Intelligent Drivesystems, Worldwide Services

HIGHER TORQUE
HIGHER POWER

GB

G1050

Industrial gear units SK 11207 – SK 15507

NORD
DRIVESYSTEMS

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NORD WORLDWIDE

Global presence

- **NORD** has subsidiaries in 35 countries
- **NORD** has sales agencies in over 60 countries
- Service and sales partner
- Technical support
- Support for installation and commissioning
- Spare parts management

NORD DRIVESYSTEMS with its headquarters in Bargteheide near Hamburg and subsidiaries in 35 countries is a global company with an extensive range of products and services for electrical, mechanical and electronic drive technology.

With a staff of approx. 2800 in its German factories and international production facilities, NORD produces and distributes drive technology for the global market.

The design of user-specific drive solutions with close customer support from the planning phase right up to commissioning is what makes NORD a strong and dependable partner.

We consider 24-hour service, fast availability and being close to our customers as both a responsibility and an obligation, just as you can expect from a leading drive manufacturer such as NORD.

PRODUCTION SITES

NORD headquarters
Bargteheide

NORD Electronic DRIVESYSTEMS
Aurich

Zahnradwerk NORD
Glinde

Fertigungstechnik NORD
Gadebusch

SOME OF OUR OVERSEAS PRODUCTION FACILITIES

Vieux Thann
France

Nowa Sol
Poland

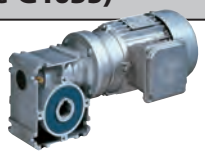
Waunakee, Wisconsin
USA

Suzhou
China

SI and SMI worm gear units, helical gear units, parallel shaft gear units, helical worm gear units, 2 and 3-stage bevel gear units, NORDBLOC.1 gear units

SI worm gear units (Catalogue G1035)

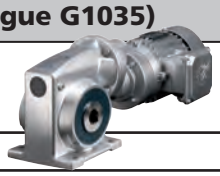
- ✓ Modular
- ✓ universal mounting
- ✓ IEC versions
- ✓ Die-cast aluminium housing



Sizes	5
kW	0,12 – 4,0
Nm	21 – 427
i	5,00 : 1 – 10.000,00 : 1

SMI worm gear units (Catalogue G1035)

- ✓ Smooth surfaces
- ✓ Shaft, foot or flange mounted



Sizes	5
kW	0,12 – 4,0
Nm	21 – 427
i	5,00 : 1 – 10.000,00 : 1

Helical worm gear units (Catalogue G1000)

- ✓ Shaft, foot or flange mounted
- ✓ Hollow or solid shaft
- ✓ UNICASE

Sizes	6
kW	0,12 – 15
Nm	46 – 3.090
i	4,40 : 1 – 7.095,12 : 1

3-stage bevel gear units (Catalogue G1000)

- ✓ Up to 95 % efficiency
- ✓ Shaft, foot or flange mounted
- ✓ Hollow or solid shaft
- ✓ UNICASE

Sizes	11
kW	0,12 – 200
Nm	180 – 50.000
i	8,04 : 1 – 13.432,68 : 1

Parallel shaft gear units (Catalogue G1000)

- ✓ Shaft, foot or flange mounted
- ✓ Hollow or solid shaft
- ✓ Compact design
- ✓ UNICASE

Sizes	15
kW	0,12 – 200
Nm	65 – 90.000
i	4,03 : 1 – 6.616,79 : 1

More power, less weight - the new bevel gear units from NORD DRIVESYSTEMS.

2-stage bevel gear units

- ✓ Up to 97% efficiency
- ✓ Shaft, foot or flange mounted
- ✓ Hollow or solid shaft
- ✓ UNICASE
- ✓ Die-cast aluminium housing
- ✓ From the end of 2011

Sizes	5
kW	0,12 – 9,2
Nm	90 – 660
i	3,55 : 1 – 70 : 1

2-stage bevel gear units (Catalogue G1000)

- ✓ Up to 97% efficiency
- ✓ Shaft, foot or flange mounted
- ✓ Hollow or solid shaft
- ✓ Alternative to worm gear motors
- ✓ UNICASE

Sizes	5
kW	0,12 – 9,2
Nm	45 – 650
i	3,85 : 1 – 72,31 : 1

Helical gear units (Catalogue G1000)

- ✓ Foot or flange mounted
- ✓ UNICASE

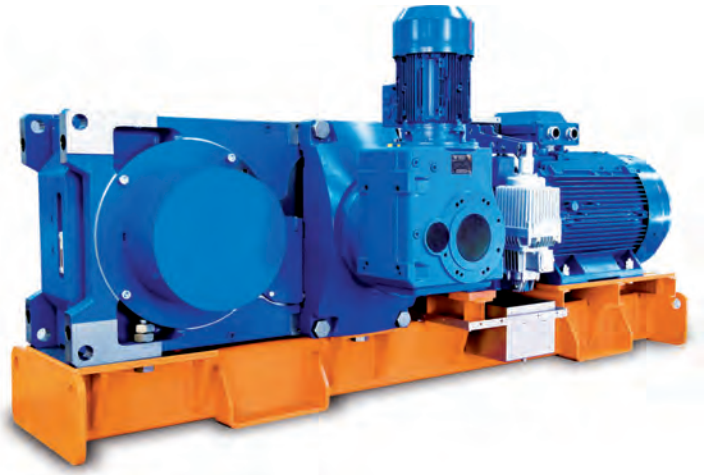
Sizes	11
kW	0,12 – 160
Nm	23 – 23.160
i	1,24 : 1 – 14.340,31 : 1

NORDBLOC. 1 helical gear units (Catalogue G1012)

- ✓ Foot or flange mounted
- ✓ Die-cast aluminium housing (5 sizes)
- ✓ UNICASE
- ✓ Dimensions compliant with industrial standards

Sizes	8
kW	0,12 – 37
Nm	55 – 3.300
i	2,10 : 1 – 456,77 : 1

Industrial gear units, IE2/IE3 motors, components for decentralised drive control, frequency inverter series SK 200E, SK500E, SK700E



Industrial gear units (Catalogue G1050)

- ✓ All bearing points and sealing surfaces are machined in one operation
- ✓ No separating joints in the housing, no sealing surfaces subject to torque
- ✓ High-precision axis alignment, quiet running
- ✓ Long life, low maintenance service
- ✓ Short, compact design
- ✓ Gear ratios from 5,54 to 1.600: 1 with the same foot dimensions
- ✓ Parallel axis and right-angled gear units

Sizes	4
kW	2,2 – 1.000
kNm	74/101/141/242
i	5,54:1 – 1.600:1

IE2/IE3 motors and components for decentralised drive control (Catalogue M7000)

Single and 3-phase electric motors up to 200 kW.
Further range of starters and components for decentralised drive control.

SK 200E (Flyer F3020)

- ✓ "Safe stop" as per EN 954-1
- ✓ Commissioning via integrated DIP switches and potentiometer possible
- ✓ Energy-saving function
- ✓ Ethernet-based BUS systems
- ✓ Performance grading according to application
- ✓ Decentralised modules combined as a system
- ✓ Integrated "Posicon" positioning control
- ✓ On board AS interface versions

Sizes	4
U[V]	1~100 … 120 ± 10% 1~200 … 240 ± 10% 3~200 … 240 ± 10% 3~380 … 500 -20% / +10 %
P[kW]	0,25 –22

SK 500E (Flyer F3050)

- ✓ Compact design
- ✓ Energy-saving function
- ✓ Performance grading according to application (e. g. "Posicon" positioning control)
- ✓ Plug-in modules for control and communication (field bus)
- ✓ Ethernet-based BUS systems

Sizes	10
U[V]	1~110 … 120 ± 10% 1/3~200 … 240 ± 10% 3~200 … 240 ± 10% 3~380 … 480 -20% / +10 %
P[kW]	0,25 – 132 * * from 3rd quarter 2012

SK 700E (Flyer F3070)

- ✓ Flexible due to interchangeable modular expansion cards (e. g. "Posicon" positioning control)
- ✓ Plug-in modules for control and communication (field bus)
- ✓ Self-detecting modules
- ✓ Various field bus systems

Sizes	8
U[V]	3~380 … 480 – 20 % / +10 %
P[kW]	1,5 – 160

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DESCRIPTION OF GEAR UNITS

NORD industrial gear units have been developed according to the well-proven UNICASE housing design. The unicase concept features highest levels of precision, rigidity and strength. There are no parting lines in the housing which are subjected to torques or radial loads.

The UNICASE principle enables a more compact design and the use of larger roller bearings, which guarantee a long operating life. Ease of service of the gear unit is ensured by a large assembly cover on the face plate of the gear unit.

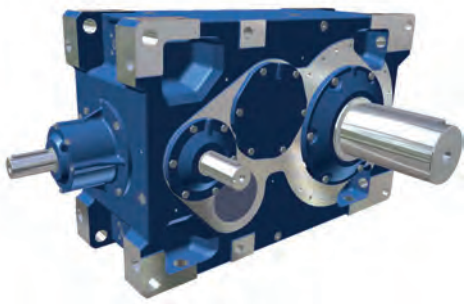
The housings are made of cast iron. Cast iron with spheroidal graphite can be supplied on request.

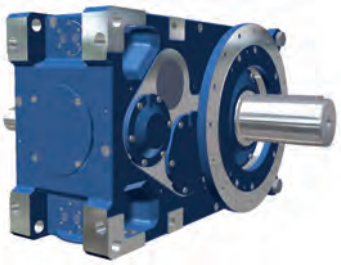
The gears are made of high alloy steels and case hardened. Optimised geometries and precise shaft alignment due to the UNICASE provide excellent load-bearing capacity, long operating life and low noise. The gearing, bearings and shafts are calculated according to DIN 3990, DIN ISO 281 and DIN 743 for all powers and speeds in this catalogue. All NORD gear units provide the very highest levels of safety and reliability.

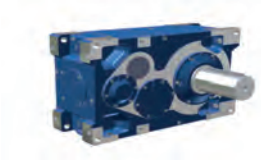
The bearings and gears run in an oil bath. Oil circulation lubrication is available as an option. In addition to positive parallel key fitting, the gears also have a press-fit between the shaft and the hub.

Standard shaft seals are NBR qualtity. As an option FKM (Viton) seals are available.

For special ambient conditions, other sealing systems such as gamma-ring seals, labyrinth seals and Taconite seals are available. In case of other specialised sealing requirements please contact us.







Vertical and horizontal mounting positions

For the determination of the thermal limits power for standing and vertical installation positions (M2, M4, M5, M6) consultation with NORD is required.

For vertical shafts the gear units are filled with special oil quantities and for particular types, equipped with specially sealed, grease-lubricated bearings. This results in a higher temperature rise of the gear units.

NORD recommends to use an oil circulation lubrication system to avoid such higher temperature rise due to increased oil-splashing.

For vertical and top mounted motors (installation position M4) and gear ratios <20, oil expansion chambers are strongly recommended, in order to prevent the escape of oil through the air vent. Please contact us, so that we can suggest a solution adapted to your particular drive application.

Outdoor installation

For installation outdoors, in damp or wet environments or use in the tropics, special seals and anti-corrosion measures are required. Please state these applications when ordering.

Special ambient conditions

In case of special ambient conditions, including during transport or storage prior to commissioning, these should be observed already in the planning stage of the project. Please contact us.
Special ambient conditions are, e.g.:

- aggressive or corrosive substances in the environment (e.g. contaminated air, gases, acids, alkalis, salts etc.)
- Very high humidity, or contact of the gear unit motor with liquids
- Severe dirt, dust or sand deposits on the gear unit motor
- Severe fluctuations of air pressure
- Radiation
- Extremely high or low ambient temperatures or rapid changes in temperature
- Vibrations, accelerations, shocks, blows or other abnormal ambient conditions

Storage before commissioning

Prior to commissioning the gear units and geared motors must only be stored in dry rooms. For longer periods of storage, special measures are necessary. If required, please request the special instruction leaflet "Long-term Storage".

Ventilation

As standard the gear units have a vent which compensates for damaging differences in air pressure between the interior of the gear unit and the environment. On delivery this vent is closed. Prior to commissioning, the vent must be activated by removing the sealing plug. Pressure relief vents are available as an option.

Drives for ventilators, agitators, mixers and fans

Usually severe operating conditions apply for applications such as ventilators, agitators and mixers e.g. in water treatment plants and process technology as well as fan drives in cooling towers.

- 24-hour continuous operation at nominal torque or nominal power
- large inertia at the output with low transmission ratios
- Vibrations in the drive chain, and with direct positioning of the mixer or fan shaft in the gear unit, high oscillating bending moments and forces on the drive shaft
- vertical configuration
- Outdoor installation, i.e. humidity and aggressive media, as well as severe changes in temperature with the formation of condensation
- High environmental protection is required, i.e. complete sealing, safe oil servicing and a low noise level.

From experience, NORD has developed a package of special measures to cater for these special conditions of use. Therefore NORD urgently recommends that these special measures are provided. Please contact us.

SELECTION OF GEAR UNITS

The following important instructions on selcetion of gear units must be strictly observed otherwise an overloading of the drive is probable and in such a case the warranty is void.

Workflow

The following diagram should be of assistance in selecting the gear unit. The individual steps are then described in detail.

Enquiry

↓

(1) Recording of customer's requirements
Form "Determination of basic data"

↓

(2) Choose selection procedure
A1 - Selection according to installed motor power [1)]
A2 - Selection according to machine/Application

↓

(3) determination of missing basic data (A1)
given: n_{1N}, f_B [2)], P_1
determine: n_2 or i

↓

4) Pre-selection of gear unit from drive data
Helical gear units⇨🕮 70
Bevel helical gear units ⇨🕮 96

↓

(3) Determine the data for the application (A2)
given: n_2, f_B [2)], P_2 or M_2 [3)]
determine: f_M , P_N, M_{2max}

↓

(4) Pre-selection of gear unit from output data
Helical gear units⇨🕮 70
Bevel helical gear units ⇨🕮 96

↓

(5) Motor power
determination of motor power
with nominal efficiency η_N

↓

(6) Check of peak loads (B)
Check conditions fulfilled, then continue with **(7)**, otherwise, return to **(4)** and select larger gear unit

→ continue with **(7)** on the next page

Continued from previous page

(7) Check of thermal power limit (C):
Calculation of thermal power limit

$$P_{WG} = P_{t0.20} \cdot f_t \cdot f_v \cdot f_H \cdot f_{ED} \cdot f_Ö \cdot f_A + P_{tF.20} \cdot f_L \cdot f_H \cdot f_n + P_{tC.20} \cdot f_w + P_{CS}$$

(8) Additional forces on input and output (F_R, F_A)
Please consult us if the additional external forces exceed the permissible value

(9) Gear unit designs and additional options

- Shaft types and positions
- Motor coupling, coupling,
- Drive package for belt drives,
- oil drain tap, oil level indicator
- Alternative sealing system
- Auxiliary drive unit, brakes
- Status monitoring
- Surface protection and final colour
- etc.

(10) Documentation
Summary of technical information
Quantity and required delivery date

Note on workflow:

1) only permissible for standard ambient conditions (⇨ 11)
2) Specified or according to applications table⇨ 14
3) Variable loads at constant speeds must be converted to an average torque

Gear unit selection

Determination of basic data (specification)

Customer

Contact _____

Tel.: _____ E-mail _____

Field of application / Industry [1] / Country

_____

Application [1] **Quantity**

_____

Gear unit type

- ☐ Helical gear unit SK .. 207 / SK.. 307
- ☐ Bevel helical gear unit SK .. 407 / SK ..507

Installation environment of gear unit

- ☐ Small space ($v_L \geq 0{,}5$ m/s)
- ☐ Large rooms and halls ($v_L \geq 1{,}4$ m/s)
- ☐ Outdoors, shaded from sun ($v_L \geq 3$ m/s)

Ambient conditions

- ☐ Normal ☐ Corrosive
- ☐ Dusty ☐ Dry
- ☐ Damp ☐ Seawater ☐ _____

Required output speed n_2 [1/min]

Normal _____ Min. _____ Max. _____

Drive speed n_1 [1/min]

Normal _____ Min. _____ Max. _____

Speed ratio

soll _____ Min. _____ Max. _____

Operating power of drive P_1 [kW]

Normal _____ Min. _____ Max. _____

Operating torque of drive M_2 [kNm]

Normal _____ Min. _____ Max. _____

Required operating factor f_{Bmin} _____

related to ☐ Motor power P_M / Motor torque M_M
☐ Operating power P_2 / Operating torque M_2

Ambient temperature [°C]

Normal _____ Min. _____ Max. _____

Site altitude [m] _____ above sea level

Required bearing life $L_{h\ min}$

_____ Hours

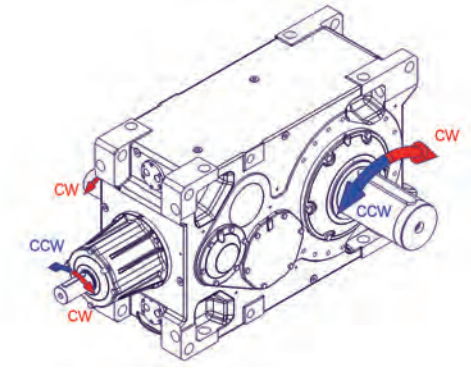
Time of operation hours/day

- ☐ ≤ 0.5 hours
- ☐ 0.5 ...10 hours
- ☐ > 10 hours

Switch-on time _____%

Frequency of peak loads /Number of start-ups

_____ per hour



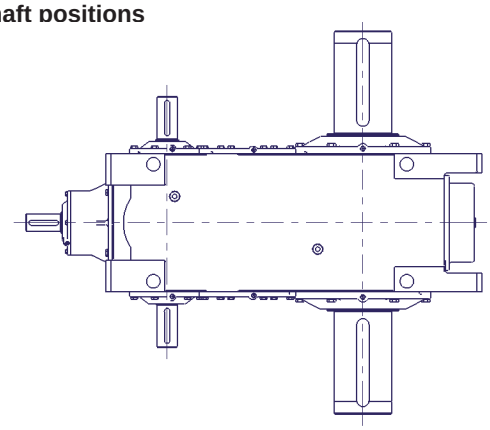
Direction of rotation under load (output, plan view)

- ☐ Single direction ☐ CW ☐ CCW
- ☐ Both directions
- ☐ Reversible

Backstop required

- ☐ Yes ☐ No

Shaft positions

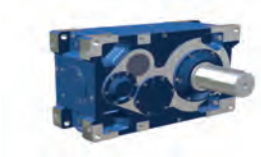


Position [2] **Mounting surface [3]**

☐ M1	☐ M4	☐ F1	☐ F4
☐ M2	☐ M5	☐ F2	☐ F5
☐ M3	☐ M6	☐ F3	☐ F6

_____

[1] See catalogue G1050 ⇨ 🕮 14
[2] See catalogue G1050 ⇨ 🕮 59
[3] See catalogue G1050 ⇨ 🕮 61



Drive type:

☐ Three-phase motor ☐ Inverter

☐ Other _____

Frequency inverter operation

☐ Yes ☐ No

If electric motor:

☐ IEC ☐ NEMA ☐ Size: _____

Motor version

☐ B3 (foot-mounted) ☐ B5 (flange-mounted)

☐ Other _____

Coupling on output side

☐ Elastic coupling

☐ Flexible coupling

☐ Other _____

Gear unit attachment

☐ Foot

☐ Flange

☐ Torque support

☐ Other _____

Output shafts

☐ Solid shaft with keyway

☐ Hollow shaft with keyway

☐ Hollow shaft with shrink disc

☐ Other, see sketch _____

Connection of motor to gear unit

☐ Free shaft end

☐ Motor adapter with elastic coupling

☐ Motor swing base/Base frame

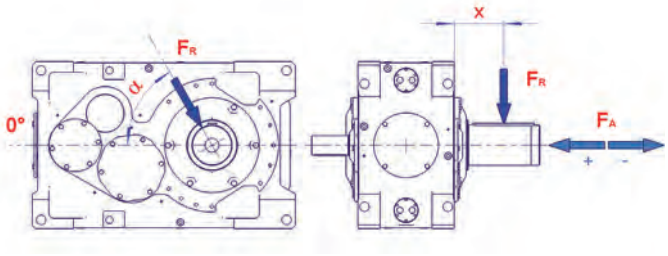
☐ Other, see sketch _____

Machine shaft bearing

☐ Two bearings, gear unit only transmits torque

☐ Other, see sketch _____

Axial and radial forces



Drive: _____

Output: _____

Permissible cooling (if necessary)

	Approved	Not approved
Fan	☐	☐
Cooling cover / cooling cartridge	☐	☐
External oil/air cooler	☐	☐
External oil/water cooler	☐	☐

Cooling water available Yes ☐ No ☐

Cooling water temperature _____ °C

Type of cooling water (sea water, pond water, ...)

_____

ATEX explosion protection

Explosion protection necessary Yes ☐ No ☐

To be filled in by NORD staff for ATEX

Enquiry No. _ _ - _ _ _ _ _ - _ _ _ _ - 0 _ _ _

Country - Year Month Day - Hour Minute Dictation ref.

ADDITIONAL INFORMATION:

Gear unit selection

Gear unit selection procedure

NORD provides two methods of determining a suitable gear unit for the particular application. Three selection steps are necessary:

A) Pre-selection of gear unit (two methods)

B) Check of peak loads

C) Check of thermal power limit

The following ambient conditions are specified as standard:

- Ambient temperature: 20°C
- Air circulation at installation location large hall with good air circulation ($v_L \approx 1.25$ m/s)
- Installation: Foundation as steel sub-construction
- Installation altitude: ≤ 1000m above sea level
- Installation position Horizontal installation (M1 or M3)
- Type of lubrication: Oil-bath lubrication (immersion lubrication)
- Cooling water inlet temperature: 20°C

The data in the selection tables are permissible for input speeds up to n_{1N} = 1800 min^{-1}, for speeds in excess of these, consultation with NORD is necessary. For speeds n_1 < 1000 min^{-1} n_1 = 1000 min^{-1} may be used for the selection.

Selection of gear unit according to installed motor power (A1)

Selection of the gear unit according to the installed motor power P_1 is a simplified procedure, which assumes asynchronous three-phase motors manufactured by NORD, and which can also be used for technically equivalent motors. In case of doubt, procedure (A2) should be used. For the use of other motors, please contact NORD.

Specifications:

- Nominal motor speed $\mathbf{n_{1N}}$ = 1500 min^{-1} (alternative: $\mathbf{n_{1N}}$ = 1000 min^{-1})
- Drive speed $\mathbf{n_2}$ or required gear ratio $\mathbf{i_{soll}}$
- Motor power $\mathbf{P_1}$ (installed motor power!)
- Required application factor $\mathbf{f_B}$

Consultation with NORD is required in case lower factors than specified in table ⇨🕮 14 are to be used.

With this data, the selection of the gear unit according to motor power ($\mathbf{P_1}$) and application factor ($\mathbf{f_B}$) can be made.

The power tables are based on the rounded off nominal (rated) speeds n_{1N} and the calculation efficiency ηN = 1.0.

The precise calculation for the motor cable (P1) is described in the following chapter

Selection of parallel shaft gear units ⇨🕮 70

Selection of right-angled gear units ⇨🕮 96

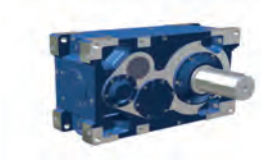
Selection of gear units via the requirements of the machine / application (A2)

Specifications:

- Nominal motor speed $\mathbf{n_{1N}}$ = 1500 min^{-1} (alternative: $\mathbf{n_{1N}}$ = 1000 min^{-1})
- Drive speed $\mathbf{n_2}$ or required gear ratio $\mathbf{i_{soll}}$
- Torque for application ($\mathbf{M_2}$) or the drive output of the gear unit ($\mathbf{P_2}$) are known
- Collective loads **<u>with constant speed</u>** can be converted to an average torque for selection purpose according to the following formula:

$$M_2 = \sqrt[6,6]{(M_{2.1})^{6,6} \cdot \frac{t_1}{t_{ges}} + (M_{2.2})^{6,6} \cdot \frac{t_2}{t_{ges}} + ... + (M_{2.n})^{6,6} \cdot \frac{t_n}{t_{ges}}}$$

where $M_{2.1}$ … $M_{2.n}$ - various torques
t_1 … t_n - time period for load
t_{ges} - total of time periods




Selection:

Application:	Application factor $\mathbf{f_B}$	(⇨🕮 14)
Drive machine:	Drive factor $\mathbf{f_M}$	(⇨🕮 19)

With this data, drive unit selection according to torque $\mathbf{M_{2max}}$ or drive output $\mathbf{P_N}$ can proceed.

$$M_{2max} \geq M_2 \cdot f_B \cdot f_M \quad \text{or} \quad P_N \geq P_2 \cdot f_B \cdot f_M$$

$\mathbf{M_{2max}}$	maximum output torque	[kNm]
$\mathbf{P_N}$	Nominal output power	[kW]

Selection of parallel shaft gear units ⇨🕮 70

Selection of right-angled gear units ⇨🕮 96

The required motor power can be determined from the nominal efficiency (η_N - ⇨🕮 19) of the selected drive unit according to:

$$P_1 \geq \frac{M_2 \cdot n_{1N}}{9.55 \cdot i_N \cdot \eta_N}$$

$\mathbf{P_1}$	Motor output	[kW]
$\mathbf{n_{1N}}$	Nominal drive speed	[min^{-1}]
$\mathbf{i_N}$	NNominal gear ratio	[-]

If necessary, the installed motor output can be rounded up to the next standard power. The maximum output torque $\mathbf{M_{2max}}$ must not be exceeded

$$M_{2max} \geq \frac{9.55 \cdot P_1 \cdot i_{ges} \cdot \eta_N \cdot f_B \cdot f_M}{n_1}$$

$\mathbf{n_1}$	Motor speed	[min^{-1}]
$\mathbf{i_{ges}}$	exact ratio	[-]

Check of peak loads (B)

In the second step, the gear unit selected under (A1) or (A2) is checked as to whether the expected peak loads are permissible. For installed drive brakes e.g. brake motors, the brake torque must be considered for the selection of the gear unit.

Specifications:

- Peak load torque to the input (M_{1Peak}) due to start-up and brake action
- Peak load torque at drive output (M_{2Peak}) by the application due to load fluctuations

Calculation of peak load torque:
The peak load torques are the highest torques which occur. A check as to whether these peak loads are permissible is performed according to the calculation below.

a) Input side / Motor:
With the peak load factor f_S (⇨🕮19) the following conditions for checking result:

$$M_{2max} \geq M_{1Peak} \cdot i_{ges} \cdot \eta_N \cdot f_S$$

M_{1Peak}	Peak load torque of the motor	[kNm]

Often, the peak load torque M_{1Peak} of the output is not known. This can be taken into account via the start-up factor f_{AN} (⇨🕮19) as follows:

$$M_{2max} \geq \frac{P_1 \cdot 9.55 \cdot i_{ges} \cdot \eta_N}{n_1} \cdot f_{AN} \cdot f_S$$

b) Output side / Application / Machine:

$$M_{2max} \geq M_{2Peak} \cdot f_S$$

M_{2Peak}	Peak load torque of the machine	[kNm]

If one of the above conditions does not apply, the peak load torques are too high or the gear unit is too small. A larger size gear unit must be selected.

Check of thermal power limits (C):

The thermal power limit states the permissible power which the gear unit can transmit over long periods (>3h) without exceeding the permissible oil temperature being exceeded.

If the drive unit was selected according to the installed motor power (A1), in column $\mathbf{P_{t0.20}}$ of the power tables, the thermal power limit ($\mathbf{P_{WG} = P_{t0.20}}$) can be read off directly for these ambient conditions. In addition, in column CS a cooling unit size (A to H) is listed if necessary, or if the cooling is sufficient the option FAN and integrated water cooling (CC) is listed.

For gear unit selection according to method (A2), the limiting values are to be taken from the thermal power limit tables

Helical gear units ⇨📖 71
Beve helical gear unit ⇨📖 97

For the previously stated ambient conditions and an ambient temperature of 40°C the following thermal thermal limit power limits ($\mathbf{P_{WG} = P_{t..}}$) can be read off directly:

- Convection cooling $\mathbf{P_{t0..}}$
- Convection and fan $\mathbf{P_{tF..}}$
- Convection and integrated water cooler $\mathbf{P_{tC..}}$

Differing ambient conditions can be taken into account by means of factors as follows:

$\mathbf{P_{WG}} = P_{t0.20} \cdot f_t \cdot f_v \cdot f_H \cdot f_{ED} \cdot f_Ö \cdot f_A$ (Gear unit)

$+ P_{tF.20} \cdot f_L \cdot f_H \cdot f_n$ (with attached fan)

$+ P_{tC.20} \cdot f_w$ (with integrated water cooler)

$+ P_{CS} \cdot f_w$ or $\cdot f_L$ (with cooling unit)

with $P_{CS} = Q_{CS} / (1 - \eta_N)$,

Q_{CS} is the cooling power of the cooling unit.

For the necessary factors please refer to the tables from ⇨📖 19. The determined thermal power limit must be higher than the power absorbed by the gear unit:

$\mathbf{P_{WG} > P_M}$ AND $\mathbf{P_{WG} > P_1}$

It is in our mutual interest to avoid problems. In case of critical or unclear application conditions please consult NORD.

Important information regarding thermal power limits:

Please consult us if no factors are available for the ambient conditions of your application.

We recommend consultation with NORD and a more precise check of the application if two or more of the following points apply:

- Vertical or upright configuration (installation position M2, M4, M5 or M6 ⇨📖 59)
- Input power $P_1 > 500$ kW
- Ratio $i_{ges} < 12$ (for bevel gear units $i_{ges} < 24$)
- Input speeds $n1 > 1500$ min^{-1}
- Increased ambient temperature > 40°C

For installation outdoors, adequate shading from the sun must be provided If this is not possible, please consult us.

In general, please consult NORD if there are special installation conditions, e.g. enclosing of the gear unit, heat radiation, installation in confined spaces etc. Special measures are available to prevent thermal overload (oil coolers etc).

The thermal power limit is also influenced by the following factors, which should be considered for the correct selection of the gear unit.

- Heat transfer to adjoining surfaces
- Mechanical loading of the gear unit
- Type of gear unit
- Ratio
- Input speed
- Size of gear unit
- Lubricant used
- Height of oil level
- Switch-on time
- Additional cooling systems

Radial and axial forces

The gear unit selection tables list the permissible radial forces F_R and axial forces F_A which may act on the journals of the drive shafts.

The forces listed apply for foot-mounted and flange-mounted gear units with solid shafts. The forces stated refer to the case in which the radial and axial forces are not applied simultaneously.

In addition, the forces stated in the overview tables for power and speed are based on an operating factor for the radial and axial forces f_{BF}=1. For suddenly applied forces and long running periods (> 8 hours/day) an appropriate operating factor f_{BF} >1 must be considered for the radial and axial forces. The permissible radial forces F_R and axial forces F_A are then reduced accordingly.

The radial forces refer to a point of action of the force at the midpoint of the shaft length. For the determination of the permissible radial forces, the most unfavourable direction of application of the force and direction of rotation were assumed. For the determination of the axial forces, the most unfavourable direction of force and rotation was also assumed. Higher radial and axial forces may be possible - for a precise calculation, please state the actual direction of the force and the rotation as well as the required operating life.

If transmission elements are attached to the output shaft, the corresponding factor (f_z) must be applied for the determination of the radial forces which occur.

Radial force factor f_z

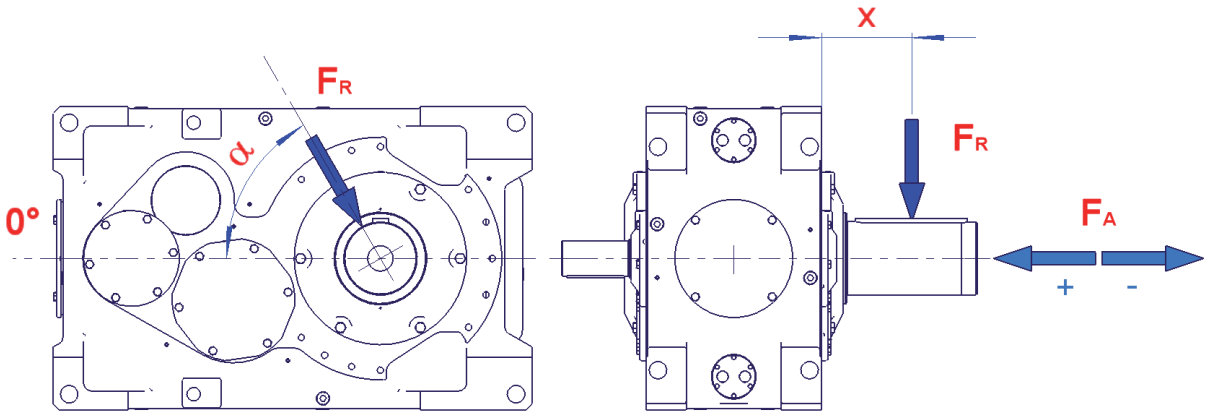
Transmission elements	f_z	Notes
Gear wheels	1.1	z ≤ 17 teeth
Chain wheels	1.4	z ≤ 13 teeth
Chain wheels	1.2	z ≤ 20 teeth
Narrow V-belt pulleys	1.7	through pre-tensioning force
Flat belt pulleys	2.5	

The radial force on the output shaft is determined as follows:

$$F_{Rvorh} = \frac{2 \cdot M_2}{d_o} \cdot f_z \leq F_R$$

F_{Rvorh}	radial force on the Gear unit shaft	[kN]
F_R	permissible radial force according to speed and power tables	[kN]
M_2	Gear unit output torque	[Nm]
f_Z	Radial force factor from table	
do	Effective diameter	[mm]

For application of force other than at the midpoint of the shaft and on the input shaft (e.g. due to a belt drive or gear wheel on the input) consultation with NORD is necessary.



Design factors

Operating factors f_B

The operating factor prescribes the minimum safety factor for various applications, which takes into account the usual conditions for the particular applications. If customers operating factors are known for the application, these should be used, if they are not less than the NORD values. If no values are available for the application, consultation with NORD is necessary, in order to jointly determine suitable operating factors.

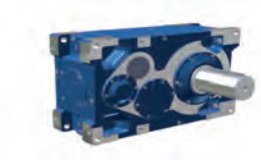
Operating factors - f_B			
Application:	**Actual time of use under load per day (hours)**		
	≤ 0,5	**> 0,5 ... 10**	**> 10**
WASTE WATER			
Concentrator (central drive)	1,15	1,25	1,50
Filter presses	1,00	1,30	1,50
Vacuum filter	1,15	1,30	1,50
Floculation agitator	0,80	1,00	1,30
Aerator	2,00	2,00	2,00
Circular aerator	–	1,80	2,00
Brush aerator	–	–	2,00
Screening plant	1,00	1,20	1,30
Circular and longitudinal scrapers	1,00	1,30	1,50
Collectors	1,15	1,25	1,50
Sludge collectors	1,25	1,25	1,25
Pre-concentrator	–	1,10	1,30
Sludge compressor	1,50	1,50	1,50
Achimedian screw water pumps	–	1,30	1,50
Water turbines	–	–	2,00
Settling tanks	1,00	1,00	1,25
Chemical substance loaders	1,25	1,25	1,25
Dehydration screens	1,50	1,50	1,50
Slag crushers	1,50	1,50	1,50
Slow or fast mixers	1,50	1,50	1,50
PUMPS			
Impeller pumps	1,15	1,35	1,45
Displacement pumps			
1 Piston	1,35	1,50	1,80
> 1 Piston	1,20	1,40	1,50

EXCAVATORS			
Bucket chain	–	1,60	1,60
Tippers	–	1,30	1,50
Tracklaying vehicles	1,20	1,60	1,80
BUCKET WHEELS			
as pick-ups	–	1,70	1,70
for original material	–	2,20	2,20
Cutting heads	–	2,20	2,20
Slewing gear [1)]	–	1,40	1,80

Operating factors - f_B			
Application:	**Actual time of use under load per day (hours)**		
	≤ 0,5	**> 0,5 ... 10**	**> 10**
DREDGERS			
Conveyors	1,25	1,25	1,50
Cutting head drives	2,00	2,00	2,00
Screens	1,75	1,75	2,00
Stackers	1,25	1,25	1,50
Hoisting winches	1,25	1,25	1,50

MINING			
Crushers	1,55	1,75	2,00
Vibrators and screens	1,55	1,75	2,00
Slewing gear	–	1,55	1,80
BUCKET WHEEL EXCAVATORS			
Grinding machine for sand	1,25	1,25	1,50
Hammer mills	1,75	1,75	2,00

CHEMICAL INDUSTRY			
PLASTICS			
Extruders	–	–	1,60
Extruders (plastics)	–	1,40	1,60
- with variable speed	1,50	1,50	1,50
- with fixed speed	1,75	1,75	1,75
Batch kneaders	1,75	1,75	1,75
Continuous mixers	1,50	1,50	1,50
Mixing plant	1,25	1,25	1,25
Calenders	1,50	1,50	1,50
Blower units	1,50	1,50	1,50
Coating	1,25	1,25	1,25
Films	1,25	1,25	1,25
Pre-shredder	1,50	1,50	1,50
Bars	1,25	1,25	1,25
Sheets	1,25	1,25	1,25
Tubes	1,25	1,25	1,50
RUBBER			
Extruders (rubber)	–	1,50	1,80
Rubber kneader	–	1,80	1,80
Continuous mixers	1,50	1,50	1,50
Refiners - two-cylinder	1,50	1,50	1,50



Operating factors - f_B			
Application:	**Actual time of use under load per day (hours)**		
	≤ 0.5	**> 0.5 ... 10**	**> 10**
Rubber rollers (2 in series)	1,55	1,75	2,00
Rubber rollers (3 in series)	–	1,50	1,75
Heating rollers	1,35	1,50	1,75
Rubber calenders	–	1,50	1,50
Calenders	–	1,65	1,65
Cooling drums	–	1,30	1,40
Mills	1,55	1,75	2,00
Sheet rollers	1,55	1,75	2,00
Refining rollers	1,55	1,75	2,00
MIXERS			
for homogeneous material	–	1,35	1,40
for inhomogeneous material	1,40	1,60	1,70
AGITATORS FOR AGITATED MATERIALS			
with uniform density	–	–	1,50
with varying density	–	–	1,65
with uneven gassing	–	–	1,80
Toasters	1,00	1,30	1,50
Centrifuges	1,00	1,20	1,30

IRON SMELTING METAL PRODUCTION AND PROCESSING			
Sheet turning device	1,00	1,00	1,20
Block press	1,00	1,20	1,20
Reelers	–	1,60	1,60
Cooling bed scrapers	–	1,50	1,50
Sheet pusher	1,50	1,50	1,50
Winders / Coiling machines	–	1,60	1,75
Cutting rollers	1,55	1,75	2,00
Wire-pulling machines	1,35	1,50	1,75
Sheet metal bending machines [1]	–	1,00	1,00
ROLL-ALIGNING MACHINES			
Roller conveyors - continuous	–	1,50	1,50
Roller conveyors - intermittent	–	2,00	2,00
Tube reversing	–	1,80	1,80
SHEARING			
General	2,00	2,00	2,00
Continuous cutting [1]	–	1,50	1,50
Cranked cutting [1]	1,00	1,00	1,00
Continuous casting drivers [1]	–	1,40	1,40

Operating factors - f_B			
Application:	**Actual time of use under load per day (hours)**		
	≤ 0.5	**> 0.5 ... 10**	**> 10**
ROLLERS			
Sheet metal reversing	–	2,50	2,50
Sheet slab reversing	–	2,50	2,50
Wire reversing	–	1,80	1,80
Thin sheet metal reversing	–	2,00	2,00
Thick sheet metal reversing	–	1,80	1,80
Roller adjusters	0,90	1,00	–

ENERGY			
Frequency converters	–	1,80	2,00
Water wheels	–	–	1,70
Water turbines	–	–	2,00
Electricity generators	1,00	1,00	1,25

CONVEYOR PLANT			
Bucket conveyors	–	1,40	1,50
Bucket conveyors with centrifugal emptying	1,15	1,15	1,25
Conveyor reels	1,40	1,60	1,60
LOADERS			
Plate feeder	1,25	1,25	1,50
Belt feeder	1,15	1,15	1,50
Table feeder	1,00	1,00	1,25
Swivelling loader	1,75	1,75	2,00
Helical loader	1,15	1,25	1,50
Conveyers	–	1,50	1,80
Evenly distributed load	1,15	1,15	1,25
Heavy duty	1,25	1,25	1,50
Unevenly distributed load	1,25	1,25	1,50
Belt conveyors ≤ 100 kW	1,15	1,25	1,40
Belt conveyors > 100 kW	1,15	1,30	1,50
Goods lifts [1]	–	1,20	1,50
Vertical conveyors - other	–	1,50	1,80
Passenger lifts [1]	–	1,50	1,80
Slat conveyors	–	1,25	1,50
Vibrators and screens	1,55	1,75	2,00
Swinging or vibrating conveyors	1,75	1,75	2,00
Escalators	1,15	1,25	1,55
Rail vehicles	–	1,50	–

[1] Select according to the maximum torque
[2] Precise categorisation of the load can be carried out e.g. according to FEM1001.
[3] Thermal investigation is generally necessary

Gear unit selection

Operating factors - f_B			
Application:	**Actual time of use under load per day (hours)**		
	≤ 0.5	**> 0.5 ... 10**	**> 10**
ELEVATORS			
Loading	1,25	1,25	1,50
Gravity emptying	1,15	1,15	1,25
HOISTING WINCHES [1]			
Heavy duty	1,75	1,75	2,00
Medium duty	1,25	1,25	1,50
Inclined lifts	1,25	1,25	1,50

WOOD INDUSTRY			
GENERAL			
Debarking machines - spindle feed	1,25	1,25	1,50
Main drive	1,75	1,75	1,75
Conveyors - Burners	1,25	1,25	1,50
Main or heavy duty	1,50	1,50	1,50
Main trunk	1,75	1,75	2,00
Sawing, carousel	1,25	1,25	1,50
CONVEYORS			
Plate	1,75	1,75	2,00
Transfer	1,25	1,25	1,50
CHAINS			
Floor	1,50	1,50	1,50
Green wood	1,50	1,50	1,75
MANUAL SAWING			
Chain	1,50	1,50	1,75
Work driver	1,50	1,50	1,75
Paring cylinder	1,75	1,75	2,00
FEEDS			
Trimming machine	1,25	1,25	1,50
Multiple blades	1,75	1,75	1,75
Cutter	1,25	1,25	1,50
Stacked trunks	1,75	1,75	1,75
Trunk conveyor - ramp with wheels	1,75	1,75	1,75
Trunk tipping device	1,75	1,75	1,75
Planing machine feed	1,25	1,25	1,50
Trunk tipping roller trains	1,50	1,50	1,50
With rollers	1,75	1,75	1,75
Selection table	1,25	1,25	1,50
Roller train with tilting table	1,25	1,25	1,50

Operating factors - f_B			
Application:	**Actual time of use under load per day (hours)**		
	≤ 0.5	**> 0.5 ... 10**	**> 10**
POSITIONING PLATFORMS			
Chain	1,50	1,50	1,75
Track	1,50	1,50	1,75
Plate drive	1,25	1,25	1,50
Drives for veneer turning machines	1,25	1,25	1,50

COMPACTORS			
Compactors	2,00	2,00	2,00

CRANES [2] / [1]			
CRANES AND LIFTING GEAR			
Slewing gear [1]	1,00	1,40	1,80
Derricking gear	1,00	1,10	1,40
Bridge trolleys for portal cranes	3,00	3,00	3,00
Bridge trolleys	1,10	1,60	2,00
Lifting gear	1,00	1,10	1,40
Luffing gear	1,00	1,20	1,60

REPAIR DOCKS			
Main pulley system	2,50	2,50	2,50
Auxiliary pulley system	2,50	2,50	3,00
Arm pulley systems	2,50	2,50	3,00
Yaw drive	2,50	2,50	3,00
Traveling drive	3,00	3,00	3,00

INDUSTRIAL USE			
Main pulley system	2,50	2,50	3,00
Auxiliary pulley system	2,50	2,50	3,00
Bridge cranes	3,00	3,00	3,00
Traveling drive for crane car	3,00	3,00	3,00

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
ROTARY MILLS			
Ball and rod mills	2,00	2,00	2,00
Cylindrical ring gear	2,00	2,00	2,00
Helical ring gear	1,50	1,50	1,50
Direct coupling	2,00	2,00	2,00
Cement kilns	1,50	1,50	1,50
Dryers and coolers	1,50	1,50	1,50

Gear unit selection

Operating factors - f_B			
Application:	**Actual time of use under load per day (hours)**		
	≤ 0.5	**> 0.5 ... 10**	**> 10**
FOODSTUFFS INDUSTRY			
Cane sugar production			
Sugar cane knives [1)]	–	–	1,70
Sugar cane mills	–	–	1,70
Diced mash	–	–	1,20
Extraction system, cooling machine, boiler	–	–	1,40
Beet washing, cutting machine	–	–	1,50
Beet peeling machine	2,00	2,00	2,00
Oil mills	1,50	1,50	1,50
Mills (low speed)	1,75	1,75	1,75
Kneading machines	1,25	1,25	1,50
Mincing machines	1,25	1,25	1,50
Slicing machines	1,25	1,25	1,50
Crushers and mills	–	–	1,75
Drying drums	–	1,25	1,50

PAPER MACHINES / PAPER AND CELLULOSE INDUSTRY			
all types [3)]	–	1,80	2,00
PULPER DRIVES			
Debarking drums and machines	1,55	1,80	–
Rollers (pick-up, screen suction and screen feed rollers)	–	1,80	2,00
Drying cylinders (roller bearings)	–	1,80	2,00
Calenders (roller bearings)	–	1,80	2,00
Filters (Pressure and suction filters)	–	1,80	2,00
Chopping machines and shredders	1,55	1,75	2,00
Jordan mills	–	1,50	1,75
Presses (bark, felt, gluing and suction presses)	–	–	1,75
Rolling devices	–	–	1,75

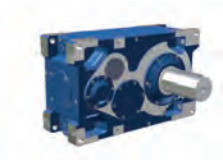
HYDRAPULPERS			
Washing filters	–	–	1,50
Yankee cylinders (dryers)	1,25	1,25	1,25
Agitators (kneaders)	1,50	1,50	1,50
Agitators for pure liquor	1,25	1,25	1,25
Paring cylinder	2,00	2,00	2,00
Debarking machines (mechanical)	2,00	2,00	2,00
Refiners	1,50	1,50	1,50
Paper shredders	1,25	1,25	1,25
Calenders	1,25	1,25	1,25
Shredders	2,00	2,00	2,00
chip loaders	1,50	1,50	1,50
Patination cylinders	1,25	1,25	1,25

Operating factors - f_B			
Application:	**Actual time of use under load per day (hours)**		
	≤ 0.5	**> 0.5 ... 10**	**> 10**
CONVEYORS			
Chips, bark, chemicals	1,25	1,25	1,25
Trunk (incl, table)	2,00	2,00	2,00
Sleeve presses	1,25	1,25	1,25
Millers	2,00	2,00	2,00
Cylindrical tools	1,25	1,25	1,25
DRYERS			
Paper machine	1,25	1,25	1,25
with conveyors	1,25	1,25	1,25
Embossing machines	1,25	1,25	1,25
Extrusion presses	1,50	1,50	1,50
Pulp refiners	1,50	1,50	1,50
Kiln drives	1,50	1,50	1,50
Paper rollers	1,25	1,25	1,25
Plates	1,50	1,50	1,50
Presses - mat and suction	1,25	1,25	1,25
Kneading machines	2,00	2,00	2,00
Vacuum pumps	1,50	1,50	1,50
Flat reelers	1,25	1,25	1,25
SCREENS			
Chips	1,50	1,50	1,50
Rotating screens	1,50	1,50	1,50
Vibrating screens	2,00	2,00	2,00
Glue presses	1,25	1,25	1,25
Super calender	1,25	1,25	1,25
Concentrator (AC motor)	1,50	1,50	1,50
Concentrator (DC motor)	1,25	1,25	1,25
Washing machine (AC motor)	1,50	1,50	1,50
Washing machine (DC motor)	1,25	1,25	1,25
Coiling and uncoiling holders	1,25	1,25	1,50
Surface rinsing machines	1,25	1,25	1,25

PUMPS			
Pumps	–	1,40	1,50
Centrifugal pumps / Impeller pumps	1,15	1,35	1,45
Piston pumps (1 cylinder)	1,35	1,50	1,80
Piston pumps (multiple cylinders)	1,20	1,40	1,50
Archimedian pumps	–	1,25	1,50
Rotary pumps (gear pumps, vane pumps, positive displacement rotary pumps)	–	–	1,25

[1)] Select according to the maximum torque
[2)] Precise categorisation of the load can be carried out e.g. according to FEM1001
[3)] Thermal investigation is generally necessary

Gear unit selection



Operating factors - f_B			
Application:	**Actual time of use under load per day (hours)**		
	≤ 0,5	**> 0,5 ,,, 10**	**> 10**
AGITATORS AND MIXERS			
Agitators for liquids	–	–	1,80
Agitators for solid media (inhomogeneous materials)	–	–	1,80
Agitators for solid media (homogeneous materials)	–	–	1,80
CABLE RAILWAYS			
Materials cableways	–	1,40	1,50
Pendulum cableways	–	1,60	1,80
Ski tows	–	1,30	1,40
Circulating cableways	–	1,40	1,60
Fixed cable cableways			
SCREENS			
Air washers	1,00	1,00	1,25
Rotary screen - stone or gravel	1,25	1,25	1,50
Mobile screens with water input	1,00	1,00	1,25
TEXTILE MACHINERY			
General	1,25	1,25	1,50
VENTILATORS AND FANS			
Centrifugal fans	1,00	1,00	1,25
Pressure ventilated fans	1,25	1,25	1,25
Push-pull counterflow fans	1,50	1,50	1,50
Industrial and mining fans	1,50	1,50	1,50
Blowers (axial and radial)	1,50	1,50	1,50
Centrifugal blowers	1,00	1,00	1,25
Rotary blowers	1,25	1,25	1,50
Rotary vane blowers	1,25	1,25	1,50
Heat exchangers	1,50	1,50	1,50
Cooling tower fans	–	–	2,00
Dry cooling towers	–	–	2,00
Wet cooling towers	2,00	2,00	2,00
COMPRESSORS			
Piston compressors	–	1,80	1,90
Rotary compressors	–	1,40	1,50

Operating factors - f_B			
Application:	**Actual time of use under load per day (hours)**		
	≤ 0,5	**> 0,5 ,,, 10**	**> 10**
Radial compressors	–	1,40	1,50
Screw compressors	–	1,50	1,75
Centrifugal compressors	1,25	1,25	1,50
Rotary vane compressors	1,25	1,25	1,50
Multi-cylinder reciprocating piston compressors	1,50	1,50	1,75
Single cylinder reciprocating piston compressors	1,75	1,75	2,00
CEMENT INDUSTRY AND CLAY PROCESSING			
Concrete mixers	1,50	1,50	1,75
Crushers [1]	1,55	1,75	2,00
Rotary kilns	–	–	2,00
Tube mills	–	–	2,00
Separators	–	1,60	1,60
Rolling mills	–	–	2,00
Brick presses	1,75	1,75	2,00
Tile presses	1,75	1,75	2,00
Kneading machines	1,25	1,25	1,50

1) Select according to the maximum torque
2) Precise categorisation of the load can be carried out e.g. according to FEM1001
3) Thermal investigation is generally necessary

Efficiency for calculations η_N

The stated efficiency is only to be used for calculation purposes and does not correspond to the actual efficiency of the gear unit. The factors refer to a normal oil level and the installation positions M1 or M3. A higher oil level causes reduced efficiency.

η_N	Calculated efficiency			
	SK..207	SK..307	SK..407	SK..507
	0,975	0,960	0,955	0,935

Input factors f_M

Additional torque fluctuations due to the type of input machinery are taken into account with the input factor.

f_M	Type of drive machine		
	Electric motors Hydro motors Turbines	Piston machines 4-6 cylinder, Degree of inequality 1: 100 to 1 : 200	Piston machines 1 - 3 cylinder, Degree of inequality 1: 100
	1	1,25	1,5

Start-up factors f_{AN}

The start-up factor must be taken into account if the torque resulting to the drive due to start-up is not known. If the ratio of the start-up torque to the input torque is known, this may be used in the calculation.

f_{AN}	Type of drive running					
	Direct drive	Soft start	Frequency inverter	Star/ Delta	Fluid coupling	Fluid coupling with delay chamber
	3	1,8	1,5 ...2,0 [1)]	1,3	2	1,6

[1)] Depending on the start-up ramp which is set

Peak load factor with reversing factor f_S

The peak load factor takes into account the frequency and direction of peak loads.

f_S	Direction of load	Load peaks per hour					
		1 - 5	6 - 20	21 - 40	41 - 80	81 - 160	> 160
	constant	0,50	0,63	0,70	0,79	0,88	1,05
	reversing	0,70	0,87	0,97	1,09	1,22	1,46

Gear unit selection

Speed factor f_n

By means of the speed factor, the speed can be approximately taken into account.
For speeds n_{1N}= 1000 / 1500 / 1200 / 1800 min^{-1} power tables
have been produced, which provide more accurate figures.

f_n	Input speed in min^{-1}								
	500	750	800	900	1000	1200	1400	1500	1800
	0,33	0,50	0,53	0,60	0,67	0,80	0,93	1,00	1,20

Switch-on time factor f_{ED}

With lower switch-on times, the heat generated by the gear unit decreases.

f_{ED}	Switch-on time				
	100 %	80 %	60 %	40 %	20 %
	1,00	1,08	1,19	1,37	1,75

Ambient temperature factors f_t

Takes into account the possibility of heat dissipation at various cooling air temperatures

f_t	Gear unit cooling	Ambient temperature								
		10°C	15°C	20°C	25°C	30°C	35°C	40°C	45°C	50°C
	without additional cooling / with fan cooling	1,14	1,07	1,00	0,93	0,86	0,79	0,71	0,64	0,57
	integrated water cooler[1)]	1,06	1,03	1,00	0,97	0,95	0,91	0,88	0,84	0,81

[1)] also with additional fan cooling

Cooling air temperature factor f_L

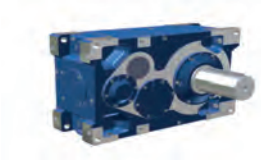
Takes into account the possibility of heat dissipation at various cooling air temperatures

f_L	Air temperature at fan inlet					
	15°C	20°C	25°C	30°C	35°C	40°C
	1,09	1,00	0,91	0,82	0,73	0,64

Utilisation factor f_A

The utilisation factor describes the load-independent power loss of the gear unit.

f_A	Selection by effective power in relation to P_N (P_{eff} /P_N)						
	20 %	30 %	40 %	50 %	60 %	70 %	80 - 100 %
	Selection by operating factor f_B						
	5.0	3.3	2.5	2.0	1.65	1.4	≤ 1.25
	0,58	0,74	0,83	0,89	0,94	0,97	1,00



Cooling water temperature factors f_w

Cooling water with a temperature above 20°C reduces the cooling capacity of the cooling system. For intermediate temperatures, the factor for the next higher temperature must be selected.

f_w	Water inlet temperature			
	15°C	20° C	25° C	30° C
	1,17	1,00	0,83	0,67

Installation altitude factors f_H

The installation altitude factor takes into account the lower heat dissipation of the gear unit at higher altitudes

f_H	Installation altitude above sea level				
	0 m	1,000 m	2,000 m	3,000 m	4,000 m
	1,00	0,96	0,91	0,87	0,83

Air movement factors f_V

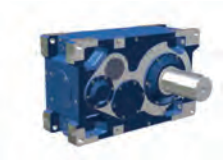
The airspeed over the gear unit influences the dissipation of heat by convection.

f_v	Air movement over gear unit		
	small room, little air movement	large hall with free air movement	continuous strong air movement
	0.5 m/s	1.2 m/s	4.0 m/s
	0,72	1,00	1,28

Oil supply factors $f_Ö$

Higher oil levels decrease the efficiency and cause higher gear unit temperatures. This can be taken into account with the following factors. For installation positions other than M1 or M3, please consult NORD.

$f_Ö$	Installation position		Type of lubrication		
			Oil bath lubrication	Pressure lubrication	Full oil level
	horizontal	M1 / M3	1,0	1,2	0,6
	vertical	M5	0,6	0,9	0,5
	vertical	M6	0,6	0,9	0,5
	standing	M2	0,4	1,0	0,3
	standing	M4	0,5	0,9	0,4



NOMENCLATURE

Gear unit sizes

	Helical gear unit		Bevel helical gear unit	
M_{2max}	2-stage	3-stage	3-stage	4-stage
74 kNm	SK 11207	SK 11307	SK 11407	SK 11507
101 kNm	SK 12207	SK 12307	SK 12407	SK 12507
141 kNm	SK 13207	SK 13307	SK 13407	SK 13507
242 kNm	SK 15207	SK 15307	SK 15407	SK 15507

Combinations with parallel and bevel gear units

	Helical gear unit			
Pre-stage	Parallel gear units		Bevel gear units	
M_{2max}	i_N	5-stage	i_N	6-stage
74 kNm	180 - 1600	SK 11307 / 6282	200 - 1600	SK 11307 / 9052.1
	125 - 160	SK 11307 / 7282		
101 kNm	180 - 1600	SK 12307 / 7282	200 - 1600	SK 12307 / 9072.1
	125 - 160	SK 12307 / 8282		
141 kNm	200 - 1600	SK 13307 / 7282	315 - 1600	SK 13307 / 9072.1
	125 - 180	SK 13307 / 9282	180 - 280	SK 13307 / 9082.1
242 kNm	250 - 1600	SK 15307 / 8282	280 - 1600	SK 15307 / 9082.1
	180 - 200	SK 15307 / 9282	180 - 250	SK 15307 / 9086.1
	125 - 160	SK 15307 / 10282		

Order example:

SK 11207 ASF H - IEC - CC - 200 L/4 - BRE

- BRE — Brake designation (see G1000)
- 200 L/4 — Motor designation (see G1000)
- CC — Additional options (CC, FAN,...)
- IEC — Gear unit versions (IEC, MSW, MSF...)
- H — Options on drive unit (G, D, H, B...)
- ASF — drive output versions (A, AF, ASH, V, L...)
- 11207 — Stage code (2, 3, 4, 5)

2: Helical gear unit	2-stage
3: Helical gear unit	3-stage
4: Bevel helical gear unit	3-stage
5: Bevel helical gear unit	4-stage

- SK 11207 — Gear unit size (11, 12, 13, 15)

Order example double gear unit:

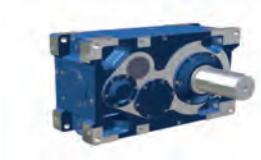
SK 11207 / 5282 ASF H - IEC - CC - 200 L/4 - BRE

- 5282 — Primary gear SK 5282 (see G1000)

AVAILABLE OPTIONS AND DESIGNS

Overview of versions available

Abbreviations	Description	Output design	Options for output	Input design	Additional options	Size			
						SK 11..07	SK 12..07	SK 13..07	SK 15..07
A	Hollow shaft	X				✔	✔	✔	✔
AS	Hollow shaft with shrink disc	X				✔	✔	✔	✔
B	Fixing element for hollow shaft		X			✔	✔	✔	✔
CC	Cooling coil				X	✔	✔	✔	✔
CS1A (...H)	Cooling system oil / water (sizes A thru H)				X	✔	✔	✔	✔
CS2A (...H)	Cooling system oil / water (sizes A thru H)				X	✔	✔	✔	✔
EA	Hollow shaft, with spline DIN 5480	X				1)	1)	1)	1)
ED	Elastic torque support		X			✔	✔	✔	✔
EV	Splined solid shaft, DIN 5480	X				✔	✔	✔	✔
EW	Splined drive shaft, DIN 5480			X		✔	✔	✔	✔
F	Block flange		X			✔	✔	✔	✔
FAN	Fan				X	✔	✔	✔	✔
FK	Collar flange		X			✔	✔	✔	✔
F1	Drive flange			X		✔	✔	✔	✔
D	Torque support		X			✔	✔	✔	✔
DG	Elastic torque support		X			1)	1)	1)	1)
H	Cover (contact protection)		X	X		✔	✔	✔	✔
IEC	Adapter for fitting B5 IEC standard motors- and trans-standard motors			X		✔	✔	✔	✔
L	Solid shaft on both sides	X				✔	✔	✔	✔
LC	Lubricant circulation				X	1)	1)	1)	1)



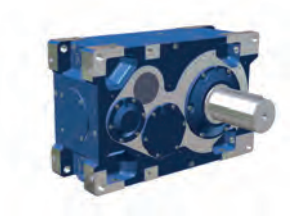
Available options

Abbreviations	Description	Output design	Options for output	Input design	Additional options	Size			
						SK 11..07	SK 12..07	SK 13..07	SK 15..07
MC	Motor bracket				X	1)	1)	1)	1)
MF..	Base frame (Options: see MS..)				X	1)	1)	1)	1)
MO	Additional monitoring elements				X	1)	1)	1)	1)
MSB	Motor rocker with brake				X	✔	✔	✔	✔
MSK	Motor rocker with elastic coupling				X	✔	✔	✔	✔
MST	Motor rocker with hydrodynamic coupling				X	✔	✔	✔	✔
MSTB	Motor rocker with hydrodynamic coupling and brake				X	✔	✔	✔	✔
MT	Motor bracket				X	1)	1)	1)	1)
NEMA	Adapter for mounting NEMA motors				X	1)	1)	1)	1)
OA	Oil expansion vessel				X	✔	✔	✔	✔
OT	Oil level vessel				X	✔	✔	✔	✔
OH	Oil heater				X	✔	✔	✔	✔
R	Backstop			X		✔	✔	✔	✔
V	Solid shaft	X				✔	✔	✔	✔
VL2	Agitator version	X				✔	✔	✔	✔
VL3	Agitator version with “Drywell”	X				✔	✔	✔	✔
W	One drive shaft journal			X		✔	✔	✔	✔
W2	Two drive shaft journals			X		✔	✔	✔	
W3	Three drive shaft journals			X		✔	✔	✔	
WX	Auxiliary drive unit with freewheeling coupling and speed monitoring			X		✔	✔	✔	

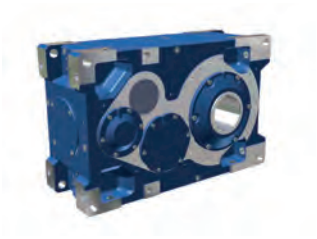
1) on request

Available Options

Examples



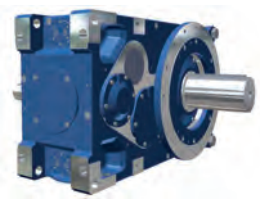
SK 13207 - V
Two-stage helical gear unit
with solid output shaft



SK 13307 - A
Three-stage helical gear unit
with hollow output shaft

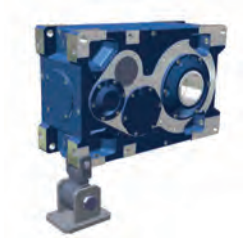
SK 13407 - V
Three-stage bevel helical gear unit
with solid output shaft

SK 13507 - V - W
Four-stage bevel helical gear unit
with solid output shaft
with additional free input shaft



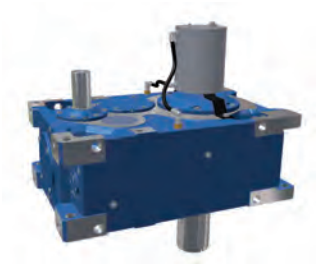
SK 13207 - V - F
Two-stage helical gear unit
with solid shaft and block flange on output

SK 13207 - V - F
Two-stage helical gear unit
with solid shaft and block flange on output
Installation position M2

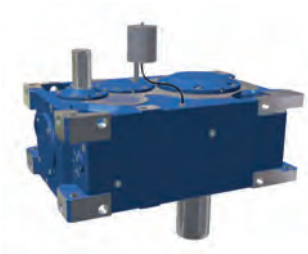



SK 13207 - A - DG
Two-stage helical gear unit
with hollow output shaft
and elastic torque support

SK 13207 - A - D
Two-stage helical gear unit
with hollow output shaft
and standard torque support



SK 13207 - V - OS
Two-stage helical gear unit
with solid output shaft
and oil level vessel

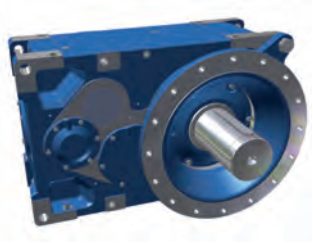


SK 13207 - V - OA
Two-stage helical gear unit
with solid output shaft
and oil expansion vessel

SK 13207 - VL3 - IEC
Two-stage helical gear unit
with attached IEC motor, solid output shaft
and "agitator flange" with reinforced bearings

SK 13207 - AS - H - IEC
Two-stage helical gear unit
with attached IEC motor
Hollow output shaft with shrink disc
and "agitator flange" with "Drywell"

Available options

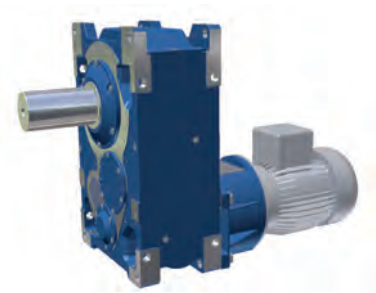


SK 13207 - V - FK

Two-stage helical gear unit
with solid shaft and collar flange on output

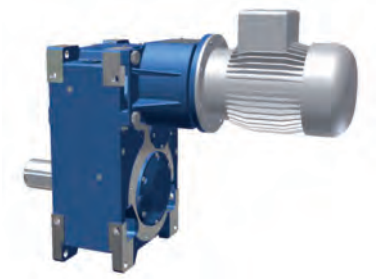
SK 13207 - V - IEC

Two-stage helical gear unit with attached IEC motor
with solid output shaft
Installation position M1



SK 13207 - V - IEC

Two-stage helical gear unit with attached IEC motor
with solid output shaft
Installation position M2

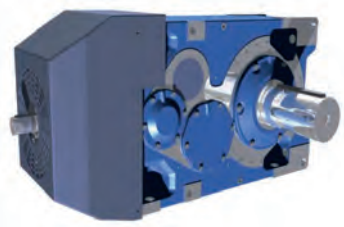


SK 13207 - V - IEC

Two-stage helical gear unit with attached IEC motor
with solid output shaft
Installation position M4

SK 13207 - V - IEC

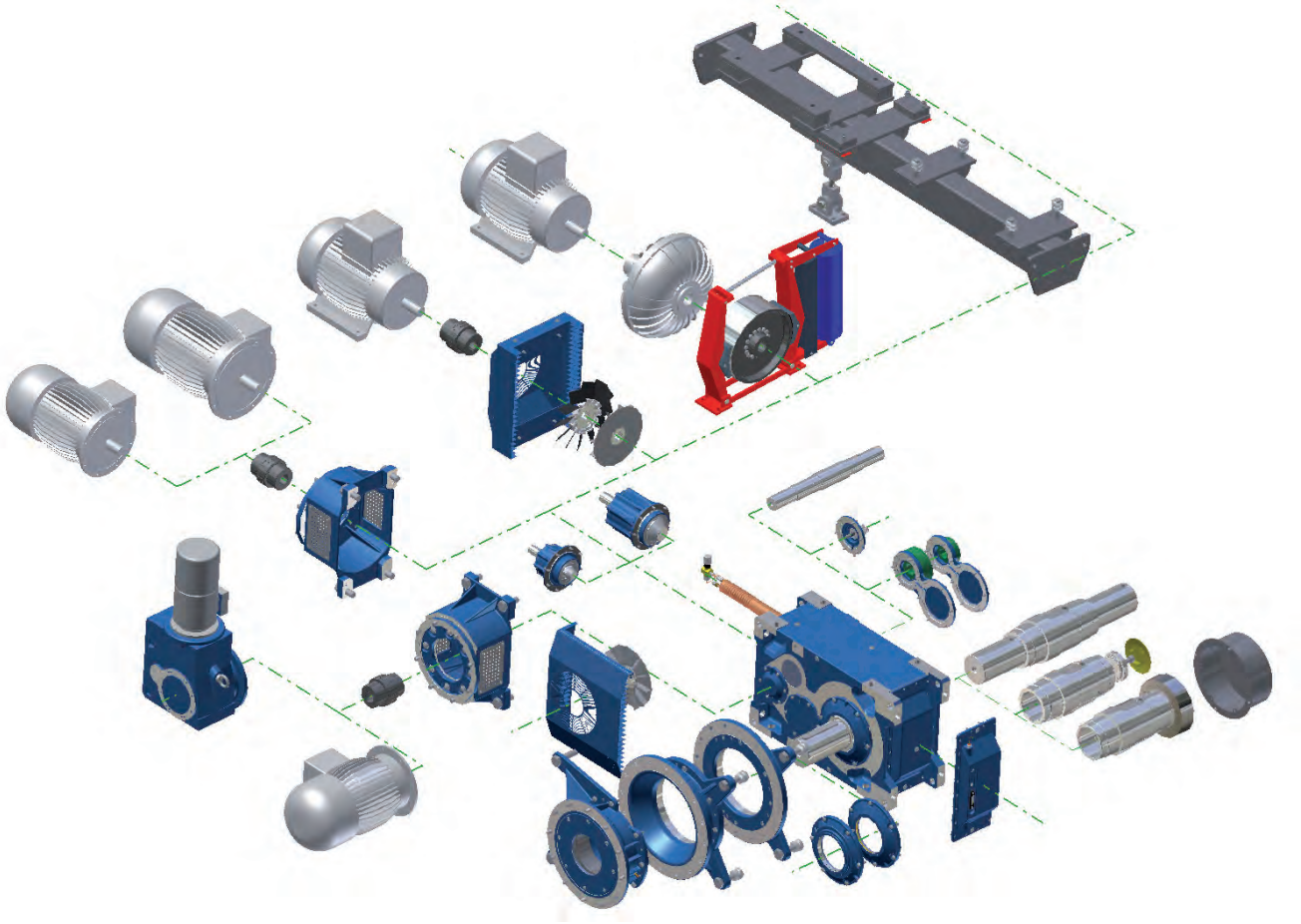
Two-stage helical gear unit with attached IEC motor
with solid output shaft
Installation positions M5 and M6



SK 13407 - V - FAN

Three-stage bevel helical gear unit
with solid output shaft
with attached fan and protective cover

Available options



Shrink discs (S, SH)

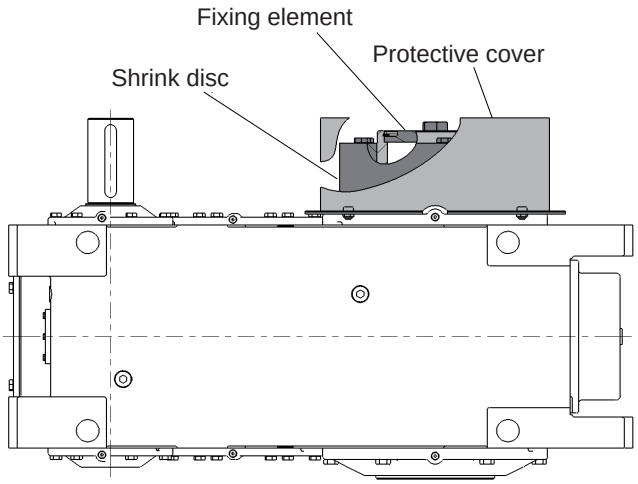
For gear unit versions with hollow shafts the use of shrink discs for better and easier assembly is especially advisable. The length of the customer's journal which can be inserted into the hollow shaft of the gear unit can ⇨🕮 be obtained from 136.

The diameter of the shaft journal must be designed acc. to ISO g6. The material of the customer's journal must have a yield strength of at least R_e = 360 N/mm^2 so that the pressing to create the frictional coupling can be built up and no permanent deformation occurs.

M_{2max} max. permissible drive torque

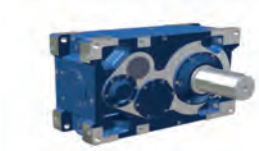
s Security of shrink disc for fit g6, M_{2max} and surface roughness of plug-in shaft of Rz ≤ 15 µm

The faces of the outer ring and the inner ring on the screw side must be flush with each other when the shrink disc is fitted.



Gear unit		Shrink disc			Hexagonal bolt DIN 933 - 10.9
Type of gear unit		Type	M_{2max} [Nm]	s g6	Type
SK 11207	ASH	220	74900	2.4	M20
SK 11307	ASH		69600	2.6	
SK 11407	ASH		74900	2.4	
SK 11507	ASH		69600	2.6	
SK 12207	ASH	240	98200	2.4	M20
SK 12307	ASH		101400	2.4	
SK 12407	ASH		98200	2.4	
SK 12507	ASH		101400	2.4	
SK 13207	ASH	280	137400	3.0	M24
SK 13307	ASH		141800	2.9	
SK 13407	ASH		137400	3.0	
SK 13507	ASH		141800	2.9	
SK 15207	ASH	300	234900	2.2	M24
SK 15307	ASH		242500	2.1	
SK 15407	ASH		234900	2.2	
SK 15507	ASH		242500	2.1	

Provisional technical data



Shrink discs and motor sizes
Possible combinations

	IEC Motors								Transnorm Motors			
Size	**132**	**160**	**180**	**200**	**225**	**250**	**280**	**315**	**315**	**355**	**400**	**450**
Flange ø [1)]	**300**	**350**	**350**	**400**	**450**	**550**	**550**	**660**	**800**	**900**	**1000**	**1150**
SK 11207								✓	#	#	#	
SK 11307				✓	✓	✓	✓	✓	#			
SK 12207									✓	✓	#	#
SK 12307						✓	✓	✓	✓	✓		
SK 13207									✓	✓	✓	#
SK 13307							✓	✓	✓	✓	✓	
SK 15207										✓	✓	✓
SK 15307									✓	✓	✓	

[1)] a1 according to DIN / P according to IEC
on request

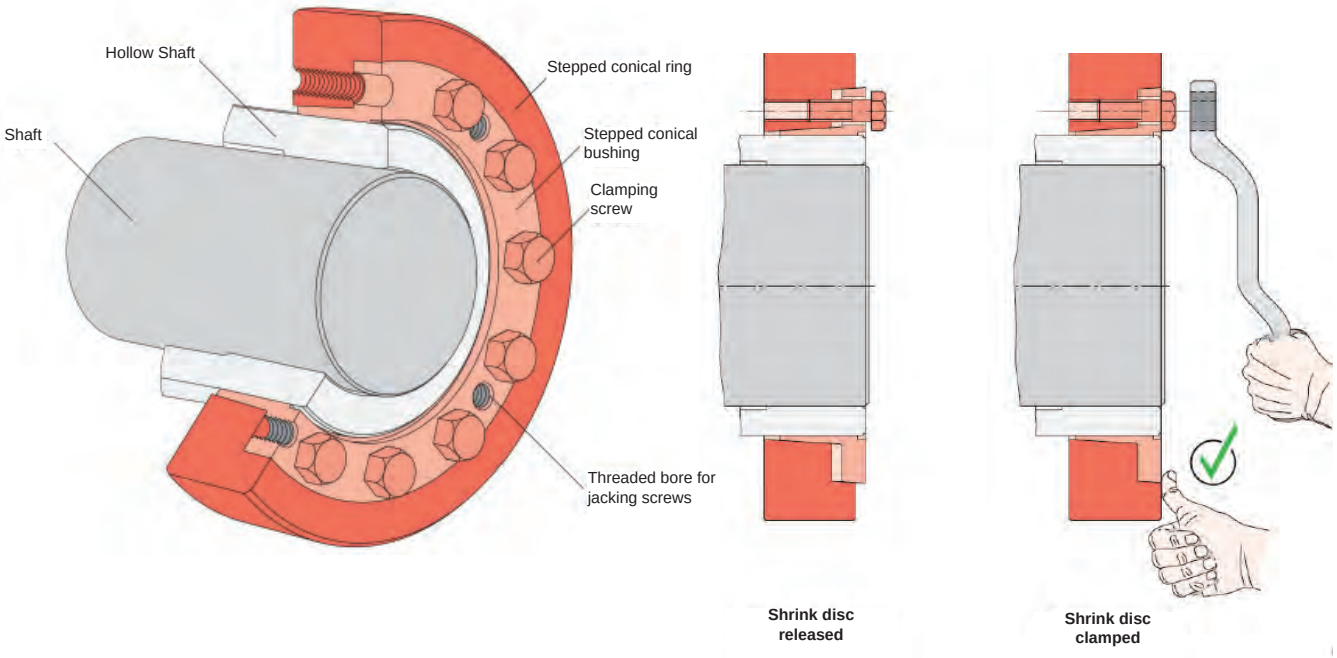


Image source: RINGSPANN GmbH

Fixing elements (B)

Fixing elements for shaft mounted gear units are available as an option.

The fixing elements can be used for assembling, dismantling and axial fixing of the customer's shaft. The customer's shaft can be with or without a collar.

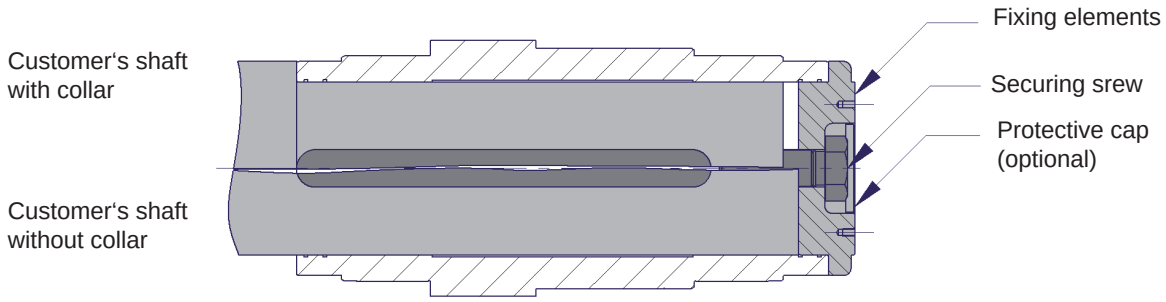
The threaded rod, assembly nut and dismantling screw are not included in the scope of delivery.

Specifications for use:

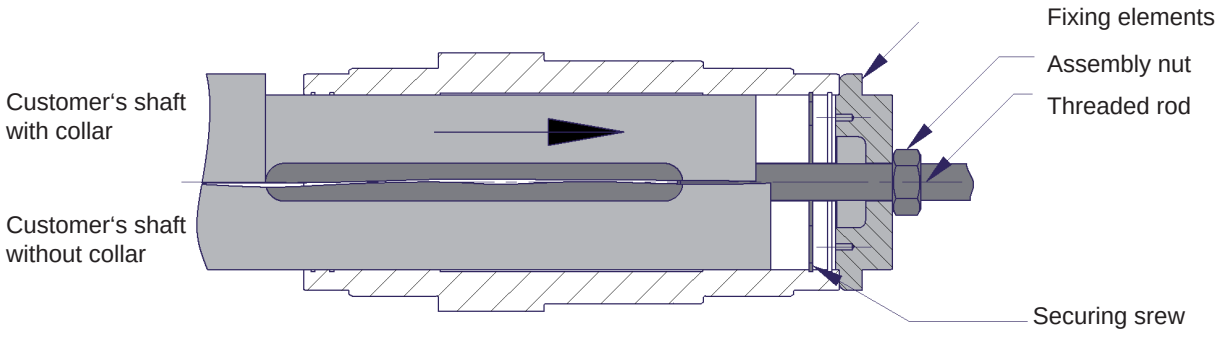
- The solid shaft to be used must have a centre hole according to DIN 332/2 and also to factory standard (⇨🕮 54).
- Space must be available to fit the fixing element. The permissible shaft dimensions can be obtained from the table of dimensions (⇨🕮 136).

For a detailed description, please refer to the operating and maintenance instructions

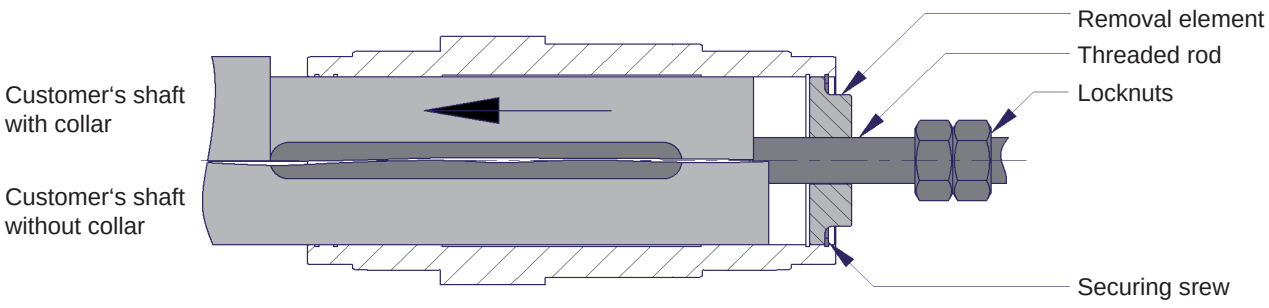
Installation (fixing)



Assembly:



Dismantling:



Torque arms, rubber buffers (D, ED)

For shaft mounted versions of hollow shaft gear units, optional torque supports are available. In addition to a simple torque support (Type D), NORD offers a torque support with integral elastic bushing (Type ED), which has better damping characteristics (vibration damping).

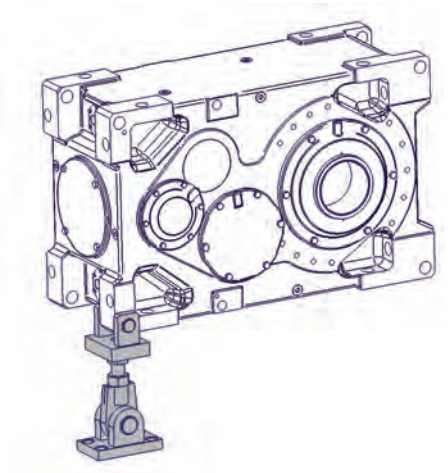
These should be assembled on the machinery side, in order to keep the bending moment on the machinery shaft low. Loading under tension or pressure and installation upwards or downwards are permissible. The torque support may only be installed on the input side, as otherwise the permissible loading would be exceeded.

Stressing of the torque support during installation or operation must be avoided, as otherwise the life-span of the drive shaft bearings could be reduced. Torque supports are not suitable for the transmission of radial forces, therefore they may only be used in associations with motor IEC housings or couplings which cannot transmit radial forces.

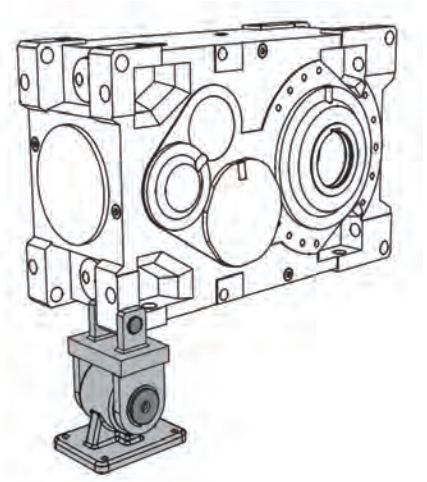
The output torque must be limited to values given in the Table below. If greater torques are required, please consult us.

Gear unit	M_{2max} [Nm]	
	Type D	Type ED
SK 11..07	66,000	65,000
SK 12..07	115,000	74,000
SK 13..07	131,000	200,000
SK 15..07	250,000	239,000

Type D: standard torque support



Type ED: elastic torque support



Backstops (R)

Optional backstops, which allow rotation in only one direction and block the other direction of rotation are available for attachment to the gear unit. The lubrication of the backstop is by means of the gear oil.

Three-phase motors larger than size 80 can be equipped with a grease-lubricated backstop. The backstops lift off due to centrifugal force above a certain lifting speed (see table) and are then free of friction.

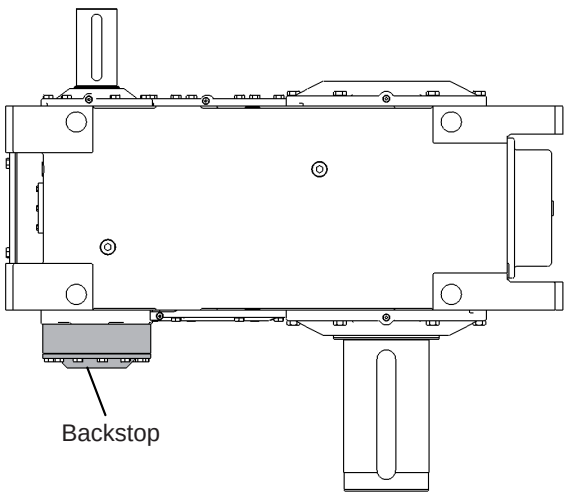
Please contact NORD in the following cases:The take-off speed is not achieved
Speed $n_1 > 1800\ min^{-1}$

For drive units with a backstop, the direction of rotation of the output shaft must be stated. The direction of rotation is stated with a view onto the drive shaft.

CW = Clockwise direction of rotation, Right-hand rotation
CCW = Counterclockwise direction of rotation, Left-hand rotation

The direction of rotation of the shafts is indicated with indicator plates on the gear unit housing.

For angular drives, the position of the output shafts and the side on which the backstop is installed determine the direction of view for the statement of direction of rotation. The direction of view for the statement of direction of rotation is always towards the output shaft journal.



For hollow shaft gear units with shrink discs, the output shaft journal is on the side opposite to the shrink disc. For hollow shafts with parallel keys or splined hubs, and for solid shafts on both sides, the side on which the return stop is mounted is the direction of view towards the gear unit.

Attention! Danger of breakage. Check the direction of rotation of the motor and the gear unit before starting up the application. Arrows on the gear unit indicate the direction of rotation.

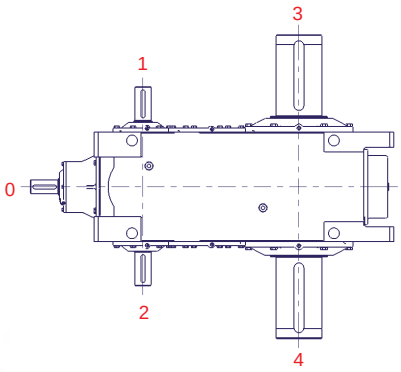
Design: The backstops are designed for double the nominal gear unit torque (M_{2max}) with reference to the output. If greater safety is required, please consult us.

Gear unit	Stages	i_N	Lift-off speed n_1 [min^{-1}]
SK 11207	2	5,6 - 20	320
SK 11307	3	31,5 - 112	400
		22,4 - 28	320
SK 11407	3	11,2 - 80	1140
SK 11507	4	112 - 400	1420
		80 - 100	1140
SK 12207	2	5,6 - 20	250
SK 12307	3	22,4 - 112	320
SK 12407	3	12,6 - 71	890
SK 12507	4	80 - 400	1140
SK 13207	2	5,6 - 20	250
SK 13307	3	22,4 - 112	320
SK 13407	3	12,6 - 71	890
SK 13507	4	80 - 400	1140
SK 15207	2	5,6 - 20	220
SK 15307	3	22,4 - 112	250
SK 15407	3	12,6 - 71	785
SK 15507	4	80 - 400	890

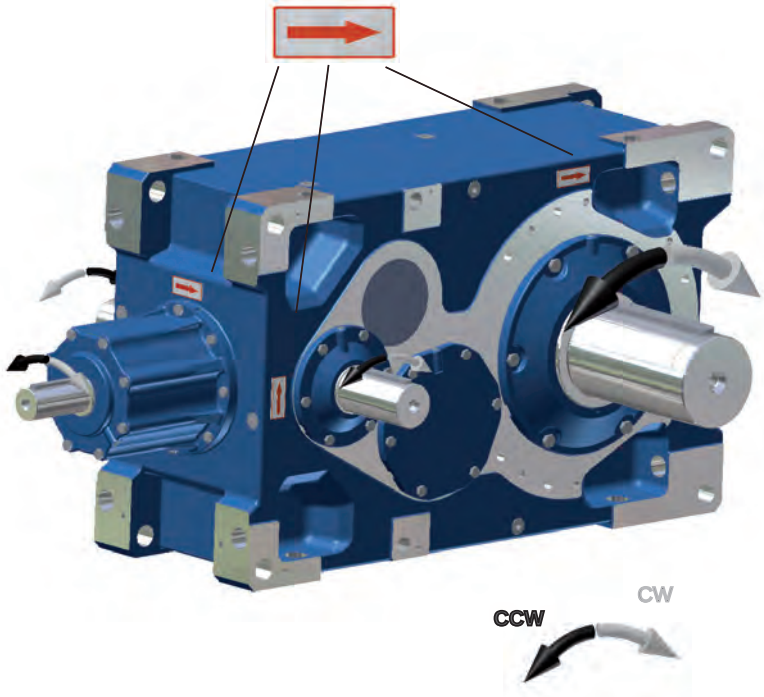
Provisional technical data

Direction of rotation of input/output shafts

The direction of rotation of the gear unit shafts refers to the installation position [1] M1 and a shaft configuration[1] with a direction of view towards the mounting surface[1] F2.



Marking of the direction of free rotation in case backstops are used Rotation direction



[1] ⇨ 🕮 58 - 61

Installation position[1] M1 Direction of view[1] F2	Direction of rotation of input			Direction of rotation of output	
Shaft lengths[1] =>	**0**	**1**	**2**	**3**	**4**
SK ..207	---	CW	CCW	CW	CCW
	---	CCW	CW	CCW	CW
SK ..307	---	CW	CCW	CCW	CW
	---	CCW	CW	CW	CCW
SK ..407 (Standard)	CW	CW	CCW /R	CW	CCW
	CCW	CCW	CW /R	CCW	CW
SK ..407 (Optional)	CW	CCW /R	CW	CCW	CW
	CCW	CW /R	CCW	CW	CCW
SK ..507 (Standard)	CW	CW	CCW /R	CCW	CW
	CCW	CCW	CW /R	CW	CCW
SK ..507 (Optional)	CW	CCW /R	CW	CW	CCW
	CCW	CW /R	CCW	CCW	CW

/R : Standard position of back stop

Sealing systems

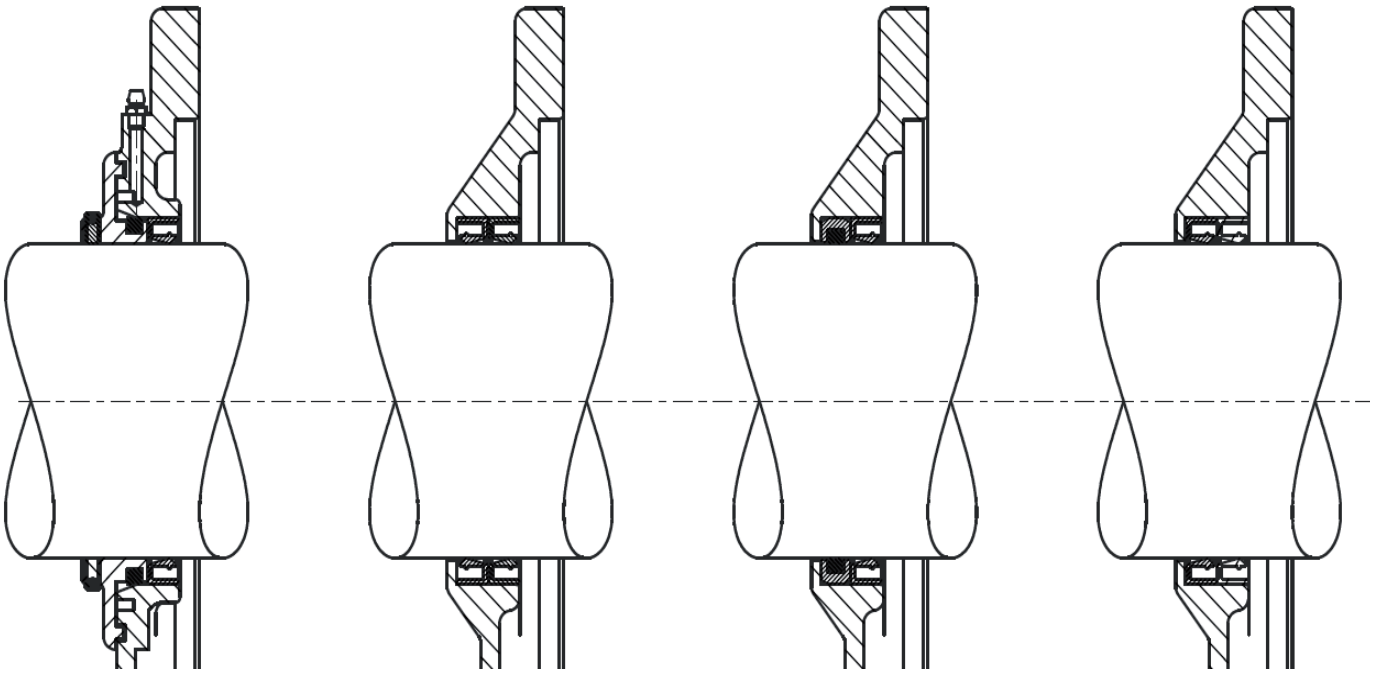
The gear unit is supplied with one shaft seal on the drive shaft and two shaft seals on the output shaft. The seal material is NBR or FKM (Viton). For operating temperatures (oil temperatures) above 85°C, FKM should be used. The shaft sealing rings can be supplied with or without a dust protection collar.

In addition to the standard sealing systems, the following special seals are available:

- two shaft sealing rings
- Labyrinth seal
- Taconite seals
- Gamma ring seals (without illustration)

Please contact us if sealing systems other than those listed here are required.

Schematic diagrams:



Taconite F

(grease-lubricated labyrinth seal; can be re-lubricated)

Taconite E

(grease-filled outer shaft sealing ring)

Labyrinth seal

Standard

(Drive with one, output with two shaft sealing rings)

Lubrication systems

Three typical principle lubrication systems are available. The differentiation though is fluent.

1) Oil bath lubrication:
The gear unit is filled with oil so that that intermeshing and bearing components which do not dip into the oil are lubricated by splashed oil. This is the usual form of lubrication for horizontal installation positions (M1 or M3), and standard for NORD industrial **gear unit**s.

It is problematic for very low (no splashed oil) and very high (high splashing losses, heating) speeds.

2) Immersion lubrication
All intermeshing and bearing surfaces are totally or partially immersed in an oil bath. The gear unit is (almost) totally filled with oil.

Used for standing (installation position M2 or M4) or vertical (installation position M5 or M6) in order to ensure adequate lubrication. In some cases an additional oil expansion vessel (⇨🕮 41) is necessary. However, pressure circulation lubrication is technically better.

Usually leads to poorer efficiency and therefore higher gear unit temperatures. High speeds with installation position M2 are particularly critical.

3) Pressure circulation lubrication
Via a pump (motor or flange-mounted pump) oil is taken out of the gear unit and pumped to the bearing and intermeshing surfaces by means of lubrication pipes. The oil level of the gear unit can be reduced.

As an option, various elements such as coolers, filters, sensors etc. can be integrated into the oil circuit in order to perform additional functions. For installation positions M2, M4, M5 and M6, pressure circulation lubrication is an alternative to immersion lubrication. High input speeds and Drywell requirements can be catered for.

It is advisable to use pressure circulation lubrication instead of a high oil level. The increased costs for the necessary lubrication equipment usually pay back very quickly, as on the one hand the necessary size of gear unit may be larger due to the reduced efficiency, as well as the very low thermal power limit. On the other hand, the operating costs increase due to the higher energy consumption and the larger amounts of lubricant needed.

Do not mix synthetic and mineral lubricants! This also applies to disposal.

High oil levels should be avoided if possible!!

Information regarding the table of oil filling levels

The details stated in the table are in litres.

1) Circulation lubrication necessary for bevel gear stages
2) with circulation lubrication
3) poor efficiency, observe heat balance
4) Reduced oil level with circulation lubrication.

Lubricant

The lubricants to be used can be categorised into the following groups:

CLP	Mineral oil
CLP PG	Synthetic oil (Polyglycol)
CLP HC	Synthetic oil (Polyalphaolefines)
E	Bio-degradable oil
CLP PG H1	Food Grade oil H1 (as per regulation FDA 178.3570, synthetic oil, polyalphaolefine)

The lubricant is an element of the design. An optimal lubricant will be determined by NORD on the basis of the operating and ambient conditions as well as the version of the drive unit.

NORD will determine the type and viscosity of the lubricant for each specific order. This will be entered in the order confirmation and on the name plate.

Only CLP-quality oils are approved for NORD gear units.

As per DIN 51517-3, the oils must contain ingredients to increase corrosion protection and/or aging resistance as well as for the reduction of wear in mixed frictional areas and/or for the increase of load bearing capacity.

The damage force level according to the FZG test as per DIN 51354-2 must be ≥ 12.

According to the FE-8 roller bearing test as per DIN 51819-3, the roller wear must not exceed 30 mg and the cage wear must not exceed 100 mg.

Compatibility of the elastomer materials of the shaft sealing rings used in NORD gear units with the seals between the mounting surfaces as well as with the gear unit coating must be ensured.

With the exception of the first stage of double gear units and auxiliary gear units, gear units and geared motors are not filled with lubricant on delivery.

For mineral oil filling, the lubricant should be replaced every 10,000 operating hours or after two years. These periods are doubled for synthetic products. For extreme operating conditions, e.g. high humidity, aggressive environment and large temperature fluctuations, shorter lubricant intervals are advisable. It is advisable to combine the change of lubricant with a thorough cleaning of the gear unit.

For ambient temperatures below -30°C and above 60°C shaft sealing rings with special material qualities must be used.

NOTE:

The stated filling quantities are for guidance only. The precise quantities vary depending on the exact gear ratio. When filling, always observe the oil level screw as an indicator of the precise quantity of oil. The tables on page 65 show the guideline quantities of lubricant in litres, depending on the installation position or the design.

DIN / ISO AGMA ISO VG	ARAL	bp	Castrol	FUCHS	KLÜBER LUBRICATION	Mobil	Shell
CLP 220 L-CKC 220 AGMA 5EP	Degol BG 220 Plus Degol BMB 220	Energol GR-XP 220	Alpha SP 220 Alpha MAX 220 Optigear BM 220 Tribol 1100 / 220	Renolin CLP 220 Renolin CLP 220 Plus Gearmaster CLP 220	Klüberoil GEM 1 - 220 N	Mobilgear 600 XP 220 Mobilgear XMP 220	Shell Omala F 220
CLP 320 L-CKC 320 AGMA 6EP	Degol BG 320 Plus Degol BMB 320	Energol GR-XP 320	Alpha SP 320 Alpha MAX 320 Optigear BM 320 Tribol 1100 / 320	Renolin CLP 320 Renolin CLP 320 Plus Gearmaster CLP 320	Klüberoil GEM 1 - 320 N	Mobilgear 600 XP 320 Mobilgear XMP 320	Shell Omala F 320
CLP 680 L-CKC 680 AGMA 8EP	Degol BG 680 Plus Degol BMB 680	Energol GR-XP 680	Alpha SP 680 Optigear BM 680 Tribol 1100 / 680	Renolin CLP 680 Renolin CLP 680 Plus Gearmaster CLP 680	Klüberoil GEM 1 - 680 N	Mobilgear 600 XP 680 Mobilgear XMP 680	-
CLP PG 220 L-CKT 220 AGMA 5EP	Degol GS 220	Enersyn EP-XP 220	Tribol 1300 / 220	Renolin PG 220 Gearmaster PGP 220	Klübersynth GH 6 - 220	-	Shell Tivela S 220 Shell Cassida WG 220
CLP PG 320 L-CKT 320 AGMA 6EP	Degol GS 320	Enersyn EP-XP 320	Tribol 1300 / 320	Renolin PG 320 Gearmaster PGP 320	Klübersynth GH 6 - 320	-	Shell Tivela S 320 Shell Cassida WG 320
CLP PG 680 L-CKT 680 AGMA 8EP	Degol GS 680	Enersyn EP-XP 680	Tribol 1300 / 680	Renolin PG 680 Gearmaster PGP 680	Klübersynth GH 6 - 680	-	Shell Tivela S 680 Shell Cassida WG 680
CLP HC 220 L-CKT 220 AGMA 5EP	Degol PAS 220	Enersyn EP-XF 220	Optigear Synth X 220 Tribol 1710 / 220	Renolin Unisyn CLP 220 Gearmaster SYN 220	Klübersynth GEM 4 - 220N	Mobil SHC 630	Shell Omala HD 220
CLP HC 320 L-CKT 320 AGMA 6EP	Degol PAS 320	Enersyn EP-XF 320	Optigear Synth X 320 Tribol 1710 / 320	Renolin Unisyn CLP 320 Gearmaster SYN 320	Klübersynth GEM 4 - 320N	Mobil SHC 632	Shell Omala HD 320
CLP HC 680 L-CKT 680 AGMA 8EP	-	-	Optigear Synth X 680	Renolin Unisyn CLP 680 Gearmaster SYN 680	Klübersynth GEM 4 - 680N	-	Shell Omala HD 680
E 220 L-CKT 220 AGMA 5EP	DegolBAB 220	-	Tribol BioTop 1418 / 220	Plantogear 220 S Gearmaster ECO 220	Klübersynth GEM 2 - 220	-	Shell Naturelle Gear Fluid EP 220
E 320 L-CKT 320 AGMA 6EP	DegolBAB 320	-	Tribol BioTop 1418 / 320	Plantogear 320 S Gearmaster ECO 320	Klübersynth GEM 2 - 320	-	Shell Naturelle Gear Fluid EP 320
E 680 L-CKT 680 AGMA 8EP	DegolBAB 680	-	-	Plantogear 680 S Gearmaster ECO 680	-	-	-
CLP PG H1 220 L-CKT 220 AGMA 5EP	-	-	Optileb GT 220	-	Klübersynth UH1 6 - 220	-	Shell Cassida WG 220
CLP PG H1 320 L-CKT 320 AGMA 6EP	-	-	Optileb GT 320	-	Klübersynth UH1 6 - 320	-	Shell Cassida WG 320
CLP PG H1 680 L-CKT 680 AGMA 8EP	-	-	Optileb GT 680	-	Klübersynth UH1 6 - 680	-	Shell Cassida WG 680

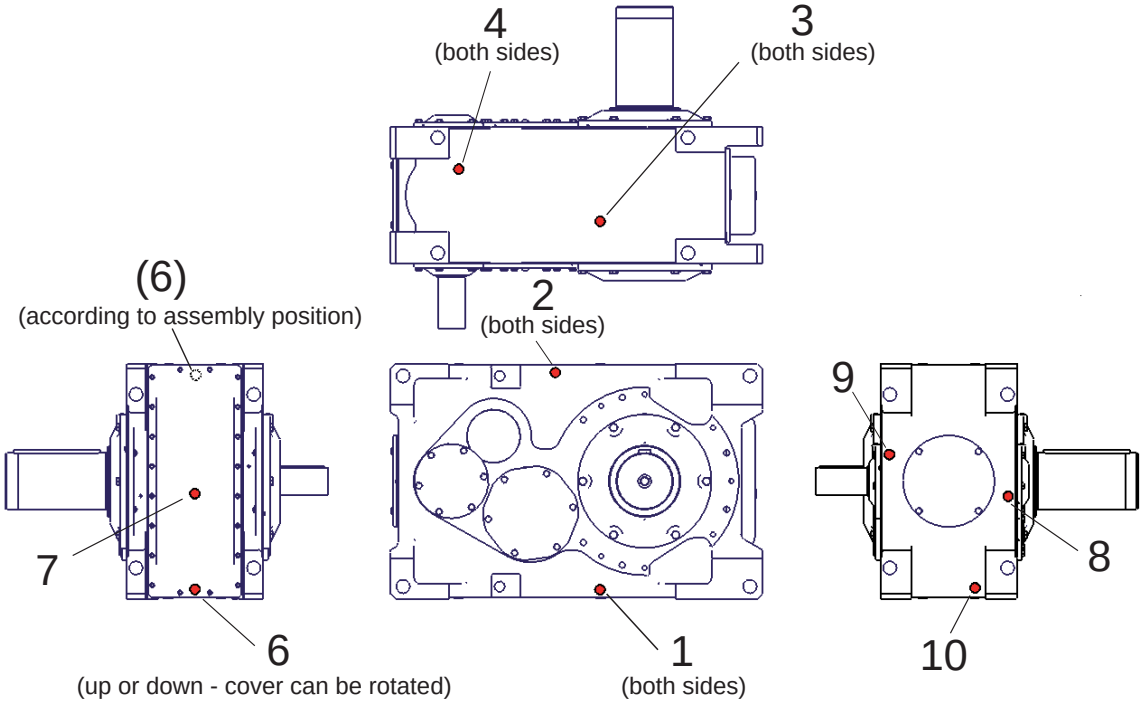
Note:

This table shows comparable lubricants from various manufacturers. The manufacturer can be changed within a particular viscosity or lubricant type. We must be contacted in case of change of viscosity or lubricant type, as otherwise no warranty for the functionality of our gear units can be accepted.

Oil plugs for mounting positions M1 to M6

The gear units are supplied with an oil level and oil drain screw and a vent. The other holes are closed. If requested, alternative positions can be agreed according to the table.

Note:
Before commissioning and long periods of storage the seal of the vent screw should be removed in order to prevent excess pressure, and therefore leakage from the gear unit.



No.	Thread	Installation position[3]					
		M1	M2	M3	M4	M5	M6
1	G1”	**A**	S[1]	E	S[1]	A / E	A / E
2	G1”	E	S[1]	**A**	S[1]	A / **E**	A / **E**
3	G1”	**E**	**S**	**E**	S[1]	**S**	S[1]
4	G1”	E	---	E	**S**	S[1]	**S**
6	G1”	A / E[2]		A / E[2]	A	S[1]	S[1]
7	G1”	S[1]	**E**	S[1]	**A**	S[1]	S[1]
8	G1”	**S**	**A**	**S**	**E**	**A**	E
9	G1”	S[1]	A	S[1]	E	E	**A**
10	G1”	A	E	E	A	S[1]	S[1]

Standard: Bold labeling

A : Oil drain

E : Vent

S : Oil level

[1] Special oil level

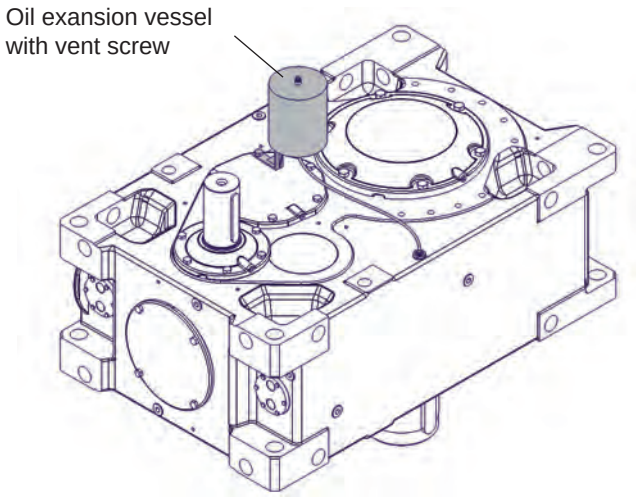
[2] according to cover assembly

[3] Installation positions M1 to M6 ⇨🕮 59

Oil expansion chamber (OA)

Gear units with a motor or input shaft which is pointing vertically upwards, can be designed with a high oil level for the lubrication of the first stage of the gearing. With the vertical installation positions M5 and M6 (⇨🕮 59), in case of oil foaming, the use of an optional oil expansion vessel prevents any escape of oil through the vent screw.

For helical gear units and gear ratios $i_{ges} < 20$, NORD therefore strongly recommends the use of an oil expansion chamber or pressure circulation lubrication for the vertical installation positions M5 and M6.

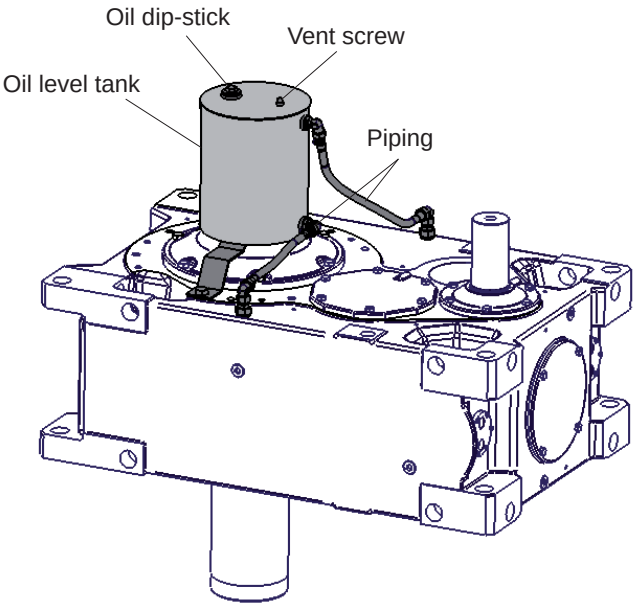


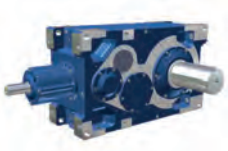
Oil tank (OT)

Gear units which are to be completely filled with oil must be equipped with an oil level tank.

Oil level tanks are located above the gear unit and increase the oil level so that the oil level in the oil level tank is always above the gear unit. As all rotating components are completely submerged in oil, oil foaming is prevented. In addition, even with vertical designs, all bearings are lubricated in an oil bath.

Oil level tanks are larger than oil expansion chambers and due to the additional vent pipes have two oil pipes which connect the oil level tank to the gear unit. The oil level must be checked in the oil level tank (dipstick).





Gear unit cooling using a fan (FAN)

By the use of fans, the thermal power limit of the gear unit can be increased, without the need for additional connections to the gear unit. Usually, a fan can be retrofitted, however this must be checked for each individual case (installation space, type of gear unit). The fan covers provide protection against contact and guide the flow of cooling air over the housing.

Installation conditions for fans

An adequate supply of air to the fan must be ensured, the vent grill in the fan cover must be kept clear.

Fans cannot be combined with all additional options. Please contact us in case of options IEC, NEMA, VL,F, FK, F1 and WX.

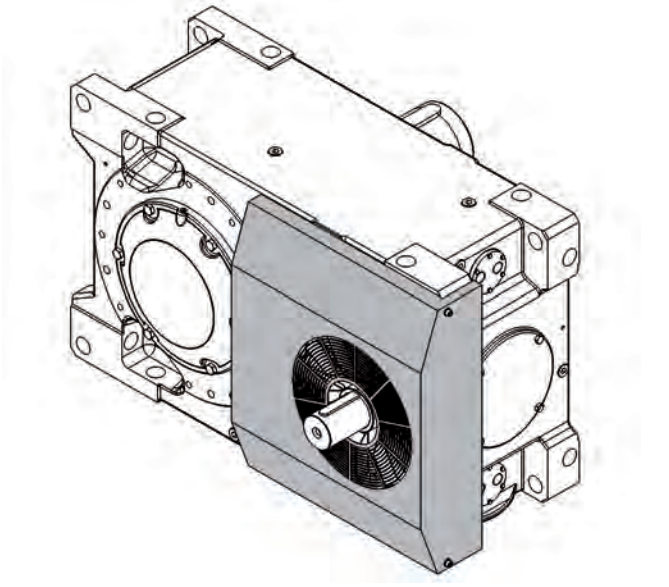
High performance fans

As a rule, high performance fans providing an increased cooling performance are used. It is mandatory that you specify the preferred direction of rotation and speed to ensure optimum cooling performance.

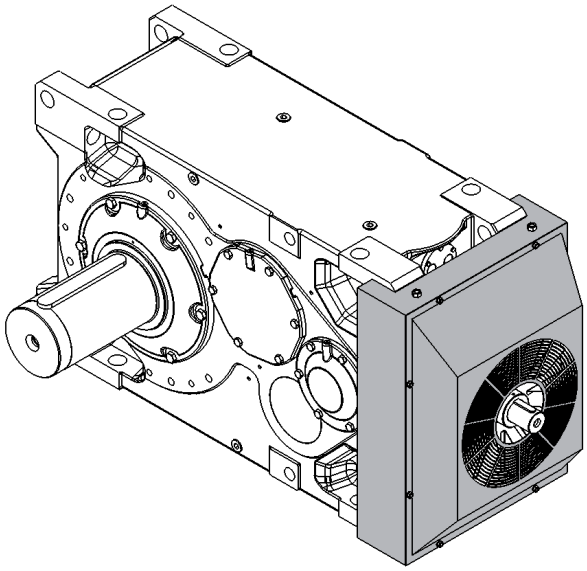
Electric fan [1)]

NORD provides an electric fan as a further option. This is switched on as required via a temperature switch. The fan can be attached to both end faces of the gear unit, whereby the through passage of a shaft is not possible.

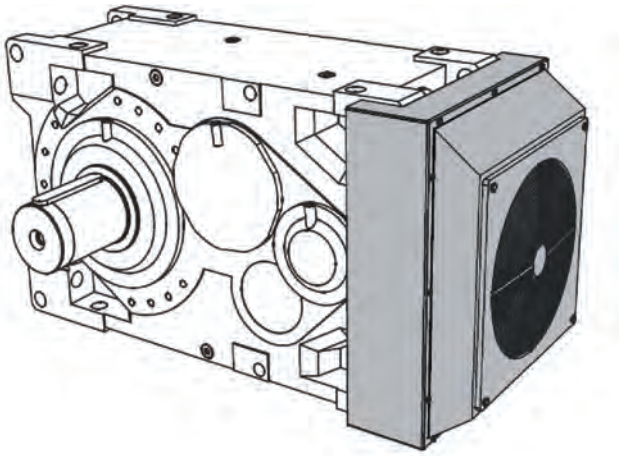
[1)] further information on request



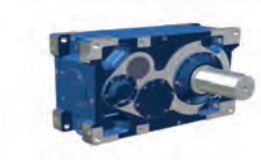
Helical gear unit with high performance fans



Bevel gear unit with high performance fans



Helical gear units with electric fan



Internal water cooler (standard) (CC)

This is a cooling coil inside the gear unit, in the oil sump, which the end user connects to a suitable water supply. For the installation positions M2, M4, M5, M6 and with complete oil filling, two cooling coils may be installed on request. The thermal power limit (P_{WG}) can be increased according the the adjacent table.

As an option, mechanical and electrical solutions for the regulation of the quantity of cooling water are available, so that the water consumption is adapted to the actual required cooling power.

Integrated water cooling can be used for oil bath and immersion lubrication, however, not with pressure circulation lubrication.

Sea water-resistant integrated cooling is available on request. Consultation with us is necessary in case of other aggressive cooling media.

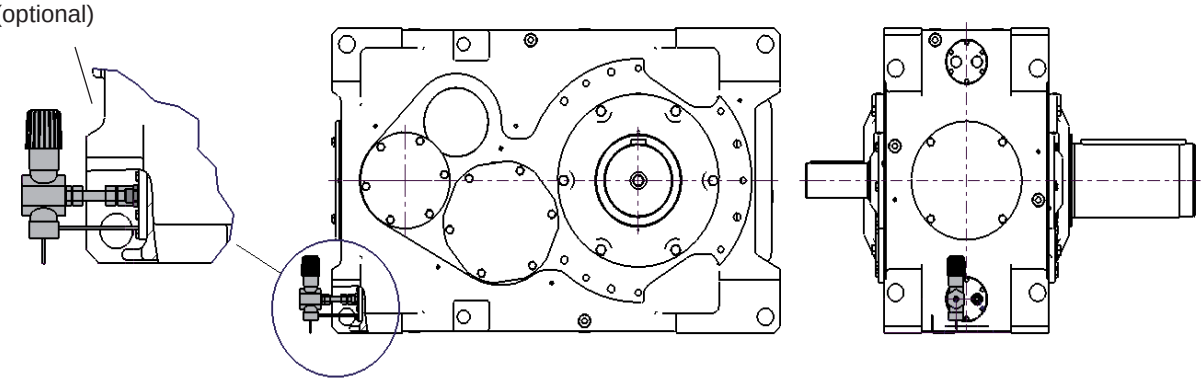
The cooling element must be completely submerged in the oil bath.

Additional thermal power limit (P_{WG}) with second cooling coil

Gear unit	+ $P_{t.CC}$ [kW]
SK 11207	252
SK 11307	157
SK 11407	140
SK 11507	97
SK 12207	350
SK 12307	219
SK 12407	195
SK 12507	135
SK 13207	449
SK 13307	281
SK 13407	249
SK 13507	173
SK 15207	449
SK 15307	281
SK 15407	249
SK 15507	173

Connection of internal water cooler

Temperature-controlled cooling water quantity regulation with temperature sensor (optional)



Provisional technical data

Operating conditions:

Water inlet temperature:	20 °C
Oil temperature:	90 °C
Ambient temperature:	20 °C
Flow rate:	max. 12 l/min.
Pressure drop of cooling water	approx. 0,5 to 1 bar

For other operating conditions, corrections to the specification of the thermal power limit must be taken into account.
(see section SELECTION OF GEAR UNIT)

Optional:
Temperature-controlled quantity regulator to control the amount of cooling water

Note:
For low temperatures the internal water cooler can be used as an oil heater by filling it with warm water before starting up the gear unit.

External oil / water cooler (cooling unit)

For good price/performance ratio and optimum availability, standardised cooling/lubricating systems have been designed. These consist of the basic elements pump / filter / heat exchanger, and can be equipped with various measuring devices.

The cooling systems can be combined with all gear units and can be mounted on all mounting surfaces (F1 - F6), whereby the filter can be rotated into a suitable position. Alternatively, the cooling system can be installed separately

Scope of supply:
The piping to the cooling system (cooling water) and between the gear unit and the system in the case of separately installed cooling systems, is not part of the scope of supply.

External oil / air cooler (CS2) (cooling unit)

If cooling water is not available and fan cooling is not sufficient or not desired, as an option, an oil/air cooler can be used. The design of the necessary cooling power is carried out as for the water cooling system.

Scope of supply:
The piping to the cooling system and between the gearbox and the system in the case of separately installed cooling systems, is not part of the scope of supply.

Specification of the necessary cooling power:

a) Dimensioned as the sole method of cooling
From the drive input P_1 and the calculated efficiency η_N (SELECTION OF GEAR UNIT / ⇨🕮 10-18) the required cooling power results as follows:

$$P_{CS\ erf} = P_1 \cdot (1 - \eta_N)$$

If the effective input power is not known, the motor power can be used.

b) In case of insufficient cooling power (convection, fan, built-in cooler)
The additional required cooling power can be calculated from the difference between the input power and the thermal power limit. Therefore, the thermal power limit (P_{WG}) must be determined first (see SELECTION OF GEAR UNIT)

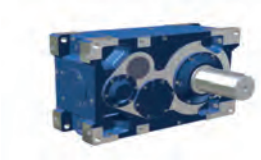
$$P_{CS\ erf} = (P_1 - P_{WG}) \cdot (1 - \eta_N)$$

For standard ambient conditions, suitable cooling systems which function as the sole cooling are proposed in the power tables.

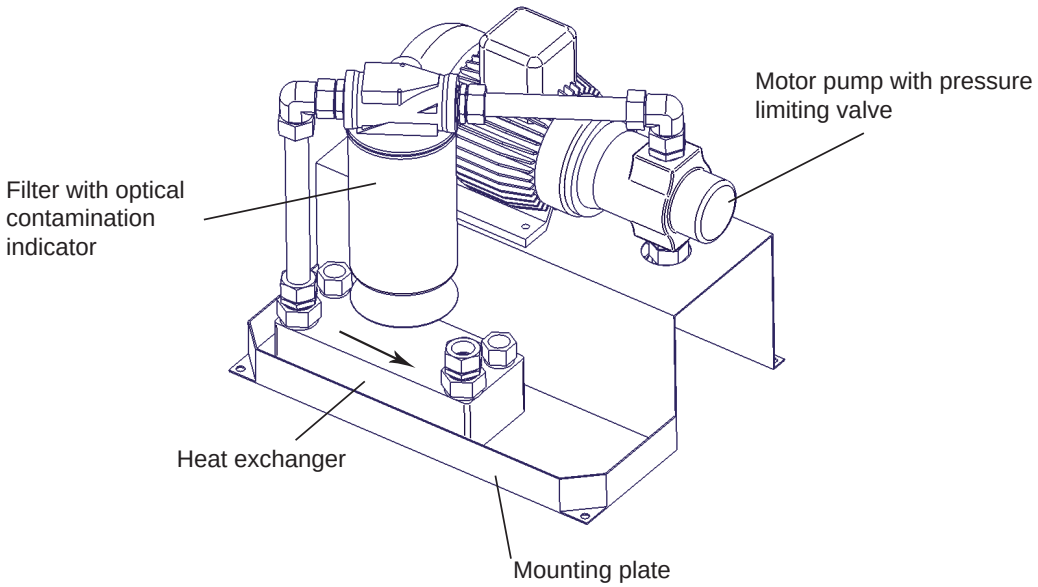
Standard parameter
- Water inlet temperature: 20 °C
- Maximum oil temperature: 90 °C
- Ambient temperature: 20 °C

Optional accessories:
- Thermometer
- Pressure switch
- Manometer
- Optical status monitoring
- Electrical status monitoring
- Filter
- Filter with bypass
- Particle counter

Please consult us for other requirements or requests.



Specifications for external oil / water cooler (cooling unit)

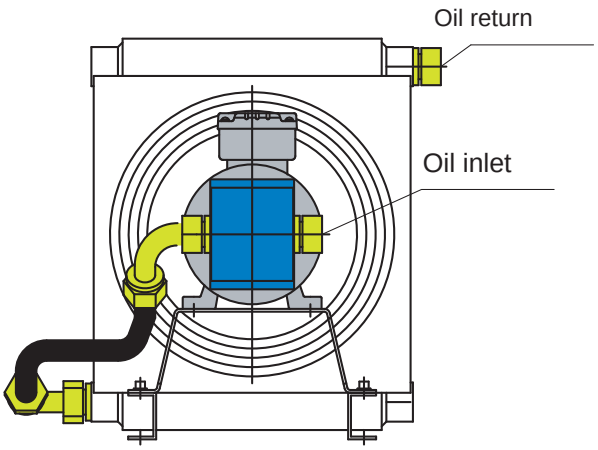


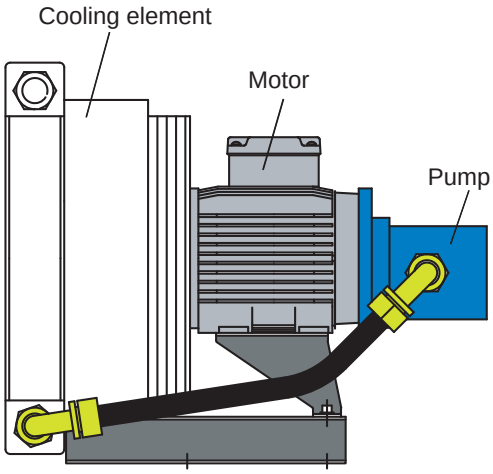
CS1 Size	Cooling power	Thermal power limit with cooling system P_{CS}				$\dot{V}_W$	$\dot{V}_{Öl}$	$t_{W.ein}$	Motor power Pump
		SK..207	SK..307	SK..407	SK..507				
[-]	[kW]	[kW]	[kW]	[kW]	[kW]	[l/min]	[l/min]	[°C]	[kW]
A	3	120	75	67	46	5	10	20	0,55
B	7	280	175	156	108	10	20	20	1,5
C	10.5	420	263	233	162	10	20	20	1,5
D	13	520	325	289	200	10	40	20	1,5
E	16.5	660	413	367	254	20	40	20	1,5
F	23	920	575	511	354	20	40	20	1,5
G	31.5	1260	787	700	485	40	80	20	3,0
H	50	2000	1250	1111	769	40	80	20	3,0

Additional options on request

Provisional technical data

Specifications for external oil / air cooler (cooling unit)





CS2 Size	Cooling power	Thermal power limit with cooling system P_{CS}				$V_{Öl}$	Motor power pump	Nominal current I_N (230 / 400 V)	Weight
		SK..207	SK..307	SK..407	SK..507				
[-]	[kW]	[kW]	[kW]	[kW]	[kW]	[l/min]	[kW]	[A]	[kg]
A	3	120	75	67	46	10	0,25		31
B	7	280	175	156	108	20	0,75	3,5 / 2,0	39
C	10,5	420	263	233	162	20	0,75	3,5 / 2,0	39
D	13	520	325	289	200	40	1,5	6,1 / 3,5	39
E	16,5	660	413	367	254	40	1,5	6,1 / 3,5	39
F	23	920	575	511	354	40	1,5	6,1 / 3,5	39
G	31,5	1260	787	700	485	80	3,0	11,3 / 6,6	39
H	50	2000	1250	1111	769	80	3,0	11,3 / 6,6	39

Atex versions available. Please contact us.

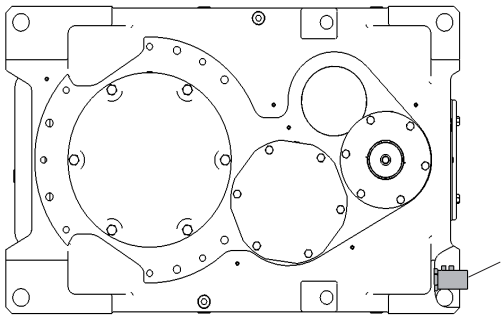
Provisional technical data

Oil heater (OH)

In case the ambient temperature is lower than permissible (Types of lubricant ⇨🕮38), the gear oil must be heated prior to a cold start, in order to ensure an adequate supply of lubricant. For this, an oil heating cartridge can be installed in the gear unit.

The oil heater has a temperature sensor and a thermostat, which is pre-set. Further variations are available on request.

If pressure circulation lubrication is used, the operational viscosity of the gear oil on start-up must be above 1800 cSt. For ISO-VG220 this corresponds to a temperature of at least 10°C for mineral oil, and a temperature of at least 0°C for synthetic oil. Below this range an oil heater must be used.



Screw-in oil heater with temperature sensor and thermostat

The oil heater must be fully immersed in the oil bath in order to prevent damage.

Painting

Type	Version	TFD	TFD total	Recommended use
F1	1 x 1-K dip-primed, red-brown (cast iron components) and 1 x 1-K universal primer	40 30	30-70	For final painting by the customer
F2 Series	1 x 1-K dip-primed, red-brown (cast iron components) and 1 x 2-K polyurethane (2-K-PUR)HS finishing coat	40 40	40-80	For indoor installation with normal climatic conditions
F3.0	1 x 1-K dip-primed, red-brown (cast iron components) and 1 x 2-K polyurethane (2-K-PUR) primer and 1 x 2-K polyurethane (2-K PUR)HS finishing coat	40 70 40	110-150	For indoor and outdoor installation with low environmental contamination
F3.1	1 x 1-K dip-primed, red-brown (cast iron components) and 2 x 2-K polyurethane (2-K-PUR) primer and 1 x 2-K polyurethane (2-K PUR)HS finishing coat	40 2x70 40	180-220	For indoor and outdoor installation with moderate environmental contamination
F3.2	1 x 1-K dip-primed, red-brown (cast iron components) and 2 x 2-K polyurethane (2-K-PUR) primer and 2 x 2-K polyurethane (2-K PUR)HS finishing coat	40 2x70 2x40	220-260	For indoor and outdoor installation with severe climatic conditions
F3.3	1 x 1-K dip-primed, red-brown (cast iron components) and 2 x 2-K epoxy zinc phosphate primer and 2 x 2-K polyurethane (2-K PUR)HS finishing coat	 2x70 2x40	220-260	Coastal and offshore regions
F3.4	1 x 1-K dip-primed, red-brown (cast iron components) and 1 x 2-K epoxy zinc phosphate primer and 1 x Epoxy EFDEDUR chemical resistant finishing coat	40 70 40	110-150	For high chemical exposure
F3.5	1 x 1-K dip-primed, red-brown (cast iron components) and 1 x 2-K epoxy zinc phosphate primer and 1 x FREOPOX Coating	40 70 40	110-150	Machinery for the field of foodstuffs packaging
Z	Compensation of contour depressions and crevices with seam sealer on polyurethane basis			

1-K = single component 2-K = two-component, TFD = Dry film thickness max. [µm], HS = high solids

Output flanges (F, FK)

In addition to the six mounting faces of the housing, the gear unit can be equipped with various mounting flanges. The output flange is designed to accommodate the gear unit with the attached motor. However, the permissible motor weights (⇨🕮 51) must not be exceeded.

Please contact us if you wish to use the mounting flange for the attachment of parts of the application. In this case, technical clarification is essential.

The attachment side of the flange is defined as follows:

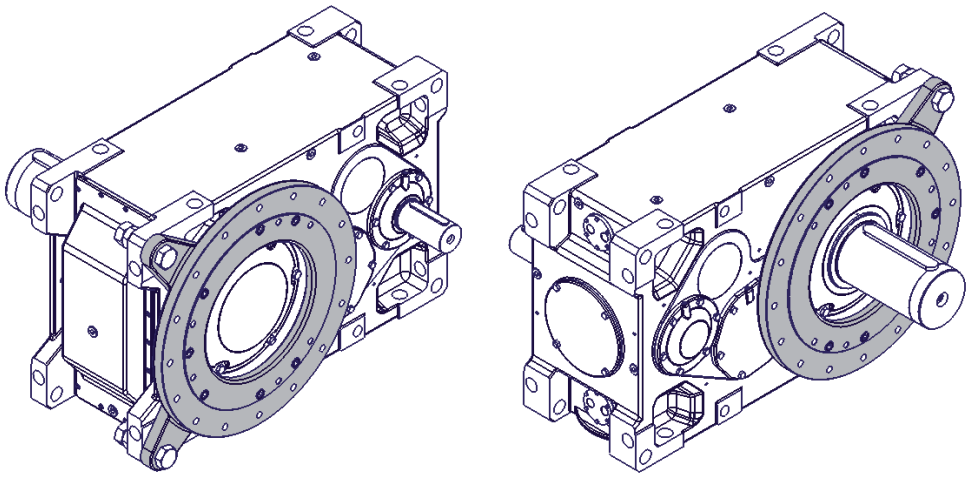
A is on the output shaft side (Standard)

B is opposite the output shaft

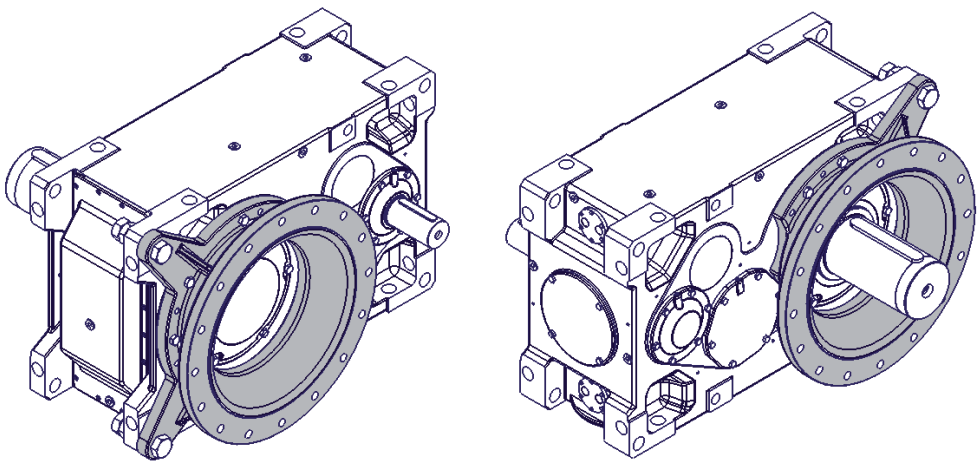
The following types of output flanges are available:

- Block flange
- Collar flange
- VL2 / VL3 flange (agitators)

Flat output flange (block flange / B14 / with thread)



High output flange (collared flange / B5 / with through holes)

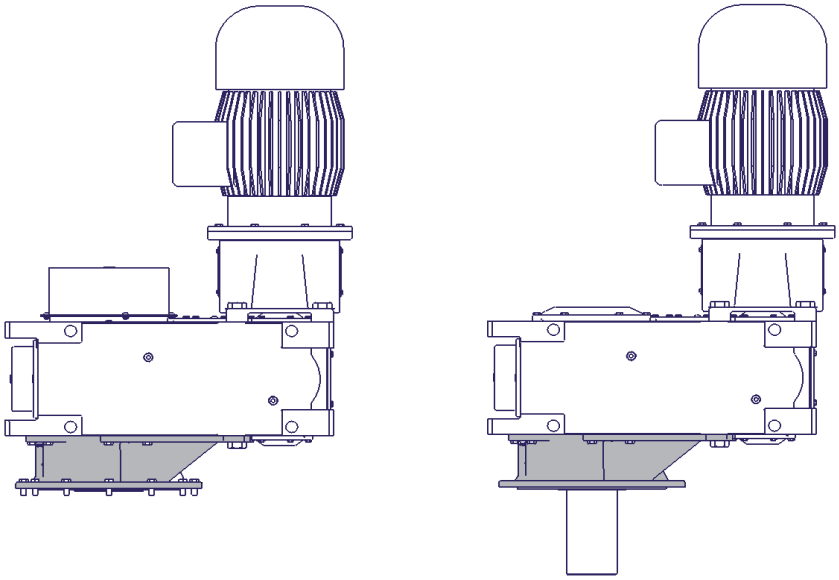


Reinforced output design VL2 / VL3 (agitator flange)

VL2

Especially for agitators, NORD offers reinforced output shaft bearings with increased bearing spacing, to cope with high axial and radial forces and provide a longer operating life.

The spherical roller bearings are particularly suitable for longer agitator shafts, as errors in alignment are partially compensated.



Option VL3

"DRYWELL" solution with additional oil drip disc and leakage oil display or oil sensor.

Safety function

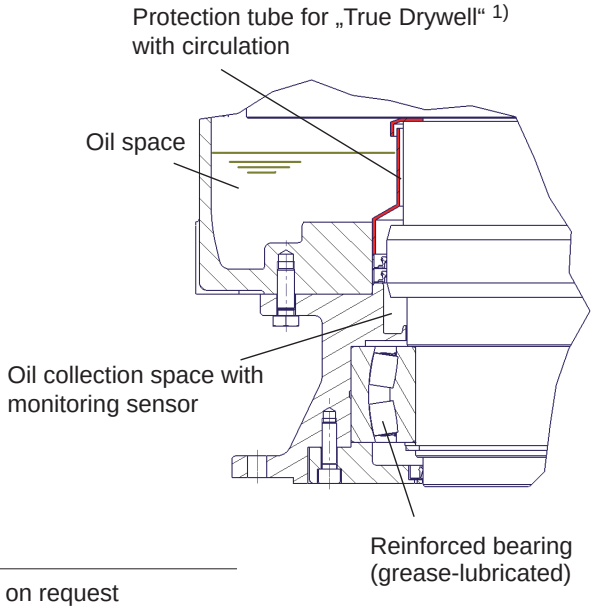
In case of any leakage in the lower sealing rings of the output shaft, the oil drips into a collecting space of the "DRYWELL" flange via the oil drip disc, and is detected by an oil sensor. Leakage into the agitator area is prevented.

Calculation of the bearing life on request.

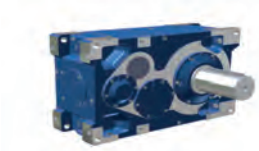
For the calculation we require the following data:

Nominal power	**P**	[kW]
Output speed	$\mathbf{n_2}$	[min^{-1}]
Axial force	$\mathbf{F_A}$	[N]
Radial force	$\mathbf{F_R}$	[N]
Distance of the point of action of the radial force from the flange support	**C**	[mm]
Required bearing life	$\mathbf{L_h}$	[h]

Drywell solution



1) on request



Direct motor attachments and IEC adapters

For drive units with directly attached motors and IEC attachments the standard output of the particular size according to DIN EN 50347 applies, however, with the maximum input power stated in the power and ratio tables.

For higher speeds than those stated in the power and ratio tables, special measures may be necessary. Please contact us.

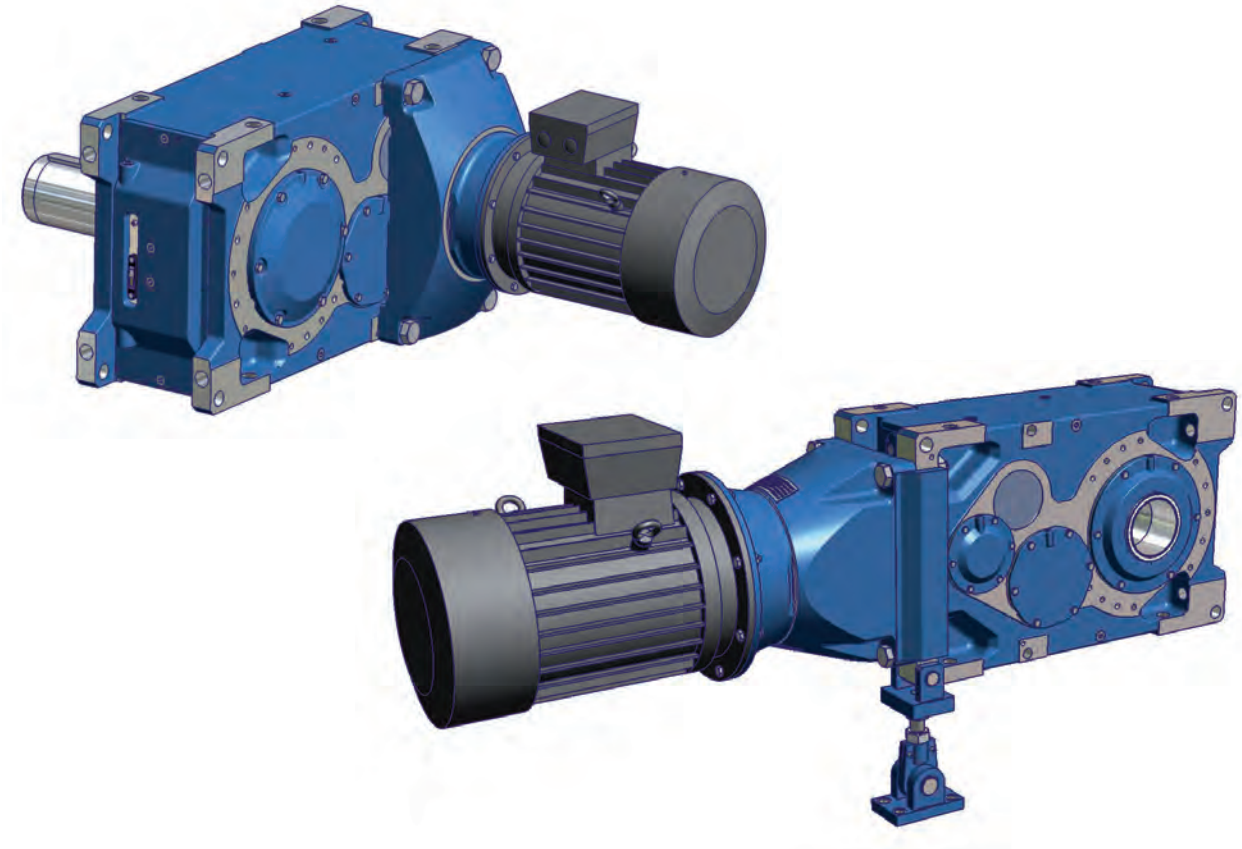
IEC tables (Pages 126 -128 and 133 - 135):

1) Type designation and dimensions up to 200kW correspond to NORD motors

2) Data for Transnorm motors available on request

3) Various drive shaft ends, see gear unit data, pages 122 and 129

Motor attached to IEC adapters cylinder with elastic coupling



Maximum permissible motor weight according to size														
IEC	63	71	80	90	100	112	132	160	180	200	225	250	280	315
kg	25	30	40	50	60	80	100	200	250	350	500	700	1000	1500
Trans-norm	315	355	400	450										
kg	1500	2200	3200	4400										

Provisional technical data

Motor swing bases (MS)

Motor swing bases are shaft mount gear units, in which the drive elements are mounted on a common base frame. The torque is taken up via torque supports

Basic components:
Gear unit
Motor
Base frame

Optional components (can be combined):
- Elastic coupling, fluid coupling
- Drum brake, disc brake
- Radial / Axial fan
- Auxiliary drive
  (with freewheeling coupling / backstop / motor brake / etc.)
- Torque support, attachment plate
- Protective covers

Motor base frame (MF)

Motor base frames are similar to motor swing bases, except that in place of a torque support, feet are attached to the base frame and the gear unit is not designed as a shaft mount unit.

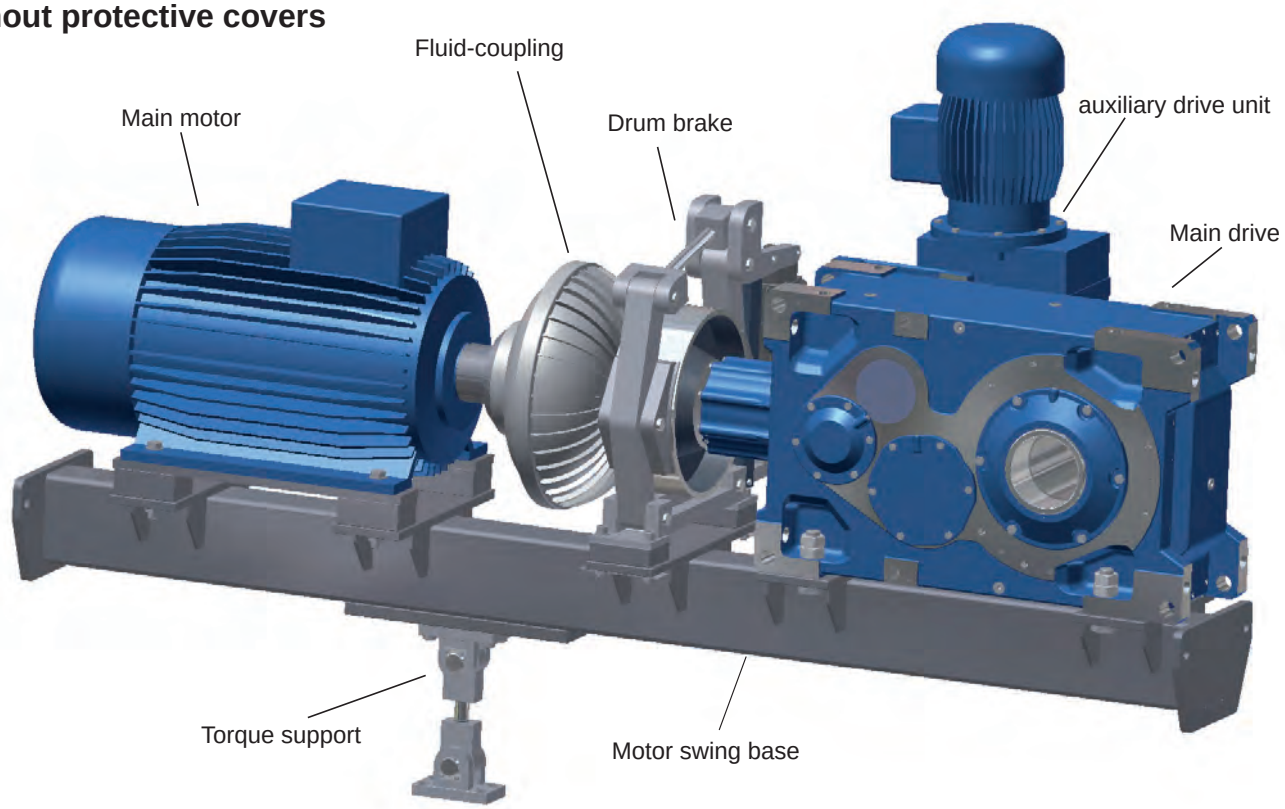
Motor bracket (MT)*)

The motor bracket is an adjusting unit which is mounted on the gear unit. This enables a pulley drive to me mounted and tensioned on the drive. The motor bracket is used for restricted installation situations, and if it is necessary to change the total ratio of the drive mechanically. The pulley drive can be used as a safety element, as it reacts to overload by slipping. Consultation is necessary for the use of a pulley drive as a safety element.

*) The designation „motor bracket“ was previously used by NORD for pulley drive attachments. Our competitors call this attachment a „motor bed“, whilst „motor bracket“ is used for „sugar scoop“. The designation by our competitors has been adopted here.

Example:

Motor swing base with fluid coupling, drum brake and auxiliary drive without protective covers



Couplings (input and output)

In addition to various flexible, fail-safe couplings (Claw coupling: Rotex, Polynorm / Bolt couplings: Revolex KX) start-up couplings (fluid couplings; hydro couplings), and safety couplings (e.g. Autogard) can be supplied.
As output couplings, short length elastic fail-safe bolt couplings can be supplied, as well as gear couplings which can also span greater distances.
Please contact us if you have special requirements for input or output couplings.

Brakes

For motor swing bases and base frames optional disc or drum brakes are available, which can be installed between the motor and the gear unit. However, there is also the possibility of installing the disc brake on the free end of an input shaft.

For applications with a relatively high external moment of inertia (m_{af} > 2), such as is often the case with travelling drives, slewing gear, turntables, gate drives, agitators and surface ventilators it is recommended that a brake torque is selected, which is no greater than 1.2 times the nominal torque of the motor.
If higher brake torques are to be used, this should be taken into account in the selection of the gear unit. In this case, please contact us.
Please contact us if output brakes are necessary.
(Disc brakes, drum brakes)

Auxiliary drives (WX)

The auxiliary drive is flange-mounted with an intermediate flange, as a supplement to the main drive. The allocation can be obtained from the double drives. In order to prevent the auxiliary drive from idling, it is coupled via a freewheeling clutch.

The following options are available:
- with freewheeling clutch
- with freewheeling clutch and backstop in the flange (standard)
- with freewheeling clutch in the flange and separate backstop

The auxiliary drive should be equipped with a brake (e.g. motor brake) in order to prevent unintended rotation.

Monitoring devices and sensors (MO)

The following monitoring devices are available as options

- Oil sight glass
- Oil level glass
- Oil dip-stick
- Pt100 (Temperature)
- PTC thermistor (Temeperature)
- Bimetal switch (Temperature)
- Particle counter (oil)
- Water content (oil)
- Electrical contamination indicator for oil filter
- Optical contamination indicator for oil filter
- SPM nipple (vibrations)
- Bearing condition monitor with evaluation unit
- Oil condition monitoring
- Pressure monitoring (oil circulation)
- Special requirements on request

Please contact us for detailed advice.

INFORMATION AND DEFINITIONS

Information on the dimension drawings

Output and input shafts	Hollow shafts	Customer shafts
Shaft tolerance - ø (DIN 748): ø14 – ø50 mm = ISO k6 > ø 50 mm = ISO m6	Hollow shaft tolerance - ø (DIN 748) according to ISO H7	Tolerance of customer's shaft journal according to ISO h6 for heavy duty operation according to ISO k6 L = length of plug-in shaft DIN 5480 recommended fitting 8f Tolerance of customer's shaft journal for shrink discs according to ISO g6
Tapped holes according: = ø 13 – ø 16 ⇒ M5 > ø 16 – ø 21 ⇒ M6 > ø 21 – ø 24 ⇒ M8 > ø 24 – ø 30 ⇒ M10 > ø 30 – ø 38 ⇒ M12 > ø 38 – ø 50 ⇒ M16 > ø 50 – ø 85 ⇒ M20 > ø 85 – ø 130 ⇒ M24 > ø 130 – ø 225 ⇒ M36 > ø 225 – ø 320 ⇒ M48	Splined hub section DIN 5480 9H	
Parallel keys according to DIN 6885, Sheets 1 and 3	Parallel keys according to DIN 6885, Sheets 1 and 3	Parallel keys according to DIN 6885, Sheets 1 and 3
Axle height	**Flanges**	**IEC and servo-adapter**
Axle height "h" according to DIN 747	Tolerance of pitch circle - ø (DIN 42 948)	Tolerance of pitch circle - ø (DIN 42 948)
	Tolerance of flange centring - ø (DIN 42 948): ≤ ø 230 mm according to ISO j6, > ø 230 mm according to ISO h6,	Tolerance of flange centring according to ISO H7
g1Bre k1Bre mBre nBre pBre qBre qBre qABre } Brake motor dimensions	Some motor dimensions may change under certain circumstances.	The housings are made of cast materials. Due to the manufacturing process, the unmachined surfaces may therefore deviate slightly from the nominal dimensions.

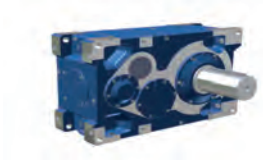
Catalogue weight data

The weight data is based on gear units without oil and add-ons. The actual weights can be found in the gear unit documentation when delivered.

Catalogue tables and dimensioned data

** Provisional technical data
(⇨🕮 67 - 159)

Provisional technical data



Structure of the power and gear ratio tables for gearedmotor types [2)]

250 kW ⟶ **Output of "geared motor" / Selection according to motor power**

n_1 = 1500 min^{-1} **at nominal (rated) speed and η = 1.0**

Nominal power of motor

Output speed at nominal motor speed

Output torque for stated f_B

Operating factor

Total gear ratio

Type of gear unit

Weight without motor without IEC flange

Dimensioned drawing: see page

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	f_B	i_{ges}	F_R [kN]	F_A [kN]	$P_{t0.20}$ [kW]	CS		kg	mm
250	42	55,7	1,3	34,93	79	38	154	B/Fan*	**SK 11307 - 315LA/4**	1460	122
	45	55,3	1,2	31,90	79	38	165	B/Fan*			
	51	46,8	1,6	28,56	79	38	159	B/Fan*			
	56	42,9	1,6	26,09	79	38	172	B/Fan*			
	65	35,8	1,8	22,32	79	38	178	A/Fan*			
	72	33,1	2,1	20,25	91	38	212	A/Fan	**SK 11207 - 315LA/4**	1390	122
	78	31,3	2,1	18,50	83	34	235	A/Fan			
	92	26,0	2,5	15,83	84	36	235	A/Fan			
	100	23,7	2,6	14,46	75	31	248	A/Fan			

Permissible radial force on output side
Normal bearings
The stated values for F_R
are calculated for F_A = 0 N

Permissible axial force on output side
Normal bearings
The figures for F_A
are calculated for F_R = 0 N

optional cooling system related to standard ambient conditions[1)]

--- : no additional cooling necessary
Fan : Fan
CC : integrated water cooling
A...H : external cooling units

FAN* : The fan has a greater thermal power limit than the integrated water cooling

Thermal power limit for Standard ambient conditions[1)]

1)

Standard ambient conditions

Ambient temperature:	20°C
Air circulation at installation location	large hall with good air circulation (v_L = 1.4 m/s)
Installation:	Foundation steel sub-construction
Installation altitude:	≤ 1000m above sea level
Installation position	Horizontal installation (M1 or M3)
Type of lubrication:	Oil-bath lubrication ((immersion lubrication)

2)

provisional technical data

Structure of the power and gear ratio tables - nominal power type [1)]

Power table

Nominal input speed
The actual motor speeds depend on the size of the motor, and may differ!

Nominal output speeds
Related to the nominal input speed and the nominal ratio

Type of gear unit

i_N [-]	n_{1N} [min^{-1}]	n_{2N} [min^{-1}]		SK 11307	SK 12307	SK 13307	SK 15307	
112	1500	13,39	P_N	89	134	187	316	kW
	1000	8,93		60	89	125	210	
			M_{2max}	65	96	135	224	kNm
100	1500	15,00	P_N	95	137	191	327	kW
	1000	10,00		63	91	127	218	
			M_{2max}	63	90	126	213	kNm
90	1500	16,67	P_N	114	170	238	403	kW
	1000	11,11		76	114	159	268	
			M_{2max}	65	96	133	224	kNm

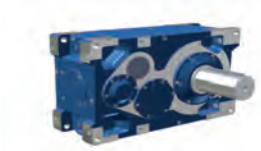
Nominal output P_N
with f_B = 1,0
and nominal input speed
n_{1N} = 1.500 min^{-1}

Nominal ratio
stepped according to standard series

Nominal torque M_{2max}
with f_B = 1,0

Nominal output P_N
with f_B = 1,0
and nominal drive speed
n_{1N} = 1.000 min^{-1}

1)
provisional technical data




Thermal power limit

Nominal ratio
of gear unit

Ambient temperature

Type of gear unit

i_N [-]	CS type	t_u	SK 11307 20°C	SK 11307 40°C	SK 12307 20°C	SK 12307 40°C	SK 13307 20°C	SK 13307 40°C	SK 15307 20°C	SK 15307 40°C	
112	---	P_{t0}	83	62	101	76	138	104	202	152	
	FAN	P_{tF}	33	17	40	20	55	28	81	40	kW
	CC	P_{tC}	157	157	219	219	281	281	281	281	
100	---	P_{t0}	88	66	108	81	143	107	210	157	
	FAN	P_{tF}	35	18	43	22	57	29	84	42	kW
	CC	P_{tC}	157	157	219	219	281	281	281	281	
90	---	P_{t0}	98	74	119	90	167	125	236	177	
	FAN	P_{tF}	39	20	48	24	67	33	94	47	kW
	CC	P_{tC}	157	157	219	219	281	281	281	281	

Type of cooling
--- : no additional cooling
FAN : Fan cooling
CC : integrated water cooling

additional thermal power limit (P_{tC})[1), 2)]
with integrated water cooling
at ambient temperature t_u

additional thermal power limit (P_{tF})[1), 2)]
with built-in fan
with nominal speed n_{1N} = 1500 min^{-1}
at ambient temperature t_u

Thermal power limit (P_{t0})[1), 2)]
without additional cooling
at ambient temperature t_u

1) Intermediate figures from 0°C to 50°C can be interpolated
2) Ambient conditions :

- Air circulation at installation location large hall with good air circulation ($v_L \approx 1.25$ m/s)
- Installation: Foundation as steel sub-construction
- Installation altitude: ≤ 1000m above sea level
- Installation position Horizontal installation (M1 or M3)
- Type of lubrication: Oil-bath lubrication ((immersion lubrication)
- Cooling water inlet temperature: 20°C

Additional details

i_N [-]		SK 11307	SK 12307	SK 13307	SK 15307	
112	$F_R \mid F_A$	91 | 38	93 | 40	144 | 61	149 | 51	kN
	i_{ges}	114,28	112,91	113,15	111,48	-
	J_{red}	0,039	0,069	0,122	0,264	kgm²
100	$F_R \mid F_A$	91 | 38	93 | 40	144 | 61	149 | 51	kN
	i_{ges}	104,39	103,51	103,73	102,20	-
	J_{red}	0,039	0,069	0,123	0,265	kgm²
90	$F_R \mid F_A$	91 | 38	93 | 40	144 | 61	149 | 51	kN
	i_{ges}	89,30	88,55	87,64	87,37	-
	J_{red}	0,042	0,075	0,133	0,286	kgm²

Nominal ratio

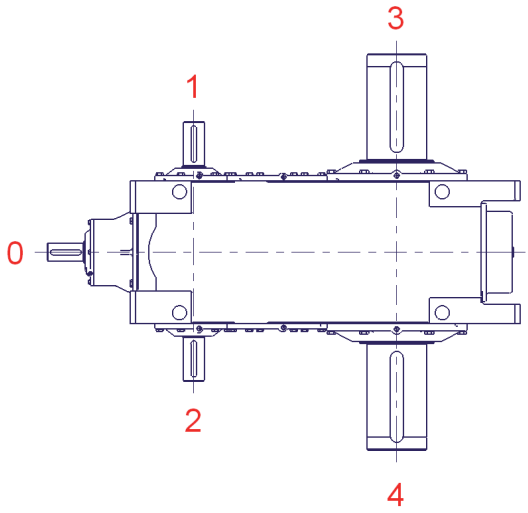
Moment of inertia
relative to input shaft

Exact ratio

Radial / Axial force on output
(maximum permissible)
F_A for F_R = 0 / F_R for F_A = 0

Shaft configuration

The position of the required shaft outlets is determined from the direction of view from above onto the horizontal gear unit installation position or onto the mounting surface F1 or F2 (see mounting surfaces) according to the following diagram.

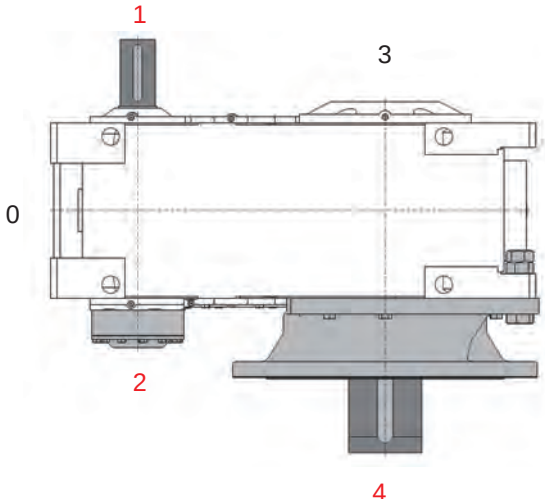


Position of attachments

The positions of attached elements such as e.g. backstops, fans, flange-mounted pumps, drive flanges, agitator flanges etc. is determined according to the same scheme as the shafts.

Example:

0	-
1	End of input shaft
2	Backstop
3	-
4	Output shaft and output flange



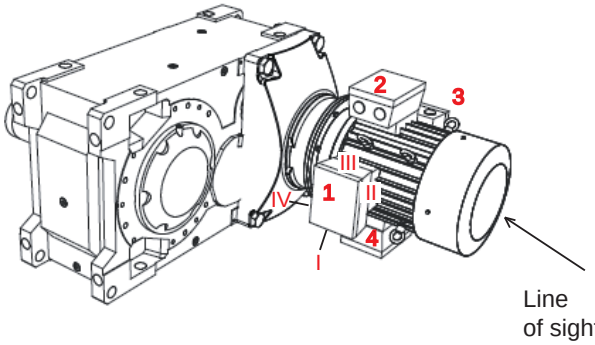
Terminal box and cable gland

With a view towards the motor fan (NDE), in the series-production model the terminal box is located on the left or at 9 o'clock and the cable gland at I (below)

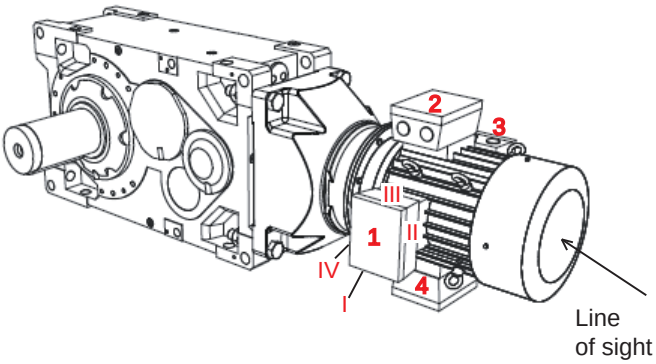
If other configurations are required, these must be explicitly stated on the order. Please always contact us in case gland IV is required.

For size 63 to 132 brake motors, the cable gland at I and III is only possible.

Terminal box for installation position M1:
Helical gear units



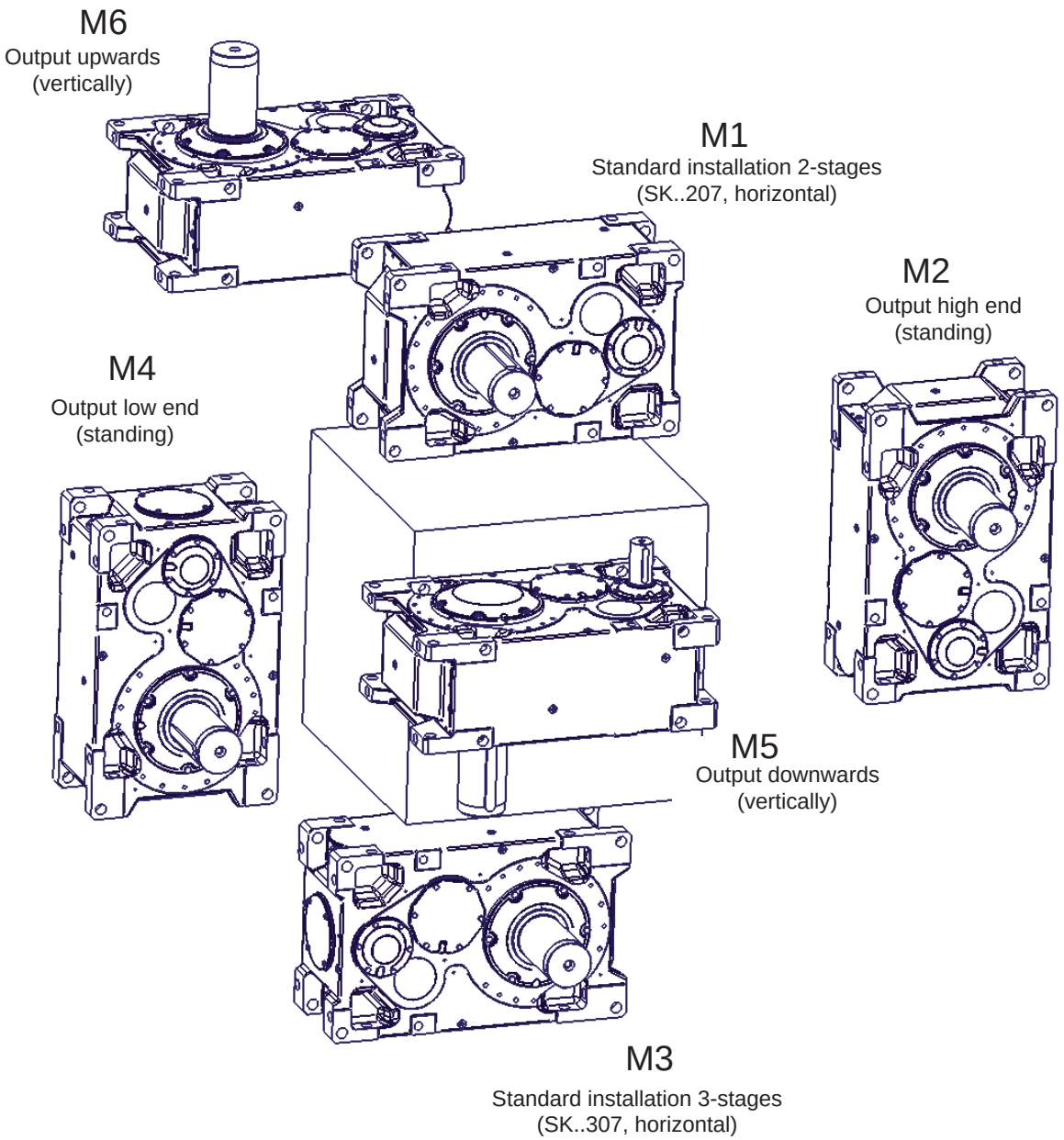
Bevel helical gear units:

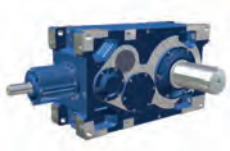


Mounting positions

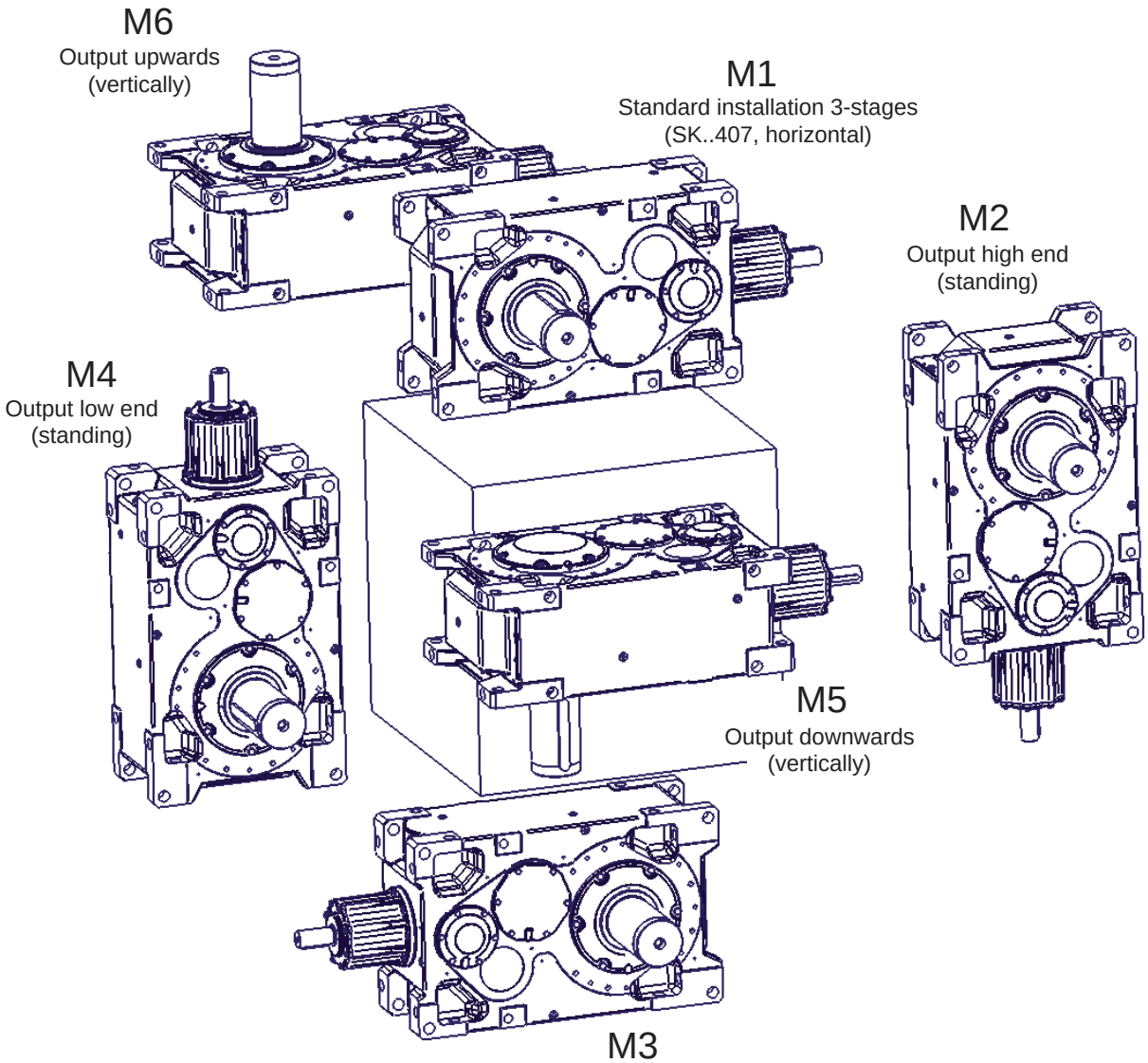
For gear units and gear motors, NORD specifies between six installation positions from M1 to M6 as shown in the following diagrams.

Mounting positions for helical gear unit SK ..207 and SK ..307





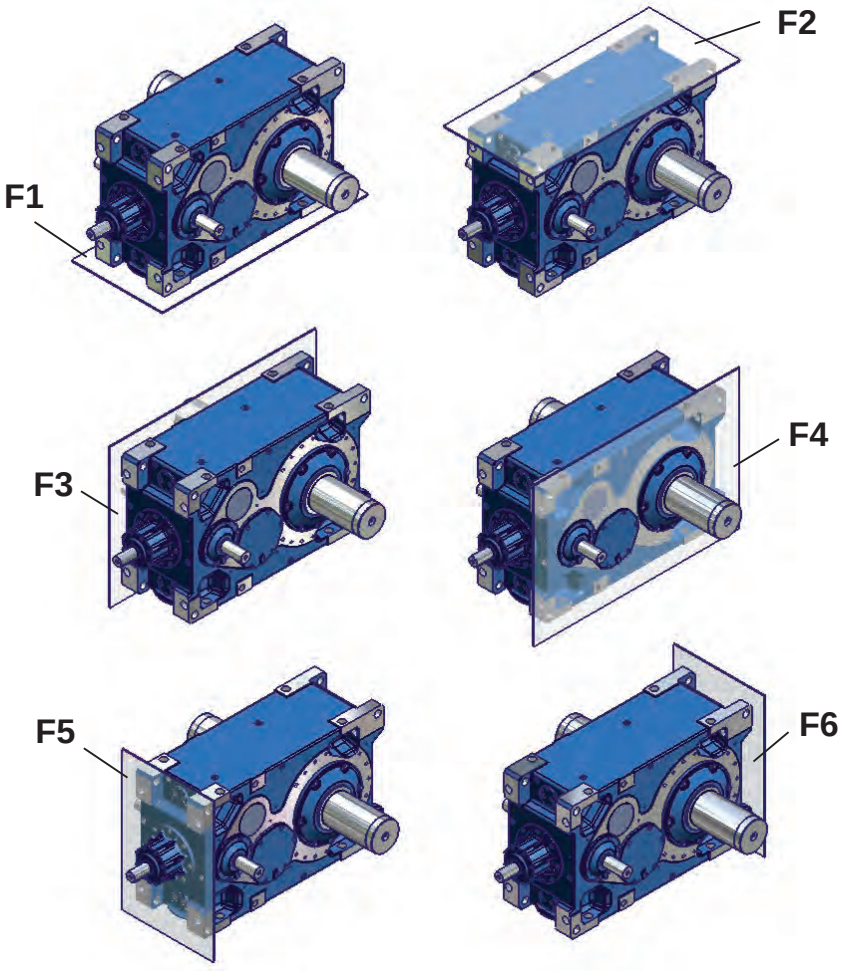
Mounting positions for bevel gear unit SK ..407 and SK ..507



Mounting surfaces

The mounting surface specifies the side on which the gear unit is fixed. 6 mounting surfaces are available (F1 - F6)

In the following, the mounting surfaces for mounting position M1 are indicated.



Factors for gear unit design

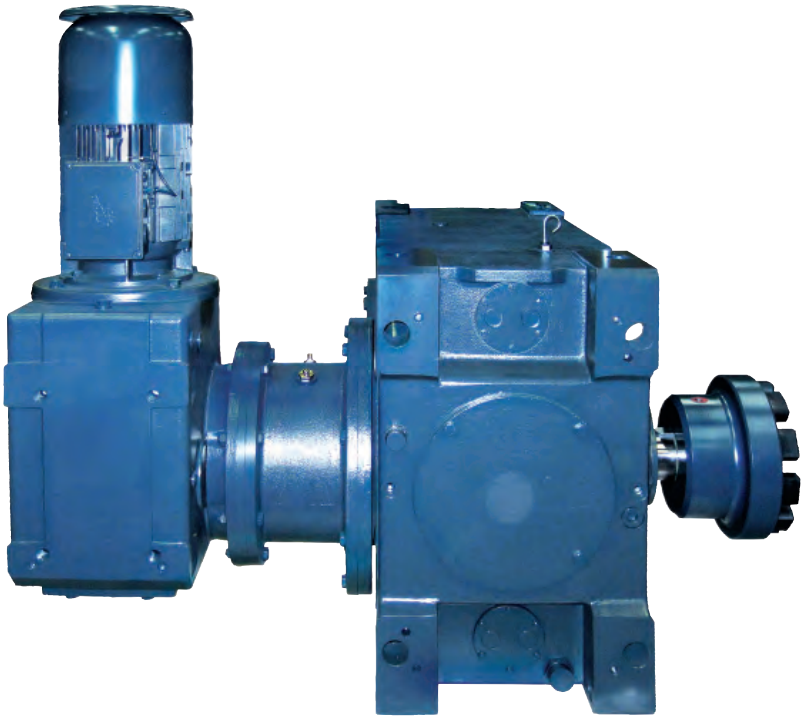
Abbreviation	Description	used for
f_B	Operating factor	Pre-selection of gear unit
f_S	Peak load factor	Load limit
f_{AN}	Start-up factor	Load limit
f_M	Input factor	Load limit
η_N	Nominal efficiency for design	Selected motor size
f_A	Utilisation factor	Thermal power limit
f_n	Speed factor	Thermal power limit
$f_Ö$	Oil supply factor	Thermal power limit
f_t	Temperature factor for gear unit	Thermal power limit
f_w	Temperature factor for water cooling	Thermal power limit
f_L	Temperature factor for fan cooling	Thermal power limit
f_v	Installation factor	Thermal power limit
f_H	Altitude factor	Thermal power limit
f_U	Ambient temperature	Thermal power limit
f_{BF}	Operating factor for transverse and axial forces	Radial and axial forces
f_Z	Transfer element	Radial and axial forces

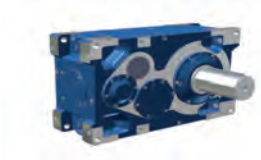
Abbreviations in the power and selection tables

Abbreviation	Description	Unit
f_B	Operating factor (M_{2max} / M_2)	[-]
F_A	Permissible axial force on output side	[kN]
F_R	Permissible radial force on output side, point of action of force at centre of end of shaft	[kN]
$P_{t0.20}$	Thermal power limit with standard ambient conditions	[kW]
i_{ges}	Total gear ratio	[-]
CS	Adequate cooling system for standard ambient conditions	[-]
n_{1N}	Nominal drive speed	[min^{-1}]
n_{2N}	Nominal output speed	[min^{-1}]
t_u	Ambient temperature on gear unit	[°C]
M_{2max}	Maximum permissible output torque	[kNm]
J_{red}	Moment of inertia relative to drive shaft	[kgm^2]
P_1	Input power of gear unit	[kW]
P_N	Nominal power of gear unit	[kW]
P_{tF}	Thermal power limit with fan for n_{1N}=1500 min^{-1}	[kW]
P_{tCC}	Thermal power limit with integrated water cooling	[kW]
kg	Weight of gear unit without motor	[kg]

Abbreviations for gear unit selection

Abbreviation	Description	Unit
n_1	Input speed	[min^{-1}]
n_{1N}	Nominal drive speed	[min^{-1}]
n_2	Output speed	[min^{-1}]
i_{ges}	Exact ratio	[-]
i_N	Nominal ratio stepped according to standard series	[-]
i_{soll}	Nominal ratio	[-]
P_1	installed motor power	[kW]
P_2	Output power	[kW]
M_2	Output torque	[kNm]
M_{2max}	Nominal output torque	[kNm]
M_{1Peak}	Peak-load torque of motor	[kNm]
M_{2Peak}	Peak-load torque of machine	[kNm]
$P_{t0.20}$	Thermal power limit by convection at 20°C ambient temperature	[kW]
$P_{tF.20}$	Thermal power limit with fan at 20°C ambient temperature	[kW]
$P_{tC.20}$	Thermal power limit with water cooling at 20°C ambient temperature	[kW]
P_{tCS}	Thermal power limit with cooling unit	[kW]
P_{WG}	Total thermal power limit for gear unit with cooling options	[kW]
d_o	effective diameter	[mm]
x	Distance from shaft collar to point of action of force	[mm]
α	Angle of attack of existing radial force	[°]
F_{Rvorh}	Radial force on gear unit output shaft	[kN]





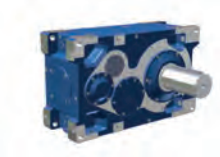
[L]	M1	M2	M3	M4 [1]	M5 [2]	M6 [2]	max [3]
SK 11207	105	130 / 50 [4]	105	140 / 40 [4]	135 / 45 [4]	135 / 45 [4]	180
SK 11307	105	130 / 50 [4]	105	140 / 40 [4]	135 / 45 [4]	135 / 45 [4]	180
SK 12207	116	185 / 83 [4]	116	203 / 65 [4]	199 / 69 [4]	199 / 69 [4]	268
SK 12307	116	185 / 83 [4]	116	203 / 65 [4]	199 / 69 [4]	199 / 69 [4]	268
SK 13207	154	256 / 107 [4]	154	290 / 73 [4]	268 / 95 [4]	268 / 95 [4]	363
SK 13307	154	256 / 107 [4]	154	290 / 73 [4]	268 / 95 [4]	268 / 95 [4]	363
SK 15207	358	415 / 160 [4]	335	450 / 125 [4]	405 / 170 [4]	412 / 163 [4]	575
SK 15307	358	415 / 160 [4]	335	450 / 125 [4]	405 / 170 [4]	412 / 163 [4]	575

[L]	M1	M2	M3	M4 [1]	M5 [2]	M6 [2]	max [3]
SK 11407	112	137	112	147	142	147	187
SK 11507	112	137	112	147	142	147	187
SK 12407	126	195	126	213	209	209	278
SK 12507	126	195	126	213	209	209	278
SK 13407	168	270	168	304	282	282	377
SK 13507	168	270	168	304	282	282	377
SK 15407	382	439	359	474	429	436	599
SK 15507	382	439	359	474	429	436	599

[L]	R	VL2	VL3	OT
SK 11207	+2	+15	+15	+15
SK 11307	+2	+15	+15	+15
SK 12207	+3	+20	+20	+15
SK 12307	+3	+20	+20	+15
SK 13207	+5	+25	+25	+15
SK 13307	+5	+25	+25	+15
SK 15207	+7	+30	+30	+15
SK 15307	+7	+30	+30	+15

[L]	CS
A	+ 5
B	+ 8
C	+ 8
D	+12
E	+12
F	+12
G	+15
H	+15

[1], [2], [3], [4] ⇨ 37
⇨ 59
** ⇨ 54



	V	L	A	AS
SK 11207	1390 kg	1460 kg	1250 kg	1300 kg
SK 11307	1460 kg	1530 kg	1320 kg	1370 kg
SK 12207	2005 kg	2110 kg	1785 kg	1860 kg
SK 12307	2110 kg	2215 kg	1890 kg	1965 kg
SK 13207	2820 kg	2980 kg	2460 kg	2600 kg
SK 13307	3040 kg	3200 kg	2680 kg	2820 kg
SK 15207	4460 kg	4645 kg	4035 kg	4180 kg
SK 15307	4700 kg	4885 kg	4275 kg	4420 kg

	R	VFVL2/3	AFVL2/3	ASFVL2/3	F	FK
SK 11207	+ 20 kg	+ 430 kg	+ 230 kg	+ 290 kg	+ 150 kg	+ 185 kg
SK 11307	+ 15 kg					
SK 12207	+ 35 kg	+ 600 kg	+ 340 kg	+ 410 kg	+ 205 kg	+ 260 kg
SK 12307	+ 15 kg					
SK 13207	+ 35 kg	+ 850 kg	+ 470 kg	+ 575 kg	+ 295 kg	+ 365 kg
SK 13307	+ 15 kg					
SK 15207	+ 60 kg	+ 1430 kg	+ 840 kg	+ 970 kg	+ 400 kg	- - -
SK 15307	+ 35 kg					

	D	ED	WX	H (FAN)	H (AS)	CC
SK 11207	+ 30 kg	+ 115 kg	+ 110 kg	+ 22 kg	+ 10 kg	+ 10 kg
SK 11307						
SK 12207	+ 35 kg	+ 115 kg	+ 110 kg	+ 25 kg	+ 11 kg	+ 12 kg
SK 12307						
SK 13207	+ 40 kg	+ 135 kg	+ 110 kg	+ 28 kg	+ 13 kg	+ 15 kg
SK 13307						
SK 15207	+ 45 kg	+ 135 kg	+ 120 kg	+ 35 kg	+ 16 kg	+ 15 kg
SK 15307						

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	IEC 160	IEC 180	IEC 200	IEC 225	IEC 250	IEC 280	IEC 315
SK 11207	+ 142 kg	+ 142 kg	+ 138 kg	+ 147 kg	+ 162 kg	+ 162 kg	+ 183 kg
SK 11307							
SK 12207	+ 168 kg	+ 168 kg	+ 163 kg	+ 172 kg	+ 188 kg	+ 188 kg	+ 209 kg
SK 12307							
SK 13207	+ 184 kg	+ 184 kg	+ 180 kg	+ 189 kg	+ 204 kg	+ 204 kg	+ 225 kg
SK 13307							
SK 15207	+ 230 kg	+ 230 kg	+ 226 kg	+ 235 kg	+ 250 kg	+ 250 kg	+ 271 kg
SK 15307							

	IEC 315 TN	IEC 355 TN
SK 11207	+ 205 kg	+ 235 kg
SK 11307		
SK 12207	+ 231 kg	+ 260 kg
SK 12307		
SK 13207	+ 247 kg	+ 277 kg
SK 13307		
SK 15207	+ 293 kg	+ 322 kg
SK 15307		

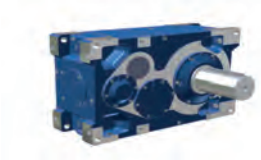
** ⇨ 54

	V	L	A	AS
SK 11407	1460 kg	1530 kg	1320 kg	1370 kg
SK 11507	1535 kg	1605 kg	1395 kg	1445 kg
SK 12407	2185 kg	2290 kg	1965 kg	2040 kg
SK 12507	2195 kg	2300 kg	1975 kg	2050 kg
SK 13407	2970 kg	3130 kg	2610 kg	2790 kg
SK 13507	3190 kg	3350 kg	2830 kg	2970 kg
SK 15407	4770 kg	4955 kg	4345 kg	4490 kg
SK 15507	4945 kg	5130 kg	4520 kg	4665 kg

	R	VFVL2/3	AFVL2/3	ASFVL2/3	F	FK
SK 11407	+ 20 kg	+ 426 kg	+ 233 kg	+ 289 kg	+ 147 kg	+ 183 kg
SK 11507	+ 13 kg					
SK 12407	+ 33 kg	+ 602 kg	+ 338 kg	+ 409 kg	+ 207 kg	+ 258 kg
SK 12507	+ 13 kg					
SK 13407	+ 33 kg	+ 292 kg	+ 291 kg	+ 292 kg	+ 293 kg	+ 365 kg
SK 13507	+ 13 kg					
SK 15407	+ 60 kg	+ 1427 kg	+ 839 kg	+ 969 kg	- - -	- - -
SK 15507	+ 33 kg					

	D	ED	WX	H (FAN)	H (AS)	CC
SK 11407	+ 30 kg	+ 115 kg	+ 110 kg	+ 22 kg	+ 10 kg	+ 10 kg
SK 11507						
SK 12407	+ 35 kg	+ 115 kg	+ 110 kg	+ 25 kg	+ 11 kg	+ 12 kg
SK 12507						
SK 13407	+ 40 kg	+ 135 kg	+ 110 kg	+ 28 kg	+ 13 kg	+ 15 kg
SK 13507						
SK 15407	+ 45 kg	+ 135 kg	+ 120 kg	+ 35 kg	+ 16 kg	+ 15 kg
SK 15507						

** ⇨ 54



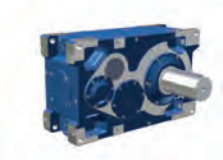
	IEC 160	IEC 180	IEC 200	IEC 225	IEC 250	IEC 280	IEC 315
SK 11407	+ 170 kg	+ 170 kg	+ 166 kg	+ 175 kg	+ 190 kg	+ 190 kg	+ 211 kg
SK 11507	+ 144 kg	+ 144 kg	+ 140 kg	+ 149 kg	+ 164 kg	+ 164 kg	+ 185 kg
SK 12407	+ 222 kg	+ 222 kg	+ 218 kg	+ 226 kg	+ 242 kg	+ 242 kg	+ 263 kg
SK 12507	+ 176 kg	+ 176 kg	+ 172 kg	+ 181 kg	+ 196 kg	+ 196 kg	+ 217 kg
SK 13407	+ 267 kg	+ 267 kg	+ 262 kg	+ 271 kg	+ 287 kg	+ 287 kg	+ 308 kg
SK 13507	+ 216 kg	+ 216 kg	+ 212 kg	+ 221 kg	+ 236 kg	+ 236 kg	+ 257 kg
SK 15407	+ 310 kg	+ 310 kg	+ 306 kg	+ 315 kg	+ 330 kg	+ 330 kg	+ 351 kg
SK 15507	+ 240 kg	+ 240 kg	+ 236 kg	+ 244 kg	+ 260 kg	+ 260 kg	+ 281 kg

	IEC 315 TN	IEC 355 TN
SK 11407	+ 233 kg	+ 263 kg
SK 11507	+ 207 kg	+ 237 kg
SK 12407	+ 285 kg	+ 314 kg
SK 12507	+ 239 kg	+ 269 kg
SK 13407	+ 330 kg	+ 359 kg
SK 13507	+ 279 kg	+ 308 kg
SK 15407	+ 373 kg	+ 402 kg
SK 15507	+ 303 kg	+ 332 kg

** ⇨ 54

SK ..307

P_N | M_{2max}



i_N [-]	n_{1N} [min^{-1}]	n_{2N} [min^{-1}]		SK 11307	SK 12307	SK 13307	SK 15307	
112	1500	13,39	P_N	103	141	197	341	kW
	1000	8,93		69	94	131	228	
			M_{2max}	75	101	142	242	kNm
100	1500	15,00	P_N	103	142	197	343	kW
	1000	10,00		69	94	132	228	
			M_{2max}	69	93	130	223	kNm
90	1500	16,67	P_N	114	172	238	411	kW
	1000	11,11		76	114	159	274	
			M_{2max}	65	97	133	229	kNm
80	1500	18,75	P_N	125	172	239	411	kW
	1000	12,50		83	115	159	274	
			M_{2max}	65	89	122	210	kNm
71	1500	21,13	P_N	167	229	315	547	kW
	1000	14,08		111	153	210	365	
			M_{2max}	75	101	142	243	kNm
63	1500	23,81	P_N	168	230	316	549	kW
	1000	15,87		112	153	211	366	
			M_{2max}	69	93	130	223	kNm
56	1500	26,79	P_N	206	283	394	672	kW
	1000	17,86		138	189	262	448	
			M_{2max}	72	98	137	234	kNm
50	1500	30,00	P_N	207	284	395	675	kW
	1000	20,00		138	189	263	450	
			M_{2max}	66	90	126	215	kNm
45	1500	33,33	P_N	263	359	495	868	kW
	1000	22,22		175	240	330	579	
			M_{2max}	75	101	142	242	kNm
40	1500	37,50	P_N	264	361	494	872	kW
	1000	25,00		176	241	329	581	
			M_{2max}	69	93	130	223	kNm
35,5	1500	42,25	P_N	326	445	619	1068	kW
	1000	28,17		217	297	413	712	
			M_{2max}	72	98	137	234	kNm
31,5	1500	47,62	P_N	326	446	621	1071	kW
	1000	31,75		218	297	414	714	
			M_{2max}	66	90	126	215	kNm
28	1500	53,57	P_N	412	564	788	1367	kW
	1000	35,71		275	376	525	911	
			M_{2max}	75	101	142	243	kNm
25	1500	60,00	P_N	413	566	790	1371	kW
	1000	40,00		275	378	527	914	
			M_{2max}	69	93	130	223	kNm
22,4	1500	66,96	P_N	454	693	875	1469	kW
	1000	44,64		303	462	583	979	
			M_{2max}	65	98	122	204	kNm

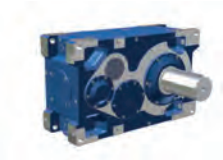
** ⇨ 54

i_N [-]	CS - Typ	τ_U	SK 11307 20°C	SK 11307 40°C	SK 12307 20°C	SK 12307 40°C	SK 13307 20°C	SK 13307 40°C	SK 15307 20°C	SK 15307 40°C	
112	---	P_{t0}	114	81	146	104	182	129	263	187	
	FAN	P_{tF}	114	73	146	94	182	117	263	168	kW
	CC	P_{tC}	157	157	219	219	281	281	281	281	
100	---	P_{t0}	117	83	154	109	192	136	286	203	
	FAN	P_{tF}	117	75	154	99	192	123	286	183	kW
	CC	P_{tC}	157	157	219	219	281	281	281	281	
90	---	P_{t0}	121	86	154	109	209	148	278	198	
	FAN	P_{tF}	121	77	154	99	209	134	278	178	kW
	CC	P_{tC}	157	157	219	219	281	281	281	281	
80	---	P_{t0}	127	90	163	116	215	153	295	210	
	FAN	P_{tF}	127	82	163	104	215	138	295	189	kW
	CC	P_{tC}	157	157	219	219	281	281	281	281	
71	---	P_{t0}	131	93	168	119	215	153	304	216	
	FAN	P_{tF}	131	84	168	107	215	138	304	195	kW
	CC	P_{tC}	157	157	219	219	281	281	281	281	
63	---	P_{t0}	139	99	184	131	229	163	325	231	
	FAN	P_{tF}	139	89	184	118	229	147	325	208	kW
	CC	P_{tC}	157	157	219	219	281	281	281	281	
56	---	P_{t0}	135	96	184	131	237	168	336	238	
	FAN	P_{tF}	135	86	184	118	237	151	336	215	kW
	CC	P_{tC}	157	157	219	219	281	281	281	281	
50	---	P_{t0}	144	102	204	145	245	174	361	256	
	FAN	P_{tF}	144	92	204	130	245	157	361	231	kW
	CC	P_{tC}	157	157	219	219	281	281	281	281	
45	---	P_{t0}	154	109	197	140	245	174	348	247	
	FAN	P_{tF}	154	98	197	126	245	157	348	223	kW
	CC	P_{tC}	157	157	219	219	281	281	281	281	
40	---	P_{t0}	154	109	211	150	263	187	375	266	
	FAN	P_{tF}	154	98	211	135	263	168	375	240	kW
	CC	P_{tC}	157	157	219	219	281	281	281	281	
35,5	---	P_{t0}	154	109	211	150	263	187	390	277	
	FAN	P_{tF}	154	98	211	135	263	168	390	249	kW
	CC	P_{tC}	157	157	219	219	281	281	281	281	
31,5	---	P_{t0}	165	117	228	162	273	194	423	301	
	FAN	P_{tF}	165	106	228	146	273	175	423	271	kW
	CC	P_{tC}	157	157	219	219	281	281	281	281	
28	---	P_{t0}	159	113	204	145	263	187	390	277	
	FAN	P_{tF}	159	102	204	130	263	168	390	249	kW
	CC	P_{tC}	157	157	219	219	281	281	281	281	
25	---	P_{t0}	172	122	219	156	284	202	423	301	
	FAN	P_{tF}	172	110	219	140	284	182	423	271	kW
	CC	P_{tC}	157	157	219	219	281	281	281	281	
22,4	---	P_{t0}	178	127	228	162	296	210	464	329	
	FAN	P_{tF}	178	114	228	146	296	189	464	297	kW
	CC	P_{tC}	157	157	219	219	281	281	281	281	

** ⇨ 54

SK ..207

P_N | M_{2max}



i_N [-]	n_{1N} [min^{-1}]	n_{2N} [min^{-1}]		SK 11207	SK 12207	SK 13207	SK 15207	
20	1500	75,00	P_N	540	771	1076	1867	kW
	1000	50,00		360	514	718	1245	
			M_{2max}	70	98	137	235	kNm
18	1500	83,33	P_N	559	774	1080	1874	kW
	1000	55,56		372	516	720	1249	
			M_{2max}	66	90	126	216	kNm
16	1500	93,75	P_N	646	953	1306	2296	kW
	1000	62,50		431	635	870	1531	
			M_{2max}	65	95	129	226	kNm
14	1500	107,14	P_N	668	956	1349	2305	kW
	1000	71,43		445	637	899	1536	
			M_{2max}	62	88	122	208	kNm
12,5	1500	120,00	P_N	759	1073	1528	2567	kW
	1000	80,00		506	715	1018	1712	
			M_{2max}	61	87	121	204	kNm
11,2	1500	133,93	P_N	786	1097	1533	2577	kW
	1000	89,29		524	731	1022	1718	
			M_{2max}	58	81	111	188	kNm
10	1500	150,00	P_N	915	1295	1788	3098	kW
	1000	100,00		610	864	1192	2065	
			M_{2max}	58	82	115	193	kNm
9	1500	166,67	P_N	942	1301	1798	3110	kW
	1000	111,11		628	868	1199	2073	
			M_{2max}	54	75	106	177	kNm
8	1500	187,50	P_N	1084	1523	2122	3629	kW
	1000	125,00		722	1015	1415	2419	
			M_{2max}	54	77	108	180	kNm
7,1	1500	211,27	P_N	1084	1527	2129	3642	kW
	1000	140,85		722	1018	1420	2428	
			M_{2max}	50	71	99	166	kNm
6,3	1500	238,10	P_N	1225	1795	2459	4244	kW
	1000	158,73		816	1197	1640	2829	
			M_{2max}	49	70	100	163	kNm
5,6	1500	267,86	P_N	1225	1802	2467	4241	kW
	1000	178,57		817	1201	1645	2828	
			M_{2max}	45	65	92	150	kNm

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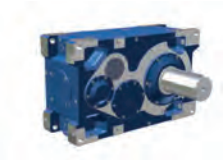
i_N [-]	CS - Typ	τ_U	SK 11207		SK 12207		SK 13207		SK 15207		
			20°C	*40°C*	*20°C*	*40°C*	*20°C*	*40°C*	*20°C*	*40°C*	
20	---	P_{t0}	212	151	272	193	355	252	513	364	kW
	FAN	P_{tF}	212	136	272	174	355	227	513	328	
	CC	P_{tCC}	252	252	350	350	449	449	449	449	
18	---	P_{t0}	235	167	300	213	394	280	573	407	kW
	FAN	P_{tF}	235	150	300	192	394	252	573	367	
	CC	P_{tCC}	252	252	350	350	449	449	449	449	
16	---	P_{t0}	235	167	317	225	394	280	573	407	kW
	FAN	P_{tF}	235	150	317	203	394	252	573	367	
	CC	P_{tCC}	252	252	350	350	449	449	449	449	
14	---	P_{t0}	248	176	356	253	418	297	609	432	kW
	FAN	P_{tF}	248	159	356	228	418	267	609	390	
	CC	P_{tCC}	252	252	350	350	449	449	449	449	
12,5	---	P_{t0}	262	186	335	238	444	315	649	461	kW
	FAN	P_{tF}	262	168	335	215	444	284	649	416	
	CC	P_{tCC}	252	252	350	350	449	449	449	449	
11,2	---	P_{t0}	279	198	356	253	473	336	696	494	kW
	FAN	P_{tF}	279	178	356	228	473	303	696	445	
	CC	P_{tCC}	252	252	350	350	449	449	449	449	
10	---	P_{t0}	279	198	356	253	473	336	696	494	kW
	FAN	P_{tF}	279	178	356	228	473	303	696	445	
	CC	P_{tCC}	252	252	350	350	449	449	449	449	
9	---	P_{t0}	297	211	407	289	507	360	812	576	kW
	FAN	P_{tF}	297	190	407	261	507	325	812	519	
	CC	P_{tCC}	252	252	350	350	449	449	449	449	
8	---	P_{t0}	319	226	407	289	546	388	749	532	kW
	FAN	P_{tF}	319	204	407	261	546	350	749	479	
	CC	P_{tCC}	252	252	350	350	449	449	449	449	
7,1	---	P_{t0}	343	244	439	311	592	420	812	576	kW
	FAN	P_{tF}	343	220	439	281	592	379	812	519	
	CC	P_{tCC}	252	252	350	350	449	449	449	449	
6,3	---	P_{t0}	319	226	407	289	546	388	749	532	kW
	FAN	P_{tF}	319	204	407	261	546	350	749	479	
	CC	P_{tCC}	252	252	350	350	449	449	449	449	
5,6	---	P_{t0}	372	264	475	337	592	420	885	629	kW
	FAN	P_{tF}	372	238	475	304	592	379	885	567	
	CC	P_{tCC}	252	252	350	350	449	449	449	449	

** ⇨ 54

SK ..307

F_R | F_A | J_{red} | i_{ges}



i_N [-]		SK 11307	SK 12307	SK 13307	SK 15307	
112	F_R | F_A	91 | 38	93 | 40	144 | 61	149 | 51	kN
	i_{ges}	114,28	112,91	113,15	111,48	-
	J_{red}	0,039	0,069	0,122	0,264	kgm²
100	F_R | F_A	91 | 38	93 | 40	144 | 61	149 | 51	kN
	i_{ges}	104,39	103,51	103,73	102,20	-
	J_{red}	0,039	0,069	0,123	0,265	kgm²
90	F_R | F_A	91 | 38	93 | 40	144 | 61	149 | 51	kN
	i_{ges}	89,30	88,55	87,64	87,37	-
	J_{red}	0,042	0,075	0,133	0,286	kgm²
80	F_R | F_A	91 | 38	93 | 40	144 | 61	149 | 51	kN
	i_{ges}	81,58	81,18	80,34	80,10	-
	J_{red}	0,042	0,075	0,134	0,288	kgm²
71	F_R | F_A	91 | 38	93 | 40	144 | 61	149 | 51	kN
	i_{ges}	70,40	69,56	70,66	69,62	-
	J_{red}	0,056	0,100	0,179	0,385	kgm²
63	F_R | F_A	91 | 38	93 | 40	144 | 61	149 | 51	kN
	i_{ges}	64,31	63,77	64,78	63,82	-
	J_{red}	0,057	0,101	0,180	0,387	kgm²
56	F_R | F_A	91 | 38	93 | 40	144 | 61	149 | 51	kN
	i_{ges}	55,01	54,55	54,73	54,56	-
	J_{red}	0,065	0,115	0,205	0,441	kgm²
50	F_R | F_A	91 | 38	93 | 40	144 | 61	149 | 51	kN
	i_{ges}	50,25	50,01	50,17	50,02	-
	J_{red}	0,065	0,116	0,207	0,446	kgm²
45	F_R | F_A	91 | 38	93 | 40	144 | 61	149 | 51	kN
	i_{ges}	44,70	44,26	44,94	43,83	-
	J_{red}	0,104	0,184	0,328	0,707	kgm²
40	F_R | F_A	91 | 38	93 | 40	144 | 61	149 | 51	kN
	i_{ges}	40,83	40,58	41,20	40,18	-
	J_{red}	0,105	0,186	0,331	0,713	kgm²
35,5	F_R | F_A	91 | 38	93 | 40	144 | 61	149 | 51	kN
	i_{ges}	34,93	34,71	34,81	34,35	-
	J_{red}	0,124	0,221	0,393	0,847	kgm²
31,5	F_R | F_A	91 | 38	93 | 40	144 | 61	149 | 51	kN
	i_{ges}	31,90	31,82	31,91	31,49	-
	J_{red}	0,126	0,224	0,398	0,857	kgm²
28	F_R | F_A	91 | 38	93 | 40	144 | 61	149 | 51	kN
	i_{ges}	28,56	28,22	28,28	27,86	-
	J_{red}	0,244	0,433	0,770	1,659	kgm²
25	F_R | F_A	91 | 38	93 | 40	144 | 61	149 | 51	kN
	i_{ges}	26,09	25,87	25,92	25,54	-
	J_{red}	0,246	0,437	0,778	1,675	kgm²
22,4	F_R | F_A	91 | 38	93 | 40	144 | 61	149 | 51	kN
	i_{ges}	22,32	22,13	21,90	21,84	-
	J_{red}	0,296	0,526	0,935	2,014	kgm²

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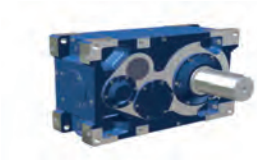

i_N [-]		SK 11207	SK 12207	SK 13207	SK 15207	
20	F_R | F_A	91 | 38	93 | 40	144 | 61	149 | 51	kN
	i_{ges}	20,25	20,01	20,05	19,76	-
	J_{red}	0,223	0,397	0,706	1,522	kgm²
18	F_R | F_A	83 | 34	91 | 39	140 | 59	135 | 45	kN
	i_{ges}	18,50	18,34	18,38	18,11	-
	J_{red}	0,230	0,408	0,726	1,564	kgm²
16	F_R | F_A	84 | 36	85 | 36	133 | 56	137 | 46	kN
	i_{ges}	15,83	15,69	15,53	15,48	-
	J_{red}	0,268	0,476	0,847	1,824	kgm²
14	F_R | F_A	75 | 31	82 | 35	126 | 53	124 | 42	kN
	i_{ges}	14,46	14,39	14,24	14,19	-
	J_{red}	0,275	0,490	0,871	1,877	kgm²
12,5	F_R | F_A	78 | 33	78 | 34	123 | 52	126 | 42	kN
	i_{ges}	12,71	12,66	12,40	12,48	-
	J_{red}	0,451	0,802	1,426	3,073	kgm²
11,2	F_R | F_A	70 | 29	74 | 32	117 | 49	114 | 38	kN
	i_{ges}	11,61	11,60	11,37	11,44	-
	J_{red}	0,463	0,823	1,464	3,155	kgm²
10	F_R | F_A	71 | 30	71 | 31	114 | 48	114 | 39	kN
	i_{ges}	9,91	9,93	10,11	9,78	-
	J_{red}	0,635	1,129	2,007	4,325	kgm²
9	F_R | F_A	64 | 26	69 | 30	109 | 46	104 | 35	kN
	i_{ges}	9,05	9,10	9,26	8,96	-
	J_{red}	0,653	1,161	2,065	4,448	kgm²
8	F_R | F_A	64 | 27	64 | 28	105 | 44	105 | 35	kN
	i_{ges}	7,87	7,93	7,98	7,80	-
	J_{red}	0,816	1,450	2,579	5,557	kgm²
7,1	F_R | F_A	58 | 24	67 | 29	106 | 45	94 | 31	kN
	i_{ges}	7,19	7,27	7,31	7,15	-
	J_{red}	0,845	1,502	2,671	5,755	kgm²
6,3	F_R | F_A	58 | 25	65 | 28	99 | 42	93 | 31	kN
	i_{ges}	6,31	6,16	6,38	6,04	-
	J_{red}	0,918	1,633	2,904	6,256	kgm²
5,6	F_R | F_A	52 | 21	66 | 28	103 | 43	88 | 29	kN
	i_{ges}	5,77	5,64	5,85	5,54	-
	J_{red}	1,149	2,044	3,634	7,829	kgm²

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30 kW
75 kW

n_1 = 1000 min^{-1}

P_1 [kW]	n_2 [rpm]	M_2 [kNm]	f_B [-]	i_{ges} [-]	F_R [kN]	F_A [kN]	$P_{t0.20}$ [kW]	CS [-]		kg	mm
30	8,8	32,6	2,3	114,28	91	38	114	---	**SK 11307- 225M/6**	1460	122
	9,6	29,8	2,3	104,39	91	38	117	---			
	11	26,0	2,5	89,30	91	38	121	---			
	12	23,9	2,7	81,58	91	38	127	---			
37	8,8	40,2	1,9	114,28	91	38	114	---	**SK 11307- 250M/6**	1460	122
	9,6	36,8	1,9	104,39	91	38	117	---			
	11	32,1	2,0	89,30	91	38	121	---			
	12	29,4	2,2	81,58	91	38	127	---			
	9,7	36,4	2,6	103,51	93	40	154	---	**SK 12307- 250M/6**	2110	122
45	8,8	48,8	1,5	114,28	91	38	114	---	**SK 11307- 280S/6**	1460	122
	9,6	44,8	1,5	104,39	91	38	117	---			
	11	39,1	1,7	89,30	91	38	121	---			
	12	35,8	1,8	81,58	91	38	127	---			
	14	30,7	2,4	70,40	91	38	131	---			
	16	26,9	2,6	64,31	91	38	139	---			
	8,9	48,3	2,1	112,91	93	40	146	---	**SK 12307- 280S/6**	2110	122
	9,7	44,3	2,1	103,51	93	40	154	---			
	11	39,1	2,5	88,55	93	40	154	---			
	12	35,8	2,5	81,18	93	40	163	---			
	9,6	44,8	2,9	103,73	144	61	192	---	**SK 13307- 280S/6**	3040	122
55	11	47,8	1,4	89,30	91	38	121	---	**SK 11307- 280M/6**	1460	122
	12	43,8	1,5	81,58	91	38	127	---			
	14	37,5	2,0	70,40	91	38	131	---			
	16	32,8	2,1	64,31	91	38	139	---			
	18	29,2	2,5	55,01	91	38	135	---			
	20	26,3	2,5	50,25	91	38	144	---			
	8,9	59,0	1,7	112,91	93	40	146	---	**SK 12307- 280M/6**	2110	122
	9,7	54,1	1,7	103,51	93	40	154	---			
	11	47,8	2,0	88,55	93	40	154	---			
	12	43,8	2,0	81,18	93	40	163	---			
	14	37,5	2,7	69,56	93	40	168	---			
	16	32,8	2,8	63,77	93	40	184	---			
	8,8	59,7	2,4	113,15	144	61	182	---	**SK 13307- 280M/6**	3040	122
	9,6	54,7	2,4	103,73	144	61	192	---			
	11	47,8	2,8	87,64	144	61	209	---			
	12	43,8	2,8	80,34	144	61	215	---			
75	14	51,2	1,5	70,40	91	38	131	---	**SK 11307- 315S/6**	1460	122
	16	44,8	1,5	64,31	91	38	139	---			
	18	39,8	1,8	55,01	91	38	135	---			
	20	35,8	1,9	50,25	91	38	144	---			
	22	32,6	2,3	44,70	91	38	154	---			
	24	29,8	2,3	40,83	91	38	154	---			
	29	24,7	2,9	34,93	91	38	154	---			
	31	23,1	2,9	31,90	91	38	165	---			
	11	65,1	1,5	88,55	93	40	154	---	**SK 12307- 315S/6**	2110	122
	12	59,7	1,5	81,18	93	40	163	---			
	14	51,2	2,0	69,56	93	40	168	---			
	16	44,8	2,1	63,77	93	40	184	---			
	18	39,8	2,5	54,55	93	40	184	---			
	20	35,8	2,5	50,01	93	40	204	---			

** ⇨ 54

75 kW
110 kW

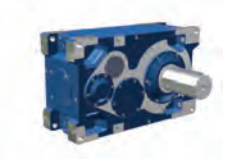
n_1 = 1000 min^{-1}

P_1 [kW]	n_2 [rpm]	M_2 [kNm]	f_B [-]	i_{ges} [-]	F_R [kN]	F_A [kN]	$P_{t0.20}$ [kW]	CS [-]		kg	mm 🕮
75	8,8	81,4	1,7	113,15	144	61	182	---	**SK 13307- 315S/6**	3040	122
	9,6	74,6	1,7	103,73	144	61	192	---			
	11	65,1	2,0	87,64	144	61	209	---			
	12	59,7	2,0	80,34	144	61	215	---			
	14	51,2	2,8	70,66	144	61	215	---			
	15	47,8	2,7	64,78	144	61	229	---			
90	18	47,8	1,5	55,01	91	38	135	---	**SK 11307- 315M/6**	1460	122
	20	43,0	1,5	50,25	91	38	144	---			
	22	39,1	1,9	44,70	91	38	154	---			
	24	35,8	1,9	40,83	91	38	154	---			
	29	29,6	2,4	34,93	91	38	154	---			
	31	27,7	2,4	31,90	91	38	165	---			
	14	61,4	1,7	69,56	93	40	168	---	**SK 12307- 315M/6**	2110	122
	16	53,7	1,7	63,77	93	40	184	---			
	18	47,8	2,1	54,55	93	40	184	---			
	20	43,0	2,1	50,01	93	40	204	---			
	23	37,4	2,7	44,26	93	40	197	---			
	25	34,4	2,7	40,58	93	40	211	---			
	8,8	97,7	1,5	113,15	144	61	182	---	**SK 13307- 315M/6**	3040	122
	9,6	89,5	1,5	103,73	144	61	192	---			
	11	78,1	1,7	87,64	144	61	209	---			
	12	71,6	1,7	80,34	144	61	215	---			
	14	61,4	2,3	70,66	144	61	215	---			
	15	57,3	2,3	64,78	144	61	229	---			
	18	47,8	2,9	54,73	144	61	237	---			
	20	43,0	2,9	50,17	144	61	245	---			
	9,0	95,5	2,5	111,48	149	51	263	---	**SK 15307- 315M/6**	4700	122
	9,8	87,7	2,5	102,20	149	51	263	---			
110	22	47,8	1,6	44,70	91	38	154	---	**SK 11307 - 315MA/6**	1460	122
	24	43,8	1,6	40,83	91	38	154	---			
	29	36,2	2,0	34,93	91	38	154	---			
	31	33,9	2,0	31,90	91	38	165	---			
	35	30,0	2,5	28,56	91	38	159	---			
	38	27,6	2,5	26,09	91	38	172	---			
	45	23,3	2,8	22,32	91	38	178	---			
	14	75,0	1,4	69,56	93	40	168	---	**SK 12307 - 315MA/6**	2110	122
	16	65,7	1,4	63,77	93	40	184	---			
	18	58,4	1,7	54,55	93	40	184	---			
	20	52,5	1,7	50,01	93	40	204	---			
	23	45,7	2,2	44,26	93	40	197	---			
	25	42,0	2,2	40,58	93	40	211	---			
	29	36,2	2,7	34,71	93	40	211	---			
	31	33,9	2,7	31,82	93	40	228	---			
	11	95,5	1,4	87,64	144	61	209	---	**SK 13307 - 315MA/6**	3040	122
	12	87,5	1,4	80,34	144	61	215	---			
	14	75,0	1,9	70,66	144	61	215	---			
	15	70,0	1,9	64,78	144	61	229	---			
	18	58,4	2,4	54,73	144	61	237	---			
	20	52,5	2,4	50,17	144	61	245	---			
	22	47,8	3,0	44,94	144	61	245	---			
	24	43,8	3,0	41,20	144	61	263	---			

** ⇨🕮 54

110 kW
160 kW

n_1 = 1000 min^{-1}



P_1 [kW]	n_2 [rpm]	M_2 [kNm]	f_B [-]	i_{ges} [-]	F_R [kN]	F_A [kN]	$P_{t0.20}$ [kW]	CS [-]		kg	mm 📖
110	9,0	116,7	2,1	111,48	149	51	263	---	**SK 15307 - 315MA/6**	4700	122
	9,8	107,2	2,1	102,20	149	51	263	---			
	11	95,5	2,4	87,37	149	51	263	---			
	12	87,5	2,4	80,10	149	51	263	---			
132	22	57,3	1,3	44,70	91	38	154	---	**SK 11307 - 315MB/6**	1460	122
	24	52,5	1,3	40,83	91	38	154	---			
	29	43,5	1,7	34,93	91	38	154	---			
	31	40,7	1,6	31,90	91	38	165	---			
	35	36,0	2,1	28,56	91	38	159	---			
	38	33,2	2,1	26,09	91	38	172	---			
	45	28,0	2,3	22,32	91	38	178	---			
	49	25,7	2,7	20,25	91	38	212	---	**SK 11207 - 315MB/6**	1390	122
	54	23,3	2,8	18,50	83	34	235	---			
	18	70,0	1,4	54,55	93	40	184	---	**SK 12307 - 315MB/6**	2110	122
	20	63,0	1,4	50,01	93	40	204	---			
	23	54,8	1,8	44,26	93	40	197	---			
	25	50,4	1,9	40,58	93	40	211	---			
	29	43,5	2,3	34,71	93	40	211	---			
	31	40,7	2,2	31,82	93	40	228	---			
	35	36,0	2,8	28,22	93	40	204	---			
	39	32,3	2,9	25,87	93	40	219	---			
	14	90,0	1,6	70,66	144	61	215	---	**SK 13307 - 315MB/6**	3040	122
	15	84,0	1,6	64,78	144	61	229	---			
	18	70,0	2,0	54,73	144	61	237	---			
	20	63,0	2,0	50,17	144	61	245	---			
	22	57,3	2,5	44,94	144	61	245	---			
	24	52,5	2,5	41,20	144	61	263	---			
	9,0	140,1	1,7	111,48	149	51	263	---	**SK 15307 - 315MB/6**	4700	122
	9,8	128,6	1,7	102,20	149	51	263	---			
	11	114,6	2,0	87,37	149	51	263	---			
	12	105,1	2,0	80,10	149	51	263	---			
	14	90,0	2,7	69,62	149	51	263	---			
	16	78,8	2,8	63,82	149	51	263	---			
160	29	52,7	1,4	34,93	91	38	154	A/Fan*	**SK 11307 - 315L/6**	1460	122
	31	49,3	1,3	31,90	91	38	165	---			
	35	43,7	1,7	28,56	91	38	159	---			
	38	40,2	1,7	26,09	91	38	172	---			
	45	34,0	1,9	22,32	91	38	178	---			
	49	31,2	2,2	20,25	91	38	212	---	**SK 11207 - 315L/6**	1390	122
	54	28,3	2,3	18,50	83	34	235	---			
	63	24,3	2,7	15,83	84	36	235	---			
	69	22,1	2,8	14,46	75	31	248	---			
	23	66,4	1,5	44,26	93	40	197	---	**SK 12307 - 315L/6**	2110	122
	25	61,1	1,5	40,58	93	40	211	---			
	29	52,7	1,9	34,71	93	40	211	---			
	31	49,3	1,8	31,82	93	40	228	---			
	35	43,7	2,3	28,22	93	40	204	---			
	39	39,2	2,4	25,87	93	40	219	---			
	45	34,0	2,9	22,13	93	40	228	---			

** ⇨📖 54

160 kW
200 kW

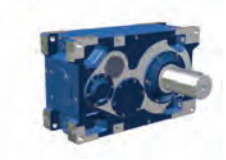
n_1 = 1000 min^{-1}

P_1 [kW]	n_2 [rpm]	M_2 [kNm]	f_B [-]	i_{ges} [-]	F_R [kN]	F_A [kN]	$P_{t0.20}$ [kW]	CS [-]		kg	mm 🕮
160	14	109,1	1,3	70,66	144	61	215	---	**SK 13307 - 315L/6**	3040	122
	15	101,9	1,3	64,78	144	61	229	---			
	18	84,9	1,6	54,73	144	61	237	---			
	20	76,4	1,7	50,17	144	61	245	---			
	22	69,5	2,0	44,94	144	61	245	---			
	24	63,7	2,0	41,20	144	61	263	---			
	29	52,7	2,6	34,81	144	61	263	---			
	31	49,3	2,6	31,91	144	61	273	---			
	9,0	169,8	1,4	111,48	149	51	263	---	**SK 15307 - 315L/6**	4700	122
	9,8	155,9	1,4	102,20	149	51	263	---			
	11	138,9	1,6	87,37	149	51	263	---			
	12	127,3	1,6	80,10	149	51	263	---			
	14	109,1	2,2	69,62	149	51	263	---			
	16	95,5	2,3	63,82	149	51	263	---			
	18	84,9	2,8	54,56	149	51	263	---			
	20	76,4	2,8	50,02	149	51	263	---			
200	35	54,6	1,4	28,56	91	38	159	A/Fan*	**SK 11307 - 315LA/6**	1460	122
	38	50,3	1,4	26,09	91	38	172	A/Fan*			
	45	42,4	1,5	22,32	91	38	178	A/Fan*			
	49	39,0	1,8	20,25	91	38	212	---	**SK 11207 - 315LA/6**	1390	122
	54	35,4	1,9	18,50	83	34	235	---			
	63	30,3	2,1	15,83	84	36	235	---			
	69	27,7	2,2	14,46	75	31	248	---			
	79	24,2	2,5	12,71	78	33	262	---			
	86	22,2	2,6	11,61	70	29	279	---			
	29	65,9	1,5	34,71	93	40	211	---	**SK 12307 - 315LA/6**	2110	122
	31	61,6	1,5	31,82	93	40	228	---			
	35	54,6	1,9	28,22	93	40	204	---			
	39	49,0	1,9	25,87	93	40	219	---			
	45	42,4	2,3	22,13	93	40	228	---			
	50	38,2	2,6	20,01	93	40	272	---	**SK 12207 - 315LA/6**	2005	122
	55	34,7	2,6	18,34	91	39	300	---			
	18	106,1	1,3	54,73	144	61	237	---	**SK 13307 - 315LA/6**	3040	122
	20	95,5	1,3	50,17	144	61	245	---			
	22	86,8	1,6	44,94	144	61	245	---			
	24	79,6	1,6	41,20	144	61	263	---			
	29	65,9	2,1	34,81	144	61	263	---			
	31	61,6	2,0	31,91	144	61	273	---			
	35	54,6	2,6	28,28	144	61	263	---			
	39	49,0	2,7	25,92	144	61	284	---			
	46	41,5	2,9	21,90	144	61	296	---			
	11	173,6	1,3	87,37	149	51	263	---	**SK 15307 - 315LA/6**	4700	122
	12	159,2	1,3	80,10	149	51	263	---			
	14	136,4	1,8	69,62	149	51	263	---			
	16	119,4	1,9	63,82	149	51	263	---			
	18	106,1	2,2	54,56	149	51	263	---			
	20	95,5	2,3	50,02	149	51	263	---			
	23	83,0	2,9	43,83	149	51	263	---			
	25	76,4	2,9	40,18	149	51	263	---			

** ⇨🕮 54

250 kW
315 kW

n_1 = 1000 min^{-1}



P_1 [kW]	n_2 [rpm]	M_2 [kNm]	f_B [-]	i_{ges} [-]	F_R [kN]	F_A [kN]	$P_{t0.20}$ [kW]	CS [-]		kg	mm 📖
250	49	48,7	1,4	20,25	91	38	212	A/Fan	**SK 11207 - 315LB/6**	1390	122
	54	44,2	1,5	18,50	83	34	235	A/Fan			
	63	37,9	1,7	15,83	84	36	235	A/Fan			
	69	34,6	1,8	14,46	75	31	248	A/Fan			
	79	30,2	2,0	12,71	78	33	262	---			
	86	27,8	2,1	11,61	70	29	279	---			
	101	23,6	2,4	9,91	71	30	279	---			
	110	21,7	2,5	9,05	64	26	297	---			
	127	18,8	2,9	7,87	64	27	319	---			
	139	17,2	2,9	7,19	58	24	343	---			
	35	68,2	1,5	28,22	93	40	204	A/Fan*	**SK 12307 - 315LB/6**	2110	122
	39	61,2	1,5	25,87	93	40	219	A/Fan*			
	45	53,1	1,8	22,13	93	40	228	A/Fan*			
	50	47,8	2,1	20,01	93	40	272	---	**SK 12207 - 315LB/6**	2005	122
	55	43,4	2,1	18,34	91	39	300	---			
	64	37,3	2,6	15,69	85	36	317	---			
	69	34,6	2,5	14,39	82	35	356	---			
	79	30,2	2,9	12,66	78	34	335	---			
	86	27,8	2,9	11,60	74	32	356	---			
	22	108,5	1,3	44,94	144	61	245	A/Fan	**SK 13307 - 315LB/6**	3040	122
	24	99,5	1,3	41,20	144	61	263	---			
	29	82,3	1,7	34,81	144	61	263	---			
	31	77,0	1,6	31,91	144	61	273	---			
	35	68,2	2,1	28,28	144	61	263	---			
	39	61,2	2,1	25,92	144	61	284	---			
	46	51,9	2,4	21,90	144	61	296	---			
	50	47,8	2,9	20,05	144	61	355	---	**SK 13207 - 315LB/6**	2820	122
	54	44,2	2,9	18,38	140	59	394	---			
	14	170,5	1,4	69,62	149	51	263	---	**SK 15307 - 315LB/6**	4700	122
	16	149,2	1,5	63,82	149	51	263	---			
	18	132,6	1,8	54,56	149	51	263	---			
	20	119,4	1,8	50,02	149	51	263	---			
	23	103,8	2,3	43,83	149	51	263	---			
	25	95,5	2,3	40,18	149	51	263	---			
	29	82,3	2,8	34,35	149	51	263	---			
	32	74,6	2,9	31,49	149	51	263	---			
315	63	47,8	1,4	15,83	84	36	235	A	**SK 11207 - 355S/6**	1390	122
	69	43,6	1,4	14,46	75	31	248	A/Fan*			
	79	38,1	1,6	12,71	78	33	262	A/Fan*			
	86	35,0	1,7	11,61	70	29	279	A/Fan*			
	101	29,8	1,9	9,91	71	30	279	A/Fan*			
	110	27,3	2,0	9,05	64	26	297	A/Fan*			
	127	23,7	2,3	7,87	64	27	319	---			
	139	21,6	2,3	7,19	58	24	343	---			
	158	19,0	2,6	6,31	58	25	319	---			
	173	17,4	2,6	5,77	52	21	372	---			
	45	66,9	1,5	22,13	93	40	228	B	**SK 12307 - 355S/6**	2110	122
	50	60,2	1,6	20,01	93	40	272	A/Fan	**SK 12207 - 355S/6**	2005	122
	55	54,7	1,7	18,34	91	39	300	A/Fan			
	64	47,0	2,0	15,69	85	36	317	---			
	69	43,6	2,0	14,39	82	35	356	---			
	79	38,1	2,3	12,66	78	34	335	---			

** ⇨📖 54

315 kW
400 kW

n_1 = 1000 min^{-1}

P_1 [kW]	n_2 [rpm]	M_2 [kNm]	f_B [-]	i_{ges} [-]	F_R [kN]	F_A [kN]	$P_{t0.20}$ [kW]	CS [-]		kg	mm 🕮
315	86	35,0	2,3	11,60	74	32	356	---			
	101	29,8	2,7	9,93	71	31	356	---			
	110	27,3	2,8	9,10	69	30	407	---			
	29	103,7	1,3	34,81	144	61	263	A/Fan*	**SK 13307 - 355S/6**	3040	122
	31	97,0	1,3	31,91	144	61	273	A/Fan*			
	35	86,0	1,6	28,28	144	61	263	A/Fan*			
	39	77,1	1,7	25,92	144	61	284	A/Fan*			
	46	65,4	1,9	21,90	144	61	296	A/Fan*			
	50	60,2	2,3	20,05	144	61	355	---	**SK 13207 - 355S/6**	2820	122
	54	55,7	2,3	18,38	140	59	394	---			
	64	47,0	2,7	15,53	133	56	394	---			
	70	43,0	2,8	14,24	126	53	418	---			
	18	167,1	1,4	54,56	149	51	263	A/Fan*	**SK 15307 - 355S/6**	4700	122
	20	150,4	1,4	50,02	149	51	263	A/Fan*			
	23	130,8	1,9	43,83	149	51	263	A/Fan*			
	25	120,3	1,9	40,18	149	51	263	A/Fan*			
	29	103,7	2,3	34,35	149	51	263	A/Fan*			
	32	94,0	2,3	31,49	149	51	263	A/Fan*			
	36	83,6	2,9	27,86	149	51	263	A/Fan*			
	39	77,1	2,9	25,54	149	51	263	A/Fan*			
400	86	44,4	1,3	11,61	70	29	279	B	**SK 11207 - 400S/6**	1390	122
	101	37,8	1,5	9,91	71	30	279	B			
	110	34,7	1,6	9,05	64	26	297	A			
	127	30,1	1,8	7,87	64	27	319	A/Fan*			
	139	27,5	1,8	7,19	58	24	343	A/Fan*			
	158	24,2	2,0	6,31	58	25	319	A/Fan*			
	173	22,1	2,0	5,77	52	21	372	A/Fan*			
	64	59,7	1,6	15,69	85	36	317	A/Fan*	**SK 12207 - 400S/6**	2005	122
	69	55,4	1,6	14,39	82	35	356	A/Fan*			
	79	48,4	1,8	12,66	78	34	335	A/Fan*			
	86	44,4	1,8	11,60	74	32	356	A/Fan*			
	101	37,8	2,2	9,93	71	31	356	A/Fan*			
	110	34,7	2,2	9,10	69	30	407	---			
	126	30,3	2,5	7,93	64	28	407	---			
	138	27,7	2,6	7,27	67	29	439	---			
	162	23,6	3,0	6,16	65	28	407	---			
	35	109,1	1,3	28,28	144	61	263	B	**SK 13307 - 400S/6**	3040	122
	39	97,9	1,3	25,92	144	61	284	B			
	46	83,0	1,5	21,90	144	61	296	B			
	50	76,4	1,8	20,05	144	61	355	A/Fan	**SK 13207 - 400S/6**	2820	122
	54	70,7	1,8	18,38	140	59	394	A/Fan			
	64	59,7	2,2	15,53	133	56	394	A/Fan			
	70	54,6	2,2	14,24	126	53	418	---			
	81	47,2	2,6	12,40	123	52	444	---			
	88	43,4	2,6	11,37	117	49	473	---			
	99	38,6	3,0	10,11	114	48	473	---			
	108	35,4	3,0	9,26	109	46	507	---			

** ⇨🕮 54

400 kW
560 kW

n_1 = 1000 min^{-1}

P_1 [kW]	n_2 [rpm]	M_2 [kNm]	f_B [-]	i_{ges} [-]	F_R [kN]	F_A [kN]	$P_{t0.20}$ [kW]	CS [-]		kg	mm
400	23	166,1	1,5	43,83	149	51	263	B	**SK 15307 - 400S/6**	4700	122
	25	152,8	1,5	40,18	149	51	263	B			
	29	131,7	1,8	34,35	149	51	263	B			
	32	119,4	1,8	31,49	149	51	263	B			
	36	106,1	2,3	27,86	149	51	263	B			
	39	97,9	2,3	25,54	149	51	263	B			
	46	83,0	2,5	21,84	149	51	263	B			
500	127	37,6	1,4	7,87	64	27	319	B	**SK 11207 - 400M/6**	1390	122
	139	34,4	1,4	7,19	58	24	343	B			
	158	30,2	1,6	6,31	58	25	319	B			
	173	27,6	1,6	5,77	52	21	372	B			
	79	60,4	1,4	12,66	78	34	335	B	**SK 12207 - 400M/6**	2005	122
	86	55,5	1,5	11,60	74	32	356	B			
	101	47,3	1,7	9,93	71	31	356	B			
	110	43,4	1,7	9,10	69	30	407	A/Fan*			
	126	37,9	2,0	7,93	64	28	407	A/Fan*			
	138	34,6	2,0	7,27	67	29	439	A/Fan*			
	162	29,5	2,4	6,16	65	28	407	A/Fan*			
	177	27,0	2,4	5,64	66	28	475	A/Fan*			
	50	95,5	1,4	20,05	144	61	355	B	**SK 13207 - 400M/6**	2820	122
	54	88,4	1,4	18,38	140	59	394	A/Fan*			
	64	74,6	1,7	15,53	133	56	394	A/Fan*			
	70	68,2	1,8	14,24	126	53	418	A/Fan*			
	81	59,0	2,0	12,40	123	52	444	A/Fan*			
	88	54,3	2,0	11,37	117	49	473	A/Fan*			
	99	48,2	2,4	10,11	114	48	473	A/Fan*			
	108	44,2	2,4	9,26	109	46	507	---			
	125	38,2	2,8	7,98	105	44	546	---			
	137	34,9	2,8	7,31	106	45	592	---			
	29	164,7	1,4	34,35	149	51	263	C	**SK 15307 - 400M/6**	4700	122
	32	149,2	1,4	31,49	149	51	263	C			
	36	132,6	1,8	27,86	149	51	263	C			
	39	122,4	1,8	25,54	149	51	263	C			
	46	103,8	2,0	21,84	149	51	263	C			
	51	93,6	2,5	19,76	149	51	263	B	**SK 15207 - 400M/6**	4460	122
	55	86,8	2,5	18,11	135	45	263	B			
560	158	33,8	1,5	6,31	58	25	319	B	**SK 11207 - 400L/6**	1390	122
	173	30,9	1,5	5,77	52	21	372	B			
	86	62,2	1,3	11,60	74	32	356	B	**SK 12207 - 400L/6**	2005	122
	101	53,0	1,5	9,93	71	31	356	B			
	110	48,6	1,6	9,10	69	30	407	B			
	126	42,4	1,8	7,93	64	28	407	B			
	138	38,8	1,8	7,27	67	29	439	B			
	162	33,0	2,1	6,16	65	28	407	B			
	177	30,2	2,1	5,64	66	28	475	A/Fan*			

** ⇨ 54

560 kW
710 kW

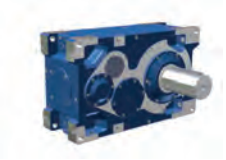
n_1 = 1000 min^{-1}

P_1 [kW]	n_2 [rpm]	M_2 [kNm]	f_B [-]	i_{ges} [-]	F_R [kN]	F_A [kN]	$P_{t0.20}$ [kW]	CS [-]		kg	mm
560	64	83,6	1,5	15,53	133	56	394	B	**SK 13207 - 400L/6**	2820	122
	70	76,4	1,6	14,24	126	53	418	B			
	81	66,0	1,8	12,40	123	52	444	A/Fan*			
	88	60,8	1,8	11,37	117	49	473	A/Fan*			
	99	54,0	2,1	10,11	114	48	473	A/Fan*			
	108	49,5	2,1	9,26	109	46	507	A/Fan*			
	125	42,8	2,5	7,98	105	44	546	A/Fan*			
	137	39,0	2,5	7,31	106	45	592	---			
	157	34,1	2,9	6,38	99	42	546	A/Fan*			
	171	31,3	2,9	5,85	103	43	592	---			
	36	148,6	1,6	27,86	149	51	263	D	**SK 15307 - 400L/6**	4700	122
	39	137,1	1,6	25,54	149	51	263	D			
	46	116,3	1,8	21,84	149	51	263	D			
	51	104,9	2,2	19,76	149	51	263	C	**SK 15207 - 400L/6**	4460	122
	55	97,2	2,2	18,11	135	45	263	C			
	65	82,3	2,8	15,48	137	46	263	C			
	70	76,4	2,7	14,19	124	42	263	C			
630	101	59,6	1,4	9,93	71	31	356	B	**SK 12207 - 450S/6**	2005	122
	110	54,7	1,4	9,10	69	30	407	B			
	126	47,8	1,6	7,93	64	28	407	B			
	138	43,6	1,6	7,27	67	29	439	B			
	162	37,1	1,9	6,16	65	28	407	B			
	177	34,0	1,9	5,64	66	28	475	B			
	64	94,0	1,4	15,53	133	56	394	B	**SK 13207 - 450S/6**	2820	122
	70	86,0	1,4	14,24	126	53	418	B			
	81	74,3	1,6	12,40	123	52	444	B			
	88	68,4	1,6	11,37	117	49	473	B			
	99	60,8	1,9	10,11	114	48	473	B			
	108	55,7	1,9	9,26	109	46	507	B/Fan*			
	125	48,1	2,2	7,98	105	44	546	A/Fan*			
	137	43,9	2,3	7,31	106	45	592	A/Fan*			
	157	38,3	2,6	6,38	99	42	546	A/Fan*			
	171	35,2	2,6	5,85	103	43	592	A/Fan*			
	36	167,1	1,5	27,86	149	51	263	E	**SK 15307 - 450S/6**	4700	122
	39	154,3	1,4	25,54	149	51	263	E			
	46	130,8	1,6	21,84	149	51	263	E			
	51	118,0	2,0	19,76	149	51	263	C	**SK 15207 - 450S/6**	4460	122
	55	109,4	2,0	18,11	135	45	263	C			
	65	92,6	2,4	15,48	137	46	263	C			
	70	86,0	2,4	14,19	124	42	263	C			
	80	75,2	2,7	12,48	126	42	263	C			
	87	69,2	2,7	11,44	114	38	263	C			
710	126	53,8	1,4	7,93	64	28	407	C	**SK 12207 - 450S/6**	2005	122
	138	49,1	1,4	7,27	67	29	439	B			
	162	41,9	1,7	6,16	65	28	407	C			
	177	38,3	1,7	5,64	66	28	475	B			

** ⇨ 54

710 kW
800 kW

n_1 = 1000 min^{-1}



P_1 [kW]	n_2 [rpm]	M_2 [kNm]	f_B [-]	i_{ges} [-]	F_R [kN]	F_A [kN]	$P_{t0.20}$ [kW]	CS [-]		kg	mm 📖
710	81	83,7	1,4	12,40	123	52	444	B	**SK 13207 - 450S/6**	2820	122
	88	77,1	1,4	11,37	117	49	473	B			
	99	68,5	1,7	10,11	114	48	473	B			
	108	62,8	1,7	9,26	109	46	507	B			
	125	54,2	2,0	7,98	105	44	546	B			
	137	49,5	2,0	7,31	106	45	592	A/Fan*			
	157	43,2	2,3	6,38	99	42	546	B			
	171	39,7	2,3	5,85	103	43	592	A/Fan*			
	46	147,4	1,4	21,84	149	51	263	F	**SK 15307 - 450S/6**	4700	122
	51	133,0	1,8	19,76	149	51	263	D	**SK 15207 - 450S/6**	4460	122
	55	123,3	1,8	18,11	135	45	263	D			
	65	104,3	2,2	15,48	137	46	263	D			
	70	96,9	2,1	14,19	124	42	263	D			
	80	84,8	2,4	12,48	126	42	263	D			
	87	77,9	2,4	11,44	114	38	263	D			
	102	66,5	2,9	9,78	114	39	263	D			
	112	60,5	2,9	8,96	104	35	263	D			
800	162	47,2	1,5	6,16	65	28	407	C	**SK 12207 - 450S/6**	2005	122
	177	43,2	1,5	5,64	66	28	475	C			
	99	77,2	1,5	10,11	114	48	473	C	**SK 13207 - 450S/6**	2820	122
	108	70,7	1,5	9,26	109	46	507	C			
	125	61,1	1,8	7,98	105	44	546	B			
	137	55,8	1,8	7,31	106	45	592	B			
	157	48,7	2,1	6,38	99	42	546	B			
	171	44,7	2,1	5,85	103	43	592	B			
	51	149,8	1,6	19,76	149	51	263	E	**SK 15207 - 450S/6**	4460	122
	55	138,9	1,6	18,11	135	45	263	E			
	65	117,5	1,9	15,48	137	46	263	E			
	70	109,1	1,9	14,19	124	42	263	E			
	80	95,5	2,1	12,48	126	42	263	E			
	87	87,8	2,1	11,44	114	38	263	E			
	102	74,9	2,6	9,78	114	39	263	E			
	112	68,2	2,6	8,96	104	35	263	E			

** ⇨📖 54

37 kW
110 kW

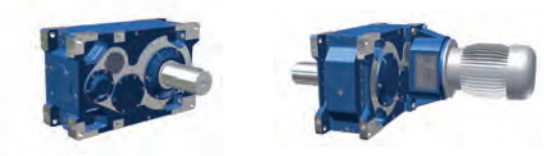
n_1 = 1500 min^{-1}

P_1 [kW]	n_2 [rpm]	M_2 [kNm]	f_B [-]	i_{ges} [-]	F_R [kN]	F_A [kN]	$P_{t0.20}$ [kW]	CS [-]		kg	mm
37	13	26,7	2,8	114,28	79	38	114	---	**SK 11307 - 225S/4**	1460	122
	14	25,4	2,7	104,39	79	38	117	---			
45	13	32,5	2,3	114,28	79	38	114	---	**SK 11307 - 225M/4**	1460	122
	14	31,2	2,2	104,39	79	38	117	---			
	16	27,1	2,4	89,30	79	38	121	---			
	18	24,1	2,7	81,58	79	38	127	---			
55	13	39,4	1,9	114,28	79	38	114	---	**SK 11307 - 250M/4**	1460	122
	14	38,2	1,8	104,39	79	38	117	---			
	16	32,5	2,0	89,30	79	38	121	---			
	18	29,5	2,2	81,58	79	38	127	---			
	13	40,6	2,5	112,91	93	40	146	---	**SK 12307 - 250M/4**	2110	122
	14	37,3	2,5	103,51	93	40	154	---			
75	13	53,4	1,4	114,28	79	38	114	---	**SK 11307 - 280S/4**	1460	122
	14	52,8	1,3	104,39	79	38	117	---			
	16	43,3	1,5	89,30	79	38	121	---			
	18	40,6	1,6	81,58	79	38	127	---			
	21	34,0	2,2	70,40	79	38	131	---			
	23	31,2	2,2	64,31	79	38	139	---			
	26	27,8	2,6	55,01	79	38	135	---			
	29	24,6	2,7	50,25	79	38	144	---			
	13	56,3	1,8	112,91	93	40	146	---	**SK 12307 - 280S/4**	2110	122
	14	51,8	1,8	103,51	93	40	154	---			
	16	44,0	2,2	88,55	93	40	154	---			
	18	40,4	2,2	81,18	93	40	163	---			
	13	54,5	2,6	113,15	144	61	182	---	**SK 13307 - 280S/4**	3040	122
	14	52,2	2,5	103,73	144	61	192	---			
90	18	46,4	1,4	81,58	79	38	127	---	**SK 11307 - 280M/4**	1460	122
	21	41,6	1,8	70,40	79	38	131	---			
	23	38,1	1,8	64,31	79	38	139	---			
	26	32,9	2,2	55,01	79	38	135	---			
	29	30,1	2,2	50,25	79	38	144	---			
	32	26,8	2,8	44,70	79	38	154	---			
	36	23,7	2,9	40,83	79	38	154	---			
	13	67,6	1,5	112,91	93	40	146	---	**SK 12307 - 280M/4**	2110	122
	14	62,2	1,5	103,51	93	40	154	---			
	16	53,7	1,8	88,55	93	40	154	---			
	18	46,7	1,9	81,18	93	40	163	---			
	21	40,6	2,5	69,56	93	40	168	---			
	23	37,3	2,5	63,77	93	40	184	---			
	13	67,5	2,1	113,15	144	61	182	---	**SK 13307 - 280M/4**	3040	122
	14	62,1	2,1	103,73	144	61	192	---			
	17	51,2	2,6	87,64	144	61	209	---			
	18	46,9	2,6	80,34	144	61	215	---			
110	21	49,9	1,5	70,40	79	38	131	---	**SK 11307 - 315S/4**	1460	122
	23	45,7	1,5	64,31	79	38	139	---			
	26	40,2	1,8	55,01	79	38	135	---			
	29	36,8	1,8	50,25	79	38	144	---			
	32	32,6	2,3	44,70	79	38	154	---			
	36	28,6	2,4	40,83	79	38	154	---			
	42	25,0	2,9	34,93	79	38	154	---			
	45	23,7	2,8	31,90	79	38	165	---			

** ⇨ 54

110 kW
160 kW

n_1 = 1500 min^{-1}



P_1 [kW]	n_2 [rpm]	M_2 [kNm]	f_B [-]	i_{ges} [-]	F_R [kN]	F_A [kN]	$P_{t0.20}$ [kW]	CS [-]		kg	mm
110	16	64,5	1,5	88,55	93	40	154	---	**SK 12307 - 315S/4**	2110	122
	18	59,2	1,5	81,18	93	40	163	---			
	21	50,7	2,0	69,56	93	40	168	---			
	23	46,7	2,0	63,77	93	40	184	---			
	27	39,3	2,5	54,55	93	40	184	---			
	29	36,2	2,5	50,01	93	40	204	---			
	13	78,8	1,8	113,15	144	61	182	---	**SK 13307 - 315S/4**	3040	122
	14	76,7	1,7	103,73	144	61	192	---			
	17	60,5	2,2	87,64	144	61	209	---			
	18	58,1	2,1	80,34	144	61	215	---			
	21	50,6	2,8	70,66	144	61	215	---			
	22	48,3	2,7	64,78	144	61	229	---			
132	26	48,2	1,5	55,01	79	38	135	---	**SK 11307 - 315M/4**	1460	122
	29	44,2	1,5	50,25	79	38	144	---			
	32	39,4	1,9	44,70	79	38	154	---			
	36	34,3	2,0	40,83	79	38	154	---			
	42	30,2	2,4	34,93	79	38	154	---			
	45	27,6	2,4	31,90	79	38	165	---			
	18	68,3	1,3	81,18	93	40	163	---	**SK 12307 - 315M/4**	2110	122
	21	59,6	1,7	69,56	93	40	168	---			
	23	54,9	1,7	63,77	93	40	184	---			
	27	46,8	2,1	54,55	93	40	184	---			
	29	43,0	2,1	50,01	93	40	204	---			
	33	37,5	2,7	44,26	93	40	197	---			
	36	34,6	2,7	40,58	93	40	211	---			
	13	94,5	1,5	113,15	144	61	182	---	**SK 13307 - 315M/4**	3040	122
	14	93,1	1,4	103,73	144	61	192	---			
	17	73,9	1,8	87,64	144	61	209	---			
	18	71,8	1,7	80,34	144	61	215	---			
	21	59,0	2,4	70,66	144	61	215	---			
	22	56,7	2,3	64,78	144	61	229	---			
	26	49,0	2,8	54,73	144	61	237	---			
	29	43,5	2,9	50,17	144	61	245	---			
	66	19,1	6,4	21,90	144	61	296	---			
	72	17,6	7,8	20,05	144	61	355	---	**SK 13207 - 315M/4**	2820	122
	227	5,6	18,0	6,38	99	42	546	---			
	13	96,9	2,5	111,48	149	51	263	---	**SK 15307 - 315M/4**	4700	122
	14	89,2	2,5	102,20	149	51	286	---			
160	32	46,8	1,6	44,70	79	38	154	A/Fan*	**SK 11307 - 315MA/4**	1460	122
	36	42,9	1,6	40,83	79	38	154	A/Fan*			
	42	36,2	2,0	34,93	79	38	154	A/Fan*			
	45	33,2	2,0	31,90	79	38	165	---			
	51	30,0	2,5	28,56	79	38	159	---			
	56	27,4	2,5	26,09	79	38	172	---			
	160	23,9	2,7	22,32	79	38	178	---			
	21	72,4	1,4	69,56	93	40	168	---	**SK 12307 - 315MA/4**	2110	122
	23	66,6	1,4	63,77	93	40	184	---			
	27	57,8	1,7	54,55	93	40	184	---			
	29	53,2	1,7	50,01	93	40	204	---			
	33	46,0	2,2	44,26	93	40	197	---			
	36	42,4	2,2	40,58	93	40	211	---			
	42	36,4	2,7	34,71	93	40	211	---			
	46	33,5	2,7	31,82	93	40	228	---			

** ⇨ 54

160 kW
250 kW

n_1 = 1500 min^{-1}

P_1 [kW]	n_2 [rpm]	M_2 [kNm]	f_B [-]	i_{ges} [-]	F_R [kN]	F_A [kN]	$P_{t0.20}$ [kW]	CS [-]		kg	mm
160	17	88,7	1,5	87,64	144	61	209	---	**SK 13307 - 315MA/4**	3040	122
	18	87,1	1,4	80,34	144	61	215	---			
	21	74,6	1,9	70,66	144	61	215	---			
	22	68,6	1,9	64,78	144	61	229	---			
	26	59,7	2,3	54,73	144	61	237	---			
	29	52,6	2,4	50,17	144	61	245	---			
	13	115,4	2,1	111,48	149	51	263	---	**SK 15307 - 315MA/4**	4700	122
	14	111,5	2,0	102,20	149	51	286	---			
	17	91,4	2,5	87,37	149	51	278	---			
	18	83,8	2,5	80,10	149	51	295	---			
200	32	57,6	1,3	44,70	79	38	154	A/Fan*	**SK 11307 - 315L/4**	1460	122
	36	52,8	1,3	40,83	79	38	154	A/Fan*			
	42	45,3	1,6	34,93	79	38	154	A/Fan*			
	45	41,4	1,6	31,90	79	38	165	A/Fan*			
	51	37,5	2,0	28,56	79	38	159	A/Fan*			
	56	34,3	2,0	26,09	79	38	172	A/Fan*			
	65	29,3	2,2	22,32	79	38	178	A/Fan*			
	72	26,8	2,6	20,25	91	38	212	---	**SK 11207 - 315L/4**	1390	122
	78	24,4	2,7	18,50	83	34	235	---			
	27	70,2	1,4	54,55	93	40	184	A/Fan	**SK 12307 - 315L/4**	2110	122
	29	64,6	1,4	50,01	93	40	204	---			
	33	56,3	1,8	44,26	93	40	197	A/Fan			
	36	51,8	1,8	40,58	93	40	211	---			
	42	44,7	2,2	34,71	93	40	211	---			
	46	41,1	2,2	31,82	93	40	228	---			
	51	37,5	2,7	28,22	93	40	204	---			
	56	34,6	2,7	25,87	93	40	219	---			
	21	88,6	1,6	70,66	144	61	215	---	**SK 13307 - 315L/4**	3040	122
	22	86,9	1,5	64,78	144	61	229	---			
	26	72,2	1,9	54,73	144	61	237	---			
	29	66,4	1,9	50,17	144	61	245	---			
	32	59,0	2,4	44,94	144	61	245	---			
	35	54,0	2,4	41,20	144	61	263	---			
	13	151,4	1,6	111,48	149	51	263	---	**SK 15307 - 315L/4**	4700	122
	14	139,4	1,6	102,20	149	51	286	---			
	17	114,3	2,0	87,37	149	51	278	---			
	18	104,8	2,0	80,10	149	51	295	---			
	21	89,8	2,7	69,62	149	51	304	---			
	23	82,6	2,7	63,82	149	51	325	---			
250	42	55,7	1,3	34,93	79	38	154	B/Fan*	**SK 11307 - 315LA/4**	1460	122
	45	55,3	1,2	31,90	79	38	165	B/Fan*			
	51	46,8	1,6	28,56	79	38	159	B/Fan*			
	56	42,9	1,6	26,09	79	38	172	B/Fan*			
	65	35,8	1,8	22,32	79	38	178	A/Fan*			
	72	33,1	2,1	20,25	91	38	212	A/Fan	**SK 11207 - 315LA/4**	1390	122
	78	31,3	2,1	18,50	83	34	235	A/Fan			
	92	26,0	2,5	15,83	84	36	235	A/Fan			
	100	23,7	2,6	14,46	75	31	248	A/Fan			

** ⇨ 54

250 kW
315 kW

n_1 = 1500 min^{-1}

P_1 [kW]	n_2 [rpm]	M_2 [kNm]	f_B [-]	i_{ges} [-]	F_R [kN]	F_A [kN]	$P_{t0.20}$ [kW]	CS [-]		kg	mm 📖
250	33	72,4	1,4	44,26	93	40	197	A/Fan*	**SK 12307 - 315LA/4**	2110	122
	36	66,6	1,4	40,58	93	40	211	A/Fan*			
	42	57,8	1,7	34,71	93	40	211	A/Fan*			
	46	53,2	1,7	31,82	93	40	228	A/Fan*			
	51	46,0	2,2	28,22	93	40	204	A/Fan*			
	56	42,4	2,2	25,87	93	40	219	A/Fan*			
	66	36,1	2,7	22,13	93	40	228	A/Fan*			
	26	91,5	1,5	54,73	144	61	237	A/Fan	**SK 13307 - 315LA/4**	3040	122
	29	84,1	1,5	50,17	144	61	245	A/Fan			
	32	74,5	1,9	44,94	144	61	245	A/Fan			
	35	68,2	1,9	41,20	144	61	263	---			
	42	57,2	2,4	34,81	144	61	263	---			
	45	52,6	2,4	31,91	144	61	273	---			
	13	186,4	1,3	111,48	149	51	263	---	**SK 15307 - 315LA/4**	4700	122
	14	171,5	1,3	102,20	149	51	286	---			
	17	142,8	1,6	87,37	149	51	278	---			
	18	130,9	1,6	80,10	149	51	295	---			
	21	115,5	2,1	69,62	149	51	304	---			
	23	106,2	2,1	63,82	149	51	325	---			
	27	89,8	2,6	54,56	149	51	336	---			
	29	82,7	2,6	50,02	149	51	361	---			
315	51	57,6	1,3	28,56	79	38	159	B/Fan*	**SK 11307 - 315LB/4**	1460	122
	56	52,8	1,3	26,09	79	38	172	B/Fan*			
	65	46,1	1,4	22,32	79	38	178	B/Fan*			
	72	40,9	1,7	20,25	91	38	212	A/Fan*	**SK 11207 - 315LB/4**	1390	122
	78	38,7	1,7	18,50	83	34	235	A/Fan*			
	92	32,6	2,0	15,83	84	36	235	A/Fan*			
	100	30,8	2,0	14,46	75	31	248	A/Fan*			
	114	26,7	2,3	12,71	78	33	262	A/Fan*			
	125	24,2	2,4	11,61	70	29	279	A/Fan*			
	146	20,6	2,8	9,91	71	30	279	A/Fan*			
	160	18,7	2,9	9,05	64	26	297	A/Fan*			
	42	70,2	1,4	34,71	93	40	211	B/Fan*	**SK 12307 - 315LB/4**	2110	122
	46	64,6	1,4	31,82	93	40	228	B/Fan*			
	51	59,6	1,7	28,22	93	40	204	B/Fan*			
	56	54,9	1,7	25,87	93	40	219	B/Fan*			
	66	46,5	2,1	22,13	93	40	228	B/Fan*			
	72	40,9	2,4	20,01	93	40	272	A/Fan	**SK 12207 - 315LB/4**	2005	122
	79	37,7	2,4	18,34	91	39	300	A/Fan			
	32	94,3	1,5	44,94	144	61	245	A/Fan*	**SK 13307 - 315LB/4**	3040	122
	35	86,4	1,5	41,20	144	61	263	A/Fan*			
	42	72,2	1,9	34,81	144	61	263	A/Fan*			
	45	66,4	1,9	31,91	144	61	273	A/Fan*			
	51	59,1	2,4	28,28	144	61	263	A/Fan*			
	56	54,3	2,4	25,92	144	61	284	A/Fan*			
	66	45,2	2,7	21,90	144	61	296	A/Fan*			

** ⇨📖 54

315 kW
400 kW

n_1 = 1500 min^{-1}

P_1 [kW]	n_2 [rpm]	M_2 [kNm]	f_B [-]	i_{ges} [-]	F_R [kN]	F_A [kN]	$P_{t0.20}$ [kW]	CS [-]		kg	mm
315	17	175,8	1,3	87,37	149	51	278	A/Fan*	**SK 15307 - 315LB/4**	4700	122
	18	161,2	1,3	80,10	149	51	295	A/Fan*			
	21	142,6	1,7	69,62	149	51	304	A/Fan*			
	23	131,2	1,7	63,82	149	51	325	---			
	27	111,2	2,1	54,56	149	51	336	---			
	29	102,3	2,1	50,02	149	51	361	---			
	33	89,7	2,7	43,83	149	51	348	---			
	36	82,6	2,7	40,18	149	51	375	---			
355	72	46,4	1,5	20,25	91	38	212	B/Fan*	**SK 11207 - 355S/4**	1390	122
	78	43,9	1,5	18,50	83	34	235	B/Fan*			
	92	36,2	1,8	15,83	84	36	235	B/Fan*			
	100	34,2	1,8	14,46	75	31	248	A/Fan*			
	114	29,2	2,1	12,71	78	33	262	A/Fan*			
	125	27,7	2,1	11,61	70	29	279	A/Fan*			
	146	23,1	2,5	9,91	71	30	279	A/Fan*			
	160	20,9	2,6	9,05	64	26	297	A/Fan*			
	51	67,5	1,5	28,22	93	40	204	B/Fan*	**SK 12307 - 355S/4**	2110	122
	56	62,2	1,5	25,87	93	40	219	B/Fan*			
	66	51,4	1,9	22,13	93	40	228	B/Fan*			
	72	46,8	2,1	20,01	93	40	272	A/Fan*	**SK 12207 - 355S/4**	2005	122
	79	43,0	2,1	18,34	91	39	300	A/Fan*			
	92	36,6	2,6	15,69	85	36	317	A/Fan*			
	101	33,7	2,6	14,39	82	35	356	---			
	32	108,8	1,3	44,94	144	61	245	B/Fan*	**SK 13307 - 355S/4**	3040	122
	35	99,7	1,3	41,20	144	61	263	B/Fan*			
	42	80,7	1,7	34,81	144	61	263	B/Fan*			
	45	74,2	1,7	31,91	144	61	273	B/Fan*			
	51	67,5	2,1	28,28	144	61	263	B/Fan*			
	56	59,3	2,2	25,92	144	61	284	A/Fan*			
	66	50,8	2,4	21,90	144	61	296	A/Fan*			
	21	161,7	1,5	69,62	149	51	304	A/Fan*	**SK 15307 - 355S/4**	4700	122
	23	148,7	1,5	63,82	149	51	325	A/Fan*			
	27	122,9	1,9	54,56	149	51	336	A/Fan*			
	29	119,4	1,8	50,02	149	51	361	---			
	33	101,0	2,4	43,83	149	51	348	A/Fan*			
	36	92,9	2,4	40,18	149	51	375	---			
400	72	53,5	1,3	20,25	91	38	212	B/Fan*	**SK 11207 - 355M/4**	1390	122
	78	50,6	1,3	18,50	83	34	235	B/Fan*			
	92	40,7	1,6	15,83	84	36	235	B/Fan*			
	100	38,4	1,6	14,46	75	31	248	B/Fan*			
	114	34,1	1,8	12,71	78	33	262	B/Fan*			
	125	30,6	1,9	11,61	70	29	279	B/Fan*			
	146	26,2	2,2	9,91	71	30	279	B/Fan*			
	160	23,6	2,3	9,05	64	26	297	A/Fan*			
	184	20,9	2,6	7,87	64	27	319	A/Fan*			
	202	19,1	2,6	7,19	58	24	343	A/Fan*			

** ⇨ 54

400 kW
500 kW

n_1 = 1500 min^{-1}

P_1 [kW]	n_2 [rpm]	M_2 [kNm]	f_B [-]	i_{ges} [-]	F_R [kN]	F_A [kN]	$P_{t0.20}$ [kW]	CS [-]		kg	mm 📖
400	51	72,4	1,4	28,22	93	40	204	C/Fan*	**SK 12307 - 355M/4**	2110	122
	56	66,6	1,4	25,87	93	40	219	C/Fan*			
	66	57,4	1,7	22,13	93	40	228	B/Fan*			
	72	51,7	1,9	20,01	93	40	272	B/Fan*	**SK 12207 - 355M/4**	2005	122
	79	47,6	1,9	18,34	91	39	300	A/Fan*			
	92	41,4	2,3	15,69	85	36	317	A/Fan*			
	101	38,1	2,3	14,39	82	35	356	A/Fan*			
	115	33,3	2,6	12,66	78	34	335	A/Fan*			
	125	30,0	2,7	11,60	74	32	356	A/Fan*			
	42	91,5	1,5	34,81	144	61	263	B/Fan*	**SK 13307 - 355M/4**	3040	122
	45	84,1	1,5	31,91	144	61	273	B/Fan*			
	51	74,6	1,9	28,28	144	61	263	B/Fan*			
	56	68,6	1,9	25,92	144	61	284	B/Fan*			
	66	58,1	2,1	21,90	144	61	296	B/Fan*			
	72	52,8	2,6	20,05	144	61	355	A/Fan	**SK 13207 - 355M/4**	2820	122
	79	48,6	2,6	18,38	140	59	394	A/Fan			
	21	186,5	1,3	69,62	149	51	304	B/Fan*	**SK 15307 - 355M/4**	4700	122
	23	171,5	1,3	63,82	149	51	325	B/Fan*			
	27	137,4	1,7	54,56	149	51	336	A/Fan*			
	29	134,3	1,6	50,02	149	51	361	A/Fan*			
	33	115,4	2,1	43,83	149	51	348	A/Fan*			
	36	106,2	2,1	40,18	149	51	375	A/Fan*			
	42	89,8	2,6	34,35	149	51	390	A/Fan*			
	46	82,6	2,6	31,49	149	51	423	---			
500	100	47,3	1,3	14,46	75	31	248	B	**SK 11207 - 355L/4**	1390	122
	114	40,9	1,5	12,71	78	33	262	B/Fan*			
	125	38,7	1,5	11,61	70	29	279	B/Fan*			
	146	32,1	1,8	9,91	71	30	279	B/Fan*			
	160	30,2	1,8	9,05	64	26	297	B/Fan*			
	184	25,9	2,1	7,87	64	27	319	B/Fan*			
	202	23,6	2,1	7,19	58	24	343	B/Fan*			
	230	20,5	2,4	6,31	58	25	319	B/Fan*			
	251	18,8	2,4	5,77	52	21	372	B/Fan*			
	66	75,1	1,3	22,13	93	40	228	D	**SK 12307 - 355L/4**	2110	122
	72	65,5	1,5	20,01	93	40	272	B/Fan*	**SK 12207 - 355L/4**	2005	122
	79	60,3	1,5	18,34	91	39	300	B/Fan*			
	92	52,9	1,8	15,69	85	36	317	B/Fan*			
	101	46,1	1,9	14,39	82	35	356	B/Fan*			
	115	41,2	2,1	12,66	78	34	335	B/Fan*			
	125	38,6	2,1	11,60	74	32	356	B/Fan*			
	146	32,8	2,5	9,93	71	31	356	B/Fan*			
	159	30,2	2,5	9,10	69	30	407	A/Fan*			
	51	94,5	1,5	28,28	144	61	263	C/Fan*	**SK 13307 - 355L/4**	3040	122
	56	86,9	1,5	25,92	144	61	284	C/Fan*			
	66	71,8	1,7	21,90	144	61	296	C/Fan*			
	72	65,4	2,1	20,05	144	61	355	B/Fan*	**SK 13207 - 355L/4**	2820	122
	79	60,2	2,1	18,38	140	59	394	A/Fan*			
	93	51,6	2,5	15,53	133	56	394	A/Fan*			
	102	47,0	2,6	14,24	126	53	418	A/Fan*			

** ⇨📖 54

500 kW
630 kW

n_1 = 1500 min^{-1}

P_1 [kW]	n_2 [rpm]	M_2 [kNm]	f_B [-]	i_{ges} [-]	F_R [kN]	F_A [kN]	$P_{t0.20}$ [kW]	CS [-]		kg	mm
500	27	179,6	1,3	54,56	149	51	336	B/Fan*	**SK 15307 - 355L/4**	4700	122
	29	165,3	1,3	50,02	149	51	361	B/Fan*			
	33	142,5	1,7	43,83	149	51	348	B/Fan*			
	36	131,2	1,7	40,18	149	51	375	B/Fan*			
	42	111,2	2,1	34,35	149	51	390	B/Fan*			
	46	102,3	2,1	31,49	149	51	423	B/Fan*			
	52	93,3	2,6	27,86	149	51	390	B/Fan*			
	57	82,6	2,7	25,54	149	51	423	B/Fan*			
	66	72,9	2,8	21,84	149	51	464	A/Fan*			
560	114	47,2	1,3	12,71	78	33	262	C	**SK 11207 - 400S/4**	1390	122
	125	41,5	1,4	11,61	70	29	279	C			
	146	36,1	1,6	9,91	71	30	279	C			
	160	33,9	1,6	9,05	64	26	297	B/Fan*			
	184	28,6	1,9	7,87	64	27	319	B/Fan*			
	202	26,1	1,9	7,19	58	24	343	B/Fan*			
	230	23,4	2,1	6,31	58	25	319	B/Fan*			
	251	21,4	2,1	5,77	52	21	372	B/Fan*			
	72	75,5	1,3	20,01	93	40	272	C	**SK 12207 - 400S/4**	2005	122
	79	69,5	1,3	18,34	91	39	300	B/Fan*			
	92	59,5	1,6	15,69	85	36	317	B/Fan*			
	101	51,5	1,7	14,39	82	35	356	B/Fan*			
	115	45,5	1,9	12,66	78	34	335	B/Fan*			
	125	42,6	1,9	11,60	74	32	356	B/Fan*			
	146	37,2	2,2	9,93	71	31	356	B/Fan*			
	159	34,3	2,2	9,10	69	30	407	B/Fan*			
	183	29,6	2,6	7,93	64	28	407	B/Fan*			
	199	27,2	2,6	7,27	67	29	439	B/Fan*			
	51	101,3	1,4	28,28	144	61	263	D	**SK 13307 - 400S/4**	3040	122
	56	93,1	1,4	25,92	144	61	284	D/Fan*			
	66	81,3	1,5	21,90	144	61	296	D/Fan*			
	72	76,3	1,8	20,05	144	61	355	B/Fan*	**SK 13207 - 400S/4**	2820	122
	79	66,5	1,9	18,38	140	59	394	B/Fan*			
	93	58,7	2,2	15,53	133	56	394	B/Fan*			
	102	53,2	2,3	14,24	126	53	418	B/Fan*			
	117	46,4	2,6	12,40	123	52	444	A/Fan*			
	128	41,1	2,7	11,37	117	49	473	A/Fan*			
	33	161,5	1,5	43,83	149	51	348	C/Fan*	**SK 15307 - 400S/4**	4700	122
	36	148,7	1,5	40,18	149	51	375	C/Fan*			
	42	129,8	1,8	34,35	149	51	390	B/Fan*			
	46	119,3	1,8	31,49	149	51	423	B/Fan*			
	52	101,0	2,4	27,86	149	51	390	B/Fan*			
	57	92,9	2,4	25,54	149	51	423	B/Fan*			
	66	81,7	2,5	21,84	149	51	464	B/Fan*			
630	146	41,2	1,4	9,91	71	30	279	C	**SK 11207 - 400M/4**	1390	122
	160	38,8	1,4	9,05	64	26	297	C			
	184	31,9	1,7	7,87	64	27	319	C/Fan*			
	202	29,2	1,7	7,19	58	24	343	C/Fan*			
	230	25,9	1,9	6,31	58	25	319	C/Fan*			
	251	23,7	1,9	5,77	52	21	372	B/Fan*			

** ⇨ 54

630 kW
710 kW

n_1 = 1500 min^{-1}

P_1 [kW]	n_2 [rpm]	M_2 [kNm]	f_B [-]	i_{ges} [-]	F_R [kN]	F_A [kN]	$P_{t0.20}$ [kW]	CS [-]		kg	mm
630	92	63,5	1,5	15,69	85	36	317	C/Fan*	**SK 12207 - 400M/4**	2005	122
	101	58,4	1,5	14,39	82	35	356	B/Fan*			
	115	50,9	1,7	12,66	78	34	335	C/Fan*			
	125	47,6	1,7	11,60	74	32	356	B/Fan*			
	146	41,0	2,0	9,93	71	31	356	B/Fan*			
	159	37,7	2,0	9,10	69	30	407	B/Fan*			
	183	33,4	2,3	7,93	64	28	407	B/Fan*			
	199	30,7	2,3	7,27	67	29	439	B/Fan*			
	235	26,1	2,7	6,16	65	28	407	B/Fan*			
	257	23,1	2,8	5,64	66	28	475	B/Fan*			
	66	93,8	1,3	21,90	144	61	296	E	**SK 13307 - 400M/4**	3040	122
	72	85,9	1,6	20,05	144	61	355	B/Fan*	**SK 13207 - 400M/4**	2820	122
	79	74,4	1,7	18,38	140	59	394	B/Fan*			
	93	64,6	2,0	15,53	133	56	394	B/Fan*			
	102	58,2	2,1	14,24	126	53	418	B/Fan*			
	117	52,4	2,3	12,40	123	52	444	B/Fan*			
	128	46,3	2,4	11,37	117	49	473	B/Fan*			
	143	42,6	2,7	10,11	114	48	473	B/Fan*			
	157	37,9	2,8	9,26	109	46	507	B/Fan*			
	33	186,4	1,3	43,83	149	51	348	D/Fan*	**SK 15307 - 400M/4**	4700	122
	36	171,5	1,3	40,18	149	51	375	C/Fan*			
	42	146,0	1,6	34,35	149	51	390	C/Fan*			
	46	134,3	1,6	31,49	149	51	423	C/Fan*			
	52	115,5	2,1	27,86	149	51	390	C/Fan*			
	57	106,2	2,1	25,54	149	51	423	C/Fan*			
	66	92,8	2,2	21,84	149	51	464	B/Fan*			
	73	81,0	2,9	19,76	149	51	513	A/Fan*	**SK 15207 - 400M/4**	4460	122
	80	74,5	2,9	18,11	135	45	573	A/Fan*			
710	160	41,8	1,3	9,05	64	26	297	C	**SK 11207 - 400L/4**	1390	122
	184	36,2	1,5	7,87	64	27	319	C			
	202	33,1	1,5	7,19	58	24	343	C			
	230	28,9	1,7	6,31	58	25	319	C			
	251	26,5	1,7	5,77	52	21	372	C/Fan*			
	92	73,2	1,3	15,69	85	36	317	C	**SK 12207 - 400L/4**	2005	122
	101	67,4	1,3	14,39	82	35	356	C/Fan*			
	115	57,7	1,5	12,66	78	34	335	C			
	125	54,0	1,5	11,60	74	32	356	C/Fan*			
	146	45,5	1,8	9,93	71	31	356	C/Fan*			
	159	41,9	1,8	9,10	69	30	407	C/Fan*			
	183	36,6	2,1	7,93	64	28	407	C/Fan*			
	199	33,7	2,1	7,27	67	29	439	B/Fan*			
	235	29,3	2,4	6,16	65	28	407	C/Fan*			
	257	25,9	2,5	5,64	66	28	475	B/Fan*			
	72	91,6	1,5	20,05	144	61	355	C/Fan*	**SK 13207 - 400L/4**	2820	122
	79	84,3	1,5	18,38	140	59	394	C/Fan*			
	93	71,7	1,8	15,53	133	56	394	C/Fan*			
	102	67,9	1,8	14,24	126	53	418	C/Fan*			
	117	57,4	2,1	12,40	123	52	444	B/Fan*			
	128	52,9	2,1	11,37	117	49	473	B/Fan*			
	143	48,0	2,4	10,11	114	48	473	B/Fan*			
	157	42,4	2,5	9,26	109	46	507	B/Fan*			
	182	37,2	2,9	7,98	105	44	546	B/Fan*			
	198	34,2	2,9	7,31	106	45	592	A/Fan*			

** ⇨ 54

710 kW
900 kW

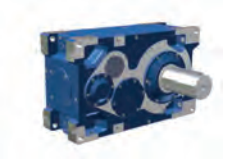
n_1 = 1500 min^{-1}

P_1 [kW]	n_2 [rpm]	M_2 [kNm]	f_B [-]	i_{ges} [-]	F_R [kN]	F_A [kN]	$P_{t0.20}$ [kW]	CS [-]		kg	mm
710	42	166,9	1,4	34,35	149	51	390	D/Fan*	**SK 15307 - 400L/4**	4700	122
	46	143,2	1,5	31,49	149	51	423	D/Fan*			
	52	127,6	1,9	27,86	149	51	390	D/Fan*			
	57	117,4	1,9	25,54	149	51	423	D/Fan*			
	66	102,1	2,0	21,84	149	51	464	C/Fan*			
	73	94,0	2,5	19,76	149	51	513	B/Fan*	**SK 15207 - 400L/4**	4460	122
	80	86,4	2,5	18,11	135	45	573	B/Fan*			
800	184	41,8	1,3	7,87	64	27	319	D	**SK 11207 - 450S/4**	1390	122
	202	38,2	1,3	7,19	58	24	343	D			
	230	32,8	1,5	6,31	58	25	319	D			
	251	30,0	1,5	5,77	52	21	372	D			
	115	66,5	1,3	12,66	78	34	335	D	**SK 12207 - 450S/4**	2005	122
	125	62,3	1,3	11,60	74	32	356	D			
	146	51,2	1,6	9,93	71	31	356	D			
	159	47,1	1,6	9,10	69	30	407	C/Fan*			
	183	42,7	1,8	7,93	64	28	407	C/Fan*			
	199	39,3	1,8	7,27	67	29	439	C/Fan*			
	235	32,0	2,2	6,16	65	28	407	C/Fan*			
	257	29,4	2,2	5,64	66	28	475	C/Fan*			
	72	105,7	1,3	20,05	144	61	355	D	**SK 13207 - 450S/4**	2820	122
	79	97,2	1,3	18,38	140	59	394	C			
	93	80,7	1,6	15,53	133	56	394	C			
	102	76,4	1,6	14,24	126	53	418	C/Fan*			
	117	67,0	1,8	12,40	123	52	444	C/Fan*			
	128	58,4	1,9	11,37	117	49	473	C/Fan*			
	143	52,3	2,2	10,11	114	48	473	C/Fan*			
	157	48,2	2,2	9,26	109	46	507	C/Fan*			
	182	41,5	2,6	7,98	105	44	546	B/Fan*			
	198	38,1	2,6	7,31	106	45	592	B/Fan*			
	42	179,7	1,3	34,35	149	51	390	E	**SK 15307 - 450S/4**	4700	122
	46	165,2	1,3	31,49	149	51	423	E/Fan*			
	52	142,6	1,7	27,86	149	51	390	E			
	57	131,2	1,7	25,54	149	51	423	E/Fan*			
	66	113,4	1,8	21,84	149	51	464	E/Fan*			
	73	106,8	2,2	19,76	149	51	513	C/Fan*	**SK 15207 - 450S/4**	4460	122
	80	94,0	2,3	18,11	135	45	573	B/Fan*			
	94	80,8	2,8	15,48	137	46	573	B/Fan*			
	102	74,4	2,8	14,19	124	42	609	B/Fan*			
900	230	37,8	1,3	6,31	58	25	319	E	**SK 11207 - 450M/4**	1390	122
	251	34,6	1,3	5,77	52	21	372	E			
	146	58,5	1,4	9,93	71	31	356	E	**SK 12207 - 450M/4**	2005	122
	159	53,9	1,4	9,10	69	30	407	D			
	183	48,1	1,6	7,93	64	28	407	D			
	199	44,2	1,6	7,27	67	29	439	D			
	235	37,1	1,9	6,16	65	28	407	D			
	257	34,1	1,9	5,64	66	28	475	D/Fan*			

** ⇨ 54

900 kW
1000 kW

n_1 = 1500 min^{-1}



P_1 [kW]	n_2 [rpm]	M_2 [kNm]	f_B [-]	i_{ges} [-]	F_R [kN]	F_A [kN]	$P_{t0.20}$ [kW]	CS [-]		kg	mm 📖
900	93	92,2	1,4	15,53	133	56	394	D	**SK 13207 - 450M/4**	2820	122
	102	81,5	1,5	14,24	126	53	418	D			
	117	75,4	1,6	12,40	123	52	444	D			
	128	65,3	1,7	11,37	117	49	473	D/Fan*			
	143	60,6	1,9	10,11	114	48	473	D/Fan*			
	157	55,8	1,9	9,26	109	46	507	C/Fan*			
	182	46,9	2,3	7,98	105	44	546	C/Fan*			
	198	43,1	2,3	7,31	106	45	592	C/Fan*			
	227	38,4	2,6	6,38	99	42	546	C/Fan*			
	248	34,0	2,7	5,85	103	43	592	C/Fan*			
	52	161,7	1,5	27,86	149	51	390	F	**SK 15307 - 450M/4**	4700	122
	57	148,7	1,5	25,54	149	51	423	F			
	66	127,6	1,6	21,84	149	51	464	F/Fan*			
	73	117,5	2,0	19,76	149	51	513	C/Fan*	**SK 15207 - 450M/4**	4460	122
	80	108,1	2,0	18,11	135	45	573	C/Fan*			
	94	90,5	2,5	15,48	137	46	573	C/Fan*			
	102	83,3	2,5	14,19	124	42	609	C/Fan*			
	116	72,9	2,8	12,48	126	42	649	B/Fan*			
	127	67,0	2,8	11,44	114	38	696	B/Fan*			
1000	159	58,0	1,3	9,10	69	30	407	E	**SK 12207 - 450L/4**	2005	122
	183	51,3	1,5	7,93	64	28	407	E			
	199	47,1	1,5	7,27	67	29	439	E			
	235	41,4	1,7	6,16	65	28	407	E			
	257	38,1	1,7	5,64	66	28	475	E			
	93	99,3	1,3	15,53	133	56	394	E	**SK 13207 - 450L/4**	2820	122
	102	94,1	1,3	14,24	126	53	418	E			
	117	80,4	1,5	12,40	123	52	444	E			
	128	74,0	1,5	11,37	117	49	473	E			
	143	67,7	1,7	10,11	114	48	473	E			
	157	62,4	1,7	9,26	109	46	507	D/Fan*			
	182	51,3	2,1	7,98	105	44	546	D/Fan*			
	198	47,2	2,1	7,31	106	45	592	C/Fan*			
	227	41,6	2,4	6,38	99	42	546	D/Fan*			
	248	38,3	2,4	5,85	103	43	592	C/Fan*			
	52	186,5	1,3	27,86	149	51	390	G	**SK 15307 - 450L/4**	4700	122
	57	171,5	1,3	25,54	149	51	423	G			
	66	145,9	1,4	21,84	149	51	464	F			
	73	130,5	1,8	19,76	149	51	513	D/Fan*	**SK 15207 - 450L/4**	4460	122
	80	120,1	1,8	18,11	135	45	573	D/Fan*			
	94	102,9	2,2	15,48	137	46	573	D/Fan*			
	102	94,6	2,2	14,19	124	42	609	C/Fan*			
	116	81,6	2,5	12,48	126	42	649	C/Fan*			
	127	75,1	2,5	11,44	114	38	696	C/Fan*			

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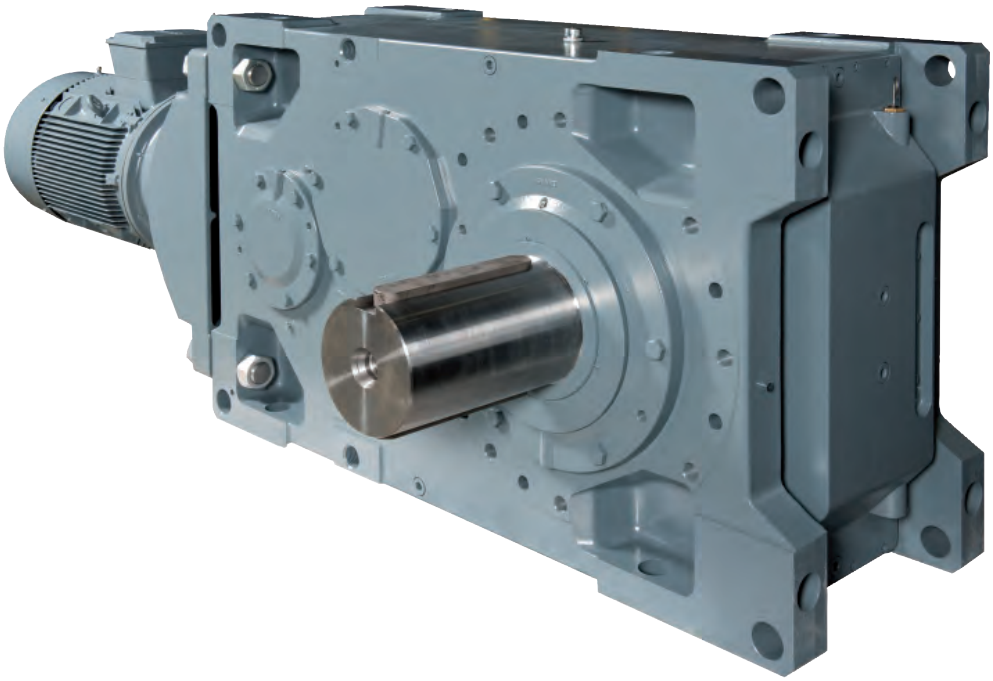
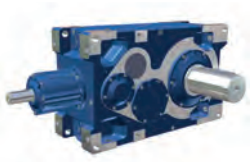


** ⇨ 54

SK ..507

P_N | M_{2max}



i_N [-]	n_{1N} [min^{-1}]	n_{2N} [min^{-1}]		SK 11507	SK 12507	SK 13507	SK 15507	
400	1500	3,75	P_N	30	41	57	99	kW
	1000	2,50		20	27	38	66	
			M_{2max}	77	104	145	248	kNm
355	1500	4,23	P_N	30	41	57	99	kW
	1000	2,82		20	27	38	66	
			M_{2max}	70	95	133	227	kNm
315	1500	4,76	P_N	33	50	67	119	kW
	1000	3,17		22	33	45	79	
			M_{2max}	67	100	133	234	kNm
280	1500	5,36	P_N	35	50	67	119	kW
	1000	3,57		23	33	45	79	
			M_{2max}	64	91	122	215	kNm
250	1500	6,00	P_N	48	65	90	156	kW
	1000	4,00		32	44	60	104	
			M_{2max}	76	103	144	246	kNm
224	1500	6,70	P_N	48	65	90	156	kW
	1000	4,46		32	44	60	104	
			M_{2max}	70	94	132	225	kNm
200	1500	7,50	P_N	59	81	112	191	kW
	1000	5,00		39	54	75	128	
			M_{2max}	73	99	138	236	kNm
180	1500	8,33	P_N	59	81	112	191	kW
	1000	5,56		39	54	75	128	
			M_{2max}	67	91	127	216	kNm
160	1500	9,38	P_N	74	102	140	246	kW
	1000	6,25		49	68	94	164	
			M_{2max}	74	102	143	244	kNm
140	1500	10,71	P_N	75	102	140	246	kW
	1000	7,14		50	68	94	164	
			M_{2max}	69	93	131	223	kNm
125	1500	12,00	P_N	92	125	175	301	kW
	1000	8,00		61	84	116	201	
			M_{2max}	72	98	137	234	kNm
112	1500	13,39	P_N	92	126	175	302	kW
	1000	8,93		61	84	117	202	
			M_{2max}	66	90	126	215	kNm
100	1500	15,00	P_N	116	159	222	385	kW
	1000	10,00		77	106	148	257	
			M_{2max}	75	101	142	242	kNm
90	1500	16,67	P_N	117	160	223	387	kW
	1000	11,11		78	106	149	258	
			M_{2max}	69	93	130	223	kNm
80	1500	18,75	P_N	130	197	250	420	kW
	1000	12,50		87	131	167	280	
			M_{2max}	65	98	124	207	kNm

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i_N [-]	CS - Typ	τ_u	SK 11507		SK 12507		SK 13507		SK 15507		
			20°C	*40°C*	*20°C*	*40°C*	*20°C*	*40°C*	*20°C*	*40°C*	
	---	P_{t0}	84	60	108	76	134	95	191	136	
400	FAN	P_{tF}	118	75	151	96	188	120	267	171	kW
	CC	P_{tCC}	97	97	135	135	173	173	173	173	
	---	P_{t0}	86	61	112	79	139	99	203	144	
355	FAN	P_{tF}	120	77	157	100	195	125	284	182	kW
	CC	P_{tCC}	97	97	135	135	173	173	173	173	
	---	P_{t0}	87	62	112	79	148	105	199	141	
315	FAN	P_{tF}	122	78	157	100	207	133	278	178	kW
	CC	P_{tCC}	97	97	135	135	173	173	173	173	
	---	P_{t0}	91	65	116	83	148	105	203	144	
280	FAN	P_{tF}	127	82	163	104	207	133	284	182	kW
	CC	P_{tCC}	97	97	135	135	173	173	173	173	
	---	P_{t0}	93	66	119	84	148	105	207	147	
250	FAN	P_{tF}	130	83	166	106	207	133	290	186	kW
	CC	P_{tCC}	97	97	135	135	173	173	173	173	
	---	P_{t0}	95	67	124	88	154	110	216	154	
224	FAN	P_{tF}	133	85	174	111	216	138	303	194	kW
	CC	P_{tCC}	97	97	135	135	173	173	173	173	
	---	P_{t0}	93	66	124	88	158	112	221	157	
200	FAN	P_{tF}	130	83	174	111	221	141	310	198	kW
	CC	P_{tCC}	97	97	135	135	173	173	173	173	
	---	P_{t0}	97	69	133	94	161	115	232	165	
180	FAN	P_{tF}	136	87	186	119	226	145	325	208	kW
	CC	P_{tCC}	97	97	135	135	173	173	173	173	
	---	P_{t0}	101	72	130	92	161	115	227	161	
160	FAN	P_{tF}	142	91	181	116	226	145	317	203	kW
	CC	P_{tCC}	97	97	135	135	173	173	173	173	
	---	P_{t0}	101	72	136	96	169	120	238	169	
140	FAN	P_{tF}	142	91	190	122	237	151	333	213	kW
	CC	P_{tCC}	97	97	135	135	173	173	173	173	
	---	P_{t0}	101	72	136	96	169	120	243	173	
125	FAN	P_{tF}	142	91	190	122	237	151	341	218	kW
	CC	P_{tCC}	97	97	135	135	173	173	173	173	
	---	P_{t0}	106	75	143	101	173	123	256	182	
112	FAN	P_{tF}	149	95	200	128	242	155	359	230	kW
	CC	P_{tCC}	97	97	135	135	173	173	173	173	
	---	P_{t0}	104	74	133	94	169	120	243	173	
100	FAN	P_{tF}	145	93	186	119	237	151	341	218	kW
	CC	P_{tCC}	97	97	135	135	173	173	173	173	
	---	P_{t0}	109	77	139	99	178	126	256	182	
90	FAN	P_{tF}	152	97	195	125	249	159	359	230	kW
	CC	P_{tCC}	97	97	135	135	173	173	173	173	
	---	P_{t0}	112	79	143	101	182	129	271	192	
80	FAN	P_{tF}	156	100	200	128	255	163	379	242	kW
	CC	P_{tCC}	97	97	135	135	173	173	173	173	

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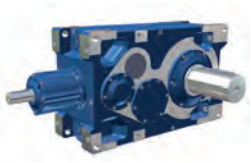
SK ..407

P_N | M_{2max}



i_N [-]	n_{1N} [min^{-1}]	n_{2N} [min^{-1}]		SK 11407	SK 12407	SK 13407	SK 15407	
71	1500	21,13	P_N	159	217	303	480	kW
	1000	14,08		106	145	202	320	
			M_{2max}	73	98	137	214	kNm
63	1500	23,81	P_N	157	220	304	480	kW
	1000	15,87		105	147	202	320	
			M_{2max}	66	91	126	196	kNm
56	1500	26,79	P_N	163	269	379	485	kW
	1000	17,86		109	179	253	323	
			M_{2max}	58	95	133	170	kNm
50	1500	30,00	P_N	163	271	381	485	kW
	1000	20,00		108	181	254	323	
			M_{2max}	53	88	122	155	kNm
45	1500	33,33	P_N	259	354	489	736	kW
	1000	22,22		172	236	326	490	
			M_{2max}	73	98	136	201	kNm
40	1500	37,50	P_N	257	358	495	736	kW
	1000	25,00		172	239	330	491	
			M_{2max}	66	91	126	185	kNm
35,5	1500	42,25	P_N	290	428	604	850	kW
	1000	28,17		193	285	403	566	
			M_{2max}	64	93	130	182	kNm
31,5	1500	47,62	P_N	282	431	608	854	kW
	1000	31,75		188	288	405	569	
			M_{2max}	56	86	120	168	kNm
28	1500	53,57	P_N	401	548	765	1147	kW
	1000	35,71		267	365	510	764	
			M_{2max}	73	98	137	203	kNm
25	1500	60,00	P_N	387	554	767	1226	kW
	1000	40,00		258	369	512	817	
			M_{2max}	64	91	126	199	kNm
22,4	1500	66,96	P_N	434	677	934	1349	kW
	1000	44,64		290	451	623	899	
			M_{2max}	62	95	130	187	kNm
20	1500	75,00	P_N	435	683	959	1348	kW
	1000	50,00		290	455	639	899	
			M_{2max}	56	88	122	172	kNm
18	1500	83,33	P_N	505	811	1098	1538	kW
	1000	55,56		337	541	732	1026	
			M_{2max}	58	92	122	172	kNm
16	1500	93,75	P_N	557	808	1139	1551	kW
	1000	62,50		371	539	759	1034	
			M_{2max}	58	84	116	159	kNm
14	1500	107,14	P_N	624	892	1149	1735	kW
	1000	71,43		416	594	766	1157	
			M_{2max}	55	79	104	152	kNm
12,5	1500	120,00	P_N	624	920	1205	1856	kW
	1000	80,00		416	613	803	1237	
			M_{2max}	51	75	100	149	kNm

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i_N [-]	CS - Typ	τ_u	SK 11407 20°C	SK 11407 40°C	SK 12407 20°C	SK 12407 40°C	SK 13407 20°C	SK 13407 40°C	SK 15407 20°C	SK 15407 40°C	
71	---	P_{t0}	124	88	158	112	203	144	286	203	kW
	FAN	P_{tF}	173	111	222	142	284	182	401	257	
	CC	P_{tCC}	140	140	195	195	249	249	249	249	
63	---	P_{t0}	131	93	168	119	215	153	304	216	kW
	FAN	P_{tF}	184	118	235	150	301	193	426	273	
	CC	P_{tCC}	140	140	195	195	249	249	249	249	
56	---	P_{t0}	131	93	173	123	215	153	304	216	kW
	FAN	P_{tF}	184	118	242	155	301	193	426	273	
	CC	P_{tCC}	140	140	195	195	249	249	249	249	
50	---	P_{t0}	135	96	184	131	222	158	314	223	kW
	FAN	P_{tF}	189	121	258	165	311	199	440	282	
	CC	P_{tCC}	140	140	195	195	249	249	249	249	
45	---	P_{t0}	124	88	158	112	203	144	286	203	kW
	FAN	P_{tF}	173	111	222	142	284	182	401	257	
	CC	P_{tCC}	140	140	195	195	249	249	249	249	
40	---	P_{t0}	131	93	168	119	215	153	304	216	kW
	FAN	P_{tF}	184	118	235	150	301	193	426	273	
	CC	P_{tCC}	140	140	195	195	249	249	249	249	
35,5	---	P_{t0}	131	93	173	123	215	153	304	216	kW
	FAN	P_{tF}	184	118	242	155	301	193	426	273	
	CC	P_{tCC}	140	140	195	195	249	249	249	249	
31,5	---	P_{t0}	135	96	184	131	222	158	314	223	kW
	FAN	P_{tF}	189	121	258	165	311	199	440	282	
	CC	P_{tCC}	140	140	195	195	249	249	249	249	
28	---	P_{t0}	124	88	158	112	203	144	286	203	kW
	FAN	P_{tF}	173	111	222	142	284	182	401	257	
	CC	P_{tCC}	140	140	195	195	249	249	249	249	
25	---	P_{t0}	131	93	168	119	215	153	304	216	kW
	FAN	P_{tF}	184	118	235	150	301	193	426	273	
	CC	P_{tCC}	140	140	195	195	249	249	249	249	
22,4	---	P_{t0}	131	93	173	123	215	153	304	216	kW
	FAN	P_{tF}	184	118	242	155	301	193	426	273	
	CC	P_{tCC}	140	140	195	195	249	249	249	249	
20	---	P_{t0}	135	96	184	131	222	158	314	223	kW
	FAN	P_{tF}	189	121	258	165	311	199	440	282	
	CC	P_{tCC}	140	140	195	195	249	249	249	249	
18	---	P_{t0}	139	99	178	127	229	163	325	231	kW
	FAN	P_{tF}	195	125	249	160	321	205	455	291	
	CC	P_{tCC}	140	140	195	195	249	249	249	249	
16	---	P_{t0}	144	102	184	131	237	168	336	238	kW
	FAN	P_{tF}	201	129	258	165	331	212	470	301	
	CC	P_{tCC}	140	140	195	195	249	249	249	249	
14	---	P_{t0}	144	102	184	131	237	168	336	238	kW
	FAN	P_{tF}	201	129	258	165	331	212	470	301	
	CC	P_{tCC}	140	140	195	195	249	249	249	249	
12,5	---	P_{t0}	149	106	197	140	245	174	361	256	kW
	FAN	P_{tF}	208	133	275	176	343	219	505	323	
	CC	P_{tCC}	140	140	195	195	249	249	249	249	

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SK ..507

F_R | F_A | J_{red} | i_{ges}

i_N [-]		SK 11507	SK 12507	SK 13507	SK 15507	
400	F_R | F_A	91 | 38	93 | 40	144 | 61	149 | 51	kN
	i_{ges}	405,17	400,32	401,17	395,25	-
	J_{red}	0,026	0,046	0,082	0,178	kgm²
355	F_R | F_A	91 | 38	93 | 40	144 | 61	149 | 51	kN
	i_{ges}	370,11	366,99	367,77	362,35	-
	J_{red}	0,026	0,047	0,083	0,178	kgm²
315	F_R | F_A	91 | 38	93 | 40	144 | 61	149 | 51	kN
	i_{ges}	316,61	313,95	310,72	309,77	-
	J_{red}	0,028	0,050	0,090	0,193	kgm²
280	F_R | F_A	91 | 38	93 | 40	144 | 61	149 | 51	kN
	i_{ges}	289,24	287,82	284,84	283,99	-
	J_{red}	0,029	0,051	0,090	0,194	kgm²
250	F_R | F_A	91 | 38	93 | 40	144 | 61	149 | 51	kN
	i_{ges}	249,60	246,62	250,52	246,83	-
	J_{red}	0,032	0,057	0,100	0,216	kgm²
224	F_R | F_A	91 | 38	93 | 40	144 | 61	149 | 51	kN
	i_{ges}	228,01	226,09	229,67	226,27	-
	J_{red}	0,032	0,057	0,101	0,219	kgm²
200	F_R | F_A	91 | 38	93 | 40	144 | 61	149 | 51	kN
	i_{ges}	195,04	193,40	194,04	193,44	-
	J_{red}	0,037	0,065	0,116	0,249	kgm²
180	F_R | F_A	91 | 38	93 | 40	144 | 61	149 | 51	kN
	i_{ges}	178,16	177,31	177,88	177,34	-
	J_{red}	0,037	0,066	0,117	0,253	kgm²
160	F_R | F_A	91 | 38	93 | 40	144 | 61	149 | 51	kN
	i_{ges}	158,48	156,92	159,33	155,40	-
	J_{red}	0,043	0,076	0,135	0,292	kgm²
140	F_R | F_A	91 | 38	93 | 40	144 | 61	149 | 51	kN
	i_{ges}	144,76	143,87	146,07	142,46	-
	J_{red}	0,044	0,077	0,138	0,296	kgm²
125	F_R | F_A	91 | 38	93 | 40	144 | 61	149 | 51	kN
	i_{ges}	123,84	123,06	123,42	121,79	-
	J_{red}	0,052	0,093	0,165	0,356	kgm²
112	F_R | F_A	91 | 38	93 | 40	144 | 61	149 | 51	kN
	i_{ges}	113,10	112,82	113,14	111,65	-
	J_{red}	0,053	0,095	0,168	0,363	kgm²
100	F_R | F_A	91 | 38	93 | 40	144 | 61	149 | 51	kN
	i_{ges}	101,26	100,05	100,27	98,78	-
	J_{red}	0,067	0,119	0,211	0,455	kgm²
90	F_R | F_A	91 | 38	93 | 40	144 | 61	149 | 51	kN
	i_{ges}	92,50	91,72	91,90	90,55	-
	J_{red}	0,068	0,121	0,216	0,465	kgm²
80	F_R | F_A	91 | 38	93 | 40	144 | 61	149 | 51	kN
	i_{ges}	79,13	78,46	77,65	77,43	-
	J_{red}	0,093	0,166	0,294	0,634	kgm²

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i_N [-]		SK 11407	SK 12407	SK 13407	SK 15407	
71	F_R | F_A	91 | 38	93 | 40	144 | 61	149 | 51	kN
	i_{ges}	71,80	70,94	71,09	70,06	-
	J_{red}	0,091	0,161	0,287	0,618	kgm²
63	F_R | F_A	83 | 34	91 | 39	140 | 59	135 | 45	kN
	i_{ges}	65,59	65,02	65,17	64,21	-
	J_{red}	0,094	0,166	0,296	0,637	kgm²
56	F_R | F_A	84 | 36	85 | 36	133 | 56	137 | 46	kN
	i_{ges}	56,12	55,63	55,06	54,88	-
	J_{red}	0,114	0,202	0,360	0,775	kgm²
50	F_R | F_A	75 | 31	82 | 35	126 | 53	124 | 42	kN
	i_{ges}	51,27	51,02	50,49	50,31	-
	J_{red}	0,117	0,208	0,370	0,798	kgm²
45	F_R | F_A	91 | 38	93 | 40	144 | 61	149 | 51	kN
	i_{ges}	44,07	43,55	43,64	43,01	-
	J_{red}	0,128	0,228	0,405	0,873	kgm²
40	F_R | F_A	83 | 34	91 | 39	140 | 59	135 | 45	kN
	i_{ges}	40,26	39,92	40,00	39,42	-
	J_{red}	0,132	0,235	0,418	0,900	kgm²
35,5	F_R | F_A	84 | 36	85 | 36	133 | 56	137 | 46	kN
	i_{ges}	34,45	34,15	33,80	33,69	-
	J_{red}	0,156	0,277	0,493	1,062	kgm²
31,5	F_R | F_A	75 | 31	82 | 35	126 | 53	124 | 42	kN
	i_{ges}	31,47	31,32	30,99	30,88	-
	J_{red}	0,160	0,285	0,507	1,093	kgm²
28	F_R | F_A	91 | 38	93 | 40	144 | 61	149 | 51	kN
	i_{ges}	28,50	28,16	28,22	27,81	-
	J_{red}	0,251	0,446	0,792	1,707	kgm²
25	F_R | F_A	83 | 34	91 | 39	140 | 59	135 | 45	kN
	i_{ges}	26,04	25,81	25,87	25,49	-
	J_{red}	0,255	0,453	0,806	1,737	kgm²
22,4	F_R | F_A	84 | 36	85 | 36	133 | 56	137 | 46	kN
	i_{ges}	22,28	22,08	21,86	21,79	-
	J_{red}	0,271	0,482	0,857	1,847	kgm²
20	F_R | F_A	75 | 31	82 | 35	126 | 53	124 | 42	kN
	i_{ges}	20,35	20,25	20,04	19,97	-
	J_{red}	0,277	0,492	0,875	1,884	kgm²
18	F_R | F_A	78 | 33	78 | 34	123 | 52	126 | 42	kN
	i_{ges}	17,89	17,82	17,45	17,56	-
	J_{red}	0,354	0,630	1,121	2,414	kgm²
16	F_R | F_A	70 | 29	74 | 32	117 | 49	114 | 38	kN
	i_{ges}	16,34	16,33	16,00	16,10	-
	J_{red}	0,362	0,644	1,146	2,468	kgm²
14	F_R | F_A	71 | 30	71 | 31	114 | 48	114 | 39	kN
	i_{ges}	13,95	13,98	14,23	13,76	-
	J_{red}	0,433	0,770	1,370	2,952	kgm²
12,5	F_R | F_A	64 | 26	69 | 30	109 | 46	104 | 35	kN
	i_{ges}	12,74	12,81	13,03	12,61	-
	J_{red}	0,444	0,790	1,404	3,026	kgm²

** ⇨ 54

7,5 kW
18,5 kW

n_1 = 1000 min^{-1}

P_1 [kW]	n_2 [rpm]	M_2 [kNm]	f_B [-]	i_{ges} [-]	F_R [kN]	F_A [kN]	$P_{t0.20}$ [kW]	CS [-]		kg	mm 📖
7,5	2,5	28,7	2,7	405,18	91	38	83	---	**SK 11507- 160M/6**	1535	128
	2,7	26,5	2,6	370,12	91	38	85	---			
	3,2	22,4	3,0	316,62	91	38	87	---			
11	2,5	42,0	1,8	405,18	91	38	83	---	**SK 11507- 160L/6**	1535	128
	2,7	38,9	1,8	370,12	91	38	85	---			
	3,2	32,8	2,0	316,62	91	38	87	---			
	3,5	30,0	2,1	289,22	91	38	90	---			
	4,0	26,3	2,9	249,61	91	38	92	---			
	4,4	23,9	2,9	228,01	91	38	96	---			
	2,7	38,9	2,4	366,99	93	40	111	---	**SK 12507- 160L/6**	2195	128
15	2,5	57,3	1,3	405,18	91	38	83	---	**SK 11507- 180L/6**	1535	128
	2,7	53,1	1,3	370,12	91	38	85	---			
	3,2	44,8	1,5	316,62	91	38	87	---			
	3,5	40,9	1,6	289,22	91	38	90	---			
	4,0	35,8	2,1	249,61	91	38	92	---			
	4,4	32,6	2,1	228,01	91	38	96	---			
	5,1	28,1	2,6	195,05	91	38	94	---			
	5,6	25,6	2,6	178,17	91	38	98	---			
	2,5	57,3	1,8	400,33	93	40	107	---	**SK 12507- 180L/6**	2195	128
	2,7	53,1	1,8	366,99	93	40	111	---			
	3,2	44,8	2,2	313,96	93	40	111	---			
	3,5	40,9	2,2	287,82	93	40	115	---			
	4,1	34,9	2,9	246,62	93	40	118	---			
	4,4	32,6	2,9	226,08	93	40	125	---			
	2,7	53,1	2,5	367,77	144	61	138	---	**SK 13507- 180L/6**	3190	128
	3,2	44,8	3,0	310,73	144	61	146	---			
	3,5	40,9	3,0	284,85	144	61	149	---			
18,5	4,0	44,2	1,7	249,61	91	38	92	---	**SK 11507- 200L/6**	1535	128
	4,4	40,2	1,7	228,01	91	38	96	---			
	5,1	34,6	2,1	195,05	91	38	94	---			
	5,6	31,5	2,1	178,17	91	38	98	---			
	6,3	28,0	2,7	158,47	91	38	102	---			
	6,9	25,6	2,7	144,75	91	38	102	---			
	2,5	70,7	1,5	400,33	93	40	107	---	**SK 12507- 200L/6**	2195	128
	2,7	65,4	1,5	366,99	93	40	111	---			
	3,2	55,2	1,8	313,96	93	40	111	---			
	3,5	50,5	1,8	287,82	93	40	115	---			
	4,1	43,1	2,4	246,62	93	40	118	---			
	4,4	40,2	2,3	226,08	93	40	125	---			
	5,2	34,0	2,9	193,41	93	40	125	---			
	5,6	31,5	2,9	177,31	93	40	134	---			
	2,5	70,7	2,1	401,17	144	61	133	---	**SK 13507- 200L/6**	3190	128
	2,7	65,4	2,0	367,77	144	61	138	---			
	3,2	55,2	2,4	310,73	144	61	146	---			
	3,5	50,5	2,4	284,85	144	61	149	---			

** ⇨📖 54

22 kW
30 kW

n_1 = 1000 min^{-1}

P_1 [kW]	n_2 [rpm]	M_2 [kNm]	f_B [-]	i_{ges} [-]	F_R [kN]	F_A [kN]	$P_{t0.20}$ [kW]	CS [-]		kg	mm
22	4,0	52,5	1,4	249,61	91	38	92	---	**SK 11507- 200L/6**	1535	128
	4,4	47,8	1,5	228,01	91	38	96	---			
	5,1	41,2	1,8	195,05	91	38	94	---			
	5,6	37,5	1,8	178,17	91	38	98	---			
	6,3	33,3	2,2	158,47	91	38	102	---			
	6,9	30,4	2,3	144,75	91	38	102	---			
	8,1	25,9	2,8	123,83	91	38	102	---			
	8,8	23,9	2,8	113,11	91	38	107	---			
	3,2	65,7	1,5	313,96	93	40	111	---	**SK 12507- 200L/6**	2195	128
	3,5	60,0	1,5	287,82	93	40	115	---			
	4,1	51,2	2,0	246,62	93	40	118	---			
	4,4	47,8	2,0	226,08	93	40	125	---			
	5,2	40,4	2,5	193,41	93	40	125	---			
	5,6	37,5	2,4	177,31	93	40	134	---			
	2,5	84,0	1,7	401,17	144	61	133	---	**SK 13507- 200L/6**	3190	128
	2,7	77,8	1,7	367,77	144	61	138	---			
	3,2	65,7	2,0	310,73	144	61	146	---			
	3,5	60,0	2,0	284,85	144	61	149	---			
	4,0	52,5	2,7	250,52	144	61	149	---			
	4,4	47,8	2,8	229,66	144	61	156	---			
	2,5	84,0	3,0	395,26	149	51	189	---	**SK 15507- 200L/6**	4945	128
	2,8	75,0	3,0	362,35	149	51	189	---			
30	5,1	56,2	1,3	195,05	91	38	94	---	**SK 11507- 225M/6**	1535	128
	5,6	51,2	1,3	178,17	91	38	98	---			
	6,3	45,5	1,6	158,47	91	38	102	---			
	6,9	41,5	1,7	144,75	91	38	102	---			
	8,1	35,4	2,0	123,83	91	38	102	---			
	8,8	32,6	2,0	113,11	91	38	107	---			
	9,9	28,9	2,6	101,26	91	38	105	---			
	11	26,0	2,6	92,50	91	38	110	---			
	13	22,0	3,0	79,13	91	38	113	---			
	4,1	69,9	1,5	246,62	93	40	118	---	**SK 12507- 225M/6**	2195	128
	4,4	65,1	1,4	226,08	93	40	125	---			
	5,2	55,1	1,8	193,41	93	40	125	---			
	5,6	51,2	1,8	177,31	93	40	134	---			
	6,4	44,8	2,3	156,94	93	40	131	---			
	7,0	40,9	2,3	143,87	93	40	137	---			
	8,1	35,4	2,8	123,08	93	40	137	---			
	8,9	32,2	2,8	112,83	93	40	144	---			
	3,2	89,5	1,5	310,73	144	61	146	---	**SK 13507- 225M/6**	3190	128
	3,5	81,9	1,5	284,85	144	61	149	---			
	4,0	71,6	2,0	250,52	144	61	149	---			
	4,4	65,1	2,0	229,66	144	61	156	---			
	5,2	55,1	2,5	194,04	144	61	159	---			
	5,6	51,2	2,5	177,88	144	61	163	---			
	2,5	114,6	2,2	395,26	149	51	189	---	**SK 15507- 225M/6**	4945	128
	2,8	102,3	2,2	362,35	149	51	189	---			
	3,2	89,5	2,6	309,77	149	51	189	---			
	3,5	81,9	2,6	283,98	149	51	189	---			

** ⇨ 54

37 kW
45 kW

n_1 = 1000 min^{-1}

P_1 [kW]	n_2 [rpm]	M_2 [kNm]	f_B [-]	i_{ges} [-]	F_R [kN]	F_A [kN]	$P_{t0.20}$ [kW]	CS [-]		kg	mm
37	6,3	56,1	1,3	158,47	91	38	102	---	**SK 11507- 250M/6**	1535	128
	6,9	51,2	1,3	144,75	91	38	102	---			
	8,1	43,6	1,7	123,83	91	38	102	---			
	8,8	40,2	1,7	113,11	91	38	107	---			
	9,9	35,7	2,1	101,26	91	38	105	---			
	11	32,1	2,1	92,50	91	38	110	---			
	13	27,2	2,4	79,13	91	38	113	---			
	14	25,2	2,9	71,80	91	38	125	---	**SK 11407- 250M/6**	1460	128
	15	23,6	2,8	65,59	83	34	132	---			
	5,2	68,0	1,5	193,41	93	40	125	---	**SK 12507- 250M/6**	2195	128
	5,6	63,1	1,4	177,31	93	40	134	---			
	6,4	55,2	1,8	156,94	93	40	131	---			
	7,0	50,5	1,8	143,87	93	40	137	---			
	8,1	43,6	2,3	123,08	93	40	137	---			
	8,9	39,7	2,3	112,83	93	40	144	---			
	10	35,3	2,9	100,05	93	40	134	---			
	11	32,1	2,9	91,72	93	40	140	---			
	4,0	88,3	1,6	250,52	144	61	149	---	**SK 13507- 250M/6**	3190	128
	4,4	80,3	1,6	229,66	144	61	156	---			
	5,2	68,0	2,0	194,04	144	61	159	---			
	5,6	63,1	2,0	177,88	144	61	163	---			
	6,3	56,1	2,5	159,35	144	61	163	---			
	6,8	52,0	2,5	146,08	144	61	171	---			
	2,5	141,3	1,8	395,26	149	51	189	---	**SK 15507- 250M/6**	4945	128
	2,8	126,2	1,8	362,35	149	51	189	---			
	3,2	110,4	2,1	309,77	149	51	189	---			
	3,5	101,0	2,1	283,98	149	51	189	---			
	4,1	86,2	2,9	246,83	149	51	189	---			
	4,4	80,3	2,8	226,28	149	51	189	---			
45	8,1	53,1	1,4	123,83	91	38	102	---	**SK 11507- 280S/6**	1535	128
	8,8	48,8	1,4	113,11	91	38	107	---			
	9,9	43,4	1,7	101,26	91	38	105	---			
	11	39,1	1,8	92,50	91	38	110	---			
	13	33,1	2,0	79,13	91	38	113	---			
	14	30,7	2,4	71,80	91	38	125	---	**SK 11407- 280S/6**	1460	128
	15	28,7	2,3	65,59	83	34	132	---			
	18	23,9	2,6	56,11	84	36	132	---			
	20	21,5	2,7	51,25	75	31	136	---			
	6,4	67,1	1,5	156,94	93	40	131	---	**SK 12507- 280S/6**	2195	128
	7,0	61,4	1,5	143,87	93	40	137	---			
	8,1	53,1	1,9	123,08	93	40	137	---			
	8,9	48,3	1,9	112,83	93	40	144	---			
	10	43,0	2,4	100,05	93	40	134	---			
	11	39,1	2,4	91,72	93	40	140	---			
	13	33,1	3,0	78,46	93	40	144	---			

** ⇨ 54

45 kW
55 kW

n_1 = 1000 min^{-1}

P_1 [kW]	n_2 [rpm]	M_2 [kNm]	f_B [-]	i_{ges} [-]	F_R [kN]	F_A [kN]	$P_{t0.20}$ [kW]	CS [-]		kg	mm
45	4,0	107,4	1,3	250,52	144	61	149	---	**SK 13507- 280S/6**	3190	128
	4,4	97,7	1,3	229,66	144	61	156	---			
	5,2	82,6	1,7	194,04	144	61	159	---			
	5,6	76,7	1,7	177,88	144	61	163	---			
	6,3	68,2	2,1	159,35	144	61	163	---			
	6,8	63,2	2,1	146,08	144	61	171	---			
	8,1	53,1	2,6	123,42	144	61	171	---			
	8,8	48,8	2,6	113,14	144	61	175	---			
	2,5	171,9	1,4	395,26	149	51	189	---	**SK 15507- 280S/6**	4945	128
	2,8	153,5	1,5	362,35	149	51	189	---			
	3,2	134,3	1,7	309,77	149	51	189	---			
	3,5	122,8	1,7	283,98	149	51	189	---			
	4,1	104,8	2,3	246,83	149	51	189	---			
	4,4	97,7	2,3	226,28	149	51	189	---			
	5,2	82,6	2,9	193,45	149	51	189	---			
	5,6	76,7	2,8	177,34	149	51	189	---			
55	9,9	53,1	1,4	101,26	91	38	105	---	**SK 11507- 280M/6**	1535	128
	11	47,8	1,4	92,50	91	38	110	---			
	13	40,4	1,6	79,13	91	38	113	---			
	14	37,5	1,9	71,80	91	38	125	---	**SK 11407- 280M/6**	1460	128
	15	35,0	1,9	65,59	83	34	132	---			
	18	29,2	2,1	56,11	84	36	132	---			
	20	26,3	2,2	51,25	75	31	136	---			
	8,1	64,8	1,5	123,08	93	40	137	---	**SK 12507- 280M/6**	2195	128
	8,9	59,0	1,5	112,83	93	40	144	---			
	10	52,5	1,9	100,05	93	40	134	---			
	11	47,8	2,0	91,72	93	40	140	---			
	13	40,4	2,4	78,46	93	40	144	---			
	14	37,5	2,6	70,94	93	40	160	---	**SK 12407- 280M/6**	2185	128
	15	35,0	2,6	65,04	91	39	169	---			
	5,2	101,0	1,4	194,04	144	61	159	---	**SK 13507- 280M/6**	3190	128
	5,6	93,8	1,4	177,88	144	61	163	---			
	6,3	83,4	1,7	159,35	144	61	163	---			
	6,8	77,2	1,7	146,08	144	61	171	---			
	8,1	64,8	2,1	123,42	144	61	171	---			
	8,8	59,7	2,1	113,14	144	61	175	---			
	10	52,5	2,7	100,26	144	61	171	---			
	11	47,8	2,7	91,91	144	61	179	---			
	3,2	164,1	1,4	309,77	149	51	189	---	**SK 15507- 280M/6**	4945	128
	3,5	150,1	1,4	283,98	149	51	189	---			
	4,1	128,1	1,9	246,83	149	51	189	---			
	4,4	119,4	1,9	226,28	149	51	189	---			
	5,2	101,0	2,3	193,45	149	51	189	---			
	5,6	93,8	2,3	177,34	149	51	189	---			
	6,4	82,1	3,0	155,41	149	51	189	---			
	7,0	75,0	3,0	142,47	149	51	189	---			

** ⇨ 54

75 kW
90 kW

n_1 = 1000 min^{-1}

P_1 [kW]	n_2 [rpm]	M_2 [kNm]	f_B [-]	i_{ges} [-]	F_R [kN]	F_A [kN]	$P_{t0.20}$ [kW]	CS [-]		kg	mm
75	14	51,2	1,4	71,80	91	38	125	---	**SK 11407- 315S/6**	1460	128
	15	47,8	1,4	65,59	83	34	132	---			
	18	39,8	1,6	56,11	84	36	132	---			
	20	35,8	1,6	51,25	75	31	136	---			
	23	31,1	2,3	44,08	91	38	125	---			
	25	28,7	2,3	40,26	83	34	132	---			
	29	24,7	2,6	34,45	84	36	132	---			
	32	22,4	2,8	31,46	75	31	136	---			
	10	71,6	1,4	100,05	93	40	134	---	**SK 12507- 315S/6**	2195	128
	11	65,1	1,4	91,72	93	40	140	---			
	13	55,1	1,8	78,46	93	40	144	---			
	14	51,2	1,9	70,94	93	40	160	---	**SK 12407- 315S/6**	2185	128
	15	47,8	1,9	65,04	91	39	169	---			
	18	39,8	2,4	55,64	85	36	174	---			
	20	35,8	2,5	51,01	82	35	185	---			
	8,1	88,4	1,6	123,42	144	61	171	---	**SK 13507- 315S/6**	3190	128
	8,8	81,4	1,6	113,14	144	61	175	---			
	10	71,6	2,0	100,26	144	61	171	---			
	11	65,1	2,0	91,91	144	61	179	---			
	13	55,1	2,2	77,66	144	61	184	---			
	14	51,2	2,7	71,09	144	61	205	---	**SK 13407- 315S/6**	2970	128
	15	47,8	2,6	65,17	140	59	217	---			
	4,1	174,7	1,4	246,83	149	51	189	---	**SK 15507- 315S/6**	4945	128
	4,4	162,8	1,4	226,28	149	51	189	---			
	5,2	137,7	1,7	193,45	149	51	189	---			
	5,6	127,9	1,7	177,34	149	51	189	---			
	6,4	111,9	2,2	155,41	149	51	189	---			
	7,0	102,3	2,2	142,47	149	51	189	---			
	8,2	87,3	2,7	121,80	149	51	189	---			
	9,0	79,6	2,7	111,66	149	51	189	---			
90	23	37,4	1,9	44,08	91	38	125	---	**SK 11407- 315M/6**	1460	128
	25	34,4	1,9	40,26	83	34	132	---			
	29	29,6	2,1	34,45	84	36	132	---			
	32	26,9	2,3	31,46	75	31	136	---			
	35	24,6	3,0	28,50	91	38	125	---			
	38	22,6	2,8	26,04	83	34	132	---			
	13	66,1	1,5	78,46	93	40	144	---	**SK 12507- 315M/6**	2195	128
	14	61,4	1,6	70,94	93	40	160	---	**SK 12407- 315M/6**	2185	128
	15	57,3	1,6	65,04	91	39	169	---			
	18	47,8	2,0	55,64	85	36	174	---			
	20	43,0	2,0	51,01	82	35	185	---			
	23	37,4	2,6	43,55	93	40	160	---			
	25	34,4	2,6	39,92	91	39	169	---			
	10	86,0	1,6	100,26	144	61	171	---	**SK 13507- 315M/6**	3190	128
	11	78,1	1,7	91,91	144	61	179	---			
	13	66,1	1,9	77,66	144	61	184	---			

** ⇨ 54

90 kW
110 kW

n_1 = 1000 min^{-1}

P_1 [kW]	n_2 [rpm]	M_2 [kNm]	f_B [-]	i_{ges} [-]	F_R [kN]	F_A [kN]	$P_{t0.20}$ [kW]	CS [-]		kg	mm
90	14	61,4	2,2	71,09	144	61	205	---	**SK 13407- 315M/6**	2970	128
	15	57,3	2,2	65,17	140	59	217	---			
	18	47,8	2,8	55,07	133	56	217	---			
	20	43,0	2,8	50,48	126	53	224	---			
	5,2	165,3	1,4	193,45	149	51	189	---	**SK 15507- 315M/6**	4945	128
	5,6	153,5	1,4	177,34	149	51	189	---			
	6,4	134,3	1,8	155,41	149	51	189	---			
	7,0	122,8	1,8	142,47	149	51	189	---			
	8,2	104,8	2,2	121,80	149	51	189	---			
	9,0	95,5	2,3	111,66	149	51	189	---			
	10	86,0	2,8	98,78	149	51	189	---			
	11	78,1	2,9	90,56	149	51	189	---			
110	23	45,7	1,6	44,08	91	38	125	---	**SK 11407 - 315MA/6**	1460	128
	25	42,0	1,6	40,26	83	34	132	---			
	29	36,2	1,8	34,45	84	36	132	---			
	32	32,8	1,9	31,46	75	31	136	---			
	35	30,0	2,4	28,50	91	38	125	---			
	38	27,6	2,3	26,04	83	34	132	---			
	45	23,3	2,6	22,27	84	36	132	---			
	49	21,4	2,6	20,35	75	31	136	---			
	14	75,0	1,3	70,94	93	40	160	---	**SK 12407 - 315MA/6**	2185	128
	15	70,0	1,3	65,04	91	39	169	---			
	18	58,4	1,6	55,64	85	36	174	---			
	20	52,5	1,7	51,01	82	35	185	---			
	23	45,7	2,2	43,55	93	40	160	---			
	25	42,0	2,2	39,92	91	39	169	---			
	29	36,2	2,6	34,16	85	36	174	---			
	32	32,8	2,6	31,31	82	35	185	---			
	10	105,1	1,3	100,26	144	61	171	---	**SK 13507 - 315MA/6**	3190	128
	11	95,5	1,4	91,91	144	61	179	---			
	13	80,8	1,5	77,66	144	61	184	---			
	14	75,0	1,8	71,09	144	61	205	---	**SK 13407 - 315MA/6**	2970	128
	15	70,0	1,8	65,17	140	59	217	---			
	18	58,4	2,3	55,07	133	56	217	---			
	20	52,5	2,3	50,48	126	53	224	---			
	23	45,7	3,0	43,64	144	61	205	---			
	25	42,0	3,0	40,01	140	59	217	---			
	6,4	164,1	1,5	155,41	149	51	189	---	**SK 15507 - 315MA/6**	4945	128
	7,0	150,1	1,5	142,47	149	51	189	---			
	8,2	128,1	1,8	121,80	149	51	189	---			
	9,0	116,7	1,8	111,66	149	51	189	---			
	10	105,1	2,3	98,78	149	51	189	---			
	11	95,5	2,3	90,56	149	51	189	---			
	13	80,8	2,6	77,42	149	51	189	---			

** ⇨ 54

132 kW
160 kW

n_1 = 1000 min^{-1}

P_1 [kW]	n_2 [rpm]	M_2 [kNm]	f_B [-]	i_{ges} [-]	F_R [kN]	F_A [kN]	$P_{t0.20}$ [kW]	CS [-]		kg	mm 📖
132	23	54,8	1,3	44,08	91	38	125	A/Fan	**SK 11407 - 315MB/6**	1460	128
	25	50,4	1,3	40,26	83	34	132	---			
	29	43,5	1,5	34,45	84	36	132	---			
	32	39,4	1,6	31,46	75	31	136	---			
	35	36,0	2,0	28,50	91	38	125	A/Fan			
	38	33,2	1,9	26,04	83	34	132	---			
	45	28,0	2,2	22,27	84	36	132	---			
	49	25,7	2,2	20,35	75	31	136	---			
	56	22,5	2,6	17,89	78	33	140	---			
	61	20,7	2,8	16,34	70	29	145	---			
	18	70,0	1,4	55,64	85	36	174	---	**SK 12407 - 315MB/6**	2185	128
	20	63,0	1,4	51,01	82	35	185	---			
	23	54,8	1,8	43,55	93	40	160	---			
	25	50,4	1,8	39,92	91	39	169	---			
	29	43,5	2,1	34,16	85	36	174	---			
	32	39,4	2,2	31,31	82	35	185	---			
	36	35,0	2,8	28,16	93	40	160	---			
	39	32,3	2,8	25,82	91	39	169	---			
	14	90,0	1,5	71,09	144	61	205	---	**SK 13407 - 315MB/6**	2970	128
	15	84,0	1,5	65,17	140	59	217	---			
	18	70,0	1,9	55,07	133	56	217	---			
	20	63,0	1,9	50,48	126	53	224	---			
	23	54,8	2,5	43,64	144	61	205	---			
	25	50,4	2,5	40,01	140	59	217	---			
	8,2	153,7	1,5	121,80	149	51	189	---	**SK 15507 - 315MB/6**	4945	128
	9,0	140,1	1,5	111,66	149	51	189	---			
	10	126,1	1,9	98,78	149	51	189	---			
	11	114,6	1,9	90,56	149	51	189	---			
	13	97,0	2,1	77,42	149	51	189	---			
	14	90,0	2,6	70,05	149	51	189	---	**SK 15407 - 315MB/6**	4770	128
	16	78,8	2,7	64,21	135	45	189	---			
	18	70,0	2,7	54,90	137	46	189	---			
	20	63,0	2,7	50,33	124	42	189	---			
160	32	47,8	1,3	31,46	75	31	136	A/Fan*	**SK 11407 - 315L/6**	1460	128
	35	43,7	1,7	28,50	91	38	125	A/Fan*			
	38	40,2	1,6	26,04	83	34	132	A/Fan*			
	45	34,0	1,8	22,27	84	36	132	A/Fan*			
	49	31,2	1,8	20,35	75	31	136	A/Fan*			
	56	27,3	2,1	17,89	78	33	140	A/Fan*			
	61	25,0	2,3	16,34	70	29	145	A/Fan*			
	72	21,2	2,6	13,95	71	30	145	A/Fan*			
	78	19,6	2,6	12,74	64	26	150	A/Fan*			
	23	66,4	1,5	43,55	93	40	160	---	**SK 12407 - 315L/6**	2185	128
	25	61,1	1,5	39,92	91	39	169	---			
	29	52,7	1,8	34,16	85	36	174	---			
	32	47,8	1,8	31,31	82	35	185	---			
	36	42,4	2,3	28,16	93	40	160	---			
	39	39,2	2,3	25,82	91	39	169	---			
	45	34,0	2,8	22,09	85	36	174	---			
	49	31,2	2,8	20,25	82	35	185	---			

** ⇨📖 54

160 kW
250 kW

n_1 = 1000 min^{-1}

P_1 [kW]	n_2 [rpm]	M_2 [kNm]	f_B [-]	i_{ges} [-]	F_R [kN]	F_A [kN]	$P_{t0.20}$ [kW]	CS [-]		kg	mm
160	18	84,9	1,6	55,07	133	56	217	---	**SK 13407 - 315L/6**	2970	128
	20	76,4	1,6	50,48	126	53	224	---			
	23	66,4	2,0	43,64	144	61	205	---			
	25	61,1	2,1	40,01	140	59	217	---			
	30	50,9	2,6	33,80	133	56	217	---			
	32	47,8	2,5	30,99	126	53	224	---			
	10	152,8	1,6	98,78	149	51	189	---	**SK 15507 - 315L/6**	4945	128
	11	138,9	1,6	90,56	149	51	189	---			
	13	117,5	1,8	77,42	149	51	189	---			
	14	109,1	2,1	70,05	149	51	189	---	**SK 15407 - 315L/6**	4770	128
	16	95,5	2,3	64,21	135	45	189	---			
	18	84,9	2,2	54,90	137	46	189	---			
	20	76,4	2,2	50,33	124	42	189	---			
200	35	54,6	1,3	28,50	91	38	125	B	**SK 11407 - 315LA/6**	1460	128
	45	42,4	1,5	22,27	84	36	132	B/Fan*			
	49	39,0	1,4	20,35	75	31	136	A/Fan*			
	56	34,1	1,7	17,89	78	33	140	A/Fan*			
	61	31,3	1,8	16,34	70	29	145	A/Fan*			
	72	26,5	2,1	13,95	71	30	145	A/Fan*			
	78	24,5	2,1	12,74	64	26	150	A/Fan*			
	29	65,9	1,4	34,16	85	36	174	A/Fan*	**SK 12407 - 315LA/6**	2185	128
	32	59,7	1,4	31,31	82	35	185	A/Fan*			
200	36	53,1	1,9	28,16	93	40	160	A/Fan*			
	39	49,0	1,9	25,82	91	39	169	A/Fan*			
	45	42,4	2,2	22,09	85	36	174	A/Fan*			
	49	39,0	2,3	20,25	82	35	185	A/Fan*			
	56	34,1	2,7	17,81	78	34	180	A/Fan*			
	61	31,3	2,7	16,33	74	32	185	A/Fan*			
	72	26,5	3,0	13,97	71	31	185	A/Fan*			
	23	83,0	1,6	43,64	144	61	205	---	**SK 13407 - 315LA/6**	2970	128
	25	76,4	1,6	40,01	140	59	217	---			
	30	63,7	2,0	33,80	133	56	217	---			
	32	59,7	2,0	30,99	126	53	224	---			
	35	54,6	2,5	28,22	144	61	205	---			
	39	49,0	2,6	25,87	140	59	217	---			
	13	146,9	1,4	77,42	149	51	189	A/Fan*	**SK 15507 - 315LA/6**	4945	128
	14	136,4	1,7	70,05	149	51	189	A/Fan	**SK 15407 - 315LA/6**	4770	128
	16	119,4	1,8	64,21	135	45	189	A/Fan			
	18	106,1	1,8	54,90	137	46	189	A/Fan			
	20	95,5	1,8	50,33	124	42	189	A/Fan			
	23	83,0	2,8	43,00	149	51	189	A/Fan			
	25	76,4	2,8	39,42	135	45	189	A/Fan			
	30	63,7	2,9	33,70	137	46	189	A/Fan			
	32	59,7	2,8	30,89	124	42	189	A/Fan			
250	56	42,6	1,3	17,89	78	33	140	B	**SK 11407 - 315LB/6**	1460	128
	61	39,1	1,5	16,34	70	29	145	B			
	72	33,2	1,7	13,95	71	30	145	B			
	78	30,6	1,7	12,74	64	26	150	B			

** ⇨ 54

315 kW
400 kW

n_1 = 1000 min^{-1}

P_1 [kW]	n_2 [rpm]	M_2 [kNm]	f_B [-]	i_{ges} [-]	F_R [kN]	F_A [kN]	$P_{t0.20}$ [kW]	CS [-]		kg	mm
250	36	66,3	1,5	28,16	93	40	160	B	**SK 12407 - 315LB/6**	2185	128
	39	61,2	1,5	25,82	91	39	169	B/Fan*			
	45	53,1	1,8	22,09	85	36	174	B/Fan*			
	49	48,7	1,8	20,25	82	35	185	A/Fan*			
	56	42,6	2,2	17,81	78	34	180	B/Fan*			
	61	39,1	2,1	16,33	74	32	185	A/Fan*			
	72	33,2	2,4	13,97	71	31	185	A/Fan*			
	78	30,6	2,5	12,81	69	30	198	A/Fan*			
	23	103,8	1,3	43,64	144	61	205	A/Fan*	**SK 13407 - 315LB/6**	2970	128
	25	95,5	1,3	40,01	140	59	217	A/Fan*			
	30	79,6	1,6	33,80	133	56	217	A/Fan*			
	32	74,6	1,6	30,99	126	53	224	A/Fan*			
	35	68,2	2,0	28,22	144	61	205	A/Fan*			
	39	61,2	2,1	25,87	140	59	217	A/Fan*			
	46	51,9	2,5	21,86	133	56	217	A/Fan*			
	50	47,8	2,6	20,04	126	53	224	A/Fan*			
	57	41,9	2,9	17,45	123	52	231	A/Fan*			
	14	170,5	1,4	70,05	149	51	189	A/Fan*	**SK 15407 - 315LB/6**	4770	128
	16	149,2	1,4	64,21	135	45	189	A/Fan*			
	18	132,6	1,4	54,90	137	46	189	A/Fan*			
	20	119,4	1,4	50,33	124	42	189	A/Fan*			
	23	103,8	2,2	43,00	149	51	189	A/Fan*			
	25	95,5	2,2	39,42	135	45	189	A/Fan*			
	30	79,6	2,3	33,70	137	46	189	A/Fan*			
	32	74,6	2,3	30,89	124	42	189	A/Fan*			
315	72	41,8	1,3	13,95	71	30	145	C	**SK 11407 - 355S/6**	1460	128
	78	38,6	1,3	12,74	64	26	150	C			
	45	66,9	1,4	22,09	85	36	174	B	**SK 12407 - 355S/6**	2185	128
	49	61,4	1,4	20,25	82	35	185	B			
	56	53,7	1,7	17,81	78	34	180	B			
	61	49,3	1,7	16,33	74	32	185	B			
	72	41,8	1,9	13,97	71	31	185	B			
	78	38,6	1,9	12,81	69	30	198	B			
	35	86,0	1,6	28,22	144	61	205	B/Fan*	**SK 13407 - 355S/6**	2970	128
	39	77,1	1,6	25,87	140	59	217	B/Fan*			
	46	65,4	2,0	21,86	133	56	217	B/Fan*			
	50	60,2	2,0	20,04	126	53	224	B/Fan*			
	57	52,8	2,3	17,45	123	52	231	B/Fan*			
	63	47,8	2,4	16,00	117	49	238	B/Fan*			
	70	43,0	2,4	14,22	114	48	238	B/Fan*			
	77	39,1	2,6	13,04	109	46	247	B/Fan*			
	23	130,8	1,8	43,00	149	51	189	B	**SK 15407 - 355S/6**	4770	128
	25	120,3	1,8	39,42	135	45	189	B			
	30	100,3	1,8	33,70	137	46	189	B			
	32	94,0	1,8	30,89	124	42	189	B			
	36	83,6	2,4	27,81	149	51	189	B			
	39	77,1	2,6	25,49	135	45	189	B			
	46	65,4	2,9	21,79	137	46	189	B			
400	56	68,2	1,3	17,81	78	34	180	C	**SK 12407 - 400S/6**	2185	128
	61	62,6	1,3	16,33	74	32	185	C			
	72	53,1	1,5	13,97	71	31	185	C			
	78	49,0	1,5	12,81	69	30	198	C			

** ⇨ 54

400 kW
800 kW

n_1 = 1000 min^{-1}

P_1 [kW]	n_2 [rpm]	M_2 [kNm]	f_B [-]	i_{ges} [-]	F_R [kN]	F_A [kN]	$P_{t0.20}$ [kW]	CS [-]		kg	mm 🕮
400	46	83,0	1,6	21,86	133	56	217	C	**SK 13407 - 400S/6**	2970	128
	50	76,4	1,6	20,04	126	53	224	C			
	57	67,0	1,8	17,45	123	52	231	C			
	63	60,6	1,9	16,00	117	49	238	C			
	70	54,6	1,9	14,22	114	48	238	C			
	77	49,6	2,0	13,04	109	46	247	B			
	23	166,1	1,4	43,00	149	51	189	C	**SK 15407 - 400S/6**	4770	128
	25	152,8	1,4	39,42	135	45	189	C			
	30	127,3	1,4	33,70	137	46	189	C			
	32	119,4	1,4	30,89	124	42	189	C			
	36	106,1	1,9	27,81	149	51	189	C			
	39	97,9	2,0	25,49	135	45	189	C			
	46	83,0	2,3	21,79	137	46	189	C			
	50	76,4	2,4	19,98	124	42	189	C			
	57	67,0	2,6	17,56	126	42	189	C			
	62	61,6	2,6	16,10	114	38	189	C			
	73	52,3	2,9	13,76	114	39	189	C			
500	57	83,8	1,5	17,45	123	52	231	D	**SK 13407 - 400M/6**	2970	128
	63	75,8	1,5	16,00	117	49	238	D			
	70	68,2	1,5	14,22	114	48	238	D			
	77	62,0	1,6	13,04	109	46	247	D			
	36	132,6	1,5	27,81	149	51	189	E	**SK 15407 - 400M/6**	4770	128
	39	122,4	1,6	25,49	135	45	189	E			
	46	103,8	1,8	21,79	137	46	189	E			
	50	95,5	1,9	19,98	124	42	189	E			
	57	83,8	2,1	17,56	126	42	189	E			
	62	77,0	2,1	16,10	114	38	189	E			
	73	65,4	2,3	13,76	114	39	189	E			
	79	60,4	2,5	12,61	104	35	189	E			
560	57	93,8	1,3	17,45	123	52	231	E	**SK 13407 - 400L/6**	2970	128
	63	84,9	1,4	16,00	117	49	238	E			
	70	76,4	1,4	14,22	114	48	238	E			
	77	69,5	1,4	13,04	109	46	247	E			
	36	148,6	1,4	27,81	149	51	189	F	**SK 15407 - 400L/6**	4770	128
	39	137,1	1,5	25,49	135	45	189	F			
	46	116,3	1,6	21,79	137	46	189	F			
	50	107,0	1,7	19,98	124	42	189	F			
	57	93,8	1,8	17,56	126	42	189	F			
	62	86,3	1,8	16,10	114	38	189	F			
	73	73,3	2,1	13,76	114	39	189	F			
	79	67,7	2,2	12,61	104	35	189	F			
630	46	130,8	1,5	21,79	137	46	189	F	**SK 15407 - 450S/6**	4770	128
	50	120,3	1,5	19,98	124	42	189	F			
	57	105,6	1,6	17,56	126	42	189	F			
	62	97,0	1,6	16,10	114	38	189	F			
	73	82,4	1,8	13,76	114	39	189	F			
	79	76,2	2,0	12,61	104	35	189	F			
710	50	135,6	1,4	19,98	124	42	189	G	**SK 15407 - 450M/6**	4770	128
	57	119,0	1,4	17,56	126	42	189	G			
	62	109,4	1,5	16,10	114	38	189	G			
	73	92,9	1,6	13,76	114	39	189	G			
	79	85,8	1,7	12,61	104	35	189	G			
800	73	104,7	1,5	13,76	114	39	189	G	**SK 15407 - 450L/6**	4770	128
	79	96,7	1,5	12,61	104	35	189	G			

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11 kW
30 kW

n_1 = 1500 min^{-1}

P_1 [kW]	n_2 [rpm]	M_2 kNm	f_B -	i_{ges} -	F_R [kN]	F_A [kN]	$P_{t0.20}$ [kW]	CS [-]		kg	mm 📖
11	3,6	29,5	2,6	405,18	79	38	84	---	**SK 11507 - 160M/4**	1535	128
	3,9	27,0	2,6	370,12	79	38	86	---			
15	3,6	40,4	1,9	405,18	79	38	84	---	**SK 11507 - 160L/4**	1535	128
	3,9	36,9	1,9	370,12	79	38	86	---			
	4,6	31,8	2,1	316,62	79	38	87	---			
	5,0	29,1	2,2	289,22	79	38	91	---			
	3,6	39,9	2,6	400,33	93	40	108	---	**SK 12507 - 160L/4**	2195	128
	4,0	35,2	2,7	366,99	93	40	112	---			
18,5	3,6	48,0	1,6	405,18	79	38	84	---	**SK 11507 - 180M/4**	1535	128
	3,9	46,8	1,5	370,12	79	38	86	---			
	4,6	39,2	1,7	316,62	79	38	87	---			
	5,0	35,6	1,8	289,22	79	38	91	---			
	5,8	30,4	2,5	249,61	79	38	93	---			
	6,4	27,8	2,5	228,01	79	38	95	---			
	3,6	49,4	2,1	400,33	93	40	108	---	**SK 12507 - 180M/4**	2195	128
	4,0	43,2	2,2	366,99	93	40	112	---			
	4,6	38,3	2,6	313,96	93	40	112	---			
	5,0	35,1	2,6	287,82	93	40	116	---			
22	3,6	59,1	1,3	405,18	79	38	84	---	**SK 11507 - 180L/4**	1535	128
	3,9	54,0	1,3	370,12	79	38	86	---			
	4,6	44,5	1,5	316,62	79	38	87	---			
	5,0	42,7	1,5	289,22	79	38	91	---			
	5,8	36,2	2,1	249,61	79	38	93	---			
	6,4	33,1	2,1	228,01	79	38	95	---			
	7,4	28,1	2,6	195,05	79	38	93	---			
	8,1	25,7	2,6	178,17	79	38	97	---			
	3,6	57,7	1,8	400,33	93	40	108	---	**SK 12507 - 180L/4**	2195	128
	4,0	52,8	1,8	366,99	93	40	112	---			
	4,6	45,2	2,2	313,96	93	40	112	---			
	5,0	41,5	2,2	287,82	93	40	116	---			
	5,9	35,4	2,9	246,62	93	40	119	---			
	6,4	32,5	2,9	226,08	93	40	124	---			
	3,6	58,0	2,5	401,17	144	61	134	---	**SK 13507 - 180L/4**	3190	128
	3,9	53,2	2,5	367,77	144	61	139	---			
30	5,8	50,7	1,5	249,61	79	38	93	---	**SK 11507 - 200L/4**	1535	128
	6,4	43,4	1,6	228,01	79	38	95	---			
	7,4	38,5	1,9	195,05	79	38	93	---			
	8,1	35,2	1,9	178,17	79	38	97	---			
	9,1	31,0	2,4	158,47	79	38	101	---			
	10	28,7	2,4	144,75	79	38	101	---			
	3,6	79,8	1,3	400,33	93	40	108	---	**SK 12507 - 200L/4**	2195	128
	4,0	73,2	1,3	366,99	93	40	112	---			
	4,6	62,2	1,6	313,96	93	40	112	---			
	5,0	57,0	1,6	287,82	93	40	116	---			
	5,9	49,0	2,1	246,62	93	40	119	---			
	6,4	44,9	2,1	226,08	93	40	124	---			
	7,5	38,2	2,6	193,41	93	40	124	---			
	8,2	35,0	2,6	177,31	93	40	133	---			

** ⇨📖 54

30 kW
45 kW

n_1 = 1500 min^{-1}

P_1 [kW]	n_2 [rpm]	M_2 kNm	f_B -	i_{ges} -	F_R [kN]	F_A [kN]	$P_{t0.20}$ [kW]	CS [-]		kg	mm
30	3,6	80,6	1,8	401,17	144	61	134	---	**SK 13507 - 200L/4**	3190	128
	3,9	73,9	1,8	367,77	144	61	139	---			
	4,7	60,5	2,2	310,73	144	61	148	---			
	5,1	55,5	2,2	284,85	144	61	148	---			
37	7,4	48,7	1,5	195,05	79	38	93	---	**SK 11507 - 225S/4**	1535	128
	8,1	44,5	1,5	178,17	79	38	97	---			
	9,1	39,2	1,9	158,47	79	38	101	---			
	10	36,3	1,9	144,75	79	38	101	---			
	12	29,0	2,5	123,83	79	38	101	---			
	13	27,6	2,4	113,11	79	38	106	---			
	4,6	76,5	1,3	313,96	93	40	112	---	**SK 12507 - 225S/4**	2195	128
	5,0	70,2	1,3	287,82	93	40	116	---			
	5,9	60,5	1,7	246,62	93	40	119	---			
	6,4	55,4	1,7	226,08	93	40	124	---			
	7,5	47,2	2,1	193,41	93	40	124	---			
	8,2	43,3	2,1	177,31	93	40	133	---			
	9,2	37,7	2,7	156,94	93	40	130	---			
	10	35,9	2,6	143,87	93	40	136	---			
	3,6	96,7	1,5	401,17	144	61	134	---	**SK 13507 - 225S/4**	3190	128
	3,9	88,7	1,5	367,77	144	61	139	---			
	4,7	73,9	1,8	310,73	144	61	148	---			
	5,1	67,8	1,8	284,85	144	61	148	---			
	5,8	59,9	2,4	250,52	144	61	148	---			
	6,3	57,3	2,3	229,66	144	61	154	---			
	3,7	95,4	2,6	395,26	149	51	191	---	**SK 15507 - 225S/4**	4945	128
	4,0	87,5	2,6	362,35	149	51	203	---			
45	7,4	56,2	1,3	195,05	79	38	93	---	**SK 11507 - 225M/4**	1535	128
	8,1	51,4	1,3	178,17	79	38	97	---			
	9,1	46,5	1,6	158,47	79	38	101	---			
	10	43,1	1,6	144,75	79	38	101	---			
	12	36,2	2,0	123,83	79	38	101	---			
	13	33,2	2,0	113,11	79	38	106	---			
	14	31,2	2,4	101,26	79	38	104	---			
	16	26,4	2,6	92,50	79	38	109	---			
	18	24,2	2,7	79,13	79	38	112	---			
	5,9	73,4	1,4	246,62	93	40	119	---	**SK 12507 - 225M/4**	2195	128
	6,4	67,3	1,4	226,08	93	40	124	---			
	7,5	58,4	1,7	193,41	93	40	124	---			
	8,2	53,5	1,7	177,31	93	40	133	---			
	9,2	46,3	2,2	156,94	93	40	130	---			
	10	42,4	2,2	143,87	93	40	136	---			
	12	36,4	2,7	123,08	93	40	136	---			
	13	33,5	2,7	112,83	93	40	143	---			
	4,7	88,7	1,5	310,73	144	61	148	---	**SK 13507 - 225M/4**	3190	128
	5,1	87,1	1,4	284,85	144	61	148	---			
	5,8	75,7	1,9	250,52	144	61	148	---			
	6,3	69,4	1,9	229,66	144	61	154	---			
	7,5	57,7	2,4	194,04	144	61	158	---			
	8,2	52,9	2,4	177,88	144	61	161	---			

** ⇨ 54

55 kW
75 kW

n_1 = 1500 min^{-1}

P_1 [kW]	n_2 [rpm]	M_2 kNm	f_B -	i_{ges} -	F_R [kN]	F_A [kN]	$P_{t0.20}$ [kW]	CS [-]		kg	mm
55	3,7	118,1	2,1	395,26	149	51	191	---	**SK 15507 - 225M/4**	4945	128
	4,0	108,3	2,1	362,35	149	51	203	---			
	4,7	90,0	2,6	309,77	149	51	199	---			
	5,1	85,8	2,5	283,98	149	51	203	---			
	9,1	57,2	1,3	158,47	79	38	101	---	**SK 11507 - 250M/4**	1535	128
	10	53,0	1,3	144,75	79	38	101	---			
	12	42,6	1,7	123,83	79	38	101	---			
	13	41,4	1,6	113,11	79	38	106	---			
	14	37,5	2,0	101,26	79	38	104	---			
	16	32,7	2,1	92,50	79	38	109	---			
	18	29,7	2,2	79,13	79	38	112	---			
	20	26,0	2,8	71,80	91	38	124	---	**SK 11407 - 250M/4**	1460	128
	22	23,6	2,8	65,59	83	34	131	---			
	7,5	70,9	1,4	193,41	93	40	124	---	**SK 12507 - 250M/4**	2195	128
	8,2	64,9	1,4	177,31	93	40	133	---			
	9,2	56,6	1,8	156,94	93	40	130	---			
	10	51,8	1,8	143,87	93	40	136	---			
	12	44,7	2,2	123,08	93	40	136	---			
	13	41,1	2,2	112,83	93	40	143	---			
	14	37,6	2,7	100,05	93	40	133	---			
	16	33,3	2,8	91,72	93	40	139	---			
	5,8	89,9	1,6	250,52	144	61	148	---	**SK 13507 - 250M/4**	3190	128
	6,3	82,4	1,6	229,66	144	61	154	---			
	7,5	69,2	2,0	194,04	144	61	158	---			
	8,2	63,5	2,0	177,88	144	61	161	---			
	9,1	57,0	2,5	159,35	144	61	161	---			
	9,9	52,2	2,5	146,08	144	61	169	---			
	3,7	145,9	1,7	395,26	149	51	191	---	**SK 15507 - 250M/4**	4945	128
	4,0	133,8	1,7	362,35	149	51	203	---			
	4,7	111,5	2,1	309,77	149	51	199	---			
	5,1	102,2	2,1	283,98	149	51	203	---			
	5,9	87,8	2,8	246,83	149	51	207	---			
	6,4	83,4	2,7	226,28	149	51	216	---			
75	14	49,9	1,5	101,26	79	38	104	---	**SK 11507 - 280S/4**	1535	128
	16	45,8	1,5	92,50	79	38	109	---			
	18	40,9	1,6	79,13	79	38	112	---			
	20	36,4	2,0	71,80	91	38	124	---	**SK 11407 - 280S/4**	1460	128
	22	33,0	2,0	65,59	83	34	131	---			
	26	27,0	2,3	56,11	84	36	131	---			
	28	25,9	2,2	51,25	75	31	135	---			
	9,2	78,3	1,3	156,94	93	40	130	---	**SK 12507 - 280S/4**	2195	128
	10	71,8	1,3	143,87	93	40	136	---			
	12	61,4	1,6	123,08	93	40	136	---			
	13	56,5	1,6	112,83	93	40	143	---			
	14	50,7	2,0	100,05	93	40	133	---			
	16	44,4	2,1	91,72	93	40	139	---			
	18	39,3	2,5	78,46	93	40	143	---			
	20	36,4	2,7	70,94	93	40	158	---	**SK 12407 - 280S/4**	2185	128
	22	32,5	2,8	65,04	91	39	168	---			

** ⇨ 54

75 kW
90 kW

n_1 = 1500 min^{-1}

P_1 [kW]	n_2 [rpm]	M_2 kNm	f_B -	i_{ges} -	F_R [kN]	F_A [kN]	$P_{t0.20}$ [kW]	CS [-]		kg	mm
75	7,5	98,9	1,4	194,04	144	61	158	---	**SK 13507 - 280S/4**	3190	128
	8,2	84,6	1,5	177,88	144	61	161	---			
	9,1	79,2	1,8	159,35	144	61	161	---			
	9,9	72,6	1,8	146,08	144	61	169	---			
	12	59,7	2,3	123,42	144	61	169	---			
	13	54,9	2,3	113,14	144	61	173	---			
	14	50,6	2,8	100,26	144	61	169	---			
	16	45,0	2,9	91,91	144	61	178	---			
	3,7	190,8	1,3	395,26	149	51	191	---	**SK 15507 - 280S/4**	4945	128
	4,0	174,9	1,3	362,35	149	51	203	---			
	4,7	156,1	1,5	309,77	149	51	199	---			
	5,1	143,1	1,5	283,98	149	51	203	---			
	5,9	122,9	2,0	246,83	149	51	207	---			
	6,4	112,7	2,0	226,28	149	51	216	---			
	7,5	94,2	2,5	193,45	149	51	221	---			
	8,2	86,4	2,5	177,34	149	51	232	---			
90	18	46,7	1,4	79,13	79	38	112	---	**SK 11507 - 280M/4**	1535	128
	20	42,8	1,7	71,80	91	38	124	---	**SK 11407 - 280M/4**	1460	128
	22	38,8	1,7	65,59	83	34	131	---			
	26	32,6	1,9	56,11	84	36	131	---			
	28	30,0	1,9	51,25	75	31	135	---			
	33	25,9	2,8	44,08	91	38	124	---			
	36	23,6	2,8	40,26	83	34	131	---			
	12	70,2	1,4	123,08	93	40	136	---	**SK 12507 - 280M/4**	2195	128
	13	64,6	1,4	112,83	93	40	143	---			
	14	59,6	1,7	100,05	93	40	133	---			
	16	54,8	1,7	91,72	93	40	139	---			
	18	46,8	2,1	78,46	93	40	143	---			
	20	42,7	2,3	70,94	93	40	158	---	**SK 12407 - 280M/4**	2185	128
	22	39,6	2,3	65,04	91	39	168	---			
	26	32,8	2,9	55,64	85	36	173	---			
	9,1	95,0	1,5	159,35	144	61	161	---	**SK 13507 - 280M/4**	3190	128
	9,9	87,1	1,5	146,08	144	61	169	---			
	12	72,2	1,9	123,42	144	61	169	---			
	13	66,4	1,9	113,14	144	61	173	---			
	14	61,6	2,3	100,26	144	61	169	---			
	16	54,3	2,4	91,91	144	61	178	---			
	19	45,8	2,7	77,66	144	61	182	---			
	4,7	180,1	1,3	309,77	149	51	199	---	**SK 15507 - 280M/4**	4945	128
	5,1	165,1	1,3	283,98	149	51	203	---			
	5,9	144,5	1,7	246,83	149	51	207	---			
	6,4	132,5	1,7	226,28	149	51	216	---			
	7,5	112,2	2,1	193,45	149	51	221	---			
	8,2	102,9	2,1	177,34	149	51	232	---			
	9,3	93,7	2,6	155,41	149	51	227	---			
	10	85,9	2,6	142,47	149	51	238	---			

** ⇨ 54

110 kW
132 kW

n_1 = 1500 min^{-1}

P_1 [kW]	n_2 [rpm]	M_2 kNm	f_B -	i_{ges} -	F_R [kN]	F_A [kN]	$P_{t0.20}$ [kW]	CS [-]		kg	mm
110	20	51,9	1,4	71,80	91	38	124	---	**SK 11407 - 315S/4**	1460	128
	22	47,1	1,4	65,59	83	34	131	---			
	26	41,3	1,5	56,11	84	36	131	---			
	28	38,0	1,5	51,25	75	31	135	---			
	33	31,6	2,3	44,08	91	38	124	---			
	36	28,7	2,3	40,26	83	34	131	---			
	42	25,4	2,5	34,45	84	36	131	---			
	46	22,5	2,8	31,46	75	31	135	---			
	14	72,4	1,4	100,05	93	40	133	---	**SK 12507 - 315S/4**	2195	128
	16	66,6	1,4	91,72	93	40	139	---			
	18	57,8	1,7	78,46	93	40	143	---			
	20	51,7	1,9	70,94	93	40	158	---	**SK 12407 - 315S/4**	2185	128
	22	47,9	1,9	65,04	91	39	168	---			
	26	39,7	2,4	55,64	85	36	173	---			
	28	38,3	2,3	51,01	82	35	184	---			
	12	85,8	1,6	123,42	144	61	169	---	**SK 13507 - 315S/4**	3190	128
	13	78,9	1,6	113,14	144	61	173	---			
	14	74,6	1,9	100,26	144	61	169	---			
	16	65,2	2,0	91,91	144	61	178	---			
	19	56,2	2,2	77,66	144	61	182	---			
	20	52,8	2,6	71,09	144	61	203	---	**SK 13407 - 315S/4**	2970	128
	22	48,5	2,6	65,17	140	59	215	---			
	5,9	175,5	1,4	246,83	149	51	207	---	**SK 15507 - 315S/4**	4945	128
	6,4	160,9	1,4	226,28	149	51	216	---			
	7,5	138,6	1,7	193,45	149	51	221	---			
	8,2	127,1	1,7	177,34	149	51	232	---			
	9,3	110,7	2,2	155,41	149	51	227	---			
	10	106,3	2,1	142,47	149	51	238	---			
	12	86,5	2,7	121,80	149	51	243	---			
	13	79,6	2,7	111,66	149	51	256	---			
132	26	47,7	1,3	56,11	84	36	131	---	**SK 11407 - 315M/4**	1460	128
	28	43,8	1,3	51,25	75	31	135	---			
	33	38,2	1,9	44,08	91	38	124	A/Fan			
	36	34,7	1,9	40,26	83	34	131	---			
	42	30,3	2,1	34,45	84	36	131	---			
	46	27,4	2,3	31,46	75	31	135	---			
	56	22,1	2,9	26,04	83	34	131	---			
	18	70,1	1,4	78,46	93	40	143	---	**SK 12507 - 315M/4**	2195	128
	20	61,4	1,6	70,94	93	40	158	---	**SK 12407 - 315M/4**	2185	128
	22	56,9	1,6	65,04	91	39	168	---			
	26	47,6	2,0	55,64	85	36	173	---			
	28	44,0	2,0	51,01	82	35	184	---			
	33	37,8	2,6	43,55	93	40	158	---			
	36	35,0	2,6	39,92	91	39	168	---			
	12	105,5	1,3	123,42	144	61	169	---	**SK 13507 - 315M/4**	3190	128
	13	97,1	1,3	113,14	144	61	173	---			
	14	88,6	1,6	100,26	144	61	169	---			
	16	76,7	1,7	91,91	144	61	178	---			
	19	65,1	1,9	77,66	144	61	182	---			

** ⇨ 54

132 kW
200 kW

n_1 = 1500 min^{-1}

P_1 [kW]	n_2 [rpm]	M_2 kNm	f_B -	i_{ges} -	F_R [kN]	F_A [kN]	$P_{t0.20}$ [kW]	CS [-]		kg	mm
132	20	62,4	2,2	71,09	144	61	203	---	**SK 13407 - 315M/4**	2970	128
	22	57,3	2,2	65,17	140	59	215	---			
	26	49,3	2,7	55,07	133	56	215	---			
	29	43,7	2,8	50,48	126	53	222	---			
	7,5	168,3	1,4	193,45	149	51	221	---	**SK 15507 - 315M/4**	4945	128
	8,2	154,3	1,4	177,34	149	51	232	---			
	9,3	135,3	1,8	155,41	149	51	227	---			
	10	124,1	1,8	142,47	149	51	238	---			
	12	106,2	2,2	121,80	149	51	243	---			
	13	97,7	2,2	111,66	149	51	256	---			
	15	83,6	2,9	98,78	149	51	243	---			
	16	79,6	2,8	90,56	149	51	256	---			
160	33	45,4	1,6	44,08	91	38	124	A/Fan*	**SK 11407 - 315MA/4**	1460	128
	36	41,3	1,6	40,26	83	34	131	A/Fan*			
	42	37,4	1,7	34,45	84	36	131	A/Fan*			
	46	33,2	1,9	31,46	75	31	135	A/Fan*			
	51	30,3	2,4	28,50	91	38	124	A/Fan*			
	56	26,8	2,4	26,04	83	34	131	A/Fan*			
	65	23,7	2,6	22,27	84	36	131	A/Fan*			
	71	21,7	2,6	20,35	75	31	135	A/Fan*			
	20	75,5	1,3	70,94	93	40	158	A/Fan	**SK 12407 - 315MA/4**	2185	128
	22	70,0	1,3	65,04	91	39	168	---			
	26	59,5	1,6	55,64	85	36	173	---			
	28	55,0	1,6	51,01	82	35	184	---			
	33	46,8	2,1	43,55	93	40	158	A/Fan			
	36	43,3	2,1	39,92	91	39	168	---			
	42	35,8	2,6	34,16	85	36	173	---			
	46	33,1	2,6	31,31	82	35	184	---			
	14	109,0	1,3	100,26	144	61	169	---	**SK 13507 - 315MA/4**	3190	128
	16	93,1	1,4	91,91	144	61	178	---			
	19	82,4	1,5	77,66	144	61	182	---			
	20	76,3	1,8	71,09	144	61	203	---	**SK 13407 - 315MA/4**	2970	128
	22	70,0	1,8	65,17	140	59	215	---			
	26	57,8	2,3	55,07	133	56	215	---			
	29	53,2	2,3	50,48	126	53	222	---			
	9,3	162,3	1,5	155,41	149	51	227	---	**SK 15507 - 315MA/4**	4945	128
	10	148,9	1,5	142,47	149	51	238	---			
	12	129,8	1,8	121,80	149	51	243	---			
	13	119,4	1,8	111,66	149	51	256	---			
	15	101,0	2,4	98,78	149	51	243	---			
	16	97,0	2,3	90,56	149	51	256	---			
	19	79,6	2,6	77,42	149	51	271	---			
200	42	45,4	1,4	34,45	84	36	131	B/Fan*	**SK 11407 - 315L/4**	1460	128
	46	42,0	1,5	31,46	75	31	135	A/Fan*			
	51	38,3	1,9	28,50	91	38	124	B/Fan*			
	56	33,8	1,9	26,04	83	34	131	B/Fan*			
	65	29,3	2,1	22,27	84	36	131	B/Fan*			
	71	26,9	2,1	20,35	75	31	135	A/Fan*			
	81	24,0	2,4	17,89	78	33	139	A/Fan*			
	89	21,4	2,7	16,34	70	29	144	A/Fan*			

** ⇨ 54

200 kW
250 kW

n_1 = 1500 min^{-1}

P_1 [kW]	n_2 [rpm]	M_2 kNm	f_B -	i_{ges} -	F_R [kN]	F_A [kN]	$P_{t0.20}$ [kW]	CS [-]		kg	mm
200	26	73,2	1,3	55,64	85	36	173	A/Fan*	**SK 12407 - 315L/4**	2185	128
	28	67,7	1,3	51,01	82	35	184	A/Fan*			
	33	57,8	1,7	43,55	93	40	158	A/Fan*			
	36	53,5	1,7	39,92	91	39	168	A/Fan*			
	42	46,5	2,0	34,16	85	36	173	A/Fan*			
	46	41,0	2,1	31,31	82	35	184	A/Fan*			
	51	37,8	2,6	28,16	93	40	158	A/Fan*			
	56	33,7	2,7	25,82	91	39	168	A/Fan*			
	20	98,1	1,4	71,09	144	61	203	---	**SK 13407 - 315L/4**	2970	128
	22	84,0	1,5	65,17	140	59	215	---			
	26	73,9	1,8	55,07	133	56	215	---			
	29	64,4	1,9	50,48	126	53	222	---			
	33	59,1	2,3	43,64	144	61	203	---			
	36	52,5	2,4	40,01	140	59	215	---			
	12	155,7	1,5	121,80	149	51	243	---	**SK 15507 - 315L/4**	4945	128
	13	143,3	1,5	111,66	149	51	256	---			
	15	127,5	1,9	98,78	149	51	243	---			
	16	117,4	1,9	90,56	149	51	256	---			
	19	98,6	2,1	77,42	149	51	271	---			
	21	89,6	2,6	70,05	149	51	286	---	**SK 15407 - 315L/4**	4770	128
	23	83,1	2,6	64,21	135	45	304	---			
	26	74,4	2,5	54,90	137	46	304	---			
	29	65,4	2,6	50,33	124	42	314	---			
250	51	45,4	1,6	28,50	91	38	124	B/Fan*	**SK 11407 - 315LA/4**	1460	128
	56	42,8	1,5	26,04	83	34	131	B/Fan*			
	65	36,2	1,7	22,27	84	36	131	B/Fan*			
	71	33,2	1,7	20,35	75	31	135	B/Fan*			
	81	28,8	2,0	17,89	78	33	139	B/Fan*			
	89	26,3	2,2	16,34	70	29	144	B/Fan*			
	104	23,1	2,4	13,95	71	30	144	B/Fan*			
	114	21,1	2,4	12,74	64	26	149	B/Fan*			
	33	70,1	1,4	43,55	93	40	158	B/Fan*	**SK 12407 - 315LA/4**	2185	128
	36	65,0	1,4	39,92	91	39	168	B/Fan*			
	42	58,1	1,6	34,16	85	36	173	B/Fan*			
	46	50,6	1,7	31,31	82	35	184	A/Fan*			
	51	46,8	2,1	28,16	93	40	158	B/Fan*			
	56	43,3	2,1	25,82	91	39	168	B/Fan*			
	66	36,6	2,6	22,09	85	36	173	B/Fan*			
	72	32,6	2,7	20,25	82	35	184	A/Fan*			
	26	95,0	1,4	55,07	133	56	215	A/Fan*	**SK 13407 - 315LA/4**	2970	128
	29	81,5	1,5	50,48	126	53	222	A/Fan*			
	33	71,6	1,9	43,64	144	61	203	A/Fan*			
	36	66,3	1,9	40,01	140	59	215	A/Fan*			
	43	56,5	2,3	33,80	133	56	215	A/Fan*			
	47	50,0	2,4	30,99	126	53	222	A/Fan*			
	15	161,5	1,5	98,78	149	51	243	A/Fan*	**SK 15507 - 315LA/4**	4945	128
	16	148,7	1,5	90,56	149	51	256	---			
	19	129,4	1,6	77,42	149	51	271	---			
	21	116,5	2,0	70,05	149	51	286	---	**SK 15407 - 315LA/4**	4770	128
	23	102,9	2,1	64,21	135	45	304	---			
	26	93,0	2,0	54,90	137	46	304	---			
	29	81,0	2,1	50,33	124	42	314	---			

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315 kW
355 kW

n_1 = 1500 min^{-1}

P_1 [kW]	n_2 [rpm]	M_2 kNm	f_B -	i_{ges} -	F_R [kN]	F_A [kN]	$P_{t0.20}$ [kW]	CS [-]		kg	mm
315	65	47,4	1,3	22,27	84	36	131	C/Fan*	**SK 11407 - 315LB/4**	1460	128
	71	43,4	1,3	20,35	75	31	135	C/Fan*			
	81	38,3	1,5	17,89	78	33	139	C/Fan*			
	89	34,1	1,7	16,34	70	29	144	C/Fan*			
	104	29,2	1,9	13,95	71	30	144	C/Fan*			
	114	26,6	1,9	12,74	64	26	149	C/Fan*			
	42	71,5	1,3	34,16	85	36	173	B/Fan*	**SK 12407 - 315LB/4**	2185	128
	46	66,2	1,3	31,31	82	35	184	B/Fan*			
	51	57,8	1,7	28,16	93	40	158	C/Fan*			
	56	53,5	1,7	25,82	91	39	168	B/Fan*			
	66	45,3	2,1	22,09	85	36	173	B/Fan*			
	72	41,9	2,1	20,25	82	35	184	B/Fan*			
	81	36,8	2,5	17,81	78	34	178	B/Fan*			
	89	33,6	2,5	16,33	74	32	184	B/Fan*			
	104	29,4	2,7	13,97	71	31	184	B/Fan*			
	113	26,8	2,8	12,81	69	30	197	B/Fan*			
	33	90,7	1,5	43,64	144	61	203	B/Fan*	**SK 13407 - 315LB/4**	2970	128
	36	84,0	1,5	40,01	140	59	215	B/Fan*			
	43	68,4	1,9	33,80	133	56	215	B/Fan*			
	47	63,2	1,9	30,99	126	53	222	B/Fan*			
	51	59,7	2,3	28,22	144	61	203	B/Fan*			
	56	52,7	2,4	25,87	140	59	215	B/Fan*			
	66	44,8	2,9	21,86	133	56	215	B/Fan*			
	19	159,2	1,3	77,42	149	51	271	A/Fan*	**SK 15507 - 315LB/4**	4945	128
	21	145,6	1,6	70,05	149	51	286	A/Fan*	**SK 15407 - 315LB/4**	4770	128
	23	127,1	1,7	64,21	135	45	304	A/Fan*			
	26	116,3	1,6	54,90	137	46	304	A/Fan*			
	29	106,3	1,6	50,33	124	42	314	---			
	34	88,8	2,6	43,00	149	51	286	A/Fan*			
	37	81,9	2,6	39,42	135	45	304	A/Fan*			
	43	70,1	2,6	33,70	137	46	304	A/Fan*			
	47	64,6	2,6	30,89	124	42	314	---			
355	81	41,1	1,4	17,89	78	33	139	C	**SK 11407 - 355S/4**	1460	128
	89	38,6	1,5	16,34	70	29	144	C			
	104	32,6	1,7	13,95	71	30	144	C			
	114	29,8	1,7	12,74	64	26	149	C/Fan*			
	51	65,5	1,5	28,16	93	40	158	C/Fan*	**SK 12407 - 355S/4**	2185	128
	56	60,7	1,5	25,82	91	39	168	C/Fan*			
	66	50,1	1,9	22,09	85	36	173	C/Fan*			
	72	46,3	1,9	20,25	82	35	184	C/Fan*			
	81	41,8	2,2	17,81	78	34	178	C/Fan*			
	89	38,2	2,2	16,33	74	32	184	C/Fan*			
	104	33,0	2,4	13,97	71	31	184	C/Fan*			
	113	30,0	2,5	12,81	69	30	197	C/Fan*			
	33	104,6	1,3	43,64	144	61	203	B/Fan*	**SK 13407 - 355S/4**	2970	128
	36	96,9	1,3	40,01	140	59	215	B/Fan*			
	43	81,3	1,6	33,80	133	56	215	B/Fan*			
	47	70,6	1,7	30,99	126	53	222	B/Fan*			
	51	65,4	2,1	28,22	144	61	203	B/Fan*			
	56	60,2	2,1	25,87	140	59	215	B/Fan*			
	66	52,0	2,5	21,86	133	56	215	B/Fan*			
	72	47,0	2,6	20,04	126	53	222	B/Fan*			

** ⇨ 54

355 kW
500 kW

n_1 = 1500 min^{-1}

P_1 [kW]	n_2 [rpm]	M_2 kNm	f_B -	i_{ges} -	F_R [kN]	F_A [kN]	$P_{t0.20}$ [kW]	CS [-]		kg	mm 📖
355	21	166,4	1,4	70,05	149	51	286	B/Fan*	**SK 15407 - 355S/4**	4770	128
	23	144,0	1,5	64,21	135	45	304	A/Fan*			
	26	132,9	1,4	54,90	137	46	304	A/Fan*			
	29	113,3	1,5	50,33	124	42	314	A/Fan*			
	34	100,4	2,3	43,00	149	51	286	B/Fan*			
	37	92,6	2,3	39,42	135	45	304	A/Fan*			
	43	79,3	2,3	33,70	137	46	304	A/Fan*			
	47	73,0	2,3	30,89	124	42	314	A/Fan*			
400	89	44,5	1,3	16,34	70	29	144	D	**SK 11407 - 355M/4**	1460	128
	104	36,9	1,5	13,95	71	30	144	D			
	114	33,7	1,5	12,74	64	26	149	D			
	51	75,5	1,3	28,16	93	40	158	D	**SK 12407 - 355M/4**	2185	128
	56	70,0	1,3	25,82	91	39	168	C/Fan*			
	66	59,5	1,6	22,09	85	36	173	C/Fan*			
	72	51,8	1,7	20,25	82	35	184	C/Fan*			
	81	46,0	2,0	17,81	78	34	178	C/Fan*			
	89	42,0	2,0	16,33	74	32	184	C/Fan*			
	104	36,0	2,2	13,97	71	31	184	C/Fan*			
	113	34,1	2,2	12,81	69	30	197	C/Fan*			
	43	86,7	1,5	33,80	133	56	215	C/Fan*	**SK 13407 - 355M/4**	2970	128
	47	80,0	1,5	30,99	126	53	222	C/Fan*			
	51	76,3	1,8	28,22	144	61	203	C/Fan*			
	56	66,5	1,9	25,87	140	59	215	C/Fan*			
	66	59,1	2,2	21,86	133	56	215	C/Fan*			
	72	53,2	2,3	20,04	126	53	222	C/Fan*			
	83	45,2	2,7	17,45	123	52	229	C/Fan*			
	91	41,4	2,8	16,00	117	49	237	C/Fan*			
	102	37,1	2,8	14,22	114	48	237	C/Fan*			
	21	179,2	1,3	70,05	149	51	286	B/Fan*	**SK 15407 - 355M/4**	4770	128
	23	166,2	1,3	64,21	135	45	304	B/Fan*			
	26	143,1	1,3	54,90	137	46	304	B/Fan*			
	29	130,8	1,3	50,33	124	42	314	B/Fan*			
	34	110,0	2,1	43,00	149	51	286	B/Fan*			
	37	101,4	2,1	39,42	135	45	304	B/Fan*			
	43	86,8	2,1	33,70	137	46	304	B/Fan*			
	47	80,0	2,1	30,89	124	42	314	B/Fan*			
	52	72,5	2,8	27,81	149	51	286	B/Fan*			
500	66	73,2	1,3	22,09	85	36	173	E	**SK 12407 - 355L/4**	2185	128
	72	67,7	1,3	20,25	82	35	184	E			
	81	57,5	1,6	17,81	78	34	178	E			
	89	52,5	1,6	16,33	74	32	184	E			
	104	46,6	1,7	13,97	71	31	184	E			
	113	41,7	1,8	12,81	69	30	197	E			
	51	91,6	1,5	28,22	144	61	203	E	**SK 13407 - 355L/4**	2970	128
	56	84,3	1,5	25,87	140	59	215	D/Fan*			
	66	72,2	1,8	21,86	133	56	215	D/Fan*			
	72	67,9	1,8	20,04	126	53	222	D/Fan*			
	83	58,1	2,1	17,45	123	52	229	D/Fan*			
	91	52,7	2,2	16,00	117	49	237	D/Fan*			
	102	47,3	2,2	14,22	114	48	237	D/Fan*			
	111	43,5	2,3	13,04	109	46	245	D/Fan*			

** ⇨📖 54

500 kW
630 kW

n_1 = 1500 min^{-1}

P_1 [kW]	n_2 [rpm]	M_2 kNm	f_B -	i_{ges} -	F_R [kN]	F_A [kN]	$P_{t0.20}$ [kW]	CS [-]		kg	mm 📖
500	34	144,4	1,6	43,00	149	51	286	C/Fan*	**SK 15407 - 355L/4**	4770	128
	37	125,3	1,7	39,42	135	45	304	C/Fan*			
	43	113,9	1,6	33,70	137	46	304	C/Fan*			
	47	98,8	1,7	30,89	124	42	314	C/Fan*			
	52	92,3	2,2	27,81	149	51	286	C/Fan*			
	57	82,9	2,4	25,49	135	45	304	C/Fan*			
	67	70,4	2,7	21,79	137	46	304	C/Fan*			
	73	66,4	2,8	19,98	124	42	314	C/Fan*			
560	81	65,7	1,4	17,81	78	34	178	F	**SK 12407 - 400S/4**	2185	128
	89	60,0	1,4	16,33	74	32	184	F			
	104	52,9	1,5	13,97	71	31	184	F			
	113	46,9	1,6	12,81	69	30	197	E			
	51	105,7	1,3	28,22	144	61	203	E	**SK 13407 - 400S/4**	2970	128
	56	97,2	1,3	25,87	140	59	215	E			
	66	81,3	1,6	21,86	133	56	215	E			
	72	76,4	1,6	20,04	126	53	222	E			
	83	64,2	1,9	17,45	123	52	229	E			
	91	58,0	2,0	16,00	117	49	237	E/Fan*			
	102	52,0	2,0	14,22	114	48	237	E/Fan*			
	111	47,6	2,1	13,04	109	46	245	E/Fan*			
	34	154,0	1,5	43,00	149	51	286	D/Fan*	**SK 15407 - 400S/4**	4770	128
	37	142,0	1,5	39,42	135	45	304	D/Fan*			
	43	121,5	1,5	33,70	137	46	304	D/Fan*			
	47	112,0	1,5	30,89	124	42	314	D/Fan*			
	52	101,5	2,0	27,81	149	51	286	D/Fan*			
	57	94,8	2,1	25,49	135	45	304	D/Fan*			
	67	79,2	2,4	21,79	137	46	304	D/Fan*			
	73	74,4	2,5	19,98	124	42	314	D/Fan*			
	83	63,7	2,7	17,56	126	42	325	D/Fan*			
	90	58,9	2,7	16,10	114	38	336	C/Fan*			
630	104	56,6	1,4	13,97	71	31	184	F	**SK 12407 - 400M/4**	2185	128
	113	53,6	1,4	12,81	69	30	197	F			
	66	92,9	1,4	21,86	133	56	215	F	**SK 13407 - 400M/4**	2970	128
	72	81,5	1,5	20,04	126	53	222	F			
	83	71,8	1,7	17,45	123	52	229	F			
	91	64,4	1,8	16,00	117	49	237	F			
	102	57,8	1,8	14,22	114	48	237	F			
	111	55,6	1,8	13,04	109	46	245	F			
	34	177,7	1,3	43,00	149	51	286	E/Fan*	**SK 15407 - 400M/4**	4770	128
	37	163,8	1,3	39,42	135	45	304	E/Fan*			
	43	140,2	1,3	33,70	137	46	304	E/Fan*			
	47	129,2	1,3	30,89	124	42	314	E/Fan*			
	52	112,8	1,8	27,81	149	51	286	E/Fan*			
	57	104,7	1,9	25,49	135	45	304	E/Fan*			
	67	90,5	2,1	21,79	137	46	304	E/Fan*			
	73	80,9	2,3	19,98	124	42	314	E/Fan*			
	83	71,7	2,4	17,56	126	42	325	E/Fan*			
	90	66,3	2,4	16,10	114	38	336	E/Fan*			
	105	56,3	2,7	13,76	114	39	336	E/Fan*			
	115	53,2	2,8	12,61	104	35	361	D/Fan*			

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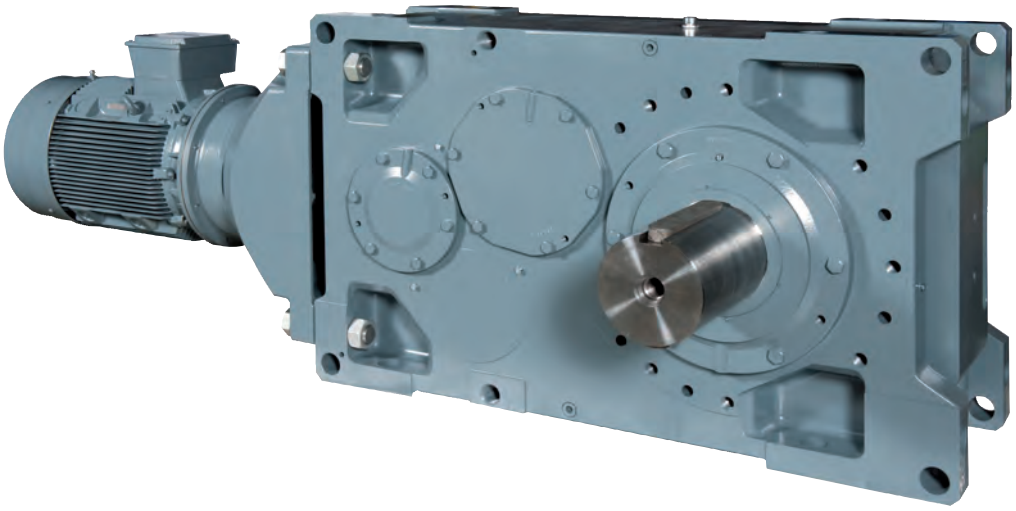
710 kW
1000 kW

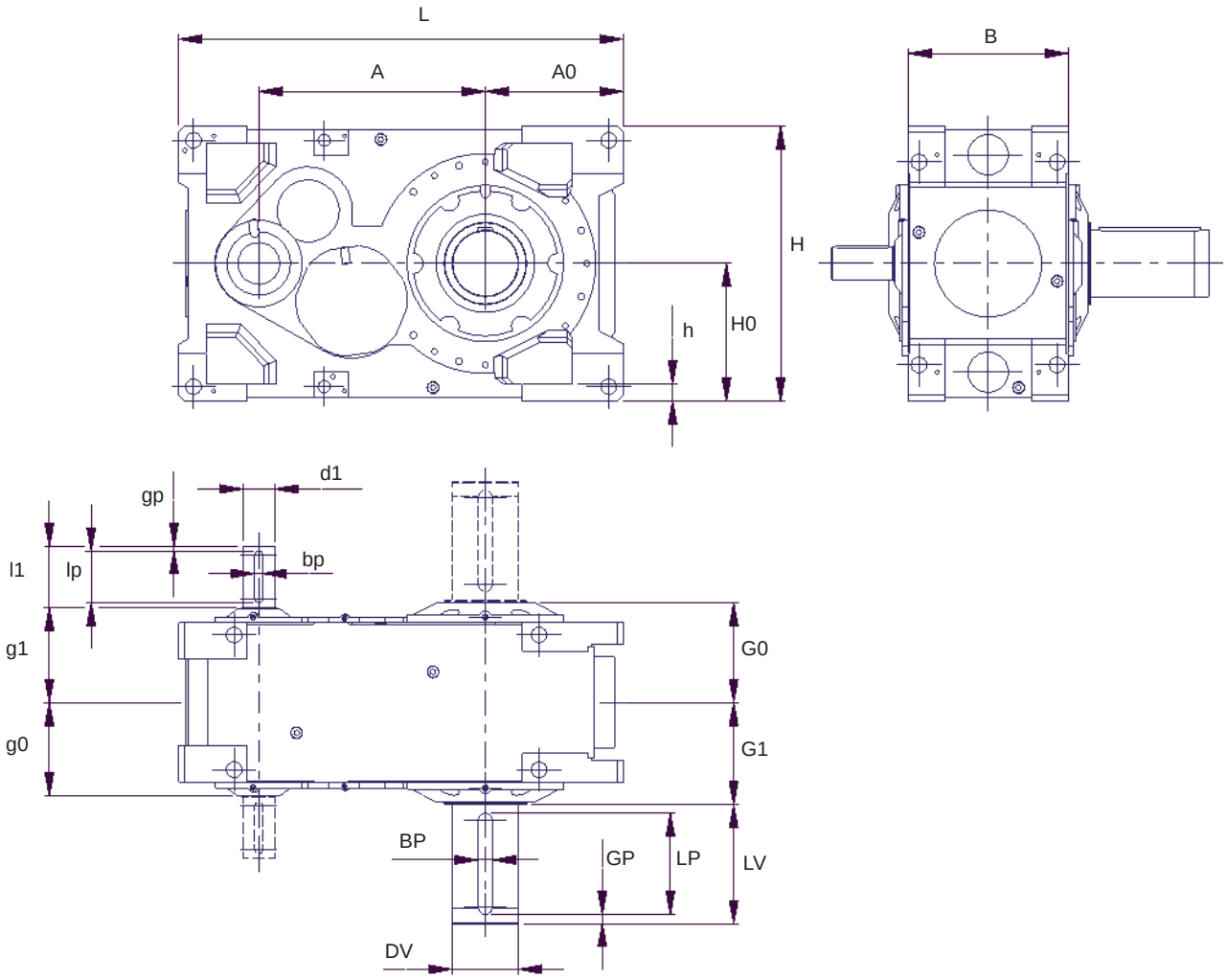
n_1 = 1500 min^{-1}

P_1 [kW]	n_2 [rpm]	M_2 kNm	f_B -	i_{ges} -	F_R [kN]	F_A [kN]	$P_{t0.20}$ [kW]	CS [-]		kg	mm 🕮
710	66	100,0	1,3	21,86	133	56	215	F	**SK 13407 - 400L/4**	2970	128
	72	94,1	1,3	20,04	126	53	222	F			
	83	81,3	1,5	17,45	123	52	229	F			
	91	72,5	1,6	16,00	117	49	237	F			
	102	65,0	1,6	14,22	114	48	237	F			
	111	62,5	1,6	13,04	109	46	245	F			
	52	126,9	1,6	27,81	149	51	286	F	**SK 15407 - 400L/4**	4770	128
	57	117,1	1,7	25,49	135	45	304	F/Fan*			
	67	100,0	1,9	21,79	137	46	304	F/Fan*			
	73	93,0	2,0	19,98	124	42	314	F/Fan*			
	83	81,9	2,1	17,56	126	42	325	F/Fan*			
	90	75,7	2,1	16,10	114	38	336	F/Fan*			
	105	63,3	2,4	13,76	114	39	336	F/Fan*			
	115	59,6	2,5	12,61	104	35	361	E/Fan*			
800	83	93,8	1,3	17,45	123	52	229	G	**SK 13407 - 450S/4**	2970	128
	91	82,9	1,4	16,00	117	49	237	G			
	102	74,3	1,4	14,22	114	48	237	G			
	111	66,7	1,5	13,04	109	46	245	G			
	52	145,0	1,4	27,81	149	51	286	G	**SK 15407 - 450S/4**	4770	128
	57	132,7	1,5	25,49	135	45	304	F			
	67	111,8	1,7	21,79	137	46	304	F			
	73	103,3	1,8	19,98	124	42	314	F			
	83	90,5	1,9	17,56	126	42	325	F			
	90	83,7	1,9	16,10	114	38	336	F/Fan*			
	105	72,4	2,1	13,76	114	39	336	F/Fan*			
	115	67,7	2,2	12,61	104	35	361	F/Fan*			
900	111	76,9	1,3	13,04	109	46	245	G	**SK 13407 - 450M/4**	2970	128
	57	153,1	1,3	25,49	135	45	304	G	**SK 15407 - 450M/4**	4770	128
	67	126,7	1,5	21,79	137	46	304	G			
	73	116,3	1,6	19,98	124	42	314	G			
	83	101,2	1,7	17,56	126	42	325	G			
	90	93,5	1,7	16,10	114	38	336	G			
	105	80,0	1,9	13,76	114	39	336	G			
	115	74,5	2,0	12,61	104	35	361	G			
1000	67	146,2	1,3	21,79	137	46	304	G	**SK 15407 - 450L/4**	4770	128
	73	132,9	1,4	19,98	124	42	314	G			
	83	114,7	1,5	17,56	126	42	325	G			
	90	106,0	1,5	16,10	114	38	336	G			
	105	89,4	1,7	13,76	114	39	336	G			
	115	82,8	1,8	12,61	104	35	361	G			

** ⇨🕮 54



SK ..207
SK ..307

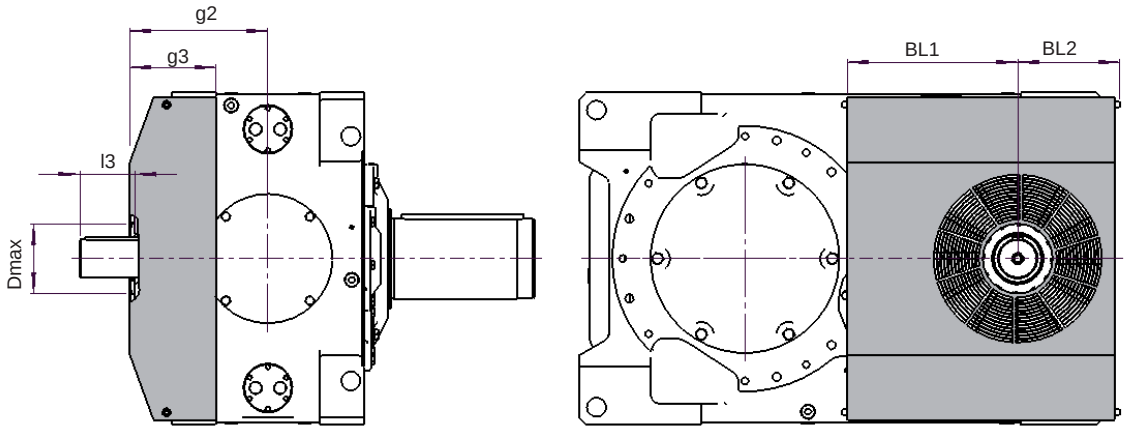


	L	B	H0	H	h	A	A0	g0	g1	G0	G1	DV	LV	LP	BP	GP
SK 11..07	1210	440	375	750	52	630	370	254	260	270	280	ø 170	300	260	40	20
SK 12..07	1345	510	425	850	57	695	405	288,5	294	305	315	ø 200	350	300	45	25
SK 13..07	1530	550	475	950	60	780	475	323	328	343	353	ø 230	410	350	50	31
SK 15..07	1800	650	550	1100	70	935	545	361	371	385	395	ø 250	410	360	56	25

	SK..207					
	i_N	d1	l1	lp	bp	gp
SK 11..07	5,6 ... 20	ø 80	170	140	22	15
SK 12..07	5,6 ... 20	ø 100	210	180	28	15
SK 13..07	5,6 ... 20	ø 110	210	180	28	15
SK 15..07	5,6 ... 20	ø 120	245	200	32	25

SK..307					
i_N	d1	l1	lp	bp	gp
22,4 ... 112	ø 70	140	125	20	7,5
22,4 ... 112	ø 80	170	140	22	15
22,4 ... 112	ø 80	170	140	22	15
22,4 ... 45	ø 100	210	180	28	15
50 ... 112	ø 80	170	140	22	15

** ⇨ 54

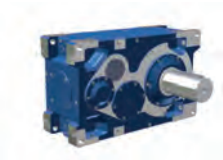


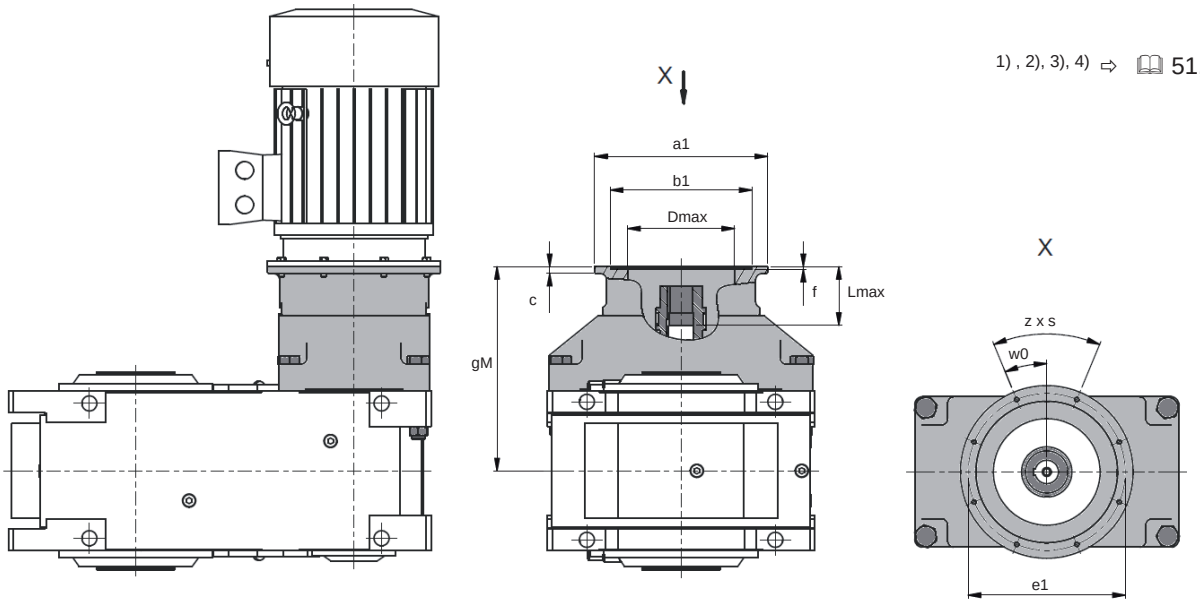
⇨ 📖 42

	i_N	BL1	BL2	g2	g3	l3	Dmax
SK 11207	5,6 ... 20	390	252	307	189	133	ø 160
SK 11307	22,4 ... 112	390	252	307	189	103	ø 160
SK 12207	5,6 ... 20	430	287	358	217	158	ø 180
SK 12307	22,4 ... 112	430	287	358	217	118	ø 180
SK 13207	5,6 ... 20	490	317	392	243	158	ø 200
SK 13307	22,4 ... 112	490	317	392	243	118	ø 200
SK 15207	5,6 ... 20	580	362	450	275	178	ø 240
SK 15307	22,4 ... 45	580	362	450	275	143	ø 240
SK 15307	50 ... 112	580	362	450	275	103	ø 240

** ⇨📖 54

SK ..207
SK ..307





1) , 2), 3), 4) ⇨ 🕮 51, 58

		1)	gM	a1	b1	e1	c	f	z x s	w0	Dmax	Lmax
SK 11207	IEC	160	545	350	250	300	15	6,5	4 x 17,5	45	228	115
		180	545	350	250	300	15	6,5	4 x 17,5	45	228	115
		200	545	400	300	350	17	6,5	4 x 17,5	45	276	115
		225	575	450	350	400	18	6,5	8 x 17,5	22,5	290	145
		250	575	550	450	500	22	8	8 x M16	22,5	340	145
		280	575	550	450	500	22	8	8 x M16	22,5	340	145
		315	605	660	550	600	22	8	8 x 22	22,5	340	175
	TN 2)	315T	605	800	680	740	25	8	8 x 22	22,5	340	175
		355T	605	900	780	840	25	8	8 x 22	22,5	340	175
SK 11307	IEC	160	545	350	250	300	15	6,5	4 x 17,5	45	228	145
		180	545	350	250	300	15	6,5	4 x 17,5	45	228	145
		200	545	400	300	350	17	6,5	4 x 17,5	45	276	145
		225	575	450	350	400	18	6,5	8 x 17,5	22,5	290	175
		250	575	550	450	500	22	8	8 x M16	22,5	340	175
		280	575	550	450	500	22	8	8 x M16	22,5	340	175
		315	605	660	550	600	22	8	8 x 22	22,5	340	205
	TN 2)	315T	605	800	680	740	25	8	8 x 22	22,5	340	205
		355T	605	900	780	840	25	8	8 x 22	22,5	340	205

** ⇨🕮 54

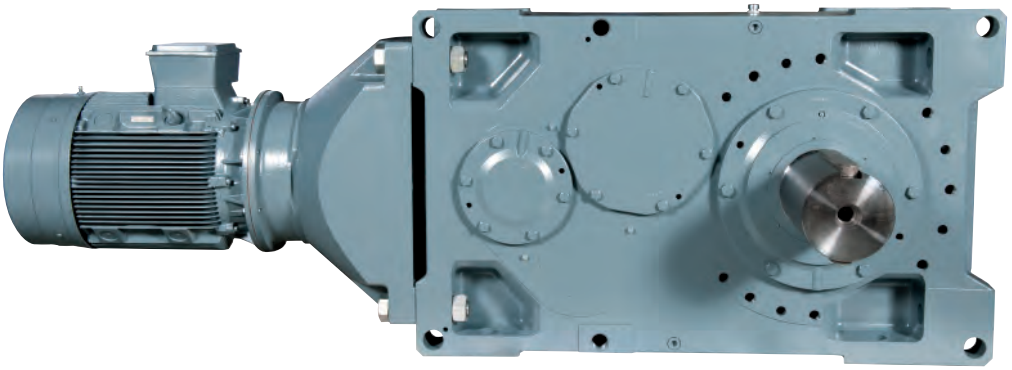
			gM	a1	b1	e1	c	f	z x s	w0	Dmax	Lmax
		1)										
SK 12207	IEC	160	621	350	250	300	15	6,5	4 x 17,5	45	228	117
		180	621	350	250	300	15	6,5	4 x 17,5	45	228	117
		200	621	400	300	350	17	6,5	4 x 17,5	45	276	117
		225	651	450	350	400	18	6,5	8 x 17,5	22,5	290	147
		250	651	550	450	500	22	8	8 x M16	22,5	340	147
		280	651	550	450	500	22	8	8 x M16	22,5	340	147
		315	681	660	550	600	22	8	8 x 22	22,5	340	177
	TN 2)	315T	681	800	680	740	25	8	8 x 22	22,5	340	177
		355T	681	900	780	840	25	8	8 x 22	22,5	340	177
SK 12307	IEC	160	621	350	250	300	15	6,5	4 x 17,5	45	228	157
		180	621	350	250	300	15	6,5	4 x 17,5	45	228	157
		200	621	400	300	350	17	6,5	4 x 17,5	45	276	157
		225	651	450	350	400	18	6,5	8 x 17,5	22,5	290	187
		250	651	550	450	500	22	8	8 x M16	22,5	340	187
		280	651	550	450	500	22	8	8 x M16	22,5	340	187
		315	681	660	550	600	22	8	8 x 22	22,5	340	217
	TN 2)	315T	681	800	680	740	25	8	8 x 22	22,5	340	217
		355T	681	900	780	840	25	8	8 x 22	22,5	340	217
SK 13207	IEC	160	656	350	250	300	15	6,5	4 x 17,5	45	228	118
		180	656	350	250	300	15	6,5	4 x 17,5	45	228	118
		200	656	400	300	350	17	6,5	4 x 17,5	45	276	118
		225	686	450	350	400	18	6,5	8 x 17,5	22,5	290	148
		250	686	550	450	500	22	8	8 x M16	22,5	340	148
		280	686	550	450	500	22	8	8 x M16	22,5	340	148
		315	716	660	550	600	22	8	8 x 22	22,5	340	178
	TN 2)	315T	716	800	680	740	25	8	8 x 22	22,5	340	178
		355T	716	900	780	840	25	8	8 x 22	22,5	340	178

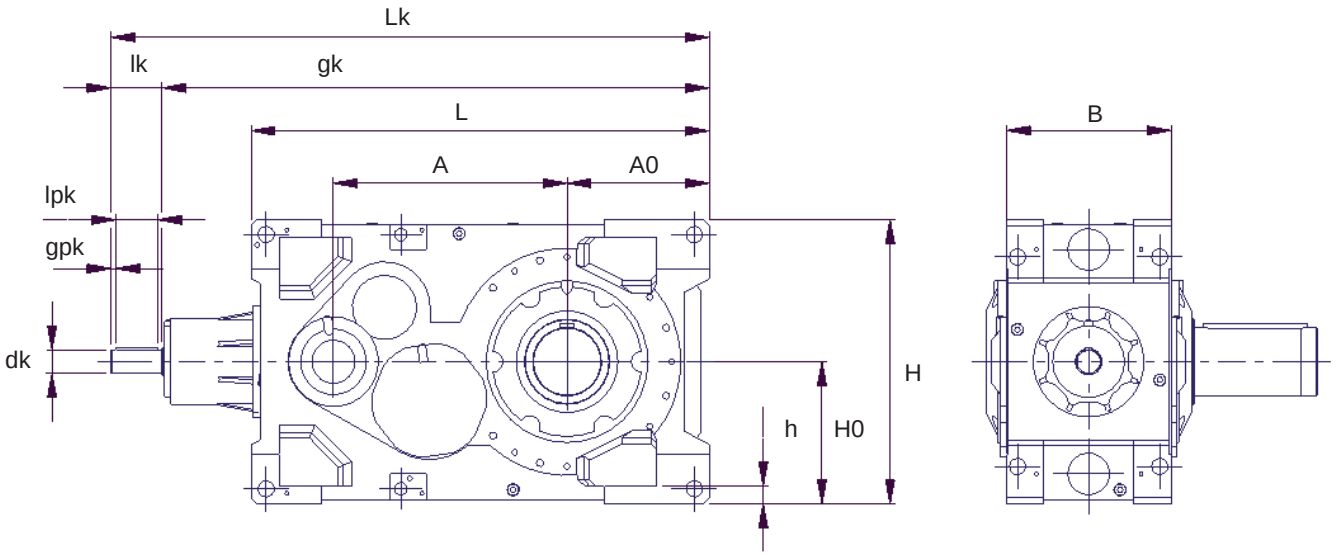
** ⇨ 54

SK ..207
SK ..307

			gM	a1	b1	e1	c	f	z x s	w0	Dmax	Lmax
	 1)											
SK 13307	IEC	160	656	350	250	300	15	6,5	4 x 17,5	45	228	158
		180	656	350	250	300	15	6,5	4 x 17,5	45	228	158
		200	656	400	300	350	17	6,5	4 x 17,5	45	276	158
		225	686	450	350	400	18	6,5	8 x 17,5	22,5	290	188
		250	686	550	450	500	22	8	8 x M16	22,5	340	188
		280	686	550	450	500	22	8	8 x M16	22,5	340	188
		315	716	660	550	600	22	8	8 x 22	22,5	340	218
	TN 2)	315T	716	800	680	740	25	8	8 x 22	22,5	340	218
		355T	716	900	780	840	25	8	8 x 22	22,5	340	218
SK 15207	IEC	160	735	350	250	300	15	6,5	4 x 17,5	45	228	119
		180	735	350	250	300	15	6,5	4 x 17,5	45	228	119
		200	735	400	300	350	17	6,5	4 x 17,5	45	276	119
		225	765	450	350	400	18	6,5	8 x 17,5	22,5	290	149
		250	765	550	450	500	22	8	8 x M16	22,5	340	149
		280	765	550	450	500	22	8	8 x M16	22,5	340	149
		315	795	660	550	600	22	8	8 x 22	22,5	340	179
	TN 2)	315T	795	800	680	740	25	8	8 x 22	22,5	340	179
		355T	795	900	780	840	25	8	8 x 22	22,5	340	179
SK 15307	IEC	160	735	350	250	300	15	6,5	4 x 17,5	45	228	154 / 194
		180	735	350	250	300	15	6,5	4 x 17,5	45	228	154 / 194
		200	735	400	300	350	17	6,5	4 x 17,5	45	276	154 / 194
		225	765	450	350	400	18	6,5	8 x 17,5	22,5	290	184 / 224
		250	765	550	450	500	22	8	8 x M16	22,5	340	184 / 224
		280	765	550	450	500	22	8	8 x M16	22,5	340	184 / 224
		315	795	660	550	600	22	8	8 x 22	22,5	340	214 / 254
	TN 2)	315T	795	800	680	740	25	8	8 x 22	22,5	340	214 / 254
		355T	795	900	780	840	25	8	8 x 22	22,5	340	214 / 254

** ⇨ 54




Lk
lk
gk
L
A
A0
lpk
gpk
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H0
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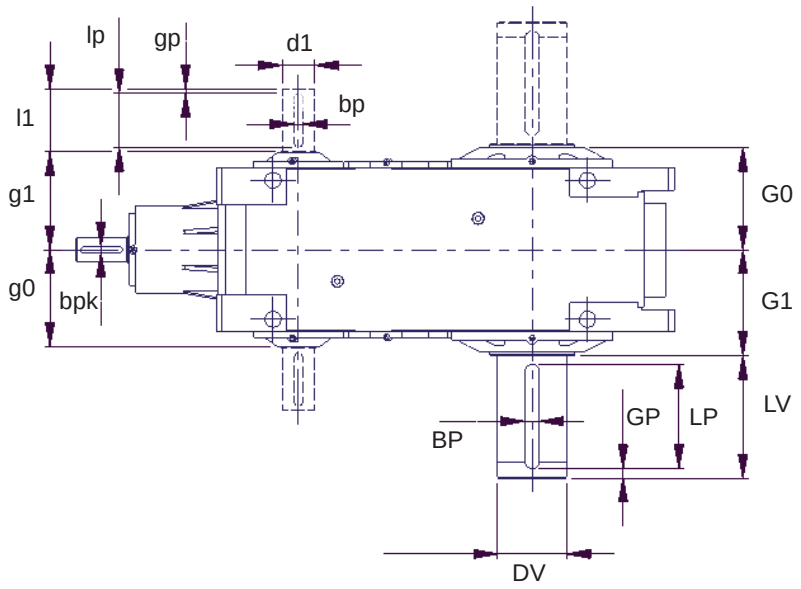

lp
gp
d1
bp
l1
g1
g0
bpk
G0
G1
LV
GP
LP
BP
DV

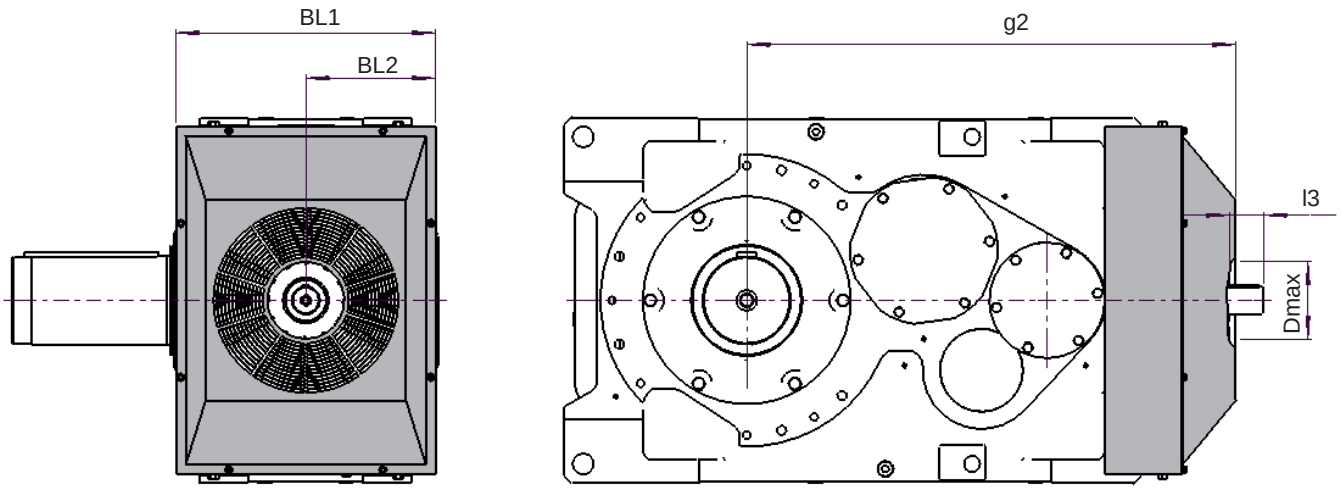
** ⇨ 54

	L	B	H0	H	h	A	A0	g0	g1	G0	G1	DV	LV	LP	BP	GP
SK 11..07	1210	440	375	750	52	630	370	254	260	270	280	ø 170	300	260	40	20
SK 12..07	1345	510	425	850	57	695	405	288,5	294	305	315	ø 200	350	300	45	25
SK 13..07	1530	550	475	950	60	780	475	323	328	343	353	ø 230	410	350	50	31
SK 15..07	1800	650	550	1100	70	935	545	361	371	385	395	ø 250	410	360	56	25

	SK..407												
	i_N	LK	gk	dk	lk	lpk	bpk	gpk	d1	l1	lp	bp	gp
SK 11..07	12,6 .. 45	1564	1424	ø 70	140	125	20	7,5	ø 70	140	125	20	7,5
	50 .. 71	1534		ø 50	110	90	14	10					
SK 12..07	12,6 .. 45	1782	1612	ø 80	170	140	22	15	ø 80	170	140	22	15
	50 .. 71	1752		ø 70	140	125	20	7,5					
SK 13..07	12,6 .. 45	1997	1827	ø 80	170	140	22	15	ø 80	170	140	22	15
	50 .. 71	1967		ø 70	140	125	20	7,5					
SK 15..07	12,6 .. 45	2332	2132	ø 100	200	180	28	15	ø 100	210	180	28	15
	50 .. 71	2302		ø 80	170	140	22	15					

	SK..507												
	i_N	LK	gk	dk	lk	lpk	bpk	gpk	d1	l1	lp	bp	gp
SK 11..07	80 .. 400	1481	1371	ø 50	110	90	14	10	ø 70	140	125	20	7,5
SK 12..07	80 .. 400	1634	1524	ø 50	110	90	14	10	ø 80	170	140	22	15
SK 13..07	80 .. 400	1907	1767	ø 70	140	125	20	7,5	ø 80	170	140	22	15
SK 15..07	80 .. 400	2192	2052	ø 70	140	125	20	7,5	ø 100	210	180	28	15

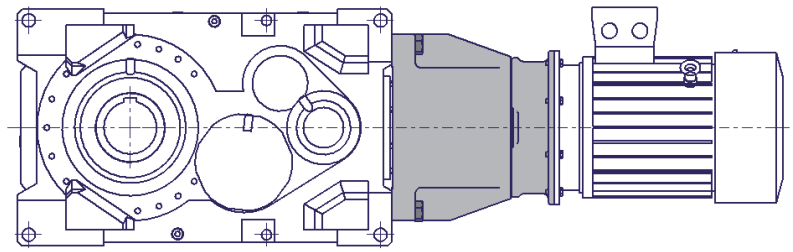
** ⇨ 54

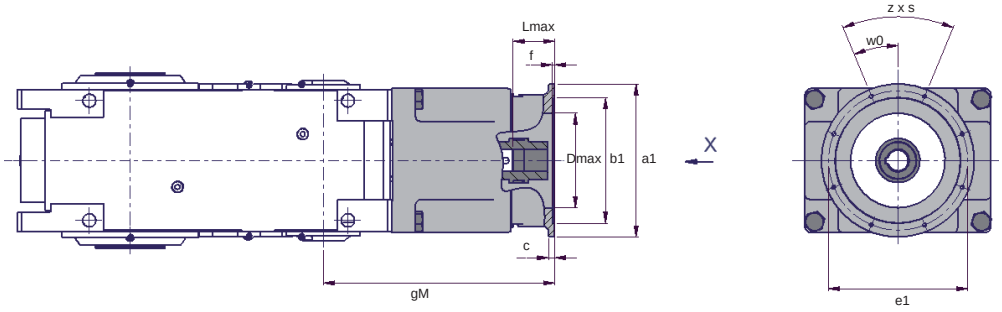


⇨ 📖 42

	i_N	BL1	BL2	g2	l3	Dmax
SK 11407	12,6 ... 45	574	287	1125	100	ø 210
	50 ... 71				70	
SK 11507	80 ... 400	574	287	1050	70	ø 210
SK 12407	12,6 ... 45	654	327	1280	135	ø 220
	50 ... 71				105	
SK 12507	80 ... 400	654	327	1190	75	ø 220
SK 13407	12,6 ... 45	704	352	1425	135	ø 240
	50 ... 71				105	
SK 13507	80 ... 400	704	352	1365	105	ø 240
SK 15407	12,6 ... 45	814	407	1665	160	ø 250
	50 ... 71				130	
SK 15507	80 ... 400	814	407	1585	100	ø 250

** ⇨📖 54





1), 2), 3), 4) ⇨ 📖 51, 58

		1)	gM	a1	b1	e1	c	f	z x s	w0	Dmax	Lmax
SK 11407	IEC	160	684	350	250	300	15	6,5	4 x 17,5	45	228	120 / 150
		180	684	350	250	300	15	6,5	4 x 17,5	45	228	120 / 150
		200	684	400	300	350	17	6,5	4 x 17,5	45	276	120 / 150
		225	714	450	350	400	18	6,5	8 x 17,5	22,5	290	150 / 180
		250	714	550	450	500	22	8	8 x M16	22,5	340	150 / 180
		280	714	550	450	500	22	8	8 x M16	22,5	340	150 / 180
		315	744	660	550	600	22	8	8 x 22	22,5	340	180 / 210
	TN 2)	315T	744	800	680	740	25	8	8 x 22	22,5	340	180 / 210
		355T	744	900	780	840	25	8	8 x 22	22,5	340	180 / 210
SK 11507	IEC	160	601	350	250	300	15	6,5	4 x 17,5	45	228	120
		180	601	350	250	300	15	6,5	4 x 17,5	45	228	120
		200	601	400	300	350	17	6,5	4 x 17,5	45	276	120
		225	631	450	350	400	18	6,5	8 x 17,5	22,5	290	150
		250	631	550	450	500	22	8	8 x M16	22,5	340	150
		280	631	550	450	500	22	8	8 x M16	22,5	340	150
		315	661	660	550	600	22	8	8 x 22	22,5	340	180
	TN 2)	315T	661	800	680	740	25	8	8 x 22	22,5	340	180
		355T	661	900	780	840	25	8	8 x 22	22,5	340	180

** ⇨📖 54

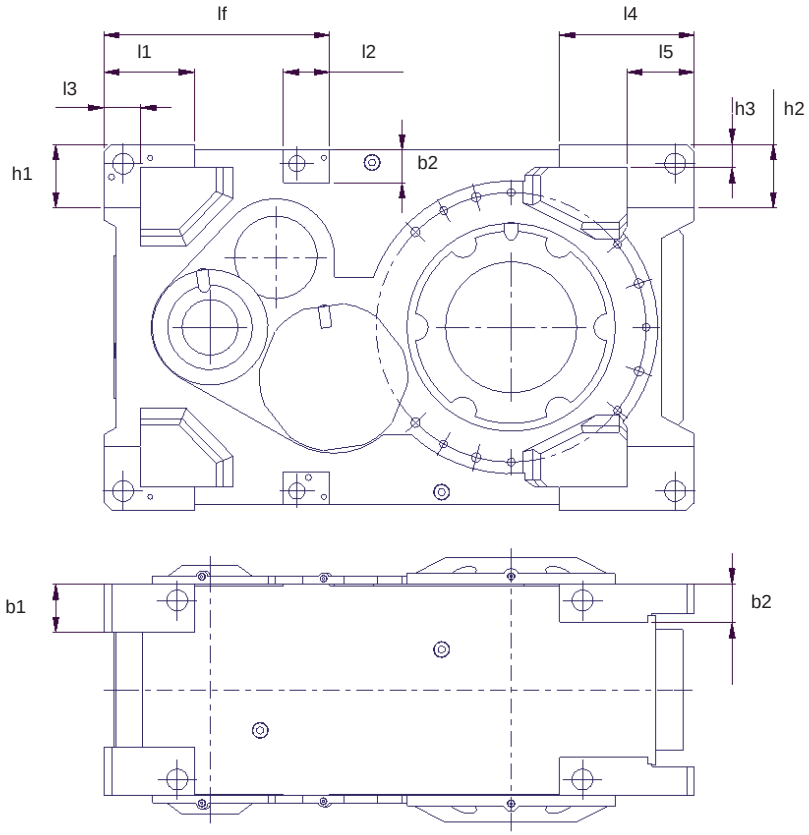
SK ..407
SK ..507

			gM	a1	b1	e1	c	f	z x s	w0	Dmax	Lmax
		1)										
SK 12407	IEC	160	801	350	250	300	15	6,5	4 x 17,5	45	228	119 / 149
		180	801	350	250	300	15	6,5	4 x 17,5	45	228	119 / 149
		200	801	400	300	350	17	6,5	4 x 17,5	45	276	119 / 149
		225	831	450	350	400	18	6,5	8 x 17,5	22,5	290	149 / 179
		250	831	550	450	500	22	8	8 x M16	22,5	340	149 / 179
		280	831	550	450	500	22	8	8 x M16	22,5	340	149 / 179
		315	861	660	550	600	22	8	8 x 22	22,5	340	179 / 209
	TN 2)	315T	861	800	680	740	25	8	8 x 22	22,5	340	179 / 209
		355T	861	900	780	840	25	8	8 x 22	22,5	340	179 / 209
SK 12507	IEC	160	650	350	250	300	15	6,5	4 x 17,5	45	228	116
		180	650	350	250	300	15	6,5	4 x 17,5	45	228	116
		200	650	400	300	350	17	6,5	4 x 17,5	45	276	116
		225	680	450	350	400	18	6,5	8 x 17,5	22,5	290	146
		250	680	550	450	500	22	8	8 x M16	22,5	340	146
		280	680	550	450	500	22	8	8 x M16	22,5	340	146
		315	710	660	550	600	22	8	8 x 22	22,5	340	176
	TN 2)	315T	710	800	680	740	25	8	8 x 22	22,5	340	176
		355T	710	900	780	840	25	8	8 x 22	22,5	340	176
SK 13407	IEC	160	862	350	250	300	15	6,5	4 x 17,5	45	228	120 / 150
		180	862	350	250	300	15	6,5	4 x 17,5	45	228	120 / 150
		200	862	400	300	350	17	6,5	4 x 17,5	45	276	120 / 150
		225	892	450	350	400	18	6,5	8 x 17,5	22,5	290	150 / 180
		250	892	550	450	500	22	8	8 x M16	22,5	340	150 / 180
		280	892	550	450	500	22	8	8 x M16	22,5	340	150 / 180
		315	922	660	550	600	22	8	8 x 22	22,5	340	180 / 210
	TN 2)	315T	922	800	680	740	25	8	8 x 22	22,5	340	180 / 210
		355T	922	900	780	840	25	8	8 x 22	22,5	340	180 / 210

** ⇨ 54

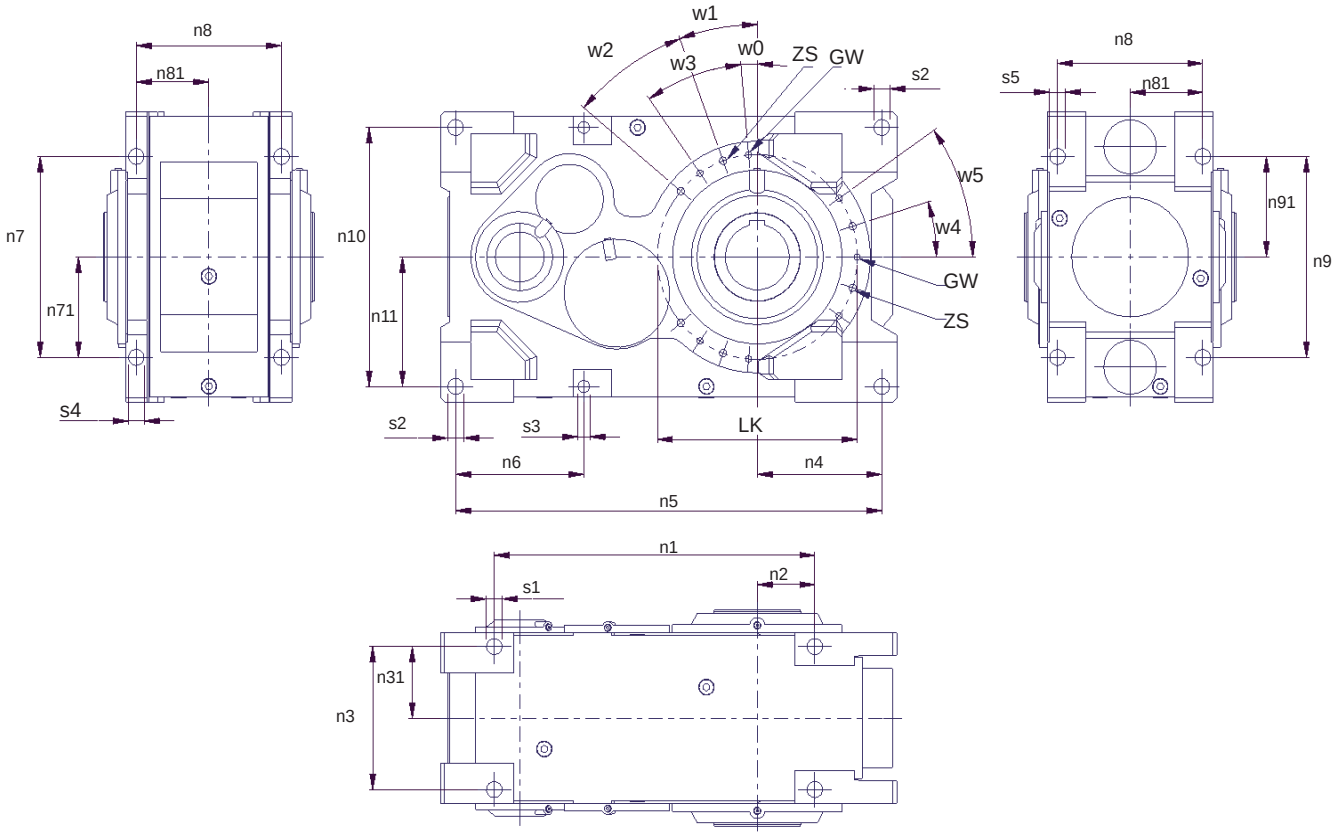
			gM	a1	b1	e1	c	f	z x s	w0	Dmax	Lmax
		1)										
SK 13507	IEC	160	771	350	250	300	15	6,5	4 x 17,5	45	228	119
		180	771	350	250	300	15	6,5	4 x 17,5	45	228	119
		200	771	400	300	350	17	6,5	4 x 17,5	45	276	119
		225	801	450	350	400	18	6,5	8 x 17,5	22,5	290	149
		250	801	550	450	500	22	8	8 x M16	22,5	340	149
		280	801	550	450	500	22	8	8 x M16	22,5	340	149
		315	831	660	550	600	22	8	8 x 22	22,5	340	179
	TN 2)	315T	831	800	680	740	25	8	8 x 22	22,5	340	179
		355T	831	900	780	840	25	8	8 x 22	22,5	340	179
SK 15407	IEC	160	972	350	250	300	15	6,5	4 x 17,5	45	228	120 / 150
		180	972	350	250	300	15	6,5	4 x 17,5	45	228	120 / 150
		200	972	400	300	350	17	6,5	4 x 17,5	45	276	120 / 150
		225	1002	450	350	400	18	6,5	8 x 17,5	22,5	290	150 / 180
		250	1002	550	450	500	22	8	8 x M16	22,5	340	150 / 180
		280	1002	550	450	500	22	8	8 x M16	22,5	340	150 / 180
		315	1032	660	550	600	22	8	8 x 22	22,5	340	180 / 210
	TN 2)	315T	1032	800	680	740	25	8	8 x 22	22,5	340	180 / 210
		355T	1032	900	780	840	25	8	8 x 22	22,5	340	180 / 210
SK 15507	IEC	160	832	350	250	300	15	6,5	4 x 17,5	45	228	120
		180	832	350	250	300	15	6,5	4 x 17,5	45	228	120
		200	832	400	300	350	17	6,5	4 x 17,5	45	276	120
		225	862	450	350	400	18	6,5	8 x 17,5	22,5	290	150
		250	862	550	450	500	22	8	8 x M16	22,5	340	150
		280	862	550	450	500	22	8	8 x M16	22,5	340	150
		315	892	660	550	600	22	8	8 x 22	22,5	340	180
	TN 2)	315T	892	800	680	740	25	8	8 x 22	22,5	340	180
		355T	892	900	780	840	25	8	8 x 22	22,5	340	180

** ⇨ 54



	b1	b2	h1	h2	h3	l1	l2	l3	l4	l5	lf
SK 11..07	102	85	155	155	52	195	100	80	270	145	458
SK 12..07	114	95	190	190	57	265	125	85	310	175	540
SK 13..07	126	100	198	198	60	235	120	95	350	175	585
SK 15..07	150	120	235	235	70	330	170	115	445	210	690

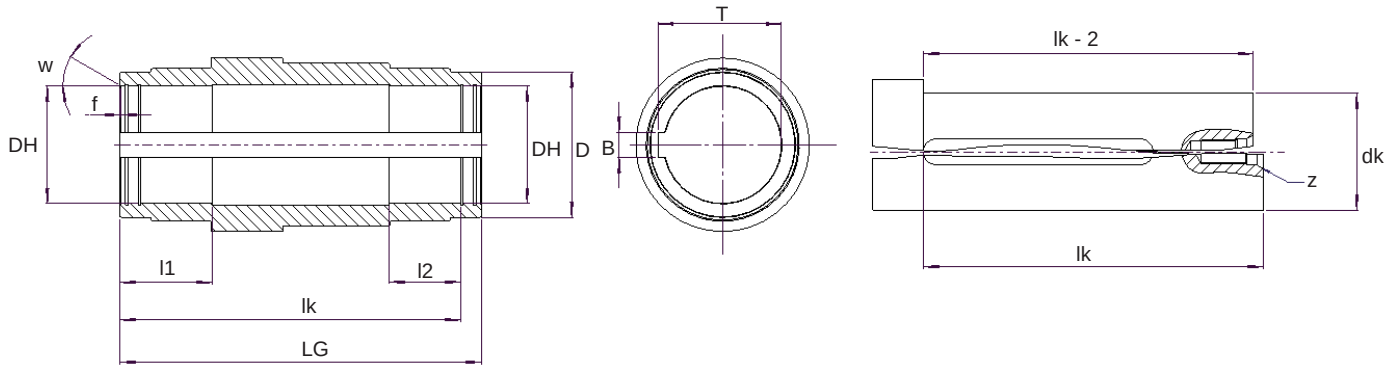
** ⇨ 54



	LK	GW	ZS	w0	w1	w2	w3	w4	w5	s1 / s2 / s4	s3	s5
SK 11..07	ø 530	M20 x 30	ø20H7 x 30	5°	15 °	30 °	30 °	17,5 °	35°	ø 42	M36 x 58	M36
SK 12..07	ø 600	M24 x 36	ø20H7 x 30	5°	15 °	30 °	30 °	20 °	40°	ø 48	M42 x 65	M42
SK 13..07	ø 700	M24 x 36	ø25H7 x 35	0°	15 °	30 °	30 °	19 °	38°	ø 55	M48 x 75	M48
SK 15..07	ø 800	M36 x 58	ø30H7 x 50	0°	15 °	30 °	30 °	18 °	36°	ø 65	M56 x 90	M56

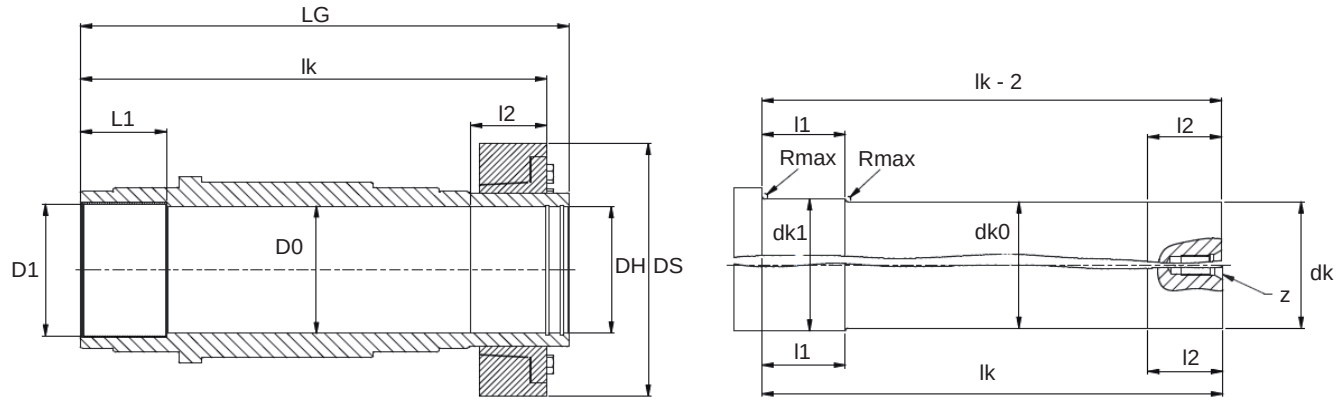
	n1	n2	n3	n31	n4	n5	n6	n7	n71	n8	n81	n9	n91	n10	n11
SK 11..07	850	217,5	370	185	330	1130	340	520	260	385	192,5	520	260	670	335
SK 12..07	930	257,5	430	215	365	1265	410	600	300	440	220	600	300	770	385
SK 13..07	1050	290	465	232,5	425	1430	450	700	350	475	237,5	700	350	850	425
SK 15..07	1230	345	550	275	490	1690	530	800	400	560	280	800	400	990	495

** ⇨ 54



⇨ 🕮 32

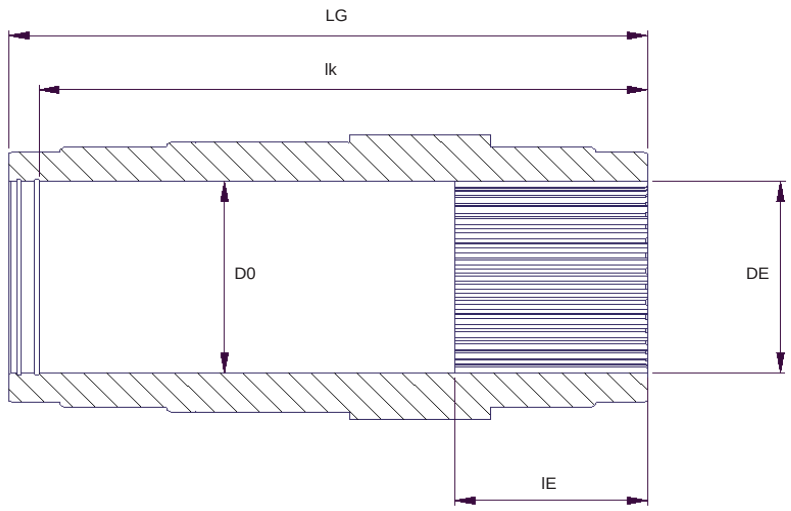
	DH	LG	dk	lk	l1	l2	D	f	w	B	T	z	dG
SK 11..07	ø170 H7	560	ø170 j6	525	140	105	240	2	30	40	179,4	M30	M36
SK 12..07	ø190 H7	630	ø190 j6	595	160	125	250	2	30	45	200,4	M30	M36
SK 13..07	ø230 H7	706	ø230 j6	666	180	140	285	2	30	50	241,4	M36	M42
SK 15..07	ø250 H7	790	ø250 j6	745	200	155	320	2	30	56	262,4	M36	M42



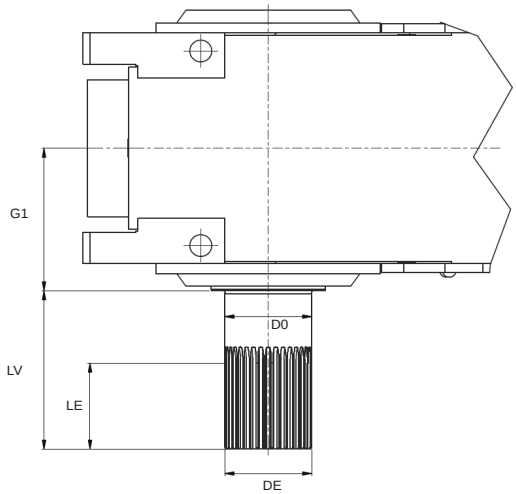
⇨ 🕮 30, 32

	DH	D0	D1	L1	DS	LG	dk1	dk0	dk	lk	l1	l2	Rmax	z
SK 11..07	ø170 H7	ø172	ø180	125	ø370	690	ø180 h8	ø170	ø170 g6	658	125	105	5	M30
SK 12..07	ø190 H7	ø192	ø200	135	ø405	770	ø200 h8	ø190	ø190 g6	736	130	120	5	M30
SK 13..07	ø230 H7	ø232	ø240	155	ø460	880	ø240 h8	ø230	ø230 g6	838	150	135	5	M36
SK 15..07	ø250 H7	ø252	ø260	175	ø485	970	ø260 h8	ø250	ø250 g6	928	170	150	5	M36

** ⇨🕮 54



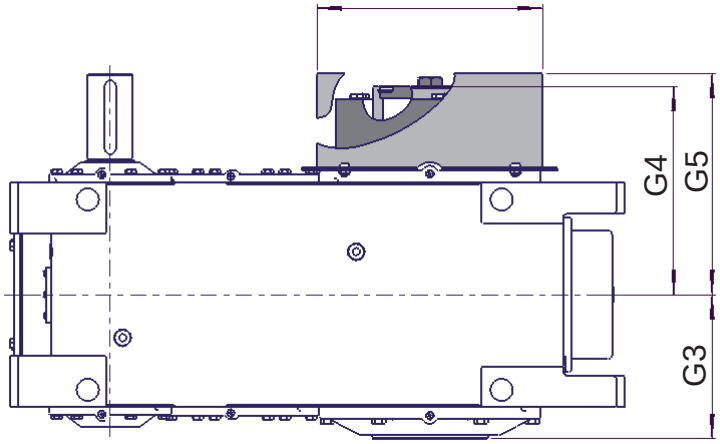
	DE	LE	LG	D0	lk
SK 11..07	N 170 x 5 x 32 - DIN 5480	160	560	ø 170	525
SK 12..07	N 190 x 5 x 36 - DIN 5480	190	630	ø 190	595
SK 13..07	N 220 x 5 x 42 - DIN 5480	215	706	ø 220	666
SK 15..07	N 250 x 5 x 48 - DIN 5480	245	790	ø 250	745

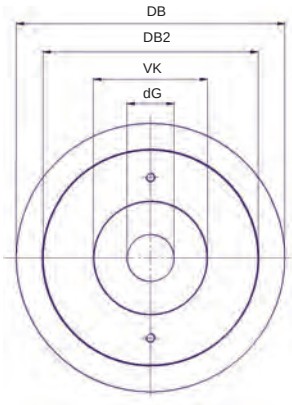


	DE	LE	G1	LV	D0
SK 11..07	W 170 x 5 x 32 - DIN 5480	160	280	300	ø 170
SK 12..07	W 190 x 5 x 36 - DIN 5480	190	315	350	ø 190
SK 13..07	W 220 x 5 x 42 - DIN 5480	215	353	410	ø 220
SK 15..07	W 250 x 5 x 48 - DIN 5480	245	395	410	ø 250

** ⇨ 54

DSH





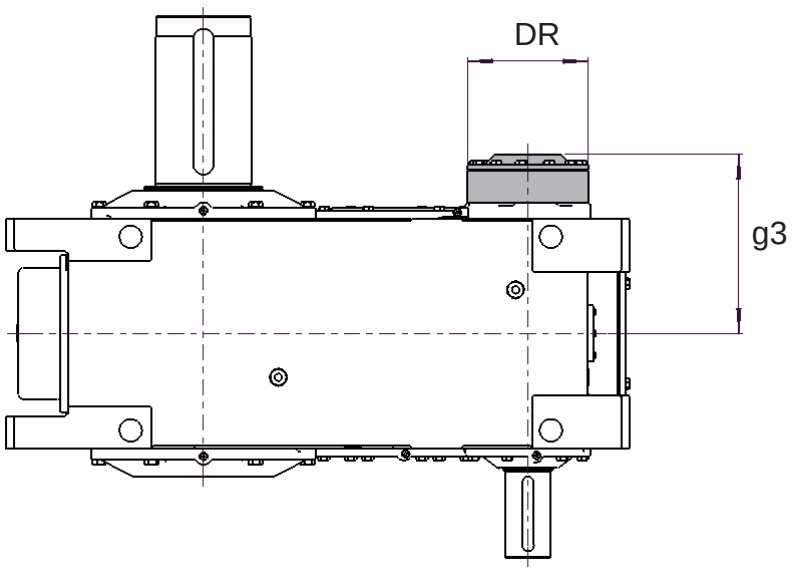
⇨ 🕮 30, 32

⇨ 🕮 32

	DSH	G3	G4	G5
SK 11..07	ø 460	280	410	440
SK 12..07	ø 500	315	455	480
SK 13..07	ø 550	353	527	555
SK 15..07	ø 630	395	575	605

DB	DB2	VK	BB	BB2	Bz	dG
ø 215	ø169,8	ø 100	42,5	37,5	27,5	ø33
ø235	ø189,8	ø 100	44,5	39,5	29,5	ø33
ø275	ø229,8	ø 100	56,5	51,5	36,5	ø52
ø295	ø249,8	ø 100	56,5	51,5	36,5	ø52

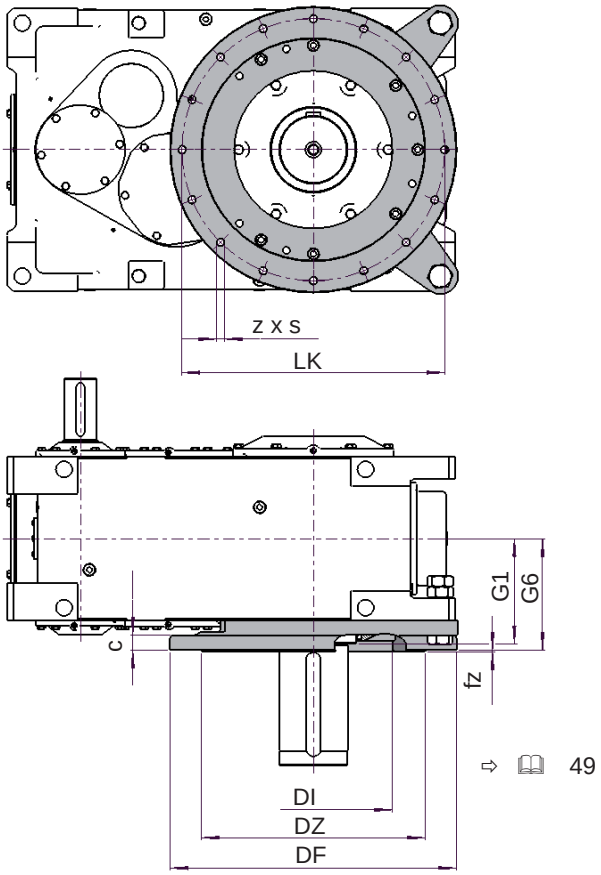
** ⇨🕮 54



⇨ 📖 34

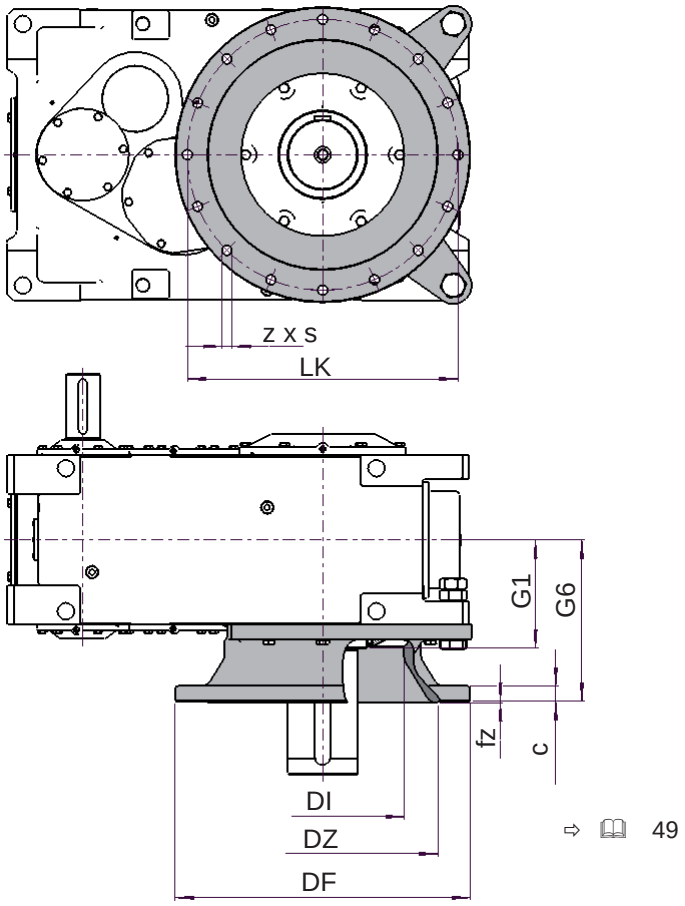
	i_N	DR	g3
SK 11207	5,6 - 20	245	360
SK 11307	31,5 - 112	190	340
	22,4 - 28	210	350
SK 11407	11,2 - 80	245	360
SK 11507	112 - 400	190	340
	80 - 100	210	350
SK 12207	5,6 - 20	290	415
SK 12307	22,4 - 112	210	385
SK 12407	12,6 - 71	290	415
SK 12507	80 - 400	210	385
SK 13207	5,6 - 20	290	431
SK 13307	22,4 - 112	210	410
SK 13407	12,6 - 71	290	431
SK 13507	80 - 400	210	416,5
SK 15207	5,6 - 20	400	510
SK 15307	22,4 - 112	290	485
SK 15407	12,6 - 71	400	510
SK 15507	80 - 400	290	485

** ⇨📖 54



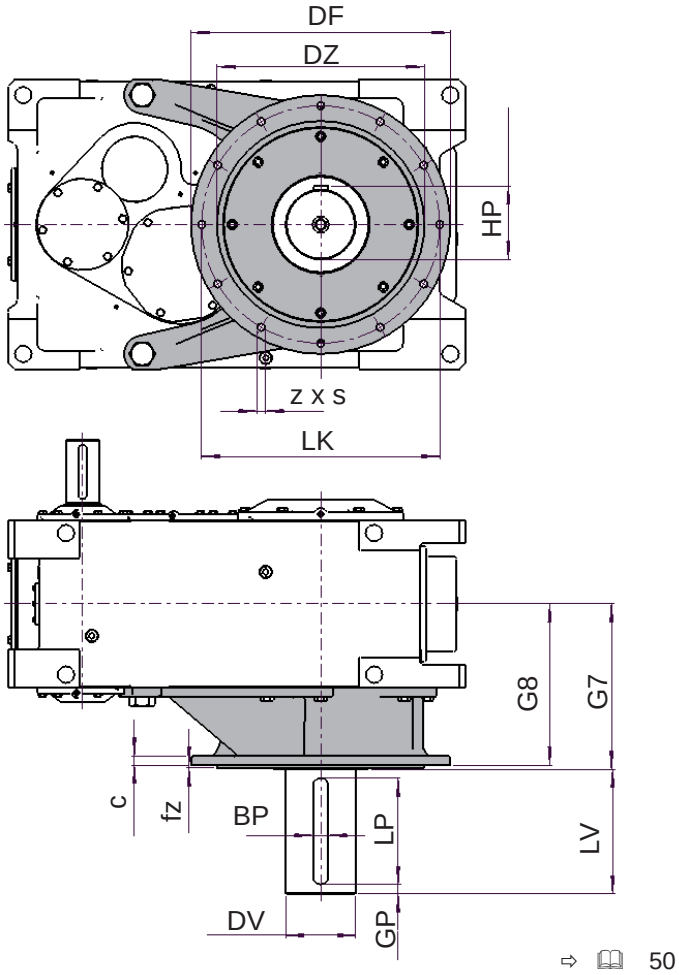
	DF	G1	G6	LK	DZ	DI	c	fz	z	s
SK 11..07	ø 730	280	300	ø680	ø 580	ø 420	40	5	12	M24
SK 12..07	ø 840	315	334	ø760	ø 650	ø 470	50	5	12	M30
SK 13..07	ø 960	353	375	ø880	ø 750	ø 530	50	5	16	M30
SK 15..07	ø1100	395	435	ø980	ø900	ø600	60	10	16	M36

** ⇨📖 54



	DF	G1	G6	LK	DK	DI	c	fz	z	s
SK 11..07	ø 730	280	420	680	ø 560	ø 420	40	5	12	ø 26
SK 12..07	ø 840	315	470	760	ø 650	ø 470	50	5	12	ø 33
SK 13..07	ø 960	353	525	880	ø 750	ø 530	50	5	16	ø 33
SK 15..07	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -

** ⇨🕮 54

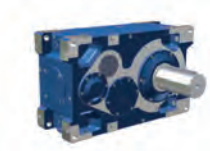


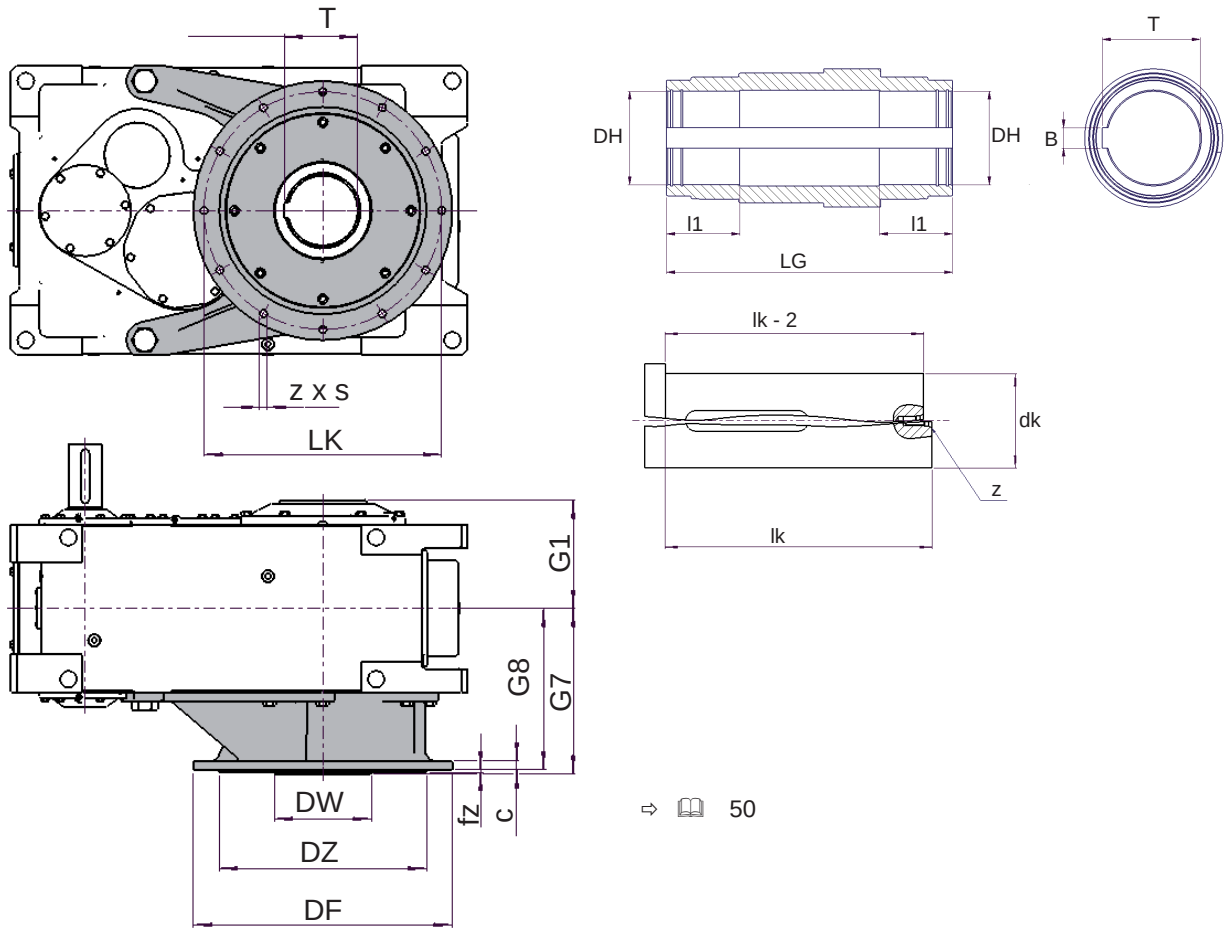
⇨ 🕮 50

	G7	G8	DF	DZ	DW	LK	fz	c	z	s
SK 11..07	450	440	ø 675	ø 540	ø 250	ø 620	5	40	10	ø 22
	465	455	ø 760	ø 600	ø 285	ø 700	5	50	12	ø 22
SK 12..07	485	470	ø 760	ø 600	ø 285	ø 700	5	50	12	ø 22
SK 13..07	543	530	ø 850	ø 680	ø 320	ø 780	5	50	12	ø 26
SK 15..07	645	630	ø 1000	ø 800	ø 380	ø 930	8	60	16	ø 33

	DV	LV	LP	BP	GP
SK 11..07	ø 170	300	280	40	10
SK 12..07	ø 200	350	300	45	25
SK 13..07	ø 230	410	350	50	25
SK 15..07	ø 250	410	350	56	30

** ⇨🕮 54



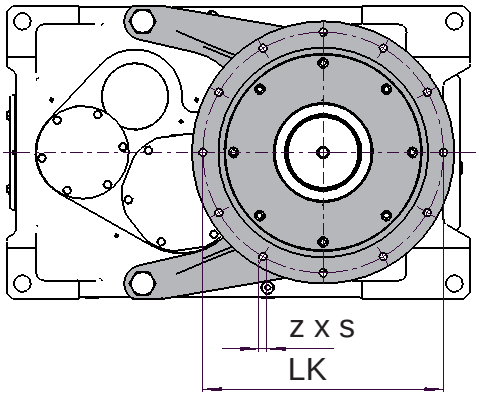


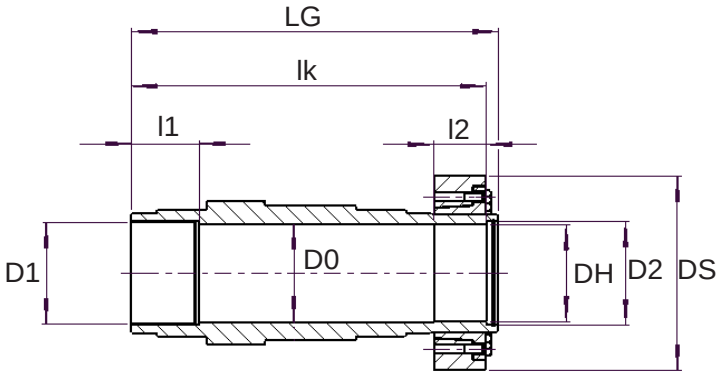
⇨ 📖 50

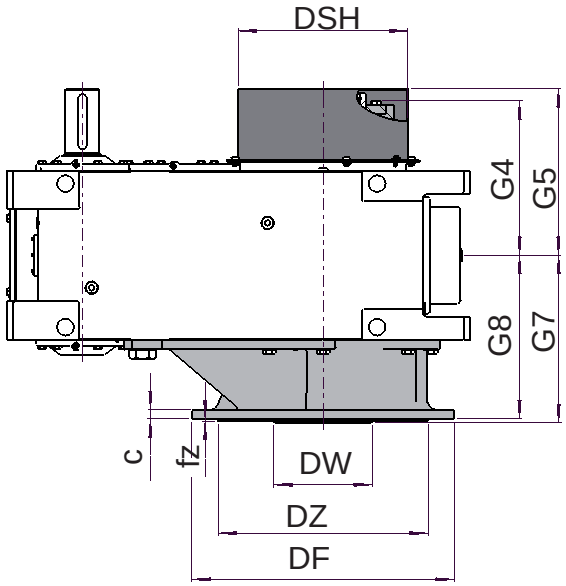
	G7	G8	G1	DF	DZ	DW	LK	fz	c	z	s
SK 11..07	450	440	280	ø 675	ø 540	ø 250	ø 620	5	40	10	ø 22
	465	455	280	ø 760	ø 600	ø 285	ø 700	5	50	12	ø 22
SK 12..07	485	470	315	ø 760	ø 600	ø 285	ø 700	5	50	12	ø 22
SK 13..07	543	530	352	ø 850	ø 680	ø 320	ø 780	5	50	12	ø 26
SK 15..07	645	630	395	ø 1000	ø 800	ø 380	ø 930	8	60	16	ø 33

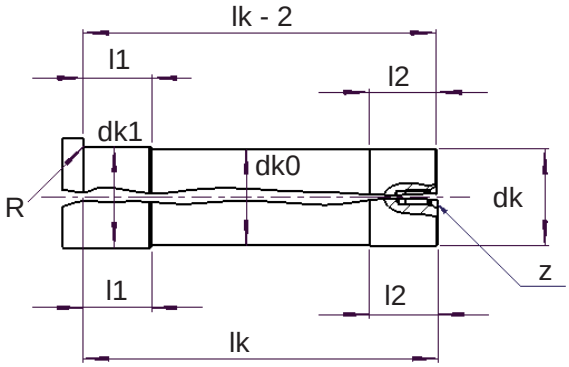
	DH	LG	dk	lk	l1	l2	B	T	zz
SK 11..07	ø160 H7	710	ø160 j6	530	140	140	40	169,4	M30
SK 12..07	ø180 H7	800	ø180 j6	600	160	160	45	190,4	M30
SK 13..07	ø200 H7	895	ø200 j6	650	180	180	45	210,4	M36
SK 15..07	ø230 H7	1040	ø230 j6	760	200	200	50	241,4	M36

** ⇨ 📖 54







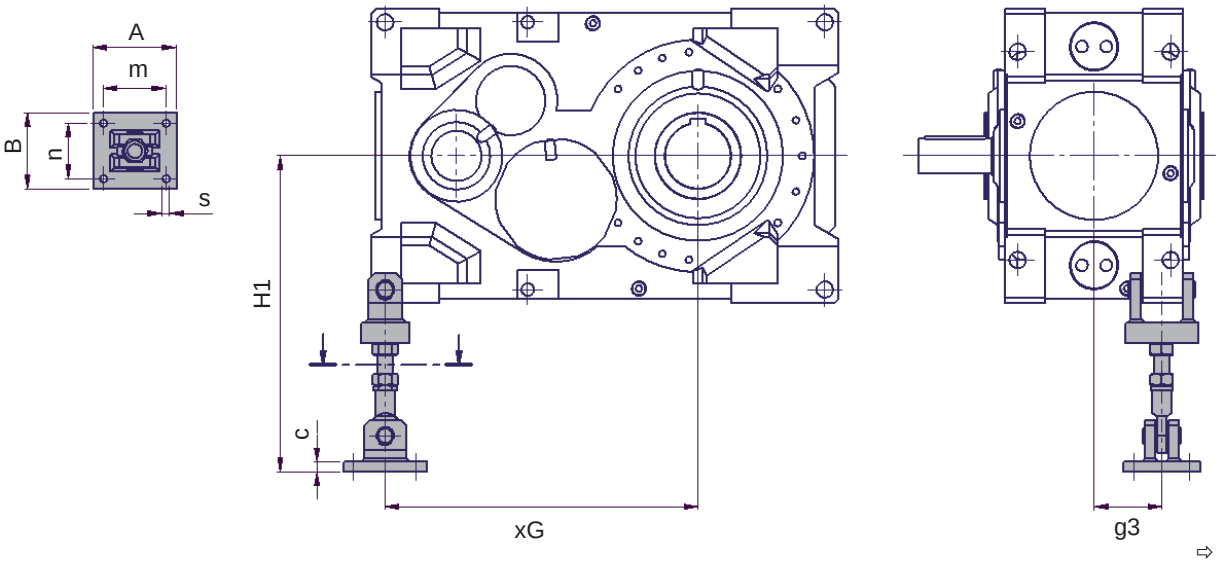


⇨ 🕮 50

	G7	G8	DF	DZ	DW	LK	fz	z	s	G4	G5	DSH
SK 11..07	450	440	ø 675	ø 540	ø 250	ø 620	5	10	ø 22	410	440	ø 460
	465	455	ø 760	ø 600	ø 285	ø 700	5	12	ø 22	410	440	ø 460
SK 12..07	485	470	ø 760	ø 600	ø 285	ø 700	5	12	ø 22	455	480	ø 500
SK 13..07	543	530	ø 850	ø 680	ø 320	ø 780	5	12	ø 26	527	555	ø 550
SK 15..07	645	630	ø 1000	ø 800	ø 380	ø 930	8	16	ø 33	575	605	ø 630

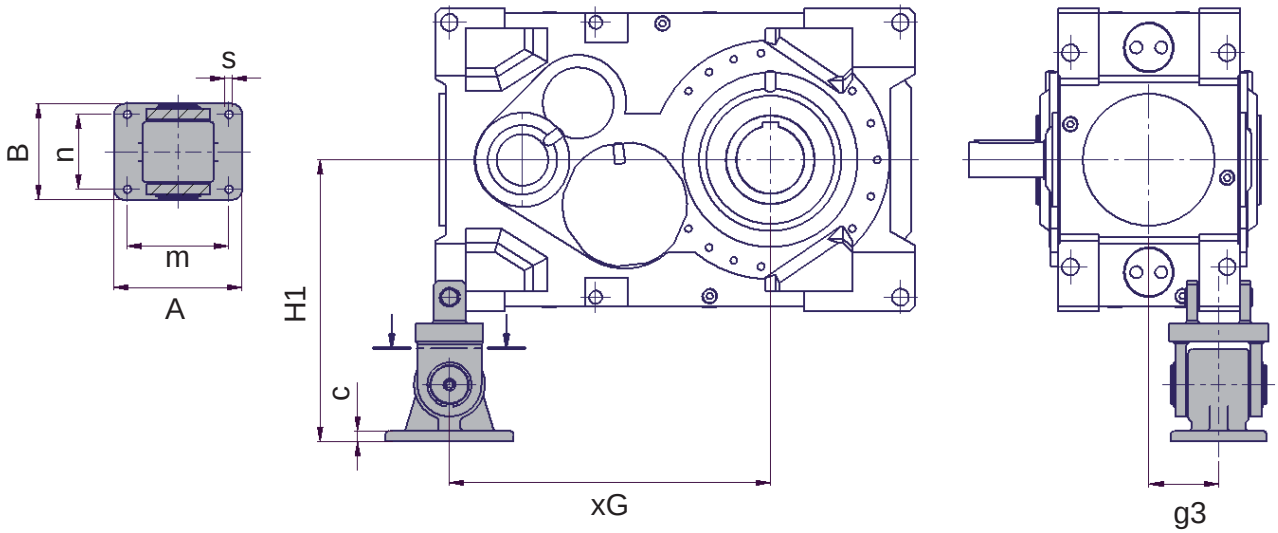
	DH	D0	D1	D2	DS	LG	dk1	dk0	dk	lk	l1	l2	R	z
SK 11..07	ø170 H7	ø172	ø180	ø190	ø370	840	ø180 h8	ø170	ø170 g6	808	125	105	5	M30
SK 12..07	ø190 H7	ø192	ø200	ø230	ø405	940	ø200 h8	ø190	ø190 g6	906	130	120	5	M30
SK 13..07	ø230 H7	ø232	ø230	ø250	ø460	1070	ø230 h8	ø228	ø230 g6	1028	150	135	5	M36
SK 15..07	ø250 H7	ø252	ø250	ø270	ø485	1220	ø250 h8	ø248	ø250 g6	1178	170	150	5	M36

** ⇨🕮 54



⇨ 🕮 33

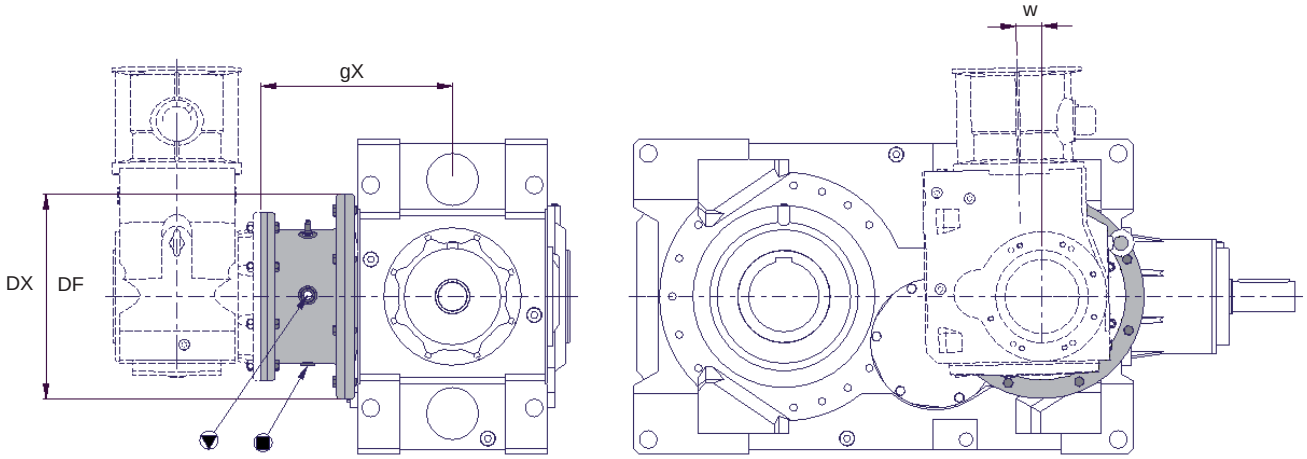
	H1max	H1min	xG	g3	c	A	B	m	n	s
SK 11..07	865	815	800	165	29	240	220	180	160	22
SK 12..07	935	885	900	195	29	290	250	220	180	26
SK 13..07	990	940	1005	210	29	290	250	220	180	26
SK 15..07	1120	1070	1200	247,5	39	330	300	250	220	33



⇨ 🕮 33

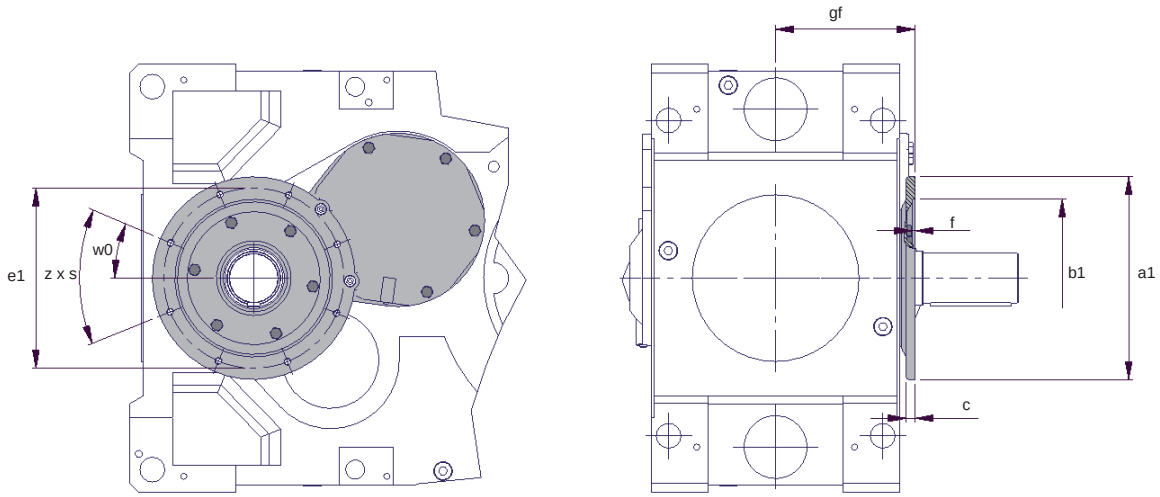
	H1	xG	g3	c	A	B	m	n	s
SK 11..07	750	800	167,5	30	360	270	285	210	22
SK 12..07	790	900	196	30	360	270	285	210	22
SK 13..07	890	1005	210	40	400	320	310	230	33
SK 15..07	980	1200	245,5	40	400	320	310	230	33

** ⇨🕮 54

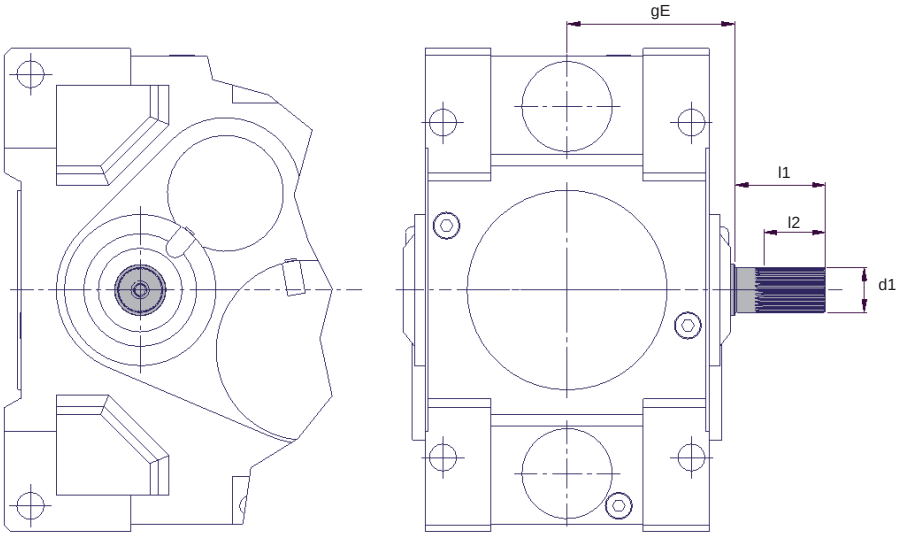


		DX	DF	gX	w
SK 11..07	SK 9052.1 VF	450	450	465	1°
	SK 9072.1 VF	450	450	445	1°
SK 12..07	SK 9072.1 VF	550	450	545	1°
	SK 9082.1 VF	550	450	515	1°
SK 13..07	SK 9072.1 VF	550	450	565	1°
	SK 9082.1 VF	550	450	535	1°
SK 15..07	SK 9082.1 VF	550	550	655	1°
	SK 9092.1 VF	550	660	620	1°

** ⇨ 54

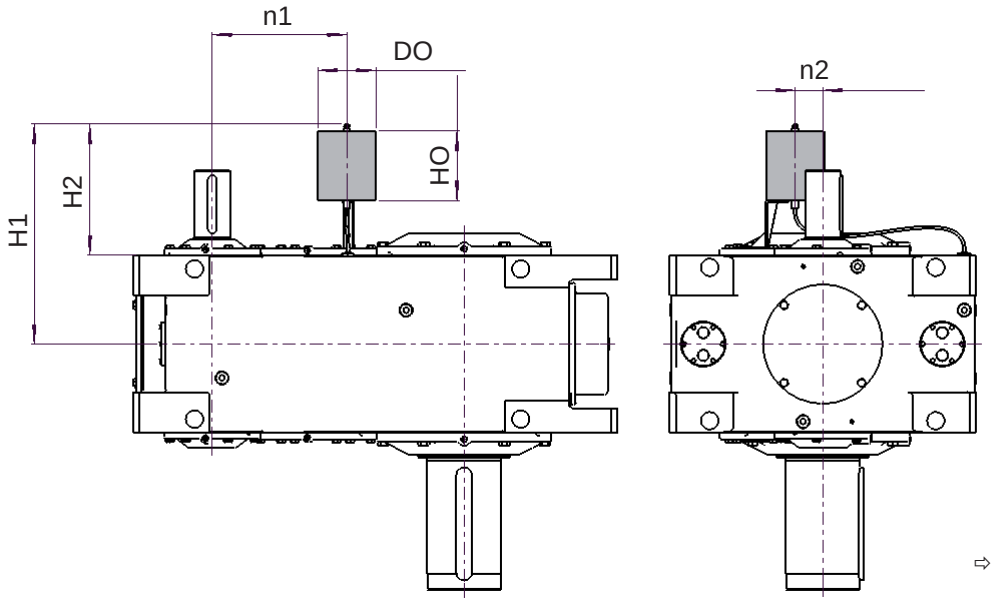


	gf	a1	b1	e1	c	f	w0	z x s
SK 11..07	255	450	350	400	20	6,5	22,5° / 27,5°	8 x M16
SK 12..07	290	550	450	500	25	6,5	21,5°	8 x M16
SK 13..07	310	550	450	500	25	6,5	23°	8 x M16
SK 15..07	370	550	450	500	25	6,5	24°	8 x M16



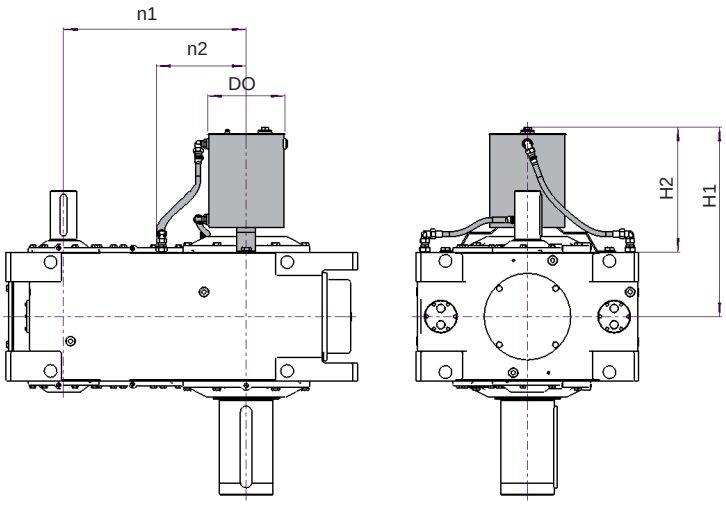
	gE	l1	l2	d1
SK 11307	260	140	95	W70 x 2 x 34 - DIN 5480
SK 12307	294	170	142	W85 x 3 x 27 - DIN 5480
SK 13307	328	170	142	W85 x 3 x 27 - DIN 5480
SK 15307	371	210	170	W105 x 3 x 34 - DIN 5480

** ⇨ 54



⇨ 41

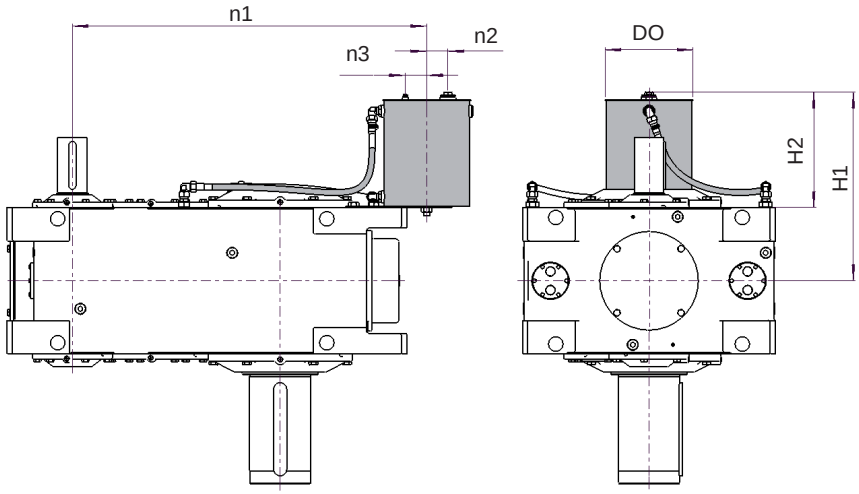
M5 / M6	DO	HO	H1	H2	n1	n2	kg
SK 11..07	ø 180	215	625	406	335	70	+ 3,5 kg
SK 12..07	ø 180	215	660	406	375	75	+ 3,5 kg
SK 13..07	ø 180	215	680	406	425	85	+ 3,5 kg
SK 15..07	ø 180	215	735	406	500	100	+ 3,5 kg



⇨ 41

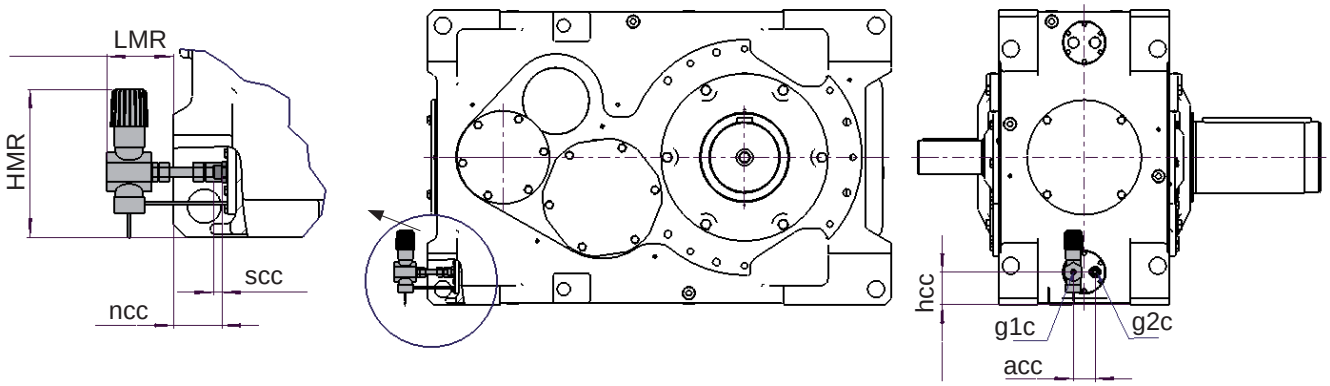
M5 / M6	DO	HO	H1	H2	n1	n2		kg
SK 11..07	ø 190	400	645	425	625	305	+ 7 L	+ 6 kg
SK 12..07	ø 330	400	730	477	695	340	+ 18 L	+ 15 kg
SK 13..07	ø 330	400	810	535	780	380	+ 18 L	+ 15 kg
SK 15..07	ø 330	400	965	636	925	460	+ 18 L	+ 15 kg

** ⇨ 54



⇨ 🕮 41

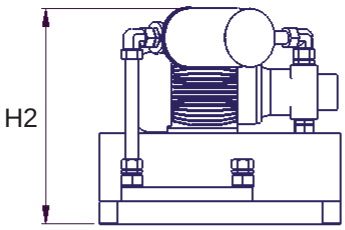
M5 / M6	DO	HO	H1	H2	n1		kg
SK 11..07	ø 190	400	645	425	1060	+ 7 L	+ 6 kg
SK 12..07	ø 330	400	730	477	1185	+ 18 L	+ 15 kg
SK 13..07	ø 330	400	810	535	1330	+ 18 L	+ 15 kg
SK 15..07	ø 330	400	965	636	1580	+ 18 L	+ 15 kg

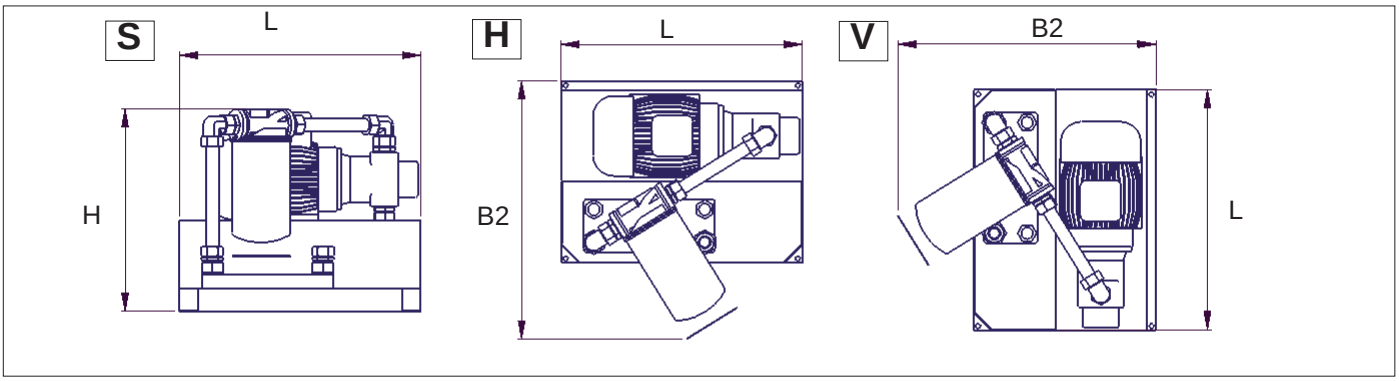


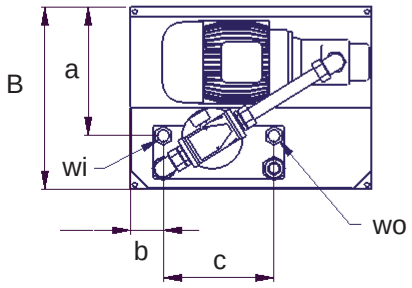
⇨ 🕮 43

	g1c	g2c	scc	acc	hcc	ncc	HMR	LMR
SK 11..07	G 1/2	G 1/2	13	70	90	62	238	108
SK 12..07	G 1/2	G 1/2	13	70	110	70	238	108
SK 13..07	G 1/2	G 1/2	13	70	100	78	238	108
SK 15..07	G 1/2	G 1/2	13	70	110	93	238	108

** ⇨🕮 54



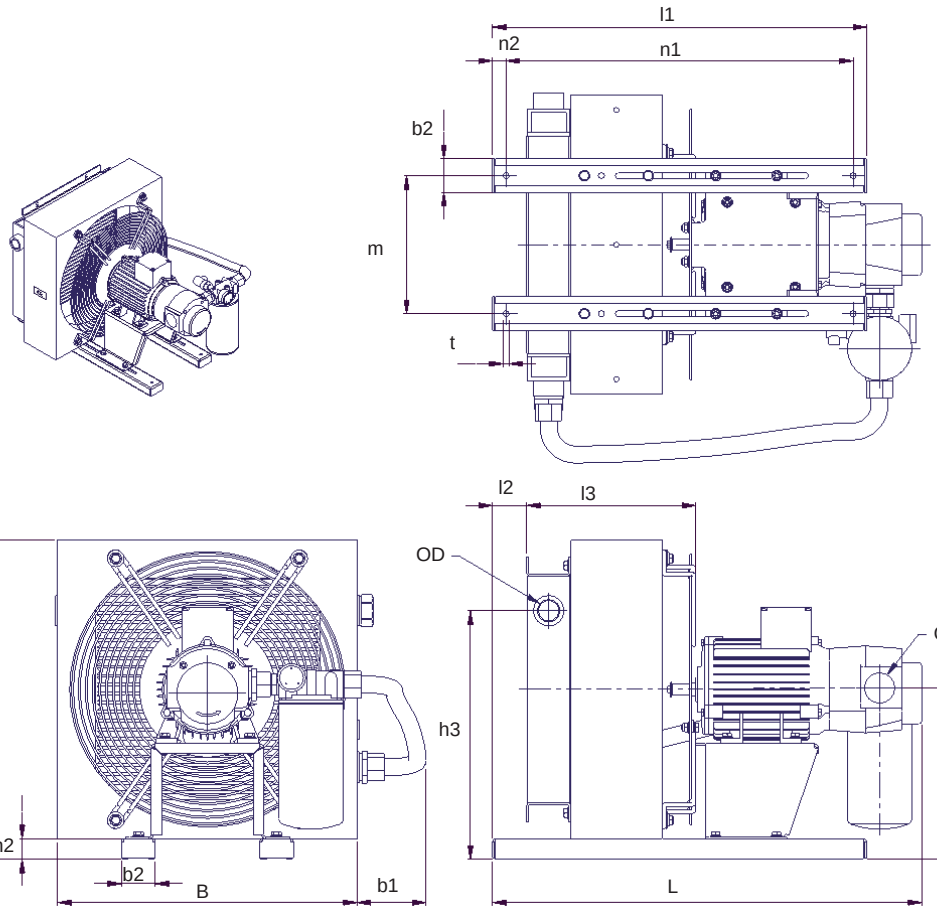




⇨ 🕮 45

	L	B	B2	H	H2	a	b	c	wi	wo
A	480	420	500	400	430	250	80	278	G 1/2	G 1/2
B	520	394	530	431	450	287	175,5	234	G 3/4	G 3/4
C	520	394	530	431	450	287	175,5	234	G 3/4	G 3/4
D	530	450	570	450	480	282	70	243	G 3/4	G 3/4
E	530	450	570	450	480	282	70	243	G 3/4	G 3/4
F	530	450	570	450	480	282	70	243	G 3/4	G 3/4
G	600	550	650	500	530	340	50	320	G 1	G 1
H	600	550	650	500	530	340	50	320	G 1	G 1

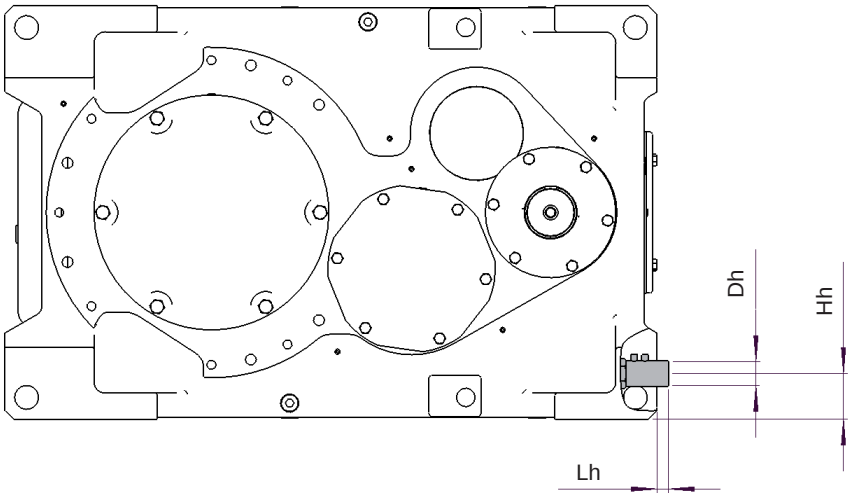
** ⇨🕮 54



⇨ 🕮 46

	L	l1	l2	l3	B	b1	b2	H	h1	h2	h3	n1	n2	m	t	os	od
A	650		50		440	144		395	250			610	20	203	ø14	G1 1/2	G1
B	632	550	50	215	440	103	50	470	262	30	136	510	20	203	ø9	G1 1/2	G1
C	632	550	50	215	440	103	50	470	262	30	136	510	20	203	ø9	G1 1/2	G1
D	718	650	70	265	580	104	50	470	322	30	204	610	20	356	ø14	G1 1/2	G1
E	718	650	70	265	580	104	50	470	322	30	204	610	20	356	ø14	G1 1/2	G1
F	718	650	70	265	580	104	50	470	322	30	204	610	20	356	ø14	G1 1/2	G1
G	832	650	70	343	692	99	50	866	450	30	196	610	20	356	ø14	G1 1/2	G1 1/4
H	832	650	70	343	692	99	50	866	450	30	196	610	20	356	ø14	G1 1/2	G1 1/4

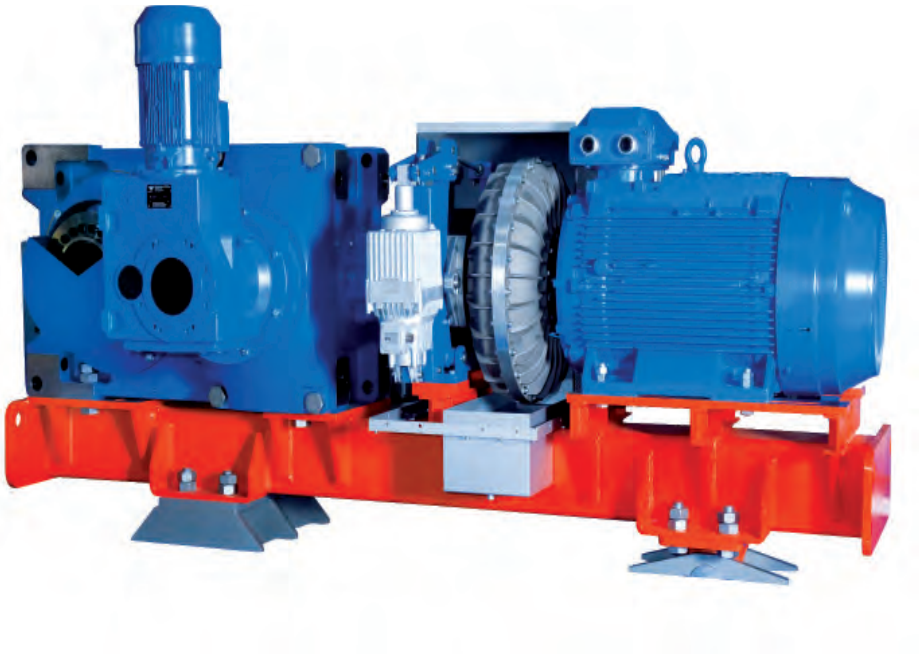
** ⇨🕮 54



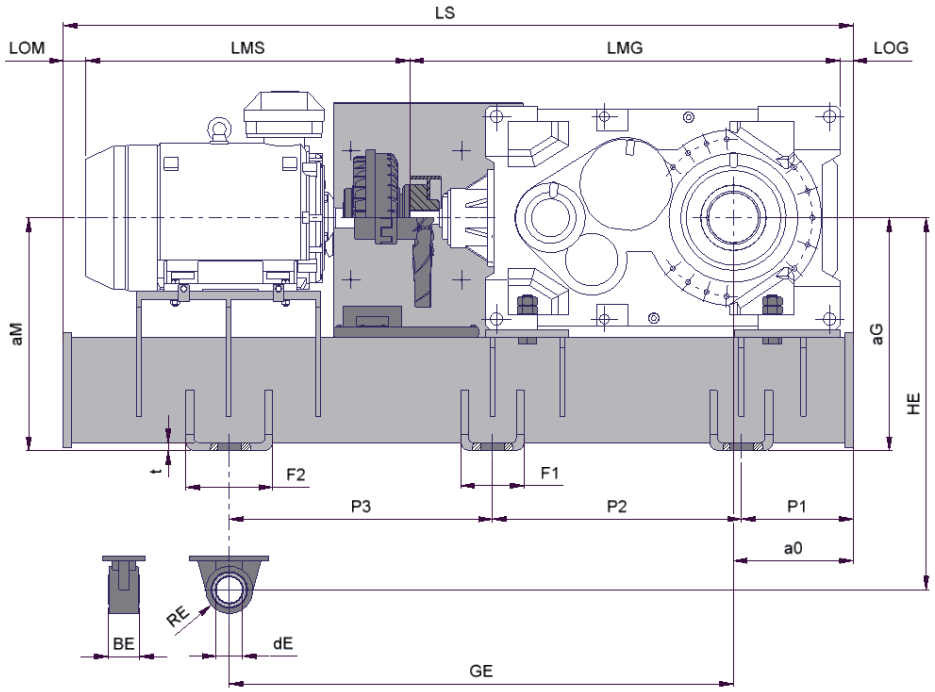
⇨ 📖 47

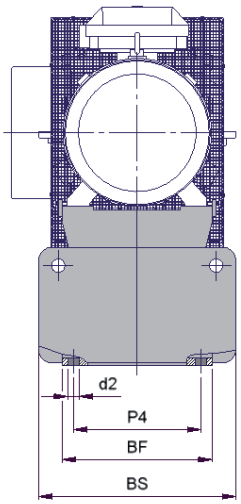
	Dh	Hh	Lh	1,0 kW	1,3 kW	1,7 kW
SK 11..07	ø 65	90	57	✓	✓	
SK 12..07	ø 65	110	49	✓	✓	✓
SK 13..07	ø 65	100	49	✓	✓	✓
SK 15..07	ø 65	110	20	✓	✓	✓

** ⇨📖 54



SK ..407
SK ..507
MS..





MSK / MSB MST / MSTB		160M/4	160L/4	180M/4	180L/4	200L/4	225S/4	225M/4	250M/4	280S/4	280M/4
SK 11407	(12,5 - 45)						MS07	MS07	MS07	MS07	MS07
SK 11407	(50 - 71)						MS07	MS07	MS07	MS07	MS07
SK 11507	(80 - 400)	MS05	MS05	MS05	MS05	MS05	MS05	MS05	MS07	MS07	MS07
SK 12407	(12,5 - 45)						MS10	MS10	MS10	MS10	MS10
SK 12407	(50 - 71)						MS08	MS10	MS10	MS10	MS10
SK 12507	(80 - 400)	MS06	MS08	MS08	MS08	MS08	MS08	MS08	MS08	MS10	MS10
SK 13407	(12,5 - 45)								MS12	MS12	MS12
SK 13407	(50 - 71)								MS12	MS12	MS12
SK 13507	(80 - 400)			MS10	MS10	MS10	MS10	MS10	MS10	MS12	MS12
SK 15407	(12,5 - 45)								MS15	MS15	MS15
SK 15407	(50 - 71)								MS15	MS15	MS15
SK 15507	(80 - 400)						MS13	MS13	MS13	MS15	MS15

MSK / MSB MST / MSTB		315S/4	315M/4	315MA/4	315L/4	315LA/4	315LB/4	355S/4	355M/4
SK 11407	(12,5 - 45)	MS09	MS09	MS09	MS09	MS11	MS11	MS11	MS11
SK 11407	(50 - 71)	MS07	MS09	MS09	MS09	MS09	MS09	MS11	MS11
SK 11507	(80 - 400)								
SK 12407	(12,5 - 45)	MS10	MS12	MS12	MS12	MS12	MS12	MS14	MS14
SK 12407	(50 - 71)	MS10	MS10	MS12	MS12	MS12	MS12	MS14	MS14
SK 12507	(80 - 400)								
SK 13407	(12,5 - 45)	MS12	MS12	MS14	MS14	MS14	MS14	MS16	MS16
SK 13407	(50 - 71)	MS12	MS12	MS14	MS14	MS14	MS14	MS16	MS16
SK 13507	(80 - 400)								
SK 15407	(12,5 - 45)	MS17	MS17	MS17	MS17	MS17	MS17	MS18	MS18
SK 15407	(50 - 71)	MS15	MS17	MS17	MS17	MS17	MS17	MS18	MS18
SK 15507	(80 - 400)	MS15	MS15	MS15	MS15	MS17	MS17		

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	P1 [kW]	LMS	
		MSK / MSB	MST / MSTB
132S/4	5,5	476,5	538,5
132M/4	7,5	476,5	538,5
160M/4	11	614	683
160L/4	15	614	683
180M/4	18,5	699	734
180L/4	22	699	734
200L/4	30	750	815
225S/4	37	819	884
225M/4	45	819	882
250M/4	55	917	980
280S/4	75	1000	1072
280M/4	90	1000	1072

	P1 [kW]	LMS	
		MSK / MSB	MST / MSTB
315S/4	110	1147	1184
315M/4	132	1147	1184
315MA/4	160	1307	1385
315L/4	200	1307	1385
315LA/4	250	1460	1533
315LB/4	315	1460	1533
355S/4	355	1690	1759
355M/4	400	1690	1759

Getriebe	i_N	MS	LS	LMG	LOG	BS	P1	P2	P3	P4	F1	F2	BF
SK 11407	(12,5 - 45)	MS07	2650	1564	70	720	250	800	590	560	220	330	660
SK 11407	(12,5 - 45)	MS09	2920	1564	70	720	250	800	590	560	220	330	660
SK 11407	(12,5 - 45)	MS11	3190	1564	70	720	250	800	590	560	220	330	660
SK 11407	(50 - 71)	MS05	2380	1564	70	720	250	800	590	560	220	330	660
SK 11407	(50 - 71)	MS07	2650	1564	70	720	250	800	590	560	220	330	660
SK 11407	(50 - 71)	MS09	2920	1564	70	720	250	800	590	560	220	330	660
SK 11407	(50 - 71)	MS11	3190	1564	70	720	250	800	590	560	220	330	660
SK 11507	(80 - 400)	MS05	2380	1481	70	720	250	800	590	560	220	330	660
SK 11507	(80 - 400)	MS07	2650	1481	70	720	250	800	590	560	220	330	660
SK 12407	(12,5 - 45)	MS14	3460	1782	130	620	300	900	935	485	240	450	570
SK 12407	(12,5 - 45)	MS08	2650	1782	130	620	300	900	935	485	240	450	570
SK 12407	(12,5 - 45)	MS10	2920	1782	130	620	300	900	935	485	240	450	570
SK 12407	(12,5 - 45)	MS12	3190	1782	130	620	300	900	935	485	240	450	570
SK 12407	(50 - 71)	MS14	3460	1782	130	620	300	900	935	485	240	450	570
SK 12407	(50 - 71)	MS08	2650	1782	130	620	300	900	935	485	240	450	570
SK 12407	(50 - 71)	MS10	2920	1782	130	620	300	900	935	485	240	450	570
SK 12407	(50 - 71)	MS12	3190	1782	130	620	300	900	935	485	240	450	570
SK 12507	(80 - 400)	MS06	2380	1634	130	620	300	900	935	485	240	450	570
SK 12507	(80 - 400)	MS08	2650	1634	130	620	300	900	935	485	240	450	570
SK 12507	(80 - 400)	MS10	2920	1634	130	620	300	900	935	485	240	450	570
SK 13407	(12,5 - 45)	MS14	3460	1997	60	620	300	900	935	485	240	450	570
SK 13407	(12,5 - 45)	MS16	3730	1997	60	620	300	900	935	485	240	450	570
SK 13407	(12,5 - 45)	MS10	2920	1997	60	620	300	900	935	485	240	450	570
SK 13407	(12,5 - 45)	MS12	3190	1997	60	620	300	900	935	485	240	450	570
SK 13407	(50 - 71)	MS14	3460	1997	60	620	300	900	935	485	240	450	570
SK 13407	(50 - 71)	MS16	3730	1997	60	620	300	900	935	485	240	450	570

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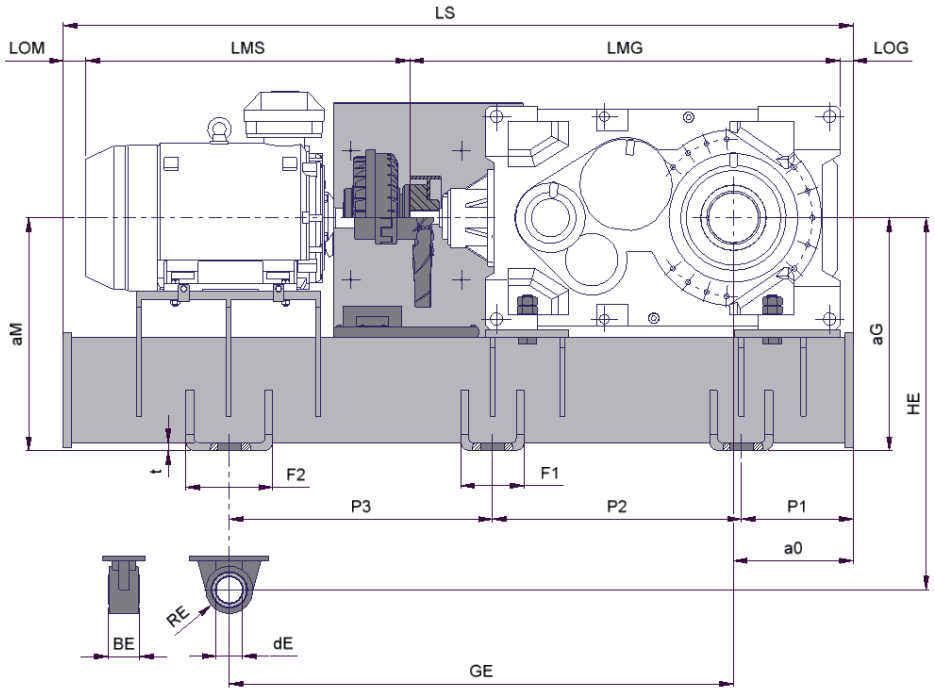
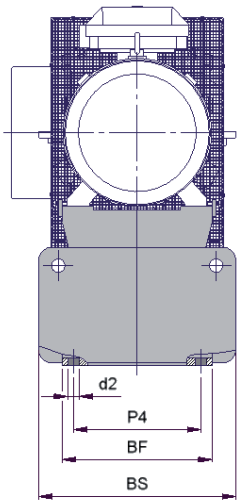
SK ..407
SK ..507
MS..





Getriebe	i_N	MS	LS	LMG	LOG	BS	P1	P2	P3	P4	F1	F2	BF
SK 13407	(50 - 71)	MS10	2920	1997	60	620	300	900	935	485	240	450	570
SK 13407	(50 - 71)	MS12	3190	1997	60	620	300	900	935	485	240	450	570
SK 13507	(80 - 400)	MS08	2650	1907	60	620	300	900	935	485	240	450	570
SK 13507	(80 - 400)	MS10	2920	1907	60	620	300	900	935	485	240	450	570
SK 13507	(80 - 400)	MS12	3190	1907	60	620	300	900	935	485	240	450	570
SK 15407	(12,5 - 45)	MS15	3460	2332	60	720	400	1050	855	570	380	570	670
SK 15407	(12,5 - 45)	MS17	3730	2332	60	720	400	1050	855	570	380	570	670
SK 15407	(12,5 - 45)	MS18	4000	2332	60	720	400	1050	855	570	380	570	670
SK 15407	(50 - 71)	MS15	3460	2332	60	720	400	1050	855	570	380	570	670
SK 15407	(50 - 71)	MS17	3730	2332	60	720	400	1050	855	570	380	570	670
SK 15407	(50 - 71)	MS18	4000	2332	60	720	400	1050	855	570	380	570	670
SK 15507	(80 - 400)	MS15	3460	2192	60	720	400	1050	855	570	380	570	670
SK 15507	(80 - 400)	MS17	3730	2192	60	720	400	1050	855	570	380	570	670
SK 15507	(80 - 400)	MS13	3190	2192	60	720	400	1050	855	570	380	570	670

Getriebe	i_N	MS	t	d1	d2	aG	aM	(a0)	GE	HE	dE	BE	RE
SK 11407	(12,5 - 45)	MS07	30	40	36	695	695	440	1200	855	100	120	80
SK 11407	(12,5 - 45)	MS09	30	40	36	695	695	440	1200	855	100	120	80
SK 11407	(12,5 - 45)	MS11	30	40	36	695	695	440	1200	855	100	120	80
SK 11407	(50 - 71)	MS05	30	40	36	695	695	440	1200	855	100	120	80
SK 11407	(50 - 71)	MS07	30	40	36	695	695	440	1200	855	100	120	80
SK 11407	(50 - 71)	MS09	30	40	36	695	695	440	1200	855	100	120	80
SK 11407	(50 - 71)	MS11	30	40	36	695	695	440	1200	855	100	120	80
SK 11507	(80 - 400)	MS05	30	40	36	695	695	440	1200	855	100	120	80
SK 11507	(80 - 400)	MS07	30	40	36	695	695	440	1200	855	100	120	80

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Getriebe	i_N	MS	t	d1	d2	aG	aM	(a0)	GE	HE	dE	BE	RE
SK 12407	(12,5 - 45)	MS14	30	46	42	885	885	535	1600	1065	110	180	90
SK 12407	(12,5 - 45)	MS08	30	46	42	885	885	535	1600	1065	110	180	90
SK 12407	(12,5 - 45)	MS10	30	46	42	885	885	535	1600	1065	110	180	90
SK 12407	(12,5 - 45)	MS12	30	46	42	885	885	535	1600	1065	110	180	90
SK 12407	(50 - 71)	MS14	30	46	42	885	885	535	1600	1065	110	180	90
SK 12407	(50 - 71)	MS08	30	46	42	885	885	535	1600	1065	110	180	90
SK 12407	(50 - 71)	MS10	30	46	42	885	885	535	1600	1065	110	180	90
SK 12407	(50 - 71)	MS12	30	46	42	885	885	535	1600	1065	110	180	90
SK 12507	(80 - 400)	MS06	30	46	42	885	885	535	1600	1065	110	180	90
SK 12507	(80 - 400)	MS08	30	46	42	885	885	535	1600	1065	110	180	90
SK 12507	(80 - 400)	MS10	30	46	42	885	885	535	1600	1065	110	180	90
SK 13407	(12,5 - 45)	MS14	30	46	42	935	935	535	1600	1115	110	180	90
SK 13407	(12,5 - 45)	MS16	30	46	42	935	935	535	1600	1115	110	180	90
SK 13407	(12,5 - 45)	MS10	30	46	42	935	935	535	1600	1115	110	180	90
SK 13407	(12,5 - 45)	MS12	30	46	42	935	935	535	1600	1115	110	180	90
SK 13407	(50 - 71)	MS14	30	46	42	935	935	535	1600	1115	110	180	90
SK 13407	(50 - 71)	MS16	30	46	42	935	935	535	1600	1115	110	180	90
SK 13407	(50 - 71)	MS10	30	46	42	935	935	535	1600	1115	110	180	90
SK 13407	(50 - 71)	MS12	30	46	42	935	935	535	1600	1115	110	180	90
SK 13507	(80 - 400)	MS08	30	46	42	935	935	535	1600	1115	110	180	90
SK 13507	(80 - 400)	MS10	30	46	42	935	935	535	1600	1115	110	180	90
SK 13507	(80 - 400)	MS12	30	46	42	935	935	535	1600	1115	110	180	90
SK 15407	(12,5 - 45)	MS15	40	52	48	1030	1030	605	1700	1230	124	230	100
SK 15407	(12,5 - 45)	MS17	40	52	48	1030	1030	605	1700	1230	124	230	100
SK 15407	(12,5 - 45)	MS18	40	52	48	1030	1030	605	1700	1230	124	230	100
SK 15407	(50 - 71)	MS15	40	52	48	1030	1030	605	1700	1230	124	230	100
SK 15407	(50 - 71)	MS17	40	52	48	1030	1030	605	1700	1230	124	230	100
SK 15407	(50 - 71)	MS18	40	52	48	1030	1030	605	1700	1230	124	230	100
SK 15507	(80 - 400)	MS15	40	52	48	1030	1030	605	1700	1230	124	230	100
SK 15507	(80 - 400)	MS17	40	52	48	1030	1030	605	1700	1230	124	230	100
SK 15507	(80 - 400)	MS13	40	52	48	1030	1030	605	1700	1230	124	230	100

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An overview of the NORD range

G1000 Fixed speeds
UNICASE housing 50 Hz, 60 Hz

- Helical geared motors
- Parallel geared motors
- Bevel geared motors
- Helical worm geared motors

G1012 NORDBLOC.1 50 Hz

- Helical geared motors

G1035 UNIVERSAL worm gear units

- SI and SMI

G1001 Explosion protected drive units

- Category 2G, Zone 1, gas

G1022 Explosion protected drive units

- Category 3D, Zone 22, dust

F3020 Frequency inverter SK200E
F3050 Frequency inverter SK500E
F3070 Frequency inverter NORD SK700E

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NORD
DRIVESYSTEMS

Mat.Nr. 6001102/0312