE3 motor standard – selection tables

P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]				m [kg]		
4.0	2.7	14000	551	156000	27600	P	012RF77	DRP	132M4	410	152
						PF	012RF77	DRP	132M4	340	153
						PH	012RF77	DRP	132M4	420	152
						PHF	012RF77	DRP	132M4	350	153
	1.6	23300	914	119800	24830	P	002RF87	DRP	132M4	360	146
	1.7	21400	841	122300	24830	PF	002RF87	DRP	132M4	300	147
	2.0	19000	746	124000	24830	PH	002RF87	DRP	132M4	360	146
	2.2	17000	667	124000	24830	PHF	002RF87	DRP	132M4	305	147
	2.4	15500	610	124000	24830	P	002RF77	DRP	132M4	330	144
	2.7	14000	549	124000	24830						
	3.0	12300	482	124000	24830						
	3.4	10800	425	124000	24830						
	3.9	9630	377	124000	24100						
	4.4	8580	336	124000	24100						
	4.8	7730	302	124000	23300	PH	002RF77	DRP	132M4	330	144
	5.5	6780	265	124000	22200	PHF	002RF77	DRP	132M4	275	145
5.5	0.36	141300	4049	468300	185660	P	062RF137	DRP	132MC4	1760	188
	0.42	121400	3480	473000	185660	PF	062RF137	DRP	132MC4	1390	189
	0.46	110700	3174	473000	185660	PH	062RF137	DRP	132MC4	1750	188
						PHF	062RF137	DRP	132MC4	1380	189
	0.36	141300	4049	341200	124060	P	052RF137	DRP	132MC4	1270	184
	0.42	121400	3480	358400	124060	PF	052RF137	DRP	132MC4	1070	185
	0.51	100600	2883	364000	124060	PH	052RF137	DRP	132MC4	1270	184
	0.58	89200	2558	364000	124060	PHF	052RF137	DRP	132MC4	1070	185
	0.52	99700	2859	364000	124060	P	052RF107	DRP	132MC4	1160	182
	0.57	89800	2573	364000	124060	PF	052RF107	DRP	132MC4	960	183
						PH	052RF107	DRP	132MC4	1160	182
						PHF	052RF107	DRP	132MC4	960	183
	0.46	110700	3174	284100	100170	P	042RF137	DRP	132MC4	1130	178
	0.64	81000	2321	313300	100170	PF	042RF137	DRP	132MC4	940	179
						PH	042RF137	DRP	132MC4	1130	178
						PHF	042RF137	DRP	132MC4	940	179
	0.52	99700	2859	296000	100170	P	042RF107	DRP	132MC4	1020	176
	0.57	89800	2573	305600	100170						
	0.63	81300	2331	313000	100170						
	0.71	72100	2067	320300	100170						
	0.79	65200	1869	323000	100170	PHF	042RF107	DRP	132MC4	830	177
	0.63	81300	2331	206400	69620	P	032RF107	DRP	132MC4	770	170
	0.71	72100	2067	219900	69620	PF	032RF107	DRP	132MC4	650	171
	0.93	55200	1584	240000	69620	PH	032RF107	DRP	132MC4	790	170
	1.1	48200	1383	246800	69620	PHF	032RF107	DRP	132MC4	670	171
	1.2	42100	1207	252000	69620	P	032RF107	DRP	132MC4	770	170
						PF	032RF107	DRP	132MC4	650	171
						PH	032RF107	DRP	132MC4	790	170
						PHF	032RF107	DRP	132MC4	670	171
	0.79	65100	1867	228900	69620	P	032RF97	DRP	132MC4	720	168
	0.88	58500	1678	236500	69620	PF	032RF97	DRP	132MC4	600	169
	1.0	50800	1457	244400	69620	PH	032RF97	DRP	132MC4	740	168
	1.4	37700	1082	252000	69620	PHF	032RF97	DRP	132MC4	620	169
	1.2	43800	1257	250700	69620	P	032RF97	DRP	132MC4	720	168
						PF	032RF97	DRP	132MC4	600	169
						PH	032RF97	DRP	132MC4	740	168
						PHF	032RF97	DRP	132MC4	620	169
	0.88	58500	1678	178800	51190	P	022RF97	DRP	132MC4	640	162
	1.0	50800	1457	191300	51190	PF	022RF97	DRP	132MC4	540	163
	1.1	45500	1304	197000	51190	PH	022RF97	DRP	132MC4	660	162
						PHF	022RF97	DRP	132MC4	560	163
	1.5	34200	982	197000	51190	P	022RF97	DRP	132MC4	640	162
	1.7	30600	878	197000	51190	PF	022RF97	DRP	132MC4	540	163
						PH	022RF97	DRP	132MC4	660	162
						PHF	022RF97	DRP	132MC4	550	163
	1.6	32000	918	197000	51190	P	022RF87	DRP	132MC4	590	160
						PF	022RF87	DRP	132MC4	490	161
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						PHF	022RF87	DRP	132MC4	500	161

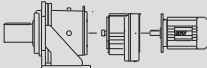


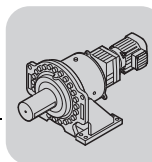
P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]						m [kg]	
5.5	1.4	37700	1082	156000	36810	P	012RF97	DRP	132MC4	495	156	
						PF	012RF97	DRP	132MC4	425	157	
						PH	012RF97	DRP	132MC4	510	156	
						PHF	012RF97	DRP	132MC4	440	157	
	1.5	34200	982	156000	36810	P	012RF97	DRP	132MC4	495	156	
	1.9	27500	790	156000	36810	PF	012RF97	DRP	132MC4	425	157	
	2.1	24900	716	156000	36810	PH	012RF97	DRP	132MC4	510	156	
	2.3	22100	634	156000	36810	PHF	012RF97	DRP	132MC4	435	157	
	1.6	32000	918	156000	36810	P	012RF87	DRP	132MC4	445	154	
	1.8	29400	844	156000	36810		PF	012RF87	DRP	132MC4	375	155
	2.0	26100	749	156000	36810		PH	012RF87	DRP	132MC4	455	154
	2.2	23300	670	156000	36810		PHF	012RF87	DRP	132MC4	385	155
	2.4	21000	602	156000	36810							
	2.8	18200	523	156000	36810							
	2.2	23200	667	119900	24830							
	2.5	20900	600	123000	24830							
	2.8	18100	521	124000	24830							
	3.2	16200	466	124000	24830							
	3.8	13500	387	124000	24830							
	4.1	12400	357	124000	24830							
	4.6	11200	321	124000	24830	P	002RF87	DRP	132MC4	365	146	
	5.3	9730	279	124000	24830	PF	002RF87	DRP	132MC4	305	147	
	5.7	9080	260	124000	24400	PH	002RF87	DRP	132MC4	365	146	
	6.3	8130	233	121700	23500	PHF	002RF87	DRP	132MC4	310	147	
	7.8	6570	188	114100	12000	P	002RF77	DRP	132MC4	335	144	
	8.8	5850	168	110300	12000	PF	002RF77	DRP	132MC4	275	145	
	7.5	0.42	166200	3480	452600	185660	P	062RF137	DRP	160M4	1780	188
							PF	062RF137	DRP	160M4	1410	189
							PH	062RF137	DRP	160M4	1770	188
							PHF	062RF137	DRP	160M4	1400	189
		0.51	137600	2883	344600	124060	P	052RF137	DRP	160M4	1290	184
		0.57	122100	2558	357900	124060	PF	052RF137	DRP	160M4	1090	185
0.74		95200	1995	364000	124060	PH	052RF137	DRP	160M4	1280	184	
0.84		83100	1741	364000	124060	PHF	052RF137	DRP	160M4	1090	185	
0.79		89200	1869	364000	124060	P	052RF107	DRP	160M4	1190	182	
0.63		110800	2321	284000	100170	PF	052RF107	DRP	160M4	990	183	
						PH	052RF107	DRP	160M4	1180	182	
						PHF	052RF107	DRP	160M4	980	183	
						P	042RF137	DRP	160M4	1150	178	
0.99		70500	1477	321400	100170	PF	042RF137	DRP	160M4	960	179	
0.71		98700	2067	297100	100170	PH	042RF137	DRP	160M4	1150	178	
						PHF	042RF137	DRP	160M4	960	179	
						P	042RF107	DRP	160M4	1040	176	
						PF	042RF107	DRP	160M4	850	177	
0.79		89200	1869	306100	100170	PH	042RF107	DRP	160M4	1050	176	
0.93		75600	1584	317600	100170	PHF	042RF107	DRP	160M4	860	177	
1.1		66000	1383	323000	100170	P	042RF107	DRP	160M4	1030	176	
1.2		57600	1207	323000	100170	PF	042RF107	DRP	160M4	840	177	
						PH	042RF107	DRP	160M4	1040	176	
						PHF	042RF107	DRP	160M4	850	177	
						P	032RF107	DRP	160M4	790	170	
0.93		75600	1584	215000	69620	PF	032RF107	DRP	160M4	670	171	
1.1		66000	1383	227800	69620	PH	032RF107	DRP	160M4	820	170	
1.4		51600	1082	243600	69620	PHF	032RF107	DRP	160M4	690	171	
						P	032RF107	DRP	160M4	790	170	
						PF	032RF107	DRP	160M4	670	171	
						PH	032RF107	DRP	160M4	810	170	
1.5		46600	977	248300	69620	PHF	032RF107	DRP	160M4	690	171	
1.4	50900	1067	244300	69620	P	032RF97	DRP	160M4	740	168		
					PF	032RF97	DRP	160M4	620	169		
					PH	032RF97	DRP	160M4	760	168		
					PHF	032RF97	DRP	160M4	640	169		

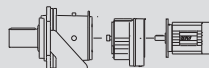


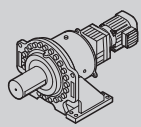
P.RF.. Helical Planetary Gearmotors

IE3 motor standard – selection tables

P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]					m [kg]		
7.5	1.2	57600	1207	180400	51190	P	022RF107	DRP	160M4	710	164	
						PF	022RF107	DRP	160M4	610	165	
						PH	022RF107	DRP	160M4	720	164	
						PHF	022RF107	DRP	160M4	620	165	
	1.4	51600	1082	190100	51190	P	022RF97	DRP	160M4	670	162	
						PF	022RF97	DRP	160M4	560	163	
						PH	022RF97	DRP	160M4	680	162	
						PHF	022RF97	DRP	160M4	580	163	
	1.5	46900	982	196900	51190	P	022RF97	DRP	160M4	660	162	
						PF	022RF97	DRP	160M4	560	163	
						PH	022RF97	DRP	160M4	680	162	
						PHF	022RF97	DRP	160M4	580	163	
	1.9	37700	790	156000	36810	P	012RF97	DRP	160M4	510	156	
						PF	012RF97	DRP	160M4	445	157	
						PH	012RF97	DRP	160M4	530	156	
						PHF	012RF97	DRP	160M4	460	157	
	2.4	28700	602	156000	36810	P	012RF87	DRP	160M4	465	154	
						PF	012RF87	DRP	160M4	395	155	
						PH	012RF87	DRP	160M4	475	154	
						PHF	012RF87	DRP	160M4	405	155	
	3.2	22200	466	121300	24830	P	002RF87	DRP	160M4	385	146	
						PF	002RF87	DRP	160M4	325	147	
						PH	002RF87	DRP	160M4	385	146	
						PHF	002RF87	DRP	160M4	330	147	
	9.2	0.41	210600	3608	850000	500000	P	102RF167	DRP	160MC4	4590	202
		0.46	187400	3210	850000	500000	PF	102RF167	DRP	160MC4	3640	203
		0.52	166500	2854	850000	500000	PH	102RF167	DRP	160MC4	4650	202
		0.65	132500	2271	850000	500000	PHF	102RF167	DRP	160MC4	3700	203
		0.40	213400	3656	720000	423000	P	092RF167	DRP	160MC4	3740	200
0.45		189900	3253	720000	423000	PF	092RF167	DRP	160MC4	3040	201	
0.51		168800	2891	720000	423000	PH	092RF167	DRP	160MC4	3750	200	
0.64		134300	2301	720000	423000	PHF	092RF167	DRP	160MC4	3050	201	
0.73		118500	2031	720000	423000							
0.82		105300	1805	720000	423000	P	092RF167	DRP	160MC4	3730	200	
						PF	092RF167	DRP	160MC4	3030	201	
						PH	092RF167	DRP	160MC4	3740	200	
						PHF	092RF167	DRP	160MC4	3040	201	
0.35		243000	4165	523000	245660	P	072RF147	DRP	160MC4	2320	192	
0.54		160200	2747	523000	245660	PF	072RF147	DRP	160MC4	1830	193	
0.58		148900	2552	523000	245660	PH	072RF147	DRP	160MC4	2370	192	
0.63		135800	2328	523000	245660	PHF	072RF147	DRP	160MC4	1880	193	
0.40		216600	3711	413200	185660	P	062RF147	DRP	160MC4	1900	190	
0.45		191100	3275	434400	185660	PF	062RF147	DRP	160MC4	1530	191	
0.71		121100	2074	473000	185660	PH	062RF147	DRP	160MC4	1890	190	
						PHF	062RF147	DRP	160MC4	1520	191	
0.51		168300	2883	451200	185660	P	062RF137	DRP	160MC4	1780	188	
0.85		101600	1741	473000	185660	PF	062RF137	DRP	160MC4	1410	189	
						PH	062RF137	DRP	160MC4	1770	188	
						PHF	062RF137	DRP	160MC4	1400	189	
0.58		149300	2558	333400	124060	P	052RF137	DRP	160MC4	1290	184	
0.64		135500	2321	346500	124060	PF	052RF137	DRP	160MC4	1090	185	
1.0		86200	1477	364000	124060	PH	052RF137	DRP	160MC4	1290	184	
1.1	75300	1291	364000	124060	PHF	052RF137	DRP	160MC4	1090	185		

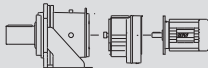


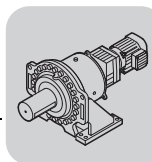
P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]						m [kg]	
9.2	1.1	80700	1383	364000	124060	P	052RF107	DRP	160MC4	1190	182	
						PF	052RF107	DRP	160MC4	990	183	
						PH	052RF107	DRP	160MC4	1180	182	
						PHF	052RF107	DRP	160MC4	980	183	
	1.2	70400	1207	364000	124060	P	052RF107	DRP	160MC4	1180	182	
						PF	052RF107	DRP	160MC4	980	183	
						PH	052RF107	DRP	160MC4	1170	182	
						PHF	052RF107	DRP	160MC4	970	183	
	0.74	116400	1995	277400	100170	P	042RF137	DRP	160MC4	1150	178	
	0.85	101600	1741	294000	100170	PF	042RF137	DRP	160MC4	960	179	
	1.4	63700	1092	323000	100170	PH	042RF137	DRP	160MC4	1150	178	
						PHF	042RF137	DRP	160MC4	960	179	
	0.93	92400	1584	303100	100170	P	042RF107	DRP	160MC4	1040	176	
	1.1	80700	1383	313500	100170	PF	042RF107	DRP	160MC4	850	177	
						PH	042RF107	DRP	160MC4	1050	176	
						PHF	042RF107	DRP	160MC4	860	177	
						P	042RF107	DRP	160MC4	1040	176	
	1.4	63100	1082	323000	100170	PF	042RF107	DRP	160MC4	850	177	
	1.5	57000	977	323000	100170	PH	042RF107	DRP	160MC4	1040	176	
	1.7	51800	887	323000	100170	PHF	042RF107	DRP	160MC4	850	177	
	1.2	70400	1207	222100	69620	P	032RF107	DRP	160MC4	790	170	
	1.4	63100	1082	231300	69620	PF	032RF107	DRP	160MC4	670	171	
	1.9	45900	787	248900	69620	PH	032RF107	DRP	160MC4	810	170	
	2.1	41700	714	252000	69620	PHF	032RF107	DRP	160MC4	690	171	
	2.1	41700	716	252000	69620	P	032RF97	DRP	160MC4	740	168	
	2.3	37000	634	252000	69620	PF	032RF97	DRP	160MC4	620	169	
						PH	032RF97	DRP	160MC4	760	168	
						PHF	032RF97	DRP	160MC4	640	169	
	2.4	35800	614	197000	51190	P	022RF107	DRP	160MC4	710	164	
	2.8	31200	536	197000	51190	PF	022RF107	DRP	160MC4	610	165	
						PH	022RF107	DRP	160MC4	720	164	
						PHF	022RF107	DRP	160MC4	620	165	
						P	022RF97	DRP	160MC4	660	162	
	1.5	57300	982	181000	51190	PF	022RF97	DRP	160MC4	560	163	
	1.7	51200	878	190700	51190	PH	022RF97	DRP	160MC4	680	162	
	1.9	46100	790	197000	51190	PHF	022RF97	DRP	160MC4	580	163	
	2.1	41700	716	197000	51190	P	022RF87	DRP	160MC4	610	160	
	2.6	33400	574	197000	51190	PF	022RF87	DRP	160MC4	510	161	
	3.0	28300	486	197000	51190	PH	022RF87	DRP	160MC4	630	160	
	3.8	22600	388	197000	45300	PHF	022RF87	DRP	160MC4	530	161	
	2.3	37000	634	156000	36810	P	012RF97	DRP	160MC4	520	156	
	2.6	33400	574	156000	36810	PF	012RF97	DRP	160MC4	445	157	
	3.0	28300	486	156000	36810	PH	012RF97	DRP	160MC4	530	156	
	3.5	24700	425	156000	36810	PHF	012RF97	DRP	160MC4	460	157	
	4.0	21200	364	156000	36810	P	012RF87	DRP	160MC4	465	154	
	4.5	19200	329	156000	36810	PF	012RF87	DRP	160MC4	395	155	
	5.3	16200	279	156000	36810	PH	012RF87	DRP	160MC4	480	154	
	4.1	20900	359	156000	36810	PHF	012RF87	DRP	160MC4	410	155	
	4.6	18800	322	156000	36810	P	002RF97	DRP	160MC4	435	148	
	5.3	16300	280	156000	36810	PF	002RF97	DRP	160MC4	380	149	
						PH	002RF97	DRP	160MC4	440	148	
						PHF	002RF97	DRP	160MC4	380	149	
	6.1	14100	243	123200	24830	P	002RF97	DRP	160MC4	435	148	
						PF	002RF97	DRP	160MC4	380	149	
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						PHF	002RF97	DRP	160MC4	380	149	

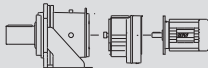


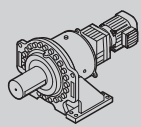
P.RF.. Helical Planetary Gearmotors

IE3 motor standard – selection tables

P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]		m [kg]	
9.2	3.8	22500	387	120800	24830			
	4.1	20800	357	123100	24830			
	4.6	18700	321	124000	24830			
	5.3	16200	279	124000	24830			
	5.9	14500	250	124000	24830	P 002RF87	DRP 160MC4	385 146
	7.1	12000	207	117400	24830	PF 002RF87	DRP 160MC4	325 147
	7.6	11200	193	115000	22500	PH 002RF87	DRP 160MC4	390 146
	8.3	10400	178	112300	23100	PHF 002RF87	DRP 160MC4	330 147
	9.2	9370	161	108800	22200			
	11	8130	139	104300	20400			
	12	7280	125	100900	19500			
	14	6040	104	95400	17400			
11.0	0.41	251800	3608	850000	500000	P 102RF167	DRP 180M4	4640 202
	0.46	224000	3210	850000	500000	PF 102RF167	DRP 180M4	3680 203
	0.52	199100	2854	850000	500000	PH 102RF167	DRP 180M4	4700 202
	0.65	158500	2271	850000	500000	PHF 102RF167	DRP 180M4	3740 203
	0.74	139800	2004	850000	500000			
	0.83	124300	1781	850000	500000	P 102RF167	DRP 180M4	4630 202
						PF 102RF167	DRP 180M4	3670 203
						PH 102RF167	DRP 180M4	4690 202
						PHF 102RF167	DRP 180M4	3730 203
	0.40	255200	3656	720000	423000			
	0.45	227000	3253	720000	423000	P 092RF167	DRP 180M4	3780 200
	0.51	201800	2891	720000	423000	PF 092RF167	DRP 180M4	3080 201
	0.64	160600	2301	720000	423000	PH 092RF167	DRP 180M4	3790 200
	0.73	141700	2031	720000	423000	PHF 092RF167	DRP 180M4	3100 201
	0.94	109300	1566	720000	423000			
	0.82	125900	1805	720000	423000	P 092RF167	DRP 180M4	3780 200
						PF 092RF167	DRP 180M4	3080 201
						PH 092RF167	DRP 180M4	3790 200
						PHF 092RF167	DRP 180M4	3090 201
	0.37	281500	4034	683000	359400	P 082RF167	DRP 180M4	3280 198
	0.42	244100	3497	683000	359400	PF 082RF167	DRP 180M4	2630 199
						PH 082RF167	DRP 180M4	3280 198
						PHF 082RF167	DRP 180M4	2630 199
	0.47	220400	3159	523000	245660	P 072RF167	DRP 180M4	2630 194
						PF 072RF167	DRP 180M4	2140 195
						PH 072RF167	DRP 180M4	2680 194
						PHF 072RF167	DRP 180M4	2190 195
	0.35	290600	4165	497800	245660			
	0.41	251500	3604	523000	245660	P 072RF147	DRP 180M4	2370 192
	0.46	221900	3180	523000	245660	PF 072RF147	DRP 180M4	1880 193
	0.54	191600	2747	523000	245660	PH 072RF147	DRP 180M4	2420 192
	0.58	178000	2552	523000	245660	PHF 072RF147	DRP 180M4	1930 193
	0.63	162400	2328	523000	245660			
	0.52	197400	2828	429500	185660	P 062RF147	DRP 180M4	1940 190
	0.71	144800	2074	466200	185660	PF 062RF147	DRP 180M4	1580 191
						PH 062RF147	DRP 180M4	1930 190
						PHF 062RF147	DRP 180M4	1570 191
	0.58	178500	2558	443900	185660	P 062RF137	DRP 180M4	1820 188
	0.64	162000	2321	455400	185660	PF 062RF137	DRP 180M4	1460 189
	0.74	139200	1995	469500	185660	PH 062RF137	DRP 180M4	1810 188
	0.85	121500	1741	473000	185660	PHF 062RF137	DRP 180M4	1450 189
	0.74	139200	1995	343100	124060	P 052RF137	DRP 180M4	1340 184
	0.85	121500	1741	358400	124060	PF 052RF137	DRP 180M4	1140 185
	1.0	103100	1477	364000	124060	PH 052RF137	DRP 180M4	1330 184
	1.1	90100	1291	364000	124060	PHF 052RF137	DRP 180M4	1130 185
	1.0	103100	1477	292500	100170	P 042RF137	DRP 180M4	1200 178
	1.4	76200	1092	317100	100170	PF 042RF137	DRP 180M4	1010 179
						PH 042RF137	DRP 180M4	1200 178
						PHF 042RF137	DRP 180M4	1010 179
	1.1	96500	1383	299200	100170	P 042RF107	DRP 180M4	1090 176
						PF 042RF107	DRP 180M4	900 177
						PH 042RF107	DRP 180M4	1100 176
						PHF 042RF107	DRP 180M4	910 177

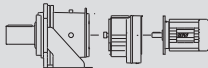


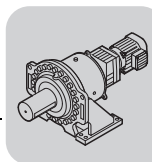
P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]					m [kg]	
11.0	1.2	84200	1207	310500	100170	P	042RF107	DRP	180M4	1080	176
	1.4	75500	1082	317700	100170	PF	042RF107	DRP	180M4	890	177
	1.5	68100	977	323000	100170	PH	042RF107	DRP	180M4	1090	176
	1.7	61900	887	323000	100170	PHF	042RF107	DRP	180M4	900	177
	1.4	75500	1082	215100	69620	P	032RF107	DRP	180M4	840	170
	1.5	68100	977	225100	69620	PF	032RF107	DRP	180M4	720	171
	1.9	54900	787	240300	69620	PH	032RF107	DRP	180M4	860	170
	2.1	49800	714	245300	69620	PHF	032RF107	DRP	180M4	740	171
	1.7	61200	878	233500	69620	P	032RF97	DRP	180M4	790	168
						PF	032RF97	DRP	180M4	670	169
						PH	032RF97	DRP	180M4	810	168
						PHF	032RF97	DRP	180M4	690	169
	2.4	42800	614	197000	51190	P	022RF107	DRP	180M4	760	164
	2.8	37400	536	197000	51190	PF	022RF107	DRP	180M4	660	165
						PH	022RF107	DRP	180M4	770	164
						PHF	022RF107	DRP	180M4	670	165
	1.9	55100	790	184600	51190	P	022RF97	DRP	180M4	710	162
	2.1	49900	716	192600	51190	PF	022RF97	DRP	180M4	610	163
	2.3	44200	634	197000	51190	PH	022RF97	DRP	180M4	730	162
	2.6	40000	574	197000	51190	PHF	022RF97	DRP	180M4	620	163
	3.0	33900	486	197000	51190						
	2.6	40000	574	156000	36810						
	3.0	33900	486	156000	36810	P	012RF97	DRP	180M4	560	156
	3.5	29600	425	156000	36810	PF	012RF97	DRP	180M4	495	157
	4.0	25400	364	156000	36810	PH	012RF97	DRP	180M4	580	156
	4.5	22900	329	156000	36810	PHF	012RF97	DRP	180M4	510	157
	5.3	19400	279	156000	36810						
	6.0	17000	244	152400	36810						
	7.2	14200	204	144400	36810						
	3.8	27100	388	156000	36810	P	012RF87	DRP	180M4	510	154
	4.1	25000	359	156000	36810	PF	012RF87	DRP	180M4	445	155
	4.6	22500	322	156000	36810	PH	012RF87	DRP	180M4	530	154
	5.3	19500	280	156000	36810	PHF	012RF87	DRP	180M4	455	155
	5.9	17400	251	153700	36810						
	7.1	14500	208	145300	34900						
	4.6	22400	321	121100	24830						
	5.3	19400	279	124000	24830	P	002RF87	DRP	180M4	435	146
	5.9	17400	250	124000	24830	PF	002RF87	DRP	180M4	375	147
	7.1	14400	207	117400	24830	PH	002RF87	DRP	180M4	435	146
	7.6	13400	193	115000	22500	PHF	002RF87	DRP	180M4	380	147
	8.3	12400	178	112300	23100						
	9.2	11200	161	108800	22200						
	11	9720	139	104300	20400						
	12	8700	125	100900	19500						
	14	7220	104	95400	17400						
15.0	0.41	343400	3608	850000	500000	P	102RF167	DRP	180L4	4650	202
	0.46	305500	3210	850000	500000	PF	102RF167	DRP	180L4	3690	203
	0.52	271600	2854	850000	500000	PH	102RF167	DRP	180L4	4710	202
	0.65	216100	2271	850000	500000	PHF	102RF167	DRP	180L4	3750	203
	0.74	190700	2004	850000	500000						
	0.95	147100	1546	850000	500000						
	1.1	126800	1332	850000	500000						
	0.83	169500	1781	850000	500000	P	102RF167	DRP	180L4	4640	202
						PF	102RF167	DRP	180L4	3680	203
						PH	102RF167	DRP	180L4	4700	202
						PHF	102RF167	DRP	180L4	3740	203
	0.40	348000	3656	720000	423000						
	0.45	309600	3253	720000	423000	P	092RF167	DRP	180L4	3790	200
	0.51	275200	2891	720000	423000	PF	092RF167	DRP	180L4	3100	201
	0.64	219000	2301	720000	423000	PH	092RF167	DRP	180L4	3800	200
	0.73	193200	2031	720000	423000	PHF	092RF167	DRP	180L4	3110	201
	0.94	149000	1566	720000	423000						
	1.1	128500	1350	720000	423000						
	0.82	171700	1805	720000	423000	P	092RF167	DRP	180L4	3790	200
	1.2	114600	1205	720000	423000	PF	092RF167	DRP	180L4	3090	201
						PH	092RF167	DRP	180L4	3800	200
						PHF	092RF167	DRP	180L4	3100	201

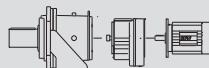


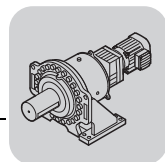
P.RF.. Helical Planetary Gearmotors

IE3 motor standard – selection tables

P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]					m [kg]	
15.0	0.37	383900	4034	631600	359400	P	082RF167	DRP	180L4	3290	198
	0.42	332900	3497	676900	359400	PF	082RF167	DRP	180L4	2640	199
	0.47	296100	3112	683000	359400	PH	082RF167	DRP	180L4	3290	198
	0.53	263200	2766	683000	359400	PHF	082RF167	DRP	180L4	2640	199
	0.58	240700	2530	683000	359400						
	0.64	218200	2293	683000	359400	P	082RF147	DRP	180L4	3040	196
						PF	082RF147	DRP	180L4	2390	197
						PH	082RF147	DRP	180L4	3030	196
						PHF	082RF147	DRP	180L4	2380	197
	0.47	300500	3159	485600	245660	P	072RF167	DRP	180L4	2640	194
	0.57	244300	2568	523000	245660	PF	072RF167	DRP	180L4	2150	195
						PH	072RF167	DRP	180L4	2690	194
						PHF	072RF167	DRP	180L4	2200	195
	0.54	261300	2747	523000	245660	P	072RF147	DRP	180L4	2380	192
	0.58	242800	2552	523000	245660	PF	072RF147	DRP	180L4	1890	193
	0.63	221400	2328	523000	245660	PH	072RF147	DRP	180L4	2430	192
	0.73	191600	2014	523000	245660	PHF	072RF147	DRP	180L4	1940	193
	0.83	169100	1777	523000	245660						
	0.71	197400	2074	429500	185660	P	062RF147	DRP	180L4	1960	190
	0.81	174200	1830	447000	185660	PF	062RF147	DRP	180L4	1590	191
	0.93	150400	1581	462800	185660	PH	062RF147	DRP	180L4	1940	190
	1.0	133000	1398	473000	185660	PHF	062RF147	DRP	180L4	1580	191
	1.3	111800	1175	473000	185660						
	0.85	165700	1741	452900	185660	P	062RF137	DRP	180L4	1840	188
	1.0	140600	1477	468700	185660	PF	062RF137	DRP	180L4	1470	189
	1.1	122900	1291	473000	185660	PH	062RF137	DRP	180L4	1820	188
	1.4	103900	1092	473000	185660	PHF	062RF137	DRP	180L4	1460	189
	1.3	110400	1160	473000	185660	P	062RF137	DRP	180L4	1830	188
						PF	062RF137	DRP	180L4	1460	189
						PH	062RF137	DRP	180L4	1820	188
						PHF	062RF137	DRP	180L4	1450	189
	1.0	140600	1477	341900	124060	P	052RF137	DRP	180L4	1350	184
	1.1	122900	1291	357300	124060	PF	052RF137	DRP	180L4	1150	185
	1.4	103900	1092	364000	124060	PH	052RF137	DRP	180L4	1340	184
						PHF	052RF137	DRP	180L4	1140	185
	1.6	90000	946	364000	124060	P	052RF137	DRP	180L4	1340	184
	1.7	82100	863	364000	124060	PF	052RF137	DRP	180L4	1140	185
						PH	052RF137	DRP	180L4	1330	184
						PHF	052RF137	DRP	180L4	1130	185
	1.4	103900	1092	291700	100170	P	042RF137	DRP	180L4	1210	178
						PF	042RF137	DRP	180L4	1020	179
						PH	042RF137	DRP	180L4	1210	178
						PHF	042RF137	DRP	180L4	1020	179
	1.6	90000	946	305300	100170	P	042RF137	DRP	180L4	1200	178
	1.7	82100	863	312300	100170	PF	042RF137	DRP	180L4	1010	179
	2.0	71100	747	321000	100170	PH	042RF137	DRP	180L4	1200	178
						PHF	042RF137	DRP	180L4	1010	179
	1.5	92900	977	302600	100170	P	042RF107	DRP	180L4	1100	176
	1.7	84400	887	310300	100170	PF	042RF107	DRP	180L4	910	177
	1.9	74900	787	318100	100170	PH	042RF107	DRP	180L4	1100	176
	2.1	68000	714	323000	100170	PHF	042RF107	DRP	180L4	910	177
	2.4	58400	614	323000	100170						
	1.9	74900	787	216000	69620	P	032RF107	DRP	180L4	850	170
	2.1	68000	714	225400	69620	PF	032RF107	DRP	180L4	730	171
	2.4	58400	614	236600	69620	PH	032RF107	DRP	180L4	870	170
	2.8	51000	536	244200	69620	PHF	032RF107	DRP	180L4	750	171
	3.2	43200	455	251200	69620						
	3.0	46200	486	248600	69620	P	032RF97	DRP	180L4	800	168
						PF	032RF97	DRP	180L4	680	169
						PH	032RF97	DRP	180L4	820	168
						PHF	032RF97	DRP	180L4	700	169
	2.4	58400	614	179100	51190	P	022RF107	DRP	180L4	770	164
	2.8	51000	536	191100	51190	PF	022RF107	DRP	180L4	670	165
	3.2	43200	455	197000	51190	PH	022RF107	DRP	180L4	780	164
	3.7	37800	397	197000	51190	PHF	022RF107	DRP	180L4	680	165
	4.4	31900	336	197000	51190						

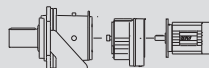


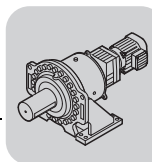
P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]				m [kg]									
15.0	3.0	46200	486	197000	51190	P PF PH PHF	022RF97 022RF97 022RF97 022RF97	DRP DRP DRP DRP	180L4 180L4 180L4 180L4	720 620 740 640	162 163 162 163							
	3.5	40400	425	197000	51190													
	4.0	34600	364	197000	51190													
	4.5	31300	329	197000	51190													
	5.3	26500	279	197000	51190													
	3.5	40400	425	156000	36810	P PF PH PHF	012RF97 012RF97 012RF97 012RF97	DRP DRP DRP DRP	180L4 180L4 180L4 180L4	570 500 590 520	156 157 156 157							
	4.0	34600	364	156000	36810													
	4.5	31300	329	156000	36810													
	5.3	26500	279	156000	36810													
	6.0	23200	244	152400	36810													
	7.2	19400	204	144400	36810													
	8.4	16800	177	138300	36810													
	8.7	16000	169	136400	36810													
	10	13600	143	129800	36810													
	12	11800	125	124700	36810													
	14	9950	105	118200	35000	P PF PH PHF	002RF97 002RF97 002RF97 002RF97	DRP DRP DRP DRP	180L4 180L4 180L4 180L4	495 435 500 440	148 149 148 149							
	6.1	23100	243	120100	24830													
	7.3	19300	203	116800	24830													
	8.1	17200	181	112900	24830													
	8.4	16700	176	111800	24830													
	9.0	15600	164	109500	24830													
	11	13200	139	104200	24830													
	12	11500	121	100000	24830													
	15	9660	102	94800	24830													
	17	8360	88	90800	24830	P PF PH PHF	002RF87 002RF87 002RF87 002RF87	DRP DRP DRP DRP	180L4 180L4 180L4 180L4	445 385 450 390	146 147 146 147							
	14	9850	104	95400	17400													
	18.5	0.46	375500	3210	850000							500000	P PF PH PHF	102RF167 102RF167 102RF167 102RF167	DRP DRP DRP DRP	180LC4 180LC4 180LC4 180LC4	4660 3700 4720 3760	202 203 202 203
		0.52	333800	2854	850000							500000						
		0.65	265600	2271	850000	500000												
		0.74	234400	2004	850000	500000												
0.96		180800	1546	850000	500000													
1.1		155800	1332	850000	500000	P PF PH PHF	102RF167 102RF167 102RF167 102RF167	DRP DRP DRP DRP	180LC4 180LC4 180LC4 180LC4	4650 3690 4710 3750	202 203 202 203							
1.2		139100	1189	850000	500000													
0.45		380600	3253	720000	423000							P PF PH PHF	092RF167 092RF167 092RF167 092RF167	DRP DRP DRP DRP	180LC4 180LC4 180LC4 180LC4	3800 3100 3810 3120	200 201 200 201	
0.51		338300	2891	720000	423000													
0.64		269200	2301	720000	423000													
0.73		237500	2031	720000	423000													
0.94		183200	1566	720000	423000													
1.1		157900	1350	720000	423000	P PF PH PHF	092RF167 092RF167 092RF167 092RF167	DRP DRP DRP DRP	180LC4 180LC4 180LC4 180LC4	3800 3100 3810 3110	200 201 200 201							
1.2		140900	1205	720000	423000													
1.5		112700	964	720000	423000													
0.54		322900	2766	683000	359400							P PF PH PHF	082RF167 082RF167 082RF167 082RF167	DRP DRP DRP DRP	200L4 200L4 200L4 200L4	3400 2750 3390 2740	198 199 198 199	
0.59		295300	2530	683000	359400													
0.67		256900	2201	683000	359400													
0.76		226700	1943	683000	359400													
0.88		196600	1684	683000	359400													
0.99		174900	1498	683000	359400	P PF PH PHF	082RF167 082RF167 082RF167 082RF167	DRP DRP DRP DRP	180LC4 180LC4 180LC4 180LC4	3300 2650 3300 2650	198 199 198 199							
1.2		150700	1291	683000	359400													
0.42		409100	3497	606000	359400							P PF PH PHF	082RF167 082RF167 082RF167 082RF167	DRP DRP DRP DRP	180LC4 180LC4 180LC4 180LC4	3300 2650 3300 2650	198 199 198 199	
0.48		364000	3112	650300	359400													
0.54		323600	2766	683000	359400													
0.59		295900	2530	683000	359400													
0.67		257500	2201	683000	359400													
0.76		227200	1943	683000	359400	P PF PH PHF	082RF147 082RF147 082RF147 082RF147	DRP DRP DRP DRP	200L4 200L4 200L4 200L4	3140 2490 3130 2480	196 197 196 197							
0.88		197000	1684	683000	359400													
0.65		267700	2293	683000	359400													
0.85	204400	1751	683000	359400														
0.98	176500	1512	683000	359400														
1.1	156100	1338	683000	359400	P PF PH PHF	082RF147 082RF147	DRP DRP	200L4 200L4	3140 2490	196 197								
1.3	131200	1141	683000	359400														

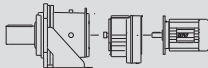


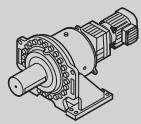
P.RF.. Helical Planetary Gearmotors

IE3 motor standard – selection tables

P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]					m [kg]	
18.5	0.65	268200	2293	683000	359400	P	082RF147	DRP	180LC4	3040	196
						PF	082RF147	DRP	180LC4	2400	197
						PH	082RF147	DRP	180LC4	3040	196
						PHF	082RF147	DRP	180LC4	2390	197
	0.98	177500	1521	523000	245660	P	072RF167	DRP	200L4	2740	194
						PF	072RF167	DRP	200L4	2250	195
						PH	072RF167	DRP	200L4	2800	194
						PHF	072RF167	DRP	200L4	2300	195
	1.4	124300	1065	523000	245660	P	072RF167	DRP	180LC4	2650	194
						PF	072RF167	DRP	180LC4	2160	195
						PH	072RF167	DRP	180LC4	2700	194
						PHF	072RF167	DRP	180LC4	2210	195
	0.58	300300	2568	485900	245660	P	072RF167	DRP	180LC4	2650	194
						PF	072RF167	DRP	180LC4	2160	195
						PH	072RF167	DRP	180LC4	2700	194
						PHF	072RF167	DRP	180LC4	2210	195
	0.74	235100	2014	523000	245660	P	072RF147	DRP	200L4	2480	192
						PF	072RF147	DRP	200L4	1990	193
						PH	072RF147	DRP	200L4	2540	192
						PHF	072RF147	DRP	200L4	2040	193
	0.83	207400	1777	523000	245660	P	072RF147	DRP	180LC4	2390	192
						PF	072RF147	DRP	180LC4	1900	193
						PH	072RF147	DRP	180LC4	2440	192
						PHF	072RF147	DRP	180LC4	1950	193
	0.96	179500	1535	523000	245660	P	072RF147	DRP	180LC4	2390	192
						PF	072RF147	DRP	180LC4	1900	193
						PH	072RF147	DRP	180LC4	2440	192
						PHF	072RF147	DRP	180LC4	1950	193
	1.1	158800	1358	523000	245660	P	072RF147	DRP	180LC4	2390	192
						PF	072RF147	DRP	180LC4	1900	193
						PH	072RF147	DRP	180LC4	2440	192
						PHF	072RF147	DRP	180LC4	1950	193
	1.3	133400	1141	523000	245660	P	072RF147	DRP	180LC4	2390	192
						PF	072RF147	DRP	180LC4	1900	193
						PH	072RF147	DRP	180LC4	2440	192
						PHF	072RF147	DRP	180LC4	1950	193
	0.94	184500	1581	439500	185660	P	062RF147	DRP	200L4	2060	190
						PF	062RF147	DRP	200L4	1700	191
						PH	062RF147	DRP	200L4	2050	190
						PHF	062RF147	DRP	200L4	1680	191
	1.1	163200	1398	454600	185660	P	062RF147	DRP	200L4	2060	190
PF						062RF147	DRP	200L4	1700	191	
PH						062RF147	DRP	200L4	2050	190	
PHF						062RF147	DRP	200L4	1680	191	
1.3	137200	1175	470700	185660	P	062RF147	DRP	200L4	2060	190	
					PF	062RF147	DRP	200L4	1700	191	
					PH	062RF147	DRP	200L4	2050	190	
					PHF	062RF147	DRP	200L4	1680	191	
1.6	110800	949	473000	185660	P	062RF147	DRP	200L4	2060	190	
					PF	062RF147	DRP	200L4	1700	191	
					PH	062RF147	DRP	200L4	2050	190	
					PHF	062RF147	DRP	200L4	1680	191	
0.81	214100	1830	415400	185660	P	062RF147	DRP	180LC4	1960	190	
					PF	062RF147	DRP	180LC4	1600	191	
					PH	062RF147	DRP	180LC4	1950	190	
					PHF	062RF147	DRP	180LC4	1590	191	
0.94	184900	1581	439200	185660	P	062RF147	DRP	180LC4	1960	190	
					PF	062RF147	DRP	180LC4	1600	191	
					PH	062RF147	DRP	180LC4	1950	190	
					PHF	062RF147	DRP	180LC4	1590	191	
1.1	163500	1398	454400	185660	P	062RF147	DRP	180LC4	1960	190	
					PF	062RF147	DRP	180LC4	1600	191	
					PH	062RF147	DRP	180LC4	1950	190	
					PHF	062RF147	DRP	180LC4	1590	191	
1.3	137400	1175	470500	185660	P	062RF147	DRP	180LC4	1960	190	
					PF	062RF147	DRP	180LC4	1600	191	
					PH	062RF147	DRP	180LC4	1950	190	
					PHF	062RF147	DRP	180LC4	1590	191	
1.6	111000	949	473000	185660	P	062RF147	DRP	180LC4	1960	190	
					PF	062RF147	DRP	180LC4	1600	191	
					PH	062RF147	DRP	180LC4	1950	190	
					PHF	062RF147	DRP	180LC4	1590	191	
1.8	93600	802	473000	185660	P	062RF147	DRP	200L4	2050	190	
					PF	062RF147	DRP	200L4	1680	191	
					PH	062RF147	DRP	200L4	2040	190	
					PHF	062RF147	DRP	200L4	1670	191	
1.4	127400	1092	473000	185660	P	062RF137	DRP	200L4	1940	188	
					PF	062RF137	DRP	200L4	1580	189	
					PH	062RF137	DRP	200L4	1930	188	
					PHF	062RF137	DRP	200L4	1560	189	
1.0	172800	1477	448000	185660	P	062RF137	DRP	180LC4	1840	188	
					PF	062RF137	DRP	180LC4	1480	189	
					PH	062RF137	DRP	180LC4	1830	188	
					PHF	062RF137	DRP	180LC4	1470	189	
1.2	151000	1291	462400	185660	P	062RF137	DRP	180LC4	1840	188	
					PF	062RF137	DRP	180LC4	1480	189	
					PH	062RF137	DRP	180LC4	1830	188	
					PHF	062RF137	DRP	180LC4	1470	189	
1.4	127700	1092	473000	185660	P	062RF137	DRP	180LC4	1840	188	
					PF	062RF137	DRP	180LC4	1480	189	
					PH	062RF137	DRP	180LC4	1830	188	
					PHF	062RF137	DRP	180LC4	1470	189	
1.7	100700	863	473000	185660	P	062RF137	DRP	200L4	1930	188	
					PF	062RF137	DRP	200L4	1570	189	
					PH	062RF137	DRP	200L4	1920	188	
					PHF	062RF137	DRP	200L4	1560	189	
2.0	87200	747	473000	185660	P	062RF137	DRP	200L4	1930	188	
					PF	062RF137	DRP	200L4	1570	189	
					PH	062RF137	DRP	200L4	1920	188	
					PHF	062RF137	DRP	200L4	1560	189	
2.2	76900	659	473000	185660	P	062RF137	DRP	200L4	1930	188	
					PF	062RF137	DRP	200L4	1570	189	
					PH	062RF137	DRP	200L4	1920	188	
					PHF	062RF137	DRP	200L4	1560	189	
1.3	135700	1160	471500	185660	P	062RF137	DRP	180LC4	1840	188	
					PF	062RF137	DRP	180LC4	1470	189	
					PH	062RF137	DRP	180LC4	1820	188	
					PHF	062RF137	DRP	180LC4	1460	189	
1.6	110700	946	473000	185660	P	062RF137	DRP	180LC4	1840	188	
					PF	062RF137	DRP	180LC4	1470	189	
					PH	062RF137	DRP	180LC4	1820	188	
					PHF	062RF137	DRP	180LC4	1460	189	
1.7	100900	863	473000	185660	P	062RF137	DRP	180LC4	1840	188	
					PF	062RF137	DRP	180LC4	1470	189	
					PH	062RF137	DRP	180LC4	1820	188	
					PHF	062RF137	DRP	180LC4	1460	189	
1.4	127700	1092	353300	124060	P	052RF137	DRP	180LC4	1360	184	
					PF	052RF137	DRP	180LC4	1160	185	
					PH	052RF137	DRP	180LC4	1350	184	
					PHF	052RF137	DRP	180LC4	1150	185	
1.6	110500	946	364000	124060	P	052RF137	DRP	200L4	1450	184	
					PF	052RF137	DRP	200L4	1250	185	
					PH	052RF137	DRP	200L4	1440	184	
					PHF	052RF137	DRP	200L4	1240	185	
1.7	100700	863	364000	124060	P	052RF137	DRP	200L4	1450	184	
					PF	052RF137	DRP	200L4	1250	185	
					PH	052RF137	DRP	200L4	1440	184	
					PHF	052RF137	DRP	200L4	1240	185	
2.0	87200	747	364000	124060	P	052RF137	DRP	200L4	1450	184	
					PF	052RF137	DRP	200L4	1250	185	
					PH	052RF137	DRP	200L4	1440	184	
					PHF	052RF137	DRP	200L4	1240	185	
2.2	76900	659	364000	124060	P	052RF137	DRP	200L4	1450	184	
					PF	052RF137	DRP	200L4	1250	185	
					PH	052RF137	DRP	200L4	1440	184	
					PHF	052RF137	DRP	200L4	1240	185	
1.6	110700	946	364000	124060	P	052RF137	DRP	180LC4	1350	184	
					PF	052RF137	DRP	180LC4	1150	185	
					PH	052RF137	DRP	180LC4	1340	184	
					PHF	052RF137	DRP	180LC4	1140	185	
1.7	100900	863	364000	124060	P	052RF137	DRP	180LC4	1350	184	
					PF	052RF137	DRP	180LC4	1150	185	
					PH	052RF137	DRP	180LC4	1340	184	
					PHF	052RF137	DRP	180LC4	1140	185	
2.0	87400	747	364000	124060	P	052RF137	DRP	180LC4	1350	184	
					PF	052RF137	DRP	180LC4	1150	185	
					PH	052RF137	DRP	180LC4	1340	184	
					PHF	052RF137	DRP	180LC4	1140	185	
2.2	77100	659	364000	124060	P	052RF137	DRP	180LC4	1350	184	
					PF	052RF137	DRP	180LC4	1150	185	
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					PHF	052RF137	DRP	180LC4	1140	185	

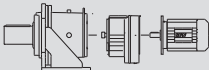


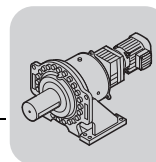
P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]						m [kg]	
18.5	2.8	62500	536	364000	124060	P	052RF107	DRP	200L4	1340	182	
	3.3	53000	455	364000	124060	PF	052RF107	DRP	200L4	1140	183	
						PH	052RF107	DRP	200L4	1340	182	
						PHF	052RF107	DRP	200L4	1140	183	
	2.1	83500	714	364000	124060	P	052RF107	DRP	180LC4	1250	182	
	2.4	71800	614	364000	124060	PF	052RF107	DRP	180LC4	1050	183	
						PH	052RF107	DRP	180LC4	1240	182	
						PHF	052RF107	DRP	180LC4	1040	183	
	2.0	87200	747	307900	100170	P	042RF137	DRP	200L4	1300	178	
	2.6	66400	569	323000	100170	PF	042RF137	DRP	200L4	1110	179	
	3.5	49400	423	323000	100170	PH	042RF137	DRP	200L4	1300	178	
						PHF	042RF137	DRP	200L4	1120	179	
	1.6	110700	946	284200	100170	P	042RF137	DRP	180LC4	1210	178	
	1.7	100900	863	294800	100170	PF	042RF137	DRP	180LC4	1020	179	
	2.0	87400	747	307800	100170	PH	042RF137	DRP	180LC4	1210	178	
	2.6	66600	569	323000	100170	PHF	042RF137	DRP	180LC4	1020	179	
	2.1	83400	714	311200	100170	P	042RF107	DRP	200L4	1200	176	
	2.4	71700	614	320600	100170	PF	042RF107	DRP	200L4	1010	177	
	2.8	62500	536	323000	100170	PH	042RF107	DRP	200L4	1200	176	
	3.3	53000	455	323000	100170	PHF	042RF107	DRP	200L4	1010	177	
	3.7	46300	397	322700	100170							
	1.9	92100	787	303500	100170	P	042RF107	DRP	180LC4	1100	176	
	2.1	83500	714	311100	100170	PF	042RF107	DRP	180LC4	910	177	
	2.4	71800	614	320500	100170	PH	042RF107	DRP	180LC4	1110	176	
	2.8	62700	536	323000	100170	PHF	042RF107	DRP	180LC4	920	177	
	3.3	53100	455	323000	100170							
	2.8	62500	536	232000	69620							
	3.3	53000	455	242200	69620	P	032RF107	DRP	200L4	950	170	
	3.7	46300	397	248500	69620	PF	032RF107	DRP	200L4	830	171	
	4.4	39200	336	248400	69620	PH	032RF107	DRP	200L4	970	170	
	4.8	35900	308	242000	69620	PHF	032RF107	DRP	200L4	850	171	
	5.7	30500	261	230400	69620							
	6.5	26600	228	221200	69620							
	2.4	71800	614	220300	69620	P	032RF107	DRP	180LC4	860	170	
	2.8	62700	536	231800	69620	PF	032RF107	DRP	180LC4	740	171	
	3.3	53100	455	242100	69620	PH	032RF107	DRP	180LC4	880	170	
	3.7	46400	397	248400	69620	PHF	032RF107	DRP	180LC4	760	171	
	4.4	39300	336	248600	69620							
	4.5	38500	329	247100	69620	P	032RF97	DRP	180LC4	810	168	
	5.3	32600	279	235100	69620	PF	032RF97	DRP	180LC4	690	169	
						PH	032RF97	DRP	180LC4	830	168	
						PHF	032RF97	DRP	180LC4	710	169	
	3.7	46300	397	197000	51190							
	4.4	39200	336	197000	51190	P	022RF107	DRP	200L4	870	164	
	4.8	35900	308	197000	51190	PF	022RF107	DRP	200L4	770	165	
	5.7	30500	261	197000	51190	PH	022RF107	DRP	200L4	890	164	
	6.5	26600	228	197000	51190	PHF	022RF107	DRP	200L4	790	165	
	7.7	22500	193	197000	51190							
	8.6	20100	172	197000	51190							
	9.4	18400	158	197000	51190							
	3.3	53100	455	187800	51190							
	3.7	46400	397	197000	51190	P	022RF107	DRP	180LC4	780	164	
	4.4	39300	336	197000	51190	PF	022RF107	DRP	180LC4	680	165	
	4.8	36000	308	197000	51190	PH	022RF107	DRP	180LC4	790	164	
	5.7	30500	261	197000	51190	PHF	022RF107	DRP	180LC4	690	165	
	6.5	26700	228	197000	51190							
	7.7	22600	193	197000	51190							
	4.5	38400	329	197000	51190	P	022RF97	DRP	200L4	830	162	
	5.3	32500	279	197000	51190	PF	022RF97	DRP	200L4	720	163	
	6.1	28400	244	197000	51190	PH	022RF97	DRP	200L4	840	162	
	7.3	23800	204	197000	51190	PHF	022RF97	DRP	200L4	740	163	
	8.4	20600	177	197000	51190							
	4.1	42600	364	197000	51190							
	4.5	38500	329	197000	51190	P	022RF97	DRP	180LC4	730	162	
	5.3	32600	279	197000	51190	PF	022RF97	DRP	180LC4	630	163	
	6.1	28500	244	197000	51190	PH	022RF97	DRP	180LC4	750	162	
	7.3	23800	204	197000	51190	PHF	022RF97	DRP	180LC4	640	163	
	8.4	20600	177	197000	51190							
	8.8	19700	169	197000	40000							

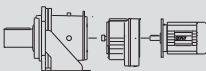


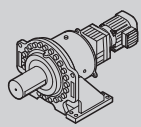
P.RF.. Helical Planetary Gearmotors

IE3 motor standard – selection tables

P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]						m [kg]	
18.5	8.6	20100	172	137100	36810	P PF PH PHF	012RF107 012RF107 012RF107 012RF107	DRP DRP DRP DRP	200L4 200L4 200L4 200L4	720	158	
	9.4	18400	158	133500	36810					650	159	
	11	15600	134	127100	36810					740	158	
	13	13600	117	122100	36810					670	159	
	15	11500	99	116100	36810	P PF PH PHF	012RF107 012RF107 012RF107 012RF107	DRP DRP DRP DRP	180LC4 180LC4 180LC4 180LC4	630	158	
	8.6	20100	172	137200	36810					560	159	
	9.4	18400	158	133600	36810					640	158	
	11	15600	134	127200	36810					640	158	
	13	13700	117	122100	36810	P PF PH PHF	012RF97 012RF97 012RF97 012RF97	DRP DRP DRP DRP	200L4 200L4 200L4 200L4	680	156	
	6.1	28400	244	152100	36810					610	157	
	7.3	23800	204	144200	36810					690	156	
	8.4	20600	177	138100	36810					620	157	
	8.8	19700	169	136300	36810							
	10	16700	143	129700	36810							
	12	14500	125	124500	36810							
	14	12200	105	118000	35000							
	16	10500	91	113000	32100	P PF PH PHF	012RF97 012RF97 012RF97 012RF97	DRP DRP DRP DRP	180LC4 180LC4 180LC4 180LC4	580	156	
	4.5	38500	329	156000	36810					510	157	
	5.3	32600	279	156000	36810					600	156	
	6.1	28500	244	152200	36810					530	157	
	7.3	23800	204	144300	36810							
	8.4	20600	177	138200	36810							
	8.8	19700	169	136300	36810							
	10	16700	143	129700	36810							
	12	14600	125	124600	36810	P PF PH PHF	002RF97 002RF97 002RF97 002RF97	DRP DRP DRP DRP	200L4 200L4 200L4 200L4	600	148	
	14	12200	105	118100	35000					540	149	
	16	10500	91	113100	32100					600	148	
	9.0	19100	164	109300	24830					540	149	
	11	16200	139	104000	24830							
	12	14100	121	99900	24830	P PF PH PHF	002RF97 002RF97 002RF97 002RF97	DRP DRP DRP DRP	180LC4 180LC4 180LC4 180LC4	500	148	
	15	11800	102	94700	24830					445	149	
	17	10200	88	90600	24830					510	148	
	7.3	23700	203	116700	24830					450	149	
	8.4	20500	176	111700	24830							
	9.0	19100	164	109400	24830	P PF PH PHF	082RF167 082RF167 082RF167 082RF167	DRP DRP DRP DRP	200L4 200L4 200L4 200L4	3400	198	
	11	16200	139	104100	24830					2750	199	
	12	14100	121	99900	24830					3390	198	
	15	11800	102	94700	24830					2740	199	
	17	10200	88	90700	24830							
	22	0.54	384300	2766	631300	359400	P PF PH PHF	082RF147 082RF147 082RF147 082RF147	DRP DRP DRP DRP	200L4 200L4 200L4 200L4	3140	196
0.59		351400	2530	661500	359400	2490					197	
0.67		305800	2201	683000	359400	3130					196	
0.76		269800	1943	683000	359400	2480					197	
0.88		233900	1684	683000	359400							
0.99		208100	1498	683000	359400	P PF PH PHF	072RF167 072RF167 072RF167 072RF167	DRP DRP DRP DRP	200L4 200L4 200L4 200L4	2740	194	
1.2		179400	1291	683000	359400					2250	195	
0.65		318500	2293	683000	359400					2800	194	
0.85		243200	1751	683000	359400					2300	195	
0.98		210100	1512	683000	359400							
1.1		185800	1338	683000	359400	P PF PH PHF	072RF147 072RF147 072RF147 072RF147	DRP DRP DRP DRP	200L4 200L4 200L4 200L4	2480	192	
1.3		156100	1141	683000	359400					1990	193	
0.97		211200	1521	523000	245660					2540	192	
1.4		147900	1065	523000	245660					2040	193	
0.74		279800	2014	510300	245660	P PF PH PHF	062RF147 062RF147 062RF147 062RF147	DRP DRP DRP DRP	200L4 200L4 200L4 200L4	2060	190	
0.83		246800	1777	523000	245660					1700	191	
1.1		188600	1358	523000	245660					2050	190	
1.3		158500	1141	523000	245660					1680	191	
1.6		128000	922	523000	245660							
0.94		219600	1581	410500	185660	P PF PH PHF	062RF147 062RF147 062RF147 062RF147	DRP DRP DRP DRP	200L4 200L4 200L4 200L4	2050	190	
1.1		194200	1398	432000	185660					1680	191	
1.3		163200	1175	454600	185660					2040	190	
1.6		131800	949	473000	185660					1670	191	
1.8		111400	802	473000	185660							

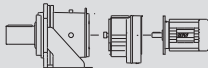


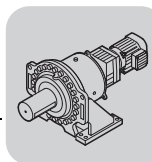
P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]					m [kg]		
22	1.4	151600	1092	462000	185660	P	062RF137	DRP	200L4	1940	188	
						PF	062RF137	DRP	200L4	1580	189	
						PH	062RF137	DRP	200L4	1930	188	
						PHF	062RF137	DRP	200L4	1560	189	
	1.7	119900	863	473000	185660	P	062RF137	DRP	200L4	1930	188	
	2.0	103700	747	473000	185660	PF	062RF137	DRP	200L4	1570	189	
	2.2	91500	659	473000	185660	PH	062RF137	DRP	200L4	1920	188	
						PHF	062RF137	DRP	200L4	1560	189	
	1.6	131500	946	350100	124060	P	052RF137	DRP	200L4	1450	184	
	1.7	119900	863	359700	124060		PF	052RF137	DRP	200L4	1250	185
	2.0	103700	747	364000	124060		PH	052RF137	DRP	200L4	1440	184
	2.2	91500	659	364000	124060		PHF	052RF137	DRP	200L4	1240	185
	2.6	79000	569	364000	124060							
	2.9	69900	503	364000	124060							
	2.8	74400	536	364000	124060	P	052RF107	DRP	200L4	1340	182	
	3.3	63100	455	364000	124060	PF	052RF107	DRP	200L4	1140	183	
						PH	052RF107	DRP	200L4	1340	182	
						PHF	052RF107	DRP	200L4	1140	183	
	2.0	103700	747	291800	100170	P	042RF137	DRP	200L4	1300	178	
	2.6	79000	569	314800	100170	PF	042RF137	DRP	200L4	1110	179	
	3.5	58700	423	323000	100170	PH	042RF137	DRP	200L4	1300	178	
						PHF	042RF137	DRP	200L4	1120	179	
	2.1	99200	714	296500	100170	P	042RF107	DRP	200L4	1200	176	
	2.4	85300	614	309600	100170		PF	042RF107	DRP	200L4	1010	177
	2.8	74400	536	318500	100170		PH	042RF107	DRP	200L4	1200	176
	3.3	63100	455	323000	100170		PHF	042RF107	DRP	200L4	1010	177
	3.7	55200	397	322700	100170							
	2.8	74400	536	216700	69620	P	032RF107	DRP	200L4	950	170	
	3.3	63100	455	231300	69620		PF	032RF107	DRP	200L4	830	171
	3.7	55200	397	240100	69620		PH	032RF107	DRP	200L4	970	170
	4.4	46600	336	248200	69620		PHF	032RF107	DRP	200L4	850	171
	4.8	42800	308	242000	69620							
	5.7	36300	261	230400	69620							
	6.5	31700	228	221200	69620							
	3.7	55200	397	184500	51190	P	022RF107	DRP	200L4	870	164	
	4.4	46600	336	197000	51190		PF	022RF107	DRP	200L4	770	165
	4.8	42800	308	197000	51190		PH	022RF107	DRP	200L4	890	164
	5.7	36300	261	197000	51190		PHF	022RF107	DRP	200L4	790	165
	6.5	31700	228	197000	51190							
	7.7	26800	193	197000	51190							
	8.6	23900	172	197000	51190							
	9.4	21900	158	197000	51190							
	4.5	45700	329	197000	51190	P	022RF97	DRP	200L4	830	162	
	5.3	38700	279	197000	51190	PF	022RF97	DRP	200L4	720	163	
	6.1	33800	244	197000	51190	PH	022RF97	DRP	200L4	840	162	
	7.3	28300	204	197000	51190	PHF	022RF97	DRP	200L4	740	163	
	8.4	24500	177	197000	51190							
	8.6	23900	172	137100	36810	P	012RF107	DRP	200L4	720	158	
9.4	21900	158	133600	36810	PF		012RF107	DRP	200L4	650	159	
11	18600	134	127100	36810	PH		012RF107	DRP	200L4	740	158	
13	16200	117	122100	36810	PHF		012RF107	DRP	200L4	670	159	
15	13700	99	116100	36810								
6.1	33800	244	152100	36810	P	012RF97	DRP	200L4	680	156		
7.3	28300	204	144200	36810		PF	012RF97	DRP	200L4	610	157	
8.4	24500	177	138100	36810		PH	012RF97	DRP	200L4	690	156	
8.8	23400	169	136300	36810		PHF	012RF97	DRP	200L4	620	157	
10	19800	143	129700	36810								
12	17300	125	124500	36810								
14	14500	105	118000	35000								
16	12500	91	113000	32100								
9.0	22700	164	109300	24830		P	002RF97	DRP	200L4	600	148	
11	19300	139	104000	24830	PF	002RF97	DRP	200L4	540	149		
12	16800	121	99900	24830	PH	002RF97	DRP	200L4	600	148		
15	14100	102	94700	24830	PHF	002RF97	DRP	200L4	540	149		
17	12200	88	90700	24830								

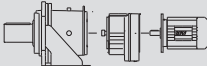


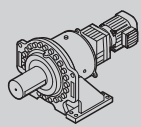
P.RF.. Helical Planetary Gearmotors

IE3 motor standard – selection tables

P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]						m [kg]	
30	0.46	609000	3210	805700	500000							
	0.52	541300	2854	850000	500000							
	0.65	430800	2271	850000	500000							
	0.74	380100	2004	850000	500000							
	0.96	293200	1546	850000	500000							
	1.1	252700	1332	850000	500000							
	1.2	225500	1189	850000	500000							
	1.6	180400	951	850000	500000							
	1.8	160400	846	850000	500000							
	2.0	139800	737	850000	500000							
	2.2	124700	657	850000	500000							
	0.51	548600	2891	622900	423000							
	0.64	436500	2301	720000	423000							
	0.73	385200	2031	720000	423000							
	0.94	297100	1566	720000	423000							
	1.1	256100	1350	720000	423000							
	1.2	228500	1205	720000	423000							
	1.5	182800	964	720000	423000							
	1.7	162600	857	720000	423000							
	2.0	141600	747	720000	423000							
	2.2	126400	666	720000	423000							
	2.6	107700	568	720000	423000							
	0.67	417500	2201	597000	359400							
	0.76	368500	1943	646200	359400							
	0.88	319400	1684	683000	359400							
	0.99	284200	1498	683000	359400							
	1.2	245000	1291	683000	359400							
	1.4	199000	1049	683000	359400							
	0.97	288400	1521	500300	245660							
	1.4	202000	1065	523000	245660							
	1.1	257500	1358	523000	245660							
	1.3	216400	1141	523000	245660							
	1.6	174800	922	523000	245660							
	1.9	147600	779	523000	245660							
	1.6	180000	949	442800	185660							
	1.8	152100	802	461700	185660							
	2.1	134200	708	472300	185660							
	2.4	116300	614	473000	185660							
	1.7	163700	863	454200	185660							
	2.0	141700	747	468000	185660							
	2.2	125000	659	473000	185660							
	2.6	108000	569	473000	185660							
	2.9	95500	503	473000	185660							
	2.0	141700	747	340800	124060							
	2.2	125000	659	355500	124060							
	2.6	108000	569	364000	124060							
	2.9	95500	503	364000	124060							
	3.5	80200	423	364000	124060							
	2.6	108000	569	287300	100170							
	3.5	80200	423	313900	100170							
	4.3	64800	342	308600	100170							
	5.0	56500	298	296100	100170							
	5.9	47400	250	281100	100170							

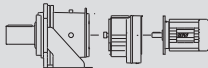


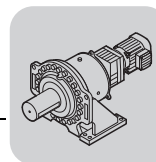
P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]						m [kg]	
30	2.8	101600	536	294000	100170							
	3.3	86200	455	308800	100170	P	042RF107	DRP	225S4	1230	176	
	3.7	75300	397	317800	100170	PF	042RF107	DRP	225S4	1040	177	
	4.4	63700	336	307100	100170	PH	042RF107	DRP	225S4	1240	176	
	4.8	58400	308	299200	100170	PHF	042RF107	DRP	225S4	1050	177	
	5.7	49600	261	284800	100170							
	3.7	75300	397	215400	69620							
	4.4	63700	336	230600	69620							
	4.8	58400	308	236600	69620							
	5.7	49600	261	230500	69620							
	6.5	43300	228	221300	69620	P	032RF107	DRP	225S4	990	170	
	7.7	36600	193	210500	69620	PF	032RF107	DRP	225S4	860	171	
	8.6	32600	172	203400	69620	PH	032RF107	DRP	225S4	1010	170	
	9.4	29900	158	198200	58500	PHF	032RF107	DRP	225S4	890	171	
	11	25400	134	188600	58500							
	13	22200	117	181100	58500							
	15	18700	99	172300	57100							
	16	17100	91	167700	32100	P	032RF97	DRP	225S4	940	168	
						PF	032RF97	DRP	225S4	820	169	
						PH	032RF97	DRP	225S4	960	168	
						PHF	032RF97	DRP	225S4	840	169	
	4.8	58400	308	179000	51190							
	5.7	49600	261	193200	51190	P	022RF107	DRP	225S4	910	164	
	6.5	43300	228	197000	51190	PF	022RF107	DRP	225S4	800	165	
	7.7	36600	193	197000	51190	PH	022RF107	DRP	225S4	920	164	
	8.6	32600	172	197000	51190	PHF	022RF107	DRP	225S4	820	165	
	9.4	29900	158	197000	51190							
	8.6	32600	172	137200	36810	P	012RF107	DRP	225S4	760	158	
	9.4	29900	158	133600	36810	PF	012RF107	DRP	225S4	690	159	
	11	25400	134	127200	36810	PH	012RF107	DRP	225S4	770	158	
	13	22200	117	122100	36810	PHF	012RF107	DRP	225S4	700	159	
	15	18700	99	116200	36810							
	16	17100	91	113100	32100	P	012RF97	DRP	225S4	710	156	
						PF	012RF97	DRP	225S4	640	157	
						PH	012RF97	DRP	225S4	730	156	
						PHF	012RF97	DRP	225S4	660	157	
	11	24600	130	102100	24830	P	002RF107	DRP	225S4	680	150	
	13	21500	114	98000	24830	PF	002RF107	DRP	225S4	620	151	
	15	18200	96	93200	24830	PH	002RF107	DRP	225S4	680	150	
						PHF	002RF107	DRP	225S4	620	151	
	17	16600	88	90700	24830	P	002RF97	DRP	225S4	630	148	
						PF	002RF97	DRP	225S4	570	149	
						PH	002RF97	DRP	225S4	640	148	
						PHF	002RF97	DRP	225S4	580	149	
37	0.65	530600	2271	850000	500000	P	102RF167	DRP	225M4	4810	202	
	0.74	468200	2004	850000	500000	PF	102RF167	DRP	225M4	3850	203	
	0.96	361100	1546	850000	500000	PH	102RF167	DRP	225M4	4870	202	
	1.1	311300	1332	850000	500000	PHF	102RF167	DRP	225M4	3910	203	
	1.2	277800	1189	850000	500000							
	1.6	222200	951	850000	500000	P	102RF167	DRP	225M4	4800	202	
	1.8	197600	846	850000	500000	PF	102RF167	DRP	225M4	3840	203	
	2.0	172200	737	850000	500000	PH	102RF167	DRP	225M4	4860	202	
	2.2	153600	657	850000	500000	PHF	102RF167	DRP	225M4	3900	203	
	2.6	130900	561	850000	500000							
	0.73	474500	2031	707800	423000	P	092RF167	DRP	225M4	3950	200	
	0.95	366000	1566	720000	423000	PF	092RF167	DRP	225M4	3260	201	
	1.1	315400	1350	720000	423000	PH	092RF167	DRP	225M4	3960	200	
						PHF	092RF167	DRP	225M4	3270	201	
	1.2	281500	1205	720000	423000							
	1.5	225200	964	720000	423000	P	092RF167	DRP	225M4	3950	200	
	1.7	200300	857	720000	423000	PF	092RF167	DRP	225M4	3250	201	
	2.0	174500	747	720000	423000	PH	092RF167	DRP	225M4	3960	200	
	2.2	155700	666	720000	423000	PHF	092RF167	DRP	225M4	3260	201	
	2.6	132700	568	720000	423000							
	3.2	109900	470	720000	423000							

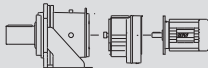


P.RF.. Helical Planetary Gearmotors

IE3 motor standard – selection tables

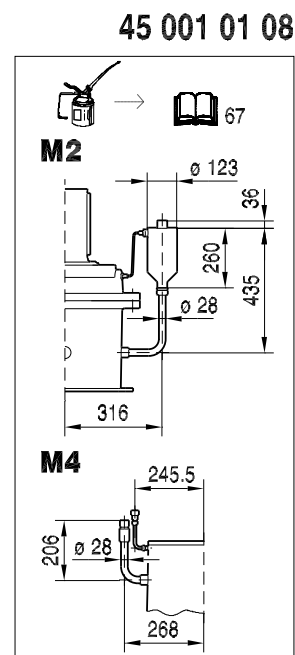
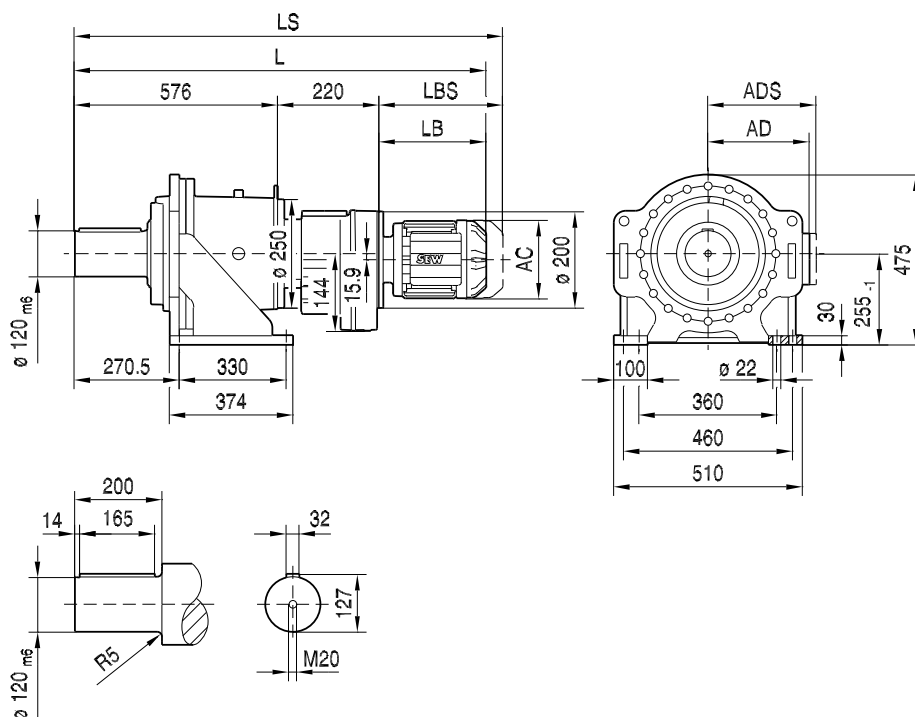
P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]					m [kg]	
37	0.88	393500	1684	622200	359400	P	082RF167	DRP	225M4	3450	198
	0.99	350100	1498	662600	359400	PF	082RF167	DRP	225M4	2800	199
	1.2	301700	1291	683000	359400	PH	082RF167	DRP	225M4	3450	198
	1.4	245100	1049	683000	359400	PHF	082RF167	DRP	225M4	2800	199
	1.7	207900	890	683000	359400						
	1.8	191600	820	683000	359400	P	082RF167	DRP	225M4	3450	198
						PF	082RF167	DRP	225M4	2800	199
						PH	082RF167	DRP	225M4	3440	198
						PHF	082RF167	DRP	225M4	2790	199
	1.4	248800	1065	523000	245660	P	072RF167	DRP	225M4	2800	194
						PF	072RF167	DRP	225M4	2310	195
						PH	072RF167	DRP	225M4	2850	194
						PHF	072RF167	DRP	225M4	2360	195
	1.6	215300	922	523000	245660	P	072RF147	DRP	225M4	2540	192
						PF	072RF147	DRP	225M4	2050	193
						PH	072RF147	DRP	225M4	2590	192
						PHF	072RF147	DRP	225M4	2100	193
	1.9	181900	779	523000	245660	P	072RF147	DRP	225M4	2520	192
	2.2	160500	687	523000	245660	PF	072RF147	DRP	225M4	2030	193
						PH	072RF147	DRP	225M4	2580	192
						PHF	072RF147	DRP	225M4	2090	193
	1.8	187300	802	437400	185660	P	062RF147	DRP	225M4	2100	190
	2.1	165300	708	453200	185660	PF	062RF147	DRP	225M4	1740	191
	2.4	143300	614	467100	185660	PH	062RF147	DRP	225M4	2090	190
	2.7	127500	546	473000	185660	PHF	062RF147	DRP	225M4	1730	191
	2.0	174500	747	446800	185660	P	062RF137	DRP	225M4	1980	188
	2.2	154000	659	460600	185660	PF	062RF137	DRP	225M4	1620	189
	2.6	133000	569	473000	185660	PH	062RF137	DRP	225M4	1970	188
	2.9	117600	503	473000	185660	PHF	062RF137	DRP	225M4	1610	189
	3.5	98800	423	473000	185660						
	2.6	133000	569	348700	124060	P	052RF137	DRP	225M4	1500	184
	2.9	117600	503	361400	124060	PF	052RF137	DRP	225M4	1300	185
	3.5	98800	423	364000	124060	PH	052RF137	DRP	225M4	1490	184
	4.3	79800	342	355600	124060	PHF	052RF137	DRP	225M4	1290	185
	3.5	98800	423	296900	100170	P	042RF137	DRP	225M4	1360	178
	4.3	79800	342	308400	100170	PF	042RF137	DRP	225M4	1170	179
	5.0	69500	298	295900	100170	PH	042RF137	DRP	225M4	1360	178
	5.9	58400	250	280900	100170	PHF	042RF137	DRP	225M4	1170	179
	7.3	47200	202	263500	100170						
	3.7	92800	397	302800	100170	P	042RF107	DRP	225M4	1250	176
	4.4	78500	336	306900	100170	PF	042RF107	DRP	225M4	1060	177
						PH	042RF107	DRP	225M4	1260	176
						PHF	042RF107	DRP	225M4	1070	177
	8.5	40900	175	204300	69620	P	032RF137	DRP	225M4	1110	172
	9.7	35600	153	196000	69620	PF	032RF137	DRP	225M4	990	173
						PH	032RF137	DRP	225M4	1130	172
						PHF	032RF137	DRP	225M4	1010	173
	4.4	78500	336	210800	69620						
	4.8	72000	308	220100	69620	P	032RF107	DRP	225M4	1010	170
	5.7	61000	261	230400	69620	PF	032RF107	DRP	225M4	890	171
	6.5	53300	228	221200	69620	PH	032RF107	DRP	225M4	1030	170
	7.7	45100	193	210400	69620	PHF	032RF107	DRP	225M4	910	171
	11	31300	134	188500	58500						
	13	27300	117	181100	58500						
	15	23100	99	172200	57100						
	7.7	45100	193	197000	51190	P	022RF107	DRP	225M4	930	164
	8.6	40200	172	197000	51190	PF	022RF107	DRP	225M4	820	165
	9.4	36900	158	197000	51190	PH	022RF107	DRP	225M4	940	164
						PHF	022RF107	DRP	225M4	840	165
	11	31300	134	127100	36810	P	012RF107	DRP	225M4	780	158
	13	27300	117	122100	36810	PF	012RF107	DRP	225M4	710	159
	15	23100	99	116100	36810	PH	012RF107	DRP	225M4	790	158
						PHF	012RF107	DRP	225M4	720	159
90	2.0	418300	737	850000	500000	P	102RF167	DRP	315K4	5310	202
	2.3	373200	657	850000	500000	PF	102RF167	DRP	315K4	4350	203
	2.6	318100	561	850000	500000	PH	102RF167	DRP	315K4	5370	202
	3.2	263600	464	850000	500000	PHF	102RF167	DRP	315K4	4410	203
	3.7	224900	396	850000	500000						



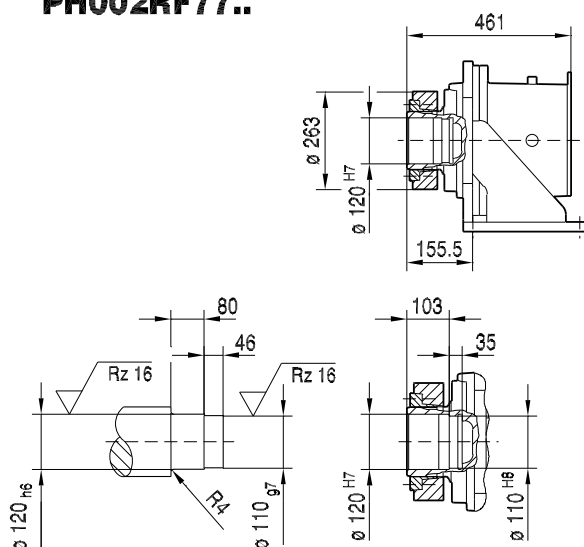
P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]					m [kg]	
90	2.0	423900	747	720000	423000	P	092RF167	DRP	315K4	4450	200
	2.2	378200	666	720000	423000	PF	092RF167	DRP	315K4	3760	201
	2.6	322300	568	720000	423000	PH	092RF167	DRP	315K4	4470	200
	3.2	267100	470	720000	423000	PHF	092RF167	DRP	315K4	3770	201
	3.7	227900	402	720000	423000						
	2.3	361700	637	652300	359400	P	082RF167	DRP	315K4	3960	198
	2.7	308300	543	683000	359400	PF	082RF167	DRP	315K4	3300	199
						PH	082RF167	DRP	315K4	3950	198
						PHF	082RF167	DRP	315K4	3300	199
110	2.0	510600	737	850000	500000	P	102RF167	DRP	315S4	5390	202
	2.3	455500	657	850000	500000	PF	102RF167	DRP	315S4	4430	203
	2.6	388300	561	850000	500000	PH	102RF167	DRP	315S4	5450	202
	3.2	321700	464	850000	500000	PHF	102RF167	DRP	315S4	4490	203
	3.8	274500	396	850000	500000						
	2.0	517400	747	661100	423000	P	092RF167	DRP	315S4	4530	200
	2.2	461600	666	720000	423000	PF	092RF167	DRP	315S4	3840	201
	2.6	393500	568	720000	423000	PH	092RF167	DRP	315S4	4550	200
	3.2	326000	470	720000	423000	PHF	092RF167	DRP	315S4	3850	201
	3.7	278200	402	720000	423000						
132	2.6	465300	561	850000	500000	P	102RF167	DRP	315M4	5550	202
	3.2	385500	464	850000	500000	PF	102RF167	DRP	315M4	4590	203
	3.8	329000	396	850000	500000	PH	102RF167	DRP	315M4	5610	202
						PHF	102RF167	DRP	315M4	4650	203
	2.6	471500	568	710800	423000	P	092RF167	DRP	315M4	4690	200
	3.2	390700	470	720000	423000	PF	092RF167	DRP	315M4	4000	201
	3.7	333400	402	720000	423000	PH	092RF167	DRP	315M4	4700	200
						PHF	092RF167	DRP	315M4	4010	201
160	2.6	564000	561	839400	500000	P	102RF167	DRP	315L4	5630	202
	3.2	467300	464	850000	500000	PF	102RF167	DRP	315L4	4670	203
	3.8	398800	396	850000	500000	PH	102RF167	DRP	315L4	5690	202
						PHF	102RF167	DRP	315L4	4730	203
	3.2	473600	470	708700	423000	P	092RF167	DRP	315L4	4770	200
	3.7	404200	402	720000	423000	PF	092RF167	DRP	315L4	4080	201
						PH	092RF167	DRP	315L4	4780	200
						PHF	092RF167	DRP	315L4	4090	201

10.5 Dimension sheets [mm]

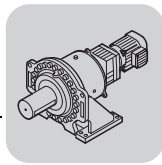
P002RF77..



PH002RF77..

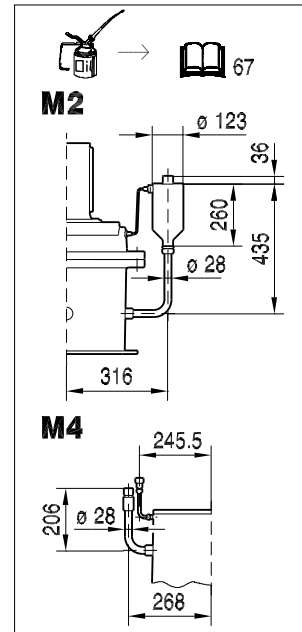
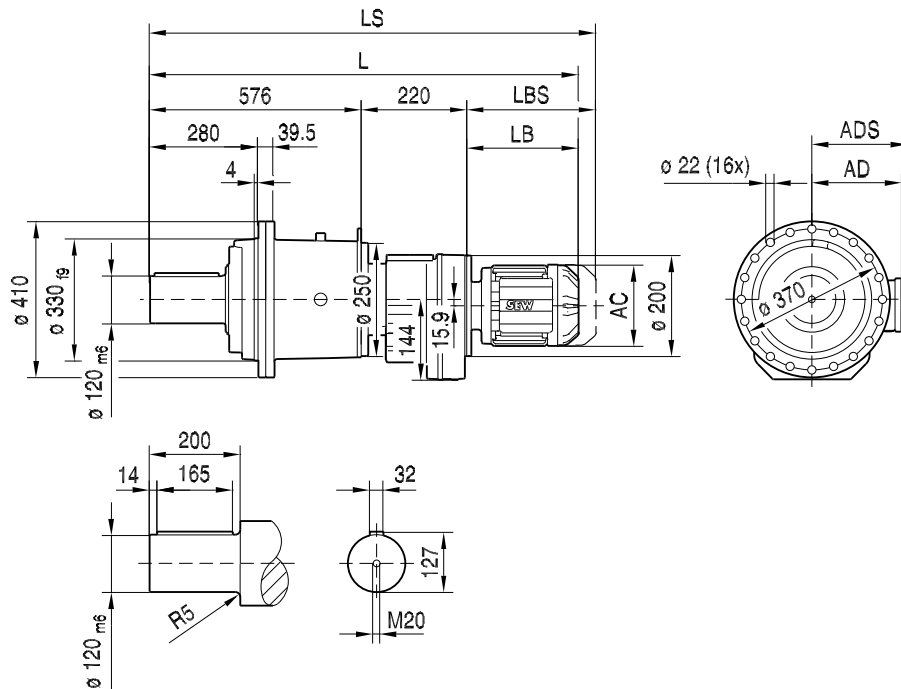


(→  77)	DR80S	DR80M	DR90M	DR90L	DR100M	DR100L/LC	DR112M	DR132S	DR132M/MC
AC	156	156	179	179	197	197	221	221	221
AD	128	128	140	140	157	157	170	170	170
ADS	139	139	150	150	158	158	172	172	172
L	1019	1050	1052	1072	1102	1132	1140	1175	1225
LS	1100	1131	1145	1165	1195	1225	1252	1287	1337
LB	223	254	256	277	306	336	344	379	429
LBS	304	335	349	369	399	429	456	491	541

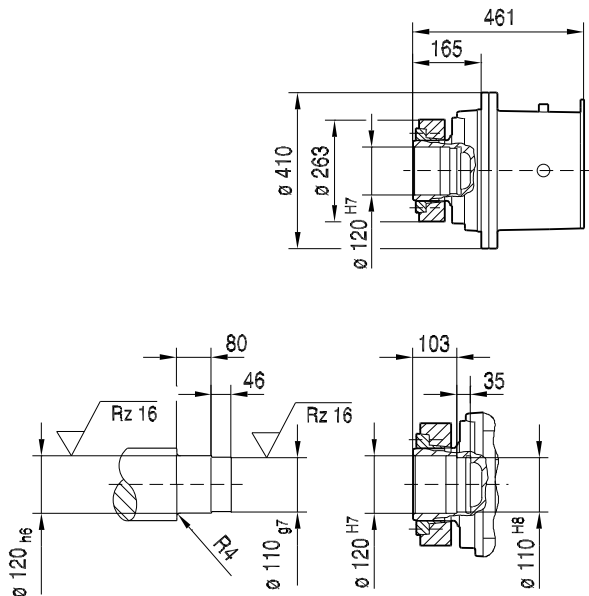


PF002RF77..

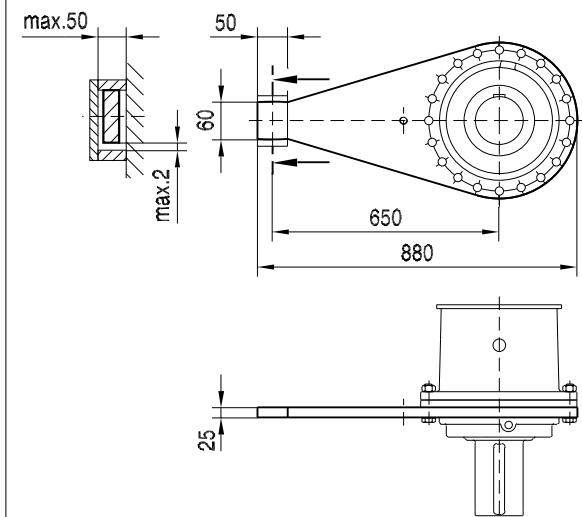
45 030 01 08



PHF002RF77..

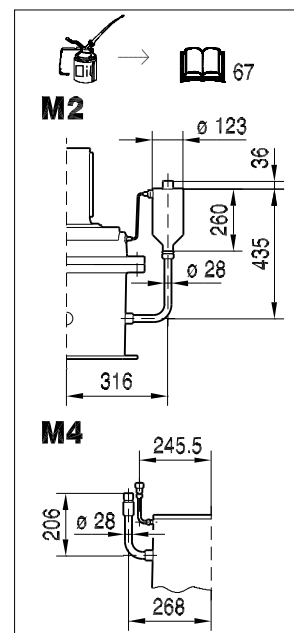


P..002/T..

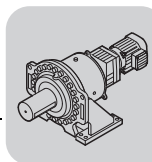


(→ 77)	DR80S	DR80M	DR90M	DR90L	DR100M	DR100L/LC	DR112M	DR132S	DR132M/MC
AC	156	156	179	179	197	197	221	221	221
AD	128	128	140	140	157	157	170	170	170
ADS	139	139	150	150	158	158	172	172	172
L	1019	1050	1052	1072	1102	1132	1140	1175	1225
LS	1100	1131	1145	1165	1195	1225	1252	1287	1337
LB	223	254	256	277	306	336	344	379	429
LBS	304	335	349	369	399	429	456	491	541

45 002 01 08

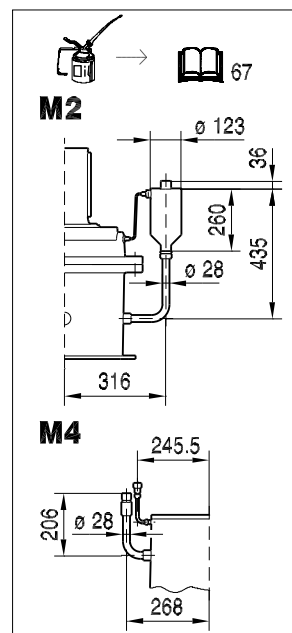
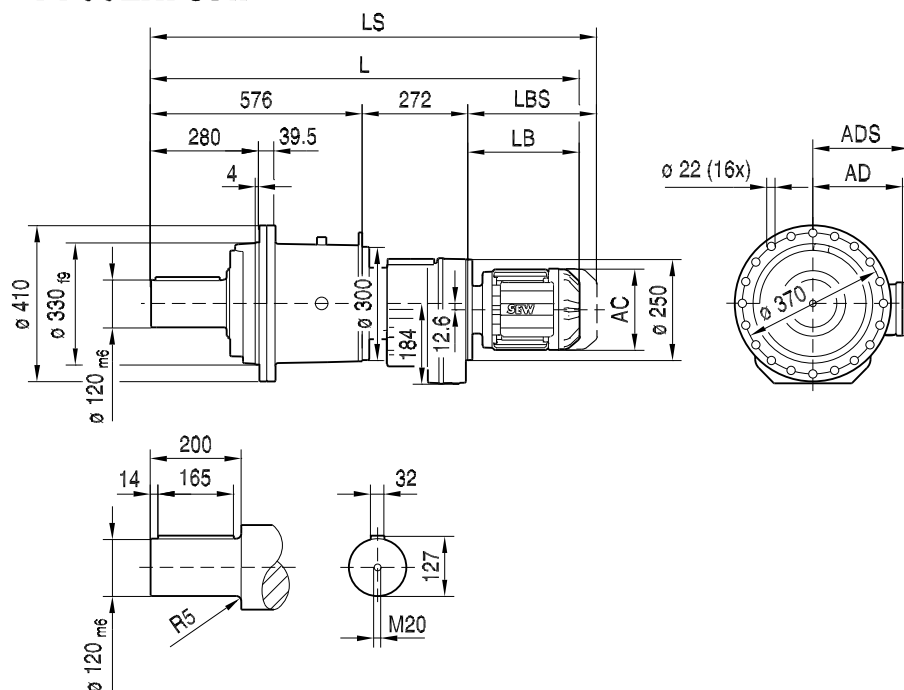


(→  77)	DR80S	DR80M	DR90M	DR90L	DR100M	DR100L/LC	DR112M	DR132S	DR132M/MC	DR160..	DR180S/M	DR180L/LC
AC	156	156	179	179	197	197	221	221	221	270	316	316
AD	128	128	140	140	157	157	170	170	170	228	253	253
ADS	139	139	150	150	158	158	172	172	172	228	253	253
L	1066	1097	1099	1119	1149	1179	1187	1222	1272	1313	1382	1442
LS	1147	1178	1192	1212	1242	1272	1299	1334	1384	1450	1571	1631
LB	218	249	251	271	301	331	339	374	424	465	534	594
LBS	299	330	344	364	394	424	451	486	536	602	723	783

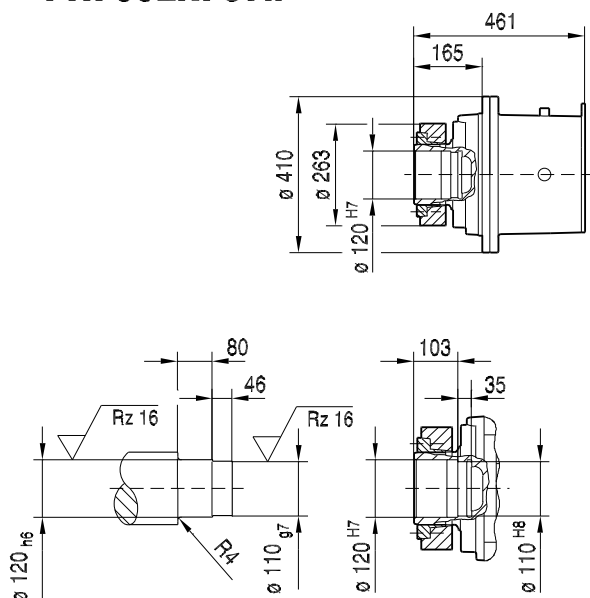


PF002RF87..

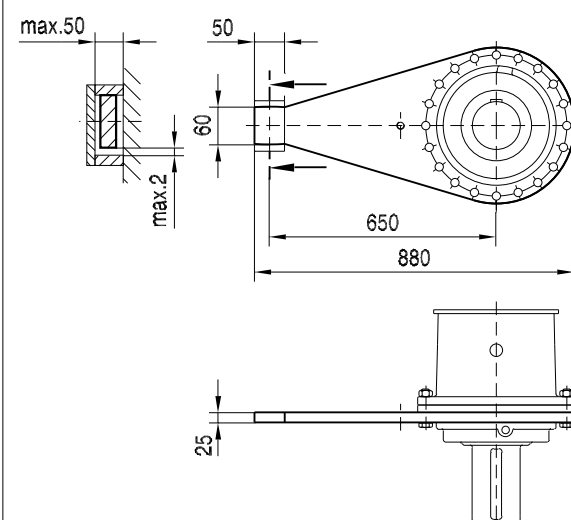
45 031 01 08



PHF002RF87..

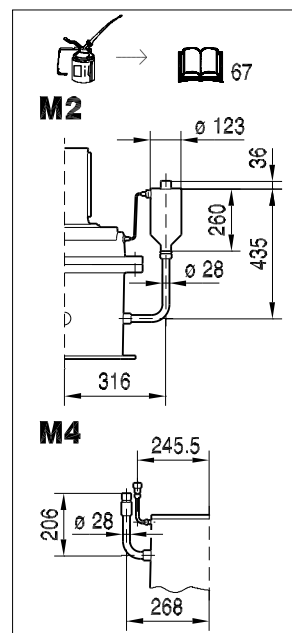


P..002/T..



(→ 77)	DR80S	DR80M	DR90M	DR90L	DR100M	DR100L/LC	DR112M	DR132S	DR132M/MC	DR160..	DR180S/M	DR180L/LC
AC	156	156	179	179	197	197	221	221	221	270	316	316
AD	128	128	140	140	157	157	170	170	170	228	253	253
ADS	139	139	150	150	158	158	172	172	172	228	253	253
L	1066	1097	1099	1119	1149	1179	1187	1222	1272	1313	1382	1442
LS	1147	1178	1192	1212	1242	1272	1299	1334	1384	1450	1571	1631
LB	218	249	251	271	301	331	339	374	424	465	534	594
LBS	299	330	344	364	394	424	451	486	536	602	723	783

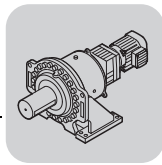
45 003 01 08



The technical drawing illustrates the dimensions of the PH002RF97.. valve assembly across three views:

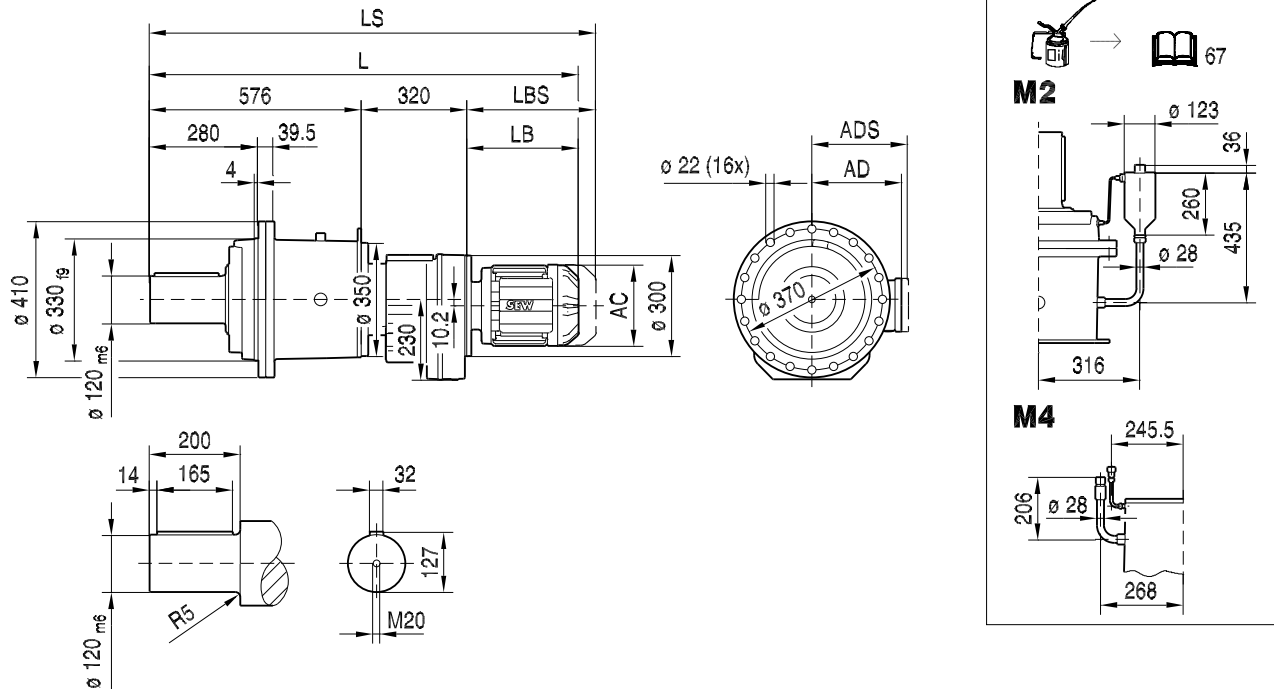
- Front View (Top Left):** Shows the main body with a total width of 80 mm. The central section has a diameter of $\varnothing 110_{g7}$. The flange on the left has a thickness of 46 mm. Surface finish requirements are specified as Rz 16 for the main body and Ra for the flange.
- Side View (Bottom Left):** Shows the profile of the valve stem and handle. The stem diameter is $\varnothing 120_{h6}$, and the handle diameter is $\varnothing 110_{g7}$.
- Top View (Right):** Shows the valve from above. The overall length is 461 mm. The distance between the mounting holes is 155.5 mm. The mounting hole diameter is $\varnothing 263$. The distance from the centerline to the mounting hole is 120 mm (H7). The distance from the centerline to the edge is 103 mm. The distance from the centerline to the mounting hole is 35 mm. The mounting hole diameter is $\varnothing 120$ (H7). The distance from the centerline to the edge is 110 mm (H8).

(→  77)	DR132M/MC	DR160..	DR180S/M	DR180L/LC	DR200	DR225S		
AC	221	270	316	316	394	394		
AD	170	228	253	253	283	283		
ADS	172	228	253	253	283	283		
L	1315	1356	1425	1485	1558	1558		
LS	1427	1493	1614	1674	1773	1773		
LB	419	460	529	589	662	662		
LBS	531	597	718	778	867	867		



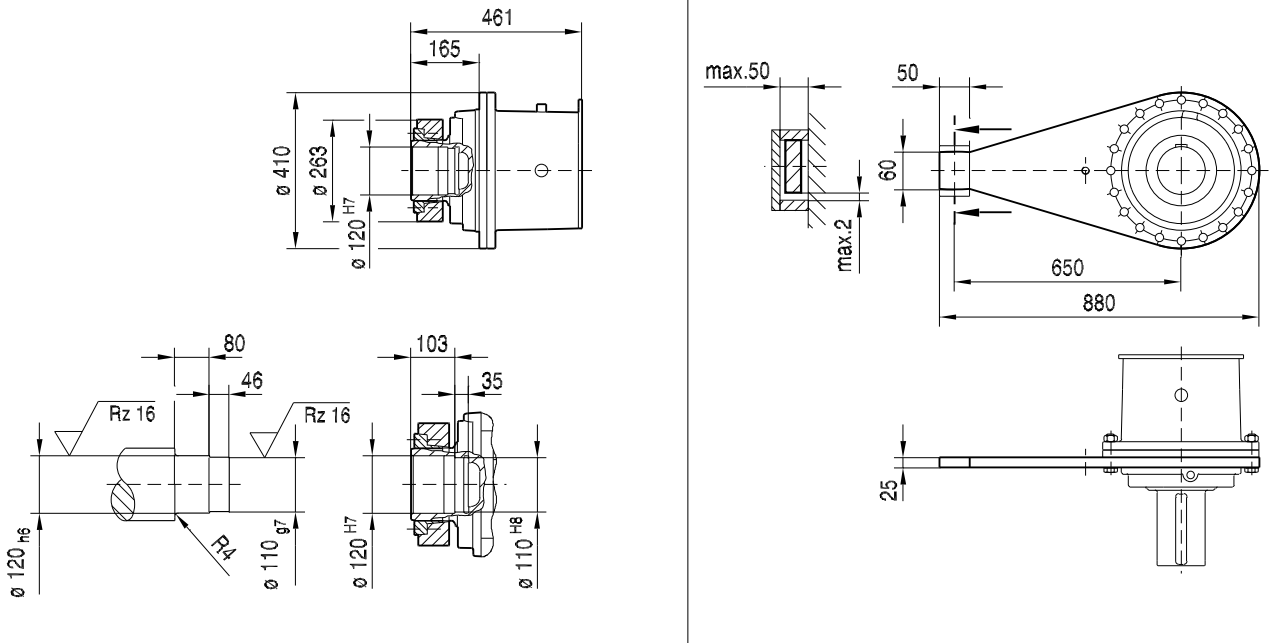
PF002RF97..

45 032 01 08

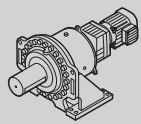


PHF002RF97..

P..002/T..



(→ 77)	DR132M/MC	DR160..	DR180S/M	DR180L/LC	DR200	DR225S		
AC	221	270	316	316	394	394		
AD	170	228	253	253	283	283		
ADS	172	228	253	253	283	283		
L	1315	1356	1425	1485	1558	1558		
LS	1427	1493	1614	1674	1773	1773		
LB	419	460	529	589	662	662		
LBS	531	597	718	778	867	867		

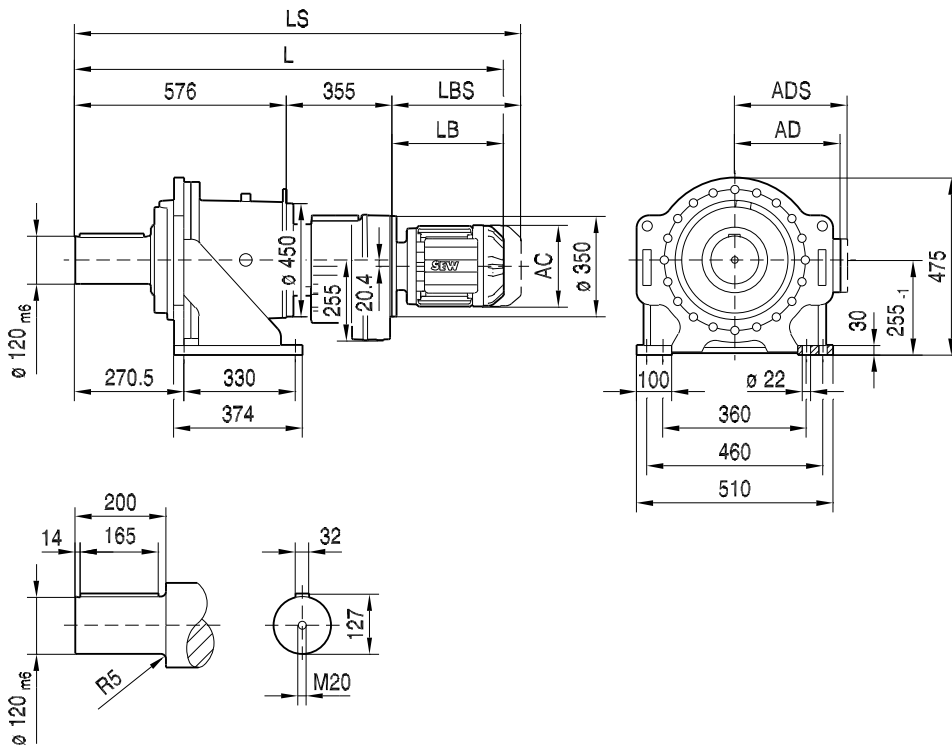


P.RF.. Helical Planetary Gearmotors

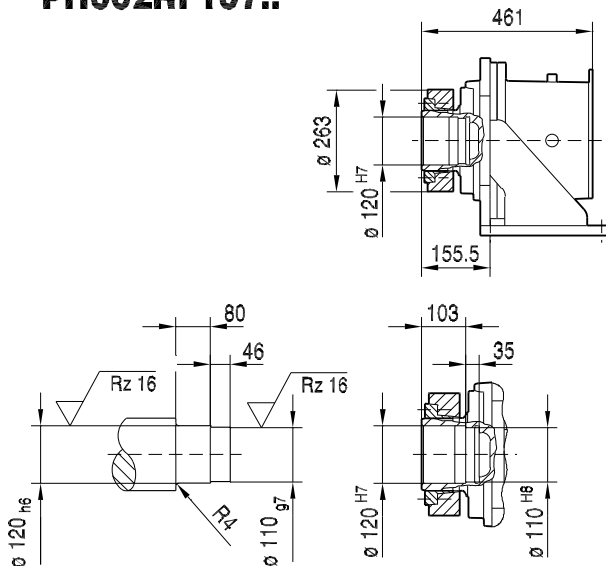
Dimension sheets [mm]

P002RF107..

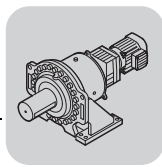
45 004 01 08

**M2****M4**

PH002RF107..

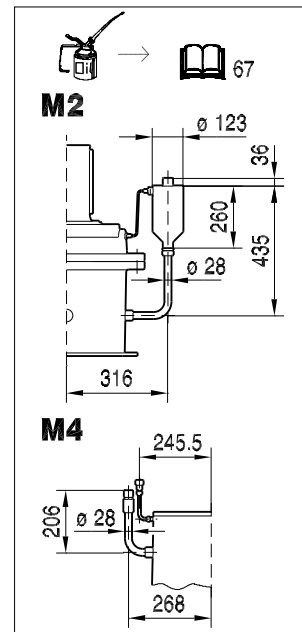
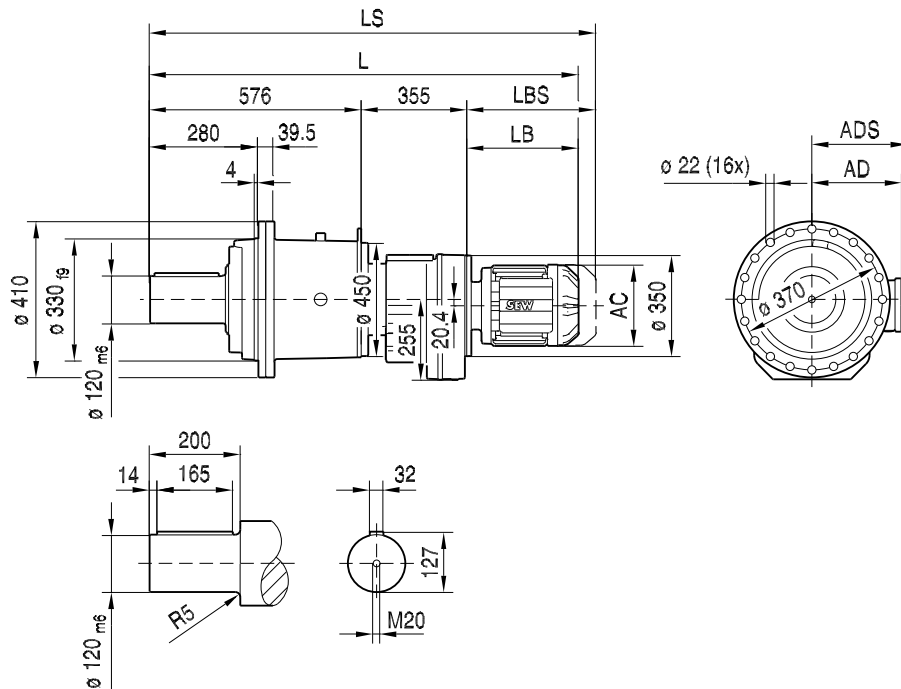


(→ 77)	DR180L/LC	DR200	DR225S					
AC	316	394	394					
AD	253	283	283					
ADS	253	283	283					
L	1514	1587	1587					
LS	1703	1792	1792					
LB	583	656	656					
LBS	772	861	861					

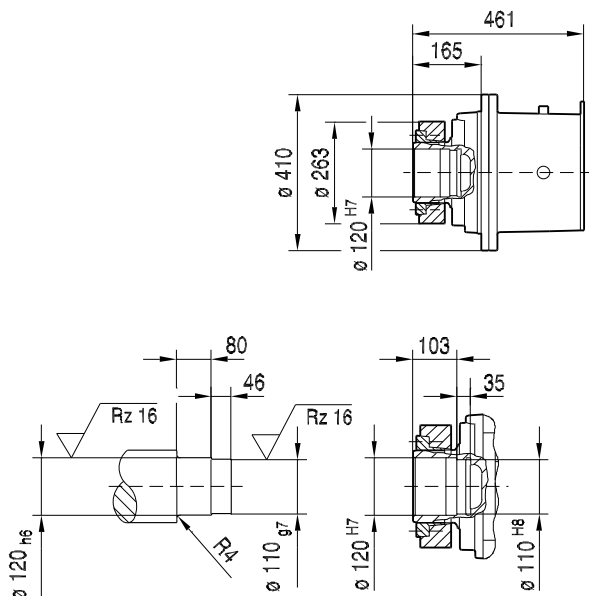


PF002RF107..

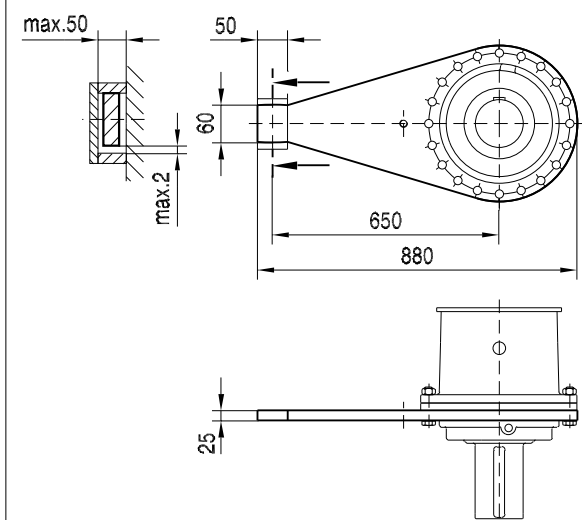
45 033 01 08



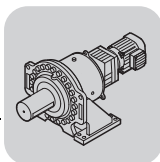
PHF002RF107..



P..002/T..



(→ 77)	DR180L/LC	DR200	DR225S					
AC	316	394	394					
AD	253	283	283					
ADS	253	283	283					
L	1514	1587	1587					
LS	1703	1792	1792					
LB	583	656	656					
LBS	772	861	861					

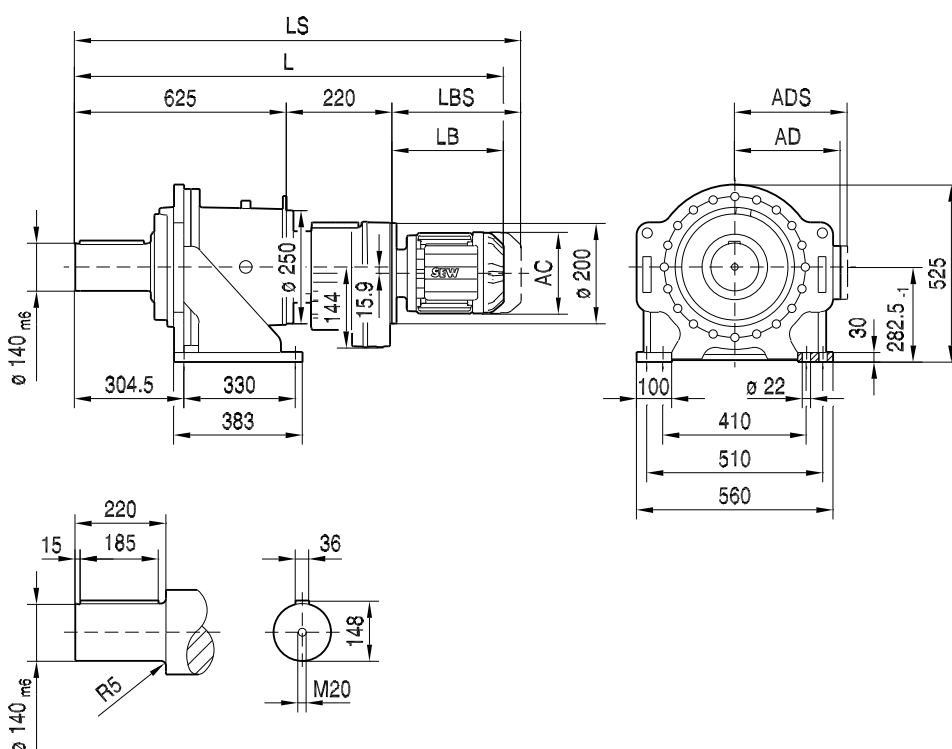


P.RF.. Helical Planetary Gearmotors

Dimension sheets [mm]

P012RF77..

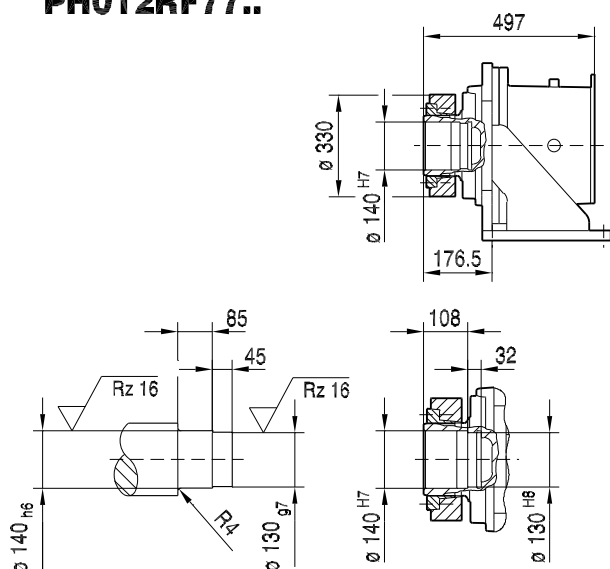
45 005 01 08



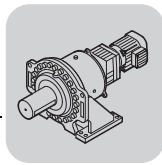
M2

M4

PH012RF77..

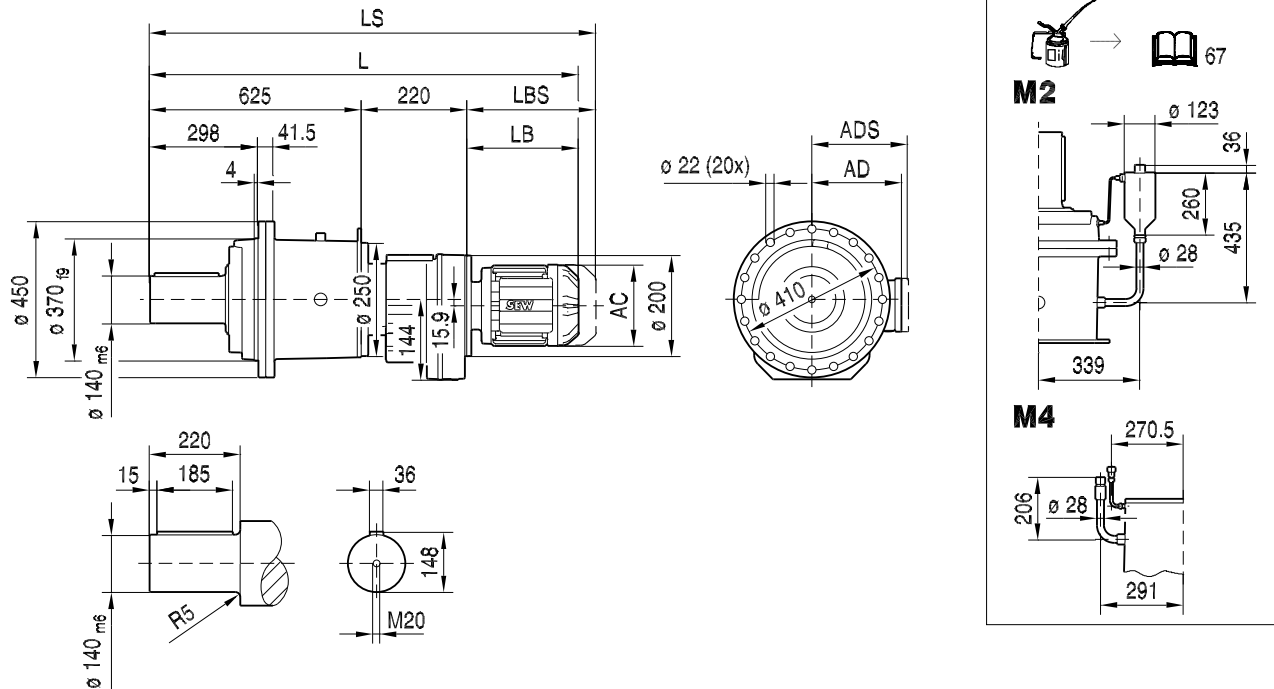


(→ 77)	DR80S	DR80M	DR90M	DR90L	DR100M	DR100L/LC	DR132S	DR132M/MC
AC	156	156	179	179	197	197	221	221
AD	128	128	140	140	157	157	170	170
ADS	139	139	150	150	158	158	172	172
L	1068	1099	1101	1121	1151	1181	1224	1274
LS	1149	1180	1194	1214	1244	1274	1336	1386
LB	223	254	256	277	306	336	379	429
LBS	304	335	349	369	399	429	491	541



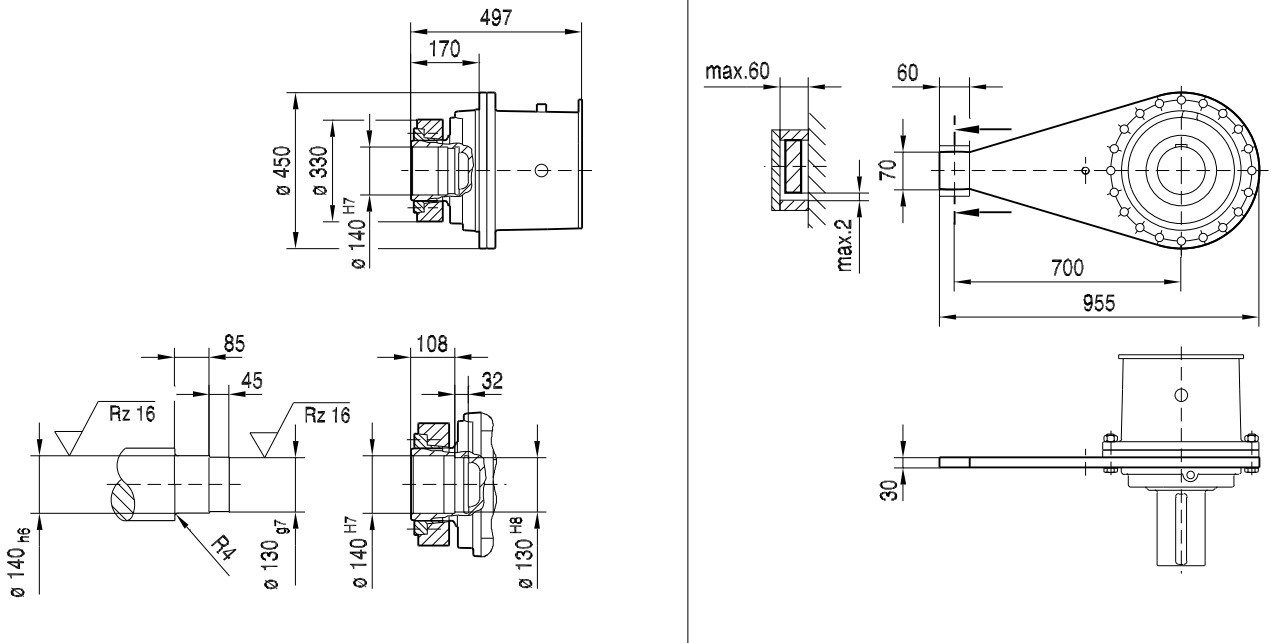
PF012RF77..

45 034 01 08

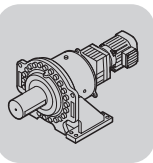


PHF012RF77..

P..012/T..



(→ 77)	DR80S	DR80M	DR90M	DR90L	DR100M	DR100L/LC	DR132S	DR132M/MC
AC	156	156	179	179	197	197	221	221
AD	128	128	140	140	157	157	170	170
ADS	139	139	150	150	158	158	172	172
L	1068	1099	1101	1121	1151	1181	1224	1274
LS	1149	1180	1194	1214	1244	1274	1336	1386
LB	223	254	256	277	306	336	379	429
LBS	304	335	349	369	399	429	491	541

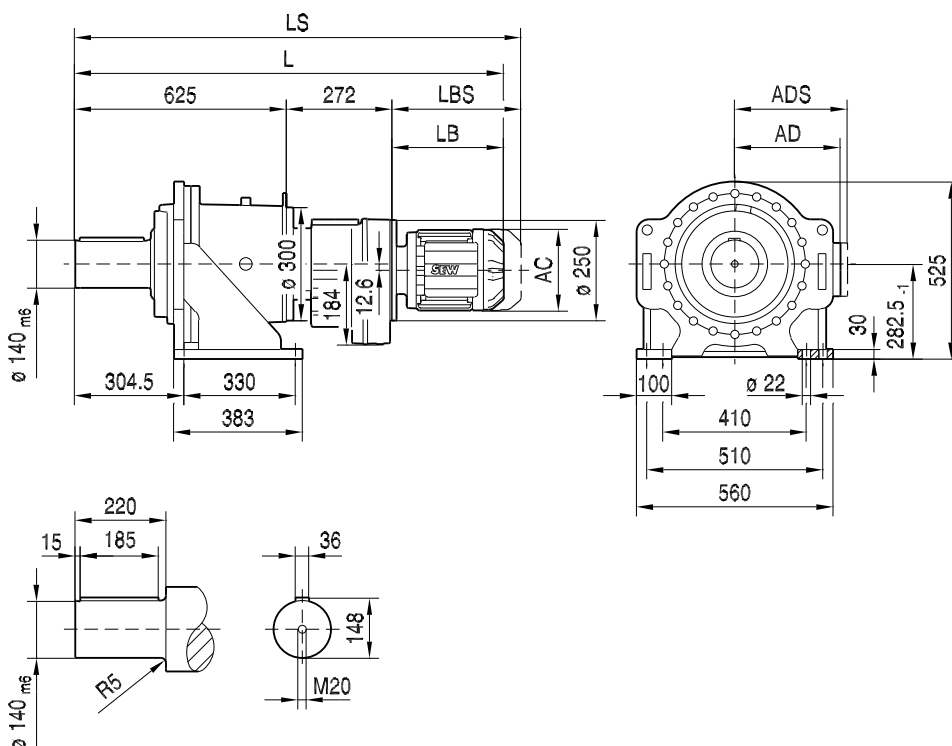


P.RF.. Helical Planetary Gearmotors

Dimension sheets [mm]

P012RF87..

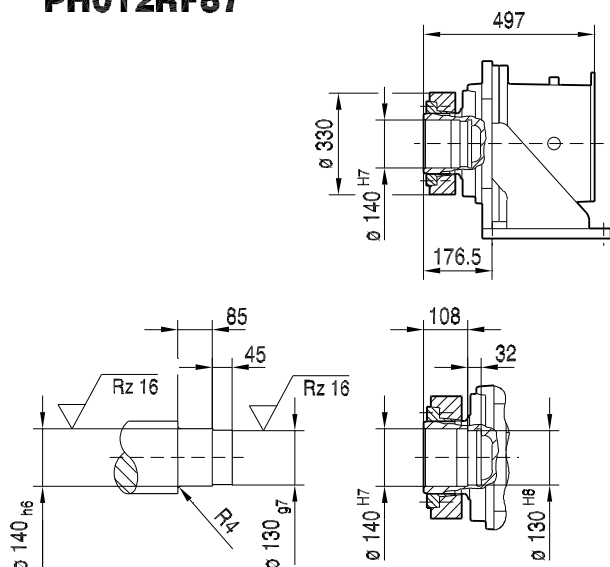
45 006 01 08



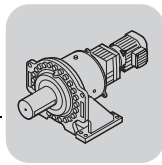
M2

M4

PH012RF87

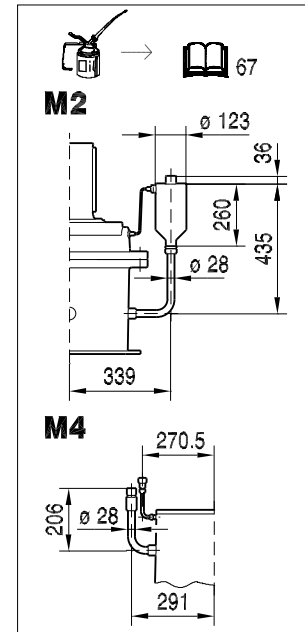
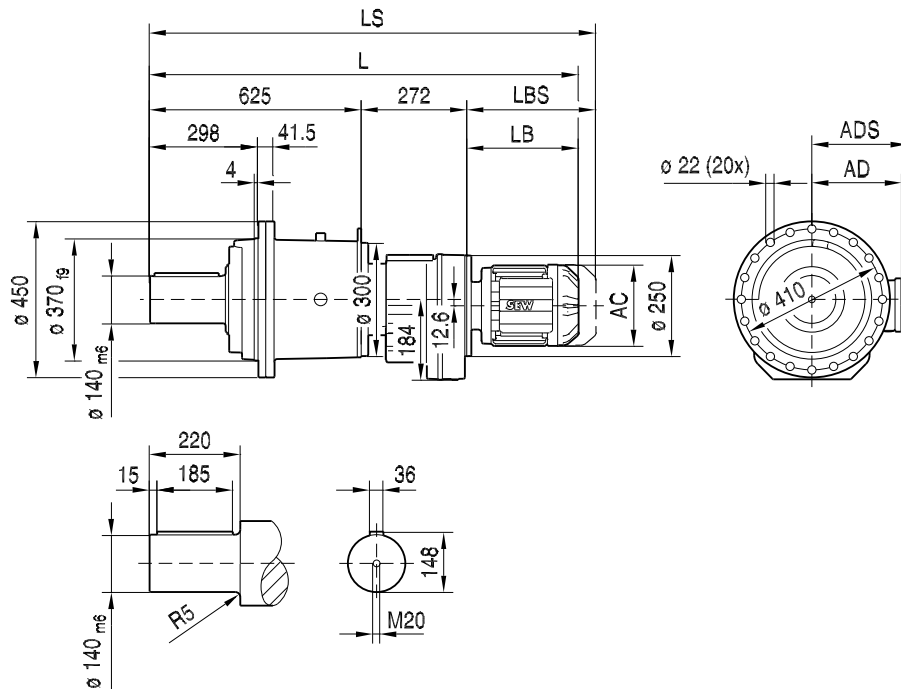


(→ 77)	DR80S	DR80M	DR90M	DR90L	DR100M	DR100L/LC	DR112M	DR132S	DR132M/MC	DR160..	DR180S/M
AC	156	156	179	179	197	197	221	221	221	270	316
AD	128	128	140	140	157	157	170	170	170	228	253
ADS	139	139	150	150	158	158	172	172	172	228	253
L	1115	1146	1148	1168	1198	1228	1236	1271	1321	1362	1431
LS	1196	1227	1241	1261	1291	1321	1348	1383	1433	1499	1620
LB	218	249	251	271	301	331	339	374	424	465	534
LBS	299	330	344	364	394	424	451	486	536	602	723

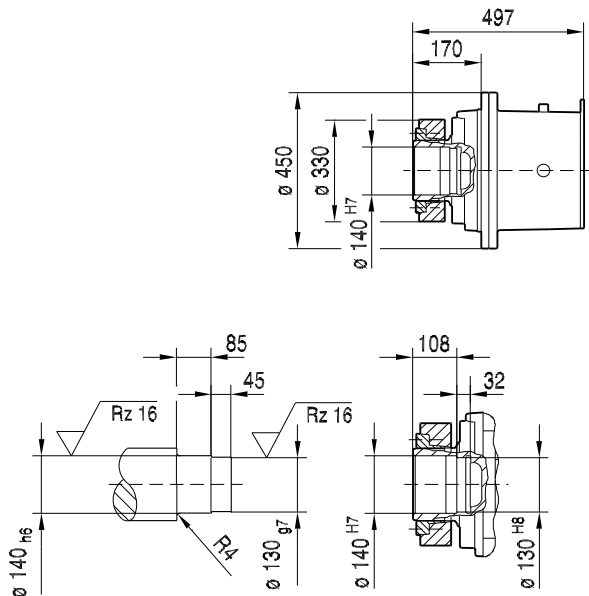


PF012RF87..

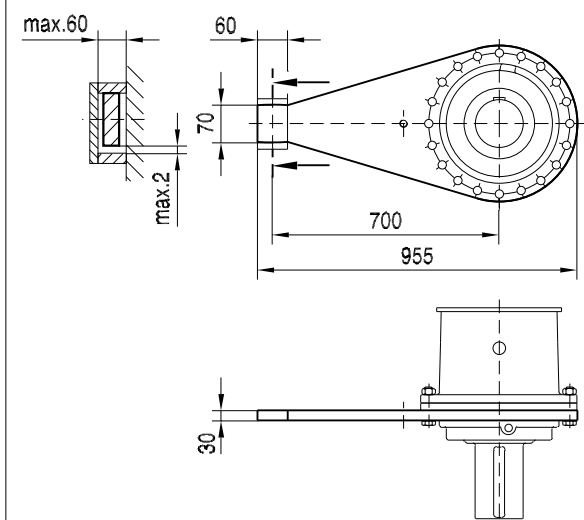
45 035 01 08



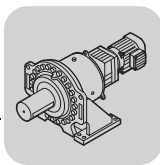
PHF012RF87..



P..012/T..



(→ 77)	DR80S	DR80M	DR90M	DR90L	DR100M	DR100L/LC	DR112M	DR132S	DR132M/MC	DR160..	DR180S/M
AC	156	156	179	179	197	197	221	221	221	270	316
AD	128	128	140	140	157	157	170	170	170	228	253
ADS	139	139	150	150	158	158	172	172	172	228	253
L	1115	1146	1148	1168	1198	1228	1236	1271	1321	1362	1431
LS	1196	1227	1241	1261	1291	1321	1348	1383	1433	1499	1620
LB	218	249	251	271	301	331	339	374	424	465	534
LBS	299	330	344	364	394	424	451	486	536	602	723

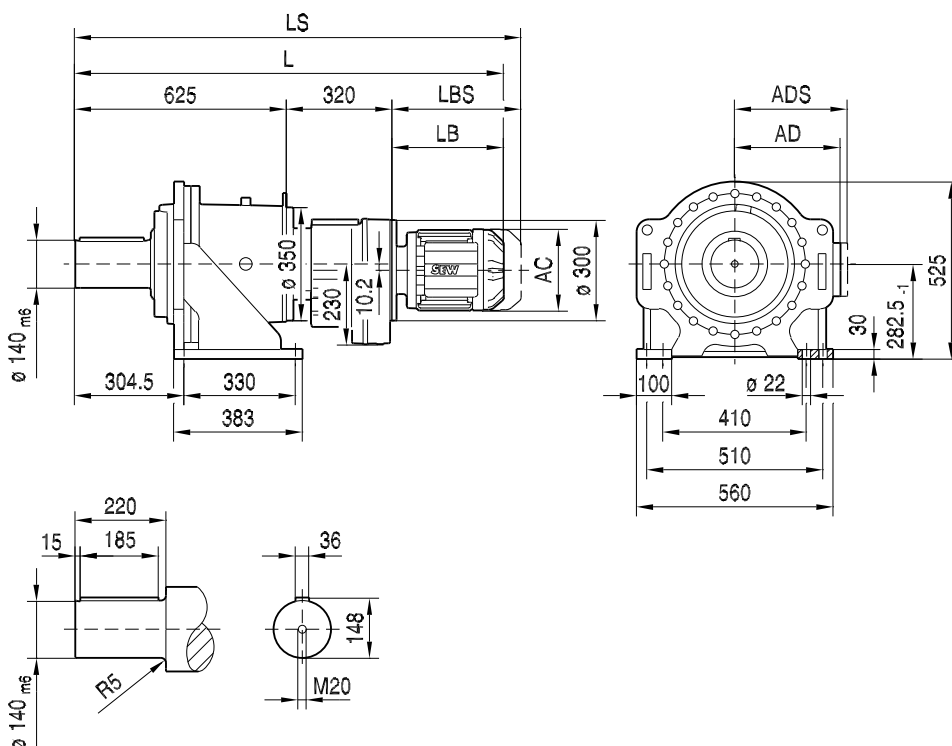


P.RF.. Helical Planetary Gearmotors

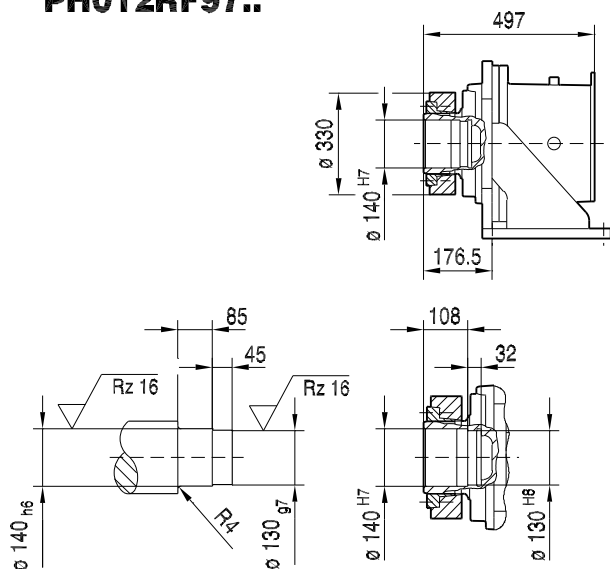
Dimension sheets [mm]

P012RF97..

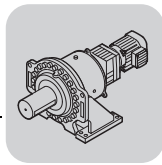
45 007 01 08

**M2****M4**

PH012RF97..

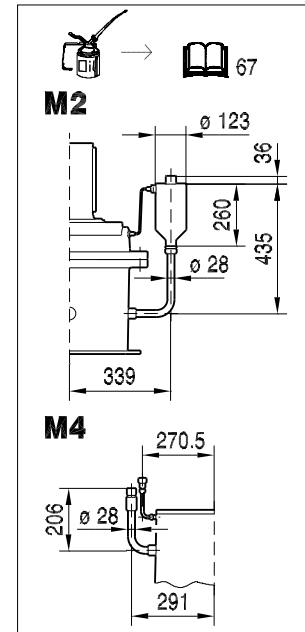
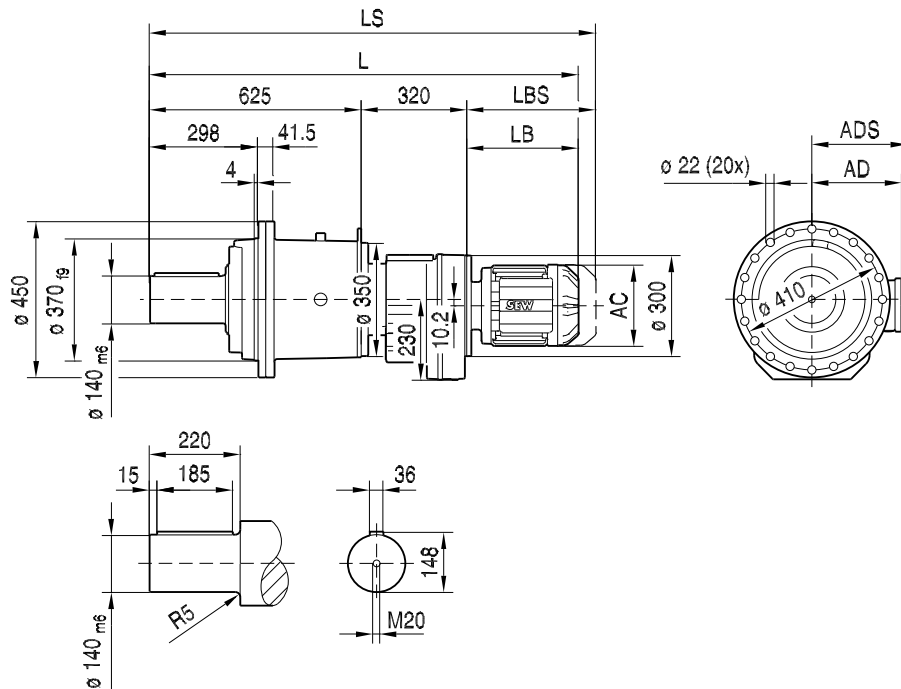


(→ 77)	DR90L	DR100M	DR100L/LC	DR112M	DR132S	DR132M/MC	DR160..	DR180S/M	DR180L/LC	DR200	DR225S
AC	179	197	197	221	221	221	270	316	316	394	394
AD	140	157	157	170	170	170	228	253	253	283	283
ADS	150	158	158	172	172	172	228	253	253	283	283
L	1211	1241	1271	1279	1314	1364	1405	1474	1534	1607	1607
LS	1304	1334	1364	1391	1426	1477	1542	1663	1723	1812	1812
LB	266	296	326	334	369	419	460	529	589	662	662
LBS	359	389	419	446	481	531	597	718	778	867	867

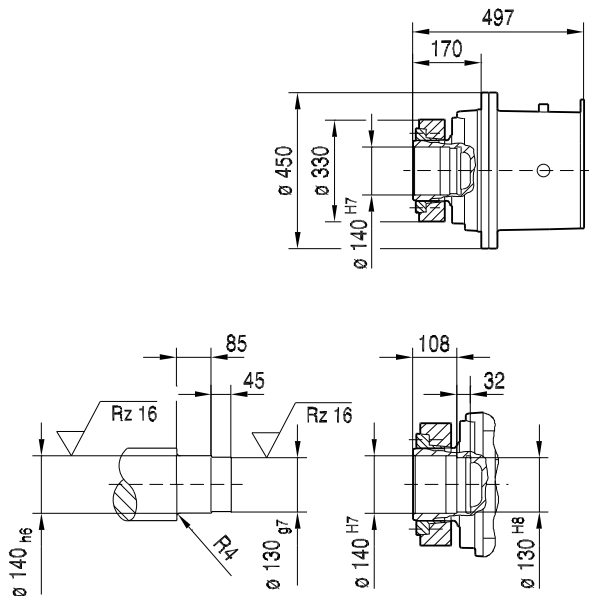


PF012RF97..

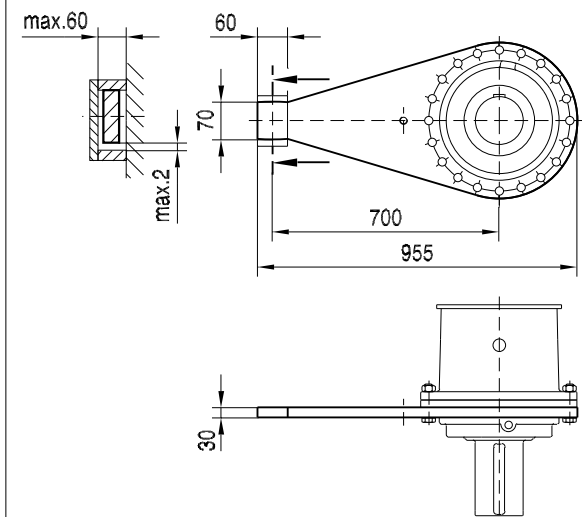
45 036 01 08



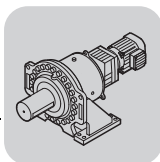
PHF012RF97..



P..012/T..



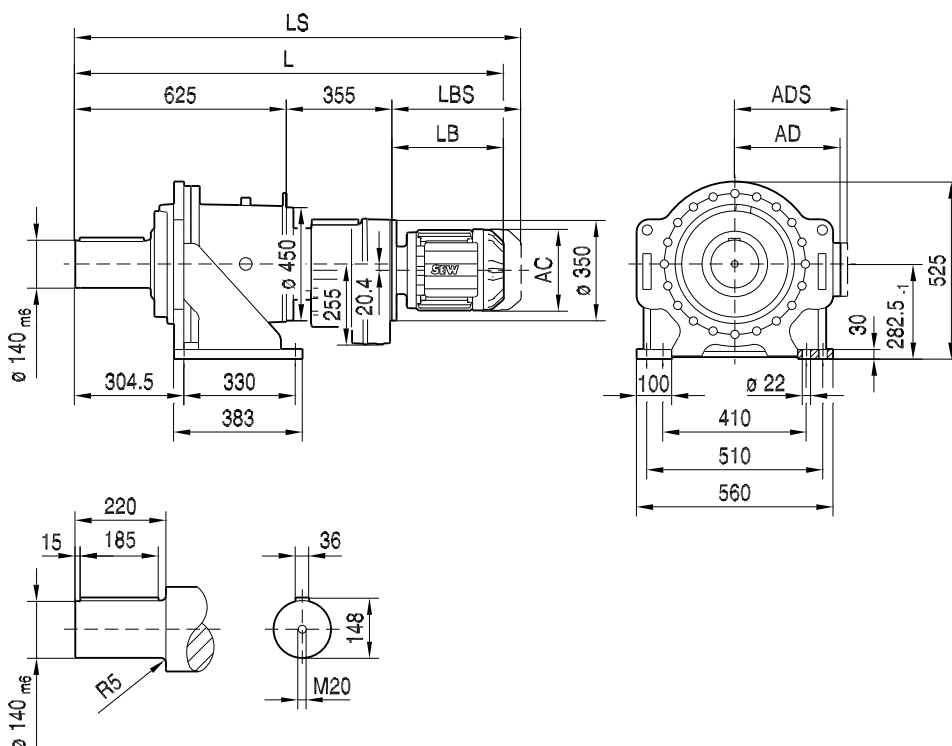
(→ 77)	DR90L	DR100M	DR100L/LC	DR112M	DR132S	DR132M/MC	DR160..	DR180S/M	DR180L/LC	DR200	DR225S
AC	179	197	197	221	221	221	270	316	316	394	394
AD	140	157	157	170	170	170	228	253	253	283	283
ADS	150	158	158	172	172	172	228	253	253	283	283
L	1211	1241	1271	1279	1314	1364	1405	1474	1534	1607	1607
LS	1304	1334	1364	1391	1426	1477	1542	1663	1723	1812	1812
LB	266	296	326	334	369	419	460	529	589	662	662
LBS	359	389	419	446	481	531	597	718	778	867	867



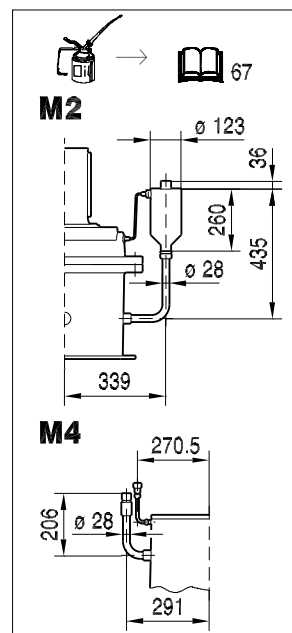
P.RF.. Helical Planetary Gearmotors

Dimension sheets [mm]

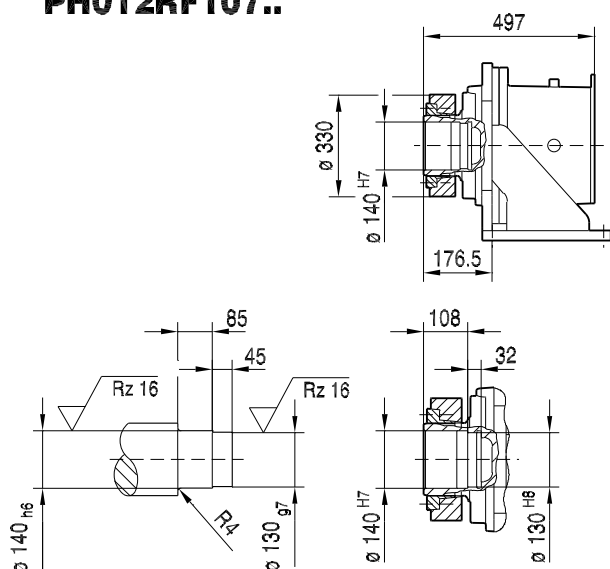
P012RF107..



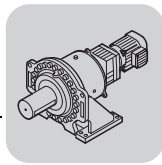
45 008 01 08



PH012RF107..

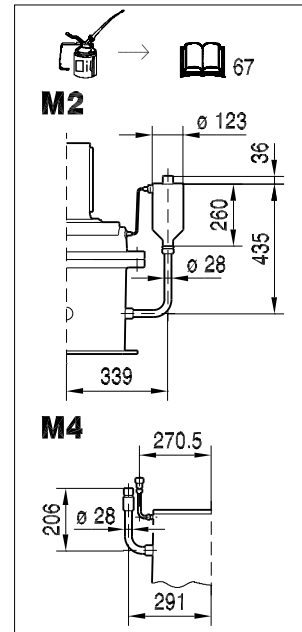
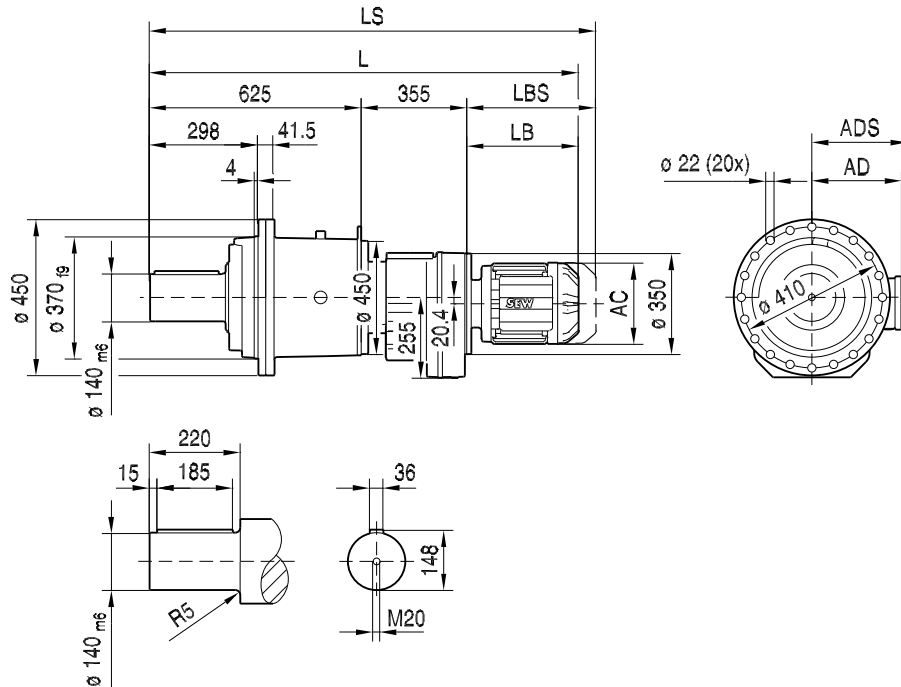


(→ 77)	DR180S/M	DR180L/LC	DR200	DR225S	DR225M/MC			
AC	316	316	394	394	394			
AD	253	253	283	283	283			
ADS	253	253	283	283	283			
L	1503	1563	1636	1636	1686			
LS	1692	1752	1841	1841	1891			
LB	523	583	656	656	706			
LBS	712	772	861	861	911			

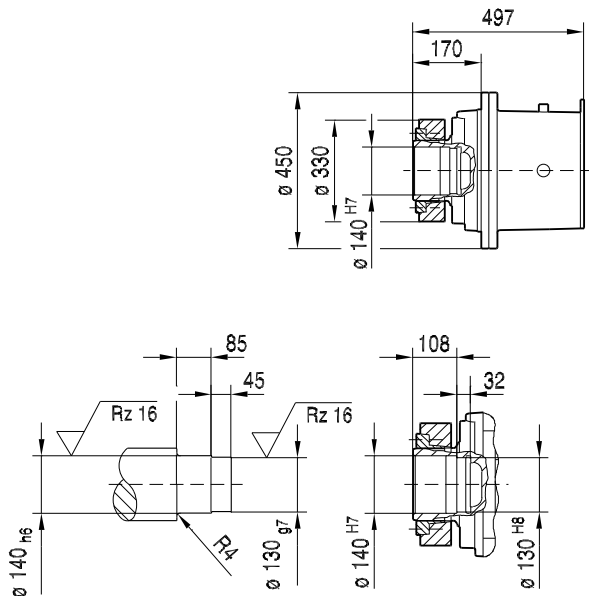


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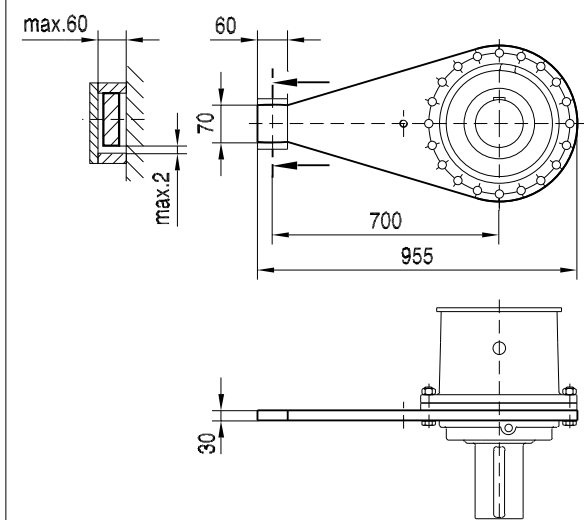
45 037 01 08



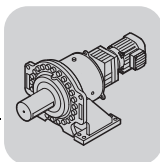
PHF012RF107..



P..012/T..



(→ 77)	DR180S/M	DR180L/LC	DR200	DR225S	DR225M/MC			
AC	316	316	394	394	394			
AD	253	253	283	283	283			
ADS	253	253	283	283	283			
L	1503	1563	1636	1636	1686			
LS	1692	1752	1841	1841	1891			
LB	523	583	656	656	706			
LBS	712	772	861	861	911			

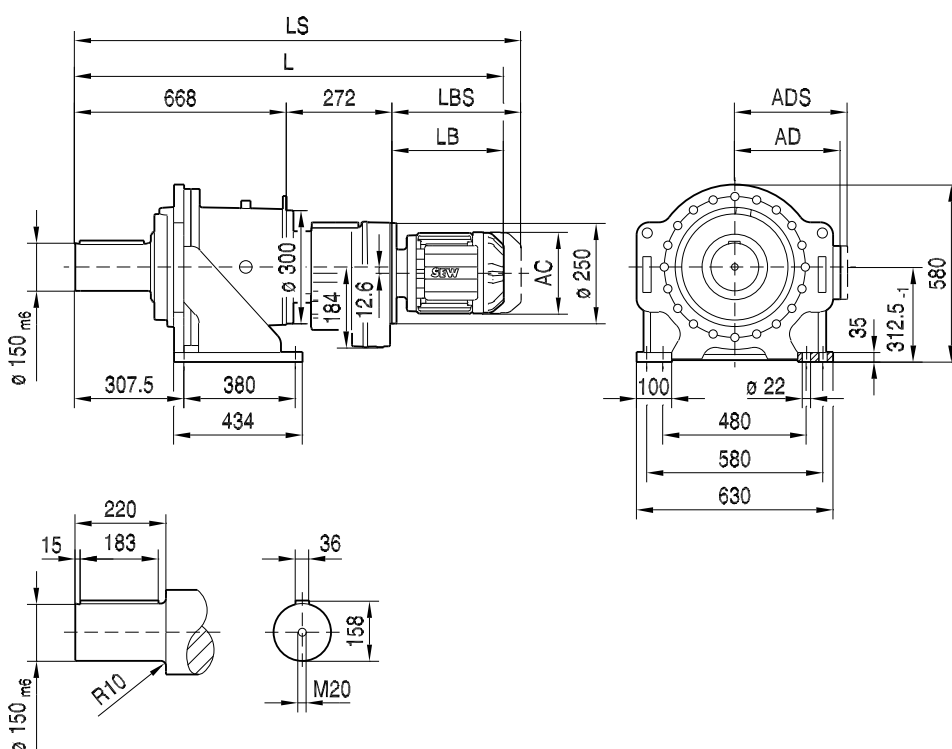


P.RF.. Helical Planetary Gearmotors

Dimension sheets [mm]

P022RF87..

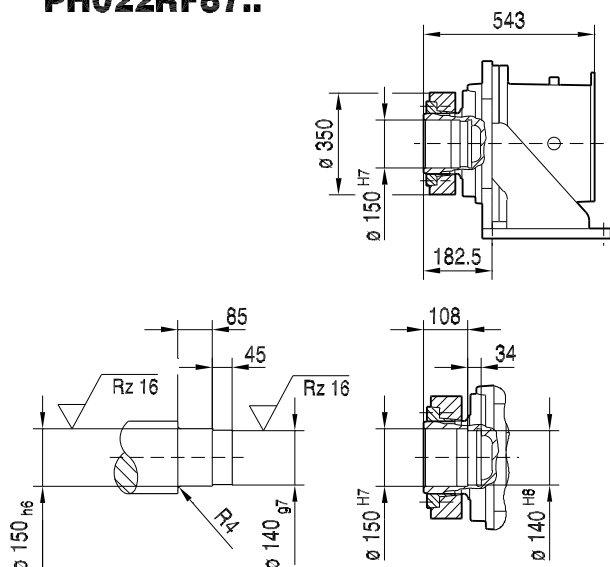
45 009 01 08



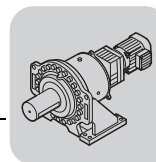
M2

M4

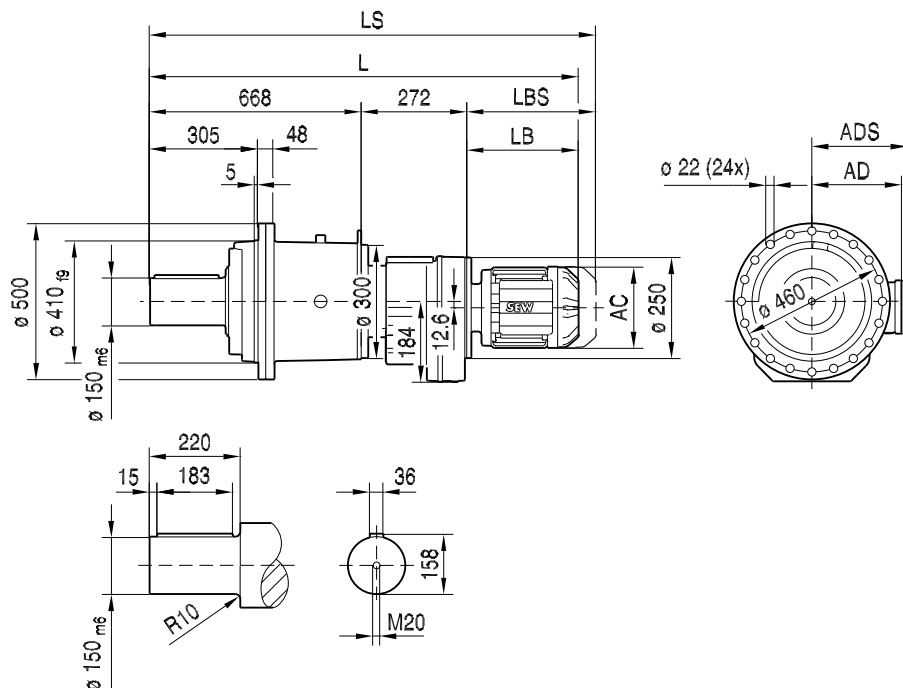
PH022RF87..



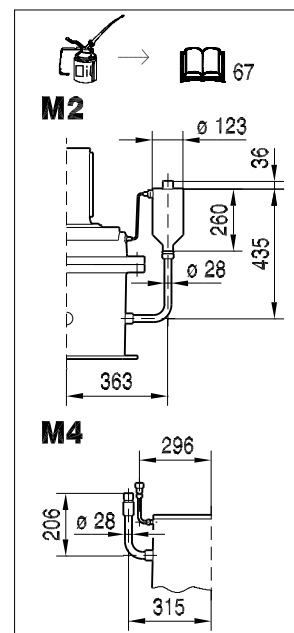
(→ 77)	DR80M	DR90M	DR90L	DR100M	DR100L/LC	DR112M	DR132S	DR132M/MC	DR160..
AC	156	179	179	197	197	221	221	221	270
AD	128	140	140	157	157	170	170	170	228
ADS	139	150	150	158	158	172	172	172	228
L	1189	1191	1211	1241	1271	1279	1314	1364	1405
LS	1270	1284	1304	1334	1364	1391	1426	1477	1542
LB	249	251	271	301	331	339	374	424	465
LBS	330	344	364	394	424	451	486	536	602



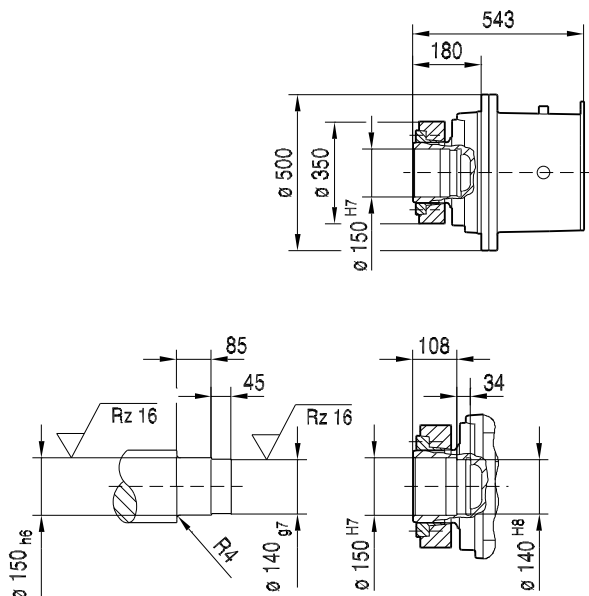
PF022RF87..



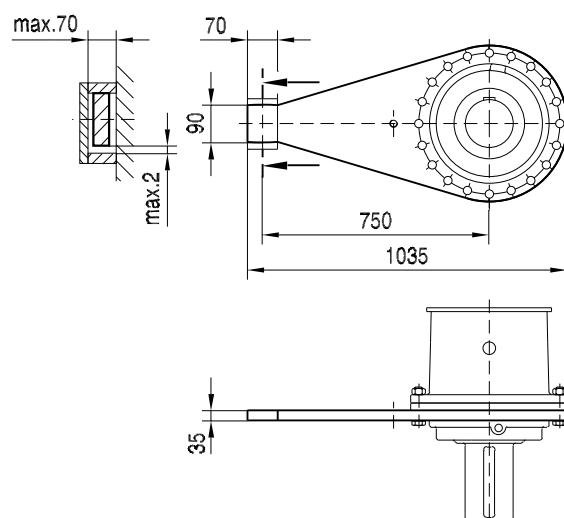
45 038 01 08



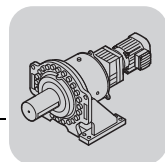
PHF022RF87..



P..022/T..



(→ 77)	DR80M	DR90M	DR90L	DR100M	DR100L/LC	DR112M	DR132S	DR132M/MC	DR160..
AC	156	179	179	197	197	221	221	221	270
AD	128	140	140	157	157	170	170	170	228
ADS	139	150	150	158	158	172	172	172	228
L	1189	1191	1211	1241	1271	1279	1314	1364	1405
LS	1270	1284	1304	1334	1364	1391	1426	1477	1542
LB	249	251	271	301	331	339	374	424	465
LBS	330	344	364	394	424	451	486	536	602

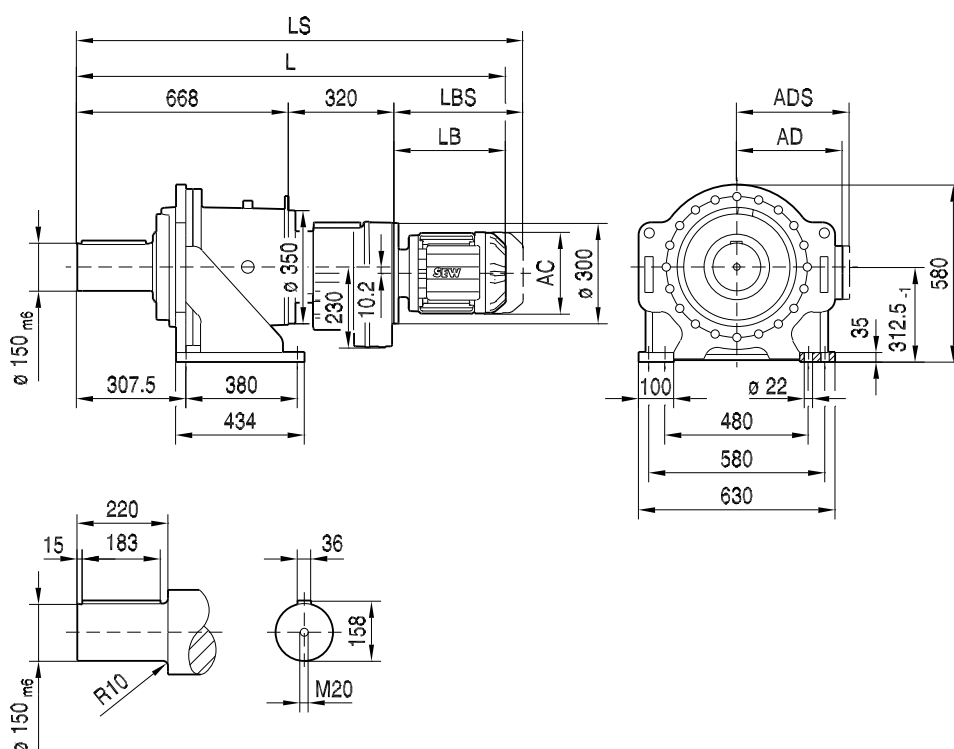


P.RF.. Helical Planetary Gearmotors

Dimension sheets [mm]

P022RF97..

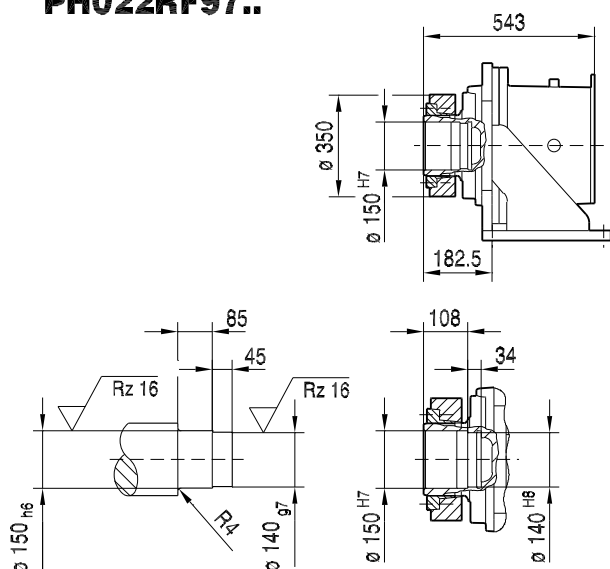
45 010 01 08



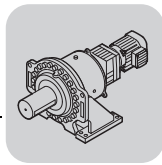
M2

M4

PH022RF97..

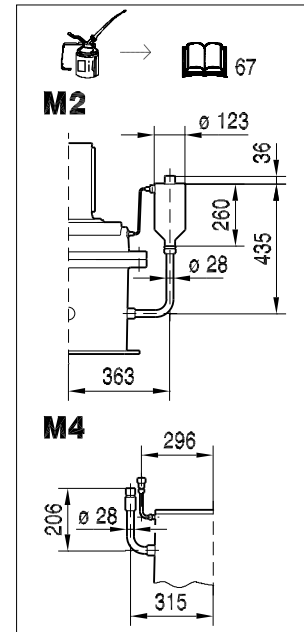
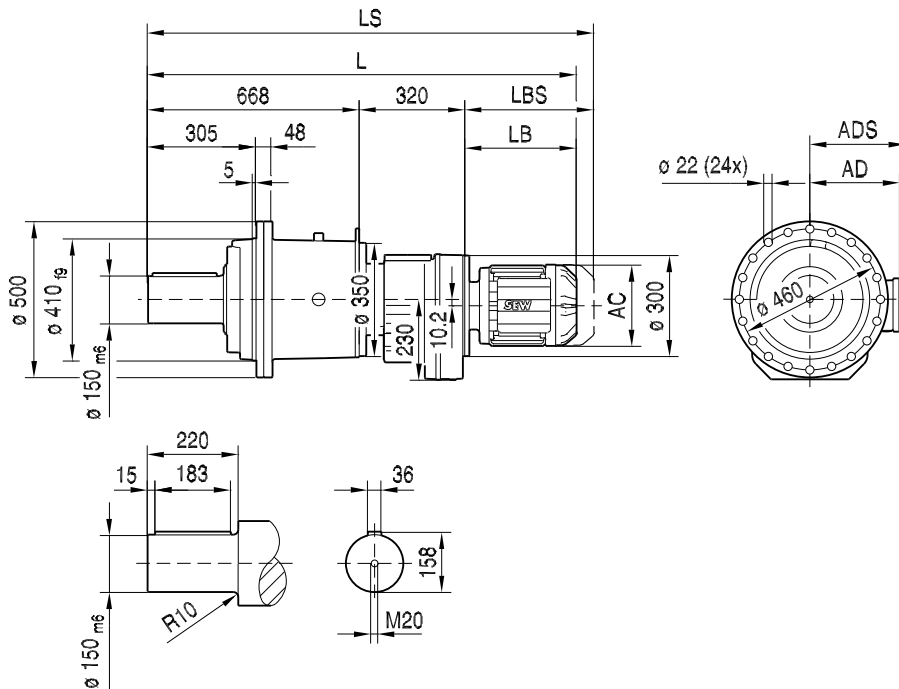


(→ 77)	DR90M	DR90L	DR100M	DR100L/LC	DR112M	DR132S	DR132M/MC	DR160..	DR180S/M	DR180L/LC	DR200
AC	179	179	197	197	221	221	221	270	316	316	394
AD	140	140	157	157	170	170	170	228	253	253	283
ADS	150	150	158	158	172	172	172	228	253	253	283
L	1234	1254	1284	1314	1322	1357	1407	1448	1517	1577	1650
LS	1327	1347	1377	1407	1434	1469	1519	1585	1706	1776	1855
LB	246	266	296	326	334	369	419	460	529	589	662
LBS	339	359	389	419	446	481	531	597	718	778	867

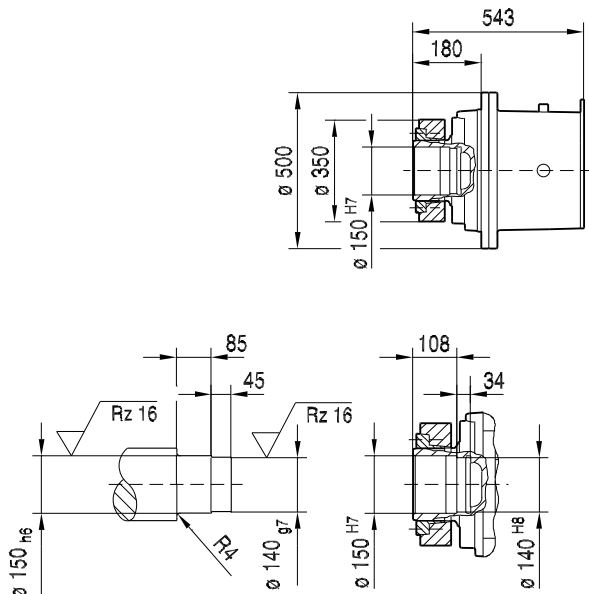


PF022RF97..

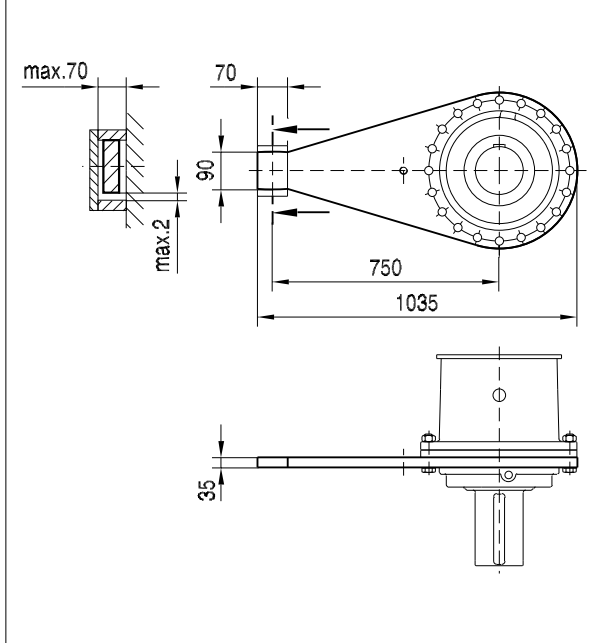
45 039 01 08



PHF022RF97..

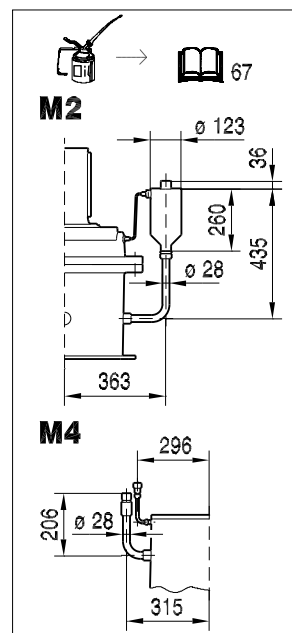


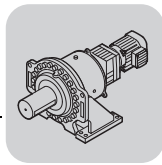
P..022/T..



(→ 77)	DR90M	DR90L	DR100M	DR100L/LC	DR112M	DR132S	DR132M/MC	DR160..	DR180S/M	DR180L/LC	DR200
AC	179	179	197	197	221	221	221	270	316	316	394
AD	140	140	157	157	170	170	170	228	253	253	283
ADS	150	150	158	158	172	172	172	228	253	253	283
L	1234	1254	1284	1314	1322	1357	1407	1448	1517	1577	1650
LS	1327	1347	1377	1407	1434	1469	1519	1585	1706	1776	1855
LB	246	266	296	326	334	369	419	460	529	589	662
LBS	339	359	389	419	446	481	531	597	718	778	867

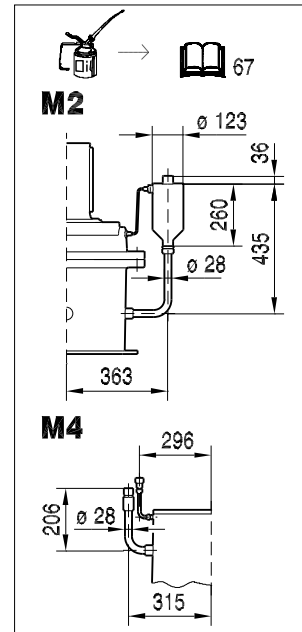
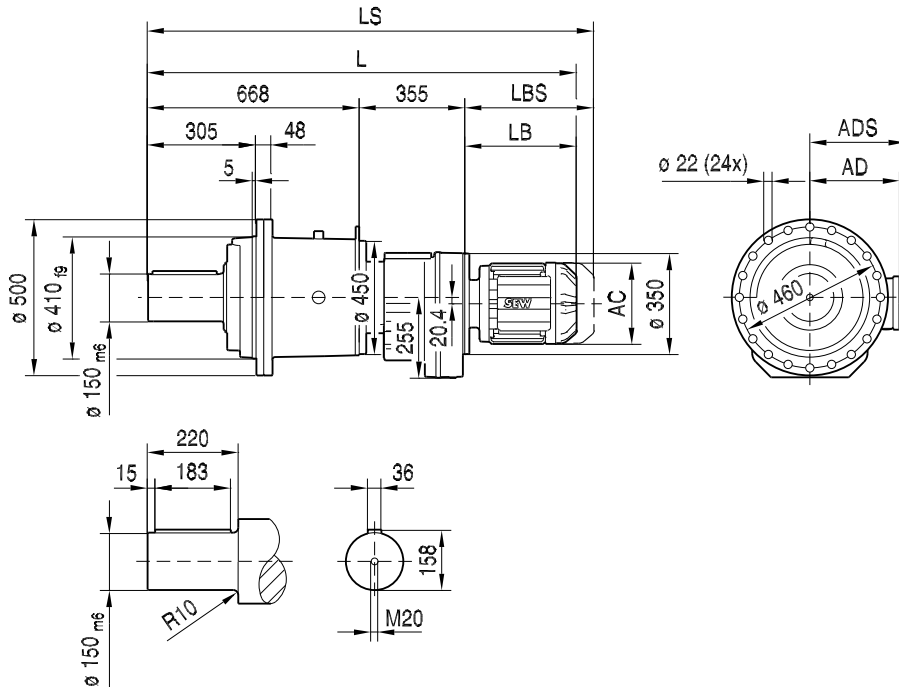
45 011 01 08

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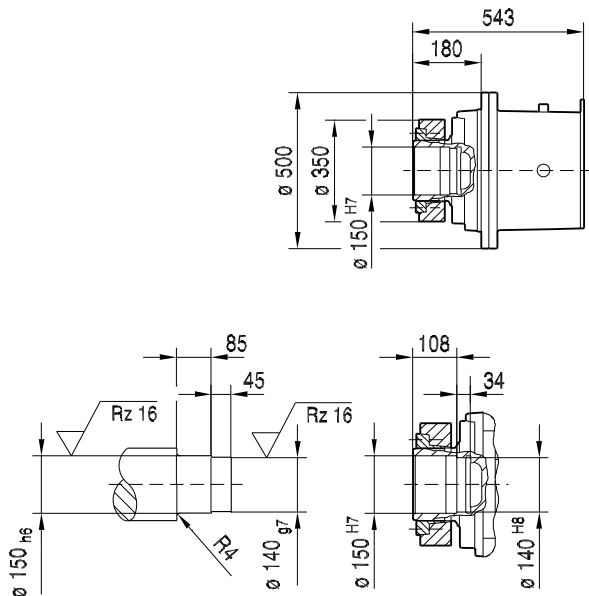


PF022RF107..

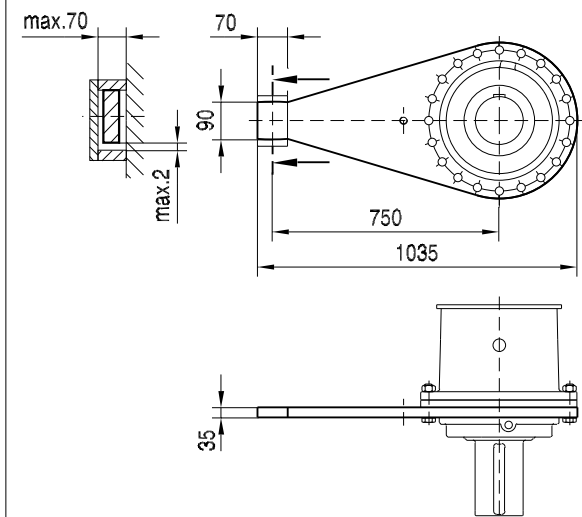
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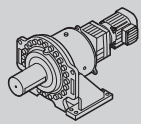
PHF022RF107..



P..022/T..



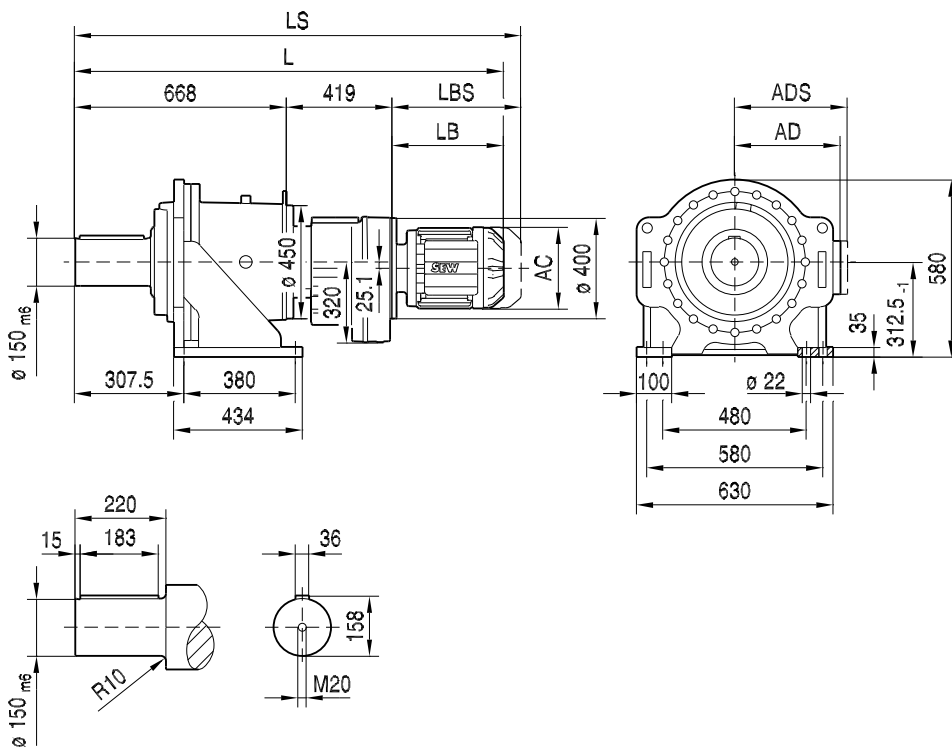
(→ 77)	DR100L/LC	DR132S	DR132M/MC	DR160..	DR180S/M	DR180L/LC	DR200	DR225S	DR225M/MC
AC	197	221	221	270	316	316	394	394	394
AD	157	170	170	228	253	253	283	283	283
ADS	158	172	172	228	253	253	283	283	283
L	1343	1386	1436	1477	1546	1606	1679	1679	1729
LS	1436	1498	1548	1614	1735	1795	1884	1884	1934
LB	320	363	413	454	523	583	656	656	706
LBS	413	475	525	591	712	772	861	861	911



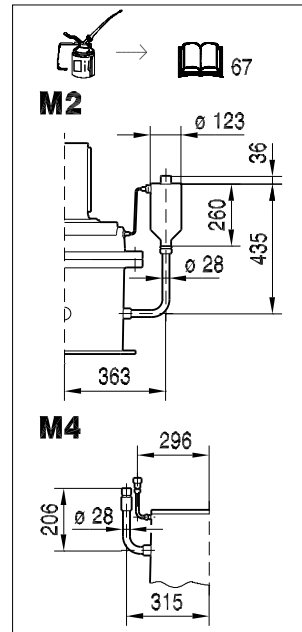
P.RF.. Helical Planetary Gearmotors

Dimension sheets [mm]

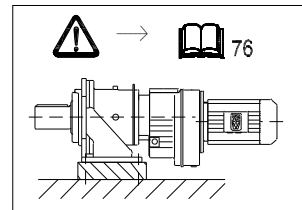
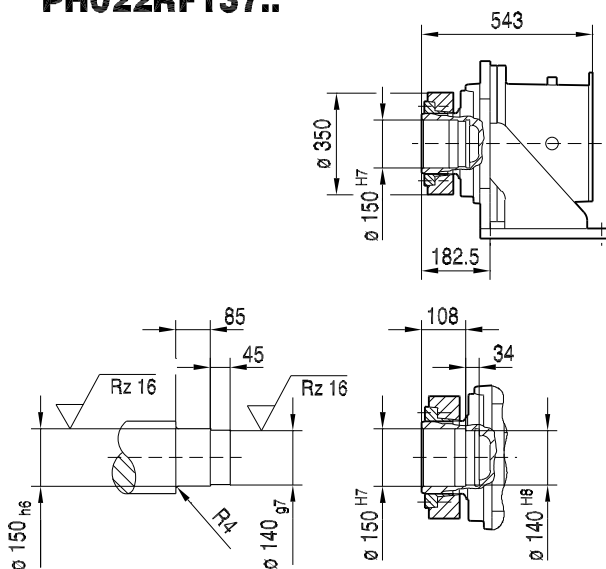
P022RF137..



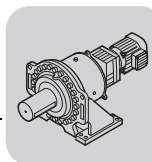
45 012 01 08



PH022RF137..

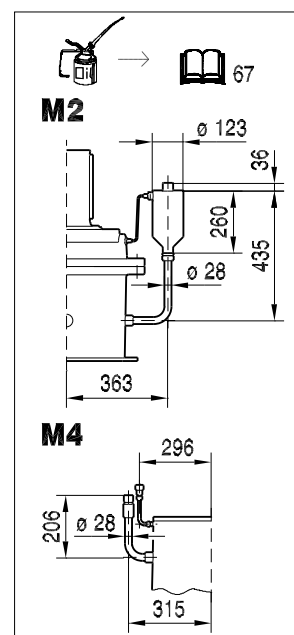
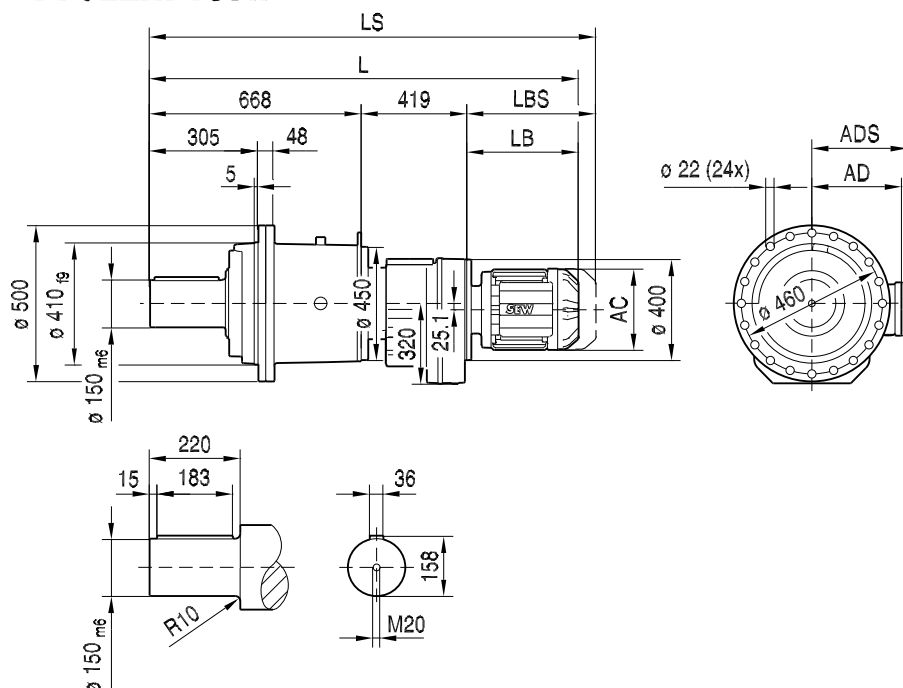


(→ 77)	DR225M/MC	DV250M						
AC	394	510						
AD	283	397						
ADS	283	397						
L	1786	1877						
LS	1991	2061						
LB	699	789						
LBS	904	974						

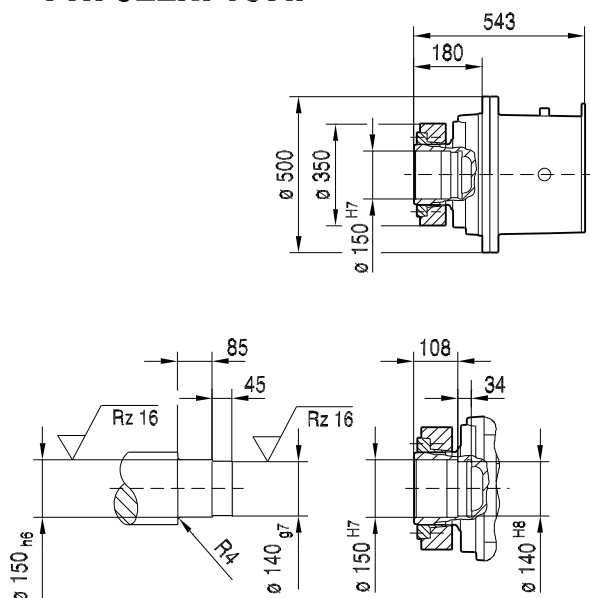


PF022RF137..

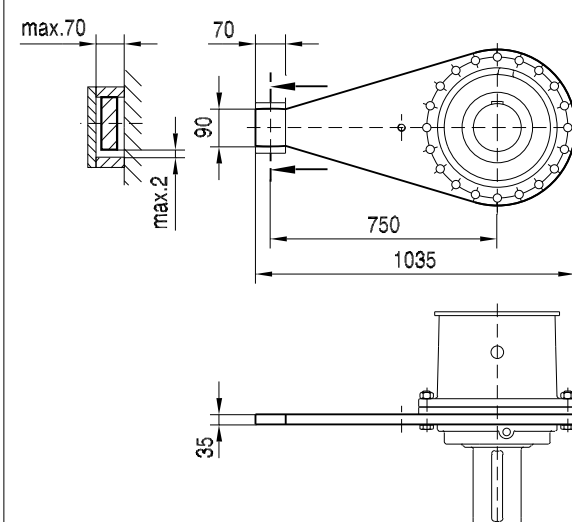
45 041 01 08



PHF022RF137..

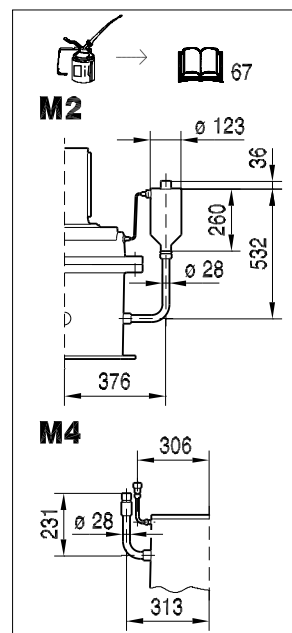


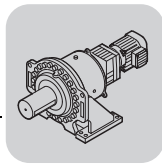
P..022/T..



(→ 77)	DR225M/MC	DV250M						
AC	394	510						
AD	283	397						
ADS	283	397						
L	1786	1877						
LS	1991	2061						
LB	699	789						
LBS	904	974						

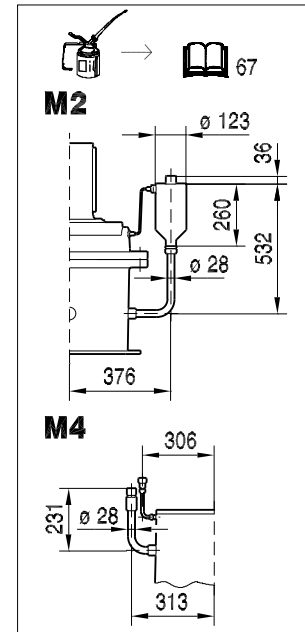
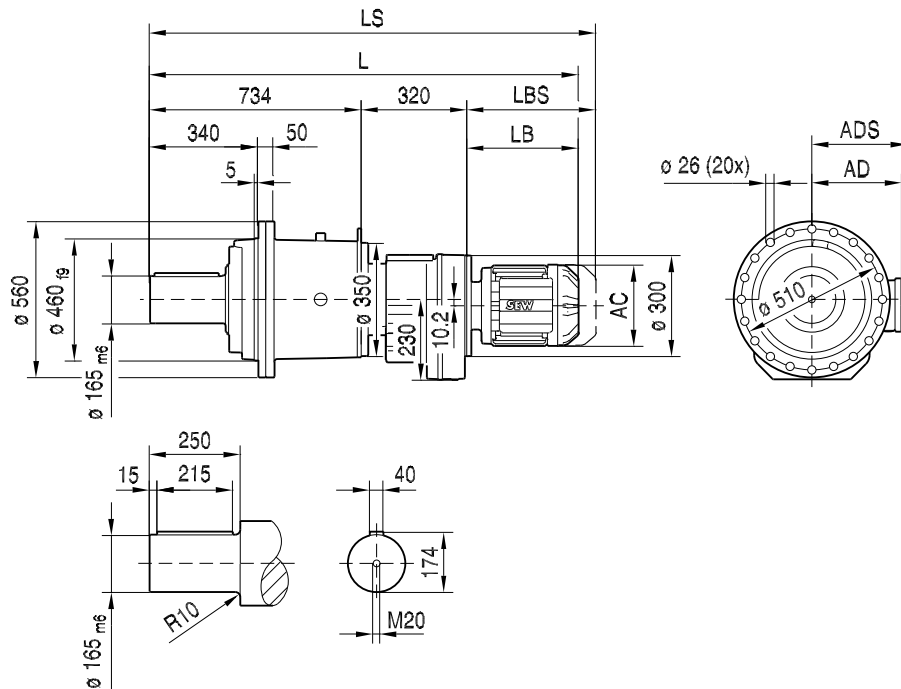
45 013 01 08

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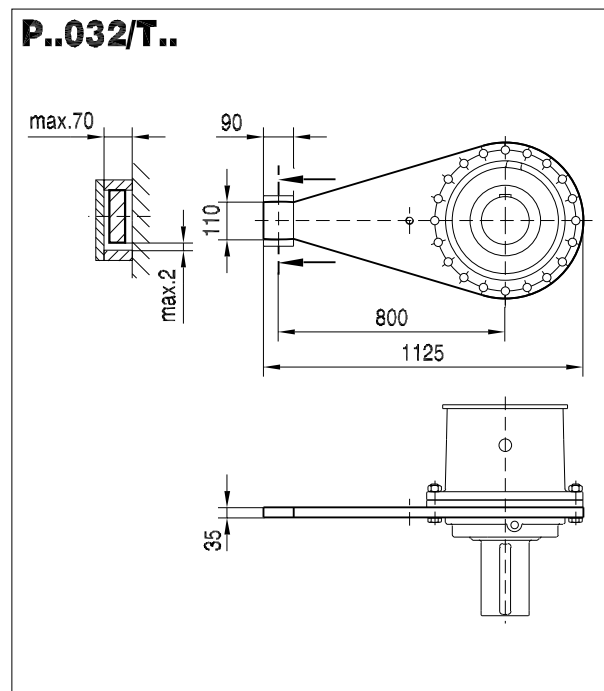
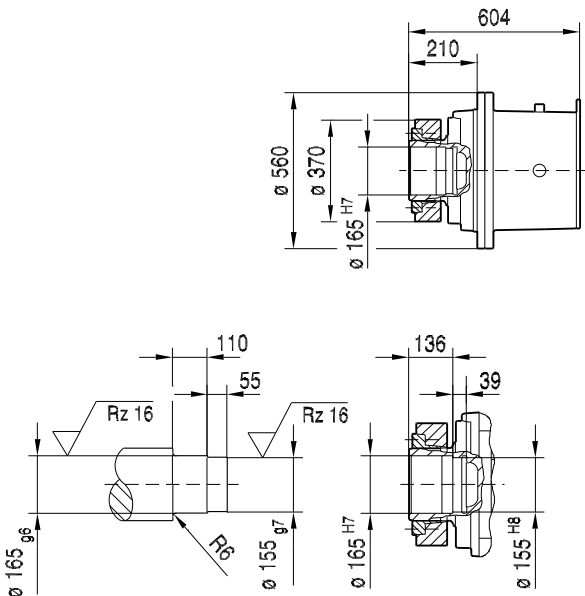
PF032RF97..

45 042 01 08

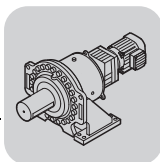


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(→ 77)	DR90L	DR100M	DR100L/LC	DR112M	DR132S	DR132M/MC	DR160..	DR180S/M	DR180L/LC	DR200	DR225S
AC	179	197	197	221	221	221	270	316	316	394	394
AD	140	157	157	170	170	170	228	253	253	283	283
ADS	150	158	158	172	172	172	228	253	253	283	283
L	1320	1350	1380	1388	1423	1473	1514	1583	1643	1716	1716
LS	1413	1443	1473	1500	1535	1585	1651	1772	1832	1921	1921
LB	266	296	326	334	369	419	460	529	589	662	662
LBS	359	389	419	446	481	531	597	718	778	867	867

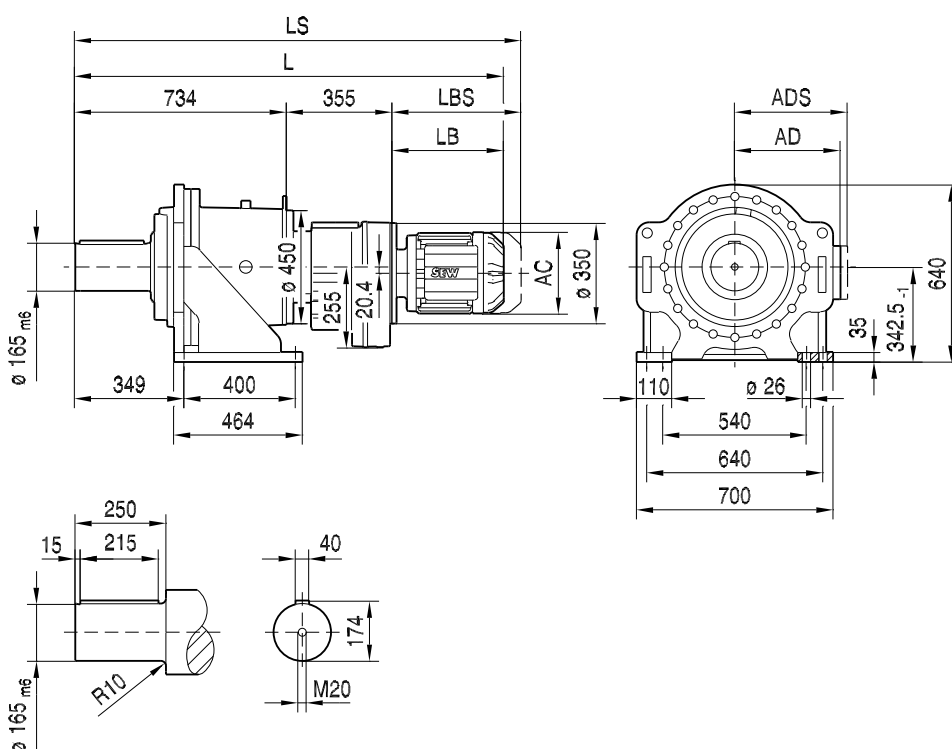


P.RF.. Helical Planetary Gearmotors

Dimension sheets [mm]

P032RF107..

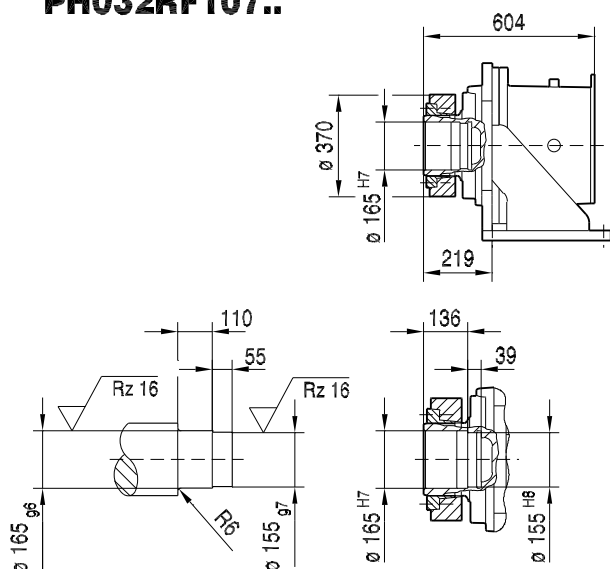
45 014 01 08



M2

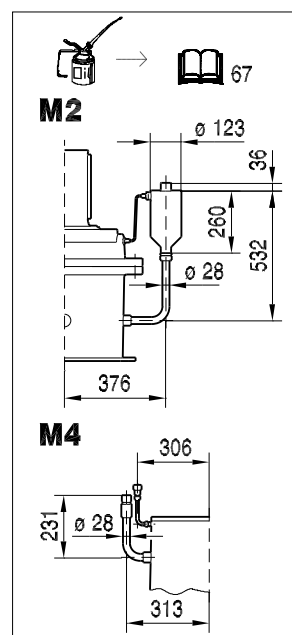
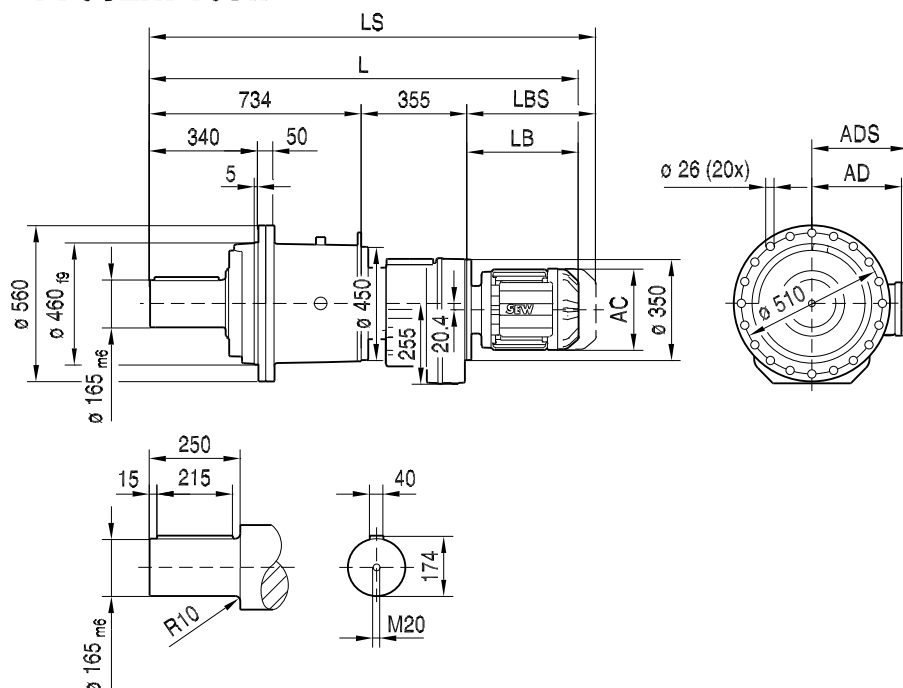
M4

PH032RF107..

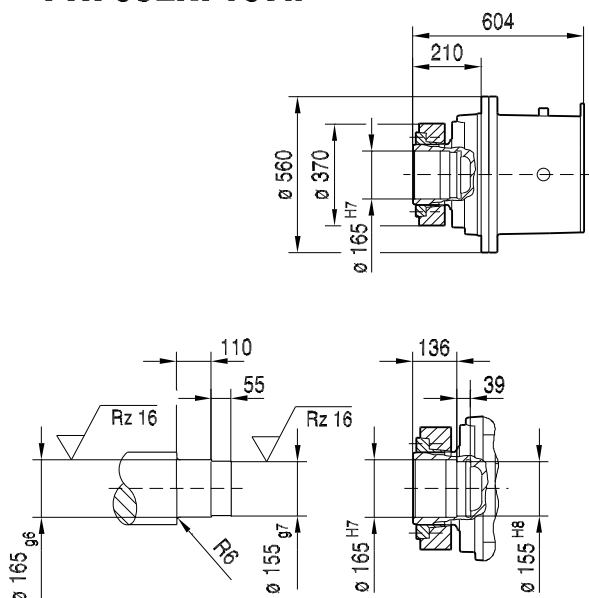


(→ 77)	DR100M	DR100L/LC	DR112M	DR132S	DR132M/MC	DR160..	DR180S/M	DR180L/LC	DR200	DR225S	DR225M/MC
AC	197	197	221	221	221	270	316	316	394	394	394
AD	157	157	170	170	170	228	253	253	283	283	283
ADS	158	158	172	172	172	228	253	253	283	283	283
L	1379	1409	1417	1452	1502	1543	1612	1672	1745	1745	1795
LS	1472	1502	1529	1564	1614	1680	1801	1861	1950	1950	2000
LB	290	320	328	363	413	454	523	583	656	656	706
LBS	383	413	440	475	525	591	712	772	861	861	911

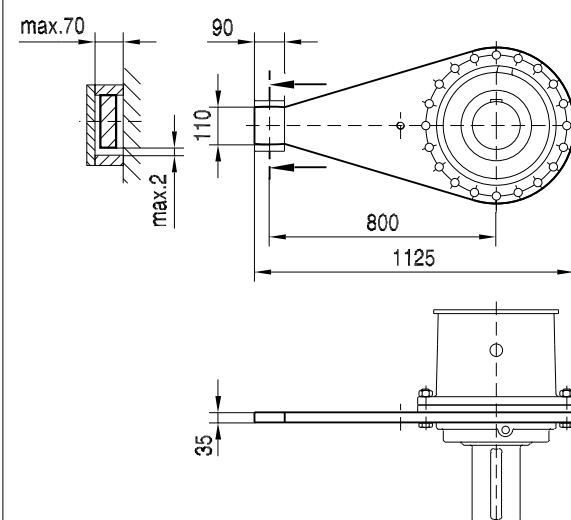
45 043 01 08



PHF032RF107..

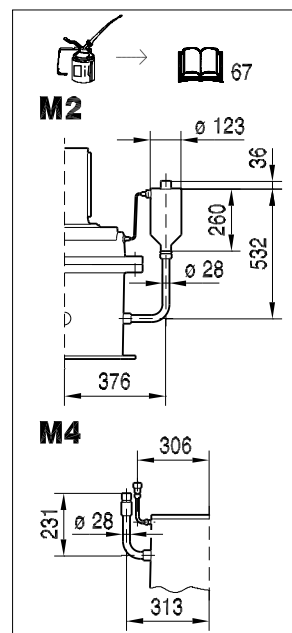


P..032/T..



(→  77)	DR100M	DR100L/LC	DR112M	DR132S	DR132M/MC	DR160..	DR180S/M	DR180L/LC	DR200	DR225S	DR225M/MC
AC	197	197	221	221	221	270	316	316	394	394	394
AD	157	157	170	170	170	228	253	253	283	283	283
ADS	158	158	172	172	172	228	253	253	283	283	283
L	1379	1409	1417	1452	1502	1543	1612	1672	1745	1745	1795
LS	1472	1502	1529	1564	1614	1680	1801	1861	1950	1950	2000
LB	290	320	328	363	413	454	523	583	656	656	706
LBS	383	413	440	475	525	591	712	772	861	861	911

45 015 01 08

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Technical drawing of the GSW 1000 pump assembly, showing side, front, and detail views with dimensions.

Side View Dimensions:

- Overall length: LS
- Distance from inlet to motor: L
- Motor length: LBS
- Motor mounting bracket length: LB
- Distance from inlet to motor mounting bracket: 734
- Distance from inlet to motor mounting bracket (excluding 5 mm): 340
- Motor mounting bracket thickness: 5
- Motor mounting bracket width: 50
- Motor mounting bracket height: 25.1
- Motor mounting bracket diameter: $\varnothing 450$
- Motor mounting bracket height (excluding 320 mm): 320
- Motor mounting bracket diameter (excluding 320 mm): $\varnothing 400$
- Motor mounting bracket height (excluding 320 mm and 25.1 mm): AC
- Motor mounting bracket diameter (excluding 320 mm and 25.1 mm): $\varnothing 400$
- Motor mounting bracket height (excluding 320 mm and 25.1 mm and 5 mm): 165_{m6}
- Motor mounting bracket diameter (excluding 320 mm and 25.1 mm and 5 mm): $\varnothing 460_{g9}$
- Motor mounting bracket diameter (excluding 320 mm and 25.1 mm and 5 mm and 165 mm): $\varnothing 560$

Front View Dimensions:

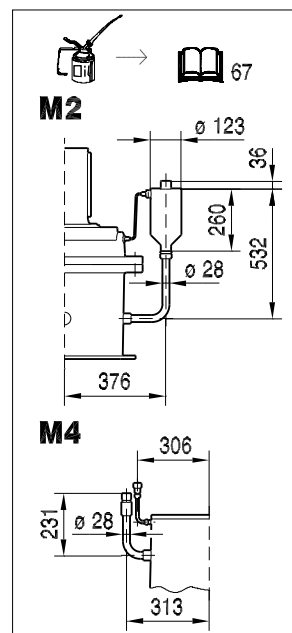
- Overall width: 250
- Distance from inlet to motor mounting bracket: 15
- Motor mounting bracket width: 215
- Motor mounting bracket height: 174
- Motor mounting bracket diameter: $\varnothing 510$
- Motor mounting bracket height (excluding 174 mm): 165_{m6}
- Motor mounting bracket diameter (excluding 174 mm): $\varnothing 460_{g9}$
- Motor mounting bracket diameter (excluding 174 mm and 165 mm): $\varnothing 560$

Detail View Dimensions:

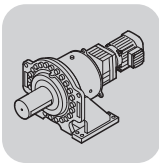
- Motor mounting bracket diameter: $\varnothing 450$
- Motor mounting bracket height: 25.1
- Motor mounting bracket diameter (excluding 25.1 mm): $\varnothing 400$
- Motor mounting bracket height (excluding 25.1 mm): AC
- Motor mounting bracket diameter (excluding 25.1 mm and AC): $\varnothing 400$
- Motor mounting bracket height (excluding 25.1 mm and AC and 5 mm): 165_{m6}
- Motor mounting bracket diameter (excluding 25.1 mm and AC and 5 mm): $\varnothing 460_{g9}$
- Motor mounting bracket diameter (excluding 25.1 mm and AC and 5 mm and 165 mm): $\varnothing 560$

Other Dimensions:

- Motor mounting bracket diameter: $\varnothing 450$
- Motor mounting bracket height: 25.1
- Motor mounting bracket diameter (excluding 25.1 mm): $\varnothing 400$
- Motor mounting bracket height (excluding 25.1 mm): AC
- Motor mounting bracket diameter (excluding 25.1 mm and AC): $\varnothing 400$
- Motor mounting bracket height (excluding 25.1 mm and AC and 5 mm): 165_{m6}
- Motor mounting bracket diameter (excluding 25.1 mm and AC and 5 mm): $\varnothing 460_{g9}$
- Motor mounting bracket diameter (excluding 25.1 mm and AC and 5 mm and 165 mm): $\varnothing 560$

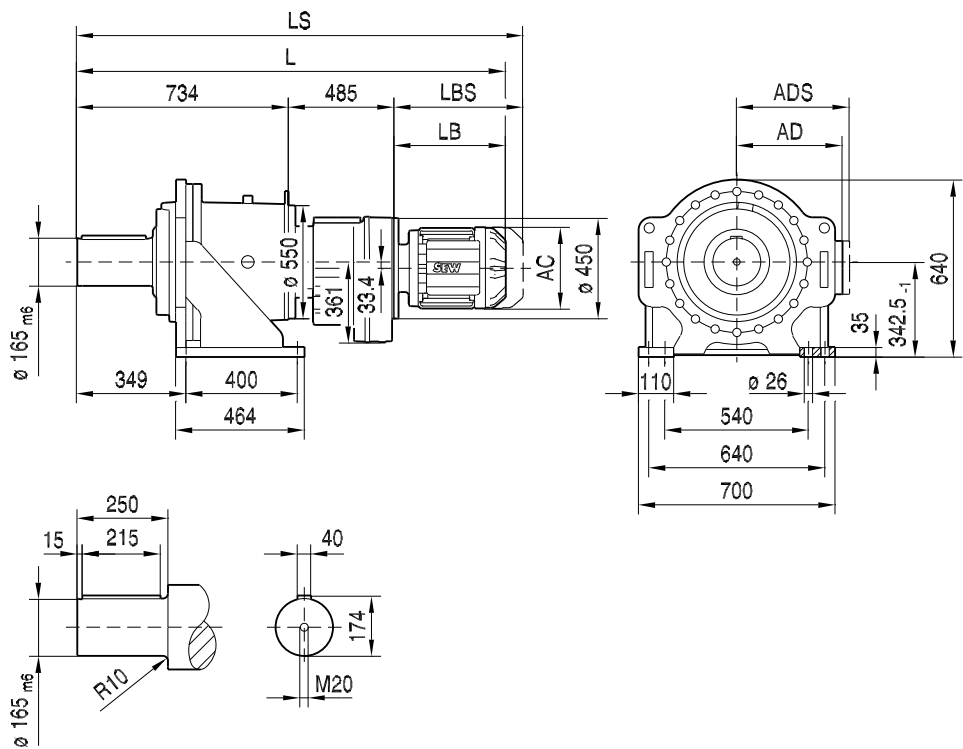


Catalog – Planetary Gearmotors P.002 - P.102 Series

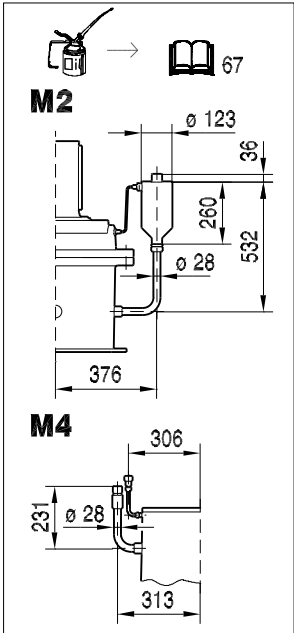


P.RF.. Helical Planetary Gearmotors
Dimension sheets [mm]

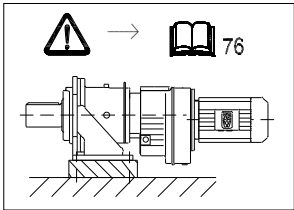
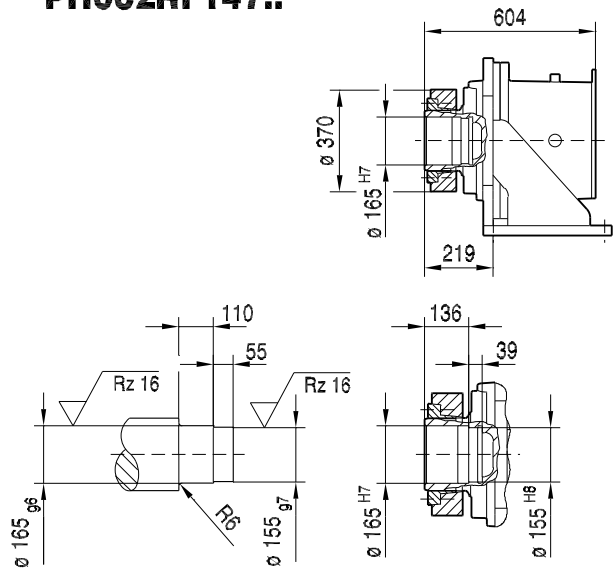
P032RF147..



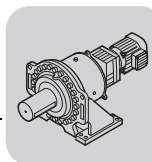
45 016 01 08



PH032RF147..

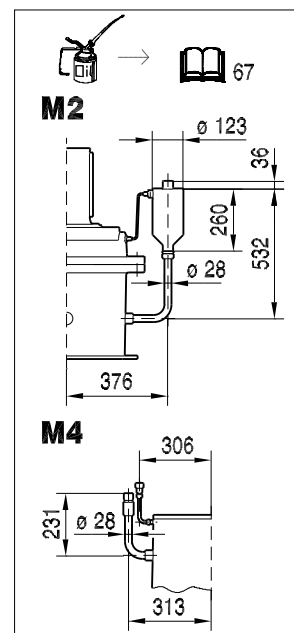
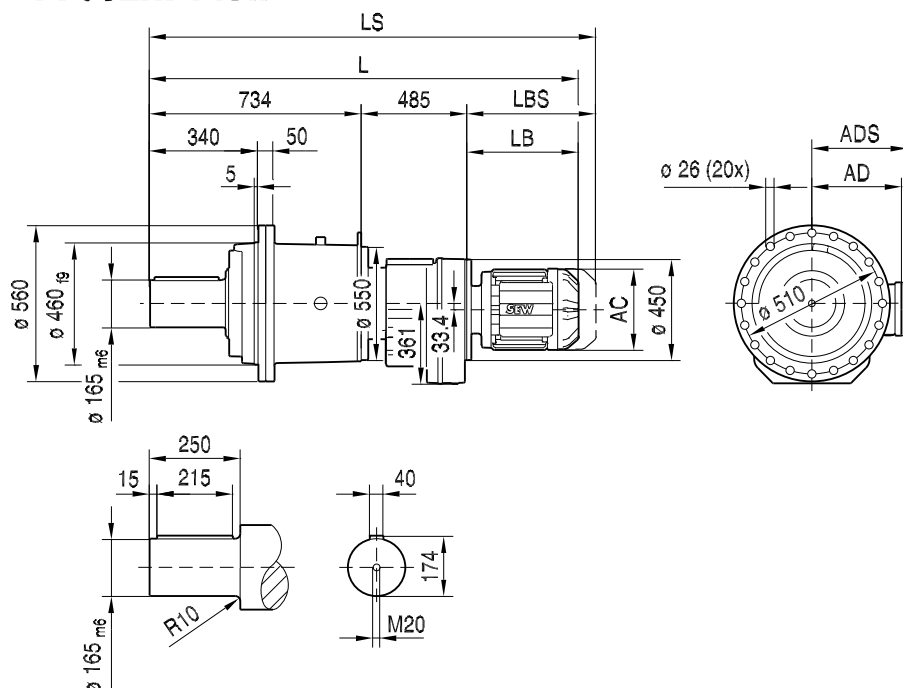


(→ 77)	DV280..							
AC	510							
AD	397							
ADS	397							
L	1999							
LS	2184							
LB	780							
LBS	965							

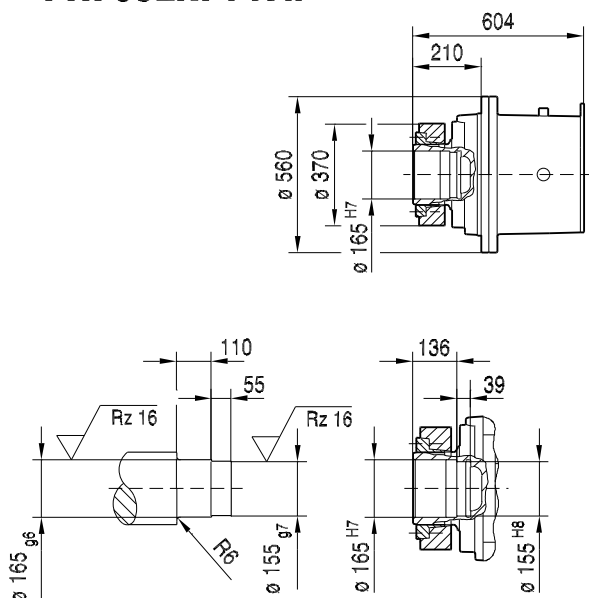


PF032RF147..

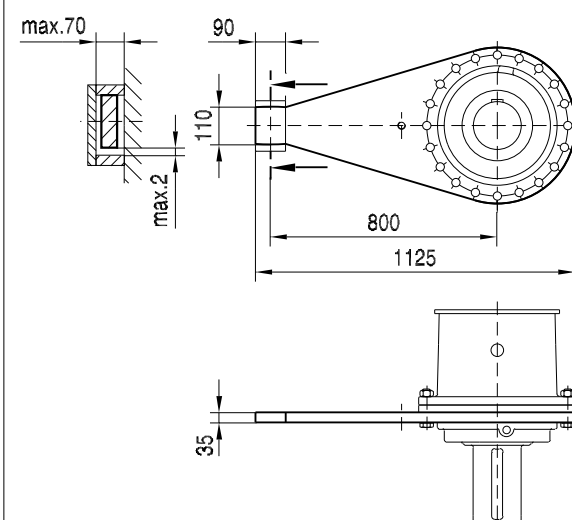
45 045 01 08



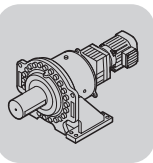
PHF032RF147..



P..032/T..



(→ 77)	DV280..							
AC	510							
AD	397							
ADS	397							
L	1999							
LS	2184							
LB	780							
LBS	965							

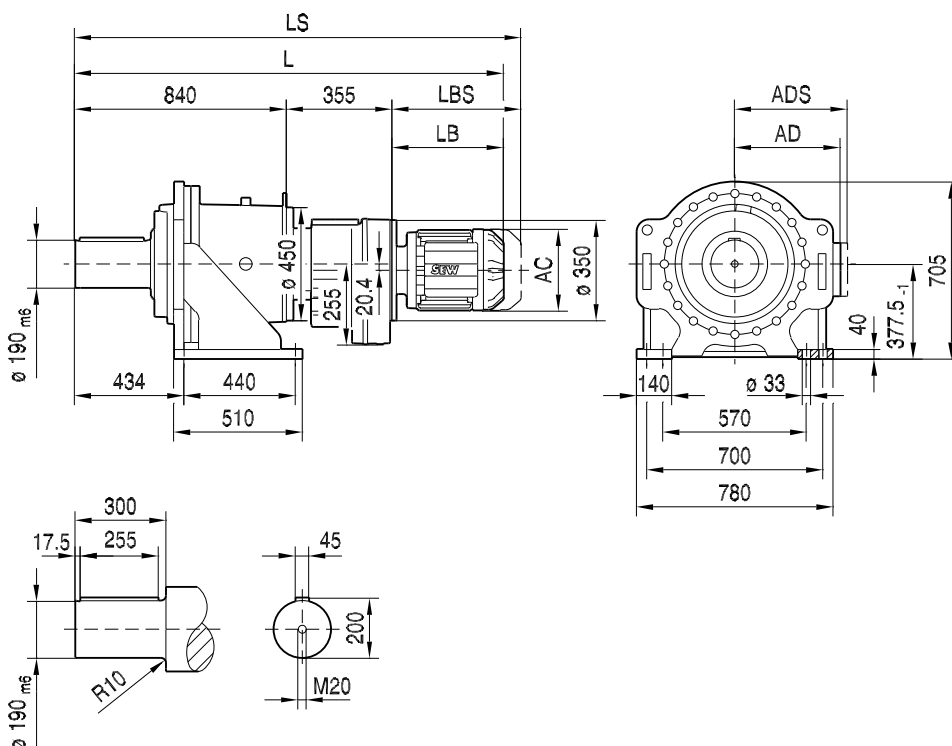


P.RF.. Helical Planetary Gearmotors

Dimension sheets [mm]

P042RF107..

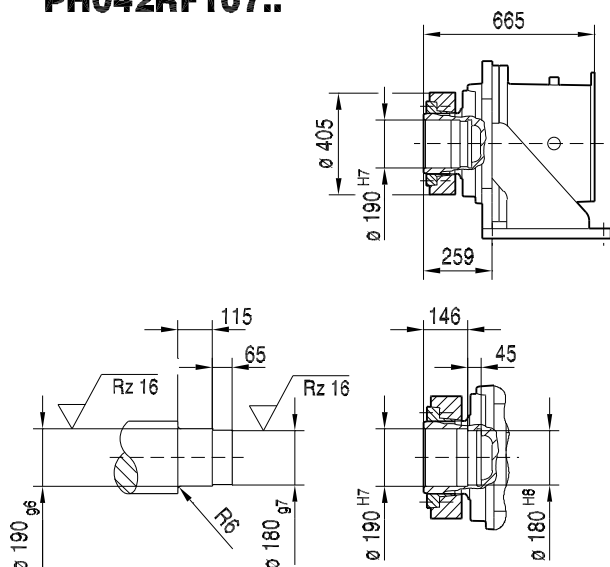
45 017 01 08



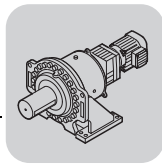
M2

M4

PH042RF107..

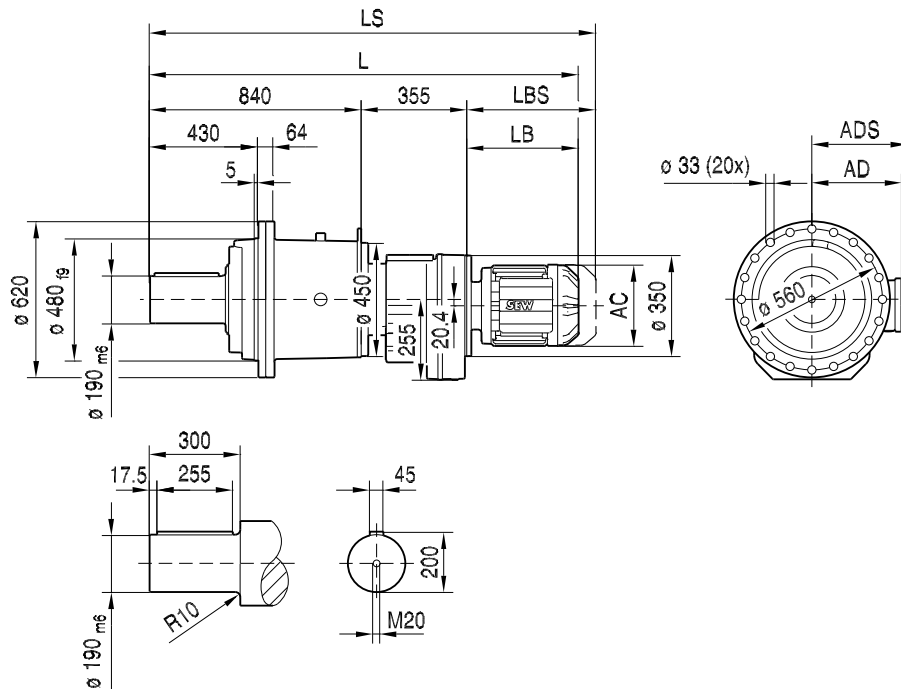


(→ 77)	DR100M	DR100L/LC	DR112M	DR132S	DR132M/MC	DR160..	DR180S/M	DR180L/LC	DR200	DR225S	DR225M/MC
AC	197	197	221	221	221	270	316	316	394	394	394
AD	157	157	170	170	170	228	253	253	283	283	283
ADS	158	158	172	172	172	228	253	253	283	283	283
L	1485	1515	1523	1558	1608	1649	1718	1778	1851	1851	1901
LS	1578	1608	1635	1670	1720	1786	1907	1967	2056	2056	2106
LB	290	320	328	363	413	454	523	583	656	656	706
LBS	383	413	440	475	525	591	712	772	861	861	911



PF042RF107..

45 046 01 08

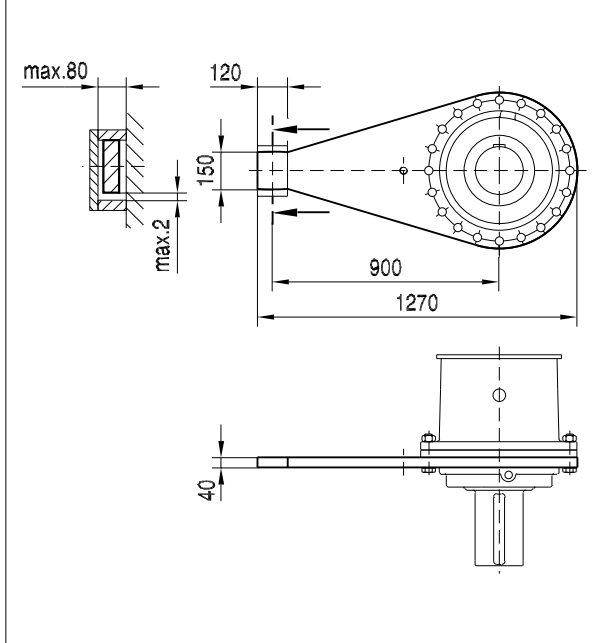
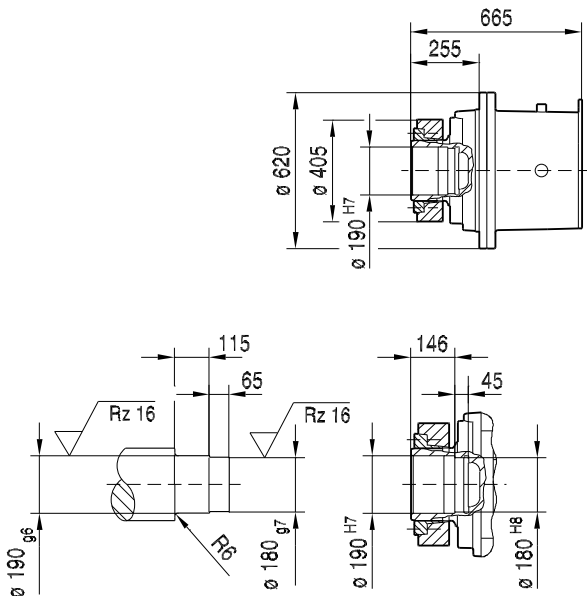


M2

M4

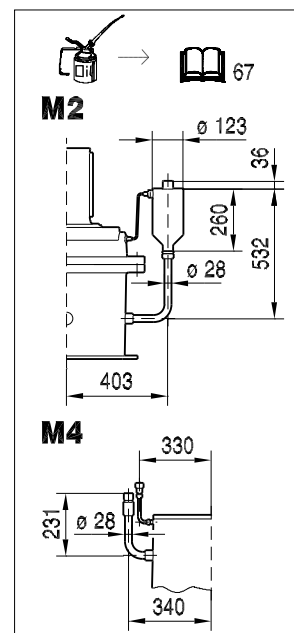
PHF042RF107..

P..042/T..



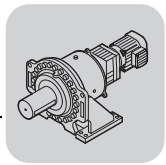
(→ 77)	DR100M	DR100L/LC	DR112M	DR132S	DR132M/MC	DR160..	DR180S/M	DR180L/LC	DR200	DR225S	DR225M/MC
AC	197	197	221	221	221	270	316	316	394	394	394
AD	157	157	170	170	170	228	253	253	283	283	283
ADS	158	158	172	172	172	228	253	253	283	283	283
L	1485	1515	1523	1558	1608	1649	1718	1778	1851	1851	1901
LS	1578	1608	1635	1670	1720	1786	1907	1967	2056	2056	2106
LB	290	320	328	363	413	454	523	583	656	656	706
LBS	383	413	440	475	525	591	712	772	861	861	911

45 018 01 08



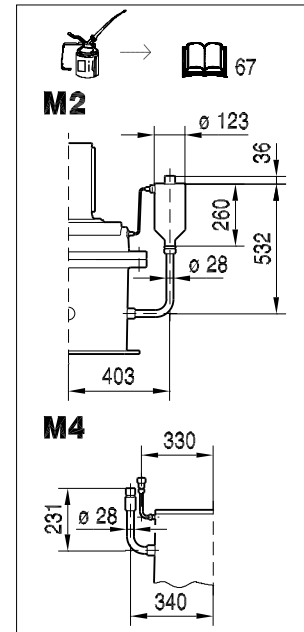
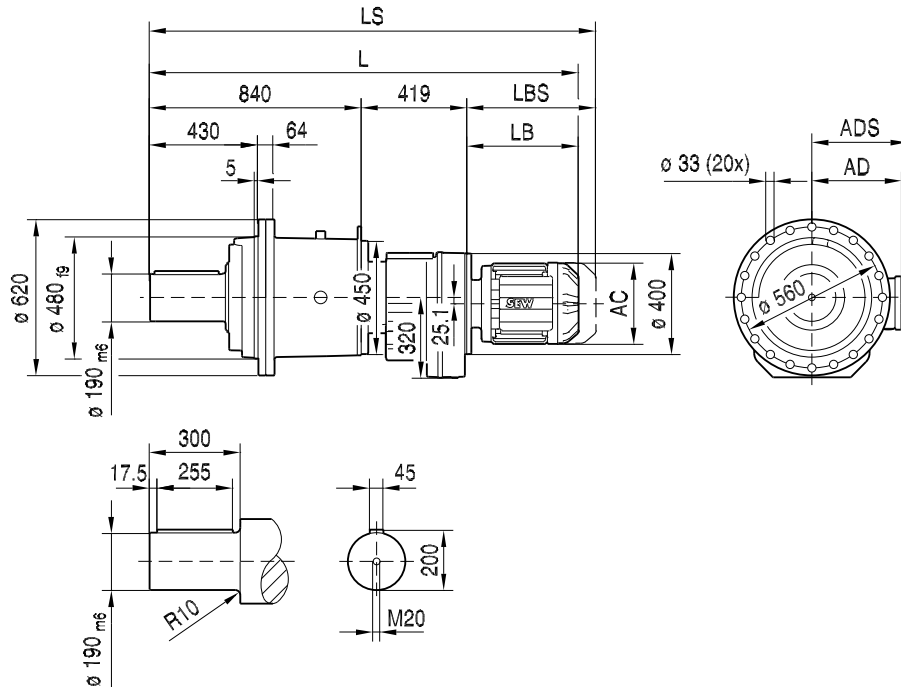
Technical drawing of a mechanical part, showing three views: a front view, a side view, and a top view. The part is a cylindrical component with a central bore and a flange. The front view shows a total length of 115 mm, with a central section of 65 mm. The side view shows a total width of 146 mm, with a central section of 45 mm. The top view shows a total diameter of 180 mm, with a central bore of 190 mm. The drawing includes surface texture symbols (Rz 16) and a scale of 1:1.

178

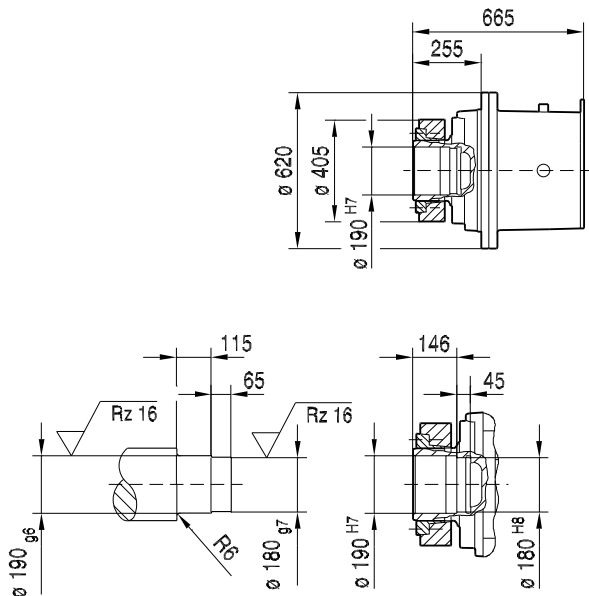


PF042RF137..

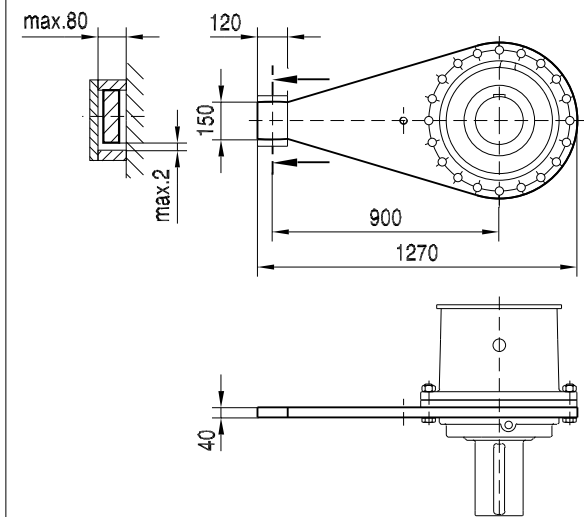
45 047 01 08



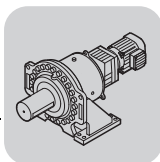
PHF042RF137..



P..042/T..



(→ 77)	DR132S	DR132M/MC	DR160..	DR180S/M	DR180L/LC	DR200	DR225S	DR225M/MC	DV250M
AC	221	221	270	316	316	394	394	394	510
AD	170	170	228	253	253	283	283	283	397
ADS	172	172	228	253	253	283	283	283	397
L	1615	1665	1706	1775	1835	1908	1908	1958	2048
LS	1727	1777	1843	1964	2024	2113	2113	2163	2233
LB	356	406	447	516	577	649	649	699	789
LBS	468	518	584	705	775	854	854	904	974

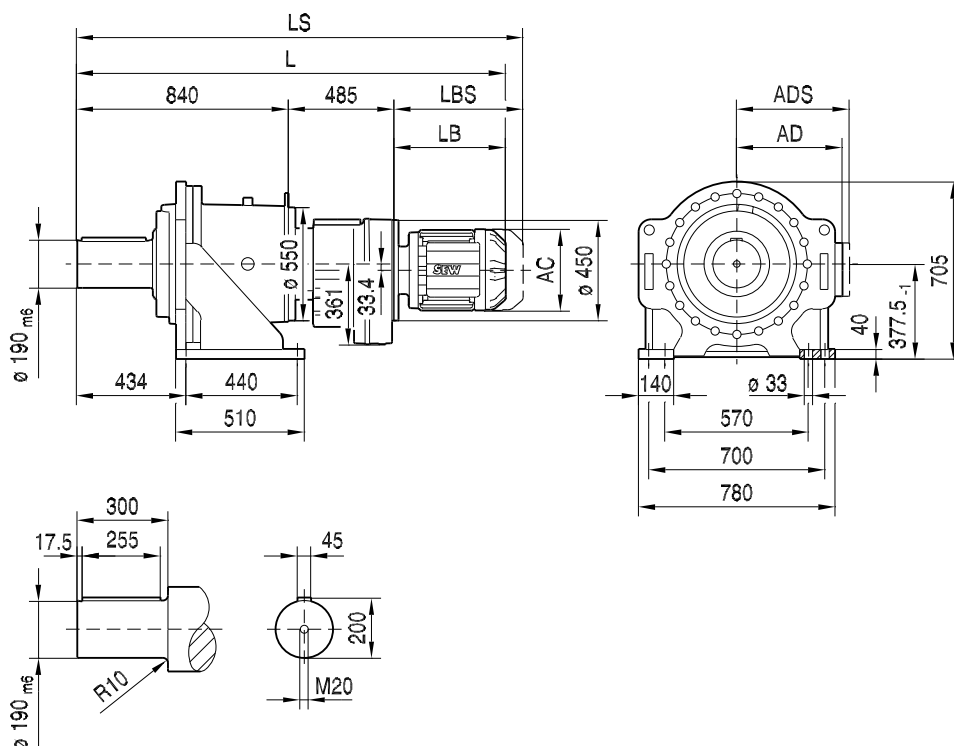


P.RF.. Helical Planetary Gearmotors

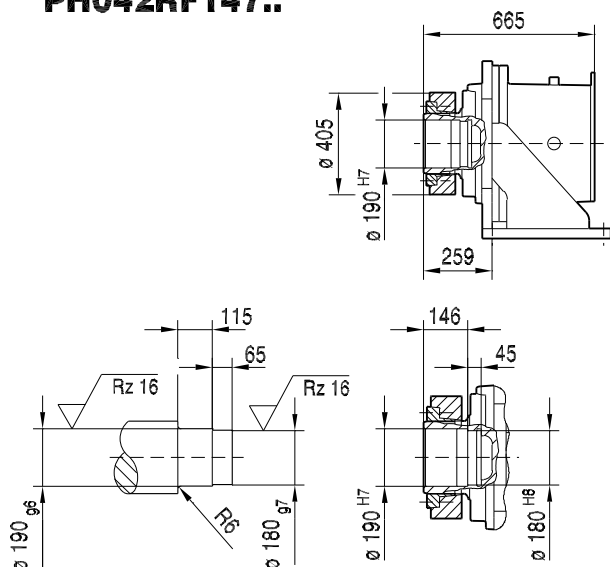
Dimension sheets [mm]

P042RF147..

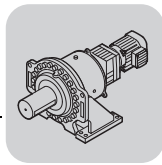
45 019 01 08

**M2****M4**

PH042RF147..

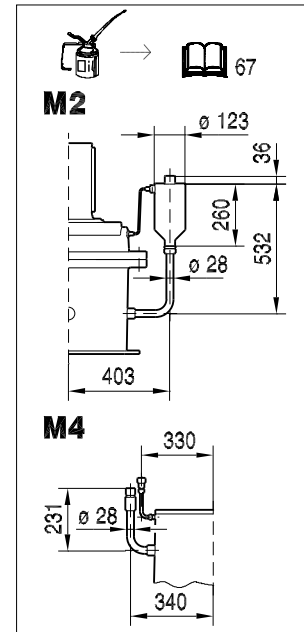
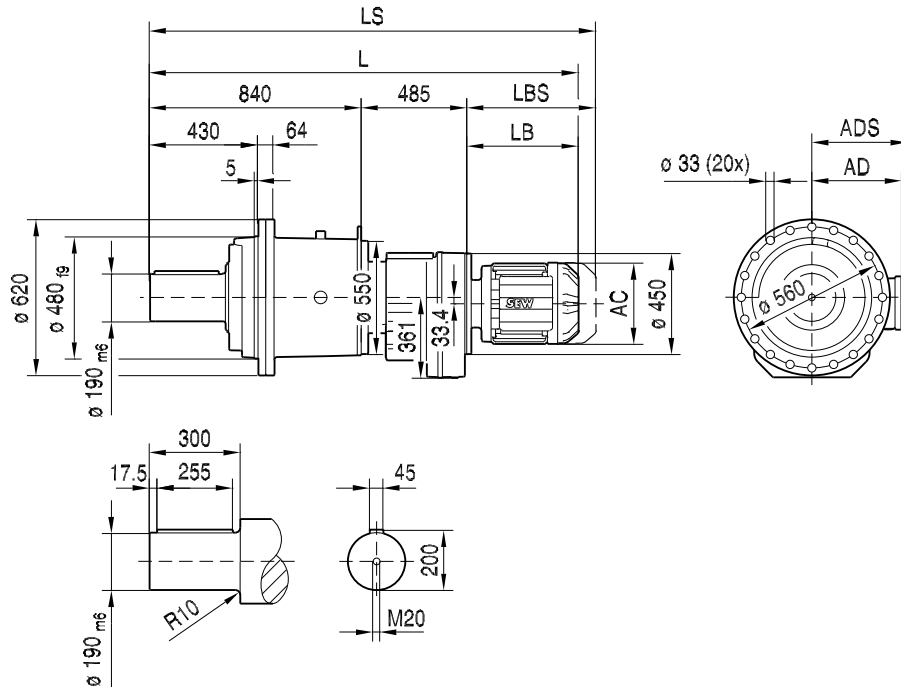


(→ 77)	DR225M/MC	DV250M	DV280..					
AC	394	510	510					
AD	283	397	397					
ADS	283	397	397					
L	2016	2105	2105					
LS	2221	2290	2290					
LB	691	780	780					
LBS	896	965	965					

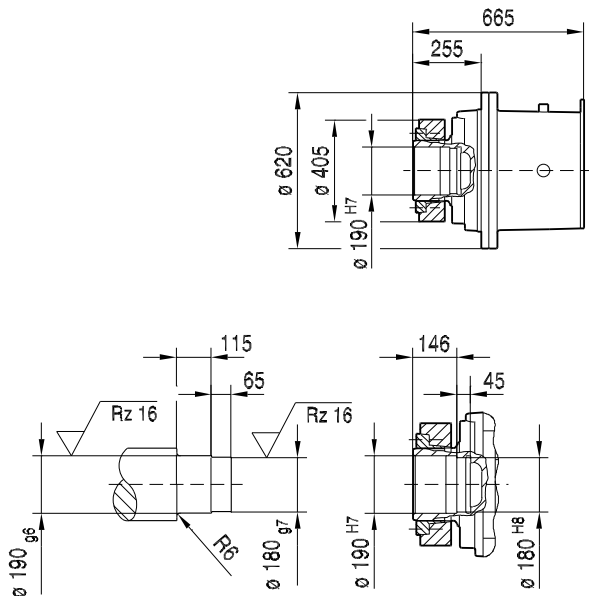


PF042RF147..

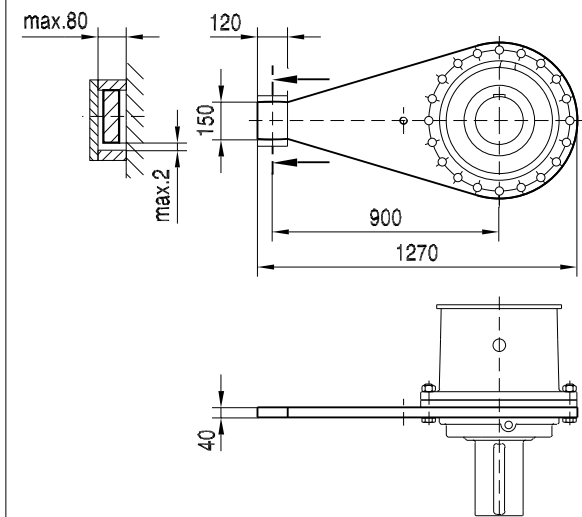
45 048 01 08



PHF042RF147..

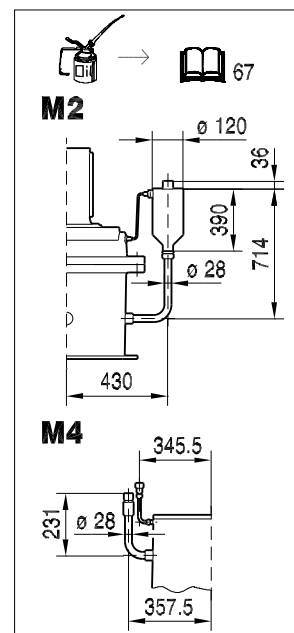
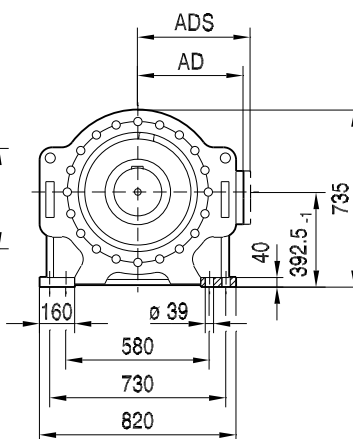
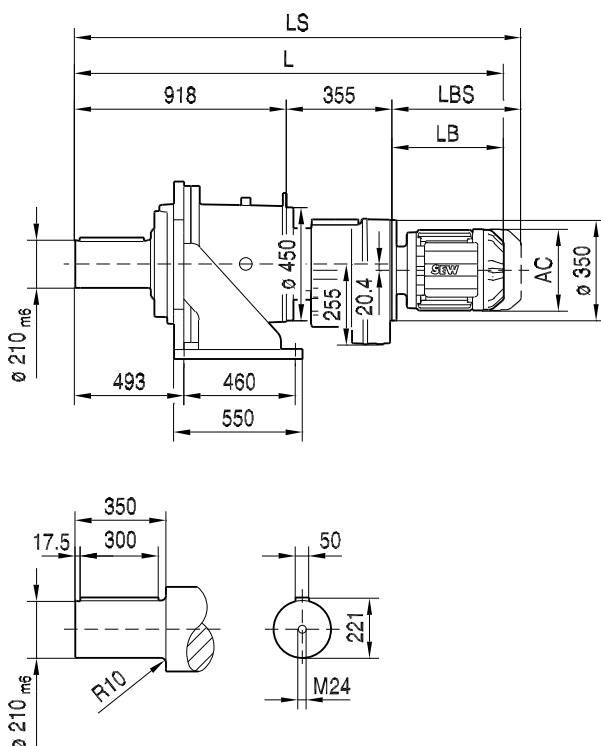


P..042/T..

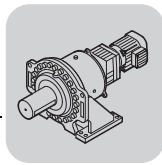


(→ 77)	DR225M/MC	DV250M	DV280..					
AC	394	510	510					
AD	283	397	397					
ADS	283	397	397					
L	2016	2105	2105					
LS	2221	2290	2290					
LB	691	780	780					
LBS	896	965	965					

45 020 01 08

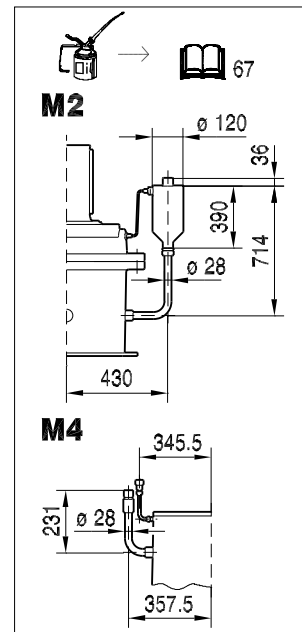
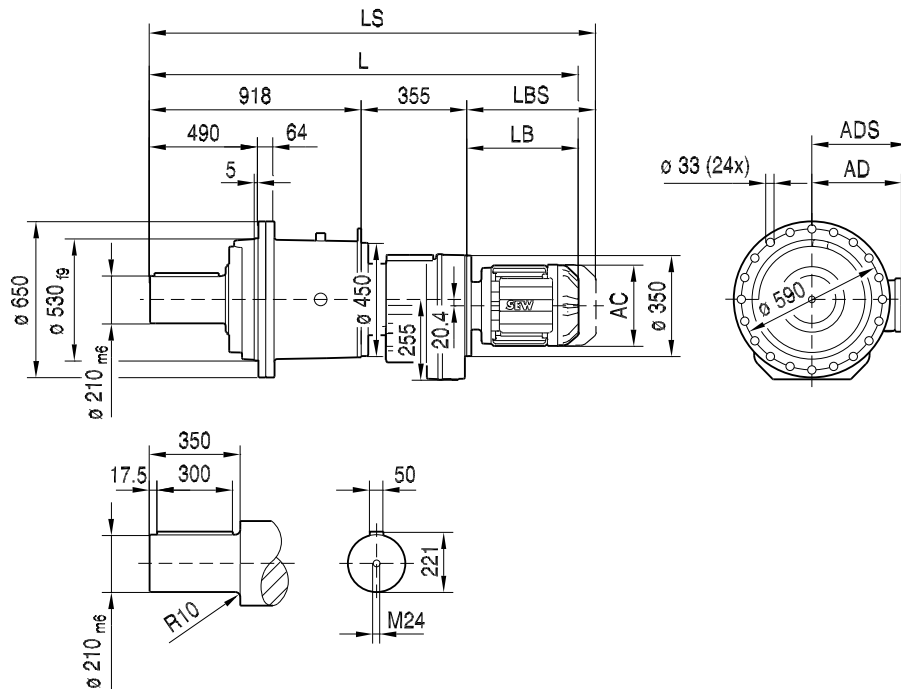


(→  77)	DR100M	DR100L/LC	DR112M	DR132S	DR132M/MC	DR160..	DR180S/M	DR180L/LC	DR200
AC	197	197	221	221	221	270	316	316	394
AD	157	157	170	170	170	228	253	253	283
ADS	158	158	172	172	172	228	253	253	283
L	1563	1593	1601	1636	1686	1727	1796	1856	1929
LS	1656	1686	1713	1748	1798	1864	1985	2045	2134
LB	290	320	328	363	413	454	523	583	656
LBS	383	413	440	475	525	591	712	772	861

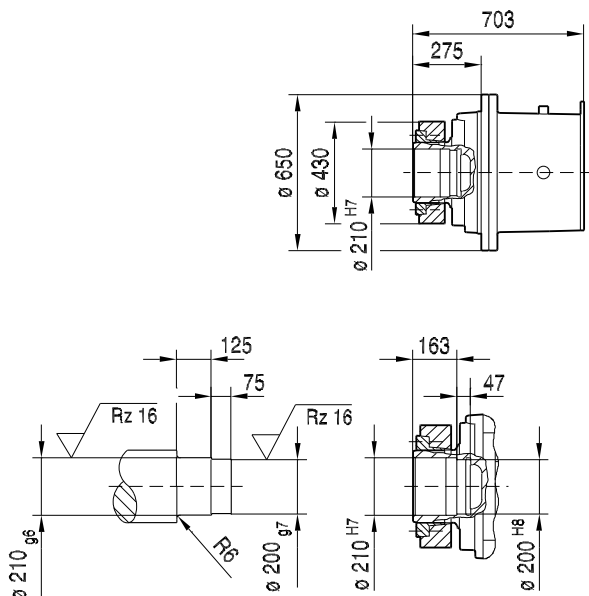


PF052RF107..

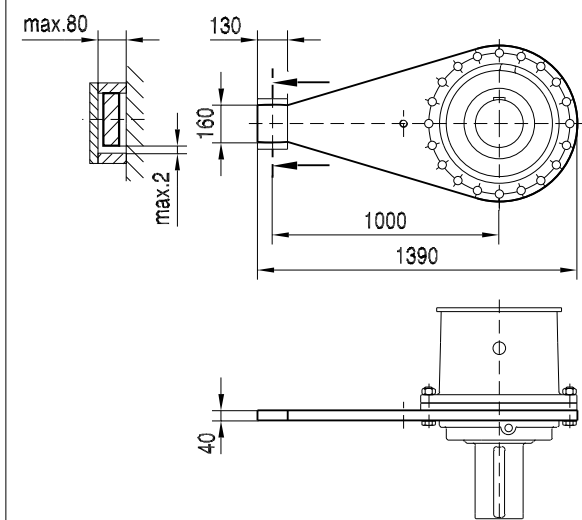
45 049 01 08



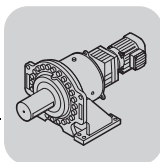
PHF052RF107..



P..052/T..



(→ 77)	DR100M	DR100L/LC	DR112M	DR132S	DR132M/MC	DR160..	DR180S/M	DR180L/LC	DR200
AC	197	197	221	221	221	270	316	316	394
AD	157	157	170	170	170	228	253	253	283
ADS	158	158	172	172	172	228	253	253	283
L	1563	1593	1601	1636	1686	1727	1796	1856	1929
LS	1656	1686	1713	1748	1798	1864	1985	2045	2134
LB	290	320	328	363	413	454	523	583	656
LBS	383	413	440	475	525	591	712	772	861

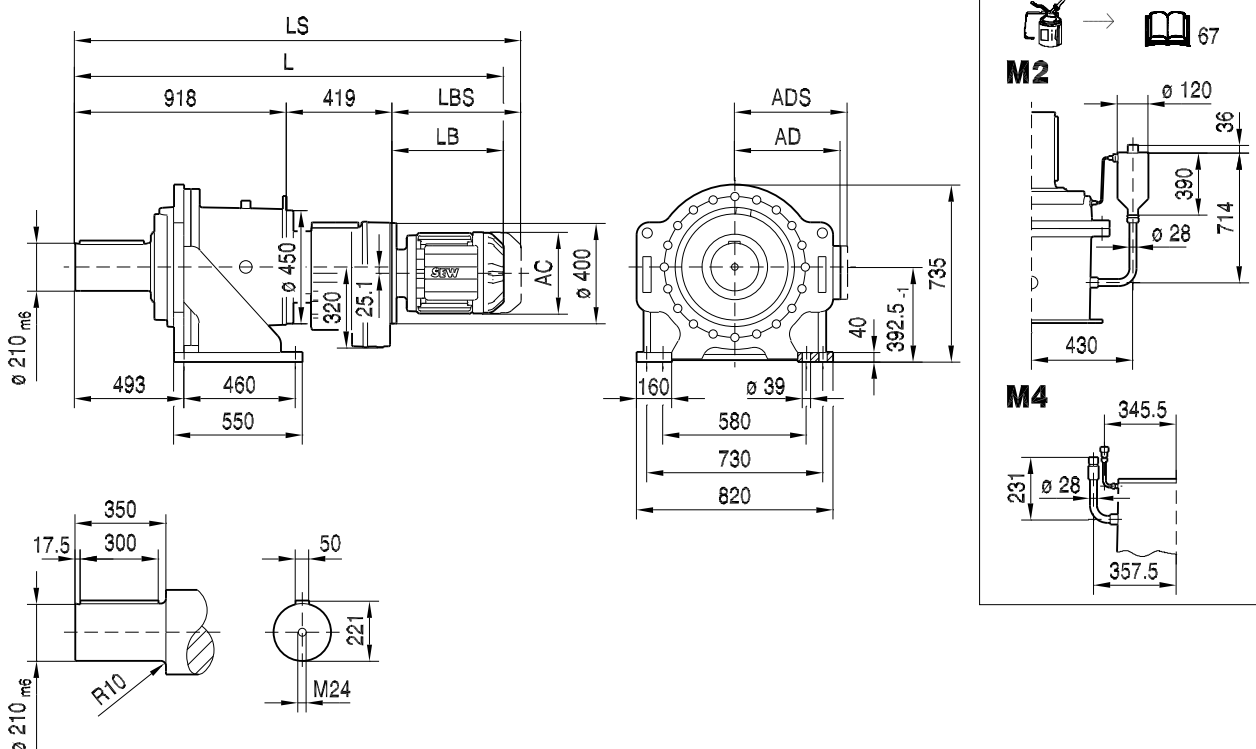


P.RF.. Helical Planetary Gearmotors

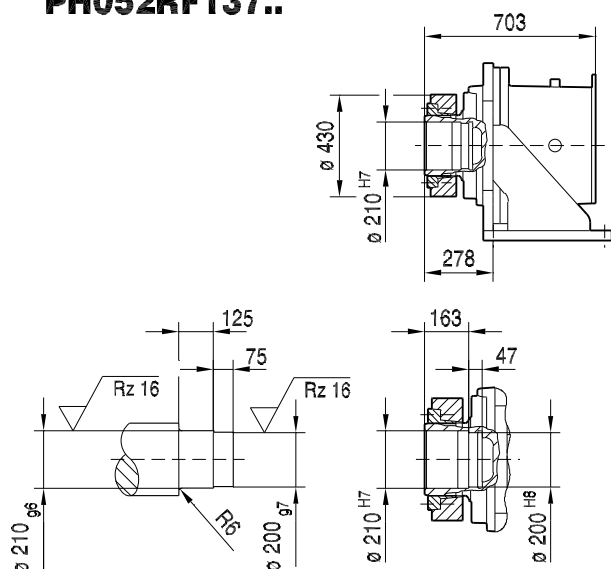
Dimension sheets [mm]

P052RF137..

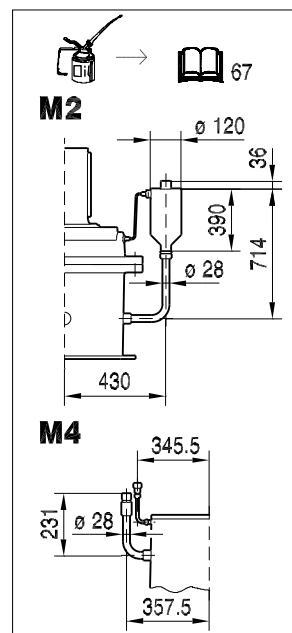
45 021 01 08



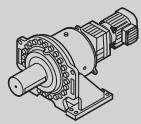
PH052RF137..



(→ 77)	DR132S	DR132M/MC	DR160..	DR180S/M	DR180L/LC	DR200	DR225S	DR225M/MC	DV250M
AC	221	221	270	316	316	394	394	394	510
AD	170	170	228	253	253	283	283	283	397
ADS	172	172	228	253	253	283	283	283	397
L	1693	1743	1784	1853	1913	1986	1986	2036	2126
LS	1805	1855	1921	2042	2102	2191	2191	2241	2311
LB	356	406	447	516	577	649	649	699	789
LBS	468	518	584	705	775	854	854	904	974

[illegible]

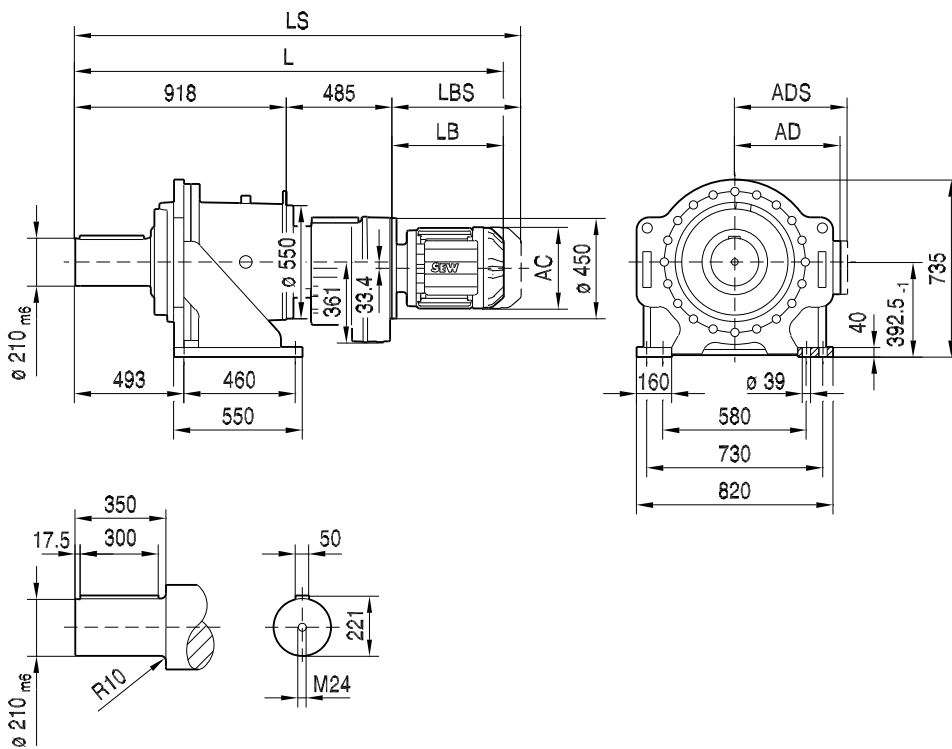
Catalog – Planetary Gearmotors P.002 - P.102 Series



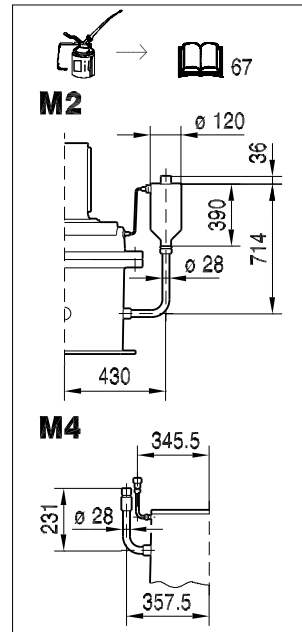
P.RF.. Helical Planetary Gearmotors

Dimension sheets [mm]

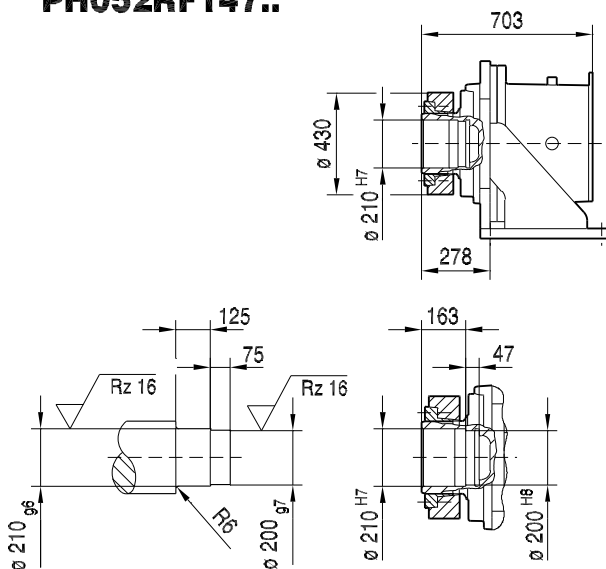
P052RF147..



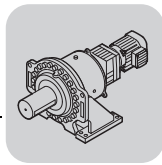
45 022 01 08



PH052RF147..

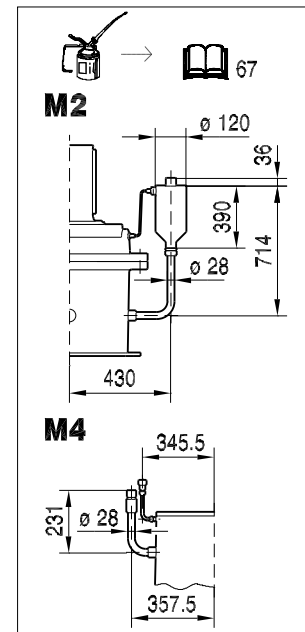
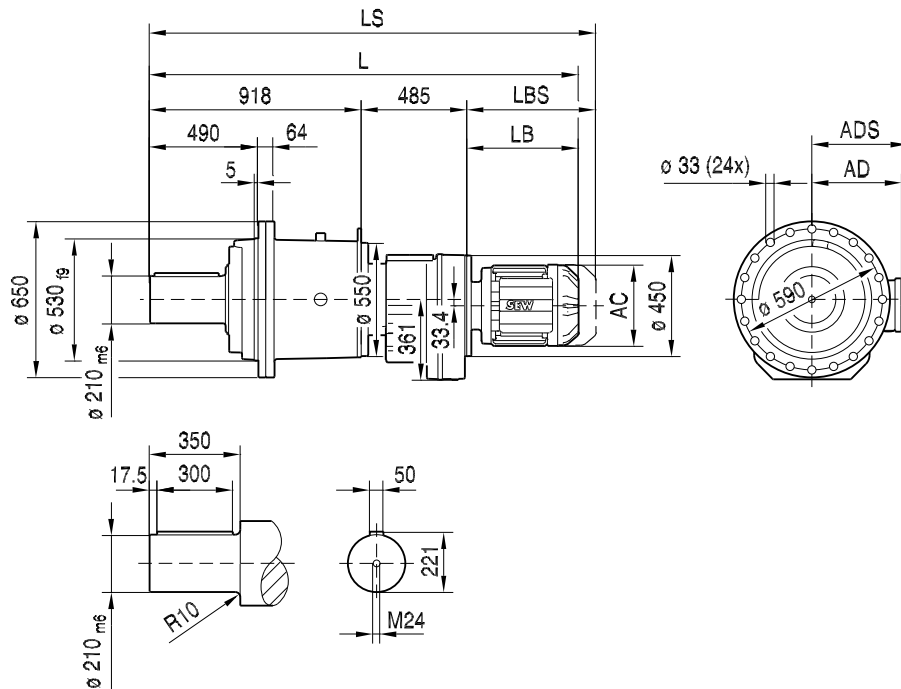


(→ 77)	DR225M/MC	DV250M	DV280..					
AC	394	510	510					
AD	283	397	397					
ADS	283	397	397					
L	2094	2183	2183					
LS	2299	2368	2368					
LB	691	780	780					
LBS	896	965	965					



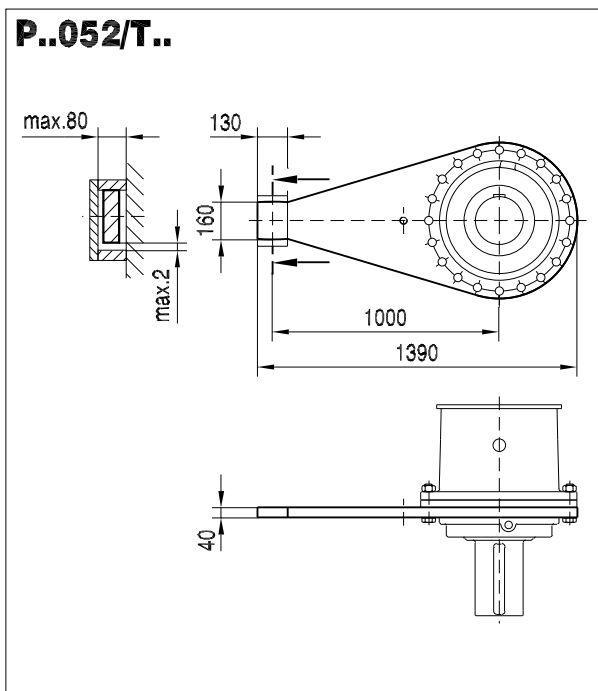
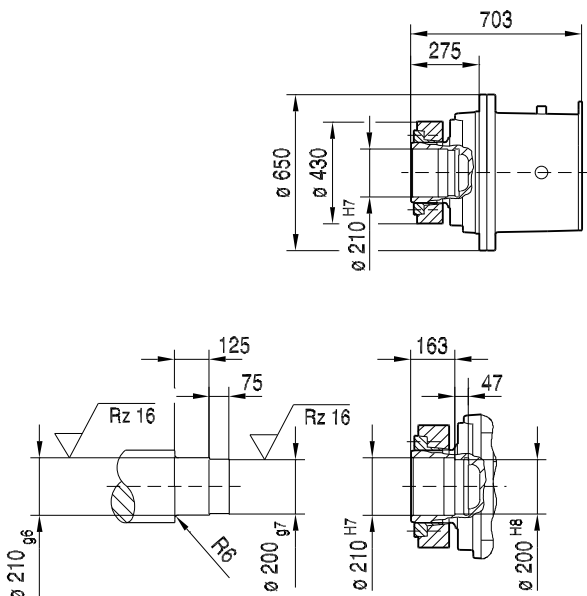
PF052RF147..

45 051 01 08

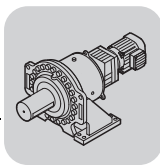


PHF052RF147..

P..052/T..



(→ 77)	DR225M/MC	DV250M	DV280..					
AC	394	510	510					
AD	283	397	397					
ADS	283	397	397					
L	2094	2183	2183					
LS	2299	2368	2368					
LB	691	780	780					
LBS	896	965	965					

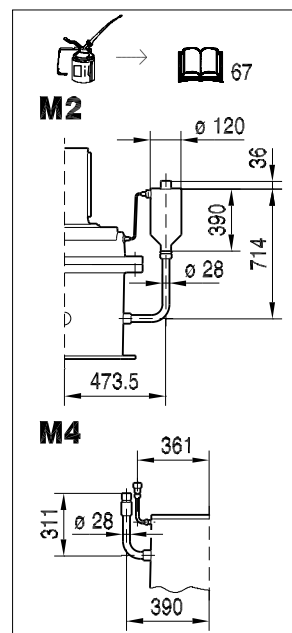
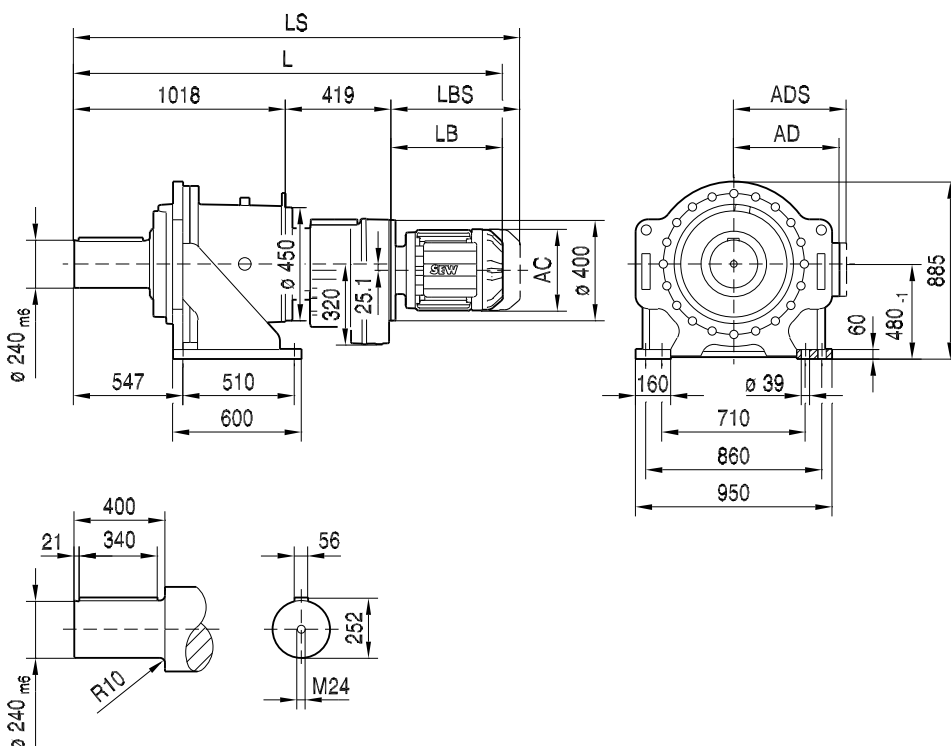


P.RF.. Helical Planetary Gearmotors

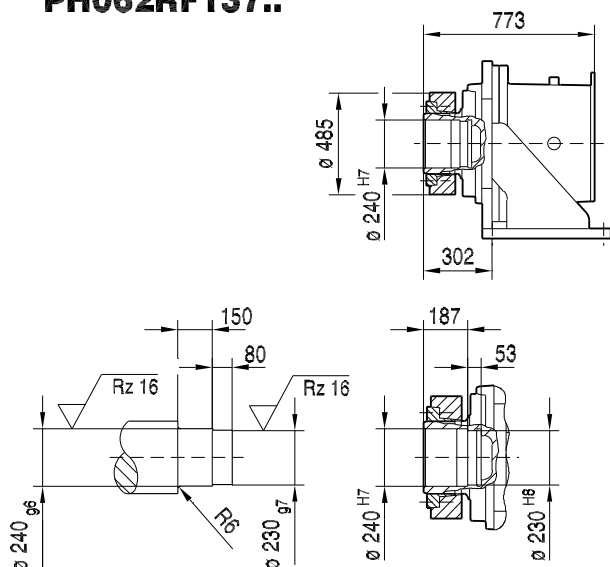
Dimension sheets [mm]

P062RF137..

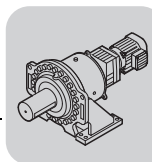
45 024 01 08



PH062RF137..

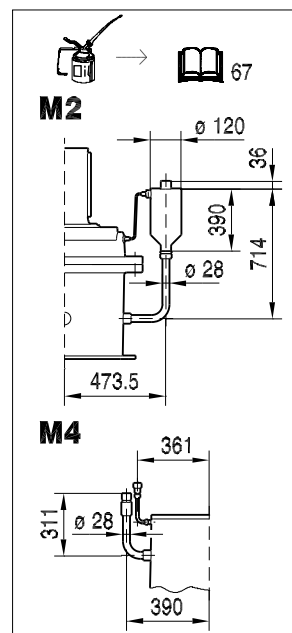
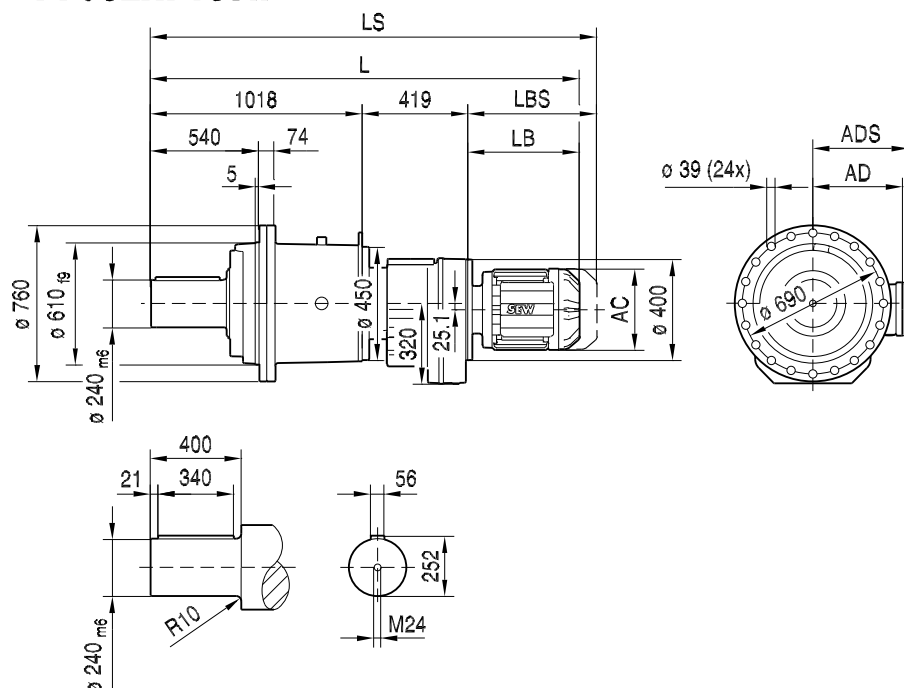


(→ 77)	DR132S	DR132M/MC	DR160..	DR180S/M	DR180L/LC	DR200	DR225S	DR225M/MC	DV250M
AC	221	221	270	316	316	394	394	394	510
AD	170	170	228	253	253	283	283	283	397
ADS	172	172	228	253	253	283	283	283	397
L	1793	1843	1884	1953	2013	2086	2086	2136	2226
LS	1905	1955	2021	2142	2202	2291	2291	2341	2411
LB	356	406	447	516	577	649	649	699	789
LBS	468	518	584	705	775	854	854	904	974



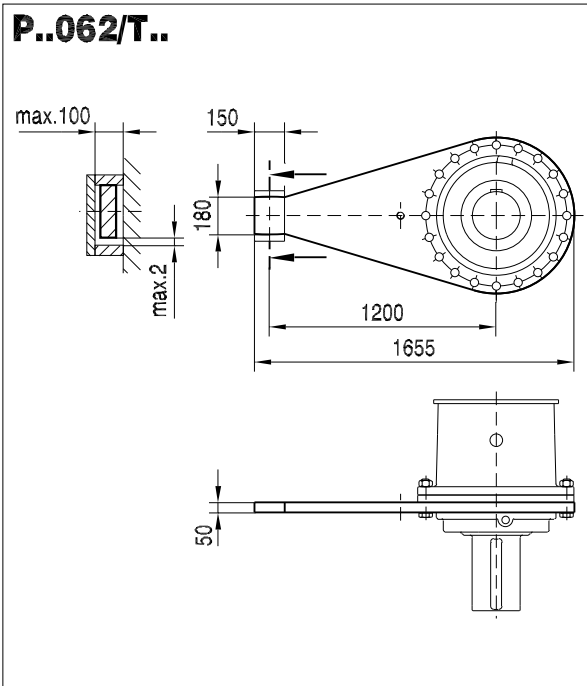
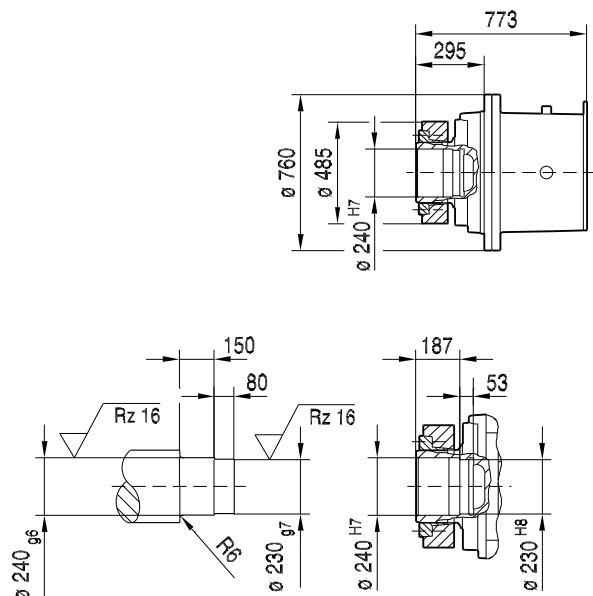
PF062RF137..

45 053 01 08



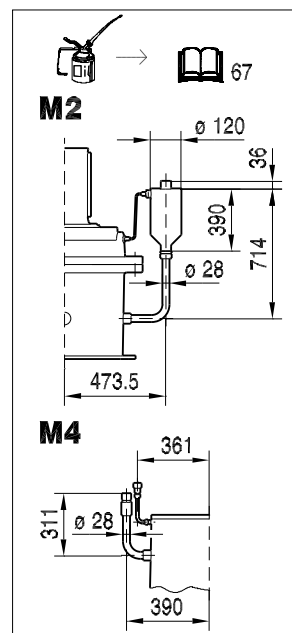
PHF062RF137..

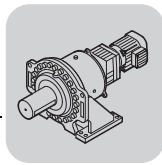
P..062/T..



(→ 77)	DR132S	DR132M/MC	DR160..	DR180S/M	DR180L/LC	DR200	DR225S	DR225M/MC	DV250M
AC	221	221	270	316	316	394	394	394	510
AD	170	170	228	253	253	283	283	283	397
ADS	172	172	228	253	253	283	283	283	397
L	1793	1843	1884	1953	2013	2086	2086	2136	2226
LS	1905	1955	2021	2142	2202	2291	2291	2341	2411
LB	356	406	447	516	577	649	649	699	789
LBS	468	518	584	705	775	854	854	904	974

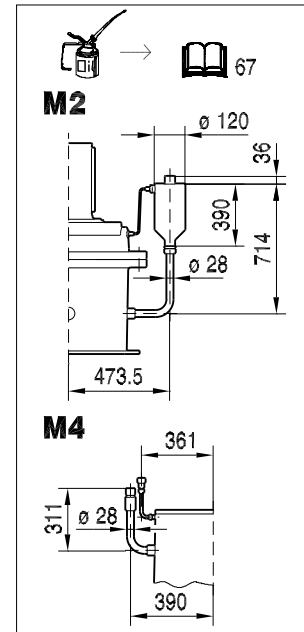
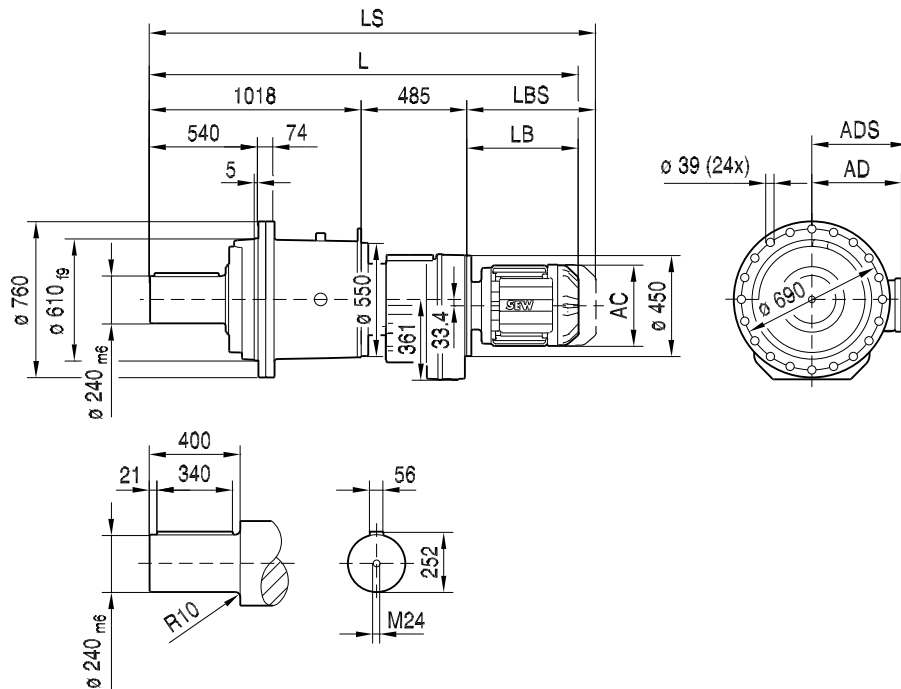
45 025 01 08

190

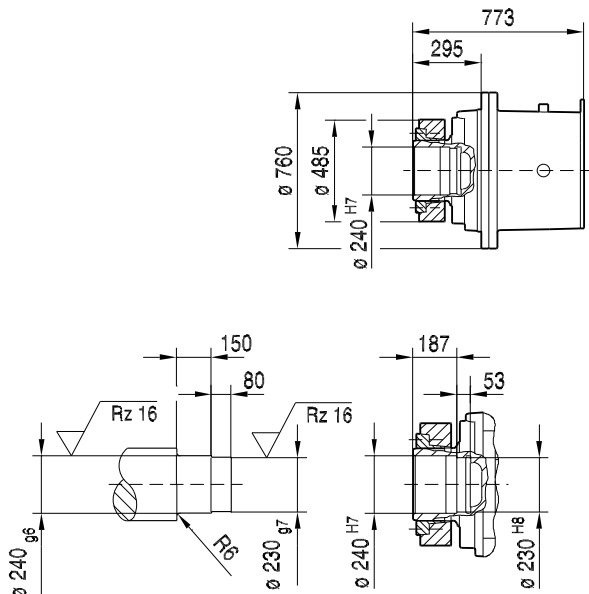


PF062RF147..

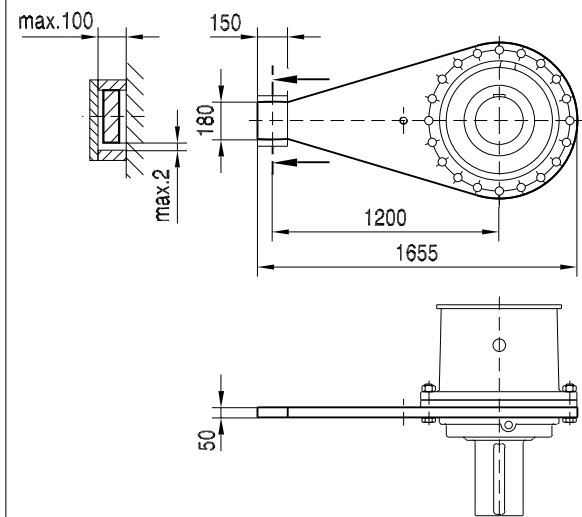
45 054 01 08



PHF062RF147..

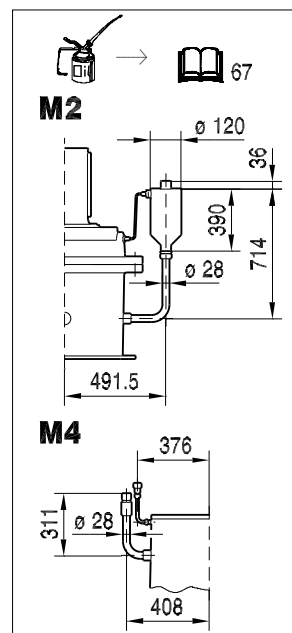


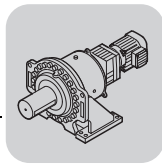
P..062/T..



(→ 77)	DR132M/MC	DR160..	DR180S/M	DR180L/LC	DR200	DR225S	DR225M/MC	DV250M	DV280..
AC	221	270	316	316	394	394	394	510	510
AD	170	228	253	253	283	283	283	397	397
ADS	172	228	253	253	283	283	283	397	397
L	1901	1942	2011	2071	2144	2144	2194	2283	2283
LS	2013	2079	2200	2260	2349	2349	2399	2468	2468
LB	398	439	508	568	641	641	691	780	780
LBS	510	577	697	757	846	846	896	965	965

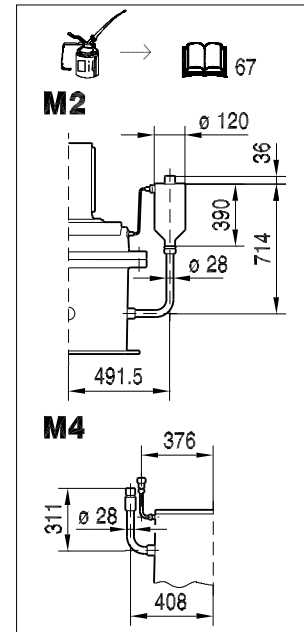
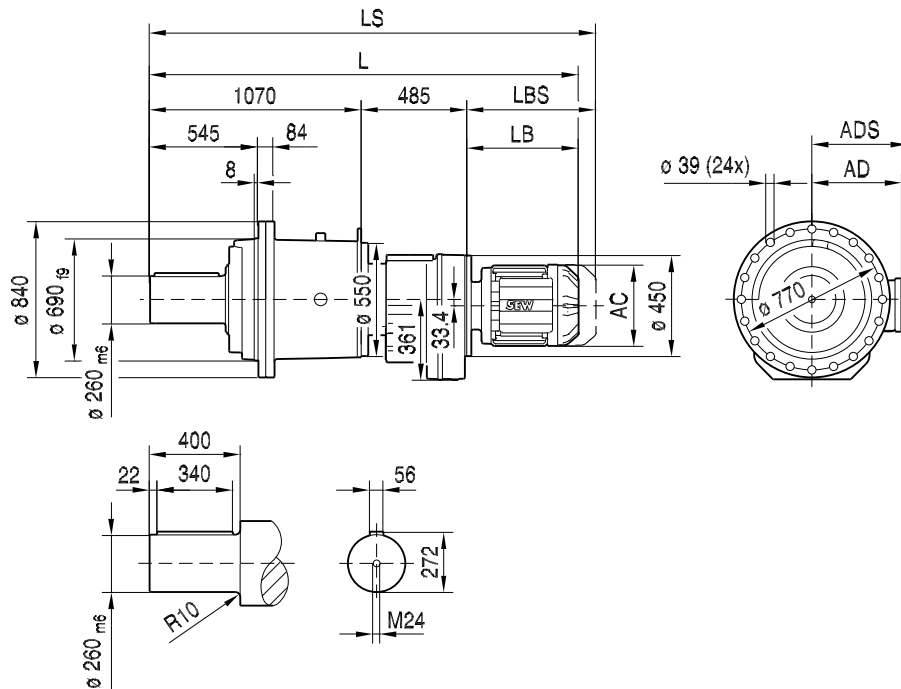
45 026 01 08

[illegible]192



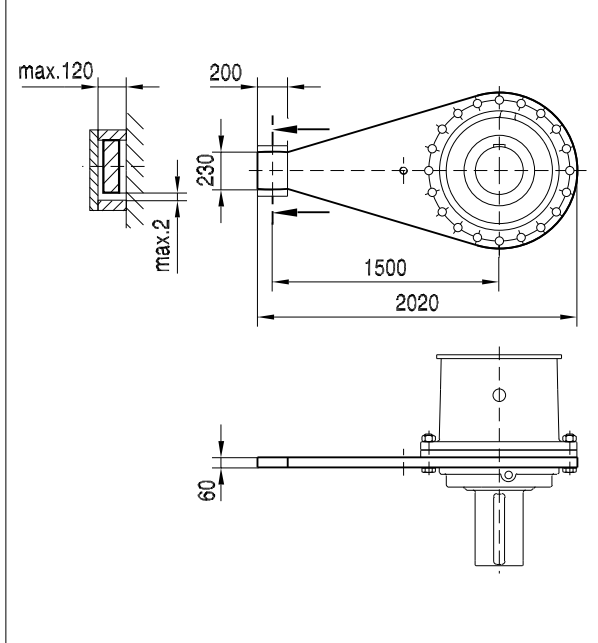
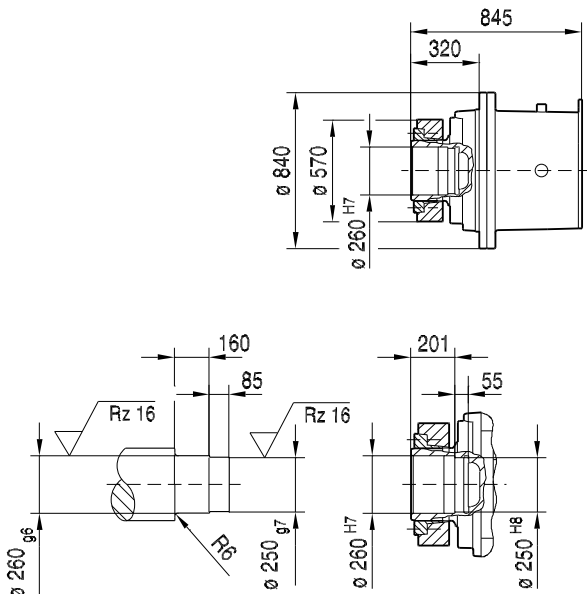
PF072RF147..

45 055 01 08

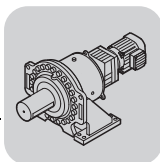


PHF072RF147..

P..072/T..



(→ 77)	DR132M/MC	DR160..	DR180S/M	DR180L/LC	DR200	DR225S	DR225M/MC	DV250M	DV280..
AC	221	270	316	316	394	394	394	510	510
AD	170	228	253	253	283	283	283	397	397
ADS	172	228	253	253	283	283	283	397	397
L	1953	1994	2063	2123	2196	2196	2246	2335	2335
LS	2065	2131	2252	2312	2401	2401	2451	2520	2520
LB	398	439	508	568	641	641	691	780	780
LBS	510	577	697	757	846	846	896	965	965

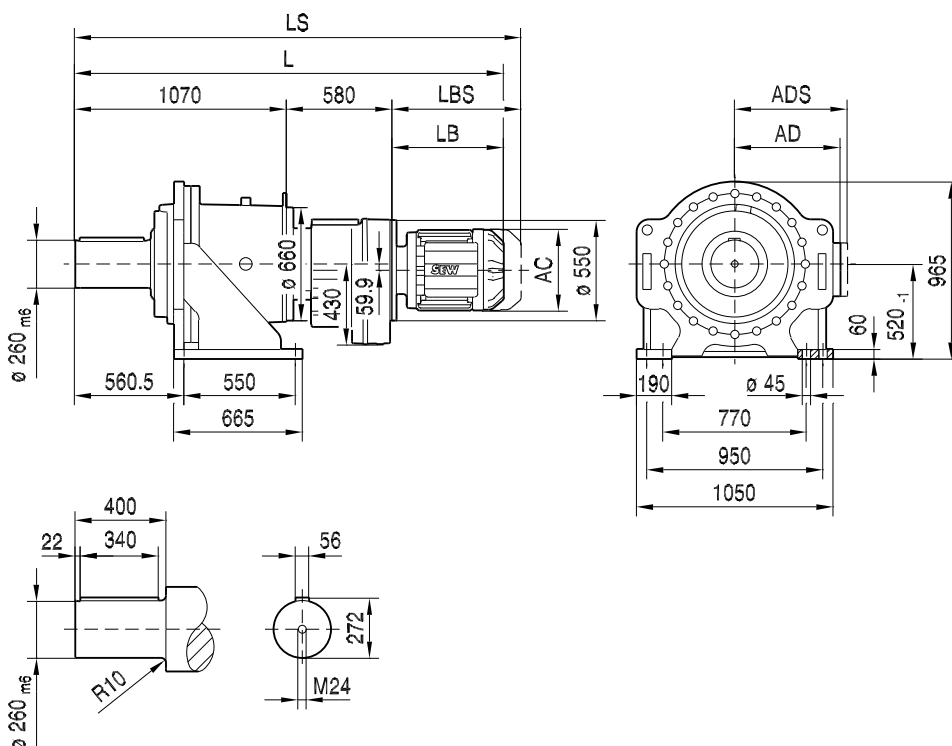


P.RF.. Helical Planetary Gearmotors

Dimension sheets [mm]

P072RF167..

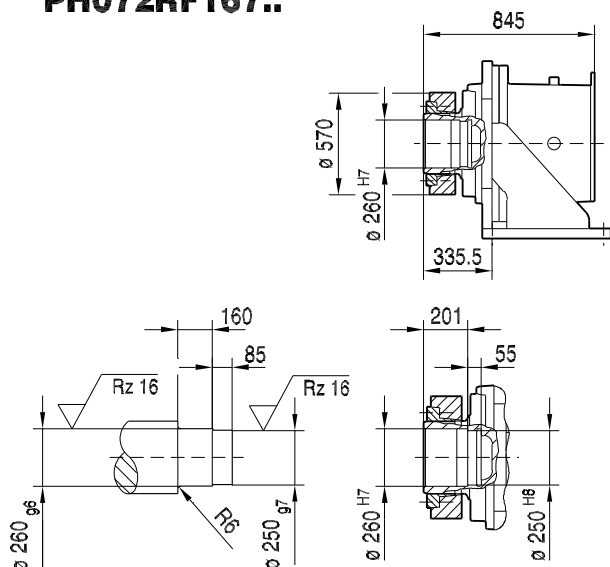
45 027 01 08



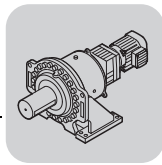
M2

M4

PH072RF167..

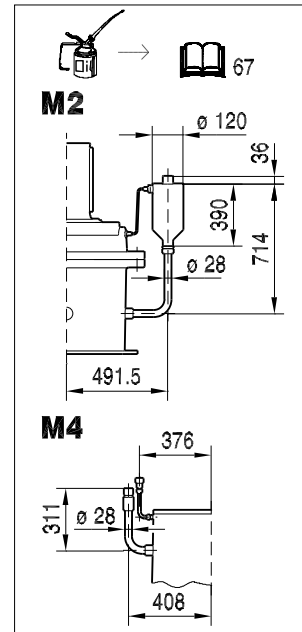
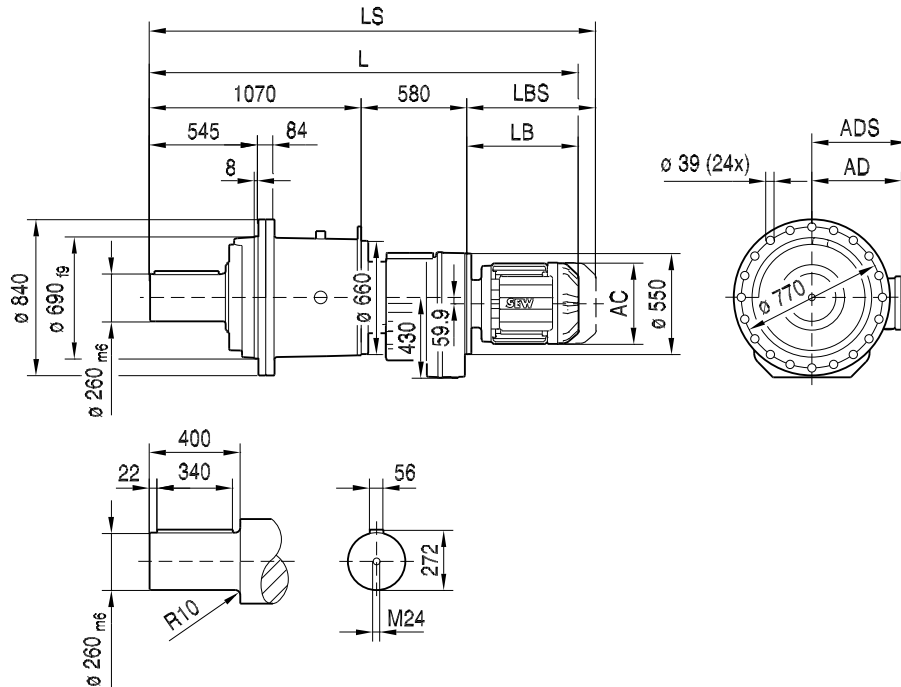


(→ 77)	DR160..	DR180S/M	DR180L/LC	DR200	DR225S	DR225M/MC		
AC	270	316	316	394	394	394		
AD	228	253	253	283	283	283		
ADS	228	253	253	283	283	283		
L	2081	2150	2210	2283	2283	2333		
LS	2218	2339	2399	2488	2488	2538		
LB	431	500	560	633	633	683		
LBS	568	689	749	838	838	888		

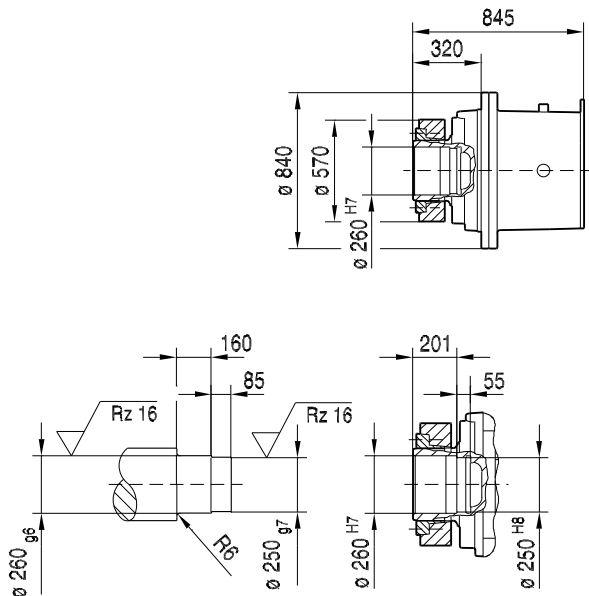


PF072RF167..

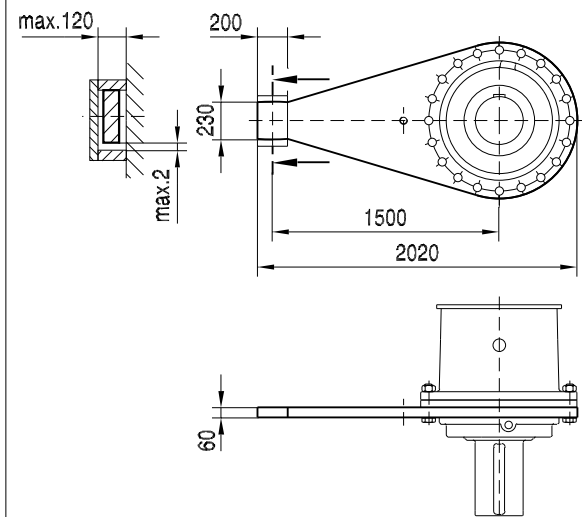
45 056 01 08



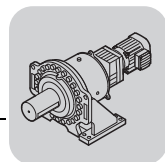
PHF072RF167..



P..072/T..



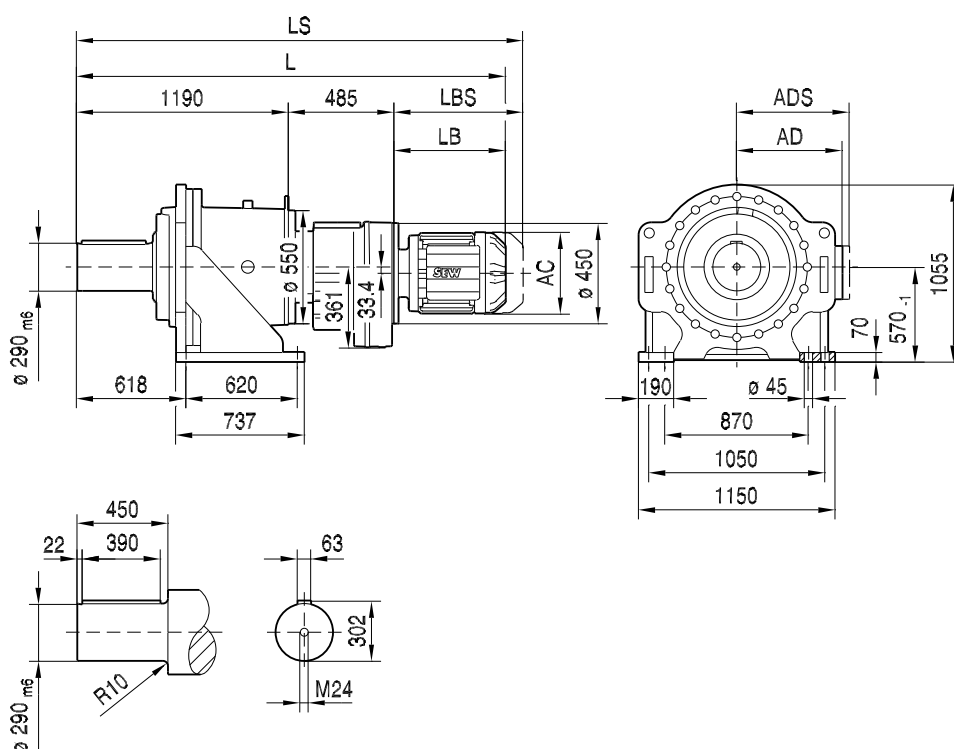
(→ 77)	DR160..	DR180S/M	DR180L/LC	DR200	DR225S	DR225M/MC		
AC	270	316	316	394	394	394		
AD	228	253	253	283	283	283		
ADS	228	253	253	283	283	283		
L	2081	2150	2210	2283	2283	2333		
LS	2218	2339	2399	2488	2488	2538		
LB	431	500	560	633	633	683		
LBS	568	689	749	838	838	888		



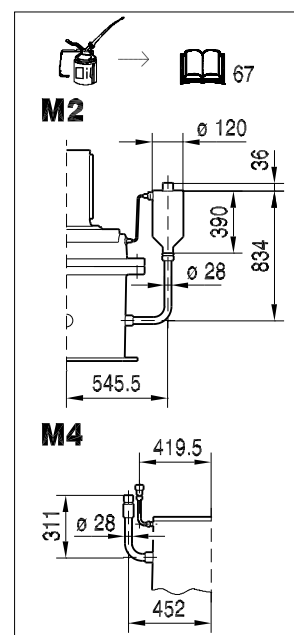
P.RF.. Helical Planetary Gearmotors

Dimension sheets [mm]

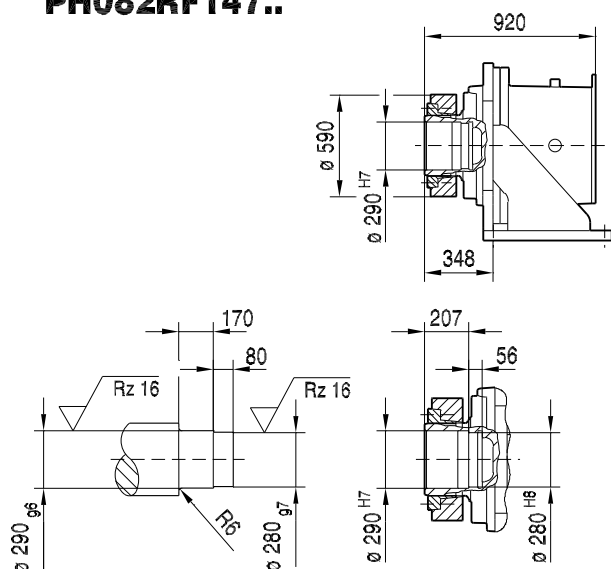
P082RF147..



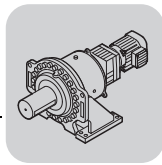
45 028 01 08



PH082RF147..

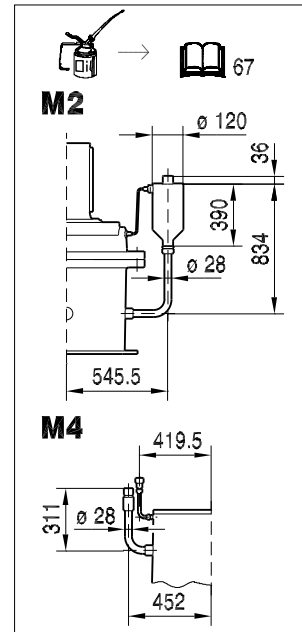
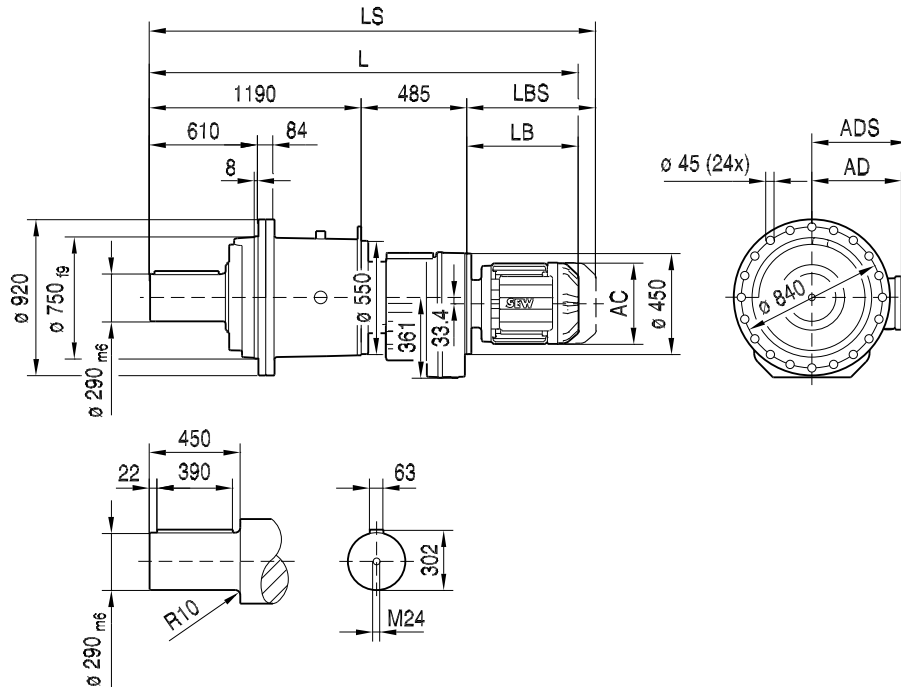


(→ 77)	DR160..	DR180S/M	DR180L/LC	DR200	DV250M			
AC	270	316	316	394	510			
AD	228	253	253	283	397			
ADS	228	253	253	283	397			
L	2114	2183	2243	2316	2455			
LS	2251	2372	2432	2521	2640			
LB	439	508	568	641	780			
LBS	577	697	757	846	965			

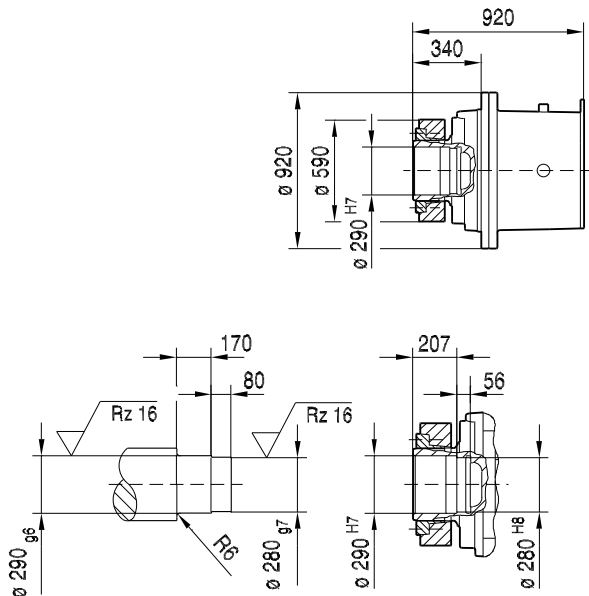


PF082RF147..

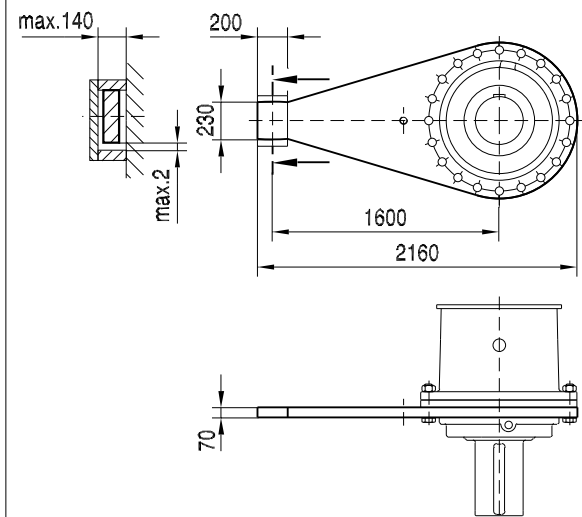
45 057 01 08



PHF082RF147..

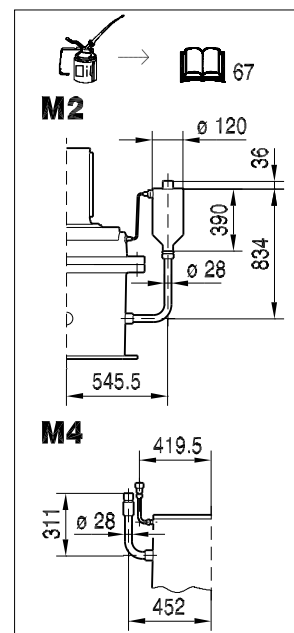


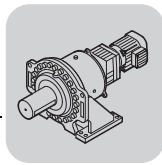
P..082/T..



(→ 77)	DR160..	DR180S/M	DR180L/LC	DR200	DV250M			
AC	270	316	316	394	510			
AD	228	253	253	283	397			
ADS	228	253	253	283	397			
L	2114	2183	2243	2316	2455			
LS	2251	2372	2432	2521	2640			
LB	439	508	568	641	780			
LBS	577	697	757	846	965			

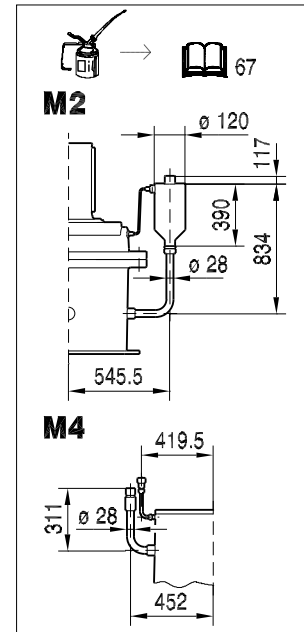
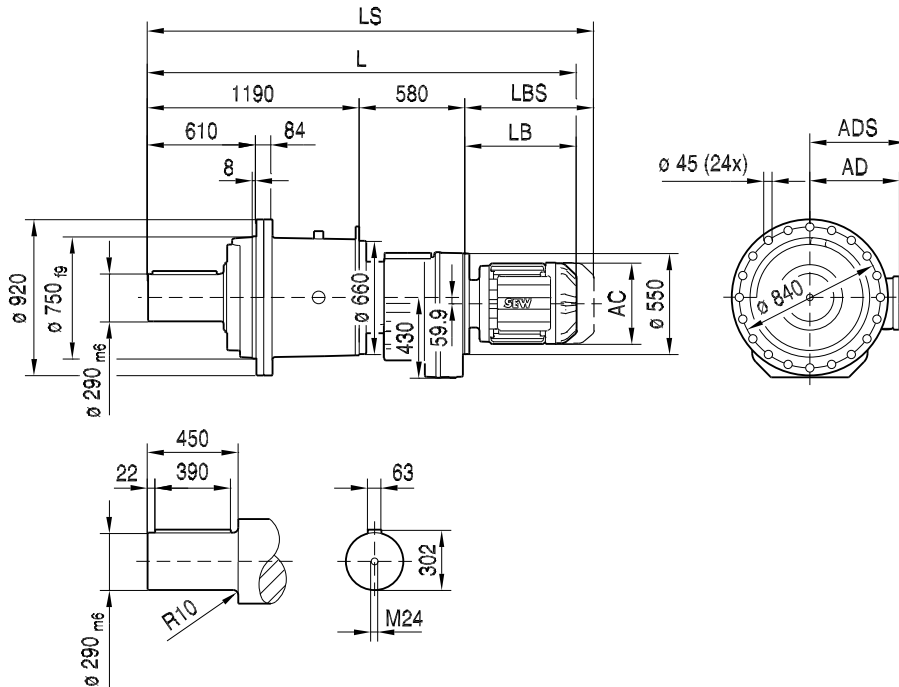
45 029 01 08

198

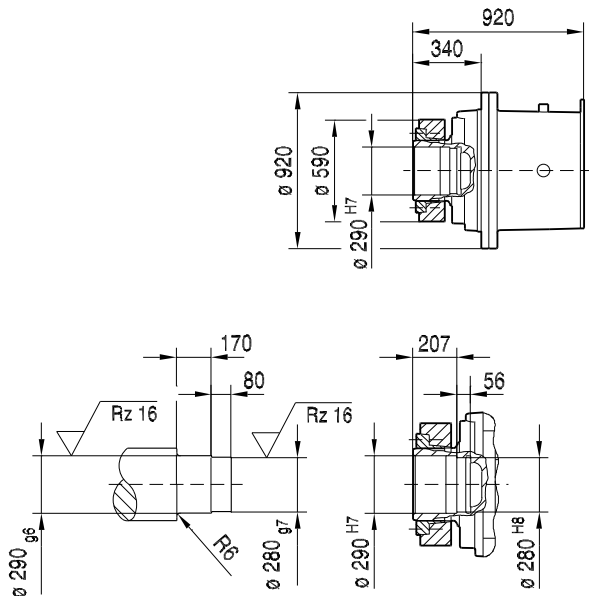


PF082RF167..

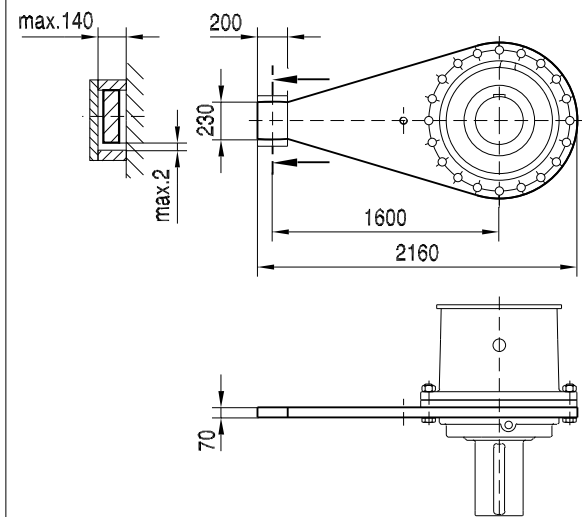
45 058 01 08



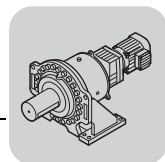
PHF082RF167..



P..082/T..



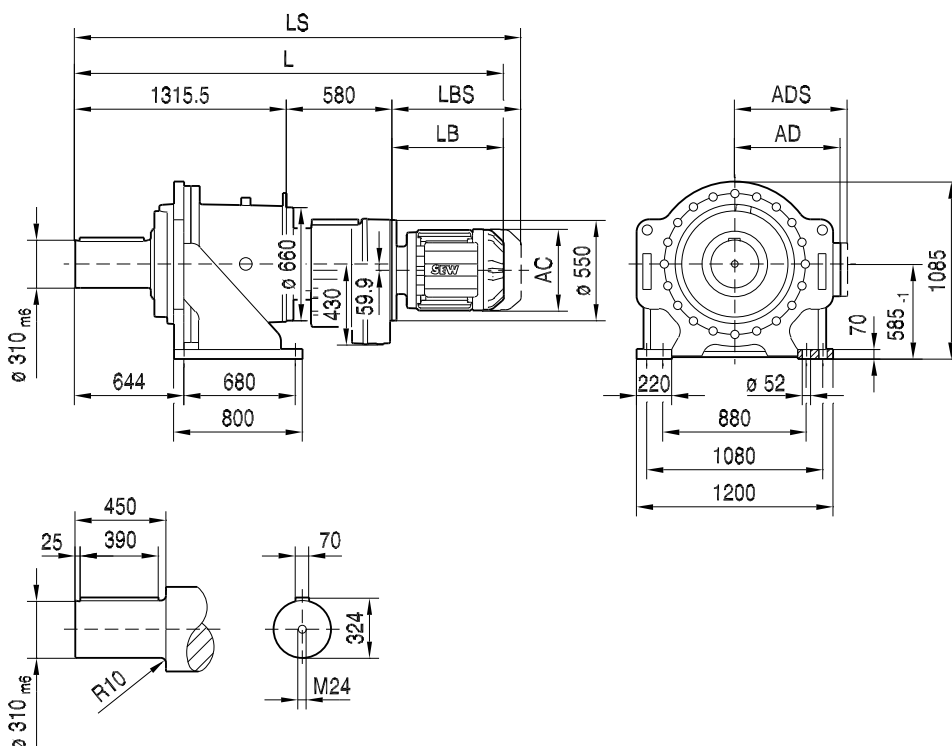
(→ 77)	DR160..	DR180S/M	DR180L/LC	DR200	DR225S	DR225M/MC	DV250M	DV280..	DR315K/S
AC	270	316	316	394	394	394	510	510	624
AD	228	253	253	283	283	283	397	397	506
ADS	228	253	253	283	283	283	397	397	506
L	2201	2270	2330	2403	2403	2453	2541	2541	2711
LS	2338	2459	2519	2608	2608	2658	2726	2726	2962
LB	431	500	560	633	633	683	771	771	941
LBS	568	689	749	838	838	888	956	956	1192



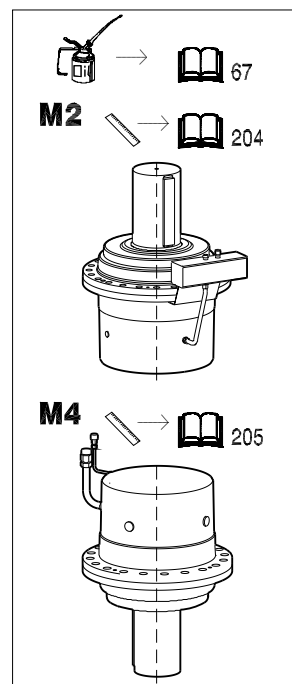
P.RF.. Helical Planetary Gearmotors

Dimension sheets [mm]

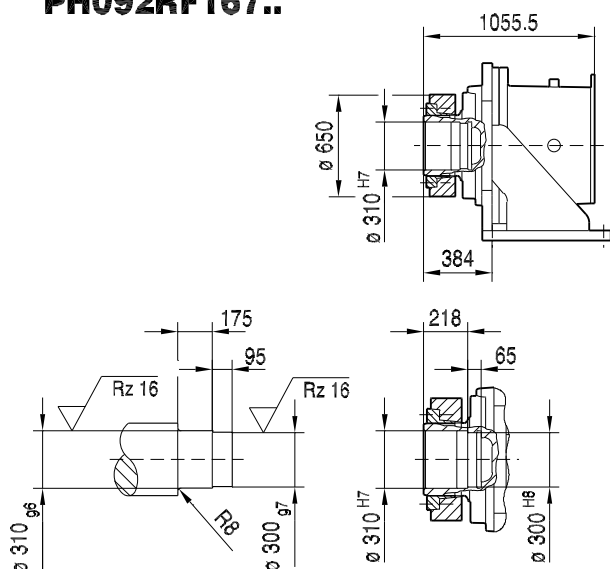
P092RF167..



45 001 00 11

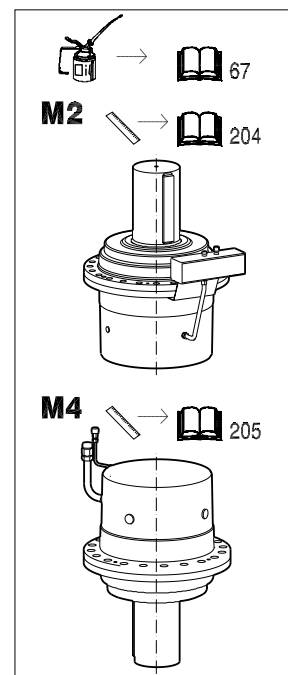


PH092RF167..

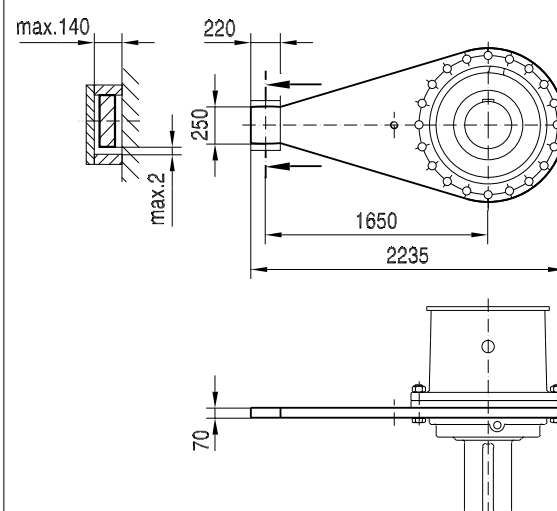


(→ 77)	DR160..	DR180S/M	DR180L/LC	DR200	DR225S	DR225M/MC	DV250M	DV280..	DR315K/S	DR315M/L
AC	270	316	316	394	394	394	510	510	624	624
AD	228	253	253	283	283	283	397	397	506	521
ADS	228	253	253	283	283	283	397	397	506	521
L	2327	2396	2456	2529	2529	2579	2667	2667	2837	2967
LS	2464	2585	2645	2734	2734	2784	2851	2851	3088	3218
LB	431	500	560	633	633	683	771	771	941	1071
LBS	568	689	749	838	838	888	956	956	1192	1322

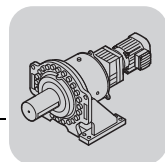
45 003 00 11



P..092/T..



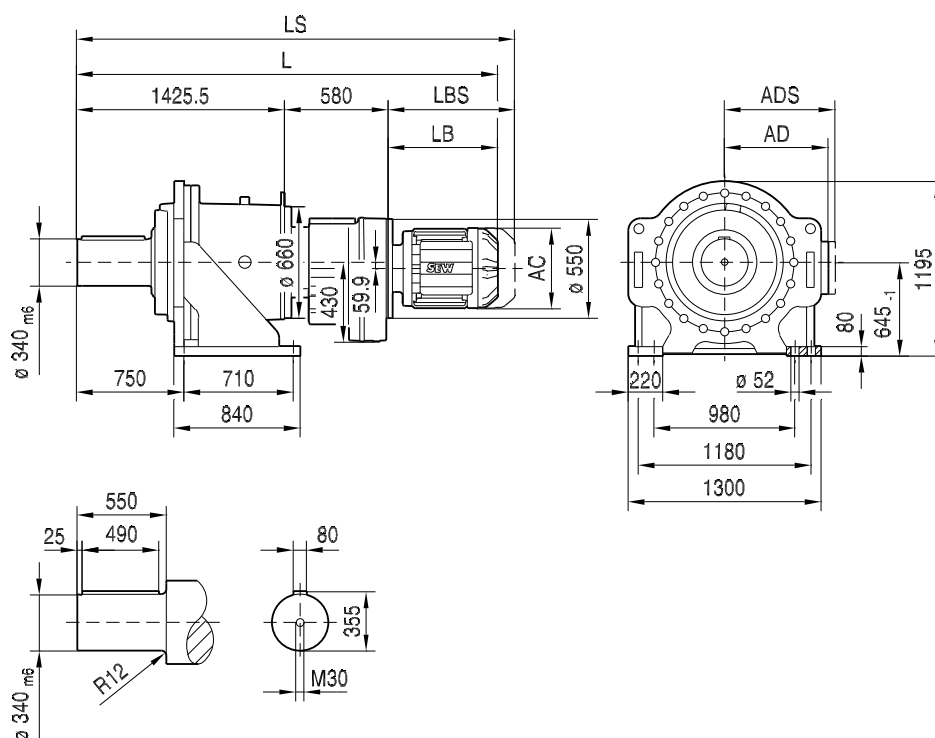
Catalog – Planetary Gearmotors P.002 - P.102 Series



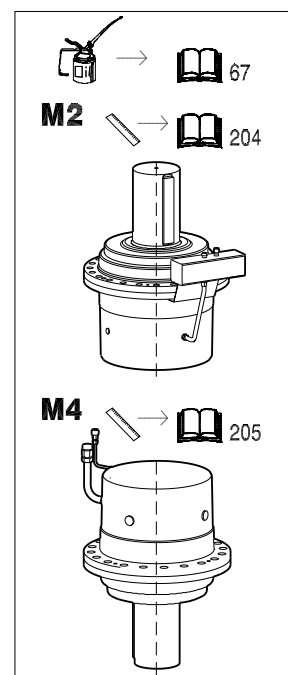
P.RF.. Helical Planetary Gearmotors

Dimension sheets [mm]

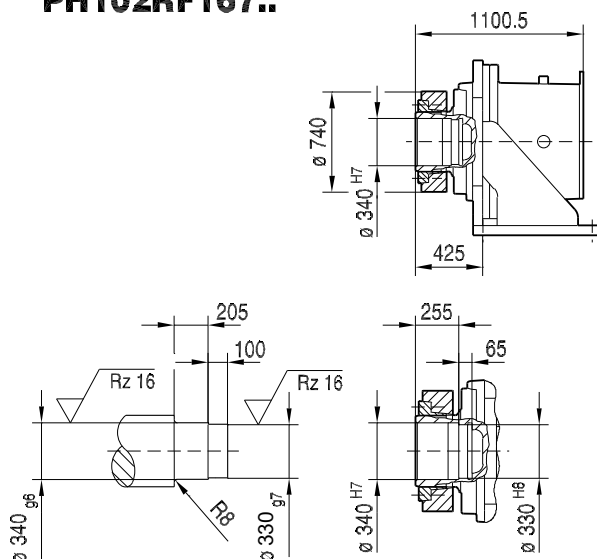
P102RF167..



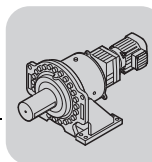
45 002 00 11



PH102RF167..

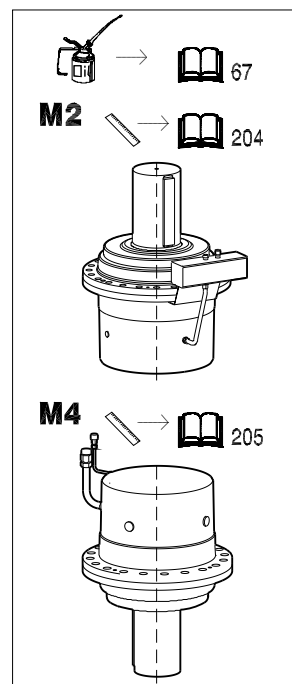
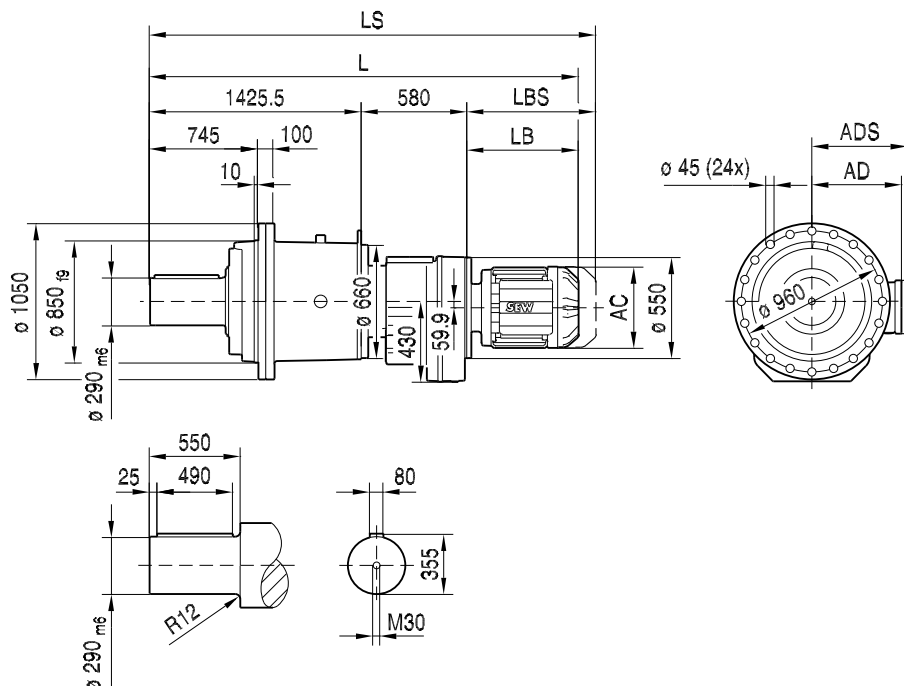


(→ 77)	DR160..	DR180S/M	DR180L/LC	DR200	DR225S	DR225M/MC	DV250M	DV280..	DR315K/S	DR315M/L
AC	270	316	316	394	394	394	510	510	624	624
AD	228	253	253	283	283	283	397	397	506	521
ADS	228	253	253	283	283	283	397	397	506	521
L	2437	2506	2566	2639	2639	2689	2777	2777	2947	3077
LS	2574	2695	2755	2844	2844	2894	2961	2961	3198	3328
LB	431	500	560	633	633	683	771	771	941	1071
LBS	568	689	749	838	838	888	956	956	1192	1322

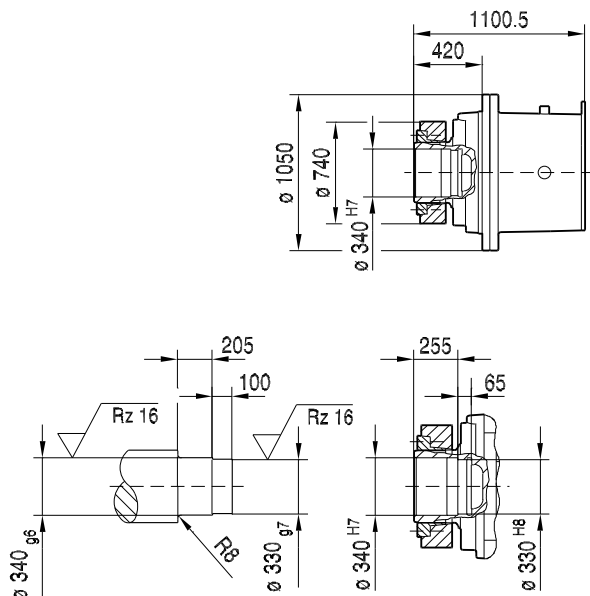


PF102RF167..

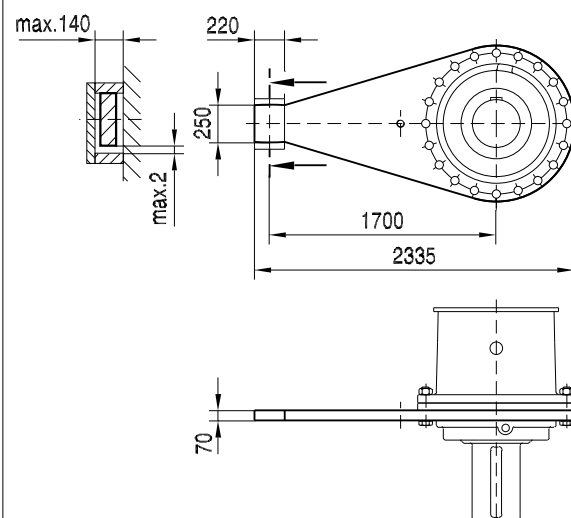
45 004 00 11



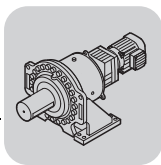
PHF102RF167..



P..102/T..



(→ 77)	DR160..	DR180S/M	DR180L/LC	DR200	DR225S	DR225M/MC	DV250M	DV280..	DR315K/S	DR315M/L
AC	270	316	316	394	394	394	510	510	624	624
AD	228	253	253	283	283	283	397	397	506	521
ADS	228	253	253	283	283	283	397	397	506	521
L	2437	2506	2566	2639	2639	2689	2777	2777	2947	3077
LS	2574	2695	2755	2844	2844	2894	2961	2961	3198	3328
LB	431	500	560	633	633	683	771	771	941	1071
LBS	568	689	749	838	838	888	956	956	1192	1322



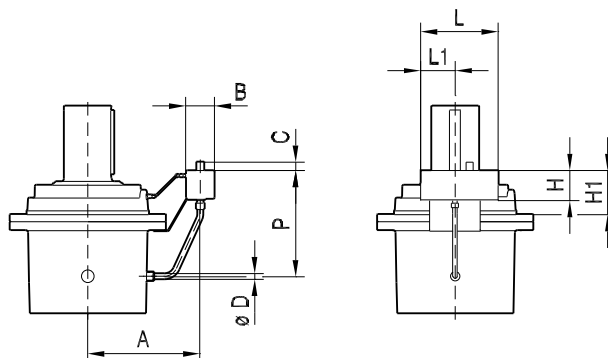
P.RF.. Helical Planetary Gearmotors

Oil expansion tank for mounting position M2

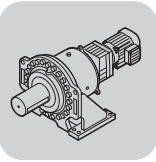
10.6 Oil expansion tank for mounting position M2

P/PH/PF/PHF
M2

45 015 00 11



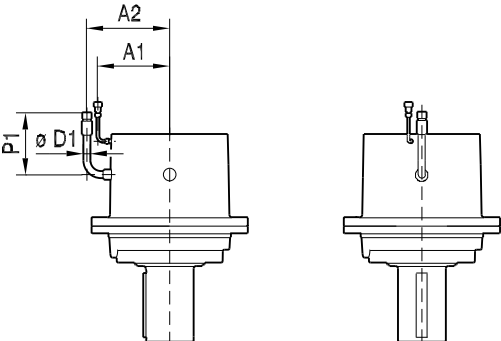
	A	B	C	Ø D	H	H1	L	L1	P
P.092	627.5	160	51	28	160	230	530	235	636.5
P.102	696.5	160	51	28	160	241	530	235	658.5



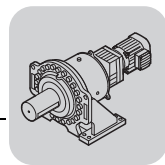
10.7 Oil expansion tank for mounting position M4

P/PH/PF/PHF
M4

45 016 00 11



	A1	A2	Ø D1	P1
P.092	477	486	28	361
P.102	507	514	28	361

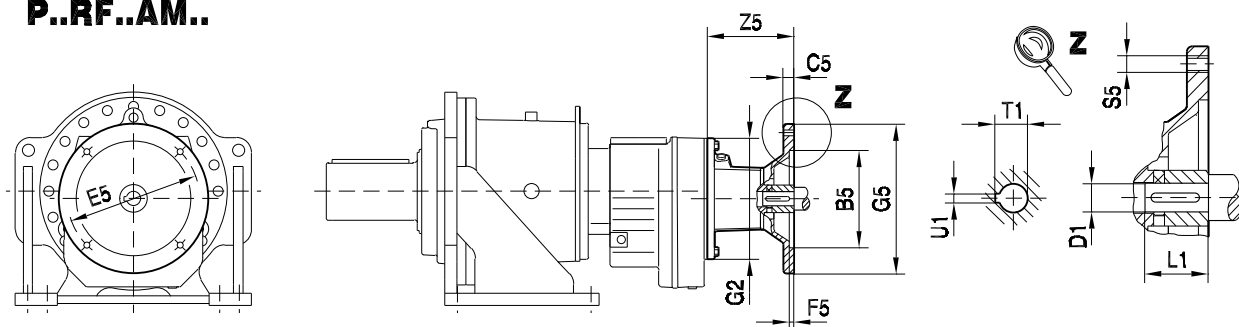


P..RF.. Helical Planetary Gearmotors AM adapter for mounting IEC motors

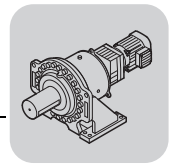
10.8 AM adapter for mounting IEC motors

P..RF..AM..

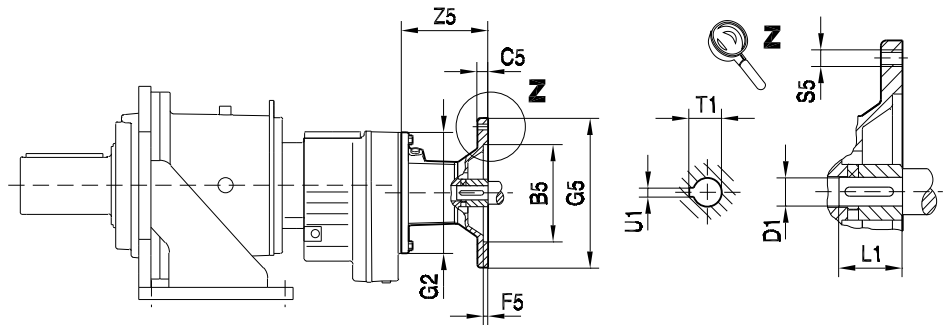
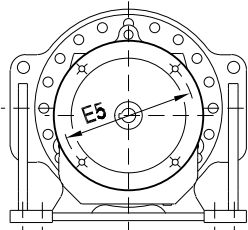
45 115 00 08



		B5	C5	E5	F5	G2	G5	S5	Z5	D1	L1	T1	U1
P..RF77	AM63	95	10	115	3.5	200	140	M8	60	11	23	12.8	4
	AM71	110		130			160			14	30	16.3	5
	AM80	130	12	165	4.5		200	M10	92	19	40	21.8	6
	AM90									24	50	27.3	8
	AM100	180	15	215	5		250	M12	126	28	60	31.3	8
	AM112												
	AM132S/M	230	16	265	300		179		38	80	41.3	10	
	AM132ML												
P..RF87	AM80	130	12	165	4.5	250	200	M10	87	19	40	21.8	6
	AM90									24	50	27.3	8
	AM100	180	15	215	5		250	M12	121	28	60	31.3	8
	AM112												
	AM132S/M	230	16	265	300		174		38	80	41.3	10	
	AM132ML												
	AM160	250	18	300	6		350	M16	232	42	110	45.3	12
	AM180									48		51.8	14
P..RF97	AM100	180	15	215	5	300	250	M12	116	28	60	31.3	8
	AM112						300						
	AM132S/M	230	16	265	350				M16	227	42	110	45.3
	AM132ML						250	18			300		6
	AM160	300	20	350	7					268		55	
	AM180												
	AM200												



P..RF..AM..
Fig.1



45 116 00 08

Fig.2

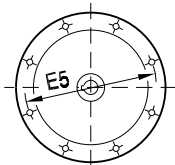
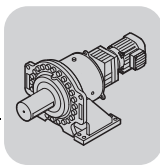


		Fig.	B5	C5	E5	F5	G2	G5	S5	Z5	D1	L1	T1	U1	
P..RF107	AM100	1	180	15	215	5	350	250	M12	110	28	60	31.3	8	
	AM112														
	AM132S/M		230	16	265	6		300	M16	163	38	80	41.3	10	
	AM132ML														
	AM160		250	18	300	7		350		221	42	110	45.3	12	
	AM180									48	51.8		14		
	AM200		300	20	350	400		262		55		59.3	16		
	AM225	2	350	22	400	450		277		60	140	64.4	18		
P..RF137	AM132S/M	1	230	16	265	5	400	300	M12	156	38	80	41.3	10	
	AM132ML														
	AM160		250	18	300	6		350	M16	214	42	110	45.3	12	
	AM180									48	51.8		14		
	AM200	300	20	350	7			400		255	55		59.3	16	
	AM225	2	350	22				400	450	270	60	140	64.4	18	
P..RF147	AM132S/M	1	230	16	265	5	450	300	M12	148	38	80	41.3	10	
	AM132ML														
	AM160		250	18	300	6		350	M16	206	42	110	45.3	12	
	AM180									48	51.8		14		
	AM200	300	20	350	7			400		247	55		59.3	16	
	AM225	2	350	22				400		450	262	60		64.4	18
	AM250	450	25	500	7			550		336	65	140	69.4		
	AM280										75	79.9	20		
P..RF167	AM160	1	250	18	300	6	550	350	M16	198	42	110	45.3	12	
	AM180									48	51.8		14		
	AM200		300	20	350	7		400		239	55			59.3	16
	AM225	2	350	22	400			450		254	60		64.4	18	
	AM250	450	25	500	7			550		328	65	140	69.4		
	AM280										75	79.9	20		

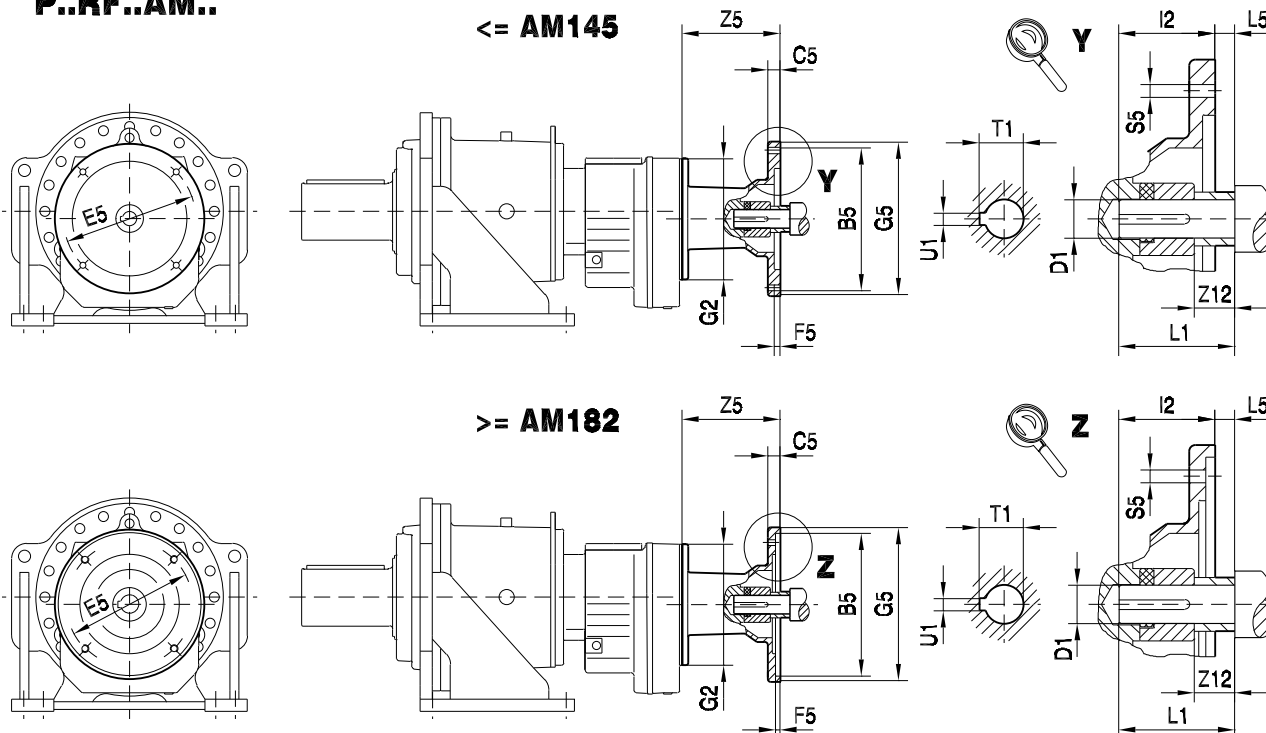


P.RF.. Helical Planetary Gearmotors AM adapter for mounting NEMA motors

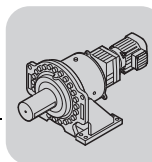
10.9 AM adapter for mounting NEMA motors

P..RF..AM..

45 117 00 08

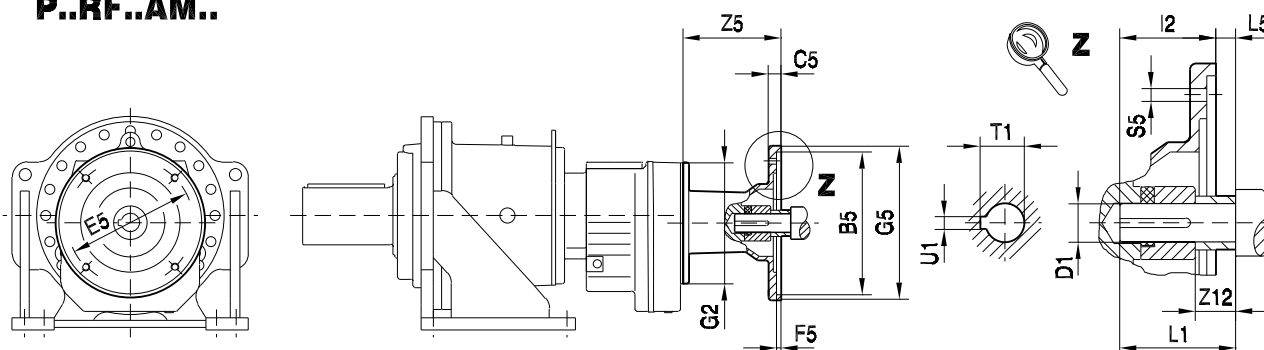


		B5	C5	E5	F5	G2	G5	I2	L5	S5	Z5	Z12	D1	L1	T1	U1
P..RF77	AM56	114.3	11	149.2	4.5	200	170	52.55	-4.8	10.5	81	16.5	15.875	47	18.1	4.77
	AM143		12					54.1	3		103.5	14.5	22.225	57	24.7	
	AM145															
	AM182	215.9	10	184	5		228	66.85	3	15	139.5	16.5	28.575	69	31.7	6.35
	AM184		11					79.55	6.3		188.5	15.8	34.925	85	38.7	7.94
	AM213/215															
P..RF87	AM143	114.3	12	149.2	4.5	250	170	54.1	3	10.5	98.5	14.5	22.225	57	24.7	4.77
	AM145															
	AM182	215.9	10	184	5		228	66.85	3	15	134.5	16.5	28.575	69	31.7	6.35
	AM184		11					79.55	6.3		183.5	15.8	34.925	85	38.7	7.94
	AM213/215		12					95.3	6.3		234	9	41.275	101	45.8	9.53
	AM254/256															
	AM284/286	266.7	15	228.6	5		286	111.05	6.3	15	241	15.8	47.625	117	53.4	12.7
P..RF97	AM182	215.9	10	184	5	300	228	66.85	3	15	129.5	16.5	28.575	69	31.7	6.35
	AM184		11					79.55	6.3		178.5	15.8	34.925	85	38.7	7.94
	AM213/215		12					95.3	6.3		229	9	41.275	101	45.8	9.53
	AM254/256															
	AM284/286	266.7	20	228.6	5		286	111.05	6.3	15	236	15.8	47.625	117	53.4	12.7
	AM324/326	317.5	17	279.4	5		356	127.05	6.3	17.5	296	34.8	53.975	133	60	12.7
	AM364/365							143.05					60.325	149	67.6	15.875

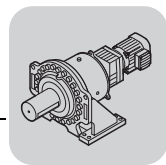
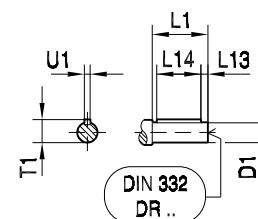
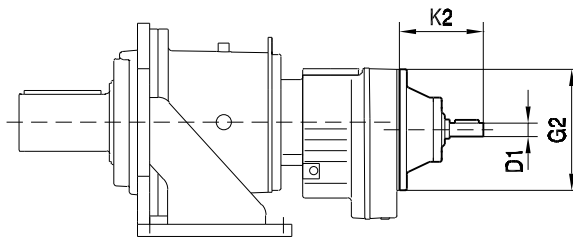
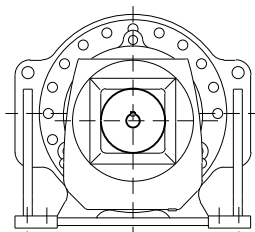
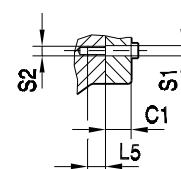
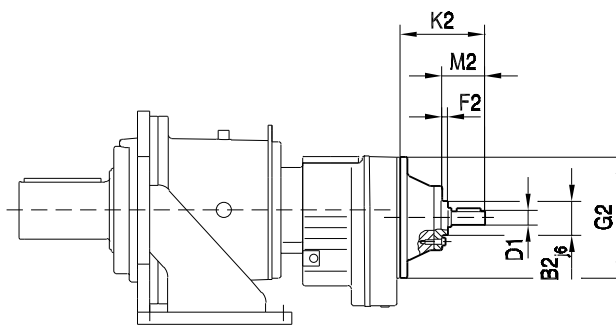
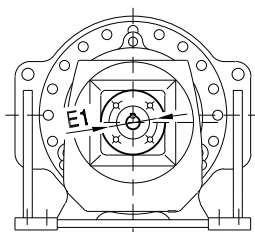


P..RF..AM..

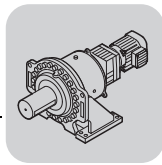
45 118 00 08



		B5	C5	E5	F5	G2	G5	I2	L5	S5	Z5	Z12	D1	L1	T1	U1
P..RF107	AM182	215.9	10	184	5	350	228	66.85	3	15	123.5	16.5	28.575	69	31.7	6.35
	AM184		11					79.55	6.3		172.5	15.8	34.925	85	38.7	7.94
	AM213/215		12					95.3	6.3		223	9	41.275	101	45.8	9.53
	AM254/256	266.7	15	228.6	5		286	111.05	6.3	15	230	15.8	47.625	117	53.4	12.7
	AM324/326	317.5	17	279.4	5		356	127.05	6.3	17.5	290	34.8	53.975	133	60	12.7
	AM364/365							143.05					60.325	149	67.6	15.875
P..RF137	AM213/215	215.9	11	184	5	400	228	79.55	6.3	15	165.5	15.8	34.925	85	38.7	7.94
	AM254/256		12					95.3	6.3		216	9	41.275	101	45.8	9.53
	AM284/286	266.7	15	228.6	5		286	111.05	6.3	15	223	15.8	47.625	117	53.4	12.7
	AM324/326	317.5	17	279.4	5		356	127.05	6.3	17.5	283	34.8	53.975	133	60	12.7
	AM364/365							143.05					60.325	149	67.6	15.875
P..RF147	AM213/215	215.9	11	184	5	450	228	79.55	6.3	15	157.5	15.8	34.925	85	38.7	7.94
	AM254/256		12					95.3	6.3		208	9	41.275	101	45.8	9.53
	AM284/286	266.7	15	228.6	5		286	111.05	6.3	15	215	15.8	47.625	117	53.4	12.7
	AM324/326	317.5	17	279.4	5		356	127.05	6.3	17.5	275	34.8	53.975	133	60	12.7
	AM364/365							143.05					60.325	149	67.6	15.875
P..RF167	AM254/256	215.9	12	184	5	550	228	95.3	6.3	15	200	9	41.275	101	45.8	9.53
	AM284/286	266.7	15	228.6	5		286	111.05	6.3	15	207	15.8	47.625	117	53.4	12.7
	AM324/326	317.5	17	279.4	5		356	127.05	6.3	17.5			53.975	133	60	12.7
	AM364/365							143.05					60.325	149	67.6	15.875

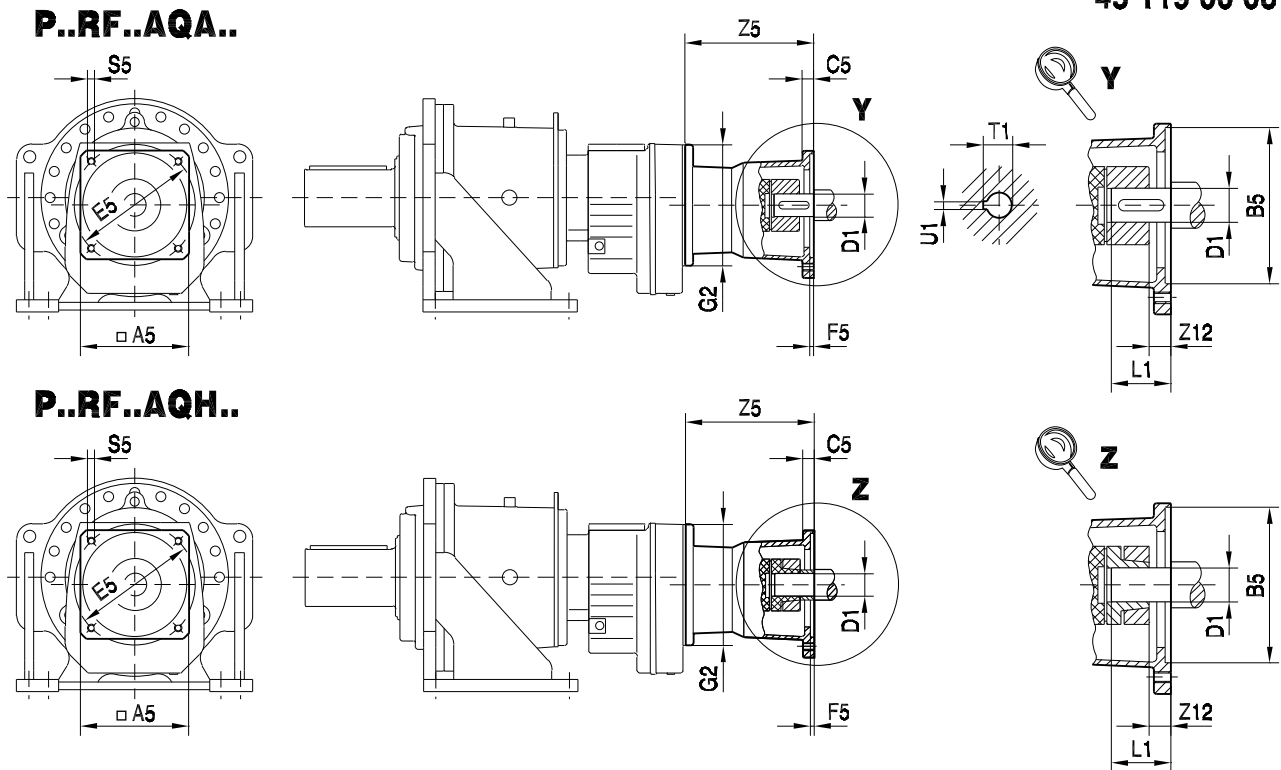

10.10 AD input shaft assembly
P..RF..AD..
45 121 00 08

P..RF..AD../ZR


		B2	C1	E1	F2	G2	K2	L5	M2	S1	S2	D1	L1	L13	L14	T1	U1
P..RF77	AD2, AD2/ZR	55	13.5	80	8	200	116	12	50	9	M8	19	40	4	32	21.5	6
	AD3, AD3/ZR	70	15.5	105	8		151	16	60	11	M10	24	50	5	40	27	8
	AD4, AD4/ZR	100	16	130	13		224	20	95.5	13.5	M12	38	80	5	70	41	10
P..RF87	AD2, AD2/ZR	55	13.5	80	8	250	111	12	50	9	M8	19	40	4	32	21.5	6
	AD3, AD3/ZR	70	15.5	105	8		156	16	60	11	M10	28	60	5	50	31	8
	AD4, AD4/ZR	100	16	130	13		219	20	95.5	13.5	M12	38	80	5	70	41	10
	AD5, AD5/ZR	120	24	180	11		292	20	126	13.5	M12	42	110	10	70	45	12
P..RF97	AD3, AD3/ZR	70	15.5	105	8	300	151	16	60	11	M10	28	60	5	50	31	8
	AD4, AD4/ZR	100	16	130	13		214	20	95.5	13.5	M12	38	80	5	70	41	10
	AD5, AD5/ZR	120	24	180	11		287	20	126	13.5	M12	42	110	10	70	45	12
	AD6, AD6/ZR	130	22.5	200	11		327	26	130.5	17.5	M16	48	110	10	80	51.5	14
P..RF107	AD3, AD3/ZR	70	15.5	105	8	350	145	16	60	11	M10	28	60	5	50	31	8
	AD4, AD4/ZR	100	16	130	13		208	20	95.5	13.5	M12	38	80	5	70	41	10
	AD5, AD5/ZR	120	24	180	11		281	20	126	13.5	M12	42	110	10	70	45	12
	AD6, AD6/ZR	130	22.5	200	11		321	26	130.5	17.5	M16	48	110	10	80	51.5	14
P..RF137	AD4, AD4/ZR	100	16	130	13	400	201	20	95.5	13.5	M12	38	80	5	70	41	10
	AD5, AD5/ZR	120	24	180	11		274	20	126	13.5	M12	42	110	10	70	45	12
	AD6, AD6/ZR	130	22.5	200	11		314	26	130.5	17.5	M16	48	110	10	80	51.5	14
	AD7, AD7/ZR	125	19	190	13		308	30	133	22	M20	55	110	10	90	59	16
P..RF147	AD4, AD4/ZR	100	16	130	13	450	193	20	95.5	13.5	M12	38	80	5	70	41	10
	AD5, AD5/ZR	120	24	180	11		266	20	126	13.5	M12	42	110	10	70	45	12
	AD6, AD6/ZR	130	22.5	200	11		306	26	130.5	17.5	M16	48	110	10	80	51.5	14
	AD7, AD7/ZR	125	19	190	13		300	30	133	22	M20	55	110	10	90	59	16
	AD8, AD8/ZR	120	22.5	210	5		383	19.5	155	13.5	M12	70	140	15	110	74.5	20
P..RF167	AD5, AD5/ZR	120	24	180	11	550	258	20	126	13.5	M12	42	110	10	70	45	12
	AD6, AD6/ZR	130	22.5	200	11		298	26	130.5	17.5	M16	48	110	10	80	51.5	14
	AD7, AD7/ZR	125	19	190	13		292	30	133	22	M20	55	110	10	90	59	16
	AD8, AD8/ZR	120	22.5	210	5		374	19.5	155	13.5	M12	70	140	15	110	74.5	20

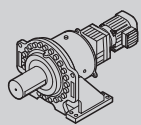


10.11 AQA motor adapter

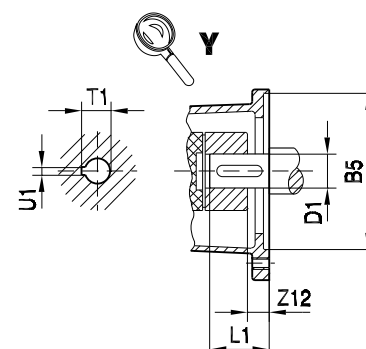
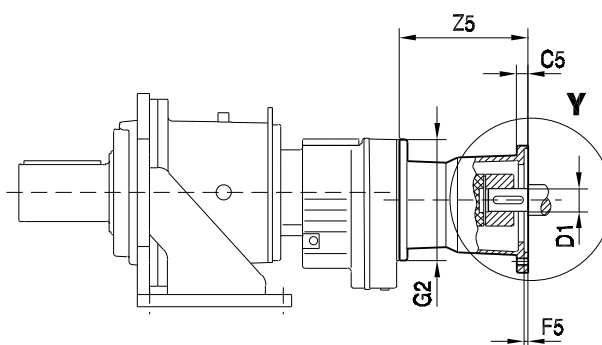
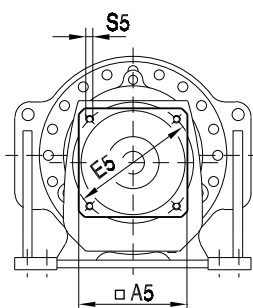
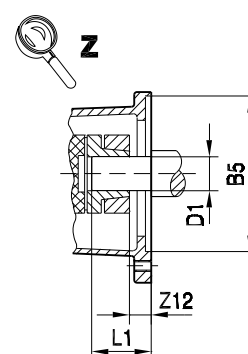
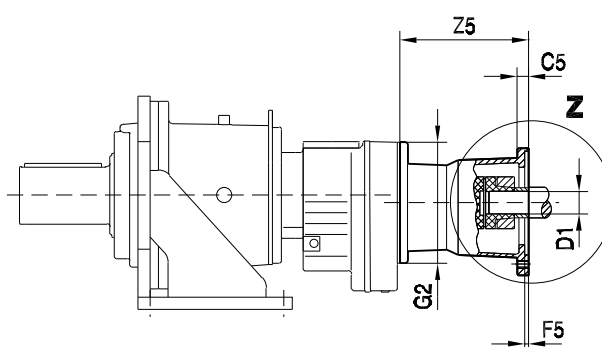
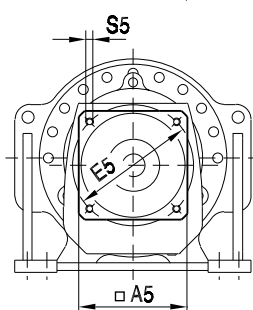
45 119 00 08



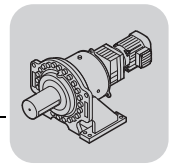
		A5	B5	C5	E5	F5	G2	S5	Z5	AQA Z12	AQH Z12	D1	L1	AQA T1	AQA U1
P..RF77	AQ..80/1	82	60	8	75	3.5	200	M5	92	5.5	5.5	11	23	12.8	4
	AQ..80/2		50		95	3		M6				14	30	16.3	5
	AQ..80/3														
	AQ..100/1	100	80	10	100	4		M6	116	0	0	14	30	16.3	5
	AQ..100/2		95	12	115			M8							
	AQ..100/3		80	10	100			M6	130	2	14	19	40	21.8	6
	AQ..100/4		95	12	115			M8							
	AQ..115/1	115	95	12	130	5		M8	139	11	23	19	40	21.8	6
	AQ..115/2		110							24	50	27.3	8		
	AQ..115/3														
	AQ..140/1	140	110	15	165	5		M10	167	16	16	24	50	27.3	8
	AQ..140/2		130						32	60	35.3	10			
	AQ..140/3														
	AQ..190/1	190	130	16	215	5		M12	225.5	24	24	32	60	35.3	10
	AQ..190/2		180						38	80	41.3	10			
	AQ..190/3														
P..RF87	AQ..100/1	100	80	10	100	4	250	M6	111	0	0	14	30	16.3	5
	AQ..100/2		95	12	115			M8							
	AQ..100/3		80	10	100			M6	125	2	14	19	40	21.8	6
	AQ..100/4		95	12	115			M8							
	AQ..115/1	115	95	12	130	5		M8	134	11	23	19	40	21.8	6
	AQ..115/2		110							24	50	27.3	8		
	AQ..115/3														
	AQ..140/1	140	110	15	165	5		M10	162	16	16	24	50	27.3	8
	AQ..140/2		130						32	60	35.3	10			
	AQ..140/3														
	AQ..190/1	190	130	16	215	5		M12	220.5	24	24	32	60	35.3	10
	AQ..190/2		180						38	80	41.3	10			
AQ..190/3															

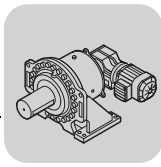


45 120 00 08

P..RF..AQA..**P..RF..AQH..**

		A5	B5	C5	E5	F5	G2	S5	Z5	AQA Z12	AQH Z12	D1	L1	AQA T1	AQA U1
P..RF97	AQ..140/1	140	110	15	165	5	300	M10	157	16	16	24	50	27.3	8
	AQ..140/2		130						170	22	22	32	60	35.3	10
	AQ..140/3														
	AQ..190/1	190	130	16	215	5		M12	215.5	24	24	32	60	35.3	10
	AQ..190/2		180						239.5	34	34	38	80	41.3	10
	AQ..190/3														
P..RF107	AQ..140/1	140	110	15	165	5	350	M10	151	16	16	24	50	27.3	8
	AQ..140/2		130						164	22	22	32	60	35.3	10
	AQ..140/3														
	AQ..190/1	190	130	16	215	5		M12	209.5	24	24	32	60	35.3	10
	AQ..190/2		180						233.5	34	34	38	80	41.3	10
	AQ..190/3														
P..RF137	AQ..190/1	190	130	16	215	5	400	M12	202.5	24	25	32	60	35.3	10
	AQ..190/2		180						226.5	34	34	38	80	41.3	10
	AQ..190/3														
P..RF147	AQ..190/1	190	130	16	215	5	450	M12	194.5	24	24	32	60	35.3	10
	AQ..190/2		180						218.5	34	34	38	80	41.3	10
	AQ..190/3														





11 P.KF.. Bevel Planetary Gearmotors

11.1 Guide to the dimension sheets

11.1.1 Foot-mounted gear units P..

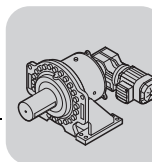
Size	M _{N2} [Nm]	Dimension sheets / page								
		KF67	KF77	KF87	KF97	KF107	KF127	KF157	K167	K187
P002	24830	266	268	270	272	-	-	-	-	-
P012	36810	-	274	276	278	280	-	-	-	-
P022	51190	-	-	282	284	286	-	-	-	-
P032	69620	-	-	288	290	292	294	-	-	-
P042	100170	-	-	-	296	298	300	-	-	-
P052	124060	-	-	-	302	304	306	-	-	-
P062	185660	-	-	-	-	308	310	-	-	-
P072	245660	-	-	-	-	-	312	314	-	-
P082	359400	-	-	-	-	-	-	316	-	-
P092	423000	-	-	-	-	-	-	-	318	320
P102	500000	-	-	-	-	-	-	-	322	324

11.1.2 Flange-mounted gear units PF..

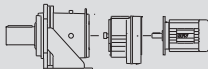
Size	M _{N2} [Nm]	Dimension sheets / page								
		KF67	KF77	KF87	KF97	KF107	KF127	KF157	K167	K187
PF002	24830	267	269	271	273	-	-	-	-	-
PF012	36810	-	275	277	279	281	-	-	-	-
PF022	51190	-	-	283	285	287	-	-	-	-
PF032	69620	-	-	289	291	293	295	-	-	-
PF042	100170	-	-	-	297	299	301	-	-	-
PF052	124060	-	-	-	303	305	307	-	-	-
PF062	185660	-	-	-	-	309	311	-	-	-
PF072	245660	-	-	-	-	-	313	315	-	-
PF082	359400	-	-	-	-	-	-	317	-	-
PF092	423000	-	-	-	-	-	-	-	319	321
PF102	500000	-	-	-	-	-	-	-	323	325

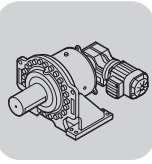
11.1.3 Motor adapter

	Dimension sheets / page							
	KF77	KF87	KF97	KF107	KF127	KF157	K167	K187
Adapter for mounting IEC motors P..RF..AM..	328	328	328	328	329	329	329	329
Adapter for mounting NEMA motors P..RF..AM..	330	330	330	331	331	331	331	331
Input shaft assembly P..RF..AD..	332	332	332	332	332	333	333	333



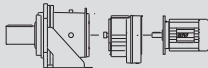
11.2 IE1 motor standard – selection tables

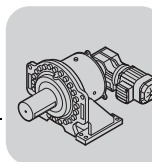
P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]		m [kg]	
0.75	0.35	20200	4029	156000	36810	P 012KF87 DRS 80S4	430	276
						PF 012KF87 DRS 80S4	360	277
						PH 012KF87 DRS 80S4	445	276
						PHF 012KF87 DRS 80S4	375	277
	0.40	17500	3490	156000	36810	P 012KF77 DRS 80S4	395	274
						PF 012KF77 DRS 80S4	325	275
						PH 012KF77 DRS 80S4	410	274
						PHF 012KF77 DRS 80S4	340	275
	0.37	19000	3793	124000	24830	P 002KF77 DRS 80S4	315	268
						PF 002KF77 DRS 80S4	260	269
						PH 002KF77 DRS 80S4	320	268
						PHF 002KF77 DRS 80S4	260	269
	0.40	17600	3519	124000	24830	P 002KF67 DRS 80S4	285	266
1.1	0.35	29400	4029	197000	51190	P 022KF87 DRS 80M4	580	282
						PF 022KF87 DRS 80M4	480	283
						PH 022KF87 DRS 80M4	600	282
						PHF 022KF87 DRS 80M4	495	283
	0.35	29400	4029	156000	36810	P 012KF87 DRS 80M4	435	276
						PF 012KF87 DRS 80M4	365	277
						PH 012KF87 DRS 80M4	450	276
						PHF 012KF87 DRS 80M4	380	277
	0.37	27800	3807	156000	36810	P 012KF77 DRS 80M4	400	274
	0.46	22300	3063	156000	36810	P 012KF77 DRS 80M4	330	275
	0.62	16700	2289	156000	36810	P 012KF77 DRS 80M4	415	274
	0.70	14600	2008	156000	36810	P 012KF77 DRS 80M4	345	275
	0.80	12900	1772	156000	36810	P 002KF77 DRS 80M4	320	268
	0.46	22200	3051	121300	24830	P 002KF77 DRS 80M4	260	269
	0.59	17300	2371	124000	24830	P 002KF67 DRS 80M4	285	266
	0.63	16300	2238	124000	24830	P 002KF67 DRS 80M4	230	267
1.5	0.35	40500	4029	197000	51190	P 022KF87 DRS 90M4	590	282
						PF 022KF87 DRS 90M4	485	283
						PH 022KF87 DRS 90M4	600	282
						PHF 022KF87 DRS 90M4	500	283
	0.35	40500	4029	156000	36810	P 012KF87 DRS 90M4	440	276
						PF 012KF87 DRS 90M4	370	277
						PH 012KF87 DRS 90M4	455	276
						PHF 012KF87 DRS 90M4	385	277
	0.40	35100	3490	156000	36810	P 012KF77 DRS 90M4	400	274
	0.46	30800	3063	156000	36810	P 012KF77 DRS 90M4	330	275
	0.55	25500	2540	156000	36810	P 012KF77 DRS 90M4	415	274
	0.69	20200	2008	156000	36810	P 012KF77 DRS 90M4	345	275
	0.79	17800	1772	156000	36810	P 012KF77 DRS 90M4	345	275

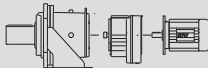


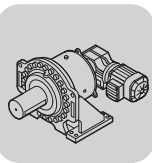
P.KF.. Bevel Planetary Gearmotors

IE1 motor standard – selection tables

P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]					m [kg]	
1.5	0.61 0.70	22900	2280	120400	24830	P	002KF77	DRS	90M4	320	268
		20100	2000	124000	24830	PF	002KF77	DRS	90M4	265	269
						PH	002KF77	DRS	90M4	325	268
						PHF	002KF77	DRS	90M4	270	269
	0.81	17400	1732	124000	24830	P PF PH PHF	002KF67	DRS	90M4	290	266
	0.93	15100	1500	124000	24830					235	267
	1.0	14000	1392	124000	24830					295	266
	1.2	11800	1181	124000	24830					240	267
	1.3	10700	1066	124000	24830						
	1.5	9430	938	124000	24830						
	1.6	8910	886	124000	24830						
	1.8	7580	754	124000	24830						
2.2	0.34 0.37	60600	4124	234200	69620	P	032KF97	DRS	90L4	740	290
		55800	3797	239400	69620	PF	032KF97	DRS	90L4	620	291
						PH	032KF97	DRS	90L4	770	290
						PHF	032KF97	DRS	90L4	640	291
	0.35	59200	4029	177600	51190	P PF PH PHF	022KF87	DRS	90L4	590	282
	0.41	49800	3387	192800	51190					490	283
	0.45	45700	3113	197000	51190					610	282
	0.51	40600	2764	197000	51190					500	283
	0.57	36300	2471	197000	51190						
	0.51	40600	2764	156000	36810	P PF PH PHF	012KF87	DRS	90L4	440	276
	0.63	32600	2222	156000	36810					370	277
	0.73	28300	1929	156000	36810					455	276
	0.81	25400	1727	156000	36810					385	277
	0.55	37300	2540	156000	36810	P PF PH PHF	012KF77	DRS	90L4	405	274
	0.61	33600	2289	156000	36810					335	275
	0.70	29500	2008	156000	36810					420	274
	0.79	26000	1772	156000	36810					350	275
	1.0	20300	1381	156000	36810						
	0.89	23000	1565	120300	24830	P PF PH PHF	002KF77	DRS	90L4	325	268
	1.0	20200	1376	123900	24830					265	269
										330	268
										270	269
	1.2	17300	1181	124000	24830	P PF PH PHF	002KF67	DRS	90L4	295	266
	1.3	15600	1066	124000	24830					235	267
	1.5	13700	938	124000	24830					300	266
	1.6	13000	886	124000	24830					240	267
	1.9	11000	754	124000	24830						
	2.0	10000	685	124000	24830						
	2.4	8720	594	124000	24830						
	2.7	7590	517	124000	24830						
	2.9	7170	488	124000	20200						
3.0	0.34 0.37 0.41	82700	4124	311800	100170	P	042KF97	DRS	100M4	1000	296
		76100	3797	317200	100170	PF	042KF97	DRS	100M4	810	297
		68000	3394	323000	100170	PH	042KF97	DRS	100M4	1000	296
						PHF	042KF97	DRS	100M4	810	297
	0.34	82700	4124	204100	69620	P PF PH PHF	032KF97	DRS	100M4	750	290
	0.37	76100	3797	214200	69620					630	291
	0.51	55500	2767	239800	69620					770	290
										650	291
	0.57	49500	2471	245600	69620	P PF PH PHF	032KF87	DRS	100M4	670	288
										550	289
										700	288
										570	289
	0.45	62400	3113	171800	51190	P PF PH PHF	022KF87	DRS	100M4	590	282
	0.51	55400	2764	184200	51190					495	283
	0.57	49500	2471	193200	51190					610	282
	0.63	44500	2222	197000	51190					510	283
	0.73	38600	1929	197000	51190						
	0.63	44500	2222	156000	36810	P PF PH PHF	012KF87	DRS	100M4	445	276
	0.73	38600	1929	156000	36810					375	277
	0.81	34600	1727	156000	36810					460	276
	0.98	28700	1433	156000	36810					390	277

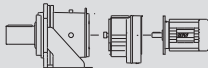


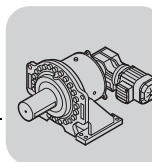
P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]					m [kg]	
3.0	1.0	27600	1381	156000	36810	P	012KF77	DRS	100M4	410	274
	1.2	24300	1212	156000	36810	PF	012KF77	DRS	100M4	340	275
	1.2	23000	1148	156000	36810	PH	012KF77	DRS	100M4	425	274
	1.4	20100	1005	156000	36810	PHF	012KF77	DRS	100M4	355	275
	1.6	18100	905	156000	36810						
	1.2	24200	1207	118600	24830	P	002KF77	DRS	100M4	330	268
	1.2	22900	1144	120400	24830	PF	002KF77	DRS	100M4	270	269
	1.4	20000	1001	124000	24830	PH	002KF77	DRS	100M4	335	268
						PHF	002KF77	DRS	100M4	275	269
	1.6	17700	886	124000	24830						
	1.9	15100	754	124000	24830						
	2.0	13700	685	124000	24830	P	002KF67	DRS	100M4	300	266
	2.4	11900	594	124000	24830	PF	002KF67	DRS	100M4	240	267
	2.7	10300	517	124000	24830	PH	002KF67	DRS	100M4	305	266
	2.9	9780	488	124000	20200	PHF	002KF67	DRS	100M4	245	267
	3.4	8330	415	124000	19100						
	3.7	7570	378	124000	18300						
4.0	0.37	102400	3952	364000	124060	P	052KF107	DRS	100LC4	1260	304
	0.40	92400	3568	364000	124060	PF	052KF107	DRS	100LC4	1060	305
						PH	052KF107	DRS	100LC4	1250	304
						PHF	052KF107	DRS	100LC4	1050	305
	0.45	83900	3241	310800	100170	P	042KF107	DRS	100LC4	1120	298
						PF	042KF107	DRS	100LC4	930	299
						PH	042KF107	DRS	100LC4	1120	298
						PHF	042KF107	DRS	100LC4	930	299
	0.35	106800	4124	288500	100170	P	042KF97	DRS	100LC4	1000	296
	0.38	98400	3797	297400	100170	PF	042KF97	DRS	100LC4	810	297
	0.43	87900	3394	307300	100170	PH	042KF97	DRS	100LC4	1010	296
	0.52	71700	2767	320600	100170	PHF	042KF97	DRS	100LC4	820	297
	0.59	63500	2454	323000	100170						
	0.52	71700	2767	220500	69620	P	032KF97	DRS	100LC4	750	290
	0.65	57400	2218	237700	69620	PF	032KF97	DRS	100LC4	630	291
	0.77	48700	1880	246400	69620	PH	032KF97	DRS	100LC4	780	290
						PHF	032KF97	DRS	100LC4	650	291
	0.58	64000	2471	230200	69620	P	032KF87	DRS	100LC4	680	288
						PF	032KF87	DRS	100LC4	560	289
						PH	032KF87	DRS	100LC4	700	288
						PHF	032KF87	DRS	100LC4	580	289
	0.65	57500	2222	180600	51190	P	022KF87	DRS	100LC4	600	282
	0.75	49900	1929	192600	51190	PF	022KF87	DRS	100LC4	500	283
	0.84	44700	1727	197000	51190	PH	022KF87	DRS	100LC4	610	282
	1.0	37100	1433	197000	51190	PHF	022KF87	DRS	100LC4	510	283
	1.2	31900	1231	197000	51190						
	0.84	44700	1727	156000	36810	P	012KF87	DRS	100LC4	450	276
	1.0	37100	1433	156000	36810	PF	012KF87	DRS	100LC4	380	277
	1.3	28300	1094	156000	36810	PH	012KF87	DRS	100LC4	465	276
						PHF	012KF87	DRS	100LC4	395	277
	1.2	31300	1212	156000	36810						
	1.3	29700	1148	156000	36810	P	012KF77	DRS	100LC4	415	274
	1.4	26000	1005	156000	36810	PF	012KF77	DRS	100LC4	345	275
	1.6	23400	905	156000	36810	PH	012KF77	DRS	100LC4	430	274
	1.8	20500	794	156000	36810	PHF	012KF77	DRS	100LC4	360	275
	2.1	18100	701	156000	36810						
	2.3	16000	621	156000	36810						
	2.7	13700	530	156000	36810						
	1.6	23300	902	119800	24830	P	002KF77	DRS	100LC4	335	268
	1.8	20400	791	123500	24830	PF	002KF77	DRS	100LC4	275	269
	2.1	18000	698	124000	24830	PH	002KF77	DRS	100LC4	340	268
	2.3	16000	619	124000	24830	PHF	002KF77	DRS	100LC4	280	269
	2.8	13300	517	124000	24830						
	3.0	12600	488	124000	20200	P	002KF67	DRS	100LC4	305	266
	3.5	10700	415	124000	19100	PF	002KF67	DRS	100LC4	245	267
	3.8	9780	378	124000	18300	PH	002KF67	DRS	100LC4	310	266
	4.4	8470	327	124000	16800	PHF	002KF67	DRS	100LC4	250	267
	5.1	7370	284	124000	16000						

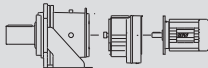


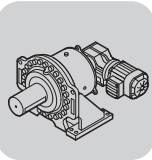
P.KF.. Bevel Planetary Gearmotors

IE1 motor standard – selection tables

P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]		m [kg]	
5.5	0.40	127100	3568	473000	185660	P 062KF107 DRS 132S4	1760	308
	0.45	115400	3241	473000	185660	PF 062KF107 DRS 132S4	1390	309
						PH 062KF107 DRS 132S4	1750	308
						PHF 062KF107 DRS 132S4	1380	309
	0.37	140800	3952	341700	124060	P 052KF107 DRS 132S4	1270	304
	0.40	127100	3568	353800	124060	PF 052KF107 DRS 132S4	1070	305
	0.50	102400	2876	364000	124060	PH 052KF107 DRS 132S4	1260	304
	0.55	92900	2610	364000	124060	PHF 052KF107 DRS 132S4	1060	305
	0.45	115400	3241	278600	100170	P 042KF107 DRS 132S4	1130	298
	0.64	79900	2243	314200	100170	PF 042KF107 DRS 132S4	940	299
	0.74	69700	1958	322000	100170	PH 042KF107 DRS 132S4	1130	298
						PHF 042KF107 DRS 132S4	940	299
	0.52	98500	2767	297200	100170	P 042KF97 DRS 132S4	1010	296
	0.59	87400	2454	307700	100170	PF 042KF97 DRS 132S4	820	297
	0.77	66900	1880	323000	100170	PH 042KF97 DRS 132S4	1020	296
						PHF 042KF97 DRS 132S4	830	297
	0.65	79000	2218	209900	69620	P 032KF97 DRS 132S4	770	290
	0.77	66900	1880	226600	69620	PF 032KF97 DRS 132S4	650	291
	0.88	58500	1643	236600	69620	PH 032KF97 DRS 132S4	790	290
	0.96	53500	1503	241800	69620	PHF 032KF97 DRS 132S4	670	291
	1.2	43800	1231	250700	69620	P 032KF87 DRS 132S4	690	288
						PF 032KF87 DRS 132S4	570	289
						PH 032KF87 DRS 132S4	710	288
						PHF 032KF87 DRS 132S4	590	289
	0.84	61500	1727	173500	51190	P 022KF87 DRS 132S4	610	282
	1.0	51000	1433	191000	51190	PF 022KF87 DRS 132S4	510	283
	1.2	43800	1231	197000	51190	PH 022KF87 DRS 132S4	630	282
	1.3	38900	1094	197000	51190	PHF 022KF87 DRS 132S4	530	283
	1.5	34800	978	197000	51190			
	1.6	31300	879	197000	51190			
	1.3	38900	1094	156000	36810	P 012KF87 DRS 132S4	465	276
	1.9	27100	763	156000	36810	PF 012KF87 DRS 132S4	395	277
						PH 012KF87 DRS 132S4	480	276
						PHF 012KF87 DRS 132S4	410	277
	1.4	35800	1005	156000	36810	P 012KF77 DRS 132S4	430	274
	1.6	32200	905	156000	36810	PF 012KF77 DRS 132S4	360	275
	1.8	28200	794	156000	36810	PH 012KF77 DRS 132S4	440	274
	2.1	24900	701	156000	36810	PHF 012KF77 DRS 132S4	370	275
	2.3	22100	621	156000	36810			
	2.7	18900	530	156000	36810			
	3.4	15100	425	156000	36810			
	2.3	22000	619	121600	24830	P 002KF77 DRS 132S4	350	268
	2.7	18800	528	124000	24830	PF 002KF77 DRS 132S4	290	269
	3.0	17200	483	124000	24830	PH 002KF77 DRS 132S4	350	268
	3.4	15000	424	124000	24830	PHF 002KF77 DRS 132S4	295	269
	3.9	13300	374	124000	24830			
	4.4	11800	331	124000	24830			
	5.5	9400	264	124000	24830			
	6.0	8590	241	123700	19100			
	6.8	7530	212	118900	18900			
	7.7	6650	187	114500	17900			
	8.7	5890	166	110500	17000			
	10	5030	141	105400	15600			
7.5	0.42	166300	3425	523000	245660	P 072KF127 DRS 132M4	2390	312
	0.53	131200	2703	523000	245660	PF 072KF127 DRS 132M4	1900	313
	0.61	115800	2385	523000	245660	PH 072KF127 DRS 132M4	2450	312
						PHF 072KF127 DRS 132M4	1960	313
	0.33	210000	4322	419000	185660	P 062KF127 DRS 132M4	1970	310
	0.59	119300	2456	473000	185660	PF 062KF127 DRS 132M4	1610	311
	0.68	103000	2121	473000	185660	PH 062KF127 DRS 132M4	1960	310
	0.77	91100	1876	473000	185660	PHF 062KF127 DRS 132M4	1600	311
	0.40	173300	3568	447700	185660	P 062KF107 DRS 132M4	1770	308
	0.45	157400	3241	458400	185660	PF 062KF107 DRS 132M4	1410	309
	0.64	108900	2243	473000	185660	PH 062KF107 DRS 132M4	1760	308
	0.87	80600	1661	473000	185660	PHF 062KF107 DRS 132M4	1390	309

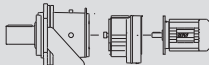


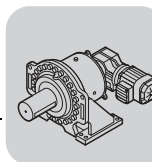
P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]						m [kg]	
7.5	0.50	139700	2876	342700	124060	P	052KF107	DRS	132M4	1290	304	
	0.55	126700	2610	354100	124060	PF	052KF107	DRS	132M4	1090	305	
	0.74	95100	1958	364000	124060	PH	052KF107	DRS	132M4	1280	304	
	1.0	70500	1452	364000	124060	PHF	052KF107	DRS	132M4	1080	305	
	1.3	53100	1095	364000	124060	P	052KF97	DRS	132M4	1170	302	
	1.5	47100	971	364000	124060	PF	052KF97	DRS	132M4	970	303	
						PH	052KF97	DRS	132M4	1160	302	
						PHF	052KF97	DRS	132M4	960	303	
	0.64	108900	2243	286200	100170	P	042KF107	DRS	132M4	1140	298	
	0.74	95100	1958	300600	100170	PF	042KF107	DRS	132M4	950	299	
	1.0	70500	1452	321500	100170	PH	042KF107	DRS	132M4	1140	298	
	1.3	55200	1138	323000	100170	PHF	042KF107	DRS	132M4	950	299	
	0.77	91300	1880	304200	100170	P	042KF97	DRS	132M4	1030	296	
	1.2	58700	1209	323000	100170	PF	042KF97	DRS	132M4	840	297	
	1.5	47100	971	323000	100170	PH	042KF97	DRS	132M4	1030	296	
	1.6	42600	878	323000	100170	PHF	042KF97	DRS	132M4	840	297	
	0.88	79800	1643	208800	69620	P	032KF97	DRS	132M4	780	290	
	0.96	72900	1503	218800	69620	PF	032KF97	DRS	132M4	660	291	
	1.5	47100	971	247800	69620	PH	032KF97	DRS	132M4	800	290	
	1.6	42600	878	251700	69620	PHF	032KF97	DRS	132M4	680	291	
	1.2	59800	1231	235100	69620	P	032KF87	DRS	132M4	710	288	
	1.9	37000	763	252000	69620	PF	032KF87	DRS	132M4	590	289	
	2.1	33100	683	252000	69620	PH	032KF87	DRS	132M4	730	288	
	2.3	30400	628	252000	69200	PHF	032KF87	DRS	132M4	610	289	
	2.7	26300	543	197000	51190	P	022KF97	DRS	132M4	700	284	
	3.1	22800	470	197000	51190	PF	022KF97	DRS	132M4	600	285	
						PH	022KF97	DRS	132M4	720	284	
						PHF	022KF97	DRS	132M4	610	285	
	1.3	53100	1094	187900	51190	P	022KF87	DRS	132M4	630	282	
	1.5	47400	978	196100	51190	PF	022KF87	DRS	132M4	520	283	
	1.6	42700	879	197000	51190	PH	022KF87	DRS	132M4	640	282	
	2.1	33100	683	197000	51190	PHF	022KF87	DRS	132M4	540	283	
	2.3	30400	628	197000	51190							
	2.9	23900	493	197000	51190							
	3.3	21200	438	197000	51190							
	3.5	19800	408	156000	36810	P	012KF97	DRS	132M4	550	278	
	4.2	16500	342	156000	36810	PF	012KF97	DRS	132M4	485	279	
	5.2	13500	279	156000	36810	PH	012KF97	DRS	132M4	570	278	
						PHF	012KF97	DRS	132M4	495	279	
	1.9	37000	763	156000	36810	P	012KF87	DRS	132M4	480	276	
	2.9	23900	493	156000	36810	PF	012KF87	DRS	132M4	410	277	
	3.7	19000	392	156000	36810	PH	012KF87	DRS	132M4	490	276	
	4.4	15800	325	156000	36810	PHF	012KF87	DRS	132M4	420	277	
	5.0	14100	291	156000	36810							
	2.1	34000	701	156000	36810	P	012KF77	DRS	132M4	440	274	
	2.3	30100	621	156000	36810	PF	012KF77	DRS	132M4	370	275	
	2.7	25700	530	156000	36810	PH	012KF77	DRS	132M4	455	274	
						PHF	012KF77	DRS	132M4	385	275	
	3.4	20500	424	123400	24830							
	3.9	18100	374	124000	24830							
	4.4	16000	331	124000	24830	P	002KF77	DRS	132M4	360	268	
	5.1	13700	283	124000	24830	PF	002KF77	DRS	132M4	305	269	
	5.5	12800	264	124000	24830	PH	002KF77	DRS	132M4	365	268	
	6.8	10200	212	118900	18900	PHF	002KF77	DRS	132M4	305	269	
	7.7	9070	187	114500	17900							
	8.7	8040	166	110500	17000							
	10	6860	141	105400	15600							
9.2	0.35	246600	4198	523000	245660	P	072KF127	DRS	132MC4	2400	312	
	0.43	201200	3425	523000	245660	PF	072KF127	DRS	132MC4	1910	313	
	0.47	183500	3123	523000	245660	PH	072KF127	DRS	132MC4	2450	312	
	0.54	158800	2703	523000	245660	PHF	072KF127	DRS	132MC4	1960	313	
	0.61	140100	2385	523000	245660							

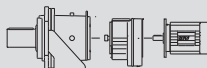


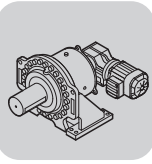
P.KF.. Bevel Planetary Gearmotors

IE1 motor standard – selection tables

P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]		m [kg]				
9.2	0.42	207300	3526	421300	185660						
	0.46	189000	3216	436100	185660	P	062KF127	DRS	132MC4	1970	310
	0.60	144300	2456	466500	185660	PF	062KF127	DRS	132MC4	1610	311
	0.69	124600	2121	473000	185660	PH	062KF127	DRS	132MC4	1960	310
	0.78	110200	1876	473000	185660	PHF	062KF127	DRS	132MC4	1600	311
	0.51	169000	2876	450700	185660						
	0.56	153300	2610	461000	185660	P	062KF107	DRS	132MC4	1770	308
	0.65	131800	2243	473000	185660	PF	062KF107	DRS	132MC4	1410	309
	0.75	115000	1958	473000	185660	PH	062KF107	DRS	132MC4	1760	308
	0.88	97600	1661	473000	185660	PHF	062KF107	DRS	132MC4	1400	309
	1.0	85300	1452	473000	185660						
	0.65	131800	2243	349800	124060	P	052KF107	DRS	132MC4	1290	304
	0.75	115000	1958	363400	124060	PF	052KF107	DRS	132MC4	1090	305
	1.0	85300	1452	364000	124060	PH	052KF107	DRS	132MC4	1280	304
	1.2	72100	1227	364000	124060	PHF	052KF107	DRS	132MC4	1080	305
	1.1	78900	1343	364000	124060	P	052KF97	DRS	132MC4	1170	302
	1.2	71000	1209	364000	124060	PF	052KF97	DRS	132MC4	980	303
						PH	052KF97	DRS	132MC4	1170	302
						PHF	052KF97	DRS	132MC4	970	303
	0.75	115000	1958	279100	100170	P	042KF107	DRS	132MC4	1140	298
	0.88	97600	1661	298200	100170	PF	042KF107	DRS	132MC4	950	299
	1.0	85300	1452	309600	100170	PH	042KF107	DRS	132MC4	1150	298
	1.3	66800	1138	323000	100170	PHF	042KF107	DRS	132MC4	960	299
	0.98	88300	1503	307000	100170	P	042KF97	DRS	132MC4	1030	296
	1.2	71000	1209	321100	100170	PF	042KF97	DRS	132MC4	840	297
	1.3	64300	1095	323000	100170	PH	042KF97	DRS	132MC4	1030	296
	1.5	57000	971	323000	100170	PHF	042KF97	DRS	132MC4	840	297
	1.7	51500	878	323000	100170						
	1.2	71000	1209	221400	69620	P	032KF97	DRS	132MC4	780	290
	1.3	64300	1095	229900	69620	PF	032KF97	DRS	132MC4	660	291
	1.5	57000	971	238100	69620	PH	032KF97	DRS	132MC4	800	290
	1.7	51500	878	243700	69620	PHF	032KF97	DRS	132MC4	680	291
	2.0	43700	744	250800	69620						
	2.2	38100	650	252000	69620						
	2.3	36800	628	252000	69200	P	032KF87	DRS	132MC4	710	288
	2.6	33300	567	252000	69620	PF	032KF87	DRS	132MC4	590	289
						PH	032KF87	DRS	132MC4	730	288
						PHF	032KF87	DRS	132MC4	610	289
	2.7	31900	543	197000	51190	P	022KF97	DRS	132MC4	700	284
	3.1	27600	470	197000	51190	PF	022KF97	DRS	132MC4	600	285
						PH	022KF97	DRS	132MC4	720	284
						PHF	022KF97	DRS	132MC4	620	285
	1.5	57400	978	180800	51190	P	022KF87	DRS	132MC4	630	282
	1.7	51600	879	190100	51190	PF	022KF87	DRS	132MC4	530	283
	1.9	44800	763	197000	51190	PH	022KF87	DRS	132MC4	640	282
	2.1	40100	683	197000	51190	PHF	022KF87	DRS	132MC4	540	283
	2.3	36800	628	197000	51190						
	3.0	28900	493	197000	51190						
	3.3	25700	438	197000	51190						
	3.6	24000	408	156000	36810	P	012KF97	DRS	132MC4	560	278
	4.3	20000	342	156000	36810	PF	012KF97	DRS	132MC4	485	279
	5.3	16300	279	156000	36810	PH	012KF97	DRS	132MC4	570	278
						PHF	012KF97	DRS	132MC4	500	279
	2.1	40100	683	156000	36810	P	012KF87	DRS	132MC4	480	276
	2.3	36800	628	156000	36810	PF	012KF87	DRS	132MC4	410	277
	2.6	33300	567	156000	36810	PH	012KF87	DRS	132MC4	495	276
	3.0	28900	493	156000	36810	PHF	012KF87	DRS	132MC4	425	277
	3.3	25700	438	156000	36810						
	3.7	23000	392	156000	36810						
	4.5	19100	325	156000	36810						
	5.0	17000	291	156000	36810						
	3.8	22900	391	120300	24830	P	002KF87	DRS	132MC4	400	270
	4.5	19000	324	124000	24830	PF	002KF87	DRS	132MC4	345	271
	5.2	16500	282	124000	24830	PH	002KF87	DRS	132MC4	405	270
	6.0	14400	245	123800	24830	PHF	002KF87	DRS	132MC4	345	271
	6.7	12800	218	119500	24830						
	7.5	11400	195	115600	24830						
	9.0	9510	162	109300	24830						

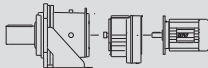


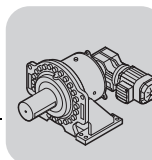
P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]		m [kg]			
9.2	10	8300	141	104900	15600	P 002KF77 DRS 132MC4	365	268		
						PF 002KF77 DRS 132MC4	305	269		
						PH 002KF77 DRS 132MC4	370	268		
						PHF 002KF77 DRS 132MC4	310	269		
11.0	0.41	251700	3570	850000	500000	P 102KF187 DRS 160M4	5720	324		
						PF 102KF187 DRS 160M4	4760	325		
						PH 102KF187 DRS 160M4	5780	324		
						PHF 102KF187 DRS 160M4	4820	325		
	0.43	239800	3402	850000	500000	P 102KF167 DRS 160M4	5090	322		
	0.55	185800	2636	850000	500000	PF 102KF167 DRS 160M4	4130	323		
	0.62	165800	2352	850000	500000	PH 102KF167 DRS 160M4	5150	322		
	0.73	141300	2005	850000	500000	PHF 102KF167 DRS 160M4	4190	323		
	0.48	216100	3065	720000	423000	P 092KF167 DRS 160M4	4240	318		
	0.54	191400	2715	720000	423000		PF 092KF167 DRS 160M4	3540	319	
	0.61	168000	2383	720000	423000		PH 092KF167 DRS 160M4	4250	318	
	0.66	155700	2209	720000	423000		PHF 092KF167 DRS 160M4	3550	319	
	0.72	143200	2031	720000	423000	P 082KF157 DRS 160M4	3360	316		
	0.83	124600	1767	720000	423000		PF 082KF157 DRS 160M4	2710	317	
	0.39	265200	3761	683000	359400		PH 082KF157 DRS 160M4	3360	316	
	0.42	242500	3440	683000	359400		PHF 082KF157 DRS 160M4	2700	317	
	0.38	269100	3818	522000	245660	P 072KF157 DRS 160M4	2700	314		
	0.48	214200	3038	523000	245660		PF 072KF157 DRS 160M4	2210	315	
	0.43	241400	3425	523000	245660		PH 072KF157 DRS 160M4	2760	314	
		220100	3123	523000	245660		PHF 072KF157 DRS 160M4	2270	315	
		190500	2703	523000	245660	P 072KF127 DRS 160M4	2410	312		
		168100	2385	523000	245660	PF 072KF127 DRS 160M4	1920	313		
	0.45	226800	3216	403600	185660	PH 072KF127 DRS 160M4	2470	312		
	0.52	196300	2783	430400	185660		PHF 072KF127 DRS 160M4	1970	313	
	0.59	173200	2456	447800	185660		P 062KF127 DRS 160M4	1990	310	
	0.69	149500	2121	463300	185660		PF 062KF127 DRS 160M4	1630	311	
	0.78	132300	1876	473000	185660	PH 062KF127 DRS 160M4	1980	310		
	0.65	158100	2243	457900	185660		PHF 062KF127 DRS 160M4	1610	311	
		138000	1958	470200	185660		P 062KF107 DRS 160M4	1790	308	
		117100	1661	473000	185660		PF 062KF107 DRS 160M4	1430	309	
		0.75	138000	1958	344200	124060	PH 062KF107 DRS 160M4	1780	308	
	102300		1452	364000	124060	PHF 062KF107 DRS 160M4	1420	309		
	86500		1227	364000	124060	P 052KF107 DRS 160M4	1310	304		
	1.0		102300	1452	364000	124060	PF 052KF107 DRS 160M4	1110	305	
		1.2	86500	1227	364000	124060	PH 052KF107 DRS 160M4	1300	304	
			0.88	117100	1661	276700	100170	PHF 052KF107 DRS 160M4	1100	305
				102300	1452	293300	100170	P 042KF107 DRS 160M4	1170	298
	80200			1138	313900	100170	PF 042KF107 DRS 160M4	980	299	
	1.2	85200		1209	309700	100170	PH 042KF107 DRS 160M4	1170	298	
		68400	971	323000	100170	PHF 042KF107 DRS 160M4	980	299		
		61800	878	323000	100170	P 042KF97 DRS 160M4	1050	296		
		1.3	85200	1209	309700	100170	PF 042KF97 DRS 160M4	860	297	
	77100		1095	212700	69620	PH 042KF97 DRS 160M4	1060	296		
	68400		971	224800	69620	PHF 042KF97 DRS 160M4	870	297		
	61800		878	232800	69620	P 032KF97 DRS 160M4	800	290		
	52400	744	242800	69620	PF 032KF97 DRS 160M4	680	291			
	45800	650	249000	69620	PH 032KF97 DRS 160M4	830	290			
	2.7	38300	543	197000	51190	PHF 032KF97 DRS 160M4	700	291		
		33100	470	197000	51190	P 022KF97 DRS 160M4	720	284		
		3.1	33100	470	197000	51190	PF 022KF97 DRS 160M4	620	285	
			1.9	53800	763	186800	51190	PH 022KF97 DRS 160M4	740	284
	48100			683	195200	51190	PHF 022KF97 DRS 160M4	640	285	
44200	628			197000	51190	P 022KF87 DRS 160M4	650	282		
39900	567	197000		51190	PF 022KF87 DRS 160M4	550	283			
34700	493	197000	51190	PH 022KF87 DRS 160M4	660	282				
30800	438	197000	51190	PHF 022KF87 DRS 160M4	560	283				
27600	392	197000	51190							

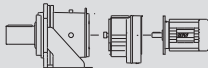


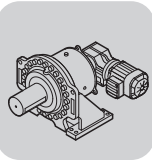
P.KF.. Bevel Planetary Gearmotors

IE1 motor standard – selection tables

P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]		m [kg]	
11.0	3.6	28800	408	156000	36810	P 012KF97	DRS 160M4	580 278
	4.3	24000	342	156000	36810	PF 012KF97	DRS 160M4	510 279
	5.2	19600	279	156000	36810	PH 012KF97	DRS 160M4	590 278
						PHF 012KF97	DRS 160M4	520 279
	2.6	39900	567	156000	36810	P 012KF87	DRS 160M4	500 276
	3.0	34700	493	156000	36810		DRS 160M4	430 277
	3.3	30800	438	156000	36810		DRS 160M4	520 276
	3.7	27600	392	156000	36810		DRS 160M4	445 277
	4.5	22900	325	156000	36810		DRS 160M4	
	5.2	19900	283	156000	36810		DRS 160M4	
	6.5	15800	225	149100	29500	P 002KF87	DRS 160M4	420 270
	4.5	22800	324	120500	24830		DRS 160M4	365 271
	5.2	19800	282	124000	24830		DRS 160M4	425 270
	7.5	13700	195	115700	24830		DRS 160M4	370 271
	9.0	11400	162	109400	24830		DRS 160M4	
	10	9920	141	104900	24800		DRS 160M4	
15.0	0.41	340900	3570	850000	500000	P 102KF187	DRS 160MC4	5720 324
	0.51	274000	2870	850000	500000	PF 102KF187	DRS 160MC4	4770 325
						PH 102KF187	DRS 160MC4	5780 324
						PHF 102KF187	DRS 160MC4	4830 325
	0.63	224600	2352	850000	500000	P 102KF167	DRS 160MC4	5090 322
	0.73	191400	2005	850000	500000	PF 102KF167	DRS 160MC4	4140 323
						PH 102KF167	DRS 160MC4	5160 322
						PHF 102KF167	DRS 160MC4	4200 323
	0.41	345400	3617	720000	423000	P 092KF187	DRS 160MC4	4870 320
	0.51	277700	2908	720000	423000	PF 092KF187	DRS 160MC4	4170 321
	0.56	249000	2608	720000	423000	PH 092KF187	DRS 160MC4	4880 320
	0.65	216200	2264	720000	423000	PHF 092KF187	DRS 160MC4	4180 321
	0.67	210900	2209	720000	423000	P 092KF167	DRS 160MC4	4240 318
	0.72	193900	2031	720000	423000		DRS 160MC4	3540 319
	0.83	168700	1767	720000	423000		DRS 160MC4	4250 318
	1.2	120800	1265	720000	423000		DRS 160MC4	3560 319
	1.2	116600	1221	720000	423000		DRS 160MC4	
	1.3	107800	1129	720000	423000	P 082KF157	DRS 160MC4	3370 316
	0.39	359200	3761	654600	359400		DRS 160MC4	2720 317
	0.43	328500	3440	679800	359400		DRS 160MC4	3360 316
	0.64	218700	2290	683000	359400		DRS 160MC4	2710 317
	0.72	194500	2038	683000	359400		DRS 160MC4	
	0.48	290100	3038	498400	245660	P 072KF157	DRS 160MC4	2710 314
						PF 072KF157	DRS 160MC4	2220 315
						PH 072KF157	DRS 160MC4	2760 314
						PHF 072KF157	DRS 160MC4	2270 315
	0.54	258000	2703	523000	245660	P 072KF127	DRS 160MC4	2420 312
	0.62	227700	2385	523000	245660		DRS 160MC4	1930 313
	0.71	196600	2060	523000	245660		DRS 160MC4	2470 312
	0.81	173900	1822	523000	245660		DRS 160MC4	1980 313
	0.96	146100	1531	523000	245660		DRS 160MC4	
	1.1	131800	1381	523000	245660	P 062KF127	DRS 160MC4	1990 310
	0.69	202600	2121	425300	185660		DRS 160MC4	1630 311
	0.78	179200	1876	443500	185660		DRS 160MC4	1980 310
	0.93	150600	1577	462700	185660		DRS 160MC4	1620 311
	1.0	135800	1422	471500	185660		DRS 160MC4	
	1.2	117500	1231	473000	185660	P 062KF107	DRS 160MC4	1800 308
	0.89	158600	1661	457600	185660		DRS 160MC4	1440 309
	1.0	138600	1452	469800	185660		DRS 160MC4	1790 308
	1.2	117200	1227	473000	185660		DRS 160MC4	1420 309
	1.3	108600	1138	473000	185660		DRS 160MC4	
	1.4	98500	1033	473000	185660	P 052KF107	DRS 160MC4	1320 304
	1.0	138600	1452	343700	124060		DRS 160MC4	1120 305
	1.2	117200	1227	361800	124060		DRS 160MC4	1310 304
	1.4	98500	1033	364000	124060		DRS 160MC4	1110 305
	1.7	84700	887	364000	124060		DRS 160MC4	
	1.9	73900	774	364000	124060	P 052KF97	DRS 160MC4	1200 302
	1.7	83800	878	364000	124060		DRS 160MC4	1000 303
	2.0	71000	744	364000	124060		DRS 160MC4	1190 302
							DRS 160MC4	990 303

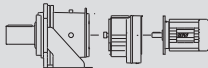


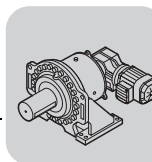
P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]					m [kg]	
15.0	1.3	108600	1138	286500	100170	P	042KF107	DRS	160MC4	1170	298
						PF	042KF107	DRS	160MC4	980	299
						PH	042KF107	DRS	160MC4	1170	298
						PHF	042KF107	DRS	160MC4	980	299
	1.5	92700	971	302900	100170	P	042KF97	DRS	160MC4	1060	296
	1.7	83800	878	310900	100170	PF	042KF97	DRS	160MC4	870	297
	2.0	71000	744	321100	100170	PH	042KF97	DRS	160MC4	1060	296
	2.3	62000	650	323000	100170	PHF	042KF97	DRS	160MC4	870	297
	2.7	51800	543	323000	100170						
	2.0	71000	744	221400	69620	P	032KF97	DRS	160MC4	810	290
	2.3	62000	650	232600	69620	PF	032KF97	DRS	160MC4	690	291
	2.7	51800	543	243400	69620	PH	032KF97	DRS	160MC4	830	290
	3.1	44900	470	249800	69620	PHF	032KF97	DRS	160MC4	710	291
	3.6	39000	408	252000	69620						
	2.7	51800	543	189800	51190	P	022KF97	DRS	160MC4	730	284
	3.1	44900	470	197000	51190	PF	022KF97	DRS	160MC4	630	285
	3.6	39000	408	197000	51190	PH	022KF97	DRS	160MC4	740	284
	4.3	32600	342	197000	51190	PHF	022KF97	DRS	160MC4	640	285
	4.4	31800	333	197000	51190						
	5.3	26600	279	197000	51190						
	6.1	23000	241	197000	51190						
	3.6	39000	408	156000	36810	P	012KF97	DRS	160MC4	580	278
	4.3	32600	342	156000	36810	PF	012KF97	DRS	160MC4	510	279
	5.3	26600	279	156000	36810	PH	012KF97	DRS	160MC4	600	278
	6.1	23000	241	152000	36810	PHF	012KF97	DRS	160MC4	530	279
	7.0	19900	209	145700	36810						
	8.4	16700	175	138100	36810						
	6.3	22300	234	121200	24830	P	002KF97	DRS	160MC4	500	272
	7.2	19400	203	116900	24830	PF	002KF97	DRS	160MC4	445	273
						PH	002KF97	DRS	160MC4	510	272
						PHF	002KF97	DRS	160MC4	450	273
	9.1	15400	162	109200	24830	P	002KF87	DRS	160MC4	425	270
	10	13400	141	104700	24800	PF	002KF87	DRS	160MC4	370	271
						PH	002KF87	DRS	160MC4	430	270
						PHF	002KF87	DRS	160MC4	375	271
18.5	0.41	421900	3570	850000	500000	P	102KF187	DRS	180M4	5770	324
	0.51	339100	2870	850000	500000	PF	102KF187	DRS	180M4	4810	325
	0.57	304200	2574	850000	500000	PH	102KF187	DRS	180M4	5830	324
	0.66	264100	2235	850000	500000	PHF	102KF187	DRS	180M4	4870	325
	0.73	236900	2005	850000	500000	P	102KF167	DRS	180M4	5140	322
	0.88	196300	1661	850000	500000	PF	102KF167	DRS	180M4	4180	323
	1.2	147500	1249	850000	500000	PH	102KF167	DRS	180M4	5200	322
	1.3	131600	1114	850000	500000	PHF	102KF167	DRS	180M4	4240	323
	0.40	427500	3617	720000	423000	P	092KF187	DRS	180M4	4910	320
	0.50	343600	2908	720000	423000	PF	092KF187	DRS	180M4	4220	321
	0.56	308200	2608	720000	423000	PH	092KF187	DRS	180M4	4920	320
	0.65	267600	2264	720000	423000	PHF	092KF187	DRS	180M4	4230	321
	0.71	242800	2054	720000	423000						
	0.83	208800	1767	720000	423000	P	092KF167	DRS	180M4	4280	318
	0.87	198900	1683	720000	423000	PF	092KF167	DRS	180M4	3580	319
	1.2	149500	1265	720000	423000	PH	092KF167	DRS	180M4	4300	318
	1.2	144300	1221	720000	423000	PHF	092KF167	DRS	180M4	3600	319
	1.3	133400	1129	720000	423000						
	1.4	123000	1041	720000	423000						
	1.5	113700	962	720000	423000						
	0.43	406500	3440	608800	359400	P	082KF157	DRS	180M4	3410	316
	0.49	353700	2993	659500	359400	PF	082KF157	DRS	180M4	2760	317
	0.55	312200	2641	683000	359400	PH	082KF157	DRS	180M4	3400	316
	0.64	270600	2290	683000	359400	PHF	082KF157	DRS	180M4	2750	317
	0.72	240800	2038	683000	359400						
	0.63	274600	2325	516000	245660	P	072KF157	DRS	180M4	2750	314
						PF	072KF157	DRS	180M4	2260	315
						PH	072KF157	DRS	180M4	2800	314
						PHF	072KF157	DRS	180M4	2310	315
	0.71	243300	2060	523000	245660	P	072KF127	DRS	180M4	2460	312
	0.80	215200	1822	523000	245660	PF	072KF127	DRS	180M4	1970	313
	0.96	180900	1531	523000	245660	PH	072KF127	DRS	180M4	2510	312
	1.1	163100	1381	523000	245660	PHF	072KF127	DRS	180M4	2020	313

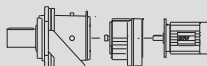


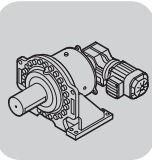
P.KF.. Bevel Planetary Gearmotors

IE1 motor standard – selection tables

P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]					m [kg]	
18.5	0.78	221700	1876	408500	185660	P	062KF127	DRS	180M4	2040	310
	0.93	186300	1577	438100	185660	PF	062KF127	DRS	180M4	1670	311
	1.0	168000	1422	451300	185660	PH	062KF127	DRS	180M4	2030	310
	1.2	145400	1231	465800	185660	PHF	062KF127	DRS	180M4	1660	311
	1.2	145000	1227	466100	185660	P	062KF107	DRS	180M4	1840	308
	1.3	134400	1138	472200	185660	PF	062KF107	DRS	180M4	1480	309
	1.4	122000	1033	473000	185660	PH	062KF107	DRS	180M4	1830	308
						PHF	062KF107	DRS	180M4	1470	309
	1.3	134400	1138	347500	124060	P	052KF107	DRS	180M4	1360	304
	1.4	122000	1033	358000	124060	PF	052KF107	DRS	180M4	1160	305
	1.6	104800	887	364000	124060	PH	052KF107	DRS	180M4	1350	304
	1.9	91500	774	364000	124060	PHF	052KF107	DRS	180M4	1150	305
	1.6	104800	887	290700	100170	P	042KF107	DRS	180M4	1220	298
						PF	042KF107	DRS	180M4	1030	299
						PH	042KF107	DRS	180M4	1220	298
						PHF	042KF107	DRS	180M4	1030	299
	2.0	87900	744	307300	100170	P	042KF97	DRS	180M4	1100	296
	2.2	76700	650	316700	100170	PF	042KF97	DRS	180M4	910	297
	2.7	64200	543	323000	100170	PH	042KF97	DRS	180M4	1100	296
						PHF	042KF97	DRS	180M4	910	297
	2.2	76700	650	213300	69620	P	032KF97	DRS	180M4	850	290
	2.7	64200	543	230000	69620	PF	032KF97	DRS	180M4	730	291
	3.1	55600	470	239700	69620	PH	032KF97	DRS	180M4	870	290
	3.6	48200	408	246800	69620	PHF	032KF97	DRS	180M4	750	291
	3.1	55600	470	183900	51190						
	3.6	48200	408	195000	51190	P	022KF97	DRS	180M4	770	284
	4.3	40300	342	197000	51190	PF	022KF97	DRS	180M4	670	285
	4.4	39300	333	197000	51190	PH	022KF97	DRS	180M4	790	284
	5.3	32900	279	197000	51190	PHF	022KF97	DRS	180M4	690	285
	6.1	28500	241	197000	51190						
	4.3	40300	342	156000	36810						
	4.4	39300	333	156000	36810	P	012KF97	DRS	180M4	630	278
	5.3	32900	279	156000	36810	PF	012KF97	DRS	180M4	560	279
	6.1	28500	241	152200	36810	PH	012KF97	DRS	180M4	640	278
	7.0	24700	209	145800	36810	PHF	012KF97	DRS	180M4	570	279
	8.4	20600	175	138200	36810						
	7.2	24000	203	117000	24830	P	002KF97	DRS	180M4	550	272
	8.6	20000	170	110900	24830	PF	002KF97	DRS	180M4	490	273
						PH	002KF97	DRS	180M4	550	272
						PHF	002KF97	DRS	180M4	490	273
22	0.41	501700	3570	850000	500000	P	102KF187	DRS	180L4	5780	324
	0.51	403300	2870	850000	500000	PF	102KF187	DRS	180L4	4820	325
	0.57	361700	2574	850000	500000	PH	102KF187	DRS	180L4	5840	324
	0.66	314100	2235	850000	500000	PHF	102KF187	DRS	180L4	4880	325
	0.72	284900	2028	850000	500000						
	0.88	233400	1661	850000	500000	P	102KF167	DRS	180L4	5150	322
	1.2	175400	1249	850000	500000	PF	102KF167	DRS	180L4	4190	323
	1.3	156500	1114	850000	500000	PH	102KF167	DRS	180L4	5210	322
	1.5	133400	949	850000	500000	PHF	102KF167	DRS	180L4	4250	323
	0.40	508400	3617	671400	423000						
	0.50	408700	2908	720000	423000	P	092KF187	DRS	180L4	4920	320
	0.56	366500	2608	720000	423000	PF	092KF187	DRS	180L4	4230	321
	0.65	318200	2264	720000	423000	PH	092KF187	DRS	180L4	4940	320
	0.71	288700	2054	720000	423000	PHF	092KF187	DRS	180L4	4240	321
	0.83	248700	1770	720000	423000						
	1.2	177800	1265	720000	423000						
	1.2	171600	1221	720000	423000	P	092KF167	DRS	180L4	4290	318
	1.3	158600	1129	720000	423000	PF	092KF167	DRS	180L4	3600	319
	1.4	146300	1041	720000	423000	PH	092KF167	DRS	180L4	4310	318
	1.5	135200	962	720000	423000	PHF	092KF167	DRS	180L4	3610	319
	1.7	121200	863	720000	423000						
	1.8	112000	797	720000	423000						
	0.55	371200	2641	643700	359400	P	082KF157	DRS	180L4	3420	316
	0.64	321800	2290	683000	359400	PF	082KF157	DRS	180L4	2770	317
	0.72	286300	2038	683000	359400	PH	082KF157	DRS	180L4	3410	316
	0.83	246800	1756	683000	359400	PHF	082KF157	DRS	180L4	2760	317
	1.0	200500	1427	683000	359400						

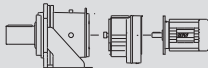


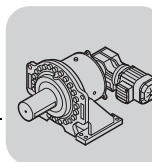
P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]						m [kg]	
22	0.71	290600	2068	497800	245660	P	072KF157	DRS	180L4	2760	314	
	1.0	203500	1449	523000	245660	PF	072KF157	DRS	180L4	2270	315	
						PH	072KF157	DRS	180L4	2820	314	
						PHF	072KF157	DRS	180L4	2320	315	
	0.80	256000	1822	523000	245660	P	072KF127	DRS	180L4	2470	312	
	1.1	194000	1381	523000	245660	PF	072KF127	DRS	180L4	1980	313	
	1.2	167900	1195	523000	245660	PH	072KF127	DRS	180L4	2520	312	
	1.4	148100	1055	523000	245660	PHF	072KF127	DRS	180L4	2030	313	
	1.6	127900	911	523000	245660							
	0.93	221600	1577	408700	185660	P	062KF127	DRS	180L4	2050	310	
	1.0	199800	1422	427500	185660	PF	062KF127	DRS	180L4	1680	311	
	1.2	172900	1231	447900	185660	PH	062KF127	DRS	180L4	2040	310	
	1.4	152600	1086	461400	185660	PHF	062KF127	DRS	180L4	1670	311	
	1.6	131800	938	473000	185660							
	1.8	116500	830	473000	185660							
	2.1	97900	697	473000	185660							
	1.3	159800	1138	456800	185660	P	062KF107	DRS	180L4	1860	308	
	1.4	145000	1033	466100	185660	PF	062KF107	DRS	180L4	1490	309	
	1.6	124700	887	473000	185660	PH	062KF107	DRS	180L4	1840	308	
	1.9	108800	774	473000	185660	PHF	062KF107	DRS	180L4	1480	309	
	2.2	92300	657	473000	185660							
	2.6	80600	574	473000	185660							
	2.6	79100	563	364000	124060	P	052KF127	DRS	180L4	1560	306	
	2.9	70400	502	364000	124060	PF	052KF127	DRS	180L4	1360	307	
						PH	052KF127	DRS	180L4	1560	306	
						PHF	052KF127	DRS	180L4	1360	307	
	1.6	124700	887	355800	124060	P	052KF107	DRS	180L4	1370	304	
	2.2	92300	657	364000	124060	PF	052KF107	DRS	180L4	1170	305	
						PH	052KF107	DRS	180L4	1360	304	
						PHF	052KF107	DRS	180L4	1160	305	
	2.7	76300	543	364000	124060	P	052KF97	DRS	180L4	1260	302	
	3.1	66100	470	364000	124060	PF	052KF97	DRS	180L4	1060	303	
						PH	052KF97	DRS	180L4	1250	302	
						PHF	052KF97	DRS	180L4	1050	303	
	3.5	59200	421	323000	100170	P	042KF127	DRS	180L4	1420	300	
						PF	042KF127	DRS	180L4	1230	301	
						PH	042KF127	DRS	180L4	1420	300	
						PHF	042KF127	DRS	180L4	1230	301	
	1.9	108800	774	286300	100170	P	042KF107	DRS	180L4	1230	298	
	2.6	80600	574	313500	100170	PF	042KF107	DRS	180L4	1040	299	
	2.8	74000	527	318800	100170	PH	042KF107	DRS	180L4	1230	298	
	3.2	64600	460	323000	100170	PHF	042KF107	DRS	180L4	1040	299	
	3.8	54800	390	321900	100170							
	2.2	91300	650	304200	100170	P	042KF97	DRS	180L4	1110	296	
	3.6	57400	408	323000	100170	PF	042KF97	DRS	180L4	920	297	
	4.3	48000	342	309400	100170	PH	042KF97	DRS	180L4	1120	296	
						PHF	042KF97	DRS	180L4	930	297	
	5.1	40500	289	238100	69620	P	032KF127	DRS	180L4	1170	294	
	5.7	36100	257	230000	69620	PF	032KF127	DRS	180L4	1050	295	
						PH	032KF127	DRS	180L4	1190	294	
						PHF	032KF127	DRS	180L4	1070	295	
	3.8	54800	390	240500	69620	P	032KF107	DRS	180L4	980	292	
	4.3	47900	341	247100	69620	PF	032KF107	DRS	180L4	860	293	
	5.0	41300	294	239500	69620	PH	032KF107	DRS	180L4	1000	292	
	5.4	37900	270	233500	69620	PHF	032KF107	DRS	180L4	880	293	
	2.7	76300	543	213900	69620	P	032KF97	DRS	180L4	860	290	
	3.1	66100	470	227700	69620	PF	032KF97	DRS	180L4	740	291	
	5.3	39100	279	235600	69620	PH	032KF97	DRS	180L4	890	290	
	6.1	33800	241	225700	69620	PHF	032KF97	DRS	180L4	760	291	
	6.2	33100	236	197000	51190	P	022KF107	DRS	180L4	900	286	
	7.3	28100	200	197000	51190	PF	022KF107	DRS	180L4	800	287	
	8.4	24500	175	197000	51190	PH	022KF107	DRS	180L4	910	286	
						PHF	022KF107	DRS	180L4	810	287	

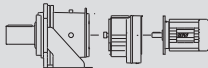


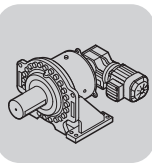
P.KF.. Bevel Planetary Gearmotors

IE1 motor standard – selection tables

P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]		m [kg]	
22	3.6	57400	408	180900	51190			
	4.3	48000	342	195400	51190	P 022KF97 DRS 180L4	780	284
	4.4	46800	333	197000	51190	PF 022KF97 DRS 180L4	680	285
	5.3	39100	279	197000	51190	PH 022KF97 DRS 180L4	800	284
	7.0	29400	209	197000	51190	PHF 022KF97 DRS 180L4	700	285
	8.4	24600	175	197000	51190			
	6.1	33800	241	152200	36810	P 012KF97 DRS 180L4	640	278
	7.0	29400	209	145800	36810	PF 012KF97 DRS 180L4	570	279
	8.4	24600	175	138200	36810	PH 012KF97 DRS 180L4	650	278
						PHF 012KF97 DRS 180L4	580	279
30	0.51	548100	2870	850000	500000			
	0.57	491600	2574	850000	500000	P 102KF187 DRS 180LC4	5790	324
	0.66	426800	2235	850000	500000	PF 102KF187 DRS 180LC4	4830	325
	0.72	387200	2028	850000	500000	PH 102KF187 DRS 180LC4	5850	324
	0.84	333600	1747	850000	500000	PHF 102KF187 DRS 180LC4	4890	325
	1.0	280300	1468	850000	500000			
	1.2	238400	1249	850000	500000	P 102KF167 DRS 180LC4	5160	322
	1.3	212700	1114	850000	500000	PF 102KF167 DRS 180LC4	4200	323
	1.6	181300	949	850000	500000	PH 102KF167 DRS 180LC4	5220	322
	1.9	150200	787	850000	500000	PHF 102KF167 DRS 180LC4	4260	323
	2.2	128200	671	850000	500000			
	0.56	498100	2608	682800	423000	P 092KF187 DRS 180LC4	4940	320
	0.65	432500	2264	720000	423000	PF 092KF187 DRS 180LC4	4240	321
	0.72	392400	2054	720000	423000	PH 092KF187 DRS 180LC4	4950	320
	0.83	338000	1770	720000	423000	PHF 092KF187 DRS 180LC4	4250	321
	0.99	284100	1487	720000	423000			
	1.1	246000	1288	720000	423000			
	1.4	198800	1041	720000	423000	P 092KF167 DRS 180LC4	4300	318
	1.5	183700	962	720000	423000	PF 092KF167 DRS 180LC4	3610	319
	1.7	164700	863	720000	423000	PH 092KF167 DRS 180LC4	4320	318
	1.8	152200	797	720000	423000	PHF 092KF167 DRS 180LC4	3620	319
	2.0	140600	736	720000	423000			
	2.2	129900	680	720000	423000			
	2.3	123800	649	720000	423000			
	2.5	110500	579	720000	423000			
	0.72	389100	2038	626500	359400	P 082KF157 DRS 180LC4	3430	316
	0.84	335400	1756	675000	359400	PF 082KF157 DRS 180LC4	2780	317
	1.0	272500	1427	683000	359400	PH 082KF157 DRS 180LC4	3420	316
	1.2	224400	1175	683000	359400	PHF 082KF157 DRS 180LC4	2770	317
	1.4	198000	1037	683000	359400			
	1.0	276600	1449	513900	245660	P 072KF157 DRS 180LC4	2770	314
						PF 072KF157 DRS 180LC4	2280	315
						PH 072KF157 DRS 180LC4	2830	314
						PHF 072KF157 DRS 180LC4	2340	315
	1.1	263600	1381	523000	245660	P 072KF127 DRS 180LC4	2480	312
	1.2	228100	1195	523000	245660	PF 072KF127 DRS 180LC4	1990	313
	1.4	201300	1055	523000	245660	PH 072KF127 DRS 180LC4	2540	312
	1.6	173800	911	523000	245660	PHF 072KF127 DRS 180LC4	2050	313
	1.8	153800	806	523000	245660			
	1.4	207400	1086	421200	185660	P 062KF127 DRS 180LC4	2060	310
	1.6	179100	938	443500	185660	PF 062KF127 DRS 180LC4	1700	311
	1.8	158400	830	457700	185660	PH 062KF127 DRS 180LC4	2050	310
	2.1	133100	697	472900	185660	PHF 062KF127 DRS 180LC4	1690	311
	2.6	107500	563	473000	185660			
	1.7	169400	887	450400	185660	P 062KF107 DRS 180LC4	1870	308
	1.9	147900	774	464300	185660	PF 062KF107 DRS 180LC4	1500	309
						PH 062KF107 DRS 180LC4	1860	308
						PHF 062KF107 DRS 180LC4	1490	309
	2.6	107500	563	364000	124060	P 052KF127 DRS 180LC4	1580	306
	2.9	95800	502	364000	124060	PF 052KF127 DRS 180LC4	1380	307
	3.5	80500	421	364000	124060	PH 052KF127 DRS 180LC4	1570	306
						PHF 052KF127 DRS 180LC4	1370	307
	2.2	125400	657	355200	124060	P 052KF107 DRS 180LC4	1380	304
	3.8	74500	390	364000	124060	PF 052KF107 DRS 180LC4	1180	305
						PH 052KF107 DRS 180LC4	1370	304
						PHF 052KF107 DRS 180LC4	1170	305

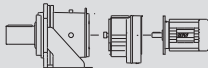


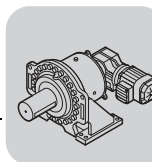
P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]						m [kg]	
30	3.5	80500	421	313700	100170	P	042KF127	DRS	180LC4	1430	300	
	4.3	65000	341	308800	100170	PF	042KF127	DRS	180LC4	1240	301	
						PH	042KF127	DRS	180LC4	1440	300	
						PHF	042KF127	DRS	180LC4	1250	301	
	2.6	109600	574	285400	100170	P	042KF107	DRS	180LC4	1240	298	
	2.8	100600	527	295100	100170	PF	042KF107	DRS	180LC4	1050	299	
	3.2	87800	460	307400	100170	PH	042KF107	DRS	180LC4	1240	298	
	3.8	74500	390	318500	100170	PHF	042KF107	DRS	180LC4	1050	299	
	4.3	65100	341	309000	100170							
	5.1	55100	289	238000	69620	P	032KF127	DRS	180LC4	1180	294	
	5.7	49100	257	229800	69620	PF	032KF127	DRS	180LC4	1060	295	
						PH	032KF127	DRS	180LC4	1210	294	
						PHF	032KF127	DRS	180LC4	1090	295	
	3.8	74500	390	216600	69620	P	032KF107	DRS	180LC4	990	292	
	4.3	65100	341	228900	69620	PF	032KF107	DRS	180LC4	870	293	
	5.0	56200	294	239000	69620	PH	032KF107	DRS	180LC4	1010	292	
	5.4	51500	270	233300	69620	PHF	032KF107	DRS	180LC4	890	293	
	6.2	45000	236	223900	69620							
	5.3	53200	279	235400	69620	P	032KF97	DRS	180LC4	880	290	
	6.1	46000	241	225400	69620	PF	032KF97	DRS	180LC4	760	291	
	8.4	33400	175	204800	52400	PH	032KF97	DRS	180LC4	900	290	
						PHF	032KF97	DRS	180LC4	780	291	
	6.2	45000	236	197000	51190	P	022KF107	DRS	180LC4	910	286	
	7.4	38100	200	197000	51190	PF	022KF107	DRS	180LC4	810	287	
	8.4	33300	175	197000	51190	PH	022KF107	DRS	180LC4	930	286	
						PHF	022KF107	DRS	180LC4	820	287	
	6.1	46000	241	197000	51190	P	022KF97	DRS	180LC4	800	284	
	8.4	33400	175	197000	51190	PF	022KF97	DRS	180LC4	690	285	
						PH	022KF97	DRS	180LC4	810	284	
						PHF	022KF97	DRS	180LC4	710	285	
	8.4	33300	175	138000	36810	P	012KF107	DRS	180LC4	760	280	
						PF	012KF107	DRS	180LC4	690	281	
						PH	012KF107	DRS	180LC4	780	280	
						PHF	012KF107	DRS	180LC4	710	281	
	8.4	33400	175	138100	36810	P	012KF97	DRS	180LC4	650	278	
						PF	012KF97	DRS	180LC4	580	279	
						PH	012KF97	DRS	180LC4	660	278	
						PHF	012KF97	DRS	180LC4	590	279	
37	0.57	604200	2574	809400	500000							
	0.66	524600	2235	850000	500000	P	102KF187	DRS	225S4	5920	324	
	0.73	476000	2028	850000	500000	PF	102KF187	DRS	225S4	4960	325	
	0.84	410000	1747	850000	500000	PH	102KF187	DRS	225S4	5980	324	
	1.0	344600	1468	850000	500000	PHF	102KF187	DRS	225S4	5020	325	
	1.2	298300	1271	850000	500000							
	1.6	222900	949	850000	500000	P	102KF167	DRS	225S4	5290	322	
	1.9	184700	787	850000	500000	PF	102KF167	DRS	225S4	4330	323	
	2.2	157600	671	850000	500000	PH	102KF167	DRS	225S4	5350	322	
						PHF	102KF167	DRS	225S4	4390	323	
	0.65	531600	2264	644100	423000							
	0.72	482400	2054	699700	423000	P	092KF187	DRS	225S4	5060	320	
	0.83	415500	1770	720000	423000	PF	092KF187	DRS	225S4	4360	321	
	0.99	349200	1487	720000	423000	PH	092KF187	DRS	225S4	5080	320	
	1.2	302300	1288	720000	423000	PHF	092KF187	DRS	225S4	4380	321	
	1.4	251900	1073	720000	423000							
	1.6	214800	915	720000	423000							
	1.7	202500	863	720000	423000							
	1.8	187100	797	720000	423000							
	2.0	172800	736	720000	423000	P	092KF167	DRS	225S4	4430	318	
	2.2	159700	680	720000	423000	PF	092KF167	DRS	225S4	3740	319	
	2.3	152200	649	720000	423000	PH	092KF167	DRS	225S4	4440	318	
	2.6	135800	579	720000	423000	PHF	092KF167	DRS	225S4	3750	319	
	3.0	115700	493	720000	423000							
	0.84	412300	1756	602700	359400	P	082KF157	DRS	225S4	3560	316	
	1.0	335000	1427	675400	359400	PF	082KF157	DRS	225S4	2910	317	
	1.3	275800	1175	683000	359400	PH	082KF157	DRS	225S4	3550	316	
	1.4	243400	1037	683000	359400	PHF	082KF157	DRS	225S4	2900	317	
	1.6	211000	899	683000	359400							

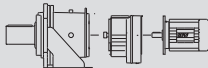


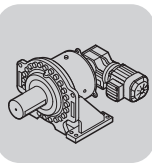
P.KF.. Bevel Planetary Gearmotors

IE1 motor standard – selection tables

P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]						m [kg]	
37	1.2	280400	1195	509500	245660		P	072KF127	DRS	225S4	2610	312
	1.4	247400	1055	523000	245660		PF	072KF127	DRS	225S4	2120	313
	1.6	213700	911	523000	245660		PH	072KF127	DRS	225S4	2660	312
	1.8	189000	806	523000	245660		PHF	072KF127	DRS	225S4	2170	313
	2.2	158800	677	523000	245660							
	1.8	194700	830	431700	185660		P	062KF127	DRS	225S4	2190	310
	2.1	163600	697	454300	185660		PF	062KF127	DRS	225S4	1820	311
	2.6	132100	563	473000	185660		PH	062KF127	DRS	225S4	2180	310
	2.9	117700	502	473000	185660		PHF	062KF127	DRS	225S4	1810	311
	3.5	98900	421	473000	185660							
	2.6	132100	563	349500	124060		P	052KF127	DRS	225S4	1700	306
	2.9	117700	502	361400	124060		PF	052KF127	DRS	225S4	1500	307
	3.5	98900	421	364000	124060		PH	052KF127	DRS	225S4	1700	306
	4.3	79900	341	355900	124060		PHF	052KF127	DRS	225S4	1500	307
	3.8	91500	390	364000	124060		P	052KF107	DRS	225S4	1510	304
	4.3	80000	341	355900	124060		PF	052KF107	DRS	225S4	1310	305
							PH	052KF107	DRS	225S4	1500	304
							PHF	052KF107	DRS	225S4	1300	305
	3.5	98900	421	296800	100170		P	042KF127	DRS	225S4	1560	300
	4.3	79900	341	308600	100170		PF	042KF127	DRS	225S4	1370	301
							PH	042KF127	DRS	225S4	1560	300
							PHF	042KF127	DRS	225S4	1370	301
	3.8	91500	390	304000	100170		P	042KF107	DRS	225S4	1360	298
	4.3	80000	341	308600	100170		PF	042KF107	DRS	225S4	1170	299
							PH	042KF107	DRS	225S4	1370	298
							PHF	042KF107	DRS	225S4	1180	299
	5.1	67700	289	225700	69620		P	032KF127	DRS	225S4	1310	294
	5.7	60300	257	229500	69620		PF	032KF127	DRS	225S4	1190	295
							PH	032KF127	DRS	225S4	1330	294
							PHF	032KF127	DRS	225S4	1210	295
	4.3	80000	341	208400	69620		P	032KF107	DRS	225S4	1120	292
	5.0	69000	294	224000	69620		PF	032KF107	DRS	225S4	1000	293
	7.4	46900	200	212900	69620		PH	032KF107	DRS	225S4	1140	292
	8.4	41000	175	204500	69620		PHF	032KF107	DRS	225S4	1020	293
	7.4	46900	200	196900	51190		P	022KF107	DRS	225S4	1040	286
	8.4	41000	175	197000	51190		PF	022KF107	DRS	225S4	930	287
							PH	022KF107	DRS	225S4	1050	286
							PHF	022KF107	DRS	225S4	950	287
45	0.73	577000	2028	830100	500000							
	0.85	497000	1747	850000	500000		P	102KF187	DRS	225M4	5940	324
	1.0	417700	1468	850000	500000		PF	102KF187	DRS	225M4	4980	325
	1.2	361600	1271	850000	500000		PH	102KF187	DRS	225M4	6000	324
	1.4	301400	1059	850000	500000		PHF	102KF187	DRS	225M4	5040	325
	1.6	256900	903	850000	500000							
	1.9	223800	787	850000	500000		P	102KF167	DRS	225M4	5310	322
	2.2	191000	671	850000	500000		PF	102KF167	DRS	225M4	4350	323
							PH	102KF167	DRS	225M4	5370	322
							PHF	102KF167	DRS	225M4	4410	323
	0.84	503600	1770	676700	423000		P	092KF187	DRS	225M4	5080	320
	0.99	423300	1487	720000	423000		PF	092KF187	DRS	225M4	4390	321
	1.2	366500	1288	720000	423000		PH	092KF187	DRS	225M4	5100	320
	1.4	305400	1073	720000	423000		PHF	092KF187	DRS	225M4	4400	321
	1.6	260400	915	720000	423000							
	1.9	220700	776	720000	423000							
	2.2	193600	680	720000	423000		P	092KF167	DRS	225M4	4450	318
	2.3	184500	649	720000	423000		PF	092KF167	DRS	225M4	3760	319
	2.6	164600	579	720000	423000		PH	092KF167	DRS	225M4	4470	318
	3.0	140300	493	720000	423000		PHF	092KF167	DRS	225M4	3770	319
	3.6	116200	409	720000	423000							
	1.3	334300	1175	675900	359400		P	082KF157	DRS	225M4	3580	316
	1.4	295000	1037	683000	359400		PF	082KF157	DRS	225M4	2930	317
	1.6	255700	899	683000	359400		PH	082KF157	DRS	225M4	3570	316
	1.8	227500	800	683000	359400		PHF	082KF157	DRS	225M4	2920	317
	2.2	196100	689	683000	359400							
	2.6	161700	568	523000	245660		P	072KF157	DRS	225M4	2920	314
	3.1	137100	482	523000	245660		PF	072KF157	DRS	225M4	2430	315
							PH	072KF157	DRS	225M4	2980	314
							PHF	072KF157	DRS	225M4	2480	315

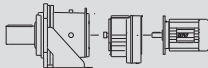


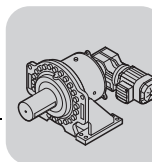
P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]						m [kg]	
45	1.6	259000	911	523000	245660							
	1.8	229100	806	523000	245660	P	072KF127	DRS	225M4	2630	312	
	2.2	192500	677	523000	245660	PF	072KF127	DRS	225M4	2140	313	
	2.7	155500	547	523000	245660	PH	072KF127	DRS	225M4	2680	312	
	3.0	138500	487	523000	245660	PHF	072KF127	DRS	225M4	2190	313	
	3.6	116400	409	523000	245660							
	2.1	198300	697	428700	185660	P	062KF127	DRS	225M4	2210	310	
	2.6	160200	563	456600	185660	PF	062KF127	DRS	225M4	1840	311	
	3.0	142700	502	467500	185660	PH	062KF127	DRS	225M4	2200	310	
	3.5	119900	421	473000	185660	PHF	062KF127	DRS	225M4	1830	311	
	4.4	96800	341	444300	185660							
	3.0	142700	502	339900	124060	P	052KF127	DRS	225M4	1720	306	
	3.5	119900	421	359600	124060	PF	052KF127	DRS	225M4	1520	307	
	4.4	96800	341	355400	124060	PH	052KF127	DRS	225M4	1720	306	
						PHF	052KF127	DRS	225M4	1520	307	
	4.4	96800	341	298900	100170	P	042KF127	DRS	225M4	1580	300	
	5.1	82100	289	293300	100170	PF	042KF127	DRS	225M4	1390	301	
	5.8	73100	257	283300	100170	PH	042KF127	DRS	225M4	1580	300	
						PHF	042KF127	DRS	225M4	1390	301	
	6.8	61400	216	217700	69620	P	032KF127	DRS	225M4	1330	294	
	8.5	49600	175	204200	69620	PF	032KF127	DRS	225M4	1210	295	
						PH	032KF127	DRS	225M4	1350	294	
						PHF	032KF127	DRS	225M4	1230	295	
55	0.85	607500	1747	806900	500000							
	1.0	510500	1468	850000	500000	P	102KF187	DRS	225MC4	5960	324	
	1.2	442000	1271	850000	500000	PF	102KF187	DRS	225MC4	5000	325	
	1.4	368300	1059	850000	500000	PH	102KF187	DRS	225MC4	6020	324	
	1.6	314000	903	850000	500000	PHF	102KF187	DRS	225MC4	5060	325	
	1.9	266200	766	850000	500000							
	2.2	233500	671	850000	500000	P	102KF167	DRS	225MC4	5330	322	
						PF	102KF167	DRS	225MC4	4370	323	
						PH	102KF167	DRS	225MC4	5390	322	
						PHF	102KF167	DRS	225MC4	4430	323	
	0.99	517300	1487	661100	423000							
	1.2	447900	1288	720000	423000	P	092KF187	DRS	225MC4	5100	320	
	1.4	373200	1073	720000	423000	PF	092KF187	DRS	225MC4	4410	321	
	1.6	318200	915	720000	423000	PH	092KF187	DRS	225MC4	5120	320	
	1.9	269800	776	720000	423000	PHF	092KF187	DRS	225MC4	4420	321	
	2.2	232400	668	720000	423000							
	2.6	201200	579	720000	423000	P	092KF167	DRS	225MC4	4480	318	
	3.0	171500	493	720000	423000	PF	092KF167	DRS	225MC4	3780	319	
	3.6	142100	409	720000	423000	PH	092KF167	DRS	225MC4	4490	318	
	4.2	121300	349	720000	423000	PHF	092KF167	DRS	225MC4	3790	319	
	1.3	408600	1175	606600	359400	P	082KF157	DRS	225MC4	3600	316	
	1.4	360600	1037	653400	359400	PF	082KF157	DRS	225MC4	2950	317	
	1.6	312600	899	683000	359400	PH	082KF157	DRS	225MC4	3590	316	
	1.8	278100	800	683000	359400	PHF	082KF157	DRS	225MC4	2940	317	
	2.2	239700	689	683000	359400							
	2.6	197600	568	523000	245660	P	072KF157	DRS	225MC4	2940	314	
	3.1	167600	482	523000	245660	PF	072KF157	DRS	225MC4	2450	315	
						PH	072KF157	DRS	225MC4	3000	314	
						PHF	072KF157	DRS	225MC4	2510	315	
	1.8	280000	806	510000	245660	P	072KF127	DRS	225MC4	2650	312	
	2.2	235300	677	523000	245660	PF	072KF127	DRS	225MC4	2160	313	
	3.0	169300	487	523000	245660	PH	072KF127	DRS	225MC4	2700	312	
	3.6	142300	409	523000	245660	PHF	072KF127	DRS	225MC4	2210	313	
	2.6	195800	563	430800	185660	P	062KF127	DRS	225MC4	2230	310	
	3.0	174400	502	446900	185660	PF	062KF127	DRS	225MC4	1860	311	
	3.5	146600	421	465100	185660	PH	062KF127	DRS	225MC4	2220	310	
	4.4	118400	341	444300	185660	PHF	062KF127	DRS	225MC4	1850	311	
	4.4	118400	341	355400	124060	P	052KF127	DRS	225MC4	1740	306	
	5.1	100300	289	338200	124060	PF	052KF127	DRS	225MC4	1540	307	
						PH	052KF127	DRS	225MC4	1740	306	
						PHF	052KF127	DRS	225MC4	1540	307	
	5.8	89400	257	283300	100170	P	042KF127	DRS	225MC4	1600	300	
	6.8	75100	216	268900	100170	PF	042KF127	DRS	225MC4	1410	301	
	8.5	60600	175	252200	100170	PH	042KF127	DRS	225MC4	1600	300	
						PHF	042KF127	DRS	225MC4	1410	301	

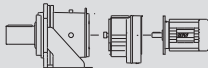


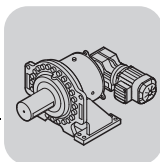
P.KF.. Bevel Planetary Gearmotors

IE1 motor standard – selection tables

P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]		m [kg]	
55	8.5	60600	175	204200	69620	P 032KF127 DRS 225MC4	1350	294
						PF 032KF127 DRS 225MC4	1230	295
						PH 032KF127 DRS 225MC4	1370	294
						PHF 032KF127 DRS 225MC4	1250	295
75	1.2	602800	1271	810600	500000	P 102KF187 DV 280S4	6210	324
	1.4	502300	1059	850000	500000		5260	325
	1.6	428300	903	850000	500000		6270	324
	1.9	363000	766	850000	500000		5320	325
	2.2	312700	660	850000	500000			
	2.7	262800	554	850000	500000	P 092KF187 DV 280S4	5360	320
	1.4	509000	1073	670700	423000		4660	321
	1.6	434000	915	720000	423000		5370	320
	1.9	367900	776	720000	423000		4670	321
	2.2	316900	668	720000	423000			
	2.6	266300	561	720000	423000	P 092KF167 DV 280S4	4730	318
	3.0	230600	486	720000	423000		4030	319
	3.6	193800	409	720000	423000		4740	318
	4.2	165400	349	720000	423000		4040	319
	1.8	379300	800	636100	359400	P 082KF157 DV 280S4	3850	316
	2.2	326900	689	680900	359400		3200	317
							3850	316
							3200	317
	2.6	269500	568	521500	245660	P 072KF157 DV 280S4	3200	314
	3.1	228600	482	523000	245660		2700	315
	3.5	202500	429	523000	245660		3250	314
	4.0	174600	369	523000	245660		2760	315
	5.0	141800	300	494900	245660	P 062KF127 DV 280S4	2480	310
	5.8	120300	254	471200	245660		2120	311
	4.4	161400	341	444300	185660		2470	310
							2110	311
	8.5	82700	175	290900	124060	P 052KF127 DV 280S4	2000	306
							1800	307
							1990	306
							1790	307
	8.5	82700	175	252200	100170	P 042KF127 DV 280S4	1850	300
							1660	301
							1860	300
							1670	301
90	1.4	602800	1059	810600	500000	P 102KF187 DV 280M4	6210	324
	1.6	513900	903	850000	500000		5260	325
	1.9	435700	766	850000	500000		6270	324
	2.2	375300	660	850000	500000		5320	325
	2.7	315400	554	850000	500000	P 092KF187 DV 280M4	5360	320
	3.1	273100	480	850000	500000		4660	321
	1.6	520800	915	657100	423000		5370	320
	1.9	441500	776	720000	423000		4670	321
	2.2	380300	668	720000	423000	P 092KF167 DV 280M4	4730	318
	2.6	319600	561	720000	423000		4030	319
	3.0	276700	486	720000	423000		4740	318
	3.6	230600	405	720000	423000		4040	319
	4.2	198400	349	720000	423000			
110	1.6	627300	903	791000	500000	P 102KF187 DRS 315K4	6440	324
	1.9	531800	766	850000	500000		5490	325
	2.2	458100	660	850000	500000		6510	324
	2.7	385000	554	850000	500000		5550	325
	3.1	333300	480	850000	500000			
	3.7	277700	400	850000	500000			



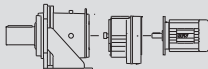
P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]					m [kg]	
110	2.2	464200	668	718100	423000	P	092KF187	DRS	315K4	5590	320
	2.6	390100	561	720000	423000	PF	092KF187	DRS	315K4	4890	321
	3.0	337700	486	720000	423000	PH	092KF187	DRS	315K4	5600	320
	3.7	281400	405	720000	423000	PHF	092KF187	DRS	315K4	4910	321
	4.3	240000	345	720000	423000						
132	2.2	548900	660	850000	500000	P	102KF187	DRS	315S4	6520	324
	2.7	461300	554	850000	500000	PF	102KF187	DRS	315S4	5570	325
	3.1	399400	480	850000	500000	PH	102KF187	DRS	315S4	6590	324
	3.7	332800	400	850000	500000	PHF	102KF187	DRS	315S4	5630	325
	4.4	283800	341	850000	500000						
	2.6	467500	561	714800	423000	P	092KF187	DRS	315S4	5670	320
	3.0	404800	486	720000	423000	PF	092KF187	DRS	315S4	4970	321
	3.7	337300	405	720000	423000	PH	092KF187	DRS	315S4	5680	320
	4.3	287600	345	720000	423000	PHF	092KF187	DRS	315S4	4990	321
160	2.7	559600	554	842600	500000	P	102KF187	DRS	315M4	6680	324
	3.1	484500	480	850000	500000	PF	102KF187	DRS	315M4	5730	325
	3.7	403700	400	850000	500000	PH	102KF187	DRS	315M4	6740	324
	4.4	344200	341	850000	500000	PHF	102KF187	DRS	315M4	5790	325
	3.0	491000	486	690600	423000	P	092KF187	DRS	315M4	5830	320
	3.7	409100	405	720000	423000	PF	092KF187	DRS	315M4	5130	321
	4.3	348800	345	720000	423000	PH	092KF187	DRS	315M4	5840	320
						PHF	092KF187	DRS	315M4	5140	321
200	3.1	606400	480	807700	500000	P	102KF187	DRS	315L4	6760	324
	3.7	505400	400	850000	500000	PF	102KF187	DRS	315L4	5810	325
	4.3	430900	341	850000	500000	PH	102KF187	DRS	315L4	6820	324
						PHF	102KF187	DRS	315L4	5870	325
	3.6	512100	405	667200	423000	P	092KF187	DRS	315L4	5910	320
	4.3	436600	345	720000	423000	PF	092KF187	DRS	315L4	5210	321
						PH	092KF187	DRS	315L4	5920	320
						PHF	092KF187	DRS	315L4	5220	321

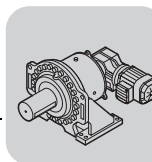


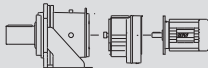
P.KF.. Bevel Planetary Gearmotors

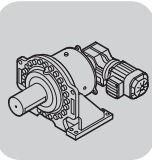
IE2 motor standard – selection tables

11.3 IE2 motor standard – selection tables

P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]		m [kg]	
0.75	0.36	19700	4029	156000	36810	P 012KF87 DRE 80M4	435	276
						PF 012KF87 DRE 80M4	365	277
						PH 012KF87 DRE 80M4	450	276
						PHF 012KF87 DRE 80M4	380	277
	0.41 0.47	17000 14900	3490 3063	156000	36810	P 012KF77 DRE 80M4	400	274
						PF 012KF77 DRE 80M4	330	275
						PH 012KF77 DRE 80M4	415	274
						PHF 012KF77 DRE 80M4	345	275
	0.38	18500	3793	124000	24830	P 002KF77 DRE 80M4	320	268
						PF 002KF77 DRE 80M4	260	269
						PH 002KF77 DRE 80M4	325	268
						PHF 002KF77 DRE 80M4	265	269
	0.41 0.48 0.53 0.61 0.64 0.75 0.83 0.96	17200 14600 13100 11500 10900 9320 8470 7340	3519 2984 2694 2371 2238 1906 1732 1500	124000 124000 124000 124000 124000 124000 124000 124000	24830 24830 24830 24830 24830 24830 24830 24830	P 002KF67 DRE 80M4	285	266
						PF 002KF67 DRE 80M4	230	267
						PH 002KF67 DRE 80M4	290	266
						PHF 002KF67 DRE 80M4	235	267
1.1	0.35 0.42 0.46	29200 24500 22500	4029 3387 3113	197000 197000 197000	51190 51190 51190	P 022KF87 DRE 90M4	590	282
						PF 022KF87 DRE 90M4	485	283
						PH 022KF87 DRE 90M4	600	282
						PHF 022KF87 DRE 90M4	500	283
	0.35 0.51	29200 20000	4029 2764	156000 156000	36810 36810	P 012KF87 DRE 90M4	440	276
						PF 012KF87 DRE 90M4	370	277
						PH 012KF87 DRE 90M4	455	276
						PHF 012KF87 DRE 90M4	385	277
	0.37 0.41 0.46 0.56 0.62 0.71 0.80	27600 25300 22200 18400 16500 14500 12800	3807 3490 3063 2540 2289 2008 1772	156000 156000 156000 156000 156000 156000 156000	36810 36810 36810 36810 36810 36810 36810	P 012KF77 DRE 90M4	400	274
						PF 012KF77 DRE 90M4	330	275
						PH 012KF77 DRE 90M4	415	274
						PHF 012KF77 DRE 90M4	345	275
	0.47 0.49	22100 20900	3051 2891	121500 123000	24830 24830	P 002KF77 DRE 90M4	320	268
						PF 002KF77 DRE 90M4	265	269
						PH 002KF77 DRE 90M4	325	268
						PHF 002KF77 DRE 90M4	270	269
	0.60 0.63 0.74 0.82 0.95 1.0 1.2 1.3 1.5	17100 16200 13800 12500 10800 10000 8550 7720 6790	2371 2238 1906 1732 1500 1392 1181 1066 938	124000 124000 124000 124000 124000 124000 124000 124000 124000	24830 24830 24830 24830 24830 24830 24830 24830 24830	P 002KF67 DRE 90M4	290	266
						PF 002KF67 DRE 90M4	235	267
						PH 002KF67 DRE 90M4	295	266
						PHF 002KF67 DRE 90M4	240	267
1.5	0.35 0.42 0.46	39500 33200 30500	4029 3387 3113	197000 197000 197000	51190 51190 51190	P 022KF87 DRE 90L4	590	282
						PF 022KF87 DRE 90L4	490	283
						PH 022KF87 DRE 90L4	610	282
						PHF 022KF87 DRE 90L4	500	283
	0.35 0.52	39500 27100	4029 2764	156000 156000	36810 36810	P 012KF87 DRE 90L4	440	276
						PF 012KF87 DRE 90L4	370	277
						PH 012KF87 DRE 90L4	455	276
						PHF 012KF87 DRE 90L4	385	277
	0.41 0.47 0.49 0.56 0.62 0.71 0.81	34200 30000 28500 24900 22400 19700 17300	3490 3063 2903 2540 2289 2008 1772	156000 156000 156000 156000 156000 156000 156000	36810 36810 36810 36810 36810 36810 36810	P 012KF77 DRE 90L4	405	274
						PF 012KF77 DRE 90L4	335	275
						PH 012KF77 DRE 90L4	420	274
						PHF 012KF77 DRE 90L4	350	275

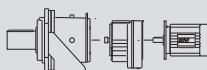


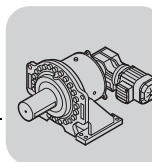
P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]						m [kg]	
1.5	0.63	22300	2280	121100	24830	P	002KF77	DRE	90L4	325	268	
		19600	2000	124000	24830	PF	002KF77	DRE	90L4	265	269	
	0.71					PH	002KF77	DRE	90L4	330	268	
						PHF	002KF77	DRE	90L4	270	269	
	0.83	17000	1732	124000	24830							
	0.95	14700	1500	124000	24830							
	1.0	13600	1392	124000	24830	P	002KF67	DRE	90L4	295	266	
	1.2	11500	1181	124000	24830	PF	002KF67	DRE	90L4	235	267	
	1.3	10400	1066	124000	24830	PH	002KF67	DRE	90L4	300	266	
	1.5	9200	938	124000	24830	PHF	002KF67	DRE	90L4	240	267	
	1.6	8690	886	124000	24830							
	1.9	7400	754	124000	24830							
2.2	0.35	59600	4124	235400	69620	P	032KF97	DRE	100M4	750	290	
		54800	3797	240400	69620	PF	032KF97	DRE	100M4	630	291	
	0.38					PH	032KF97	DRE	100M4	770	290	
						PHF	032KF97	DRE	100M4	650	291	
	0.35	58200	4029	179400	51190	P	022KF87	DRE	100M4	590	282	
	0.42	48900	3387	194100	51190	PF	022KF87	DRE	100M4	495	283	
	0.46	44900	3113	197000	51190	PH	022KF87	DRE	100M4	610	282	
	0.52	39900	2764	197000	51190	PHF	022KF87	DRE	100M4	510	283	
	0.58	35700	2471	197000	51190							
	0.52	39900	2764	156000	36810	P	012KF87	DRE	100M4	445	276	
	0.64	32100	2222	156000	36810	PF	012KF87	DRE	100M4	375	277	
	0.74	27800	1929	156000	36810	PH	012KF87	DRE	100M4	460	276	
	0.83	24900	1727	156000	36810	PHF	012KF87	DRE	100M4	390	277	
	0.99	20700	1433	156000	36810							
	0.56	36700	2540	156000	36810	P	012KF77	DRE	100M4	410	274	
	0.62	33000	2289	156000	36810	PF	012KF77	DRE	100M4	340	275	
	0.71	29000	2008	156000	36810	PH	012KF77	DRE	100M4	425	274	
	0.80	25600	1772	156000	36810	PHF	012KF77	DRE	100M4	355	275	
	1.0	19900	1381	156000	36810							
	0.91	22600	1565	120800	24830	P	002KF77	DRE	100M4	330	268	
	1.0	19800	1376	124000	24830	PF	002KF77	DRE	100M4	270	269	
						PH	002KF77	DRE	100M4	335	268	
						PHF	002KF77	DRE	100M4	275	269	
	1.2	17000	1181	124000	24830							
	1.3	15400	1066	124000	24830							
	1.5	13500	938	124000	24830	P	002KF67	DRE	100M4	300	266	
	1.6	12700	886	124000	24830	PF	002KF67	DRE	100M4	240	267	
	1.9	10800	754	124000	24830	PH	002KF67	DRE	100M4	305	266	
	2.1	9900	685	124000	24830	PHF	002KF67	DRE	100M4	245	267	
	2.4	8570	594	124000	24830							
	2.8	7460	517	124000	24830							
	2.9	7040	488	124000	20200							
3.0	0.35	79600	4124	314400	100170	P	042KF97	DRE	100LC4	1000	296	
	0.38	73200	3797	319400	100170	PF	042KF97	DRE	100LC4	810	297	
	0.43	65500	3394	323000	100170	PH	042KF97	DRE	100LC4	1010	296	
						PHF	042KF97	DRE	100LC4	820	297	
	0.35	79600	4124	209100	69620	P	032KF97	DRE	100LC4	750	290	
	0.38	73200	3797	218300	69620	PF	032KF97	DRE	100LC4	630	291	
	0.53	53400	2767	241900	69620	PH	032KF97	DRE	100LC4	780	290	
						PHF	032KF97	DRE	100LC4	650	291	
	0.59	47700	2471	247300	69620	P	032KF87	DRE	100LC4	680	288	
						PF	032KF87	DRE	100LC4	560	289	
						PH	032KF87	DRE	100LC4	700	288	
						PHF	032KF87	DRE	100LC4	580	289	
	0.47	60000	3113	176200	51190	P	022KF87	DRE	100LC4	600	282	
	0.53	53300	2764	187500	51190	PF	022KF87	DRE	100LC4	500	283	
	0.59	47700	2471	195800	51190	PH	022KF87	DRE	100LC4	610	282	
	0.65	42800	2222	197000	51190	PHF	022KF87	DRE	100LC4	510	283	
	0.75	37200	1929	197000	51190							
	0.65	42800	2222	156000	36810	P	012KF87	DRE	100LC4	450	276	
	0.75	37200	1929	156000	36810	PF	012KF87	DRE	100LC4	380	277	
	0.84	33300	1727	156000	36810	PH	012KF87	DRE	100LC4	465	276	
	1.0	27600	1433	156000	36810	PHF	012KF87	DRE	100LC4	395	277	

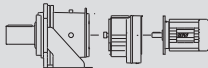


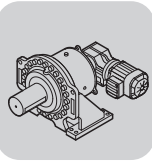
P.KF.. Bevel Planetary Gearmotors

IE2 motor standard – selection tables

P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]					m [kg]	
3.0	1.0	26600	1381	156000	36810						
	1.2	23300	1212	156000	36810	P	012KF77	DRE	100LC4	415	274
	1.3	22100	1148	156000	36810	PF	012KF77	DRE	100LC4	345	275
	1.4	19300	1005	156000	36810	PH	012KF77	DRE	100LC4	430	274
	1.6	17400	905	156000	36810	PHF	012KF77	DRE	100LC4	360	275
	1.2	23200	1207	119900	24830	P	002KF77	DRE	100LC4	335	268
	1.3	22000	1144	121500	24830	PF	002KF77	DRE	100LC4	275	269
	1.4	19300	1001	124000	24830	PH	002KF77	DRE	100LC4	340	268
						PHF	002KF77	DRE	100LC4	280	269
	1.6	17000	886	124000	24830						
	1.9	14500	754	124000	24830						
	2.1	13200	685	124000	24830	P	002KF67	DRE	100LC4	305	266
	2.4	11400	594	124000	24830	PF	002KF67	DRE	100LC4	245	267
	2.8	9960	517	124000	24830	PH	002KF67	DRE	100LC4	310	266
	3.0	9410	488	124000	20200	PHF	002KF67	DRE	100LC4	250	267
	3.5	8010	415	124000	19100						
	3.8	7280	378	124000	18300						
4.0	0.37	101300	3952	364000	124060	P	052KF107	DRE	132S4	1270	304
	0.41	91500	3568	364000	124060	PF	052KF107	DRE	132S4	1070	305
						PH	052KF107	DRE	132S4	1270	304
						PHF	052KF107	DRE	132S4	1070	305
	0.45	83100	3241	311500	100170	P	042KF107	DRE	132S4	1130	298
						PF	042KF107	DRE	132S4	940	299
						PH	042KF107	DRE	132S4	1130	298
						PHF	042KF107	DRE	132S4	940	299
	0.35	105700	4124	289700	100170	P	042KF97	DRE	132S4	1020	296
	0.38	97300	3797	298400	100170	PF	042KF97	DRE	132S4	830	297
	0.43	87000	3394	308100	100170	PH	042KF97	DRE	132S4	1020	296
	0.53	70900	2767	321100	100170	PHF	042KF97	DRE	132S4	830	297
	0.59	62900	2454	323000	100170						
	0.53	70900	2767	221500	69620	P	032KF97	DRE	132S4	770	290
	0.66	56800	2218	238300	69620	PF	032KF97	DRE	132S4	650	291
	0.78	48200	1880	246800	69620	PH	032KF97	DRE	132S4	790	290
						PHF	032KF97	DRE	132S4	670	291
	0.59	63300	2471	231000	69620	P	032KF87	DRE	132S4	690	288
						PF	032KF87	DRE	132S4	570	289
						PH	032KF87	DRE	132S4	720	288
						PHF	032KF87	DRE	132S4	590	289
	0.66	56900	2222	181600	51190	P	022KF87	DRE	132S4	610	282
	0.76	49400	1929	193300	51190	PF	022KF87	DRE	132S4	510	283
	0.85	44200	1727	197000	51190	PH	022KF87	DRE	132S4	630	282
	1.0	36700	1433	197000	51190	PHF	022KF87	DRE	132S4	530	283
	1.2	31500	1231	197000	51190						
	0.85	44200	1727	156000	36810	P	012KF87	DRE	132S4	465	276
	1.0	36700	1433	156000	36810	PF	012KF87	DRE	132S4	395	277
	1.3	28000	1094	156000	36810	PH	012KF87	DRE	132S4	480	276
						PHF	012KF87	DRE	132S4	410	277
	1.2	31000	1212	156000	36810						
	1.3	29400	1148	156000	36810						
	1.4	25700	1005	156000	36810	P	012KF77	DRE	132S4	430	274
	1.6	23200	905	156000	36810	PF	012KF77	DRE	132S4	360	275
	1.8	20300	794	156000	36810	PH	012KF77	DRE	132S4	445	274
	2.1	17900	701	156000	36810	PHF	012KF77	DRE	132S4	375	275
	2.4	15900	621	156000	36810						
	2.8	13600	530	156000	36810						
	1.6	23100	902	120100	24830	P	002KF77	DRE	132S4	350	268
	1.8	20200	791	123800	24830	PF	002KF77	DRE	132S4	290	269
	2.1	17900	698	124000	24830	PH	002KF77	DRE	132S4	355	268
	2.4	15800	619	124000	24830	PHF	002KF77	DRE	132S4	295	269
	2.8	13200	517	124000	24830						
	3.0	12500	488	124000	20200	P	002KF67	DRE	132S4	320	266
	3.5	10600	415	124000	19100	PF	002KF67	DRE	132S4	260	267
	3.9	9670	378	124000	18300	PH	002KF67	DRE	132S4	325	266
	4.5	8380	327	124000	16800	PHF	002KF67	DRE	132S4	265	267
	5.1	7290	284	124000	16000						

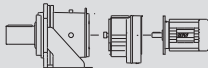


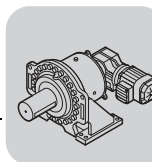
P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]						m [kg]	
5.5	0.41	126200	3568	473000	185660	P	062KF107	DRE	132M4	1770	308	
	0.45	114600	3241	473000	185660	PF	062KF107	DRE	132M4	1410	309	
						PH	062KF107	DRE	132M4	1760	308	
						PHF	062KF107	DRE	132M4	1390	309	
	0.37	139800	3952	342600	124060	P	052KF107	DRE	132M4	1290	304	
	0.41	126200	3568	354500	124060	PF	052KF107	DRE	132M4	1090	305	
	0.51	101700	2876	364000	124060	PH	052KF107	DRE	132M4	1280	304	
	0.56	92300	2610	364000	124060	PHF	052KF107	DRE	132M4	1080	305	
	0.45	114600	3241	279600	100170	P	042KF107	DRE	132M4	1140	298	
	0.65	79300	2243	314600	100170	PF	042KF107	DRE	132M4	950	299	
	0.74	69200	1958	322400	100170	PH	042KF107	DRE	132M4	1140	298	
						PHF	042KF107	DRE	132M4	950	299	
	0.53	97900	2767	297900	100170	P	042KF97	DRE	132M4	1030	296	
	0.59	86800	2454	308300	100170	PF	042KF97	DRE	132M4	840	297	
	0.77	66500	1880	323000	100170	PH	042KF97	DRE	132M4	1030	296	
						PHF	042KF97	DRE	132M4	840	297	
	0.66	78500	2218	210800	69620	P	032KF97	DRE	132M4	780	290	
	0.77	66500	1880	227200	69620	PF	032KF97	DRE	132M4	660	291	
	0.89	58100	1643	237000	69620	PH	032KF97	DRE	132M4	800	290	
	0.97	53100	1503	242200	69620	PHF	032KF97	DRE	132M4	680	291	
	1.2	43500	1231	250900	69620	P	032KF87	DRE	132M4	710	288	
						PF	032KF87	DRE	132M4	590	289	
						PH	032KF87	DRE	132M4	730	288	
						PHF	032KF87	DRE	132M4	610	289	
	0.84	61100	1727	174300	51190	P	022KF87	DRE	132M4	630	282	
	1.0	50600	1433	191600	51190	PF	022KF87	DRE	132M4	520	283	
	1.2	43500	1231	197000	51190	PH	022KF87	DRE	132M4	640	282	
	1.3	38600	1094	197000	51190	PHF	022KF87	DRE	132M4	540	283	
	1.5	34500	978	197000	51190							
	1.7	31000	879	197000	51190							
	1.3	38600	1094	156000	36810	P	012KF87	DRE	132M4	480	276	
	1.9	26900	763	156000	36810	PF	012KF87	DRE	132M4	410	277	
						PH	012KF87	DRE	132M4	490	276	
						PHF	012KF87	DRE	132M4	420	277	
	1.4	35500	1005	156000	36810	P	012KF77	DRE	132M4	440	274	
	1.6	32000	905	156000	36810	PF	012KF77	DRE	132M4	370	275	
	1.8	28100	794	156000	36810	PH	012KF77	DRE	132M4	455	274	
	2.1	24700	701	156000	36810	PHF	012KF77	DRE	132M4	385	275	
	2.3	21900	621	156000	36810							
	2.7	18700	530	156000	36810							
	3.4	15000	425	156000	36810							
	2.4	21800	619	121800	24830	P	002KF77	DRE	132M4	360	268	
	2.8	18600	528	124000	24830	PF	002KF77	DRE	132M4	305	269	
	3.0	17000	483	124000	24830	PH	002KF77	DRE	132M4	365	268	
	3.4	14900	424	124000	24830	PHF	002KF77	DRE	132M4	305	269	
	3.9	13200	374	124000	24830							
	4.4	11700	331	124000	24830							
	5.5	9340	264	124000	24830							
	6.0	8530	241	123400	19100							
	6.9	7480	212	118700	18900							
	7.8	6600	187	114300	17900							
	8.8	5850	166	110300	17000							
	10	5000	141	105200	15600							
7.5	0.43	163400	3425	523000	245660	P	072KF127	DRE	132MC4	2400	312	
	0.54	129000	2703	523000	245660	PF	072KF127	DRE	132MC4	1910	313	
	0.62	113800	2385	523000	245660	PH	072KF127	DRE	132MC4	2450	312	
						PHF	072KF127	DRE	132MC4	1960	313	
	0.34	206400	4322	422100	185660	P	062KF127	DRE	132MC4	1970	310	
	0.60	117200	2456	473000	185660	PF	062KF127	DRE	132MC4	1610	311	
	0.69	101300	2121	473000	185660	PH	062KF127	DRE	132MC4	1960	310	
	0.78	89600	1876	473000	185660	PHF	062KF127	DRE	132MC4	1600	311	
	0.41	170400	3568	449700	185660	P	062KF107	DRE	132MC4	1770	308	
	0.45	154700	3241	460100	185660	PF	062KF107	DRE	132MC4	1410	309	
	0.66	107100	2243	473000	185660	PH	062KF107	DRE	132MC4	1760	308	
	0.89	79300	1661	473000	185660	PHF	062KF107	DRE	132MC4	1400	309	

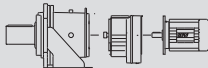


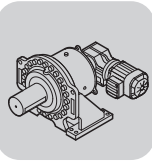
P.KF.. Bevel Planetary Gearmotors

IE2 motor standard – selection tables

P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]					m [kg]	
7.5	0.51	137300	2876	344900	124060	P	052KF107	DRE	132MC4	1290	304
	0.56	124600	2610	355900	124060	PF	052KF107	DRE	132MC4	1090	305
	0.75	93500	1958	364000	124060	PH	052KF107	DRE	132MC4	1280	304
	1.0	69300	1452	364000	124060	PHF	052KF107	DRE	132MC4	1080	305
	1.3	52200	1095	364000	124060	P	052KF97	DRE	132MC4	1170	302
	1.5	46300	971	364000	124060	PF	052KF97	DRE	132MC4	980	303
						PH	052KF97	DRE	132MC4	1170	302
						PHF	052KF97	DRE	132MC4	970	303
	0.66	107100	2243	288200	100170	P	042KF107	DRE	132MC4	1140	298
	0.75	93500	1958	302200	100170	PF	042KF107	DRE	132MC4	950	299
	1.0	69300	1452	322300	100170	PH	042KF107	DRE	132MC4	1150	298
	1.3	54300	1138	323000	100170	PHF	042KF107	DRE	132MC4	960	299
	0.78	89800	1880	305600	100170	P	042KF97	DRE	132MC4	1030	296
	1.2	57700	1209	323000	100170	PF	042KF97	DRE	132MC4	840	297
	1.5	46300	971	323000	100170	PH	042KF97	DRE	132MC4	1030	296
	1.7	41900	878	323000	100170	PHF	042KF97	DRE	132MC4	840	297
	0.89	78400	1643	210900	69620	P	032KF97	DRE	132MC4	780	290
	0.98	71700	1503	220400	69620	PF	032KF97	DRE	132MC4	660	291
	1.5	46300	971	248500	69620	PH	032KF97	DRE	132MC4	800	290
	1.7	41900	878	252000	69620	PHF	032KF97	DRE	132MC4	680	291
	2.0	35500	744	252000	69620						
	2.3	31000	650	252000	69620						
	1.2	58800	1231	236200	69620	P	032KF87	DRE	132MC4	710	288
	1.9	36400	763	252000	69620	PF	032KF87	DRE	132MC4	590	289
	2.2	32600	683	252000	69620	PH	032KF87	DRE	132MC4	730	288
	2.3	29900	628	252000	69200	PHF	032KF87	DRE	132MC4	610	289
	2.6	27000	567	252000	69620						
	2.7	25900	543	197000	51190	P	022KF97	DRE	132MC4	700	284
	3.1	22400	470	197000	51190	PF	022KF97	DRE	132MC4	600	285
						PH	022KF97	DRE	132MC4	720	284
						PHF	022KF97	DRE	132MC4	620	285
	1.3	52200	1094	189300	51190	P	022KF87	DRE	132MC4	630	282
	1.5	46600	978	197000	51190	PF	022KF87	DRE	132MC4	530	283
	1.7	41900	879	197000	51190	PH	022KF87	DRE	132MC4	640	282
	2.2	32600	683	197000	51190	PHF	022KF87	DRE	132MC4	540	283
	2.3	29900	628	197000	51190						
	3.0	23500	493	197000	51190						
	3.4	20900	438	197000	51190						
	3.6	19500	408	156000	36810	P	012KF97	DRE	132MC4	560	278
	4.3	16300	342	156000	36810	PF	012KF97	DRE	132MC4	485	279
	5.3	13300	279	156000	36810	PH	012KF97	DRE	132MC4	570	278
						PHF	012KF97	DRE	132MC4	500	279
	1.9	36400	763	156000	36810	P	012KF87	DRE	132MC4	480	276
	3.0	23500	493	156000	36810	PF	012KF87	DRE	132MC4	410	277
	3.8	18700	392	156000	36810	PH	012KF87	DRE	132MC4	495	276
	4.5	15500	325	156000	36810	PHF	012KF87	DRE	132MC4	425	277
	5.1	13800	291	156000	36810						
	2.1	33400	701	156000	36810	P	012KF77	DRE	132MC4	445	274
	2.4	29600	621	156000	36810	PF	012KF77	DRE	132MC4	375	275
	2.8	25300	530	156000	36810	PH	012KF77	DRE	132MC4	460	274
						PHF	012KF77	DRE	132MC4	390	275
	3.5	20200	424	123900	24830						
	3.9	17800	374	124000	24830	P	002KF77	DRE	132MC4	365	268
	4.4	15800	331	124000	24830	PF	002KF77	DRE	132MC4	305	269
	5.2	13500	283	124000	24830	PH	002KF77	DRE	132MC4	370	268
	5.6	12600	264	124000	24830	PHF	002KF77	DRE	132MC4	310	269
	7.0	10100	212	118300	18900						
	7.9	8910	187	114000	17900						
	8.9	7900	166	109900	17000						
	10	6750	141	104800	15600						
9.2	0.43	199200	3402	850000	500000	P	102KF167	DRE	160M4	5090	322
	0.56	154300	2636	850000	500000	PF	102KF167	DRE	160M4	4130	323
	0.63	137700	2352	850000	500000	PH	102KF167	DRE	160M4	5150	322
						PHF	102KF167	DRE	160M4	4190	323

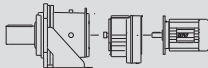


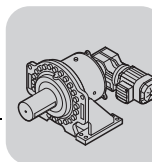
P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]		m [kg]	
9.2	0.43	201900	3447	720000	423000			
	0.48	179500	3065	720000	423000			
	0.54	159000	2715	720000	423000			
	0.62	139500	2383	720000	423000			
	0.67	129300	2209	720000	423000			
	0.72	118900	2031	720000	423000			
	0.83	103500	1767	720000	423000			
	0.35	245800	4198	523000	245660			
	0.43	200500	3425	523000	245660			
	0.47	182900	3123	523000	245660			
	0.54	158200	2703	523000	245660			
	0.62	139600	2385	523000	245660			
	0.42	206600	3526	421900	185660			
	0.46	188400	3216	436600	185660			
	0.60	143800	2456	466800	185660			
	0.69	124200	2121	473000	185660			
	0.78	109900	1876	473000	185660			
	0.51	168400	2876	451100	185660			
	0.56	152800	2610	461300	185660			
	0.66	131400	2243	473000	185660			
	0.75	114600	1958	473000	185660			
	0.89	97200	1661	473000	185660			
	1.0	85000	1452	473000	185660			
	0.66	131400	2243	350200	124060			
	0.75	114600	1958	363700	124060			
	1.0	85000	1452	364000	124060			
	1.2	71800	1227	364000	124060			
	1.1	78600	1343	364000	124060			
	1.2	70800	1209	364000	124060			
	0.75	114600	1958	279600	100170			
	0.89	97200	1661	298500	100170			
	1.0	85000	1452	309900	100170			
	1.3	66600	1138	323000	100170			
	0.98	88000	1503	307200	100170			
	1.2	70800	1209	321300	100170			
	1.3	64100	1095	323000	100170			
	1.5	56800	971	323000	100170			
	1.7	51400	878	323000	100170			
	1.2	70800	1209	221700	69620			
	1.3	64100	1095	230200	69620			
	1.5	56800	971	238300	69620			
	1.7	51400	878	243900	69620			
	2.0	43500	744	250900	69620			
	2.3	38000	650	252000	69620			
	2.3	36700	628	252000	69200			
	2.6	33100	567	252000	69620			
	2.7	31800	543	197000	51190			
	3.1	27500	470	197000	51190			
	1.5	57200	978	181100	51190			
	1.7	51400	879	190400	51190			
	1.9	44600	763	197000	51190			
	2.2	40000	683	197000	51190			
	2.3	36700	628	197000	51190			
	3.0	28800	493	197000	51190			
	3.4	25600	438	197000	51190			
	3.6	23900	408	156000	36810			
	4.3	20000	342	156000	36810			
	5.3	16300	279	156000	36810			

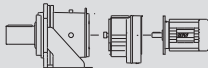


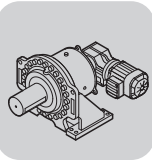
P.KF.. Bevel Planetary Gearmotors

IE2 motor standard – selection tables

P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]		m [kg]	
9.2	2.2	40000	683	156000	36810			
	2.3	36700	628	156000	36810			
	2.6	33100	567	156000	36810	P 012KF87 DRE 160M4	500	276
	3.0	28800	493	156000	36810	PF 012KF87 DRE 160M4	430	277
	3.4	25600	438	156000	36810	PH 012KF87 DRE 160M4	520	276
	3.8	22900	392	156000	36810	PHF 012KF87 DRE 160M4	445	277
	4.5	19000	325	156000	36810			
	5.1	17000	291	156000	36810			
	3.8	22800	391	120500	24830			
	4.5	18900	324	124000	24830	P 002KF87 DRE 160M4	420	270
	5.2	16500	282	124000	24830	PF 002KF87 DRE 160M4	365	271
	6.0	14300	245	123700	24830	PH 002KF87 DRE 160M4	425	270
	6.7	12700	218	119400	24830	PHF 002KF87 DRE 160M4	370	271
	7.5	11400	195	115500	24830			
	9.1	9480	162	109200	24830			
	10	8280	141	104800	15600	P 002KF77 DRE 160M4	385	268
						PF 002KF77 DRE 160M4	325	269
						PH 002KF77 DRE 160M4	390	268
						PHF 002KF77 DRE 160M4	330	269
11.0	0.43	237400	3402	850000	500000	P 102KF167 DRE 160MC4	5090	322
	0.56	183900	2636	850000	500000	PF 102KF167 DRE 160MC4	4140	323
	0.63	164100	2352	850000	500000	PH 102KF167 DRE 160MC4	5160	322
	0.74	139900	2005	850000	500000	PHF 102KF167 DRE 160MC4	4200	323
	0.48	213900	3065	720000	423000			
	0.54	189400	2715	720000	423000	P 092KF167 DRE 160MC4	4240	318
	0.62	166300	2383	720000	423000	PF 092KF167 DRE 160MC4	3540	319
	0.67	154100	2209	720000	423000	PH 092KF167 DRE 160MC4	4250	318
	0.73	141700	2031	720000	423000	PHF 092KF167 DRE 160MC4	3560	319
	0.83	123300	1767	720000	423000			
	0.39	262500	3761	683000	359400	P 082KF157 DRE 160MC4	3370	316
	0.43	240100	3440	683000	359400	PF 082KF157 DRE 160MC4	2720	317
						PH 082KF157 DRE 160MC4	3360	316
						PHF 082KF157 DRE 160MC4	2710	317
	0.39	266400	3818	523000	245660	P 072KF157 DRE 160MC4	2710	314
	0.49	212000	3038	523000	245660	PF 072KF157 DRE 160MC4	2220	315
						PH 072KF157 DRE 160MC4	2760	314
						PHF 072KF157 DRE 160MC4	2270	315
	0.43	238900	3425	523000	245660	P 072KF127 DRE 160MC4	2420	312
	0.47	217900	3123	523000	245660	PF 072KF127 DRE 160MC4	1930	313
	0.55	188600	2703	523000	245660	PH 072KF127 DRE 160MC4	2470	312
	0.62	166400	2385	523000	245660	PHF 072KF127 DRE 160MC4	1980	313
	0.46	224500	3216	406000	185660	P 062KF127 DRE 160MC4	1990	310
	0.53	194300	2783	432000	185660	PF 062KF127 DRE 160MC4	1630	311
	0.60	171400	2456	449000	185660	PH 062KF127 DRE 160MC4	1980	310
	0.70	148000	2121	464300	185660	PHF 062KF127 DRE 160MC4	1620	311
	0.79	130900	1876	473000	185660			
	0.66	156500	2243	458900	185660	P 062KF107 DRE 160MC4	1800	308
	0.75	136600	1958	471000	185660	PF 062KF107 DRE 160MC4	1440	309
	0.89	115900	1661	473000	185660	PH 062KF107 DRE 160MC4	1790	308
						PHF 062KF107 DRE 160MC4	1420	309
	0.75	136600	1958	345500	124060	P 052KF107 DRE 160MC4	1320	304
	1.0	101300	1452	364000	124060	PF 052KF107 DRE 160MC4	1120	305
	1.2	85600	1227	364000	124060	PH 052KF107 DRE 160MC4	1310	304
						PHF 052KF107 DRE 160MC4	1110	305
	0.89	115900	1661	278100	100170	P 042KF107 DRE 160MC4	1170	298
	1.0	101300	1452	294400	100170	PF 042KF107 DRE 160MC4	980	299
	1.3	79400	1138	314600	100170	PH 042KF107 DRE 160MC4	1170	298
						PHF 042KF107 DRE 160MC4	980	299
	1.2	84300	1209	310400	100170	P 042KF97 DRE 160MC4	1060	296
	1.5	67700	971	323000	100170	PF 042KF97 DRE 160MC4	870	297
	1.7	61200	878	323000	100170	PH 042KF97 DRE 160MC4	1060	296
						PHF 042KF97 DRE 160MC4	870	297
	1.4	76400	1095	213900	69620	P 032KF97 DRE 160MC4	810	290
	1.5	67700	971	225700	69620	PF 032KF97 DRE 160MC4	690	291
	1.7	61200	878	233500	69620	PH 032KF97 DRE 160MC4	830	290
	2.0	51900	744	243400	69620	PHF 032KF97 DRE 160MC4	710	291
	2.3	45300	650	249400	69620			

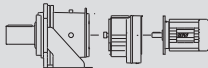


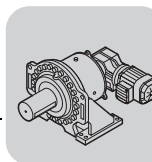
P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]					m [kg]	
11.0	2.7	37900	543	197000	51190	P	022KF97	DRE	160MC4	730	284
	3.1	32800	470	197000	51190	PF	022KF97	DRE	160MC4	630	285
						PH	022KF97	DRE	160MC4	740	284
						PHF	022KF97	DRE	160MC4	640	285
	1.9	53200	763	187700	51190						
	2.2	47600	683	195900	51190	P	022KF87	DRE	160MC4	650	282
	2.4	43800	628	197000	51190	PF	022KF87	DRE	160MC4	550	283
	2.6	39500	567	197000	51190	PH	022KF87	DRE	160MC4	670	282
	3.0	34400	493	197000	51190	PHF	022KF87	DRE	160MC4	570	283
	3.4	30500	438	197000	51190						
	3.8	27300	392	197000	51190						
	3.6	28500	408	156000	36810	P	012KF97	DRE	160MC4	580	278
	4.3	23800	342	156000	36810	PF	012KF97	DRE	160MC4	510	279
	5.3	19400	279	156000	36810	PH	012KF97	DRE	160MC4	600	278
						PHF	012KF97	DRE	160MC4	530	279
	2.6	39500	567	156000	36810						
	3.0	34400	493	156000	36810	P	012KF87	DRE	160MC4	510	276
	3.4	30500	438	156000	36810	PF	012KF87	DRE	160MC4	435	277
	3.8	27300	392	156000	36810	PH	012KF87	DRE	160MC4	520	276
	4.5	22700	325	156000	36810	PHF	012KF87	DRE	160MC4	450	277
	5.2	19700	283	156000	36810						
	6.6	15600	225	148600	29500						
	4.6	22600	324	120800	24830	P	002KF87	DRE	160MC4	425	270
	5.2	19600	282	124000	24830	PF	002KF87	DRE	160MC4	370	271
	7.6	13600	195	115400	24830	PH	002KF87	DRE	160MC4	430	270
	9.1	11300	162	109100	24830	PHF	002KF87	DRE	160MC4	375	271
	10	9820	141	104600	24800						
15.0	0.41	340900	3570	850000	500000	P	102KF187	DRE	180M4	5770	324
	0.51	274000	2870	850000	500000	PF	102KF187	DRE	180M4	4810	325
						PH	102KF187	DRE	180M4	5830	324
						PHF	102KF187	DRE	180M4	4870	325
	0.63	224600	2352	850000	500000	P	102KF167	DRE	180M4	5140	322
	0.73	191400	2005	850000	500000	PF	102KF167	DRE	180M4	4180	323
						PH	102KF167	DRE	180M4	5200	322
						PHF	102KF167	DRE	180M4	4240	323
	0.41	345400	3617	720000	423000	P	092KF187	DRE	180M4	4910	320
	0.51	277700	2908	720000	423000	PF	092KF187	DRE	180M4	4220	321
	0.56	249000	2608	720000	423000	PH	092KF187	DRE	180M4	4920	320
	0.65	216200	2264	720000	423000	PHF	092KF187	DRE	180M4	4230	321
	0.67	210900	2209	720000	423000						
	0.72	193900	2031	720000	423000	P	092KF167	DRE	180M4	4280	318
	0.83	168700	1767	720000	423000	PF	092KF167	DRE	180M4	3580	319
	1.2	120800	1265	720000	423000	PH	092KF167	DRE	180M4	4300	318
	1.2	116600	1221	720000	423000	PHF	092KF167	DRE	180M4	3600	319
	1.3	107800	1129	720000	423000						
	0.39	359200	3761	654600	359400	P	082KF157	DRE	180M4	3410	316
	0.43	328500	3440	679800	359400	PF	082KF157	DRE	180M4	2760	317
	0.64	218700	2290	683000	359400	PH	082KF157	DRE	180M4	3400	316
	0.72	194500	2038	683000	359400	PHF	082KF157	DRE	180M4	2750	317
	0.48	290100	3038	498400	245660	P	072KF157	DRE	180M4	2750	314
						PF	072KF157	DRE	180M4	2260	315
						PH	072KF157	DRE	180M4	2800	314
						PHF	072KF157	DRE	180M4	2310	315
	0.54	258000	2703	523000	245660						
	0.62	227700	2385	523000	245660	P	072KF127	DRE	180M4	2460	312
	0.71	196600	2060	523000	245660	PF	072KF127	DRE	180M4	1970	313
	0.81	173900	1822	523000	245660	PH	072KF127	DRE	180M4	2510	312
	0.96	146100	1531	523000	245660	PHF	072KF127	DRE	180M4	2020	313
	1.1	131800	1381	523000	245660						
	0.69	202600	2121	425300	185660	P	062KF127	DRE	180M4	2040	310
	0.78	179200	1876	443500	185660	PF	062KF127	DRE	180M4	1670	311
	0.93	150600	1577	462700	185660	PH	062KF127	DRE	180M4	2030	310
	1.0	135800	1422	471500	185660	PHF	062KF127	DRE	180M4	1660	311
	1.2	117500	1231	473000	185660						

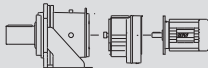


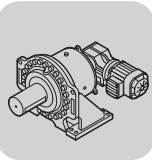
P.KF.. Bevel Planetary Gearmotors

IE2 motor standard – selection tables

P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]					m [kg]	
15.0	0.89	158600	1661	457600	185660	P	062KF107	DRE	180M4	1840	308
	1.0	138600	1452	469800	185660	PF	062KF107	DRE	180M4	1480	309
	1.2	117200	1227	473000	185660	PH	062KF107	DRE	180M4	1830	308
	1.3	108600	1138	473000	185660	PHF	062KF107	DRE	180M4	1470	309
	1.4	98500	1033	473000	185660						
	1.0	138600	1452	343700	124060	P	052KF107	DRE	180M4	1360	304
	1.2	117200	1227	361800	124060	PF	052KF107	DRE	180M4	1160	305
	1.4	98500	1033	364000	124060	PH	052KF107	DRE	180M4	1350	304
	1.7	84700	887	364000	124060	PHF	052KF107	DRE	180M4	1150	305
	1.9	73900	774	364000	124060						
	1.7	83800	878	364000	124060	P	052KF97	DRE	180M4	1240	302
	2.0	71000	744	364000	124060	PF	052KF97	DRE	180M4	1050	303
						PH	052KF97	DRE	180M4	1240	302
						PHF	052KF97	DRE	180M4	1040	303
	1.3	108600	1138	286500	100170	P	042KF107	DRE	180M4	1220	298
						PF	042KF107	DRE	180M4	1030	299
						PH	042KF107	DRE	180M4	1220	298
						PHF	042KF107	DRE	180M4	1030	299
	1.5	92700	971	302900	100170	P	042KF97	DRE	180M4	1100	296
	1.7	83800	878	310900	100170	PF	042KF97	DRE	180M4	910	297
	2.0	71000	744	321100	100170	PH	042KF97	DRE	180M4	1100	296
	2.3	62000	650	323000	100170	PHF	042KF97	DRE	180M4	910	297
	2.7	51800	543	323000	100170						
	2.0	71000	744	221400	69620	P	032KF97	DRE	180M4	850	290
	2.3	62000	650	232600	69620	PF	032KF97	DRE	180M4	730	291
	2.7	51800	543	243400	69620	PH	032KF97	DRE	180M4	870	290
	3.1	44900	470	249800	69620	PHF	032KF97	DRE	180M4	750	291
	3.6	39000	408	252000	69620						
	2.7	51800	543	189800	51190	P	022KF97	DRE	180M4	770	284
	3.1	44900	470	197000	51190	PF	022KF97	DRE	180M4	670	285
	3.6	39000	408	197000	51190	PH	022KF97	DRE	180M4	790	284
	4.3	32600	342	197000	51190	PHF	022KF97	DRE	180M4	690	285
	4.4	31800	333	197000	51190						
	5.3	26600	279	197000	51190						
	6.1	23000	241	197000	51190						
	3.6	39000	408	156000	36810	P	012KF97	DRE	180M4	630	278
	4.3	32600	342	156000	36810	PF	012KF97	DRE	180M4	560	279
	5.3	26600	279	156000	36810	PH	012KF97	DRE	180M4	640	278
	6.1	23000	241	152000	36810	PHF	012KF97	DRE	180M4	570	279
	7.0	19900	209	145700	36810						
	8.4	16700	175	138100	36810						
	6.3	22300	234	121200	24830	P	002KF97	DRE	180M4	550	272
	7.2	19400	203	116900	24830	PF	002KF97	DRE	180M4	490	273
						PH	002KF97	DRE	180M4	550	272
						PHF	002KF97	DRE	180M4	490	273
	9.1	15400	162	109200	24830	P	002KF87	DRE	180M4	470	270
	10	13400	141	104700	24800	PF	002KF87	DRE	180M4	415	271
						PH	002KF87	DRE	180M4	475	270
						PHF	002KF87	DRE	180M4	415	271
18.5	0.41	420400	3570	850000	500000	P	102KF187	DRE	180L4	5780	324
	0.51	338000	2870	850000	500000	PF	102KF187	DRE	180L4	4820	325
	0.57	303100	2574	850000	500000	PH	102KF187	DRE	180L4	5840	324
	0.66	263200	2235	850000	500000	PHF	102KF187	DRE	180L4	4880	325
	0.73	236100	2005	850000	500000	P	102KF167	DRE	180L4	5150	322
	0.89	195600	1661	850000	500000	PF	102KF167	DRE	180L4	4190	323
	1.2	147000	1249	850000	500000	PH	102KF167	DRE	180L4	5210	322
	1.3	131200	1114	850000	500000	PHF	102KF167	DRE	180L4	4250	323
	0.41	426000	3617	720000	423000	P	092KF187	DRE	180L4	4920	320
	0.51	342500	2908	720000	423000	PF	092KF187	DRE	180L4	4230	321
	0.56	307200	2608	720000	423000	PH	092KF187	DRE	180L4	4940	320
	0.65	266700	2264	720000	423000	PHF	092KF187	DRE	180L4	4240	321
	0.72	242000	2054	720000	423000						

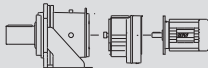


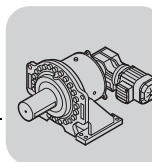
P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]						m [kg]	
18.5	0.83	208100	1767	720000	423000							
	0.87	198200	1683	720000	423000							
	1.2	149000	1265	720000	423000							
	1.2	143800	1221	720000	423000							
	1.3	132900	1129	720000	423000							
	1.4	122600	1041	720000	423000							
	1.5	113300	962	720000	423000							
	0.43	405100	3440	610200	359400							
	0.49	352500	2993	660500	359400							
	0.56	311100	2641	683000	359400							
	0.64	269700	2290	683000	359400							
	0.72	239900	2038	683000	359400							
	0.63	273700	2325	517000	245660							
						P	092KF167	DRE	180L4	4290	318	
						PF	092KF167	DRE	180L4	3600	319	
						PH	092KF167	DRE	180L4	4310	318	
						PHF	092KF167	DRE	180L4	3610	319	
						P	082KF157	DRE	180L4	3420	316	
						PF	082KF157	DRE	180L4	2770	317	
						PH	082KF157	DRE	180L4	3410	316	
						PHF	082KF157	DRE	180L4	2760	317	
						P	072KF157	DRE	180L4	2760	314	
						PF	072KF157	DRE	180L4	2270	315	
						PH	072KF157	DRE	180L4	2820	314	
						PHF	072KF157	DRE	180L4	2320	315	
						P	072KF127	DRE	180L4	2470	312	
						PF	072KF127	DRE	180L4	1980	313	
						PH	072KF127	DRE	180L4	2520	312	
						PHF	072KF127	DRE	180L4	2030	313	
						P	062KF127	DRE	180L4	2050	310	
						PF	062KF127	DRE	180L4	1680	311	
						PH	062KF127	DRE	180L4	2040	310	
						PHF	062KF127	DRE	180L4	1670	311	
						P	062KF107	DRE	180L4	1860	308	
						PF	062KF107	DRE	180L4	1490	309	
						PH	062KF107	DRE	180L4	1840	308	
						PHF	062KF107	DRE	180L4	1480	309	
						P	052KF107	DRE	180L4	1370	304	
						PF	052KF107	DRE	180L4	1170	305	
						PH	052KF107	DRE	180L4	1360	304	
						PHF	052KF107	DRE	180L4	1160	305	
						P	042KF107	DRE	180L4	1230	298	
						PF	042KF107	DRE	180L4	1040	299	
						PH	042KF107	DRE	180L4	1230	298	
						PHF	042KF107	DRE	180L4	1040	299	
						P	042KF97	DRE	180L4	1110	296	
						PF	042KF97	DRE	180L4	920	297	
						PH	042KF97	DRE	180L4	1120	296	
						PHF	042KF97	DRE	180L4	930	297	
						P	032KF97	DRE	180L4	860	290	
						PF	032KF97	DRE	180L4	740	291	
						PH	032KF97	DRE	180L4	890	290	
						PHF	032KF97	DRE	180L4	760	291	
						P	022KF97	DRE	180L4	780	284	
						PF	022KF97	DRE	180L4	680	285	
						PH	022KF97	DRE	180L4	800	284	
						PHF	022KF97	DRE	180L4	700	285	
						P	012KF97	DRE	180L4	640	278	
						PF	012KF97	DRE	180L4	570	279	
						PH	012KF97	DRE	180L4	650	278	
						PHF	012KF97	DRE	180L4	580	279	
						P	002KF97	DRE	180L4	560	272	
						PF	002KF97	DRE	180L4	500	273	
						PH	002KF97	DRE	180L4	560	272	
						PHF	002KF97	DRE	180L4	500	273	
22	0.41	496600	3570	850000	500000							
	0.52	399200	2870	850000	500000							
	0.57	358000	2574	850000	500000							
	0.66	310900	2235	850000	500000							
	0.73	282100	2028	850000	500000							
						P	102KF187	DRE	180LC4	5790	324	
						PF	102KF187	DRE	180LC4	4830	325	
						PH	102KF187	DRE	180LC4	5850	324	
						PHF	102KF187	DRE	180LC4	4890	325	

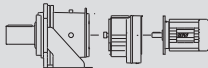


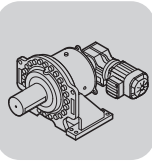
P.KF.. Bevel Planetary Gearmotors

IE2 motor standard – selection tables

P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]		m [kg]	
22	0.89	231000	1661	850000	500000	P 102KF167 DRE 180LC4	5160	322
	1.2	173700	1249	850000	500000	PF 102KF167 DRE 180LC4	4200	323
	1.3	154900	1114	850000	500000	PH 102KF167 DRE 180LC4	5220	322
	1.6	132100	949	850000	500000	PHF 102KF167 DRE 180LC4	4260	323
	0.41	503200	3617	677200	423000	P 092KF187 DRE 180LC4	4930	320
	0.51	404500	2908	720000	423000		4240	321
	0.57	362800	2608	720000	423000		4940	320
	0.65	315000	2264	720000	423000		4250	321
	0.72	285800	2054	720000	423000			
	0.84	246200	1770	720000	423000			
	1.2	176000	1265	720000	423000	P 092KF167 DRE 180LC4	4300	318
	1.2	169900	1221	720000	423000		3600	319
	1.3	157000	1129	720000	423000		4320	318
	1.4	144800	1041	720000	423000		3620	319
	1.5	133800	962	720000	423000			
	1.7	120000	863	720000	423000	P 082KF157 DRE 180LC4	3430	316
	1.9	110900	797	720000	423000		2780	317
	0.56	367500	2641	647200	359400		3420	316
	0.65	318600	2290	683000	359400		2770	317
	0.73	283400	2038	683000	359400			
	0.84	244300	1756	683000	359400			
	1.0	198500	1427	683000	359400	P 072KF157 DRE 180LC4	2770	314
	0.72	287600	2068	501200	245660		2280	315
	1.0	201400	1449	523000	245660		2820	314
							2330	315
	0.81	253400	1822	523000	245660	P 072KF127 DRE 180LC4	2480	312
	1.1	192000	1381	523000	245660		1990	313
	1.2	166200	1195	523000	245660		2530	312
	1.4	146600	1055	523000	245660		2040	313
	1.6	126600	911	523000	245660			
	0.94	219300	1577	410700	185660	P 062KF127 DRE 180LC4	2060	310
	1.0	197800	1422	429200	185660		1690	311
	1.2	171200	1231	449200	185660		2050	310
	1.4	151000	1086	462400	185660		1680	311
	1.6	130400	938	473000	185660			
	1.8	115400	830	473000	185660	P 062KF107 DRE 180LC4	1860	308
	2.1	96900	697	473000	185660		1500	309
	1.3	158200	1138	457900	185660		1850	308
	1.4	143600	1033	466900	185660		1490	309
	1.7	123400	887	473000	185660			
	1.9	107700	774	473000	185660	P 052KF127 DRE 180LC4	1570	306
	2.2	91300	657	473000	185660		1370	307
	2.6	79800	574	473000	185660		1570	306
	2.6	78300	563	364000	124060		1370	307
	3.0	69700	502	364000	124060			
	1.7	123400	887	356800	124060	P 052KF107 DRE 180LC4	1380	304
	2.2	91300	657	364000	124060		1180	305
							1370	304
							1170	305
	2.7	75600	543	364000	124060	P 052KF97 DRE 180LC4	1260	302
	3.2	65400	470	364000	124060		1070	303
							1260	302
							1060	303
	3.5	58600	421	323000	100170	P 042KF127 DRE 180LC4	1430	300
							1240	301
							1430	300
							1240	301
	1.9	107700	774	287500	100170	P 042KF107 DRE 180LC4	1240	298
	2.6	79800	574	314200	100170		1050	299
	2.8	73300	527	319400	100170		1240	298
	3.2	63900	460	323000	100170		1050	299
	3.8	54200	390	321200	100170			

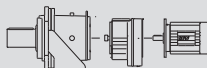


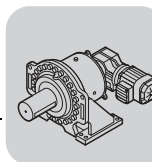
P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]						m [kg]	
22	2.3	90300	650	305100	100170	P	042KF97	DRE	180LC4	1120	296	
	3.6	56800	408	323000	100170	PF	042KF97	DRE	180LC4	930	297	
	4.3	47500	342	308600	100170	PH	042KF97	DRE	180LC4	1120	296	
						PHF	042KF97	DRE	180LC4	930	297	
	5.1	40100	289	237400	69620	P	032KF127	DRE	180LC4	1180	294	
	5.8	35700	257	229300	69620	PF	032KF127	DRE	180LC4	1060	295	
						PH	032KF127	DRE	180LC4	1200	294	
						PHF	032KF127	DRE	180LC4	1080	295	
	3.8	54200	390	241000	69620	P	032KF107	DRE	180LC4	990	292	
	4.3	47400	341	247600	69620	PF	032KF107	DRE	180LC4	870	293	
	5.0	40900	294	238800	69620	PH	032KF107	DRE	180LC4	1010	292	
	5.5	37500	270	232800	69620	PHF	032KF107	DRE	180LC4	890	293	
	2.7	75600	543	215000	69620	P	032KF97	DRE	180LC4	870	290	
	3.2	65400	470	228500	69620	PF	032KF97	DRE	180LC4	750	291	
	5.3	38700	279	235000	69620	PH	032KF97	DRE	180LC4	890	290	
	6.1	33500	241	224900	69620	PHF	032KF97	DRE	180LC4	770	291	
	6.3	32700	236	197000	51190	P	022KF107	DRE	180LC4	910	286	
	7.4	27800	200	197000	51190	PF	022KF107	DRE	180LC4	810	287	
	8.5	24300	175	197000	51190	PH	022KF107	DRE	180LC4	920	286	
						PHF	022KF107	DRE	180LC4	820	287	
	3.6	56800	408	181900	51190	P	022KF97	DRE	180LC4	790	284	
	4.3	47500	342	196100	51190	PF	022KF97	DRE	180LC4	690	285	
	4.4	46300	333	197000	51190	PH	022KF97	DRE	180LC4	810	284	
	5.3	38700	279	197000	51190	PHF	022KF97	DRE	180LC4	710	285	
	7.1	29100	209	197000	51190							
	8.4	24300	175	197000	51190							
	6.1	33500	241	151700	36810	P	012KF97	DRE	180LC4	650	278	
	7.1	29100	209	145400	36810	PF	012KF97	DRE	180LC4	580	279	
	8.4	24300	175	137800	36810	PH	012KF97	DRE	180LC4	660	278	
						PHF	012KF97	DRE	180LC4	590	279	
30	0.51	546200	2870	850000	500000							
	0.57	489900	2574	850000	500000	P	102KF187	DRE	200L4	5890	324	
	0.66	425400	2235	850000	500000	PF	102KF187	DRE	200L4	4930	325	
	0.73	385900	2028	850000	500000	PH	102KF187	DRE	200L4	5950	324	
	0.84	332400	1747	850000	500000	PHF	102KF187	DRE	200L4	4990	325	
	1.0	279400	1468	850000	500000							
	1.2	237600	1249	850000	500000	P	102KF167	DRE	200L4	5260	322	
	1.3	212000	1114	850000	500000	PF	102KF167	DRE	200L4	4300	323	
	1.6	180700	949	850000	500000	PH	102KF167	DRE	200L4	5320	322	
	1.9	149700	787	850000	500000	PHF	102KF167	DRE	200L4	4360	323	
	2.2	127800	671	850000	500000							
	0.57	496500	2608	684600	423000	P	092KF187	DRE	200L4	5030	320	
	0.65	431000	2264	720000	423000	PF	092KF187	DRE	200L4	4340	321	
	0.72	391100	2054	720000	423000	PH	092KF187	DRE	200L4	5040	320	
	0.83	336900	1770	720000	423000	PHF	092KF187	DRE	200L4	4350	321	
	0.99	283100	1487	720000	423000							
	1.2	245100	1288	720000	423000							
	1.4	198200	1041	720000	423000							
	1.5	183100	962	720000	423000							
	1.7	164200	863	720000	423000	P	092KF167	DRE	200L4	4400	318	
	1.8	151700	797	720000	423000	PF	092KF167	DRE	200L4	3700	319	
	2.0	140100	736	720000	423000	PH	092KF167	DRE	200L4	4420	318	
	2.2	129500	680	720000	423000	PHF	092KF167	DRE	200L4	3720	319	
	2.3	123400	649	720000	423000							
	2.6	110100	579	720000	423000							
	0.72	387800	2038	627800	359400	P	082KF157	DRE	200L4	3530	316	
	0.84	334300	1756	675900	359400	PF	082KF157	DRE	200L4	2880	317	
	1.0	271600	1427	683000	359400	PH	082KF157	DRE	200L4	3520	316	
	1.3	223600	1175	683000	359400	PHF	082KF157	DRE	200L4	2870	317	
	1.4	197300	1037	683000	359400							
	1.0	275600	1449	514900	245660	P	072KF157	DRE	200L4	2870	314	
						PF	072KF157	DRE	200L4	2380	315	
						PH	072KF157	DRE	200L4	2920	314	
						PHF	072KF157	DRE	200L4	2430	315	

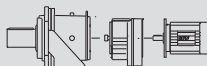


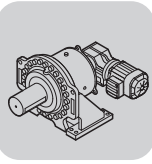
P.KF.. Bevel Planetary Gearmotors

IE2 motor standard – selection tables

P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]		m [kg]				
30	1.1	262700	1381	523000	245660	P	072KF127	DRE	200L4	2580	312
	1.2	227400	1195	523000	245660	PF	072KF127	DRE	200L4	2090	313
	1.4	200600	1055	523000	245660	PH	072KF127	DRE	200L4	2630	312
	1.6	173200	911	523000	245660	PHF	072KF127	DRE	200L4	2140	313
	1.8	153200	806	523000	245660						
	1.4	206700	1086	421800	185660	P	062KF127	DRE	200L4	2160	310
	1.6	178500	938	444000	185660	PF	062KF127	DRE	200L4	1790	311
	1.8	157900	830	458100	185660	PH	062KF127	DRE	200L4	2150	310
	2.1	132700	697	473000	185660	PHF	062KF127	DRE	200L4	1780	311
	2.6	107100	563	473000	185660						
	1.7	168900	887	450800	185660	P	062KF107	DRE	200L4	1960	308
	1.9	147400	774	464600	185660	PF	062KF107	DRE	200L4	1600	309
						PH	062KF107	DRE	200L4	1950	308
						PHF	062KF107	DRE	200L4	1590	309
	2.6	107100	563	364000	124060	P	052KF127	DRE	200L4	1670	306
	2.9	95400	502	364000	124060	PF	052KF127	DRE	200L4	1470	307
	3.5	80200	421	364000	124060	PH	052KF127	DRE	200L4	1660	306
						PHF	052KF127	DRE	200L4	1460	307
	2.2	125000	657	355500	124060	P	052KF107	DRE	200L4	1480	304
	3.8	74200	390	364000	124060	PF	052KF107	DRE	200L4	1280	305
						PH	052KF107	DRE	200L4	1470	304
						PHF	052KF107	DRE	200L4	1270	305
	3.5	80200	421	313900	100170	P	042KF127	DRE	200L4	1530	300
	4.3	64800	341	308600	100170	PF	042KF127	DRE	200L4	1340	301
						PH	042KF127	DRE	200L4	1530	300
						PHF	042KF127	DRE	200L4	1340	301
	2.6	109200	574	285800	100170	P	042KF107	DRE	200L4	1330	298
	2.8	100300	527	295500	100170	PF	042KF107	DRE	200L4	1140	299
	3.2	87500	460	307600	100170	PH	042KF107	DRE	200L4	1340	298
	3.8	74200	390	318700	100170	PHF	042KF107	DRE	200L4	1150	299
	4.3	64900	341	308600	100170						
	5.1	54900	289	237700	69620	P	032KF127	DRE	200L4	1280	294
	5.7	48900	257	229500	69620	PF	032KF127	DRE	200L4	1160	295
						PH	032KF127	DRE	200L4	1300	294
						PHF	032KF127	DRE	200L4	1180	295
	3.8	74200	390	217000	69620	P	032KF107	DRE	200L4	1090	292
	4.3	64900	341	229200	69620	PF	032KF107	DRE	200L4	970	293
	5.0	56000	294	239100	69620	PH	032KF107	DRE	200L4	1110	292
	5.5	51400	270	233000	69620	PHF	032KF107	DRE	200L4	990	293
	6.3	44800	236	223600	69620						
	5.3	53000	279	235100	69620	P	032KF97	DRE	200L4	970	290
	6.1	45900	241	225200	69620	PF	032KF97	DRE	200L4	850	291
	8.4	33300	175	204600	52400	PH	032KF97	DRE	200L4	990	290
						PHF	032KF97	DRE	200L4	870	291
	6.3	44800	236	197000	51190	P	022KF107	DRE	200L4	1010	286
	7.4	38000	200	197000	51190	PF	022KF107	DRE	200L4	910	287
	8.4	33200	175	197000	51190	PH	022KF107	DRE	200L4	1020	286
						PHF	022KF107	DRE	200L4	920	287
	6.1	45900	241	197000	51190	P	022KF97	DRE	200L4	890	284
	8.4	33300	175	197000	51190	PF	022KF97	DRE	200L4	790	285
						PH	022KF97	DRE	200L4	910	284
						PHF	022KF97	DRE	200L4	810	285
	8.4	33200	175	137900	36810	P	012KF107	DRE	200L4	860	280
						PF	012KF107	DRE	200L4	790	281
						PH	012KF107	DRE	200L4	870	280
						PHF	012KF107	DRE	200L4	800	281
	8.4	33300	175	138000	36810	P	012KF97	DRE	200L4	740	278
						PF	012KF97	DRE	200L4	670	279
						PH	012KF97	DRE	200L4	760	278
						PHF	012KF97	DRE	200L4	690	279
37	0.57	603400	2574	810100	500000	P	102KF187	DRE	225S4	5920	324
	0.66	523900	2235	850000	500000	PF	102KF187	DRE	225S4	4960	325
	0.73	475400	2028	850000	500000	PH	102KF187	DRE	225S4	5980	324
	0.85	409500	1747	850000	500000	PHF	102KF187	DRE	225S4	5020	325
	1.0	344100	1468	850000	500000						
	1.2	297900	1271	850000	500000						

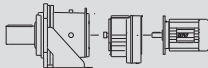


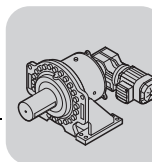
P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]						m [kg]	
37	1.6	222600	949	850000	500000	P	102KF167	DRE	225S4	5290	322	
	1.9	184400	787	850000	500000	PF	102KF167	DRE	225S4	4330	323	
	2.2	157400	671	850000	500000	PH	102KF167	DRE	225S4	5350	322	
						PHF	102KF167	DRE	225S4	4390	323	
	0.65	530900	2264	645000	423000							
	0.72	481700	2054	700300	423000							
	0.83	414900	1770	720000	423000	P	092KF187	DRE	225S4	5060	320	
	0.99	348700	1487	720000	423000	PF	092KF187	DRE	225S4	4370	321	
	1.2	301900	1288	720000	423000	PH	092KF187	DRE	225S4	5080	320	
	1.4	251600	1073	720000	423000	PHF	092KF187	DRE	225S4	4380	321	
	1.6	214500	915	720000	423000							
	1.7	202200	863	720000	423000							
	1.8	186900	797	720000	423000	P	092KF167	DRE	225S4	4440	318	
	2.0	172600	736	720000	423000	PF	092KF167	DRE	225S4	3740	319	
	2.2	159500	680	720000	423000	PH	092KF167	DRE	225S4	4450	318	
	2.3	152000	649	720000	423000	PHF	092KF167	DRE	225S4	3750	319	
	2.6	135600	579	720000	423000							
	3.0	115600	493	720000	423000							
	0.84	411700	1756	603300	359400	P	082KF157	DRE	225S4	3560	316	
	1.0	334500	1427	675700	359400	PF	082KF157	DRE	225S4	2910	317	
	1.3	275400	1175	683000	359400	PH	082KF157	DRE	225S4	3550	316	
	1.4	243000	1037	683000	359400	PHF	082KF157	DRE	225S4	2900	317	
	1.6	210700	899	683000	359400							
	1.2	280100	1195	510000	245660	P	072KF127	DRE	225S4	2610	312	
	1.4	247100	1055	523000	245660	PF	072KF127	DRE	225S4	2120	313	
	1.6	213400	911	523000	245660	PH	072KF127	DRE	225S4	2670	312	
	1.8	188700	806	523000	245660	PHF	072KF127	DRE	225S4	2180	313	
	2.2	158600	677	523000	245660							
	1.8	194400	830	431900	185660	P	062KF127	DRE	225S4	2190	310	
	2.1	163400	697	454500	185660	PF	062KF127	DRE	225S4	1830	311	
	2.6	132000	563	473000	185660	PH	062KF127	DRE	225S4	2180	310	
	2.9	117500	502	473000	185660	PHF	062KF127	DRE	225S4	1820	311	
	3.5	98800	421	473000	185660							
	2.6	132000	563	349600	124060	P	052KF127	DRE	225S4	1710	306	
	2.9	117500	502	361500	124060	PF	052KF127	DRE	225S4	1510	307	
	3.5	98800	421	364000	124060	PH	052KF127	DRE	225S4	1700	306	
	4.3	79800	341	355600	124060	PHF	052KF127	DRE	225S4	1500	307	
3.8	91400	390	364000	124060	P	052KF107	DRE	225S4	1510	304		
4.3	79900	341	355900	124060	PF	052KF107	DRE	225S4	1310	305		
					PH	052KF107	DRE	225S4	1500	304		
					PHF	052KF107	DRE	225S4	1300	305		
3.5	98800	421	297000	100170	P	042KF127	DRE	225S4	1560	300		
4.3	79800	341	308400	100170	PF	042KF127	DRE	225S4	1370	301		
					PH	042KF127	DRE	225S4	1560	300		
					PHF	042KF127	DRE	225S4	1380	301		
3.8	91400	390	304100	100170	P	042KF107	DRE	225S4	1370	298		
4.3	79900	341	308600	100170	PF	042KF107	DRE	225S4	1180	299		
					PH	042KF107	DRE	225S4	1370	298		
					PHF	042KF107	DRE	225S4	1180	299		
5.1	67600	289	225800	69620	P	032KF127	DRE	225S4	1310	294		
5.8	60200	257	229400	69620	PF	032KF127	DRE	225S4	1190	295		
					PH	032KF127	DRE	225S4	1340	294		
					PHF	032KF127	DRE	225S4	1210	295		
4.3	79900	341	208600	69620	P	032KF107	DRE	225S4	1120	292		
5.0	69000	294	224100	69620	PF	032KF107	DRE	225S4	1000	293		
7.4	46800	200	212800	69620	PH	032KF107	DRE	225S4	1140	292		
8.4	40900	175	204400	69620	PHF	032KF107	DRE	225S4	1020	293		
7.4	46800	200	197000	51190	P	022KF107	DRE	225S4	1040	286		
8.4	40900	175	197000	51190	PF	022KF107	DRE	225S4	940	287		
					PH	022KF107	DRE	225S4	1050	286		
					PHF	022KF107	DRE	225S4	950	287		
45	0.73	577800	2028	829500	500000							
	0.85	497700	1747	850000	500000	P	102KF187	DRE	225M4	5940	324	
	1.0	418200	1468	850000	500000	PF	102KF187	DRE	225M4	4980	325	
	1.2	362100	1271	850000	500000	PH	102KF187	DRE	225M4	6000	324	
	1.4	301800	1059	850000	500000	PHF	102KF187	DRE	225M4	5040	325	
	1.6	257300	903	850000	500000							

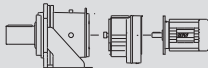


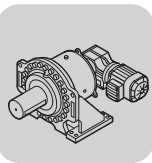
P.KF.. Bevel Planetary Gearmotors

IE2 motor standard – selection tables

P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]		m [kg]	
45	1.9	224100	787	850000	500000	P 102KF167 DRE 225M4	5310	322
	2.2	191300	671	850000	500000	PF 102KF167 DRE 225M4	4350	323
						PH 102KF167 DRE 225M4	5370	322
						PHF 102KF167 DRE 225M4	4410	323
	0.84	504300	1770	676000	423000			
	0.99	423800	1487	720000	423000	P 092KF187 DRE 225M4	5080	320
	1.2	367000	1288	720000	423000	PF 092KF187 DRE 225M4	4390	321
	1.4	305800	1073	720000	423000	PH 092KF187 DRE 225M4	5100	320
	1.6	260700	915	720000	423000	PHF 092KF187 DRE 225M4	4400	321
	1.9	221000	776	720000	423000			
	2.2	193800	680	720000	423000	P 092KF167 DRE 225M4	4450	318
	2.3	184800	649	720000	423000	PF 092KF167 DRE 225M4	3760	319
	2.6	164800	579	720000	423000	PH 092KF167 DRE 225M4	4470	318
	3.0	140500	493	720000	423000	PHF 092KF167 DRE 225M4	3770	319
	3.6	116400	409	720000	423000			
	1.3	334700	1175	675500	359400	P 082KF157 DRE 225M4	3580	316
	1.4	295400	1037	683000	359400	PF 082KF157 DRE 225M4	2930	317
	1.6	256100	899	683000	359400	PH 082KF157 DRE 225M4	3570	316
	1.8	227800	800	683000	359400	PHF 082KF157 DRE 225M4	2920	317
	2.1	196400	689	683000	359400			
	2.6	161900	568	523000	245660	P 072KF157 DRE 225M4	2920	314
	3.1	137300	482	523000	245660	PF 072KF157 DRE 225M4	2430	315
						PH 072KF157 DRE 225M4	2980	314
						PHF 072KF157 DRE 225M4	2480	315
	1.6	259400	911	523000	245660			
	1.8	229400	806	523000	245660	P 072KF127 DRE 225M4	2630	312
	2.2	192800	677	523000	245660	PF 072KF127 DRE 225M4	2140	313
	2.7	155700	547	523000	245660	PH 072KF127 DRE 225M4	2680	312
	3.0	138700	487	523000	245660	PHF 072KF127 DRE 225M4	2190	313
	3.6	116600	409	523000	245660			
	2.1	198600	697	428500	185660	P 062KF127 DRE 225M4	2210	310
	2.6	160400	563	456400	185660	PF 062KF127 DRE 225M4	1840	311
	3.0	142900	502	467300	185660	PH 062KF127 DRE 225M4	2200	310
	3.5	120100	421	473000	185660	PHF 062KF127 DRE 225M4	1830	311
	4.3	97000	341	444600	185660			
	3.0	142900	502	339700	124060	P 052KF127 DRE 225M4	1720	306
	3.5	120100	421	359500	124060	PF 052KF127 DRE 225M4	1520	307
	4.3	97000	341	355600	124060	PH 052KF127 DRE 225M4	1720	306
						PHF 052KF127 DRE 225M4	1520	307
	4.3	97000	341	298800	100170	P 042KF127 DRE 225M4	1580	300
	5.1	82200	289	293500	100170	PF 042KF127 DRE 225M4	1390	301
	5.8	73200	257	283400	100170	PH 042KF127 DRE 225M4	1580	300
						PHF 042KF127 DRE 225M4	1390	301
	6.8	61500	216	217800	69620	P 032KF127 DRE 225M4	1330	294
	8.5	49700	175	204200	69620	PF 032KF127 DRE 225M4	1210	295
						PH 032KF127 DRE 225M4	1350	294
						PHF 032KF127 DRE 225M4	1230	295
55	0.84	609500	1747	805300	500000			
	1.0	512200	1468	850000	500000	P 102KF187 DVE 250M4	6060	324
	1.2	443500	1271	850000	500000	PF 102KF187 DVE 250M4	5110	325
	1.4	369600	1059	850000	500000	PH 102KF187 DVE 250M4	6130	324
	1.6	315100	903	850000	500000	PHF 102KF187 DVE 250M4	5170	325
	1.9	267100	766	850000	500000			
	2.2	234300	671	850000	500000	P 102KF167 DVE 250M4	5440	322
						PF 102KF167 DVE 250M4	4480	323
						PH 102KF167 DVE 250M4	5500	322
						PHF 102KF167 DVE 250M4	4540	323
	0.99	519100	1487	659100	423000			
	1.2	449400	1288	720000	423000	P 092KF187 DVE 250M4	5210	320
	1.4	374500	1073	720000	423000	PF 092KF187 DVE 250M4	4510	321
	1.6	319300	915	720000	423000	PH 092KF187 DVE 250M4	5220	320
	1.9	270700	776	720000	423000	PHF 092KF187 DVE 250M4	4530	321
	2.2	233200	668	720000	423000			
	2.6	201900	579	720000	423000	P 092KF167 DVE 250M4	4580	318
	3.0	172100	493	720000	423000	PF 092KF167 DVE 250M4	3880	319
	3.6	142600	409	720000	423000	PH 092KF167 DVE 250M4	4590	318
	4.2	121700	349	720000	423000	PHF 092KF167 DVE 250M4	3900	319

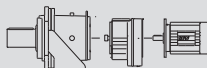


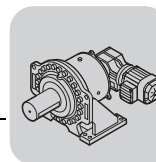
P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]					m [kg]	
55	1.3	410000	1175	605200	359400	P	082KF157	DVE	250M4	3710	316
	1.4	361800	1037	652300	359400	PF	082KF157	DVE	250M4	3060	317
	1.6	313600	899	683000	359400	PH	082KF157	DVE	250M4	3700	316
	1.8	279000	800	683000	359400	PHF	082KF157	DVE	250M4	3050	317
	2.1	240500	689	683000	359400						
	2.6	198300	568	523000	245660	P	072KF157	DVE	250M4	3050	314
	3.1	168200	482	523000	245660	PF	072KF157	DVE	250M4	2560	315
						PH	072KF157	DVE	250M4	3100	314
						PHF	072KF157	DVE	250M4	2610	315
	1.8	281000	806	508900	245660	P	072KF127	DVE	250M4	2750	312
	2.2	236100	677	523000	245660	PF	072KF127	DVE	250M4	2260	313
	3.0	169900	487	523000	245660	PH	072KF127	DVE	250M4	2810	312
	3.6	142800	409	523000	245660	PHF	072KF127	DVE	250M4	2320	313
	2.6	196500	563	430300	185660	P	062KF127	DVE	250M4	2330	310
	2.9	175000	502	446500	185660	PF	062KF127	DVE	250M4	1970	311
	3.5	147100	421	464800	185660	PH	062KF127	DVE	250M4	2320	310
	4.3	118800	341	444900	185660	PHF	062KF127	DVE	250M4	1960	311
	4.3	118800	341	355900	124060	P	052KF127	DVE	250M4	1850	306
	5.1	100700	289	338600	124060	PF	052KF127	DVE	250M4	1650	307
						PH	052KF127	DVE	250M4	1840	306
						PHF	052KF127	DVE	250M4	1640	307
	5.7	89700	257	283600	100170	P	042KF127	DVE	250M4	1700	300
	6.8	75400	216	269100	100170	PF	042KF127	DVE	250M4	1510	301
	8.4	60900	175	252500	100170	PH	042KF127	DVE	250M4	1710	300
						PHF	042KF127	DVE	250M4	1520	301
	8.4	60900	175	204400	69620	P	032KF127	DVE	250M4	1460	294
						PF	032KF127	DVE	250M4	1330	295
						PH	032KF127	DVE	250M4	1480	294
						PHF	032KF127	DVE	250M4	1360	295
75	1.2	602800	1271	810600	500000						
	1.4	502300	1059	850000	500000	P	102KF187	DVE	280S4	6130	324
	1.6	428300	903	850000	500000	PF	102KF187	DVE	280S4	5170	325
	1.9	363000	766	850000	500000	PH	102KF187	DVE	280S4	6190	324
	2.2	312700	660	850000	500000	PHF	102KF187	DVE	280S4	5230	325
	2.7	262800	554	850000	500000						
	1.4	509000	1073	670700	423000	P	092KF187	DVE	280S4	5280	320
	1.6	434000	915	720000	423000	PF	092KF187	DVE	280S4	4580	321
	1.9	367900	776	720000	423000	PH	092KF187	DVE	280S4	5290	320
	2.2	316900	668	720000	423000	PHF	092KF187	DVE	280S4	4590	321
	2.6	266300	561	720000	423000						
	3.0	230600	486	720000	423000						
	3.6	193800	409	720000	423000	P	092KF167	DVE	280S4	4650	318
	4.2	165400	349	720000	423000	PF	092KF167	DVE	280S4	3950	319
						PH	092KF167	DVE	280S4	4660	318
						PHF	092KF167	DVE	280S4	3960	319
	1.8	379300	800	636100	359400	P	082KF157	DVE	280S4	3770	316
	2.2	326900	689	680900	359400	PF	082KF157	DVE	280S4	3120	317
						PH	082KF157	DVE	280S4	3760	316
						PHF	082KF157	DVE	280S4	3120	317
	2.6	269500	568	521500	245660	P	072KF157	DVE	280S4	3120	314
	3.1	228600	482	523000	245660	PF	072KF157	DVE	280S4	2620	315
	3.5	202500	429	523000	245660	PH	072KF157	DVE	280S4	3170	314
	4.0	174600	369	523000	245660	PHF	072KF157	DVE	280S4	2680	315
	5.0	141800	300	494900	245660						
	5.8	120300	254	471200	245660						
	4.4	161400	341	444300	185660	P	062KF127	DVE	280S4	2400	310
						PF	062KF127	DVE	280S4	2040	311
						PH	062KF127	DVE	280S4	2390	310
						PHF	062KF127	DVE	280S4	2020	311
	8.5	82700	175	290900	124060	P	052KF127	DVE	280S4	1920	306
						PF	052KF127	DVE	280S4	1720	307
						PH	052KF127	DVE	280S4	1910	306
						PHF	052KF127	DVE	280S4	1710	307
	8.5	82700	175	252200	100170	P	042KF127	DVE	280S4	1770	300
						PF	042KF127	DVE	280S4	1580	301
						PH	042KF127	DVE	280S4	1770	300
						PHF	042KF127	DVE	280S4	1580	301



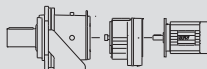
P.KF.. Bevel Planetary Gearmotors

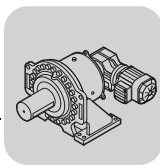
IE2 motor standard – selection tables

P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]						m [kg]	
90	1.4	602800	1059	810600	500000							
	1.6	513900	903	850000	500000	P	102KF187	DVE	280M4	6210	324	
	1.9	435700	766	850000	500000	PF	102KF187	DVE	280M4	5260	325	
	2.2	375300	660	850000	500000	PH	102KF187	DVE	280M4	6270	324	
	2.7	315400	554	850000	500000	PHF	102KF187	DVE	280M4	5320	325	
	3.1	273100	480	850000	500000							
	1.6	520800	915	657100	423000							
	1.9	441500	776	720000	423000	P	092KF187	DVE	280M4	5360	320	
	2.2	380300	668	720000	423000	PF	092KF187	DVE	280M4	4660	321	
	2.6	319600	561	720000	423000	PH	092KF187	DVE	280M4	5370	320	
	3.0	276700	486	720000	423000	PHF	092KF187	DVE	280M4	4670	321	
	3.6	230600	405	720000	423000							
	4.2	198400	349	720000	423000	P	092KF167	DVE	280M4	4730	318	
						PF	092KF167	DVE	280M4	4030	319	
						PH	092KF167	DVE	280M4	4740	318	
						PHF	092KF167	DVE	280M4	4040	319	
110	1.6	626900	903	791300	500000							
	1.9	531400	766	850000	500000	P	102KF187	DRE	315K4	6440	324	
	2.2	457700	660	850000	500000	PF	102KF187	DRE	315K4	5490	325	
	2.7	384700	554	850000	500000	PH	102KF187	DRE	315K4	6510	324	
	3.1	333100	480	850000	500000	PHF	102KF187	DRE	315K4	5550	325	
	3.7	277600	400	850000	500000							
	2.2	463900	668	718400	423000							
	2.6	389800	561	720000	423000	P	092KF187	DRE	315K4	5590	320	
	3.0	337500	486	720000	423000	PF	092KF187	DRE	315K4	4890	321	
	3.7	281300	405	720000	423000	PH	092KF187	DRE	315K4	5600	320	
	4.3	239800	345	720000	423000	PHF	092KF187	DRE	315K4	4910	321	
132	2.2	547800	660	850000	500000							
	2.7	460400	554	850000	500000	P	102KF187	DRE	315S4	6520	324	
	3.1	398600	480	850000	500000	PF	102KF187	DRE	315S4	5570	325	
	3.7	332200	400	850000	500000	PH	102KF187	DRE	315S4	6590	324	
	4.4	283200	341	850000	500000	PHF	102KF187	DRE	315S4	5630	325	
	2.6	466500	561	715800	423000	P	092KF187	DRE	315S4	5670	320	
	3.1	403900	486	720000	423000	PF	092KF187	DRE	315S4	4970	321	
	3.7	336600	405	720000	423000	PH	092KF187	DRE	315S4	5680	320	
	4.3	287000	345	720000	423000	PHF	092KF187	DRE	315S4	4990	321	
160	2.7	559200	554	842900	500000							
	3.1	484200	480	850000	500000	P	102KF187	DRE	315M4	6680	324	
	3.7	403500	400	850000	500000	PF	102KF187	DRE	315M4	5730	325	
	4.4	344000	341	850000	500000	PH	102KF187	DRE	315M4	6740	324	
						PHF	102KF187	DRE	315M4	5790	325	
	3.0	490600	486	690900	423000	P	092KF187	DRE	315M4	5830	320	
	3.7	408800	405	720000	423000	PF	092KF187	DRE	315M4	5130	321	
	4.3	348600	345	720000	423000	PH	092KF187	DRE	315M4	5840	320	
						PHF	092KF187	DRE	315M4	5140	321	
200	3.1	606000	480	808000	500000							
	3.7	505000	400	850000	500000	P	102KF187	DRE	315L4	6760	324	
	4.4	430600	341	850000	500000	PF	102KF187	DRE	315L4	5810	325	
						PH	102KF187	DRE	315L4	6820	324	
						PHF	102KF187	DRE	315L4	5870	325	
	3.7	511800	405	667600	423000	P	092KF187	DRE	315L4	5910	320	
	4.3	436300	345	720000	423000	PF	092KF187	DRE	315L4	5210	321	
					PH	092KF187	DRE	315L4	5920	320		
					PHF	092KF187	DRE	315L4	5220	321		



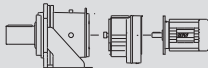
11.4 IE3 motor standard – selection tables

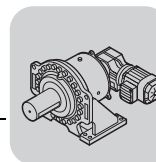
P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]		m [kg]																																																								
0.75	0.36	19500	4029	156000	36810	P 012KF87	DRP 90M4	440	276																																																						
						PF 012KF87	DRP 90M4	370	277																																																						
						PH 012KF87	DRP 90M4	455	276																																																						
						PHF 012KF87	DRP 90M4	385	277																																																						
	0.42	16800	3490	156000	36810	P 012KF77	DRP 90M4	400	274																																																						
						PF 012KF77	DRP 90M4	330	275																																																						
						PH 012KF77	DRP 90M4	415	274																																																						
						PHF 012KF77	DRP 90M4	345	275																																																						
	0.47	14800	3063	156000	36810	P 012KF77	DRP 90M4	400	274																																																						
						PF 012KF77	DRP 90M4	330	275																																																						
						PH 012KF77	DRP 90M4	415	274																																																						
						PHF 012KF77	DRP 90M4	345	275																																																						
	0.38	18300	3793	124000	24830	P 002KF77	DRP 90M4	320	268																																																						
						PF 002KF77	DRP 90M4	265	269																																																						
						PH 002KF77	DRP 90M4	325	268																																																						
						PHF 002KF77	DRP 90M4	270	269																																																						
	0.41	17000	3519	124000	24830	P 002KF67	DRP 90M4	290	266																																																						
										0.49	14400	2984	124000	24830	PF 002KF67	DRP 90M4	235	267																																													
																			0.54	13000	2694	124000	24830	PH 002KF67	DRP 90M4	295	266																																				
																												0.61	11400	2371	124000	24830	PHF 002KF67	DRP 90M4	240	267																											
																																					0.65	10800	2238	124000	24830	P 002KF67	DRP 90M4	295	266																		
																																														0.76	9220	1906	124000	24830	PF 002KF67	DRP 90M4	235	267									
																																																							0.84	8380	1732	124000	24830	PH 002KF67	DRP 90M4	295	266
1.1	0.36	28800	4029	197000	51190	P 022KF87	DRP 90L4	590	282																																																						
						PF 022KF87	DRP 90L4	490	283																																																						
						PH 022KF87	DRP 90L4	610	282																																																						
						PHF 022KF87	DRP 90L4	500	283																																																						
	0.36	28800	4029	156000	36810	P 012KF87	DRP 90L4	440	276																																																						
						PF 012KF87	DRP 90L4	370	277																																																						
						PH 012KF87	DRP 90L4	455	276																																																						
						PHF 012KF87	DRP 90L4	385	277																																																						
0.38	27200	3807	156000	36810	P 012KF77	DRP 90L4	405	274																																																							
									0.41	24900	3490	156000	36810	PF 012KF77	DRP 90L4	335	275																																														
																		0.47	21900	3063	156000	36810	PH 012KF77	DRP 90L4	420	274																																					
																											0.57	18100	2540	156000	36810	PHF 012KF77	DRP 90L4	350	275																												
																																				0.63	16300	2289	156000	36810	P 012KF77	DRP 90L4	405	274																			
																																													0.72	14300	2008	156000	36810	PF 012KF77	DRP 90L4	335	275										
																																																						0.81	12600	1772	156000	36810	PH 012KF77	DRP 90L4	420	274	
																																																															0.47
0.50	20600	2891	123300	24830	P 002KF77	DRP 90L4	325	268																																																							
									0.61	16900	2371	124000	24830	PF 002KF77	DRP 90L4	265	269																																														
																		0.64	16000	2238	124000	24830	PH 002KF77	DRP 90L4	330	268																																					
																											0.76	13600	1906	124000	24830	PHF 002KF77	DRP 90L4	270	269																												
																																				0.83	12300	1732	124000	24830	P 002KF67	DRP 90L4	295	266																			
																																													0.96	10700	1500	124000	24830	PF 002KF67	DRP 90L4	235	267										
																																																						1.0	9950	1392	124000	24830	PH 002KF67	DRP 90L4	300	266	
																																																															1.2
1.4	7620	1066	124000	24830	P 022KF87	DRP 100M4	590	282																																																							
									1.5	6700	938	124000	24830	PF 022KF87	DRP 100M4	490	283																																														
																		0.36	39200	4029	156000	36810	PH 022KF87	DRP 100M4	610	282																																					
																											0.43	33000	3387	197000	51190	PHF 022KF87	DRP 100M4	510	283																												
																																				0.46	30300	3113	197000	51190	P 012KF87	DRP 100M4	445	276																			
																																													0.36	39200	4029	156000	36810	PF 012KF87	DRP 100M4	375	277										
																																																						0.52	26900	2764	156000	36810	PH 012KF87	DRP 100M4	460	276	
																																																															0.41
0.47	29800	3063	156000	36810	P 012KF77	DRP 100M4	410	274																																																							
									0.50	28300	2903	156000	36810	PF 012KF77	DRP 100M4	340	275																																														
																		0.57	24700	2540	156000	36810	PH 012KF77	DRP 100M4	420	274																																					
																											0.63	22300	2289	156000	36810	PHF 012KF77	DRP 100M4	350	275																												
																																				0.72	19500	2008	156000	36810	P 012KF77	DRP 100M4	410	274																			
																																													0.81	17200	1772	156000	36810	PF 012KF77	DRP 100M4	340	275										

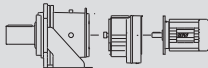


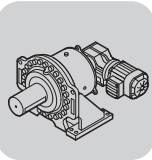
P.KF.. Bevel Planetary Gearmotors

IE3 motor standard – selection tables

P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]		m [kg]	
1.5	0.63	22200	2280	121300	24830	P 002KF77	330	268
		19500	2000	124000	24830	PF 002KF77	270	269
	0.72					PH 002KF77	330	268
						PHF 002KF77	275	269
	0.83	16800	1732	124000	24830	P 002KF67 PF 002KF67 PH 002KF67 PHF 002KF67	300	266
	0.96	14600	1500	124000	24830		240	267
	1.0	13500	1392	124000	24830		300	266
	1.2	11500	1181	124000	24830		245	267
	1.4	10300	1066	124000	24830			
	1.5	9140	938	124000	24830			
	1.6	8630	886	124000	24830			
	1.9	7350	754	124000	24830			
2.2	0.35	58900	4124	236000	69620	P 032KF97	750	290
		54300	3797	241000	69620	PF 032KF97	630	291
	0.38					PH 032KF97	770	290
						PHF 032KF97	650	291
	0.36	57600	4029	180500	51190	P 022KF87 PF 022KF87 PH 022KF87 PHF 022KF87	600	282
	0.43	48400	3387	194800	51190		495	283
	0.46	44500	3113	197000	51190		610	282
	0.52	39500	2764	197000	51190		510	283
	0.58	35300	2471	197000	51190			
	0.52	39500	2764	156000	36810	P 012KF87 PF 012KF87 PH 012KF87 PHF 012KF87	450	276
	0.65	31700	2222	156000	36810		380	277
	0.75	27500	1929	156000	36810		465	276
	0.83	24600	1727	156000	36810		395	277
	1.0	20400	1433	156000	36810			
	0.57	36300	2540	156000	36810	P 012KF77 PF 012KF77 PH 012KF77 PHF 012KF77	415	274
	0.63	32700	2289	156000	36810		345	275
	0.72	28700	2008	156000	36810		425	274
	0.81	25300	1772	156000	36810		355	275
	1.0	19700	1381	156000	36810			
	0.92	22300	1565	121100	24830	P 002KF77 PF 002KF77 PH 002KF77 PHF 002KF77	335	268
	1.0	19600	1376	124000	24830		275	269
	1.2						335	268
							280	269
	1.2	16800	1181	124000	24830	P 002KF67 PF 002KF67 PH 002KF67 PHF 002KF67	305	266
	1.4	15200	1066	124000	24830		245	267
	1.5	13400	938	124000	24830		305	266
	1.6	12600	886	124000	24830		250	267
	1.9	10700	754	124000	24830			
	2.1	9790	685	124000	24830			
	2.4	8480	594	124000	24830			
	2.8	7380	517	124000	24830			
	3.0	6970	488	124000	20200			
3.0	0.35	79600	4124	314400	100170	P 042KF97	1010	296
		73200	3797	319400	100170	PF 042KF97	820	297
	0.43					PH 042KF97	1010	296
		65500	3394	323000	100170	PHF 042KF97	820	297
	0.35	79600	4124	209100	69620	P 032KF97 PF 032KF97 PH 032KF97 PHF 032KF97	760	290
	0.38	73200	3797	218300	69620		640	291
	0.53						780	290
		53400	2767	241900	69620		660	291
	0.59					P 032KF87	690	288
						PF 032KF87	570	289
						PH 032KF87	710	288
						PHF 032KF87	590	289
	0.47	60000	3113	176200	51190	P 022KF87 PF 022KF87 PH 022KF87 PHF 022KF87	610	282
	0.53	53300	2764	187500	51190		510	283
	0.59	47700	2471	195800	51190		620	282
	0.65	42800	2222	197000	51190		520	283
	0.75	37200	1929	197000	51190			
	0.65	42800	2222	156000	36810	P 012KF87 PF 012KF87 PH 012KF87 PHF 012KF87	460	276
	0.75	37200	1929	156000	36810		390	277
	0.84	33300	1727	156000	36810		475	276
	1.0	27600	1433	156000	36810		405	277

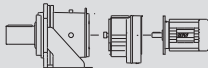


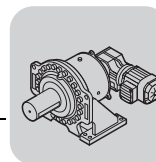
P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]		m [kg]	
3.0	1.0	26600	1381	156000	36810	P 012KF77	425	274
	1.2	23300	1212	156000	36810	PF 012KF77	355	275
	1.3	22100	1148	156000	36810	PH 012KF77	440	274
	1.4	19300	1005	156000	36810	PHF 012KF77	370	275
	1.6	17400	905	156000	36810			
	1.2	23200	1207	119900	24830	P 002KF77	345	268
	1.3	22000	1144	121500	24830	PF 002KF77	285	269
	1.4	19300	1001	124000	24830	PH 002KF77	350	268
						PHF 002KF77	290	269
	1.6	17000	886	124000	24830			
	1.9	14500	754	124000	24830			
	2.1	13200	685	124000	24830	P 002KF67	315	266
	2.4	11400	594	124000	24830	PF 002KF67	255	267
	2.8	9960	517	124000	24830	PH 002KF67	320	266
	3.0	9410	488	124000	20200	PHF 002KF67	260	267
	3.5	8010	415	124000	19100			
	3.8	7280	378	124000	18300			
4.0	0.37	101000	3952	364000	124060	P 052KF107	1280	304
	0.41	91200	3568	364000	124060	PF 052KF107	1080	305
						PH 052KF107	1280	304
						PHF 052KF107	1080	305
	0.45	82800	3241	311700	100170	P 042KF107	1140	298
						PF 042KF107	950	299
						PH 042KF107	1140	298
						PHF 042KF107	950	299
	0.36	105400	4124	290100	100170			
	0.39	97000	3797	298700	100170	P 042KF97	1030	296
	0.43	86700	3394	308300	100170	PF 042KF97	840	297
	0.53	70700	2767	321300	100170	PH 042KF97	1030	296
	0.60	62700	2454	323000	100170	PHF 042KF97	840	297
	0.53	70700	2767	221800	69620	P 032KF97	780	290
	0.66	56700	2218	238500	69620	PF 032KF97	660	291
	0.78	48000	1880	247000	69620	PH 032KF97	800	290
						PHF 032KF97	680	291
	0.59	63100	2471	231300	69620	P 032KF87	700	288
						PF 032KF87	580	289
						PH 032KF87	730	288
						PHF 032KF87	600	289
	0.66	56700	2222	181900	51190			
	0.76	49200	1929	193600	51190	P 022KF87	620	282
	0.85	44100	1727	197000	51190	PF 022KF87	520	283
	1.0	36600	1433	197000	51190	PH 022KF87	640	282
	1.2	31400	1231	197000	51190	PHF 022KF87	540	283
	0.85	44100	1727	156000	36810			
	1.0	36600	1433	156000	36810	P 012KF87	475	276
	1.3	27900	1094	156000	36810	PF 012KF87	405	277
						PH 012KF87	490	276
						PHF 012KF87	420	277
	1.2	30900	1212	156000	36810			
	1.3	29300	1148	156000	36810			
	1.5	25600	1005	156000	36810	P 012KF77	440	274
	1.6	23100	905	156000	36810	PF 012KF77	370	275
	1.8	20200	794	156000	36810	PH 012KF77	455	274
	2.1	17900	701	156000	36810	PHF 012KF77	385	275
	2.4	15800	621	156000	36810			
	2.8	13500	530	156000	36810			
	1.6	23000	902	120200	24830	P 002KF77	360	268
	1.8	20200	791	123900	24830	PF 002KF77	300	269
	2.1	17800	698	124000	24830	PH 002KF77	365	268
	2.4	15800	619	124000	24830	PHF 002KF77	305	269
	2.8	13100	517	124000	24830			
	3.0	12400	488	124000	20200	P 002KF67	330	266
	3.5	10600	415	124000	19100	PF 002KF67	270	267
	3.9	9640	378	124000	18300	PH 002KF67	335	266
	4.5	8350	327	124000	16800	PHF 002KF67	275	267
	5.2	7270	284	124000	16000			

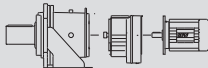


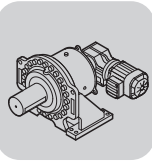
P.KF.. Bevel Planetary Gearmotors

IE3 motor standard – selection tables

P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]		m [kg]	
5.5	0.41	124500	3568	473000	185660	P 062KF107 DRP 132MC4	1770	308
	0.46	113100	3241	473000	185660	PF 062KF107 DRP 132MC4	1410	309
						PH 062KF107 DRP 132MC4	1760	308
						PHF 062KF107 DRP 132MC4	1400	309
	0.37	137900	3952	344300	124060	P 052KF107 DRP 132MC4	1290	304
	0.41	124500	3568	355900	124060	PF 052KF107 DRP 132MC4	1090	305
	0.51	100300	2876	364000	124060	PH 052KF107 DRP 132MC4	1280	304
	0.57	91000	2610	364000	124060	PHF 052KF107 DRP 132MC4	1080	305
	0.46	113100	3241	281400	100170	P 042KF107 DRP 132MC4	1140	298
	0.66	78200	2243	315500	100170	PF 042KF107 DRP 132MC4	950	299
	0.75	68300	1958	323000	100170	PH 042KF107 DRP 132MC4	1150	298
						PHF 042KF107 DRP 132MC4	960	299
	0.53	96500	2767	299200	100170	P 042KF97 DRP 132MC4	1030	296
	0.60	85600	2454	309300	100170	PF 042KF97 DRP 132MC4	840	297
	0.78	65600	1880	323000	100170	PH 042KF97 DRP 132MC4	1030	296
						PHF 042KF97 DRP 132MC4	840	297
	0.66	77400	2218	212400	69620	P 032KF97 DRP 132MC4	780	290
	0.78	65600	1880	228300	69620	PF 032KF97 DRP 132MC4	660	291
	0.90	57300	1643	237800	69620	PH 032KF97 DRP 132MC4	800	290
	0.98	52400	1503	242900	69620	PHF 032KF97 DRP 132MC4	680	291
	1.2	42900	1231	251400	69620	P 032KF87 DRP 132MC4	710	288
						PF 032KF87 DRP 132MC4	590	289
						PH 032KF87 DRP 132MC4	730	288
						PHF 032KF87 DRP 132MC4	610	289
	0.85	60200	1727	175800	51190	P 022KF87 DRP 132MC4	630	282
	1.0	50000	1433	192600	51190	PF 022KF87 DRP 132MC4	530	283
	1.2	42900	1231	197000	51190	PH 022KF87 DRP 132MC4	640	282
	1.4	38100	1094	197000	51190	PHF 022KF87 DRP 132MC4	540	283
	1.5	34100	978	197000	51190			
	1.7	30600	879	197000	51190			
	1.4	38100	1094	156000	36810	P 012KF87 DRP 132MC4	480	276
	1.9	26600	763	156000	36810	PF 012KF87 DRP 132MC4	410	277
						PH 012KF87 DRP 132MC4	495	276
						PHF 012KF87 DRP 132MC4	425	277
	1.5	35000	1005	156000	36810	P 012KF77 DRP 132MC4	445	274
	1.6	31500	905	156000	36810	PF 012KF77 DRP 132MC4	375	275
	1.9	27700	794	156000	36810	PH 012KF77 DRP 132MC4	460	274
	2.1	24400	701	156000	36810	PHF 012KF77 DRP 132MC4	390	275
	2.4	21600	621	156000	36810			
	2.8	18500	530	156000	36810			
	3.5	14800	425	156000	36810			
	2.4	21600	619	122100	24830	P 002KF77 DRP 132MC4	365	268
	2.8	18400	528	124000	24830	PF 002KF77 DRP 132MC4	305	269
	3.0	16800	483	124000	24830	PH 002KF77 DRP 132MC4	370	268
	3.5	14700	424	124000	24830	PHF 002KF77 DRP 132MC4	310	269
	4.0	13000	374	124000	24830			
	4.4	11500	331	124000	24830			
	5.6	9210	264	124000	24830			
	6.1	8410	241	123000	19100			
	7.0	7380	212	118200	18900			
	7.9	6510	187	113800	17900			
	8.9	5770	166	109800	17000			
	10	4930	141	104700	15600			
7.5	0.43	163400	3425	523000	245660	P 072KF127 DRP 160M4	2410	312
	0.54	129000	2703	523000	245660	PF 072KF127 DRP 160M4	1920	313
	0.62	113800	2385	523000	245660	PH 072KF127 DRP 160M4	2470	312
						PHF 072KF127 DRP 160M4	1970	313
	0.34	206400	4322	422100	185660	P 062KF127 DRP 160M4	1990	310
	0.60	117200	2456	473000	185660	PF 062KF127 DRP 160M4	1630	311
	0.69	101300	2121	473000	185660	PH 062KF127 DRP 160M4	1980	310
	0.78	89600	1876	473000	185660	PHF 062KF127 DRP 160M4	1610	311
	0.41	170400	3568	449700	185660	P 062KF107 DRP 160M4	1790	308
	0.45	154700	3241	460100	185660	PF 062KF107 DRP 160M4	1430	309
	0.66	107100	2243	473000	185660	PH 062KF107 DRP 160M4	1780	308
	0.89	79300	1661	473000	185660	PHF 062KF107 DRP 160M4	1420	309

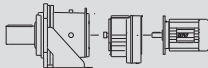


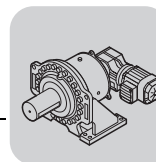
P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]		m [kg]	
7.5	0.51	137300	2876	344900	124060	P 052KF107 DRP 160M4	1310	304
	0.56	124600	2610	355900	124060	PF 052KF107 DRP 160M4	1110	305
	0.75	93500	1958	364000	124060	PH 052KF107 DRP 160M4	1300	304
	1.0	69300	1452	364000	124060	PHF 052KF107 DRP 160M4	1100	305
	1.3	52200	1095	364000	124060	P 052KF97 DRP 160M4	1200	302
	1.5	46300	971	364000	124060	PF 052KF97 DRP 160M4	1000	303
						PH 052KF97 DRP 160M4	1190	302
						PHF 052KF97 DRP 160M4	990	303
	0.66	107100	2243	288200	100170	P 042KF107 DRP 160M4	1170	298
	0.75	93500	1958	302200	100170	PF 042KF107 DRP 160M4	980	299
	1.0	69300	1452	322300	100170	PH 042KF107 DRP 160M4	1170	298
	1.3	54300	1138	323000	100170	PHF 042KF107 DRP 160M4	980	299
	0.78	89800	1880	305600	100170	P 042KF97 DRP 160M4	1050	296
	1.2	57700	1209	323000	100170	PF 042KF97 DRP 160M4	860	297
	1.5	46300	971	323000	100170	PH 042KF97 DRP 160M4	1060	296
	1.7	41900	878	323000	100170	PHF 042KF97 DRP 160M4	870	297
	0.89	78400	1643	210900	69620	P 032KF97 DRP 160M4	800	290
	0.98	71700	1503	220400	69620	PF 032KF97 DRP 160M4	680	291
	1.5	46300	971	248500	69620	PH 032KF97 DRP 160M4	830	290
	1.7	41900	878	252000	69620	PHF 032KF97 DRP 160M4	700	291
	2.0	35500	744	252000	69620			
	2.3	31000	650	252000	69620			
	1.2	58800	1231	236200	69620	P 032KF87 DRP 160M4	730	288
	1.9	36400	763	252000	69620	PF 032KF87 DRP 160M4	610	289
	2.2	32600	683	252000	69620	PH 032KF87 DRP 160M4	750	288
	2.3	29900	628	252000	69200	PHF 032KF87 DRP 160M4	630	289
	2.6	27000	567	252000	69620			
	2.7	25900	543	197000	51190	P 022KF97 DRP 160M4	720	284
	3.1	22400	470	197000	51190	PF 022KF97 DRP 160M4	620	285
						PH 022KF97 DRP 160M4	740	284
						PHF 022KF97 DRP 160M4	640	285
	1.3	52200	1094	189300	51190			
	1.5	46600	978	197000	51190	P 022KF87 DRP 160M4	650	282
	1.7	41900	879	197000	51190	PF 022KF87 DRP 160M4	550	283
	2.2	32600	683	197000	51190	PH 022KF87 DRP 160M4	660	282
	2.3	29900	628	197000	51190	PHF 022KF87 DRP 160M4	560	283
	3.0	23500	493	197000	51190			
	3.4	20900	438	197000	51190			
	3.6	19500	408	156000	36810	P 012KF97 DRP 160M4	580	278
	4.3	16300	342	156000	36810	PF 012KF97 DRP 160M4	510	279
	5.3	13300	279	156000	36810	PH 012KF97 DRP 160M4	590	278
						PHF 012KF97 DRP 160M4	520	279
	1.9	36400	763	156000	36810	P 012KF87 DRP 160M4	500	276
	3.0	23500	493	156000	36810	PF 012KF87 DRP 160M4	430	277
	3.8	18700	392	156000	36810	PH 012KF87 DRP 160M4	520	276
	4.5	15500	325	156000	36810	PHF 012KF87 DRP 160M4	445	277
	5.1	13800	291	156000	36810			
	2.1	33400	701	156000	36810	P 012KF77 DRP 160M4	465	274
	2.4	29600	621	156000	36810	PF 012KF77 DRP 160M4	395	275
	2.8	25300	530	156000	36810	PH 012KF77 DRP 160M4	480	274
						PHF 012KF77 DRP 160M4	410	275
	3.5	20200	424	123900	24830			
	3.9	17800	374	124000	24830	P 002KF77 DRP 160M4	385	268
	4.4	15800	331	124000	24830	PF 002KF77 DRP 160M4	325	269
	5.2	13500	283	124000	24830	PH 002KF77 DRP 160M4	390	268
	5.6	12600	264	124000	24830	PHF 002KF77 DRP 160M4	330	269
	7.0	10100	212	118300	18900			
	7.9	8910	187	114000	17900			
	8.9	7900	166	109900	17000			
	10	6750	141	104800	15600			
9.2	0.43	198500	3402	850000	500000	P 102KF167 DRP 160MC4	5090	322
	0.56	153800	2636	850000	500000	PF 102KF167 DRP 160MC4	4140	323
	0.63	137200	2352	850000	500000	PH 102KF167 DRP 160MC4	5150	322
						PHF 102KF167 DRP 160MC4	4200	323

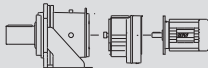
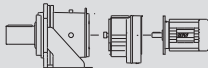
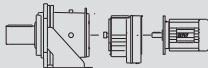
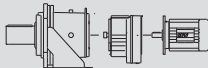
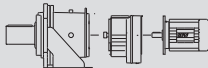
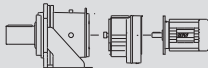
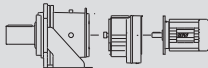
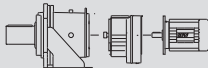
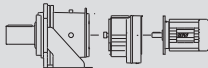
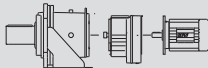
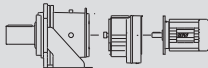
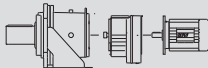
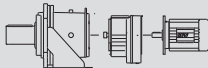
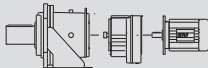
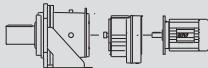


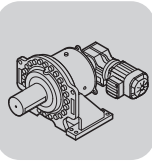
P.KF.. Bevel Planetary Gearmotors

IE3 motor standard – selection tables

P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]		m [kg]	
9.2	0.43	201200	3447	720000	423000			
	0.48	178900	3065	720000	423000	P 092KF167	DRP 160MC4	4240 318
	0.54	158400	2715	720000	423000	PF 092KF167	DRP 160MC4	3540 319
	0.62	139100	2383	720000	423000	PH 092KF167	DRP 160MC4	4250 318
	0.67	128900	2209	720000	423000	PHF 092KF167	DRP 160MC4	3550 319
	0.73	118500	2031	720000	423000			
	0.35	244900	4198	523000	245660	P 072KF127	DRP 160MC4	2410 312
	0.43	199800	3425	523000	245660	PF 072KF127	DRP 160MC4	1920 313
	0.47	182200	3123	523000	245660	PH 072KF127	DRP 160MC4	2470 312
	0.55	157700	2703	523000	245660	PHF 072KF127	DRP 160MC4	1980 313
	0.62	139200	2385	523000	245660			
	0.42	205900	3526	422500	185660	P 062KF127	DRP 160MC4	1990 310
	0.46	187700	3216	437100	185660	PF 062KF127	DRP 160MC4	1630 311
	0.60	143300	2456	467100	185660	PH 062KF127	DRP 160MC4	1980 310
	0.70	123800	2121	473000	185660	PHF 062KF127	DRP 160MC4	1620 311
	0.79	109500	1876	473000	185660			
	0.51	167800	2876	451500	185660	P 062KF107	DRP 160MC4	1800 308
	0.57	152300	2610	461600	185660	PF 062KF107	DRP 160MC4	1430 309
	0.66	130900	2243	473000	185660	PH 062KF107	DRP 160MC4	1790 308
	0.75	114300	1958	473000	185660	PHF 062KF107	DRP 160MC4	1420 309
	0.89	96900	1661	473000	185660			
	1.0	84700	1452	473000	185660			
	0.66	130900	2243	350500	124060	P 052KF107	DRP 160MC4	1310 304
	0.75	114300	1958	364000	124060	PF 052KF107	DRP 160MC4	1110 305
	1.0	84700	1452	364000	124060	PH 052KF107	DRP 160MC4	1300 304
	1.2	71600	1227	364000	124060	PHF 052KF107	DRP 160MC4	1100 305
	1.1	78300	1343	364000	124060	P 052KF97	DRP 160MC4	1200 302
	1.2	70500	1209	364000	124060	PF 052KF97	DRP 160MC4	1000 303
						PH 052KF97	DRP 160MC4	1190 302
						PHF 052KF97	DRP 160MC4	990 303
	0.75	114300	1958	280000	100170	P 042KF107	DRP 160MC4	1170 298
	0.89	96900	1661	298800	100170	PF 042KF107	DRP 160MC4	980 299
	1.0	84700	1452	310100	100170	PH 042KF107	DRP 160MC4	1170 298
	1.3	66400	1138	323000	100170	PHF 042KF107	DRP 160MC4	980 299
	0.98	87700	1503	307500	100170	P 042KF97	DRP 160MC4	1050 296
	1.2	70500	1209	321400	100170	PF 042KF97	DRP 160MC4	860 297
	1.4	63900	1095	323000	100170	PH 042KF97	DRP 160MC4	1060 296
	1.5	56600	971	323000	100170	PHF 042KF97	DRP 160MC4	870 297
	1.7	51200	878	323000	100170			
	1.2	70500	1209	222000	69620	P 032KF97	DRP 160MC4	810 290
	1.4	63900	1095	230400	69620	PF 032KF97	DRP 160MC4	690 291
	1.5	56600	971	238500	69620	PH 032KF97	DRP 160MC4	830 290
	1.7	51200	878	244000	69620	PHF 032KF97	DRP 160MC4	710 291
	2.0	43400	744	251000	69620			
	2.3	37900	650	252000	69620			
	2.4	36600	628	252000	69200	P 032KF87	DRP 160MC4	730 288
	2.6	33000	567	252000	69620	PF 032KF87	DRP 160MC4	610 289
						PH 032KF87	DRP 160MC4	750 288
						PHF 032KF87	DRP 160MC4	630 289
	2.7	31700	543	197000	51190	P 022KF97	DRP 160MC4	730 284
	3.1	27400	470	197000	51190	PF 022KF97	DRP 160MC4	620 285
						PH 022KF97	DRP 160MC4	740 284
						PHF 022KF97	DRP 160MC4	640 285
	1.5	57000	978	181400	51190	P 022KF87	DRP 160MC4	650 282
	1.7	51300	879	190600	51190	PF 022KF87	DRP 160MC4	550 283
	1.9	44500	763	197000	51190	PH 022KF87	DRP 160MC4	670 282
	2.2	39800	683	197000	51190	PHF 022KF87	DRP 160MC4	560 283
	2.4	36600	628	197000	51190			
	3.0	28700	493	197000	51190			
	3.4	25500	438	197000	51190			
	3.6	23800	408	156000	36810	P 012KF97	DRP 160MC4	580 278
	4.3	19900	342	156000	36810	PF 012KF97	DRP 160MC4	510 279
	5.3	16200	279	156000	36810	PH 012KF97	DRP 160MC4	590 278
						PHF 012KF97	DRP 160MC4	520 279

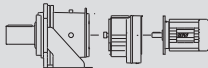


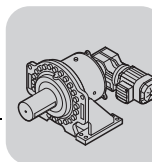
P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]		m [kg]	
9.2	2.2	39800	683	156000	36810			
	2.4	36600	628	156000	36810			
	2.6	33000	567	156000	36810			
	3.0	28700	493	156000	36810			
	3.4	25500	438	156000	36810			
	3.8	22800	392	156000	36810			
	4.5	18900	325	156000	36810			
	5.1	16900	291	156000	36810			
	3.8	22800	391	120600	24830			
	4.6	18900	324	124000	24830			
	5.2	16400	282	124000	24830			
	6.0	14300	245	123600	24830			
	6.8	12700	218	119200	24830			
	7.6	11300	195	115400	24830			
	9.1	9450	162	109100	24830			
	10	8250	141	104700	15600			
11.0	0.43	237400	3402	850000	500000			
	0.56	183900	2636	850000	500000			
	0.63	164100	2352	850000	500000			
	0.74	139900	2005	850000	500000			
	0.48	213900	3065	720000	423000			
	0.54	189400	2715	720000	423000			
	0.62	166300	2383	720000	423000			
	0.67	154100	2209	720000	423000			
	0.73	141700	2031	720000	423000			
	0.83	123300	1767	720000	423000			
	0.39	262500	3761	683000	359400			
	0.43	240100	3440	683000	359400			
	0.39	266400	3818	523000	245660			
	0.49	212000	3038	523000	245660			
	0.43	238900	3425	523000	245660			
	0.47	217900	3123	523000	245660			
	0.55	188600	2703	523000	245660			
	0.62	166400	2385	523000	245660			
	0.46	224500	3216	406000	185660			
	0.53	194300	2783	432000	185660			
	0.60	171400	2456	449000	185660			
	0.70	148000	2121	464300	185660			
	0.79	130900	1876	473000	185660			
	0.66	156500	2243	458900	185660			
	0.75	136600	1958	471000	185660			
	0.89	115900	1661	473000	185660			
	0.75	136600	1958	345500	124060			
	1.0	101300	1452	364000	124060			
	1.2	85600	1227	364000	124060			
	0.89	115900	1661	278100	100170			
	1.0	101300	1452	294400	100170			
	1.3	79400	1138	314600	100170			
	1.2	84300	1209	310400	100170			
	1.5	67700	971	323000	100170			
	1.7	61200	878	323000	100170			
	1.4	76400	1095	213900	69620			
	1.5	67700	971	225700	69620			
	1.7	61200	878	233500	69620			
	2.0	51900	744	243400	69620			
	2.3	45300	650	249400	69620			

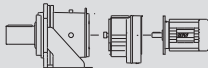


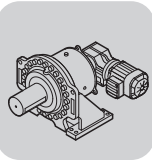
P.KF.. Bevel Planetary Gearmotors

IE3 motor standard – selection tables

P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]		m [kg]	
11.0	2.7	37900	543	197000	51190	P 022KF97	770	284
	3.1	32800	470	197000	51190	PF 022KF97	670	285
						PH 022KF97	790	284
						PHF 022KF97	690	285
	1.9	53200	763	187700	51190			
	2.2	47600	683	195900	51190	P 022KF87	700	282
	2.4	43800	628	197000	51190	PF 022KF87	600	283
	2.6	39500	567	197000	51190	PH 022KF87	710	282
	3.0	34400	493	197000	51190	PHF 022KF87	610	283
	3.4	30500	438	197000	51190			
	3.8	27300	392	197000	51190			
	3.6	28500	408	156000	36810	P 012KF97	630	278
	4.3	23800	342	156000	36810	PF 012KF97	560	279
	5.3	19400	279	156000	36810	PH 012KF97	640	278
						PHF 012KF97	570	279
	2.6	39500	567	156000	36810			
	3.0	34400	493	156000	36810	P 012KF87	550	276
	3.4	30500	438	156000	36810	PF 012KF87	480	277
	3.8	27300	392	156000	36810	PH 012KF87	570	276
	4.5	22700	325	156000	36810	PHF 012KF87	495	277
	5.2	19700	283	156000	36810			
	6.6	15600	225	148600	29500			
	4.6	22600	324	120800	24830	P 002KF87	470	270
	5.2	19600	282	124000	24830	PF 002KF87	415	271
	7.6	13600	195	115400	24830	PH 002KF87	475	270
	9.1	11300	162	109100	24830	PHF 002KF87	415	271
	10	9820	141	104600	24800			
15.0	0.41	339700	3570	850000	500000	P 102KF187	5780	324
	0.51	273100	2870	850000	500000	PF 102KF187	4820	325
						PH 102KF187	5840	324
						PHF 102KF187	4880	325
	0.63	223800	2352	850000	500000	P 102KF167	5150	322
	0.74	190700	2005	850000	500000	PF 102KF167	4190	323
						PH 102KF167	5210	322
						PHF 102KF167	4250	323
	0.41	344200	3617	720000	423000	P 092KF187	4920	320
	0.51	276700	2908	720000	423000	PF 092KF187	4230	321
	0.57	248200	2608	720000	423000	PH 092KF187	4940	320
	0.65	215500	2264	720000	423000	PHF 092KF187	4240	321
	0.67	210200	2209	720000	423000			
	0.73	193300	2031	720000	423000	P 092KF167	4290	318
	0.83	168100	1767	720000	423000	PF 092KF167	3600	319
	1.2	120400	1265	720000	423000	PH 092KF167	4310	318
	1.2	116200	1221	720000	423000	PHF 092KF167	3610	319
	1.3	107400	1129	720000	423000			
	0.39	358000	3761	655700	359400	P 082KF157	3420	316
	0.43	327400	3440	680600	359400	PF 082KF157	2770	317
	0.64	217900	2290	683000	359400	PH 082KF157	3410	316
	0.72	193900	2038	683000	359400	PHF 082KF157	2760	317
	0.49	289100	3038	499500	245660	P 072KF157	2760	314
						PF 072KF157	2270	315
						PH 072KF157	2820	314
						PHF 072KF157	2320	315
	0.55	257200	2703	523000	245660			
	0.62	226900	2385	523000	245660	P 072KF127	2470	312
	0.72	196000	2060	523000	245660	PF 072KF127	1980	313
	0.81	173300	1822	523000	245660	PH 072KF127	2520	312
	0.96	145700	1531	523000	245660	PHF 072KF127	2030	313
	1.1	131300	1381	523000	245660			
	0.70	201900	2121	425800	185660	P 062KF127	2050	310
	0.79	178500	1876	443900	185660	PF 062KF127	1680	311
	0.94	150000	1577	463000	185660	PH 062KF127	2040	310
	1.0	135300	1422	471700	185660	PHF 062KF127	1670	311
	1.2	117100	1231	473000	185660			

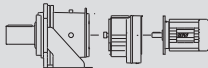


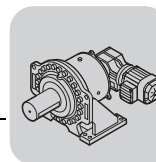
P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]		m [kg]	
15.0	0.89	158000	1661	458000	185660	P 062KF107 DRP 180L4	1860	308
	1.0	138100	1452	470100	185660	PF 062KF107 DRP 180L4	1490	309
	1.2	116800	1227	473000	185660	PH 062KF107 DRP 180L4	1840	308
	1.3	108200	1138	473000	185660	PHF 062KF107 DRP 180L4	1480	309
	1.4	98200	1033	473000	185660			
	1.0	138100	1452	344100	124060	P 052KF107 DRP 180L4	1370	304
	1.2	116800	1227	362100	124060	PF 052KF107 DRP 180L4	1170	305
	1.4	98200	1033	364000	124060	PH 052KF107 DRP 180L4	1360	304
	1.7	84400	887	364000	124060	PHF 052KF107 DRP 180L4	1160	305
	1.9	73700	774	364000	124060			
	1.7	83500	878	364000	124060	P 052KF97 DRP 180L4	1260	302
	2.0	70800	744	364000	124060	PF 052KF97 DRP 180L4	1060	303
						PH 052KF97 DRP 180L4	1250	302
						PHF 052KF97 DRP 180L4	1050	303
	1.3	108200	1138	287000	100170	P 042KF107 DRP 180L4	1230	298
						PF 042KF107 DRP 180L4	1040	299
						PH 042KF107 DRP 180L4	1230	298
						PHF 042KF107 DRP 180L4	1040	299
	1.5	92300	971	303200	100170	P 042KF97 DRP 180L4	1110	296
	1.7	83500	878	311100	100170	PF 042KF97 DRP 180L4	920	297
	2.0	70800	744	321300	100170	PH 042KF97 DRP 180L4	1120	296
	2.3	61800	650	323000	100170	PHF 042KF97 DRP 180L4	930	297
	2.7	51700	543	323000	100170			
	2.0	70800	744	221700	69620	P 032KF97 DRP 180L4	860	290
	2.3	61800	650	232800	69620	PF 032KF97 DRP 180L4	740	291
	2.7	51700	543	243600	69620	PH 032KF97 DRP 180L4	890	290
	3.1	44700	470	249900	69620	PHF 032KF97 DRP 180L4	760	291
	3.6	38800	408	252000	69620			
	2.7	51700	543	190000	51190	P 022KF97 DRP 180L4	780	284
	3.1	44700	470	197000	51190	PF 022KF97 DRP 180L4	680	285
	3.6	38800	408	197000	51190	PH 022KF97 DRP 180L4	800	284
	4.3	32500	342	197000	51190	PHF 022KF97 DRP 180L4	700	285
	4.4	31600	333	197000	51190			
	5.3	26500	279	197000	51190			
	6.1	22900	241	197000	51190			
	3.6	38800	408	156000	36810	P 012KF97 DRP 180L4	640	278
	4.3	32500	342	156000	36810	PF 012KF97 DRP 180L4	570	279
	5.3	26500	279	156000	36810	PH 012KF97 DRP 180L4	650	278
	6.1	22900	241	151800	36810	PHF 012KF97 DRP 180L4	580	279
	7.0	19900	209	145500	36810			
	8.4	16600	175	138000	36810			
	6.3	22200	234	121300	24830	P 002KF97 DRP 180L4	560	272
	7.3	19300	203	116800	24830	PF 002KF97 DRP 180L4	500	273
						PH 002KF97 DRP 180L4	560	272
						PHF 002KF97 DRP 180L4	500	273
	9.1	15400	162	109100	24830	P 002KF87 DRP 180L4	480	270
	10	13400	141	104600	24800	PF 002KF87 DRP 180L4	425	271
						PH 002KF87 DRP 180L4	485	270
						PHF 002KF87 DRP 180L4	430	271
18.5	0.42	416700	3570	850000	500000	P 102KF187 DRP 200L4	5880	324
	0.52	335000	2870	850000	500000	PF 102KF187 DRP 200L4	4930	325
	0.58	300500	2574	850000	500000	PH 102KF187 DRP 200L4	5940	324
	0.66	260900	2235	850000	500000	PHF 102KF187 DRP 200L4	4990	325
	0.73	236700	2028	850000	500000			
	0.41	417600	3570	850000	500000	P 102KF187 DRP 180LC4	5790	324
	0.52	335700	2870	850000	500000	PF 102KF187 DRP 180LC4	4830	325
	0.57	301100	2574	850000	500000	PH 102KF187 DRP 180LC4	5850	324
	0.66	261400	2235	850000	500000	PHF 102KF187 DRP 180LC4	4890	325
	0.89	193900	1661	850000	500000	P 102KF167 DRP 200L4	5250	322
	1.2	145700	1249	850000	500000	PF 102KF167 DRP 200L4	4300	323
	1.3	130000	1114	850000	500000	PH 102KF167 DRP 200L4	5310	322
	1.6	110800	949	850000	500000	PHF 102KF167 DRP 200L4	4360	323
	0.74	234500	2005	850000	500000	P 102KF167 DRP 180LC4	5160	322
	0.89	194300	1661	850000	500000	PF 102KF167 DRP 180LC4	4200	323
	1.2	146000	1249	850000	500000	PH 102KF167 DRP 180LC4	5220	322
	1.3	130300	1114	850000	500000	PHF 102KF167 DRP 180LC4	4260	323

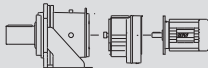


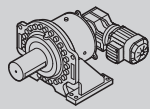
P.KF.. Bevel Planetary Gearmotors

IE3 motor standard – selection tables

P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]		m [kg]	
18.5	0.41	422300	3617	720000	423000	P 092KF187 DRP 200L4 PF 092KF187 DRP 200L4 PH 092KF187 DRP 200L4 PHF 092KF187 DRP 200L4	5030	320
	0.51	339500	2908	720000	423000		4330	321
	0.57	304500	2608	720000	423000		5040	320
	0.72	239800	2054	720000	423000		4340	321
	0.84	206600	1770	720000	423000			
	0.41	423200	3617	720000	423000	P 092KF187 DRP 180LC4 PF 092KF187 DRP 180LC4 PH 092KF187 DRP 180LC4 PHF 092KF187 DRP 180LC4	4930	320
	0.51	340200	2908	720000	423000		4240	321
	0.57	305100	2608	720000	423000		4940	320
	0.65	264900	2264	720000	423000		4250	321
	0.72	240300	2054	720000	423000			
	1.2	147700	1265	720000	423000	P 092KF167 DRP 200L4 PF 092KF167 DRP 200L4 PH 092KF167 DRP 200L4 PHF 092KF167 DRP 200L4	4400	318
	1.2	142600	1221	720000	423000		3700	319
	1.3	131800	1129	720000	423000		4410	318
	1.4	121500	1041	720000	423000		3710	319
	1.5	112300	962	720000	423000			
	1.7	100700	863	720000	423000	P 092KF167 DRP 180LC4 PF 092KF167 DRP 180LC4 PH 092KF167 DRP 180LC4 PHF 092KF167 DRP 180LC4	4300	318
	1.9	93000	797	720000	423000		3600	319
	0.84	206700	1767	720000	423000		4320	318
	0.88	196900	1683	720000	423000		3620	319
	1.2	148000	1265	720000	423000			
	1.2	142900	1221	720000	423000	P 082KF157 DRP 200L4 PF 082KF157 DRP 200L4 PH 082KF157 DRP 200L4 PHF 082KF157 DRP 200L4	3520	316
	1.3	132000	1129	720000	423000		2880	317
	1.4	121800	1041	720000	423000		3520	316
	1.5	112500	962	720000	423000		2870	317
	1.0	166600	1427	683000	359400			
	0.43	402400	3440	613100	359400	P 082KF157 DRP 180LC4 PF 082KF157 DRP 180LC4 PH 082KF157 DRP 180LC4 PHF 082KF157 DRP 180LC4	3430	316
	0.49	350100	2993	662600	359400		2780	317
	0.56	309000	2641	683000	359400		3420	316
	0.65	267900	2290	683000	359400		2770	317
	0.73	238300	2038	683000	359400			
	0.72	241400	2068	523000	245660	P 072KF157 DRP 200L4 PF 072KF157 DRP 200L4 PH 072KF157 DRP 200L4 PHF 072KF157 DRP 200L4	2870	314
	1.0	169000	1449	523000	245660		2380	315
							2920	314
							2430	315
	0.64	271900	2325	519000	245660		2770	314
						P 072KF157 DRP 180LC4 PF 072KF157 DRP 180LC4 PH 072KF157 DRP 180LC4 PHF 072KF157 DRP 180LC4	2280	315
							2820	314
							2330	315
	0.81	212600	1822	523000	245660		2580	312
	1.1	161100	1381	523000	245660		2080	313
	1.2	139400	1195	523000	245660	P 072KF127 DRP 200L4 PF 072KF127 DRP 200L4 PH 072KF127 DRP 200L4 PHF 072KF127 DRP 200L4	2630	312
	1.4	123000	1055	523000	245660		2140	313
	1.6	106200	911	523000	245660			
	0.72	240900	2060	523000	245660		2480	312
	0.81	213100	1822	523000	245660		1990	313
	0.97	179000	1531	523000	245660	P 062KF127 DRP 200L4 PF 062KF127 DRP 200L4 PH 062KF127 DRP 200L4 PHF 062KF127 DRP 200L4	2530	312
	1.1	161400	1381	523000	245660		2040	313
	0.94	184100	1577	439800	185660		2150	310
	1.0	166000	1422	452700	185660		1790	311
	1.2	143600	1231	466900	185660		2140	310
	1.4	126700	1086	473000	185660	P 062KF127 DRP 180LC4 PF 062KF127 DRP 180LC4 PH 062KF127 DRP 180LC4 PHF 062KF127 DRP 180LC4	1780	311
	1.6	109400	938	473000	185660			
	1.8	96800	830	473000	185660			
	2.1	81300	697	473000	185660			
	0.79	219500	1876	410600	185660		2060	310
	0.94	184400	1577	439600	185660	P 062KF127 DRP 180LC4 PF 062KF127 DRP 180LC4 PH 062KF127 DRP 180LC4 PHF 062KF127 DRP 180LC4	1690	311
	1.0	166300	1422	452500	185660		2050	310
	1.2	143900	1231	466700	185660		1680	311
	1.3	132800	1138	473000	185660			
	1.4	120500	1033	473000	185660	P 062KF107 DRP 200L4 PF 062KF107 DRP 200L4 PH 062KF107 DRP 200L4 PHF 062KF107 DRP 200L4	1960	308
	1.7	103500	887	473000	185660		1600	309
	1.9	90400	774	473000	185660		1950	308
	2.3	76600	657	473000	185660		1580	309
	2.6	67000	574	473000	185660			

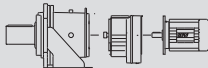


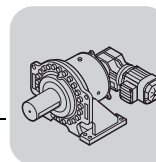
P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]		m [kg]	
18.5	1.2	143500	1227	466900	185660	P 062KF107 DRP 180LC4	1860	308
	1.3	133000	1138	473000	185660	PF 062KF107 DRP 180LC4	1500	309
	1.4	120700	1033	473000	185660	PH 062KF107 DRP 180LC4	1850	308
						PHF 062KF107 DRP 180LC4	1490	309
	2.6	65700	563	364000	124060	P 052KF127 DRP 200L4	1670	306
	3.0	58500	502	364000	124060	PF 052KF127 DRP 200L4	1470	307
						PH 052KF127 DRP 200L4	1660	306
						PHF 052KF127 DRP 200L4	1460	307
	1.7	103500	887	364000	124060	P 052KF107 DRP 200L4	1480	304
	2.3	76600	657	364000	124060	PF 052KF107 DRP 200L4	1280	305
						PH 052KF107 DRP 200L4	1470	304
						PHF 052KF107 DRP 200L4	1270	305
	1.3	133000	1138	348700	124060	P 052KF107 DRP 180LC4	1380	304
	1.4	120700	1033	359000	124060	PF 052KF107 DRP 180LC4	1180	305
	1.7	103800	887	364000	124060	PH 052KF107 DRP 180LC4	1370	304
	1.9	90600	774	364000	124060	PHF 052KF107 DRP 180LC4	1170	305
	2.7	63400	543	364000	124060	P 052KF97 DRP 200L4	1360	302
	3.2	54900	470	364000	124060	PF 052KF97 DRP 200L4	1160	303
						PH 052KF97 DRP 200L4	1350	302
						PHF 052KF97 DRP 200L4	1150	303
	3.5	49200	421	323000	100170	P 042KF127 DRP 200L4	1520	300
						PF 042KF127 DRP 200L4	1330	301
						PH 042KF127 DRP 200L4	1530	300
						PHF 042KF127 DRP 200L4	1340	301
	1.9	90400	774	305000	100170	P 042KF107 DRP 200L4	1330	298
	2.6	67000	574	323000	100170	PF 042KF107 DRP 200L4	1140	299
	2.8	61500	527	323000	100170	PH 042KF107 DRP 200L4	1330	298
	3.2	53600	460	323000	100170	PHF 042KF107 DRP 200L4	1140	299
	3.8	45500	390	320900	100170			
	1.7	103800	887	291800	100170	P 042KF107 DRP 180LC4	1240	298
						PF 042KF107 DRP 180LC4	1050	299
						PH 042KF107 DRP 180LC4	1240	298
						PHF 042KF107 DRP 180LC4	1050	299
	2.3	75800	650	317400	100170	P 042KF97 DRP 200L4	1220	296
	3.6	47600	408	323000	100170	PF 042KF97 DRP 200L4	1030	297
	4.3	39800	342	308400	100170	PH 042KF97 DRP 200L4	1220	296
						PHF 042KF97 DRP 200L4	1030	297
	2.0	87000	744	308100	100170	P 042KF97 DRP 180LC4	1120	296
	2.3	76000	650	317300	100170	PF 042KF97 DRP 180LC4	930	297
	2.7	63500	543	323000	100170	PH 042KF97 DRP 180LC4	1120	296
						PHF 042KF97 DRP 180LC4	930	297
	5.1	33600	289	237300	69620	P 032KF127 DRP 200L4	1280	294
	5.8	30000	257	229200	69620	PF 032KF127 DRP 200L4	1160	295
						PH 032KF127 DRP 200L4	1300	294
						PHF 032KF127 DRP 200L4	1180	295
	3.8	45500	390	249200	69620	P 032KF107 DRP 200L4	1080	292
	4.4	39800	341	249400	69620	PF 032KF107 DRP 200L4	960	293
	5.0	34300	294	238700	69620	PH 032KF107 DRP 200L4	1100	292
	5.5	31500	270	232600	69620	PHF 032KF107 DRP 200L4	980	293
	2.7	63400	543	231000	69620	P 032KF97 DRP 200L4	970	290
	3.2	54900	470	240400	69620	PF 032KF97 DRP 200L4	850	291
	5.3	32500	279	234800	69620	PH 032KF97 DRP 200L4	990	290
	6.2	28100	241	224800	69620	PHF 032KF97 DRP 200L4	870	291
	2.3	76000	650	214500	69620	P 032KF97 DRP 180LC4	870	290
	2.7	63500	543	230800	69620	PF 032KF97 DRP 180LC4	750	291
	3.2	55000	470	240200	69620	PH 032KF97 DRP 180LC4	890	290
	3.6	47700	408	247300	69620	PHF 032KF97 DRP 180LC4	770	291
	6.3	27500	236	197000	51190	P 022KF107 DRP 200L4	1000	286
	7.4	23300	200	197000	51190	PF 022KF107 DRP 200L4	900	287
	8.5	20400	175	197000	51190	PH 022KF107 DRP 200L4	1020	286
						PHF 022KF107 DRP 200L4	920	287
	3.6	47600	408	195900	51190	P 022KF97 DRP 200L4	890	284
	4.3	39800	342	197000	51190	PF 022KF97 DRP 200L4	790	285
	4.4	38800	333	197000	51190	PH 022KF97 DRP 200L4	900	284
	5.3	32500	279	197000	51190	PHF 022KF97 DRP 200L4	800	285
	7.1	24400	209	197000	51190			
	8.5	20400	175	197000	51190			

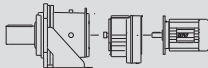


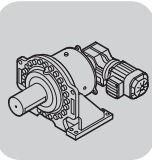
P.KF.. Bevel Planetary Gearmotors

IE3 motor standard – selection tables

P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]		m [kg]	
18.5	3.2	55000	470	184800	51190			
	3.6	47700	408	195700	51190	P 022KF97	790	284
	4.3	39900	342	197000	51190	PF 022KF97	690	285
	4.4	38900	333	197000	51190	PH 022KF97	810	284
	5.3	32500	279	197000	51190	PHF 022KF97	710	285
	6.1	28200	241	197000	51190			
	6.2	28100	241	151600	36810	P 012KF97	740	278
	7.1	24400	209	145300	36810	PF 012KF97	670	279
	8.5	20400	175	137700	36810	PH 012KF97	750	278
						PHF 012KF97	680	279
	4.3	39900	342	156000	36810	P 012KF97	650	278
	4.4	38900	333	156000	36810	PF 012KF97	580	279
	5.3	32500	279	156000	36810	PH 012KF97	660	278
	6.1	28200	241	151700	36810	PHF 012KF97	590	279
	7.1	24400	209	145400	36810			
	8.4	20400	175	137800	36810			
	7.3	23700	203	116700	24830	P 002KF97	570	272
	8.7	19800	170	110600	24830	PF 002KF97	510	273
						PH 002KF97	570	272
						PHF 002KF97	510	273
22	0.42	495900	3570	850000	500000	P 102KF187	5880	324
	0.52	398700	2870	850000	500000	PF 102KF187	4930	325
	0.58	357600	2574	850000	500000	PH 102KF187	5940	324
	0.66	310400	2235	850000	500000	PHF 102KF187	4990	325
	0.73	281700	2028	850000	500000			
	0.89	230700	1661	850000	500000	P 102KF167	5250	322
	1.2	173400	1249	850000	500000	PF 102KF167	4300	323
	1.3	154700	1114	850000	500000	PH 102KF167	5310	322
	1.6	131900	949	850000	500000	PHF 102KF167	4360	323
	0.41	502500	3617	677900	423000	P 092KF187	5030	320
	0.51	404000	2908	720000	423000	PF 092KF187	4330	321
	0.57	362300	2608	720000	423000	PH 092KF187	5040	320
	0.65	314600	2264	720000	423000	PHF 092KF187	4340	321
	0.72	285400	2054	720000	423000			
	0.84	245900	1770	720000	423000			
	1.2	175700	1265	720000	423000	P 092KF167	4400	318
	1.2	169700	1221	720000	423000	PF 092KF167	3700	319
	1.3	156800	1129	720000	423000	PH 092KF167	4410	318
	1.4	144600	1041	720000	423000	PHF 092KF167	3710	319
	1.5	133600	962	720000	423000			
	1.7	119800	863	720000	423000			
	1.9	110700	797	720000	423000			
	0.56	367000	2641	647600	359400	P 082KF157	3520	316
	0.65	318100	2290	683000	359400	PF 082KF157	2880	317
	0.73	283000	2038	683000	359400	PH 082KF157	3520	316
	0.84	244000	1756	683000	359400	PHF 082KF157	2870	317
	1.0	198200	1427	683000	359400			
	0.72	287200	2068	501700	245660	P 072KF157	2870	314
	1.0	201200	1449	523000	245660	PF 072KF157	2380	315
						PH 072KF157	2920	314
						PHF 072KF157	2430	315
	0.81	253000	1822	523000	245660	P 072KF127	2580	312
	1.1	191700	1381	523000	245660	PF 072KF127	2080	313
	1.2	165900	1195	523000	245660	PH 072KF127	2630	312
	1.4	146400	1055	523000	245660	PHF 072KF127	2140	313
	1.6	126400	911	523000	245660			
	0.94	219000	1577	411000	185660	P 062KF127	2150	310
	1.0	197500	1422	429400	185660	PF 062KF127	1790	311
	1.2	170900	1231	449300	185660	PH 062KF127	2140	310
	1.4	150800	1086	462500	185660	PHF 062KF127	1780	311
	1.6	130200	938	473000	185660			
	1.8	115200	830	473000	185660			
	2.1	96800	697	473000	185660			
	1.3	158000	1138	458000	185660	P 062KF107	1960	308
	1.4	143400	1033	467000	185660	PF 062KF107	1600	309
	1.7	123200	887	473000	185660	PH 062KF107	1950	308
	1.9	107600	774	473000	185660	PHF 062KF107	1580	309
	2.3	91200	657	473000	185660			
	2.6	79700	574	473000	185660			

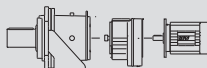


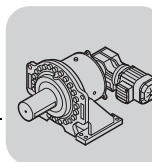
P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]		m [kg]	
22	2.6	78200	563	364000	124060	P 052KF127 DRP 200L4	1670	306
	3.0	69600	502	364000	124060	PF 052KF127 DRP 200L4	1470	307
						PH 052KF127 DRP 200L4	1660	306
						PHF 052KF127 DRP 200L4	1460	307
	1.7	123200	887	357000	124060	P 052KF107 DRP 200L4	1480	304
	2.3	91200	657	364000	124060	PF 052KF107 DRP 200L4	1280	305
						PH 052KF107 DRP 200L4	1470	304
						PHF 052KF107 DRP 200L4	1270	305
	2.7	75500	543	364000	124060	P 052KF97 DRP 200L4	1360	302
	3.2	65300	470	364000	124060	PF 052KF97 DRP 200L4	1160	303
						PH 052KF97 DRP 200L4	1350	302
						PHF 052KF97 DRP 200L4	1150	303
	3.5	58500	421	323000	100170	P 042KF127 DRP 200L4	1520	300
						PF 042KF127 DRP 200L4	1330	301
						PH 042KF127 DRP 200L4	1530	300
						PHF 042KF127 DRP 200L4	1340	301
	1.9	107600	774	287700	100170	P 042KF107 DRP 200L4	1330	298
	2.6	79700	574	314300	100170	PF 042KF107 DRP 200L4	1140	299
	2.8	73200	527	319500	100170	PH 042KF107 DRP 200L4	1330	298
	3.2	63900	460	323000	100170	PHF 042KF107 DRP 200L4	1140	299
	3.8	54200	390	320900	100170			
	2.3	90200	650	305200	100170	P 042KF97 DRP 200L4	1220	296
	3.6	56700	408	323000	100170	PF 042KF97 DRP 200L4	1030	297
	4.3	47400	342	308400	100170	PH 042KF97 DRP 200L4	1220	296
						PHF 042KF97 DRP 200L4	1030	297
	5.1	40000	289	237300	69620	P 032KF127 DRP 200L4	1280	294
	5.8	35700	257	229300	69620	PF 032KF127 DRP 200L4	1160	295
						PH 032KF127 DRP 200L4	1300	294
						PHF 032KF127 DRP 200L4	1180	295
	3.8	54200	390	241100	69620	P 032KF107 DRP 200L4	1080	292
	4.4	47300	341	247600	69620	PF 032KF107 DRP 200L4	960	293
	5.0	40800	294	238700	69620	PH 032KF107 DRP 200L4	1100	292
	5.5	37500	270	232600	69620	PHF 032KF107 DRP 200L4	980	293
	2.7	75500	543	215200	69620	P 032KF97 DRP 200L4	970	290
	3.2	65300	470	228600	69620	PF 032KF97 DRP 200L4	850	291
	5.3	38700	279	234800	69620	PH 032KF97 DRP 200L4	990	290
	6.2	33500	241	224800	69620	PHF 032KF97 DRP 200L4	870	291
	6.3	32700	236	197000	51190	P 022KF107 DRP 200L4	1000	286
	7.4	27700	200	197000	51190	PF 022KF107 DRP 200L4	900	287
	8.5	24200	175	197000	51190	PH 022KF107 DRP 200L4	1020	286
						PHF 022KF107 DRP 200L4	920	287
	3.6	56700	408	182000	51190	P 022KF97 DRP 200L4	890	284
	4.3	47400	342	196200	51190	PF 022KF97 DRP 200L4	790	285
	4.4	46200	333	197000	51190	PH 022KF97 DRP 200L4	900	284
	5.3	38700	279	197000	51190	PHF 022KF97 DRP 200L4	800	285
	7.1	29000	209	197000	51190			
	8.5	24300	175	197000	51190			
	6.2	33500	241	151600	36810	P 012KF97 DRP 200L4	740	278
	7.1	29000	209	145300	36810	PF 012KF97 DRP 200L4	670	279
	8.5	24300	175	137800	36810	PH 012KF97 DRP 200L4	750	278
						PHF 012KF97 DRP 200L4	680	279
30	0.52	544400	2870	850000	500000			
	0.57	488300	2574	850000	500000	P 102KF187 DRP 225S4	5920	324
	0.66	423900	2235	850000	500000	PF 102KF187 DRP 225S4	4960	325
	0.73	384600	2028	850000	500000	PH 102KF187 DRP 225S4	5980	324
	0.85	331300	1747	850000	500000	PHF 102KF187 DRP 225S4	5020	325
	1.0	278400	1468	850000	500000			
	1.2	236800	1249	850000	500000	P 102KF167 DRP 225S4	5290	322
	1.3	211300	1114	850000	500000	PF 102KF167 DRP 225S4	4330	323
	1.6	180100	949	850000	500000	PH 102KF167 DRP 225S4	5350	322
	1.9	149200	787	850000	500000	PHF 102KF167 DRP 225S4	4390	323
	0.57	494800	2608	686500	423000	P 092KF187 DRP 225S4	5060	320
	0.65	429600	2264	720000	423000	PF 092KF187 DRP 225S4	4360	321
	0.72	389800	2054	720000	423000	PH 092KF187 DRP 225S4	5080	320
	0.84	335700	1770	720000	423000	PHF 092KF187 DRP 225S4	4380	321
	0.99	282200	1487	720000	423000			

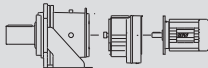


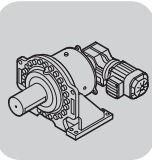
P.KF.. Bevel Planetary Gearmotors

IE3 motor standard – selection tables

P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]		m [kg]	
30	1.4	197500	1041	720000	423000			
	1.5	182500	962	720000	423000	P 092KF167	DRP 225S4	4430 318
	1.7	163600	863	720000	423000	PF 092KF167	DRP 225S4	3740 319
	1.9	151200	797	720000	423000	PH 092KF167	DRP 225S4	4440 318
	2.3	123000	649	720000	423000	PHF 092KF167	DRP 225S4	3750 319
	2.6	109700	579	720000	423000			
	0.73	386500	2038	629100	359400	P 082KF157	DRP 225S4	3560 316
	0.84	333100	1756	676800	359400	PF 082KF157	DRP 225S4	2910 317
	1.0	270700	1427	683000	359400	PH 082KF157	DRP 225S4	3550 316
	1.3	222800	1175	683000	359400	PHF 082KF157	DRP 225S4	2900 317
	1.4	196600	1037	683000	359400			
	1.0	274700	1449	515900	245660	P 072KF157	DRP 225S4	2900 314
						PF 072KF157	DRP 225S4	2410 315
						PH 072KF157	DRP 225S4	2960 314
						PHF 072KF157	DRP 225S4	2460 315
	1.1	261800	1381	523000	245660	P 072KF127	DRP 225S4	2610 312
	1.2	226600	1195	523000	245660	PF 072KF127	DRP 225S4	2120 313
	1.4	199900	1055	523000	245660	PH 072KF127	DRP 225S4	2660 312
	1.6	172700	911	523000	245660	PHF 072KF127	DRP 225S4	2170 313
	1.8	152700	806	523000	245660			
	1.4	206000	1086	422400	185660	P 062KF127	DRP 225S4	2190 310
	1.6	177900	938	444400	185660	PF 062KF127	DRP 225S4	1820 311
	1.8	157300	830	458400	185660	PH 062KF127	DRP 225S4	2180 310
	2.1	132200	697	473000	185660	PHF 062KF127	DRP 225S4	1810 311
	2.6	106800	563	473000	185660			
	1.7	168300	887	451200	185660	P 062KF107	DRP 225S4	1990 308
	1.9	146900	774	464900	185660	PF 062KF107	DRP 225S4	1630 309
						PH 062KF107	DRP 225S4	1980 308
						PHF 062KF107	DRP 225S4	1620 309
	2.6	106800	563	364000	124060	P 052KF127	DRP 225S4	1700 306
	3.0	95100	502	364000	124060	PF 052KF127	DRP 225S4	1500 307
	3.5	79900	421	364000	124060	PH 052KF127	DRP 225S4	1700 306
						PHF 052KF127	DRP 225S4	1500 307
	2.2	124600	657	355900	124060	P 052KF107	DRP 225S4	1510 304
	3.8	74000	390	364000	124060	PF 052KF107	DRP 225S4	1310 305
						PH 052KF107	DRP 225S4	1500 304
						PHF 052KF107	DRP 225S4	1300 305
	3.5	79900	421	314100	100170	P 042KF127	DRP 225S4	1560 300
	4.4	64500	341	308200	100170	PF 042KF127	DRP 225S4	1370 301
						PH 042KF127	DRP 225S4	1560 300
						PHF 042KF127	DRP 225S4	1370 301
	2.6	108900	574	286200	100170	P 042KF107	DRP 225S4	1360 298
	2.8	99900	527	295800	100170	PF 042KF107	DRP 225S4	1170 299
	3.2	87200	460	307900	100170	PH 042KF107	DRP 225S4	1370 298
	3.8	74000	390	318800	100170	PHF 042KF107	DRP 225S4	1180 299
	4.3	64600	341	308400	100170			
	5.1	54700	289	237400	69620	P 032KF127	DRP 225S4	1310 294
	5.8	48700	257	229300	69620	PF 032KF127	DRP 225S4	1190 295
						PH 032KF127	DRP 225S4	1330 294
						PHF 032KF127	DRP 225S4	1210 295
3.8	74000	390	217300	69620	P 032KF107	DRP 225S4	1120 292	
4.3	64600	341	229500	69620	PF 032KF107	DRP 225S4	1000 293	
5.0	55800	294	238800	69620	PH 032KF107	DRP 225S4	1140 292	
5.5	51200	270	232800	69620	PHF 032KF107	DRP 225S4	1020 293	
6.3	44700	236	223400	69620				
5.3	52800	279	235000	69620	P 032KF97	DRP 225S4	1000 290	
6.1	45700	241	224900	69620	PF 032KF97	DRP 225S4	880 291	
8.4	33200	175	204400	52400	PH 032KF97	DRP 225S4	1020 290	
					PHF 032KF97	DRP 225S4	900 291	
6.3	44700	236	197000	51190	P 022KF107	DRP 225S4	1040 286	
7.4	37900	200	197000	51190	PF 022KF107	DRP 225S4	930 287	
8.5	33100	175	197000	51190	PH 022KF107	DRP 225S4	1050 286	
					PHF 022KF107	DRP 225S4	950 287	
6.1	45700	241	197000	51190	P 022KF97	DRP 225S4	920 284	
8.4	33200	175	197000	51190	PF 022KF97	DRP 225S4	820 285	
					PH 022KF97	DRP 225S4	940 284	
					PHF 022KF97	DRP 225S4	840 285	

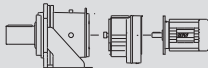


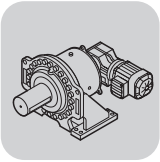
P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]		m [kg]	
30	8.5	33100	175	137700	36810	P 012KF107 DRP 225S4	890	280
						PF 012KF107 DRP 225S4	820	281
						PH 012KF107 DRP 225S4	900	280
						PHF 012KF107 DRP 225S4	830	281
	8.4	33200	175	137800	36810	P 012KF97 DRP 225S4	770	278
						PF 012KF97 DRP 225S4	700	279
						PH 012KF97 DRP 225S4	790	278
						PHF 012KF97 DRP 225S4	720	279
37	0.58	601400	2574	811600	500000	P 102KF187 DRP 225M4 PF 102KF187 DRP 225M4 PH 102KF187 DRP 225M4 PHF 102KF187 DRP 225M4	5940	324
	0.66	522200	2235	850000	500000		4980	325
	0.73	473800	2028	850000	500000		6000	324
	0.85	408100	1747	850000	500000		5040	325
	1.0	343000	1468	850000	500000			
	1.2	296900	1271	850000	500000	P 102KF167 DRP 225M4 PF 102KF167 DRP 225M4 PH 102KF167 DRP 225M4 PHF 102KF167 DRP 225M4	5310	322
	1.6	221800	949	850000	500000		4350	323
	1.9	183800	787	850000	500000		5370	322
	2.2	156800	671	850000	500000		4410	323
	0.65	529100	2264	647100	423000	P 092KF187 DRP 225M4 PF 092KF187 DRP 225M4 PH 092KF187 DRP 225M4 PHF 092KF187 DRP 225M4	5080	320
	0.72	480100	2054	702000	423000		4390	321
	0.84	413500	1770	720000	423000		5100	320
	1.0	347500	1487	720000	423000		4400	321
	1.2	300900	1288	720000	423000			
	1.4	250700	1073	720000	423000	P 092KF167 DRP 225M4 PF 092KF167 DRP 225M4 PH 092KF167 DRP 225M4 PHF 092KF167 DRP 225M4	4450	318
	1.6	213800	915	720000	423000		3760	319
	1.7	201500	863	720000	423000		4470	318
	1.9	186200	797	720000	423000		3770	319
	2.0	172000	736	720000	423000			
	2.2	158900	680	720000	423000	P 082KF157 DRP 225M4 PF 082KF157 DRP 225M4 PH 082KF157 DRP 225M4 PHF 082KF157 DRP 225M4	3580	316
	2.3	151500	649	720000	423000		2930	317
	2.6	135200	579	720000	423000		3570	316
	3.0	115200	493	720000	423000		2920	317
	0.84	410300	1756	604800	359400	P 072KF127 DRP 225M4 PF 072KF127 DRP 225M4 PH 072KF127 DRP 225M4 PHF 072KF127 DRP 225M4	2630	312
	1.0	333400	1427	676600	359400		2140	313
	1.3	274500	1175	683000	359400		2680	312
	1.4	242200	1037	683000	359400		2190	313
	1.6	210000	899	683000	359400			
	1.2	279100	1195	511000	245660	P 062KF127 DRP 225M4 PF 062KF127 DRP 225M4 PH 062KF127 DRP 225M4 PHF 062KF127 DRP 225M4	2210	310
	1.4	246300	1055	523000	245660		1840	311
	1.6	212700	911	523000	245660		2200	310
	1.8	188100	806	523000	245660		1830	311
	2.2	158100	677	523000	245660			
	1.8	193800	830	432400	185660	P 052KF127 DRP 225M4 PF 052KF127 DRP 225M4 PH 052KF127 DRP 225M4 PHF 052KF127 DRP 225M4	1720	306
	2.1	162800	697	454800	185660		1520	307
	2.6	131500	563	473000	185660		1720	306
	3.0	117100	502	473000	185660		1520	307
	3.5	98400	421	473000	185660			
	2.6	131500	563	350000	124060	P 052KF107 DRP 225M4 PF 052KF107 DRP 225M4 PH 052KF107 DRP 225M4 PHF 052KF107 DRP 225M4	1530	304
	3.0	117100	502	361800	124060		1330	305
	3.5	98400	421	364000	124060		1520	304
	4.4	79500	341	355400	124060		1320	305
	3.8	91100	390	364000	124060			
	4.4	79600	341	355400	124060	P 042KF127 DRP 225M4 PF 042KF127 DRP 225M4 PH 042KF127 DRP 225M4 PHF 042KF127 DRP 225M4	1580	300
	3.5	98400	421	297300	100170		1390	301
	4.4	79500	341	308200	100170		1580	300
							1390	301
	3.8	91100	390	304400	100170	P 042KF107 DRP 225M4 PF 042KF107 DRP 225M4 PH 042KF107 DRP 225M4 PHF 042KF107 DRP 225M4	1380	298
	4.4	79600	341	308200	100170		1190	299
							1390	298
							1200	299
	5.1	67400	289	226100	69620	P 032KF127 DRP 225M4 PF 032KF127 DRP 225M4 PH 032KF127 DRP 225M4 PHF 032KF127 DRP 225M4	1330	294
	5.8	60000	257	229300	69620		1210	295
							1350	294
							1230	295

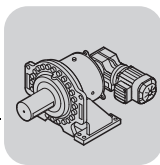


P.KF.. Bevel Planetary Gearmotors

IE3 motor standard – selection tables

P_M [kW]	n_2 [min ⁻¹]	M_a [Nm]	i_{ex}	F_{Ra} [N]	M_{N2} [Nm]		m [kg]	
37	4.4	79600	341	209000	69620	P 032KF107 DRP 225M4	1140	292
	5.0	68700	294	224400	69620	PF 032KF107 DRP 225M4	1020	293
	7.4	46700	200	212600	69620	PH 032KF107 DRP 225M4	1160	292
	8.5	40800	175	204200	69620	PHF 032KF107 DRP 225M4	1040	293
	7.4	46700	200	197000	51190	P 022KF107 DRP 225M4	1060	286
	8.5	40800	175	197000	51190	PF 022KF107 DRP 225M4	960	287
						PH 022KF107 DRP 225M4	1070	286
						PHF 022KF107 DRP 225M4	970	287
90	1.4	601100	1059	811800	500000	P 102KF187 DRP 315K4	6440	324
	1.6	512500	903	850000	500000	PF 102KF187 DRP 315K4	5490	325
	1.9	434500	766	850000	500000	PH 102KF187 DRP 315K4	6510	324
	2.2	374300	660	850000	500000	PHF 102KF187 DRP 315K4	5550	325
	2.7	314500	554	850000	500000			
	3.1	272300	480	850000	500000			
	1.6	519400	915	658700	423000	P 092KF187 DRP 315K4	5590	320
	1.9	440300	776	720000	423000	PF 092KF187 DRP 315K4	4890	321
	2.2	379300	668	720000	423000	PH 092KF187 DRP 315K4	5600	320
	2.6	318700	561	720000	423000	PHF 092KF187 DRP 315K4	4910	321
	3.0	276000	486	720000	423000			
	3.7	230000	405	720000	423000			
	4.3	197900	349	720000	423000	P 092KF167 DRP 315K4	4960	318
						PF 092KF167 DRP 315K4	4260	319
						PH 092KF167 DRP 315K4	4970	318
						PHF 092KF167 DRP 315K4	4280	319
110	1.6	625600	903	792400	500000	P 102KF187 DRP 315S4	6520	324
	1.9	530300	766	850000	500000	PF 102KF187 DRP 315S4	5570	325
	2.2	456800	660	850000	500000	PH 102KF187 DRP 315S4	6590	324
	2.7	383900	554	850000	500000	PHF 102KF187 DRP 315S4	5630	325
	3.1	332400	480	850000	500000			
	3.7	277000	400	850000	500000			
	2.2	462900	668	719300	423000	P 092KF187 DRP 315S4	5670	320
	2.6	389000	561	720000	423000	PF 092KF187 DRP 315S4	4970	321
	3.1	336800	486	720000	423000	PH 092KF187 DRP 315S4	5680	320
	3.7	280700	405	720000	423000	PHF 092KF187 DRP 315S4	4990	321
	4.3	239300	345	720000	423000			
132	2.3	547500	660	850000	500000	P 102KF187 DRP 315M4	6680	324
	2.7	460100	554	850000	500000	PF 102KF187 DRP 315M4	5730	325
	3.1	398400	480	850000	500000	PH 102KF187 DRP 315M4	6740	324
	3.7	332000	400	850000	500000	PHF 102KF187 DRP 315M4	5790	325
	4.4	283000	341	850000	500000			
	2.6	466200	561	716100	423000	P 092KF187 DRP 315M4	5830	320
	3.1	403700	486	720000	423000	PF 092KF187 DRP 315M4	5130	321
	3.7	336400	405	720000	423000	PH 092KF187 DRP 315M4	5840	320
	4.3	286800	345	720000	423000	PHF 092KF187 DRP 315M4	5140	321
160	2.7	557700	554	843900	500000	P 102KF187 DRP 315L4	6760	324
	3.1	482900	480	850000	500000	PF 102KF187 DRP 315L4	5810	325
	3.7	402400	400	850000	500000	PH 102KF187 DRP 315L4	6820	324
	4.4	343100	341	850000	500000	PHF 102KF187 DRP 315L4	5870	325
	3.1	489300	486	692300	423000	P 092KF187 DRP 315L4	5910	320
	3.7	407700	405	720000	423000	PF 092KF187 DRP 315L4	5210	321
	4.3	347600	345	720000	423000	PH 092KF187 DRP 315L4	5920	320
						PHF 092KF187 DRP 315L4	5220	321



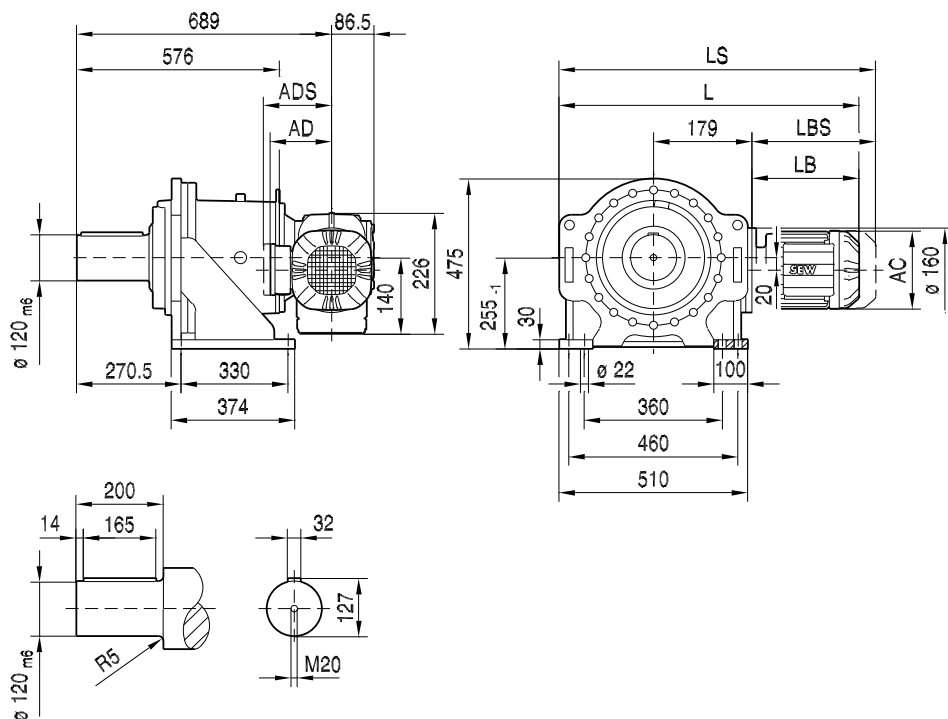


P.KF.. Bevel Planetary Gearmotors

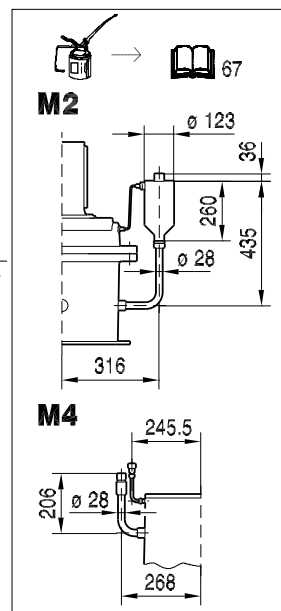
Dimension sheets [mm]

11.5 Dimension sheets [mm]

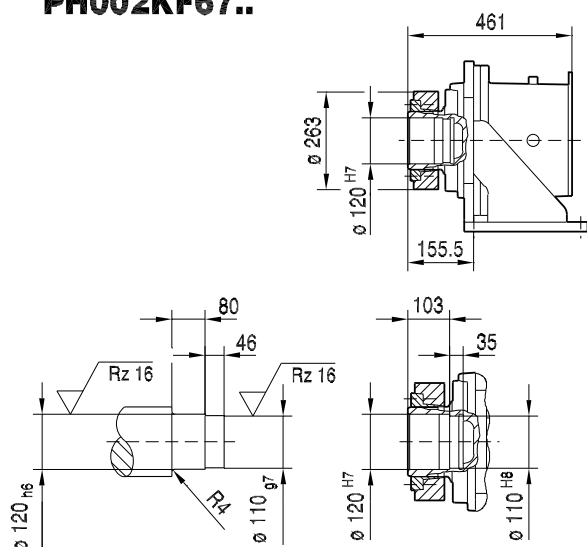
P002KF67..



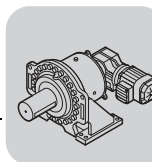
45 059 01 08



PH002KF67..

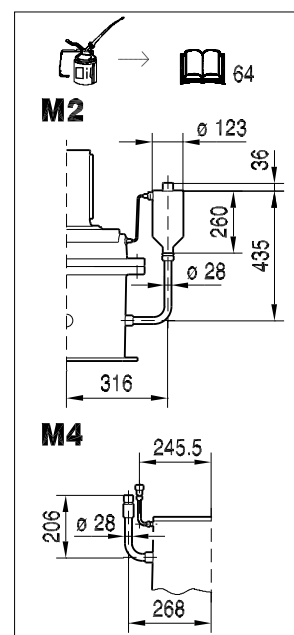
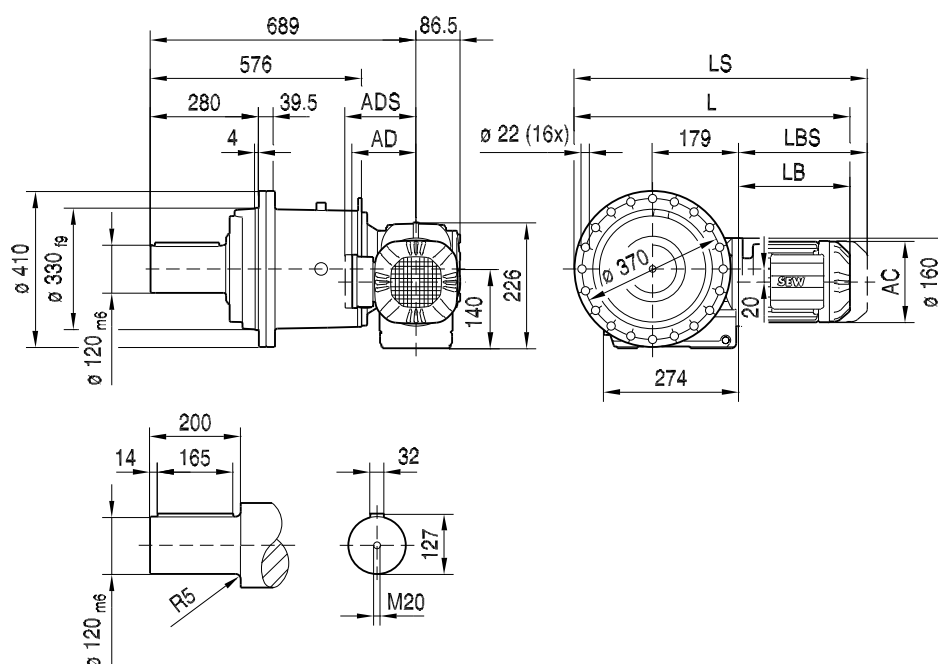


(→ 77)	DR80S	DR80M	DR90M	DR90L	DR100M	DR100L/LC	DR112M	DR132S	DR132M/MC
AC	156	156	179	179	197	197	221	221	221
AD	128	128	140	140	157	157	170	170	170
ADS	139	139	150	150	158	158	172	172	172
L	664	695	697	717	747	777	789	824	874
LS	745	776	790	810	840	870	901	936	986
LB	230	261	263	283	313	343	355	390	440
LBS	311	342	356	376	406	436	467	502	552

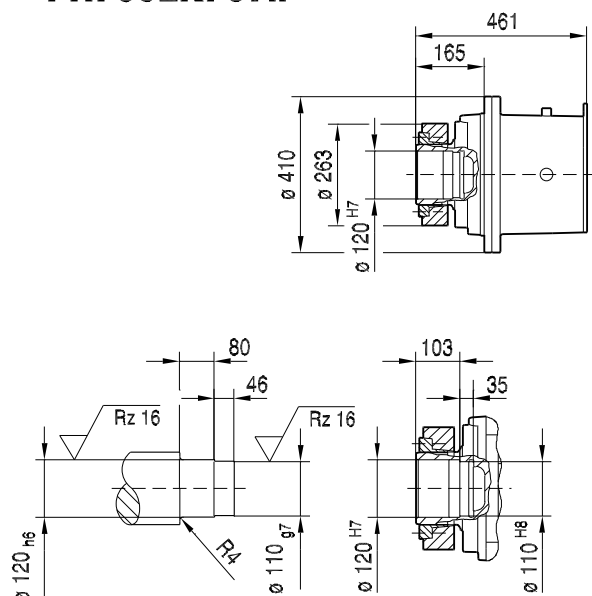


PF002KF67..

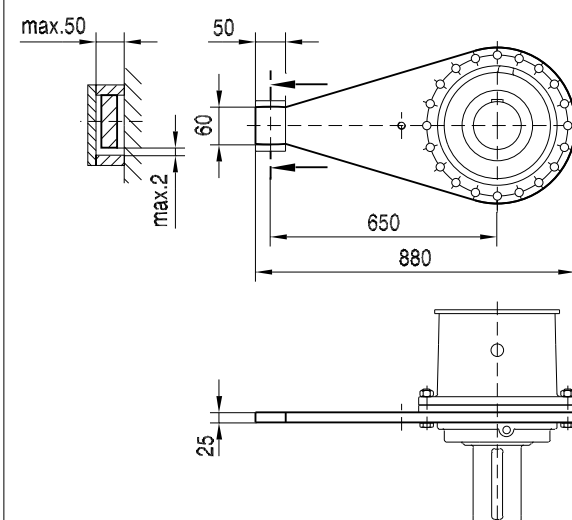
45 087 01 08



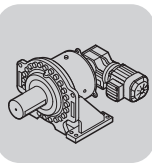
PHF002KF67..



P..002/T..



(→ 77)	DR80S	DR80M	DR90M	DR90L	DR100M	DR100L/LC	DR112M	DR132S	DR132M/MC
AC	156	156	179	179	197	197	221	221	221
AD	128	128	140	140	157	157	170	170	170
ADS	139	139	150	150	158	158	172	172	172
L	614	645	647	667	697	727	739	774	824
LS	695	726	740	760	790	820	851	886	936
LB	230	261	263	283	313	343	355	390	440
LBS	311	342	356	376	406	436	467	502	552

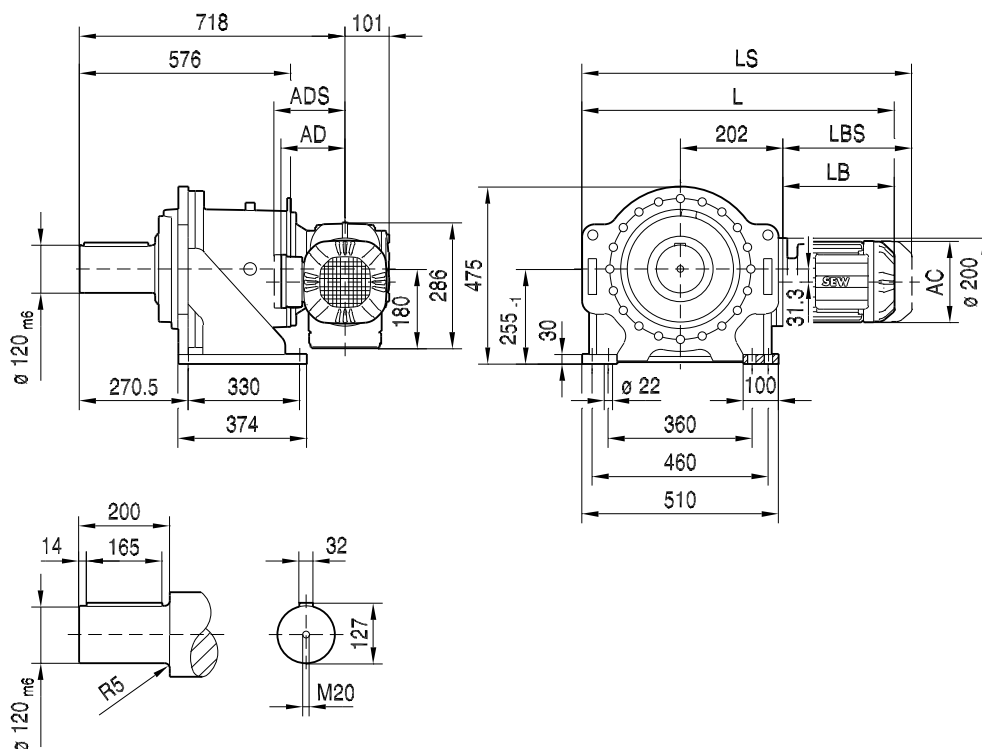


P.KF.. Bevel Planetary Gearmotors

Dimension sheets [mm]

P002KF77..

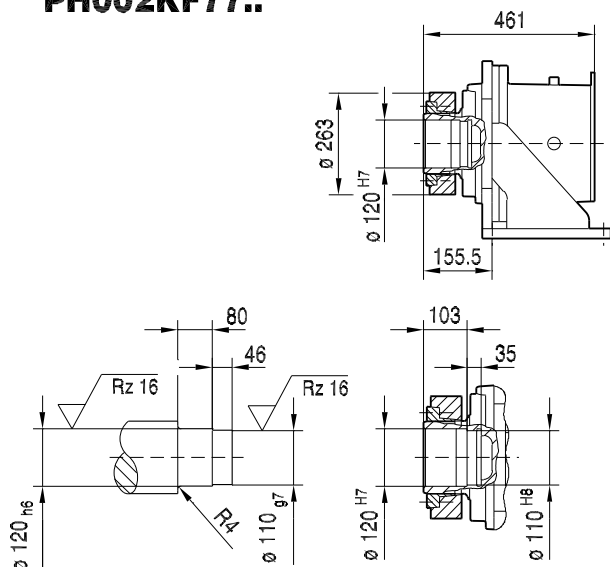
45 060 01 08



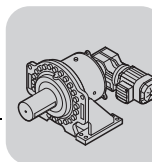
M2

M4

PH002KF77..

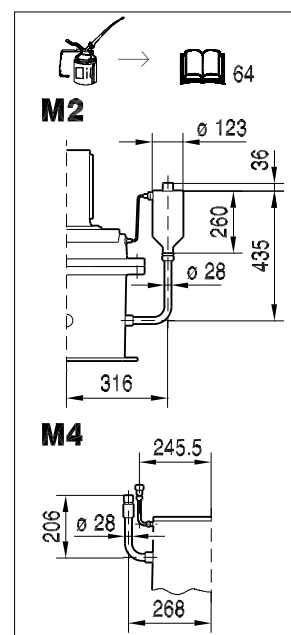
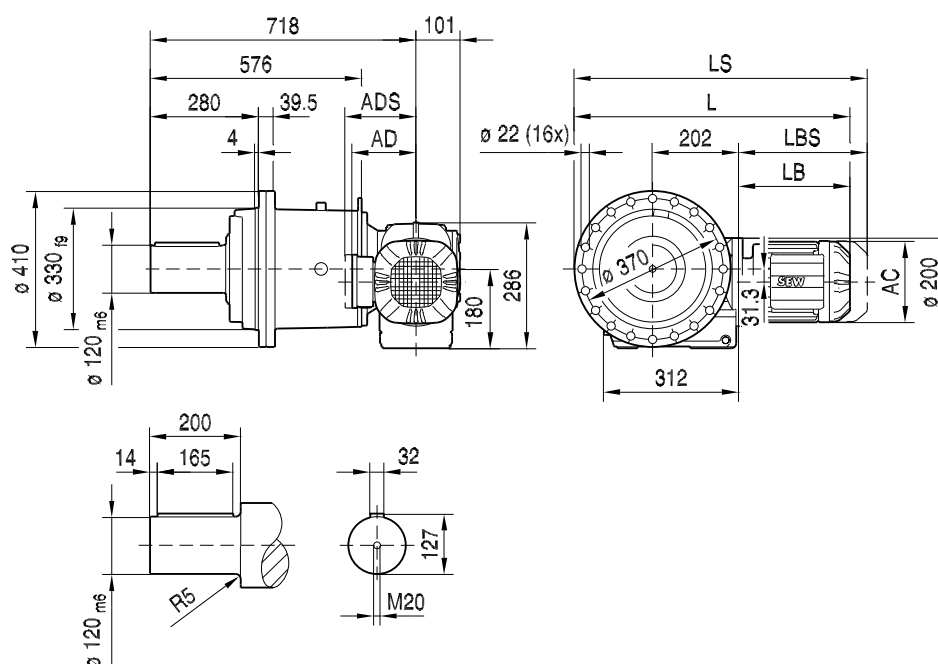


(→ 77)	DR80S	DR80M	DR90M	DR90L	DR100M	DR100L/LC	DR112M	DR132S	DR132M/MC	DR160..
AC	156	156	179	179	197	197	221	221	221	270
AD	128	128	140	140	157	157	170	170	170	228
ADS	139	139	150	150	158	158	172	172	172	228
L	680	711	713	733	763	793	801	836	886	927
LS	761	792	806	826	856	886	913	948	998	1064
LB	223	254	256	276	306	336	344	379	429	470
LBS	304	335	349	369	399	429	456	491	541	607

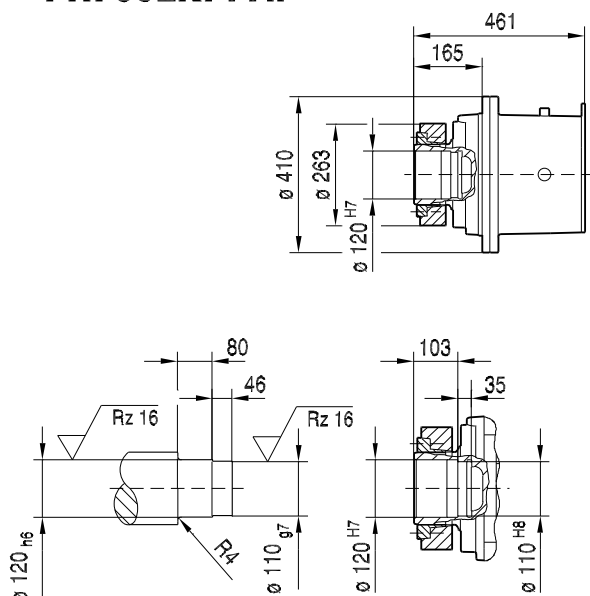


PF002KF77..

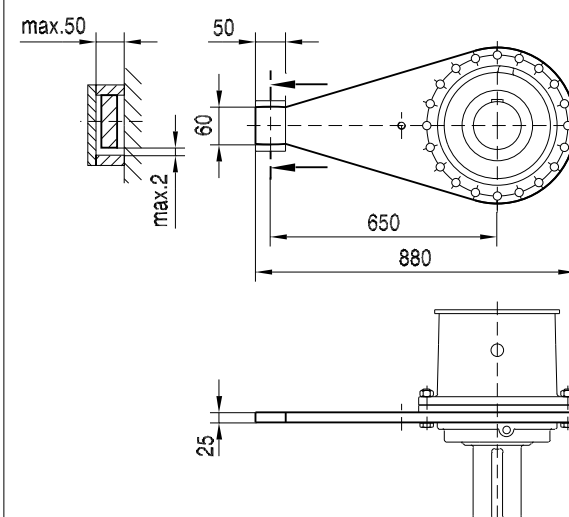
45 088 01 08



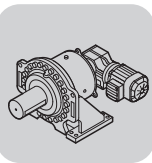
PHF002KF77..



P..002/T..



(→ 77)	DR80S	DR80M	DR90M	DR90L	DR100M	DR100L/LC	DR112M	DR132S	DR132M/MC	DR160..
AC	156	156	179	179	197	197	221	221	221	270
AD	128	128	140	140	157	157	170	170	170	228
ADS	139	139	150	150	158	158	172	172	172	228
L	630	661	663	683	713	743	751	786	836	877
LS	711	742	756	776	806	836	863	898	948	1014
LB	223	254	256	276	306	336	344	379	429	470
LBS	304	335	349	369	399	429	456	491	541	607

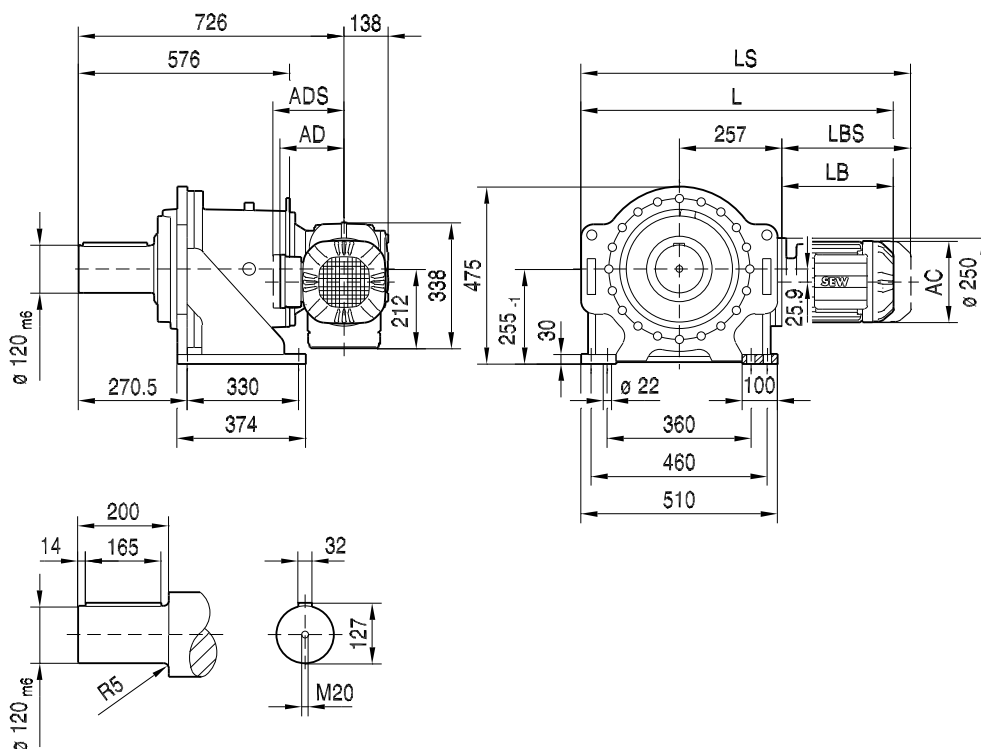


P.KF.. Bevel Planetary Gearmotors

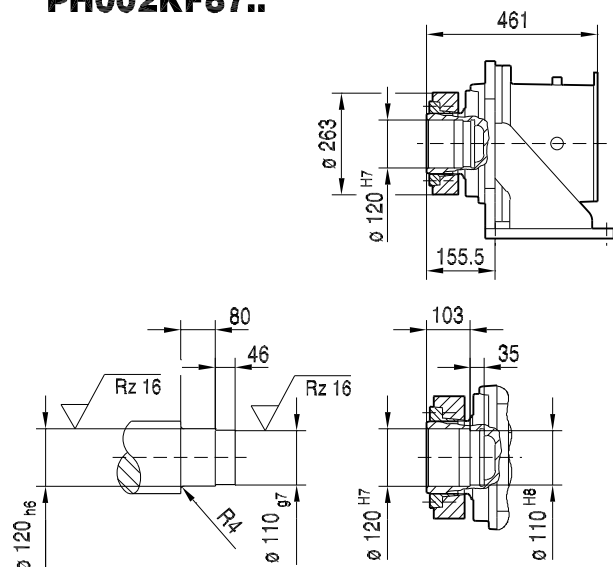
Dimension sheets [mm]

P002KF87..

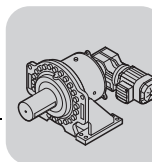
45 061 01 08

**M2****M4**

PH002KF87..

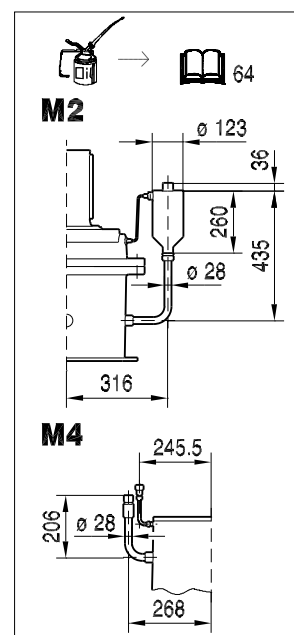
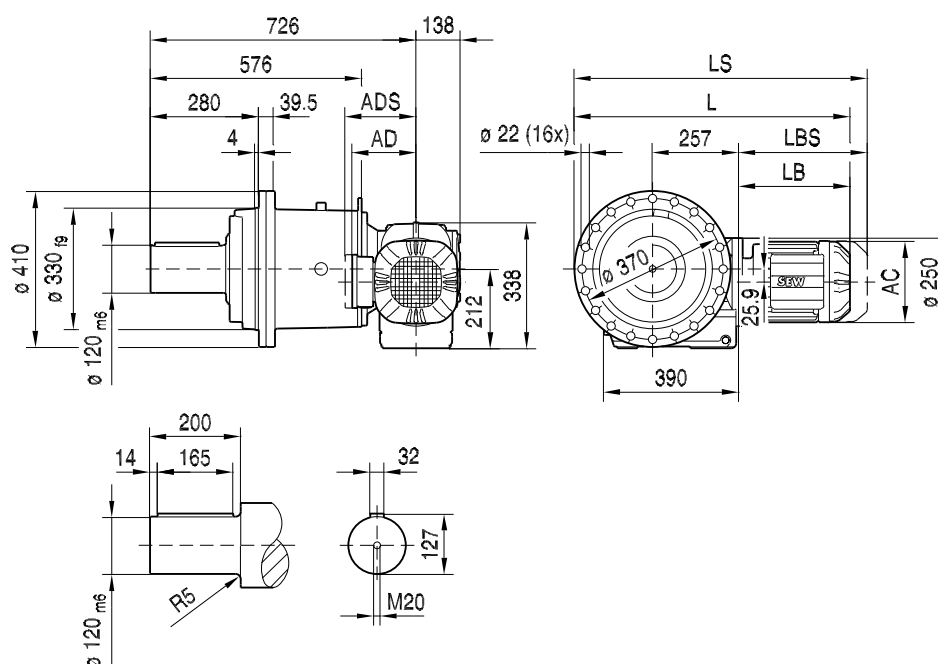


(→ 77)	DR132M/MC	DR160..	DR180S/M	DR180L/LC				
AC	221	270	316	316				
AD	170	228	253	253				
ADS	172	228	253	253				
L	936	977	1046	1106				
LS	1048	1114	1235	1295				
LB	424	465	534	594				
LBS	536	602	723	783				

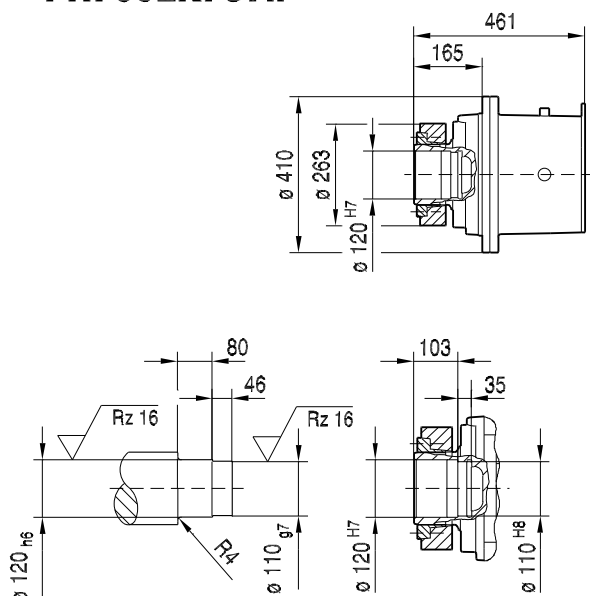


PF002KF87..

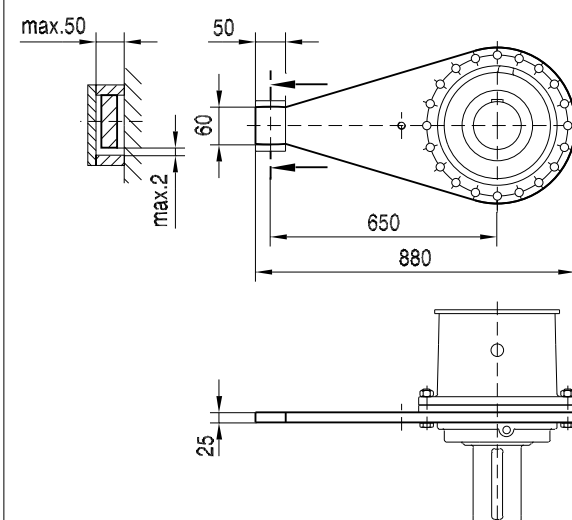
45 089 01 08



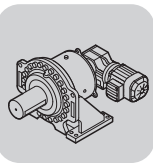
PHF002KF87..



P..002/T..



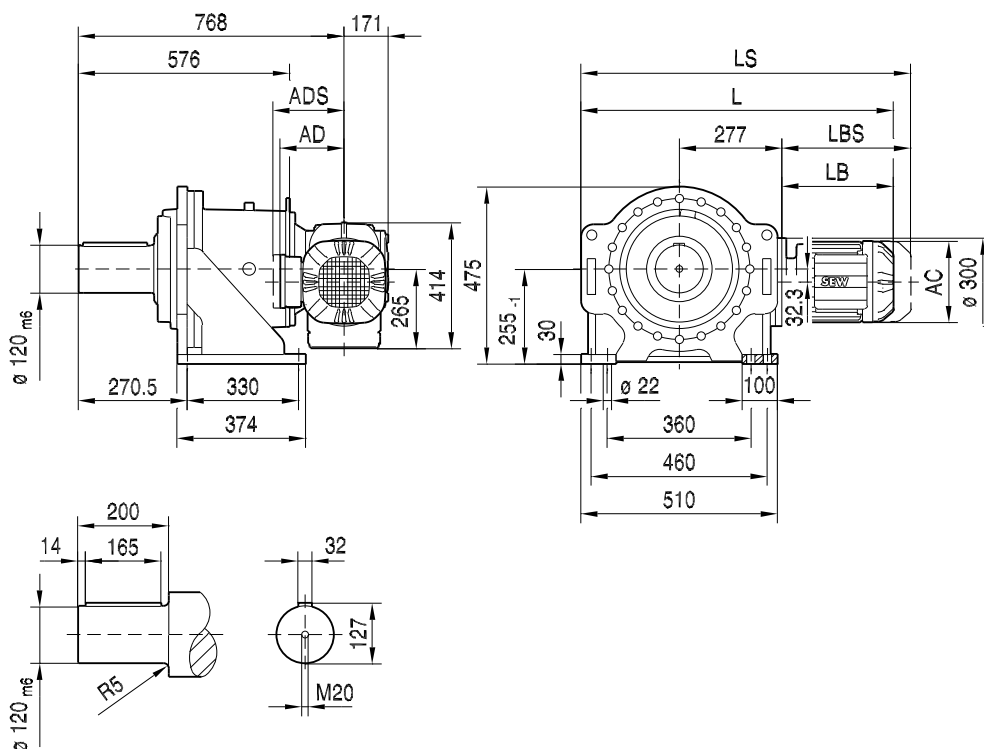
(→ 77)	DR132M/MC	DR160..	DR180S/M	DR180L/LC				
AC	221	270	316	316				
AD	170	228	253	253				
ADS	172	228	253	253				
L	886	927	996	1056				
LS	998	1064	1185	1245				
LB	424	465	534	594				
LBS	536	602	723	783				



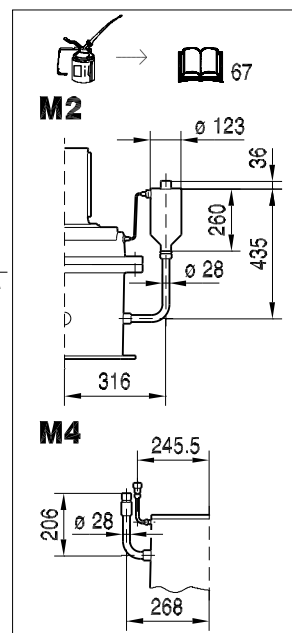
P.KF.. Bevel Planetary Gearmotors

Dimension sheets [mm]

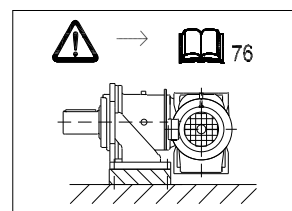
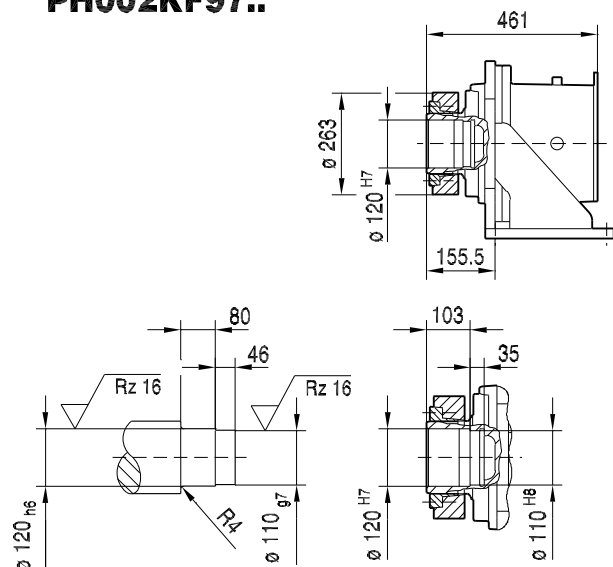
P002KF97..



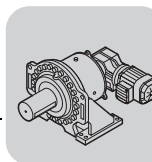
45 062 01 08



PH002KF97..

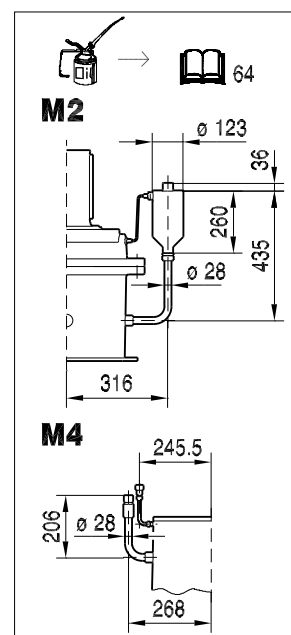
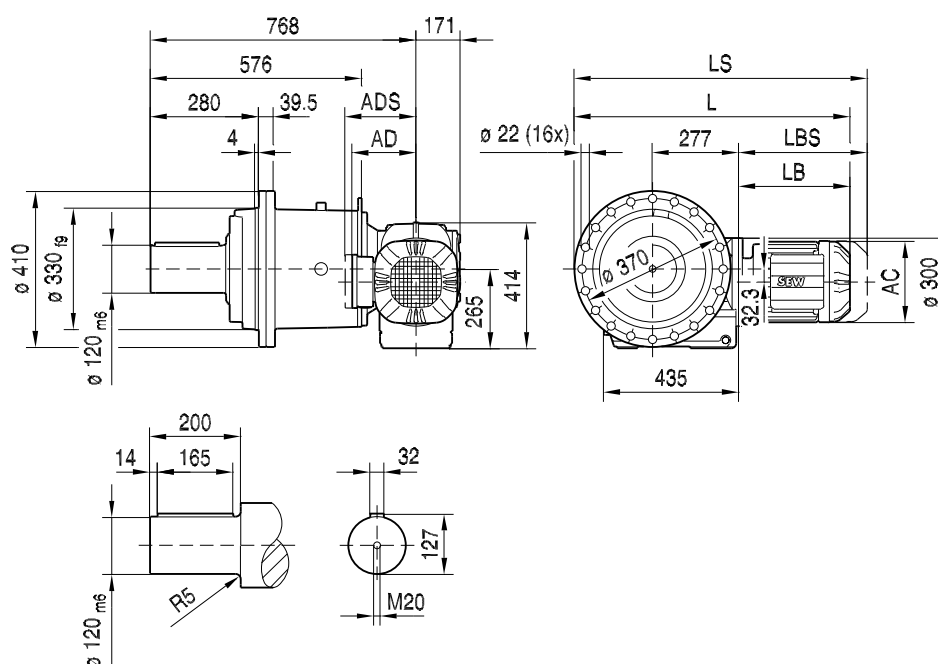


(→ 77)	DR160..	DR180S/M	DR180L/LC					
AC	270	316	316					
AD	228	253	253					
ADS	228	253	253					
L	992	1061	1121					
LS	1129	1250	1310					
LB	460	529	589					
LBS	597	718	778					

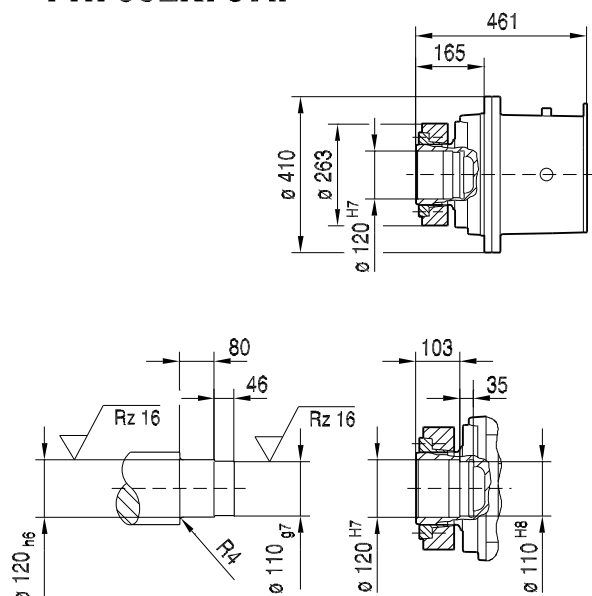


PF002KF97..

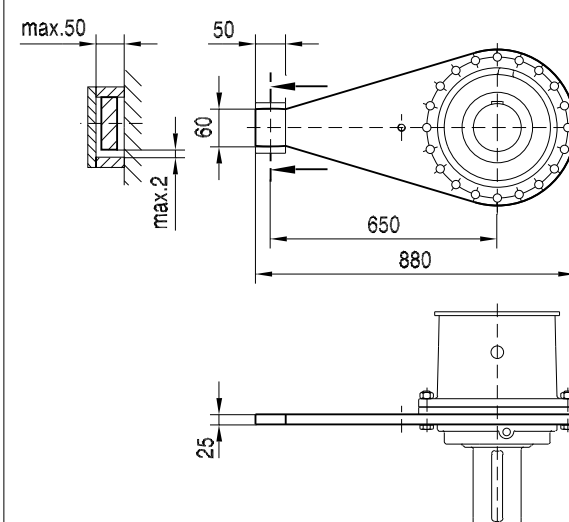
45 090 01 08



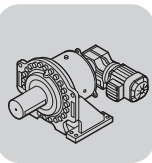
PHF002KF97..



P..002/T..



(→ 77)	DR160..	DR180S/M	DR180L/LC					
AC	270	316	316					
AD	228	253	253					
ADS	228	253	253					
L	942	1011	1071					
LS	1079	1200	1260					
LB	460	529	589					
LBS	597	718	778					

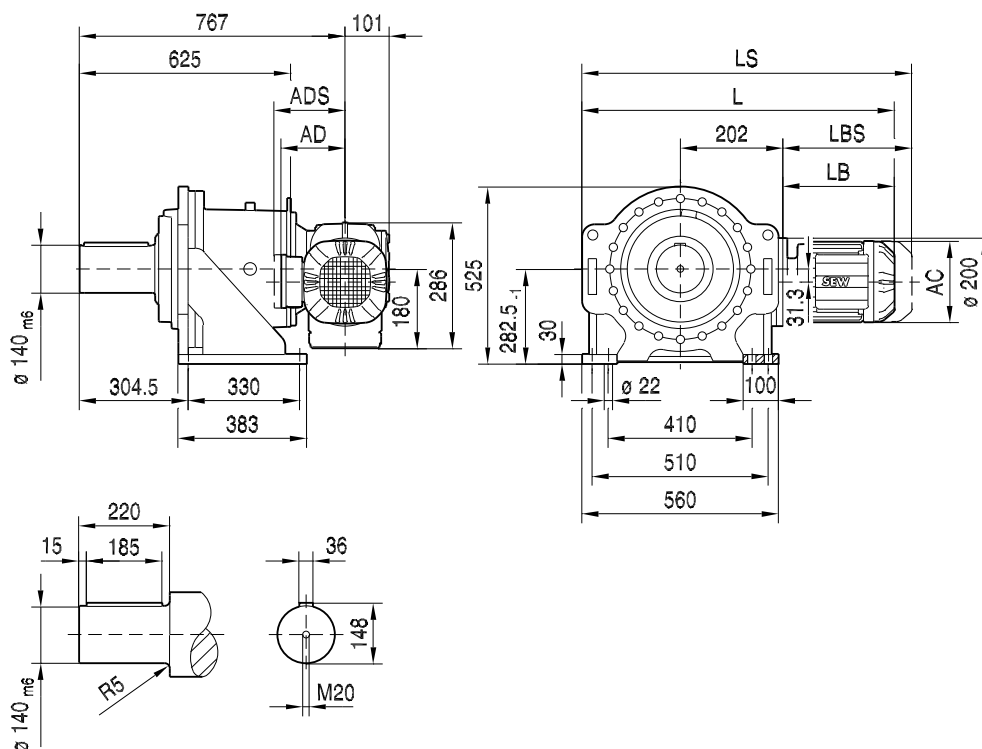


P.KF.. Bevel Planetary Gearmotors

Dimension sheets [mm]

P012KF77..

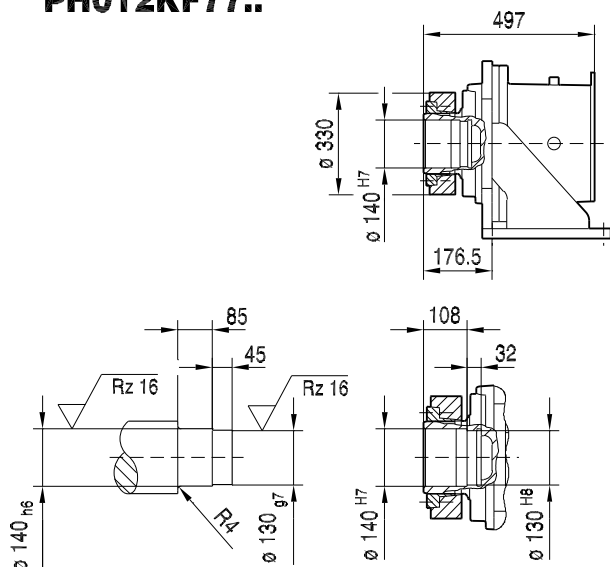
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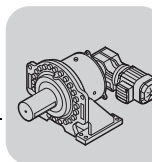
M2

M4

PH012KF77..

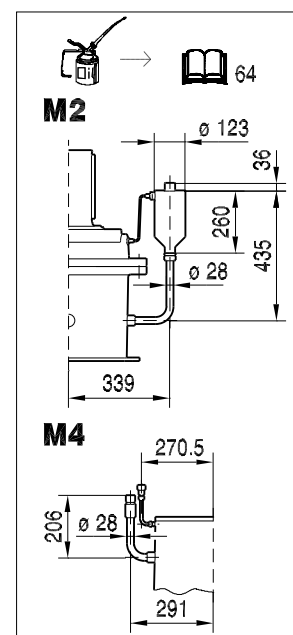
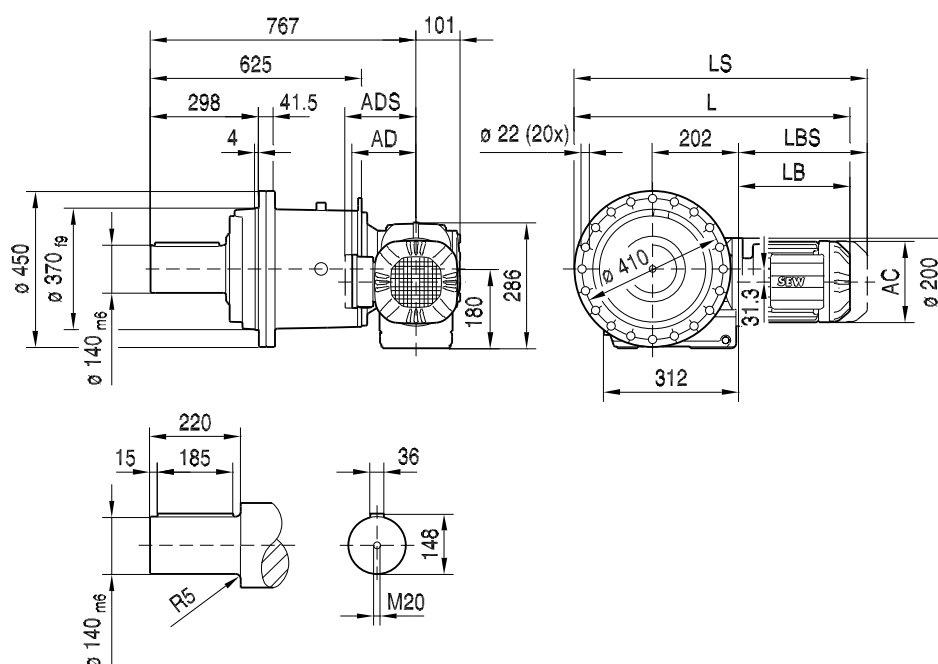


(→ 77)	DR80S	DR80M	DR90M	DR90L	DR100M	DR100L/LC	DR112M	DR132S	DR132M/MC	DR160..
AC	156	156	179	179	197	197	221	221	221	270
AD	128	128	140	140	157	157	170	170	170	228
ADS	139	139	150	150	158	158	172	172	172	228
L	705	736	738	758	788	818	826	861	911	952
LS	786	817	831	851	881	911	938	973	1023	1089
LB	223	254	256	276	306	336	344	379	429	470
LBS	304	335	349	369	399	429	456	491	541	607

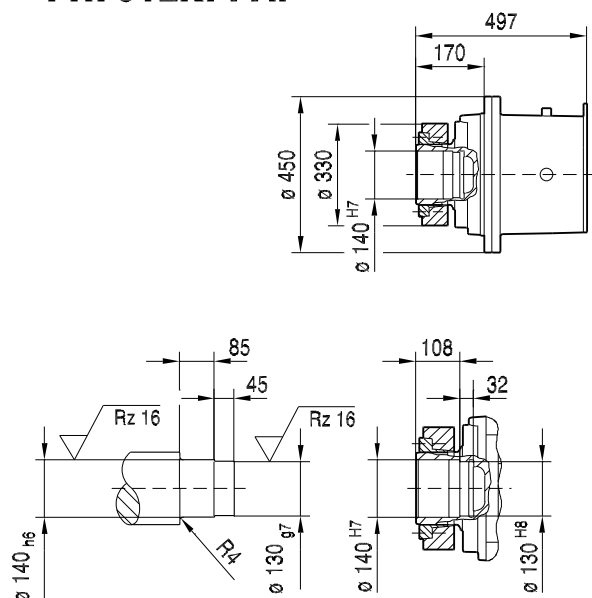


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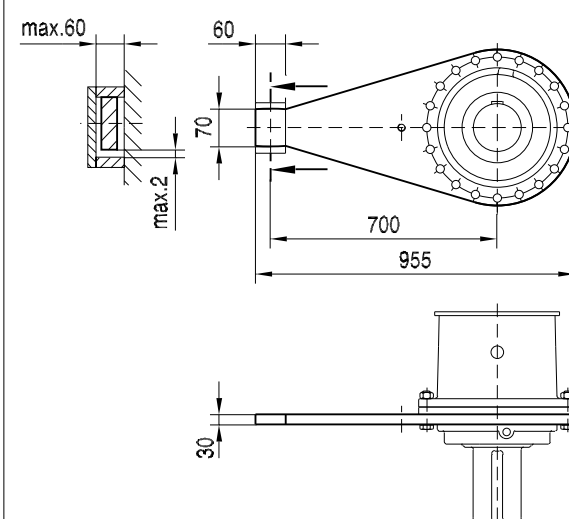
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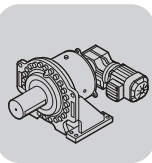
PHF012KF77..



P..012/T..



(→ 77)	DR80S	DR80M	DR90M	DR90L	DR100M	DR100L/LC	DR112M	DR132S	DR132M/MC	DR160..
AC	156	156	179	179	197	197	221	221	221	270
AD	128	128	140	140	157	157	170	170	170	228
ADS	139	139	150	150	158	158	172	172	172	228
L	650	681	683	703	733	763	771	806	856	897
LS	731	762	776	796	826	856	883	918	968	1034
LB	223	254	256	276	306	336	344	379	429	470
LBS	304	335	349	369	399	429	456	491	541	607

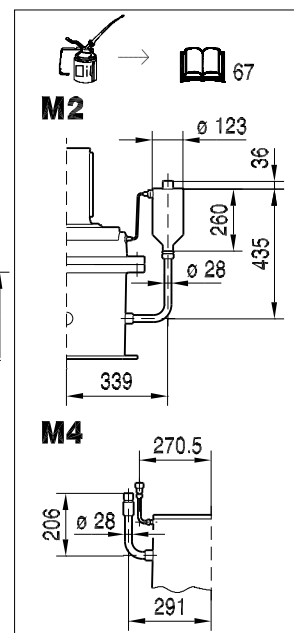
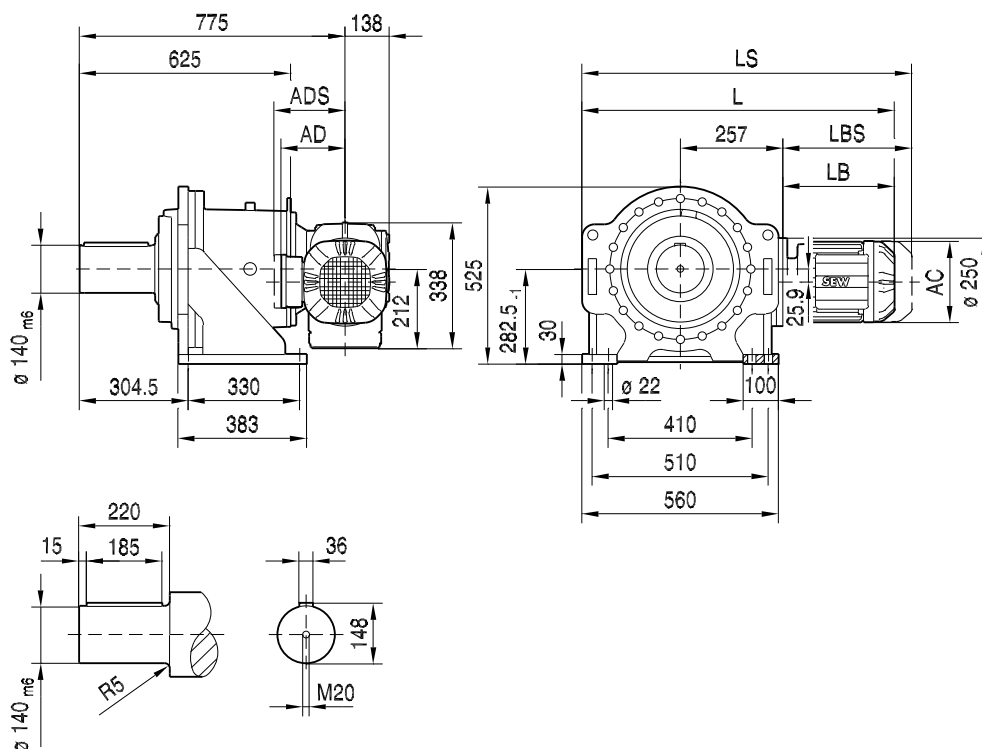


P.KF.. Bevel Planetary Gearmotors

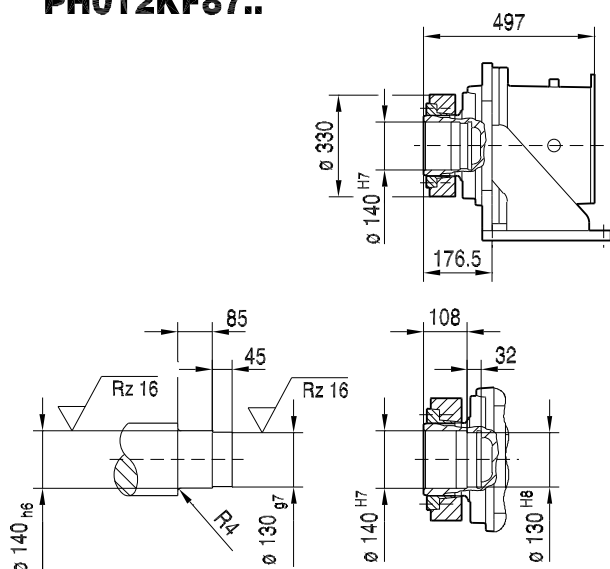
Dimension sheets [mm]

P012KF87..

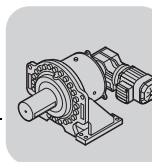
45 064 01 08



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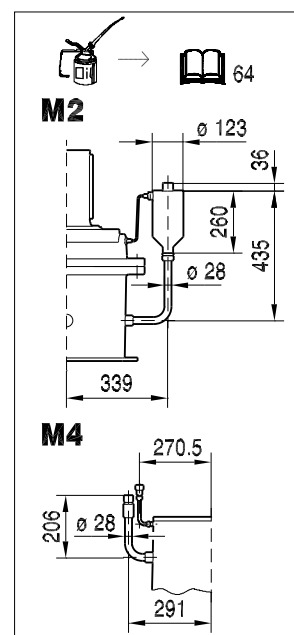
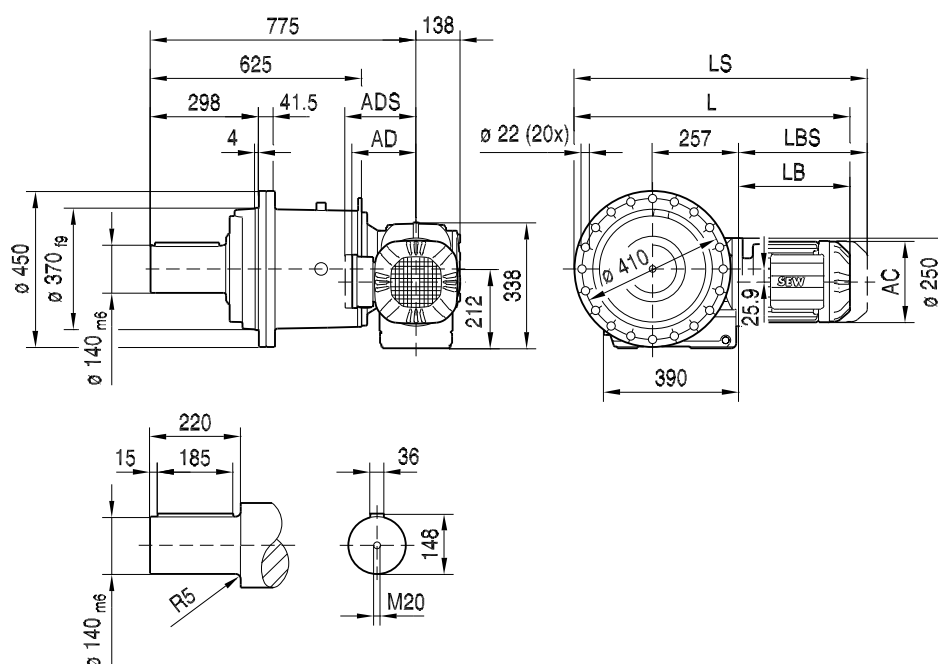


(→ 77)	DR80S	DR80M	DR90M	DR90L	DR100M	DR100L/LC	DR112M	DR132S	DR132M/MC	DR160..	DR180S/M
AC	156	156	179	179	197	197	221	221	221	270	316
AD	128	128	140	140	157	157	170	170	170	228	253
ADS	139	139	150	150	158	158	172	172	172	228	253
L	755	786	788	808	838	868	876	911	961	1002	1071
LS	836	867	881	901	931	961	988	1023	1073	1139	1260
LB	218	249	251	271	301	331	339	374	424	465	534
LBS	299	330	344	364	394	424	451	486	536	602	723

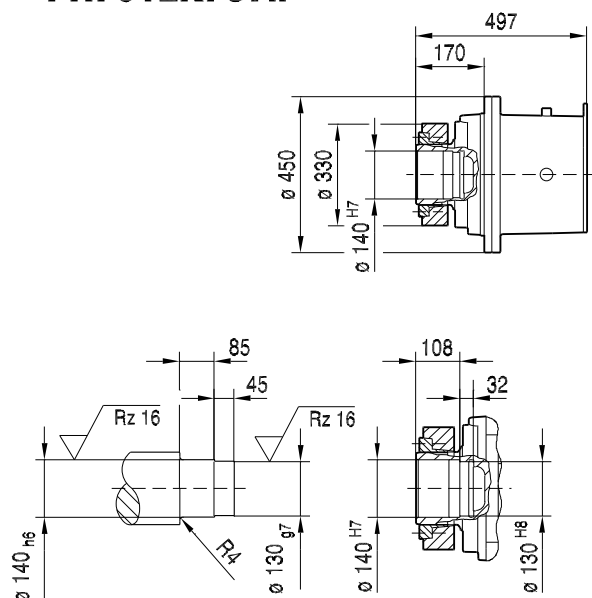


PF012KF87..

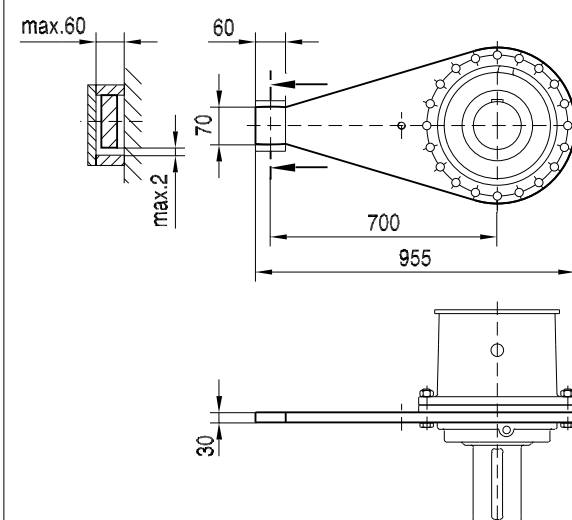
45 092 01 08



PHF012KF87..

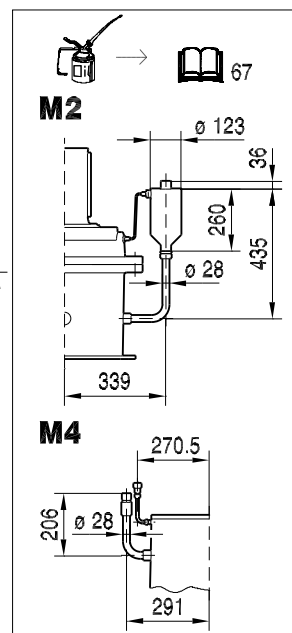


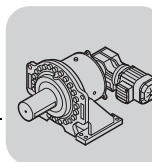
P..012/T..



(→ 77)	DR80S	DR80M	DR90M	DR90L	DR100M	DR100L/LC	DR112M	DR132S	DR132M/MC	DR160..	DR180S/M
AC	156	156	179	179	197	197	221	221	221	270	316
AD	128	128	140	140	157	157	170	170	170	228	253
ADS	139	139	150	150	158	158	172	172	172	228	253
L	700	731	733	753	783	813	821	856	906	947	1016
LS	781	812	826	846	876	906	933	968	1018	1084	1205
LB	218	249	251	271	301	331	339	374	424	465	534
LBS	299	330	344	364	394	424	451	486	536	602	723

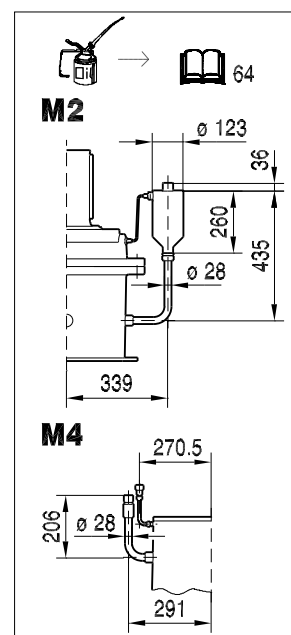
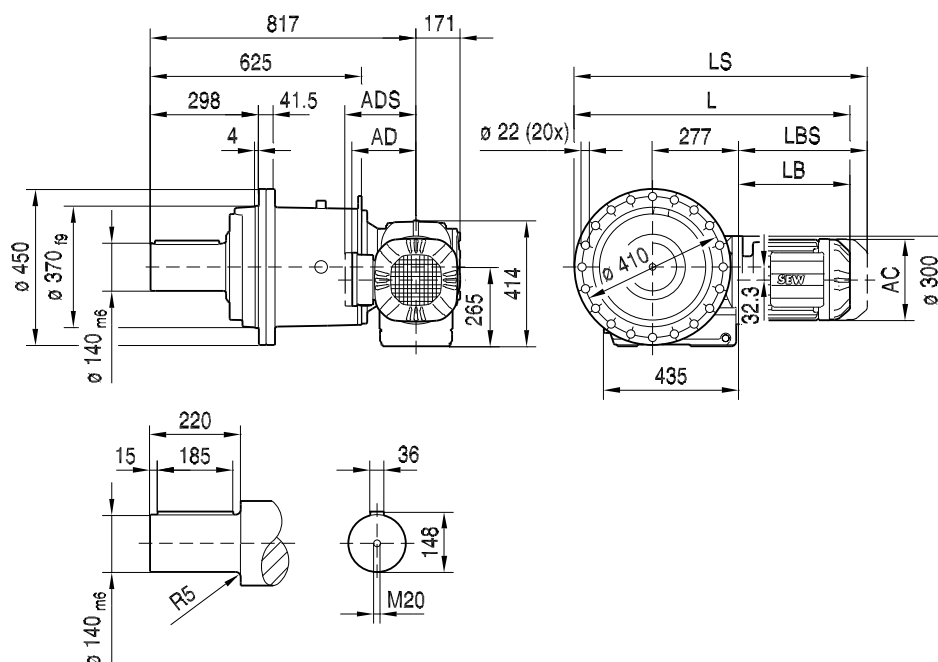
45 065 01 08

278

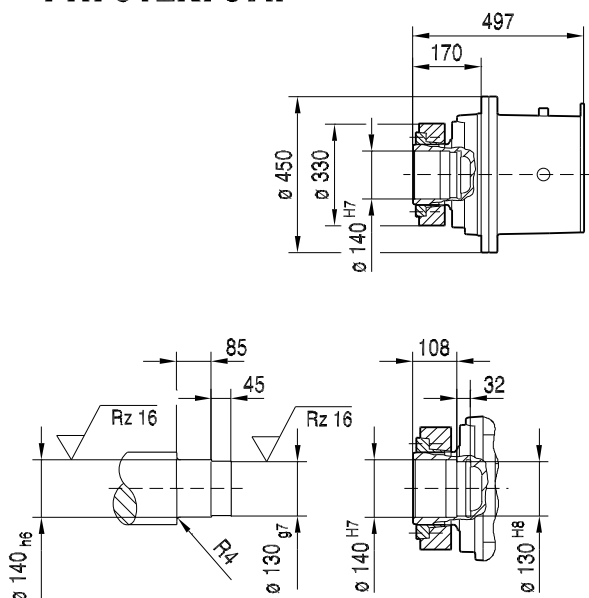


PF012KF97..

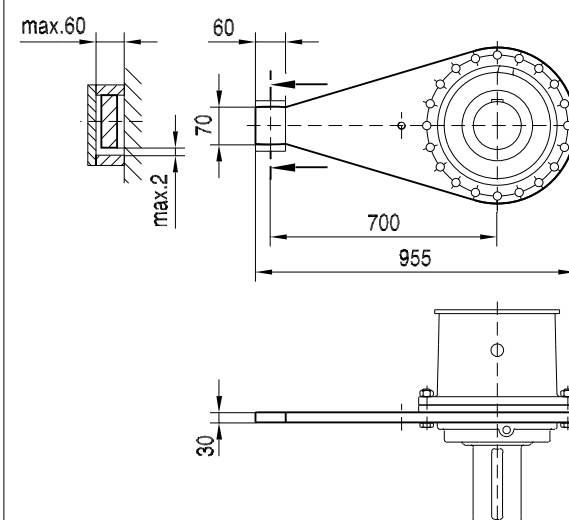
45 093 01 08



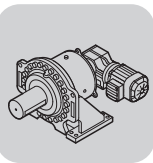
PHF012KF97..



P..012/T..



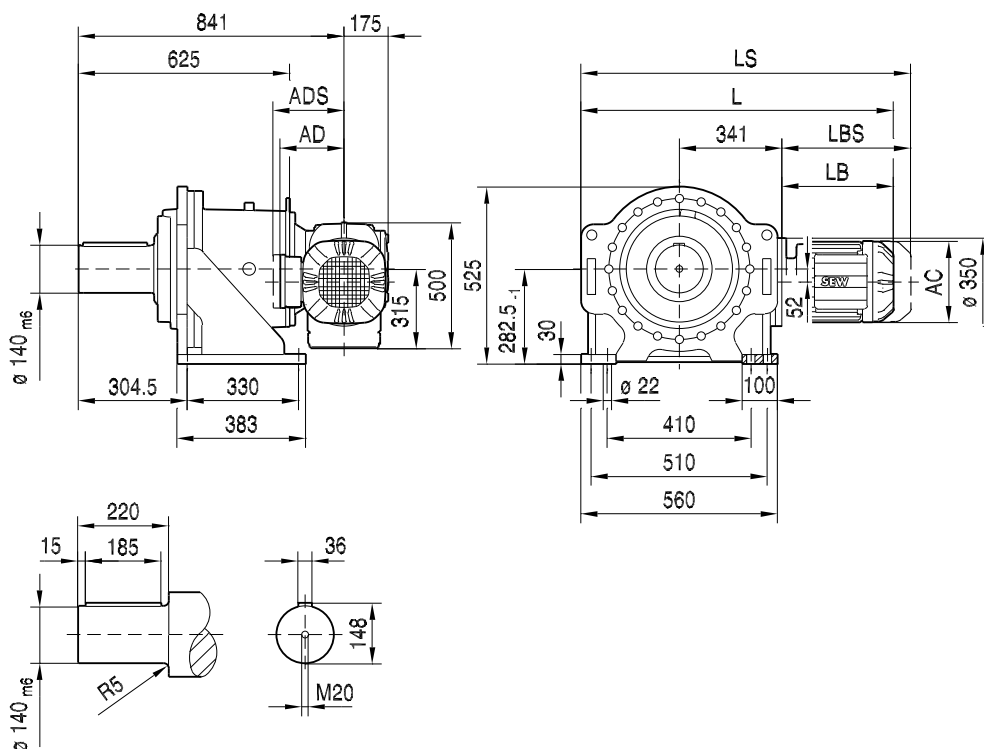
(→ 77)	DR132M/MC	DR160..	DR180S/M	DR180L/LC	DR200	DR225S		
AC	221	270	316	316	394	394		
AD	170	228	253	253	283	283		
ADS	172	228	253	253	283	283		
L	921	962	1031	1091	1164	1164		
LS	1033	1099	1220	1280	1369	1369		
LB	419	460	529	589	662	662		
LBS	531	597	718	778	867	867		



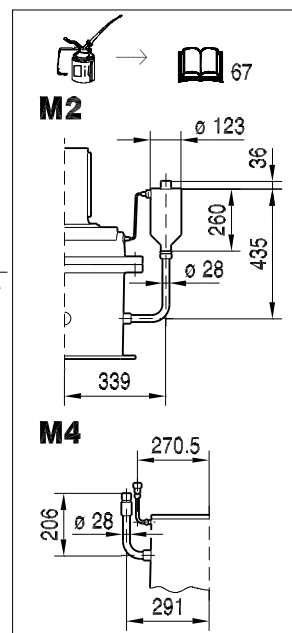
P.KF.. Bevel Planetary Gearmotors

Dimension sheets [mm]

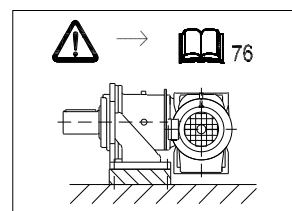
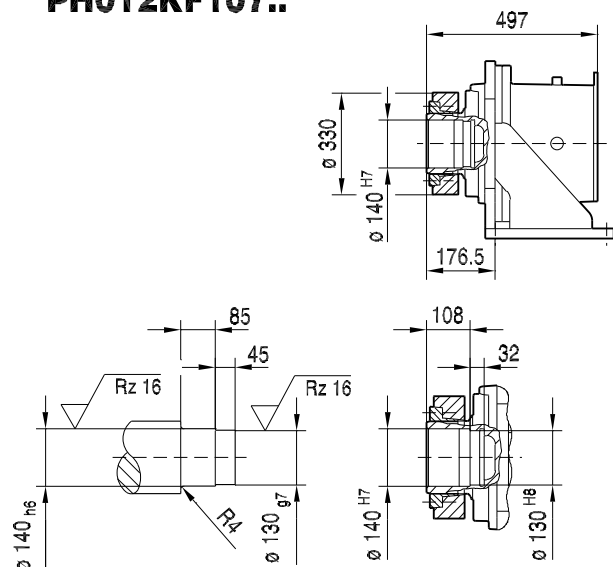
P012KF107..



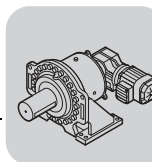
45 066 01 08



PH012KF107..

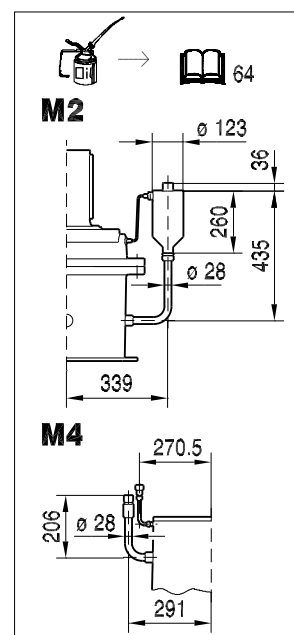
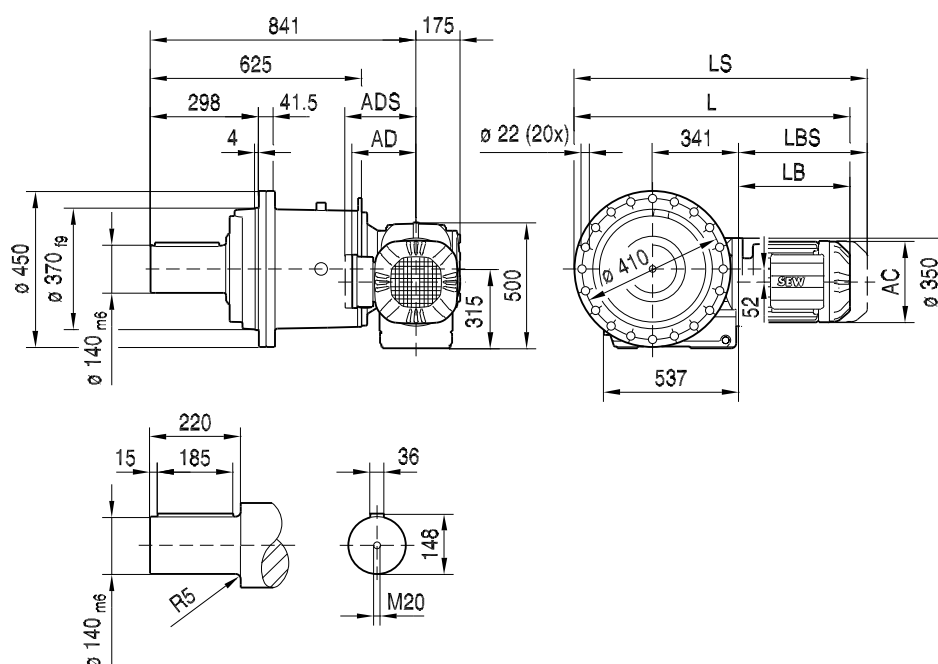


(→ 77)	DR180L/LC	DR200	DR225S					
AC	316	394	394					
AD	253	283	283					
ADS	253	283	283					
L	1204	1277	1277					
LS	1393	1482	1482					
LB	583	656	656					
LBS	772	861	861					

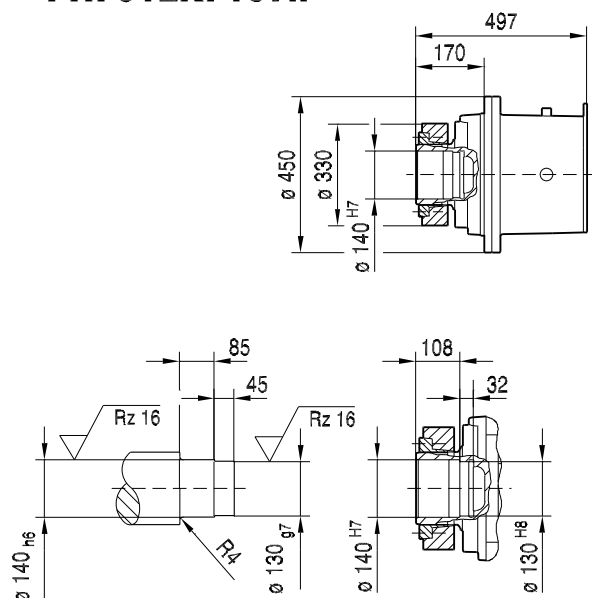


PF012KF107..

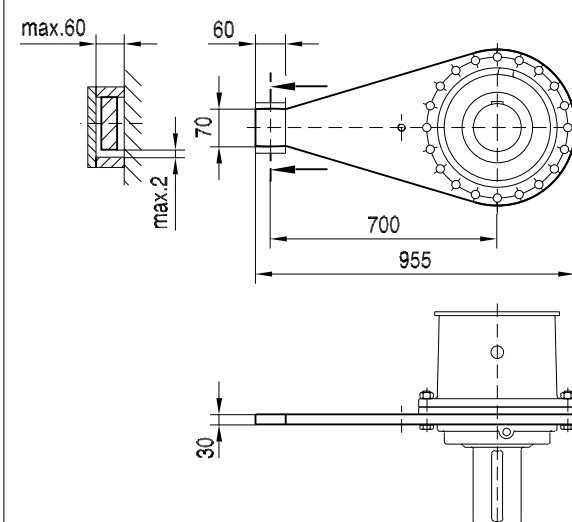
45 094 01 08



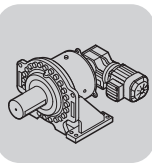
PHF012KF107..



P..012/T..



(→ 77)	DR180L/LC	DR200	DR225S					
AC	316	394	394					
AD	253	283	283					
ADS	253	283	283					
L	1149	1222	1222					
LS	1338	1427	1427					
LB	583	656	656					
LBS	772	861	861					

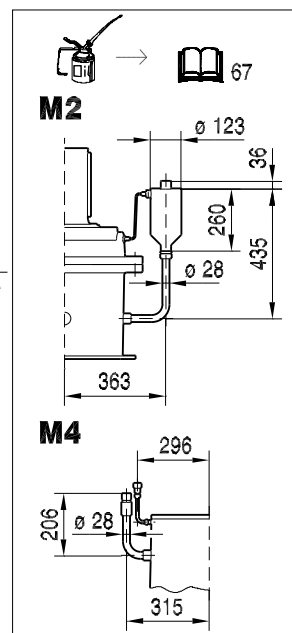
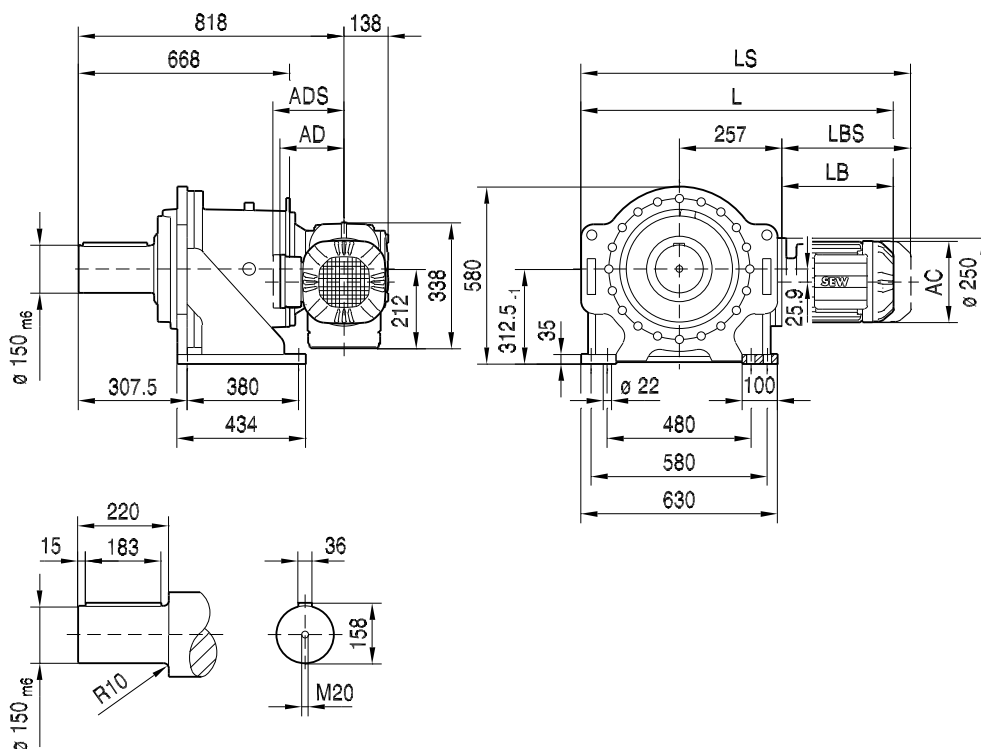


P.KF.. Bevel Planetary Gearmotors

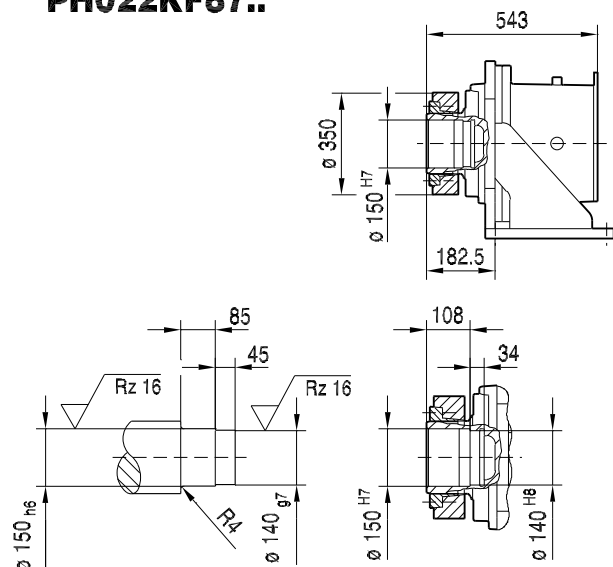
Dimension sheets [mm]

P022KF87..

45 067 01 08

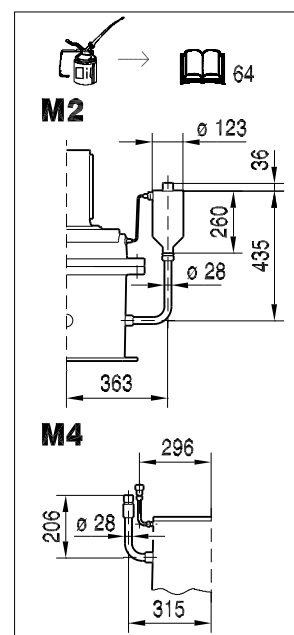


PH022KF87..

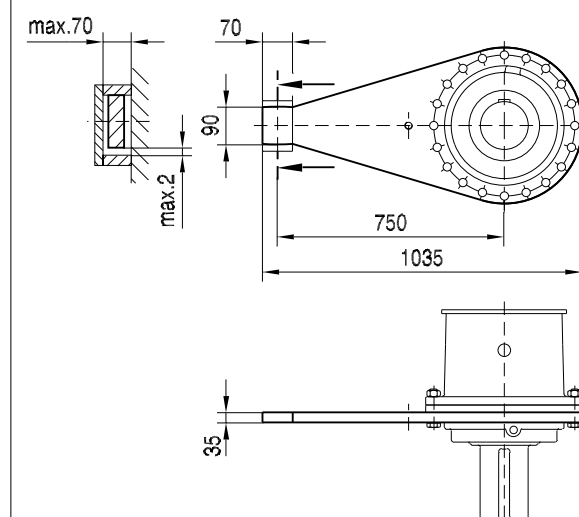


(→ 77)	DR80M	DR90M	DR90L	DR100M	DR100L/LC	DR112M	DR132S	DR132M/MC	DR160..	DR180S/M
AC	156	179	179	197	197	221	221	221	270	316
AD	128	140	140	157	157	170	170	170	228	253
ADS	139	150	150	158	158	172	172	172	228	253
L	821	823	843	873	903	911	946	996	1037	1106
LS	902	916	936	966	996	1023	1058	1108	1174	1295
LB	249	251	271	301	331	339	374	424	465	534
LBS	330	344	364	394	424	451	486	536	602	723

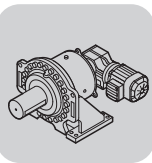
45 095 01 08



P..022/T..



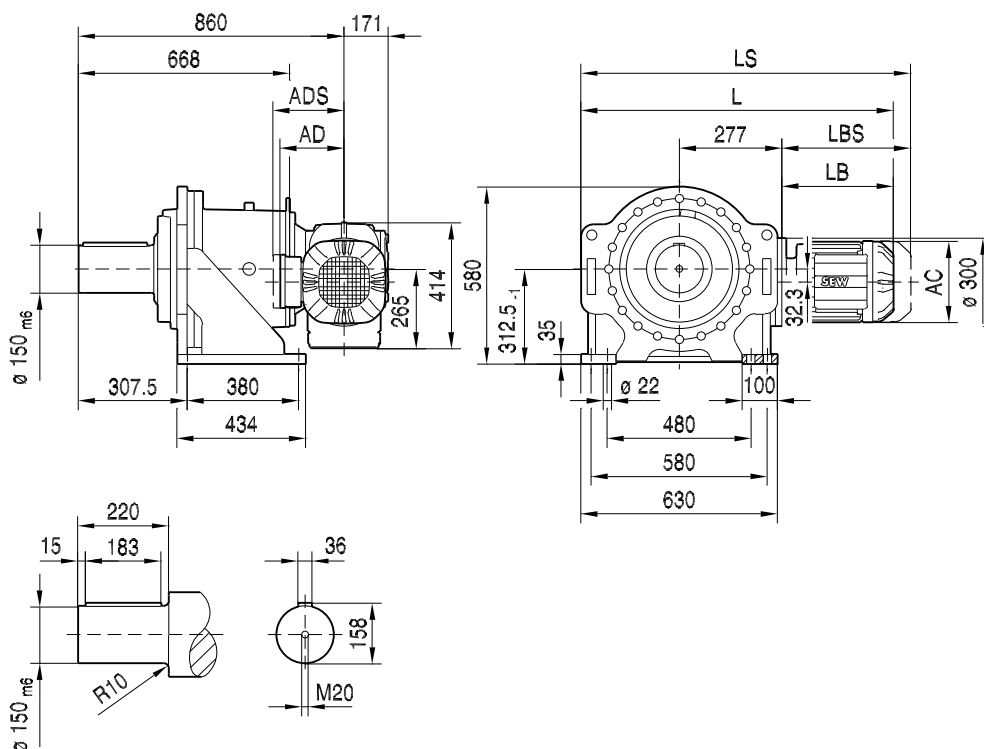
Catalog – Planetary Gearmotors P.002 - P.102 Series



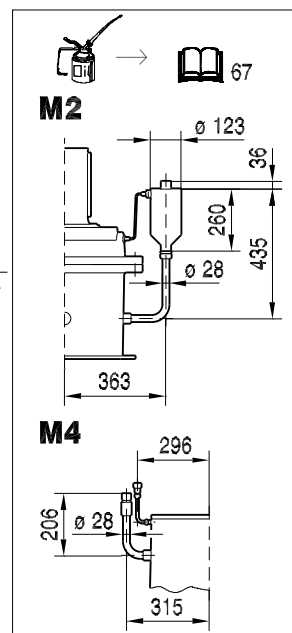
P.KF.. Bevel Planetary Gearmotors

Dimension sheets [mm]

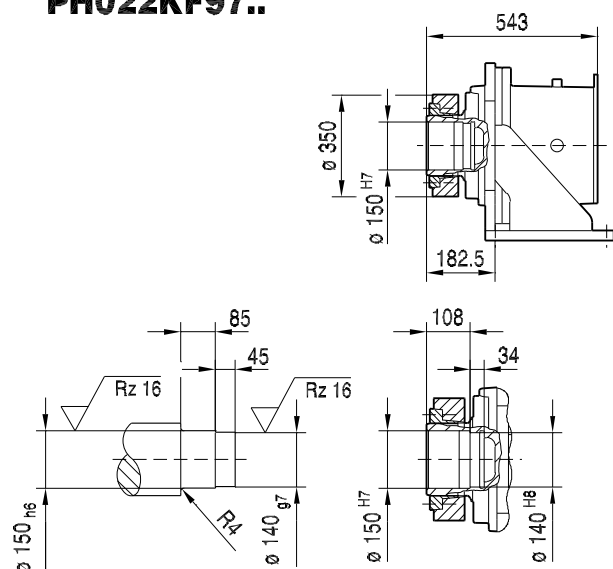
P022KF97..



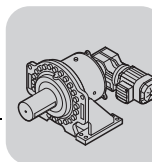
45 068 01 08



PH022KF97..

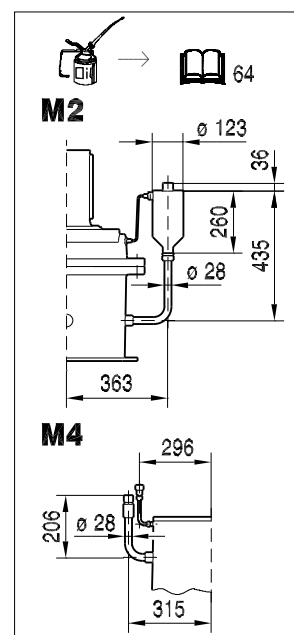
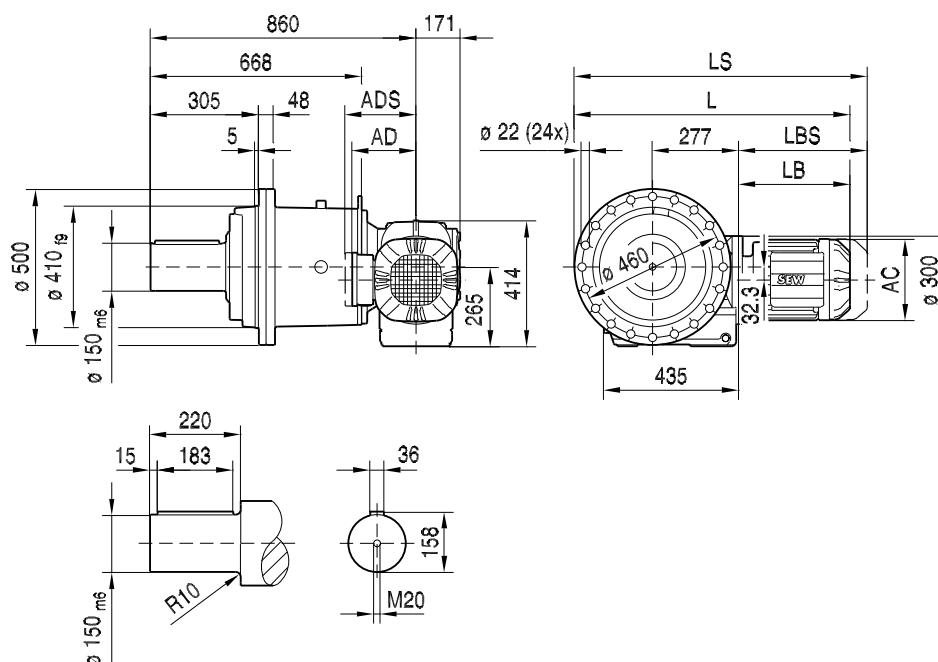


(→ 77)	DR132M/MC	DR160..	DR180S/M	DR180L/LC	DR200	DR225S		
AC	221	270	316	316	394	394		
AD	170	228	253	253	283	283		
ADS	172	228	253	253	283	283		
L	1011	1052	1121	1181	1254	1254		
LS	1123	1189	1310	1370	1459	1459		
LB	419	460	529	589	662	662		
LBS	531	597	718	778	867	867		

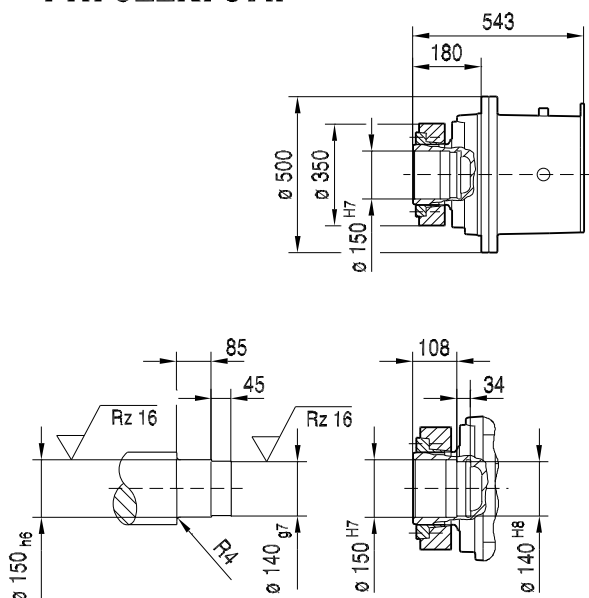


PF022KF97..

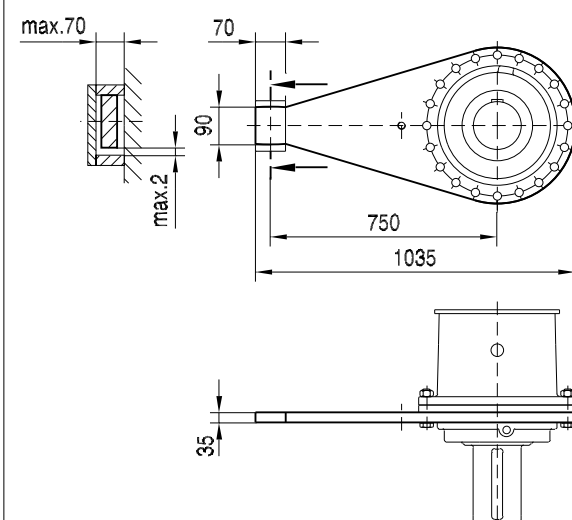
45 096 01 08



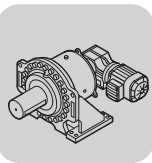
PHF022KF97..



P..022/T..



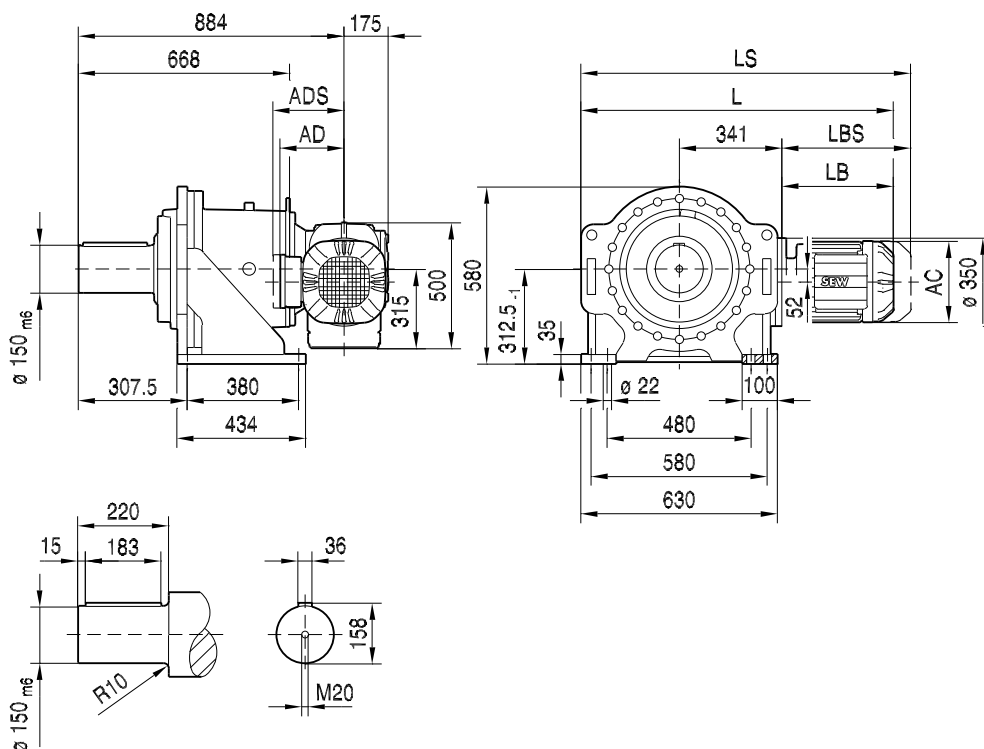
(→ 77)	DR132M/MC	DR160..	DR180S/M	DR180L/LC	DR200	DR225S		
AC	221	270	316	316	394	394		
AD	170	228	253	253	283	283		
ADS	172	228	253	253	283	283		
L	946	987	1056	1116	1189	1189		
LS	1058	1124	1245	1305	1394	1394		
LB	419	460	529	589	662	662		
LBS	531	597	718	778	867	867		



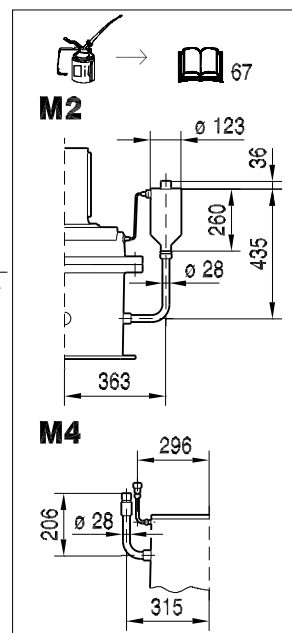
P.KF.. Bevel Planetary Gearmotors

Dimension sheets [mm]

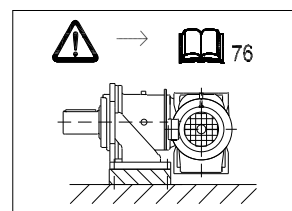
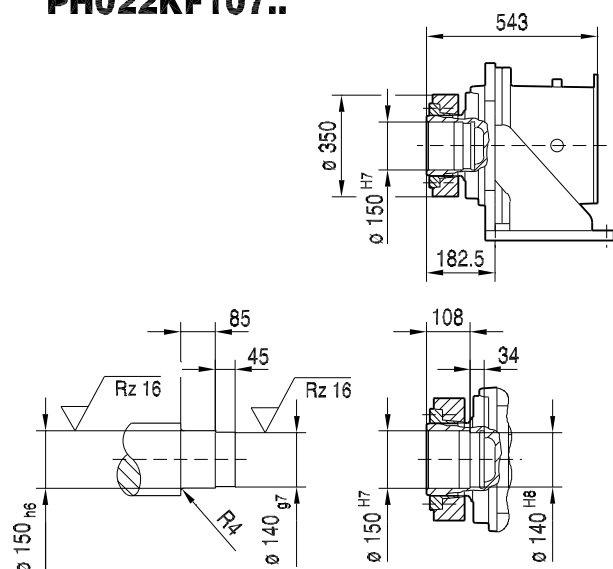
P022KF107..



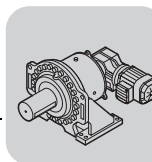
45 069 01 08



PH022KF107..

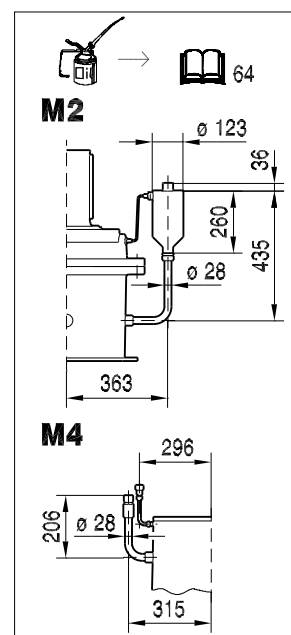
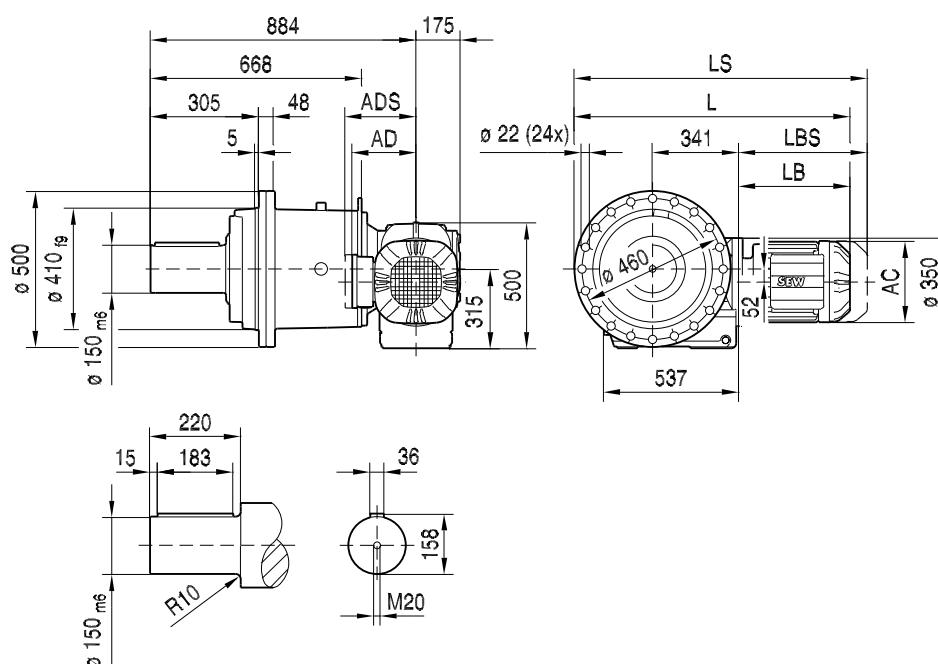


(→ 77)	DR180L/LC	DR200	DR225S	DR225M/MC				
AC	316	394	394	394				
AD	253	283	283	283				
ADS	253	283	283	283				
L	1239	1312	1312	1362				
LS	1428	1517	1517	1567				
LB	583	656	656	706				
LBS	772	861	861	911				

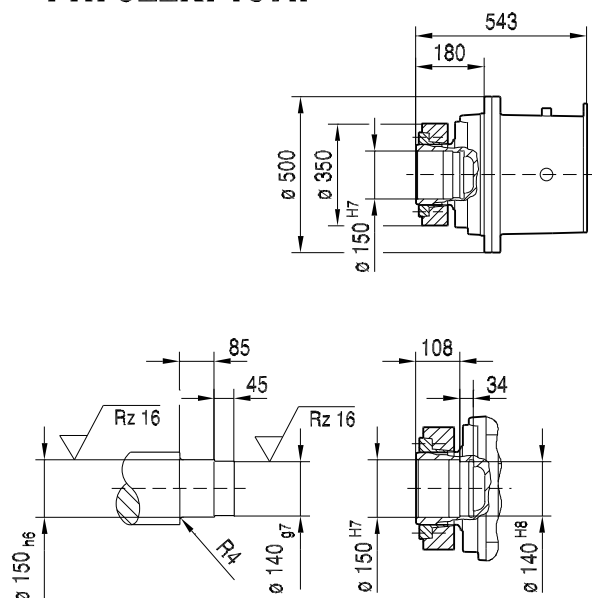


PF022KF107..

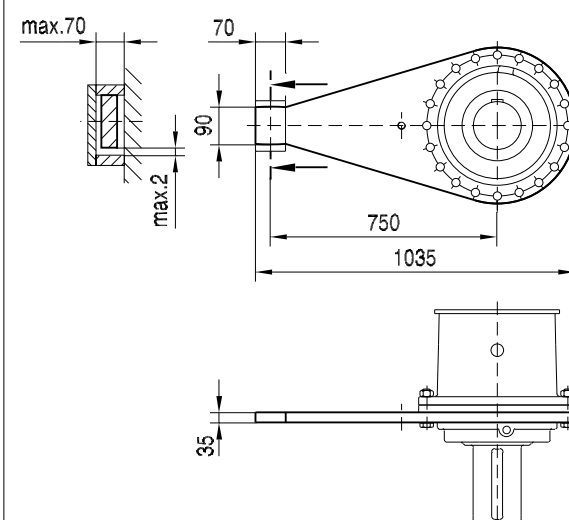
45 097 01 08



PHF022KF107..

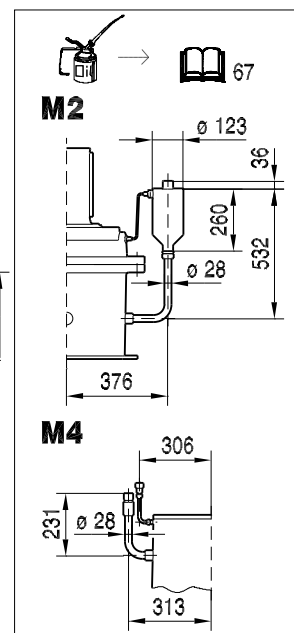


P..022/T..



(→ 77)	DR180L/LC	DR200	DR225S	DR225M/MC				
AC	316	394	394	394				
AD	253	283	283	283				
ADS	253	283	283	283				
L	1174	1247	1247	1297				
LS	1363	1452	1452	1502				
LB	583	656	656	706				
LBS	772	861	861	911				

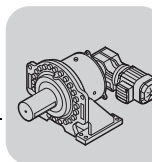
45 070 01 08



Technical drawing of a mechanical part showing three views: front, top, and side.

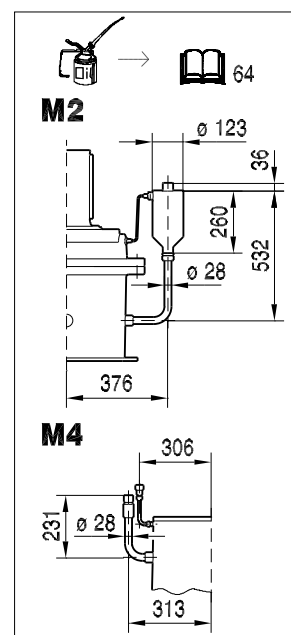
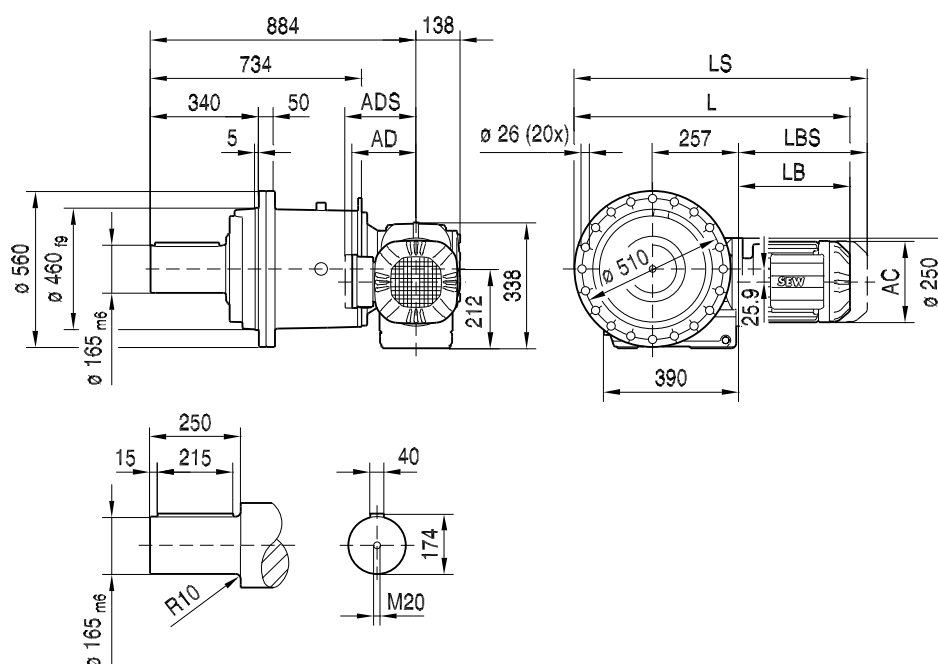
- Front View:** Shows a cylindrical part with a central hole. Dimensions include a total length of 165 mm, a central section length of 110 mm, a shoulder width of 55 mm, and a diameter of 155 mm at the base. Surface finish symbols Rz 16 are indicated on the main body and the shoulder.
- Top View:** Shows the circular cross-section of the part. It features a central hole with a diameter of 370 mm and a smaller hole with a diameter of 165 mm. The overall outer diameter is 604 mm. A distance of 219 mm is shown from the center of the 165 mm hole to the right edge.
- Side View:** Shows the profile of the part. It includes a shoulder with a radius R6 and a fillet with a radius R155. The total height is 165 mm, and the diameter at the base is 155 mm. A distance of 136 mm is shown from the left edge to the start of the shoulder, and a distance of 39 mm is shown from the start of the shoulder to the right edge.

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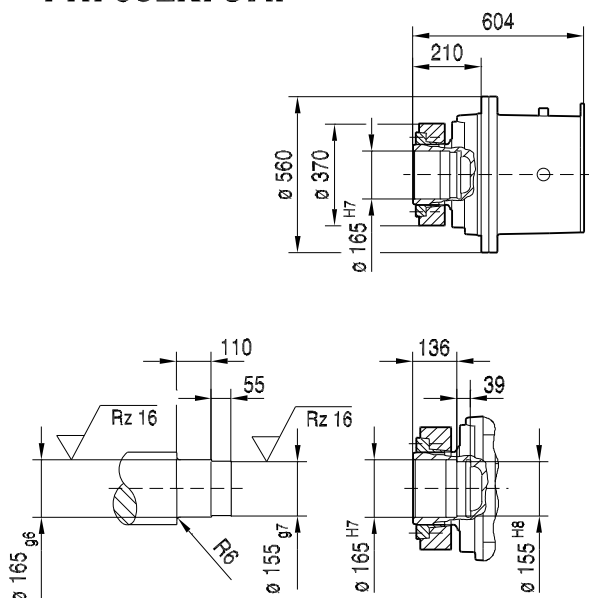


PF032KF87..

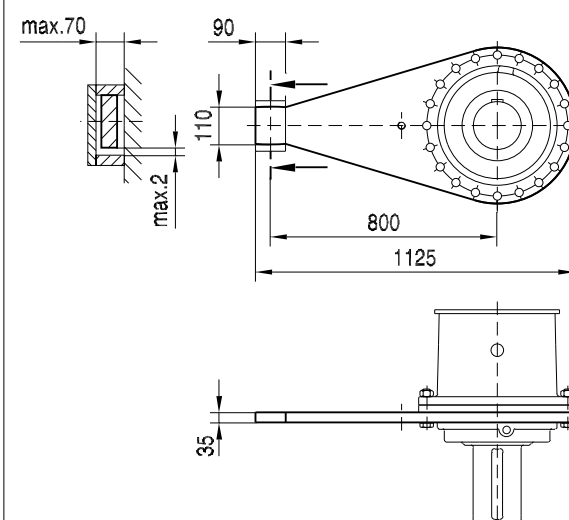
45 098 01 08



PHF032KF87..

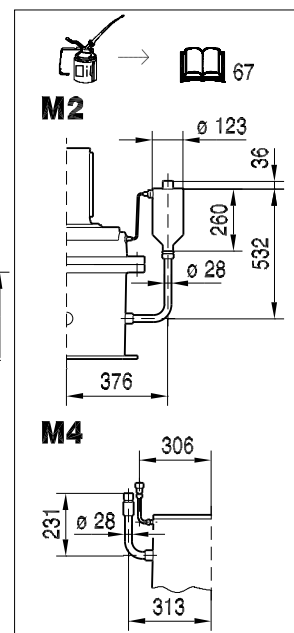


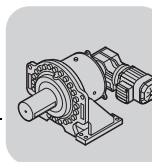
P..032/T..



(→ 77)	DR100M	DR100L/LC	DR112M	DR132S	DR132M/MC	DR160..		
AC	197	197	221	221	221	270		
AD	157	157	170	170	170	228		
ADS	158	158	172	172	172	228		
L	838	868	876	911	961	1002		
LS	931	961	988	1023	1073	1139		
LB	301	331	339	374	424	465		
LBS	394	424	451	486	536	602		

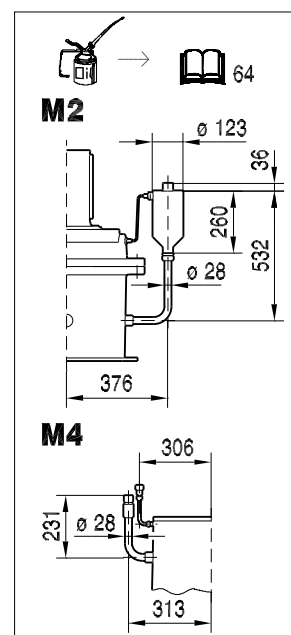
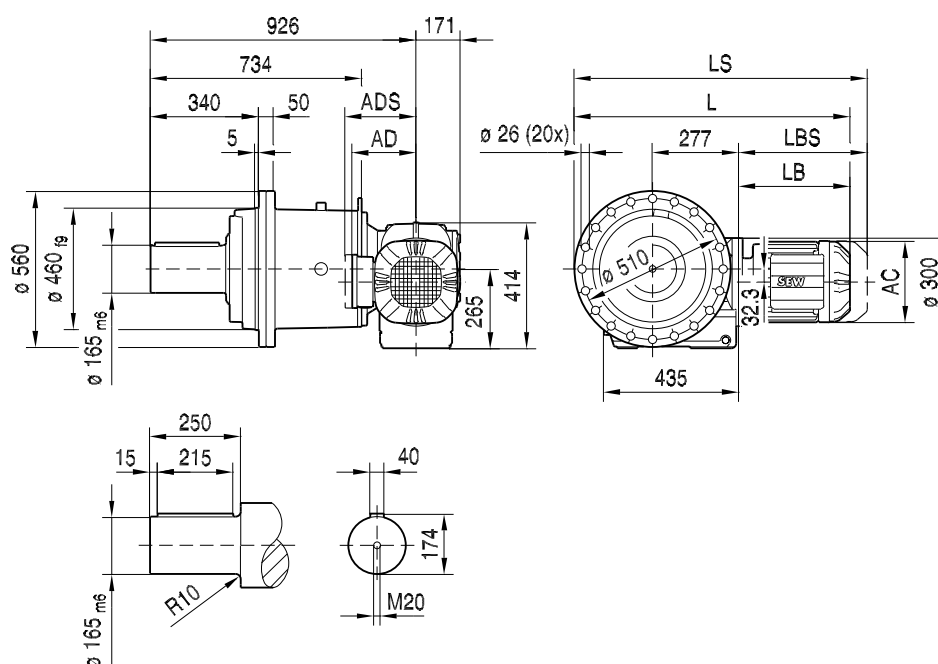
45 071 01 08

290

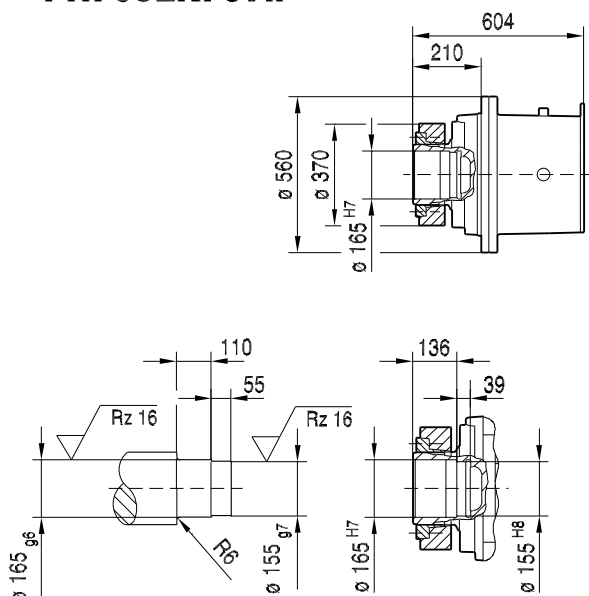


PF032KF97..

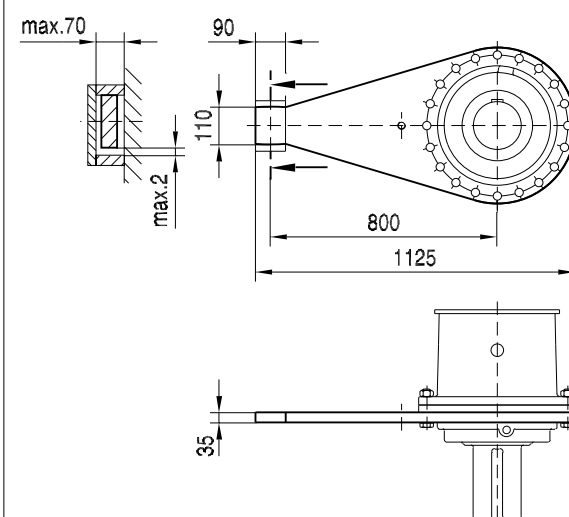
45 099 01 08



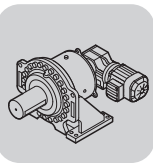
PHF032KF97..



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(→ 77)	DR90L	DR100M	DR100L/LC	DR112M	DR132S	DR132M/MC	DR160..	DR180S/M	DR180L/LC	DR200	DR225S
AC	179	197	197	221	221	221	270	316	316	394	394
AD	140	157	157	170	170	170	228	253	253	283	283
ADS	150	158	158	172	172	172	228	253	253	283	283
L	823	853	883	891	926	976	1017	1086	1146	1219	1219
LS	916	946	976	1003	1038	1088	1154	1275	1335	1424	1424
LB	266	296	326	334	369	419	460	529	589	662	662
LBS	359	389	419	446	481	531	597	718	778	867	867

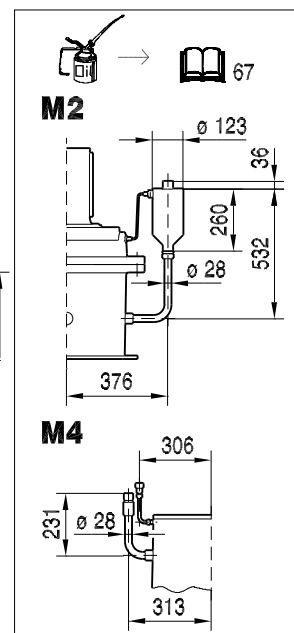
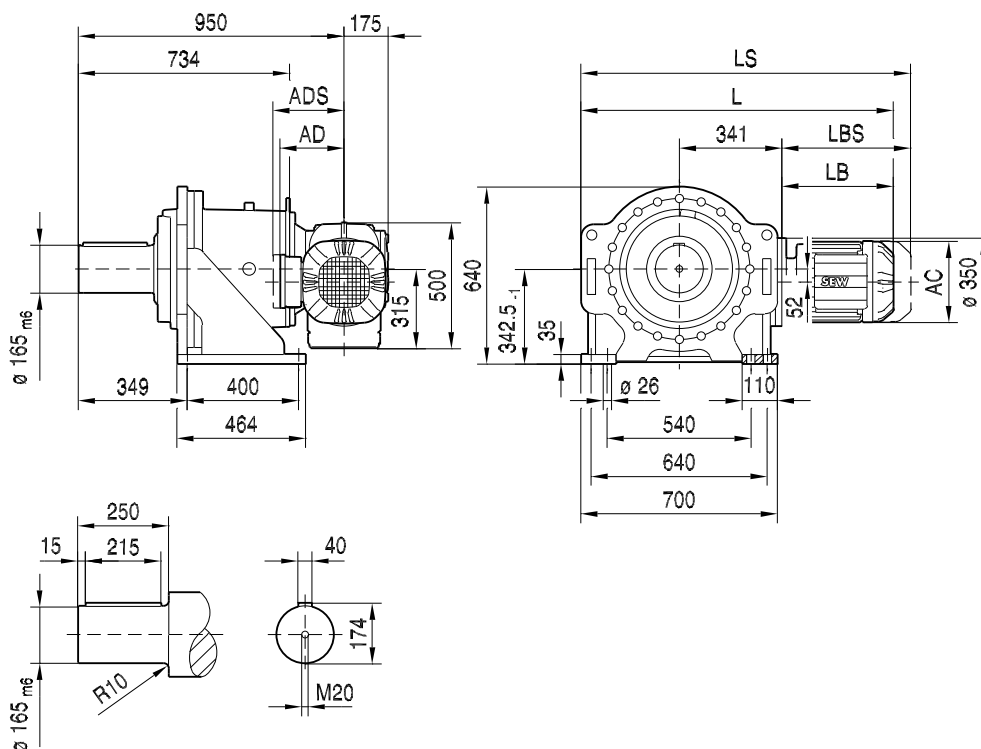


P.KF.. Bevel Planetary Gearmotors

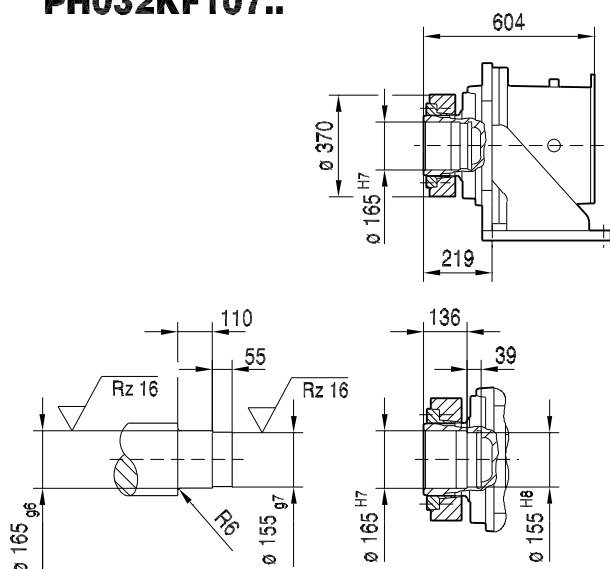
Dimension sheets [mm]

P032KF107..

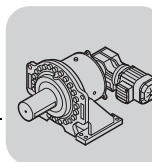
45 072 01 08



PH032KF107..

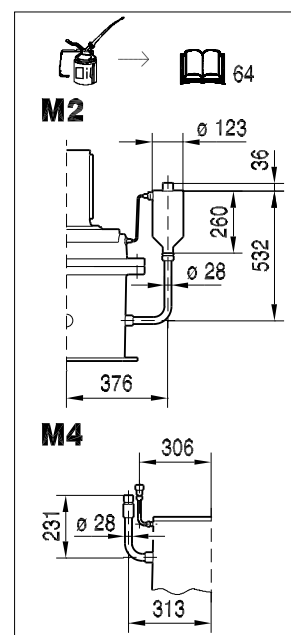
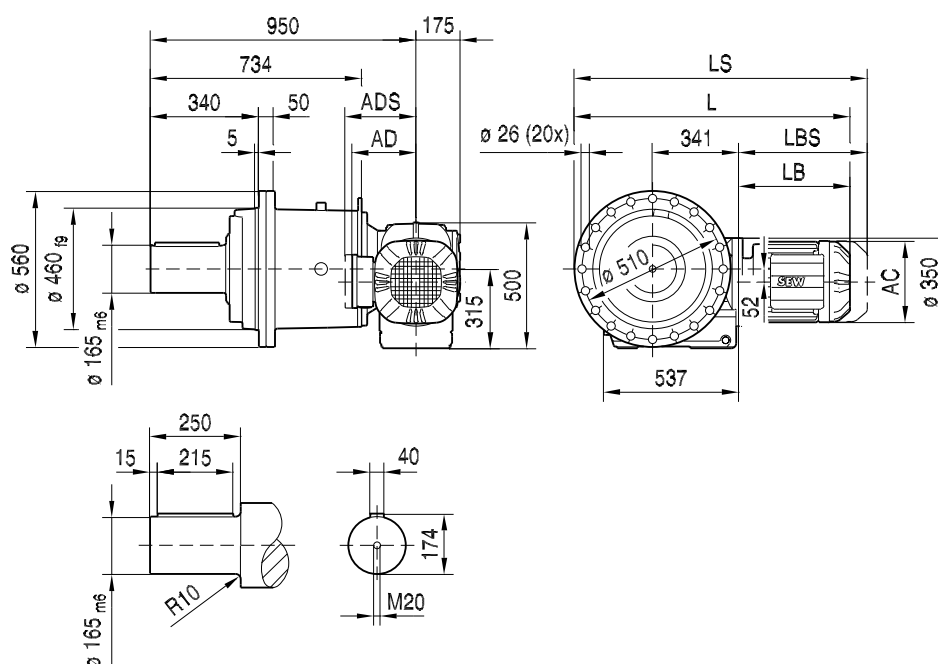


(→ 77)	DR180L/LC	DR200	DR225S	DR225M/MC				
AC	316	394	394	394				
AD	253	283	283	283				
ADS	253	283	283	283				
L	1274	1347	1347	1397				
LS	1463	1552	1552	1602				
LB	583	656	656	706				
LBS	772	861	861	911				

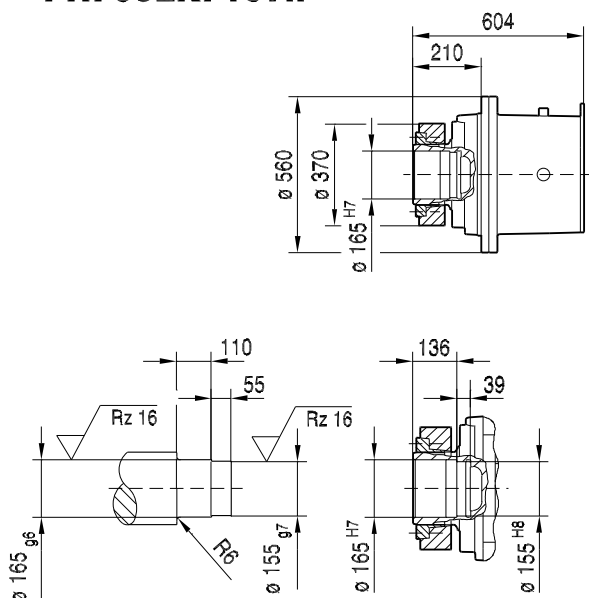


PF032KF107..

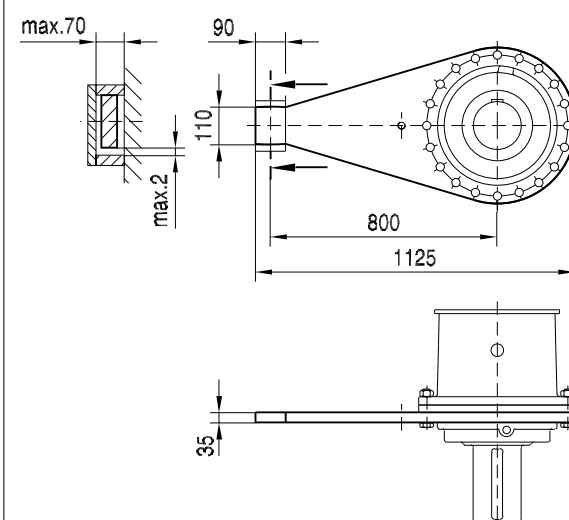
45 100 01 08



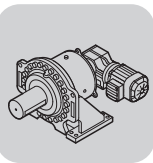
PHF032KF107..



P..032/T..



(→ 77)	DR180L/LC	DR200	DR225S	DR225M/MC				
AC	316	394	394	394				
AD	253	283	283	283				
ADS	253	283	283	283				
L	1204	1277	1277	1327				
LS	1393	1482	1482	1532				
LB	583	656	656	706				
LBS	772	861	861	911				

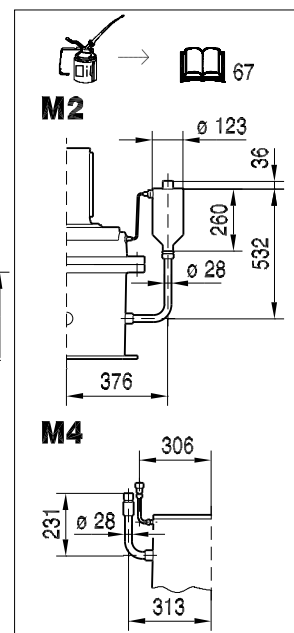
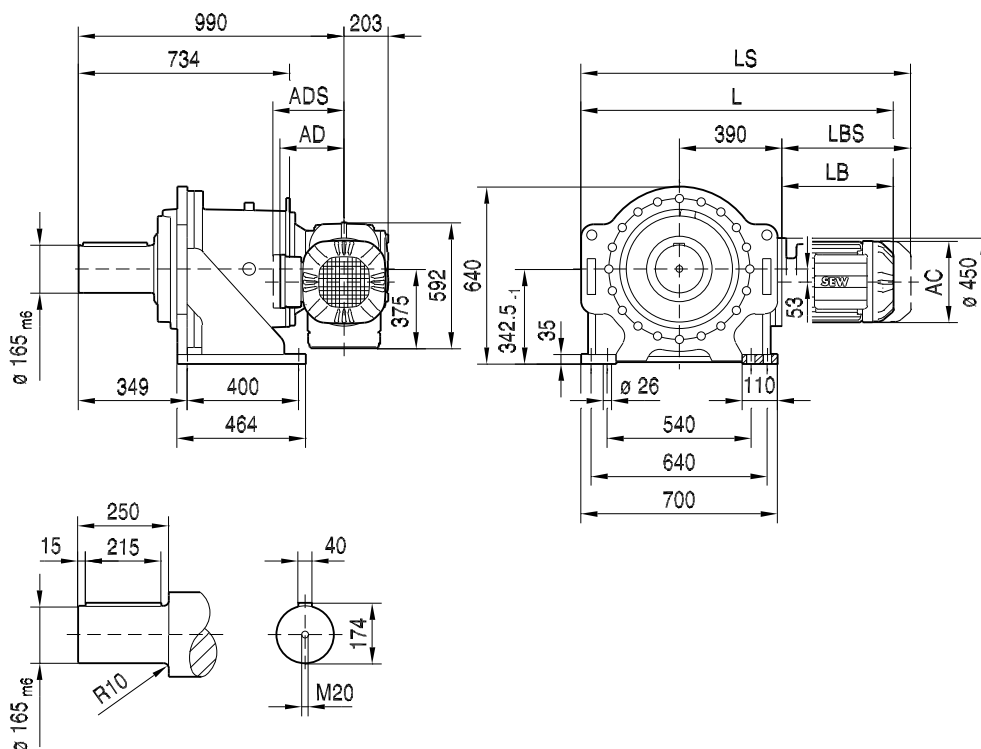


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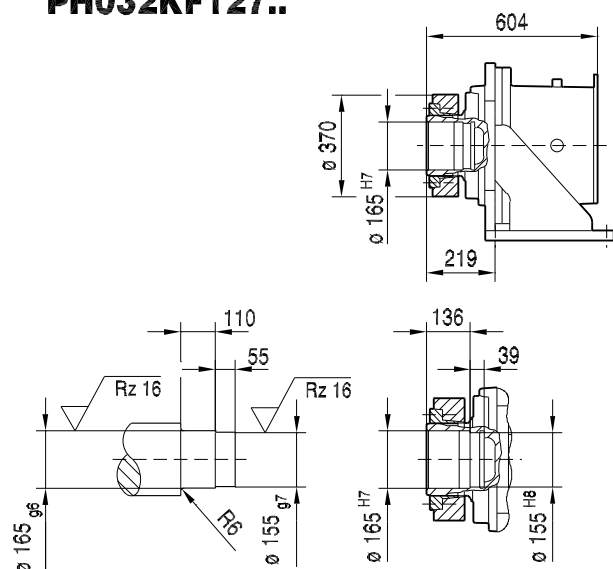
Dimension sheets [mm]

P032KF127..

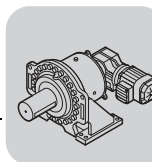
45 073 01 08



PH032KF127..

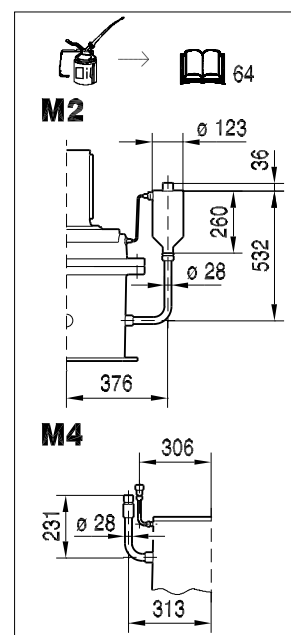
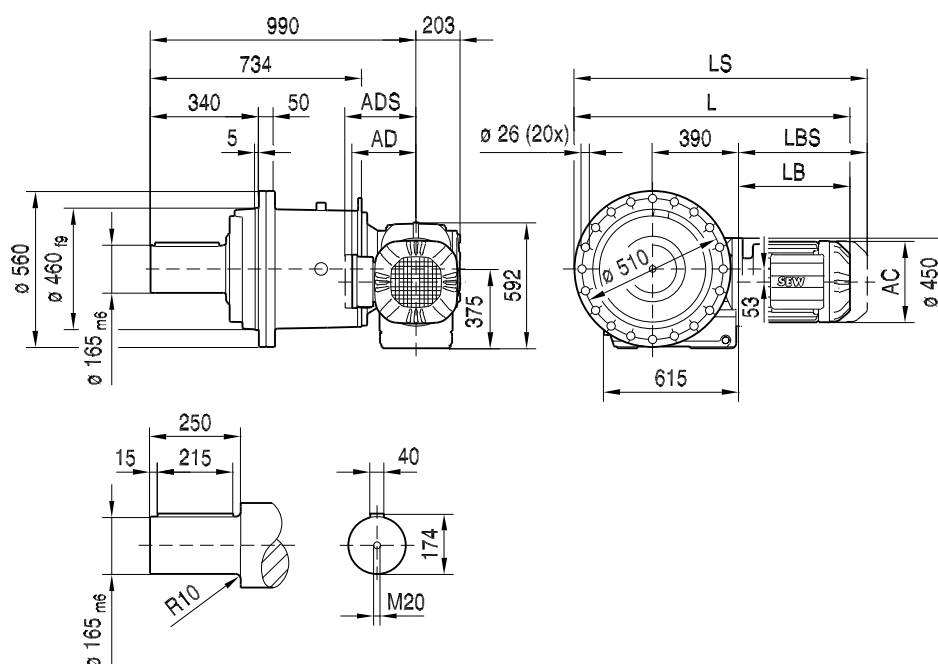


(→ 77)	DR180L/LC	DR200	DR225S	DR225M/MC	DV250M			
AC	316	394	394	394	510			
AD	253	283	283	283	397			
ADS	253	283	283	283	397			
L	1308	1381	1381	1431	1520			
LS	1497	1586	1586	1636	1705			
LB	568	641	641	691	780			
LBS	757	846	846	896	965			

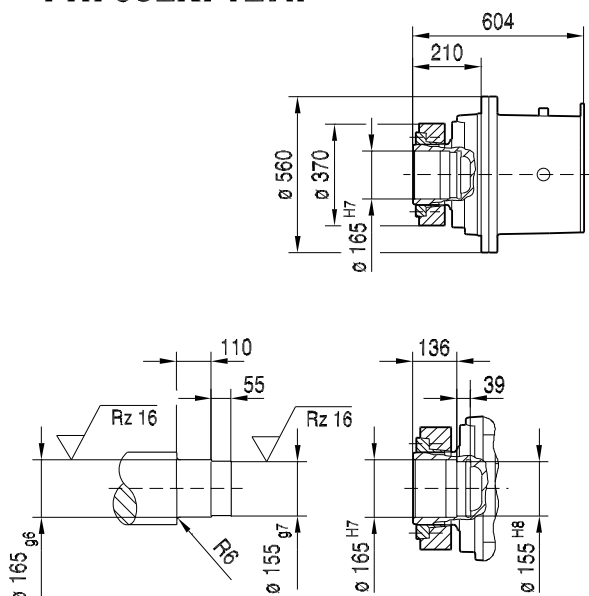


PF032KF127..

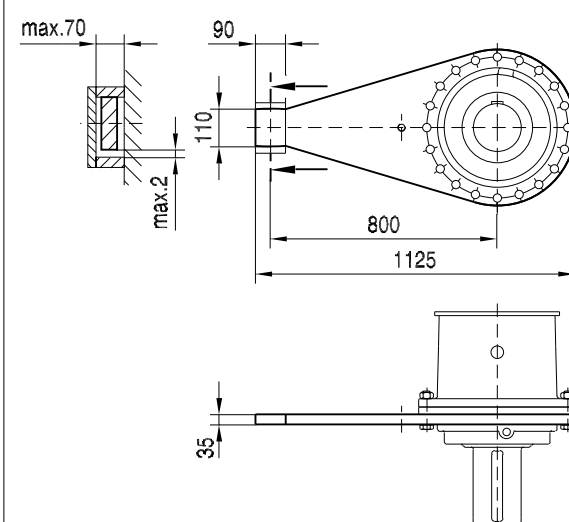
45 101 01 08



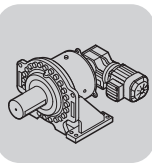
PHF032KF127..



P..032/T..



(→ 77)	DR180L/LC	DR200	DR225S	DR225M/MC	DV250M			
AC	316	394	394	394	510			
AD	253	283	283	283	397			
ADS	253	283	283	283	397			
L	1238	1311	1311	1361	1450			
LS	1427	1516	1516	1566	1635			
LB	568	641	641	691	780			
LBS	757	846	846	896	965			

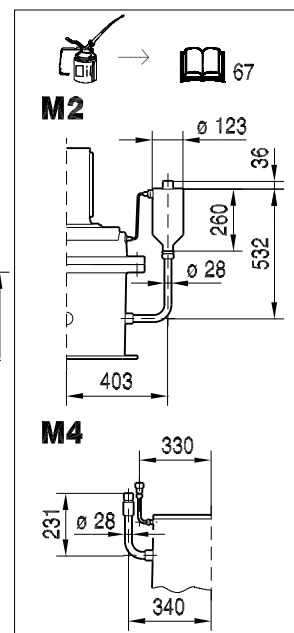
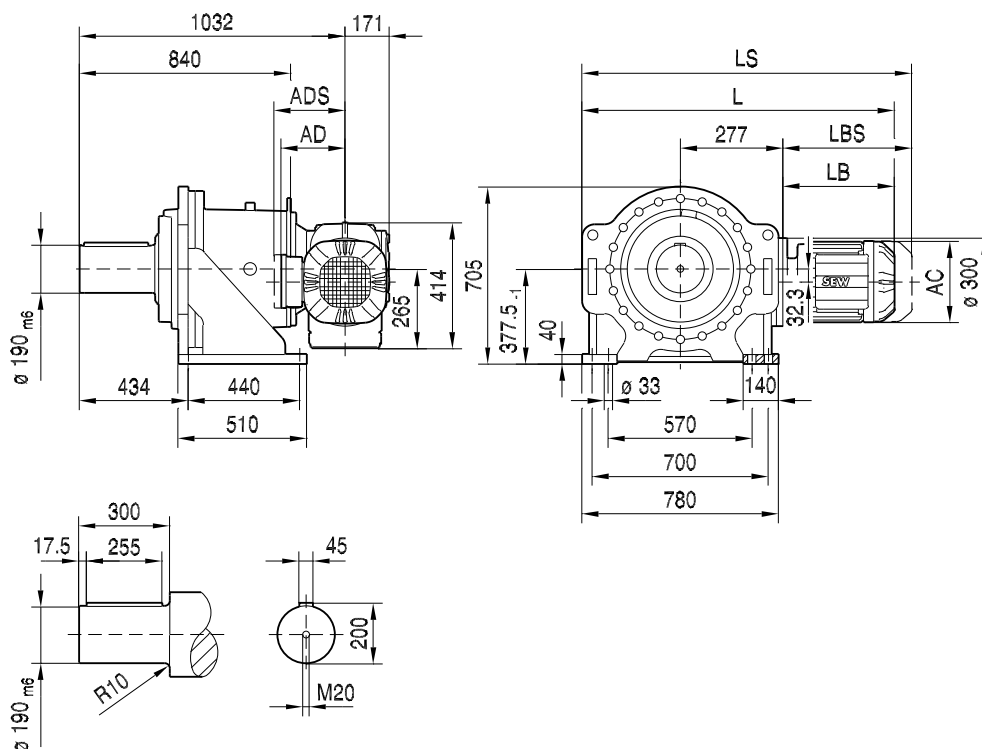


P.KF.. Bevel Planetary Gearmotors

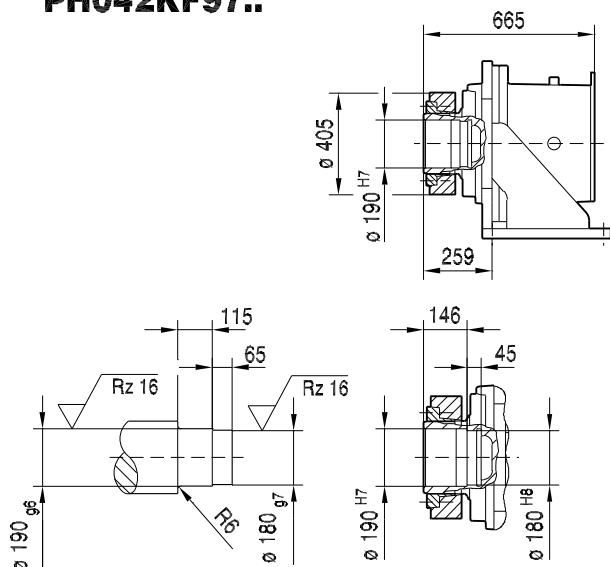
Dimension sheets [mm]

P042KF97..

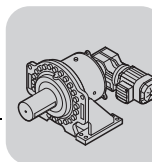
45 074 01 08



PH042KF97..

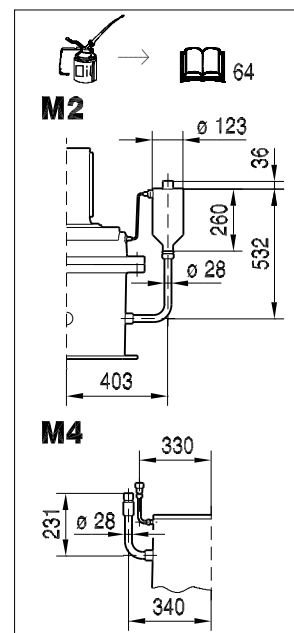
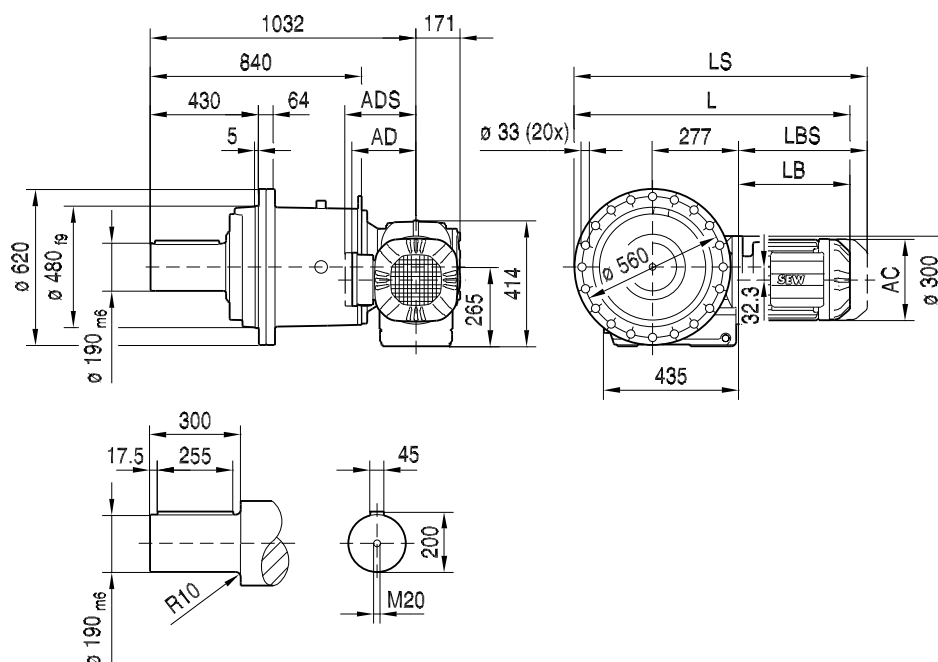


(→ 77)	DR100M	DR100L/LC	DR112M	DR132S	DR132M/MC	DR160..	DR180S/M	DR180L/LC	DR200
AC	197	197	221	221	221	270	316	316	394
AD	157	157	170	170	170	228	253	253	283
ADS	158	158	172	172	172	228	253	253	283
L	963	993	1001	1036	1086	1127	1196	1256	1329
LS	1056	1086	1113	1148	1198	1264	1385	1445	1534
LB	296	326	334	369	419	460	529	589	662
LBS	389	419	446	481	531	597	718	778	867

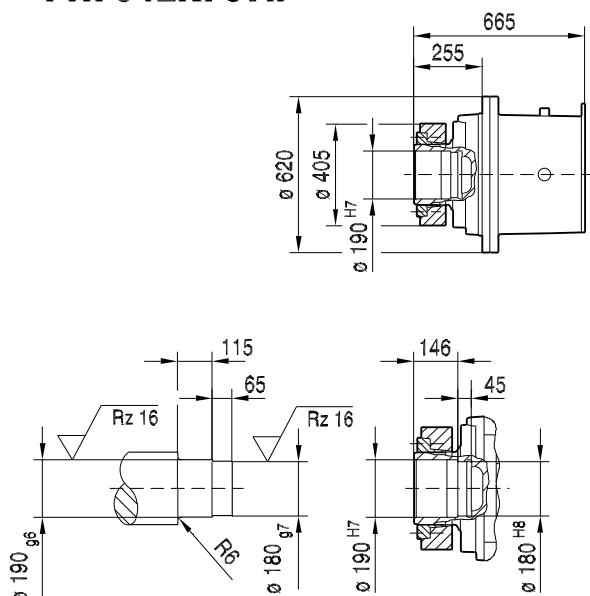


PF042KF97..

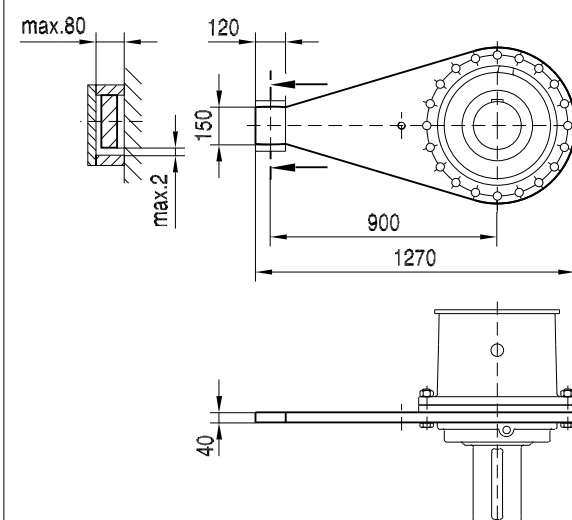
45 102 01 08



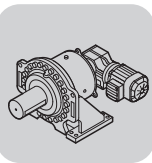
PHF042KF97..



P..042/T..



(→ 77)	DR100M	DR100L/LC	DR112M	DR132S	DR132M/MC	DR160..	DR180S/M	DR180L/LC	DR200
AC	197	197	221	221	221	270	316	316	394
AD	157	157	170	170	170	228	253	253	283
ADS	158	158	172	172	172	228	253	253	283
L	883	913	921	956	1006	1047	1116	1176	1249
LS	976	1006	1033	1068	1118	1184	1305	1365	1454
LB	296	326	334	369	419	460	529	589	662
LBS	389	419	446	481	531	597	718	778	867

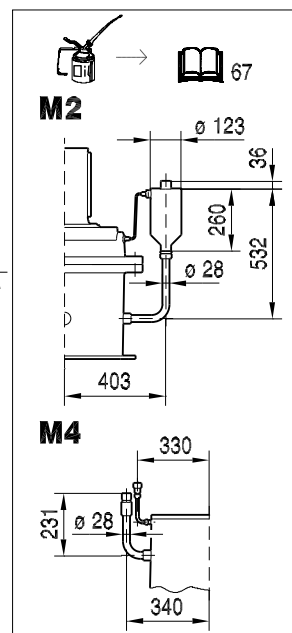
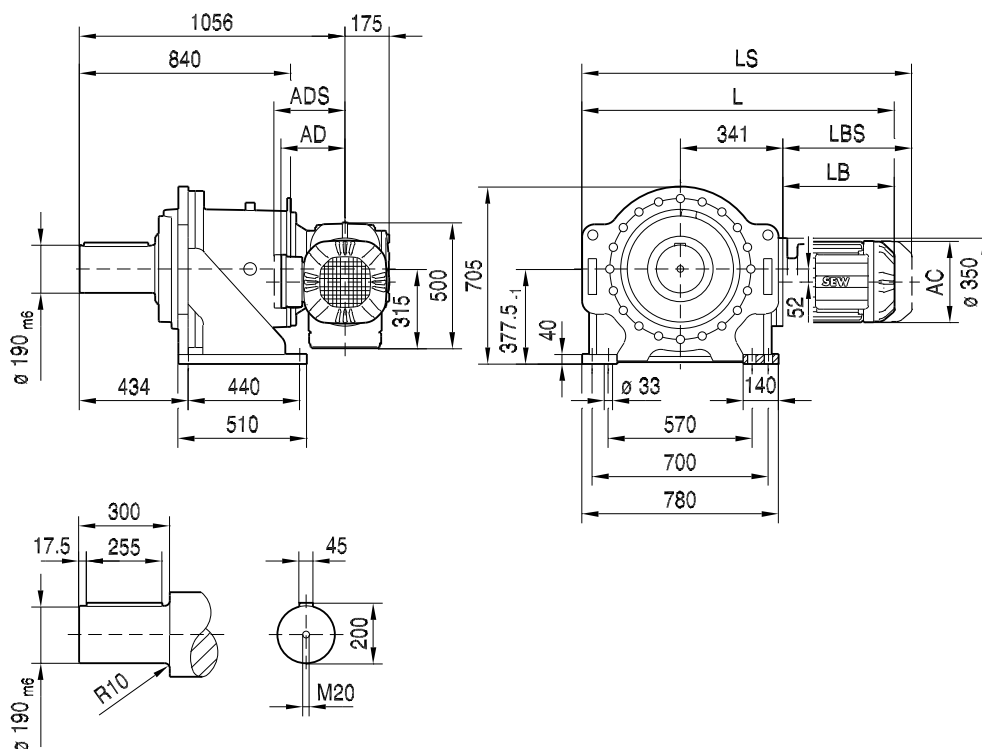


P.KF.. Bevel Planetary Gearmotors

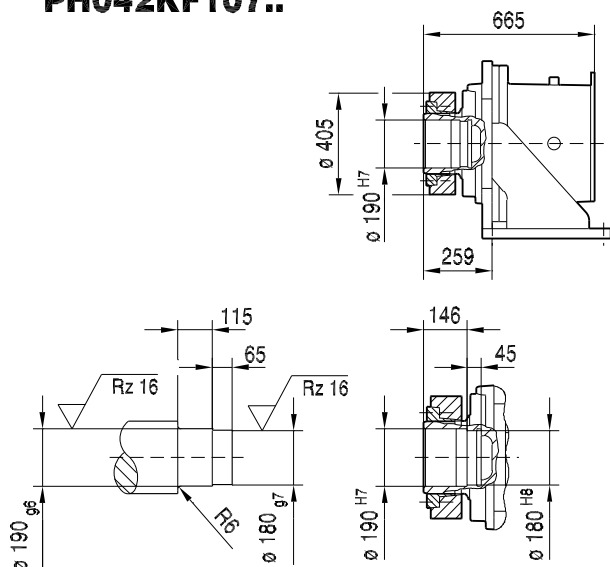
Dimension sheets [mm]

P042KF107..

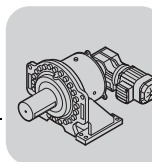
45 075 01 08



PH042KF107..

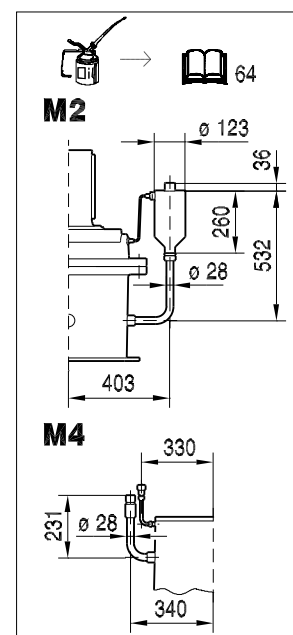
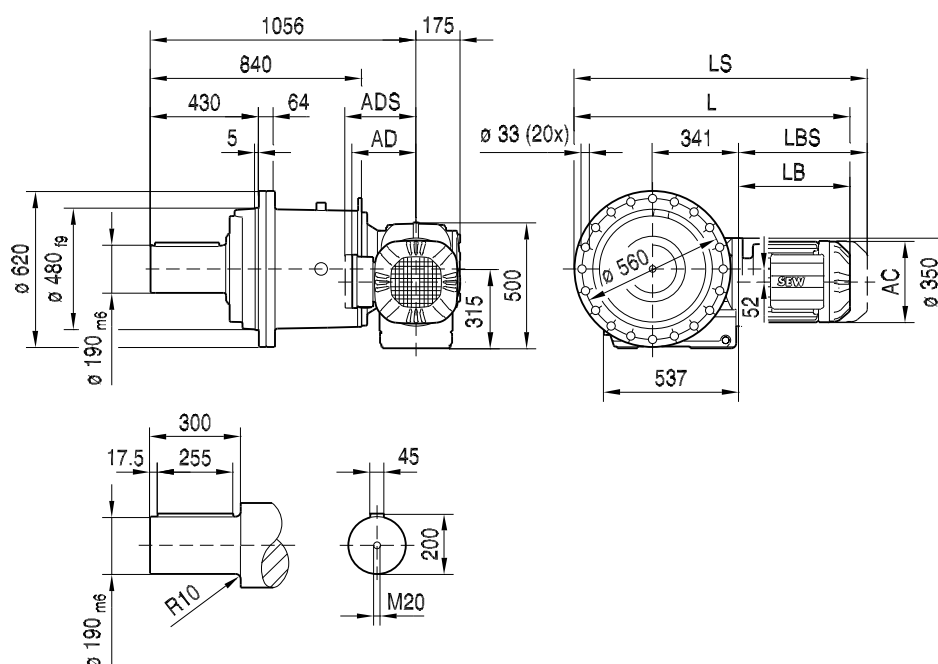


(→ 77)	DR100L/LC	DR132S	DR132M/MC	DR160..	DR180S/M	DR180L/LC	DR200	DR225S	DR225M/MC
AC	197	221	221	270	316	316	394	394	394
AD	157	170	170	228	253	253	283	283	283
ADS	158	172	172	228	253	253	283	283	283
L	1051	1094	1144	1185	1254	1314	1387	1387	1437
LS	1144	1206	1256	1322	1443	1503	1592	1592	1642
LB	320	363	413	454	523	583	656	656	706
LBS	413	475	525	591	712	772	861	861	911

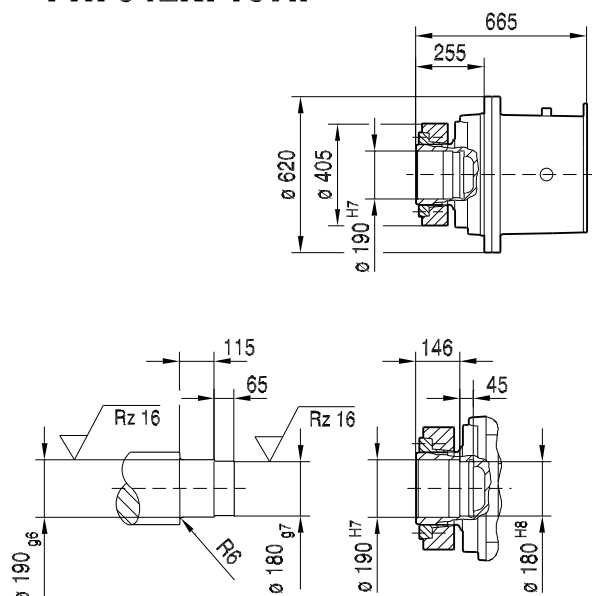


PF042KF107..

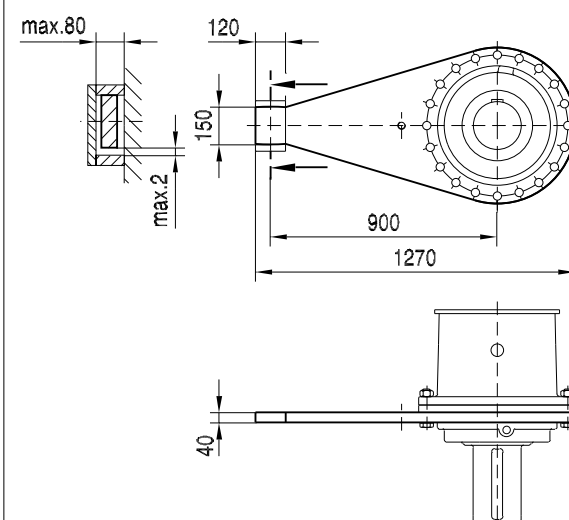
45 103 01 08



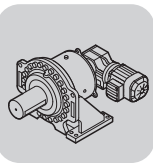
PHF042KF107..



P..042/T..



(→ 77)	DR100L/LC	DR132S	DR132M/MC	DR160..	DR180S/M	DR180L/LC	DR200	DR225S	DR225M/MC
AC	197	221	221	270	316	316	394	394	394
AD	157	170	170	228	253	253	283	283	283
ADS	158	172	172	228	253	253	283	283	283
L	971	1014	1064	1105	1174	1234	1307	1307	1357
LS	1064	1126	1176	1242	1363	1423	1512	1512	1562
LB	320	363	413	454	523	583	656	656	706
LBS	413	475	525	591	712	772	861	861	911

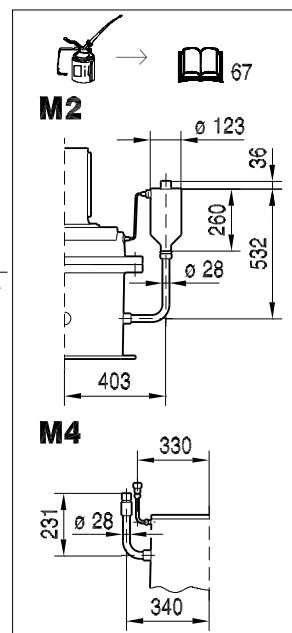
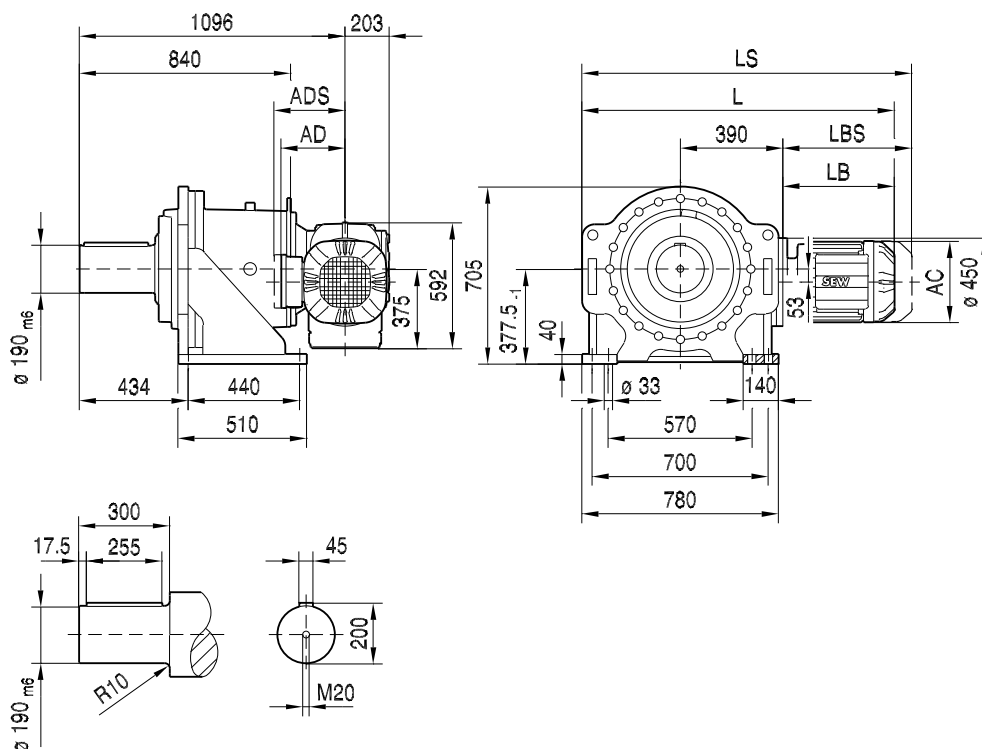


P.KF.. Bevel Planetary Gearmotors

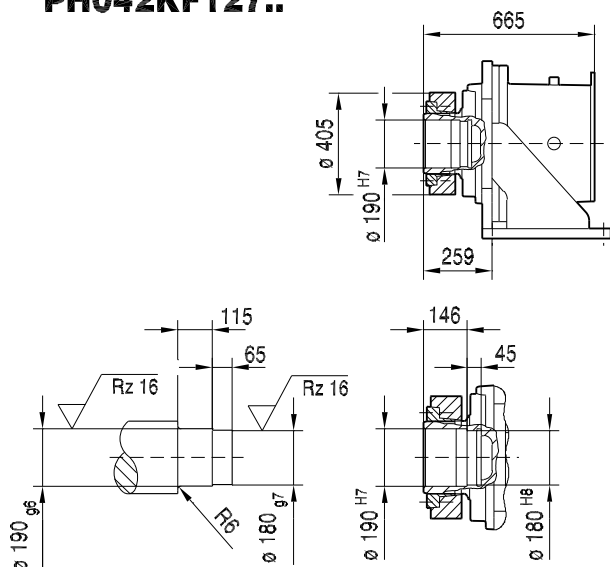
Dimension sheets [mm]

P042KF127..

45 076 01 08

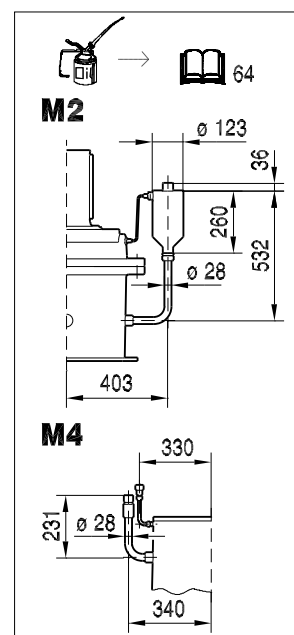


PH042KF127..

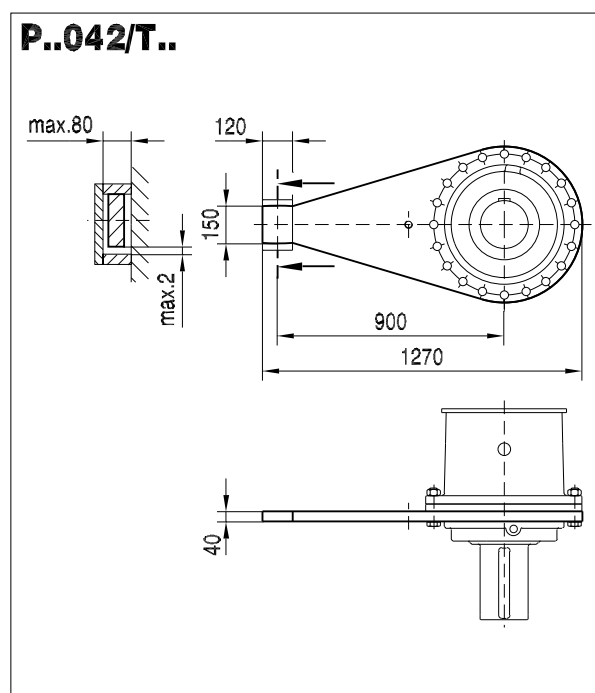


(→ 77)	DR180L/LC	DR200	DR225S	DR225M/MC	DV250M	DV280..		
AC	316	394	394	394	510	510		
AD	253	283	283	283	397	397		
ADS	253	283	283	283	397	397		
L	1348	1421	1421	1471	1560	1560		
LS	1537	1626	1626	1676	1745	1745		
LB	568	641	641	691	780	780		
LBS	757	846	846	896	965	965		

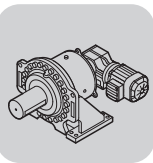
45 104 01 08



P..042/T..



(→  77)	DR180L/LC	DR200	DR225S	DR225M/MC	DV250M	DV280..		
AC	316	394	394	394	510	510		
AD	253	283	283	283	397	397		
ADS	253	283	283	283	397	397		
L	1268	1341	1341	1391	1480	1480		
LS	1457	1546	1546	1596	1665	1665		
LB	568	641	641	691	780	780		
LBS	757	846	846	896	965	965		

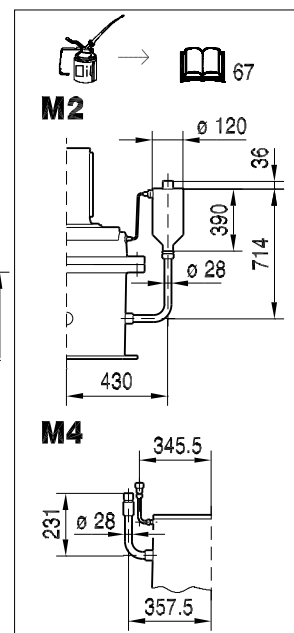
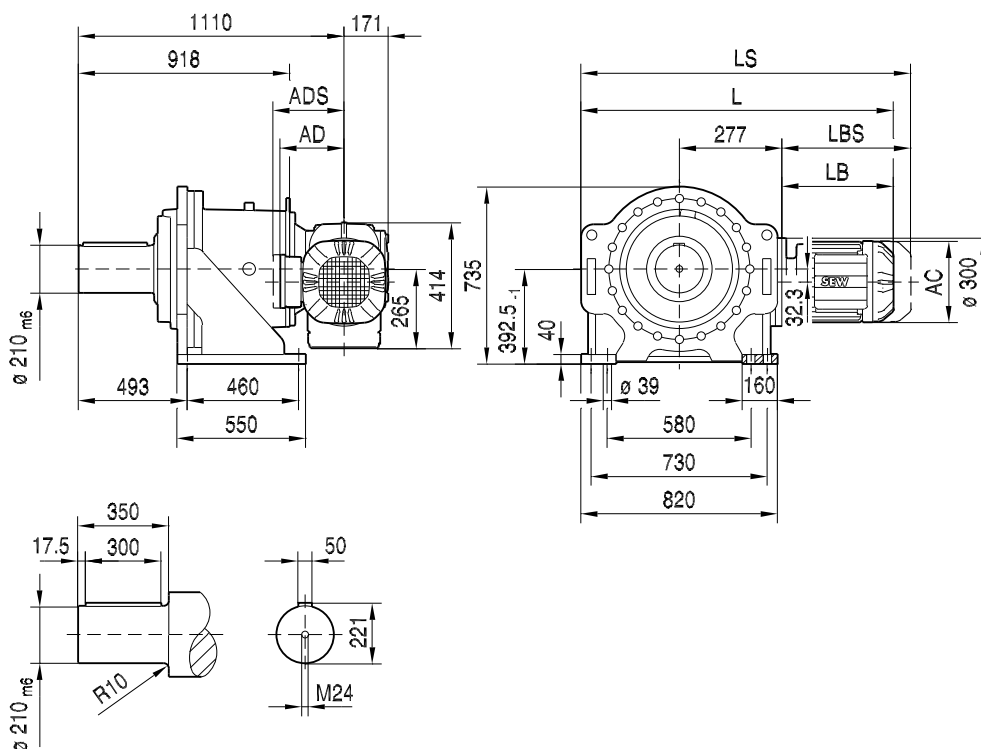


P.KF.. Bevel Planetary Gearmotors

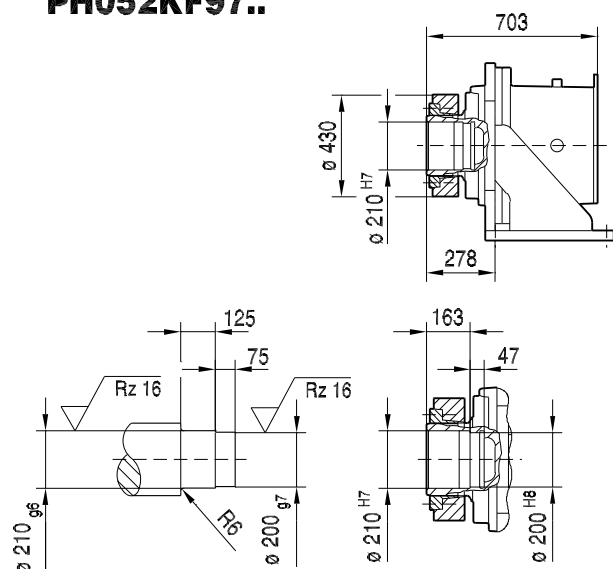
Dimension sheets [mm]

P052KF97..

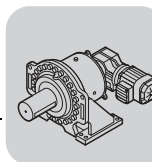
45 077 01 08



PH052KF97..

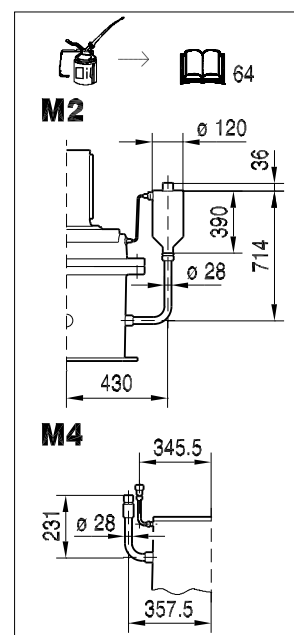
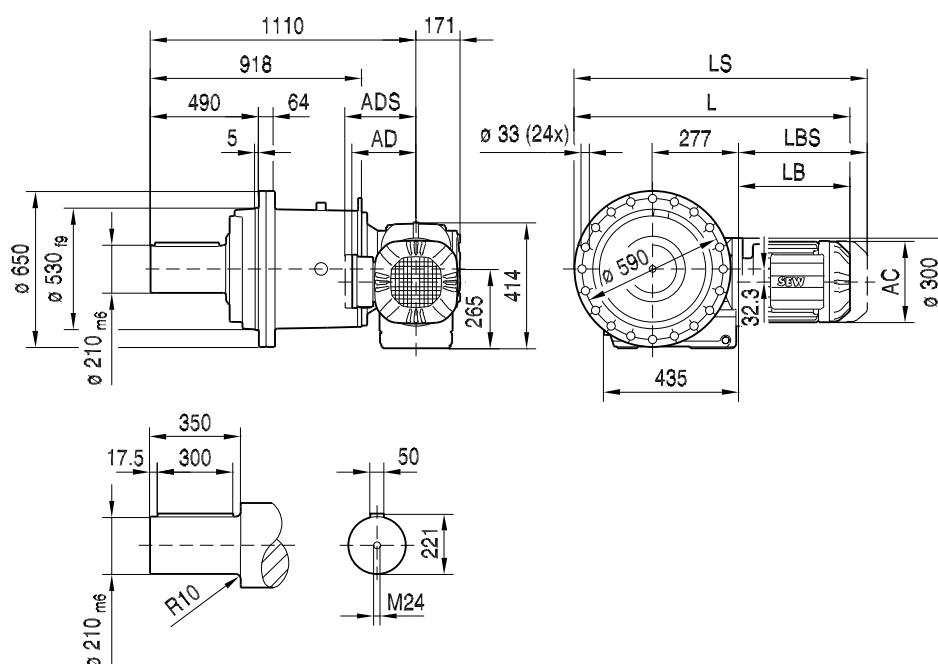


(→ 77)	DR132M/MC	DR160..	DR180S/M	DR180L/LC	DR200			
AC	221	270	316	316	394			
AD	170	228	253	253	283			
ADS	172	228	253	253	283			
L	1106	1147	1216	1276	1349			
LS	1218	1284	1405	1465	1554			
LB	419	460	529	589	662			
LBS	531	597	718	778	867			

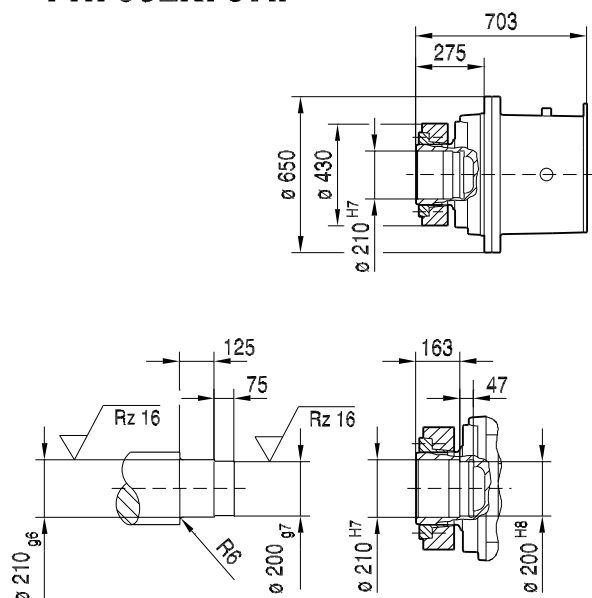


PF052KF97..

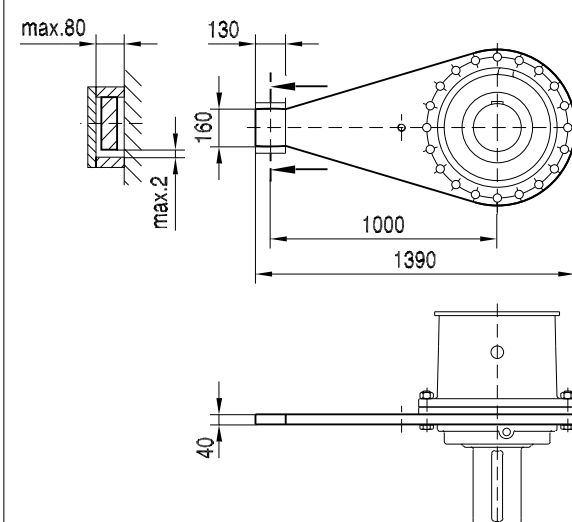
45 105 01 08



PHF052KF97..

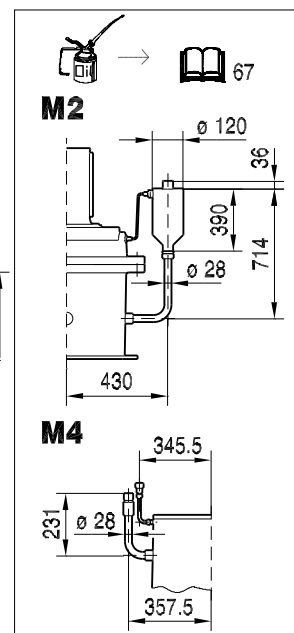


P..052/T..



(→ 77)	DR132M/MC	DR160..	DR180S/M	DR180L/LC	DR200			
AC	221	270	316	316	394			
AD	170	228	253	253	283			
ADS	172	228	253	253	283			
L	1021	1062	1131	1191	1264			
LS	1133	1199	1320	1380	1469			
LB	419	460	529	589	662			
LBS	531	597	718	778	867			

45 078 01 08

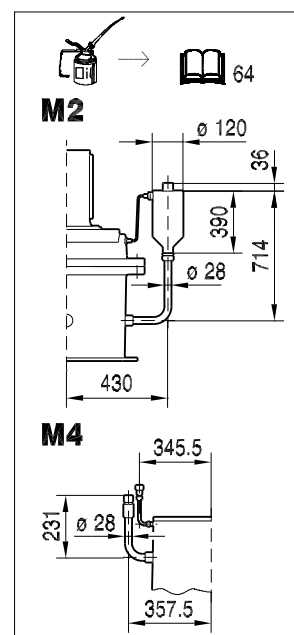


Technical drawing of the PH052KF107.. valve, showing three views: front, side, and top. The drawing includes the following dimensions:

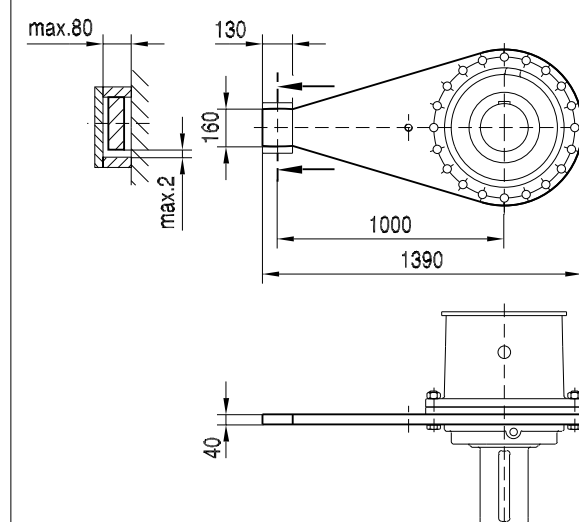
- Front View (Left):**
 - Overall width: 125
 - Distance from centerline to handle: 75
 - Surface texture: Rz 16
 - Surface texture: Rz 16
 - Surface texture: R6
 - Overall height: 210
 - Overall width: 200
 - Overall height: 96
 - Overall width: 97
- Side View (Right):**
 - Overall width: 703
 - Overall height: 430
 - Overall width: 278
 - Overall height: 210
 - Overall width: H7
- Top View (Bottom):**
 - Overall width: 163
 - Overall height: 47
 - Overall width: 210
 - Overall height: H7
 - Overall width: 200
 - Overall height: H8

304

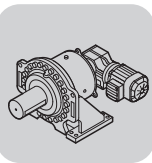
45 106 01 08



P..052/T..



Catalog – Planetary Gearmotors P.002 - P.102 Series

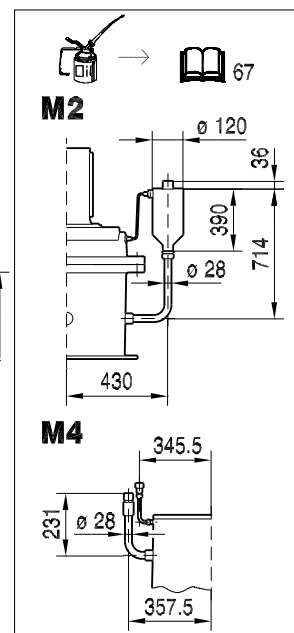
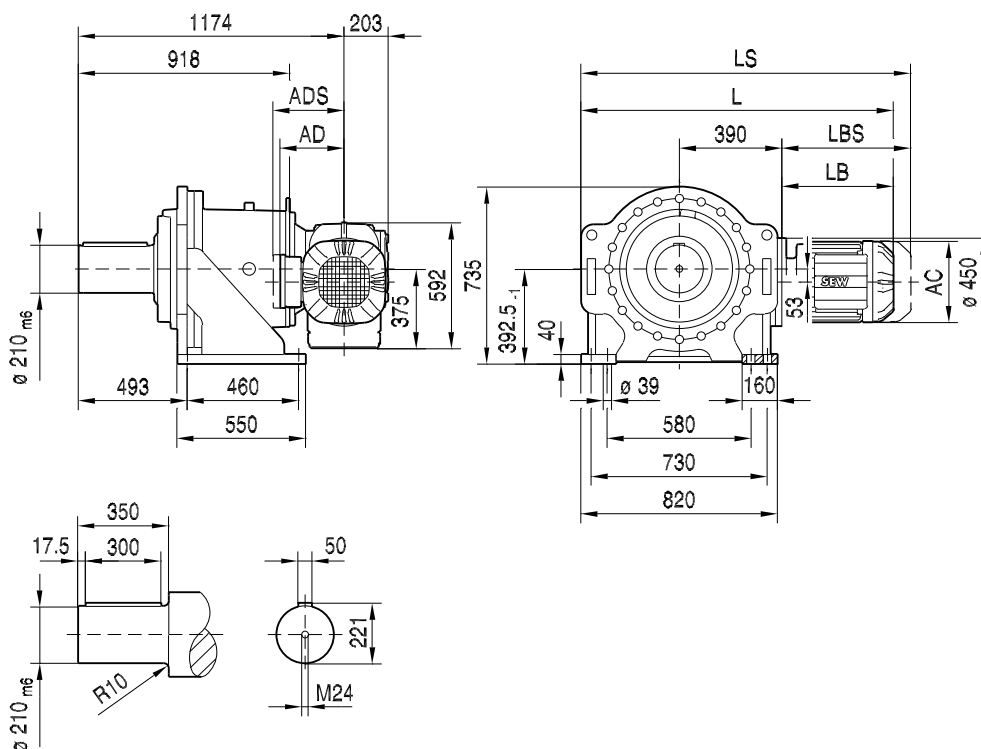


P.KF.. Bevel Planetary Gearmotors

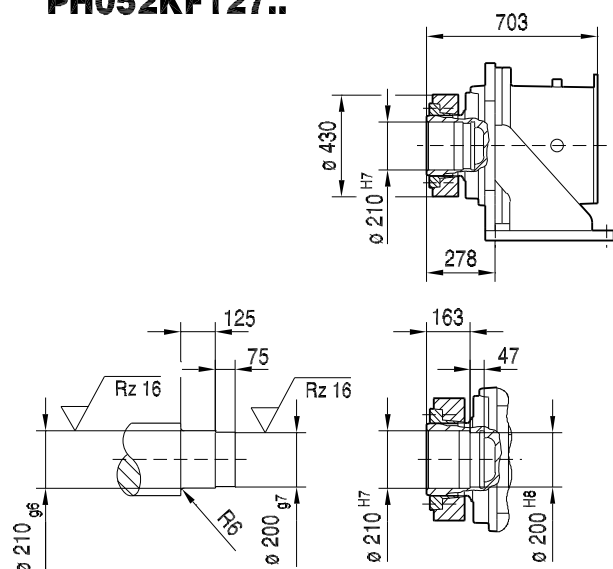
Dimension sheets [mm]

P052KF127..

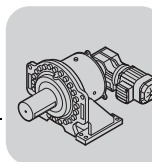
45 079 01 08



PH052KF127..

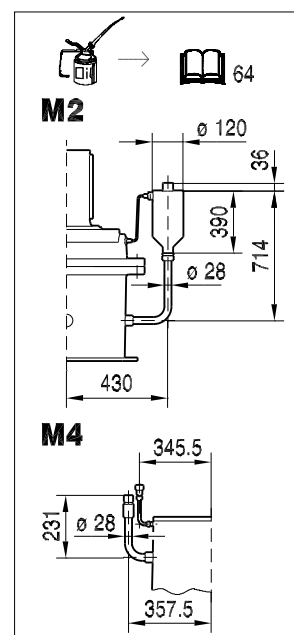
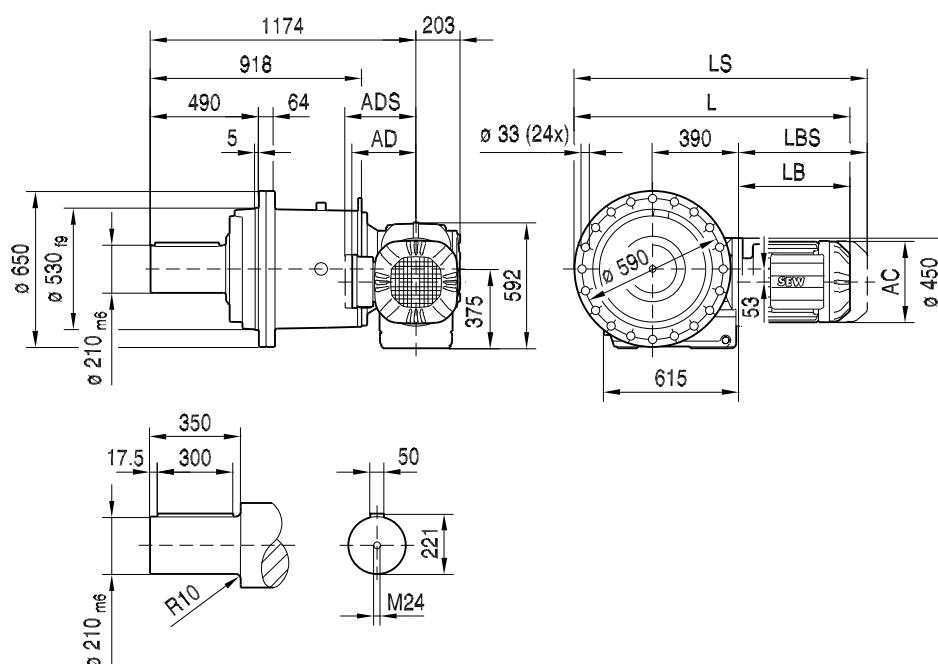


(→ 77)	DR180L/LC	DR200	DR225S	DR225M/MC	DV250M	DV280..		
AC	316	394	394	394	510	510		
AD	253	283	283	283	397	397		
ADS	253	283	283	283	397	397		
L	1368	1441	1441	1491	1580	1580		
LS	1557	1646	1646	1696	1765	1765		
LB	568	641	641	691	780	780		
LBS	757	846	846	896	965	965		

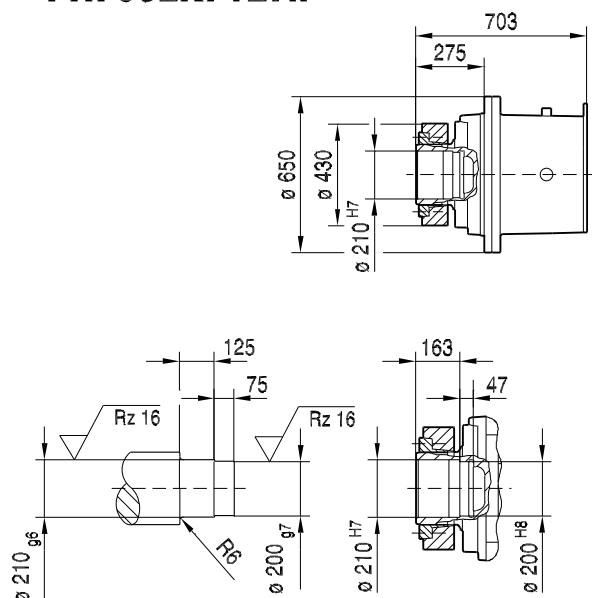


PF052KF127..

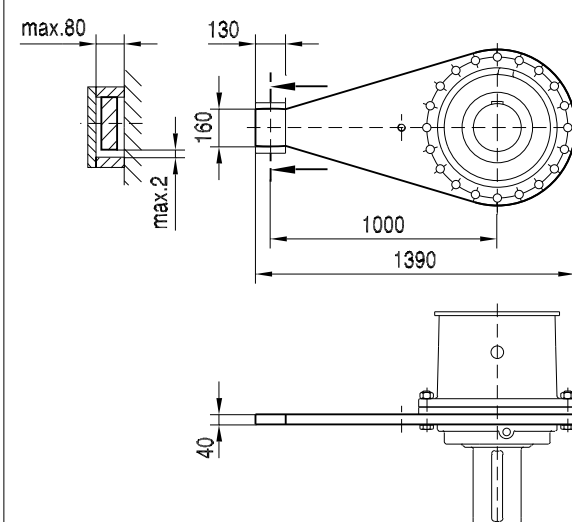
45 107 01 08



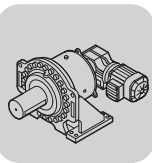
PHF052KF127..



P..052/T..



(→ 77)	DR180L/LC	DR200	DR225S	DR225M/MC	DV250M	DV280..		
AC	316	394	394	394	510	510		
AD	253	283	283	283	397	397		
ADS	253	283	283	283	397	397		
L	1283	1356	1356	1406	1495	1495		
LS	1472	1561	1561	1611	1680	1680		
LB	568	641	641	691	780	780		
LBS	757	846	846	896	965	965		

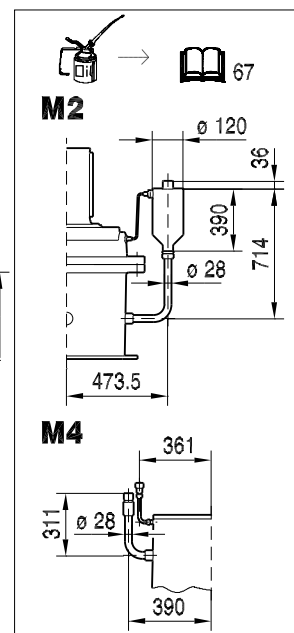
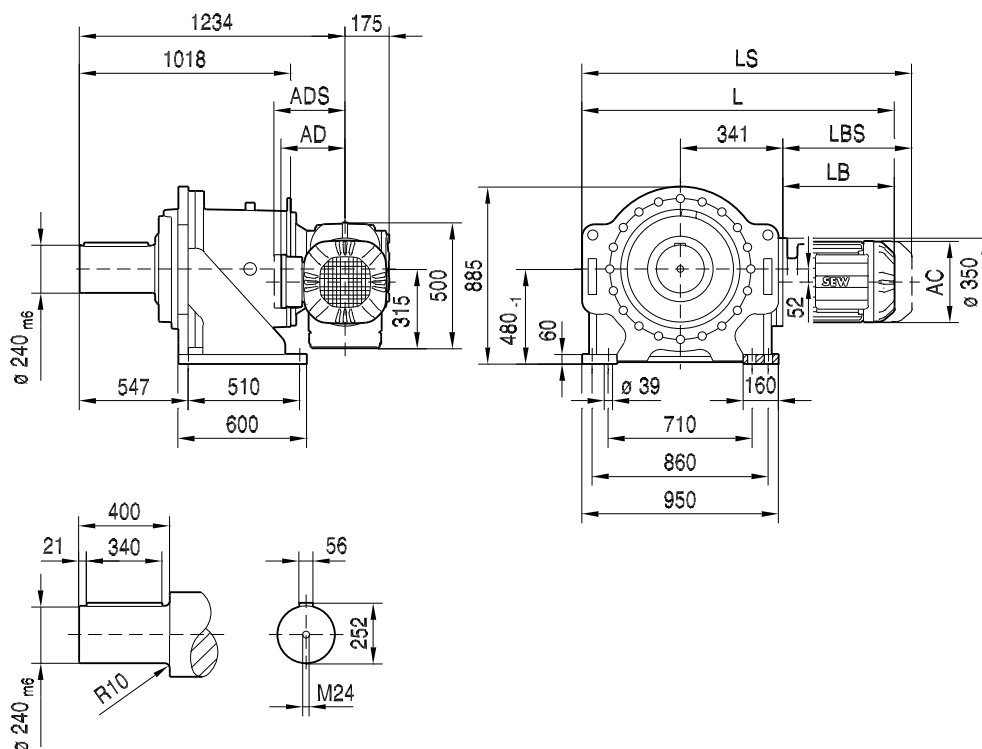


P.KF.. Bevel Planetary Gearmotors

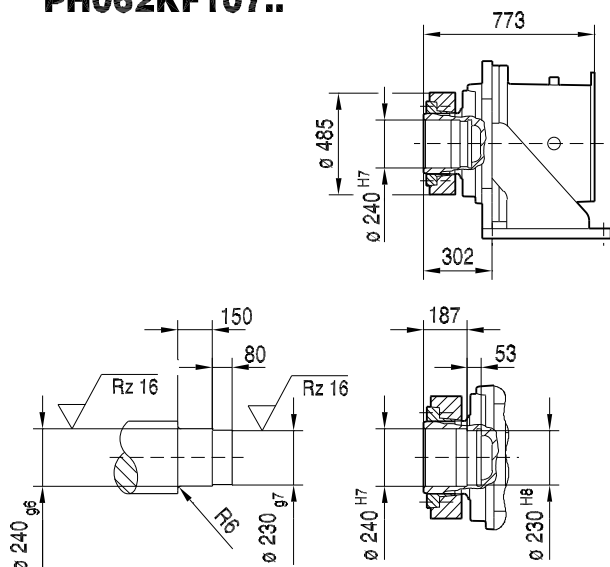
Dimension sheets [mm]

P062KF107..

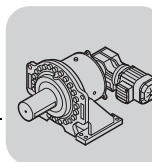
45 081 01 08



PH062KF107..

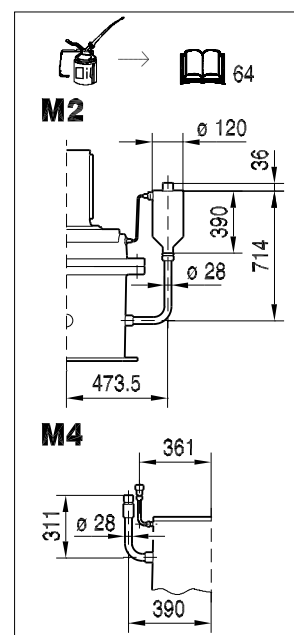
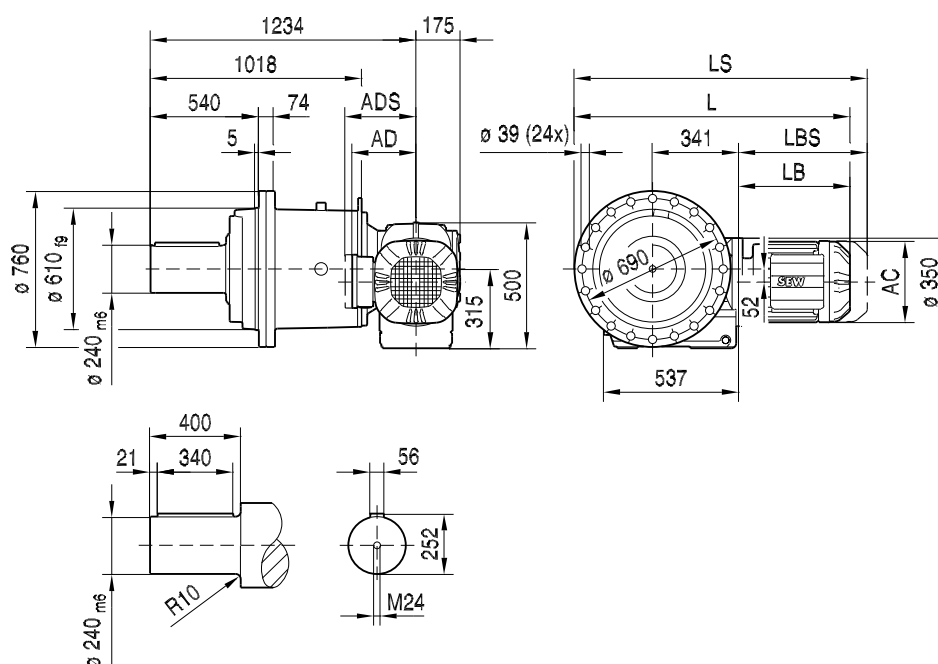


(→ 77)	DR132S	DR132M/MC	DR160..	DR180S/M	DR180L/LC	DR200	DR225S	
AC	221	221	270	316	316	394	394	
AD	170	170	228	253	253	283	283	
ADS	172	172	228	253	253	283	283	
L	1179	1229	1270	1339	1399	1472	1472	
LS	1291	1341	1407	1528	1588	1677	1677	
LB	363	413	454	523	583	656	656	
LBS	475	525	591	712	772	861	861	

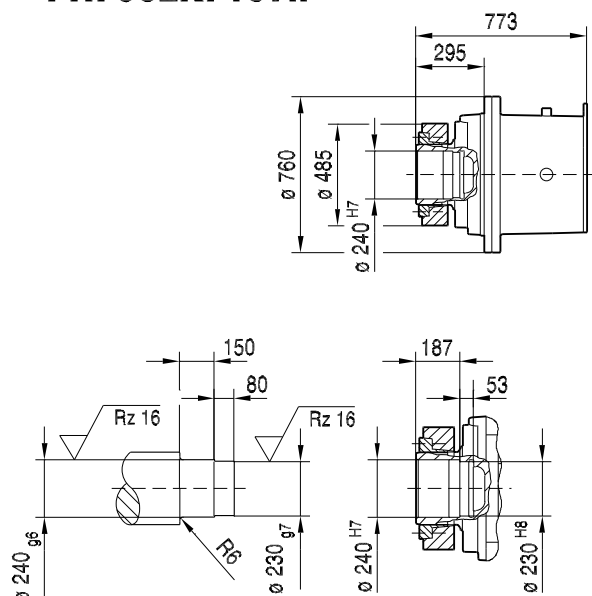


PF062KF107..

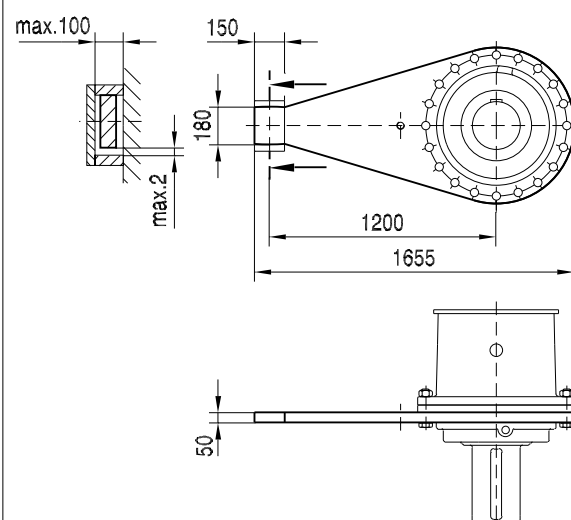
45 109 01 08



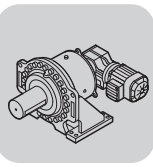
PHF062KF107..



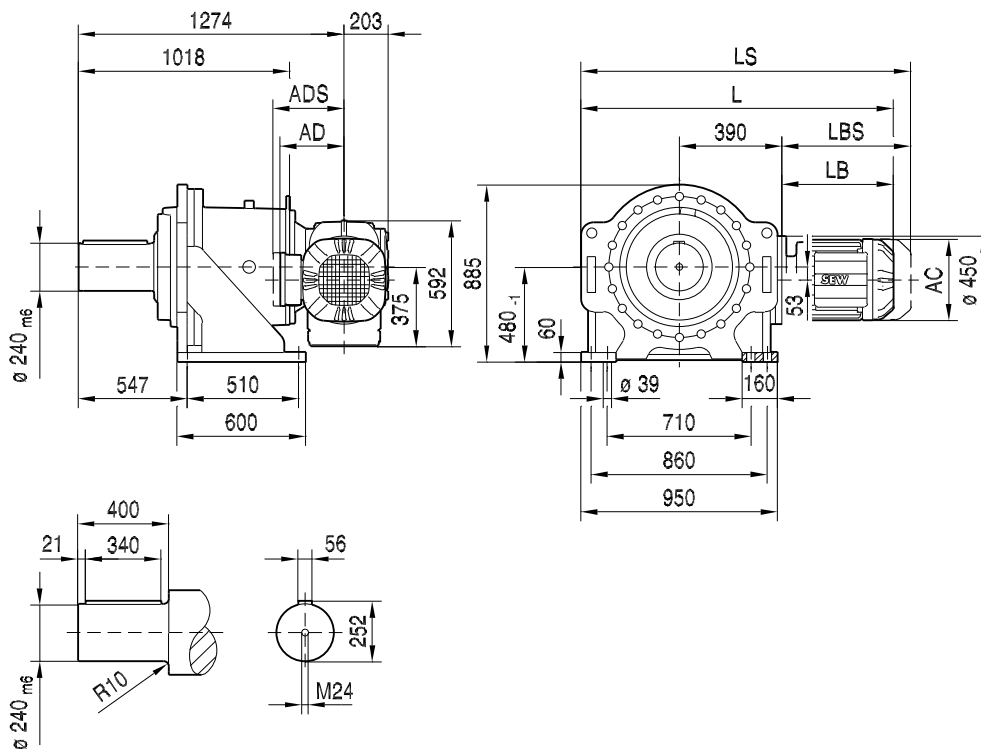
P..062/T..



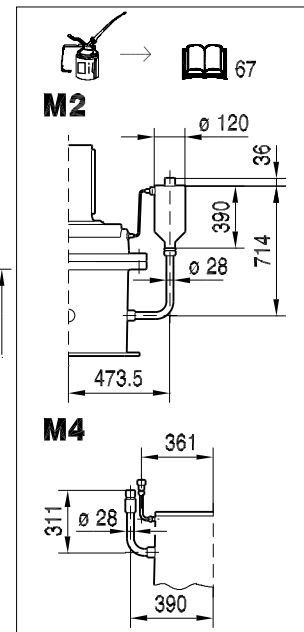
(→ 77)	DR132S	DR132M/MC	DR160..	DR180S/M	DR180L/LC	DR200	DR225S	
AC	221	221	270	316	316	394	394	
AD	170	170	228	253	253	283	283	
ADS	172	172	228	253	253	283	283	
L	1084	1134	1175	1244	1304	1377	1377	
LS	1196	1246	1312	1433	1493	1582	1582	
LB	363	413	454	523	583	656	656	
LBS	475	525	591	712	772	861	861	



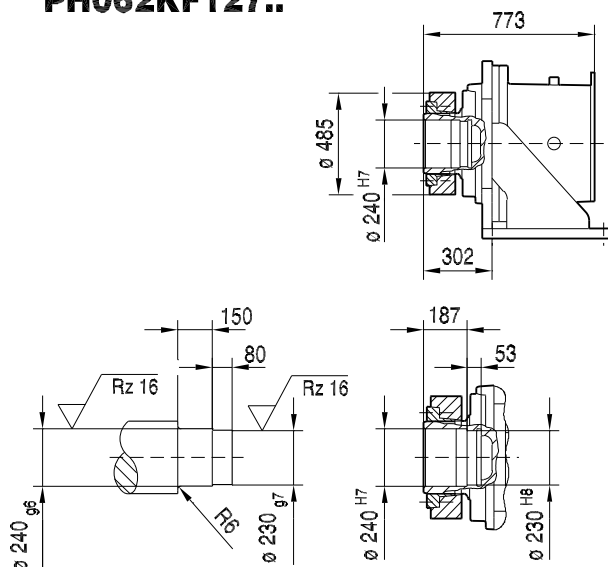
P062KF127..



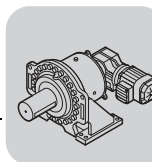
45 082 01 08



PH062KF1 27..

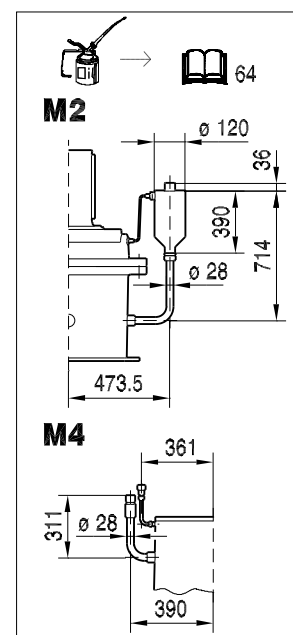
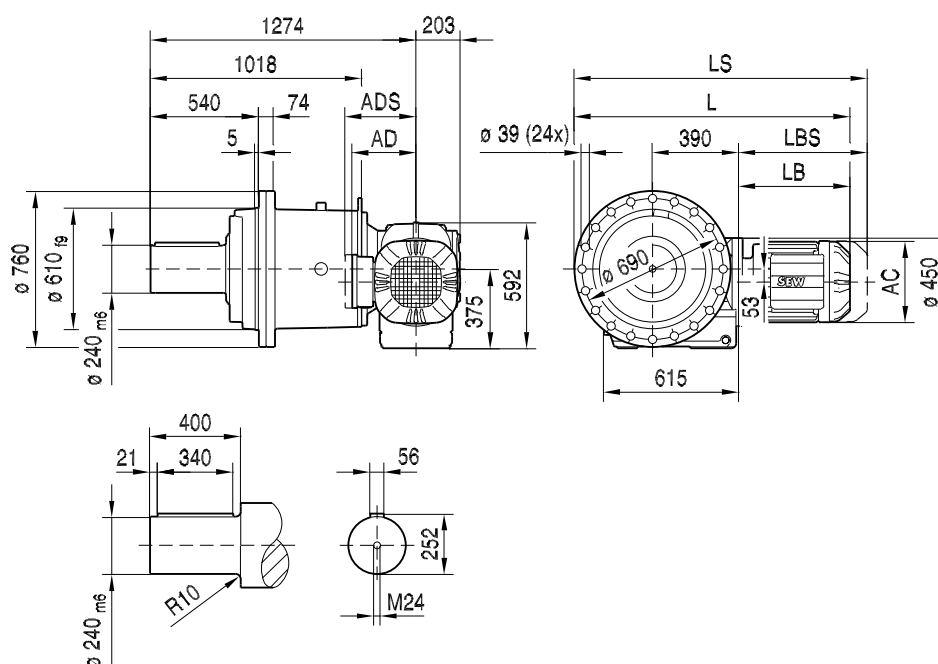


(→  77)	DR132M/MC	DR160..	DR180S/M	DR180L/LC	DR200	DR225S	DR225M/MC	DV250M	DV280..
AC	221	270	316	316	394	394	394	510	510
AD	170	228	253	253	283	283	283	397	397
ADS	172	228	253	253	283	283	283	397	397
L	1263	1304	1373	1433	1506	1506	1556	1645	1645
LS	1375	1441	1562	1622	1711	1711	1761	1830	1830
LB	398	439	508	568	641	641	691	780	780
LBS	510	576	697	757	846	846	896	965	965

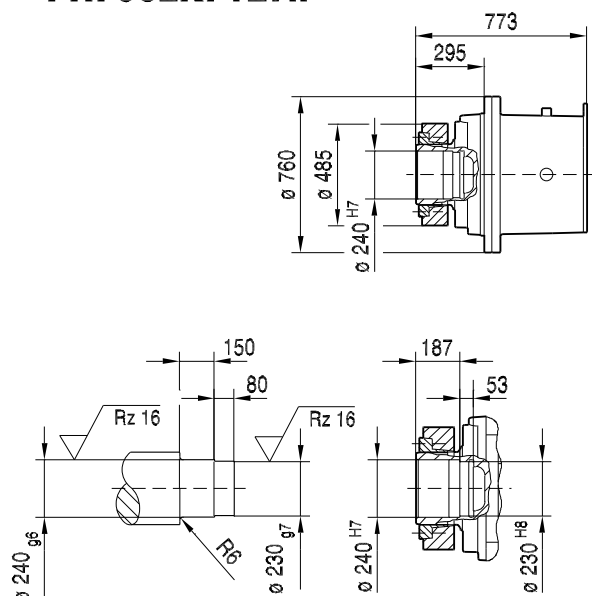


PF062KF127..

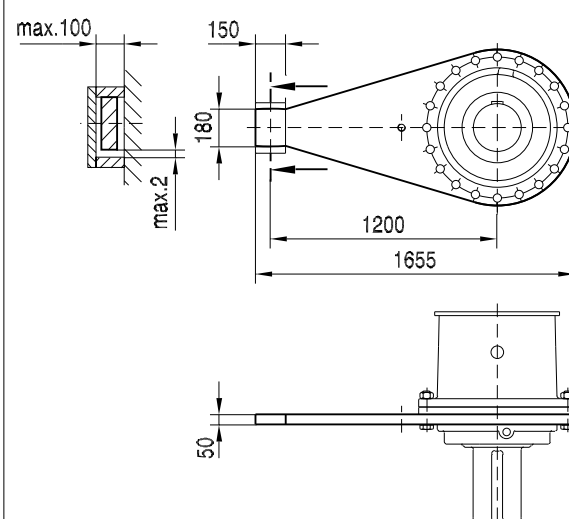
45 110 01 08



PHF062KF127..

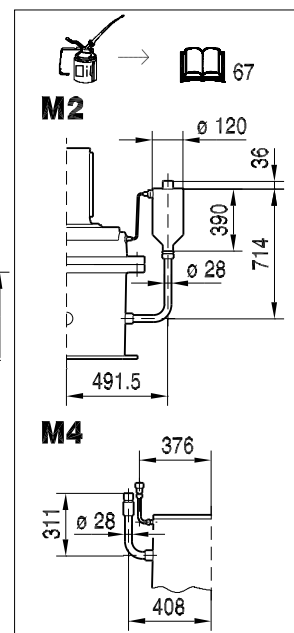


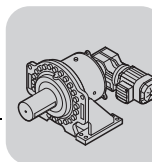
P..062/T..



(→ 77)	DR132M/MC	DR160..	DR180S/M	DR180L/LC	DR200	DR225S	DR225M/MC	DV250M	DV280..
AC	221	270	316	316	394	394	394	510	510
AD	170	228	253	253	283	283	283	397	397
ADS	172	228	253	253	283	283	283	397	397
L	1168	1209	1278	1338	1411	1411	1461	1550	1550
LS	1280	1346	1467	1527	1616	1616	1666	1735	1735
LB	398	439	508	568	641	641	691	780	780
LBS	510	576	697	757	846	846	896	965	965

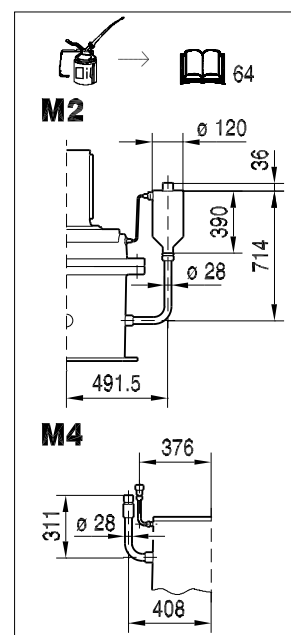
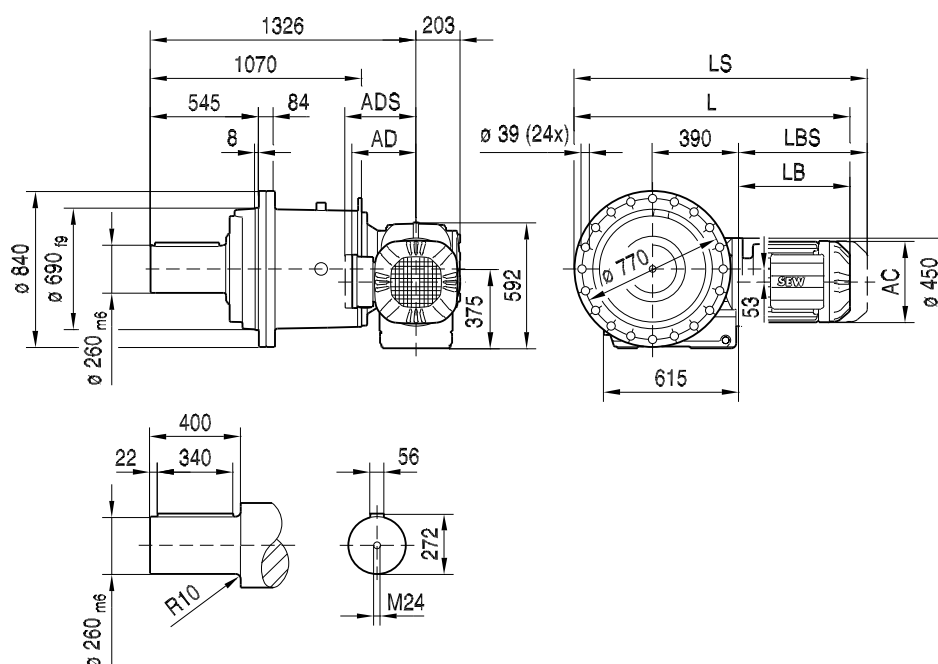
45 084 01 08

312

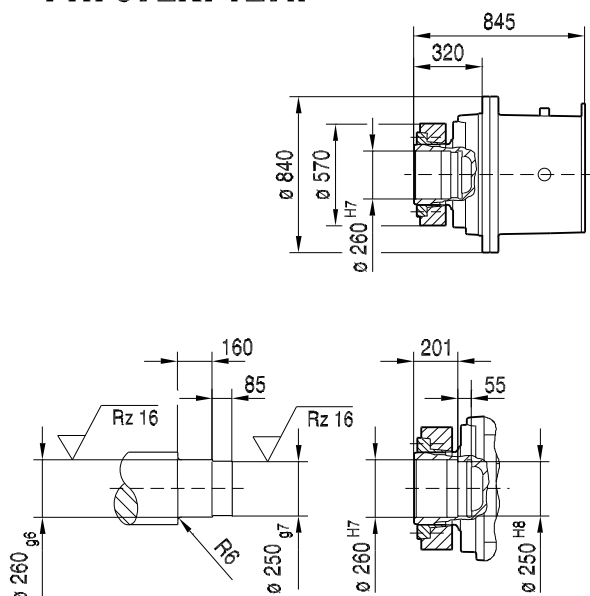


PF072KF127..

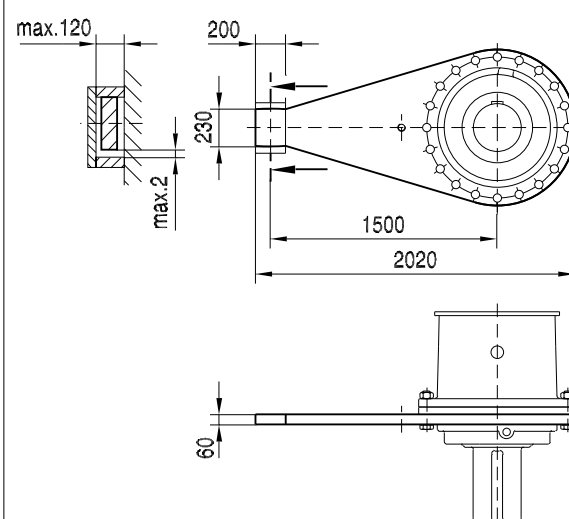
45 112 01 08



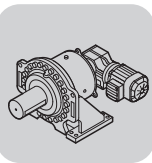
PHF072KF127..



P..072/T..



(→ 77)	DR132M/MC	DR160..	DR180S/M	DR180L/LC	DR200	DR225S	DR225M/MC	DV250M
AC	221	270	316	316	394	394	394	510
AD	170	228	253	253	283	283	283	397
ADS	172	228	253	253	283	283	283	397
L	1208	1249	1318	1378	1451	1451	1501	1590
LS	1320	1386	1507	1567	1656	1656	1706	1775
LB	398	439	508	568	641	641	691	780
LBS	510	576	697	757	846	846	896	965

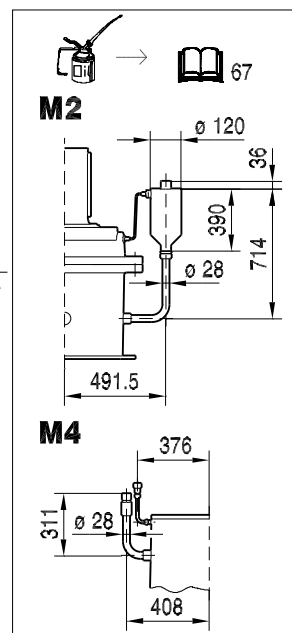
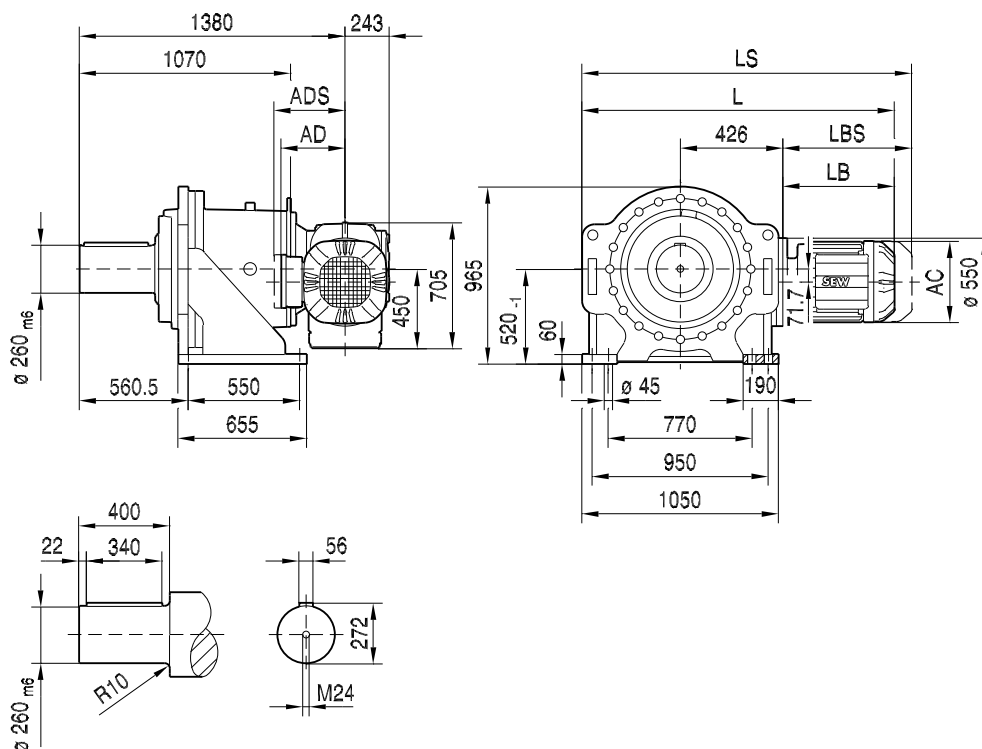


P.KF.. Bevel Planetary Gearmotors

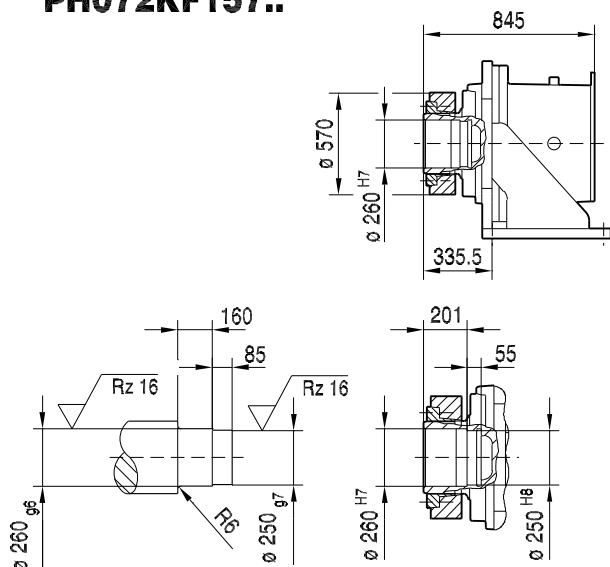
Dimension sheets [mm]

P072KF157..

45 085 01 08

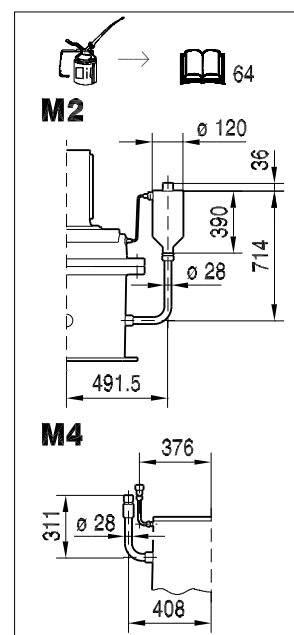


PH072KF157..

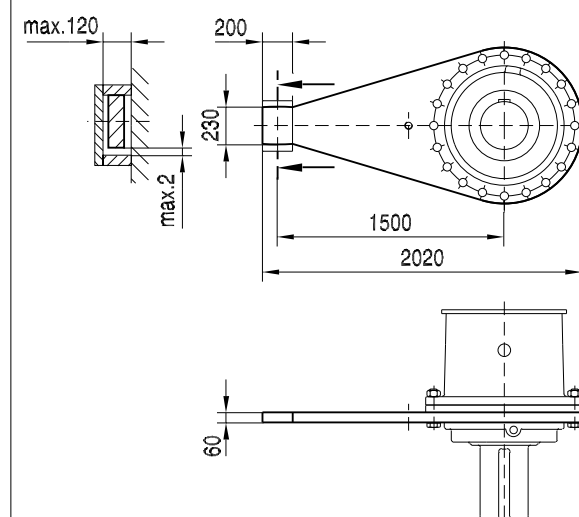


(→ 77)	DR160..	DR180S/M	DR180L/LC	DR200	DR225S	DR225M/MC	DV250M	DV280..
AC	270	316	316	394	394	394	510	510
AD	228	253	253	283	283	283	397	397
ADS	228	253	253	283	283	283	397	397
L	1382	1451	1511	1584	1584	1634	1722	1722
LS	1519	1640	1700	1789	1789	1839	1907	1907
LB	431	500	560	633	633	683	771	771
LBS	568	689	749	838	838	888	956	956

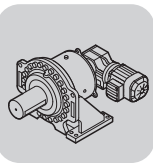
45 113 01 08



P..072/T..



Catalog – Planetary Gearmotors P.002 - P.102 Series

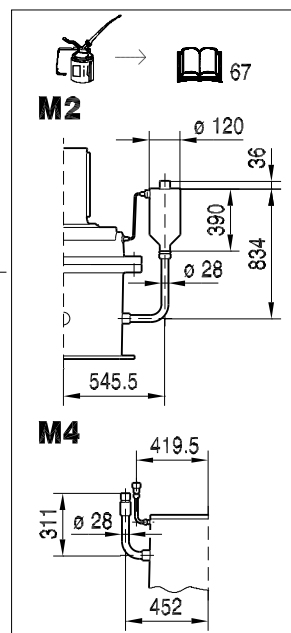
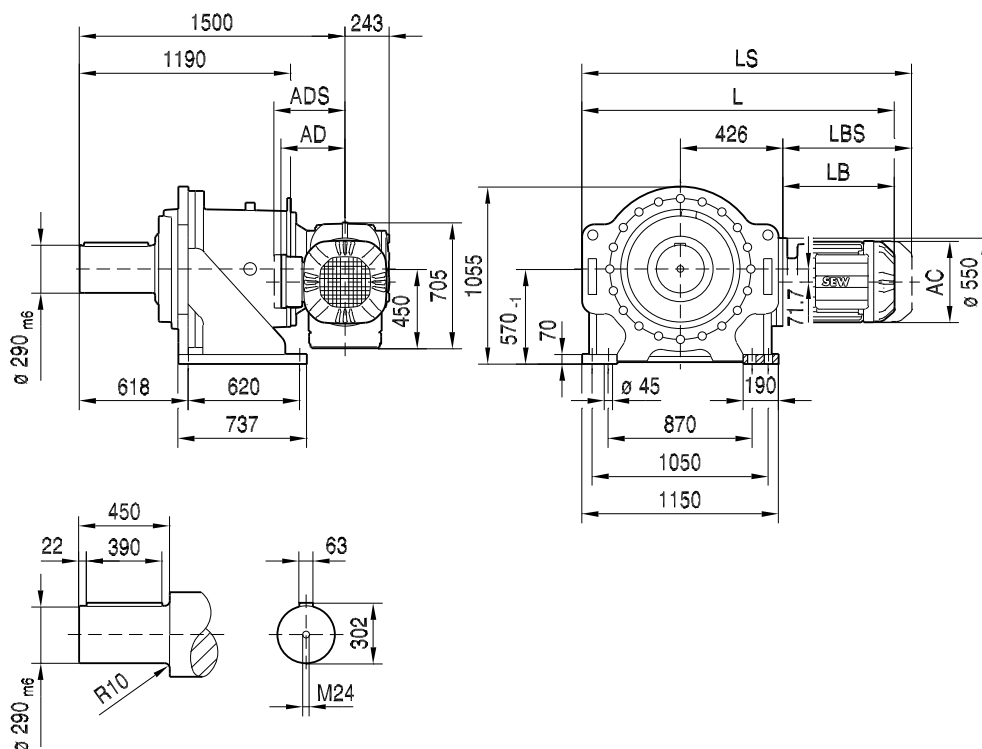


P.KF.. Bevel Planetary Gearmotors

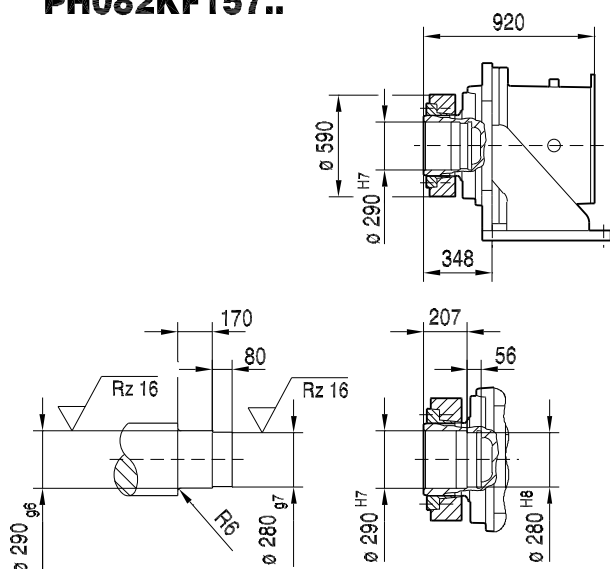
Dimension sheets [mm]

P082KF157..

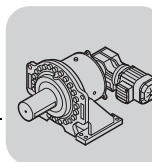
45 086 01 08



PH082KF157..

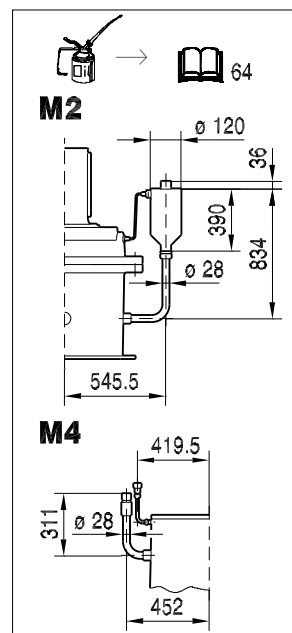
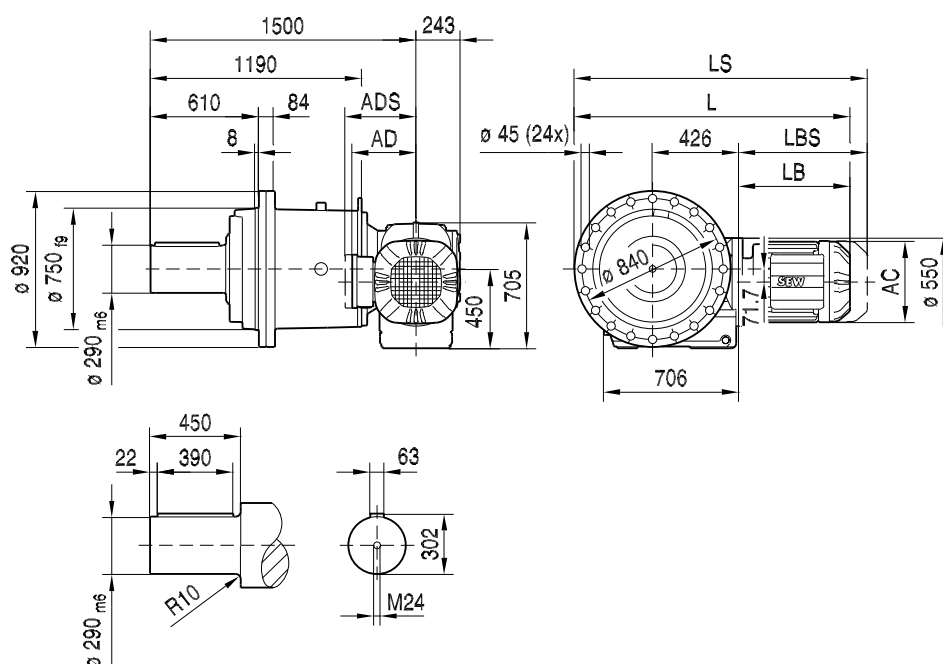


(→ 77)	DR160..	DR180S/M	DR180L/LC	DR200	DR225S	DR225M/MC	DV250M	DV280..
AC	270	316	316	394	394	394	510	510
AD	228	253	253	283	283	283	397	397
ADS	228	253	253	283	283	283	397	397
L	1432	1501	1561	1634	1634	1684	1772	1772
LS	1569	1690	1750	1839	1839	1889	1957	1957
LB	431	500	560	633	633	683	771	771
LBS	568	689	749	838	838	888	956	956

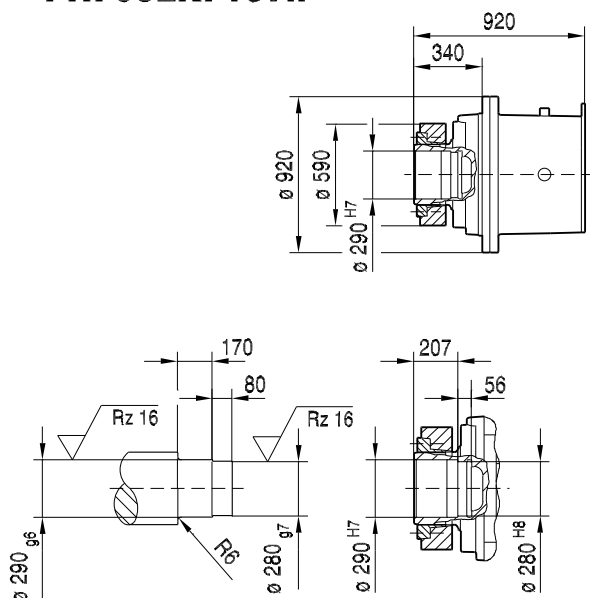


PF082KF157..

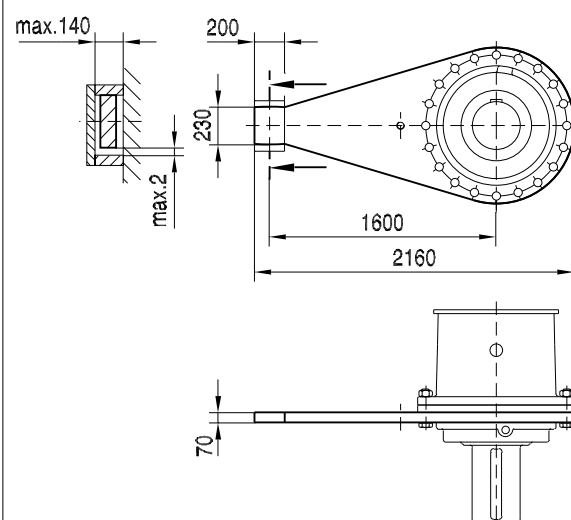
45 114 01 08



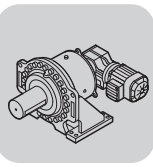
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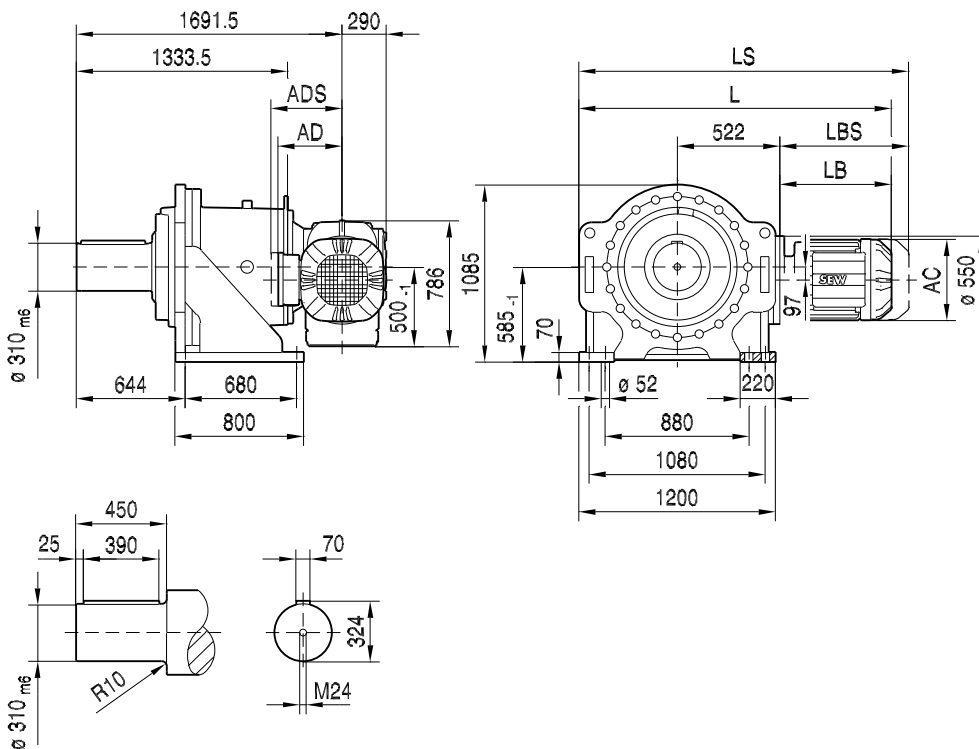
P..082/T..



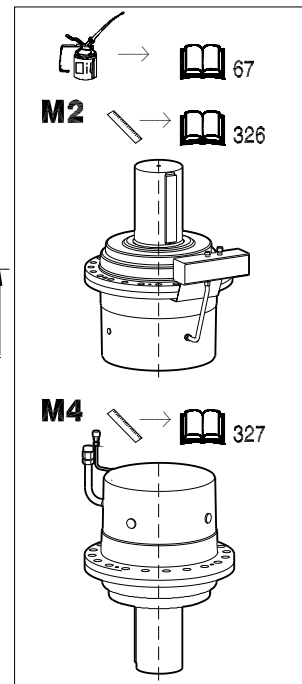
(→ 77)	DR160..	DR180S/M	DR180L/LC	DR200	DR225S	DR225M/MC	DV250M	DV280..
AC	270	316	316	394	394	394	510	510
AD	228	253	253	283	283	283	397	397
ADS	228	253	253	283	283	283	397	397
L	1317	1386	1446	1519	1519	1569	1657	1657
LS	1454	1575	1635	1724	1724	1774	1842	1842
LB	431	500	560	633	633	683	771	771
LBS	568	689	749	838	838	888	956	956



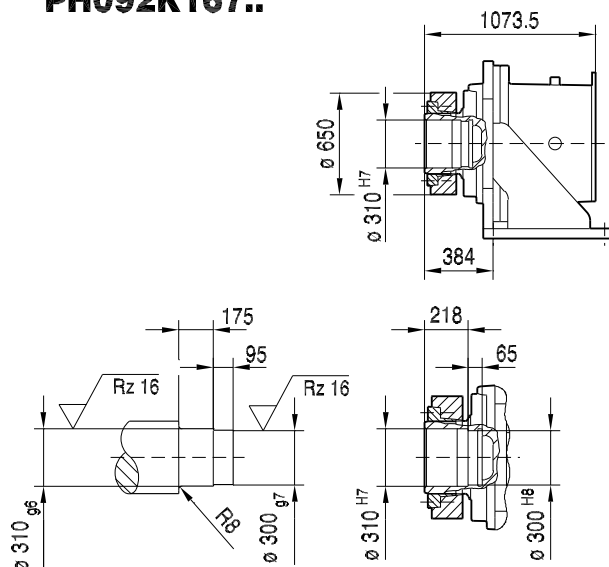
P092K167..



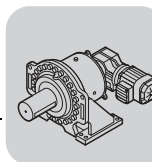
45 006 00 11



PH092K167..

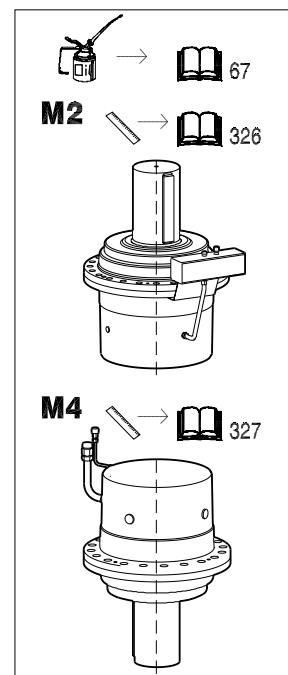
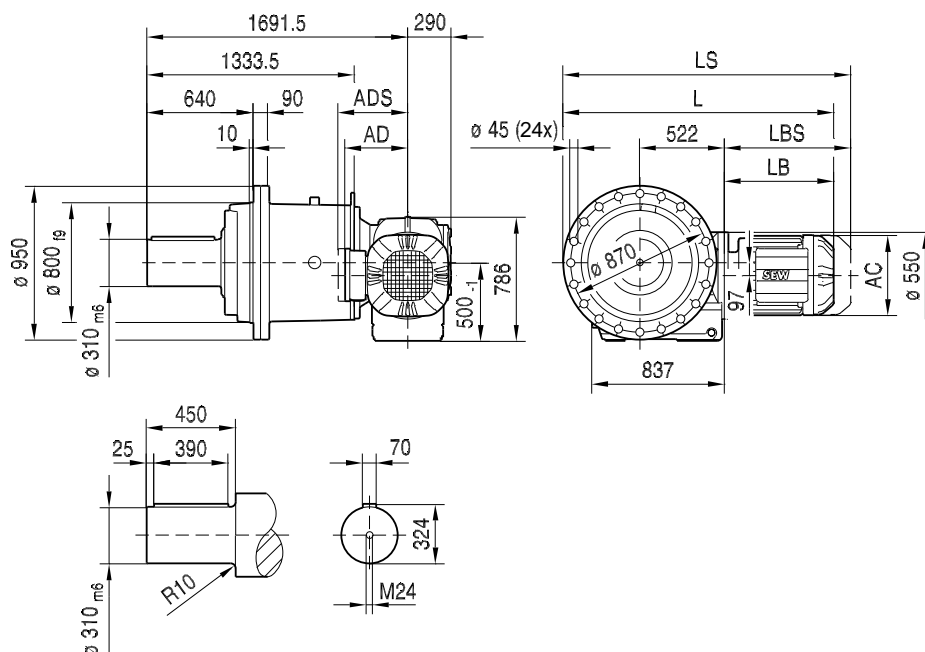


(→  77)	DR160..	DR180S/M	DR180L/LC	DR200	DR225S	DR225M/MC	DV250M	DV280..	DR315K/S
AC	270	316	316	394	394	394	510	510	624
AD	228	253	253	283	283	283	397	397	506
ADS	228	253	253	283	283	283	397	397	506
L	1553	1622	1682	1755	1755	1805	1893	1893	2063
LS	1690	1811	1871	1960	1960	2010	2078	2078	2314
LB	431	500	560	633	633	683	771	771	941
LBS	568	689	749	838	838	888	956	956	1192

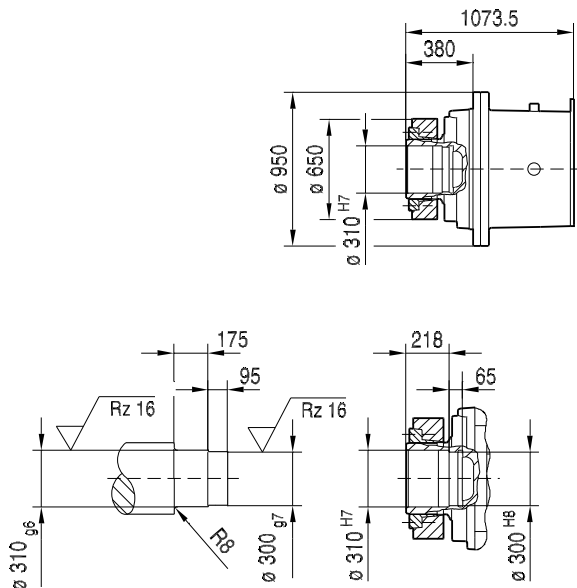


PF092K167..

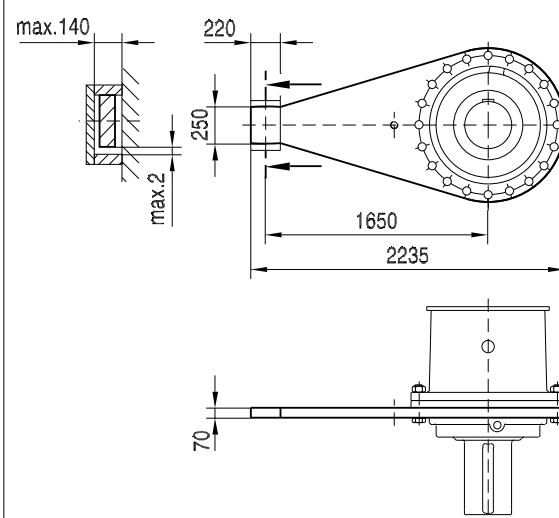
45 011 00 11



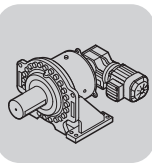
PHF092K167..



P..092/T..



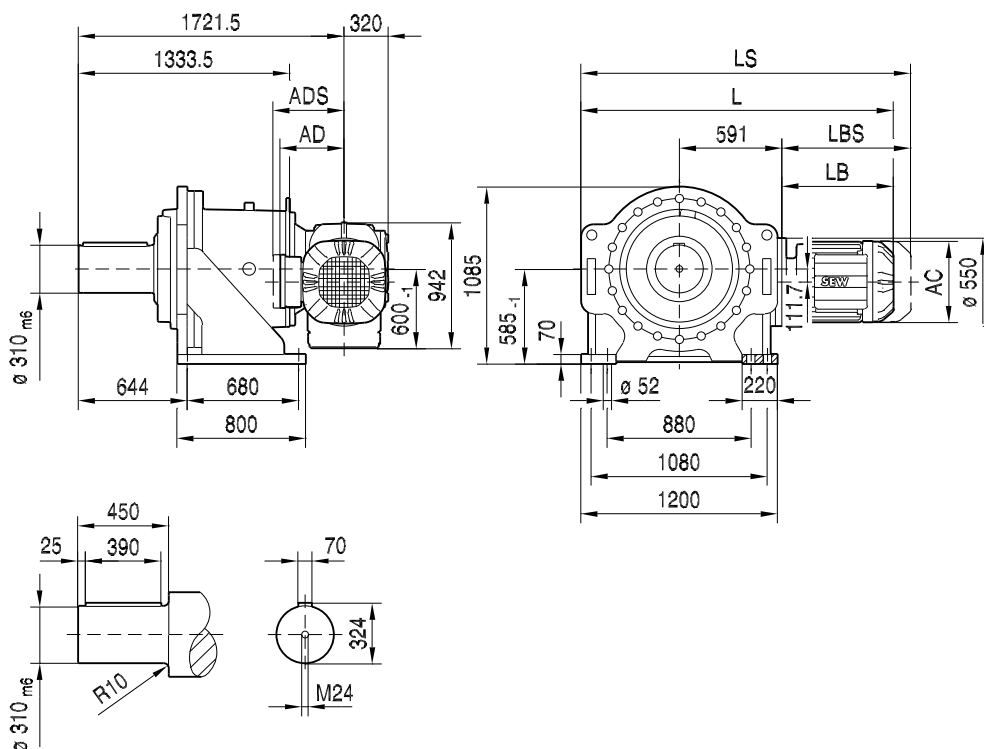
(→ 77)	DR160..	DR180S/M	DR180L/LC	DR200	DR225S	DR225M/MC	DV250M	DV280..	DR315K/S
AC	270	316	316	394	394	394	510	510	624
AD	228	253	253	283	283	283	397	397	506
ADS	228	253	253	283	283	283	397	397	506
L	1428	1497	1557	1630	1630	1680	1768	1768	1938
LS	1565	1686	1746	1835	1835	1885	1953	1953	2189
LB	431	500	560	633	633	683	771	771	941
LBS	568	689	749	838	838	888	956	956	1192



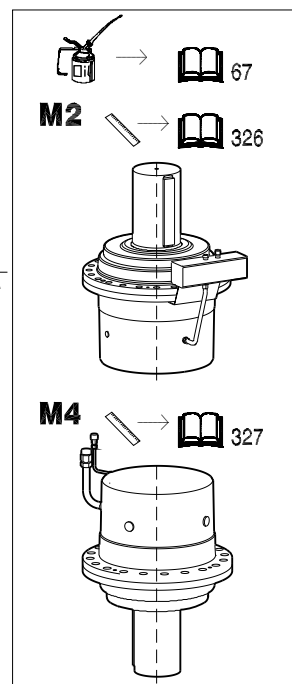
P.KF.. Bevel Planetary Gearmotors

Dimension sheets [mm]

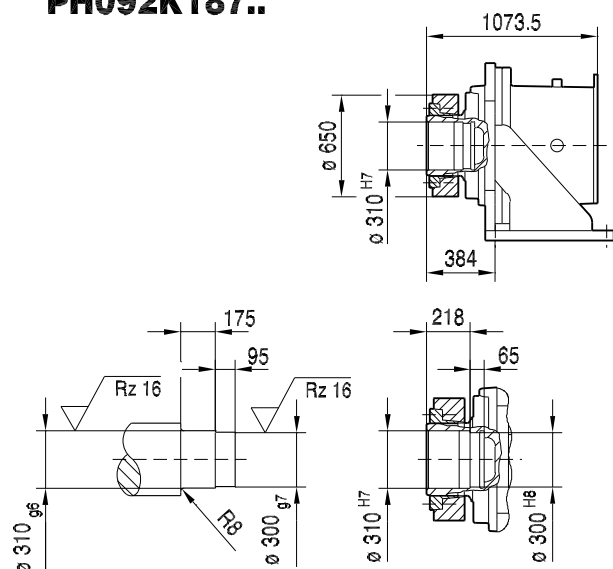
P092K187..



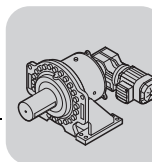
45 007 00 11



PH092K187..

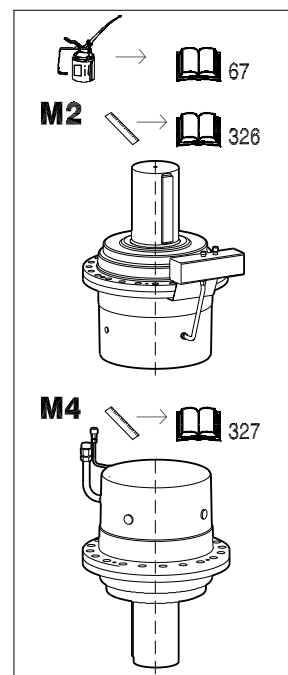
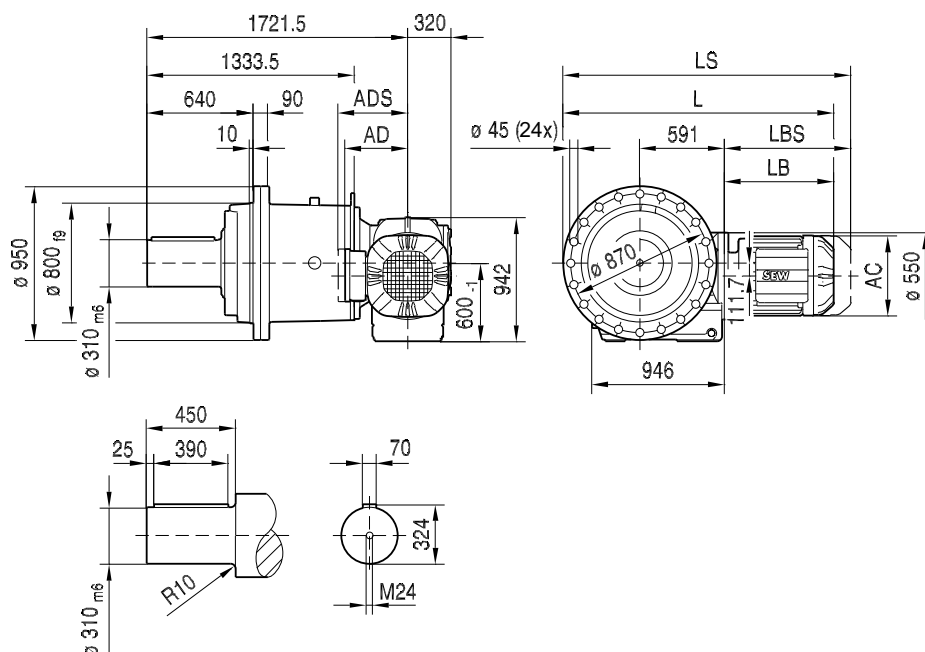


(→ 77)	DR160..	DR180S/M	DR180L/LC	DR200	DR225S	DR225M/MC	DV250M	DV280..	DR315K/S	DR315M/L
AC	270	316	316	394	394	394	510	510	624	624
AD	228	253	253	283	283	283	397	397	506	521
ADS	228	253	253	283	283	283	397	397	506	521
L	1622	1691	1751	1824	1824	1874	1962	1962	2132	2262
LS	1759	1880	1940	2029	2029	2079	2147	2147	2383	2513
LB	431	500	560	633	633	683	771	771	941	1071
LBS	568	689	749	838	838	888	956	956	1192	1322

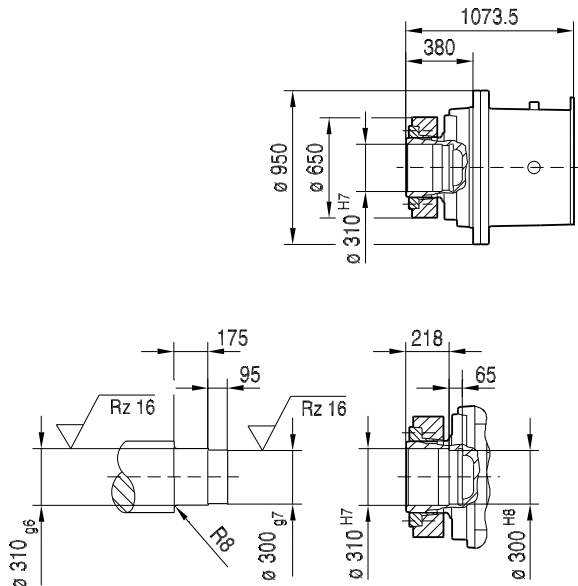


PF092K187..

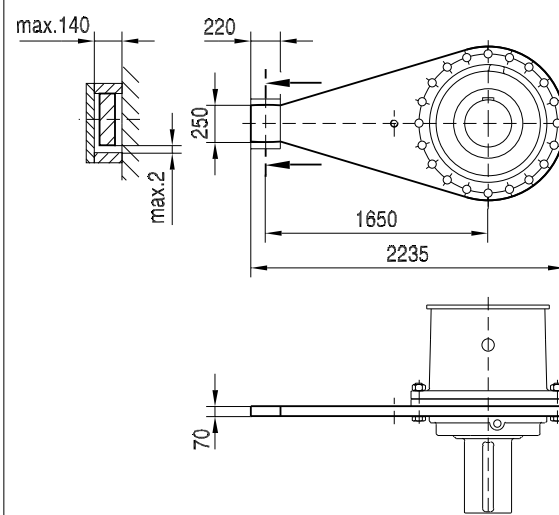
45 012 00 11



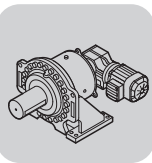
PHF092K187..



P..092/T..



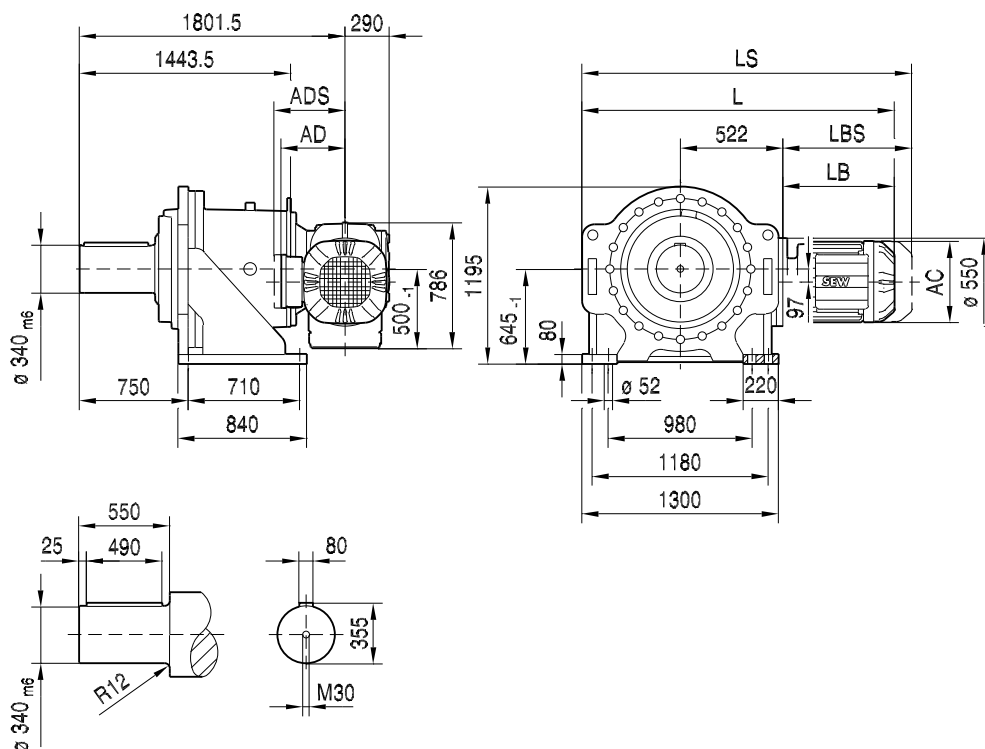
(→ 77)	DR160..	DR180S/M	DR180L/LC	DR200	DR225S	DR225M/MC	DV250M	DV280..	DR315K/S	DR315M/L
AC	270	316	316	394	394	394	510	510	624	624
AD	228	253	253	283	283	283	397	397	506	521
ADS	228	253	253	283	283	283	397	397	506	521
L	1497	1566	1626	1699	1699	1749	1837	1837	2007	2137
LS	1634	1755	1815	1904	1904	1954	2022	2022	2258	2388
LB	431	500	560	633	633	683	771	771	941	1071
LBS	568	689	749	838	838	888	956	956	1192	1322



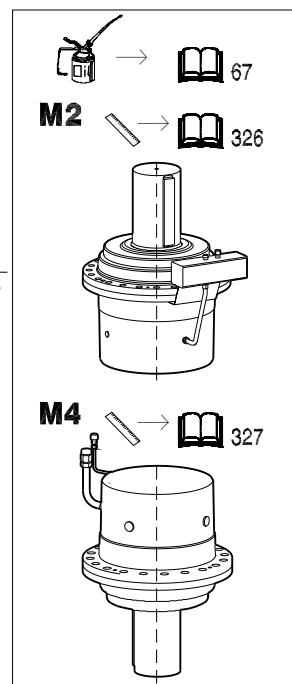
P.KF.. Bevel Planetary Gearmotors

Dimension sheets [mm]

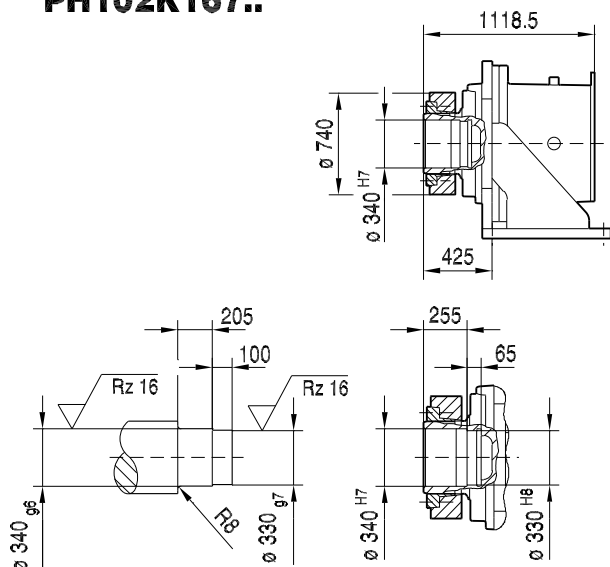
P102K167..



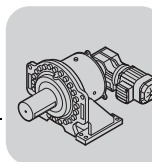
45 008 00 11



PH102K167..

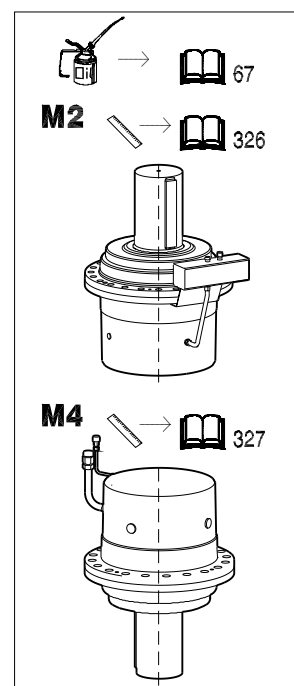
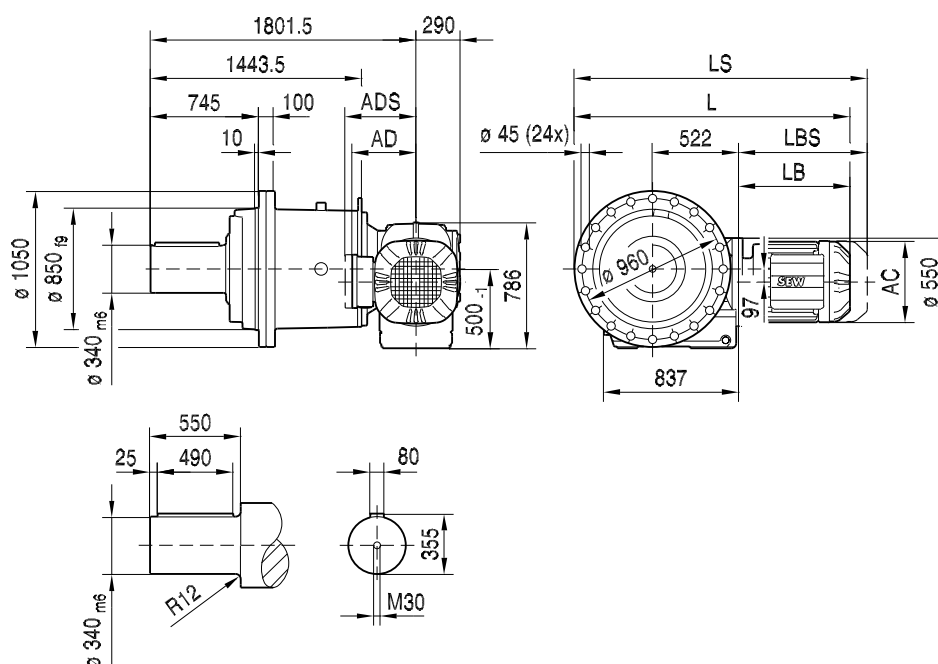


(→ 77)	DR160..	DR180S/M	DR180L/LC	DR200	DR225S	DR225M/MC	DV250M	
AC	270	316	316	394	394	394	510	
AD	228	253	253	283	283	283	397	
ADS	228	253	253	283	283	283	397	
L	1603	1672	1732	1805	1805	1855	1943	
LS	1740	1861	1921	2010	2010	2060	2128	
LB	431	500	560	633	633	683	771	
LBS	568	689	749	838	838	888	956	

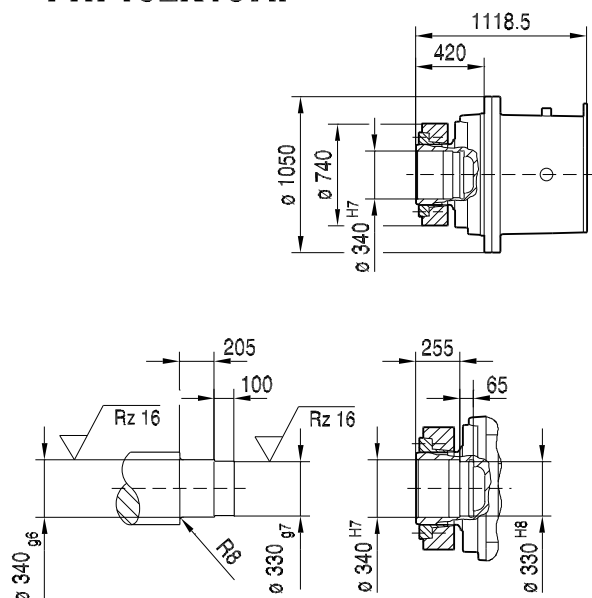


PF102K167..

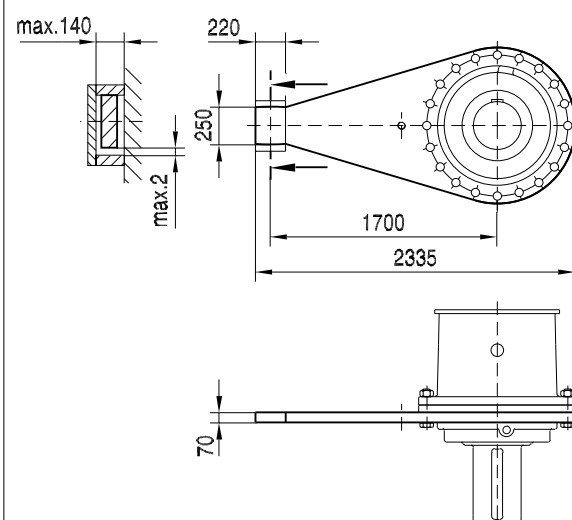
45 013 00 11



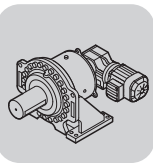
PHF102K167..



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(→ 77)	DR160..	DR180S/M	DR180L/LC	DR200	DR225S	DR225M/MC	DV250M	
AC	270	316	316	394	394	394	510	
AD	228	253	253	283	283	283	397	
ADS	228	253	253	283	283	283	397	
L	1478	1547	1607	1680	1680	1730	1818	
LS	1615	1736	1796	1885	1885	1935	2003	
LB	431	500	560	633	633	683	771	
LBS	568	689	749	838	838	888	956	

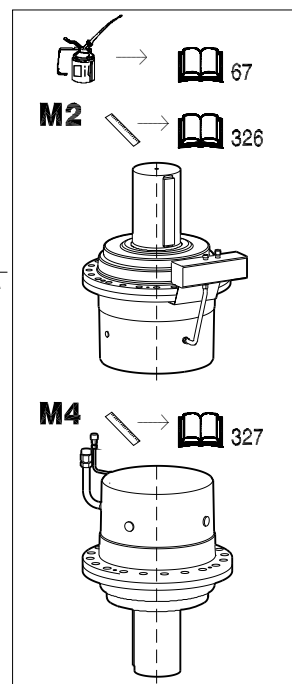
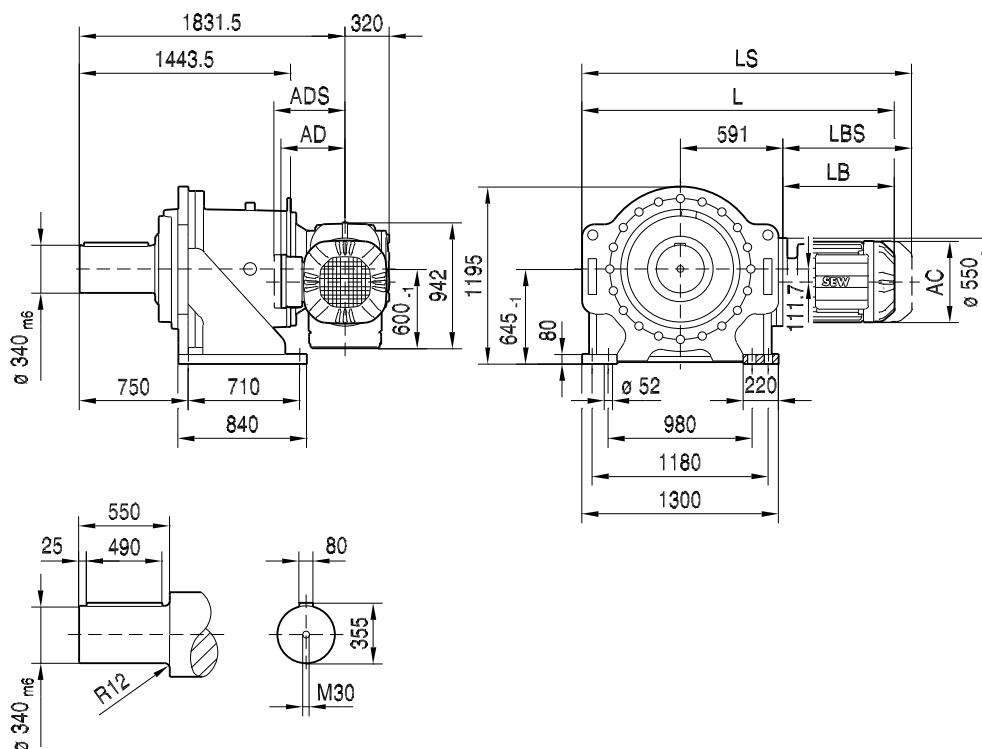


P.KF.. Bevel Planetary Gearmotors

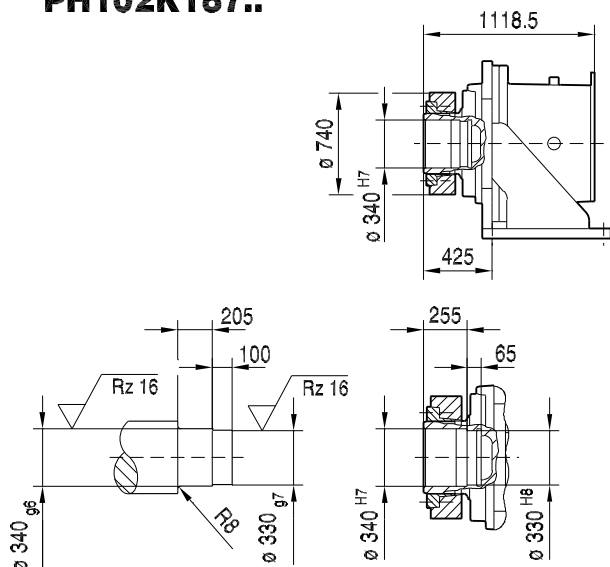
Dimension sheets [mm]

P102K187..

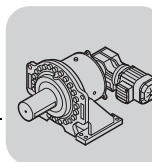
45 009 00 11



PH102K187..

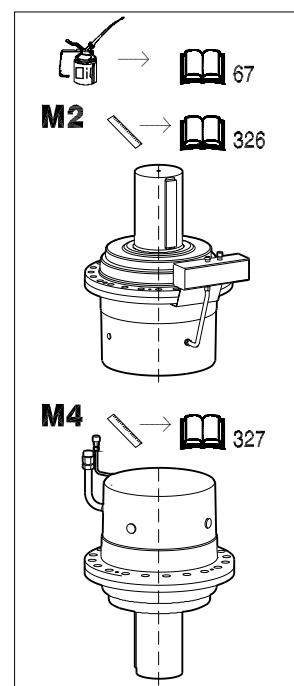
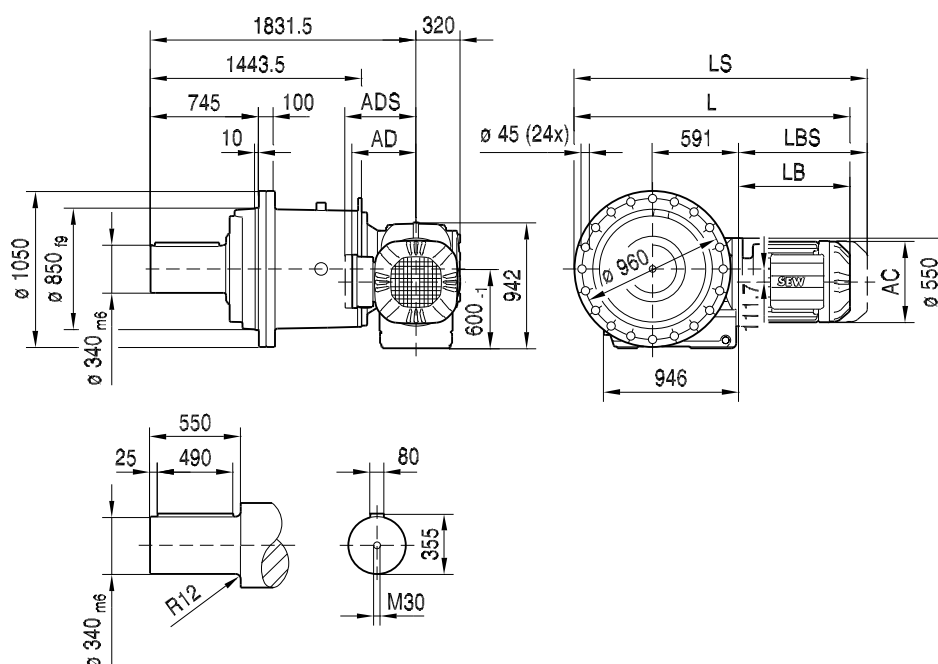


(→ 77)	DR160..	DR180S/M	DR180L/LC	DR200	DR225S	DR225M/MC	DV250M	DV280..	DR315K/S	DR315M/L
AC	270	316	316	394	394	394	510	510	624	624
AD	228	253	253	283	283	283	397	397	506	521
ADS	228	253	253	283	283	283	397	397	506	521
L	1672	1741	1801	1874	1874	1924	2012	2012	2182	2312
LS	1809	1930	1990	2079	2079	2129	2197	2197	2433	2563
LB	431	500	560	633	633	683	771	771	941	1071
LBS	568	689	749	838	838	888	956	956	1192	1322

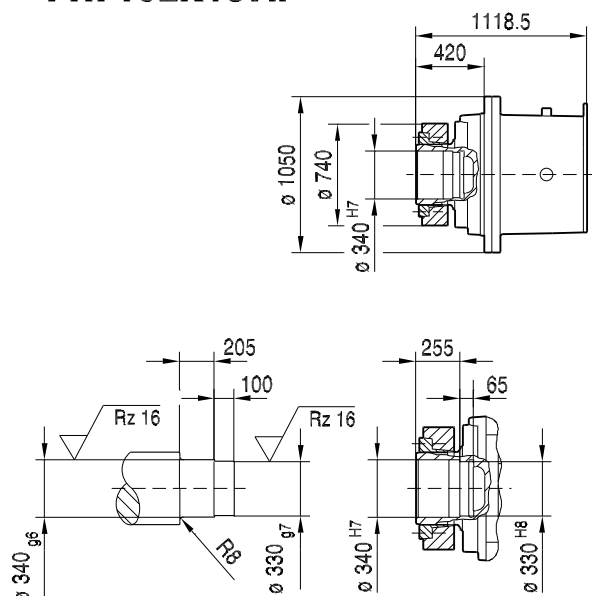


PF102K187..

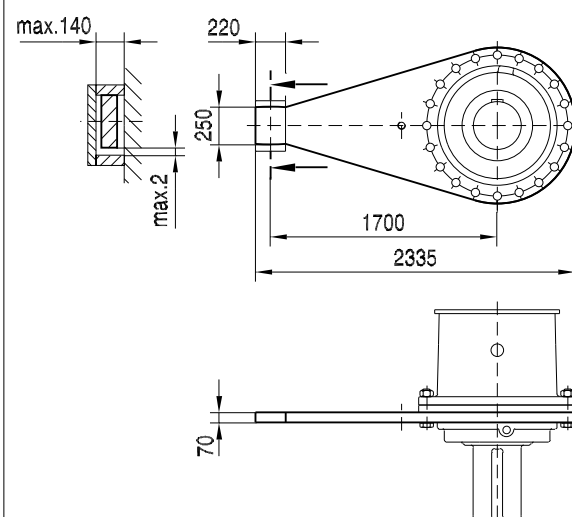
45 014 00 11



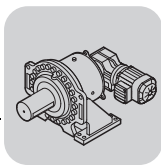
PHF102K187..



P..102/T..



(→ 77)	DR160..	DR180S/M	DR180L/LC	DR200	DR225S	DR225M/MC	DV250M	DV280..	DR315K/S	DR315M/L
AC	270	316	316	394	394	394	510	510	624	624
AD	228	253	253	283	283	283	397	397	506	521
ADS	228	253	253	283	283	283	397	397	506	521
L	1547	1616	1676	1749	1749	1799	1887	1887	2057	2187
LS	1684	1805	1865	1954	1954	2004	2072	2072	2308	2438
LB	431	500	560	633	633	683	771	771	941	1071
LBS	568	689	749	838	838	888	956	956	1192	1322



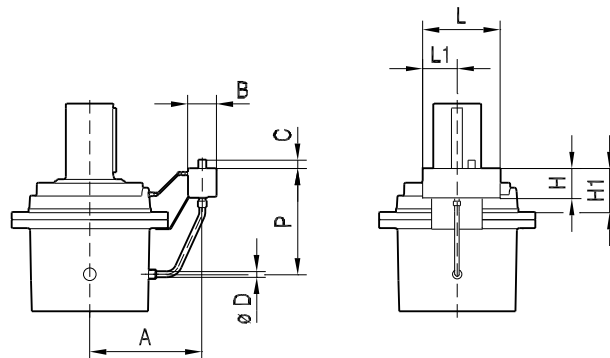
P.KF.. Bevel Planetary Gearmotors

Oil expansion tank for mounting postion M2

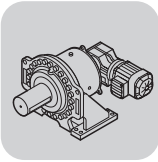
11.6 Oil expansion tank for mounting postion M2

P/PH/PF/PHF
M2

45 015 00 11



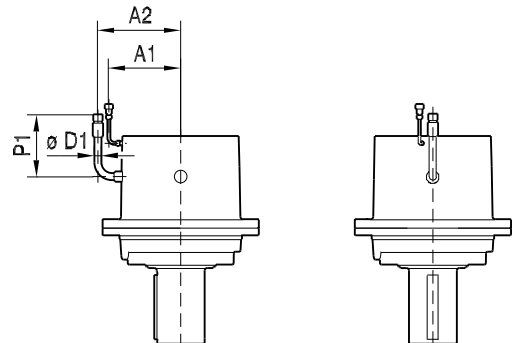
	A	B	C	Ø D	H	H1	L	L1	P
P.092	627.5	160	51	28	160	230	530	235	636.5
P.102	696.5	160	51	28	160	241	530	235	658.5



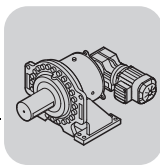
11.7 Oil expansion tank for mounting position M4

P/PH/PF/PHF
M4

45 016 00 11



	A1	A2	Ø D1	P1
P.092	477	486	28	361
P.102	507	514	28	361

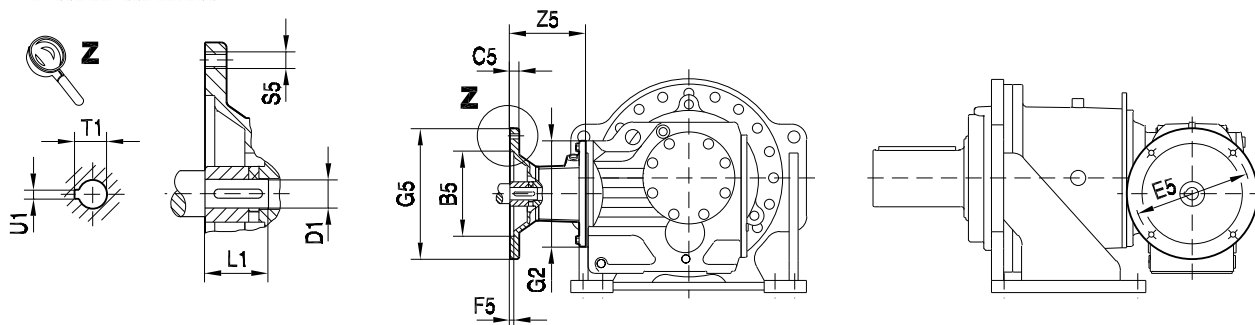


P.KF.. Bevel Planetary Gearmotors AM adapter for mounting IEC motors

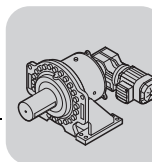
11.8 AM adapter for mounting IEC motors

45 122 00 08

P..KF..AM..



		B5	C5	E5	F5	G2	G5	S5	Z5	D1	L1	T1	U1
P..KF77	AM63	95	10	115	3.5	200	140	M8	60	11	23	12.8	4
	AM71	110		130			160			14	30	16.3	5
	AM80	130	12	165	4.5		200	M10	92	19	40	21.8	6
	AM90									24	50	27.3	8
	AM100	180	15	215	5		250	M12	126	28	60	31.3	8
	AM112												
	AM132S/M	230	16	265			300		179	38	80	41.3	10
	AM132ML												
P..KF87	AM80	130	12	165	4.5	250	200	M10	87	19	40	21.8	6
	AM90									24	50	27.3	8
	AM100	180	15	215	5		250	M12	121	28	60	31.3	8
	AM112												
	AM132S/M	230	16	265			300		174	38	80	41.3	10
	AM132ML												
	AM160	250	18	300	6		350	M16	232	42	110	45.3	12
	AM180									48		51.8	14
P..KF97	AM100	180	15	215	5	300	250	M12	116	28	60	31.3	8
	AM112						300						
	AM132S/M	230	16	265					350	M16	227	42	110
	AM132ML						48	51.8				14	
	AM160	250	18	300	6		400	268	55		59.3	16	
	AM180												
	AM200	300	20	350	7		400	268	55	59.3	16		
P..KF107	AM100	1	180	15	215	5	350	250	M12	110	28	60	31.3
	AM112		230	16	265			300		163	38	80	41.3
	AM132S/M												
	AM132ML		250	18	300	6		350	M16	221	42	110	45.3
	AM160										48		51.8
	AM180		300	20	350	7		400		262	55		59.3
	AM200												



45 123 00 08

P..KF..AM..

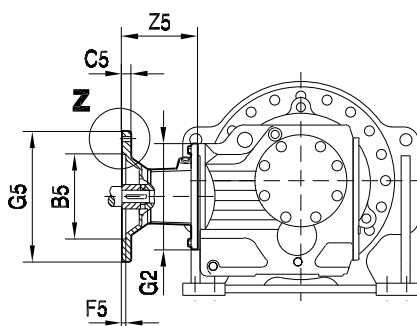
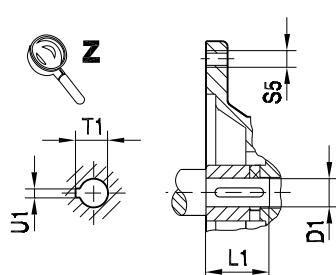


Fig.1

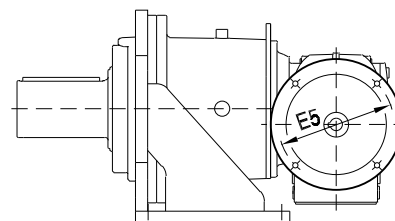


Fig.2

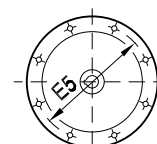
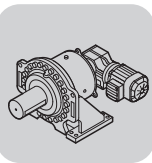


		Fig.	B5	C5	E5	F5	G2	G5	S5	Z5	D1	L1	T1	U1		
P..KF127	AM132S/M	1	230	16	265	5	450	300	M12	148	38	80	41.3	10		
	AM132ML		2	250	18	300		6	350	M16	206	42	110	45.3	12	
	AM160			7	300	20		350			400	48		51.8	14	
	AM180				350	22		400				450		247	55	59.3
	AM200	550			262	60		336						65	64.4	18
	AM225		140		75	69.4			20							
	AM250			79.9	20											
	AM280															
P..KF157	AM160	1				250	18	300	6	550	350	M16	198	42	110	45.3
	AM180		2			300	20	350	7		400		48	51.8		14
	AM200			350	22	400	239	55			59.3		16			
	AM225			550	254	60	328	65			64.4		18			
	AM250	140			75	69.4		20								
	AM280															
P..K167	AM160		1		250	18		300	6.0	550	350	M16		198	0	42
	AM180			2	300	20	350	7.0	400		198		0	48	51.8	
	AM200	350			22	400	450		239		0		55	59.3		
	AM225	550			254	0	60		328		65		64.4			
	AM250		140		75	69.4										
	AM280															
P..K187	AM160			1	250	18	300	6.0		550	350	M16	198	0	42	110
	AM180	2			300	20	350	7.0	350		198		48		51.8	
	AM200		350		22	400	400		239		55		59.3			
	AM225		550		254	60	140		64.4							
	AM250			140	328	19	65		140		69.4					
	AM280	75			140	79.9										



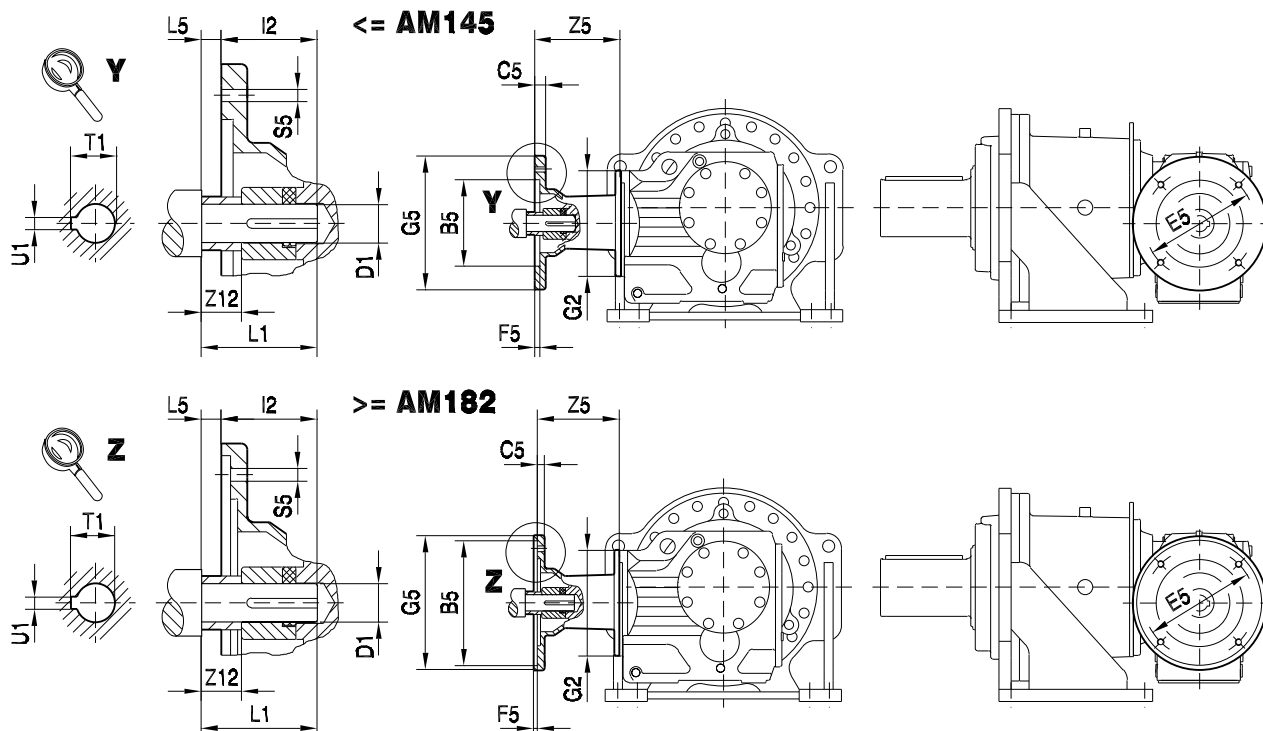
P.KF.. Bevel Planetary Gearmotors

AM adapter for mounting IEC motors

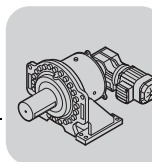
11.8.1 AM adapter for mounting NEMA motors

45 124 00 08

P..KF..AM..

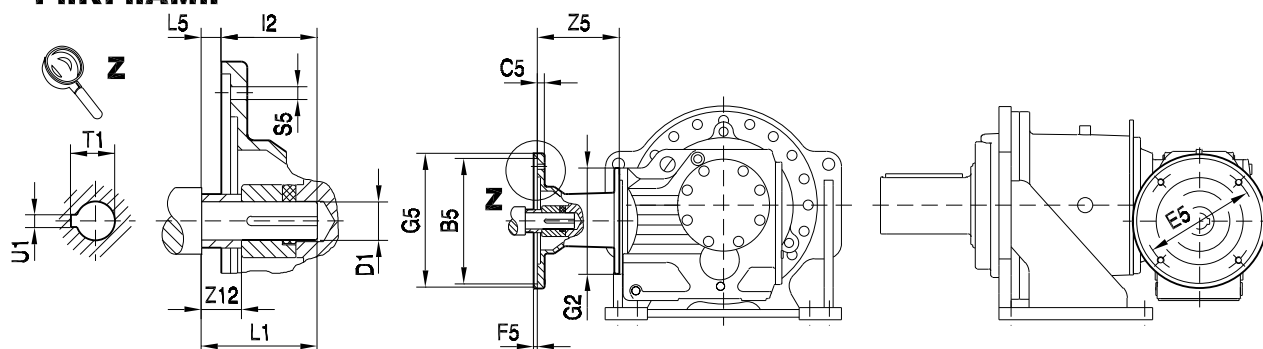


		B5	C5	E5	F5	G2	G5	I2	L5	S5	Z5	Z12	D1	L1	T1	U1	
P..KF77	AM56	114.3	11	149.2	4.5	200	170	52.55	-4.8	10.5	81	16.5	15.875	47	18.1	4.76	
	AM143		12					54.1	3		103.5	14.5	22.225	57	24.7		
	AM145																
	AM182	215.9	10	184	5		228	66.85	3	15	139.5	16.5	28.575	69	31.7	6.35	
	AM184										11	79.55	6.3	188.5	15.8	34.925	85
	AM213/215																
P..KF87	AM143	114.3	12	149.2	4.5	250	170	54.1	3	10.5	98.5	14.5	22.225	57	24.7	4.76	
	AM145																
	AM182	215.9	10	184	5		228	66.85	3	15	134.5	16.5	28.575	69	31.7	6.35	
	AM184																
	AM213/215																11
	AM254/256																12
	AM284/286	266.7	15	228.6	5		286	111.05	6.3	15	241	15.8	47.625	117	53.4	12.7	
P..KF97	AM182	215.9	10	184	5	300	228	66.85	3	15	129.5	16.5	28.575	69	31.7	6.35	
	AM184																
	AM213/215																11
	AM254/256																12
	AM284/286	266.7	20	228.6	5		286	111.05	6.3	15	236	15.8	47.625	117	53.4	12.7	
	AM324/326	317.5	17	279.4	5		356	127.0 5	6.3	17.5	296	34.8	53.975	133	60	12.7	
	AM364/365							143.0 5					60.325	149	67.6	15.875	

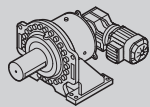


45 125 00 08

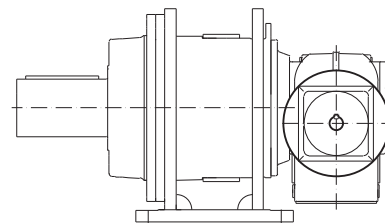
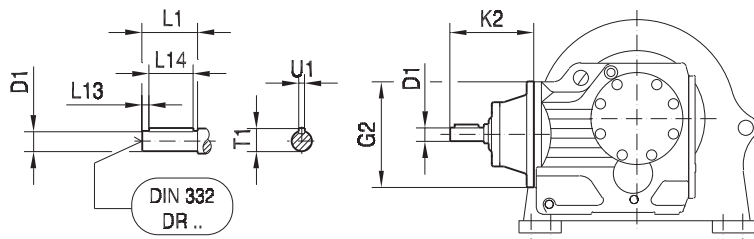
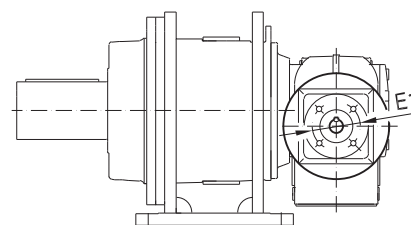
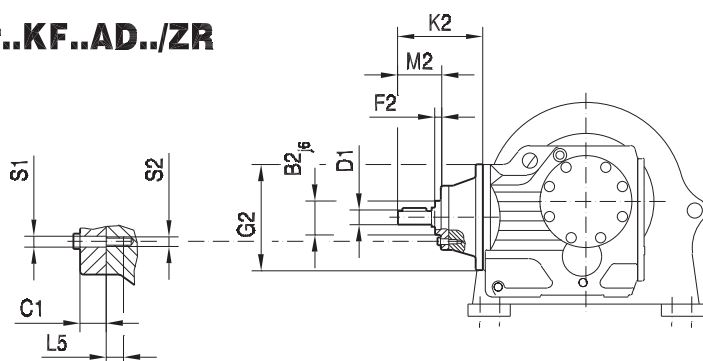
P..KF..AM..



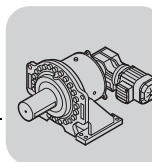
		B5	C5	E5	F5	G2	G5	I2	L5	S5	Z5	Z12	D1	L1	T1	U1
P..KF107	AM182	215.9	10	184	5	350	228	66.85	3	15	123.5	16.5	28.575	69	31.7	6.35
	AM184		11					79.55	6.3		172.5	15.8	34.925	85	38.7	7.94
	AM213/215															
	AM254/256															
	AM284/286	266.7	15	228.6	5		286	111.05	6.3	15	230	15.8	47.625	117	53.4	12.7
	AM324/326	317.5	17	279.4	5		356	127.05	6.3	17.5	290	34.8	53.975	133	60	12.7
	AM364/365							143.05					60.325	149	67.6	15.875
P..KF127	AM213/215	215.9	11	184	5	450	228	79.55	6.3	15	157.5	15.8	34.925	85	38.7	7.94
	AM254/256		12					95.3	6.3		208	9	41.275	101	45.8	9.53
	AM284/286	266.7	15	228.6	5		286	111.05	6.3	15	215	15.8	47.625	117	53.4	12.7
	AM324/326	317.5	17	279.4	5		356	127.05	6.3	17.5	275	34.8	53.975	133	60	12.7
	AM364/365							143.05					60.325	149	67.6	15.875
P..KF157 P..K167 P..K187	AM254/256	215.9	12	184	5	550	228	79.55	6.3	15	200	9	41.275	101	45.8	9.53
	AM284/286	266.7	15	228.6	5		286	95.3	6.3	15	207	15.8	47.625	117	53.4	12.7
	AM324/326	317.5	17	279.4	5		356	111.05	6.3	17.5	267	34.8	53.975	133	60	12.7
	AM364/365							127.05					60.325	149	67.6	15.875


11.9 AD input shaft assembly
P..KF..AD..

46 131 002

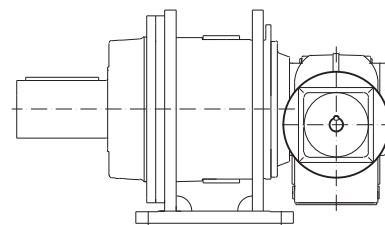
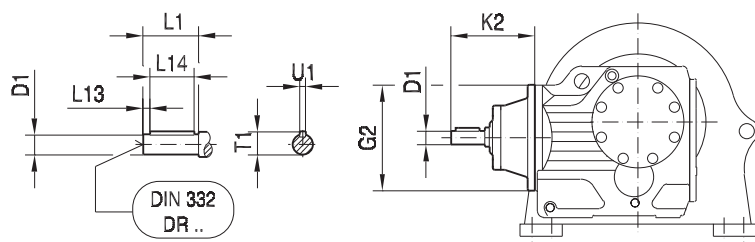

P..KF..AD../ZR


		B2	C1	E1	F2	G2	K2	L5	M2	S1	S2	D1	L1	L13	L14	T1	U1
P..KF77	AD2, AD2/ZR	55	13.5	80	8	200	116	12	50	9	M8	19	40	4	32	21.5	6
	AD3, AD3/ZR	70	15.5	105	8		151	16	60	11	M10	24	50	5	40	27	8
	AD4, AD4/ZR	100	16	130	13		224	20	95.5	13.5	M12	38	80	5	70	41	10
P..KF87	AD2, AD2/ZR	55	13.5	80	8	250	111	12	50	9	M8	19	40	4	32	21.5	6
	AD3, AD3/ZR	70	15.5	105	8		156	16	60	11	M10	28	60	5	50	31	8
	AD4, AD4/ZR	100	16	130	13		219	20	95.5	13.5	M12	38	80	5	70	41	10
	AD5, AD5/ZR	120	24	180	11		292	20	126	13.5	M12	42	110	10	70	45	12
P..KF97	AD3, AD3/ZR	70	15.5	105	8	300	151	16	60	11	M10	28	60	5	50	31	8
	AD4, AD4/ZR	100	16	130	13		214	20	95.5	13.5	M12	38	80	5	70	41	10
	AD5, AD5/ZR	120	24	180	11		287	20	126	13.5	M12	42	110	10	70	45	12
	AD6, AD6/ZR	130	22.5	200	11		327	26	130.5	17.5	M16	48	110	10	80	51.5	14
P..KF107	AD3, AD3/ZR	70	15.5	105	8	350	145	16	60	11	M10	28	60	5	50	31	8
	AD4, AD4/ZR	100	16	130	13		208	20	95.5	13.5	M12	38	80	5	70	41	10
	AD5, AD5/ZR	120	24	180	11		281	20	126	13.5	M12	42	110	10	70	45	12
	AD6, AD6/ZR	130	22.5	200	11		321	26	130.5	17.5	M16	48	110	10	80	51.5	14
P..KF127	AD4, AD4/ZR	100	16	130	13	450	193	20	95.5	13.5	M12	38	80	5	70	41	10
	AD5, AD5/ZR	120	24	180	11		266	20	126	13.5	M12	42	110	10	70	45	12
	AD6, AD6/ZR	130	22.5	200	11		306	26	130.5	17.5	M16	48	110	10	80	51.5	14
	AD7, AD7/ZR	125	19	190	13		300	30	133	22	M20	55	110	10	90	59	16
	AD8, AD8/ZR	120	22.5	210	5		383	19.5	155	13.5	M12	70	140	15	110	74.5	20
P..KF127	AD5, AD5/ZR	120	24	180	11	550	258	20	126	13.5	M12	42	110	10	70	45	12
	AD6, AD6/ZR	130	22.5	200	11		298	26	130.5	17.5	M16	48	110	10	80	51.5	14
	AD7, AD7/ZR	125	19	190	13		292	30	133	22	M20	55	110	10	90	59	16
	AD8, AD8/ZR	120	22.5	210	5		374	19.5	155	13.5	M12	70	140	15	110	74.5	20

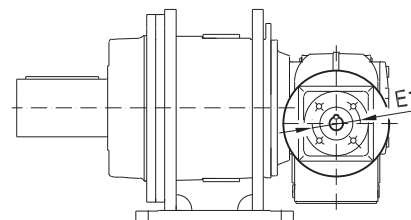
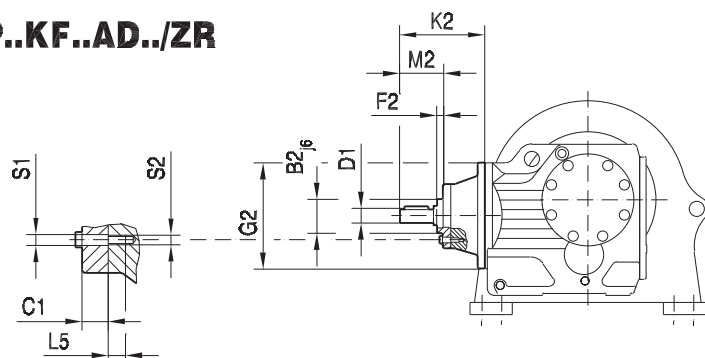


P..KF..AD..

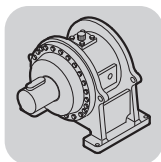
46 131 002



P..KF..AD../ZR



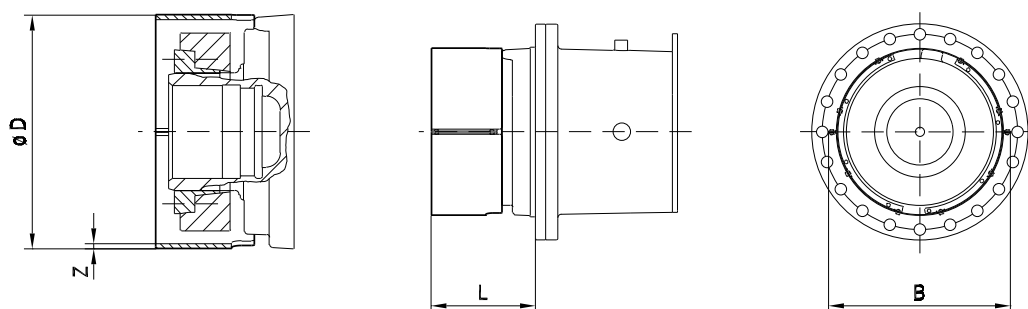
		B2	C1	E1	F2	G2	K2	L5	M2	S1	S2	D1	L1	L13	L14	T1	U1
K..157 K..167 K..187	AD5 , AD5/ZR	120	24	180	11	550	258	20	126	13.5	M12	42	110	10	70	45	12
	AD6 , AD6/ZR	130	22.5	200	11		298	26	130.5	17.5	M16	48	110	10	80	51.5	14
	AD7 , AD7/ZR	125	19	190	13		292	30	133	22	M20	55	110	10	90	59	16
	AD8 , AD8/ZR	120	22.5	210	5		374	19.5	155	13.5	M12	70	140	15	110	74.5	20



12 Additional Dimension Sheets

12.1 Protection cover for shrink disk

45 133 00 08



	B	ϕD	L	Z
P.002	350	307	176	2
P.012	396	353	182.5	2
P.022	452	409	193	2
P.032	472	429	224.5	2
P.042	522	479	269	2
P.052	566	523	293	2
P.062	636	593	312	2
P.072	712	669	335.5	2
P.082	776	733	360	2
P.092	734	684	399.5	2
P.102	824	774	435.5	2



13 Address Directory

Germany			
Headquarters Production Sales	Bruchsal	SEW-EURODRIVE GmbH & Co KG Ernst-Blickle-Straße 42 D-76646 Bruchsal P.O. Box Postfach 3023 • D-76642 Bruchsal	Tel. +49 7251 75-0 Fax +49 7251 75-1970 http://www.sew-eurodrive.de sew@sew-eurodrive.de
	Bruchsal	SEW-EURODRIVE GmbH & Co KG Christian-Pähr-Str.10 D-76646 Bruchsal	Tel. +49 7251 75-0 Fax +49 7251 75-2970
Production / Industrial Gears	Bruchsal	SEW-EURODRIVE GmbH & Co KG Christian-Pähr-Str.10 D-76646 Bruchsal	Tel. +49 7251 75-0 Fax +49 7251 75-2970
	Graben	SEW-EURODRIVE GmbH & Co KG Ernst-Blickle-Straße 1 D-76676 Graben-Neudorf P.O. Box Postfach 1220 • D-76671 Graben-Neudorf	Tel. +49 7251 75-0 Fax +49 7251 75-2970
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	Central	SEW-EURODRIVE GmbH & Co KG Ernst-Blickle-Straße 1 D-76676 Graben-Neudorf	Tel. +49 7251 75-1710 Fax +49 7251 75-1711 sc-mitte@sew-eurodrive.de
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Service Competence Center	Industrial Gears	SEW-EURODRIVE n.v./s.a. Rue de Parc Industriel, 31 BE-6900 Marche-en-Famenne	Tel. +32 84 219-878 Fax +32 84 219-879 http://www.sew-eurodrive.be service-wallonie@sew-eurodrive.be
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Sales	Reykjavik	VARMA & VELAVERK EHF Dalshrauni 5 IS-220 Hafnarjördur	Tel. +354 585 1070 Fax +354 585)1071 varmaverk@varmaverk.is http://www.varmaverk.is
India			
Registered Office Assembly Sales Service	Vadodara	SEW-EURODRIVE India Private Limited Plot No. 4, GIDC POR Ramangamdi • Vadodara - 391 243 Gujarat	Tel. +91 265 3045200, +91 265 2831086 Fax +91 265 3045300, +91 265 2831087 http://www.seweurodriveindia.com salesvadodara@seweurodriveindia.com
Assembly Sales Service	Chennai	SEW-EURODRIVE India Private Limited Plot No. K3/1, Sipcot Industrial Park Phase II Mambakkam Village Sriperumbudur - 602105 Kancheepuram Dist, Tamil Nadu	Tel. +91 44 37188888 Fax +91 44 37188811 saleschennai@seweurodriveindia.com
Technical Offices	Ahmedabad	SEW-EURODRIVE India Private Limited 306, Shaan office complex, Behind Sakar-IV, Ellisebridge, Ashram Road Ahmedabad – Gujarat	Tel. +91 79 40072067/68 Fax +91 79 40072069 salesahmedabad@seweurodriveindia.com
	Bangladesh	SEW-EURODRIVE INDIA PRIVATE LIMITED Genetic Udayanchal, House-96 (6th Floor), Road-23/A, Block-B, Banani, Dhaka-1213, Bangladesh	Mobile +88 01729 097309 salesdhaka@seweurodrivebangladesh.com
	Bangalore	SEW-EURODRIVE India Private Limited 308, Prestige Centre Point 7, Edward Road Bengaluru - 560052 - Karnataka	Tel. +91 80 22266565 Fax +91 80 22266569 salesbangalore@seweurodriveindia.com
	Chennai	SEW-EURODRIVE India Private Limited 2nd Floor, Josmans Complex, No. 5, McNichols Road, Chetpet Chennai - 600031 - Tamil Nadu	Tel. +91 44 42849813 Fax +91 44 42849816 saleschennai@seweurodriveindia.com
	Coimbatore	SEW-EURODRIVE INDIA PRIVATE LIMITED 687/2, SRI SAKTHIVEL TOWERS (NEAR DEEPAM HOSPITAL) TRICHY ROAD, RAMANATHAPURAM COIMBATORE - 641 045.Tamilnadu	Tel. +91 422 2322420 Fax +91 422 2323988 salescoimbatore@seweurodriveindia.com
	Cuttack	SEW-EURODRIVE India Private Limited Plot No.- 1764, Nuasahi, Nayapalli Bhubaneswar-12 Orissa	Tel. +91 9937446333 salescuttack@seweurodriveindia.com
	Hyderabad	SEW-EURODRIVE India Private Limited 408, 4th Floor, Meridian Place Green Park Road Amerpet Hyderabad - 500016 - Andhra Pradesh	Tel. +91 40 23414698 Fax +91 40 23413884 saleshyderabad@seweurodriveindia.com



India		
Jamshedpur	SEW-EURODRIVE India Private Limited Flat No.: B/2, B.S. Apartment Road No.: 4, Contractor's area, Bistupur Jamshedpur 831 001 - Chhattisgarh	Tel. +91 9934123671 salesjamshedpur@seweurodriveindia.com
Kolkata	SEW EURODRIVE India Private Limited 2nd floor, Room No. 35 Chowringhee Court 55, Chowringhee Road Kolkata - 700 071 - West Bengal	Tel. +91 33 22827457 Fax +91 33 22894204 saleskolkata@seweurodriveindia.com
Lucknow	SEW-EURODRIVE India Private Limited 69, Shiv Vihar Colony Vikas Nagar-5 Lucknow 226022 - Uttar Pradesh	Tel. +91 9793627333 saleslucknow@seweurodriveindia.com
Mumbai	SEW-EURODRIVE India Private Limited 312 A, 3rd Floor, Acme Plaza, J.B. Nagar, Andheri Kurla Road, Andheri (E) Mumbai - 400059 - Maharashtra	Tel. +91 22 28348440 Fax +91 22 28217858 salesmumbai@seweurodriveindia.com
Nashik	SEW-EURODRIVE India Private Limited 107, "YOG" Bungalow, Mahatama Nagar, Trimbak Road, Nashik, Maharashtra – 422 007	Tel. +91 9665752978 salesnashik@seweurodriveindia.com
New Delhi	SEW-EURODRIVE India Private Limited 1008, 10th Floor, 12th Level 'Westend Mall' Tower Plot, District Centre Adjacent Hotel Hilton Janak Puri, New Delhi – 110058	Tel. +91 11 25544111 Fax +91 11 25544113 salesdelhi@seweurodriveindia.com
Pune	SEW-EURODRIVE India Private Limited Lunawat Prism 4th floor, S. No. 148, Neena Co-Operative Housing Society, Paud Road, Pune 411038 - Maharashtra	Tel. +91 20 25380730 / 735 Fax +91 20 25380721 salespune@seweurodriveindia.com
Raipur	SEW-EURODRIVE India Private Limited A-42, Ashoka Millenium Complex, Ring Road-1, Raipur 492 001 - Chhattisgarh	Tel. +91 771 4090765 Fax +91 771 4090765 salesraipur@seweurodriveindia.com
Ranchi	SEW-EURODRIVE India Private Limited Flat No : A - 101, Krishna Shree Apartment, Anantpur, P.O. Doranda – Ranchi 834002	Tel. +91 8294630772 salesranchi@seweurodriveindia.com
Tiruchirappalli	SEW-EURODRIVE India Private Limited A-106, Trichy Towers, Chandrasekarapuram, Salai Road, Trichy – 620018.	Mobile +91 95009 88081 salestrichy@seweurodriveindia.com
Vadodara	SEW-EURODRIVE India Private Limited Unit No. 301, Savorite Bldg, Plot No. 143, Vinayak Society, off old Padra Road, Vadodara - 390 007. Gujarat	Tel. +91 265 2325258 Fax +91 265 2325259 salesvadodara@seweurodriveindia.com
Vijayawada	SEW-EURODRIVE India Private Limited Door No: 40-5/3-10A, Shyam Nagar, Tikkle Road, NGO's Colony, Vijayawada, A.P. – 520010	Tel. +91 9989501748 Fax +91 866-2475157 salesvijayawada@seweurodriveindia.com



Indonesia			
Sales	Jakarta	PT. Cahaya Sukses Abadi Komplek Rukan Puri Mutiara Blok A no 99, Sunter Jakarta 14350	Tel: +62 21 65310599 Fax: +62 21 65310600 csajkt@cbn.net.id
		PT. Agrindo Putra Lestari Jl.Prof.DR.Latumenten no27/A Jakarta 11330	Tel: +62 21 63855588 Fax: +62 21 63853789 aplindo@indosat.net.id
		PT. Sentratek Adiprestasi Jl. Industri Raya I, Komp. Gunung Sahari 8 Block B-3 Gunung Sahari Utara, Sawah B Jakarta 10720	Tel: +62 21 6398122 Fax: +62 21 6499264 adm_samit@yahoo.co.id roberto_samit@yahoo.co.id
	Medan	PT. Serumpun Indah Lestari Pulau Solor no. 8, Kawasan Industri Medan II Medan 20252	Tel. +62 61 687 1221 Fax +62 61 6871429 / +62 61 6871458 / +62 61 30008041 sil@serumpunindah.com serumpunindah@yahoo.com
	Surabaya	PT. TRIAGRI JAYA ABADI Jl. Sukosemolo No. 63, Galaxi Bumi Permai G6 No. 11 Surabaya 60122	Tel: +62 31 5990128 Fax: +62 31 5962666 triagri@indosat.net.id
		CV. Multi Mas Jl. Raden Saleh 43A Kav. 18 Surabaya 60174	Tel: +62 31 5458589 / +62 31 5317224 Fax: +62 31 5317220 / +62 31 5994629 sianhwa@sby.centrin.net.id
Ireland			
Sales Service	Dublin	Alperton Engineering Ltd. 48 Moyle Road Dublin Industrial Estate Glasnevin, Dublin 11	Tel. +353 1 830-6277 Fax +353 1 830-6458 info@alperton.ie http://www.alperton.ie
Israel			
Sales	Tel-Aviv	Liraz Handasa Ltd. Ahofer Str 34B / 228 58858 Holon	Tel. +972 3 5599511 Fax +972 3 5599512 http://www.liraz-handasa.co.il office@liraz-handasa.co.il
Italy			
Assembly Sales Service	Solaro	SEW-EURODRIVE di R. Blickle & Co.s.a.s. Via Bernini,14 I-20020 Solaro (Milano)	Tel. +39 02 96 9801 Fax +39 02 96 799781 http://www.sew-eurodrive.it sewit@sew-eurodrive.it
Technical Offices	Bologna	SEW-EURODRIVE di R. Blickle & Co.s.a.s. Via della Grafica, 47 I-40064 Ozzano dell'Emilia (Bo)	Tel. +39 051 65-23-801 Fax +39 051 796-595
	Caserta	SEW-EURODRIVE di R. Blickle & Co.s.a.s. Viale Carlo III Km. 23,300 I-81020 S. Nicola la Strada (Caserta)	Tel. +39 0823 219011 Fax +39 0823 421414
	Milan	SEW-EURODRIVE di R. Blickle & Co.s.a.s. Via Bernini,14 I-20020 Solaro (Milano)	Tel. +39 02 96 980229 Fax +39 02 96 799781
	Pescara	SEW-EURODRIVE di R. Blickle & Co.s.a.s. Viale Europa,132 I-65010 Villa Raspa di Spoltore (PE)	Tel. +39 085 41-59-427 Fax +39 085 41-59-643
	Torino	SEW-EURODRIVE di R. Blickle & Co.s.a.s. Filiale Torino c.so Unione Sovietica 612/15 - int. C I-10135 Torino	Tel. +39 011 3473780 Fax +39 011 3473783



Italy			
	Verona	SEW-EURODRIVE di R. Blicke & Co.s.a.s. Via P. Sgulmero, 27/A I-37132 Verona	Tel. +39 045 89-239-11 Fax +39 045 97-6079
Ivory Coast			
Sales	Abidjan	SICA Société Industrielle & Commerciale pour l'Afrique 165, Boulevard de Marseille 26 BP 1173 Abidjan 26	Tel. +225 21 25 79 44 Fax +225 21 25 88 28 sicamot@aviso.ci
Japan			
Assembly Sales Service	Iwata	SEW-EURODRIVE JAPAN CO., LTD 250-1, Shimoman-no, Iwata Shizuoka 438-0818	Tel. +81 538 373811 Fax +81 538 373855 http://www.sew-eurodrive.co.jp sewjapan@sew-eurodrive.co.jp
Technical Offices	Fukuoka	SEW-EURODRIVE JAPAN CO., LTD. C-go, 5th-floor, Yakuin-Hiruzu-Bldg. 1-5-11, Yakuin, Chuo-ku Fukuoka, 810-0022	Tel. +81 92 713-6955 Fax +81 92 713-6860 sewkyushu@jasmine.ocn.ne.jp
	Osaka	SEW-EURODRIVE JAPAN CO., LTD. Higobashi Shimizu Bldg. 10th floor 1-3-7 Tosabori, Nishi-ku Osaka, 550-0001	Tel. +81 6 6444--8330 Fax +81 6 6444--8338 sewosaka@crocus.ocn.ne.jp
	Tokyo	SEW-EURODRIVE JAPAN CO., LTD. Omarimon Yusen Bldg. 13th floor 3-23-5 Nishinbashi, Minato-ku Tokyo 105-0003	Tel. +81 3 3239-0469 Fax +81 3 3239-0943 sewtokyo@basil.ocn.ne.jp
Kazakhstan			
Sales	Almaty	TOO "СЕВ-ЕВРОДРАЙВ" пр.Райымбека, 348 050061 г. Алматы Республика Казахстан	Тел. +7 (727) 334 1880 Факс +7 (727) 334 1881 http://www.sew-eurodrive.kz sew@sew-eurodrive.kz
Latvia			
Sales	Riga	SIA Alas-Kuul Katlakalna 11C LV-1073 Riga	Tel. +371 6 7139253 Fax +371 6 7139386 http://www.alas-kuul.com info@alas-kuul.com
Lebanon			
Sales Lebanon	Beirut	Gabriel Acar & Fils sarl B. P. 80484 Bourj Hammoud, Beirut	Tel. +961 1 510 532 Fax +961 1 494 971 ssacar@inco.com.lb
Sales Jordan / Kuwait / Saudi Arabia / Syria	Beirut	Middle East Drives S.A.L. (offshore) Sin El Fil. B. P. 55-378 Beirut	Tel. +961 1 494 786 Fax +961 1 494 971 info@medrives.com http://www.medrives.com
Lithuania			
Sales	Alytus	UAB Irseva Statybininku 106C LT-63431 Alytus	Tel. +370 315 79204 Fax +370 315 56175 irmantas@irseva.lt http://www.sew-eurodrive.lt



Luxembourg			
Assembly Sales Service	Brussels	SEW-EURODRIVE n.v./s.a. Researchpark Haasrode 1060 Evenementenlaan 7 BE-3001 Leuven	Tel. +32 16 386-311 Fax +32 16 386-336 http://www.sew-eurodrive.lu info@sew-eurodrive.be
Malaysia			
Assembly Sales Service	Johor	SEW-EURODRIVE SDN BHD No. 95, Jalan Seroja 39, Taman Johor Jaya 81000 Johor Bahru, Johor West Malaysia	Tel. +60 7 3549409 Fax +60 7 3541404 sales@sew-eurodrive.com.my
Technical Offices	Kota Kinabalu	SEW-EURODRIVE Sdn Bhd (Kota Kinabalu Branch) Lot No. 2, 1st Floor, Inanam Baru Phase III, Miles 5.1 /2, Jalan Tuaran, Inanam 89350 Kota Kinabalu Sabah, Malaysia	Tel. +60 88 424792 Fax +60 88 424807
	Kuala Lumpur	SEW-EURODRIVE Sdn. Bhd. No. 2, Jalan Anggerik Mokara 31/46 Kota Kemuning Seksyen 31 40460 Shah Alam Selangor Darul Ehsan	Tel. +60 3 5229633 Fax +60 3 5229622 sewsa@sew-eurodrive.com.my
	Kuching	SEW-EURODRIVE Sdn. Bhd. Lot 268, Section 9 KTL D Lorong 9, Jalan Satok 93400 Kuching, Sarawak East Malaysia	Tel. +60 82 232380 Fax +60 82 242380
	Penang	SEW-EURODRIVE Sdn. Bhd. No. 38, Jalan Bawal Kimsar Garden 13700 Prai, Penang	Tel. +60 4 3999349 Fax +60 4 3999348 sewpg@sew-eurodrive.com.my
Mauritania			
Sales	Zouérat	AFRICOM - SARL En Face Marché Dumez P.B. 88 Zouérate	Tel. +222 45 44 50 19 Fax +222 45 44 03 14 contact@africom-sarl.com
Mexico			
Assembly Sales Service	Quéretaro	SEW-EURODRIVE MEXICO SA DE CV SEM-981118-M93 Tequisquiapan No. 102 Parque Industrial Quéretaro C.P. 76220 Quéretaro, México	Tel. +52 442 1030-300 Fax +52 442 1030-301 http://www.sew-eurodrive.com.mx scmexico@seweurodrive.com.mx
Morocco			
Sales Service	Mohammedia	SEW EURODRIVE SARL Z.I. Sud Ouest - Lot 28 2ème étage Mohammedia 28810	Tel. +212 523 32 27 80/81 Fax +212 523 32 27 89 sew@sew-eurodrive.ma http://www.sew-eurodrive.ma
Netherlands			
Assembly Sales Service	Rotterdam	SEW-EURODRIVE B.V. Industrieweg 175 NL-3044 AS Rotterdam Postbus 10085 NL-3004 AB Rotterdam	Tel. +31 10 4463-700 Fax +31 10 4155-552 Service: 0800-SEWHELP http://www.sew-eurodrive.nl info@sew-eurodrive.nl



New Zealand			
Assembly Sales Service	Auckland	SEW-EURODRIVE NEW ZEALAND LTD. P.O. Box 58-428 82 Greenmount drive East Tamaki Auckland	Tel. +64 9 2745627 Fax +64 9 2740165 http://www.sew-eurodrive.co.nz sales@sew-eurodrive.co.nz
	Christchurch	SEW-EURODRIVE NEW ZEALAND LTD. 10 Settlers Crescent, Ferryroad Christchurch	Tel. +64 3 384-6251 Fax +64 3 384-6455 sales@sew-eurodrive.co.nz
Technical Offices	Palmerston North	SEW-EURODRIVE NEW ZEALAND LTD. C/-Grant Shearman, RD 5, Aronui Road Palmerston North	Tel. +64 6 355-2165 Fax +64 6 355-2316 sales@sew-eurodrive.co.nz
Norway			
Assembly Sales Service	Moss	SEW-EURODRIVE A/S Solgaard skog 71 N-1599 Moss	Tel. +47 69 24 10 20 Fax +47 69 24 10 40 http://www.sew-eurodrive.no sew@sew-eurodrive.no
Pakistan			
Sales	Karachi	Industrial Power Drives Al-Fatah Chamber A/3, 1st Floor Central Commercial Area, Sultan Ahmed Shah Road, Block 7/8, Karachi	Tel. +92 21 452 9369 Fax +92-21-454 7365 seweurodrive@cyber.net.pk
Peru			
Assembly Sales Service	Lima	SEW DEL PERU MOTORES REDUCTORES S.A.C. Los Calderos, 120-124 Urbanizacion Industrial Vulcano, ATE, Lima	Tel. +51 1 3495280 Fax +51 1 3493002 http://www.sew-eurodrive.com.pe sewperu@sew-eurodrive.com.pe
Philippines			
Sales	Luzon	Totaltek Corporation 5081-B C&L Mansion Filmore Ave. Cor. Fahrenheit St. 1235 Makati City	Tel: +63 2 551-9265 / +63 2 551-9271 / +63 2 551-9378 Fax: +63 2 551-9273 totaltek@info.com.ph
	All Areas	P.T. Cerna Corporation 2166 Primo Rivera St., Brgy. La Paz, Makati City	Tel: +63 2 890 2862 / +63 2 890 2813 Fax: +63 2 890 2802 electrical_controls@ptcerna.com
Poland			
Assembly Sales Service	Lodz	SEW-EURODRIVE Polska Sp.z.o.o. ul. Techniczna 5 PL-92-518 Łódź	Tel. +48 42 676 53 00 Fax +48 42 676 53 49 http://www.sew-eurodrive.pl sew@sew-eurodrive.pl
	Service	Tel. +48 42 6765332 / 42 6765343 Fax +48 42 6765346	Linia serwisowa Hotline 24H Tel. +48 602 739 739 (+48 602 SEW SEW) serwis@sew-eurodrive.pl
Technical Office	Tychy	SEW-EURODRIVE Polska Sp.z.o.o. ul. Fabryczna 5 PL-43-100 Tychy	Tel. +48 32 32 32 610 Fax +48 32 32 32 648
	Bydgoszcz	SEW-EURODRIVE Polska Sp.z.o.o. ul. Fordońska 246 PL-85-959 Bydgoszcz	Tel. +48 52 3606590 Fax +48 52 3606591
	Poznan	SEW-EURODRIVE Polska Sp.z.o.o. ul. Romana Maya 1 PL-61-371 Poznań	Tel. +48 61 6465500 Fax +48 61 6465519



Poland			
	Radom	SEW-EURODRIVE Polska Sp.z.o.o. ul. Słowackiego 84 PL-26-600 Radom	Tel. +48 48 365 40 50 Fax +48 48 365 40 52
Portugal			
Assembly Sales Service	Coimbra	SEW-EURODRIVE, LDA. Apartado 15 P-3050-901 Mealhada	Tel. +351 231 20 9670 Fax +351 231 20 3685 http://www.sew-eurodrive.pt infosew@sew-eurodrive.pt
Service Competence Center	Lisboa	SEW-EURODRIVE, LDA. Núcleo Empresarial I de São Julião do Tojal Rua de Entremuros, 54 Fracção I P-2660-533 São Julião do Tojal	Tel. +351 21 958-0198 Fax +351 21 958-0245 esc.lisboa@sew-eurodrive.pt
Technical Office	Porto	SEW-EURODRIVE, LDA. Av. 25 de Abril, 68 4440-502 Valongo	Tel. +351 229 350 383 Fax +351 229 350 384 Tel. +351 9 32559110 esc.porto@sew-eurodrive.pt
Romania			
Sales Service	Bucharest	Sialco Trading SRL str. Madrid nr.4 011785 Bucuresti	Tel. +40 21 230-1328 Fax +40 21 230-7170 sialco@sialco.ro
Russia			
Assembly Sales Service	St. Petersburg	ZAO SEW-EURODRIVE P.O. Box 36 195220 St. Petersburg Russia	Tel. +7 812 3332522 +7 812 5357142 Fax +7 812 3332523 http://www.sew-eurodrive.ru sew@sew-eurodrive.ru
Technical Office	Yekaterinburg	ZAO SEW-EURODRIVE Kominterna Str. 16 Office 614 RUS-620078 Ekaterinburg	Tel. +7 343 310 3977 Fax +7 343 310 3978 eso@sew-eurodrive.ru
	Irkutsk	ZAO SEW-EURODRIVE 5-Armii Str., 31 RUS-664011 Irkutsk	Tel. +7 3952 25 5880 Fax +7 3952 25 5881 iso@sew-eurodrive.ru
	Moscow	ZAO SEW-EURODRIVE Malaja Semjonovskaja Str. д. 9, корпус 2 RUS-107023 Moskau	Tel. +7 495 9337090 Fax +7 495 9337094 mso@sew-eurodrive.ru
	Novosibirsk	ZAO SEW-EURODRIVE pr. K Marksa 30 RUS-630087 Novosibirsk	Tel. +7 383 3350200 Fax +7 383 3462544 nso@sew-eurodrive.ru
	Perm	ZAO SEW-EURODRIVE Stakhanovskaya str., 45 Office 512 614066 Russia, Perm	Tel. +7 342 2219494 Fax +7 342 2219444 pso@sew-eurodrive.ru
	Togliatti	ZAO SEW-EURODRIVE Sportivnaya Str. 4B, office 2 Samarskaya obl. RUS-445057 Togliatti	Tel. +7 8482 710529 Fax +7 8482 810590
Senegal			
Sales	Dakar	SENEMECA Mécanique Générale Km 8, Route de Rufisque B.P. 3251, Dakar	Tel. +221 338 494 770 Fax +221 338 494 771 senemeca@sentoo.sn http://www.senemeca.com



Serbia			
Sales	Beograd	DIPAR d.o.o. Ustanicka 128a PC Košum, IV sprat SRB-11000 Beograd	Tel. +381 11 347 3244 / +381 11 288 0393 Fax +381 11 347 1337 office@dipar.rs
Singapore			
Assembly Sales Service	Singapore	SEW-EURODRIVE PTE. LTD. No 9, Tuas Drive 2 Jurong Industrial Estate Singapore 638644	Tel. +65 68621701 Fax +65 68612827 http://www.sew-eurodrive.com.sg sewsingapore@sew-eurodrive.com
Slovakia			
Sales	Bratislava	SEW-Eurodrive SK s.r.o. Rybničná 40 SK-831 06 Bratislava	Tel. +421 2 33595 202 Fax +421 2 33595 200 sew@sew-eurodrive.sk http://www.sew-eurodrive.sk
	Žilina	SEW-Eurodrive SK s.r.o. Industry Park - PChZ ulica M.R.Štefánika 71 SK-010 01 Žilina	Tel. +421 41 700 2513 Fax +421 41 700 2514 sew@sew-eurodrive.sk
	Banská Bystrica	SEW-Eurodrive SK s.r.o. Rudlovská cesta 85 SK-974 11 Banská Bystrica	Tel. +421 48 414 6564 Fax +421 48 414 6566 sew@sew-eurodrive.sk
	Košice	SEW-Eurodrive SK s.r.o. Slovenská ulica 26 SK-040 01 Košice	Tel. +421 55 671 2245 Fax +421 55 671 2254 sew@sew-eurodrive.sk
Slovenia			
Sales Service	Celje	Pakman - Pogonska Tehnika d.o.o. Ul. XIV. divizije 14 SLO - 3000 Celje	Tel. +386 3 490 83-20 Fax +386 3 490 83-21 pakman@siol.net
South Africa			
Assembly Sales Service	Johannesburg	SEW-EURODRIVE (PROPRIETARY) LIMITED Eurodrive House Cnr. Adcock Ingram and Aerodrome Roads Aeroton Ext. 2 Johannesburg 2013 P.O.Box 90004 Bertsham 2013	Tel. +27 11 248-7000 Fax +27 11 494-3104 http://www.sew.co.za info@sew.co.za
	Cape Town	SEW-EURODRIVE (PROPRIETARY) LIMITED Rainbow Park Cnr. Racecourse & Omuramba Road Montague Gardens Cape Town P.O.Box 36556 Chempet 7442 Cape Town	Tel. +27 21 552-9820 Fax +27 21 552-9830 Telex 576 062 cfoster@sew.co.za
	Durban	SEW-EURODRIVE (PROPRIETARY) LIMITED 2 Monaco Place Pinetown Durban P.O. Box 10433, Ashwood 3605	Tel. +27 31 700-3451 Fax +27 31 700-3847 cdejager@sew.co.za
	Nelspruit	SEW-EURODRIVE (PTY) LTD. 7 Christie Crescent Vintonia P.O.Box 1942 Nelspruit 1200	Tel. +27 13 752-8007 Fax +27 13 752-8008 robermeyer@sew.co.za



South Africa			
Technical Offices	Port Elizabeth	SEW-EURODRIVE PTY LTD. 8 Ruan Access Park Old Cape Road Greenbushes 6000 Port Elizabeth	Tel. +27 41 3722246 Fax +27 41 3722247 dtait@sew.co.za
	Richards Bay	SEW-EURODRIVE PTY LTD. 103 Bulion Blvd Richards Bay P.O. Box 458 Richards Bay, 3900	Tel. +27 35 797-3805 Fax +27 35 797-3819 jswart@sew.co.za
South Korea			
Assembly Sales Service	Ansan	SEW-EURODRIVE KOREA CO., LTD. B 601-4, Banweol Industrial Estate #1048-4, Shingil-Dong, Danwon-Gu, Ansan-City, Kyunggi-Do Zip 425-839	Tel. +82 31 492-8051 Fax +82 31 492-8056 http://www.sew-korea.co.kr master.korea@sew-eurodrive.com
	Busan	SEW-EURODRIVE KOREA Co., Ltd. No. 1720 - 11, Songjeong - dong Gangseo-ku Busan 618-270	Tel. +82 51 832-0204 Fax +82 51 832-0230 master@sew-korea.co.kr
Technical Offices	Daegu	SEW-EURODRIVE KOREA Co., Ltd. No.1108 Sungan officetel 87-36, Duryu 2-dong, Dalseo-ku Daegu 704-712	Tel. +82 53 650-7111 Fax +82 53 650-7112
	Daejeon	SEW-EURODRIVE KOREA Co., Ltd. No. 1502, Hongin officetel 536-9, Bongmyung-dong, Yusung-ku Daejeon 305-301	Tel. +82 42 828-6461 Fax +82 42 828-6463
	Gwangju	SEW-EURODRIVE KOREA Co., Ltd. 4fl., Dae-Myeong B/D 96-16 Unam-dong, Buk-ku Kwangju 500-170	Tel. +82 62 511-9172 Fax +82 62 511-9174
	Seoul	SEW-EURODRIVE KOREA Co., Ltd. No.504 Sunkyung officetel 106-4 Kuro 6-dong, Kuro-ku Seoul 152-054	Tel. +82 2 862-8051 Fax +82 2 862-8199
Spain			
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Technical Offices	Barcelona	Delegación Barcelona Avda. Francesc Macià, 60 – Planta 16, porta 1 Eix Macià – “Torre Milenium” E-08208 Sabadell (Barcelona)	Tel. +34 93 7162200 Fax +34 93 7233007
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14 Appendix

14.1 Abbreviation key

d₀	Mean diameter of the mounted transmission element	mm
F_{A1}	Axial force at HSS	N
F_{A2}	Axial force at LSS	N
F_F	Peak load factor	-
F_R	Overhung load	N
F_{R zul}	Permitted overhung load	N
F_{R max}	Maximum overhung load	N
F_{Start}	Starting factor	-
F_{S min}	Application-specific service factor	-
F_S	Service factor = $M_{N2} / M_{K2} = P_{N1} / P_{K1}$	-
f_z	Transmission element factor	-
η	Efficiency	-
H	Installation altitude above sea level	m
HSS	High-speed shaft (usually input shaft)	-
i	Gear ratio	-
i_{ex}	Exact gear ratio	-
IP...	Degree of protection of electrical instruments	-
L_{h min.}	Required minimum bearing service life of gear unit	h
LSS	Low-speed shaft (usually output shaft)	-
M_a	Output torque based on motor power	Nm
M_{K1}	Input torque (= operating torque at HSS)	Nm
M_{K1 max}	Peak input torque (= peak operating torque at HSS)	Nm
M_{K2}	Output torque (= operating torque at LSS)	Nm
M_{K2 max}	Peak output torque (= peak operating torque at LSS)	Nm
M_{K2 zul}	Permitted peak output torque	Nm
M_M	Nominal torque of the motor	Nm
M_{N2}	Nominal gear unit torque	Nm
n₁	Input speed	1/min
n₂	Output speed	1/min
n_M	Motor speed	1/min
P_{K1}	Operating power at HSS	kW
P_{K1 max}	Peak operating power at HSS	kW
P_{K1 zul}	Permitted peak operating power at HSS	kW
P_{K2}	Operating power at LSS	kW
P_M	Nominal motor power	kW
P_{N1}	Nominal gear unit power (based on HSS)	kW
t	Time under load within one cycle	sec.

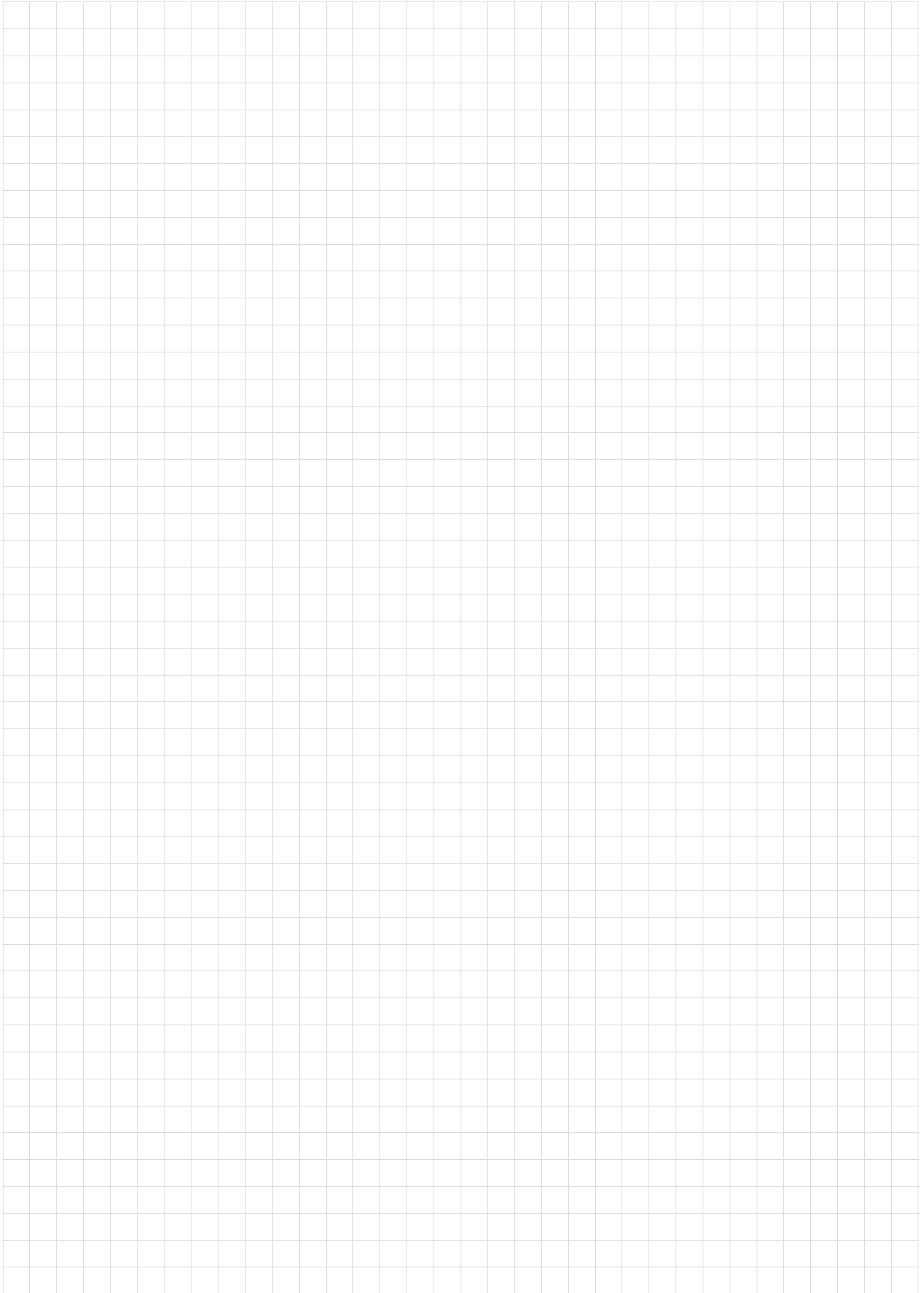


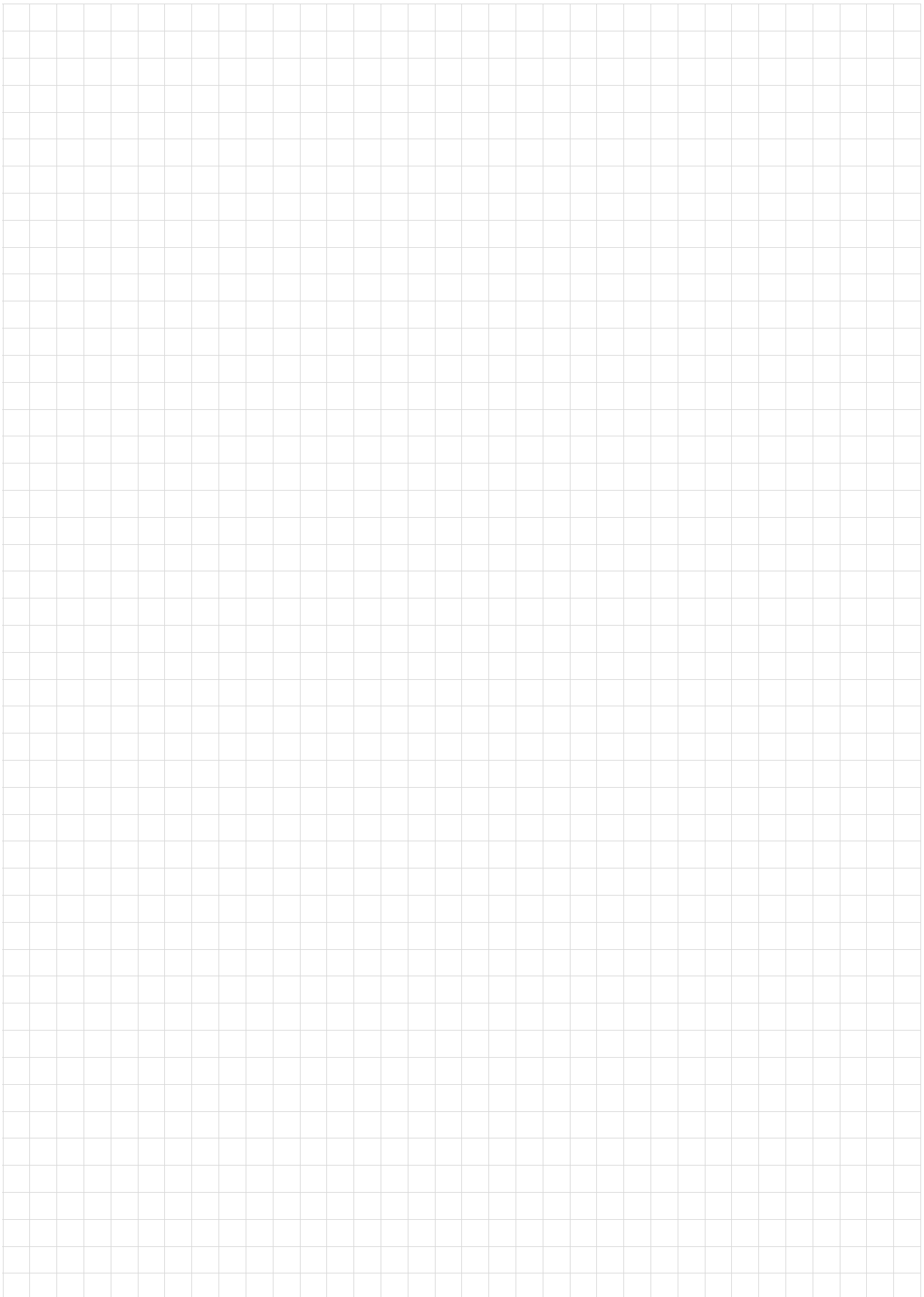
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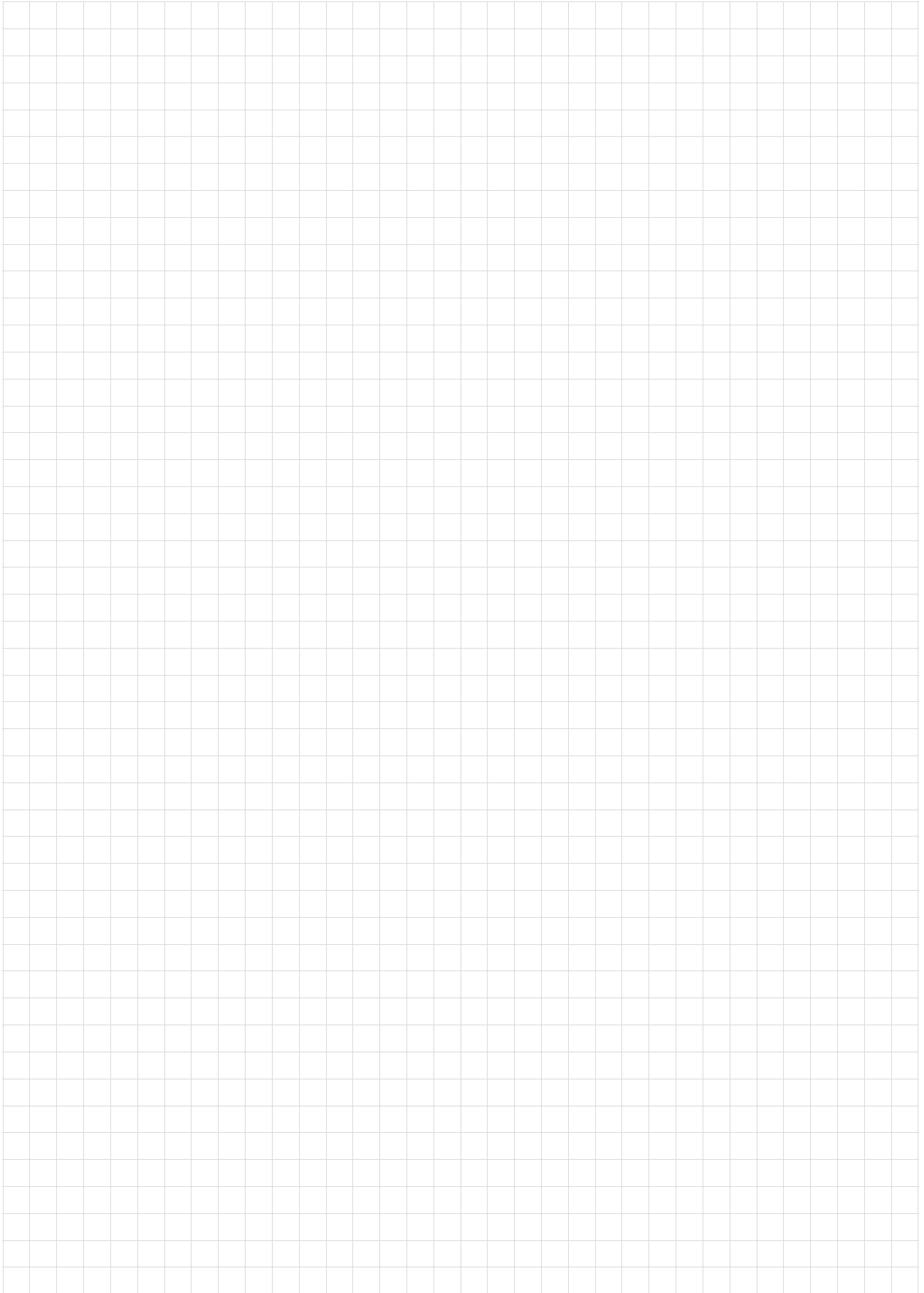
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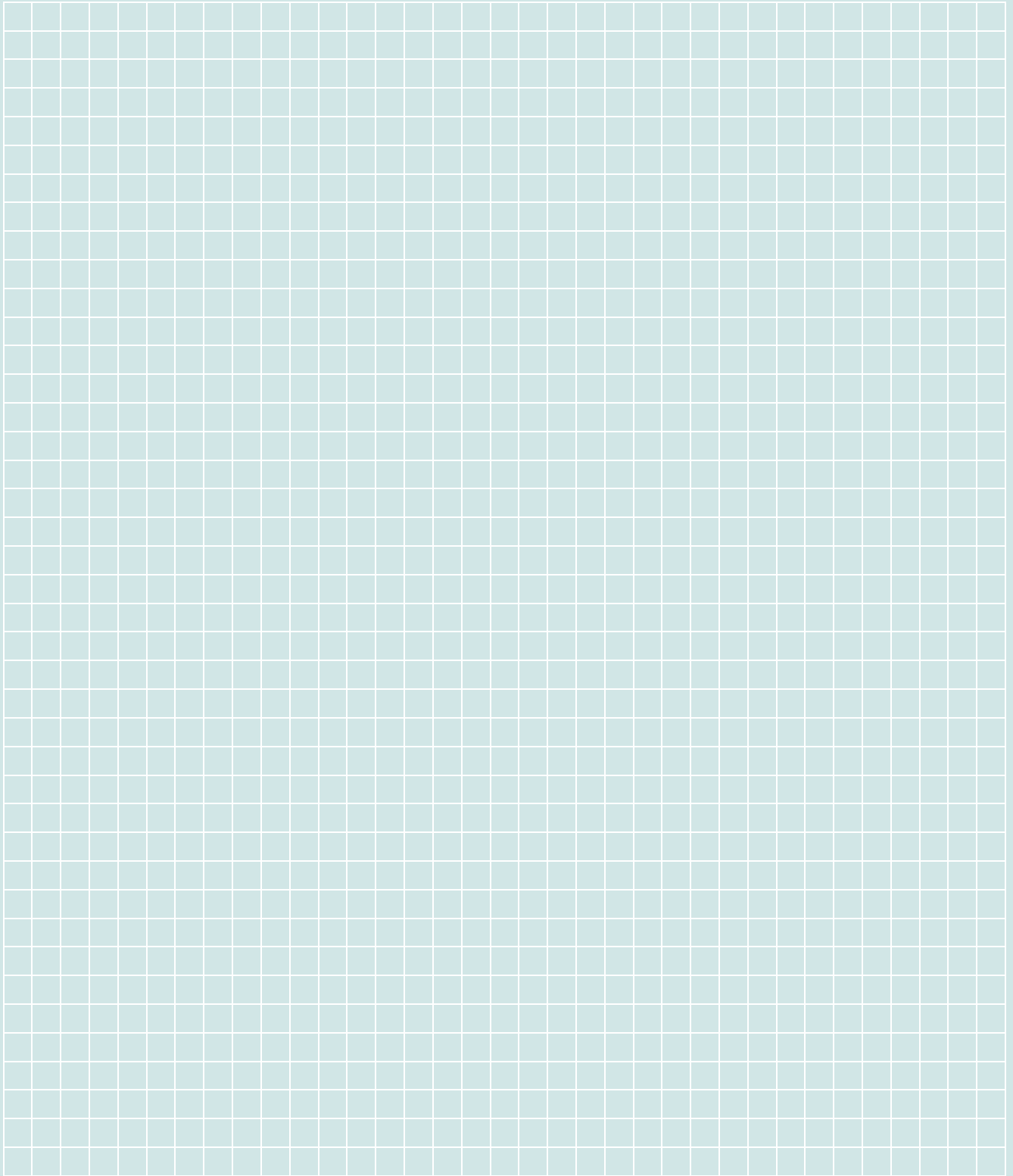


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