

Automation systems Drive solutions

Controls
Inverters

Motors

Gearboxes



Engineering Tools

Motors: MD three-phase AC motors

Gearboxes: GKS helical-bevel gearboxes

Contents of the L-force catalogue

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 Selected portfolio
 Additional portfolio

Lenze makes many things easy for you.

With our motivated and committed approach, we work together with you to create the best possible solution and set your ideas in motion - whether you are looking to optimise an existing machine or develop a new one. We always strive to make things easy and seek perfection therein. This is anchored in our thinking, in our services and in every detail of our products. It's as easy as that!

1

Developing ideas

Are you looking to build the best machine possible and already have some initial ideas? Then get these down on paper together with us, starting with small innovative details and stretching all the way to completely new machines. Working together, we will develop an intelligent and sustainable concept that is perfectly aligned with your specific requirements.

2

Drafting concepts

We see welcome challenges in your machine tasks, supporting you with our comprehensive expertise and providing valuable impetus for your innovations. We take a holistic view of the individual motion and control functions here and draw up consistent, end-to-end drive and automation solutions for you - keeping everything as easy as possible and as extensive as necessary.

3

Implementing solutions

Our easy formula for satisfied customers is to establish an active partnership with fast decision-making processes and an individually tailored offer. We have been using this simple principle to meet the ever more specialised customer requirements in the field of mechanical engineering for many years.

4

Manufacturing machines

Functional diversity in perfect harmony: as one of the few full-range providers in the market, we can provide you with precisely those products that you actually need for any machine task – no more and no less. Our L-force product portfolio, a consistent platform for implementing drive and automation tasks, is invaluable in this regard.

5

Ensuring productivity

Productivity, reliability and new performance peaks on a daily basis – these are our key success factors for your machine. After delivery, we offer you cleverly devised service concepts to ensure continued safe operation. The primary focus here is on technical support, based on the excellent application expertise of our highly-skilled and knowledgeable after-sales team.

A matter of principle: the right products for every application.

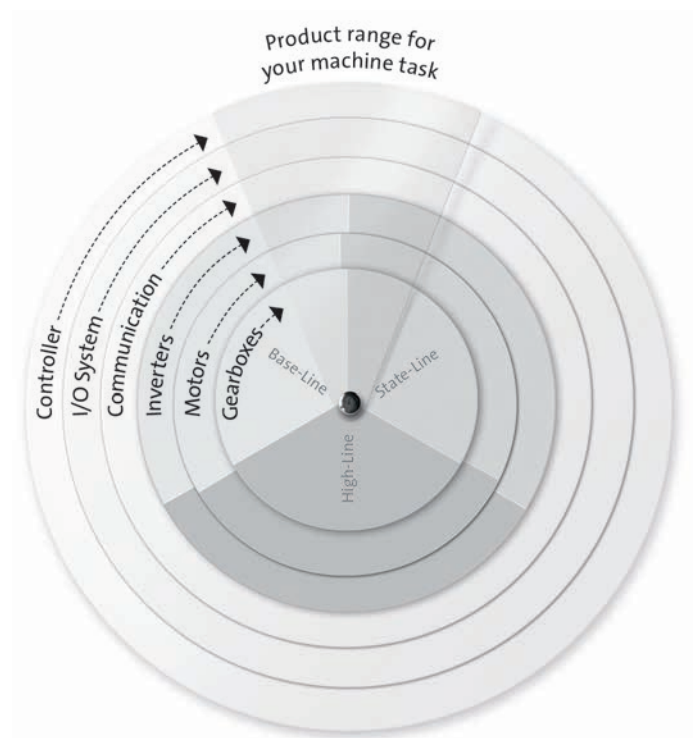
Lenze's extensive L-force product portfolio follows a very simple principle. The functions of our finely scaled products are assigned to the three lines Base-Line, State-Line or High-Line.

But what does this mean for you? It allows you to quickly recognise which products represent the best solution for your own specific requirements.

Powerful products with a major impact:

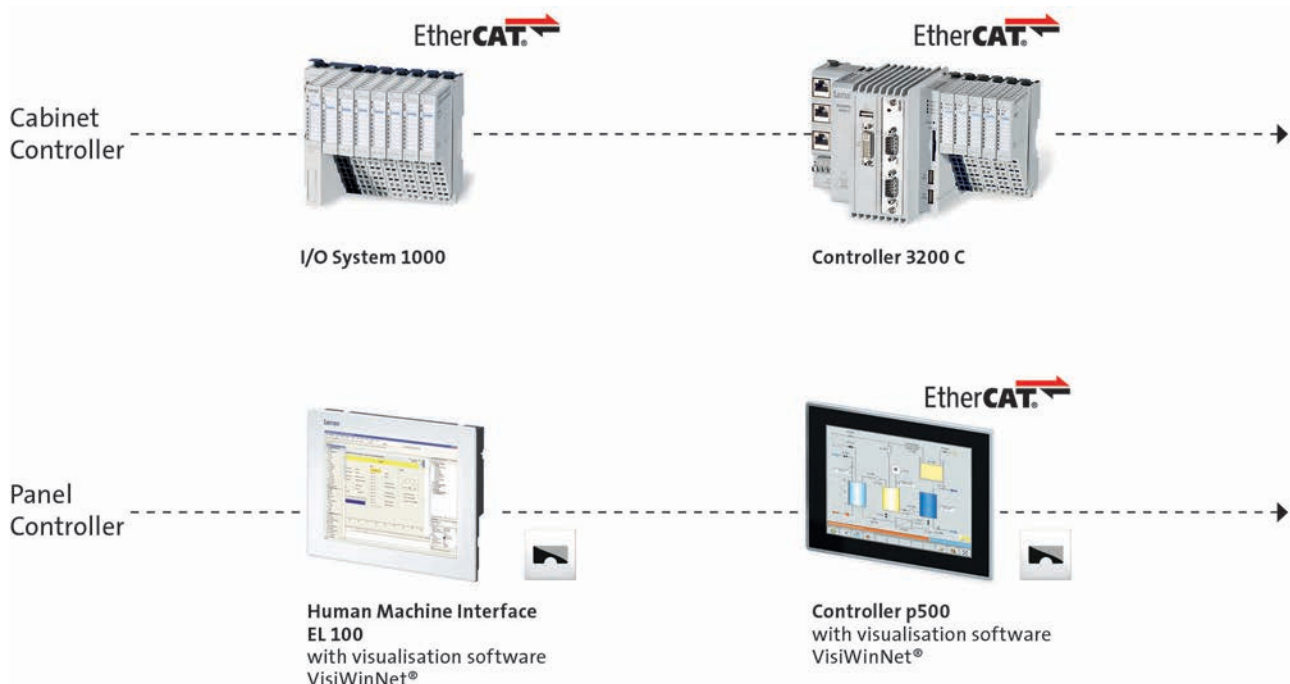
- Easy handling
- High quality and durability
- Reliable technologies in tune with the latest developments

Lenze products undergo the most stringent testing in our own laboratory. This allows us to ensure that you will receive consistently high quality and a long service life. In addition to this, five logistics centres ensure that the Lenze products you select are available for quick delivery anywhere across the globe. It's as easy as that!

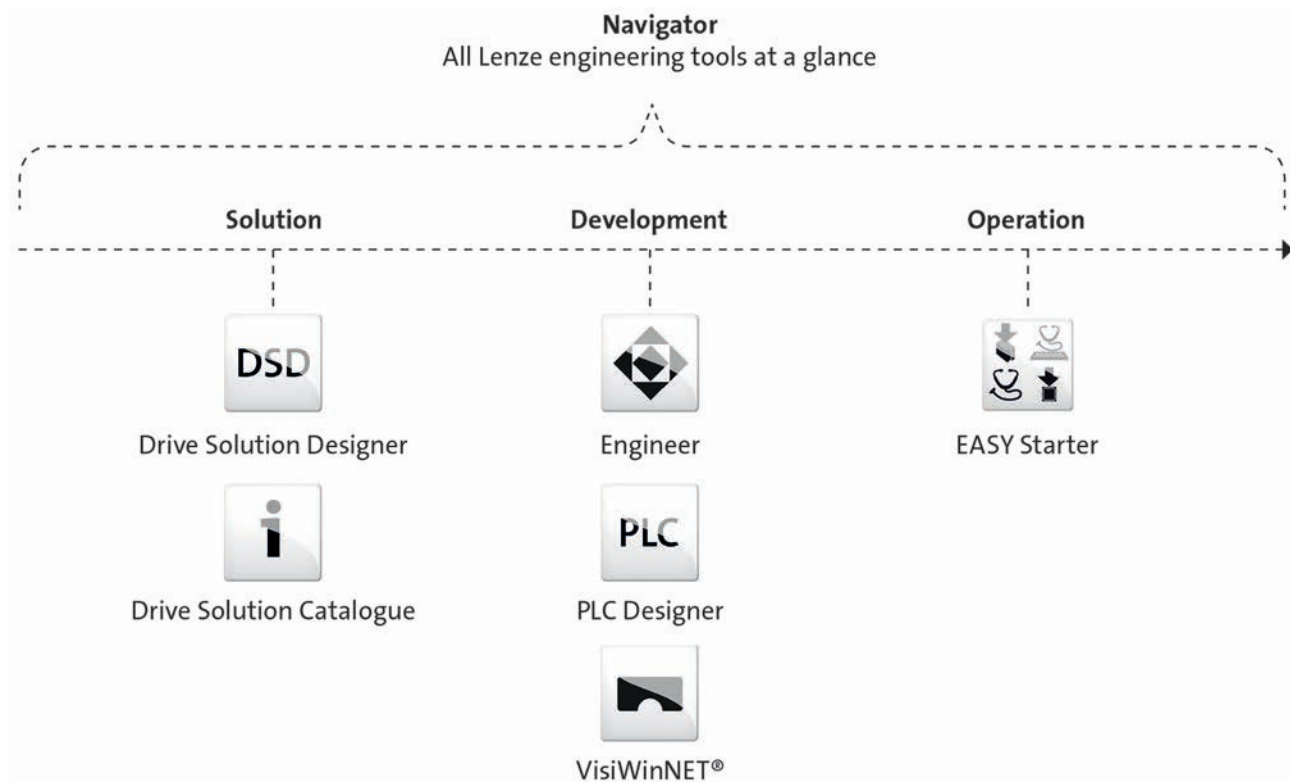


L-force product portfolio

Controls

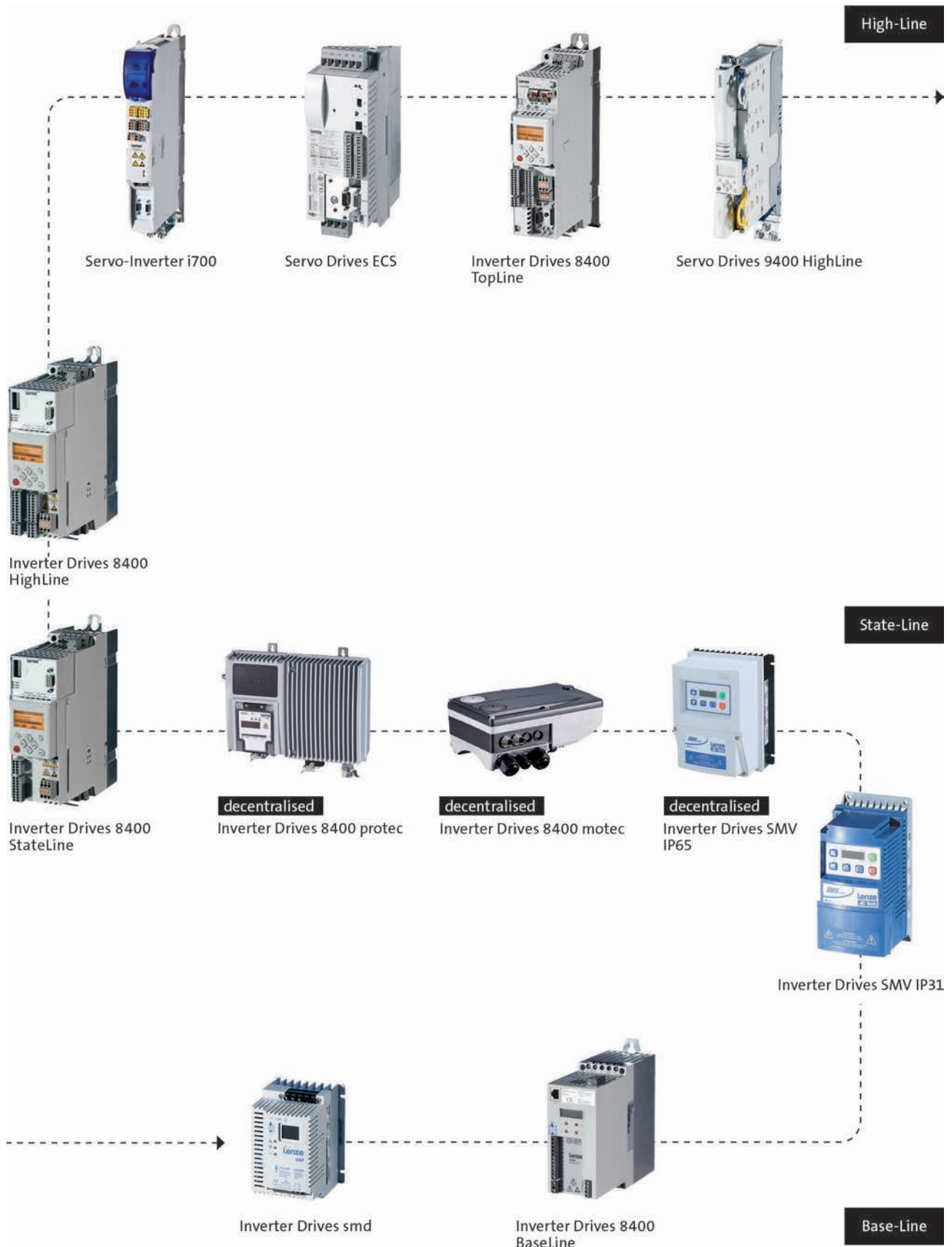


Engineering Tools



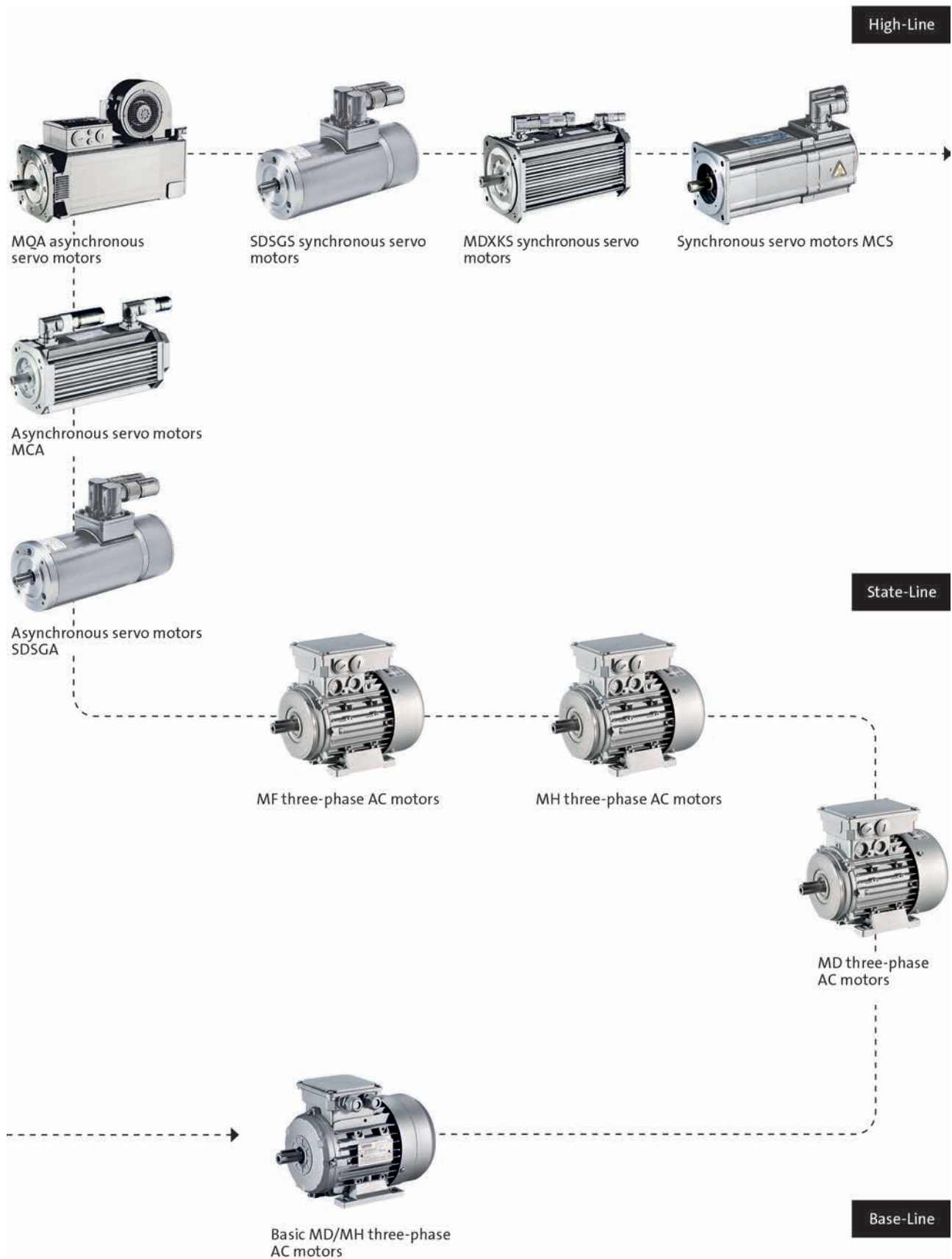
L-force product portfolio

Inverters



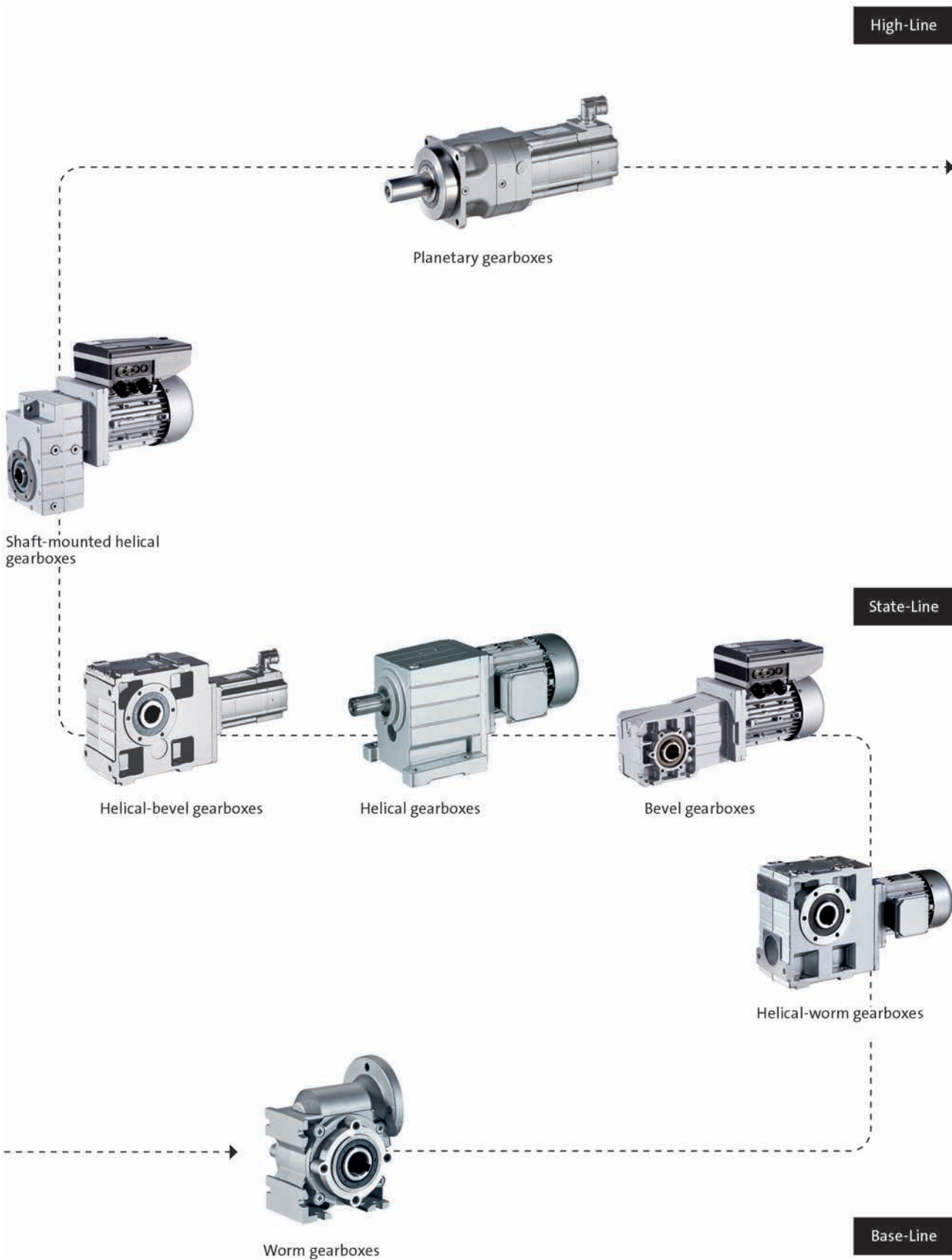
L-force product portfolio

Motors



L-force product portfolio

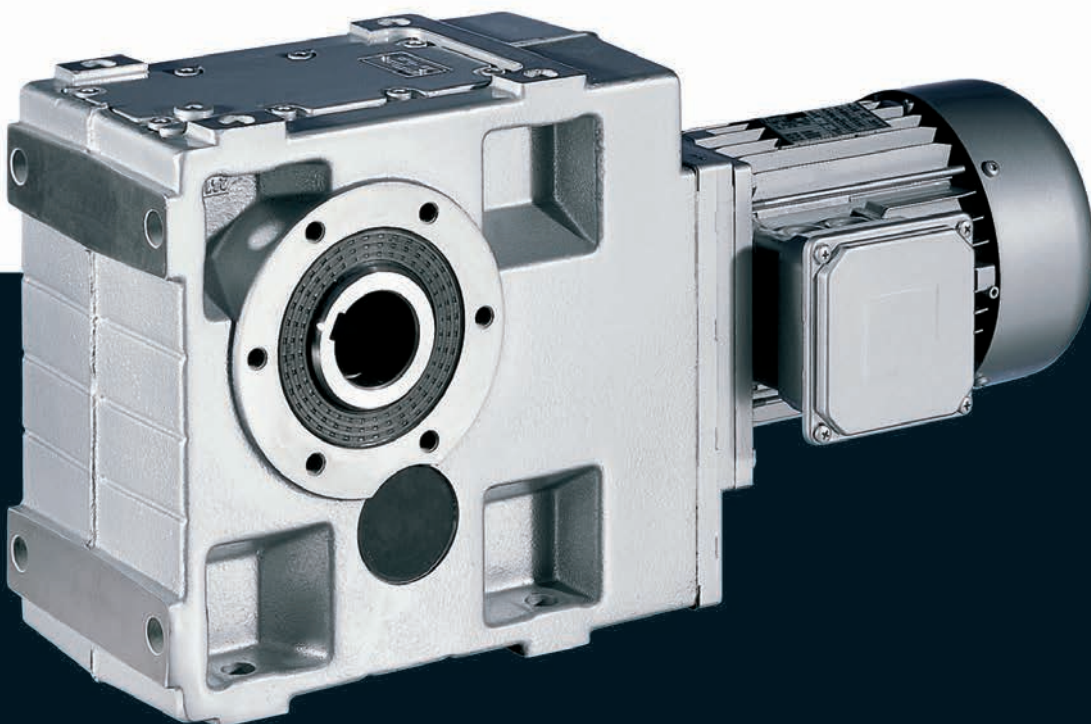
Gearboxes



Gearboxes

GKS helical-bevel gearboxes

0.12 to 45 kW



GKS helical-bevel gearboxes



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List of abbreviations

$\eta_{c=1}$		Efficiency
c		Load capacity
f_N	[Hz]	Rated frequency
$F_{ax,max}$	[N]	Max. axial force
$F_{rad,max}$	[N]	Max. radial force
H_{max}	[m]	Site altitude
i		Ratio
J	[kgcm ²]	Moment of inertia
m	[kg]	Mass
M_2	[Nm]	Output torque
n_2	[r/min]	Output speed
n_N	[r/min]	Rated speed
P_N	[kW]	Rated power
$S_{hü}$	[1/h]	Transition operating frequency
$T_{opr,max}$	[°C]	Max. ambient operating temperature
$T_{opr,min}$	[°C]	Min. ambient operating temperature
$U_{N,\Delta}$	[V]	Rated voltage
$U_{N,Y}$	[V]	Rated voltage

CE	Communauté Européenne
CSA	Canadian Standards Association
DIN	Deutsches Institut für Normung e.V.
EMC	Electromagnetic compatibility
EN	European standard
IEC	International Electrotechnical Commission
IM	International Mounting Code
IP	International Protection Code
NEMA	National Electrical Manufacturers Association
UL	Underwriters Laboratory Listed Product
UR	Underwriters Laboratory Recognized Product
VDE	Verband deutscher Elektrotechniker (Association of German Electrical Engineers)
CCC	China Compulsory Certificate
GOST	Certificate for Russian Federation
cURus	Combined certification marks of UL for the USA and Canada
UkrSEPRO	Certificate for Ukraine

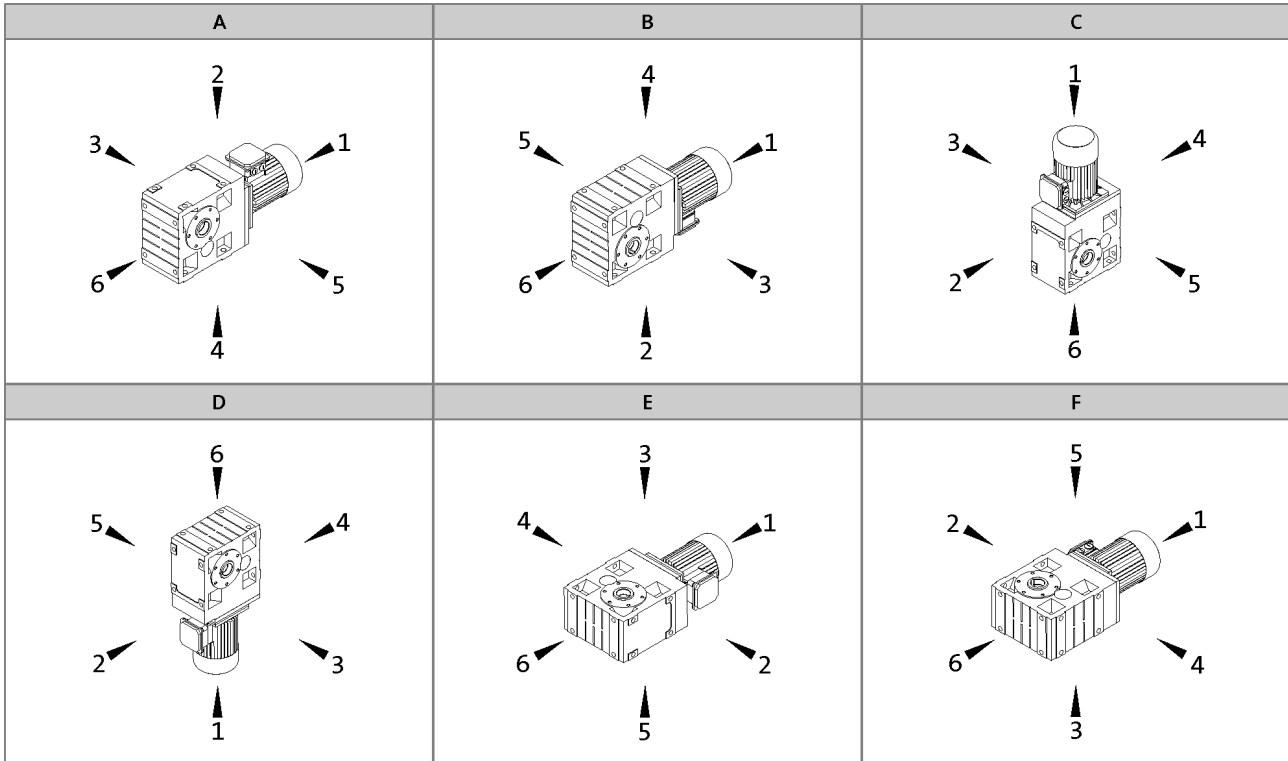
GKS helical-bevel gearboxes

General information



Product key

Mounting position (A to F) and position of system blocks (1 to 6)



Hollow shaft: 0
 Solid shaft: 3, 5, 8 (3+5)
 Hollow shaft with shrink disc: 3, 5

Without flange: 0
 Flange: 3, 5, 8 (3+5)
 Terminal box / motec: 2, 3, 4, 5

Gearbox designs

Basic versions	
Motor efficiency	Standard efficiency Increased efficiency (IE2)
Surface and corrosion protection	OKS-G (primer: grey) OKS-S (paint: RAL 7012)
Lubricant	CLP 460 (mineral)
Ventilation	Oil control plugs for GKS05 to 14 Breather elements for GKS06 ... 14

Options	
Surface and corrosion protection	OKS-S (special paint according to RAL) OKS-M (special paint according to RAL) OKS-L (special paint according to RAL)
Lubricant	CLP HC 320 (synthetic) CLP HC 220 USDA H1 (synthetic)
Shaft sealing rings	Driven shaft: Viton
Ventilation	Breather elements for GKS05 Compensation reservoir for GKS09 to 14-3 in mounting position C
Accessories	Torque plate on threaded pitch circle Housing foot torque plate 2nd output shaft end Shrink disc cover Hoseproof hollow shaft cover Mounting set for hollow shaft circlip
Nameplate	Metal nameplate (supplied loose) Adhesive nameplate (supplied loose)

GKS helical-bevel gearboxes



General information

Product information

Lenze provides a geared motor construction kit, which covers a wide range of requirements. Numerous drive-side and output-side options enable precise adaptation of the drive to the specific application. This is the basis for versatile applications and functional scalability of our gearboxes and geared motors.

The modular concept and high power density make extremely compact sizes possible. Optimised teeth profiles and ground gears ensure low-noise operation and low backlash. The gearboxes are of compact and hence space-saving construction.

For maximum precision

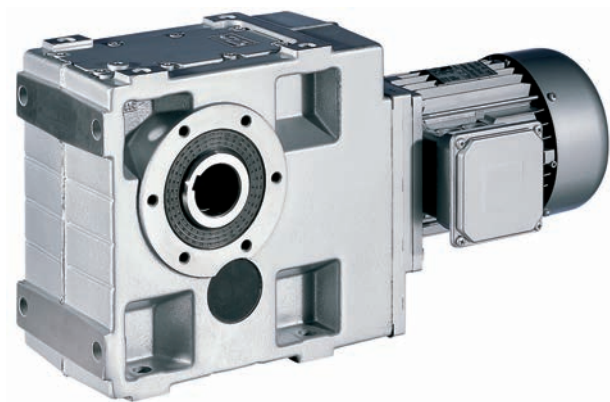
Helical-bevel gearboxes have the major benefit of enabling extremely precise and reproducible positioning movements owing to their high torsional stiffness and low backlash. Our helical-bevel gearboxes can be combined with three-phase AC motors and servo motors to form a compact unit. They are available in 3- and 4-stage versions with a torque of up to 11,639 Nm and a ratio of up to $i=1,936$.

Inverters for motor-proximity installation

The Drive Package with decentralised Inverter Drives 8400 motec covers a power range up to 7.5 kW.

Designs

- 3-stage and 4-stage gearboxes
- Hollow shaft with keyway or shrink disc
- Solid shaft with keyway
- Foot or flange mounting
- Torque plate, including rubber buffer
- With MD three-phase AC motors (efficiency classes IE1) power range 0.12 ... 45 kW



Helical-bevel geared motor GKS07-3M HBR 100-32

GKS helical-bevel gearboxes



General information

Functions and features

Gearbox type	GKS
Housing	
Design	Cuboid
Material	Aluminium / cast iron
Solid shaft	
Design	with keyway to DIN 6885
Tolerance	k6 (d ≤ 50 mm) m6 (d > 50 mm)
Material	Tempered steel C45 or 42CrMo4
Hollow shaft	
Design	H: with keyway S: smooth
Tolerance	Bore H7
Material	Tempered steel C45
Toothed part	
Design	Ground tooth flanks Optimised tooth flank geometry
Material	Case-hardened steel
Shaft-hub joint	
	1st stage/prestage/helical (bevel) gearbox: Friction-type connection Output stage (= 2nd, 3rd or 4th stage): Friction-type or positive-fit connection
Shaft sealing rings	
Design	With dust lip
Material	NB / FP
Bearing	
Design	Ball bearing / tapered-roller bearing depending on size and design
Schmierstoffe	
Standard	DIN 51502
Quantities	corresponding to mounting position (see operating instructions)
Mechanical efficiency	
1-stage gearboxes [$\eta_{c=1}$]	
2-stage gearboxes [$\eta_{c=1}$]	
3-stage gearboxes [$\eta_{c=1}$]	0.95
4-stage gearboxes [$\eta_{c=1}$]	0.93
Notes	

GKS helical-bevel gearboxes



General information

Functions and features

Lubricants

Lenze gearboxes and geared motors are ready for operation on delivery and are filled with lubricants specific to both the drive and the design. The mounting position and design specified in the order are key factors in choosing the volume of lubricant.

The lubricants listed in the lubricant table are approved for use in Lenze drives.

Lubricant table

Mode	CLP 460	CLP HC 320	CLP HC 220 USDA H1
Ambient temperature [°C]	0 ... +40	-25 ... +50	-20 ... +40
Specification	Mineral based oil with additives	Synthetic-based oil (synthetic hydrocarbon / poly-alpha-olefin oil)	
Note			For food processing industry
Changing interval	16000 operating hours not later than after three years (oil temperature 70 to 80 °C)	25000 operating hours not later than after three years (oil temperature 70 to 80 °C)	16000 operating hours not later than after three years (oil temperature 70 to 80 °C)
Fuchs	Fuchs Renolin CLP 460	Fuchs Renolin Unisyn CLP 320	bremer & leguil Cassida Fluid GL 220
Klüber	Klüberoil GEM1-460 N	Klübersynth GEM4-320 N	Klüberoil 4 UH1-220 N
Shell	Shell Omala S2 G 460	Shell Omala S4 GX HD 320	

- ▶ Please contact your Lenze sales office if you are operating at ambient temperatures in areas up to < -20 °C bzw. > or up to +40°C.



Functions and features

Surface and corrosion protection

For optimum protection of geared motors against ambient conditions, the surface and corrosion protection system (OKS) offers tailor-made solutions.

Various surface coatings combined with other protective measures ensure that the geared motors operate reliably even at high air humidity, in outdoor installations or in the presence of atmospheric impurities. Any colour from the RAL Classic collection can be chosen for the top coat. The geared motors are also available unpainted (no surface and corrosion protection).

Surface and corrosion protection system	Applications	Measures
	Catalogue text	Catalogue text
OKS-G (primed)	<ul style="list-style-type: none"> Dependent on subsequent top coat applied 	<ul style="list-style-type: none"> 2K PUR priming coat (grey) Zinc-coated screws Rust-free breather elements Optional measures <ul style="list-style-type: none"> Stainless steel nameplate
OKS-S (small)	<ul style="list-style-type: none"> Standard applications Internal installation in heated buildings Air humidity up to 90% 	<ul style="list-style-type: none"> Surface coating as per corrosivity category C1 (in line with EN 12944-2) Zinc-coated screws Rust-free breather elements Optional measures <ul style="list-style-type: none"> Stainless steel nameplate
OKS-M (medium)	<ul style="list-style-type: none"> Internal installation in non-heated buildings Covered, protected external installation Air humidity up to 95% 	<ul style="list-style-type: none"> Surface coating as per corrosivity category C2 (in line with EN 12944-2) Zinc-coated screws Rust-free breather elements Optional measures <ul style="list-style-type: none"> Stainless steel shaft Stainless steel nameplate Rust-free shrink disc (on request)
OKS-L (high)	<ul style="list-style-type: none"> External installation Air humidity above 95% Chemical industry plants Food industry 	<ul style="list-style-type: none"> Surface coating as per corrosivity category C3 (in line with EN 12944-2) Blower cover and B end shield additionally primed Cable glands with gaskets Corrosion-resistant brake with cover ring, stainless friction plate, and chrome-plated armature plate (on request) All screws/screw plugs zinc-coated Stainless breather elements Threaded holes that are not used are closed by means of plastic plugs Optional measures <ul style="list-style-type: none"> Sealed recesses on motor (on request) Stainless steel shaft Stainless steel nameplate Rust-free shrink disc (on request) Additional priming coat on cast iron fan Oil expansion tank and torque plates painted separately and supplied loose

GKS helical-bevel gearboxes

General information



Functions and features

Structure of surface coating

Surface and corrosion protection system	Corrosivity category	Surface coating	Colour
	DIN EN ISO 12944-2	Structure	
Without OKS (uncoated)		Dipping primed gearbox	
OKS-G (primed)		Dipping primed gearbox 2K PUR priming coat	
OKS-S (small)	C1	Dipping primed gearbox 2K-PUR top coat	Standard: RAL 7012 Optional: RAL Classic
OKS-M (medium)	C2	Dipping primed gearbox 2K PUR priming coat 2K-PUR top coat	Standard: RAL 7012 Optional: RAL Classic
OKS-L (high)	C3	Dipping primed gearbox 2K PUR priming coat 2K-PUR top coat	Standard: RAL 7012 Optional: RAL Classic

GKS helical-bevel gearboxes



General information

Functions and features

Ventilation

Non-ventilated gearboxes

No ventilation is required for gearbox GKS04.

Gearboxes that may optionally be equipped with ventilation

Special measures are not usually required when using the GST05 gearbox. In borderline cases, e.g. at input speeds > 2000 rpm, we recommend the use of breather elements, which we can supply if required.

Ventilated gearboxes

Gearboxes GKS06 to 14 are supplied with breather elements as standard.

Special measures for mounting position C (motor on top)

We recommend that an oil compensation reservoir is always used with gearbox sizes G□□09 to 14 in this mounting position. This reservoir can be purchased as an option. For illustrations and measures, please refer to the Accessories chapter.

This is not required at higher ratios or low input speeds. Please contact Lenze for confirmation in this case.



Dimensioning

General information about the data provided in this catalogue

Powers, torques and speeds

The powers, torques and speeds specified in this catalogue are rounded values and are valid under the following conditions:

- Operating time/day = 8 h (100% OT)
- Duty class I for up to 10 switching operations/h
- Mounting positions and designs in this catalogue
- Standard lubricant
- $T_{amb} = 20\text{ °C}$ for gearboxes,
 $T_{amb} = 40\text{ °C}$ for motors (in accordance with EN 60034)
- Site altitude $< = 1000\text{ m amsl}$
- The selection tables provide the permissible mechanical powers and torques. For notes on the thermal power limit, see chapter drive dimensioning.
- The rated power specified for motors and geared motors applies to operating mode S1 (in accordance with EN 60034).

Under different operating conditions, the values obtained may vary from those listed here.

In the case of extreme operating conditions, please consult your Lenze sales office.



Dimensioning

Thermal power limit

The thermal power limit, defined by the heat balance, limits the permissible gearbox continuous power. It may be less than the mechanical power ratings listed in the selection tables.

The thermal power limit is affected by:

- the churning losses in the lubricant. These are determined by the mounting position and the circumferential speed of the wheels
- the load and the speed
- the ambient conditions: temperature, air circulation, input or dissipation via shafts and the foundation

Please consult your Lenze sales office

- if the following input speeds n_1 are exceeded on a continuous basis (continuous is defined as more than 8 h/day):

Motor frame size	Mounting position A, B, E, F	Mounting position C, D
063 ... 100	3000 r/min	3000 r/min
112 ... 132	3000 r/min	1500 r/min
160 ... 225	2000 r/min	1500 r/min

- if the following input speeds n_1 are exceeded:

Motor frame size	Mounting position A, B, E, F	Mounting position C, D
063 ... 100	4000 r/min	3000 r/min
112 ... 132	4000 r/min	2000 r/min
160 ... 225	3000 r/min	1500 r/min

- or if you are using the following gearbox type, size and ratio combinations at an input speed of $n_1 > 1500$ r/min:

Gearbox type	Gearbox size	Ratio i
GKS helical-bevel gearbox	07, 09, 11, 14	≤ 25

Possible ways of extending the application area

- synthetic lubricant (option)
- shaft sealing rings made from FP material/Viton (option)
- reduction in lubricant quantity
- cooling of the geared motor by means of air convection on the machine/system



Dimensioning

Load capacity and application factor

Load capacity c of gearbox

Rated value for the load capacity of Lenze geared motors.

- c is the ratio of the permissible rated torque of the gearbox to the rated torque supplied by the drive component (e.g. the built-in Lenze motor).
- The value of c must always be greater than the value of the application factor k calculated for the application.

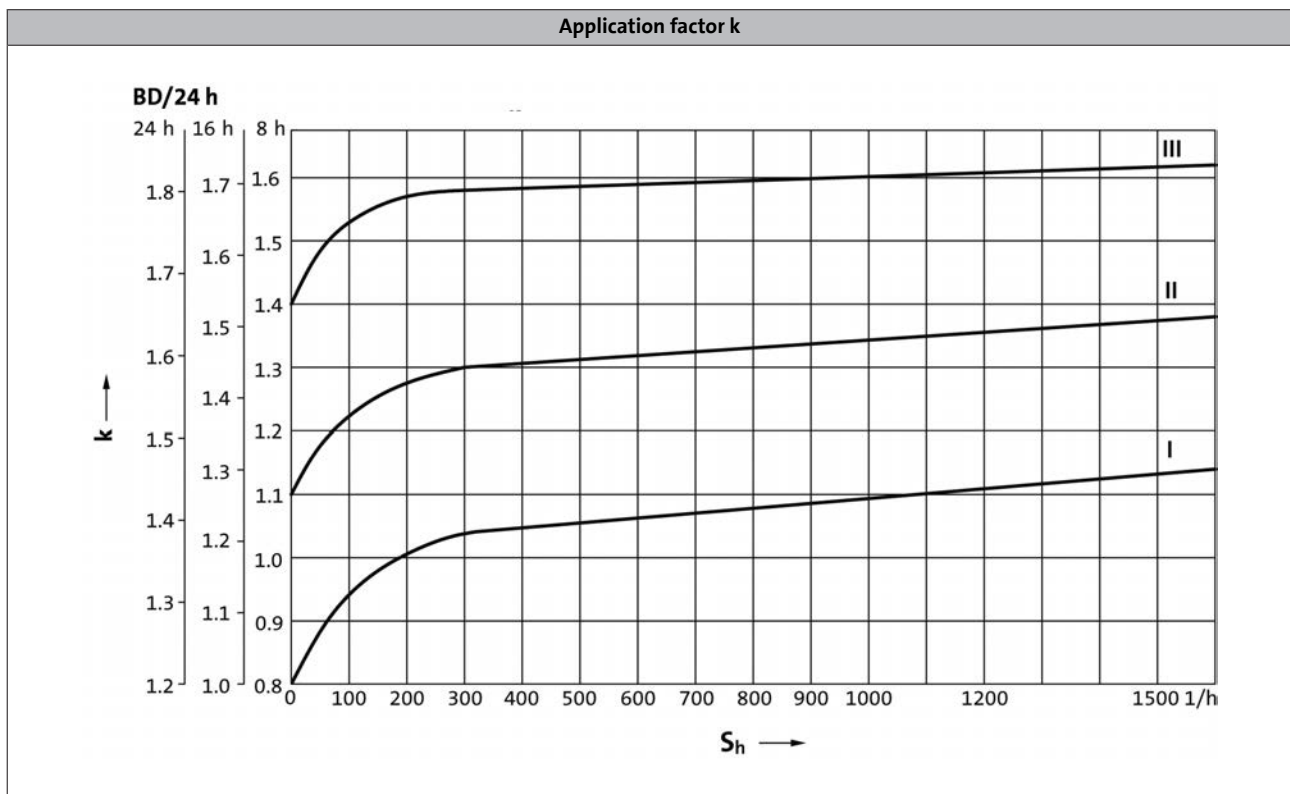
Application factor k (according to DIN 3990)

Takes into account the influence of temporally variable loads which are actually present during the anticipated operating time of gearboxes and geared motors.

k is determined by:

- the type of load
- the load intensity
- temporal influences

Duty class	Load type
I	Smooth operation, small or light jolts
II	Uneven operation, average jolts
III	Uneven operation, severe jolts and/or alternating load

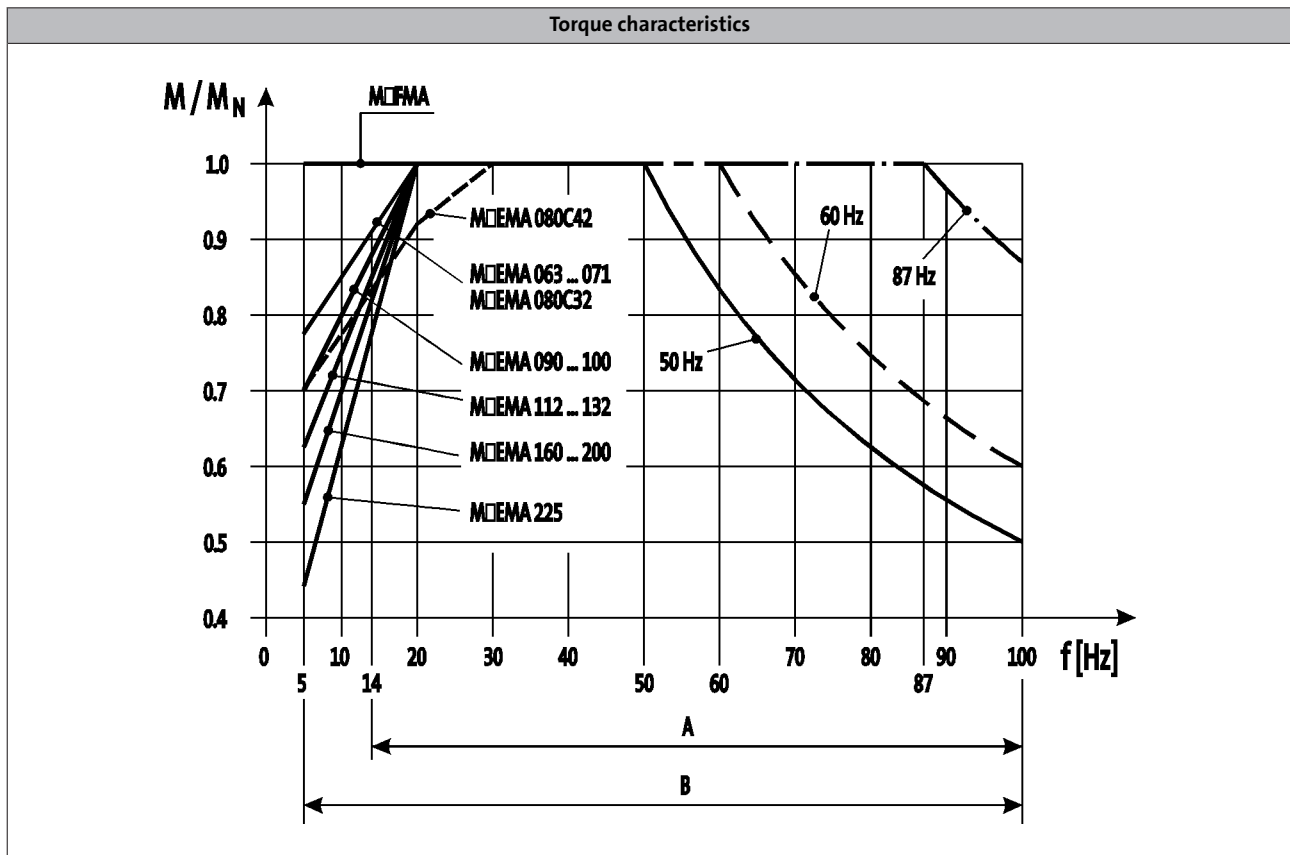




Dimensioning

Torque derating at low motor frequencies

Motor size-dependent torque reduction, taking into account the thermal response during operation on the inverter.



A = Operation with integral fan and brake

B = Operation with integral fan and brake control "Holding current reduction"

You can use the Drive Solution Designer for precise drive dimensioning.

The Drive Solution Designer helps you to carry out a fast and high-quality drive dimensioning. The software includes well-founded and proven knowledge on drive applications and electro-mechanical drive components.

Please contact your Lenze sales office.



Dimensioning

Notes on the selection tables

The selection tables show the available combinations of gearbox type, number of stages, ratio and motor. They are used only to provide basic orientation.

The following legend indicates the structure of the selection tables.

Gearbox type
↓
GST helical gearbox

Technical data

Selection tables

Rated power P_N of the drive motor in relation to the rated frequency

▶ 50 Hz, 60 Hz: $P_N = 0.75$ kW

Rated speed n_N of the drive motor

1410 r/min
50 Hz
1720 r/min
60 Hz

Product key of geared motor

n_N	1410 r/min			1720 r/min			i	Product key of geared motor	Page number for dimensions
	50 Hz			60 Hz					
f_N	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	881	8.0	2.4	1069	6.6	2.8	1.600	GST04-1M □□□080C32	76
	689	10	2.2	835	8.4	2.6	2.048	GST04-1M □□□080C32	76

Output speed n_2

Output torque M_2 (constant for all listed frequencies)

Ratio i

The load capacity c of the gearbox c is the ratio of the gearbox's rated torque to the rated torque of the three-phase motor (calculated in respect of its application to the output shaft). c must always be greater than the application factor k determined for the application

Page number for dimensions

$$c = \frac{M_{2,zul}}{M_{1N} \cdot i \cdot \eta_{Getr}} > k$$

GKS helical-bevel gearboxes



General information

Dimensioning

Notes on the selection tables

Motor voltages

The power values and torques indicated in the selection tables relate to the following motor voltages:

- 50 Hz : Δ 230 V / Y 400 V
- 60 Hz : 230 V or 460 V
- 87 Hz : Δ 400 V

Operation at 87 Hz

In 87 Hz operation, the three-phase AC motor (which is designed for a voltage of Δ 230 V / Y 400 V at 50 Hz) is operated on an inverter with 400 V rated voltage in a delta connection. It is important to note here that the inverter must be configured for 87Hz output.

This offers the following advantages over 50 Hz operation:

- the setting range of the motor is increased by a factor of 1.73.
- the motor can then provide around 1.73 times greater output, which in turn allows a smaller and more affordable motor to be selected for the application.
- the efficiency of the motor is also improved.

GKS helical-bevel gearboxes



General information

Notes on ordering

We want to be sure that you receive the correct products in good time.

To allow us to achieve this we need:

- your address and your company data
- our product key for the individual products in this catalogue
- your delivery date and delivery address

Ordering procedure

Please use the ordering information checklist to ensure that you provide all the ordering information required for the various products.

The ordering information checklist, the product key, the basic versions, options, mounting position and position of the system blocks will be found in the General – Product key section.

A list of Lenze's worldwide sales offices can be found on the Internet: www.Lenze.com.

GKS helical-bevel gearboxes



General information

Ordering details checklist

Offer

Page __ of __

Order

Customer No.

--	--	--	--	--	--	--	--

Job No.

--	--	--	--	--	--	--	--

Fax No. _____

Sender

Company

Made out by (name)

Street/P.O. Box

Department

P.O. Box, City

Telephone No.

Date Signature

Delivery address (if different)

Street/P.O. Box

Desired delivery date

P.O. Box, City

Dispatching notes

Invoice recipient (if different)

Street/P.O. Box

Postal code, City

GKS helical-bevel gearboxes

General information



Ordering details checklist

Customer No.

Job No.

Page __

Quantity

Efficiency class

Standard efficiency

High efficiency (IE2)

Rated frequency

50 Hz

60 Hz

87 Hz

Ratio i

GKS - 3 M V H S 4 E A R B K

Motor frame size

Hollow shaft d = mm Flange a₂ = mm

Mounting position

A B C D E F

Position of system blocks

Shaft/shrink disc

0 3 4 8

Flange

0 3 5 8

Terminal box

2 3 4 5

Surface and corrosion protection

OKS-S
colour: RAL 7012

OKS-G
(primed)

Options

Special lubricants

CLP HC 320
(synthetic)

CLP HC 220 USDA H1
(for the food industry)

Surface and corrosion protection

OKS-S
(small)

OKS-M
(medium)

RAL

OKS-L
(high)

OKS-G
(primed)

Accessories

Torque support for housing foot

Torque support for threaded pitch circle

2nd output shaft end

Mounting set for hollow-shaft circlip

Shrink disc cover

Hollow shaft cover, hoseproof

Shaft sealing rings

Viton

Breathing

Breather elements for GKS05

Compensation reservoir in mounting position for GKS09 ... 14-3

GKS helical-bevel gearboxes

General information



Ordering details checklist

Three-phase AC motors options

Customer No.

Job No.

Page ___

Motor connection

Terminal box

- with plug-in connector ICN 6-pin.
Adhere to permissible rated motor current 20 A!
- with plug-in connector ICN 8-pin.
Adhere to permissible rated motor current 20 A!
- with plug-in connector HAN10E.
Adhere to permissible rated current 16 A!
- with plug-in connector HAN-Modular.
Adhere to permissible rated current 16 / 40 A!

Cable entry

only with M□□MAXX/LL063 ... 132
or terminal box with plug-in connector
in position

1	2	3	4	5
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Blower

- 1~ 3~

- Terminal box with plug-in connector ICN

Terminal box position

2	3	4	5
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Spring-applied brake

Brake version

- Standard Longlife

Brake size

Characteristic torque

 Nm

Rated voltage

AC	DC	<input type="text"/>	V
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Rectifier Only in the case of AC supply voltage

- | | |
|---|--|
| <input type="checkbox"/> Half-wave rectifier | <input type="checkbox"/> Bridge rectifier |
| <input type="checkbox"/> Bridge/half-wave rectifier
(overexcitation) | <input type="checkbox"/> Bridge/half-wave rectifier
(holding current reduction) |

Brake options

Manual release lever
in position

2	3	4	5
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- Low-noise version
(Standard in the case of brake with speed/position encoder)

GKS helical-bevel gearboxes



General information

Ordering details checklist

Three-phase AC motors options

Customer No.

Job No.

Page ___

Speed/position
encoder

Resolver RS1

Incremental encoder HTL IG128-24V-H IG512-24V-H IG1024-24V-H IG2048-24V-H

Incremental encoder TTL IG512-5V-T IG1024-5V-T IG2048-5V-T

Feedback with ICN connector IG128-24V-H not possible with plug-in connector!

Motor protection

PTC

KTY 83-110

KTY 84-130

Approval

UL/CSA
approval: cURus

CCC

China Energy Label

Further options

Indication of supply voltage only for motor frame sizes 112C32 to 225C22

Δ ; 400V-50Hz; 460V-60Hz

Y/ Δ ; 400/230V-50Hz; 460/265V-60Hz
(-/400V-87Hz possible in operation with
frequency inverter)

Protection cover

2nd shaft end

Handwheel

Increased centrifugal mass

2nd nameplate (adhesive nameplate/metal nameplate)

GKS helical-bevel gearboxes

General information





Permissible radial and axial forces at output

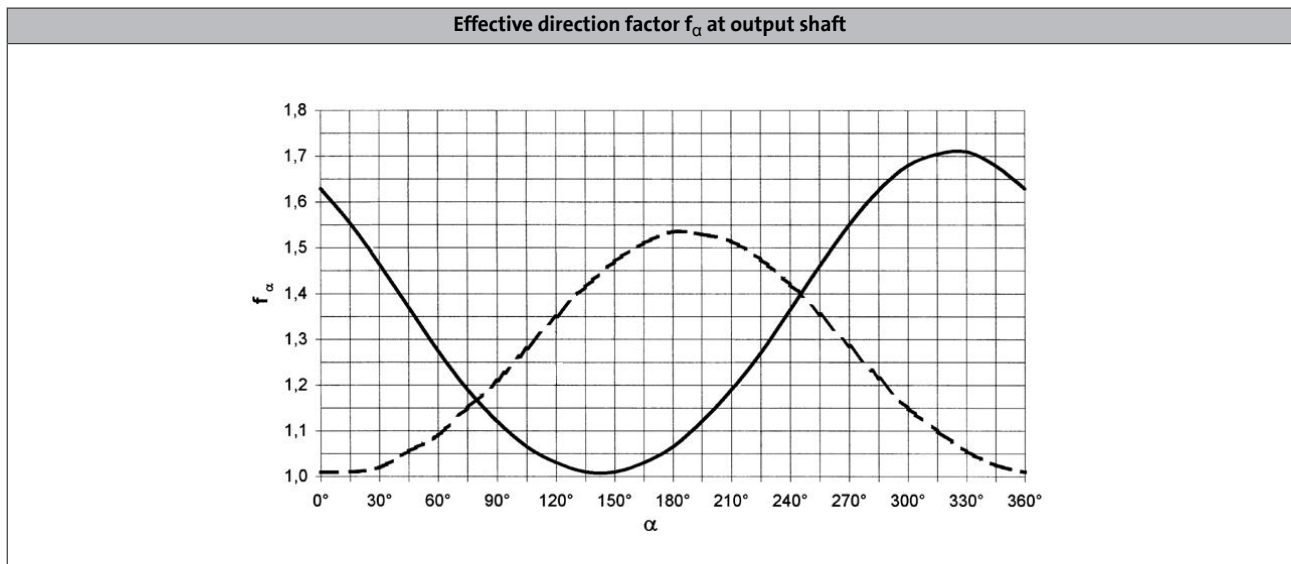
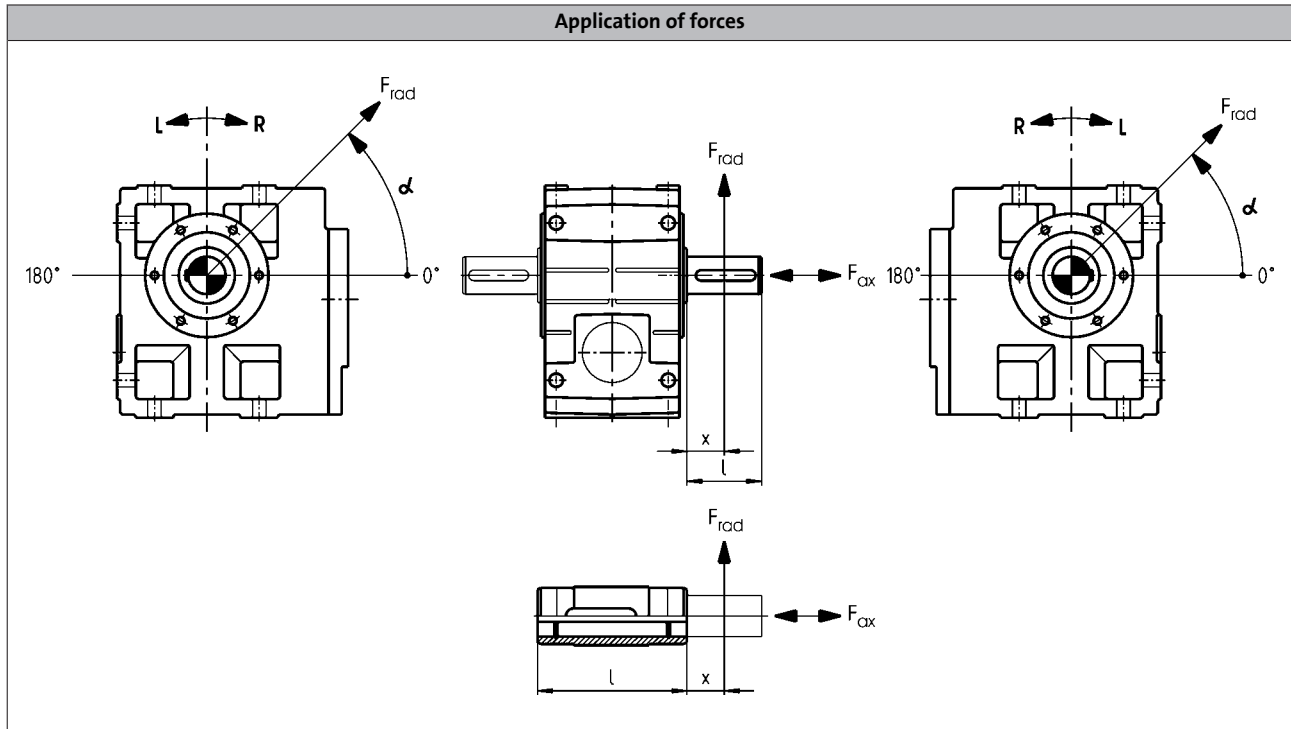
Permissible radial force

$$F_{rad,per} = \min(f_w \times f_Q \times F_{rad,max} ; f_w \times F_{rad,max} \text{ at } n_2 \leq 16 \text{ r/min})$$

Permissible axial force

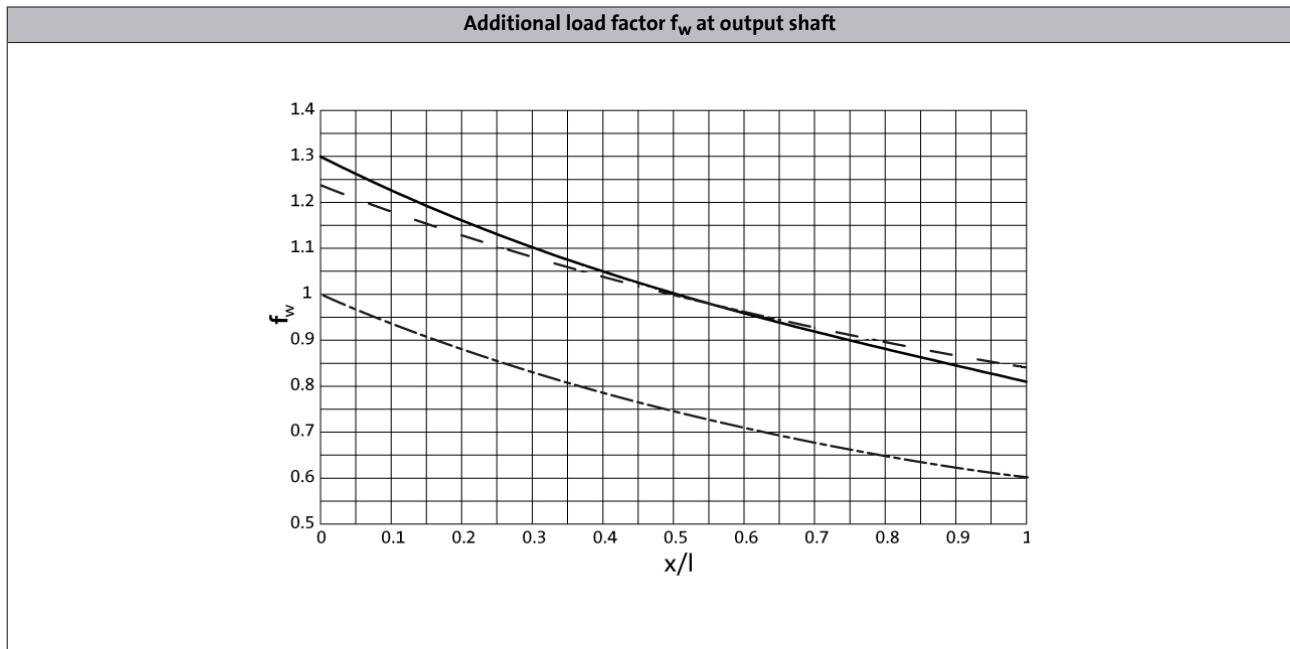
$$F_{ax,per} = F_{ax,max} \text{ if } F_{rad} = 0$$

If F_{rad} and $F_{ax} \neq 0$, please contact your Lenze sales office.





Permissible radial and axial forces at output



——— Solid shaft (V□□)
····· Hollow shaft (H□□)
----- Solid shaft with flange (V□K)
- · - · - Hollow shaft with flange (H□K)

GKS□□-3/4□ H□□

Size	n_2 [r/min]								
Gearbox	630	400	250	160	100	63	40	25	≤16

	Max. radial force, Hollow shaft								
	$F_{rad,max}$ [N]	$F_{rad,max}$ [N]	$F_{rad,max}$ [N]	$F_{rad,max}$ [N]	$F_{rad,max}$ [N]	$F_{rad,max}$ [N]	$F_{rad,max}$ [N]	$F_{rad,max}$ [N]	$F_{rad,max}$ [N]
GKS04	3100	3900	4500	5100	5900	6800	7000	7000	7000
GKS05	2400	3500	4200	4630	5000	6200	7300	7300	7300
GKS06	3000	4600	5600	6400	7000	8200	10400	12000	12000
GKS07		5400	6300	7400	8700	10500	12500	15100	16000
GKS09		7500	8200	9400	10600	12200	15500	21000	24000
GKS11		9000	10000	11000	14000	16000	18500	25000	30000
GKS14		15000	15500	16500	17500	18500	21000	28000	40000

	Max. axial force, Hollow shaft								
	$F_{ax,max}$ [N]	$F_{ax,max}$ [N]	$F_{ax,max}$ [N]	$F_{ax,max}$ [N]	$F_{ax,max}$ [N]	$F_{ax,max}$ [N]	$F_{ax,max}$ [N]	$F_{ax,max}$ [N]	$F_{ax,max}$ [N]
GKS04	3300	4200	5000	5500	5500	5500	5500	5500	5500
GKS05	2800	3500	4240	5090	6160	6600	6600	6600	6600
GKS06	3500	4440	5580	6930	8710	10000	10000	10000	10000
GKS07		4900	6230	7820	9940	12600	14000	14000	14000
GKS09		6500	7400	8000	10500	13000	17000	21000	21000
GKS11		7000	8000	9200	12000	14500	18500	27000	27000
GKS14		6000	8000	10000	13000	16000	20000	28000	35000

- ▶ Application of force F_{rad} : at hollow shaft end face ($x = 0$)
- ▶ $F_{ax,max}$ only valid with $F_{rad} = 0$
- ▶ Neither radial nor axial forces are permissible for the hollow shaft with shrink disc (S□□).



Permissible radial and axial forces at output

GKS□□-3/4□ V□R

Size	n_2 [r/min]								
Gearbox	630	400	250	160	100	63	40	25	≤16

Max. radial force, Solid shaft without flange										
	$F_{rad,max}$	$F_{rad,max}$	$F_{rad,max}$	$F_{rad,max}$	$F_{rad,max}$	$F_{rad,max}$	$F_{rad,max}$	$F_{rad,max}$	$F_{rad,max}$	$F_{rad,max}$
	[N]	[N]	[N]	[N]	[N]	[N]	[N]	[N]	[N]	[N]
GKS04	2400	3000	3400	3600	3600	3600	3600	3600	3600	3600
GKS05	2200	2800	3200	3600	4100	4900	5800	5800	5800	5800
GKS06	2700	3700	4300	4900	5300	6200	7900	9000	9000	9000
GKS07		4000	4900	5800	6600	8000	9600	12000	12000	12000
GKS09 ¹⁾		6200	6400	7100	8400	9500	11800	16000	18000	18000
GKS11 ¹⁾		7100	7500	8200	10000	11200	13000	19000	23000	23000
GKS14		57900	61000	64100	65000	65000	65000	65000	65000	65000

Max. axial force, Solid shaft without flange										
	$F_{ax,max}$	$F_{ax,max}$	$F_{ax,max}$	$F_{ax,max}$	$F_{ax,max}$	$F_{ax,max}$	$F_{ax,max}$	$F_{ax,max}$	$F_{ax,max}$	$F_{ax,max}$
	[N]	[N]	[N]	[N]	[N]	[N]	[N]	[N]	[N]	[N]
GKS04	3300	4200	5000	5500	5500	5500	5500	5500	5500	5500
GKS05	2800	3500	4240	5090	6160	6600	6600	6600	6600	6600
GKS06	3500	4440	5580	6930	8710	10000	10000	10000	10000	10000
GKS07		4900	6230	7820	9940	12600	14000	14000	14000	14000
GKS09 ¹⁾		6500	7400	8000	10500	13000	17000	21000	21000	21000
GKS11 ¹⁾		7000	8000	9200	12000	14500	18500	27000	27000	27000
GKS14		35000	35000	35000	35000	35000	35000	35000	35000	35000

¹⁾ Reinforced output shaft bearings are available on request for V□R versions.

- ▶ Application of force F_{rad} : centre of shaft journal ($x = l/2$)
- ▶ $F_{ax,max}$ only valid with $F_{rad} = 0$



Permissible radial and axial forces at output

GKS□□-3/4□V□K

Size	n_2 [r/min]								
Gearbox	630	400	250	160	100	63	40	25	≤16

Max. radial force, Solid shaft with flange										
	$F_{rad,max}$	$F_{rad,max}$	$F_{rad,max}$	$F_{rad,max}$	$F_{rad,max}$	$F_{rad,max}$	$F_{rad,max}$	$F_{rad,max}$	$F_{rad,max}$	$F_{rad,max}$
	[N]	[N]	[N]	[N]	[N]	[N]	[N]	[N]	[N]	[N]
GKS04	3100	3800	4300	4600	4600	4600	4600	4600	4600	4600
GKS05	3800	4640	5420	6280	7000	7000	7000	7000	7000	7000
GKS06	4700	6400	7500	8800	9800	10000	10000	10000	10000	10000
GKS07		7000	8250	9630	11000	13000	14000	14000	14000	14000
GKS09		9900	10500	12000	14000	15000	15000	15000	15000	15000
GKS11		14500	16000	17600	21000	24500	28000	30000	30000	30000
GKS14		20500	23700	27200	31300	35000	41000	43000	43000	43000

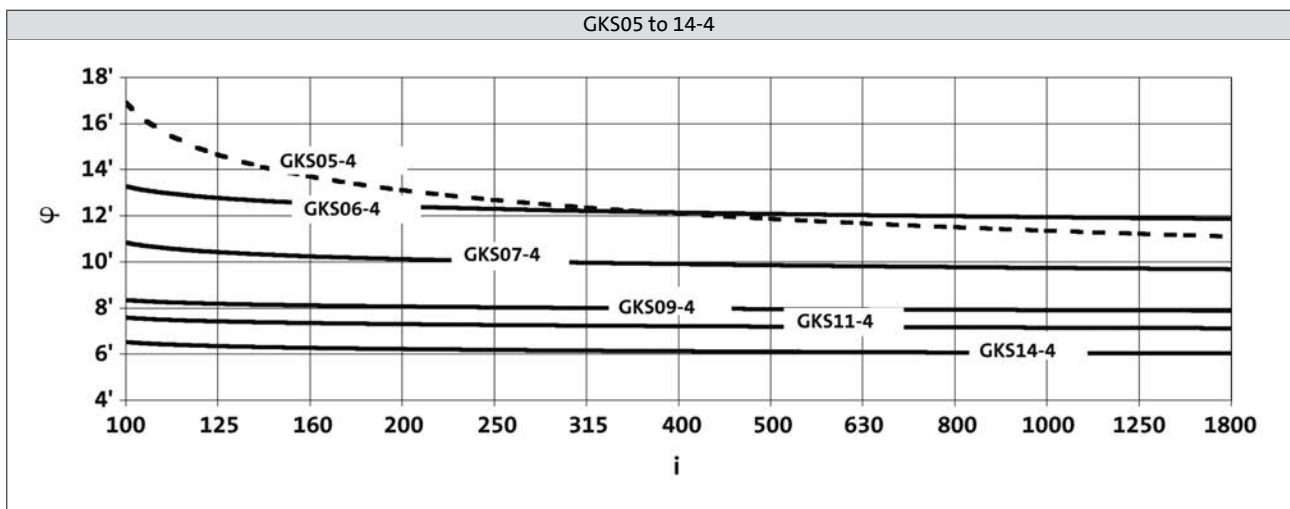
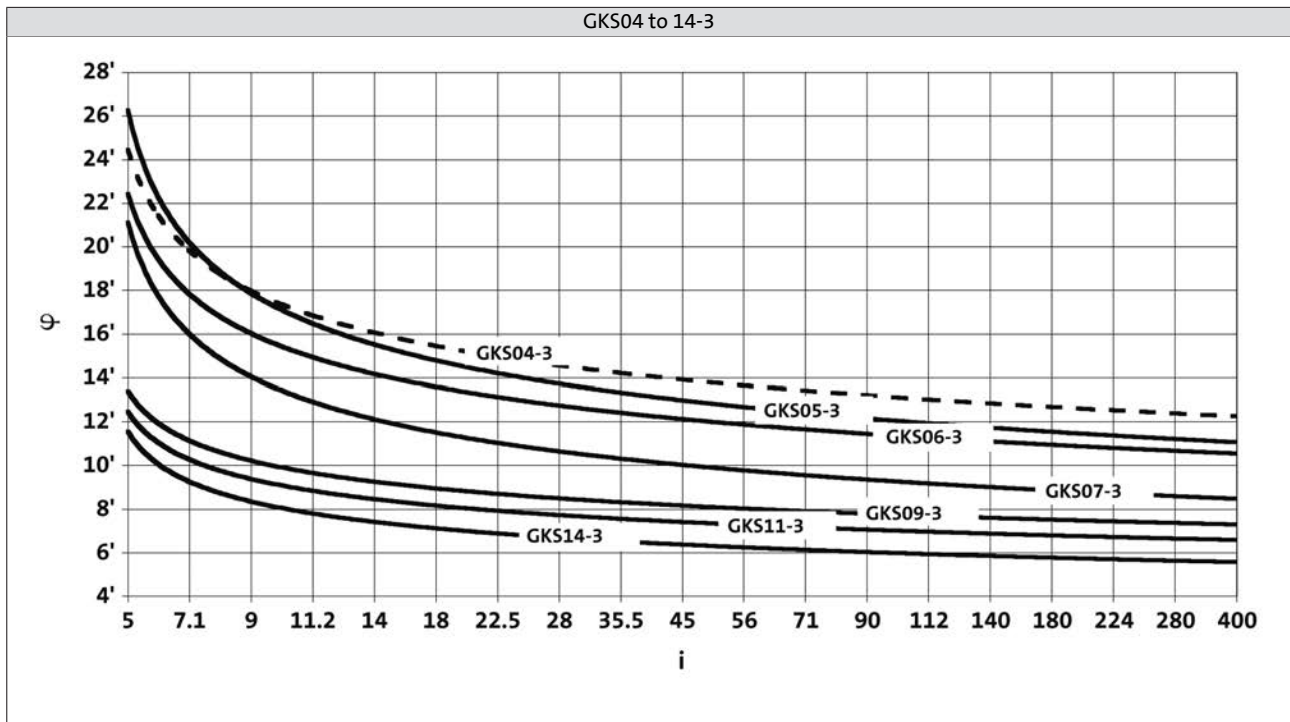
Max. axial force, Solid shaft with flange										
	$F_{ax,max}$	$F_{ax,max}$	$F_{ax,max}$	$F_{ax,max}$	$F_{ax,max}$	$F_{ax,max}$	$F_{ax,max}$	$F_{ax,max}$	$F_{ax,max}$	$F_{ax,max}$
	[N]	[N]	[N]	[N]	[N]	[N]	[N]	[N]	[N]	[N]
GKS04	3300	4200	4400	4400	4400	4400	4400	4400	4400	4400
GKS05	2900	3630	4440	5420	6600	6600	6600	6600	6600	6600
GKS06	3700	4660	5880	7320	9230	10000	10000	10000	10000	10000
GKS07		5700	7000	8500	10400	11500	11500	11500	11500	11500
GKS09		6000	6600	7600	10000	12000	15000	17000	17000	17000
GKS11		7000	7500	8500	10500	13000	17500	27000	27000	27000
GKS14		8400	10000	11500	13000	15000	19000	28000	35000	35000

- ▶ Application of force F_{rad} : centre of shaft journal ($x = l/2$)
- ▶ $F_{ax,max}$ only valid with $F_{rad} = 0$



Output backlash in angular minutes

- Backlash ϕ depending on ratio i





Moments of inertia

GKS□□-3

- Moment of inertia (J) depending on ratio i

Gearbox		[kgcm ²]	GKS04
5.123	J	[kgcm ²]	1.170
7.025	J	[kgcm ²]	0.676
8.167	J	[kgcm ²]	0.863
8.991	J	[kgcm ²]	0.444
11.730	J	[kgcm ²]	0.729
13.067	J	[kgcm ²]	0.701
14.333	J	[kgcm ²]	0.346
16.087	J	[kgcm ²]	0.443
17.920	J	[kgcm ²]	0.428
20.588	J	[kgcm ²]	0.302
22.522	J	[kgcm ²]	0.262
25.088	J	[kgcm ²]	0.254
28.727	J	[kgcm ²]	0.182
32.000	J	[kgcm ²]	0.177
35.191	J	[kgcm ²]	0.136
39.200	J	[kgcm ²]	0.132
44.240	J	[kgcm ²]	0.090
50.943	J	[kgcm ²]	0.181
56.976	J	[kgcm ²]	0.061
64.978	J	[kgcm ²]	0.132
72.210	J	[kgcm ²]	0.040
79.598	J	[kgcm ²]	0.103
90.491	J	[kgcm ²]	0.027
100.067	J	[kgcm ²]	0.069
111.467	J	[kgcm ²]	0.069
128.874	J	[kgcm ²]	0.048
143.556	J	[kgcm ²]	0.048
163.332	J	[kgcm ²]	0.032
181.939	J	[kgcm ²]	0.032
204.682	J	[kgcm ²]	0.022
228.000	J	[kgcm ²]	0.022
269.660	J	[kgcm ²]	0.014
300.381	J	[kgcm ²]	0.014

Gearbox		[kgcm ²]	GKS05
6.863	J	[kgcm ²]	1.900
9.412	J	[kgcm ²]	1.170
10.569	J	[kgcm ²]	1.600
11.667	J	[kgcm ²]	1.647
13.176	J	[kgcm ²]	0.711
14.494	J	[kgcm ²]	1.045
16.000	J	[kgcm ²]	1.040
17.054	J	[kgcm ²]	1.505
19.216	J	[kgcm ²]	1.474
23.388	J	[kgcm ²]	0.964
26.353	J	[kgcm ²]	0.948
29.931	J	[kgcm ²]	0.674
32.744	J	[kgcm ²]	0.584
36.894	J	[kgcm ²]	0.576
41.765	J	[kgcm ²]	0.419
47.059	J	[kgcm ²]	0.414
51.162	J	[kgcm ²]	0.321
57.647	J	[kgcm ²]	0.317
66.592	J	[kgcm ²]	0.200
75.033	J	[kgcm ²]	0.198
82.833	J	[kgcm ²]	0.145
93.333	J	[kgcm ²]	0.144
107.196	J	[kgcm ²]	0.091
120.784	J	[kgcm ²]	0.091
130.097	J	[kgcm ²]	0.067
146.588	J	[kgcm ²]	0.066
166.276	J	[kgcm ²]	0.043
187.353	J	[kgcm ²]	0.042
211.200	J	[kgcm ²]	0.081
227.484	J	[kgcm ²]	0.060
256.320	J	[kgcm ²]	0.060
290.745	J	[kgcm ²]	0.038
327.600	J	[kgcm ²]	0.038

- The moments of inertia relate to the drive shaft of the gearbox.
- The total moment of inertia is calculated by adding the values of the gearbox, motor and accessories.



Moments of inertia

GKS□□-3

- Moment of inertia (J) depending on ratio i

Gearbox			GKS06
6.485	J	[kgcm ²]	5.870
9.196	J	[kgcm ²]	5.048
10.147	J	[kgcm ²]	4.858
11.382	J	[kgcm ²]	2.492
12.612	J	[kgcm ²]	3.199
14.824	J	[kgcm ²]	4.287
16.699	J	[kgcm ²]	4.163
17.809	J	[kgcm ²]	2.126
20.329	J	[kgcm ²]	2.794
22.902	J	[kgcm ²]	2.729
26.017	J	[kgcm ²]	1.941
28.461	J	[kgcm ²]	1.666
32.063	J	[kgcm ²]	1.632
36.303	J	[kgcm ²]	1.183
41.472	J	[kgcm ²]	2.110
44.471	J	[kgcm ²]	0.900
53.074	J	[kgcm ²]	1.523
57.882	J	[kgcm ²]	0.578
65.207	J	[kgcm ²]	0.570
72.000	J	[kgcm ²]	0.422
81.111	J	[kgcm ²]	0.416
93.176	J	[kgcm ²]	0.257
104.967	J	[kgcm ²]	0.254
113.082	J	[kgcm ²]	0.189
127.392	J	[kgcm ²]	0.186
142.941	J	[kgcm ²]	0.122
161.029	J	[kgcm ²]	0.121
190.080	J	[kgcm ²]	0.227
214.133	J	[kgcm ²]	0.226
230.688	J	[kgcm ²]	0.168
259.880	J	[kgcm ²]	0.167
291.600	J	[kgcm ²]	0.109
328.500	J	[kgcm ²]	0.109

Gearbox			GKS07
5.955	J	[kgcm ²]	19.300
8.254	J	[kgcm ²]	11.800
9.171	J	[kgcm ²]	16.000
10.124	J	[kgcm ²]	15.882
11.378	J	[kgcm ²]	7.019
12.711	J	[kgcm ²]	10.164
14.798	J	[kgcm ²]	14.306
16.674	J	[kgcm ²]	13.965
17.270	J	[kgcm ²]	7.258
20.511	J	[kgcm ²]	9.084
23.111	J	[kgcm ²]	8.906
25.244	J	[kgcm ²]	6.716
28.274	J	[kgcm ²]	5.567
31.858	J	[kgcm ²]	5.473
36.063	J	[kgcm ²]	3.650
40.906	J	[kgcm ²]	6.934
44.178	J	[kgcm ²]	2.779
50.345	J	[kgcm ²]	5.298
57.501	J	[kgcm ²]	1.748
64.790	J	[kgcm ²]	1.725
70.474	J	[kgcm ²]	1.295
79.407	J	[kgcm ²]	1.280
92.563	J	[kgcm ²]	0.808
104.296	J	[kgcm ²]	0.799
112.338	J	[kgcm ²]	0.592
126.578	J	[kgcm ²]	0.586
140.548	J	[kgcm ²]	1.113
158.364	J	[kgcm ²]	1.113
184.600	J	[kgcm ²]	0.687
208.000	J	[kgcm ²]	0.685
224.037	J	[kgcm ²]	0.510
252.436	J	[kgcm ²]	0.509
283.193	J	[kgcm ²]	0.330
319.091	J	[kgcm ²]	0.329

- The moments of inertia relate to the drive shaft of the gearbox.
- The total moment of inertia is calculated by adding the values of the gearbox, motor and accessories.



Moments of inertia

GKS□□-3

- Moment of inertia (J) depending on ratio i

Gearbox			GKS09
12.283	J	[kgcm ²]	34.200
13.360	J	[kgcm ²]	33.400
16.122	J	[kgcm ²]	22.600
17.536	J	[kgcm ²]	22.200
19.541	J	[kgcm ²]	30.600
22.022	J	[kgcm ²]	29.900
25.649	J	[kgcm ²]	20.500
29.228	J	[kgcm ²]	15.900
32.940	J	[kgcm ²]	15.600
35.193	J	[kgcm ²]	12.200
39.662	J	[kgcm ²]	12.000
43.146	J	[kgcm ²]	9.000
48.625	J	[kgcm ²]	8.870
58.456	J	[kgcm ²]	5.540
65.879	J	[kgcm ²]	5.470
70.982	J	[kgcm ²]	4.140
79.996	J	[kgcm ²]	4.100
91.860	J	[kgcm ²]	2.630
103.524	J	[kgcm ²]	2.610
111.484	J	[kgcm ²]	1.920
125.641	J	[kgcm ²]	1.900
140.921	J	[kgcm ²]	1.260
158.816	J	[kgcm ²]	1.250
182.000	J	[kgcm ²]	2.250
205.111	J	[kgcm ²]	2.240
220.882	J	[kgcm ²]	1.660
248.930	J	[kgcm ²]	1.650
279.205	J	[kgcm ²]	1.100
314.659	J	[kgcm ²]	1.100

Gearbox			GKS11
12.094	J	[kgcm ²]	104.000
13.154	J	[kgcm ²]	101.000
15.874	J	[kgcm ²]	68.000
17.265	J	[kgcm ²]	66.500
19.515	J	[kgcm ²]	90.300
21.989	J	[kgcm ²]	90.400
25.615	J	[kgcm ²]	61.200
28.021	J	[kgcm ²]	52.200
31.573	J	[kgcm ²]	51.300
35.741	J	[kgcm ²]	36.800
40.272	J	[kgcm ²]	36.200
43.783	J	[kgcm ²]	27.900
49.333	J	[kgcm ²]	27.500
57.683	J	[kgcm ²]	17.700
64.995	J	[kgcm ²]	17.500
70.887	J	[kgcm ²]	13.000
79.873	J	[kgcm ²]	12.900
91.737	J	[kgcm ²]	8.300
103.365	J	[kgcm ²]	8.210
111.335	J	[kgcm ²]	6.050
125.448	J	[kgcm ²]	5.990
140.732	J	[kgcm ²]	3.960
158.571	J	[kgcm ²]	3.930
186.572	J	[kgcm ²]	7.070
210.222	J	[kgcm ²]	7.050
226.431	J	[kgcm ²]	5.210
255.133	J	[kgcm ²]	5.200
286.219	J	[kgcm ²]	3.440
322.500	J	[kgcm ²]	3.430

- The moments of inertia relate to the drive shaft of the gearbox.
- The total moment of inertia is calculated by adding the values of the gearbox, motor and accessories.



Moments of inertia

GKS□□-3

- Moment of inertia (J) depending on ratio i

Gearbox			GKS14
12.435	J	[kgcm ²]	283.000
13.525	J	[kgcm ²]	275.000
16.646	J	[kgcm ²]	198.000
18.311	J	[kgcm ²]	173.000
20.065	J	[kgcm ²]	249.000
22.609	J	[kgcm ²]	243.000
24.696	J	[kgcm ²]	183.000
27.165	J	[kgcm ²]	159.000
30.609	J	[kgcm ²]	156.000
34.692	J	[kgcm ²]	111.000
39.089	J	[kgcm ²]	109.000
42.531	J	[kgcm ²]	82.400
47.923	J	[kgcm ²]	81.100
56.251	J	[kgcm ²]	54.200
63.382	J	[kgcm ²]	53.500
68.942	J	[kgcm ²]	38.900
77.681	J	[kgcm ²]	38.400
90.551	J	[kgcm ²]	25.100
102.029	J	[kgcm ²]	24.900
109.896	J	[kgcm ²]	18.300
123.826	J	[kgcm ²]	18.100
138.913	J	[kgcm ²]	12.000
156.522	J	[kgcm ²]	11.900
186.572	J	[kgcm ²]	21.600
210.222	J	[kgcm ²]	21.500
226.431	J	[kgcm ²]	15.900
255.133	J	[kgcm ²]	15.800
286.219	J	[kgcm ²]	10.500
322.500	J	[kgcm ²]	10.500

- The moments of inertia relate to the drive shaft of the gearbox.
- The total moment of inertia is calculated by adding the values of the gearbox, motor and accessories.



Moments of inertia

GKS□□-4

- Moment of inertia (J) depending on ratio i

Gearbox			GKS05
95.238	J	[kgcm ²]	0.143
114.987	J	[kgcm ²]	0.196
126.933	J	[kgcm ²]	0.196
146.667	J	[kgcm ²]	0.142
161.905	J	[kgcm ²]	0.141
185.547	J	[kgcm ²]	0.195
209.067	J	[kgcm ²]	0.195
225.867	J	[kgcm ²]	0.073
236.667	J	[kgcm ²]	0.141
289.917	J	[kgcm ²]	0.108
326.667	J	[kgcm ²]	0.108
364.467	J	[kgcm ²]	0.073
410.667	J	[kgcm ²]	0.073
469.389	J	[kgcm ²]	0.050
510.000	J	[kgcm ²]	0.023
528.889	J	[kgcm ²]	0.050
594.894	J	[kgcm ²]	0.033
670.303	J	[kgcm ²]	0.033
820.760	J	[kgcm ²]	0.050
924.800	J	[kgcm ²]	0.050
1040.215	J	[kgcm ²]	0.033
1172.073	J	[kgcm ²]	0.033
1303.560	J	[kgcm ²]	0.023
1468.800	J	[kgcm ²]	0.023
1717.389	J	[kgcm ²]	0.014
1935.086	J	[kgcm ²]	0.014

Gearbox			GKS06
103.721	J	[kgcm ²]	0.300
113.205	J	[kgcm ²]	0.234
127.059	J	[kgcm ²]	0.264
140.816	J	[kgcm ²]	0.213
155.647	J	[kgcm ²]	0.191
174.336	J	[kgcm ²]	0.112
202.588	J	[kgcm ²]	0.168
224.524	J	[kgcm ²]	0.074
252.000	J	[kgcm ²]	0.155
279.286	J	[kgcm ²]	0.069
316.800	J	[kgcm ²]	0.102
361.429	J	[kgcm ²]	0.064
408.000	J	[kgcm ²]	0.068
458.067	J	[kgcm ²]	0.042
517.091	J	[kgcm ²]	0.044
555.927	J	[kgcm ²]	0.041
640.800	J	[kgcm ²]	0.062
696.668	J	[kgcm ²]	0.028
812.137	J	[kgcm ²]	0.040
914.907	J	[kgcm ²]	0.040
1017.741	J	[kgcm ²]	0.028
1146.529	J	[kgcm ²]	0.028
1340.834	J	[kgcm ²]	0.017
1510.507	J	[kgcm ²]	0.017

- The moments of inertia relate to the drive shaft of the gearbox.
- The total moment of inertia is calculated by adding the values of the gearbox, motor and accessories.



Moments of inertia

GKS□□-4

- Moment of inertia (J) depending on ratio i

Gearbox		[kgcm ²]	GKS07
103.039	J	[kgcm ²]	0.837
112.391	J	[kgcm ²]	0.632
126.222	J	[kgcm ²]	0.729
137.748	J	[kgcm ²]	0.571
154.622	J	[kgcm ²]	0.527
179.201	J	[kgcm ²]	0.283
201.254	J	[kgcm ²]	0.454
222.909	J	[kgcm ²]	0.199
246.659	J	[kgcm ²]	0.417
273.199	J	[kgcm ²]	0.184
321.049	J	[kgcm ²]	0.256
358.829	J	[kgcm ²]	0.169
399.353	J	[kgcm ²]	0.182
464.367	J	[kgcm ²]	0.106
516.810	J	[kgcm ²]	0.113
563.572	J	[kgcm ²]	0.101
636.581	J	[kgcm ²]	0.161
683.972	J	[kgcm ²]	0.074
823.810	J	[kgcm ²]	0.101
928.237	J	[kgcm ²]	0.101
999.806	J	[kgcm ²]	0.073
1126.542	J	[kgcm ²]	0.073
1277.842	J	[kgcm ²]	0.047
1439.822	J	[kgcm ²]	0.047

Gearbox		[kgcm ²]	GKS09
100.551	J	[kgcm ²]	2.480
113.320	J	[kgcm ²]	2.456
123.275	J	[kgcm ²]	2.107
138.929	J	[kgcm ²]	2.091
151.012	J	[kgcm ²]	1.516
170.188	J	[kgcm ²]	1.505
204.596	J	[kgcm ²]	1.244
230.577	J	[kgcm ²]	1.239
248.439	J	[kgcm ²]	1.128
279.986	J	[kgcm ²]	1.125
323.365	J	[kgcm ²]	0.713
364.427	J	[kgcm ²]	0.710
402.234	J	[kgcm ²]	0.509
453.311	J	[kgcm ²]	0.507
520.538	J	[kgcm ²]	0.466
586.638	J	[kgcm ²]	0.465
631.744	J	[kgcm ²]	0.443
711.965	J	[kgcm ²]	0.443
817.551	J	[kgcm ²]	0.276
921.367	J	[kgcm ²]	0.276
992.209	J	[kgcm ²]	0.201
1118.204	J	[kgcm ²]	0.201
1254.197	J	[kgcm ²]	0.130
1413.461	J	[kgcm ²]	0.130

- The moments of inertia relate to the drive shaft of the gearbox.
- The total moment of inertia is calculated by adding the values of the gearbox, motor and accessories.



Moments of inertia

GKS□□-4

- Moment of inertia (J) depending on ratio i

Gearbox			GKS11
102.119	J	[kgcm ²]	7.276
115.063	J	[kgcm ²]	7.205
125.095	J	[kgcm ²]	6.233
140.952	J	[kgcm ²]	6.186
153.242	J	[kgcm ²]	4.500
172.667	J	[kgcm ²]	4.469
201.890	J	[kgcm ²]	3.735
227.481	J	[kgcm ²]	3.717
248.106	J	[kgcm ²]	3.355
279.556	J	[kgcm ²]	3.343
322.931	J	[kgcm ²]	2.088
363.866	J	[kgcm ²]	2.081
395.787	J	[kgcm ²]	1.521
445.958	J	[kgcm ²]	1.517
512.196	J	[kgcm ²]	1.385
577.122	J	[kgcm ²]	1.382
621.619	J	[kgcm ²]	1.314
700.416	J	[kgcm ²]	1.312
816.455	J	[kgcm ²]	0.819
919.949	J	[kgcm ²]	0.818
990.879	J	[kgcm ²]	0.600
1116.484	J	[kgcm ²]	0.599
1252.516	J	[kgcm ²]	0.386
1411.286	J	[kgcm ²]	0.385

Gearbox			GKS14
97.467	J	[kgcm ²]	23.471
109.822	J	[kgcm ²]	23.232
119.493	J	[kgcm ²]	19.936
134.640	J	[kgcm ²]	19.777
158.039	J	[kgcm ²]	16.438
178.072	J	[kgcm ²]	16.348
193.754	J	[kgcm ²]	12.076
218.315	J	[kgcm ²]	12.016
237.467	J	[kgcm ²]	10.871
267.568	J	[kgcm ²]	10.830
321.729	J	[kgcm ²]	6.420
362.512	J	[kgcm ²]	6.398
390.671	J	[kgcm ²]	4.749
440.193	J	[kgcm ²]	4.734
513.121	J	[kgcm ²]	4.330
578.164	J	[kgcm ²]	4.322
622.742	J	[kgcm ²]	4.122
701.681	J	[kgcm ²]	4.116
805.901	J	[kgcm ²]	2.620
908.058	J	[kgcm ²]	2.617
978.071	J	[kgcm ²]	1.912
1102.052	J	[kgcm ²]	1.909
1236.326	J	[kgcm ²]	1.259
1393.043	J	[kgcm ²]	1.258

- The moments of inertia relate to the drive shaft of the gearbox.
- The total moment of inertia is calculated by adding the values of the gearbox, motor and accessories.

GKS helical-bevel gearboxes



Technical data

Weights

GKS□□-3M HAR / HBR

		063C11 063C12	063C31	063C32	063C42	071C11 071C13 071C31 071C32 071C33 071C42	080C11	080C13	080C31	080C32 080C33 080C42	090C11 090C31
GKS04	m [kg]	16	15	16		18	22	23	22	23	30
GKS05	m [kg]				26	28	32	33	32	33	40
GKS06	m [kg]				40	42	46	47	46	47	54
GKS07	m [kg]						72	73	72	73	80
GKS09	m [kg]										128

		090C32	100C12	100C31	100C32	100C41	112C22	112C31	112C32	112C41	132C21
GKS04	m [kg]	28									
GKS05	m [kg]	38	47	44	47	44					
GKS06	m [kg]	52	61	58	61	58	70	67	77	74	
GKS07	m [kg]	78	87	84	87	84	95	92	102	99	134
GKS09	m [kg]	126	135	132	135	132	143	140	150	147	183
GKS11	m [kg]		235	232	235	232	242	239	249	246	281
GKS14	m [kg]						413	410	420	417	449

		132C22 132C32	160C22	160C32	180C12	180C32	180C42	225C12	225C22
GKS07	m [kg]	132	176	196					
GKS09	m [kg]	181	225	245	280	290			
GKS11	m [kg]	279	323	343	378	388	413	537	632
GKS14	m [kg]	447	491	511	546	556	581	704	729

- Weights with oil filling for mounting position A; all values are approximate.
The weights relate to the basic version. Bear in mind that additional weights may be needed, e.g. for motor options.

GKS helical-bevel gearboxes



Technical data

Weights

GKS□□-3M HAK

		063C11 063C12 063C31 063C32	063C42	071C11	071C13 071C31	071C32	071C33 071C42	080C11	080C13	080C31	080C32 080C33 080C42
GKS04	m [kg]	18	19	20	21	20	21	25	26	25	26
GKS05	m [kg]		30		32			36	37	36	37
GKS06	m [kg]		47		49			53	54	53	54
GKS07	m [kg]							83	84	83	84

		090C11 090C31	090C32	100C12	100C31	100C32	100C41	112C22	112C31	112C32	112C41
GKS04	m [kg]	32	30								
GKS05	m [kg]	44	42	51	48	51	48				
GKS06	m [kg]	61	59	68	65	68	65	77	74	84	81
GKS07	m [kg]	91	89	98	95	98	95	106	103	113	110
GKS09	m [kg]	144	142	151	148	151	148	159	156	166	163
GKS11	m [kg]			259	256	259	256	266	263	273	270
GKS14	m [kg]							446	443	453	450

		132C21	132C22 132C32	160C22	160C32	180C12	180C32	180C42	225C12	225C22
GKS07	m [kg]	145	143	187	207					
GKS09	m [kg]	199	197	241	261	296	306			
GKS11	m [kg]	305	303	347	367	402	412	437	561	656
GKS14	m [kg]	482	480	524	544	579	589	614	737	762

- Weights with oil filling for mounting position A; all values are approximate. The weights relate to the basic version. Bear in mind that additional weights may be needed, e.g. for motor options.

GKS helical-bevel gearboxes



Technical data

Weights

GKS□□-3M VAR / VBR

		063C11 063C12 063C31 063C32	063C42	071C11	071C13 071C31	071C32	071C33 071C42	080C11	080C13	080C31	080C32 080C33 080C42
GKS04	m [kg]	16	17	18	19	18	19	23	24	23	24
GKS05	m [kg]		27		29			33	34	33	34
GKS06	m [kg]		43	44	45	44	45	48	49	48	49
GKS07	m [kg]							77	78	77	78

		090C11 090C31	090C32	100C12	100C31	100C32	100C41	112C22	112C31	112C32	112C41
GKS04	m [kg]	30	28								
GKS05	m [kg]	41	39	48	45	48	45				
GKS06	m [kg]	57	55	64	61	64	61	72	69	79	76
GKS07	m [kg]	85	83	92	89	92	89	100	97	107	104
GKS09	m [kg]	136	134	143	140	143	140	151	148	158	155
GKS11	m [kg]			251	248	251	248	258	255	265	262
GKS14	m [kg]							446	443	453	450

		132C21	132C22 132C32	160C22	160C32	180C12	180C32	180C42	225C12	225C22
GKS07	m [kg]	139	137	181	201					
GKS09	m [kg]	191	189	233	253	288	298			
GKS11	m [kg]	297	295	339	359	394	404	429	553	648
GKS14	m [kg]	482	480	524	544	579	589	614	737	762

GKS□□-3M VAK

		063C11 063C12 063C31 063C32	063C42	071C11	071C13 071C31	071C32	071C33 071C42	080C11	080C13	080C31	080C32 080C33 080C42
GKS04	m [kg]	19			21			25	26	25	26
GKS05	m [kg]		31		33			37	38	37	38
GKS06	m [kg]		50	51	52	51	52	55	56	55	56
GKS07	m [kg]							88	89	88	89

		090C11 090C31	090C32	100C12	100C31	100C32	100C41	112C22	112C31	112C32	112C41
GKS04	m [kg]	33	31								
GKS05	m [kg]	45	43	52	49	52	49				
GKS06	m [kg]	64	62	71	68	71	68	79	76	86	83
GKS07	m [kg]	96	94	103	100	103	100	111	108	118	115
GKS09	m [kg]	152	150	159	156	159	156	167	164	174	171
GKS11	m [kg]			275	272	275	272	282	279	289	286
GKS14	m [kg]							479	476	486	483

		132C21	132C22 132C32	160C22	160C32	180C12	180C32	180C42	225C12	225C22
GKS07	m [kg]	150	148	192	212					
GKS09	m [kg]	207	205	249	269	304	314			
GKS11	m [kg]	321	319	363	383	418	428	453	577	672
GKS14	m [kg]	515	513	557	577	612	622	647	770	795

- Weights with oil filling for mounting position A; all values are approximate.
The weights relate to the basic version. Bear in mind that additional weights may be needed, e.g. for motor options.

GKS helical-bevel gearboxes



Technical data

Weights

GKS□□-3M SAR / SBR

		063C11 063C12 063C31 063C32	063C42	071C11	071C13 071C31	071C32	071C33 071C42	080C11	080C13	080C31	080C32 080C33 080C42
GKS04	m [kg]	16	17	18	19	18	19	23	24	23	24
GKS05	m [kg]		27	29		28	29	33	34	33	34
GKS06	m [kg]		41	43				47	48	47	48
GKS07	m [kg]							73	74	73	74

		090C11 090C31	090C32	100C12	100C31	100C32	100C41	112C22	112C31	112C32	112C41
GKS04	m [kg]	30	28								
GKS05	m [kg]	41	39	48	45	48	45				
GKS06	m [kg]	55	53	62	59	62	59	71	68	78	75
GKS07	m [kg]	81	79	88	85	88	85	97	94	104	101
GKS09	m [kg]	131	129	138	135	138	135	146	143	153	150
GKS11	m [kg]			240	237	240	237	247	244	254	251
GKS14	m [kg]							424	421	431	428

		132C21	132C22 132C32	160C22	160C32	180C12	180C32	180C42	225C12	225C22
GKS07	m [kg]	135	133	177	197					
GKS09	m [kg]	186	184	228	248	283	293			
GKS11	m [kg]	286	284	328	348	383	393	418	542	637
GKS14	m [kg]	460	458	502	522	557	567	592	715	740

GKS□□-3M SAK

		063C11 063C12 063C31 063C32	063C42	071C11 071C13 071C31	071C32	071C33 071C42	080C11	080C13	080C31	080C32 080C33 080C42	090C11 090C31
GKS04	m [kg]	19		21			25	26	25	26	33
GKS05	m [kg]		31	33	32	33	37	38	37	38	45
GKS06	m [kg]		48	50			54	55	54	55	62
GKS07	m [kg]						84	85	84	85	92
GKS09	m [kg]										147

		090C32	100C12	100C31	100C32	100C41	112C22	112C31	112C32	112C41	132C21
GKS04	m [kg]	31									
GKS05	m [kg]	43	52	49	52	49					
GKS06	m [kg]	60	69	66	69	66	78	75	85	82	
GKS07	m [kg]	90	99	96	99	96	108	105	115	112	146
GKS09	m [kg]	145	154	151	154	151	162	159	169	166	202
GKS11	m [kg]		264	261	264	261	271	268	278	275	310
GKS14	m [kg]						457	454	464	461	493

		132C22 132C32	160C22	160C32	180C12	180C32	180C42	225C12	225C22
GKS07	m [kg]	144	188	208					
GKS09	m [kg]	200	244	264	299	309			
GKS11	m [kg]	308	352	372	407	417	442	566	661
GKS14	m [kg]	491	535	555	590	600	625	748	773

- Weights with oil filling for mounting position A; all values are approximate.
The weights relate to the basic version. Bear in mind that additional weights may be needed, e.g. for motor options.

GKS helical-bevel gearboxes



Technical data

Weights

GKS□□-4M HAR / HBR

		063C11 063C12 063C31 063C32	063C42	071C11	071C13 071C31	071C32	071C33	071C42	080C11	080C13
GKS05	m [kg]	26	27	28	29	28	29		33	
GKS06	m [kg]	43	44	45	46	45	46		50	51
GKS07	m [kg]		74			76			80	81
GKS09	m [kg]		127	129	130	129	130	129	133	134
GKS11	m [kg]								241	242

		080C31	080C32 080C33 080C42	090C11 090C31	090C32	100C12	100C31	100C32	100C41	112C22
GKS06	m [kg]	50	51	57						
GKS07	m [kg]	80	81	88	86	95	92		92	
GKS09	m [kg]	133	134	141	139	148	145	148	145	157
GKS11	m [kg]	241	242	249	247	256	253	256	253	264
GKS14	m [kg]			434	432	441	438	441	438	449

		112C31	112C32	112C41	132C21	132C22 132C32	160C22	160C32	180C12
GKS09	m [kg]	154	164	161					
GKS11	m [kg]	261	271	268	303	301			
GKS14	m [kg]	446	456	453	489	487	531	551	586

GKS□□-4M HAK

		063C11 063C12 063C31 063C32	063C42	071C11	071C13 071C31	071C32	071C33	071C42	080C11	080C13
GKS05	m [kg]	30	31	32	33	32	33		37	
GKS06	m [kg]	50	51	52	53	52	53		57	58
GKS07	m [kg]		85			87			91	92
GKS09	m [kg]		143			145			149	150
GKS11	m [kg]								265	266

		080C31	080C32 080C33 080C42	090C11 090C31	090C32	100C12	100C31	100C32	100C41	112C22
GKS06	m [kg]	57	58	64						
GKS07	m [kg]	91	92	99	97	106	103		103	
GKS09	m [kg]	149	150	157	155	164	161	164	161	173
GKS11	m [kg]	265	266	273	271	280	277	280	277	288
GKS14	m [kg]			467	465	474	471	474	471	482

		112C31	112C32	112C41	132C21	132C22 132C32	160C22	160C32	180C12
GKS09	m [kg]	170	180	177					
GKS11	m [kg]	285	295	292	327	325			
GKS14	m [kg]	479	489	486	522	520	564	584	619

- Weights with oil filling for mounting position A; all values are approximate.
The weights relate to the basic version. Bear in mind that additional weights may be needed, e.g. for motor options.

GKS helical-bevel gearboxes



Technical data

Weights

GKS□□-4M VAR / VBR

		063C11 063C12 063C31 063C32	063C42	071C11	071C13 071C31	071C32	071C33	071C42	080C11	080C13
GKS05	m [kg]	27	28	29	30	29	30		34	
GKS06	m [kg]	46				48			52	53
GKS07	m [kg]		79			81			85	86
GKS09	m [kg]		135			137			141	142
GKS11	m [kg]								257	258

		080C31	080C32 080C33 080C42	090C11 090C31	090C32	100C12	100C31	100C32	100C41	112C22
GKS06	m [kg]	52	53	60						
GKS07	m [kg]	85	86	93	91	100	97		97	
GKS09	m [kg]	141	142	149	147	156	153	156	153	165
GKS11	m [kg]	257	258	265	263	272	269	272	269	280
GKS14	m [kg]			467	465	474	471	474	471	482

		112C31	112C32	112C41	132C21	132C22 132C32	160C22	160C32	180C12
GKS09	m [kg]	162	172	169					
GKS11	m [kg]	277	287	284	319	317			
GKS14	m [kg]	479	489	486	522	520	564	584	619

GKS□□-4M VAK

		063C11 063C12 063C31 063C32	063C42	071C11	071C13 071C31	071C32	071C33	071C42	080C11	080C13
GKS05	m [kg]	31	32	33	34	33	34		38	
GKS06	m [kg]	53				55			59	60
GKS07	m [kg]		90			92			96	97
GKS09	m [kg]		151			153			157	158
GKS11	m [kg]								281	282

		080C31	080C32 080C33 080C42	090C11 090C31	090C32	100C12	100C31	100C32	100C41	112C22
GKS06	m [kg]	59	60	67						
GKS07	m [kg]	96	97	104	102	111	108		108	
GKS09	m [kg]	157	158	165	163	172	169	172	169	181
GKS11	m [kg]	281	282	289	287	296	293	296	293	304
GKS14	m [kg]			500	498	507	504	507	504	515

		112C31	112C32	112C41	132C21	132C22 132C32	160C22	160C32	180C12
GKS09	m [kg]	178	188	185					
GKS11	m [kg]	301	311	308	343	341			
GKS14	m [kg]	512	522	519	555	553	597	617	652

- Weights with oil filling for mounting position A; all values are approximate.
The weights relate to the basic version. Bear in mind that additional weights may be needed, e.g. for motor options.

GKS helical-bevel gearboxes



Technical data

Weights

GKS□□-4M SAR / SBR

		063C11 063C12 063C31 063C32	063C42	071C11	071C13 071C31	071C32	071C33	071C42	080C11	080C13
GKS05	m [kg]	27	28	29	30	29	30		34	
GKS06	m [kg]	44	45	46	47	46	47		51	52
GKS07	m [kg]		75	77	78	77	78		81	82
GKS09	m [kg]		130			132			136	137
GKS11	m [kg]								246	247

		080C31	080C32 080C33 080C42	090C11 090C31	090C32	100C12	100C31	100C32	100C41	112C22
GKS06	m [kg]	51	52	58						
GKS07	m [kg]	81	82	89	87	96	93		93	
GKS09	m [kg]	136	137	144	142	151	148	151	148	160
GKS11	m [kg]	246	247	254	252	261	258	261	258	269
GKS14	m [kg]			445	443	452	449	452	449	460

		112C31	112C32	112C41	132C21	132C22 132C32	160C22	160C32	180C12
GKS09	m [kg]	157	167	164					
GKS11	m [kg]	266	276	273	308	306			
GKS14	m [kg]	457	467	464	500	498	542	562	597

GKS□□-4M SAK

		063C11 063C12 063C31 063C32	063C42	071C11	071C13 071C31	071C32	071C33	071C42	080C11	080C13
GKS05	m [kg]	31	32	33	34	33	34		38	
GKS06	m [kg]	51	52	53	54	53	54		58	59
GKS07	m [kg]		86	88	89	88	89		92	93
GKS09	m [kg]		146			148			152	153
GKS11	m [kg]								270	271

		080C31	080C32 080C33 080C42	090C11 090C31	090C32	100C12	100C31	100C32	100C41	112C22
GKS06	m [kg]	58	59	65						
GKS07	m [kg]	92	93	100	98	107	104		104	
GKS09	m [kg]	152	153	160	158	167	164	167	164	176
GKS11	m [kg]	270	271	278	276	285	282	285	282	293
GKS14	m [kg]			478	476	485	482	485	482	493

		112C31	112C32	112C41	132C21	132C22 132C32	160C22	160C32	180C12
GKS09	m [kg]	173	183	180					
GKS11	m [kg]	290	300	297	332	330			
GKS14	m [kg]	490	500	497	533	531	575	595	630

- Weights with oil filling for mounting position A; all values are approximate.
The weights relate to the basic version. Bear in mind that additional weights may be needed, e.g. for motor options.

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 0.12$ kW

n_N	1425 r/min			1735 r/min			i				
	50 Hz			60 Hz							
	f_N	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]				c	
		145	7.5	5.4		175	6.2	6.2	9.836	GKS04-3M □□□063C12	134
		63	17	5.4		77	14	6.2	22.522	GKS04-3M □□□063C12	134
		57	19	5.4		69	16	6.2	25.088	GKS04-3M □□□063C12	134
		50	22	5.0		60	18	5.8	28.727	GKS04-3M □□□063C12	134
		45	24	5.0		54	20	5.8	32.000	GKS04-3M □□□063C12	134
		32	34	5.5		39	28	6.7	44.240	GKS04-3M □□□063C12	134
		28	39	4.7		34	32	5.7	50.943	GKS04-3M □□□063C12	134
		25	44	4.3		30	36	5.2	56.976	GKS04-3M □□□063C12	134
		22	50	3.7		27	41	4.5	64.978	GKS04-3M □□□063C12	134
		20	55	3.4		24	45	4.2	72.210	GKS04-3M □□□063C12	134
		16	69	2.7		19	57	3.3	90.491	GKS04-3M □□□063C12	134
		15	72	2.3		18	59	2.8	95.238	GKS05-4M □□□063C12	142
		14	76	2.4		17	63	2.9	100.067	GKS04-3M □□□063C12	134
		13	85	2.0		16	70	2.4	111.467	GKS04-3M □□□063C12	134
		12	86	3.0		15	71	3.6	114.987	GKS05-4M □□□063C12	142
		11	95	3.0		14	78	3.6	126.933	GKS05-4M □□□063C12	142
		11	98	1.9		13	81	2.3	128.874	GKS04-3M □□□063C12	134
		9.9	110	1.6		12	90	1.9	143.556	GKS04-3M □□□063C12	134
		9.7	110	2.3		12	90	2.8	146.667	GKS05-4M □□□063C12	142
		8.8	122	2.3		11	100	2.8	161.905	GKS05-4M □□□063C12	142
		8.7	125	1.5		11	102	1.9	163.332	GKS04-3M □□□063C12	134
		7.8	139	1.3		9.5	114	1.5	181.939	GKS04-3M □□□063C12	134
		7.7	139	2.4		9.3	114	2.9	185.547	GKS05-4M □□□063C12	142
		7.0	156	1.2		8.4	128	1.5	204.682	GKS04-3M □□□063C12	134
		6.8	157	2.0		8.3	129	2.4	209.067	GKS05-4M □□□063C12	142
		6.3	169	3.2		7.7	138	3.9	224.524	GKS06-4M □□□063C12	142
		6.3	170	1.5		7.6	139	1.8	225.867	GKS05-4M □□□063C12	142
		6.3	174	1.0		7.6	143	1.2	228.000	GKS04-3M □□□063C12	134
		6.0	178	1.9		7.3	146	2.3	236.667	GKS05-4M □□□063C12	142
		5.3	206	0.9		6.4	169	1.1	269.660	GKS04-3M □□□063C12	134
		5.1	210	2.6		6.2	172	3.1	279.286	GKS06-4M □□□063C12	142
						5.8	188	0.9	300.381	GKS04-3M □□□063C12	134
		4.5	238	3.0		5.5	195	3.6	316.800	GKS06-4M □□□063C12	142
		3.9	271	2.0		4.8	223	2.4	361.429	GKS06-4M □□□063C12	142
		3.9	274	1.2		4.7	225	1.5	364.467	GKS05-4M □□□063C12	142
		3.5	306	2.3		4.2	252	2.8	408.000	GKS06-4M □□□063C12	142
		3.5	308	1.0		4.2	253	1.2	410.667	GKS05-4M □□□063C12	142
		3.1	344	1.6		3.8	282	1.9	458.067	GKS06-4M □□□063C12	142
		3.0	352	0.9		3.7	289	1.1	469.389	GKS05-4M □□□063C12	142
						3.4	315	0.9	510.000	GKS05-4M □□□063C12	142

GKS helical-bevel gearboxes

Technical data



Selection tables

50 Hz, 60 Hz: $P_N = 0.12$ kW

n_N	1425 r/min			1735 r/min			i		
	50 Hz			60 Hz					
	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	2.8	388	1.8	3.3	319	2.2	517.091	GKS06-4M □□□063C12	142
				3.3	326	1.0	528.889	GKS05-4M □□□063C12	142
	2.6	417	1.3	3.1	343	1.6	555.927	GKS06-4M □□□063C12	142
				2.9	367	0.9	594.894	GKS05-4M □□□063C12	142
	2.2	481	1.5	2.7	395	1.8	640.800	GKS06-4M □□□063C12	142
	2.1	523	1.0	2.5	430	1.3	696.668	GKS06-4M □□□063C12	142
	1.8	610	1.2	2.1	501	1.4	812.137	GKS06-4M □□□063C12	142
	1.6	687	0.9	1.9	564	1.1	914.907	GKS06-4M □□□063C12	142
	1.4	764	0.9	1.7	628	1.1	1017.741	GKS06-4M □□□063C12	142
				1.5	707	0.9	1146.529	GKS06-4M □□□063C12	142
				1.3	827	0.8	1340.834	GKS06-4M □□□063C12	142

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 0.18 \text{ kW}$

n_N	2740 r/min			3370 r/min			i		
	50 Hz			60 Hz					
	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	279	5.9	5.6	340	4.8	6.5	9.836	GKS04-3M □□□063C11	134
	122	13	5.6	148	11	6.5	22.522	GKS04-3M □□□063C11	134
	109	15	5.6	133	12	6.5	25.088	GKS04-3M □□□063C11	134
	95	17	5.2	116	14	6.0	28.727	GKS04-3M □□□063C11	134
	86	19	5.2	104	16	6.0	32.000	GKS04-3M □□□063C11	134
	54	30	5.6	66	25	6.4	50.943	GKS04-3M □□□063C11	134
	48	34	5.1	59	28	5.9	56.976	GKS04-3M □□□063C11	134
	42	39	4.4	51	31	5.0	64.978	GKS04-3M □□□063C11	134
	38	43	4.1	46	35	4.7	72.210	GKS04-3M □□□063C11	134
	30	54	3.3	37	44	3.8	90.491	GKS04-3M □□□063C11	134
	29	56	2.8	35	45	3.2	95.238	GKS05-4M □□□063C11	142
	27	60	2.9	33	48	3.3	100.067	GKS04-3M □□□063C11	134
	25	66	2.6	30	54	3.0	111.467	GKS04-3M □□□063C11	134
	21	77	2.4	26	62	2.9	128.874	GKS04-3M □□□063C11	134
	19	86	2.0	23	70	2.4	143.556	GKS04-3M □□□063C11	134
	19	86	3.0	23	70	3.5	146.667	GKS05-4M □□□063C11	142
	17	95	3.0	21	77	3.5	161.905	GKS05-4M □□□063C11	142
	17	97	2.0	20	79	2.3	163.332	GKS04-3M □□□063C11	134
	15	108	1.6	18	88	1.9	181.939	GKS04-3M □□□063C11	134
	15	109	3.0	18	88	3.6	185.547	GKS05-4M □□□063C11	142
	13	122	1.6	16	99	1.8	204.682	GKS04-3M □□□063C11	134
	13	122	2.6	16	100	3.0	209.067	GKS05-4M □□□063C11	142
	12	132	1.9	15	108	2.3	225.867	GKS05-4M □□□063C11	142
	12	136	1.3	15	110	1.5	228.000	GKS04-3M □□□063C11	134
	12	139	2.4	14	113	2.8	236.667	GKS05-4M □□□063C11	142
	10	161	1.2	12	131	1.4	269.660	GKS04-3M □□□063C11	134
	9.1	179	1.0	11	146	1.2	300.381	GKS04-3M □□□063C11	134
	7.6	212	2.5	9.2	172	3.0	361.429	GKS06-4M □□□063C11	142
	7.5	213	1.6	9.2	174	1.8	364.467	GKS05-4M □□□063C11	142
	6.7	239	2.9	8.2	194	3.5	408.000	GKS06-4M □□□063C11	142
	6.7	241	1.3	8.1	196	1.5	410.667	GKS05-4M □□□063C11	142
	6.0	268	2.0	7.3	218	2.4	458.067	GKS06-4M □□□063C11	142
	5.8	275	1.2	7.1	224	1.4	469.389	GKS05-4M □□□063C11	142
	5.4	299	0.9	6.6	243	1.1	510.000	GKS05-4M □□□063C11	142
	5.3	303	2.3	6.5	246	2.7	517.091	GKS06-4M □□□063C11	142
	5.2	310	1.0	6.3	252	1.2	528.889	GKS05-4M □□□063C11	142
	4.9	326	1.6	6.0	265	2.0	555.927	GKS06-4M □□□063C11	142
	4.6	348	0.9	5.6	283	1.1	594.894	GKS05-4M □□□063C11	142
	4.3	375	1.9	5.2	305	2.2	640.800	GKS06-4M □□□063C11	142
	4.1	393	0.8	5.0	319	0.9	670.303	GKS05-4M □□□063C11	142

GKS helical-bevel gearboxes

Technical data



Selection tables

50 Hz, 60 Hz: $P_N = 0.18$ kW

n_N	2740 r/min			3370 r/min			i		
	50 Hz			60 Hz					
f_N	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	3.9	408	1.3	4.8	332	1.6	696.668	GKS06-4M □□□063C11	142
	3.4	476	1.5	4.1	387	1.7	812.137	GKS06-4M □□□063C11	142
	3.0	536	1.2	3.7	436	1.4	914.907	GKS06-4M □□□063C11	142
	2.7	596	1.2	3.3	485	1.4	1017.741	GKS06-4M □□□063C11	142
	2.4	672	0.9	2.9	546	1.1	1146.529	GKS06-4M □□□063C11	142
	2.0	785	0.9	2.5	639	1.1	1340.834	GKS06-4M □□□063C11	142

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 0.18$ kW

n_N	1365 r/min			1695 r/min			i			
	50 Hz			60 Hz						
	f_N	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]				c
		139	12	3.4	169	9.5	4.1	9.836	GKS04-3M □□□063C32	134
		61	27	3.4	74	22	4.1	22.522	GKS04-3M □□□063C32	134
		54	30	3.4	66	24	4.1	25.088	GKS04-3M □□□063C32	134
		48	34	3.2	58	28	3.8	28.727	GKS04-3M □□□063C32	134
		43	38	3.2	52	31	3.8	32.000	GKS04-3M □□□063C32	134
		31	53	3.5	38	43	4.3	44.240	GKS04-3M □□□063C32	134
		27	61	3.0	33	49	3.7	50.943	GKS04-3M □□□063C32	134
		24	68	2.7	29	55	3.4	56.976	GKS04-3M □□□063C32	134
		21	78	2.4	26	63	2.9	64.978	GKS04-3M □□□063C32	134
		19	86	2.2	23	70	2.7	72.210	GKS04-3M □□□063C32	134
		15	108	1.8	18	87	2.2	90.491	GKS04-3M □□□063C32	134
		14	112	1.5	18	90	1.8	95.238	GKS05-4M □□□063C32	142
		14	120	1.5	17	96	1.9	100.067	GKS04-3M □□□063C32	134
		13	122	3.2	16	98	4.0	103.721	GKS06-4M □□□063C32	142
		12	133	1.3	15	107	1.6	111.467	GKS04-3M □□□063C32	134
		12	133	3.2	15	107	4.0	113.205	GKS06-4M □□□063C32	142
		12	135	1.9	15	109	2.4	114.987	GKS05-4M □□□063C32	142
		11	149	1.9	13	120	2.4	126.933	GKS05-4M □□□063C32	142
		11	149	3.2	13	120	4.0	127.059	GKS06-4M □□□063C32	142
		11	154	1.2	13	124	1.5	128.874	GKS04-3M □□□063C32	134
		9.7	166	3.2	12	133	4.0	140.816	GKS06-4M □□□063C32	142
		9.5	172	1.0	12	138	1.2	143.556	GKS04-3M □□□063C32	134
		9.3	172	1.5	11	139	1.8	146.667	GKS05-4M □□□063C32	142
		8.4	190	1.5	10	153	1.8	161.905	GKS05-4M □□□063C32	142
		8.4	195	1.0	10	157	1.2	163.332	GKS04-3M □□□063C32	134
		7.8	205	2.6	9.6	165	3.3	174.336	GKS06-4M □□□063C32	142
					9.3	175	1.0	181.939	GKS04-3M □□□063C32	134
		7.4	218	1.5	9.0	176	1.9	185.547	GKS05-4M □□□063C32	142
					8.3	197	1.0	204.682	GKS04-3M □□□063C32	134
		6.5	246	1.3	8.0	198	1.6	209.067	GKS05-4M □□□063C32	142
		6.1	264	2.0	7.4	213	2.5	224.524	GKS06-4M □□□063C32	142
		6.0	266	1.0	7.4	214	1.2	225.867	GKS05-4M □□□063C32	142
					7.4	220	0.8	228.000	GKS04-3M □□□063C32	134
		5.8	278	1.2	7.0	224	1.5	236.667	GKS05-4M □□□063C32	142
		4.9	328	1.6	6.0	264	2.0	279.286	GKS06-4M □□□063C32	142
		4.3	372	1.9	5.3	300	2.3	316.800	GKS06-4M □□□063C32	142
		3.8	425	1.3	4.6	342	1.6	361.429	GKS06-4M □□□063C32	142
					4.7	345	1.0	364.467	GKS05-4M □□□063C32	142
		3.4	480	1.5	4.1	386	1.8	408.000	GKS06-4M □□□063C32	142
					4.1	389	0.8	410.667	GKS05-4M □□□063C32	142

GKS helical-bevel gearboxes

Technical data



Selection tables

50 Hz, 60 Hz: $P_N = 0.18$ kW

n_N	1365 r/min			1695 r/min			i		
	50 Hz			60 Hz					
f_N	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	3.0	539	1.0	3.6	434	1.2	458.067	GKS06-4M □□□063C32	142
	2.6	608	1.2	3.2	490	1.4	517.091	GKS06-4M □□□063C32	142
	2.5	654	0.8	3.0	526	1.0	555.927	GKS06-4M □□□063C32	142
	2.1	753	0.9	2.6	607	1.2	640.800	GKS06-4M □□□063C32	142
				2.4	660	0.8	696.668	GKS06-4M □□□063C32	142
				2.1	769	0.9	812.137	GKS06-4M □□□063C32	142

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 0.18$ kW

n_N	930 r/min			1140 r/min			i	GKS04-3M □□□071C13	134
	50 Hz			60 Hz					
	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	182	9.0	5.4	221	7.3	6.6	5.123	GKS04-3M □□□071C13	134
	132	12	5.4	161	10	6.6	7.025	GKS04-3M □□□071C13	134
	114	14	5.4	138	12	6.6	8.167	GKS04-3M □□□071C13	134
	79	21	5.4	96	17	6.6	11.730	GKS04-3M □□□071C13	134
	71	23	5.4	87	19	6.6	13.067	GKS04-3M □□□071C13	134
	58	28	5.4	70	23	6.6	16.087	GKS04-3M □□□071C13	134
	52	31	5.3	63	26	6.5	17.920	GKS04-3M □□□071C13	134
	45	36	5.0	55	29	6.2	20.588	GKS04-3M □□□071C13	134
	41	40	4.6	50	32	5.6	22.522	GKS04-3M □□□071C13	134
	37	44	3.8	45	36	4.6	25.088	GKS04-3M □□□071C13	134
	32	50	3.6	39	41	4.4	28.727	GKS04-3M □□□071C13	134
	29	56	3.0	35	46	3.6	32.000	GKS04-3M □□□071C13	134
	26	62	3.0	32	50	3.6	35.191	GKS04-3M □□□071C13	134
	24	69	2.4	29	56	3.0	39.200	GKS04-3M □□□071C13	134
	21	78	2.4	26	63	2.9	44.240	GKS04-3M □□□071C13	134
	18	89	2.0	22	73	2.5	50.943	GKS04-3M □□□071C13	134
	16	100	1.9	20	82	2.3	56.976	GKS04-3M □□□071C13	134
	14	114	1.6	17	93	2.0	64.978	GKS04-3M □□□071C13	134
	14	117	2.8	17	95	3.5	66.592	GKS05-3M □□□071C13	134
	13	127	1.5	16	103	1.8	72.210	GKS04-3M □□□071C13	134
	12	132	2.4	15	107	2.9	75.033	GKS05-3M □□□071C13	134
	12	140	1.3	14	114	1.6	79.598	GKS04-3M □□□071C13	134
	11	145	2.3	14	119	2.8	82.833	GKS05-3M □□□071C13	134
	10	159	1.2	13	130	1.5	90.491	GKS04-3M □□□071C13	134
	10	164	1.9	12	134	2.4	93.333	GKS05-3M □□□071C13	134
	9.8	164	1.0	12	134	1.2	95.238	GKS05-4M □□□071C13	142
	9.3	176	1.1	11	143	1.3	100.067	GKS04-3M □□□071C13	134
	8.7	188	1.8	11	154	2.2	107.196	GKS05-3M □□□071C13	134
	8.3	196	0.9	10	160	1.1	111.467	GKS04-3M □□□071C13	134
	8.2	195	2.7	10	159	3.4	113.205	GKS06-4M □□□071C13	142
	8.1	198	1.3	9.8	162	1.6	114.987	GKS05-4M □□□071C13	142
	7.7	212	1.5	9.4	173	1.8	120.784	GKS05-3M □□□071C13	134
	7.3	219	1.3	8.9	179	1.6	126.933	GKS05-4M □□□071C13	142
	7.3	219	3.1	8.9	179	3.9	127.059	GKS06-4M □□□071C13	142
	7.3	224	2.8	8.9	182	3.5	127.392	GKS06-3M □□□071C13	134
	7.2	226	0.8	8.8	185	1.0	128.874	GKS04-3M □□□071C13	134
	7.2	228	1.4	8.7	186	1.8	130.097	GKS05-3M □□□071C13	134
	6.6	243	2.2	8.0	198	2.7	140.816	GKS06-4M □□□071C13	142
	6.5	251	2.8	7.9	205	3.4	142.941	GKS06-3M □□□071C13	134
	6.3	257	1.2	7.7	210	1.5	146.588	GKS05-3M □□□071C13	134

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 0.18 \text{ kW}$

n_N	930 r/min			1140 r/min			i		
	50 Hz			60 Hz					
	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	6.3	253	1.0	7.7	206	1.2	146.667	GKS05-4M □□□071C13	142
	6.0	269	2.6	7.3	219	3.1	155.647	GKS06-4M □□□071C13	142
	5.8	283	2.2	7.0	231	2.8	161.029	GKS06-3M □□□071C13	134
	5.7	279	1.0	7.0	228	1.2	161.905	GKS05-4M □□□071C13	142
	5.6	292	1.1	6.8	238	1.4	166.276	GKS05-3M □□□071C13	134
	5.3	301	1.8	6.5	245	2.2	174.336	GKS06-4M □□□071C13	142
	5.0	320	1.0	6.1	261	1.3	185.547	GKS05-4M □□□071C13	142
	5.0	329	1.0	6.0	268	1.2	187.353	GKS05-3M □□□071C13	134
	4.9	334	2.1	5.9	272	2.6	190.080	GKS06-3M □□□071C13	134
	4.6	350	2.0	5.6	285	2.4	202.588	GKS06-4M □□□071C13	142
	4.5	361	0.9	5.4	294	1.1	209.067	GKS05-4M □□□071C13	142
	4.4	371	0.8	5.4	302	1.0	211.200	GKS05-3M □□□071C13	134
	4.3	376	1.7	5.3	307	2.1	214.133	GKS06-3M □□□071C13	134
	4.2	385	2.7	5.1	314	3.4	222.909	GKS07-4M □□□071C13	142
	4.1	387	1.4	5.0	316	1.7	224.524	GKS06-4M □□□071C13	142
	4.0	405	1.7	4.9	330	2.1	230.688	GKS06-3M □□□071C13	134
	3.9	408	0.8	4.8	333	1.0	236.667	GKS05-4M □□□071C13	142
	3.7	435	1.6	4.5	355	2.0	252.000	GKS06-4M □□□071C13	142
	3.6	456	1.4	4.4	372	1.7	259.880	GKS06-3M □□□071C13	134
	3.4	471	2.2	4.1	385	2.7	273.199	GKS07-4M □□□071C13	142
	3.3	482	1.1	4.1	393	1.4	279.286	GKS06-4M □□□071C13	142
	3.2	512	1.4	3.9	418	1.7	291.600	GKS06-3M □□□071C13	134
	2.9	547	1.3	3.6	446	1.6	316.800	GKS06-4M □□□071C13	142
	2.9	554	2.4	3.5	452	2.9	321.049	GKS07-4M □□□071C13	142
	2.8	577	1.1	3.4	470	1.3	328.500	GKS06-3M □□□071C13	134
	2.6	619	1.7	3.2	505	2.1	358.829	GKS07-4M □□□071C13	142
	2.6	624	0.9	3.1	509	1.1	361.429	GKS06-4M □□□071C13	142
	2.3	689	1.9	2.8	562	2.3	399.353	GKS07-4M □□□071C13	142
	2.3	704	1.0	2.8	574	1.2	408.000	GKS06-4M □□□071C13	142
	2.0	801	1.3	2.4	654	1.6	464.367	GKS07-4M □□□071C13	142
	1.8	892	1.5	2.2	728	1.8	516.810	GKS07-4M □□□071C13	142
	1.7	973	1.1	2.0	793	1.3	563.572	GKS07-4M □□□071C13	142
	1.5	1099	1.2	1.8	896	1.5	636.581	GKS07-4M □□□071C13	142
	1.4	1180	0.9	1.7	963	1.1	683.972	GKS07-4M □□□071C13	142
	1.1	1411	2.1	1.4	1151	2.6	817.551	GKS09-4M □□□071C13	142
	1.1	1422	0.9	1.4	1160	1.1	823.810	GKS07-4M □□□071C13	142
	1.0	1590	1.9	1.2	1297	2.4	921.367	GKS09-4M □□□071C13	142
	0.9	1712	1.8	1.1	1397	2.2	992.209	GKS09-4M □□□071C13	142
	0.8	1930	1.6	1.0	1574	2.0	1118.204	GKS09-4M □□□071C13	142
	0.7	2164	1.4	0.9	1766	1.7	1254.197	GKS09-4M □□□071C13	142


GKS helical-bevel gearboxes

Technical data



Selection tables

50 Hz, 60 Hz: $P_N = 0.18$ kW

n_N	930 r/min			1140 r/min			i		
	50 Hz			60 Hz					
f_N	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	0.7	2439	1.3	0.8	1990	1.5	1413.461	GKS09-4M □□□071C13	142

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 0.25$ kW

n_N	2710 r/min			3390 r/min			i		
	50 Hz			60 Hz					
	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	276	8.2	4.0	337	6.6	4.7	9.836	GKS04-3M □□□063C31	134
	120	19	4.0	147	15	4.7	22.522	GKS04-3M □□□063C31	134
	108	21	4.0	132	17	4.7	25.088	GKS04-3M □□□063C31	134
	94	24	3.8	115	19	4.4	28.727	GKS04-3M □□□063C31	134
	85	27	3.8	103	21	4.4	32.000	GKS04-3M □□□063C31	134
	61	37	4.7	75	30	5.4	44.240	GKS04-3M □□□063C31	134
	53	43	4.0	65	34	4.6	50.943	GKS04-3M □□□063C31	134
	48	48	3.7	58	38	4.2	56.976	GKS04-3M □□□063C31	134
	42	54	3.1	51	43	3.6	64.978	GKS04-3M □□□063C31	134
	38	60	2.9	46	48	3.4	72.210	GKS04-3M □□□063C31	134
	30	76	2.3	37	61	2.7	90.491	GKS04-3M □□□063C31	134
	29	78	2.0	35	63	2.3	95.238	GKS05-4M □□□063C31	142
	27	84	2.1	33	67	2.4	100.067	GKS04-3M □□□063C31	134
	24	93	1.8	30	75	2.2	111.467	GKS04-3M □□□063C31	134
	24	95	2.7	29	76	3.3	114.987	GKS05-4M □□□063C31	142
	21	104	2.7	26	83	3.3	126.933	GKS05-4M □□□063C31	142
	21	108	1.7	26	86	2.1	128.874	GKS04-3M □□□063C31	134
	19	120	1.4	23	96	1.7	143.556	GKS04-3M □□□063C31	134
	19	121	2.1	23	96	2.6	146.667	GKS05-4M □□□063C31	142
	17	133	2.1	20	106	2.6	161.905	GKS05-4M □□□063C31	142
	17	137	1.4	20	109	1.7	163.332	GKS04-3M □□□063C31	134
	15	152	1.1	18	122	1.4	181.939	GKS04-3M □□□063C31	134
	15	153	2.2	18	122	2.6	185.547	GKS05-4M □□□063C31	142
	13	171	1.1	16	137	1.3	204.682	GKS04-3M □□□063C31	134
	13	172	1.8	16	137	2.2	209.067	GKS05-4M □□□063C31	142
	12	185	2.9	15	148	3.5	224.524	GKS06-4M □□□063C31	142
	12	186	1.4	15	149	1.7	225.867	GKS05-4M □□□063C31	142
	12	191	0.9	15	153	1.1	228.000	GKS04-3M □□□063C31	134
	12	195	1.7	14	156	2.0	236.667	GKS05-4M □□□063C31	142
	10	226	0.8	12	180	1.0	269.660	GKS04-3M □□□063C31	134
	9.7	230	2.3	12	184	2.8	279.286	GKS06-4M □□□063C31	142
	8.6	261	2.7	10	208	3.2	316.800	GKS06-4M □□□063C31	142
	7.5	297	1.8	9.2	238	2.2	361.429	GKS06-4M □□□063C31	142
	7.4	300	1.1	9.1	240	1.3	364.467	GKS05-4M □□□063C31	142
	6.6	336	2.1	8.1	268	2.5	408.000	GKS06-4M □□□063C31	142
	6.6	338	0.9	8.1	270	1.1	410.667	GKS05-4M □□□063C31	142
	5.9	377	1.4	7.2	301	1.7	458.067	GKS06-4M □□□063C31	142
	5.8	386	0.9	7.1	309	1.0	469.389	GKS05-4M □□□063C31	142
	5.2	425	1.7	6.4	340	2.0	517.091	GKS06-4M □□□063C31	142
	4.9	457	1.2	6.0	366	1.4	555.927	GKS06-4M □□□063C31	142

GKS helical-bevel gearboxes

Technical data



Selection tables

50 Hz, 60 Hz: $P_N = 0.25$ kW

n_N	2710 r/min			3390 r/min			i		
	50 Hz			60 Hz					
f_N	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	4.2	527	1.3	5.2	421	1.6	640.800	GKS06-4M □□□063C31	142
	3.9	573	0.9	4.8	458	1.1	696.668	GKS06-4M □□□063C31	142
	3.3	668	1.1	4.1	534	1.3	812.137	GKS06-4M □□□063C31	142
	3.0	753	0.8	3.6	602	1.0	914.907	GKS06-4M □□□063C31	142
	2.7	837	0.8	3.3	669	1.0	1017.741	GKS06-4M □□□063C31	142

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 0.25$ kW

n_N	1370 r/min			1680 r/min			i	GKS model	
	50 Hz			60 Hz					
	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	267	8.5	4.5	326	6.9	5.4	5.123	GKS04-3M □□□063C42	134
	195	12	4.5	238	9.5	5.4	7.025	GKS04-3M □□□063C42	134
	168	14	4.5	205	11	5.4	8.167	GKS04-3M □□□063C42	134
	152	15	5.2	186	12	6.2	8.991	GKS04-3M □□□063C42	134
	139	16	5.2	170	13	6.1	9.836	GKS04-3M □□□063C42	134
	117	19	4.5	142	16	5.4	11.730	GKS04-3M □□□063C42	134
	105	22	4.5	128	18	5.4	13.067	GKS04-3M □□□063C42	134
	96	24	5.2	117	19	6.2	14.333	GKS04-3M □□□063C42	134
	85	27	4.5	104	22	5.4	16.087	GKS04-3M □□□063C42	134
	77	30	4.5	93	24	5.4	17.920	GKS04-3M □□□063C42	134
	67	34	5.2	81	28	6.2	20.588	GKS04-3M □□□063C42	134
	61	37	4.9	74	30	5.8	22.522	GKS04-3M □□□063C42	134
	55	42	4.0	67	34	4.7	25.088	GKS04-3M □□□063C42	134
	48	48	3.8	58	39	4.5	28.727	GKS04-3M □□□063C42	134
	43	53	3.2	52	43	3.7	32.000	GKS04-3M □□□063C42	134
	39	58	3.1	48	47	3.7	35.191	GKS04-3M □□□063C42	134
	35	65	2.6	43	53	3.1	39.200	GKS04-3M □□□063C42	134
	31	73	2.5	38	60	3.1	44.240	GKS04-3M □□□063C42	134
	27	84	2.2	33	69	2.6	50.943	GKS04-3M □□□063C42	134
	24	94	2.0	29	77	2.4	56.976	GKS04-3M □□□063C42	134
	21	108	1.7	26	88	2.1	64.978	GKS04-3M □□□063C42	134
	21	110	3.0	25	90	3.7	66.592	GKS05-3M □□□063C42	134
	19	120	1.6	23	97	1.9	72.210	GKS04-3M □□□063C42	134
	18	124	2.5	22	101	3.1	75.033	GKS05-3M □□□063C42	134
	17	132	1.4	21	107	1.7	79.598	GKS04-3M □□□063C42	134
	17	137	2.4	20	112	3.0	82.833	GKS05-3M □□□063C42	134
	15	150	1.2	19	122	1.5	90.491	GKS04-3M □□□063C42	134
	15	154	2.0	18	126	2.5	93.333	GKS05-3M □□□063C42	134
	14	155	1.1	18	126	1.3	95.238	GKS05-4M □□□063C42	142
	14	166	1.1	17	135	1.4	100.067	GKS04-3M □□□063C42	134
	13	177	1.9	16	145	2.3	107.196	GKS05-3M □□□063C42	134
	12	185	0.9	15	150	1.1	111.467	GKS04-3M □□□063C42	134
	12	187	3.2	15	153	3.9	113.082	GKS06-3M □□□063C42	134
	12	184	2.9	15	150	3.6	113.205	GKS06-4M □□□063C42	142
	12	187	1.4	15	153	1.7	114.987	GKS05-4M □□□063C42	142
	11	200	1.6	14	163	1.9	120.784	GKS05-3M □□□063C42	134
	11	207	1.4	13	168	1.7	126.933	GKS05-4M □□□063C42	142
	11	211	3.0	13	172	3.7	127.392	GKS06-3M □□□063C42	134
	11	213	0.9	13	174	1.1	128.874	GKS04-3M □□□063C42	134
	11	215	1.5	13	176	1.9	130.097	GKS05-3M □□□063C42	134

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 0.25$ kW

n_N	1370 r/min			1680 r/min			i			
	50 Hz			60 Hz						
	f_N	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]				c
		9.7	229	2.3	12	187	2.9	140.816	GKS06-4M □□□063C42	142
		9.6	237	2.6	12	193	3.2	142.941	GKS06-3M □□□063C42	134
					12	194	0.9	143.556	GKS04-3M □□□063C42	134
		9.4	243	1.3	11	198	1.6	146.588	GKS05-3M □□□063C42	134
		9.3	239	1.1	11	195	1.3	146.667	GKS05-4M □□□063C42	142
		8.8	253	2.7	11	207	3.3	155.647	GKS06-4M □□□063C42	142
		8.5	267	2.4	10	217	2.9	161.029	GKS06-3M □□□063C42	134
		8.5	263	1.1	10	215	1.3	161.905	GKS05-4M □□□063C42	142
					10	220	0.9	163.332	GKS04-3M □□□063C42	134
		8.2	275	1.2	10	224	1.5	166.276	GKS05-3M □□□063C42	134
		7.9	284	1.9	9.6	231	2.3	174.336	GKS06-4M □□□063C42	142
		7.4	302	1.1	9.0	246	1.3	185.547	GKS05-4M □□□063C42	142
		7.3	310	1.0	8.9	253	1.2	187.353	GKS05-3M □□□063C42	134
		7.2	315	2.2	8.8	257	2.7	190.080	GKS06-3M □□□063C42	134
		6.8	330	2.1	8.2	269	2.6	202.588	GKS06-4M □□□063C42	142
		6.6	340	0.9	8.0	277	1.1	209.067	GKS05-4M □□□063C42	142
		6.5	350	0.9	7.9	285	1.1	211.200	GKS05-3M □□□063C42	134
		6.4	354	1.8	7.8	289	2.2	214.133	GKS06-3M □□□063C42	134
		6.1	363	2.9	7.5	296	3.6	222.909	GKS07-4M □□□063C42	142
		6.1	365	1.5	7.4	298	1.8	224.524	GKS06-4M □□□063C42	142
					7.4	300	0.9	225.867	GKS05-4M □□□063C42	142
					7.4	307	0.9	227.484	GKS05-3M □□□063C42	134
		5.9	382	1.8	7.2	311	2.3	230.688	GKS06-3M □□□063C42	134
		5.8	385	0.9	7.1	314	1.1	236.667	GKS05-4M □□□063C42	142
		5.4	410	1.7	6.6	334	2.1	252.000	GKS06-4M □□□063C42	142
					6.6	346	0.9	256.320	GKS05-3M □□□063C42	134
		5.3	430	1.5	6.4	351	1.8	259.880	GKS06-3M □□□063C42	134
		5.0	445	2.4	6.1	362	2.9	273.199	GKS07-4M □□□063C42	142
		4.9	454	1.2	6.0	371	1.4	279.286	GKS06-4M □□□063C42	142
					5.8	385	0.9	289.917	GKS05-4M □□□063C42	142
		4.7	483	1.5	5.7	394	1.8	291.600	GKS06-3M □□□063C42	134
		4.3	515	1.4	5.3	420	1.7	316.800	GKS06-4M □□□063C42	142
		4.3	522	2.5	5.2	426	3.1	321.049	GKS07-4M □□□063C42	142
		4.2	544	1.2	5.1	443	1.4	328.500	GKS06-3M □□□063C42	134
		3.8	584	1.8	4.7	476	2.2	358.829	GKS07-4M □□□063C42	142
		3.8	588	0.9	4.6	480	1.1	361.429	GKS06-4M □□□063C42	142
		3.4	650	2.0	4.2	530	2.5	399.353	GKS07-4M □□□063C42	142
		3.4	664	1.1	4.1	541	1.3	408.000	GKS06-4M □□□063C42	142
					3.7	608	0.9	458.067	GKS06-4M □□□063C42	142
		3.0	756	1.4	3.6	616	1.7	464.367	GKS07-4M □□□063C42	142

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 0.25$ kW

n_N	1370 r/min			1680 r/min			i		
	50 Hz			60 Hz					
	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	2.7	841	1.6	3.2	686	1.9	516.810	GKS07-4M □□□063C42	142
	2.7	841	0.8	3.2	686	1.0	517.091	GKS06-4M □□□063C42	142
	2.4	917	1.1	3.0	748	1.4	563.572	GKS07-4M □□□063C42	142
	2.2	1036	1.3	2.6	845	1.6	636.581	GKS07-4M □□□063C42	142
				2.6	850	0.8	640.800	GKS06-4M □□□063C42	142
	2.0	1113	0.9	2.4	908	1.2	683.972	GKS07-4M □□□063C42	142
	1.7	1330	2.3	2.0	1085	2.8	817.551	GKS09-4M □□□063C42	142
	1.7	1340	1.0	2.0	1093	1.2	823.810	GKS07-4M □□□063C42	142
	1.5	1499	2.1	1.8	1222	2.5	921.367	GKS09-4M □□□063C42	142
	1.5	1510	0.8	1.8	1232	1.0	928.237	GKS07-4M □□□063C42	142
	1.4	1614	1.9	1.7	1316	2.3	992.209	GKS09-4M □□□063C42	142
	1.4	1627	0.8	1.7	1327	1.0	999.806	GKS07-4M □□□063C42	142
	1.2	1819	1.7	1.5	1484	2.1	1118.204	GKS09-4M □□□063C42	142
				1.5	1495	0.8	1126.542	GKS07-4M □□□063C42	142
	1.1	2041	1.5	1.3	1664	1.8	1254.197	GKS09-4M □□□063C42	142
	1.0	2300	1.3	1.2	1875	1.6	1413.461	GKS09-4M □□□063C42	142

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 0.25$ kW

n_N	930 r/min			1140 r/min			i	GKS04-3M □□□071C33			
	50 Hz			60 Hz							
	f_N	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]				c	
		182	12	3.9		221	10	4.7	5.123	GKS04-3M □□□071C33	134
		132	17	3.9		161	14	4.7	7.025	GKS04-3M □□□071C33	134
		114	20	3.9		138	16	4.7	8.167	GKS04-3M □□□071C33	134
		103	22	4.4		126	18	5.4	8.991	GKS04-3M □□□071C33	134
		95	24	4.4		115	20	5.4	9.836	GKS04-3M □□□071C33	134
		79	29	3.9		96	23	4.7	11.730	GKS04-3M □□□071C33	134
		71	32	3.9		87	26	4.7	13.067	GKS04-3M □□□071C33	134
		65	35	4.4		79	29	5.4	14.333	GKS04-3M □□□071C33	134
		58	39	3.9		70	32	4.7	16.087	GKS04-3M □□□071C33	134
		52	44	3.8		63	36	4.7	17.920	GKS04-3M □□□071C33	134
		45	50	3.6		55	41	4.4	20.588	GKS04-3M □□□071C33	134
		41	55	3.3		50	45	4.1	22.522	GKS04-3M □□□071C33	134
		37	61	2.7		45	50	3.3	25.088	GKS04-3M □□□071C33	134
		32	70	2.6		39	57	3.2	28.727	GKS04-3M □□□071C33	134
		29	78	2.1		35	64	2.6	32.000	GKS04-3M □□□071C33	134
		26	86	2.1		32	70	2.6	35.191	GKS04-3M □□□071C33	134
		24	96	1.8		29	78	2.2	39.200	GKS04-3M □□□071C33	134
		21	108	1.7		26	88	2.1	44.240	GKS04-3M □□□071C33	134
		20	115	2.6		24	94	3.2	47.059	GKS05-3M □□□071C33	134
		18	124	1.5		22	101	1.8	50.943	GKS04-3M □□□071C33	134
		16	139	1.3		20	113	1.7	56.976	GKS04-3M □□□071C33	134
		14	158	1.2		17	129	1.4	64.978	GKS04-3M □□□071C33	134
		14	162	2.0		17	132	2.5	66.592	GKS05-3M □□□071C33	134
		13	176	1.1		16	144	1.3	72.210	GKS04-3M □□□071C33	134
		12	183	1.7		15	149	2.1	75.033	GKS05-3M □□□071C33	134
		12	194	0.9		14	158	1.2	79.598	GKS04-3M □□□071C33	134
		11	202	1.6		14	165	2.0	82.833	GKS05-3M □□□071C33	134
		10	221	0.9		13	180	1.1	90.491	GKS04-3M □□□071C33	134
		10	227	3.1		12	185	3.8	93.176	GKS06-3M □□□071C33	134
		10	228	1.4		12	186	1.7	93.333	GKS05-3M □□□071C33	134
		9.0	249	2.8		11	203	3.4	103.721	GKS06-4M □□□071C33	142
		8.9	256	2.5		11	209	3.0	104.967	GKS06-3M □□□071C33	134
		8.7	261	1.3		11	213	1.6	107.196	GKS05-3M □□□071C33	134
		8.2	276	2.5		10	225	3.1	113.082	GKS06-3M □□□071C33	134
		8.2	271	2.0		10	221	2.4	113.205	GKS06-4M □□□071C33	142
		8.1	276	0.9		9.8	225	1.1	114.987	GKS05-4M □□□071C33	142
		7.7	295	1.1		9.4	240	1.3	120.784	GKS05-3M □□□071C33	134
		7.3	304	0.9		8.9	248	1.1	126.933	GKS05-4M □□□071C33	142
		7.3	305	2.3		8.9	248	2.8	127.059	GKS06-4M □□□071C33	142
		7.3	311	2.0		8.9	253	2.5	127.392	GKS06-3M □□□071C33	134

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 0.25$ kW

n_N	930 r/min			1140 r/min			i		
	50 Hz			60 Hz					
	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	7.2	317	1.0	8.7	259	1.3	130.097	GKS05-3M □□□071C33	134
	6.8	330	3.2	8.2	269	3.9	137.748	GKS07-4M □□□071C33	142
	6.6	338	1.6	8.0	275	2.0	140.816	GKS06-4M □□□071C33	142
	6.5	349	2.0	7.9	284	2.5	142.941	GKS06-3M □□□071C33	134
	6.3	357	0.9	7.7	292	1.1	146.588	GKS05-3M □□□071C33	134
	6.0	373	1.8	7.3	304	2.3	155.647	GKS06-4M □□□071C33	142
	5.8	393	1.6	7.0	320	2.0	161.029	GKS06-3M □□□071C33	134
	5.6	405	0.8	6.8	331	1.0	166.276	GKS05-3M □□□071C33	134
	5.3	418	1.3	6.5	341	1.6	174.336	GKS06-4M □□□071C33	142
	5.2	430	2.5	6.3	350	3.0	179.201	GKS07-4M □□□071C33	142
	4.9	463	1.5	5.9	378	1.9	190.080	GKS06-3M □□□071C33	134
	4.6	486	1.4	5.6	396	1.8	202.588	GKS06-4M □□□071C33	142
	4.3	522	1.2	5.3	426	1.5	214.133	GKS06-3M □□□071C33	134
	4.2	534	2.0	5.1	436	2.4	222.909	GKS07-4M □□□071C33	142
	4.1	538	1.0	5.0	439	1.2	224.524	GKS06-4M □□□071C33	142
	4.0	562	1.2	4.9	459	1.5	230.688	GKS06-3M □□□071C33	134
	3.7	604	1.2	4.5	493	1.4	252.000	GKS06-4M □□□071C33	142
	3.6	634	1.0	4.4	517	1.2	259.880	GKS06-3M □□□071C33	134
	3.4	655	1.6	4.1	534	2.0	273.199	GKS07-4M □□□071C33	142
	3.3	669	0.8	4.1	546	1.0	279.286	GKS06-4M □□□071C33	142
	3.2	711	1.0	3.9	580	1.2	291.600	GKS06-3M □□□071C33	134
	2.9	759	0.9	3.6	619	1.1	316.800	GKS06-4M □□□071C33	142
	2.9	770	1.7	3.5	628	2.1	321.049	GKS07-4M □□□071C33	142
	2.6	860	1.2	3.2	702	1.5	358.829	GKS07-4M □□□071C33	142
	2.3	957	1.4	2.8	781	1.7	399.353	GKS07-4M □□□071C33	142
	2.0	1113	0.9	2.4	908	1.2	464.367	GKS07-4M □□□071C33	142
	1.8	1239	1.1	2.2	1011	1.3	516.810	GKS07-4M □□□071C33	142
	1.5	1526	0.9	1.8	1245	1.1	636.581	GKS07-4M □□□071C33	142
	1.1	1960	1.5	1.4	1599	1.9	817.551	GKS09-4M □□□071C33	142
	1.0	2208	1.4	1.2	1802	1.7	921.367	GKS09-4M □□□071C33	142
	0.9	2378	1.3	1.1	1940	1.6	992.209	GKS09-4M □□□071C33	142
	0.8	2680	1.1	1.0	2186	1.4	1118.204	GKS09-4M □□□071C33	142
	0.7	3006	1.0	0.9	2452	1.2	1254.197	GKS09-4M □□□071C33	142
	0.7	3388	0.9	0.8	2764	1.1	1413.461	GKS09-4M □□□071C33	142

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 0.37 \text{ kW}$

n_N	2720 r/min			3360 r/min			i		
	50 Hz			60 Hz					
	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	132	25	5.9	161	21	6.8	20.588	GKS04-3M □□□071C11	134
	121	28	5.4	147	22	6.2	22.522	GKS04-3M □□□071C11	134
	108	31	4.4	132	25	5.1	25.088	GKS04-3M □□□071C11	134
	95	35	4.2	116	29	4.9	28.727	GKS04-3M □□□071C11	134
	85	39	3.5	104	32	4.0	32.000	GKS04-3M □□□071C11	134
	77	43	3.5	94	35	4.0	35.191	GKS04-3M □□□071C11	134
	69	48	2.8	85	39	3.3	39.200	GKS04-3M □□□071C11	134
	62	55	3.2	75	44	3.6	44.240	GKS04-3M □□□071C11	134
	53	63	2.7	65	51	3.1	50.943	GKS04-3M □□□071C11	134
	48	70	2.5	58	57	2.9	56.976	GKS04-3M □□□071C11	134
	42	80	2.1	51	65	2.4	64.978	GKS04-3M □□□071C11	134
	38	89	2.0	46	72	2.3	72.210	GKS04-3M □□□071C11	134
	36	93	3.1	44	75	3.6	75.033	GKS05-3M □□□071C11	134
	34	98	1.7	42	80	2.0	79.598	GKS04-3M □□□071C11	134
	33	102	3.0	40	83	3.5	82.833	GKS05-3M □□□071C11	134
	30	112	1.6	37	90	1.8	90.491	GKS04-3M □□□071C11	134
	29	115	2.5	36	93	2.9	93.333	GKS05-3M □□□071C11	134
	29	116	1.3	35	94	1.5	95.238	GKS05-4M □□□071C11	142
	27	123	1.4	33	100	1.6	100.067	GKS04-3M □□□071C11	134
	25	132	2.3	31	107	2.7	107.196	GKS05-3M □□□071C11	134
	24	138	1.2	30	111	1.5	111.467	GKS04-3M □□□071C11	134
	24	139	1.8	29	113	2.2	114.987	GKS05-4M □□□071C11	142
	23	149	2.1	28	121	2.5	120.784	GKS05-3M □□□071C11	134
	21	154	1.8	26	125	2.2	126.933	GKS05-4M □□□071C11	142
	21	159	1.2	26	129	1.4	128.874	GKS04-3M □□□071C11	134
	21	161	2.1	26	130	2.5	130.097	GKS05-3M □□□071C11	134
	19	171	3.1	24	138	3.7	140.816	GKS06-4M □□□071C11	142
	19	177	1.0	23	143	1.2	143.556	GKS04-3M □□□071C11	134
	19	181	1.7	23	146	2.1	146.588	GKS05-3M □□□071C11	134
	19	178	1.4	23	144	1.7	146.667	GKS05-4M □□□071C11	142
	17	199	3.2	21	161	3.8	161.029	GKS06-3M □□□071C11	134
	17	196	1.4	21	159	1.7	161.905	GKS05-4M □□□071C11	142
	17	202	0.9	20	163	1.1	163.332	GKS04-3M □□□071C11	134
	16	205	1.6	20	166	1.9	166.276	GKS05-3M □□□071C11	134
	16	211	2.5	19	171	3.0	174.336	GKS06-4M □□□071C11	142
	15	225	1.5	18	182	1.7	185.547	GKS05-4M □□□071C11	142
	15	231	1.4	18	187	1.6	187.353	GKS05-3M □□□071C11	134
	14	235	3.0	18	190	3.6	190.080	GKS06-3M □□□071C11	134
	13	246	2.8	16	199	3.4	202.588	GKS06-4M □□□071C11	142
	13	254	1.2	16	205	1.5	209.067	GKS05-4M □□□071C11	142

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 0.37 \text{ kW}$

n_N	2720 r/min			3360 r/min			i		
	50 Hz			60 Hz					
	f_N	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]			
	13	261	1.2	16	211	1.4	211.200	GKS05-3M □□□071C11	134
	13	264	2.4	16	214	2.9	214.133	GKS06-3M □□□071C11	134
	12	272	2.0	15	220	2.3	224.524	GKS06-4M □□□071C11	142
	12	274	0.9	15	222	1.1	225.867	GKS05-4M □□□071C11	142
	12	281	1.0	15	227	1.2	227.484	GKS05-3M □□□071C11	134
	12	285	2.5	14	230	2.9	230.688	GKS06-3M □□□071C11	134
	12	287	1.2	14	232	1.4	236.667	GKS05-4M □□□071C11	142
	11	306	2.3	13	247	2.7	252.000	GKS06-4M □□□071C11	142
	11	316	1.0	13	256	1.2	256.320	GKS05-3M □□□071C11	134
	11	321	2.0	13	260	2.4	259.880	GKS06-3M □□□071C11	134
	10	331	3.2	12	268	3.8	273.199	GKS07-4M □□□071C11	142
	9.7	339	1.6	12	274	1.9	279.286	GKS06-4M □□□071C11	142
	9.4	352	0.9	12	285	1.1	289.917	GKS05-4M □□□071C11	142
	9.3	360	2.0	11	291	2.3	291.600	GKS06-3M □□□071C11	134
	8.6	384	1.8	11	311	2.2	316.800	GKS06-4M □□□071C11	142
	8.3	405	1.6	10	328	1.9	328.500	GKS06-3M □□□071C11	134
	7.6	435	2.4	9.3	352	2.9	358.829	GKS07-4M □□□071C11	142
	7.5	438	1.2	9.2	355	1.5	361.429	GKS06-4M □□□071C11	142
	6.8	484	2.7	8.3	392	3.2	399.353	GKS07-4M □□□071C11	142
	6.7	495	1.4	8.1	401	1.7	408.000	GKS06-4M □□□071C11	142
	5.9	556	1.0	7.3	450	1.1	458.067	GKS06-4M □□□071C11	142
	5.9	563	1.9	7.2	456	2.2	464.367	GKS07-4M □□□071C11	142
	5.3	627	2.1	6.4	507	2.5	516.810	GKS07-4M □□□071C11	142
	5.3	627	1.1	6.4	508	1.3	517.091	GKS06-4M □□□071C11	142
	4.8	684	1.5	5.9	553	1.8	563.572	GKS07-4M □□□071C11	142
	4.3	772	1.7	5.2	625	2.0	636.581	GKS07-4M □□□071C11	142
	4.2	777	0.9	5.2	629	1.1	640.800	GKS06-4M □□□071C11	142
	4.0	830	1.3	4.9	672	1.5	683.972	GKS07-4M □□□071C11	142
	3.3	992	3.1	4.1	803	3.6	817.551	GKS09-4M □□□071C11	142
	3.3	999	1.3	4.0	809	1.6	823.810	GKS07-4M □□□071C11	142
	3.0	1118	2.8	3.6	905	3.3	921.367	GKS09-4M □□□071C11	142
	2.9	1126	1.1	3.6	911	1.3	928.237	GKS07-4M □□□071C11	142
	2.7	1203	2.5	3.4	974	3.0	992.209	GKS09-4M □□□071C11	142
	2.7	1213	1.1	3.3	982	1.3	999.806	GKS07-4M □□□071C11	142
	2.4	1356	2.3	3.0	1098	2.7	1118.204	GKS09-4M □□□071C11	142
	2.4	1366	0.9	3.0	1106	1.1	1126.542	GKS07-4M □□□071C11	142
	2.2	1521	2.0	2.7	1231	2.4	1254.197	GKS09-4M □□□071C11	142
	2.1	1550	0.9	2.6	1255	1.0	1277.842	GKS07-4M □□□071C11	142
	1.9	1714	1.8	2.4	1388	2.1	1413.461	GKS09-4M □□□071C11	142

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 0.37 \text{ kW}$

n_N	1410 r/min			1720 r/min			i	GKS Model	Ratio
	50 Hz			60 Hz					
	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	275	12	4.0	334	10.0	4.6	5.123	GKS04-3M □□□071C32	134
	201	17	4.0	243	14	4.6	7.025	GKS04-3M □□□071C32	134
	173	19	4.0	209	16	4.6	8.167	GKS04-3M □□□071C32	134
	157	21	4.5	190	18	5.3	8.991	GKS04-3M □□□071C32	134
	143	23	4.5	174	19	5.3	9.836	GKS04-3M □□□071C32	134
	120	28	4.0	146	23	4.6	11.730	GKS04-3M □□□071C32	134
	108	31	4.0	131	25	4.6	13.067	GKS04-3M □□□071C32	134
	98	34	4.5	119	28	5.3	14.333	GKS04-3M □□□071C32	134
	88	38	4.0	106	31	4.6	16.087	GKS04-3M □□□071C32	134
	79	43	3.9	95	35	4.5	17.920	GKS04-3M □□□071C32	134
	69	49	3.7	83	40	4.3	20.588	GKS04-3M □□□071C32	134
	63	54	3.4	76	44	4.0	22.522	GKS04-3M □□□071C32	134
	56	60	2.8	68	49	3.3	25.088	GKS04-3M □□□071C32	134
	49	68	2.7	60	56	3.1	28.727	GKS04-3M □□□071C32	134
	44	76	2.2	53	62	2.6	32.000	GKS04-3M □□□071C32	134
	40	84	2.2	49	69	2.5	35.191	GKS04-3M □□□071C32	134
	36	93	1.8	44	76	2.1	39.200	GKS04-3M □□□071C32	134
	32	105	1.8	39	86	2.1	44.240	GKS04-3M □□□071C32	134
	30	112	2.7	36	92	3.3	47.059	GKS05-3M □□□071C32	134
	28	121	1.5	34	99	1.8	50.943	GKS04-3M □□□071C32	134
	25	136	1.4	30	111	1.7	56.976	GKS04-3M □□□071C32	134
	22	155	1.2	26	127	1.4	64.978	GKS04-3M □□□071C32	134
	21	159	2.1	26	130	2.5	66.592	GKS05-3M □□□071C32	134
	20	172	1.1	24	141	1.3	72.210	GKS04-3M □□□071C32	134
	19	179	1.7	23	146	2.1	75.033	GKS05-3M □□□071C32	134
	18	189	1.0	22	155	1.2	79.598	GKS04-3M □□□071C32	134
	17	197	1.7	21	162	2.0	82.833	GKS05-3M □□□071C32	134
	16	215	0.9	19	177	1.1	90.491	GKS04-3M □□□071C32	134
	15	222	3.2	18	182	3.9	93.176	GKS06-3M □□□071C32	134
	15	222	1.4	18	182	1.7	93.333	GKS05-3M □□□071C32	134
	14	243	2.8	17	199	3.4	103.721	GKS06-4M □□□071C32	142
	13	250	2.5	16	205	3.1	104.967	GKS06-3M □□□071C32	134
	13	255	1.3	16	209	1.6	107.196	GKS05-3M □□□071C32	134
	13	269	2.6	15	221	3.2	113.082	GKS06-3M □□□071C32	134
	13	265	2.0	15	217	2.5	113.205	GKS06-4M □□□071C32	142
	12	269	1.0	15	221	1.2	114.987	GKS05-4M □□□071C32	142
	12	287	1.1	14	236	1.3	120.784	GKS05-3M □□□071C32	134
	11	297	1.0	14	243	1.2	126.933	GKS05-4M □□□071C32	142
	11	297	2.3	14	244	2.8	127.059	GKS06-4M □□□071C32	142
	11	303	2.1	13	249	2.6	127.392	GKS06-3M □□□071C32	134

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 0.37$ kW

n_N	1410 r/min			1720 r/min			i		
	50 Hz			60 Hz					
	f_N	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]			
	11	310	1.1	13	254	1.3	130.097	GKS05-3M □□□071C32	134
	10	329	1.6	12	270	2.0	140.816	GKS06-4M □□□071C32	142
	9.9	340	2.1	12	279	2.5	142.941	GKS06-3M □□□071C32	134
	9.6	349	0.9	12	286	1.1	146.588	GKS05-3M □□□071C32	134
	9.1	364	1.9	11	299	2.3	155.647	GKS06-4M □□□071C32	142
	8.8	383	1.7	11	314	2.0	161.029	GKS06-3M □□□071C32	134
	8.5	396	0.8	10	324	1.0	166.276	GKS05-3M □□□071C32	134
	8.1	408	1.3	9.8	334	1.6	174.336	GKS06-4M □□□071C32	142
	7.9	419	2.5	9.5	344	3.1	179.201	GKS07-4M □□□071C32	142
	7.4	452	1.6	9.0	371	1.9	190.080	GKS06-3M □□□071C32	134
	7.0	474	1.5	8.4	389	1.8	202.588	GKS06-4M □□□071C32	142
	6.6	510	1.2	8.0	418	1.5	214.133	GKS06-3M □□□071C32	134
	6.3	522	2.0	7.7	428	2.5	222.909	GKS07-4M □□□071C32	142
	6.3	525	1.0	7.6	431	1.2	224.524	GKS06-4M □□□071C32	142
	6.1	549	1.3	7.4	450	1.6	230.688	GKS06-3M □□□071C32	134
	5.6	590	1.2	6.8	483	1.5	252.000	GKS06-4M □□□071C32	142
	5.4	619	1.0	6.6	507	1.3	259.880	GKS06-3M □□□071C32	134
	5.2	639	1.6	6.3	524	2.0	273.199	GKS07-4M □□□071C32	142
	5.1	653	0.8	6.1	536	1.0	279.286	GKS06-4M □□□071C32	142
	4.8	694	1.0	5.9	569	1.2	291.600	GKS06-3M □□□071C32	134
	4.5	741	0.9	5.4	608	1.2	316.800	GKS06-4M □□□071C32	142
	4.4	751	1.8	5.3	616	2.1	321.049	GKS07-4M □□□071C32	142
	4.3	782	0.8	5.2	641	1.0	328.500	GKS06-3M □□□071C32	134
	3.9	840	1.3	4.8	688	1.5	358.829	GKS07-4M □□□071C32	142
	3.5	934	1.4	4.3	766	1.7	399.353	GKS07-4M □□□071C32	142
	3.0	1086	1.0	3.7	891	1.2	464.367	GKS07-4M □□□071C32	142
	2.7	1209	1.1	3.3	991	1.3	516.810	GKS07-4M □□□071C32	142
	2.2	1489	0.9	2.7	1221	1.1	636.581	GKS07-4M □□□071C32	142
	1.7	1913	1.6	2.1	1568	1.9	817.551	GKS09-4M □□□071C32	142
	1.5	2156	1.4	1.9	1767	1.7	921.367	GKS09-4M □□□071C32	142
	1.4	2322	1.3	1.7	1903	1.6	992.209	GKS09-4M □□□071C32	142
	1.3	2616	1.2	1.5	2145	1.4	1118.204	GKS09-4M □□□071C32	142
	1.1	2934	1.0	1.4	2406	1.3	1254.197	GKS09-4M □□□071C32	142
	1.0	3307	0.9	1.2	2711	1.1	1413.461	GKS09-4M □□□071C32	142

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 0.37 \text{ kW}$

n_N	950 r/min			1160 r/min			i		
	50 Hz			60 Hz					
	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	185	18	4.4	225	15	5.4	5.123	GKS04-3M □□□080C13	134
	135	25	3.7	164	20	4.6	7.025	GKS04-3M □□□080C13	134
	116	29	4.4	141	24	5.4	8.167	GKS04-3M □□□080C13	134
	106	32	3.2	128	26	4.0	8.991	GKS04-3M □□□080C13	134
	97	35	3.1	117	28	3.7	9.836	GKS04-3M □□□080C13	134
	81	41	4.3	98	34	5.3	11.730	GKS04-3M □□□080C13	134
				89	38	4.4	13.067	GKS04-3M □□□080C13	134
	72	47	3.6				13.176	GKS05-3M □□□080C13	134
	66	51	3.2	80	41	4.0	14.333	GKS04-3M □□□080C13	134
	59	57	3.2	72	47	3.9	16.087	GKS04-3M □□□080C13	134
	53	63	2.6	64	52	3.2	17.920	GKS04-3M □□□080C13	134
	46	73	2.5	56	60	3.1	20.588	GKS04-3M □□□080C13	134
	42	80	2.3	51	65	2.8	22.522	GKS04-3M □□□080C13	134
	38	89	1.9	46	73	2.3	25.088	GKS04-3M □□□080C13	134
	33	101	1.8	40	83	2.2	28.727	GKS04-3M □□□080C13	134
	32	106	3.1	38	87	3.8	29.931	GKS05-3M □□□080C13	134
	30	113	1.5	36	93	1.8	32.000	GKS04-3M □□□080C13	134
	29	116	2.9	35	95	3.5	32.744	GKS05-3M □□□080C13	134
	27	124	1.5	33	102	1.8	35.191	GKS04-3M □□□080C13	134
	26	130	2.3	31	107	2.8	36.894	GKS05-3M □□□080C13	134
	24	138	1.2	29	113	1.5	39.200	GKS04-3M □□□080C13	134
	23	148	2.2	28	121	2.7	41.765	GKS05-3M □□□080C13	134
	22	156	1.2	26	128	1.4	44.240	GKS04-3M □□□080C13	134
	20	166	1.8	24	136	2.2	47.059	GKS05-3M □□□080C13	134
	19	180	1.0	23	147	1.2	50.943	GKS04-3M □□□080C13	134
	19	181	1.8	23	148	2.2	51.162	GKS05-3M □□□080C13	134
	17	201	0.9	20	165	1.1	56.976	GKS04-3M □□□080C13	134
	17	204	1.5	20	167	1.8	57.647	GKS05-3M □□□080C13	134
	15	230	2.7	18	189	3.3	65.207	GKS06-3M □□□080C13	134
	14	235	1.4	17	193	1.7	66.592	GKS05-3M □□□080C13	134
	13	254	2.8	16	208	3.4	72.000	GKS06-3M □□□080C13	134
	13	265	1.2	15	217	1.4	75.033	GKS05-3M □□□080C13	134
	12	287	2.2	14	235	2.7	81.111	GKS06-3M □□□080C13	134
	12	293	1.1	14	240	1.4	82.833	GKS05-3M □□□080C13	134
	10	329	2.1	12	270	2.6	93.176	GKS06-3M □□□080C13	134
	10	330	1.0	12	270	1.2	93.333	GKS05-3M □□□080C13	134
	9.2	360	1.9	11	295	2.3	103.721	GKS06-4M □□□080C13	142
	9.1	371	1.7	11	304	2.1	104.967	GKS06-3M □□□080C13	134
	8.9	379	0.9	11	310	1.1	107.196	GKS05-3M □□□080C13	134
	8.5	390	2.7	10	320	3.3	112.391	GKS07-4M □□□080C13	142

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 0.37 \text{ kW}$

n_N	950 r/min			1160 r/min			i		
	50 Hz			60 Hz					
	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	8.4	399	1.8	10	327	2.1	113.082	GKS06-3M □□□080C13	134
	8.4	393	1.4	10	322	1.7	113.205	GKS06-4M □□□080C13	142
	7.5	438	3.0	9.1	359	3.6	126.222	GKS07-4M □□□080C13	142
	7.5	447	2.7	9.1	366	3.3	126.578	GKS07-3M □□□080C13	134
	7.5	441	1.6	9.1	361	1.9	127.059	GKS06-4M □□□080C13	142
	7.5	450	1.4	9.0	369	1.7	127.392	GKS06-3M □□□080C13	134
	6.9	478	2.2	8.4	392	2.7	137.748	GKS07-4M □□□080C13	142
	6.8	489	1.1	8.2	400	1.3	140.816	GKS06-4M □□□080C13	142
	6.7	505	1.4	8.1	414	1.7	142.941	GKS06-3M □□□080C13	134
	6.1	537	2.4	7.4	440	3.0	154.622	GKS07-4M □□□080C13	142
	6.1	541	1.3	7.4	443	1.6	155.647	GKS06-4M □□□080C13	142
	5.9	569	1.1	7.1	466	1.4	161.029	GKS06-3M □□□080C13	134
	5.5	605	0.9	6.6	496	1.1	174.336	GKS06-4M □□□080C13	142
	5.3	622	1.7	6.4	510	2.1	179.201	GKS07-4M □□□080C13	142
	5.2	652	2.0	6.2	534	2.5	184.600	GKS07-3M □□□080C13	134
	5.0	672	1.0	6.1	550	1.3	190.080	GKS06-3M □□□080C13	134
	4.7	699	1.9	5.7	572	2.3	201.254	GKS07-4M □□□080C13	142
	4.7	704	1.0	5.7	576	1.2	202.588	GKS06-4M □□□080C13	142
	4.6	735	1.7	5.5	602	2.0	208.000	GKS07-3M □□□080C13	134
	4.4	756	0.8	5.4	620	1.0	214.133	GKS06-3M □□□080C13	134
	4.3	774	1.4	5.2	634	1.7	222.909	GKS07-4M □□□080C13	142
	4.2	791	1.7	5.1	648	2.1	224.037	GKS07-3M □□□080C13	134
	4.1	815	0.9	5.0	667	1.1	230.688	GKS06-3M □□□080C13	134
	3.9	857	1.5	4.7	701	1.9	246.659	GKS07-4M □□□080C13	142
	3.8	875	0.8	4.6	717	1.0	252.000	GKS06-4M □□□080C13	142
	3.8	892	1.4	4.6	730	1.7	252.436	GKS07-3M □□□080C13	134
	3.5	949	1.1	4.2	777	1.4	273.199	GKS07-4M □□□080C13	142
	3.4	1000	1.3	4.1	819	1.6	283.193	GKS07-3M □□□080C13	134
	3.0	1127	1.1	3.6	923	1.3	319.091	GKS07-3M □□□080C13	134
	3.0	1115	1.2	3.6	913	1.4	321.049	GKS07-4M □□□080C13	142
	2.9	1123	2.7	3.6	920	3.3	323.365	GKS09-4M □□□080C13	142
	2.7	1246	0.8	3.2	1021	1.0	358.829	GKS07-4M □□□080C13	142
	2.6	1266	2.4	3.2	1036	3.0	364.427	GKS09-4M □□□080C13	142
	2.4	1387	1.0	2.9	1136	1.2	399.353	GKS07-4M □□□080C13	142
	2.4	1397	2.2	2.9	1144	2.6	402.234	GKS09-4M □□□080C13	142
	2.1	1574	2.0	2.5	1289	2.4	453.311	GKS09-4M □□□080C13	142
	1.8	1808	1.7	2.2	1480	2.0	520.538	GKS09-4M □□□080C13	142
	1.6	2037	1.5	2.0	1668	1.8	586.638	GKS09-4M □□□080C13	142
	1.5	2194	1.4	1.8	1797	1.7	631.744	GKS09-4M □□□080C13	142
	1.3	2472	1.2	1.6	2025	1.5	711.965	GKS09-4M □□□080C13	142

GKS helical-bevel gearboxes

Technical data



Selection tables

50 Hz, 60 Hz: $P_N = 0.37$ kW

n_N	950 r/min			1160 r/min			i		
	50 Hz			60 Hz					
f_N	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	1.2	2835	2.1	1.4	2322	2.6	816.455	GKS11-4M □□□080C13	142
	1.2	2839	1.1	1.4	2325	1.3	817.551	GKS09-4M □□□080C13	142
	1.0	3195	1.9	1.3	2616	2.3	919.949	GKS11-4M □□□080C13	142
	1.0	3200	1.0	1.3	2620	1.2	921.367	GKS09-4M □□□080C13	142
	1.0	3441	1.7	1.2	2818	2.1	990.879	GKS11-4M □□□080C13	142
	1.0	3446	0.9	1.2	2822	1.1	992.209	GKS09-4M □□□080C13	142
	0.9	3877	1.6	1.0	3175	1.9	1116.484	GKS11-4M □□□080C13	142
	0.8	4350	1.4	0.9	3562	1.7	1252.516	GKS11-4M □□□080C13	142
	0.7	4901	1.2	0.8	4014	1.5	1411.286	GKS11-4M □□□080C13	142

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 0.55 \text{ kW}$

n_N	2630 r/min			3240 r/min			i	GKS model		
	50 Hz			60 Hz						
	f_N	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]				c
		513	9.7	4.1	631	7.9	4.7	5.123	GKS04-3M □□□071C31	134
		374	13	4.1	460	11	4.7	7.025	GKS04-3M □□□071C31	134
		322	15	4.1	396	13	4.7	8.167	GKS04-3M □□□071C31	134
		293	17	4.7	359	14	5.4	8.991	GKS04-3M □□□071C31	134
		267	19	4.7	328	15	5.4	9.836	GKS04-3M □□□071C31	134
		224	22	4.1	275	18	4.7	11.730	GKS04-3M □□□071C31	134
		201	25	4.1	247	20	4.7	13.067	GKS04-3M □□□071C31	134
		184	27	4.7	225	22	5.4	14.333	GKS04-3M □□□071C31	134
		164	31	4.1	201	25	4.7	16.087	GKS04-3M □□□071C31	134
		147	34	4.0	180	28	4.7	17.920	GKS04-3M □□□071C31	134
		128	39	3.9	157	32	4.4	20.588	GKS04-3M □□□071C31	134
		117	43	3.5	143	35	4.1	22.522	GKS04-3M □□□071C31	134
		105	48	2.9	129	39	3.3	25.088	GKS04-3M □□□071C31	134
		92	54	2.8	112	44	3.2	28.727	GKS04-3M □□□071C31	134
		82	61	2.3	101	49	2.6	32.000	GKS04-3M □□□071C31	134
		75	67	2.3	92	54	2.6	35.191	GKS04-3M □□□071C31	134
		67	74	1.9	82	60	2.2	39.200	GKS04-3M □□□071C31	134
		59	84	2.1	73	68	2.4	44.240	GKS04-3M □□□071C31	134
		56	89	3.2	69	72	3.7	47.059	GKS05-3M □□□071C31	134
		52	97	1.8	63	78	2.0	50.943	GKS04-3M □□□071C31	134
		46	108	1.6	57	88	1.9	56.976	GKS04-3M □□□071C31	134
		41	123	1.4	50	100	1.6	64.978	GKS04-3M □□□071C31	134
		40	126	2.5	49	103	2.8	66.592	GKS05-3M □□□071C31	134
		36	137	1.3	45	111	1.5	72.210	GKS04-3M □□□071C31	134
		35	142	2.1	43	116	2.4	75.033	GKS05-3M □□□071C31	134
		33	151	1.1	41	123	1.3	79.598	GKS04-3M □□□071C31	134
		32	157	2.0	39	128	2.3	82.833	GKS05-3M □□□071C31	134
		29	172	1.0	36	139	1.2	90.491	GKS04-3M □□□071C31	134
		28	177	1.7	35	144	1.9	93.333	GKS05-3M □□□071C31	134
		28	178	0.9	34	144	1.0	95.238	GKS05-4M □□□071C31	142
		26	190	0.9	32	154	1.1	100.067	GKS04-3M □□□071C31	134
		25	199	3.0	31	162	3.5	104.967	GKS06-3M □□□071C31	134
		25	203	1.5	30	165	1.8	107.196	GKS05-3M □□□071C31	134
		24	211	0.8	29	172	1.0	111.467	GKS04-3M □□□071C31	134
		23	211	2.5	29	171	3.1	113.205	GKS06-4M □□□071C31	142
		23	214	1.2	28	174	1.4	114.987	GKS05-4M □□□071C31	142
		22	229	1.4	27	186	1.7	120.784	GKS05-3M □□□071C31	134
		21	237	1.2	25	192	1.4	126.933	GKS05-4M □□□071C31	142
		21	237	2.9	25	192	3.5	127.059	GKS06-4M □□□071C31	142
		21	242	2.6	25	196	3.2	127.392	GKS06-3M □□□071C31	134

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 0.55$ kW

n_N	2630 r/min			3240 r/min			i		
	50 Hz			60 Hz					
	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	20	247	1.3	25	200	1.6	130.097	GKS05-3M □□□071C31	134
	19	263	2.0	23	213	2.5	140.816	GKS06-4M □□□071C31	142
	18	271	2.6	23	220	3.1	142.941	GKS06-3M □□□071C31	134
	18	278	1.1	22	226	1.4	146.588	GKS05-3M □□□071C31	134
	18	273	0.9	22	222	1.1	146.667	GKS05-4M □□□071C31	142
	17	290	2.4	21	236	2.9	155.647	GKS06-4M □□□071C31	142
	16	305	2.1	20	248	2.5	161.029	GKS06-3M □□□071C31	134
	16	302	0.9	20	245	1.1	161.905	GKS05-4M □□□071C31	142
	16	315	1.0	19	256	1.3	166.276	GKS05-3M □□□071C31	134
	15	325	1.7	19	264	2.0	174.336	GKS06-4M □□□071C31	142
	15	334	3.2	18	271	3.8	179.201	GKS07-4M □□□071C31	142
	14	346	1.0	17	281	1.1	185.547	GKS05-4M □□□071C31	142
	14	355	0.9	17	288	1.1	187.353	GKS05-3M □□□071C31	134
	14	361	1.9	17	293	2.3	190.080	GKS06-3M □□□071C31	134
	13	378	1.8	16	307	2.2	202.588	GKS06-4M □□□071C31	142
	13	390	0.8	15	316	1.0	209.067	GKS05-4M □□□071C31	142
	12	406	1.6	15	330	1.9	214.133	GKS06-3M □□□071C31	134
	12	416	2.5	15	337	3.0	222.909	GKS07-4M □□□071C31	142
	12	419	1.3	14	340	1.5	224.524	GKS06-4M □□□071C31	142
	11	438	1.6	14	355	1.9	230.688	GKS06-3M □□□071C31	134
	10	470	1.5	13	381	1.8	252.000	GKS06-4M □□□071C31	142
	10	493	1.3	12	400	1.5	259.880	GKS06-3M □□□071C31	134
	9.6	509	2.1	12	414	2.5	273.199	GKS07-4M □□□071C31	142
	9.4	521	1.0	12	423	1.2	279.286	GKS06-4M □□□071C31	142
	9.0	553	1.3	11	449	1.5	291.600	GKS06-3M □□□071C31	134
	8.3	591	1.2	10	479	1.4	316.800	GKS06-4M □□□071C31	142
	8.2	599	2.2	10	486	2.6	321.049	GKS07-4M □□□071C31	142
	8.0	623	1.0	9.8	506	1.2	328.500	GKS06-3M □□□071C31	134
	7.3	669	1.6	9.0	543	1.9	358.829	GKS07-4M □□□071C31	142
	6.6	745	1.8	8.1	604	2.1	399.353	GKS07-4M □□□071C31	142
	6.5	761	0.9	7.9	618	1.1	408.000	GKS06-4M □□□071C31	142
	5.7	866	1.2	7.0	703	1.5	464.367	GKS07-4M □□□071C31	142
	5.1	964	1.4	6.3	782	1.6	516.810	GKS07-4M □□□071C31	142
	4.7	1051	1.0	5.7	853	1.2	563.572	GKS07-4M □□□071C31	142
	4.1	1187	1.1	5.1	964	1.3	636.581	GKS07-4M □□□071C31	142
	3.9	1275	0.8	4.7	1035	1.0	683.972	GKS07-4M □□□071C31	142
	3.2	1524	2.0	4.0	1237	2.4	817.551	GKS09-4M □□□071C31	142
	3.2	1536	0.9	3.9	1247	1.0	823.810	GKS07-4M □□□071C31	142
	2.9	1718	1.8	3.5	1395	2.2	921.367	GKS09-4M □□□071C31	142
	2.7	1850	1.6	3.3	1502	2.0	992.209	GKS09-4M □□□071C31	142

GKS helical-bevel gearboxes

Technical data



Selection tables

50 Hz, 60 Hz: $P_N = 0.55$ kW

n_N	2630 r/min			3240 r/min			i		
	50 Hz			60 Hz					
f_N	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	2.4	2085	1.5	2.9	1692	1.8	1118.204	GKS09-4M □□□071C31	142
	2.1	2339	1.3	2.6	1898	1.6	1254.197	GKS09-4M □□□071C31	142
	1.9	2636	1.2	2.3	2139	1.4	1413.461	GKS09-4M □□□071C31	142

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 0.55 \text{ kW}$

n_N	1405 r/min			1720 r/min			i	GKS Model	134
	50 Hz			60 Hz					
	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	274	18	4.4	333	15	5.2	5.123	GKS04-3M □□□071C42	134
	200	25	3.7	243	20	4.3	7.025	GKS04-3M □□□071C42	134
	172	29	4.4	209	24	5.2	8.167	GKS04-3M □□□071C42	134
	156	32	3.2	190	26	3.8	8.991	GKS04-3M □□□071C42	134
	143	35	3.0	173	29	3.6	9.836	GKS04-3M □□□071C42	134
	120	42	4.3	145	34	5.1	11.730	GKS04-3M □□□071C42	134
				132	38	4.2	13.067	GKS04-3M □□□071C42	134
	107	47	3.5	129	38	4.1	13.176	GKS05-3M □□□071C42	134
	98	51	3.2	119	42	3.8	14.333	GKS04-3M □□□071C42	134
	87	57	3.2	106	47	3.7	16.087	GKS04-3M □□□071C42	134
	78	64	2.6	95	52	3.1	17.920	GKS04-3M □□□071C42	134
	68	73	2.5	83	60	2.9	20.588	GKS04-3M □□□071C42	134
	62	80	2.3	76	65	2.7	22.522	GKS04-3M □□□071C42	134
	56	89	1.9	68	73	2.2	25.088	GKS04-3M □□□071C42	134
	49	102	1.8	59	83	2.1	28.727	GKS04-3M □□□071C42	134
	47	106	3.1	57	87	3.6	29.931	GKS05-3M □□□071C42	134
	44	114	1.5	53	93	1.7	32.000	GKS04-3M □□□071C42	134
	43	116	2.8	52	95	3.3	32.744	GKS05-3M □□□071C42	134
	40	125	1.5	49	102	1.7	35.191	GKS04-3M □□□071C42	134
	38	131	2.3	46	107	2.7	36.894	GKS05-3M □□□071C42	134
	36	139	1.2	44	114	1.4	39.200	GKS04-3M □□□071C42	134
	34	148	2.2	41	121	2.6	41.765	GKS05-3M □□□071C42	134
	32	157	1.2	39	128	1.4	44.240	GKS04-3M □□□071C42	134
	30	167	1.8	36	136	2.2	47.059	GKS05-3M □□□071C42	134
	28	181	1.0	34	148	1.2	50.943	GKS04-3M □□□071C42	134
	28	182	1.8	33	148	2.2	51.162	GKS05-3M □□□071C42	134
	25	202	0.9	30	165	1.1	56.976	GKS04-3M □□□071C42	134
	24	205	1.5	30	167	1.8	57.647	GKS05-3M □□□071C42	134
	22	232	2.7	26	189	3.3	65.207	GKS06-3M □□□071C42	134
	21	236	1.4	26	193	1.7	66.592	GKS05-3M □□□071C42	134
	20	256	2.7	24	209	3.4	72.000	GKS06-3M □□□071C42	134
	19	266	1.2	23	218	1.4	75.033	GKS05-3M □□□071C42	134
	17	288	2.2	21	235	2.7	81.111	GKS06-3M □□□071C42	134
	17	294	1.1	21	240	1.4	82.833	GKS05-3M □□□071C42	134
	15	331	2.1	18	270	2.6	93.176	GKS06-3M □□□071C42	134
	15	331	1.0	18	271	1.2	93.333	GKS05-3M □□□071C42	134
	14	362	1.9	16	296	2.3	103.721	GKS06-4M □□□071C42	142
	13	373	1.7	16	304	2.1	104.967	GKS06-3M □□□071C42	134
	13	381	0.9	16	311	1.1	107.196	GKS05-3M □□□071C42	134
	13	392	2.7	15	320	3.3	112.391	GKS07-4M □□□071C42	142

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 0.55$ kW

n_N	1405 r/min			1720 r/min			i			
	f_N	50 Hz			60 Hz					
		n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]				c
	12	402	1.7	15	328	2.1	113.082	GKS06-3M □□□071C42	134	
	12	395	1.4	15	323	1.7	113.205	GKS06-4M □□□071C42	142	
	11	441	3.0	14	360	3.6	126.222	GKS07-4M □□□071C42	142	
	11	443	1.6	13	362	1.9	127.059	GKS06-4M □□□071C42	142	
	11	452	1.4	13	369	1.7	127.392	GKS06-3M □□□071C42	134	
	10	481	2.2	12	393	2.7	137.748	GKS07-4M □□□071C42	142	
	10	492	1.1	12	401	1.3	140.816	GKS06-4M □□□071C42	142	
	9.8	508	1.4	12	415	1.7	142.941	GKS06-3M □□□071C42	134	
	9.1	540	2.4	11	441	2.9	154.622	GKS07-4M □□□071C42	142	
	9.0	543	1.3	11	444	1.6	155.647	GKS06-4M □□□071C42	142	
	8.7	572	1.1	11	467	1.4	161.029	GKS06-3M □□□071C42	134	
	8.1	608	0.9	9.8	497	1.1	174.336	GKS06-4M □□□071C42	142	
	7.8	625	1.7	9.5	511	2.1	179.201	GKS07-4M □□□071C42	142	
	7.4	675	1.0	9.0	551	1.3	190.080	GKS06-3M □□□071C42	134	
	7.0	702	1.9	8.5	574	2.3	201.254	GKS07-4M □□□071C42	142	
	6.9	707	1.0	8.4	578	1.2	202.588	GKS06-4M □□□071C42	142	
	6.6	760	0.8	8.0	621	1.0	214.133	GKS06-3M □□□071C42	134	
	6.3	778	1.4	7.7	636	1.7	222.909	GKS07-4M □□□071C42	142	
	6.1	819	0.9	7.4	669	1.0	230.688	GKS06-3M □□□071C42	134	
	5.7	861	1.5	6.9	703	1.9	246.659	GKS07-4M □□□071C42	142	
	5.1	954	1.1	6.2	779	1.4	273.199	GKS07-4M □□□071C42	142	
	4.4	1121	1.2	5.3	915	1.4	321.049	GKS07-4M □□□071C42	142	
	4.3	1129	2.7	5.3	922	3.3	323.365	GKS09-4M □□□071C42	142	
	3.9	1252	0.8	4.8	1023	1.0	358.829	GKS07-4M □□□071C42	142	
	3.9	1272	2.4	4.7	1039	3.0	364.427	GKS09-4M □□□071C42	142	
	3.5	1394	0.9	4.3	1139	1.2	399.353	GKS07-4M □□□071C42	142	
	3.5	1404	2.2	4.2	1147	2.6	402.234	GKS09-4M □□□071C42	142	
	3.1	1582	1.9	3.8	1292	2.4	453.311	GKS09-4M □□□071C42	142	
	2.7	1817	1.7	3.3	1484	2.0	520.538	GKS09-4M □□□071C42	142	
	2.4	2048	1.5	2.9	1673	1.8	586.638	GKS09-4M □□□071C42	142	
	2.2	2205	1.4	2.7	1801	1.7	631.744	GKS09-4M □□□071C42	142	
	2.0	2485	1.2	2.4	2030	1.5	711.965	GKS09-4M □□□071C42	142	
	1.7	2854	1.1	2.1	2331	1.3	817.551	GKS09-4M □□□071C42	142	
	1.5	3216	1.0	1.9	2627	1.2	921.367	GKS09-4M □□□071C42	142	
	1.4	3463	0.9	1.7	2829	1.1	992.209	GKS09-4M □□□071C42	142	

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 0.55$ kW

n_N	930 r/min			1140 r/min			i		
	50 Hz			60 Hz					
	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	182	27	2.9	221	22	3.6	5.123	GKS04-3M □□□080C33	134
	132	38	2.5	161	31	3.0	7.025	GKS04-3M □□□080C33	134
	114	44	2.9	138	36	3.6	8.167	GKS04-3M □□□080C33	134
	103	48	2.1	126	39	2.6	8.991	GKS04-3M □□□080C33	134
	95	53	2.0	115	43	2.5	9.836	GKS04-3M □□□080C33	134
	79	63	2.9	96	51	3.5	11.730	GKS04-3M □□□080C33	134
	71	70	2.4	87	57	2.9	13.067	GKS04-3M □□□080C33	134
	71	71	2.3	86	58	2.9	13.176	GKS05-3M □□□080C33	134
	65	77	2.1	79	63	2.6	14.333	GKS04-3M □□□080C33	134
	58	86	2.1	70	70	2.6	16.087	GKS04-3M □□□080C33	134
	52	96	1.7	63	78	2.1	17.920	GKS04-3M □□□080C33	134
	48	103	2.9	59	84	3.5	19.216	GKS05-3M □□□080C33	134
	45	110	1.6	55	90	2.0	20.588	GKS04-3M □□□080C33	134
	41	121	1.5	50	99	1.8	22.522	GKS04-3M □□□080C33	134
	37	135	1.2	45	110	1.5	25.088	GKS04-3M □□□080C33	134
	32	154	1.2	39	126	1.5	28.727	GKS04-3M □□□080C33	134
	31	161	2.1	38	131	2.5	29.931	GKS05-3M □□□080C33	134
	29	172	1.0	35	140	1.2	32.000	GKS04-3M □□□080C33	134
	28	176	1.9	35	143	2.3	32.744	GKS05-3M □□□080C33	134
	26	189	1.0	32	154	1.2	35.191	GKS04-3M □□□080C33	134
	25	198	1.5	31	161	1.9	36.894	GKS05-3M □□□080C33	134
	22	224	1.5	27	183	1.8	41.765	GKS05-3M □□□080C33	134
	20	252	1.2	24	206	1.5	47.059	GKS05-3M □□□080C33	134
	18	274	1.2	22	224	1.5	51.162	GKS05-3M □□□080C33	134
	16	309	1.0	20	252	1.2	57.647	GKS05-3M □□□080C33	134
	16	310	2.2	20	253	2.7	57.882	GKS06-3M □□□080C33	134
	14	350	1.8	17	285	2.2	65.207	GKS06-3M □□□080C33	134
	14	357	0.9	17	291	1.1	66.592	GKS05-3M □□□080C33	134
	13	386	1.8	16	315	2.2	72.000	GKS06-3M □□□080C33	134
	12	435	1.4	14	355	1.8	81.111	GKS06-3M □□□080C33	134
	10	497	2.6	12	405	3.2	92.563	GKS07-3M □□□080C33	134
	10	500	1.4	12	408	1.7	93.176	GKS06-3M □□□080C33	134
	9.0	543	2.4	11	443	2.9	103.039	GKS07-4M □□□080C33	142
	9.0	547	1.3	11	446	1.5	103.721	GKS06-4M □□□080C33	142
	8.9	559	2.2	11	456	2.7	104.296	GKS07-3M □□□080C33	134
	8.9	563	1.1	11	459	1.4	104.967	GKS06-3M □□□080C33	134
	8.3	603	2.2	10	492	2.7	112.338	GKS07-3M □□□080C33	134
	8.3	593	1.8	10	483	2.2	112.391	GKS07-4M □□□080C33	142
	8.2	607	1.2	10	495	1.4	113.082	GKS06-3M □□□080C33	134
	8.2	597	0.9	10	487	1.1	113.205	GKS06-4M □□□080C33	142

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 0.55$ kW

n_N	930 r/min			1140 r/min			i		
	50 Hz			60 Hz					
	f_N	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]			
	7.4	666	2.0	9.0	543	2.4	126.222	GKS07-4M □□□080C33	142
	7.4	679	1.8	8.9	554	2.2	126.578	GKS07-3M □□□080C33	134
	7.3	670	1.0	8.9	547	1.3	127.059	GKS06-4M □□□080C33	142
	7.3	683	0.9	8.9	557	1.1	127.392	GKS06-3M □□□080C33	134
	6.8	726	1.4	8.2	593	1.8	137.748	GKS07-4M □□□080C33	142
	6.5	767	0.9	7.9	626	1.1	142.941	GKS06-3M □□□080C33	134
	6.0	815	1.6	7.3	665	2.0	154.622	GKS07-4M □□□080C33	142
	6.0	821	0.8	7.3	670	1.0	155.647	GKS06-4M □□□080C33	142
	5.2	945	1.1	6.3	771	1.4	179.201	GKS07-4M □□□080C33	142
	5.0	990	1.3	6.1	808	1.6	184.600	GKS07-3M □□□080C33	134
	4.6	1061	1.2	5.6	866	1.5	201.254	GKS07-4M □□□080C33	142
	4.5	1116	1.1	5.4	910	1.3	208.000	GKS07-3M □□□080C33	134
	4.2	1175	0.9	5.1	959	1.1	222.909	GKS07-4M □□□080C33	142
	4.2	1202	1.1	5.0	980	1.4	224.037	GKS07-3M □□□080C33	134
	3.8	1301	1.0	4.6	1061	1.2	246.659	GKS07-4M □□□080C33	142
	3.7	1354	0.9	4.5	1105	1.1	252.436	GKS07-3M □□□080C33	134
	3.3	1519	0.9	4.0	1239	1.1	283.193	GKS07-3M □□□080C33	134
	2.9	1705	1.8	3.5	1391	2.2	323.365	GKS09-4M □□□080C33	142
	2.6	1922	1.6	3.1	1568	2.0	364.427	GKS09-4M □□□080C33	142
	2.3	2121	1.4	2.8	1730	1.8	402.234	GKS09-4M □□□080C33	142
	2.1	2390	1.3	2.5	1950	1.6	453.311	GKS09-4M □□□080C33	142
	1.8	2745	1.1	2.2	2239	1.4	520.538	GKS09-4M □□□080C33	142
	1.6	3093	1.0	1.9	2524	1.2	586.638	GKS09-4M □□□080C33	142
	1.5	3331	0.9	1.8	2718	1.1	631.744	GKS09-4M □□□080C33	142
	1.3	3754	0.8	1.6	3063	1.0	711.965	GKS09-4M □□□080C33	142
	1.1	4305	1.4	1.4	3512	1.7	816.455	GKS11-4M □□□080C33	142
	1.0	4851	1.3	1.2	3957	1.5	919.949	GKS11-4M □□□080C33	142
	0.9	5225	1.1	1.1	4262	1.4	990.879	GKS11-4M □□□080C33	142
	0.8	5887	1.0	1.0	4803	1.3	1116.484	GKS11-4M □□□080C33	142
	0.7	6605	0.9	0.9	5388	1.1	1252.516	GKS11-4M □□□080C33	142
	0.7	7442	0.8	0.8	6071	1.0	1411.286	GKS11-4M □□□080C33	142

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 0.75$ kW

n_N	2720 r/min			3380 r/min			i		
	50 Hz			60 Hz					
	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	531	13	5.1	648	10	6.0	5.123	GKS04-3M □□□080C11	134
	387	18	4.3	473	14	5.0	7.025	GKS04-3M □□□080C11	134
	333	20	5.1	407	16	6.0	8.167	GKS04-3M □□□080C11	134
	303	22	3.8	369	18	4.3	8.991	GKS04-3M □□□080C11	134
	277	25	3.5	338	20	4.1	9.836	GKS04-3M □□□080C11	134
	232	29	5.0	283	24	5.8	11.730	GKS04-3M □□□080C11	134
				259	26	4.8	13.067	GKS04-3M □□□080C11	134
	206	33	4.1				13.176	GKS05-3M □□□080C11	134
	190	36	3.8	232	29	4.3	14.333	GKS04-3M □□□080C11	134
	169	40	3.7	206	32	4.3	16.087	GKS04-3M □□□080C11	134
	152	45	3.0	185	36	3.5	17.920	GKS04-3M □□□080C11	134
	132	51	2.9	161	41	3.4	20.588	GKS04-3M □□□080C11	134
	121	56	2.6	147	45	3.1	22.522	GKS04-3M □□□080C11	134
	108	63	2.2	132	50	2.5	25.088	GKS04-3M □□□080C11	134
	95	72	2.1	116	58	2.4	28.727	GKS04-3M □□□080C11	134
	85	80	1.7	104	64	2.0	32.000	GKS04-3M □□□080C11	134
	77	88	1.7	94	71	2.0	35.191	GKS04-3M □□□080C11	134
	74	92	2.7	90	74	3.1	36.894	GKS05-3M □□□080C11	134
	69	98	1.4	85	79	1.6	39.200	GKS04-3M □□□080C11	134
	65	104	2.6	80	84	3.0	41.765	GKS05-3M □□□080C11	134
	62	111	1.6	75	89	1.8	44.240	GKS04-3M □□□080C11	134
	58	118	2.4	71	95	2.8	47.059	GKS05-3M □□□080C11	134
	53	127	1.3	65	103	1.5	50.943	GKS04-3M □□□080C11	134
	53	128	2.4	65	103	2.8	51.162	GKS05-3M □□□080C11	134
	48	142	1.2	58	115	1.4	56.976	GKS04-3M □□□080C11	134
	47	144	2.0	58	116	2.3	57.647	GKS05-3M □□□080C11	134
	42	163	1.0	51	131	1.2	64.978	GKS04-3M □□□080C11	134
	41	167	1.9	50	134	2.1	66.592	GKS05-3M □□□080C11	134
	36	188	1.5	44	151	1.8	75.033	GKS05-3M □□□080C11	134
	34	199	0.9	42	160	1.0	79.598	GKS04-3M □□□080C11	134
	34	203	2.9	41	163	3.3	81.111	GKS06-3M □□□080C11	134
	33	207	1.5	40	167	1.7	82.833	GKS05-3M □□□080C11	134
	29	233	2.8	36	188	3.2	93.176	GKS06-3M □□□080C11	134
	29	233	1.3	36	188	1.5	93.333	GKS05-3M □□□080C11	134
	26	255	2.5	32	205	2.9	103.721	GKS06-4M □□□080C11	142
	26	263	2.3	32	211	2.6	104.967	GKS06-3M □□□080C11	134
	25	268	1.2	31	216	1.3	107.196	GKS05-3M □□□080C11	134
	24	283	2.5	29	228	3.0	113.082	GKS06-3M □□□080C11	134
	24	278	1.9	29	224	2.3	113.205	GKS06-4M □□□080C11	142
	24	283	0.9	29	227	1.1	114.987	GKS05-4M □□□080C11	142

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 0.75$ kW

n_N	2720 r/min			3380 r/min			i		
	50 Hz			60 Hz					
	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	23	302	1.0	28	243	1.2	120.784	GKS05-3M □□□080C11	134
	21	312	0.9	26	251	1.1	126.933	GKS05-4M □□□080C11	142
	21	312	2.2	26	251	2.6	127.059	GKS06-4M □□□080C11	142
	21	319	2.0	26	256	2.4	127.392	GKS06-3M □□□080C11	134
	21	325	1.0	26	262	1.2	130.097	GKS05-3M □□□080C11	134
	20	339	3.1	24	273	3.7	137.748	GKS07-4M □□□080C11	142
	19	346	1.6	24	279	1.9	140.816	GKS06-4M □□□080C11	142
	19	358	2.0	23	288	2.3	142.941	GKS06-3M □□□080C11	134
	19	367	0.9	23	295	1.0	146.588	GKS05-3M □□□080C11	134
	18	383	1.8	21	308	2.2	155.647	GKS06-4M □□□080C11	142
	17	403	1.6	21	324	1.9	161.029	GKS06-3M □□□080C11	134
	16	429	1.3	19	345	1.5	174.336	GKS06-4M □□□080C11	142
	15	441	2.4	19	355	2.9	179.201	GKS07-4M □□□080C11	142
	15	462	2.9	18	372	3.4	184.600	GKS07-3M □□□080C11	134
	14	475	1.5	18	383	1.8	190.080	GKS06-3M □□□080C11	134
	14	495	2.6	17	398	3.2	201.254	GKS07-4M □□□080C11	142
	13	498	1.4	16	401	1.7	202.588	GKS06-4M □□□080C11	142
	13	520	2.3	16	419	2.8	208.000	GKS07-3M □□□080C11	134
	13	536	1.2	16	431	1.4	214.133	GKS06-3M □□□080C11	134
	12	548	1.9	15	441	2.3	222.909	GKS07-4M □□□080C11	142
	12	560	2.4	15	451	2.8	224.037	GKS07-3M □□□080C11	134
	12	552	1.0	15	444	1.2	224.524	GKS06-4M □□□080C11	142
	12	577	1.2	14	464	1.5	230.688	GKS06-3M □□□080C11	134
	11	606	2.2	14	488	2.6	246.659	GKS07-4M □□□080C11	142
	11	620	1.1	13	499	1.4	252.000	GKS06-4M □□□080C11	142
	11	631	1.9	13	508	2.3	252.436	GKS07-3M □□□080C11	134
	11	650	1.0	13	523	1.2	259.880	GKS06-3M □□□080C11	134
	10	672	1.6	12	541	1.9	273.199	GKS07-4M □□□080C11	142
	9.6	708	1.9	12	570	2.2	283.193	GKS07-3M □□□080C11	134
	9.3	729	1.0	11	587	1.1	291.600	GKS06-3M □□□080C11	134
	8.6	779	0.9	11	627	1.1	316.800	GKS06-4M □□□080C11	142
	8.5	798	1.5	10	642	1.8	319.091	GKS07-3M □□□080C11	134
	8.5	789	1.7	10	635	2.0	321.049	GKS07-4M □□□080C11	142
	7.6	882	1.2	9.3	710	1.4	358.829	GKS07-4M □□□080C11	142
	6.8	982	1.3	8.3	790	1.6	399.353	GKS07-4M □□□080C11	142
	6.8	989	3.1	8.3	796	3.7	402.234	GKS09-4M □□□080C11	142
	6.0	1114	2.8	7.3	897	3.3	453.311	GKS09-4M □□□080C11	142
	5.9	1142	0.9	7.2	919	1.1	464.367	GKS07-4M □□□080C11	142
	5.3	1271	1.0	6.4	1022	1.2	516.810	GKS07-4M □□□080C11	142
	5.2	1280	2.4	6.4	1030	2.8	520.538	GKS09-4M □□□080C11	142

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 0.75$ kW

n_N	2720 r/min			3380 r/min			i		
	50 Hz			60 Hz					
f_N	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	4.6	1442	2.1	5.7	1161	2.6	586.638	GKS09-4M □□□080C11	142
	4.3	1553	2.0	5.3	1250	2.3	631.744	GKS09-4M □□□080C11	142
	4.3	1565	0.8	5.2	1259	1.0	636.581	GKS07-4M □□□080C11	142
	3.8	1750	1.8	4.7	1409	2.1	711.965	GKS09-4M □□□080C11	142
	3.3	2007	3.0	4.1	1615	3.6	816.455	GKS11-4M □□□080C11	142
	3.3	2010	1.5	4.1	1618	1.8	817.551	GKS09-4M □□□080C11	142
	3.0	2262	2.7	3.6	1820	3.2	919.949	GKS11-4M □□□080C11	142
	3.0	2265	1.4	3.6	1823	1.6	921.367	GKS09-4M □□□080C11	142
	2.8	2436	2.5	3.4	1960	2.9	990.879	GKS11-4M □□□080C11	142
	2.7	2439	1.2	3.4	1963	1.5	992.209	GKS09-4M □□□080C11	142
	2.4	2745	2.2	3.0	2209	2.6	1116.484	GKS11-4M □□□080C11	142
	2.4	2749	1.1	3.0	2212	1.3	1118.204	GKS09-4M □□□080C11	142
	2.2	3079	1.9	2.7	2478	2.3	1252.516	GKS11-4M □□□080C11	142
	2.2	3083	1.0	2.7	2481	1.2	1254.197	GKS09-4M □□□080C11	142
	1.9	3470	1.8	2.4	2792	2.1	1411.286	GKS11-4M □□□080C11	142
	1.9	3475	0.9	2.4	2796	1.1	1413.461	GKS09-4M □□□080C11	142

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 0.75 \text{ kW}$

n_N	1410 r/min			1720 r/min			i		
	50 Hz			60 Hz					
	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	275	25	3.3	334	20	3.8	5.123	GKS04-3M □□□080C32	134
	201	34	2.7	243	28	3.2	7.025	GKS04-3M □□□080C32	134
	173	39	3.3	209	32	3.8	8.167	GKS04-3M □□□080C32	134
	157	43	2.4	190	36	2.8	8.991	GKS04-3M □□□080C32	134
	143	47	2.2	174	39	2.6	9.836	GKS04-3M □□□080C32	134
	120	57	3.2	146	46	3.7	11.730	GKS04-3M □□□080C32	134
	108	63	2.6	131	52	3.1	13.067	GKS04-3M □□□080C32	134
	107	64	2.6	130	52	3.0	13.176	GKS05-3M □□□080C32	134
	98	69	2.4	119	57	2.8	14.333	GKS04-3M □□□080C32	134
	88	78	2.3	106	64	2.7	16.087	GKS04-3M □□□080C32	134
	79	86	1.9	95	71	2.2	17.920	GKS04-3M □□□080C32	134
	73	93	3.2	90	76	3.7	19.216	GKS05-3M □□□080C32	134
	69	99	1.8	83	81	2.1	20.588	GKS04-3M □□□080C32	134
	63	109	1.7	76	89	2.0	22.522	GKS04-3M □□□080C32	134
	56	121	1.4	68	99	1.6	25.088	GKS04-3M □□□080C32	134
	49	139	1.3	60	114	1.5	28.727	GKS04-3M □□□080C32	134
	47	144	2.3	57	118	2.7	29.931	GKS05-3M □□□080C32	134
	44	154	1.1	53	127	1.3	32.000	GKS04-3M □□□080C32	134
	43	158	2.1	52	130	2.4	32.744	GKS05-3M □□□080C32	134
	40	170	1.1	49	139	1.3	35.191	GKS04-3M □□□080C32	134
	38	178	1.7	46	146	2.0	36.894	GKS05-3M □□□080C32	134
	36	189	0.9	44	155	1.0	39.200	GKS04-3M □□□080C32	134
	34	202	1.6	41	165	1.9	41.765	GKS05-3M □□□080C32	134
	32	213	0.9	39	175	1.1	44.240	GKS04-3M □□□080C32	134
	30	227	1.3	36	186	1.6	47.059	GKS05-3M □□□080C32	134
	28	247	1.3	33	202	1.6	51.162	GKS05-3M □□□080C32	134
	25	278	1.1	30	228	1.3	57.647	GKS05-3M □□□080C32	134
	24	279	2.5	30	229	3.0	57.882	GKS06-3M □□□080C32	134
	22	315	2.0	26	258	2.4	65.207	GKS06-3M □□□080C32	134
	21	321	1.0	26	263	1.3	66.592	GKS05-3M □□□080C32	134
	20	347	2.0	24	285	2.5	72.000	GKS06-3M □□□080C32	134
	19	362	0.9	23	297	1.0	75.033	GKS05-3M □□□080C32	134
	17	391	1.6	21	321	2.0	81.111	GKS06-3M □□□080C32	134
	17	400	0.8	21	328	1.0	82.833	GKS05-3M □□□080C32	134
	15	447	2.9	19	366	3.5	92.563	GKS07-3M □□□080C32	134
	15	450	1.6	18	369	1.9	93.176	GKS06-3M □□□080C32	134
	14	489	2.6	17	401	3.2	103.039	GKS07-4M □□□080C32	142
	14	492	1.4	17	403	1.7	103.721	GKS06-4M □□□080C32	142
	14	503	2.4	16	413	2.9	104.296	GKS07-3M □□□080C32	134
	13	506	1.3	16	415	1.5	104.967	GKS06-3M □□□080C32	134

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 0.75$ kW

n_N	1410 r/min			1720 r/min			i		
	50 Hz			60 Hz					
	f_N	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]			
	13	542	2.5	15	444	3.0	112.338	GKS07-3M □□□080C32	134
	13	533	2.0	15	437	2.4	112.391	GKS07-4M □□□080C32	142
	13	546	1.3	15	447	1.6	113.082	GKS06-3M □□□080C32	134
	13	537	1.0	15	440	1.2	113.205	GKS06-4M □□□080C32	142
	11	599	2.2	14	491	2.6	126.222	GKS07-4M □□□080C32	142
	11	611	2.0	14	501	2.4	126.578	GKS07-3M □□□080C32	134
	11	603	1.1	14	494	1.4	127.059	GKS06-4M □□□080C32	142
	11	615	1.0	13	504	1.3	127.392	GKS06-3M □□□080C32	134
	10	653	1.6	12	536	2.0	137.748	GKS07-4M □□□080C32	142
	10	668	0.8	12	547	1.0	140.816	GKS06-4M □□□080C32	142
	9.9	690	1.0	12	565	1.2	142.941	GKS06-3M □□□080C32	134
	9.1	733	1.8	11	601	2.2	154.622	GKS07-4M □□□080C32	142
	9.1	738	0.9	11	605	1.1	155.647	GKS06-4M □□□080C32	142
	8.8	777	0.8	11	637	1.0	161.029	GKS06-3M □□□080C32	134
	7.9	850	1.2	9.5	697	1.5	179.201	GKS07-4M □□□080C32	142
	7.6	891	1.5	9.3	730	1.8	184.600	GKS07-3M □□□080C32	134
	7.0	954	1.4	8.5	782	1.7	201.254	GKS07-4M □□□080C32	142
	6.8	1004	1.2	8.2	823	1.5	208.000	GKS07-3M □□□080C32	134
	6.3	1057	1.0	7.7	867	1.2	222.909	GKS07-4M □□□080C32	142
	6.3	1081	1.2	7.6	886	1.5	224.037	GKS07-3M □□□080C32	134
	5.7	1170	1.1	6.9	959	1.4	246.659	GKS07-4M □□□080C32	142
	5.6	1218	1.0	6.8	998	1.2	252.436	GKS07-3M □□□080C32	134
	5.2	1296	0.8	6.3	1062	1.0	273.199	GKS07-4M □□□080C32	142
	5.0	1366	1.0	6.0	1120	1.2	283.193	GKS07-3M □□□080C32	134
	4.4	1523	0.9	5.3	1248	1.1	321.049	GKS07-4M □□□080C32	142
	4.4	1534	2.0	5.3	1257	2.4	323.365	GKS09-4M □□□080C32	142
	3.9	1728	1.8	4.7	1417	2.2	364.427	GKS09-4M □□□080C32	142
	3.5	1908	1.6	4.3	1564	1.9	402.234	GKS09-4M □□□080C32	142
	3.1	2150	1.4	3.8	1762	1.7	453.311	GKS09-4M □□□080C32	142
	2.7	2469	1.2	3.3	2024	1.5	520.538	GKS09-4M □□□080C32	142
	2.4	2782	1.1	2.9	2281	1.4	586.638	GKS09-4M □□□080C32	142
	2.2	2996	1.0	2.7	2456	1.2	631.744	GKS09-4M □□□080C32	142
	2.0	3377	0.9	2.4	2768	1.1	711.965	GKS09-4M □□□080C32	142
	1.7	3872	1.5	2.1	3174	1.9	816.455	GKS11-4M □□□080C32	142
	1.5	4363	1.4	1.9	3577	1.7	919.949	GKS11-4M □□□080C32	142
	1.4	4699	1.3	1.7	3852	1.6	990.879	GKS11-4M □□□080C32	142
	1.3	5295	1.1	1.5	4341	1.4	1116.484	GKS11-4M □□□080C32	142
	1.1	5940	1.0	1.4	4870	1.2	1252.516	GKS11-4M □□□080C32	142
	1.0	6693	0.9	1.2	5487	1.1	1411.286	GKS11-4M □□□080C32	142

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 1.1 \text{ kW}$

n_N	2720 r/min			3370 r/min			i		
	50 Hz			60 Hz					
	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	531	19	3.5	648	15	4.1	5.123	GKS04-3M □□□080C31	134
	387	26	2.9	473	21	3.4	7.025	GKS04-3M □□□080C31	134
	333	30	3.5	407	24	4.1	8.167	GKS04-3M □□□080C31	134
	303	33	2.6	369	27	2.9	8.991	GKS04-3M □□□080C31	134
	277	36	2.4	338	29	2.8	9.836	GKS04-3M □□□080C31	134
	232	43	3.4	283	35	4.0	11.730	GKS04-3M □□□080C31	134
	208	48	2.8	254	39	3.3	13.067	GKS04-3M □□□080C31	134
	206	48	2.8	252	39	3.2	13.176	GKS05-3M □□□080C31	134
	190	53	2.6	232	42	2.9	14.333	GKS04-3M □□□080C31	134
	169	59	2.5	206	48	2.9	16.087	GKS04-3M □□□080C31	134
	152	66	2.1	185	53	2.4	17.920	GKS04-3M □□□080C31	134
	132	76	2.0	161	61	2.3	20.588	GKS04-3M □□□080C31	134
	121	83	1.8	147	67	2.1	22.522	GKS04-3M □□□080C31	134
	108	92	1.5	132	74	1.7	25.088	GKS04-3M □□□080C31	134
	95	105	1.4	116	85	1.6	28.727	GKS04-3M □□□080C31	134
	91	110	2.5	111	89	2.8	29.931	GKS05-3M □□□080C31	134
	85	117	1.2	104	95	1.3	32.000	GKS04-3M □□□080C31	134
	83	120	2.3	101	97	2.6	32.744	GKS05-3M □□□080C31	134
	77	129	1.2	94	104	1.3	35.191	GKS04-3M □□□080C31	134
	74	135	1.8	90	109	2.1	36.894	GKS05-3M □□□080C31	134
	69	144	1.0	85	116	1.1	39.200	GKS04-3M □□□080C31	134
	65	153	1.8	80	124	2.0	41.765	GKS05-3M □□□080C31	134
	62	162	1.1	75	131	1.2	44.240	GKS04-3M □□□080C31	134
	58	173	1.6	71	139	1.9	47.059	GKS05-3M □□□080C31	134
	53	187	0.9	65	151	1.0	50.943	GKS04-3M □□□080C31	134
	53	188	1.6	65	151	1.9	51.162	GKS05-3M □□□080C31	134
	48	209	0.8	59	169	1.0	56.976	GKS04-3M □□□080C31	134
	47	211	1.4	58	171	1.6	57.647	GKS05-3M □□□080C31	134
	47	212	3.0	57	171	3.5	57.882	GKS06-3M □□□080C31	134
	42	239	2.4	51	193	2.8	65.207	GKS06-3M □□□080C31	134
	41	244	1.3	50	197	1.5	66.592	GKS05-3M □□□080C31	134
	38	264	2.5	46	213	2.9	72.000	GKS06-3M □□□080C31	134
	36	275	1.0	44	222	1.2	75.033	GKS05-3M □□□080C31	134
	34	298	2.0	41	240	2.3	81.111	GKS06-3M □□□080C31	134
	33	304	1.0	40	245	1.2	82.833	GKS05-3M □□□080C31	134
	29	342	1.9	36	276	2.2	93.176	GKS06-3M □□□080C31	134
	29	342	0.9	36	276	1.0	93.333	GKS05-3M □□□080C31	134
	26	372	3.2	32	300	3.7	103.039	GKS07-4M □□□080C31	142
	26	374	1.7	32	302	2.0	103.721	GKS06-4M □□□080C31	142
	26	383	3.0	32	309	3.4	104.296	GKS07-3M □□□080C31	134

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 1.1 \text{ kW}$

n_N	2720 r/min			3370 r/min			i		
	50 Hz			60 Hz					
	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	26	385	1.5	32	311	1.8	104.967	GKS06-3M □□□080C31	134
	24	412	3.2	30	333	3.8	112.338	GKS07-3M □□□080C31	134
	24	405	2.6	30	327	3.1	112.391	GKS07-4M □□□080C31	142
	24	415	1.7	29	335	2.0	113.082	GKS06-3M □□□080C31	134
	24	408	1.3	29	329	1.6	113.205	GKS06-4M □□□080C31	142
	22	455	2.9	26	367	3.4	126.222	GKS07-4M □□□080C31	142
	22	464	2.6	26	375	3.1	126.578	GKS07-3M □□□080C31	134
	21	458	1.5	26	370	1.8	127.059	GKS06-4M □□□080C31	142
	21	467	1.4	26	377	1.6	127.392	GKS06-3M □□□080C31	134
	20	497	2.1	24	401	2.5	137.748	GKS07-4M □□□080C31	142
	19	508	1.1	24	410	1.3	140.816	GKS06-4M □□□080C31	142
	19	524	1.3	23	423	1.6	142.941	GKS06-3M □□□080C31	134
	18	558	2.3	22	450	2.8	154.622	GKS07-4M □□□080C31	142
	18	561	1.2	21	453	1.5	155.647	GKS06-4M □□□080C31	142
	17	591	1.1	21	477	1.3	161.029	GKS06-3M □□□080C31	134
	16	629	0.9	19	507	1.0	174.336	GKS06-4M □□□080C31	142
	15	646	1.6	19	522	1.9	179.201	GKS07-4M □□□080C31	142
	15	677	2.0	18	547	2.3	184.600	GKS07-3M □□□080C31	134
	14	697	1.0	18	563	1.2	190.080	GKS06-3M □□□080C31	134
	14	726	1.8	17	586	2.2	201.254	GKS07-4M □□□080C31	142
	13	731	1.0	16	590	1.1	202.588	GKS06-4M □□□080C31	142
	13	763	1.6	16	616	1.9	208.000	GKS07-3M □□□080C31	134
	13	785	0.8	16	634	1.0	214.133	GKS06-3M □□□080C31	134
	12	804	1.3	15	649	1.6	222.909	GKS07-4M □□□080C31	142
	12	822	1.6	15	663	1.9	224.037	GKS07-3M □□□080C31	134
	12	846	0.8	14	683	1.0	230.688	GKS06-3M □□□080C31	134
	11	889	1.5	14	718	1.8	246.659	GKS07-4M □□□080C31	142
	11	926	1.3	13	747	1.6	252.436	GKS07-3M □□□080C31	134
	10	985	1.1	12	795	1.3	273.199	GKS07-4M □□□080C31	142
	9.6	1039	1.3	12	838	1.5	283.193	GKS07-3M □□□080C31	134
	8.5	1170	1.0	10	945	1.2	319.091	GKS07-3M □□□080C31	134
	8.5	1158	1.1	10	934	1.4	321.049	GKS07-4M □□□080C31	142
	8.4	1166	2.6	10	941	3.1	323.365	GKS09-4M □□□080C31	142
	7.6	1294	0.8	9.4	1044	1.0	358.829	GKS07-4M □□□080C31	142
	7.5	1314	2.3	9.1	1061	2.8	364.427	GKS09-4M □□□080C31	142
	6.8	1440	0.9	8.3	1162	1.1	399.353	GKS07-4M □□□080C31	142
	6.8	1450	2.1	8.3	1171	2.5	402.234	GKS09-4M □□□080C31	142
	6.0	1635	1.9	7.3	1319	2.2	453.311	GKS09-4M □□□080C31	142
	5.2	1877	1.6	6.4	1515	1.9	520.538	GKS09-4M □□□080C31	142
	4.6	2115	1.5	5.7	1707	1.7	586.638	GKS09-4M □□□080C31	142

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 1.1$ kW

n_N	2720 r/min			3370 r/min			i		
	50 Hz			60 Hz					
	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	4.3	2278	1.3	5.3	1839	1.6	631.744	GKS09-4M □□□080C31	142
	3.8	2567	1.2	4.7	2072	1.4	711.965	GKS09-4M □□□080C31	142
	3.3	2944	2.0	4.1	2376	2.4	816.455	GKS11-4M □□□080C31	142
	3.3	2948	1.0	4.1	2379	1.2	817.551	GKS09-4M □□□080C31	142
	3.0	3317	1.8	3.6	2677	2.2	919.949	GKS11-4M □□□080C31	142
	3.0	3322	0.9	3.6	2682	1.1	921.367	GKS09-4M □□□080C31	142
	2.8	3573	1.7	3.4	2884	2.0	990.879	GKS11-4M □□□080C31	142
	2.7	3578	0.8	3.4	2888	1.0	992.209	GKS09-4M □□□080C31	142
	2.4	4026	1.5	3.0	3249	1.8	1116.484	GKS11-4M □□□080C31	142
	2.2	4516	1.3	2.7	3645	1.6	1252.516	GKS11-4M □□□080C31	142
	1.9	5089	1.2	2.4	4107	1.4	1411.286	GKS11-4M □□□080C31	142

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 1.1 \text{ kW}$

n_N	1390 r/min			1705 r/min			i		
	50 Hz			60 Hz					
	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	271	37	2.2	330	30	2.6	5.123	GKS04-3M □□□080C42	134
	203	49	3.0	246	40	3.5	6.863	GKS05-3M □□□080C42	134
	198	50	1.8	241	41	2.2	7.025	GKS04-3M □□□080C42	134
	170	59	2.2	207	48	2.6	8.167	GKS04-3M □□□080C42	134
	155	65	1.6	188	53	1.9	8.991	GKS04-3M □□□080C42	134
	148	68	2.4	180	55	2.9	9.412	GKS05-3M □□□080C42	134
	141	71	1.5	172	58	1.8	9.836	GKS04-3M □□□080C42	134
	132	76	3.0	160	62	3.5	10.569	GKS05-3M □□□080C42	134
	119	84	3.0	145	68	3.5	11.667	GKS05-3M □□□080C42	134
	119	84	2.1	144	69	2.5	11.730	GKS04-3M □□□080C42	134
	106	94	1.8	129	76	2.1	13.067	GKS04-3M □□□080C42	134
	106	95	1.7	128	77	2.1	13.176	GKS05-3M □□□080C42	134
	97	103	1.6	118	84	1.9	14.333	GKS04-3M □□□080C42	134
	96	104	2.4	117	85	2.9	14.494	GKS05-3M □□□080C42	134
	87	115	2.4	106	94	2.9	16.000	GKS05-3M □□□080C42	134
	86	115	1.6	105	94	1.8	16.087	GKS04-3M □□□080C42	134
	82	122	2.6	99	100	3.0	17.054	GKS05-3M □□□080C42	134
	78	129	1.3	94	105	1.5	17.920	GKS04-3M □□□080C42	134
	72	138	2.2	88	112	2.5	19.216	GKS05-3M □□□080C42	134
	68	148	1.2	82	120	1.4	20.588	GKS04-3M □□□080C42	134
	62	162	1.1	75	132	1.3	22.522	GKS04-3M □□□080C42	134
	59	168	2.0	72	137	2.3	23.388	GKS05-3M □□□080C42	134
	55	180	0.9	67	147	1.1	25.088	GKS04-3M □□□080C42	134
	53	189	1.6	64	154	1.9	26.353	GKS05-3M □□□080C42	134
	48	206	0.9	59	168	1.0	28.727	GKS04-3M □□□080C42	134
	46	215	1.5	57	175	1.8	29.931	GKS05-3M □□□080C42	134
	43	230	2.7	53	188	3.1	32.063	GKS06-3M □□□080C42	134
	43	235	1.4	52	192	1.7	32.744	GKS05-3M □□□080C42	134
	38	261	2.6	47	212	3.1	36.303	GKS06-3M □□□080C42	134
	38	265	1.1	46	216	1.3	36.894	GKS05-3M □□□080C42	134
	33	300	1.1	41	244	1.3	41.765	GKS05-3M □□□080C42	134
	31	319	2.2	38	260	2.6	44.471	GKS06-3M □□□080C42	134
	30	338	0.9	36	275	1.1	47.059	GKS05-3M □□□080C42	134
	27	367	0.9	33	299	1.1	51.162	GKS05-3M □□□080C42	134
	26	381	1.8	32	311	2.2	53.074	GKS06-3M □□□080C42	134
	24	413	3.2	29	336	3.9	57.501	GKS07-3M □□□080C42	134
	24	415	1.7	29	339	2.1	57.882	GKS06-3M □□□080C42	134
	22	465	2.6	26	379	3.2	64.790	GKS07-3M □□□080C42	134
	21	468	1.3	26	382	1.6	65.207	GKS06-3M □□□080C42	134
	20	506	2.6	24	412	3.2	70.474	GKS07-3M □□□080C42	134

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 1.1 \text{ kW}$

n_N	1390 r/min			1705 r/min			i		
	50 Hz			60 Hz					
	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	19	517	1.4	24	421	1.7	72.000	GKS06-3M □□□080C42	134
	18	570	2.1	21	465	2.6	79.407	GKS07-3M □□□080C42	134
	17	582	1.1	21	475	1.3	81.111	GKS06-3M □□□080C42	134
	15	664	2.0	18	542	2.5	92.563	GKS07-3M □□□080C42	134
	15	669	1.0	18	545	1.3	93.176	GKS06-3M □□□080C42	134
	14	727	1.8	16	593	2.2	103.039	GKS07-4M □□□080C42	142
	13	732	0.9	16	597	1.1	103.721	GKS06-4M □□□080C42	142
	13	749	1.6	16	610	2.0	104.296	GKS07-3M □□□080C42	134
	13	753	0.8	16	614	1.0	104.967	GKS06-3M □□□080C42	134
	12	806	1.6	15	657	2.0	112.338	GKS07-3M □□□080C42	134
	12	793	1.3	15	647	1.6	112.391	GKS07-4M □□□080C42	142
	12	812	0.9	15	662	1.1	113.082	GKS06-3M □□□080C42	134
	11	891	1.5	13	726	1.8	126.222	GKS07-4M □□□080C42	142
	11	909	1.3	13	741	1.6	126.578	GKS07-3M □□□080C42	134
	10	972	1.1	12	792	1.3	137.748	GKS07-4M □□□080C42	142
	10	980	3.1	12	799	3.8	138.929	GKS09-4M □□□080C42	142
	9.9	1009	1.3	12	822	1.6	140.548	GKS07-3M □□□080C42	134
	9.2	1066	2.8	11	869	3.5	151.012	GKS09-4M □□□080C42	142
	9.0	1091	1.2	11	889	1.5	154.622	GKS07-4M □□□080C42	142
	8.8	1137	1.1	11	927	1.3	158.364	GKS07-3M □□□080C42	134
	8.2	1201	2.5	9.9	979	3.1	170.188	GKS09-4M □□□080C42	142
	7.8	1264	0.8	9.4	1031	1.0	179.201	GKS07-4M □□□080C42	142
	7.5	1325	1.0	9.2	1080	1.2	184.600	GKS07-3M □□□080C42	134
	6.9	1420	0.9	8.4	1158	1.1	201.254	GKS07-4M □□□080C42	142
	6.8	1444	2.1	8.3	1177	2.6	204.596	GKS09-4M □□□080C42	142
	6.7	1493	0.8	8.1	1217	1.0	208.000	GKS07-3M □□□080C42	134
	6.2	1608	0.8	7.5	1311	1.0	224.037	GKS07-3M □□□080C42	134
	6.0	1627	1.9	7.3	1326	2.3	230.577	GKS09-4M □□□080C42	142
	5.6	1753	1.7	6.8	1429	2.1	248.439	GKS09-4M □□□080C42	142
	5.0	1976	1.6	6.0	1611	1.9	279.986	GKS09-4M □□□080C42	142
	4.3	2279	2.6	5.2	1858	3.2	322.931	GKS11-4M □□□080C42	142
	4.3	2282	1.3	5.2	1860	1.6	323.365	GKS09-4M □□□080C42	142
	3.8	2567	2.3	4.6	2093	2.9	363.866	GKS11-4M □□□080C42	142
	3.8	2571	1.2	4.6	2096	1.5	364.427	GKS09-4M □□□080C42	142
	3.5	2793	2.1	4.3	2277	2.6	395.787	GKS11-4M □□□080C42	142
	3.5	2838	1.1	4.2	2314	1.3	402.234	GKS09-4M □□□080C42	142
	3.1	3147	1.9	3.8	2565	2.4	445.958	GKS11-4M □□□080C42	142
	3.1	3199	1.0	3.7	2608	1.2	453.311	GKS09-4M □□□080C42	142
	2.7	3614	1.7	3.3	2946	2.0	512.196	GKS11-4M □□□080C42	142
	2.7	3673	0.8	3.3	2994	1.0	520.538	GKS09-4M □□□080C42	142

GKS helical-bevel gearboxes

Technical data



Selection tables

50 Hz, 60 Hz: $P_N = 1.1 \text{ kW}$

n_N	1390 r/min			1705 r/min			i		
	50 Hz			60 Hz					
f_N	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	2.4	4072	1.5	2.9	3320	1.8	577.122	GKS11-4M □□□080C42	142
	2.2	4386	1.4	2.7	3576	1.7	621.619	GKS11-4M □□□080C42	142
	2.0	4942	1.2	2.4	4029	1.5	700.416	GKS11-4M □□□080C42	142
	1.7	5761	1.0	2.1	4697	1.3	816.455	GKS11-4M □□□080C42	142
	1.5	6491	0.9	1.8	5292	1.1	919.949	GKS11-4M □□□080C42	142
	1.4	6992	0.9	1.7	5700	1.0	990.879	GKS11-4M □□□080C42	142

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 1.5 \text{ kW}$

n_N	2710 r/min			3310 r/min			i		
	50 Hz			60 Hz					
	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	529	26	2.6	646	21	2.9	5.123	GKS04-3M □□□090C11	134
	386	35	2.2	471	29	2.5	7.025	GKS04-3M □□□090C11	134
	332	41	2.6	405	34	2.9	8.167	GKS04-3M □□□090C11	134
	301	45	1.9	368	37	2.1	8.991	GKS04-3M □□□090C11	134
	288	47	2.9	352	39	3.3	9.412	GKS05-3M □□□090C11	134
	276	49	1.8	337	40	2.0	9.836	GKS04-3M □□□090C11	134
	231	59	2.5	282	48	2.9	11.730	GKS04-3M □□□090C11	134
	207	66	2.1	253	54	2.4	13.067	GKS04-3M □□□090C11	134
	206	66	2.1	251	54	2.3	13.176	GKS05-3M □□□090C11	134
	189	72	1.9	231	59	2.1	14.333	GKS04-3M □□□090C11	134
	187	73	2.9	228	60	3.3	14.494	GKS05-3M □□□090C11	134
	169	80	2.9	207	66	3.3	16.000	GKS05-3M □□□090C11	134
	169	81	1.8	206	66	2.1	16.087	GKS04-3M □□□090C11	134
	159	86	3.0	194	70	3.4	17.054	GKS05-3M □□□090C11	134
	151	90	1.5	185	74	1.7	17.920	GKS04-3M □□□090C11	134
	141	96	2.5	172	79	2.9	19.216	GKS05-3M □□□090C11	134
	132	103	1.4	161	85	1.7	20.588	GKS04-3M □□□090C11	134
	120	113	1.3	147	93	1.5	22.522	GKS04-3M □□□090C11	134
	116	117	2.3	142	96	2.6	23.388	GKS05-3M □□□090C11	134
	108	126	1.1	132	103	1.2	25.088	GKS04-3M □□□090C11	134
	103	132	1.8	126	108	2.1	26.353	GKS05-3M □□□090C11	134
	94	144	1.0	115	118	1.2	28.727	GKS04-3M □□□090C11	134
	91	150	1.8	111	123	2.1	29.931	GKS05-3M □□□090C11	134
	85	161	0.9	103	132	1.0	32.000	GKS04-3M □□□090C11	134
	85	161	3.1	103	132	3.6	32.063	GKS06-3M □□□090C11	134
	83	164	1.7	101	135	1.9	32.744	GKS05-3M □□□090C11	134
	77	177	0.9	94	145	1.0	35.191	GKS04-3M □□□090C11	134
	75	182	3.1	91	149	3.5	36.303	GKS06-3M □□□090C11	134
	74	185	1.3	90	152	1.5	36.894	GKS05-3M □□□090C11	134
	65	210	1.3	79	172	1.5	41.765	GKS05-3M □□□090C11	134
	61	223	2.9	74	183	3.3	44.471	GKS06-3M □□□090C11	134
	58	236	1.2	70	193	1.4	47.059	GKS05-3M □□□090C11	134
	53	257	1.2	65	210	1.4	51.162	GKS05-3M □□□090C11	134
	51	266	2.4	62	218	2.8	53.074	GKS06-3M □□□090C11	134
	47	289	1.0	57	237	1.1	57.647	GKS05-3M □□□090C11	134
	47	291	2.2	57	238	2.5	57.882	GKS06-3M □□□090C11	134
	42	327	1.8	51	268	2.0	65.207	GKS06-3M □□□090C11	134
	41	334	0.9	50	274	1.1	66.592	GKS05-3M □□□090C11	134
	38	361	1.8	46	296	2.1	72.000	GKS06-3M □□□090C11	134
	34	399	2.8	42	326	3.2	79.407	GKS07-3M □□□090C11	134

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 1.5 \text{ kW}$

n_N	2710 r/min			3310 r/min			i		
	50 Hz			60 Hz					
	f_N	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]			
	33	407	1.4	41	333	1.6	81.111	GKS06-3M □□□090C11	134
	29	465	2.7	36	380	3.1	92.563	GKS07-3M □□□090C11	134
	29	468	1.4	36	383	1.6	93.176	GKS06-3M □□□090C11	134
	26	509	2.4	32	416	2.7	103.039	GKS07-4M □□□090C11	142
	26	512	1.2	32	419	1.4	103.721	GKS06-4M □□□090C11	142
	26	524	2.2	32	429	2.5	104.296	GKS07-3M □□□090C11	134
	26	527	1.1	32	431	1.3	104.967	GKS06-3M □□□090C11	134
	24	564	2.4	30	462	2.8	112.338	GKS07-3M □□□090C11	134
	24	555	1.9	30	454	2.2	112.391	GKS07-4M □□□090C11	142
	24	568	1.2	29	465	1.5	113.082	GKS06-3M □□□090C11	134
	24	559	1.0	29	457	1.1	113.205	GKS06-4M □□□090C11	142
	22	623	2.1	26	510	2.5	126.222	GKS07-4M □□□090C11	142
	21	635	1.9	26	520	2.3	126.578	GKS07-3M □□□090C11	134
	21	627	1.1	26	513	1.3	127.059	GKS06-4M □□□090C11	142
	21	640	1.0	26	524	1.2	127.392	GKS06-3M □□□090C11	134
	20	680	1.5	24	557	1.8	137.748	GKS07-4M □□□090C11	142
	19	706	1.9	24	578	2.2	140.548	GKS07-3M □□□090C11	134
	18	763	1.7	21	625	2.0	154.622	GKS07-4M □□□090C11	142
	17	768	0.9	21	629	1.1	155.647	GKS06-4M □□□090C11	142
	17	795	1.5	21	651	1.8	158.364	GKS07-3M □□□090C11	134
	15	884	1.2	19	724	1.4	179.201	GKS07-4M □□□090C11	142
	15	927	1.4	18	759	1.7	184.600	GKS07-3M □□□090C11	134
	14	993	1.3	16	813	1.6	201.254	GKS07-4M □□□090C11	142
	13	1010	3.0	16	827	3.5	204.596	GKS09-4M □□□090C11	142
	13	1030	3.0	16	843	3.5	205.111	GKS09-3M □□□090C11	134
	13	1044	1.2	16	855	1.4	208.000	GKS07-3M □□□090C11	134
	12	1109	2.7	15	908	3.2	220.882	GKS09-3M □□□090C11	134
	12	1100	1.0	15	901	1.1	222.909	GKS07-4M □□□090C11	142
	12	1125	1.2	15	921	1.4	224.037	GKS07-3M □□□090C11	134
	12	1138	2.7	14	932	3.2	230.577	GKS09-4M □□□090C11	142
	11	1217	1.1	13	997	1.3	246.659	GKS07-4M □□□090C11	142
	11	1226	2.5	13	1004	2.9	248.439	GKS09-4M □□□090C11	142
	11	1250	2.5	13	1023	2.9	248.930	GKS09-3M □□□090C11	134
	11	1267	1.0	13	1038	1.1	252.436	GKS07-3M □□□090C11	134
	9.7	1402	2.2	12	1148	2.6	279.205	GKS09-3M □□□090C11	134
	9.7	1382	2.2	12	1131	2.6	279.986	GKS09-4M □□□090C11	142
	9.6	1422	0.9	12	1164	1.1	283.193	GKS07-3M □□□090C11	134
	8.6	1580	1.9	11	1293	2.3	314.659	GKS09-3M □□□090C11	134
	8.4	1584	0.8	10	1297	1.0	321.049	GKS07-4M □□□090C11	142
	8.4	1596	1.9	10	1307	2.2	323.365	GKS09-4M □□□090C11	142

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 1.5 \text{ kW}$

n_N	2710 r/min			3310 r/min			i		
	50 Hz			60 Hz					
	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	7.4	1799	1.7	9.1	1473	2.0	364.427	GKS09-4M □□□090C11	142
	6.9	1953	3.1	8.4	1599	3.6	395.787	GKS11-4M □□□090C11	142
	6.7	1985	1.5	8.2	1625	1.8	402.234	GKS09-4M □□□090C11	142
	6.1	2201	2.7	7.4	1802	3.2	445.958	GKS11-4M □□□090C11	142
	6.0	2237	1.4	7.3	1832	1.6	453.311	GKS09-4M □□□090C11	142
	5.3	2528	2.4	6.5	2070	2.8	512.196	GKS11-4M □□□090C11	142
	5.2	2569	1.2	6.4	2103	1.4	520.538	GKS09-4M □□□090C11	142
	4.7	2848	2.1	5.7	2332	2.5	577.122	GKS11-4M □□□090C11	142
	4.6	2895	1.1	5.6	2370	1.3	586.638	GKS09-4M □□□090C11	142
	4.4	3068	1.9	5.3	2512	2.3	621.619	GKS11-4M □□□090C11	142
	4.3	3118	1.0	5.2	2553	1.1	631.744	GKS09-4M □□□090C11	142
	3.9	3457	1.8	4.7	2830	2.1	700.416	GKS11-4M □□□090C11	142
	3.8	3514	0.9	4.7	2877	1.0	711.965	GKS09-4M □□□090C11	142
	3.4	3977	2.9	4.1	3256	3.4	805.901	GKS14-4M □□□090C11	142
	3.3	4029	1.5	4.1	3299	1.8	816.455	GKS11-4M □□□090C11	142
	3.0	4481	2.6	3.7	3669	3.1	908.058	GKS14-4M □□□090C11	142
	3.0	4540	1.3	3.6	3717	1.6	919.949	GKS11-4M □□□090C11	142
	2.8	4827	2.4	3.4	3952	2.8	978.071	GKS14-4M □□□090C11	142
	2.7	4890	1.2	3.3	4004	1.4	990.879	GKS11-4M □□□090C11	142
	2.5	5439	2.1	3.0	4453	2.5	1102.052	GKS14-4M □□□090C11	142
	2.4	5510	1.1	3.0	4511	1.3	1116.484	GKS11-4M □□□090C11	142
	2.2	6102	1.9	2.7	4996	2.2	1236.326	GKS14-4M □□□090C11	142
	2.2	6181	1.0	2.6	5061	1.1	1252.516	GKS11-4M □□□090C11	142
	2.0	6875	1.7	2.4	5629	2.0	1393.043	GKS14-4M □□□090C11	142
	1.9	6965	0.9	2.4	5702	1.0	1411.286	GKS11-4M □□□090C11	142

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 1.5 \text{ kW}$

n_N	1410 r/min			1720 r/min			i		
	50 Hz			60 Hz					
	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	272	49	1.6	331	41	1.9	5.123	GKS04-3M □□□090C32	134
	203	66	2.2	247	54	2.6	6.863	GKS05-3M □□□090C32	134
	199	68	1.4	241	56	1.6	7.025	GKS04-3M □□□090C32	134
	171	79	1.6	208	65	1.9	8.167	GKS04-3M □□□090C32	134
	155	87	1.2	189	71	1.4	8.991	GKS04-3M □□□090C32	134
	148	91	1.8	180	74	2.1	9.412	GKS05-3M □□□090C32	134
	142	95	1.1	172	78	1.3	9.836	GKS04-3M □□□090C32	134
	132	102	2.2	160	84	2.6	10.569	GKS05-3M □□□090C32	134
	123	110	3.0	149	90	3.5	11.382	GKS06-3M □□□090C32	134
	120	113	2.2	145	92	2.6	11.667	GKS05-3M □□□090C32	134
	119	113	1.6	145	93	1.9	11.730	GKS04-3M □□□090C32	134
	107	126	1.3	130	103	1.5	13.067	GKS04-3M □□□090C32	134
	106	127	1.3	129	104	1.5	13.176	GKS05-3M □□□090C32	134
	97	138	1.2	118	113	1.4	14.333	GKS04-3M □□□090C32	134
	96	140	1.8	117	115	2.1	14.494	GKS05-3M □□□090C32	134
	87	154	1.8	106	127	2.1	16.000	GKS05-3M □□□090C32	134
	87	155	1.2	105	127	1.4	16.087	GKS04-3M □□□090C32	134
	82	165	1.9	99	135	2.2	17.054	GKS05-3M □□□090C32	134
	78	172	3.0	95	141	3.5	17.809	GKS06-3M □□□090C32	134
	78	173	1.0	95	142	1.1	17.920	GKS04-3M □□□090C32	134
	73	185	1.6	88	152	1.9	19.216	GKS05-3M □□□090C32	134
	68	199	0.9	82	163	1.1	20.588	GKS04-3M □□□090C32	134
	62	217	0.8	76	178	1.0	22.522	GKS04-3M □□□090C32	134
	60	226	1.5	73	185	1.7	23.388	GKS05-3M □□□090C32	134
	54	251	2.7	65	206	3.2	26.017	GKS06-3M □□□090C32	134
	53	254	1.2	64	208	1.4	26.353	GKS05-3M □□□090C32	134
	49	275	2.5	60	225	2.9	28.461	GKS06-3M □□□090C32	134
	47	289	1.1	57	237	1.3	29.931	GKS05-3M □□□090C32	134
	44	309	2.0	53	254	2.3	32.063	GKS06-3M □□□090C32	134
	43	316	1.0	52	259	1.2	32.744	GKS05-3M □□□090C32	134
	38	350	2.0	47	287	2.3	36.303	GKS06-3M □□□090C32	134
	38	356	0.8	46	292	1.0	36.894	GKS05-3M □□□090C32	134
	33	403	0.8	41	330	1.0	41.765	GKS05-3M □□□090C32	134
	31	429	1.6	38	352	2.0	44.471	GKS06-3M □□□090C32	134
	26	512	1.4	32	420	1.7	53.074	GKS06-3M □□□090C32	134
	24	555	2.4	30	455	2.9	57.501	GKS07-3M □□□090C32	134
	24	559	1.2	29	458	1.5	57.882	GKS06-3M □□□090C32	134
	22	625	1.9	26	513	2.3	64.790	GKS07-3M □□□090C32	134
	21	629	1.0	26	516	1.2	65.207	GKS06-3M □□□090C32	134
	20	680	1.9	24	557	2.4	70.474	GKS07-3M □□□090C32	134

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 1.5 \text{ kW}$

n_N	1410 r/min			1720 r/min			i		
	50 Hz			60 Hz					
	f_N	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]			
	19	695	1.0	24	570	1.2	72.000	GKS06-3M □□□090C32	134
	18	766	1.6	21	628	1.9	79.407	GKS07-3M □□□090C32	134
	17	783	0.8	21	642	1.0	81.111	GKS06-3M □□□090C32	134
	15	886	2.9	19	727	3.5	91.860	GKS09-3M □□□090C32	134
	15	893	1.5	18	732	1.8	92.563	GKS07-3M □□□090C32	134
	14	954	3.2	17	782	3.9	100.551	GKS09-4M □□□090C32	142
	14	977	1.3	17	801	1.6	103.039	GKS07-4M □□□090C32	142
	14	999	2.9	16	819	3.5	103.524	GKS09-3M □□□090C32	134
	13	1006	1.2	16	825	1.5	104.296	GKS07-3M □□□090C32	134
	13	1076	2.5	15	882	3.1	111.484	GKS09-3M □□□090C32	134
	12	1084	1.2	15	889	1.5	112.338	GKS07-3M □□□090C32	134
	12	1066	1.0	15	874	1.2	112.391	GKS07-4M □□□090C32	142
	12	1075	2.8	15	881	3.4	113.320	GKS09-4M □□□090C32	142
	11	1169	2.6	14	959	3.2	123.275	GKS09-4M □□□090C32	142
	11	1212	2.5	14	994	3.1	125.641	GKS09-3M □□□090C32	134
	11	1197	1.1	13	981	1.3	126.222	GKS07-4M □□□090C32	142
	11	1221	1.0	13	1001	1.2	126.578	GKS07-3M □□□090C32	134
	10	1307	0.8	12	1071	1.0	137.748	GKS07-4M □□□090C32	142
	10	1318	2.3	12	1080	2.8	138.929	GKS09-4M □□□090C32	142
	9.9	1356	1.0	12	1112	1.2	140.548	GKS07-3M □□□090C32	134
	9.9	1360	1.9	12	1115	2.4	140.921	GKS09-3M □□□090C32	134
	9.2	1432	2.1	11	1174	2.6	151.012	GKS09-4M □□□090C32	142
	9.0	1467	0.9	11	1202	1.1	154.622	GKS07-4M □□□090C32	142
	8.8	1532	1.9	11	1256	2.4	158.816	GKS09-3M □□□090C32	134
	8.2	1614	1.9	10	1323	2.3	170.188	GKS09-4M □□□090C32	142
	7.7	1756	1.7	9.3	1440	2.1	182.000	GKS09-3M □□□090C32	134
	6.8	1941	1.6	8.3	1591	1.9	204.596	GKS09-4M □□□090C32	142
	6.8	1979	1.6	8.3	1622	1.9	205.111	GKS09-3M □□□090C32	134
	6.3	2131	1.4	7.7	1747	1.7	220.882	GKS09-3M □□□090C32	134
	6.1	2187	1.4	7.4	1793	1.7	230.577	GKS09-4M □□□090C32	142
	5.6	2357	1.3	6.8	1932	1.6	248.439	GKS09-4M □□□090C32	142
	5.6	2402	1.3	6.8	1969	1.6	248.930	GKS09-3M □□□090C32	134
	5.0	2694	1.1	6.1	2209	1.4	279.205	GKS09-3M □□□090C32	134
	5.0	2656	1.2	6.1	2177	1.4	279.986	GKS09-4M □□□090C32	142
	4.4	3036	1.0	5.4	2489	1.2	314.659	GKS09-3M □□□090C32	134
	4.3	3063	1.9	5.3	2511	2.4	322.931	GKS11-4M □□□090C32	142
	4.3	3067	1.0	5.2	2514	1.2	323.365	GKS09-4M □□□090C32	142
	3.8	3451	1.7	4.7	2829	2.1	363.866	GKS11-4M □□□090C32	142
	3.8	3457	0.9	4.7	2834	1.1	364.427	GKS09-4M □□□090C32	142
	3.5	3754	1.6	4.3	3078	1.9	395.787	GKS11-4M □□□090C32	142

GKS helical-bevel gearboxes

Technical data



Selection tables

50 Hz, 60 Hz: $P_N = 1.5$ kW

n_N	1410 r/min			1720 r/min			i		
	50 Hz			60 Hz					
f_N	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	3.1	4230	1.4	3.8	3468	1.7	445.958	GKS11-4M □□□090C32	142
	2.7	4858	1.2	3.3	3983	1.5	512.196	GKS11-4M □□□090C32	142
	2.4	5474	1.1	2.9	4488	1.4	577.122	GKS11-4M □□□090C32	142
	2.2	5896	1.0	2.7	4834	1.2	621.619	GKS11-4M □□□090C32	142
	2.0	6644	0.9	2.4	5446	1.1	700.416	GKS11-4M □□□090C32	142
	1.7	7644	1.5	2.1	6267	1.8	805.901	GKS14-4M □□□090C32	142
	1.5	8613	1.4	1.9	7061	1.6	908.058	GKS14-4M □□□090C32	142
	1.4	9277	1.2	1.7	7605	1.5	978.071	GKS14-4M □□□090C32	142
	1.3	10453	1.1	1.5	8569	1.4	1102.052	GKS14-4M □□□090C32	142
	1.1	11727	1.0	1.4	9613	1.2	1236.326	GKS14-4M □□□090C32	142
	1.0	13214	0.9	1.2	10832	1.1	1393.043	GKS14-4M □□□090C32	142

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 2.2 \text{ kW}$

n_N	2730 r/min			3320 r/min			i		
	50 Hz			60 Hz					
	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	533	37	1.8	650	31	2.0	5.123	GKS04-3M □□□090C31	134
	398	50	2.4	485	41	2.7	6.863	GKS05-3M □□□090C31	134
	389	51	1.5	474	42	1.7	7.025	GKS04-3M □□□090C31	134
	334	60	1.8	408	49	2.0	8.167	GKS04-3M □□□090C31	134
	304	66	1.3	370	54	1.5	8.991	GKS04-3M □□□090C31	134
	290	69	2.0	354	57	2.2	9.412	GKS05-3M □□□090C31	134
	278	72	1.2	339	59	1.4	9.836	GKS04-3M □□□090C31	134
	258	77	2.4	315	64	2.7	10.569	GKS05-3M □□□090C31	134
	234	85	2.4	285	70	2.7	11.667	GKS05-3M □□□090C31	134
	233	86	1.7	284	71	2.0	11.730	GKS04-3M □□□090C31	134
	209	96	1.4	255	79	1.6	13.067	GKS04-3M □□□090C31	134
	207	96	1.4	253	79	1.6	13.176	GKS05-3M □□□090C31	134
	191	105	1.3	232	86	1.5	14.333	GKS04-3M □□□090C31	134
	188	106	2.0	230	87	2.2	14.494	GKS05-3M □□□090C31	134
	171	117	2.0	208	96	2.2	16.000	GKS05-3M □□□090C31	134
	170	118	1.3	207	97	1.4	16.087	GKS04-3M □□□090C31	134
	160	125	2.1	195	103	2.3	17.054	GKS05-3M □□□090C31	134
	152	131	1.0	186	108	1.2	17.920	GKS04-3M □□□090C31	134
	142	140	1.7	173	115	2.0	19.216	GKS05-3M □□□090C31	134
	133	150	1.0	162	124	1.1	20.588	GKS04-3M □□□090C31	134
	121	165	0.9	148	135	1.0	22.522	GKS04-3M □□□090C31	134
	117	171	1.6	142	141	1.8	23.388	GKS05-3M □□□090C31	134
	105	190	2.9	128	156	3.3	26.017	GKS06-3M □□□090C31	134
	104	193	1.3	126	158	1.4	26.353	GKS05-3M □□□090C31	134
	96	208	2.7	117	171	3.1	28.461	GKS06-3M □□□090C31	134
	91	219	1.2	111	180	1.4	29.931	GKS05-3M □□□090C31	134
	85	234	2.1	104	193	2.4	32.063	GKS06-3M □□□090C31	134
	83	239	1.1	102	197	1.3	32.744	GKS05-3M □□□090C31	134
	75	265	2.1	92	218	2.4	36.303	GKS06-3M □□□090C31	134
	74	270	0.9	90	222	1.0	36.894	GKS05-3M □□□090C31	134
	65	305	0.9	80	251	1.0	41.765	GKS05-3M □□□090C31	134
	61	325	2.0	75	267	2.2	44.471	GKS06-3M □□□090C31	134
	58	344	0.8	71	283	0.9	47.059	GKS05-3M □□□090C31	134
	53	374	0.8	65	308	0.9	51.162	GKS05-3M □□□090C31	134
	51	388	1.7	63	319	1.9	53.074	GKS06-3M □□□090C31	134
	48	420	2.9	58	346	3.3	57.501	GKS07-3M □□□090C31	134
	47	423	1.5	58	348	1.7	57.882	GKS06-3M □□□090C31	134
	42	474	2.3	51	389	2.7	64.790	GKS07-3M □□□090C31	134
	42	477	1.2	51	392	1.4	65.207	GKS06-3M □□□090C31	134
	39	515	2.4	47	424	2.7	70.474	GKS07-3M □□□090C31	134

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 2.2 \text{ kW}$

n_N	2730 r/min			3320 r/min			i		
	50 Hz			60 Hz					
	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	38	526	1.2	46	433	1.4	72.000	GKS06-3M □□□090C31	134
	34	580	1.9	42	477	2.2	79.407	GKS07-3M □□□090C31	134
	34	593	1.0	41	488	1.1	81.111	GKS06-3M □□□090C31	134
	30	677	1.8	36	556	2.1	92.563	GKS07-3M □□□090C31	134
	29	681	1.0	36	560	1.1	93.176	GKS06-3M □□□090C31	134
	27	740	1.6	32	609	1.8	103.039	GKS07-4M □□□090C31	142
	26	745	0.9	32	613	1.0	103.721	GKS06-4M □□□090C31	142
	26	762	1.5	32	627	1.7	104.296	GKS07-3M □□□090C31	134
	24	821	1.6	30	675	1.9	112.338	GKS07-3M □□□090C31	134
	24	808	1.3	30	664	1.5	112.391	GKS07-4M □□□090C31	142
	24	827	0.8	29	680	1.0	113.082	GKS06-3M □□□090C31	134
	22	907	1.4	26	746	1.7	126.222	GKS07-4M □□□090C31	142
	22	925	1.3	26	761	1.5	126.578	GKS07-3M □□□090C31	134
	20	990	1.1	24	814	1.3	137.748	GKS07-4M □□□090C31	142
	20	998	3.0	24	821	3.6	138.929	GKS09-4M □□□090C31	142
	19	1027	1.3	24	845	1.5	140.548	GKS07-3M □□□090C31	134
	19	1030	2.6	24	847	3.0	140.921	GKS09-3M □□□090C31	134
	18	1085	2.8	22	892	3.3	151.012	GKS09-4M □□□090C31	142
	18	1111	1.2	22	914	1.4	154.622	GKS07-4M □□□090C31	142
	17	1158	1.0	21	952	1.2	158.364	GKS07-3M □□□090C31	134
	17	1161	2.6	21	955	3.0	158.816	GKS09-3M □□□090C31	134
	16	1223	2.5	20	1006	2.9	170.188	GKS09-4M □□□090C31	142
	15	1288	0.8	19	1059	1.0	179.201	GKS07-4M □□□090C31	142
	15	1330	2.3	18	1094	2.7	182.000	GKS09-3M □□□090C31	134
	15	1349	1.0	18	1110	1.2	184.600	GKS07-3M □□□090C31	134
	14	1446	0.9	17	1189	1.1	201.254	GKS07-4M □□□090C31	142
	13	1470	2.1	16	1209	2.4	204.596	GKS09-4M □□□090C31	142
	13	1499	2.1	16	1233	2.4	205.111	GKS09-3M □□□090C31	134
	12	1615	1.9	15	1328	2.2	220.882	GKS09-3M □□□090C31	134
	12	1638	0.8	15	1347	1.0	224.037	GKS07-3M □□□090C31	134
	12	1657	1.8	14	1362	2.2	230.577	GKS09-4M □□□090C31	142
	11	1785	1.7	13	1468	2.0	248.439	GKS09-4M □□□090C31	142
	11	1820	1.7	13	1496	2.0	248.930	GKS09-3M □□□090C31	134
	9.8	2041	1.5	12	1678	1.7	279.205	GKS09-3M □□□090C31	134
	9.8	2012	1.5	12	1654	1.8	279.986	GKS09-4M □□□090C31	142
	8.7	2300	1.3	11	1891	1.6	314.659	GKS09-3M □□□090C31	134
	8.5	2320	2.6	10	1908	3.0	322.931	GKS11-4M □□□090C31	142
	8.4	2323	1.3	10	1911	1.5	323.365	GKS09-4M □□□090C31	142
	7.5	2614	2.3	9.2	2150	2.7	363.866	GKS11-4M □□□090C31	142
	7.5	2619	1.2	9.1	2153	1.4	364.427	GKS09-4M □□□090C31	142

GKS helical-bevel gearboxes

Technical data



Selection tables

50 Hz, 60 Hz: $P_N = 2.2 \text{ kW}$

n_N	2730 r/min			3320 r/min			i		
	50 Hz			60 Hz					
f_N	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	6.9	2844	2.1	8.4	2338	2.5	395.787	GKS11-4M □□□090C31	142
	6.8	2890	1.0	8.3	2377	1.2	402.234	GKS09-4M □□□090C31	142
	6.1	3204	1.9	7.5	2635	2.2	445.958	GKS11-4M □□□090C31	142
	6.0	3257	0.9	7.4	2678	1.1	453.311	GKS09-4M □□□090C31	142
	5.3	3680	1.6	6.5	3026	1.9	512.196	GKS11-4M □□□090C31	142
	5.2	3740	0.8	6.4	3076	1.0	520.538	GKS09-4M □□□090C31	142
	4.7	4147	1.5	5.8	3410	1.7	577.122	GKS11-4M □□□090C31	142
	4.4	4467	1.3	5.4	3673	1.6	621.619	GKS11-4M □□□090C31	142
	3.9	5033	1.2	4.8	4138	1.4	700.416	GKS11-4M □□□090C31	142
	3.4	5791	2.0	4.1	4762	2.3	805.901	GKS14-4M □□□090C31	142
	3.3	5866	1.0	4.1	4824	1.2	816.455	GKS11-4M □□□090C31	142
	3.0	6525	1.8	3.7	5365	2.1	908.058	GKS14-4M □□□090C31	142
	3.0	6610	0.9	3.6	5435	1.1	919.949	GKS11-4M □□□090C31	142
	2.8	7028	1.6	3.4	5779	1.9	978.071	GKS14-4M □□□090C31	142
	2.8	7120	0.8	3.4	5855	1.0	990.879	GKS11-4M □□□090C31	142
	2.5	7919	1.5	3.0	6511	1.7	1102.052	GKS14-4M □□□090C31	142
	2.2	8883	1.3	2.7	7305	1.5	1236.326	GKS14-4M □□□090C31	142
	2.0	10009	1.2	2.4	8231	1.4	1393.043	GKS14-4M □□□090C31	142

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 2.2 \text{ kW}$

n_N	1440 r/min			1745 r/min			i			
	50 Hz			60 Hz						
	f_N	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]				c
		222	90	2.9	268	74	3.4	6.485	GKS06-3M □□□100C12	134
		210	95	1.6	254	78	1.8	6.863	GKS05-3M □□□100C12	134
		157	127	2.9	189	105	3.4	9.196	GKS06-3M □□□100C12	134
		153	130	1.3	185	108	1.5	9.412	GKS05-3M □□□100C12	134
		142	141	2.9	172	116	3.4	10.147	GKS06-3M □□□100C12	134
		136	146	1.6	165	121	1.8	10.569	GKS05-3M □□□100C12	134
		127	158	2.1	153	130	2.4	11.382	GKS06-3M □□□100C12	134
		123	162	1.6	149	133	1.8	11.667	GKS05-3M □□□100C12	134
		114	175	2.4	138	144	2.8	12.612	GKS06-3M □□□100C12	134
		109	183	0.9	132	151	1.0	13.176	GKS05-3M □□□100C12	134
		99	201	1.3	120	166	1.5	14.494	GKS05-3M □□□100C12	134
		97	205	2.9	117	170	3.4	14.824	GKS06-3M □□□100C12	134
		90	222	1.3	109	183	1.5	16.000	GKS05-3M □□□100C12	134
		86	231	2.6	104	191	3.0	16.699	GKS06-3M □□□100C12	134
		84	236	1.3	102	195	1.5	17.054	GKS05-3M □□□100C12	134
		81	247	2.1	98	204	2.4	17.809	GKS06-3M □□□100C12	134
		75	266	1.1	91	220	1.3	19.216	GKS05-3M □□□100C12	134
		71	282	2.4	86	232	2.7	20.329	GKS06-3M □□□100C12	134
		63	317	1.9	76	262	2.2	22.902	GKS06-3M □□□100C12	134
		62	324	1.0	74	267	1.2	23.388	GKS05-3M □□□100C12	134
		55	361	1.9	67	298	2.2	26.017	GKS06-3M □□□100C12	134
		55	365	0.8	66	301	0.9	26.353	GKS05-3M □□□100C12	134
		51	392	3.1	62	323	3.5	28.274	GKS07-3M □□□100C12	134
		51	394	1.7	61	325	2.0	28.461	GKS06-3M □□□100C12	134
		45	441	2.7	55	364	3.1	31.858	GKS07-3M □□□100C12	134
		45	444	1.4	54	367	1.6	32.063	GKS06-3M □□□100C12	134
		40	500	2.6	48	412	3.0	36.063	GKS07-3M □□□100C12	134
		40	503	1.4	48	415	1.6	36.303	GKS06-3M □□□100C12	134
		35	575	1.2	42	474	1.4	41.472	GKS06-3M □□□100C12	134
		33	612	2.1	39	505	2.6	44.178	GKS07-3M □□□100C12	134
		32	616	1.1	39	509	1.4	44.471	GKS06-3M □□□100C12	134
		29	698	1.9	35	576	2.3	50.345	GKS07-3M □□□100C12	134
		27	735	0.9	33	607	1.1	53.074	GKS06-3M □□□100C12	134
		25	797	1.6	30	658	2.0	57.501	GKS07-3M □□□100C12	134
		25	802	0.9	30	662	1.0	57.882	GKS06-3M □□□100C12	134
		22	898	1.3	27	741	1.6	64.790	GKS07-3M □□□100C12	134
		20	977	1.4	25	806	1.6	70.474	GKS07-3M □□□100C12	134
		20	984	3.1	25	812	3.7	70.982	GKS09-3M □□□100C12	134
		18	1100	1.1	22	908	1.3	79.407	GKS07-3M □□□100C12	134
		18	1109	2.8	22	915	3.4	79.996	GKS09-3M □□□100C12	134

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 2.2 \text{ kW}$

n_N	1440 r/min			1745 r/min			i		
	50 Hz			60 Hz					
	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	16	1273	2.4	19	1050	2.9	91.860	GKS09-3M □□□100C12	134
	16	1283	1.0	19	1059	1.3	92.563	GKS07-3M □□□100C12	134
	14	1370	2.2	17	1130	2.7	100.551	GKS09-4M □□□100C12	142
	14	1404	0.9	17	1158	1.1	103.039	GKS07-4M □□□100C12	142
	14	1435	2.1	17	1184	2.6	103.524	GKS09-3M □□□100C12	134
	14	1445	0.8	17	1193	1.0	104.296	GKS07-3M □□□100C12	134
	13	1543	2.9	16	1273	3.5	111.335	GKS11-3M □□□100C12	134
	13	1545	2.0	16	1275	2.4	111.484	GKS09-3M □□□100C12	134
	13	1557	0.9	16	1285	1.0	112.338	GKS07-3M □□□100C12	134
	13	1544	1.9	15	1274	2.4	113.320	GKS09-4M □□□100C12	142
	12	1679	1.8	14	1386	2.2	123.275	GKS09-4M □□□100C12	142
	12	1738	2.9	14	1435	3.5	125.448	GKS11-3M □□□100C12	134
	12	1741	1.8	14	1437	2.1	125.641	GKS09-3M □□□100C12	134
	10	1893	1.6	13	1562	1.9	138.929	GKS09-4M □□□100C12	142
	10	1950	2.3	12	1609	2.8	140.732	GKS11-3M □□□100C12	134
	10	1953	1.5	12	1612	1.8	140.921	GKS09-3M □□□100C12	134
	10	1920	3.1	12	1584	3.7	140.952	GKS11-4M □□□100C12	142
	9.5	2057	1.5	12	1698	1.8	151.012	GKS09-4M □□□100C12	142
	9.4	2087	2.8	11	1723	3.4	153.242	GKS11-4M □□□100C12	142
	9.1	2197	2.3	11	1813	2.8	158.571	GKS11-3M □□□100C12	134
	9.1	2201	1.4	11	1816	1.7	158.816	GKS09-3M □□□100C12	134
	8.5	2318	1.3	10	1913	1.6	170.188	GKS09-4M □□□100C12	142
	8.3	2352	2.5	10	1941	3.1	172.667	GKS11-4M □□□100C12	142
	7.9	2522	1.2	9.6	2081	1.5	182.000	GKS09-3M □□□100C12	134
	7.7	2585	2.3	9.3	2134	2.8	186.572	GKS11-3M □□□100C12	134
	7.1	2750	2.2	8.6	2269	2.6	201.890	GKS11-4M □□□100C12	142
	7.0	2787	1.1	8.5	2300	1.3	204.596	GKS09-4M □□□100C12	142
	7.0	2842	1.1	8.5	2346	1.3	205.111	GKS09-3M □□□100C12	134
	6.9	2913	2.0	8.3	2404	2.5	210.222	GKS11-3M □□□100C12	134
	6.5	3061	1.0	7.9	2526	1.2	220.882	GKS09-3M □□□100C12	134
	6.4	3138	1.9	7.7	2589	2.3	226.431	GKS11-3M □□□100C12	134
	6.3	3099	1.9	7.7	2557	2.3	227.481	GKS11-4M □□□100C12	142
	6.3	3141	1.0	7.6	2592	1.2	230.577	GKS09-4M □□□100C12	142
	5.8	3380	1.8	7.0	2789	2.1	248.106	GKS11-4M □□□100C12	142
	5.8	3384	0.9	7.0	2793	1.1	248.439	GKS09-4M □□□100C12	142
	5.8	3450	0.9	7.0	2847	1.1	248.930	GKS09-3M □□□100C12	134
	5.6	3536	1.7	6.8	2918	2.0	255.133	GKS11-3M □□□100C12	134
	5.2	3808	1.6	6.2	3143	1.9	279.556	GKS11-4M □□□100C12	142
	5.1	3814	0.8	6.2	3147	1.0	279.986	GKS09-4M □□□100C12	142
	5.0	3966	1.5	6.1	3273	1.8	286.219	GKS11-3M □□□100C12	134

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 2.2 \text{ kW}$

n_N	1440 r/min			1745 r/min			i		
	50 Hz			60 Hz					
	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	4.5	4383	2.6	5.4	3617	3.2	321.729	GKS14-4M □□□100C12	142
	4.5	4469	1.3	5.4	3688	1.6	322.500	GKS11-3M □□□100C12	134
	4.5	4399	1.4	5.4	3630	1.6	322.931	GKS11-4M □□□100C12	142
	4.0	4938	2.3	4.8	4075	2.8	362.512	GKS14-4M □□□100C12	142
	4.0	4957	1.2	4.8	4090	1.5	363.866	GKS11-4M □□□100C12	142
	3.7	5322	2.2	4.5	4392	2.6	390.671	GKS14-4M □□□100C12	142
	3.6	5391	1.1	4.4	4449	1.3	395.787	GKS11-4M □□□100C12	142
	3.3	5996	1.9	4.0	4948	2.3	440.193	GKS14-4M □□□100C12	142
	3.2	6075	1.0	3.9	5013	1.2	445.958	GKS11-4M □□□100C12	142
	2.8	6977	0.9	3.4	5758	1.0	512.196	GKS11-4M □□□100C12	142
	2.8	6990	1.6	3.4	5768	2.0	513.121	GKS14-4M □□□100C12	142
	2.5	7876	1.5	3.0	6499	1.8	578.164	GKS14-4M □□□100C12	142
	2.3	8483	1.4	2.8	7000	1.6	622.742	GKS14-4M □□□100C12	142
	2.1	9558	1.2	2.5	7888	1.5	701.681	GKS14-4M □□□100C12	142
	1.8	10978	1.0	2.2	9059	1.3	805.901	GKS14-4M □□□100C12	142
	1.6	12370	0.9	1.9	10208	1.1	908.058	GKS14-4M □□□100C12	142
	1.5	13323	0.9	1.8	10995	1.0	978.071	GKS14-4M □□□100C12	142

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 3.0 \text{ kW}$

n_N	2890 r/min			3510 r/min			i		
	50 Hz			60 Hz					
	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	446	61	3.5	538	50	3.9	6.485	GKS06-3M □□□100C31	134
	421	65	1.8	509	53	2.1	6.863	GKS05-3M □□□100C31	134
	307	89	1.5	371	73	1.7	9.412	GKS05-3M □□□100C31	134
	274	100	1.8	330	82	2.1	10.569	GKS05-3M □□□100C31	134
	254	107	2.5	307	88	2.8	11.382	GKS06-3M □□□100C31	134
	248	110	1.8	299	90	2.1	11.667	GKS05-3M □□□100C31	134
	229	119	2.9	277	98	3.3	12.612	GKS06-3M □□□100C31	134
	219	124	1.1	265	102	1.2	13.176	GKS05-3M □□□100C31	134
	199	136	1.5	241	112	1.7	14.494	GKS05-3M □□□100C31	134
	181	151	1.5	218	124	1.7	16.000	GKS05-3M □□□100C31	134
	173	157	3.1	209	129	3.5	16.699	GKS06-3M □□□100C31	134
	170	161	1.6	205	132	1.8	17.054	GKS05-3M □□□100C31	134
	162	168	2.5	196	138	2.8	17.809	GKS06-3M □□□100C31	134
	150	181	1.3	182	149	1.5	19.216	GKS05-3M □□□100C31	134
	142	191	2.8	172	158	3.2	20.329	GKS06-3M □□□100C31	134
	126	216	2.3	152	178	2.6	22.902	GKS06-3M □□□100C31	134
	124	220	1.2	149	181	1.4	23.388	GKS05-3M □□□100C31	134
	111	245	2.2	134	202	2.5	26.017	GKS06-3M □□□100C31	134
	110	248	1.0	132	204	1.1	26.353	GKS05-3M □□□100C31	134
	102	268	2.0	123	221	2.3	28.461	GKS06-3M □□□100C31	134
	97	282	0.9	117	232	1.1	29.931	GKS05-3M □□□100C31	134
	91	300	3.1	110	247	3.6	31.858	GKS07-3M □□□100C31	134
	90	302	1.6	109	249	1.8	32.063	GKS06-3M □□□100C31	134
	88	308	0.9	107	254	1.0	32.744	GKS05-3M □□□100C31	134
	80	340	3.1	97	280	3.5	36.063	GKS07-3M □□□100C31	134
	80	342	1.6	96	281	1.8	36.303	GKS06-3M □□□100C31	134
	70	390	1.4	84	322	1.6	41.472	GKS06-3M □□□100C31	134
	65	416	2.9	79	342	3.2	44.178	GKS07-3M □□□100C31	134
	65	419	1.5	79	345	1.7	44.471	GKS06-3M □□□100C31	134
	57	474	2.5	69	390	2.9	50.345	GKS07-3M □□□100C31	134
	55	500	1.3	66	411	1.4	53.074	GKS06-3M □□□100C31	134
	50	541	2.2	61	446	2.5	57.501	GKS07-3M □□□100C31	134
	50	545	1.2	60	449	1.3	57.882	GKS06-3M □□□100C31	134
	45	610	1.8	54	502	2.0	64.790	GKS07-3M □□□100C31	134
	44	614	0.9	54	506	1.1	65.207	GKS06-3M □□□100C31	134
	41	664	1.8	50	546	2.1	70.474	GKS07-3M □□□100C31	134
	40	678	0.9	49	558	1.1	72.000	GKS06-3M □□□100C31	134
	36	748	1.5	44	616	1.7	79.407	GKS07-3M □□□100C31	134
	32	865	3.2	38	712	3.6	91.860	GKS09-3M □□□100C31	134
	31	872	1.4	38	718	1.6	92.563	GKS07-3M □□□100C31	134

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 3.0 \text{ kW}$

n_N	2890 r/min			3510 r/min			i		
	50 Hz			60 Hz					
	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	29	931	3.0	35	766	3.4	100.551	GKS09-4M □□□100C31	142
	28	954	1.2	34	785	1.4	103.039	GKS07-4M □□□100C31	142
	28	975	2.9	34	803	3.3	103.524	GKS09-3M □□□100C31	134
	28	982	1.1	34	809	1.3	104.296	GKS07-3M □□□100C31	134
	26	1050	2.9	31	864	3.3	111.484	GKS09-3M □□□100C31	134
	26	1058	1.3	31	871	1.4	112.338	GKS07-3M □□□100C31	134
	26	1040	1.0	31	857	1.2	112.391	GKS07-4M □□□100C31	142
	26	1049	2.9	31	864	3.3	113.320	GKS09-4M □□□100C31	142
	23	1141	2.7	28	939	3.1	123.275	GKS09-4M □□□100C31	142
	23	1183	2.6	28	974	3.0	125.641	GKS09-3M □□□100C31	134
	23	1168	1.1	28	962	1.3	126.222	GKS07-4M □□□100C31	142
	23	1192	1.0	28	981	1.2	126.578	GKS07-3M □□□100C31	134
	21	1275	0.8	25	1050	1.0	137.748	GKS07-4M □□□100C31	142
	21	1286	2.3	25	1059	2.7	138.929	GKS09-4M □□□100C31	142
	21	1323	1.0	25	1090	1.2	140.548	GKS07-3M □□□100C31	134
	21	1327	2.2	25	1093	2.6	140.921	GKS09-3M □□□100C31	134
	19	1398	2.2	23	1151	2.5	151.012	GKS09-4M □□□100C31	142
	19	1431	0.9	23	1178	1.0	154.622	GKS07-4M □□□100C31	142
	18	1491	0.8	22	1228	0.9	158.364	GKS07-3M □□□100C31	134
	18	1495	2.1	22	1231	2.4	158.816	GKS09-3M □□□100C31	134
	17	1575	1.9	21	1297	2.2	170.188	GKS09-4M □□□100C31	142
	16	1714	1.8	19	1411	2.0	182.000	GKS09-3M □□□100C31	134
	14	1869	3.2	17	1539	3.7	201.890	GKS11-4M □□□100C31	142
	14	1894	1.6	17	1559	1.8	204.596	GKS09-4M □□□100C31	142
	14	1931	1.6	17	1590	1.8	205.111	GKS09-3M □□□100C31	134
	14	1979	3.0	17	1630	3.4	210.222	GKS11-3M □□□100C31	134
	13	2080	1.5	16	1712	1.7	220.882	GKS09-3M □□□100C31	134
	13	2132	2.8	15	1755	3.2	226.431	GKS11-3M □□□100C31	134
	13	2105	2.8	15	1734	3.3	227.481	GKS11-4M □□□100C31	142
	13	2134	1.4	15	1757	1.6	230.577	GKS09-4M □□□100C31	142
	12	2296	2.6	14	1891	3.0	248.106	GKS11-4M □□□100C31	142
	12	2299	1.3	14	1893	1.5	248.439	GKS09-4M □□□100C31	142
	12	2344	1.3	14	1930	1.5	248.930	GKS09-3M □□□100C31	134
	11	2402	2.5	14	1978	2.8	255.133	GKS11-3M □□□100C31	134
	10	2629	1.2	13	2165	1.3	279.205	GKS09-3M □□□100C31	134
	10	2587	2.3	13	2130	2.7	279.556	GKS11-4M □□□100C31	142
	10	2591	1.2	13	2134	1.4	279.986	GKS09-4M □□□100C31	142
	10	2695	2.2	12	2219	2.6	286.219	GKS11-3M □□□100C31	134
	9.2	2963	1.0	11	2439	1.2	314.659	GKS09-3M □□□100C31	134
	9.0	3037	1.9	11	2500	2.2	322.500	GKS11-3M □□□100C31	134

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 3.0 \text{ kW}$

n_N	2890 r/min			3510 r/min			i		
	50 Hz			60 Hz					
f_N	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	9.0	2989	2.0	11	2461	2.3	322.931	GKS11-4M □□□100C31	142
	8.9	2993	1.0	11	2464	1.2	323.365	GKS09-4M □□□100C31	142
	7.9	3368	1.8	9.6	2773	2.1	363.866	GKS11-4M □□□100C31	142
	7.9	3373	0.9	9.6	2777	1.0	364.427	GKS09-4M □□□100C31	142
	7.4	3616	3.2	8.9	2977	3.7	390.671	GKS14-4M □□□100C31	142
	7.3	3663	1.6	8.8	3016	1.9	395.787	GKS11-4M □□□100C31	142
	7.2	3723	0.8	8.7	3065	0.9	402.234	GKS09-4M □□□100C31	142
	6.6	4074	2.8	7.9	3355	3.3	440.193	GKS14-4M □□□100C31	142
	6.5	4128	1.5	7.8	3399	1.7	445.958	GKS11-4M □□□100C31	142
	5.6	4741	1.3	6.8	3903	1.5	512.196	GKS11-4M □□□100C31	142
	5.6	4749	2.4	6.8	3910	2.8	513.121	GKS14-4M □□□100C31	142
	5.0	5342	1.1	6.1	4398	1.3	577.122	GKS11-4M □□□100C31	142
	5.0	5351	2.2	6.0	4406	2.5	578.164	GKS14-4M □□□100C31	142
	4.7	5754	1.0	5.6	4737	1.2	621.619	GKS11-4M □□□100C31	142
	4.6	5764	2.0	5.6	4746	2.3	622.742	GKS14-4M □□□100C31	142
	4.1	6483	0.9	5.0	5338	1.1	700.416	GKS11-4M □□□100C31	142
	4.1	6495	1.8	5.0	5347	2.1	701.681	GKS14-4M □□□100C31	142
	3.6	7459	1.5	4.3	6142	1.8	805.901	GKS14-4M □□□100C31	142
	3.2	8405	1.4	3.8	6920	1.6	908.058	GKS14-4M □□□100C31	142
	3.0	9053	1.3	3.6	7454	1.5	978.071	GKS14-4M □□□100C31	142
	2.6	10200	1.1	3.2	8398	1.3	1102.052	GKS14-4M □□□100C31	142
	2.3	11443	1.0	2.8	9422	1.2	1236.326	GKS14-4M □□□100C31	142
	2.1	12894	0.9	2.5	10616	1.0	1393.043	GKS14-4M □□□100C31	142

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 3.0 \text{ kW}$

n_N	1430 r/min			1740 r/min			i		
	50 Hz			60 Hz					
	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	221	123	2.1	267	101	2.5	6.485	GKS06-3M □□□100C32	134
	208	131	1.1	252	107	1.3	6.863	GKS05-3M □□□100C32	134
	156	175	2.1	188	144	2.5	9.196	GKS06-3M □□□100C32	134
	152	179	0.9	184	147	1.1	9.412	GKS05-3M □□□100C32	134
	141	193	2.1	171	159	2.5	10.147	GKS06-3M □□□100C32	134
	135	201	1.1	164	165	1.3	10.569	GKS05-3M □□□100C32	134
	126	217	2.8	152	178	3.3	11.378	GKS07-3M □□□100C32	134
	126	217	1.5	152	178	1.8	11.382	GKS06-3M □□□100C32	134
	123	222	1.1	148	182	1.3	11.667	GKS05-3M □□□100C32	134
	113	240	1.8	137	197	2.1	12.612	GKS06-3M □□□100C32	134
	99	276	0.9	119	227	1.1	14.494	GKS05-3M □□□100C32	134
	97	282	2.1	117	232	2.5	14.824	GKS06-3M □□□100C32	134
	89	304	0.9	108	250	1.1	16.000	GKS05-3M □□□100C32	134
	86	318	1.9	104	261	2.2	16.699	GKS06-3M □□□100C32	134
	84	325	1.0	101	267	1.1	17.054	GKS05-3M □□□100C32	134
	83	329	3.0	100	270	3.5	17.270	GKS07-3M □□□100C32	134
	80	339	1.5	97	279	1.8	17.809	GKS06-3M □□□100C32	134
	74	366	0.8	91	301	0.9	19.216	GKS05-3M □□□100C32	134
	70	387	1.7	85	318	2.0	20.329	GKS06-3M □□□100C32	134
	62	436	1.4	76	358	1.6	22.902	GKS06-3M □□□100C32	134
	57	480	2.5	69	395	2.8	25.244	GKS07-3M □□□100C32	134
	55	495	1.4	67	407	1.6	26.017	GKS06-3M □□□100C32	134
	51	538	2.2	61	442	2.6	28.274	GKS07-3M □□□100C32	134
	50	542	1.3	61	445	1.5	28.461	GKS06-3M □□□100C32	134
	45	606	1.9	54	498	2.2	31.858	GKS07-3M □□□100C32	134
	45	610	1.0	54	501	1.2	32.063	GKS06-3M □□□100C32	134
	40	686	1.9	48	564	2.2	36.063	GKS07-3M □□□100C32	134
	39	691	1.0	48	568	1.1	36.303	GKS06-3M □□□100C32	134
	35	789	0.9	42	649	1.0	41.472	GKS06-3M □□□100C32	134
	32	841	1.5	39	691	1.9	44.178	GKS07-3M □□□100C32	134
	32	846	0.8	39	695	1.0	44.471	GKS06-3M □□□100C32	134
	28	958	1.4	34	787	1.7	50.345	GKS07-3M □□□100C32	134
	25	1094	1.2	30	899	1.5	57.501	GKS07-3M □□□100C32	134
	25	1112	2.7	30	914	3.3	58.456	GKS09-3M □□□100C32	134
	22	1233	1.0	27	1013	1.2	64.790	GKS07-3M □□□100C32	134
	22	1254	2.4	26	1030	3.0	65.879	GKS09-3M □□□100C32	134
	20	1341	1.0	25	1102	1.2	70.474	GKS07-3M □□□100C32	134
	20	1351	2.2	24	1110	2.7	70.982	GKS09-3M □□□100C32	134
	18	1522	2.0	22	1251	2.5	79.996	GKS09-3M □□□100C32	134
	16	1746	2.5	19	1435	3.1	91.737	GKS11-3M □□□100C32	134

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 3.0 \text{ kW}$

n_N	1430 r/min			1740 r/min			i		
	50 Hz			60 Hz					
	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	16	1748	1.7	19	1437	2.1	91.860	GKS09-3M □□□100C32	134
	14	1881	1.6	17	1546	2.0	100.551	GKS09-4M □□□100C32	142
	14	1910	3.0	17	1570	3.6	102.119	GKS11-4M □□□100C32	142
	14	1967	2.5	17	1617	3.1	103.365	GKS11-3M □□□100C32	134
	14	1970	1.6	17	1619	1.9	103.524	GKS09-3M □□□100C32	134
	13	2119	2.1	16	1741	2.6	111.335	GKS11-3M □□□100C32	134
	13	2121	1.4	16	1743	1.7	111.484	GKS09-3M □□□100C32	134
	13	2120	1.4	15	1742	1.7	113.320	GKS09-4M □□□100C32	142
	12	2152	2.7	15	1769	3.3	115.063	GKS11-4M □□□100C32	142
	12	2306	1.3	14	1895	1.6	123.275	GKS09-4M □□□100C32	142
	11	2340	2.5	14	1923	3.0	125.095	GKS11-4M □□□100C32	142
	11	2387	2.1	14	1962	2.6	125.448	GKS11-3M □□□100C32	134
	11	2391	1.3	14	1965	1.6	125.641	GKS09-3M □□□100C32	134
	10	2599	1.2	13	2136	1.4	138.929	GKS09-4M □□□100C32	142
	10	2678	1.7	12	2201	2.1	140.732	GKS11-3M □□□100C32	134
	10	2682	1.1	12	2204	1.3	140.921	GKS09-3M □□□100C32	134
	10	2637	2.2	12	2167	2.7	140.952	GKS11-4M □□□100C32	142
	9.5	2825	1.1	12	2321	1.3	151.012	GKS09-4M □□□100C32	142
	9.3	2866	2.0	11	2356	2.5	153.242	GKS11-4M □□□100C32	142
	9.0	3017	1.7	11	2480	2.1	158.571	GKS11-3M □□□100C32	134
	9.0	3022	1.0	11	2484	1.2	158.816	GKS09-3M □□□100C32	134
	8.4	3183	0.9	10	2616	1.2	170.188	GKS09-4M □□□100C32	142
	8.3	3230	1.8	10	2654	2.2	172.667	GKS11-4M □□□100C32	142
	7.9	3463	0.9	9.5	2846	1.1	182.000	GKS09-3M □□□100C32	134
	7.7	3550	1.7	9.3	2918	2.0	186.572	GKS11-3M □□□100C32	134
	7.1	3776	1.6	8.6	3104	1.9	201.890	GKS11-4M □□□100C32	142
	6.8	4000	1.5	8.2	3288	1.8	210.222	GKS11-3M □□□100C32	134
	6.3	4309	1.4	7.6	3541	1.7	226.431	GKS11-3M □□□100C32	134
	6.3	4255	1.4	7.6	3497	1.7	227.481	GKS11-4M □□□100C32	142
	5.8	4641	1.3	7.0	3814	1.6	248.106	GKS11-4M □□□100C32	142
	5.6	4855	1.2	6.8	3990	1.5	255.133	GKS11-3M □□□100C32	134
	5.1	5229	1.2	6.2	4298	1.4	279.556	GKS11-4M □□□100C32	142
	5.0	5446	1.1	6.0	4476	1.3	286.219	GKS11-3M □□□100C32	134
	4.4	6018	1.9	5.4	4946	2.3	321.729	GKS14-4M □□□100C32	142
	4.4	6137	1.0	5.4	5044	1.2	322.500	GKS11-3M □□□100C32	134
	4.4	6041	1.0	5.4	4964	1.2	322.931	GKS11-4M □□□100C32	142
	3.9	6781	1.7	4.8	5573	2.1	362.512	GKS14-4M □□□100C32	142
	3.9	6806	0.9	4.8	5594	1.1	363.866	GKS11-4M □□□100C32	142
	3.7	7308	1.6	4.4	6006	1.9	390.671	GKS14-4M □□□100C32	142
	3.6	7403	0.8	4.4	6084	1.0	395.787	GKS11-4M □□□100C32	142

GKS helical-bevel gearboxes

Technical data



Selection tables

50 Hz, 60 Hz: $P_N = 3.0$ kW

n_N	1430 r/min			1740 r/min			i		
	50 Hz			60 Hz					
f_N	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	3.3	8234	1.4	3.9	6767	1.7	440.193	GKS14-4M □□□100C32	142
	2.8	9598	1.2	3.4	7888	1.5	513.121	GKS14-4M □□□100C32	142
	2.5	10815	1.1	3.0	8888	1.3	578.164	GKS14-4M □□□100C32	142
	2.3	11649	1.0	2.8	9573	1.2	622.742	GKS14-4M □□□100C32	142
	2.0	13125	0.9	2.5	10787	1.1	701.681	GKS14-4M □□□100C32	142

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 4.0 \text{ kW}$

n_N	2840 r/min			3440 r/min			i		
	50 Hz			60 Hz					
	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	438	83	2.6	530	68	2.9	6.485	GKS06-3M □□□100C41	134
	414	88	1.4	501	72	1.5	6.863	GKS05-3M □□□100C41	134
	309	117	2.6	374	97	2.9	9.196	GKS06-3M □□□100C41	134
	302	120	1.1	366	99	1.3	9.412	GKS05-3M □□□100C41	134
	280	130	2.6	339	107	2.9	10.147	GKS06-3M □□□100C41	134
	269	135	1.4	326	111	1.5	10.569	GKS05-3M □□□100C41	134
	250	145	1.8	302	120	2.1	11.382	GKS06-3M □□□100C41	134
	243	149	1.4	295	123	1.5	11.667	GKS05-3M □□□100C41	134
	225	161	2.1	273	133	2.4	12.612	GKS06-3M □□□100C41	134
	196	185	1.1	237	153	1.3	14.494	GKS05-3M □□□100C41	134
	192	189	2.6	232	156	2.9	14.824	GKS06-3M □□□100C41	134
	178	204	1.1	215	169	1.3	16.000	GKS05-3M □□□100C41	134
	170	213	2.3	206	176	2.6	16.699	GKS06-3M □□□100C41	134
	167	218	1.2	202	180	1.3	17.054	GKS05-3M □□□100C41	134
	160	228	1.8	193	188	2.1	17.809	GKS06-3M □□□100C41	134
	148	245	1.0	179	203	1.1	19.216	GKS05-3M □□□100C41	134
	140	260	2.1	169	214	2.4	20.329	GKS06-3M □□□100C41	134
	124	293	1.7	150	242	1.9	22.902	GKS06-3M □□□100C41	134
	121	299	0.9	147	247	1.0	23.388	GKS05-3M □□□100C41	134
	113	323	3.0	136	266	3.4	25.244	GKS07-3M □□□100C41	134
	109	332	1.7	132	274	1.9	26.017	GKS06-3M □□□100C41	134
	100	361	2.7	122	298	3.1	28.274	GKS07-3M □□□100C41	134
	100	364	1.5	121	300	1.7	28.461	GKS06-3M □□□100C41	134
	89	407	2.3	108	336	2.6	31.858	GKS07-3M □□□100C41	134
	89	410	1.2	107	338	1.4	32.063	GKS06-3M □□□100C41	134
	79	461	2.3	95	380	2.6	36.063	GKS07-3M □□□100C41	134
	78	464	1.2	95	383	1.4	36.303	GKS06-3M □□□100C41	134
	69	530	1.1	83	437	1.2	41.472	GKS06-3M □□□100C41	134
	64	564	2.1	78	466	2.4	44.178	GKS07-3M □□□100C41	134
	64	568	1.1	77	469	1.3	44.471	GKS06-3M □□□100C41	134
	56	643	1.9	68	531	2.1	50.345	GKS07-3M □□□100C41	134
	54	678	0.9	65	560	1.1	53.074	GKS06-3M □□□100C41	134
	49	735	1.6	60	606	1.9	57.501	GKS07-3M □□□100C41	134
	49	739	0.9	59	610	1.0	57.882	GKS06-3M □□□100C41	134
	44	828	1.3	53	683	1.5	64.790	GKS07-3M □□□100C41	134
	40	900	1.3	49	743	1.5	70.474	GKS07-3M □□□100C41	134
	40	907	3.1	49	749	3.5	70.982	GKS09-3M □□□100C41	134
	36	1014	1.1	43	838	1.2	79.407	GKS07-3M □□□100C41	134
	36	1022	2.8	43	844	3.1	79.996	GKS09-3M □□□100C41	134
	31	1174	2.4	37	969	2.7	91.860	GKS09-3M □□□100C41	134

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 4.0$ kW

n_N	2840 r/min			3440 r/min			i		
	50 Hz			60 Hz					
	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	31	1183	1.0	37	976	1.2	92.563	GKS07-3M □□□100C41	134
	28	1263	2.2	34	1042	2.5	100.551	GKS09-4M □□□100C41	142
	28	1294	0.9	33	1068	1.0	103.039	GKS07-4M □□□100C41	142
	27	1323	2.1	33	1092	2.4	103.524	GKS09-3M □□□100C41	134
	27	1332	0.8	33	1100	1.0	104.296	GKS07-3M □□□100C41	134
	26	1422	3.1	31	1174	3.6	111.335	GKS11-3M □□□100C41	134
	26	1424	2.1	31	1176	2.5	111.484	GKS09-3M □□□100C41	134
	25	1435	0.9	31	1185	1.1	112.338	GKS07-3M □□□100C41	134
	25	1423	2.1	30	1175	2.4	113.320	GKS09-4M □□□100C41	142
	23	1548	2.0	28	1278	2.3	123.275	GKS09-4M □□□100C41	142
	23	1603	3.1	27	1323	3.6	125.448	GKS11-3M □□□100C41	134
	23	1605	1.9	27	1325	2.2	125.641	GKS09-3M □□□100C41	134
	23	1585	0.8	27	1309	0.9	126.222	GKS07-4M □□□100C41	142
	20	1745	1.7	25	1440	2.0	138.929	GKS09-4M □□□100C41	142
	20	1798	2.5	24	1484	2.9	140.732	GKS11-3M □□□100C41	134
	20	1800	1.7	24	1486	1.9	140.921	GKS09-3M □□□100C41	134
	19	1896	1.6	23	1566	1.8	151.012	GKS09-4M □□□100C41	142
	19	1924	3.0	22	1589	3.5	153.242	GKS11-4M □□□100C41	142
	18	2026	2.5	22	1672	2.9	158.571	GKS11-3M □□□100C41	134
	18	2029	1.5	22	1675	1.8	158.816	GKS09-3M □□□100C41	134
	17	2137	1.4	20	1764	1.6	170.188	GKS09-4M □□□100C41	142
	16	2168	2.7	20	1790	3.2	172.667	GKS11-4M □□□100C41	142
	16	2325	1.3	19	1920	1.5	182.000	GKS09-3M □□□100C41	134
	15	2384	2.5	18	1968	2.9	186.572	GKS11-3M □□□100C41	134
	14	2535	2.4	17	2093	2.7	201.890	GKS11-4M □□□100C41	142
	14	2569	1.2	17	2121	1.4	204.596	GKS09-4M □□□100C41	142
	14	2620	1.2	17	2163	1.4	205.111	GKS09-3M □□□100C41	134
	14	2686	2.2	16	2217	2.5	210.222	GKS11-3M □□□100C41	134
	13	2822	1.1	16	2330	1.2	220.882	GKS09-3M □□□100C41	134
	13	2893	2.1	15	2388	2.4	226.431	GKS11-3M □□□100C41	134
	13	2857	2.1	15	2358	2.4	227.481	GKS11-4M □□□100C41	142
	12	2896	1.1	15	2391	1.2	230.577	GKS09-4M □□□100C41	142
	11	3116	1.9	14	2572	2.2	248.106	GKS11-4M □□□100C41	142
	11	3120	1.0	14	2576	1.1	248.439	GKS09-4M □□□100C41	142
	11	3180	1.0	14	2625	1.1	248.930	GKS09-3M □□□100C41	134
	11	3259	1.8	14	2691	2.1	255.133	GKS11-3M □□□100C41	134
	10	3567	0.8	12	2945	1.0	279.205	GKS09-3M □□□100C41	134
	10	3511	1.7	12	2898	2.0	279.556	GKS11-4M □□□100C41	142
	10	3516	0.9	12	2903	1.0	279.986	GKS09-4M □□□100C41	142
	9.9	3657	1.6	12	3019	1.9	286.219	GKS11-3M □□□100C41	134

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 4.0 \text{ kW}$

n_N	2840 r/min			3440 r/min			i		
	50 Hz			60 Hz					
f_N	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	8.8	4040	2.8	11	3336	3.3	321.729	GKS14-4M □□□100C41	142
	8.8	4120	1.4	11	3401	1.7	322.500	GKS11-3M □□□100C41	134
	8.8	4055	1.5	11	3348	1.7	322.931	GKS11-4M □□□100C41	142
	7.8	4552	2.5	9.5	3758	2.9	362.512	GKS14-4M □□□100C41	142
	7.8	4569	1.3	9.5	3772	1.5	363.866	GKS11-4M □□□100C41	142
	7.3	4906	2.3	8.8	4050	2.7	390.671	GKS14-4M □□□100C41	142
	7.2	4970	1.2	8.7	4103	1.4	395.787	GKS11-4M □□□100C41	142
	6.5	5528	2.1	7.8	4564	2.4	440.193	GKS14-4M □□□100C41	142
	6.4	5600	1.1	7.7	4624	1.2	445.958	GKS11-4M □□□100C41	142
	5.5	6432	0.9	6.7	5310	1.1	512.196	GKS11-4M □□□100C41	142
	5.5	6444	1.8	6.7	5320	2.1	513.121	GKS14-4M □□□100C41	142
	4.9	7248	0.8	6.0	5983	1.0	577.122	GKS11-4M □□□100C41	142
	4.9	7261	1.6	6.0	5994	1.9	578.164	GKS14-4M □□□100C41	142
	4.6	7821	1.5	5.5	6456	1.7	622.742	GKS14-4M □□□100C41	142
	4.1	8812	1.3	4.9	7275	1.5	701.681	GKS14-4M □□□100C41	142
	3.5	10121	1.1	4.3	8355	1.3	805.901	GKS14-4M □□□100C41	142
	3.1	11404	1.0	3.8	9415	1.2	908.058	GKS14-4M □□□100C41	142
	2.9	12283	0.9	3.5	10140	1.1	978.071	GKS14-4M □□□100C41	142
	2.6	13840	0.8	3.1	11426	1.0	1102.052	GKS14-4M □□□100C41	142

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 4.0 \text{ kW}$

n_N	1450 r/min			1755 r/min			i		
	50 Hz			60 Hz					
	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	244	149	3.2	294	123	3.6	5.955	GKS07-3M □□□112C22	134
	224	162	1.6	270	134	1.9	6.485	GKS06-3M □□□112C22	134
	176	207	2.6	212	171	3.0	8.254	GKS07-3M □□□112C22	134
	158	229	3.2	191	190	3.6	9.171	GKS07-3M □□□112C22	134
	158	230	1.6	190	190	1.9	9.196	GKS06-3M □□□112C22	134
	143	253	3.2	173	209	3.6	10.124	GKS07-3M □□□112C22	134
	143	254	1.6	173	210	1.9	10.147	GKS06-3M □□□112C22	134
	127	285	2.2	154	235	2.5	11.378	GKS07-3M □□□112C22	134
	127	285	1.2	154	235	1.3	11.382	GKS06-3M □□□112C22	134
	115	316	1.4	139	261	1.6	12.612	GKS06-3M □□□112C22	134
	114	318	2.6	138	263	3.0	12.711	GKS07-3M □□□112C22	134
	98	370	2.8	118	306	3.2	14.798	GKS07-3M □□□112C22	134
	98	371	1.6	118	306	1.9	14.824	GKS06-3M □□□112C22	134
	87	417	2.6	105	345	2.9	16.674	GKS07-3M □□□112C22	134
	87	418	1.4	105	345	1.7	16.699	GKS06-3M □□□112C22	134
	84	432	2.3	101	357	2.7	17.270	GKS07-3M □□□112C22	134
	81	446	1.2	98	368	1.3	17.809	GKS06-3M □□□112C22	134
	71	509	1.3	86	420	1.5	20.329	GKS06-3M □□□112C22	134
	71	513	2.2	85	424	2.5	20.511	GKS07-3M □□□112C22	134
	63	573	1.1	76	473	1.2	22.902	GKS06-3M □□□112C22	134
	63	578	2.0	76	478	2.3	23.111	GKS07-3M □□□112C22	134
	57	632	1.9	69	522	2.1	25.244	GKS07-3M □□□112C22	134
	56	651	1.0	67	538	1.2	26.017	GKS06-3M □□□112C22	134
	51	707	1.7	62	585	2.0	28.274	GKS07-3M □□□112C22	134
	51	712	1.0	62	588	1.1	28.461	GKS06-3M □□□112C22	134
	46	797	1.5	55	659	1.7	31.858	GKS07-3M □□□112C22	134
	40	902	1.4	49	746	1.6	36.063	GKS07-3M □□□112C22	134
	37	992	3.0	44	820	3.5	39.662	GKS09-3M □□□112C22	134
	35	1024	1.3	43	846	1.4	40.906	GKS07-3M □□□112C22	134
	34	1080	2.8	41	892	3.4	43.146	GKS09-3M □□□112C22	134
	33	1105	1.2	40	913	1.4	44.178	GKS07-3M □□□112C22	134
	30	1217	2.5	36	1005	3.0	48.625	GKS09-3M □□□112C22	134
	29	1260	1.0	35	1041	1.2	50.345	GKS07-3M □□□112C22	134
	25	1439	0.9	30	1189	1.1	57.501	GKS07-3M □□□112C22	134
	25	1443	3.2	30	1193	3.9	57.683	GKS11-3M □□□112C22	134
	25	1463	2.1	30	1208	2.5	58.456	GKS09-3M □□□112C22	134
	22	1626	3.2	27	1344	3.9	64.995	GKS11-3M □□□112C22	134
	22	1648	1.8	27	1362	2.2	65.879	GKS09-3M □□□112C22	134
	21	1774	2.7	25	1465	3.3	70.887	GKS11-3M □□□112C22	134
	20	1776	1.7	25	1467	2.1	70.982	GKS09-3M □□□112C22	134

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 4.0 \text{ kW}$

n_N	1450 r/min			1755 r/min			i		
	50 Hz			60 Hz					
	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	18	1999	2.7	22	1651	3.3	79.873	GKS11-3M □□□112C22	134
	18	2002	1.5	22	1654	1.9	79.996	GKS09-3M □□□112C22	134
	16	2266	2.7	19	1872	3.3	90.551	GKS14-3M □□□112C22	134
	16	2295	2.2	19	1897	2.6	91.737	GKS11-3M □□□112C22	134
	16	2299	1.3	19	1899	1.6	91.860	GKS09-3M □□□112C22	134
	14	2473	1.2	17	2043	1.5	100.551	GKS09-4M □□□112C22	142
	14	2553	2.7	17	2109	3.3	102.029	GKS14-3M □□□112C22	134
	14	2512	2.3	17	2075	2.7	102.119	GKS11-4M □□□112C22	142
	14	2586	2.2	17	2137	2.6	103.365	GKS11-3M □□□112C22	134
	14	2590	1.2	17	2140	1.4	103.524	GKS09-3M □□□112C22	134
	13	2750	2.3	16	2272	2.7	109.896	GKS14-3M □□□112C22	134
	13	2786	1.8	16	2302	2.2	111.335	GKS11-3M □□□112C22	134
	13	2790	1.1	16	2305	1.3	111.484	GKS09-3M □□□112C22	134
	13	2787	1.1	15	2303	1.3	113.320	GKS09-4M □□□112C22	142
	13	2830	2.1	15	2338	2.5	115.063	GKS11-4M □□□112C22	142
	12	3032	1.0	14	2505	1.2	123.275	GKS09-4M □□□112C22	142
	12	3098	2.3	14	2560	2.7	123.826	GKS14-3M □□□112C22	134
	12	3077	1.9	14	2542	2.3	125.095	GKS11-4M □□□112C22	142
	12	3139	1.8	14	2593	2.2	125.448	GKS11-3M □□□112C22	134
	12	3144	1.0	14	2597	1.2	125.641	GKS09-3M □□□112C22	134
	10	3476	1.8	13	2872	2.2	138.913	GKS14-3M □□□112C22	134
	10	3417	0.9	13	2823	1.1	138.929	GKS09-4M □□□112C22	142
	10	3521	1.5	12	2909	1.8	140.732	GKS11-3M □□□112C22	134
	10	3467	1.7	12	2864	2.1	140.952	GKS11-4M □□□112C22	142
	9.6	3714	0.8	12	3069	1.0	151.012	GKS09-4M □□□112C22	142
	9.5	3769	1.5	11	3114	1.9	153.242	GKS11-4M □□□112C22	142
	9.3	3917	1.8	11	3236	2.2	156.522	GKS14-3M □□□112C22	134
	9.2	3887	3.0	11	3212	3.6	158.039	GKS14-4M □□□112C22	142
	9.1	3968	1.5	11	3278	1.8	158.571	GKS11-3M □□□112C22	134
	8.4	4247	1.4	10	3509	1.7	172.667	GKS11-4M □□□112C22	142
	8.1	4380	2.6	9.8	3619	3.2	178.072	GKS14-4M □□□112C22	142
	7.8	4668	1.3	9.4	3857	1.5	186.572	GKS11-3M □□□112C22	134
	7.8	4668	2.5	9.4	3857	3.0	186.572	GKS14-3M □□□112C22	134
	7.5	4766	2.4	9.0	3937	2.9	193.754	GKS14-4M □□□112C22	142
	7.2	4966	1.2	8.7	4103	1.5	201.890	GKS11-4M □□□112C22	142
	6.9	5260	1.1	8.3	4346	1.4	210.222	GKS11-3M □□□112C22	134
	6.9	5260	2.2	8.3	4346	2.7	210.222	GKS14-3M □□□112C22	134
	6.6	5370	2.1	8.0	4437	2.6	218.315	GKS14-4M □□□112C22	142
	6.4	5666	1.1	7.7	4681	1.3	226.431	GKS11-3M □□□112C22	134
	6.4	5666	2.0	7.7	4681	2.5	226.431	GKS14-3M □□□112C22	134

GKS helical-bevel gearboxes

Technical data



Selection tables

50 Hz, 60 Hz: $P_N = 4.0$ kW

n_N	1450 r/min			1755 r/min			i		
	50 Hz			60 Hz					
f_N	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	6.4	5595	1.1	7.7	4623	1.3	227.481	GKS11-4M □□□112C22	142
	6.1	5841	2.0	7.4	4826	2.4	237.467	GKS14-4M □□□112C22	142
	5.8	6103	1.0	7.1	5042	1.2	248.106	GKS11-4M □□□112C22	142
	5.7	6384	0.9	6.9	5275	1.1	255.133	GKS11-3M □□□112C22	134
	5.7	6384	1.8	6.9	5275	2.2	255.133	GKS14-3M □□□112C22	134
	5.4	6581	1.8	6.5	5438	2.1	267.568	GKS14-4M □□□112C22	142
	5.2	6876	0.9	6.3	5681	1.1	279.556	GKS11-4M □□□112C22	142
	5.1	7162	0.8	6.1	5917	1.0	286.219	GKS11-3M □□□112C22	134
	5.1	7162	1.6	6.1	5917	2.0	286.219	GKS14-3M □□□112C22	134
	4.5	7913	1.4	5.4	6538	1.8	321.729	GKS14-4M □□□112C22	142
	4.5	8070	1.4	5.4	6667	1.7	322.500	GKS14-3M □□□112C22	134
	4.0	8917	1.3	4.8	7367	1.6	362.512	GKS14-4M □□□112C22	142
	3.7	9609	1.2	4.5	7939	1.4	390.671	GKS14-4M □□□112C22	142
	3.3	10827	1.1	4.0	8946	1.3	440.193	GKS14-4M □□□112C22	142
	2.8	12621	0.9	3.4	10428	1.1	513.121	GKS14-4M □□□112C22	142
	2.5	14221	0.8	3.0	11750	1.0	578.164	GKS14-4M □□□112C22	142

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 5.5 \text{ kW}$

n_N	2900 r/min			3510 r/min			i		
	50 Hz			60 Hz					
	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	447	112	1.9	540	92	2.1	6.485	GKS06-3M □□□112C31	134
	351	142	3.1	424	117	3.5	8.254	GKS07-3M □□□112C31	134
	315	158	1.9	381	131	2.1	9.196	GKS06-3M □□□112C31	134
	286	175	1.9	345	144	2.1	10.147	GKS06-3M □□□112C31	134
	255	196	2.5	308	162	2.9	11.378	GKS07-3M □□□112C31	134
	255	196	1.4	308	162	1.5	11.382	GKS06-3M □□□112C31	134
	230	217	1.6	278	179	1.8	12.612	GKS06-3M □□□112C31	134
	228	219	3.1	275	181	3.5	12.711	GKS07-3M □□□112C31	134
	196	255	1.9	236	211	2.1	14.824	GKS06-3M □□□112C31	134
	174	287	3.0	210	237	3.4	16.674	GKS07-3M □□□112C31	134
	174	287	1.7	210	237	1.9	16.699	GKS06-3M □□□112C31	134
	168	297	2.7	203	245	3.1	17.270	GKS07-3M □□□112C31	134
	163	306	1.4	197	253	1.5	17.809	GKS06-3M □□□112C31	134
	143	350	1.5	172	289	1.7	20.329	GKS06-3M □□□112C31	134
	141	353	2.5	171	292	2.9	20.511	GKS07-3M □□□112C31	134
	127	394	1.2	153	326	1.4	22.902	GKS06-3M □□□112C31	134
	126	398	2.4	151	328	2.7	23.111	GKS07-3M □□□112C31	134
	115	434	2.2	139	359	2.5	25.244	GKS07-3M □□□112C31	134
	112	448	1.2	135	370	1.4	26.017	GKS06-3M □□□112C31	134
	103	486	2.0	124	402	2.3	28.274	GKS07-3M □□□112C31	134
	102	490	1.1	123	405	1.3	28.461	GKS06-3M □□□112C31	134
	91	548	1.7	110	453	1.9	31.858	GKS07-3M □□□112C31	134
	90	552	0.9	109	456	1.0	32.063	GKS06-3M □□□112C31	134
	80	620	1.7	97	513	1.9	36.063	GKS07-3M □□□112C31	134
	80	625	0.9	96	516	1.0	36.303	GKS06-3M □□□112C31	134
	71	704	1.5	86	581	1.7	40.906	GKS07-3M □□□112C31	134
	66	760	1.6	79	628	1.8	44.178	GKS07-3M □□□112C31	134
	65	765	0.8	79	632	0.9	44.471	GKS06-3M □□□112C31	134
	58	866	1.4	70	716	1.6	50.345	GKS07-3M □□□112C31	134
	50	989	1.2	61	817	1.4	57.501	GKS07-3M □□□112C31	134
	50	1006	2.7	60	831	3.1	58.456	GKS09-3M □□□112C31	134
	45	1115	1.0	54	921	1.1	64.790	GKS07-3M □□□112C31	134
	44	1133	2.5	53	936	2.8	65.879	GKS09-3M □□□112C31	134
	41	1212	1.0	50	1002	1.1	70.474	GKS07-3M □□□112C31	134
	41	1221	2.3	49	1009	2.6	70.982	GKS09-3M □□□112C31	134
	37	1366	0.8	44	1129	0.9	79.407	GKS07-3M □□□112C31	134
	36	1376	2.0	44	1137	2.3	79.996	GKS09-3M □□□112C31	134
	32	1578	2.9	38	1304	3.3	91.737	GKS11-3M □□□112C31	134
	32	1580	1.7	38	1306	2.0	91.860	GKS09-3M □□□112C31	134
	29	1700	1.6	35	1405	1.8	100.551	GKS09-4M □□□112C31	142

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 5.5 \text{ kW}$

n_N	2900 r/min			3510 r/min			i		
	50 Hz			60 Hz					
	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	28	1727	3.0	34	1427	3.4	102.119	GKS11-4M □□□112C31	142
	28	1778	2.9	34	1469	3.3	103.365	GKS11-3M □□□112C31	134
	28	1781	1.6	34	1471	1.8	103.524	GKS09-3M □□□112C31	134
	26	1891	3.0	32	1562	3.4	109.896	GKS14-3M □□□112C31	134
	26	1915	2.6	31	1582	3.0	111.335	GKS11-3M □□□112C31	134
	26	1918	1.6	31	1585	1.8	111.484	GKS09-3M □□□112C31	134
	26	1916	1.6	31	1583	1.8	113.320	GKS09-4M □□□112C31	142
	25	1946	3.0	30	1608	3.5	115.063	GKS11-4M □□□112C31	142
	24	2085	1.5	28	1722	1.7	123.275	GKS09-4M □□□112C31	142
	23	2115	2.7	28	1748	3.1	125.095	GKS11-4M □□□112C31	142
	23	2158	2.6	28	1783	3.0	125.448	GKS11-3M □□□112C31	134
	23	2161	1.4	28	1786	1.6	125.641	GKS09-3M □□□112C31	134
	21	2390	2.6	25	1974	3.0	138.913	GKS14-3M □□□112C31	134
	21	2349	1.3	25	1941	1.5	138.929	GKS09-4M □□□112C31	142
	21	2421	2.1	25	2000	2.4	140.732	GKS11-3M □□□112C31	134
	21	2384	2.5	25	1969	2.9	140.952	GKS11-4M □□□112C31	142
	19	2554	1.2	23	2110	1.4	151.012	GKS09-4M □□□112C31	142
	19	2591	2.2	23	2141	2.6	153.242	GKS11-4M □□□112C31	142
	19	2693	2.6	22	2225	3.0	156.522	GKS14-3M □□□112C31	134
	18	2728	2.1	22	2254	2.4	158.571	GKS11-3M □□□112C31	134
	17	2878	1.0	21	2378	1.2	170.188	GKS09-4M □□□112C31	142
	17	2920	2.0	20	2412	2.3	172.667	GKS11-4M □□□112C31	142
	16	3131	1.0	19	2587	1.1	182.000	GKS09-3M □□□112C31	134
	16	3210	1.9	19	2652	2.1	186.572	GKS11-3M □□□112C31	134
	14	3414	1.7	17	2821	2.0	201.890	GKS11-4M □□□112C31	142
	14	3460	0.9	17	2859	1.0	204.596	GKS09-4M □□□112C31	142
	14	3528	0.9	17	2915	1.0	205.111	GKS09-3M □□□112C31	134
	14	3616	1.6	17	2988	1.9	210.222	GKS11-3M □□□112C31	134
	14	3616	3.2	17	2988	3.7	210.222	GKS14-3M □□□112C31	134
	13	3692	3.1	16	3050	3.6	218.315	GKS14-4M □□□112C31	142
	13	3895	1.5	16	3218	1.8	226.431	GKS11-3M □□□112C31	134
	13	3895	3.0	16	3218	3.4	226.431	GKS14-3M □□□112C31	134
	13	3847	1.6	15	3178	1.8	227.481	GKS11-4M □□□112C31	142
	12	4016	2.9	15	3318	3.3	237.467	GKS14-4M □□□112C31	142
	12	4196	1.4	14	3466	1.6	248.106	GKS11-4M □□□112C31	142
	11	4389	1.3	14	3626	1.5	255.133	GKS11-3M □□□112C31	134
	11	4389	2.6	14	3626	3.0	255.133	GKS14-3M □□□112C31	134
	11	4525	2.5	13	3738	2.9	267.568	GKS14-4M □□□112C31	142
	10	4727	1.3	13	3906	1.5	279.556	GKS11-4M □□□112C31	142
	10	4924	1.2	12	4068	1.4	286.219	GKS11-3M □□□112C31	134

GKS helical-bevel gearboxes

Technical data



Selection tables

50 Hz, 60 Hz: $P_N = 5.5 \text{ kW}$

n_N	2900 r/min			3510 r/min			i		
	50 Hz			60 Hz					
	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	10	4924	2.4	12	4068	2.7	286.219	GKS14-3M □□□112C31	134
	9.0	5441	2.1	11	4495	2.4	321.729	GKS14-4M □□□112C31	142
	9.0	5548	1.1	11	4584	1.2	322.500	GKS11-3M □□□112C31	134
	9.0	5548	2.1	11	4584	2.4	322.500	GKS14-3M □□□112C31	134
	9.0	5461	1.1	11	4512	1.3	322.931	GKS11-4M □□□112C31	142
	8.0	6130	1.9	9.7	5065	2.2	362.512	GKS14-4M □□□112C31	142
	8.0	6153	1.0	9.6	5084	1.1	363.866	GKS11-4M □□□112C31	142
	7.4	6606	1.7	9.0	5458	2.0	390.671	GKS14-4M □□□112C31	142
	7.3	6693	0.9	8.8	5530	1.0	395.787	GKS11-4M □□□112C31	142
	6.6	7444	1.5	8.0	6150	1.8	440.193	GKS14-4M □□□112C31	142
	5.7	8677	1.3	6.8	7169	1.5	513.121	GKS14-4M □□□112C31	142
	5.0	9777	1.2	6.1	8078	1.4	578.164	GKS14-4M □□□112C31	142
	4.7	10531	1.1	5.6	8701	1.3	622.742	GKS14-4M □□□112C31	142
	4.1	11866	1.0	5.0	9803	1.1	701.681	GKS14-4M □□□112C31	142
	3.6	13628	0.8	4.3	11260	1.0	805.901	GKS14-4M □□□112C31	142

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 5.5 \text{ kW}$

n_N	1445 r/min			1750 r/min			i		
	50 Hz			60 Hz					
	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	243	206	2.3	293	170	2.6	5.955	GKS07-3M □□□112C32	134
	223	224	1.2	269	185	1.4	6.485	GKS06-3M □□□112C32	134
	175	285	1.9	211	235	2.2	8.254	GKS07-3M □□□112C32	134
	158	317	2.3	190	261	2.6	9.171	GKS07-3M □□□112C32	134
	157	317	1.2	190	262	1.4	9.196	GKS06-3M □□□112C32	134
	143	350	2.3	172	289	2.6	10.124	GKS07-3M □□□112C32	134
	142	350	1.2	172	289	1.4	10.147	GKS06-3M □□□112C32	134
	127	393	1.6	153	324	1.8	11.378	GKS07-3M □□□112C32	134
	127	393	0.8	153	324	1.0	11.382	GKS06-3M □□□112C32	134
	115	435	1.0	138	360	1.1	12.612	GKS06-3M □□□112C32	134
	114	439	1.9	137	362	2.2	12.711	GKS07-3M □□□112C32	134
	98	511	2.0	118	422	2.3	14.798	GKS07-3M □□□112C32	134
	98	512	1.2	118	423	1.3	14.824	GKS06-3M □□□112C32	134
	90	557	3.2	108	460	3.7	16.122	GKS09-3M □□□112C32	134
	87	576	1.9	105	475	2.1	16.674	GKS07-3M □□□112C32	134
	87	577	1.0	105	476	1.2	16.699	GKS06-3M □□□112C32	134
	84	596	1.7	101	492	1.9	17.270	GKS07-3M □□□112C32	134
	82	605	3.2	100	500	3.7	17.536	GKS09-3M □□□112C32	134
	81	615	0.8	98	508	1.0	17.809	GKS06-3M □□□112C32	134
	71	702	0.9	86	580	1.1	20.329	GKS06-3M □□□112C32	134
	70	708	1.6	85	585	1.8	20.511	GKS07-3M □□□112C32	134
	63	798	1.5	76	659	1.7	23.111	GKS07-3M □□□112C32	134
	57	872	1.4	69	720	1.6	25.244	GKS07-3M □□□112C32	134
	56	886	3.2	68	731	3.7	25.649	GKS09-3M □□□112C32	134
	51	976	1.2	62	806	1.4	28.274	GKS07-3M □□□112C32	134
	49	1009	2.9	60	833	3.3	29.228	GKS09-3M □□□112C32	134
	45	1100	1.1	55	908	1.2	31.858	GKS07-3M □□□112C32	134
	44	1137	2.6	53	939	3.0	32.940	GKS09-3M □□□112C32	134
	41	1215	2.5	50	1003	2.9	35.193	GKS09-3M □□□112C32	134
	40	1245	1.0	48	1028	1.2	36.063	GKS07-3M □□□112C32	134
	36	1369	2.2	44	1131	2.5	39.662	GKS09-3M □□□112C32	134
	35	1412	0.9	43	1166	1.1	40.906	GKS07-3M □□□112C32	134
	34	1490	2.0	40	1230	2.5	43.146	GKS09-3M □□□112C32	134
	33	1525	0.9	40	1259	1.0	44.178	GKS07-3M □□□112C32	134
	30	1679	1.8	36	1386	2.2	48.625	GKS09-3M □□□112C32	134
	25	1991	2.4	30	1644	2.8	57.683	GKS11-3M □□□112C32	134
	25	2018	1.5	30	1666	1.8	58.456	GKS09-3M □□□112C32	134
	22	2244	2.4	27	1853	2.8	64.995	GKS11-3M □□□112C32	134
	22	2274	1.3	27	1878	1.6	65.879	GKS09-3M □□□112C32	134
	20	2447	2.0	25	2021	2.4	70.887	GKS11-3M □□□112C32	134

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 5.5 \text{ kW}$

n_N	1445 r/min			1750 r/min			i		
	50 Hz			60 Hz					
	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	20	2451	1.2	25	2024	1.5	70.982	GKS09-3M □□□112C32	134
	18	2758	2.0	22	2277	2.4	79.873	GKS11-3M □□□112C32	134
	18	2762	1.1	22	2280	1.3	79.996	GKS09-3M □□□112C32	134
	16	3126	2.0	19	2581	2.4	90.551	GKS14-3M □□□112C32	134
	16	3167	1.6	19	2615	1.9	91.737	GKS11-3M □□□112C32	134
	16	3171	1.0	19	2619	1.2	91.860	GKS09-3M □□□112C32	134
	15	3308	2.8	18	2731	3.3	97.467	GKS14-4M □□□112C32	142
	14	3412	0.9	17	2818	1.1	100.551	GKS09-4M □□□112C32	142
	14	3522	2.0	17	2909	2.4	102.029	GKS14-3M □□□112C32	134
	14	3466	1.6	17	2862	2.0	102.119	GKS11-4M □□□112C32	142
	14	3569	1.6	17	2947	1.9	103.365	GKS11-3M □□□112C32	134
	14	3574	0.9	17	2951	1.0	103.524	GKS09-3M □□□112C32	134
	13	3727	2.8	16	3077	3.3	109.822	GKS14-4M □□□112C32	142
	13	3794	1.6	16	3133	2.0	109.896	GKS14-3M □□□112C32	134
	13	3844	1.3	16	3174	1.6	111.335	GKS11-3M □□□112C32	134
	13	3905	1.5	15	3224	1.8	115.063	GKS11-4M □□□112C32	142
	12	4055	2.7	15	3349	3.2	119.493	GKS14-4M □□□112C32	142
	12	4275	1.6	14	3530	2.0	123.826	GKS14-3M □□□112C32	134
	12	4245	1.4	14	3506	1.7	125.095	GKS11-4M □□□112C32	142
	12	4331	1.3	14	3576	1.6	125.448	GKS11-3M □□□112C32	134
	11	4569	2.5	13	3773	3.0	134.640	GKS14-4M □□□112C32	142
	10	4796	1.3	13	3960	1.6	138.913	GKS14-3M □□□112C32	134
	10	4859	1.1	12	4012	1.3	140.732	GKS11-3M □□□112C32	134
	10	4784	1.2	12	3950	1.5	140.952	GKS11-4M □□□112C32	142
	9.4	5201	1.1	11	4294	1.4	153.242	GKS11-4M □□□112C32	142
	9.2	5404	1.3	11	4462	1.6	156.522	GKS14-3M □□□112C32	134
	9.1	5363	2.1	11	4429	2.6	158.039	GKS14-4M □□□112C32	142
	9.1	5475	1.1	11	4520	1.3	158.571	GKS11-3M □□□112C32	134
	8.4	5860	1.0	10	4839	1.2	172.667	GKS11-4M □□□112C32	142
	8.1	6043	1.9	9.8	4990	2.3	178.072	GKS14-4M □□□112C32	142
	7.7	6441	0.9	9.4	5319	1.1	186.572	GKS11-3M □□□112C32	134
	7.7	6441	1.8	9.4	5319	2.2	186.572	GKS14-3M □□□112C32	134
	7.5	6576	1.8	9.0	5430	2.1	193.754	GKS14-4M □□□112C32	142
	7.2	6852	0.9	8.6	5657	1.1	201.890	GKS11-4M □□□112C32	142
	6.9	7258	0.8	8.3	5993	1.0	210.222	GKS11-3M □□□112C32	134
	6.9	7258	1.6	8.3	5993	1.9	210.222	GKS14-3M □□□112C32	134
	6.6	7409	1.5	8.0	6118	1.9	218.315	GKS14-4M □□□112C32	142
	6.4	7817	1.5	7.7	6455	1.8	226.431	GKS14-3M □□□112C32	134
	6.1	8059	1.4	7.4	6654	1.7	237.467	GKS14-4M □□□112C32	142
	5.7	8808	1.3	6.8	7273	1.6	255.133	GKS14-3M □□□112C32	134

GKS helical-bevel gearboxes

Technical data



Selection tables

50 Hz, 60 Hz: $P_N = 5.5$ kW

n_N	1445 r/min			1750 r/min			i		
	50 Hz			60 Hz					
f_N	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	5.4	9081	1.3	6.5	7498	1.5	267.568	GKS14-4M □□□112C32	142
	5.1	9882	1.2	6.1	8159	1.4	286.219	GKS14-3M □□□112C32	134
	4.5	10919	1.0	5.4	9016	1.3	321.729	GKS14-4M □□□112C32	142
	4.5	11134	1.0	5.4	9194	1.3	322.500	GKS14-3M □□□112C32	134
	4.0	12303	0.9	4.8	10159	1.1	362.512	GKS14-4M □□□112C32	142
	3.7	13258	0.9	4.5	10948	1.0	390.671	GKS14-4M □□□112C32	142

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 7.5 \text{ kW}$

n_N	2890 r/min			3500 r/min			i		
	50 Hz			60 Hz					
	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	485	140	2.7	586	116	3.1	5.955	GKS07-3M □□□112C41	134
	446	153	1.4	538	126	1.6	6.485	GKS06-3M □□□112C41	134
	350	194	2.2	423	160	2.5	8.254	GKS07-3M □□□112C41	134
	315	216	2.7	381	178	3.1	9.171	GKS07-3M □□□112C41	134
	314	216	1.4	380	179	1.6	9.196	GKS06-3M □□□112C41	134
	286	238	2.7	345	197	3.1	10.124	GKS07-3M □□□112C41	134
	285	239	1.4	344	197	1.6	10.147	GKS06-3M □□□112C41	134
	254	268	1.8	307	221	2.1	11.378	GKS07-3M □□□112C41	134
	254	268	1.0	307	221	1.1	11.382	GKS06-3M □□□112C41	134
	229	297	1.2	277	245	1.3	12.612	GKS06-3M □□□112C41	134
	227	299	2.2	275	247	2.5	12.711	GKS07-3M □□□112C41	134
	195	348	2.4	236	288	2.7	14.798	GKS07-3M □□□112C41	134
	195	349	1.4	235	288	1.6	14.824	GKS06-3M □□□112C41	134
	173	393	2.2	209	324	2.5	16.674	GKS07-3M □□□112C41	134
	173	393	1.2	209	325	1.4	16.699	GKS06-3M □□□112C41	134
	167	407	2.0	202	336	2.2	17.270	GKS07-3M □□□112C41	134
	162	419	1.0	196	346	1.1	17.809	GKS06-3M □□□112C41	134
	142	479	1.1	172	395	1.3	20.329	GKS06-3M □□□112C41	134
	141	483	1.8	170	399	2.1	20.511	GKS07-3M □□□112C41	134
	126	539	0.9	152	445	1.0	22.902	GKS06-3M □□□112C41	134
	125	544	1.7	151	449	2.0	23.111	GKS07-3M □□□112C41	134
	115	594	1.6	138	491	1.8	25.244	GKS07-3M □□□112C41	134
	111	612	0.9	134	506	1.0	26.017	GKS06-3M □□□112C41	134
	102	666	1.5	123	550	1.6	28.274	GKS07-3M □□□112C41	134
	102	670	0.8	123	553	0.9	28.461	GKS06-3M □□□112C41	134
	91	750	1.3	110	619	1.4	31.858	GKS07-3M □□□112C41	134
	88	775	3.1	106	640	3.5	32.940	GKS09-3M □□□112C41	134
	82	828	2.9	99	684	3.3	35.193	GKS09-3M □□□112C41	134
	80	849	1.2	97	701	1.4	36.063	GKS07-3M □□□112C41	134
	73	934	2.6	88	771	2.9	39.662	GKS09-3M □□□112C41	134
	71	963	1.1	85	795	1.2	40.906	GKS07-3M □□□112C41	134
	67	1016	2.7	81	839	3.1	43.146	GKS09-3M □□□112C41	134
	65	1040	1.1	79	859	1.3	44.178	GKS07-3M □□□112C41	134
	59	1145	2.4	72	945	2.7	48.625	GKS09-3M □□□112C41	134
	57	1185	1.0	69	979	1.1	50.345	GKS07-3M □□□112C41	134
	50	1354	0.9	61	1118	1.0	57.501	GKS07-3M □□□112C41	134
	50	1358	3.1	61	1121	3.6	57.683	GKS11-3M □□□112C41	134
	49	1376	2.0	60	1136	2.3	58.456	GKS09-3M □□□112C41	134
	45	1530	3.1	54	1263	3.6	64.995	GKS11-3M □□□112C41	134
	44	1551	1.8	53	1280	2.0	65.879	GKS09-3M □□□112C41	134

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 7.5 \text{ kW}$

n_N	2890 r/min			3500 r/min			i		
	50 Hz			60 Hz					
	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	41	1669	2.6	49	1378	3.0	70.887	GKS11-3M □□□112C41	134
	41	1671	1.7	49	1380	1.9	70.982	GKS09-3M □□□112C41	134
	36	1880	2.6	44	1552	3.0	79.873	GKS11-3M □□□112C41	134
	36	1883	1.5	44	1555	1.7	79.996	GKS09-3M □□□112C41	134
	32	2132	2.6	39	1760	3.0	90.551	GKS14-3M □□□112C41	134
	32	2159	2.1	38	1783	2.4	91.737	GKS11-3M □□□112C41	134
	32	2162	1.3	38	1785	1.5	91.860	GKS09-3M □□□112C41	134
	29	2327	1.2	35	1921	1.4	100.551	GKS09-4M □□□112C41	142
	28	2402	2.6	34	1983	3.0	102.029	GKS14-3M □□□112C41	134
	28	2363	2.2	34	1951	2.5	102.119	GKS11-4M □□□112C41	142
	28	2433	2.1	34	2009	2.4	103.365	GKS11-3M □□□112C41	134
	28	2437	1.2	34	2012	1.3	103.524	GKS09-3M □□□112C41	134
	26	2587	2.2	32	2136	2.5	109.896	GKS14-3M □□□112C41	134
	26	2621	1.9	31	2164	2.2	111.335	GKS11-3M □□□112C41	134
	26	2624	1.2	31	2167	1.3	111.484	GKS09-3M □□□112C41	134
	26	2622	1.1	31	2165	1.3	113.320	GKS09-4M □□□112C41	142
	25	2662	2.2	30	2198	2.5	115.063	GKS11-4M □□□112C41	142
	23	2852	1.1	28	2355	1.2	123.275	GKS09-4M □□□112C41	142
	23	2915	2.4	28	2407	2.8	123.826	GKS14-3M □□□112C41	134
	23	2895	2.0	28	2390	2.3	125.095	GKS11-4M □□□112C41	142
	23	2953	1.9	28	2438	2.2	125.448	GKS11-3M □□□112C41	134
	23	2958	1.0	28	2442	1.2	125.641	GKS09-3M □□□112C41	134
	21	3270	1.9	25	2700	2.2	138.913	GKS14-3M □□□112C41	134
	21	3215	0.9	25	2654	1.1	138.929	GKS09-4M □□□112C41	142
	21	3313	1.6	25	2735	1.8	140.732	GKS11-3M □□□112C41	134
	21	3262	1.8	25	2693	2.1	140.952	GKS11-4M □□□112C41	142
	19	3494	0.9	23	2885	1.0	151.012	GKS09-4M □□□112C41	142
	19	3546	1.6	23	2928	1.9	153.242	GKS11-4M □□□112C41	142
	19	3684	1.9	22	3042	2.2	156.522	GKS14-3M □□□112C41	134
	18	3657	3.2	22	3020	3.6	158.039	GKS14-4M □□□112C41	142
	18	3733	1.6	22	3082	1.8	158.571	GKS11-3M □□□112C41	134
	17	3995	1.5	20	3299	1.7	172.667	GKS11-4M □□□112C41	142
	16	4120	2.8	20	3402	3.2	178.072	GKS14-4M □□□112C41	142
	16	4392	1.4	19	3626	1.6	186.572	GKS11-3M □□□112C41	134
	16	4392	2.6	19	3626	3.0	186.572	GKS14-3M □□□112C41	134
	15	4483	2.6	18	3702	3.0	193.754	GKS14-4M □□□112C41	142
	14	4672	1.3	17	3857	1.5	201.890	GKS11-4M □□□112C41	142
	14	4949	1.2	17	4086	1.4	210.222	GKS11-3M □□□112C41	134
	14	4949	2.3	17	4086	2.7	210.222	GKS14-3M □□□112C41	134
	13	5052	2.3	16	4171	2.6	218.315	GKS14-4M □□□112C41	142

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 7.5 \text{ kW}$

n_N	2890 r/min			3500 r/min			i		
	50 Hz			60 Hz					
	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	13	5330	1.1	15	4401	1.3	226.431	GKS11-3M □□□112C41	134
	13	5330	2.2	15	4401	2.5	226.431	GKS14-3M □□□112C41	134
	13	5264	1.1	15	4346	1.3	227.481	GKS11-4M □□□112C41	142
	12	5495	2.1	15	4537	2.4	237.467	GKS14-4M □□□112C41	142
	12	5741	1.0	14	4740	1.2	248.106	GKS11-4M □□□112C41	142
	11	6006	1.0	14	4959	1.1	255.133	GKS11-3M □□□112C41	134
	11	6006	1.9	14	4959	2.2	255.133	GKS14-3M □□□112C41	134
	11	6191	1.9	13	5112	2.1	267.568	GKS14-4M □□□112C41	142
	10	6469	0.9	13	5341	1.1	279.556	GKS11-4M □□□112C41	142
	10	6737	0.9	12	5563	1.0	286.219	GKS11-3M □□□112C41	134
	10	6737	1.7	12	5563	2.0	286.219	GKS14-3M □□□112C41	134
	9.0	7445	1.5	11	6147	1.8	321.729	GKS14-4M □□□112C41	142
	9.0	7591	1.5	11	6268	1.8	322.500	GKS14-3M □□□112C41	134
	8.0	8388	1.4	9.6	6926	1.6	362.512	GKS14-4M □□□112C41	142
	7.4	9040	1.3	8.9	7464	1.5	390.671	GKS14-4M □□□112C41	142
	6.6	10186	1.1	7.9	8411	1.3	440.193	GKS14-4M □□□112C41	142
	5.6	11873	1.0	6.8	9804	1.1	513.121	GKS14-4M □□□112C41	142
	5.0	13378	0.9	6.0	11047	1.0	578.164	GKS14-4M □□□112C41	142


GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 7.5 \text{ kW}$

n_N	1455 r/min			1760 r/min			i	GKS07-3M □□□132C22		
	50 Hz			60 Hz						
	f_N	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]				c
		244	278	1.7	295	230	1.9	5.955	GKS07-3M □□□132C22	134
		176	386	1.4	213	319	1.6	8.254	GKS07-3M □□□132C22	134
		159	429	1.7	191	354	1.9	9.171	GKS07-3M □□□132C22	134
		144	473	1.7	173	391	1.9	10.124	GKS07-3M □□□132C22	134
		128	532	1.2	154	440	1.3	11.378	GKS07-3M □□□132C22	134
		119	574	2.8	143	475	3.2	12.283	GKS09-3M □□□132C22	134
		115	594	1.4	138	491	1.6	12.711	GKS07-3M □□□132C22	134
		109	625	2.8	131	516	3.2	13.360	GKS09-3M □□□132C22	134
		98	692	1.5	119	572	1.7	14.798	GKS07-3M □□□132C22	134
		90	754	2.4	109	623	2.7	16.122	GKS09-3M □□□132C22	134
		87	780	1.4	105	645	1.6	16.674	GKS07-3M □□□132C22	134
		84	807	1.2	102	668	1.4	17.270	GKS07-3M □□□132C22	134
		83	820	2.4	100	678	2.7	17.536	GKS09-3M □□□132C22	134
		75	914	2.8	90	755	3.2	19.541	GKS09-3M □□□132C22	134
		71	959	1.2	86	793	1.3	20.511	GKS07-3M □□□132C22	134
		66	1030	2.6	80	851	3.0	22.022	GKS09-3M □□□132C22	134
		63	1081	1.1	76	893	1.2	23.111	GKS07-3M □□□132C22	134
		58	1180	1.0	70	976	1.1	25.244	GKS07-3M □□□132C22	134
		57	1199	2.4	68	991	2.7	25.649	GKS09-3M □□□132C22	134
		52	1322	0.9	62	1093	1.0	28.274	GKS07-3M □□□132C22	134
		50	1367	2.1	60	1130	2.4	29.228	GKS09-3M □□□132C22	134
		44	1540	1.9	53	1273	2.2	32.940	GKS09-3M □□□132C22	134
		41	1645	1.8	50	1360	2.1	35.193	GKS09-3M □□□132C22	134
		37	1854	1.6	44	1533	1.9	39.662	GKS09-3M □□□132C22	134
		36	1883	3.1	44	1557	3.6	40.272	GKS11-3M □□□132C22	134
		34	2017	1.5	41	1668	1.8	43.146	GKS09-3M □□□132C22	134
		33	2047	2.8	40	1692	3.4	43.783	GKS11-3M □□□132C22	134
		30	2273	1.3	36	1879	1.6	48.625	GKS09-3M □□□132C22	134
		30	2307	2.6	36	1907	3.1	49.333	GKS11-3M □□□132C22	134
		25	2697	2.2	30	2230	2.7	57.683	GKS11-3M □□□132C22	134
		25	2733	1.1	30	2259	1.3	58.456	GKS09-3M □□□132C22	134
		22	3039	2.0	27	2512	2.4	64.995	GKS11-3M □□□132C22	134
		22	3080	1.0	27	2546	1.2	65.879	GKS09-3M □□□132C22	134
		21	3314	1.8	25	2740	2.2	70.887	GKS11-3M □□□132C22	134
		21	3319	0.9	25	2744	1.1	70.982	GKS09-3M □□□132C22	134
		19	3632	3.2	23	3003	3.8	77.681	GKS14-3M □□□132C22	134
		18	3734	1.6	22	3087	2.0	79.873	GKS11-3M □□□132C22	134
		18	3740	0.8	22	3092	1.0	79.996	GKS09-3M □□□132C22	134
		16	4234	2.7	19	3500	3.3	90.551	GKS14-3M □□□132C22	134
		16	4289	1.4	19	3546	1.7	91.737	GKS11-3M □□□132C22	134

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 7.5 \text{ kW}$

n_N	1455 r/min			1760 r/min			i			
	f_N	50 Hz			60 Hz					
		n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]				c
	15	4480	2.2	18	3703	2.7	97.467	GKS14-4M □□□132C22	142	
	14	4770	2.4	17	3944	3.0	102.029	GKS14-3M □□□132C22	134	
	14	4693	1.2	17	3880	1.5	102.119	GKS11-4M □□□132C22	142	
	14	4833	1.3	17	3995	1.5	103.365	GKS11-3M □□□132C22	134	
	13	5047	2.2	16	4173	2.6	109.822	GKS14-4M □□□132C22	142	
	13	5138	2.3	16	4248	2.8	109.896	GKS14-3M □□□132C22	134	
	13	5205	1.1	16	4303	1.4	111.335	GKS11-3M □□□132C22	134	
	13	5288	1.1	15	4372	1.3	115.063	GKS11-4M □□□132C22	142	
	12	5492	2.0	15	4540	2.4	119.493	GKS14-4M □□□132C22	142	
	12	5790	2.0	14	4786	2.4	123.826	GKS14-3M □□□132C22	134	
	12	5749	1.0	14	4753	1.2	125.095	GKS11-4M □□□132C22	142	
	12	5865	1.0	14	4849	1.3	125.448	GKS11-3M □□□132C22	134	
	11	6188	1.8	13	5116	2.2	134.640	GKS14-4M □□□132C22	142	
	11	6495	1.8	13	5369	2.2	138.913	GKS14-3M □□□132C22	134	
	10	6478	0.9	13	5356	1.1	140.952	GKS11-4M □□□132C22	142	
	9.5	7043	0.8	12	5823	1.0	153.242	GKS11-4M □□□132C22	142	
	9.3	7318	1.6	11	6050	1.9	156.522	GKS14-3M □□□132C22	134	
	9.2	7264	1.6	11	6005	1.9	158.039	GKS14-4M □□□132C22	142	
	8.2	8184	1.4	9.9	6766	1.7	178.072	GKS14-4M □□□132C22	142	
	7.8	8723	1.3	9.4	7212	1.6	186.572	GKS14-3M □□□132C22	134	
	7.5	8905	1.3	9.1	7362	1.6	193.754	GKS14-4M □□□132C22	142	
	6.9	9829	1.2	8.4	8126	1.4	210.222	GKS14-3M □□□132C22	134	
	6.7	10034	1.1	8.0	8295	1.4	218.315	GKS14-4M □□□132C22	142	
	6.4	10587	1.1	7.8	8752	1.3	226.431	GKS14-3M □□□132C22	134	
	6.1	10914	1.0	7.4	9023	1.3	237.467	GKS14-4M □□□132C22	142	
	5.7	11929	1.0	6.9	9862	1.2	255.133	GKS14-3M □□□132C22	134	
	5.4	12298	0.9	6.6	10166	1.1	267.568	GKS14-4M □□□132C22	142	
	5.1	13382	0.9	6.1	11063	1.0	286.219	GKS14-3M □□□132C22	134	

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 9.0 \text{ kW}$

n_N	2890 r/min			3500 r/min			i		
	50 Hz			60 Hz					
	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	485	168	2.2	586	139	2.6	5.955	GKS07-3M □□□132C21	134
	350	233	1.9	423	193	2.1	8.254	GKS07-3M □□□132C21	134
	315	259	2.2	381	214	2.6	9.171	GKS07-3M □□□132C21	134
	286	286	2.2	345	236	2.6	10.124	GKS07-3M □□□132C21	134
	254	321	1.5	307	265	1.7	11.378	GKS07-3M □□□132C21	134
	227	359	1.9	275	296	2.1	12.711	GKS07-3M □□□132C21	134
	195	418	2.0	236	345	2.3	14.798	GKS07-3M □□□132C21	134
	179	455	3.2	217	376	3.6	16.122	GKS09-3M □□□132C21	134
	173	471	1.8	209	389	2.1	16.674	GKS07-3M □□□132C21	134
	167	488	1.6	202	403	1.9	17.270	GKS07-3M □□□132C21	134
	165	495	3.2	199	409	3.6	17.536	GKS09-3M □□□132C21	134
	141	579	1.5	170	478	1.7	20.511	GKS07-3M □□□132C21	134
	125	653	1.4	151	539	1.6	23.111	GKS07-3M □□□132C21	134
	115	713	1.3	138	589	1.5	25.244	GKS07-3M □□□132C21	134
	113	725	3.2	136	598	3.6	25.649	GKS09-3M □□□132C21	134
	102	799	1.2	123	659	1.4	28.274	GKS07-3M □□□132C21	134
	99	826	2.8	119	682	3.2	29.228	GKS09-3M □□□132C21	134
	91	900	1.0	110	743	1.2	31.858	GKS07-3M □□□132C21	134
	88	930	2.6	106	768	2.9	32.940	GKS09-3M □□□132C21	134
	82	994	2.4	99	821	2.8	35.193	GKS09-3M □□□132C21	134
	80	1019	1.0	97	841	1.2	36.063	GKS07-3M □□□132C21	134
	73	1120	2.2	88	925	2.4	39.662	GKS09-3M □□□132C21	134
	71	1155	0.9	85	954	1.0	40.906	GKS07-3M □□□132C21	134
	67	1219	2.3	81	1006	2.6	43.146	GKS09-3M □□□132C21	134
	65	1248	1.0	79	1030	1.1	44.178	GKS07-3M □□□132C21	134
	59	1374	2.0	72	1134	2.3	48.625	GKS09-3M □□□132C21	134
	57	1422	0.8	70	1174	0.9	50.345	GKS07-3M □□□132C21	134
	49	1651	1.7	60	1363	1.9	58.456	GKS09-3M □□□132C21	134
	45	1836	3.0	54	1516	3.4	64.995	GKS11-3M □□□132C21	134
	44	1861	1.5	53	1537	1.7	65.879	GKS09-3M □□□132C21	134
	41	2002	2.7	49	1653	3.1	70.887	GKS11-3M □□□132C21	134
	41	2005	1.4	49	1656	1.6	70.982	GKS09-3M □□□132C21	134
	36	2256	2.4	44	1863	2.8	79.873	GKS11-3M □□□132C21	134
	36	2260	1.2	44	1866	1.4	79.996	GKS09-3M □□□132C21	134
	32	2591	2.1	38	2140	2.4	91.737	GKS11-3M □□□132C21	134
	28	2836	1.8	34	2341	2.1	102.119	GKS11-4M □□□132C21	142
	28	2920	1.9	34	2411	2.2	103.365	GKS11-3M □□□132C21	134
	26	3145	1.9	31	2597	2.2	111.335	GKS11-3M □□□132C21	134
	25	3195	1.8	30	2638	2.1	115.063	GKS11-4M □□□132C21	142
	23	3474	1.7	28	2868	1.9	125.095	GKS11-4M □□□132C21	142

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 9.0 \text{ kW}$

n_N	2890 r/min			3500 r/min			i			
	f_N	50 Hz			60 Hz					
		n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]				c
	23	3544	1.7	28	2926	2.0	125.448	GKS11-3M □□□132C21	134	
	22	3739	3.0	26	3087	3.5	134.640	GKS14-4M □□□132C21	142	
	21	3924	3.0	25	3240	3.5	138.913	GKS14-3M □□□132C21	134	
	21	3914	1.5	25	3232	1.7	140.952	GKS11-4M □□□132C21	142	
	19	4255	1.4	23	3513	1.6	153.242	GKS11-4M □□□132C21	142	
	19	4421	2.6	22	3651	3.0	156.522	GKS14-3M □□□132C21	134	
	18	4388	2.6	22	3623	3.0	158.039	GKS14-4M □□□132C21	142	
	17	4794	1.2	20	3959	1.4	172.667	GKS11-4M □□□132C21	142	
	16	4945	2.3	20	4083	2.7	178.072	GKS14-4M □□□132C21	142	
	16	5270	1.1	19	4352	1.3	186.572	GKS11-3M □□□132C21	134	
	16	5270	2.2	19	4352	2.5	186.572	GKS14-3M □□□132C21	134	
	15	5380	2.1	18	4442	2.5	193.754	GKS14-4M □□□132C21	142	
	14	5606	1.1	17	4629	1.2	201.890	GKS11-4M □□□132C21	142	
	14	5938	1.0	17	4903	1.1	210.222	GKS11-3M □□□132C21	134	
	14	5938	1.9	17	4903	2.2	210.222	GKS14-3M □□□132C21	134	
	13	6062	1.9	16	5005	2.2	218.315	GKS14-4M □□□132C21	142	
	13	6396	0.9	15	5281	1.1	226.431	GKS11-3M □□□132C21	134	
	13	6396	1.8	15	5281	2.1	226.431	GKS14-3M □□□132C21	134	
	13	6316	0.9	15	5216	1.1	227.481	GKS11-4M □□□132C21	142	
	12	6594	1.7	15	5445	2.0	237.467	GKS14-4M □□□132C21	142	
	12	6889	0.9	14	5688	1.0	248.106	GKS11-4M □□□132C21	142	
	11	7207	0.8	14	5951	0.9	255.133	GKS11-3M □□□132C21	134	
	11	7207	1.6	14	5951	1.8	255.133	GKS14-3M □□□132C21	134	
	11	7430	1.6	13	6135	1.8	267.568	GKS14-4M □□□132C21	142	
	10	8085	1.4	12	6676	1.7	286.219	GKS14-3M □□□132C21	134	
	9.0	8933	1.3	11	7377	1.5	321.729	GKS14-4M □□□132C21	142	
	9.0	9110	1.3	11	7522	1.5	322.500	GKS14-3M □□□132C21	134	
	8.0	10066	1.1	9.6	8312	1.3	362.512	GKS14-4M □□□132C21	142	
	7.4	10848	1.1	8.9	8957	1.2	390.671	GKS14-4M □□□132C21	142	
	6.6	12223	0.9	7.9	10093	1.1	440.193	GKS14-4M □□□132C21	142	
	5.6	14248	0.8	6.8	11765	0.9	513.121	GKS14-4M □□□132C21	142	

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 9.2 \text{ kW}$

n_N	1450 r/min			1750 r/min			i	GKS model		
	50 Hz			60 Hz						
	f_N	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]				c
		244	343	1.4	294	284	1.6	5.955	GKS07-3M □□□132C32	134
		176	475	1.1	212	394	1.3	8.254	GKS07-3M □□□132C32	134
		158	528	1.4	191	437	1.6	9.171	GKS07-3M □□□132C32	134
		143	583	1.4	173	483	1.6	10.124	GKS07-3M □□□132C32	134
		127	655	0.9	154	543	1.1	11.378	GKS07-3M □□□132C32	134
		118	707	2.3	143	586	2.6	12.283	GKS09-3M □□□132C32	134
		114	732	1.1	138	606	1.3	12.711	GKS07-3M □□□132C32	134
		109	769	2.3	131	637	2.6	13.360	GKS09-3M □□□132C32	134
		98	852	1.2	118	706	1.4	14.798	GKS07-3M □□□132C32	134
		90	928	1.9	109	769	2.2	16.122	GKS09-3M □□□132C32	134
		87	960	1.1	105	795	1.3	16.674	GKS07-3M □□□132C32	134
		84	994	1.0	101	824	1.2	17.270	GKS07-3M □□□132C32	134
		83	1009	1.9	100	836	2.2	17.536	GKS09-3M □□□132C32	134
		74	1125	2.3	90	932	2.6	19.541	GKS09-3M □□□132C32	134
		71	1180	0.9	85	978	1.1	20.511	GKS07-3M □□□132C32	134
		66	1267	2.1	80	1050	2.4	22.022	GKS09-3M □□□132C32	134
		63	1330	0.9	76	1102	1.0	23.111	GKS07-3M □□□132C32	134
		57	1453	0.8	69	1204	0.9	25.244	GKS07-3M □□□132C32	134
		57	1476	1.9	68	1223	2.2	25.649	GKS09-3M □□□132C32	134
		52	1613	3.2	63	1336	3.7	28.021	GKS11-3M □□□132C32	134
		50	1682	1.7	60	1394	2.0	29.228	GKS09-3M □□□132C32	134
		46	1817	3.0	55	1506	3.5	31.573	GKS11-3M □□□132C32	134
		44	1896	1.6	53	1571	1.8	32.940	GKS09-3M □□□132C32	134
		41	2025	1.5	50	1678	1.7	35.193	GKS09-3M □□□132C32	134
		41	2057	2.7	49	1704	3.2	35.741	GKS11-3M □□□132C32	134
		37	2283	1.3	44	1891	1.5	39.662	GKS09-3M □□□132C32	134
		36	2318	2.5	44	1920	2.9	40.272	GKS11-3M □□□132C32	134
		34	2483	1.2	41	2057	1.5	43.146	GKS09-3M □□□132C32	134
		33	2520	2.3	40	2088	2.8	43.783	GKS11-3M □□□132C32	134
		30	2798	1.1	36	2319	1.3	48.625	GKS09-3M □□□132C32	134
		29	2839	2.1	36	2352	2.5	49.333	GKS11-3M □□□132C32	134
		25	3320	1.8	30	2751	2.2	57.683	GKS11-3M □□□132C32	134
		25	3364	0.9	30	2787	1.1	58.456	GKS09-3M □□□132C32	134
		23	3648	3.1	28	3022	3.8	63.382	GKS14-3M □□□132C32	134
		22	3741	1.6	27	3099	1.9	64.995	GKS11-3M □□□132C32	134
		22	3791	0.8	27	3141	1.0	65.879	GKS09-3M □□□132C32	134
		21	3968	2.9	25	3287	3.5	68.942	GKS14-3M □□□132C32	134
		21	4080	1.5	25	3380	1.8	70.887	GKS11-3M □□□132C32	134
		19	4471	2.6	23	3704	3.1	77.681	GKS14-3M □□□132C32	134
		18	4597	1.3	22	3809	1.6	79.873	GKS11-3M □□□132C32	134

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 9.2 \text{ kW}$

n_N	1450 r/min			1750 r/min			i			
	f_N	50 Hz			60 Hz					
		n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]				c
	16	5211	2.2	19	4318	2.7	90.551	GKS14-3M □□□132C32	134	
	16	5280	1.1	19	4374	1.4	91.737	GKS11-3M □□□132C32	134	
	15	5514	1.8	18	4569	2.2	97.467	GKS14-4M □□□132C32	142	
	14	5872	2.0	17	4865	2.4	102.029	GKS14-3M □□□132C32	134	
	14	5777	1.0	17	4787	1.2	102.119	GKS11-4M □□□132C32	142	
	14	5949	1.0	17	4929	1.2	103.365	GKS11-3M □□□132C32	134	
	13	6213	1.8	16	5148	2.1	109.822	GKS14-4M □□□132C32	142	
	13	6325	1.9	16	5240	2.2	109.896	GKS14-3M □□□132C32	134	
	13	6407	0.9	16	5309	1.1	111.335	GKS11-3M □□□132C32	134	
	13	6509	0.9	15	5394	1.1	115.063	GKS11-4M □□□132C32	142	
	12	6760	1.6	15	5601	1.9	119.493	GKS14-4M □□□132C32	142	
	12	7126	1.6	14	5905	2.0	123.826	GKS14-3M □□□132C32	134	
	12	7077	0.8	14	5864	1.0	125.095	GKS11-4M □□□132C32	142	
	12	7220	0.8	14	5982	1.0	125.448	GKS11-3M □□□132C32	134	
	11	7617	1.5	13	6311	1.8	134.640	GKS14-4M □□□132C32	142	
	10	7995	1.5	13	6624	1.8	138.913	GKS14-3M □□□132C32	134	
	9.3	9008	1.3	11	7464	1.6	156.522	GKS14-3M □□□132C32	134	
	9.2	8941	1.3	11	7408	1.6	158.039	GKS14-4M □□□132C32	142	
	8.1	10074	1.1	9.8	8347	1.4	178.072	GKS14-4M □□□132C32	142	
	7.8	10737	1.1	9.4	8897	1.3	186.572	GKS14-3M □□□132C32	134	
	7.5	10961	1.1	9.0	9082	1.3	193.754	GKS14-4M □□□132C32	142	
	6.9	12098	1.0	8.3	10024	1.2	210.222	GKS14-3M □□□132C32	134	
	6.6	12351	0.9	8.0	10233	1.1	218.315	GKS14-4M □□□132C32	142	
	6.4	13031	0.9	7.7	10797	1.1	226.431	GKS14-3M □□□132C32	134	
	6.1	13434	0.9	7.4	11131	1.0	237.467	GKS14-4M □□□132C32	142	

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 11.0 \text{ kW}$

n_N	1460 r/min			1770 r/min			i			
	f_N	50 Hz			60 Hz					
		n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]				c
		245	407	1.2	296	336	1.3	5.955	GKS07-3M □□□160C22	134
		177	564	1.0	213	465	1.1	8.254	GKS07-3M □□□160C22	134
		159	627	1.2	192	517	1.3	9.171	GKS07-3M □□□160C22	134
		144	692	1.2	174	571	1.3	10.124	GKS07-3M □□□160C22	134
		119	839	1.9	143	692	2.2	12.283	GKS09-3M □□□160C22	134
		115	869	1.0	139	717	1.1	12.711	GKS07-3M □□□160C22	134
		109	913	1.9	132	753	2.2	13.360	GKS09-3M □□□160C22	134
		99	1011	1.0	119	834	1.2	14.798	GKS07-3M □□□160C22	134
		92	1085	2.8	111	895	3.3	15.874	GKS11-3M □□□160C22	134
		91	1102	1.6	109	909	1.9	16.122	GKS09-3M □□□160C22	134
		88	1140	0.9	106	940	1.1	16.674	GKS07-3M □□□160C22	134
		85	1180	2.8	102	973	3.3	17.265	GKS11-3M □□□160C22	134
		85	1180	0.8	102	974	1.0	17.270	GKS07-3M □□□160C22	134
		83	1198	1.6	100	988	1.9	17.536	GKS09-3M □□□160C22	134
		75	1335	1.9	90	1102	2.2	19.541	GKS09-3M □□□160C22	134
		66	1505	1.8	80	1241	2.0	22.022	GKS09-3M □□□160C22	134
		57	1750	2.8	69	1444	3.3	25.615	GKS11-3M □□□160C22	134
		57	1753	1.6	69	1446	1.9	25.649	GKS09-3M □□□160C22	134
		52	1915	2.7	63	1580	3.1	28.021	GKS11-3M □□□160C22	134
		50	1997	1.5	60	1648	1.7	29.228	GKS09-3M □□□160C22	134
		46	2158	2.6	56	1780	2.9	31.573	GKS11-3M □□□160C22	134
		44	2251	1.3	53	1857	1.5	32.940	GKS09-3M □□□160C22	134
		42	2405	1.3	50	1984	1.4	35.193	GKS09-3M □□□160C22	134
		41	2443	2.3	49	2015	2.7	35.741	GKS11-3M □□□160C22	134
		37	2710	1.1	44	2236	1.3	39.662	GKS09-3M □□□160C22	134
		36	2752	2.1	44	2270	2.4	40.272	GKS11-3M □□□160C22	134
		34	2949	1.0	41	2432	1.2	43.146	GKS09-3M □□□160C22	134
		33	2992	1.9	40	2468	2.4	43.783	GKS11-3M □□□160C22	134
		30	3323	0.9	36	2741	1.1	48.625	GKS09-3M □□□160C22	134
		30	3371	1.8	36	2781	2.1	49.333	GKS11-3M □□□160C22	134
		26	3844	3.0	31	3171	3.6	56.251	GKS14-3M □□□160C22	134
		25	3942	1.5	31	3252	1.8	57.683	GKS11-3M □□□160C22	134
		23	4331	2.6	28	3573	3.2	63.382	GKS14-3M □□□160C22	134
		23	4442	1.3	27	3664	1.6	64.995	GKS11-3M □□□160C22	134
		21	4711	2.4	26	3886	2.9	68.942	GKS14-3M □□□160C22	134
		21	4844	1.2	25	3996	1.5	70.887	GKS11-3M □□□160C22	134
		19	5309	2.2	23	4379	2.6	77.681	GKS14-3M □□□160C22	134
		18	5458	1.1	22	4502	1.3	79.873	GKS11-3M □□□160C22	134
		16	6188	1.9	19	5104	2.3	90.551	GKS14-3M □□□160C22	134
		15	6548	1.5	18	5401	1.9	97.467	GKS14-4M □□□160C22	142

GKS helical-bevel gearboxes

Technical data



Selection tables

50 Hz, 60 Hz: $P_N = 11.0$ kW

n_N	1460 r/min			1770 r/min			i		
	50 Hz			60 Hz					
f_N	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	14	6973	1.7	17	5751	2.0	102.029	GKS14-3M □□□160C22	134
	13	7378	1.5	16	6085	1.8	109.822	GKS14-4M □□□160C22	142
	13	7510	1.6	16	6195	1.9	109.896	GKS14-3M □□□160C22	134
	12	8027	1.3	15	6621	1.6	119.493	GKS14-4M □□□160C22	142
	12	8462	1.4	14	6980	1.7	123.826	GKS14-3M □□□160C22	134
	11	9045	1.2	13	7461	1.5	134.640	GKS14-4M □□□160C22	142
	9.2	10617	1.1	11	8757	1.3	158.039	GKS14-4M □□□160C22	142
	8.2	11962	1.0	9.9	9867	1.2	178.072	GKS14-4M □□□160C22	142
	7.8	12750	0.9	9.4	10517	1.1	186.572	GKS14-3M □□□160C22	134
	7.5	13016	0.9	9.1	10736	1.1	193.754	GKS14-4M □□□160C22	142
	7.0	14366	0.8	8.4	11850	1.0	210.222	GKS14-3M □□□160C22	134

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 15.0 \text{ kW}$

n_N	1460 r/min			1760 r/min			i		
	50 Hz			60 Hz					
	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	245	555	0.8	296	460	1.0	5.955	GKS07-3M □□□160C32	134
	159	855	0.8	192	709	1.0	9.171	GKS07-3M □□□160C32	134
	144	943	0.8	174	783	1.0	10.124	GKS07-3M □□□160C32	134
	121	1127	2.5	146	935	2.8	12.094	GKS11-3M □□□160C32	134
	119	1145	1.4	143	950	1.6	12.283	GKS09-3M □□□160C32	134
	111	1226	2.5	134	1017	2.8	13.154	GKS11-3M □□□160C32	134
	109	1245	1.4	132	1033	1.6	13.360	GKS09-3M □□□160C32	134
	92	1479	2.1	111	1227	2.4	15.874	GKS11-3M □□□160C32	134
	91	1502	1.2	109	1246	1.4	16.122	GKS09-3M □□□160C32	134
	85	1609	2.1	102	1335	2.4	17.265	GKS11-3M □□□160C32	134
	83	1634	1.2	100	1356	1.4	17.536	GKS09-3M □□□160C32	134
	75	1819	2.5	90	1509	2.8	19.515	GKS11-3M □□□160C32	134
	75	1821	1.4	90	1511	1.6	19.541	GKS09-3M □□□160C32	134
	66	2049	2.4	80	1700	2.7	21.989	GKS11-3M □□□160C32	134
	66	2052	1.3	80	1702	1.5	22.022	GKS09-3M □□□160C32	134
	57	2387	2.1	69	1980	2.4	25.615	GKS11-3M □□□160C32	134
	57	2390	1.2	69	1983	1.4	25.649	GKS09-3M □□□160C32	134
	52	2611	2.0	63	2166	2.3	28.021	GKS11-3M □□□160C32	134
	50	2724	1.1	60	2259	1.2	29.228	GKS09-3M □□□160C32	134
	46	2942	1.9	56	2441	2.1	31.573	GKS11-3M □□□160C32	134
	44	3070	1.0	53	2546	1.1	32.940	GKS09-3M □□□160C32	134
	42	3233	3.1	51	2682	3.5	34.692	GKS14-3M □□□160C32	134
	42	3280	0.9	50	2721	1.1	35.193	GKS09-3M □□□160C32	134
	41	3331	1.7	49	2763	1.9	35.741	GKS11-3M □□□160C32	134
	37	3643	3.0	45	3022	3.4	39.089	GKS14-3M □□□160C32	134
	37	3696	0.8	44	3066	0.9	39.662	GKS09-3M □□□160C32	134
	36	3753	1.6	44	3113	1.8	40.272	GKS11-3M □□□160C32	134
	34	3964	2.7	41	3288	3.3	42.531	GKS14-3M □□□160C32	134
	33	4080	1.4	40	3385	1.7	43.783	GKS11-3M □□□160C32	134
	31	4466	2.5	37	3705	3.0	47.923	GKS14-3M □□□160C32	134
	30	4597	1.3	36	3814	1.6	49.333	GKS11-3M □□□160C32	134
	26	5242	2.2	31	4349	2.6	56.251	GKS14-3M □□□160C32	134
	25	5375	1.1	31	4459	1.3	57.683	GKS11-3M □□□160C32	134
	23	5907	1.9	28	4900	2.3	63.382	GKS14-3M □□□160C32	134
	23	6057	1.0	27	5024	1.2	64.995	GKS11-3M □□□160C32	134
	21	6425	1.8	26	5330	2.1	68.942	GKS14-3M □□□160C32	134
	21	6606	0.9	25	5480	1.1	70.887	GKS11-3M □□□160C32	134
	19	7239	1.6	23	6005	1.9	77.681	GKS14-3M □□□160C32	134
	18	7443	0.8	22	6175	1.0	79.873	GKS11-3M □□□160C32	134
	16	8438	1.4	19	7000	1.6	90.551	GKS14-3M □□□160C32	134

GKS helical-bevel gearboxes

Technical data



Selection tables

50 Hz, 60 Hz: $P_N = 15.0$ kW

n_N	1460 r/min			1760 r/min			i		
	50 Hz			60 Hz					
	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	15	8929	1.1	18	7407	1.4	97.467	GKS14-4M □□□160C32	142
	14	9508	1.2	17	7887	1.5	102.029	GKS14-3M □□□160C32	134
	13	10060	1.1	16	8345	1.3	109.822	GKS14-4M □□□160C32	142
	13	10241	1.2	16	8496	1.4	109.896	GKS14-3M □□□160C32	134
	12	10946	1.0	15	9080	1.2	119.493	GKS14-4M □□□160C32	142
	12	11539	1.0	14	9572	1.2	123.826	GKS14-3M □□□160C32	134
	11	12334	0.9	13	10231	1.1	134.640	GKS14-4M □□□160C32	142

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 18.5 \text{ kW}$

n_N	1470 r/min			1780 r/min			i		
	50 Hz			60 Hz					
	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	122	1381	2.0	146	1140	2.3	12.094	GKS11-3M □□□180C12	134
	120	1402	1.2	144	1158	1.3	12.283	GKS09-3M □□□180C12	134
	112	1502	2.0	135	1240	2.3	13.154	GKS11-3M □□□180C12	134
	110	1525	1.2	133	1259	1.3	13.360	GKS09-3M □□□180C12	134
	93	1812	1.7	112	1496	2.0	15.874	GKS11-3M □□□180C12	134
	91	1840	1.0	110	1520	1.1	16.122	GKS09-3M □□□180C12	134
	88	1900	3.1	106	1569	3.6	16.646	GKS14-3M □□□180C12	134
	85	1971	1.7	103	1628	2.0	17.265	GKS11-3M □□□180C12	134
	84	2002	1.0	101	1653	1.1	17.536	GKS09-3M □□□180C12	134
	80	2090	2.9	97	1726	3.4	18.311	GKS14-3M □□□180C12	134
	75	2228	2.0	91	1840	2.3	19.515	GKS11-3M □□□180C12	134
	75	2231	1.2	91	1842	1.3	19.541	GKS09-3M □□□180C12	134
	67	2510	1.9	81	2073	2.2	21.989	GKS11-3M □□□180C12	134
	67	2514	1.1	80	2076	1.2	22.022	GKS09-3M □□□180C12	134
	60	2819	3.1	72	2328	3.6	24.696	GKS14-3M □□□180C12	134
	57	2924	1.7	69	2415	2.0	25.615	GKS11-3M □□□180C12	134
	57	2928	1.0	69	2418	1.1	25.649	GKS09-3M □□□180C12	134
	54	3101	2.9	65	2561	3.4	27.165	GKS14-3M □□□180C12	134
	53	3199	1.6	63	2642	1.8	28.021	GKS11-3M □□□180C12	134
	50	3336	0.9	61	2755	1.0	29.228	GKS09-3M □□□180C12	134
	48	3494	2.9	58	2886	3.3	30.609	GKS14-3M □□□180C12	134
	47	3604	1.5	56	2976	1.8	31.573	GKS11-3M □□□180C12	134
	42	3960	2.5	51	3270	2.9	34.692	GKS14-3M □□□180C12	134
	41	4080	1.4	50	3369	1.6	35.741	GKS11-3M □□□180C12	134
	38	4462	2.5	45	3685	2.8	39.089	GKS14-3M □□□180C12	134
	37	4597	1.3	44	3797	1.5	40.272	GKS11-3M □□□180C12	134
	35	4855	2.2	42	4010	2.7	42.531	GKS14-3M □□□180C12	134
	34	4998	1.2	40	4128	1.4	43.783	GKS11-3M □□□180C12	134
	31	5471	2.1	37	4518	2.5	47.923	GKS14-3M □□□180C12	134
	30	5632	1.1	36	4651	1.3	49.333	GKS11-3M □□□180C12	134
	26	6421	1.8	32	5303	2.2	56.251	GKS14-3M □□□180C12	134
	26	6585	0.9	31	5438	1.1	57.683	GKS11-3M □□□180C12	134
	23	7235	1.6	28	5975	1.9	63.382	GKS14-3M □□□180C12	134
	23	7419	0.8	27	6127	1.0	64.995	GKS11-3M □□□180C12	134
	21	7870	1.5	26	6499	1.8	68.942	GKS14-3M □□□180C12	134
	19	8868	1.3	23	7323	1.6	77.681	GKS14-3M □□□180C12	134
	16	10337	1.1	20	8536	1.3	90.551	GKS14-3M □□□180C12	134
	15	10937	0.9	18	9032	1.1	97.467	GKS14-4M □□□180C12	142
	14	11647	1.0	17	9618	1.2	102.029	GKS14-3M □□□180C12	134
	13	12323	0.9	16	10177	1.1	109.822	GKS14-4M □□□180C12	142

GKS helical-bevel gearboxes

Technical data



Selection tables

50 Hz, 60 Hz: $P_N = 18.5$ kW

n_N	1470 r/min			1780 r/min			i		
	50 Hz			60 Hz					
f_N	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	13	12545	0.9	16	10360	1.1	109.896	GKS14-3M □□□180C12	134
	12	13409	0.8	15	11073	1.0	119.493	GKS14-4M □□□180C12	142
	12	14135	0.8	14	11673	1.0	123.826	GKS14-3M □□□180C12	134

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 22.0 \text{ kW}$

n_N	1465 r/min			1760 r/min			i			
	f_N	50 Hz			60 Hz					
		n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]				c
		121	1647	1.7	146	1371	1.9	12.094	GKS11-3M □□□180C32	134
		119	1673	1.0	144	1393	1.1	12.283	GKS09-3M □□□180C32	134
		111	1792	1.7	134	1491	1.9	13.154	GKS11-3M □□□180C32	134
		110	1820	1.0	132	1515	1.1	13.360	GKS09-3M □□□180C32	134
		92	2162	1.4	111	1800	1.6	15.874	GKS11-3M □□□180C32	134
		91	2196	0.8	109	1828	0.9	16.122	GKS09-3M □□□180C32	134
		88	2267	2.6	106	1887	3.0	16.646	GKS14-3M □□□180C32	134
		85	2352	1.4	102	1958	1.6	17.265	GKS11-3M □□□180C32	134
		84	2389	0.8	100	1988	0.9	17.536	GKS09-3M □□□180C32	134
		80	2494	2.5	96	2076	2.8	18.311	GKS14-3M □□□180C32	134
		75	2658	1.7	90	2213	1.9	19.515	GKS11-3M □□□180C32	134
		75	2662	1.0	90	2216	1.1	19.541	GKS09-3M □□□180C32	134
		67	2995	1.6	80	2493	1.9	21.989	GKS11-3M □□□180C32	134
		67	3000	0.9	80	2497	1.0	22.022	GKS09-3M □□□180C32	134
		59	3364	2.6	72	2800	3.0	24.696	GKS14-3M □□□180C32	134
		57	3489	1.4	69	2904	1.6	25.615	GKS11-3M □□□180C32	134
		57	3494	0.8	69	2908	0.9	25.649	GKS09-3M □□□180C32	134
		54	3700	2.5	65	3080	2.8	27.165	GKS14-3M □□□180C32	134
		52	3817	1.4	63	3177	1.5	28.021	GKS11-3M □□□180C32	134
		48	4169	2.4	58	3470	2.8	30.609	GKS14-3M □□□180C32	134
		46	4301	1.3	56	3580	1.5	31.573	GKS11-3M □□□180C32	134
		42	4725	2.1	51	3933	2.4	34.692	GKS14-3M □□□180C32	134
		41	4868	1.2	49	4052	1.3	35.741	GKS11-3M □□□180C32	134
		38	5324	2.1	45	4432	2.3	39.089	GKS14-3M □□□180C32	134
		36	5486	1.1	44	4566	1.2	40.272	GKS11-3M □□□180C32	134
		34	5793	1.9	42	4822	2.2	42.531	GKS14-3M □□□180C32	134
		34	5964	1.0	40	4964	1.2	43.783	GKS11-3M □□□180C32	134
		31	6528	1.7	37	5434	2.1	47.923	GKS14-3M □□□180C32	134
		30	6720	0.9	36	5593	1.1	49.333	GKS11-3M □□□180C32	134
		26	7662	1.5	31	6378	1.8	56.251	GKS14-3M □□□180C32	134
		23	8633	1.3	28	7186	1.6	63.382	GKS14-3M □□□180C32	134
		21	9391	1.2	26	7817	1.5	68.942	GKS14-3M □□□180C32	134
		19	10581	1.1	23	8808	1.3	77.681	GKS14-3M □□□180C32	134
		16	12334	0.9	20	10267	1.1	90.551	GKS14-3M □□□180C32	134
		14	13898	0.8	17	11568	1.0	102.029	GKS14-3M □□□180C32	134

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 30.0$ kW

n_N	1465 r/min			1770 r/min			i		
	50 Hz			60 Hz					
	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	121	2246	1.2	146	1859	1.4	12.094	GKS11-3M □□□180C42	134
	111	2443	1.2	134	2022	1.4	13.154	GKS11-3M □□□180C42	134
	92	2948	1.0	111	2440	1.2	15.874	GKS11-3M □□□180C42	134
	88	3092	1.9	106	2559	2.2	16.646	GKS14-3M □□□180C42	134
	85	3207	1.0	102	2654	1.2	17.265	GKS11-3M □□□180C42	134
	80	3401	1.8	96	2815	2.1	18.311	GKS14-3M □□□180C42	134
	75	3625	1.2	90	3000	1.4	19.515	GKS11-3M □□□180C42	134
	67	4084	1.2	80	3380	1.4	21.989	GKS11-3M □□□180C42	134
	59	4587	1.9	72	3797	2.2	24.696	GKS14-3M □□□180C42	134
	57	4758	1.0	69	3938	1.2	25.615	GKS11-3M □□□180C42	134
	54	5046	1.8	65	4176	2.1	27.165	GKS14-3M □□□180C42	134
	52	5205	1.0	63	4308	1.1	28.021	GKS11-3M □□□180C42	134
	48	5685	1.8	58	4706	2.0	30.609	GKS14-3M □□□180C42	134
	46	5865	0.9	56	4854	1.1	31.573	GKS11-3M □□□180C42	134
	42	6444	1.6	51	5333	1.8	34.692	GKS14-3M □□□180C42	134
	41	6639	0.9	49	5495	1.0	35.741	GKS11-3M □□□180C42	134
	38	7261	1.5	45	6009	1.7	39.089	GKS14-3M □□□180C42	134
	34	7900	1.4	42	6539	1.6	42.531	GKS14-3M □□□180C42	134
	31	8901	1.3	37	7368	1.5	47.923	GKS14-3M □□□180C42	134
	26	10448	1.1	31	8648	1.3	56.251	GKS14-3M □□□180C42	134
	23	11773	1.0	28	9744	1.2	63.382	GKS14-3M □□□180C42	134
	21	12806	0.9	26	10599	1.1	68.942	GKS14-3M □□□180C42	134

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 37.0 \text{ kW}$

n_N	1475 r/min			1780 r/min			i		
	50 Hz			60 Hz					
	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	122	2752	1.0	146	2280	1.1	12.094	GKS11-3M □□□225C12	134
	119	2829	1.8	142	2345	2.0	12.435	GKS14-3M □□□225C12	134
	112	2993	1.0	135	2480	1.1	13.154	GKS11-3M □□□225C12	134
	109	3077	1.8	131	2550	2.0	13.525	GKS14-3M □□□225C12	134
	93	3612	0.9	112	2993	1.0	15.874	GKS11-3M □□□225C12	134
	89	3787	1.6	106	3139	1.8	16.646	GKS14-3M □□□225C12	134
	85	3928	0.9	103	3255	1.0	17.265	GKS11-3M □□□225C12	134
	81	4166	1.5	97	3452	1.7	18.311	GKS14-3M □□□225C12	134
	76	4440	1.0	91	3679	1.1	19.515	GKS11-3M □□□225C12	134
	74	4565	1.8	88	3783	2.0	20.065	GKS14-3M □□□225C12	134
	67	5003	1.0	81	4146	1.1	21.989	GKS11-3M □□□225C12	134
	65	5144	1.8	78	4263	2.0	22.609	GKS14-3M □□□225C12	134
	60	5619	1.6	72	4656	1.8	24.696	GKS14-3M □□□225C12	134
	58	5828	0.9	69	4830	1.0	25.615	GKS11-3M □□□225C12	134
	54	6181	1.5	65	5122	1.7	27.165	GKS14-3M □□□225C12	134
	53	6376	0.8	64	5283	0.9	28.021	GKS11-3M □□□225C12	134
	48	6964	1.5	58	5771	1.7	30.609	GKS14-3M □□□225C12	134
	43	7893	1.3	51	6541	1.4	34.692	GKS14-3M □□□225C12	134
	38	8894	1.2	45	7370	1.4	39.089	GKS14-3M □□□225C12	134
	35	9677	1.1	42	8019	1.3	42.531	GKS14-3M □□□225C12	134
	31	10904	1.0	37	9036	1.2	47.923	GKS14-3M □□□225C12	134
	26	12799	0.9	32	10606	1.1	56.251	GKS14-3M □□□225C12	134

GKS helical-bevel gearboxes



Technical data

Selection tables

50 Hz, 60 Hz: $P_N = 45.0 \text{ kW}$

n_N	1480 r/min			1784 r/min			i		
	50 Hz			60 Hz					
	n_2 [r/min]	M_2 [Nm]	c	n_2 [r/min]	M_2 [Nm]	c			
	122	3335	0.8	147	2773	0.9	12.094	GKS11-3M □□□225C22	134
	119	3429	1.5	143	2851	1.7	12.435	GKS14-3M □□□225C22	134
	113	3628	0.8	135	3016	0.9	13.154	GKS11-3M □□□225C22	134
	109	3730	1.5	131	3101	1.7	13.525	GKS14-3M □□□225C22	134
	89	4591	1.3	107	3817	1.5	16.646	GKS14-3M □□□225C22	134
	81	5050	1.2	97	4199	1.4	18.311	GKS14-3M □□□225C22	134
	76	5382	0.8	91	4475	0.9	19.515	GKS11-3M □□□225C22	134
	74	5534	1.5	89	4601	1.7	20.065	GKS14-3M □□□225C22	134
	67	6064	0.8	81	5042	0.9	21.989	GKS11-3M □□□225C22	134
	66	6235	1.5	79	5184	1.7	22.609	GKS14-3M □□□225C22	134
	60	6811	1.3	72	5663	1.5	24.696	GKS14-3M □□□225C22	134
	55	7492	1.2	65	6229	1.4	27.165	GKS14-3M □□□225C22	134
	48	8442	1.2	58	7019	1.4	30.609	GKS14-3M □□□225C22	134
	43	9568	1.0	51	7955	1.2	34.692	GKS14-3M □□□225C22	134
	38	10780	1.0	45	8964	1.2	39.089	GKS14-3M □□□225C22	134
	35	11730	0.9	42	9753	1.1	42.531	GKS14-3M □□□225C22	134
	31	13217	0.9	37	10989	1.0	47.923	GKS14-3M □□□225C22	134

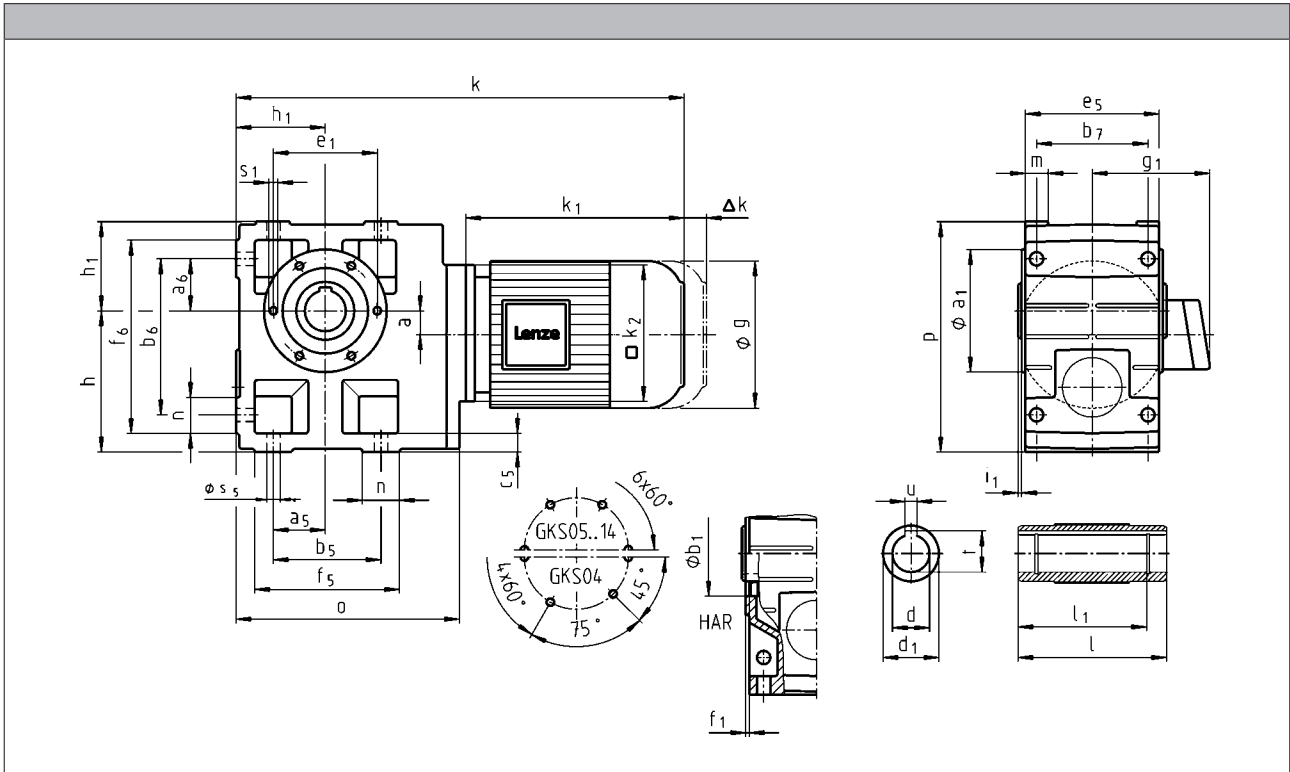
GKS helical-bevel gearboxes



Technical data

Dimensions

GKS□□-3M H□R



		063C11 063C12 063C31 063C32	063C42	071C11 071C13 071C31 071C32 071C33 071C42	080C11 080C13 080C31 080C32 080C33 080C42	090C11 090C31	090C32	100C12 100C31 100C32 100C41
g		123		139	156		176	194
g ₁	MDEMAXX	100		109	150		157	166
	MDEMABR	107		118	132		137	147
k ₁	MDEMAXX	187		207	224.5	274	248	309
k ₂			120		145		180	
Δk	MDEMABR	40		52	73		68	76
	MDFMAXX				128			109
	MDFMABR	170		165	183		181	170
		k						
GKS04		399		419	441	501	475	
GKS05			419	439	461	521	495	556
GKS06			475	495	517	577	551	612
GKS07					573	633	607	668
GKS09						704	678	739
GKS11								830

GKS helical-bevel gearboxes



Technical data

		112C22 112C31	112C32 112C41	132C21 132C22 132C32	160C22	160C32	180C12 180C32	180C42	225C12 225C22
g		218		258	310		348		447
g ₁	MDEMAYX	176		195	210		230		346
	MDEMABR	158		187	210		230		346
k ₁	MDEMAYX	319	363	403	457.5	501.5	561	618	848
k ₂		222		265	300				
Δ k	MDEMABR	90		109.5	105		113		
	MDFMAXX	102		115	149		155		213
	MDFMABR	183		201.5	179		215		213
k									
GKS06		628	672						
GKS07		684	728	776	835	879			
GKS09		755	799	847	906	950	1010		
GKS11		846	890	938	997	1041	1101	1158	1388
GKS14		945	989	1037	1096	1140	1200	1257	1487

	a	h ¹⁾	h ₁	o	p ¹⁾
GKS04	20	100	71	203	171
GKS05	23	125	80	232	205
GKS06	28	150	100	291	250
GKS07	34	190	120	354	310
GKS09	41	236	150	429	386
GKS11	54	300	185	527	485
GKS14	67	375	230	636	605

	d	d ₁	l ¹⁾	l ₁	u	t	i ₁	a ₁	b ₁	e ₁	f ₁	s ₁
	H7				JS9	+0,2			H7			
GKS04	25	45	115	100	8	28.3	2.5	104	75	90	3	M6x12
	30	45	115	100	8	33.3	2.5					
GKS05	30	50	140	124	8	33.3	4	118	80	100	4	M8x15
	35	50	140	124	10	38.3	4					
GKS06	40	65	160	140	12	43.3	5	140	100	120	4	M10x16
	45	65	160	140	14	48.8	5					
GKS07	50	75	200	175	14	53.8	5	165	115	140	5	M12x18
	55	75	200	175	16	59.3	5					
GKS09	60	95	240	210	18	64.4	5	205	145	175	6	M16x24
	70	95	240	210	20	74.9	5					
GKS11	70	108	290	250	20	74.9	6	240	170	205	4	M20x32
	80	108	290	250	22	85.4	6					
GKS14	100	135	350	305	28	106.4	7	290	170	250	6	M24x35

	a ₅	a ₆	b ₅	b ₆	b ₇	c ₅	e ₅	f ₅	f ₆	m	n	s ₅
GKS04	45	45	110	119	85	14	105	132	141	21	22	9
GKS05	47.5	47.5	115	140	105	17	115	144	169	21	29	11
GKS06	60	60	155	170	120	20	145	191	206	23	36	14
GKS07	70	70	190	210	150	25	180	235	255	28	45	18
GKS09	90	90	240	266	185	30	222	300	326	37	60	22
GKS11	105	105	290	325	225	40	270	363	398	43	73	26
GKS14	135	135	360	415	275	50	328	442	497	52	82	33

¹⁾ k₂ !

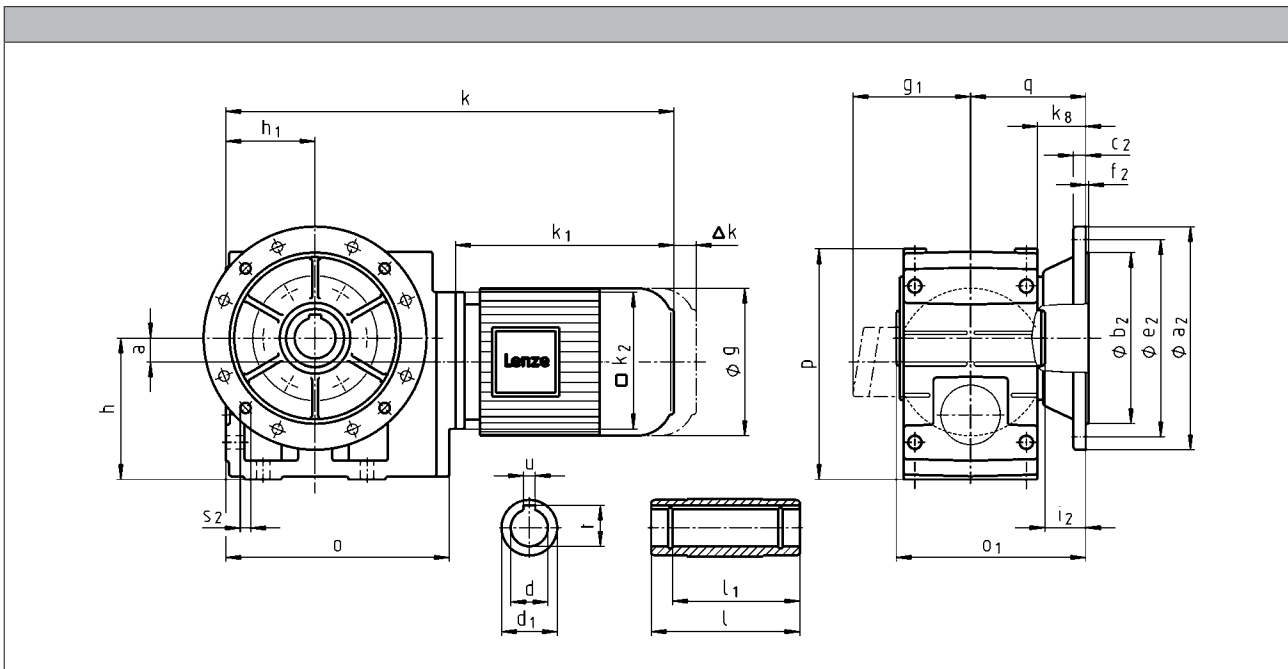
GKS helical-bevel gearboxes

Technical data



Dimensions

GKS□□-3M HAK



		063C11 063C12 063C31 063C32	063C42	071C11 071C13 071C31 071C32 071C33 071C42	080C11 080C13 080C31 080C32 080C33 080C42	090C11 090C31	090C32	100C12 100C31 100C32 100C41	
g		123		139	156	176		194	
g ₁	MDEMAXX	100		109	150	157		166	
	MDEMABR	107		118	132	137		147	
k ₁	MDEMAXX	187		207	224.5	274	248	309	
k ₂			120		145		180		
	MDEMABR	40		52	73	68		76	
Δ k	MDFMAXX			128				109	
	MDFMABR	170		165	183	181		170	
		k							
GKS04		399		419	441	501	475		
GKS05			419	439	461	521	495	556	
GKS06			475	495	517	577	551	612	
GKS07					573	633	607	668	
GKS09						704	678	739	
GKS11								830	

GKS helical-bevel gearboxes



Technical data

		112C22 112C31	112C32 112C41	132C21 132C22 132C32	160C22	160C32	180C12 180C32	180C42	225C12 225C22
g		218		258	310		348		447
g ₁	MDEMAXX	176		195	210		230		346
	MDEMABR	158		187	210		230		346
k ₁	MDEMAXX	319	363	403	457.5	501.5	561	618	848
k ₂		222		265	300				
Δ k	MDEMABR	90		109.5	105		113		
	MDFMAXX	102		115	149		155		213
	MDFMABR	183		201.5	179		215		213
k									
GKS06		628	672						
GKS07		684	728	776	835	879			
GKS09		755	799	847	906	950	1010		
GKS11		846	890	938	997	1041	1101	1158	1388
GKS14		945	989	1037	1096	1140	1200	1257	1487

	a	h ¹⁾	h ₁	k _g	o	p ¹⁾	q
GKS04	20	100	71	38.5	203	171	91
GKS05	23	125	80	40	232	205	103.5
GKS06	28	150	100	49	291	250	121.5
GKS07	34	190	120	65.5	354	310	155.5
GKS09	41	236	150	69.5	429	386	180.5
GKS11	54	300	185	70.5	527	485	205.5
GKS14	67	375	230	71.5	636	605	235.5

	d	d ₁	l	l ₁	u	t	i ₂	o ₁ ¹⁾	a ₂	b ₂	c ₂	e ₂	f ₂	s ₂
	H7				JS9	+0,2				j7				
GKS04	25	45	115	100	8	28.3	33.5	148.5	160	110	10	130	3.5	4 x 9
	30	45	115	100	8	33.3	33.5	148.5						
GKS05	30	50	140	124	8	33.3	33	173.5	200	130	12	165	4	4 x 11
	35	50	140	124	10	38.3	33	173.5						
GKS06	40	65	160	140	12	43.3	42	201.5	200	180	12	165	3.5	4 x 11
	45	65	160	140	14	48.8	41	201.5						
GKS07	50	75	200	175	14	53.8	55	255.5	250	180	15	215	4	4 x 14
	55	75	200	175	16	59.3	55	255.5						
GKS09	60	95	240	210	18	64.4	60	300.5	350	250	18	300	4	4 x 17.5
	70	95	240	210	20	74.9	60	300.5						
GKS11	70	108	290	250	20	74.9	60	350.5	400	300	20	350	5	4 x 17.5
	80	108	290	250	22	85.4	60	350.5						
GKS14	100	135	350	305	28	106.4	60	410.5	450	350	22	400	5	8 x 17.5

¹⁾ k₂ !

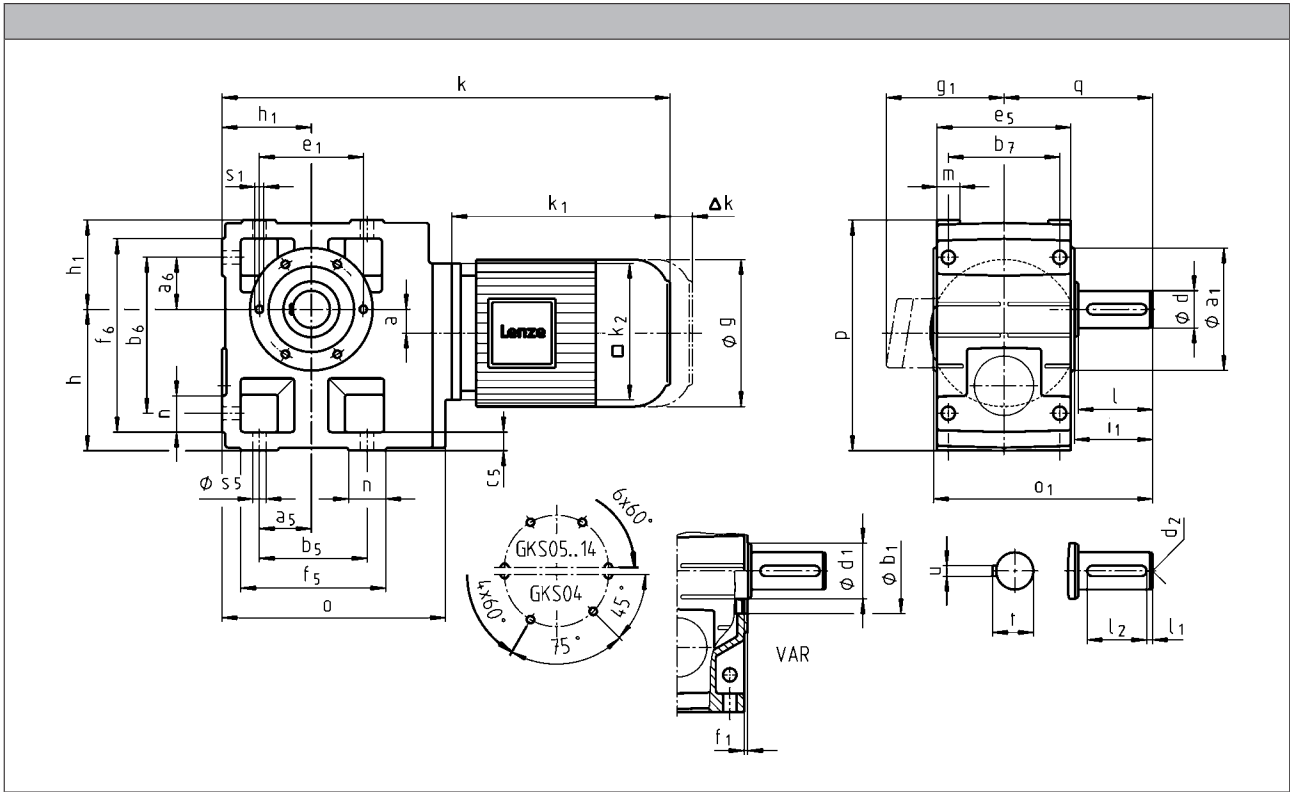
GKS helical-bevel gearboxes



Technical data

Dimensions

GKS□□-3M V□R



		063C11 063C12 063C31 063C32	063C42	071C11 071C13 071C31 071C32 071C33 071C42	080C11 080C13 080C31 080C32 080C33 080C42	090C11 090C31	090C32	100C12 100C31 100C32 100C41
g		123		139	156		176	194
g_1	MDEMAXX	100		109	150		157	166
	MDEMABR	107		118	132		137	147
k_1	MDEMAXX	187		207	224.5	274	248	309
k_2			120		145		180	
Δk	MDEMABR	40		52	73		68	76
	MDFMAXX				128			109
	MDFMABR	170		165	183		181	170
		k						
GKS04		399		419	441	501	475	
GKS05			419	439	461	521	495	556
GKS06			475	495	517	577	551	612
GKS07					573	633	607	668
GKS09						704	678	739
GKS11								830

GKS helical-bevel gearboxes



Technical data

		112C22 112C31	112C32 112C41	132C21 132C22 132C32	160C22	160C32	180C12 180C32	180C42	225C12 225C22
g		218		258	310		348		447
g ₁	MDEMAYX	176		195	210		230		346
	MDEMABR	158		187	210		230		346
k ₁	MDEMAYX	319	363	403	457.5	501.5	561	618	848
k ₂		222		265	300				
Δ k	MDEMABR	90		109.5	105		113		
	MDFMAXX	102		115	149		155		213
	MDFMABR	183		201.5	179		215		213
k									
GKS06		628	672						
GKS07		684	728	776	835	879			
GKS09		755	799	847	906	950	1010		
GKS11		846	890	938	997	1041	1101	1158	1388
GKS14		945	989	1037	1096	1140	1200	1257	1487

	a	h ¹⁾	h ₁	o	p ¹⁾	q
GKS04	20	100	71	203	171	107.5
GKS05	23	125	80	232	205	130
GKS06	28	150	100	291	250	160
GKS07	34	190	120	354	310	200
GKS09	41	236	150	429	386	240
GKS11	54	300	185	527	485	305
GKS14	67	375	230	636	605	375

	d	d	d ₁	d ₂	l	l ₁	l ₂	u	t	i ₁	o ₁ ¹⁾	a ₁	b ₁	e ₁	f ₁	s ₁
	k6	m6											H7			
GKS04	25		45	M10	50	6	40	8	28	52.5	162.5	104	75	90	3	M6x12
GKS05	30		45	M10	60	6	45	8	33	64	196.5	118	80	100	4	M8x15
GKS06	40		65	M16	80	7	63	12	43	85	235.5	140	100	120	4	M10x16
GKS07	50		75	M16	100	8	80	14	53.5	105	295.5	165	115	140	5	M12x18
GKS09		60	95	M20	120	8	100	18	64	125	355.5	205	145	175	6	M16x24
GKS11		80	108	M20	160	15	125	22	85	166	444.5	240	170	205	4	M20x32
GKS14		100	135	M24	200	18	160	28	106	207	543.5	290	170	250	6	M24x35

	a ₅	a ₆	b ₅	b ₆	b ₇	c ₅	e ₅	f ₅	f ₆	m	n	s ₅
GKS04	45	45	110	119	85	14	105	132	141	21	22	9
GKS05	47.5	47.5	115	140	105	17	115	144	169	21	29	11
GKS06	60	60	155	170	120	20	145	191	206	23	36	14
GKS07	70	70	190	210	150	25	180	235	255	28	45	18
GKS09	90	90	240	266	185	30	222	300	326	37	60	22
GKS11	105	105	290	325	225	40	270	363	398	43	73	26
GKS14	135	135	360	415	275	50	328	442	497	52	82	33

¹⁾ k₂ !

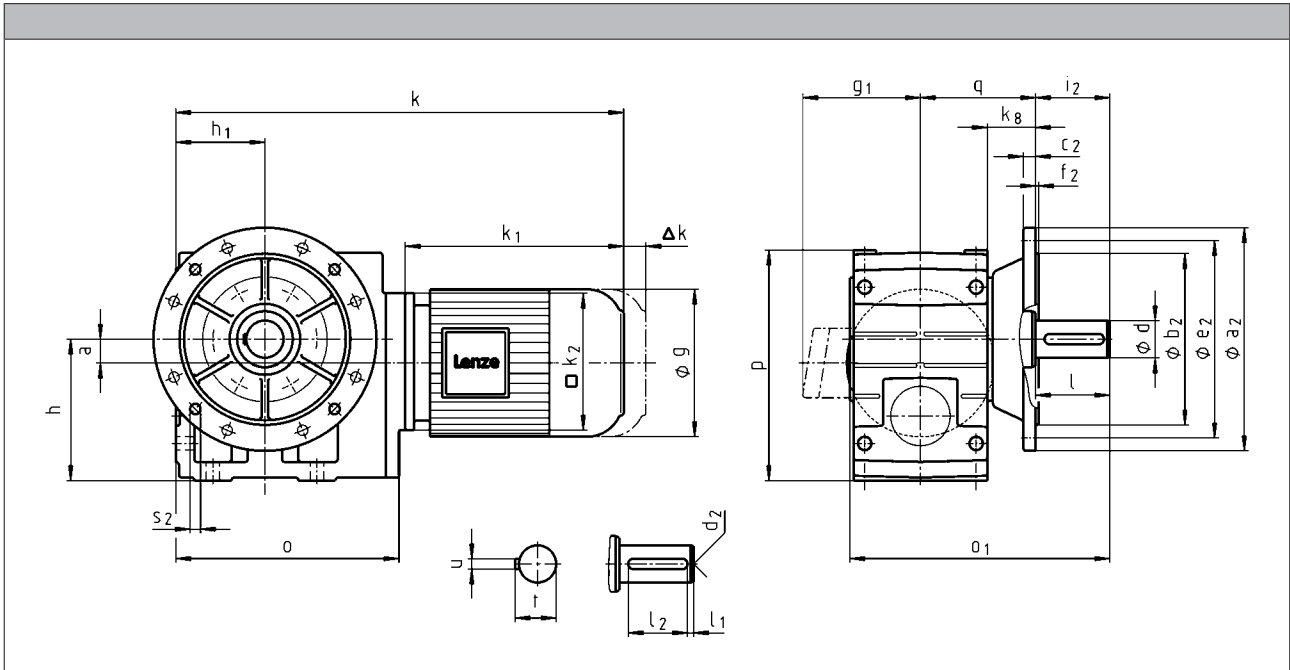
GKS helical-bevel gearboxes



Technical data

Dimensions

GKS□□-3M VAK



		063C11 063C12 063C31 063C32	063C42	071C11 071C13 071C31 071C32 071C33 071C42	080C11 080C13 080C31 080C32 080C33 080C42	090C11 090C31	090C32	100C12 100C31 100C32 100C41
g		123		139	156	176		194
g ₁	MDEMAXX	100		109	150	157		166
	MDEMABR	107		118	132	137		147
k ₁	MDEMAXX	187		207	224.5	274	248	309
k ₂			120		145		180	
	MDEMABR	40		52	73	68		76
Δk	MDFMAXX			128				109
	MDFMABR	170		165	183	181		170
		k						
GKS04		399		419	441	501	475	
GKS05			419	439	461	521	495	556
GKS06			475	495	517	577	551	612
GKS07					573	633	607	668
GKS09						704	678	739
GKS11								830

GKS helical-bevel gearboxes



Technical data

		112C22 112C31	112C32 112C41	132C21 132C22 132C32	160C22	160C32	180C12 180C32	180C42	225C12 225C22
g		218		258	310		348		447
g ₁	MDEMAXX	176		195	210		230		346
	MDEMABR	158		187	210		230		346
k ₁	MDEMAXX	319	363	403	457.5	501.5	561	618	848
k ₂		222		265	300				
Δ k	MDEMABR	90		109.5	105		113		
	MDFMAXX	102		115	149		155		213
	MDFMABR	183		201.5	179		215		213
k									
GKS06		628	672						
GKS07		684	728	776	835	879			
GKS09		755	799	847	906	950	1010		
GKS11		846	890	938	997	1041	1101	1158	1388
GKS14		945	989	1037	1096	1140	1200	1257	1487

	a	h ¹⁾	h ₁	k _g	o	p ¹⁾	q
GKS04	20	100	71	38.5	203	171	91
GKS05	23	125	80	40	232	205	103.5
GKS06	28	150	100	49	291	250	121.5
GKS07	34	190	120	65.5	354	310	155.5
GKS09	41	236	150	69.5	429	386	180.5
GKS11	54	300	185	70.5	527	485	205.5
GKS14	67	375	230	71.5	636	605	235.5

	d	d	d ₂	l	l ₁	l ₂	u	t	i ₂	o ₁ ¹⁾	a ₂	b ₂	c ₂	e ₂	f ₂	s ₂
	k6	m6										j7				
GKS04	25		M10	50	6	40	8	28	50	195.5	160	110	10	130	3.5	4 x 9
GKS05	30		M10	60	6	45	8	33	60	229.5	200	130	12	165	4	4 x 11
GKS06	40		M16	80	7	63	12	43	80	276.5	250	180	15	215	4	4 x 14
GKS07	50		M16	100	8	80	14	53.5	100	350.5	250 300	180 230	15 17	215 265	4 4	4 x 14 4 x 14
GKS09		60	M20	120	8	100	18	64	120	415.5	350	250	18	300	4	4 x 17.5
GKS11		80	M20	160	15	125	22	85	160	504.5	400 450	300 350	20 22	350 400	5 5	4 x 17.5 8 x 17.5
GKS14		100	M24	200	18	160	28	106	200	603.5	450	350	22	400	5	8 x 17.5

¹⁾ k₂ !

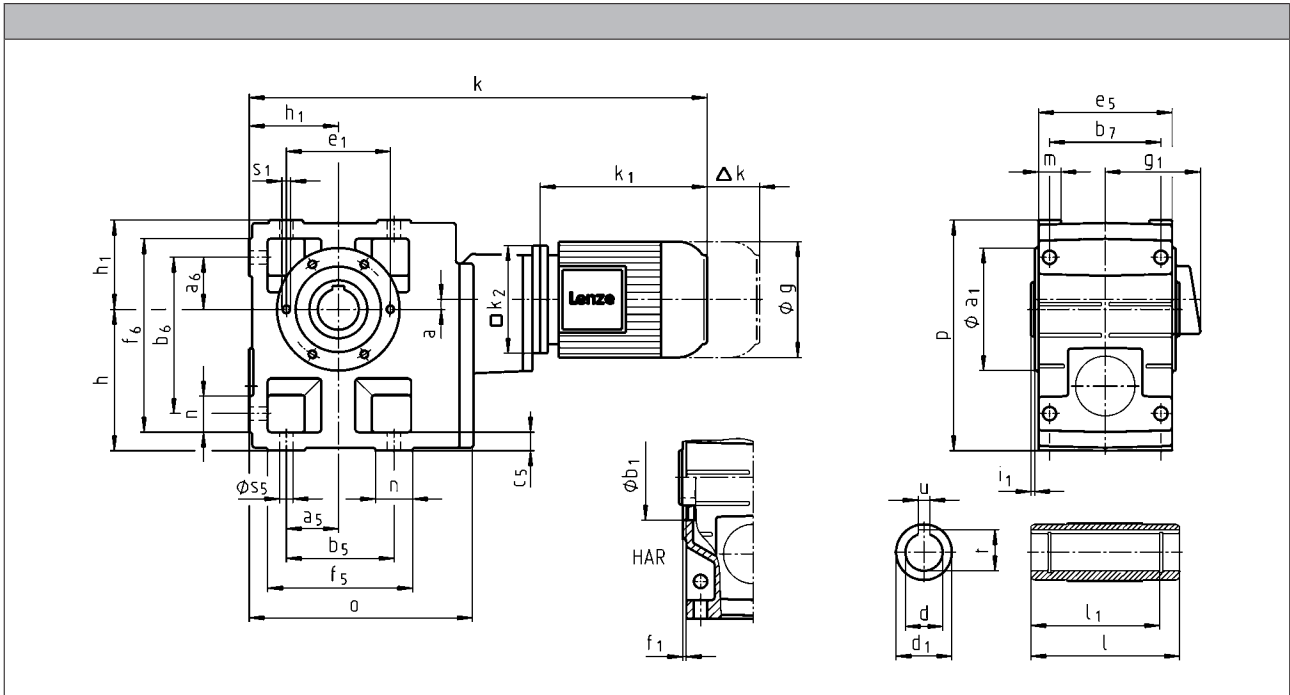
GKS helical-bevel gearboxes

Technical data



Dimensions

GKS□□-4M H□R



		063C11 063C12 063C31 063C32	063C42	071C11 071C13 071C31 071C32 071C33	071C42	080C11	080C13 080C31 080C32 080C33 080C42	090C11 090C31	090C32
g		123		139		156		176	
g_1	MDEMAXX	100		109		150		157	
	MDEMABR	107		118		132		137	
k_1	MDEMAXX	187		207		224.5		274	248
k_2			120			145		180	
	MDEMABR	40		52		73		68	
Δk	MDFMAXX				128				
	MDFMABR	170		165		183		181	
k									
	GKS05	495		515		538			
	GKS06	568		588		611		670	
	GKS07		635	655		678		737	711
	GKS09		724	744		767		826	800
	GKS11					877		936	910
	GKS14							1069	1043

GKS helical-bevel gearboxes



Technical data

		100C12 100C31	100C32	100C41	112C22 112C31	112C32 112C41	132C21 132C22 132C32	160C22	160C32	180C12
g		194			218		258	310		348
g ₁	MDEMAYX	166			176		195	210		230
	MDEMABR	147			158		187	210		230
k ₁	MDEMAYX	309			319	363	403	457.5	501.5	561
k ₂		180			222		265	300		
Δ k	MDEMABR	76			90		109.5	105		113
	MDFMAXX	109			102		115	149		
	MDFMABR	170			183		201.5	179		215
k										
GKS07		772		772						
GKS09			861		877	921				
GKS11			971		987	1031	1079			
GKS14			1104		1120	1164	1212	1272	1316	1375

	a	h	h ₁	o	p
GKS05	13	125	80	226	205
GKS06	8	150	100	288	250
GKS07	11	190	120	350.5	310
GKS09	15	236	150	426	386
GKS11	16	300	185	523	485
GKS14	22	375	230	632	605

	d	d ₁	l	l ₁	u	t	i ₁	a ₁	b ₁	e ₁	f ₁	s ₁
	H7				JS9	+0,2			H7			
GKS05	30	50	140	124	8	33.3	4	118	80	100	4	M8x15
	35	50	140	124	10	38.3	4					
GKS06	40	65	160	140	12	43.3	5	140	100	120	4	M10x16
	45	65	160	140	14	48.8	5					
GKS07	50	75	200	175	14	53.8	5	165	115	140	5	M12x18
	55	75	200	175	16	59.3	5					
GKS09	60	95	240	210	18	64.4	5	205	145	175	6	M16x24
	70	95	240	210	20	74.9	5					
GKS11	70	108	290	250	20	74.9	6	240	170	205	4	M20x32
	80	108	290	250	22	85.4	6					
GKS14	100	135	350	305	28	106.4	7	290	170	250	6	M24x35

	a ₅	a ₆	b ₅	b ₆	b ₇	c ₅	e ₅	f ₅	f ₆	m	n	s ₅
GKS05	47.5	47.5	115	140	105	17	115	144	169	21	29	11
GKS06	60	60	155	170	120	20	145	191	206	23	36	14
GKS07	70	70	190	210	150	25	180	235	255	28	45	18
GKS09	90	90	240	266	185	30	222	300	326	37	60	22
GKS11	105	105	290	325	225	40	270	363	398	43	73	26
GKS14	135	135	360	415	275	50	328	442	497	52	82	33

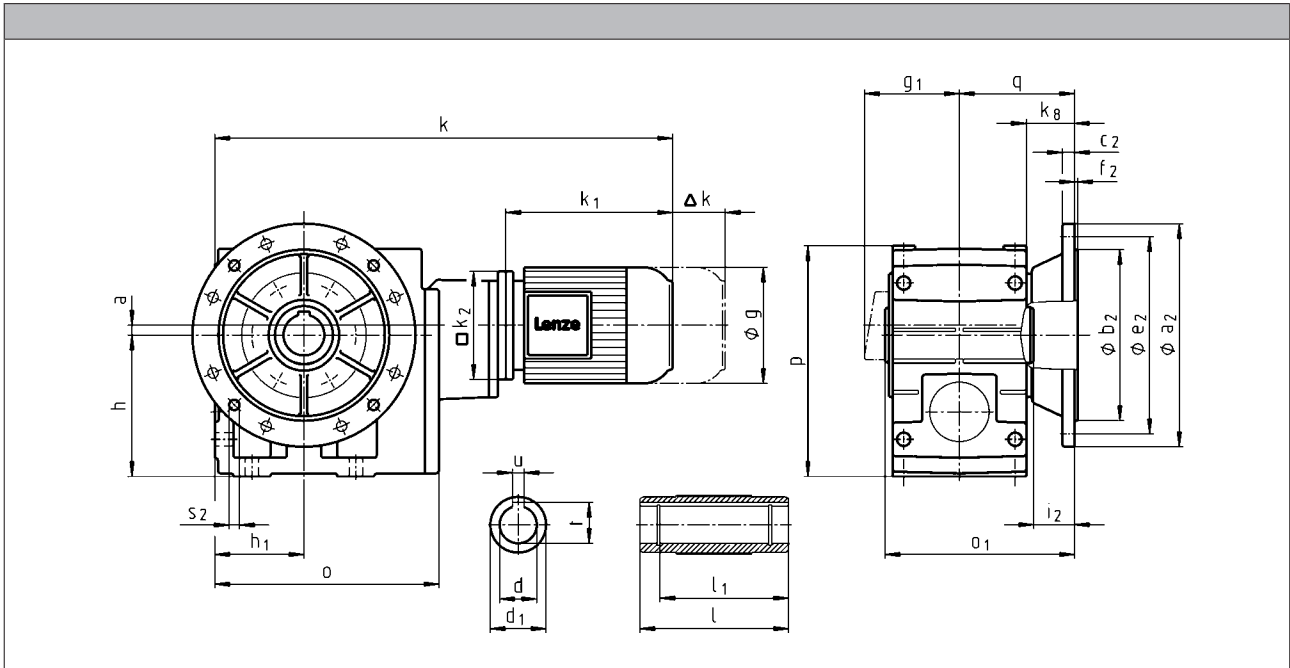
GKS helical-bevel gearboxes



Technical data

Dimensions

GKS□□-4M HAK



		063C11 063C12 063C31 063C32	063C42	071C11 071C13 071C31 071C32 071C33	071C42	080C11	080C13 080C31 080C32 080C33 080C42	090C11 090C31	090C32
g		123		139		156		176	
g ₁	MDEMAXX	100		109		150		157	
	MDEMABR	107		118		132		137	
k ₁	MDEMAXX	187		207		224.5		274	248
k ₂			120			145		180	
Δ k	MDEMABR	40		52		73		68	
	MDFMAXX				128				
	MDFMABR	170		165		183		181	
		k							
GKS05		495		515		538			
GKS06		568			588		611	670	
GKS07			635		655		678	737	711
GKS09			724		744		767	826	800
GKS11						877		936	910
GKS14								1069	1043

GKS helical-bevel gearboxes



Technical data

		100C12 100C31	100C32	100C41	112C22 112C31	112C32 112C41	132C21 132C22 132C32	160C22	160C32	180C12
g		194			218		258	310		348
g ₁	MDEMAXX	166			176		195	210		230
	MDEMABR	147			158		187	210		230
k ₁	MDEMAXX	309			319	363	403	457.5	501.5	561
k ₂		180			222		265	300		
Δ k	MDEMABR	76			90		109.5	105		113
	MDFMAXX	109			102		115	149		
	MDFMABR	170			183		201.5	179		215
k										
GKS07		772		772						
GKS09			861		877	921				
GKS11			971		987	1031	1079			
GKS14			1104		1120	1164	1212	1272	1316	1375

	a	h	h ₁	k _g	o	p	q
GKS05	13	125	80	40	226	205	103.5
GKS06	8	150	100	49	288	250	121.5
GKS07	11	190	120	65.5	350.5	310	155.5
GKS09	15	236	150	69.5	426	386	180.5
GKS11	16	300	185	70.5	523	485	205.5
GKS14	22	375	230	71.5	632	605	235.5

	d	d ₁	l	l ₁	u	t	i ₂	o ₁	a ₂	b ₂	c ₂	e ₂	f ₂	s ₂
	H7				JS9	+0,2				j7				
GKS05	30	50	140	124	8	33.3	33	173.5	200	130	12	165	4	4 x 11
	35	50	140	124	10	38.3	33	173.5						
GKS06	40	65	160	140	12	43.3	42	201.5	200	180	12	165	3.5	4 x 11
	45	65	160	140	14	48.8	41	201.5	250	130	15	215	4	4 x 14
GKS07	50	75	200	175	14	53.8	55	255.5	250	180	15	215	4	4 x 14
	55	75	200	175	16	59.3	55	255.5	300	230	17	265	4	4 x 14
GKS09	60	95	240	210	18	64.4	60	300.5	350	250	18	300	4	4 x 17.5
	70	95	240	210	20	74.9	60	300.5						
GKS11	70	108	290	250	20	74.9	60	350.5	400	300	20	350	5	4 x 17.5
	80	108	290	250	22	85.4	60	350.5	450	350	22	400	5	8 x 17.5
GKS14	100	135	350	305	28	106.4	60	410.5	450	350	22	400	5	8 x 17.5

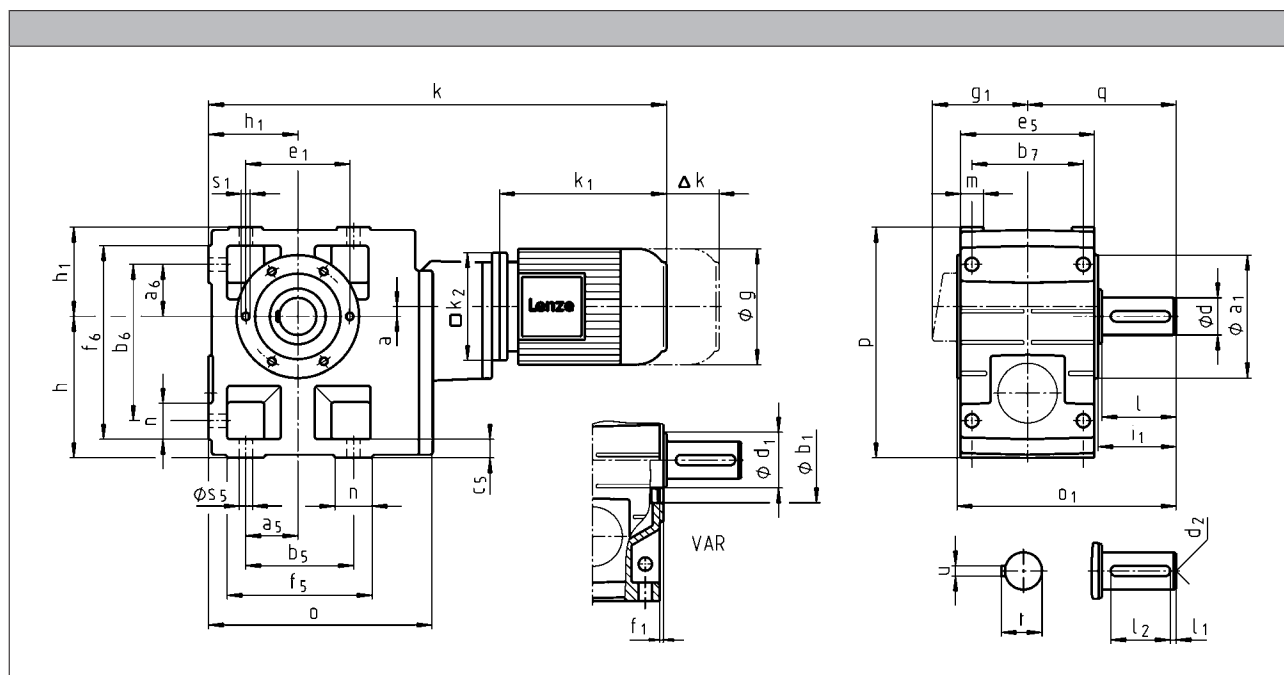
GKS helical-bevel gearboxes

Technical data



Dimensions

GKS□□-4M V□R



		063C11 063C12 063C31 063C32	063C42	071C11 071C13 071C31 071C32 071C33	071C42	080C11	080C13 080C31 080C32 080C33 080C42	090C11 090C31	090C32
g		123		139		156		176	
g_1	MDEMAXX	100		109		150		157	
	MDEMABR	107		118		132		137	
k_1	MDEMAXX	187		207		224.5		274 248	
k_2		120				145		180	
Δk	MDEMABR	40		52		73		68	
	MDFMAXX					128			
	MDFMABR	170		165		183		181	
		k							
GKS05		495		515		538			
GKS06		568		588		611		670	
GKS07		635		655		678		737 711	
GKS09		724		744		767		826 800	
GKS11						877		936 910	
GKS14								1069 1043	

GKS helical-bevel gearboxes



Technical data

		100C12 100C31	100C32	100C41	112C22 112C31	112C32 112C41	132C21 132C22 132C32	160C22	160C32	180C12
g		194			218		258	310		348
g ₁	MDEMAYX	166			176		195	210		230
	MDEMABR	147			158		187	210		230
k ₁	MDEMAYX	309			319	363	403	457.5	501.5	561
k ₂		180			222		265	300		
Δ k	MDEMABR	76			90		109.5	105		113
	MDFMAYX	109			102		115	149		
	MDFMABR	170			183		201.5	179		215
k										
GKS07		772		772						
GKS09			861		877	921				
GKS11			971		987	1031	1079			
GKS14			1104		1120	1164	1212	1272	1316	1375

	a	h	h ₁	o	p	q
GKS05	13	125	80	226	205	130
GKS06	8	150	100	288	250	160
GKS07	11	190	120	350.5	310	200
GKS09	15	236	150	426	386	240
GKS11	16	300	185	523	485	305
GKS14	22	375	230	632	605	375

	d	d	d ₁	d ₂	l	l ₁	l ₂	u	t	i ₁	o ₁	a ₁	b ₁	e ₁	f ₁	s ₁
	k6	m6											H7			
GKS05	30		45	M10	60	6	45	8	33	64	196.5	118	80	100	4	M8x15
GKS06	40		65	M16	80	7	63	12	43	85	235.5	140	100	120	4	M10x16
GKS07	50		75	M16	100	8	80	14	53.5	105	295.5	165	115	140	5	M12x18
GKS09		60	95	M20	120	8	100	18	64	125	355.5	205	145	175	6	M16x24
GKS11		80	108	M20	160	15	125	22	85	166	444.5	240	170	205	4	M20x32
GKS14		100	135	M24	200	18	160	28	106	207	543.5	290	170	250	6	M24x35

	a ₅	a ₆	b ₅	b ₆	b ₇	c ₅	e ₅	f ₅	f ₆	m	n	s ₅
GKS05	47.5	47.5	115	140	105	17	115	144	169	21	29	11
GKS06	60	60	155	170	120	20	145	191	206	23	36	14
GKS07	70	70	190	210	150	25	180	235	255	28	45	18
GKS09	90	90	240	266	185	30	222	300	326	37	60	22
GKS11	105	105	290	325	225	40	270	363	398	43	73	26
GKS14	135	135	360	415	275	50	328	442	497	52	82	33

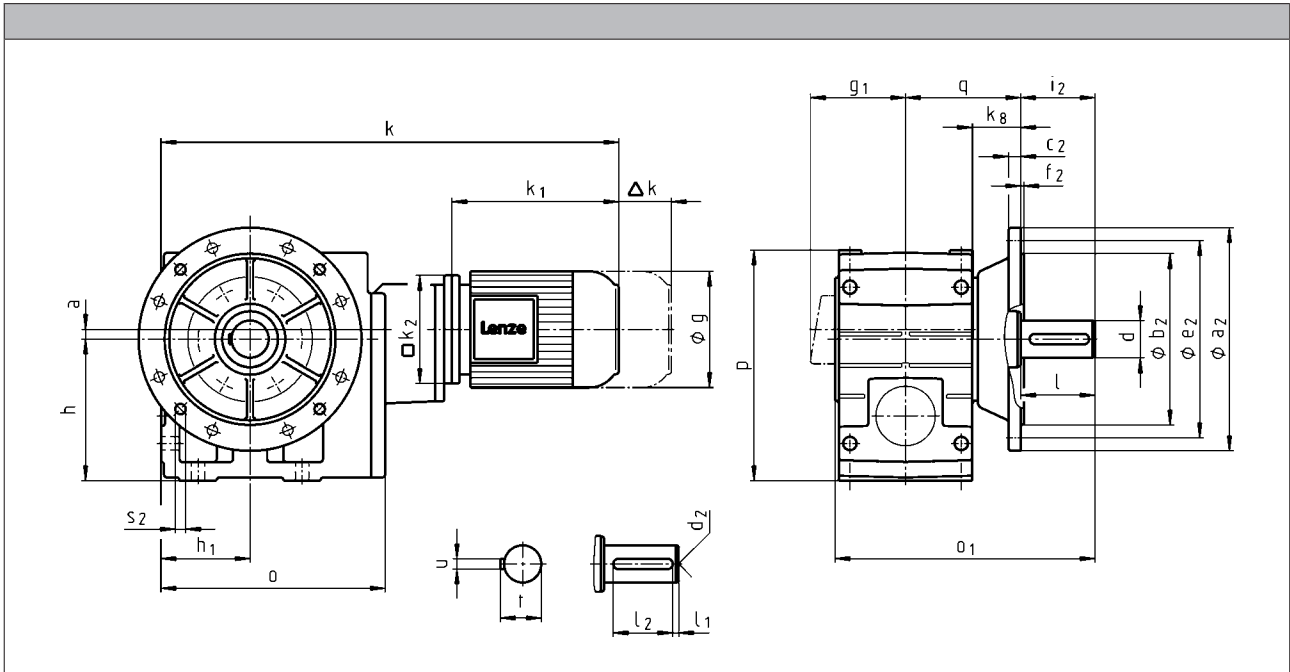
GKS helical-bevel gearboxes

Technical data



Dimensions

GKS□□-4M VAK



		063C11 063C12 063C31 063C32	063C42	071C11 071C13 071C31 071C32 071C33	071C42	080C11	080C13 080C31 080C32 080C33 080C42	090C11 090C31	090C32
g		123		139		156		176	
g_1	MDEMAXX	100		109		150		157	
	MDEMABR	107		118		132		137	
k_1	MDEMAXX	187		207		224.5		274	248
k_2			120			145		180	
Δk	MDEMABR	40		52		73		68	
	MDFMAXX				128				
	MDFMABR	170		165		183		181	
		k							
GKS05		495		515		538			
GKS06		568		588		611		670	
GKS07			635	655		678		737	711
GKS09			724	744		767		826	800
GKS11						877		936	910
GKS14								1069	1043

GKS helical-bevel gearboxes



Technical data

		100C12 100C31	100C32	100C41	112C22 112C31	112C32 112C41	132C21 132C22 132C32	160C22	160C32	180C12
g		194			218		258	310		348
g ₁	MDEMAXX	166			176		195	210		230
	MDEMABR	147			158		187	210		230
k ₁	MDEMAXX	309			319	363	403	457.5	501.5	561
k ₂		180			222		265	300		
Δ k	MDEMABR	76			90		109.5	105		113
	MDFMAXX	109			102		115	149		
	MDFMABR	170			183		201.5	179		215
k										
GKS07		772		772						
GKS09		861			877	921				
GKS11		971			987	1031	1079			
GKS14		1104			1120	1164	1212	1272	1316	1375

	a	h	h ₁	k _g	o	p	q
GKS05	13	125	80	40	226	205	103.5
GKS06	8	150	100	49	288	250	121.5
GKS07	11	190	120	65.5	350.5	310	155.5
GKS09	15	236	150	69.5	426	386	180.5
GKS11	16	300	185	70.5	523	485	205.5
GKS14	22	375	230	71.5	632	605	235.5

	d	d	d ₂	l	l ₁	l ₂	u	t	i ₂	o ₁	a ₂	b ₂	c ₂	e ₂	f ₂	s ₂
	k6	m6										j7				
GKS05	30		M10	60	6	45	8	33	60	229.5	200	130	12	165	4	4 x 11
GKS06	40		M16	80	7	63	12	43	80	276.5	250	180	15	215	4	4 x 14
GKS07	50		M16	100	8	80	14	53.5	100	350.5	250 300	180 230	15 17	215 265	4 4	4 x 14 4 x 14
GKS09		60	M20	120	8	100	18	64	120	415.5	350	250	18	300	4	4 x 17.5
GKS11		80	M20	160	15	125	22	85	160	504.5	400 450	300 350	20 22	350 400	5 5	4 x 17.5 8 x 17.5
GKS14		100	M24	200	18	160	28	106	200	603.5	450	350	22	400	5	8 x 17.5

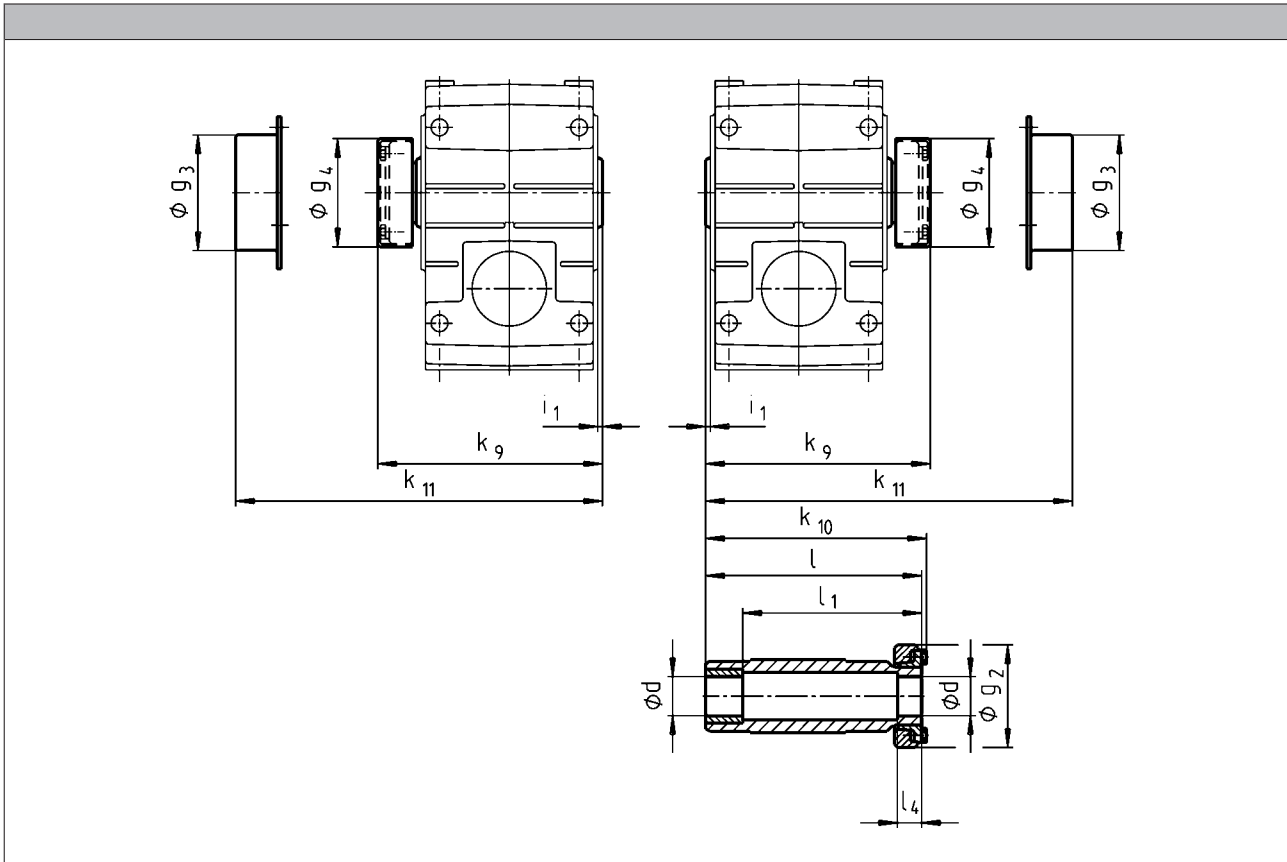
GKS helical-bevel gearboxes

Technical data





Hollow shaft with shrink disc

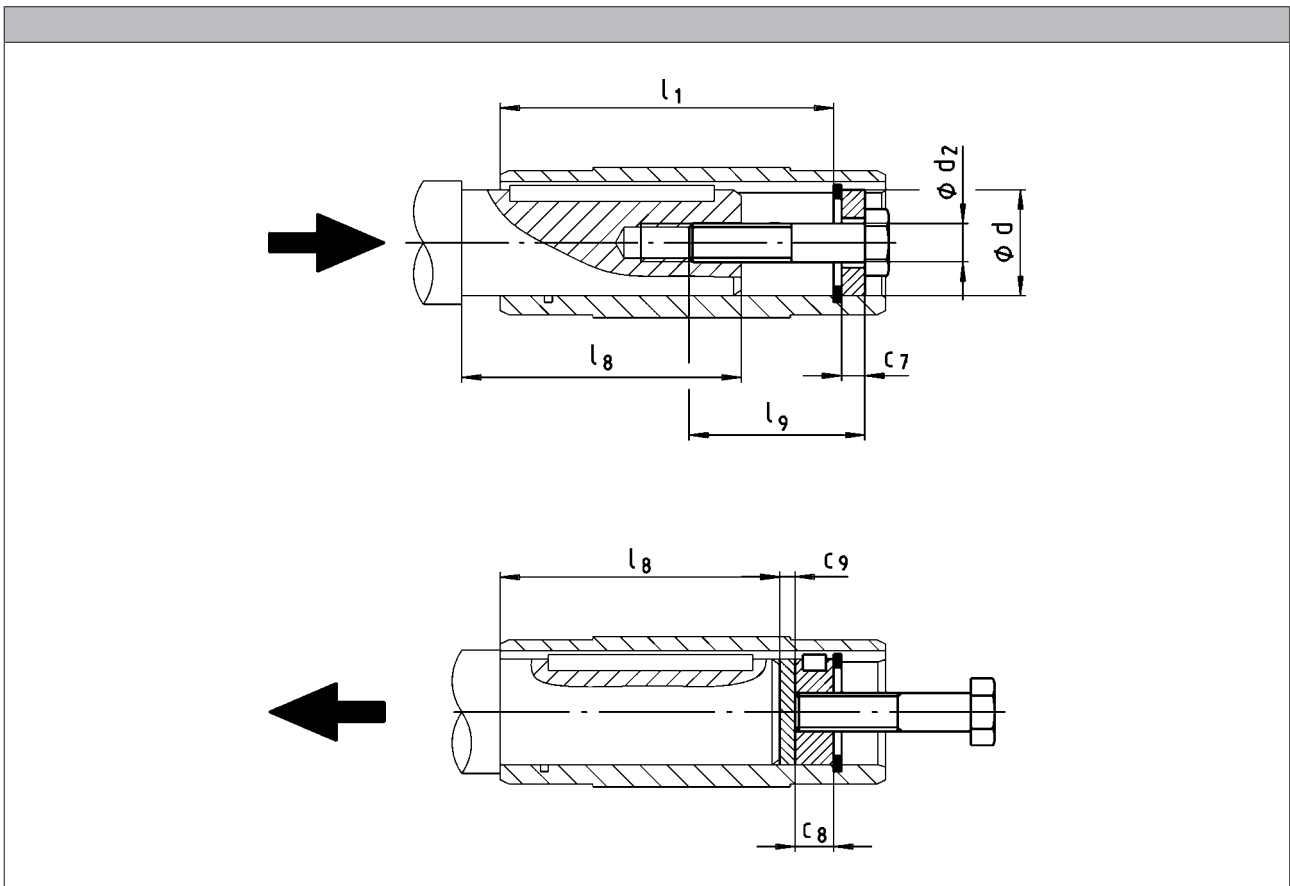


	d	g ₂	g ₃	g ₄	i ₁	k ₉	k ₁₀	k ₁₁	l	l ₁	l ₄
	h6										
GKS04	25 30	72	79	76	2.5	150	148	154	142	122	26
GKS05	35	80	90	84	4.0	176	174	179	168	148	28
GKS06	40	90	100	94	5.0	202	200	204	194	164	30
GKS07	50	110	124	116		241	238	244	232	192	26
GKS09	65	141	159	147		288	285	287	278	228	30
GKS11	80	170	191	176	6.0	347	344	349	338	238	42
GKS14	100	215	253	221	7.0	418	415	421	407	307	55

- ▶ Output flange and hollow shaft with shrink disc (output version SAK) are not possible in the same location. For additional dimensions see output version H□□.
- ▶ Ensure that the strength of the machine shaft material is adequate in shrink disc designs.
When using typical steels, e.g. C45, 42CrMo4, the torques listed in the selection tables can be used without restriction.
Please consult us if you wish to use material that is considerably weaker. Medium surface roughness Rz must not exceed 15 µm (turning is sufficient).



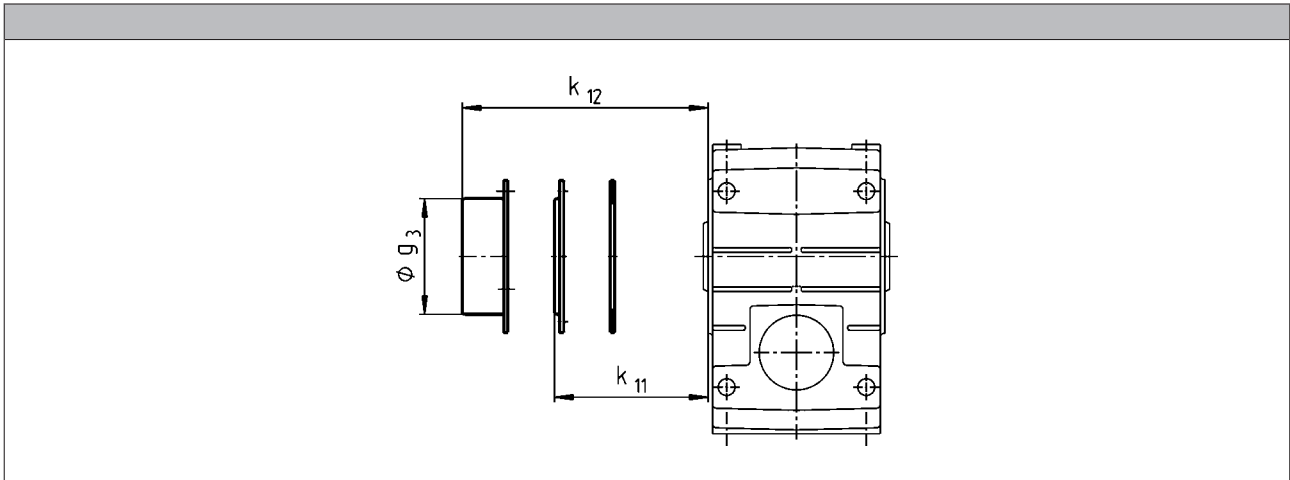
**Mounting set for hollow shaft circlip:
Proposed design for auxiliary tools**



	d	l ₁	d ₂	l ₉	c ₇	c ₈	c ₉	l _{g, max}
	H7							
GKS04	25 30	100	M10	40	5	10	3	85
GKS05	30 35	124			M12			
GKS06	40 45	140	M16	60	8	16	4	118
GKS07	50 55	175			M20			
GKS09	60 70	210	M20	80	11	20	5	148
GKS11	70 80	250			M24			
GKS14	100	305	M24	100	16	20	6	221
					20	24	8	270



Hoseproof hollow shaft cover

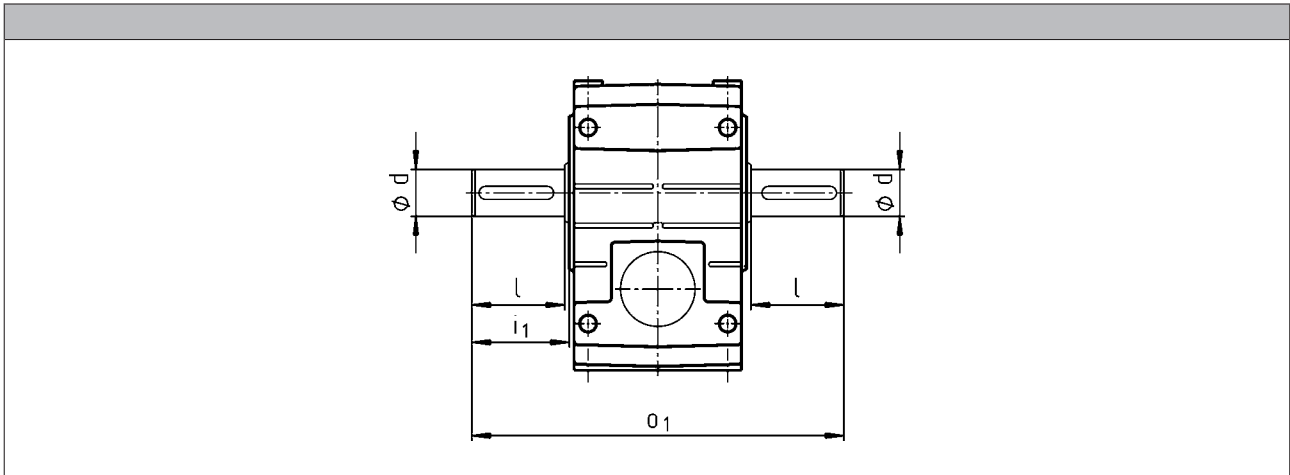


► Cover including gasket

	k_{11}	k_{12}	g_3
GKS04	9		
GKS05	10		
GKS06	11		
GKS07			
GKS09		54	159
GKS11		67	191
GKS14		80	253



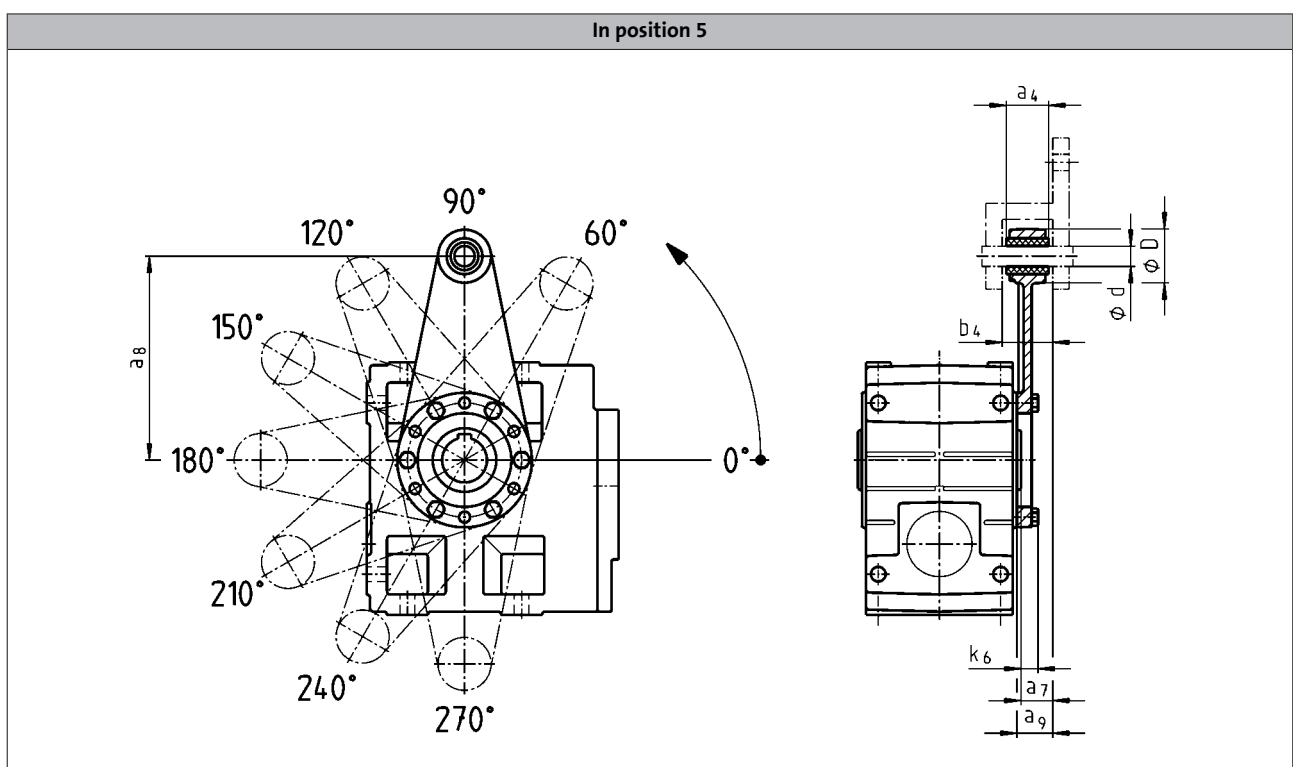
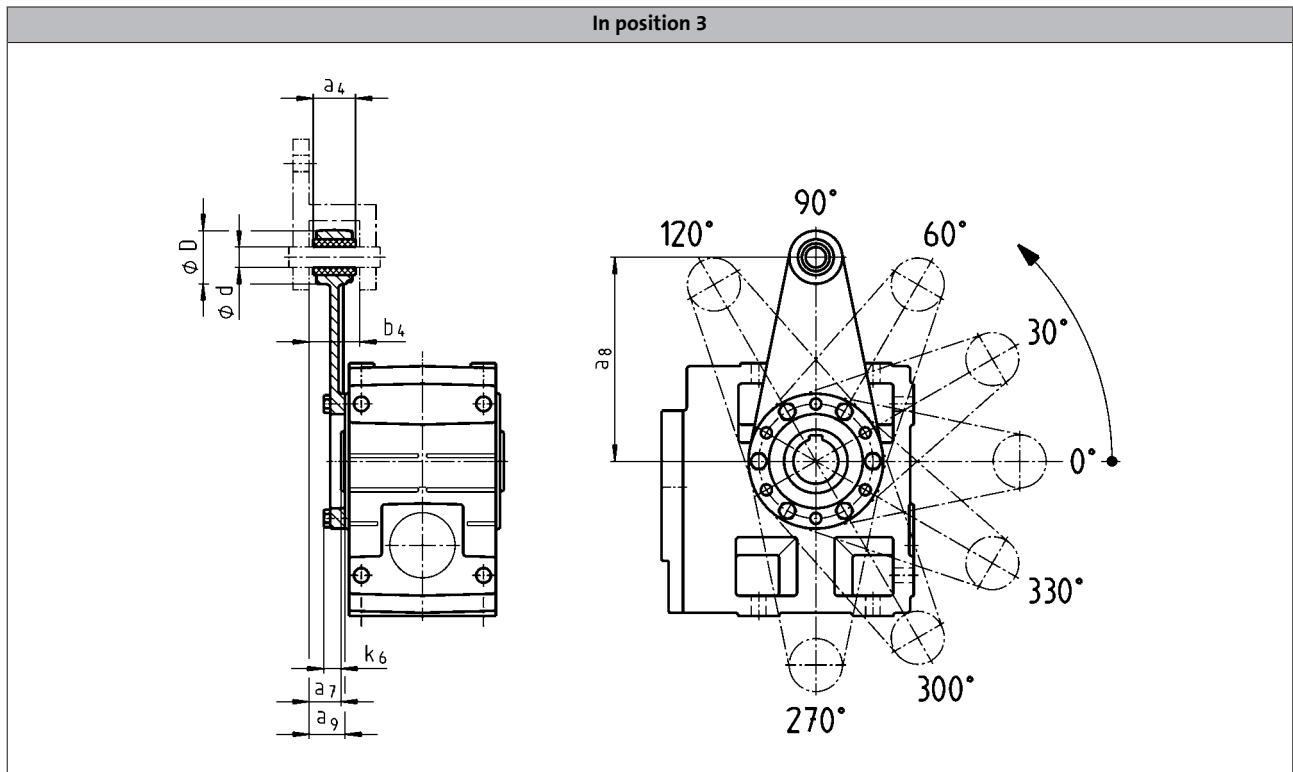
Gearboxes with 2nd output shaft end



	d k6	d m6	l	i ₁	o ₁
GKS04	25		50	52.5	215
GKS05	30		60	64.0	260
GKS06	40		80	85.0	320
GKS07	50		100	105.0	400
GKS09		60	120	125.0	480
GKS11		80	160	166.0	610
GKS14		100	200	207.0	750



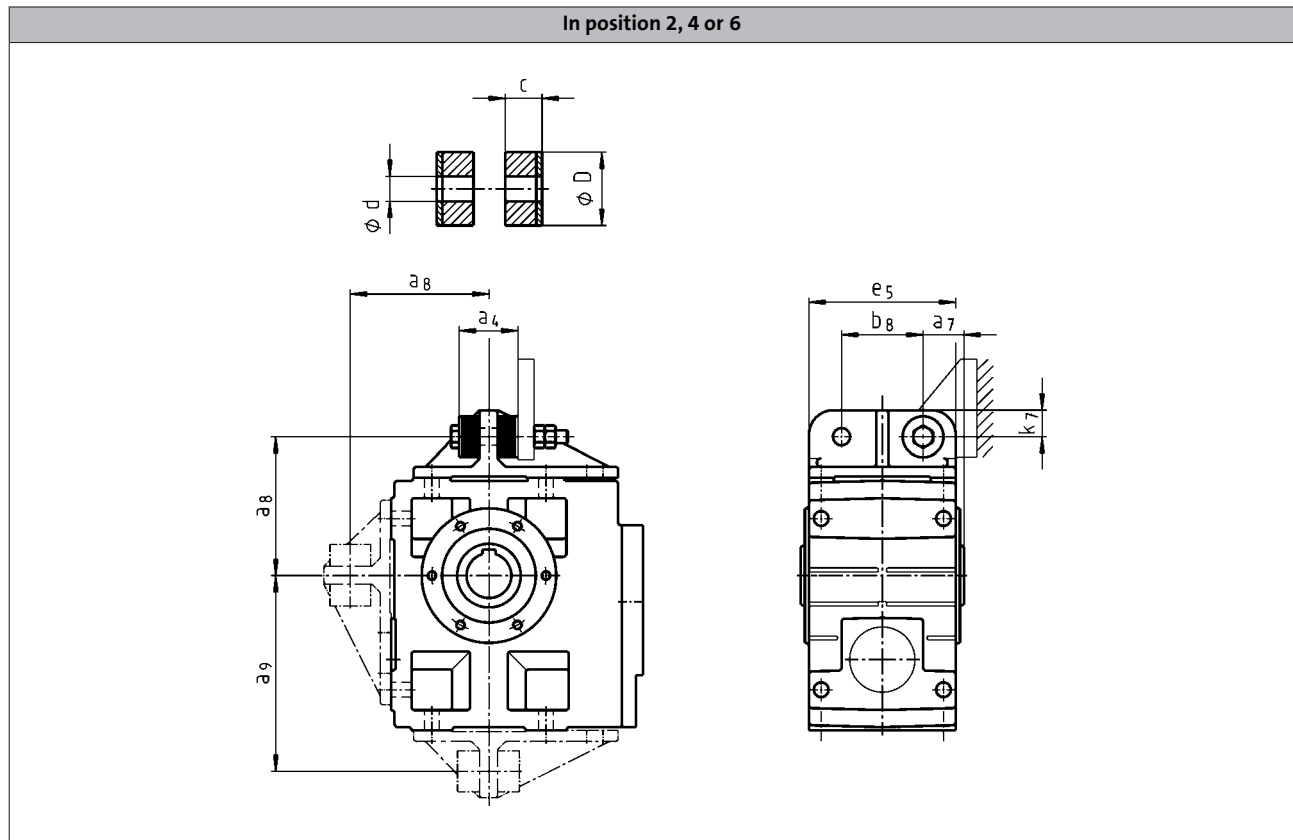
Torque plate on threaded pitch circle



	a ₄	a ₇	a ₈	a ₉	b ₄	d	D	k ₆
GKS04	30	24.0	130	26.5	34.5	12	35	16
GKS05	34	23.5	160	27.5	38.5	16	45	15
GKS06	40	28.0	200	33.0	44.5	20	50	18
GKS07	46	32.5	250	37.5	50.5	25	65	21



Torque plate at housing foot



	a_4	a_7	a_8	a_9	b_8	c	d	D	e_5	k_7
GKS04	41	27.5	106	135.0	60	14.5	11	30	100	20
GKS05	45	35.0	115	160.0	70	15.0	13	40	127	25
GKS06	72	40.0	145	195.0	80	27.0	17	50	145	28
GKS07	78	50.0	170	240.0	100	28.0	21	60	180	35
GKS09	86	60.0	214	300.0	120	29.0	26	72	222	46
GKS11	94	72.5	260	375.0	145	30.0	31	92	270	55
GKS14	100	85.0	320	465.0	180		39	110	328	70

GKS helical-bevel gearboxes

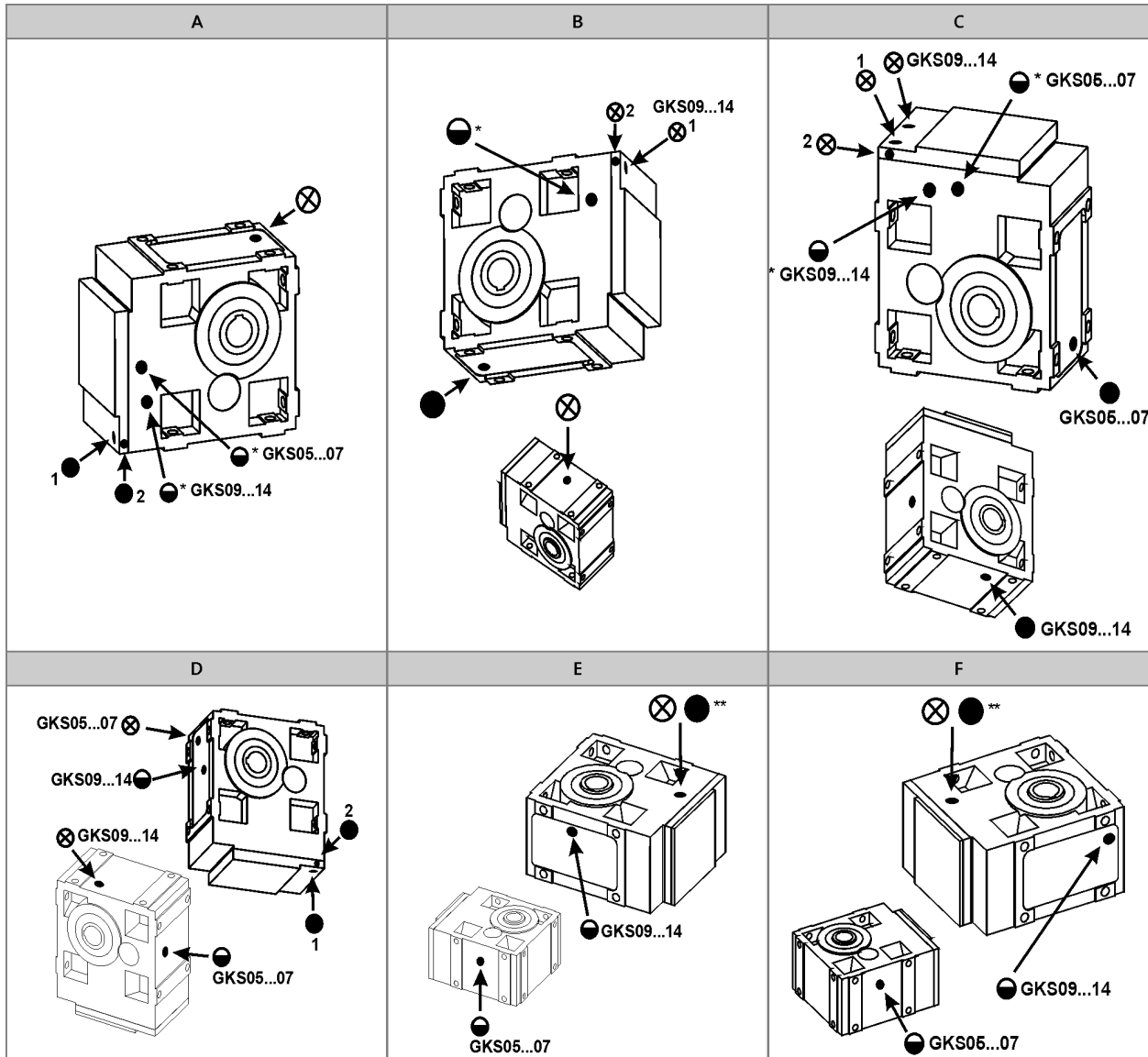
Accessories



Ventilations

Position of ventilation, sealing elements and oil level check

GKS05...14-3



- A to F** Mounting position
 ⊗ Ventilation / Oil filler plug
 ● Oil drain plug
 ○ Oil control plug
 * On both sides
 ** On opposite side

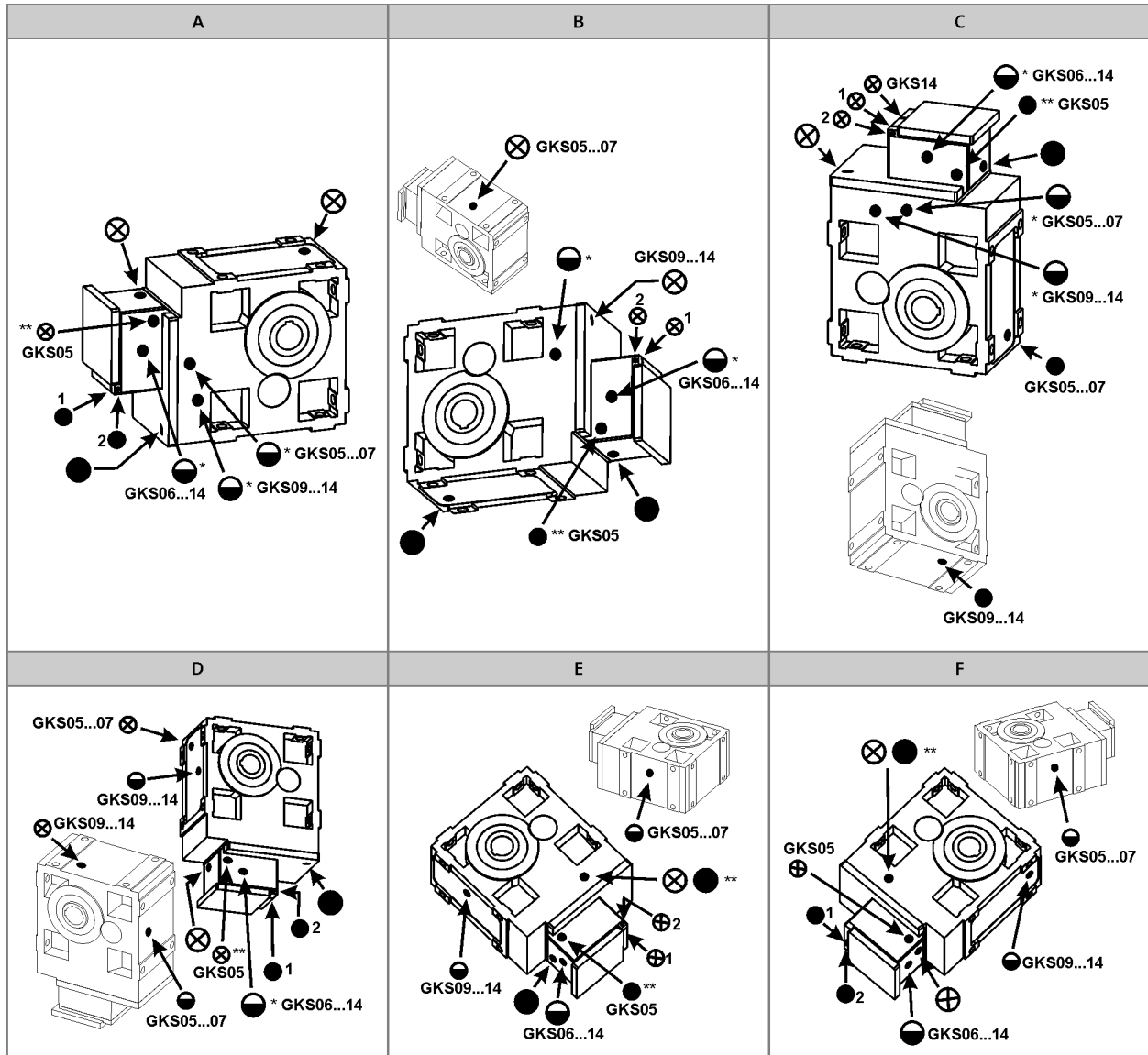
- Item 1 standard
 Item 2 only with:
- GKS05-3M □□□ 090C□□
 - GKS05-3M □□□ 100C□□
 - GKS06-3M □□□ 112C□□
 - GKS07-3M □□□ 160C□□



Ventilations

Position of ventilation, sealing elements and oil level check

GKS05...14-4



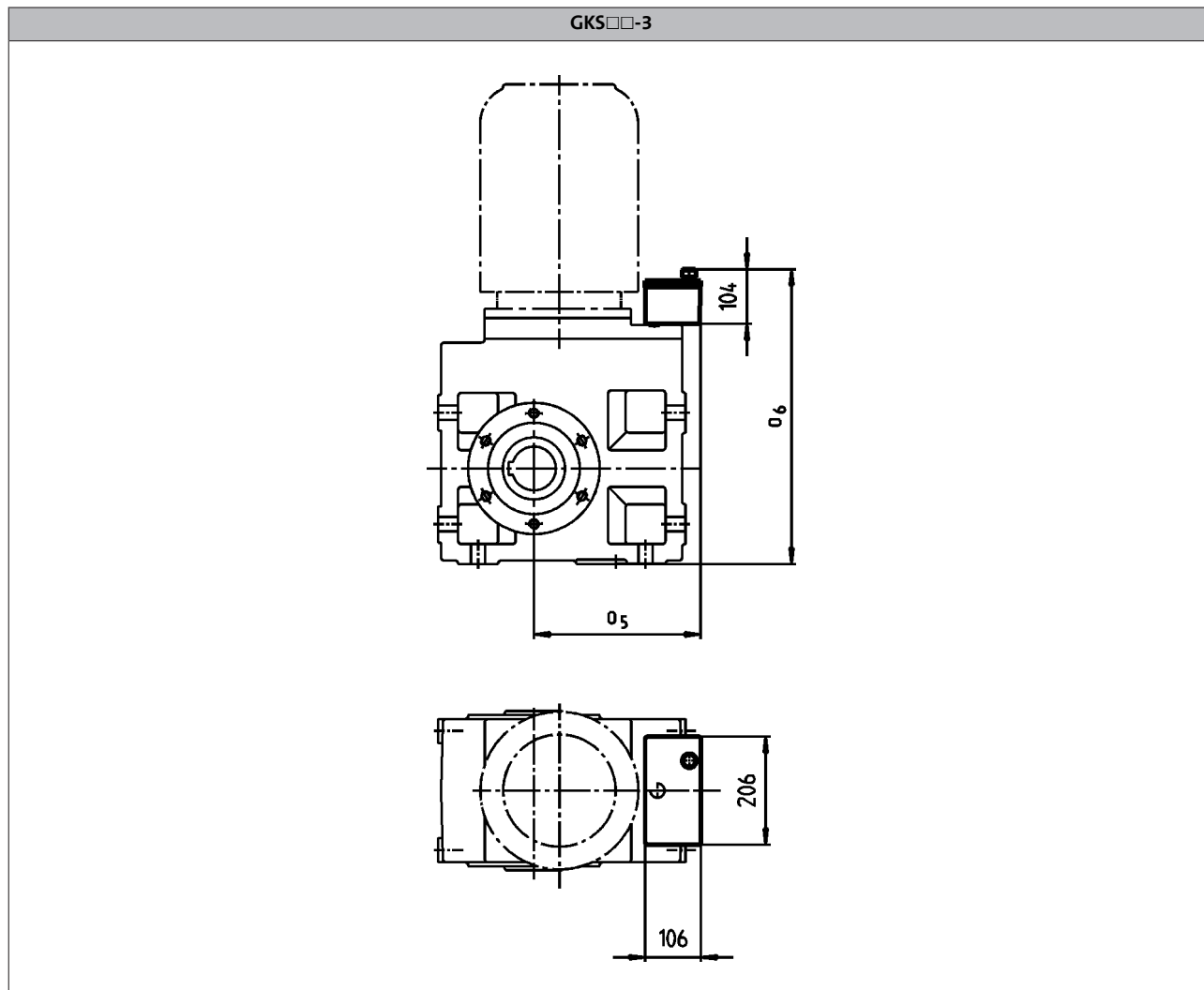
A to F Mounting position
 ⊗ Ventilation / Oil filler plug
 ● Oil drain plug
 ○ Oil control plug
 * On both sides
 ** On opposite side

Item 1 standard
 Item 2 only with:
 • GKS07-4M □□□ 090□□
 • GKS07-4M □□□ 100□□
 • GKS09-4M □□□ 112□□



Ventilations

Compensation reservoir for mounting position C



Motor	090 100	112	132	160 180 225
-------	------------	-----	-----	-------------------

	o ₅ [mm]	o ₆ [mm]	o ₅ [mm]	o ₆ [mm]	o ₅ [mm]	o ₆ [mm]	o ₅ [mm]	o ₆ [mm]
GKS09	243	533	265	533	282	533	297	533
GKS11	258	626	280	630	304	630	318	630
GKS14			313	739	343	739	343	739

► Terminal box position 4 not permitted.

GKS helical-bevel gearboxes

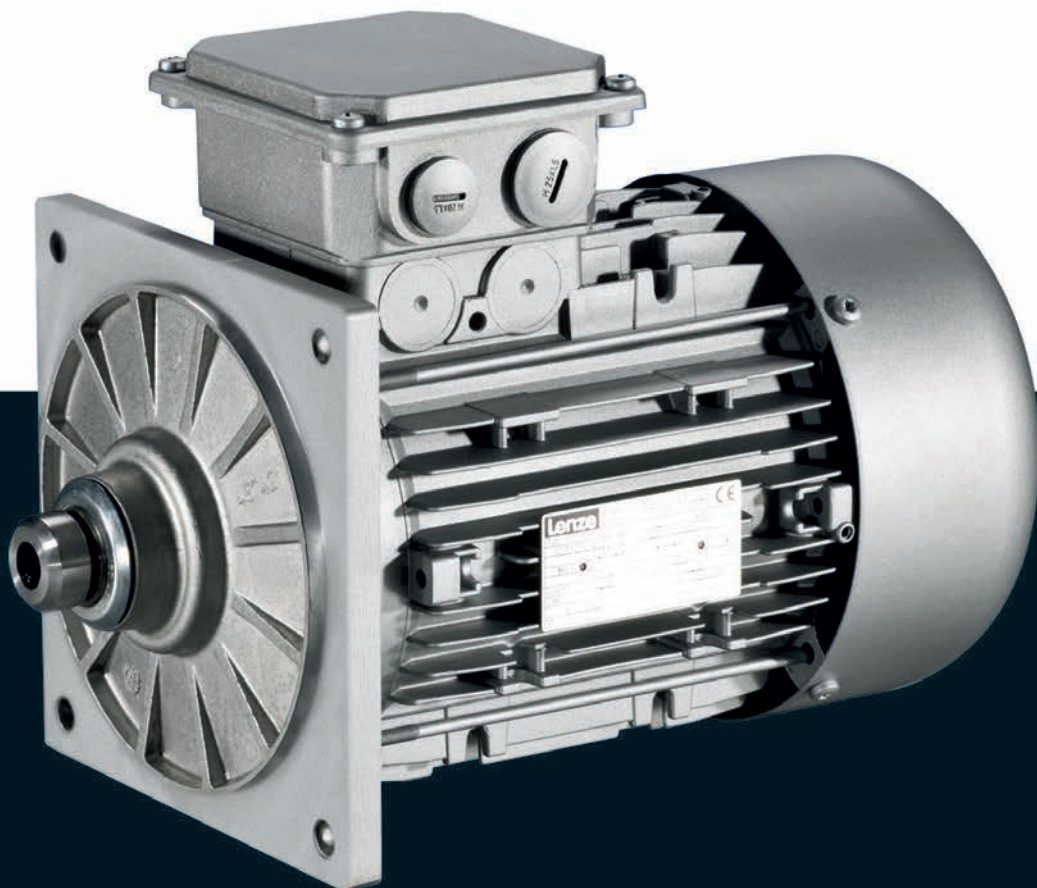
Accessories



Motors

MD three-phase AC motors

0.06 to 45 kW



MD three-phase AC motors

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MD three-phase AC motors

General information



List of abbreviations

$\eta_{100\%}$	[%]	Efficiency
$\eta_{75\%}$	[%]	Efficiency
$\eta_{50\%}$	[%]	Efficiency
$\cos \phi$		Power factor
I_N	[A]	Rated current
I_{max}	[A]	Max. current consumption
J	[kgcm ²]	Moment of inertia
m	[kg]	Mass
M_a	[Nm]	Starting torque
M_b	[Nm]	Stalling torque
M_{max}	[Nm]	Max. torque
M_N	[Nm]	Rated torque
n_N	[r/min]	Rated speed
P_N	[kW]	Rated power
P_{max}	[kW]	Max. power input

U_{max}	[V]	Max. mains voltage
U_{min}	[V]	Min. mains voltage
$U_{N, \Delta}$	[V]	Rated voltage
$U_{N, Y}$	[V]	Rated voltage

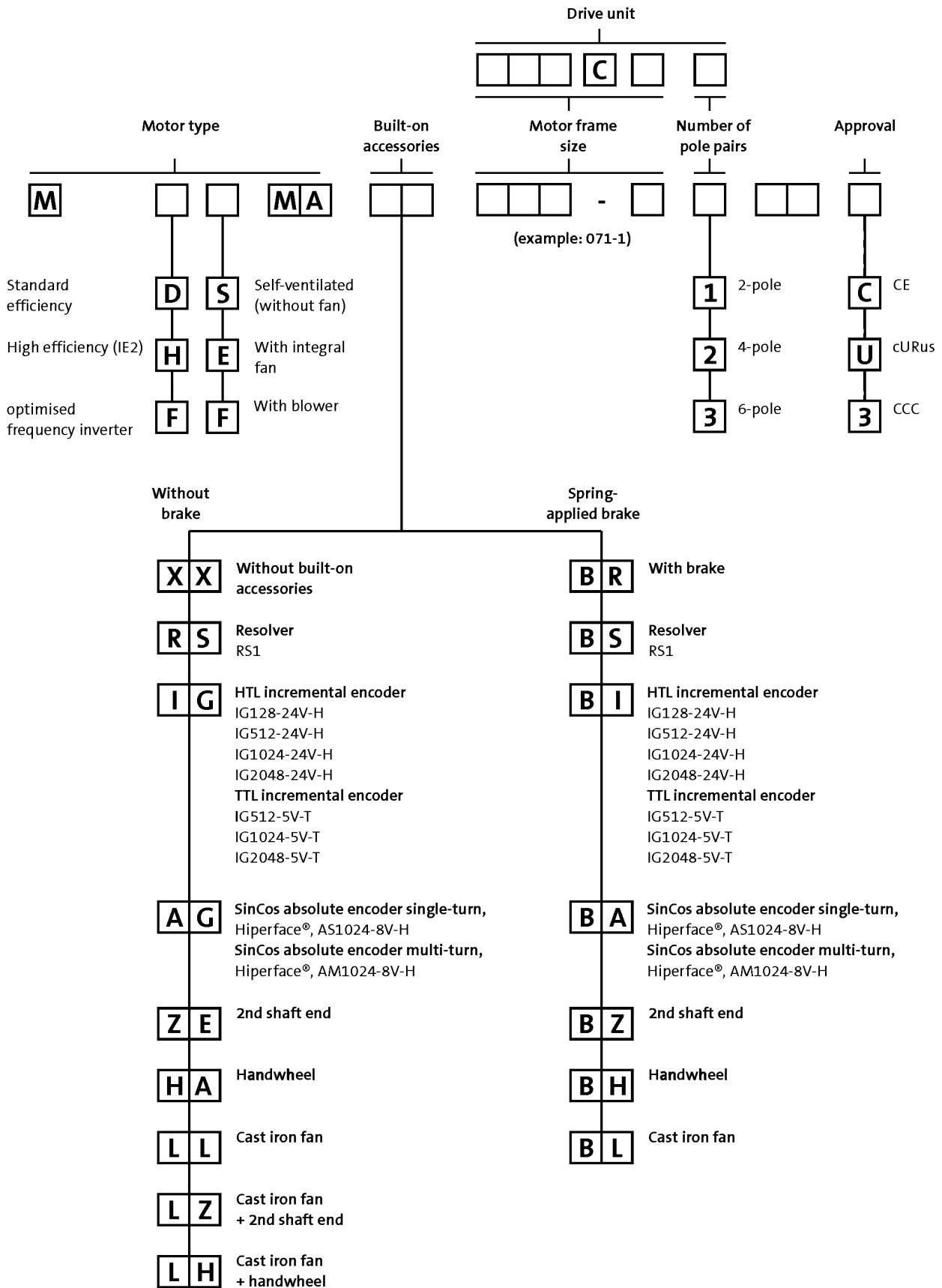
CE	Communauté Européenne
CSA	Canadian Standards Association
DIN	Deutsches Institut für Normung e.V.
EMC	Electromagnetic compatibility
EN	European standard
IEC	International Electrotechnical Commission
IM	International Mounting Code
IP	International Protection Code
NEMA	National Electrical Manufacturers Association
UL	Underwriters Laboratory Listed Product
UR	Underwriters Laboratory Recognized Product
VDE	Verband deutscher Elektrotechniker (Association of German Electrical Engineers)
CCC	China Compulsory Certificate
GOST	Certificate for Russian Federation
cURus	Combined certification marks of UL for the USA and Canada
UkrSEPRO	Certificate for Ukraine

MD three-phase AC motors

General information



Product key



MD three-phase AC motors

General information

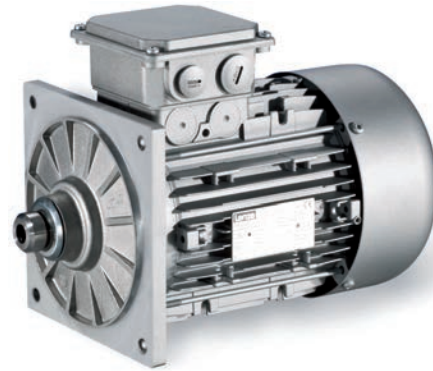


Product information

Special motors have been designed for direct attachment to Lenze gearboxes.

These motors are attached to the gearbox without the use of a clutch. Torque transmission between the tothing and the motor shaft is friction-locked via a tapered connection here.

This motor design means that the geared motors only require a small installation space.



L-force MD three-phase AC motors are available in a power range from 0.06 to 45 kW and comply with efficiency class 4IE1 (standard efficiency) as per IEC 60034-30.

Basic versions

- The thermal sensors integrated as standard allow for permanent temperature monitoring and are coordinated to the motor winding's temperature class F (155°C).
- The motors of the basic version are adapted to ambient conditions by enclosure IP55.
- In tough operating conditions, the surface and corrosion protection system is provided to reliably protect the motor from corrosive media.

Options

- Various brake sizes – each available with several braking torques – can be combined with the three-phase AC motors.
- The LongLife version of the brake can easily reach 10×10^6 switching cycles.
- A resolver and various incremental and absolute value encoders can be fitted for speed and position detection.
- For fast commissioning, the motors are also available with connectors for the power connection, brake, blower and feedback.
- Instead of an integral fan, the motor can optionally be equipped with a blower. No torque reduction is then necessary, even at speeds below 20 Hz.
- For drive tasks in decentralised applications, the motor can be ordered with the motec inverter connected to the terminal box.
- The motors are available with cURus, GOST-R, CCC and UkrSepro approval.
- Smooth start/braking is possible by increasing the motor's centrifugal mass with a cast iron fan.
- The motor can be equipped with a handwheel for manual setup or emergency operations.
- To protect the fan from falling objects, the fan cover can be equipped with a protection cover.
- A 2nd shaft end is available for further modifications.

MD three-phase AC motors

General information



Functions and features

Size	063	071	080	090
Motor				
Spring-applied brake				
Design	Standard or LongLife design Reduced or standard braking torque With rectifier With manual release lever Low noise		Standard or LongLife design Reduced, standard or increased braking torque With rectifier With manual release lever Low noise	
Feedback				
Design	Resolver ¹⁾ Incremental encoder ¹⁾ Absolute value encoder (multi-turn) ¹⁾			
Thermal sensor				
Thermal contact	TKO			
Thermal detector	KTY83-110 KTY84-130			
PTC thermistor	PTC			
Motor connection				
Power connection	Terminal box ICN connector HAN10E connector HAN modular connector			
Brake connection	Terminal box ICN connector HAN modular connector HAN10E connector			
Blower connection	Terminal box ICN connector			
Feedback connection	Terminal box ICN connector			
Temperature sensor connection	Terminal box TKO or PTC at connector in the power connection KTY at connector in the feedback connection			
Shaft bearings				
Position of the locating bearing	Standard motors (B3, B5, B14): side B Motors for gearbox direct mounting: side A			
Bearing type	Deep-groove ball bearing with high-temperature resistant grease, 2 sealing discs or cover plates			
Colour				
	Not coated Primed Paint in various corrosion-protection designs in accordance with RAL colours			
Further options				
	Protection cover		Protection cover Increased centrifugal mass Handwheel ¹⁾ 2nd shaft end	

¹⁾ With 2-pole motors not available.

MD three-phase AC motors

General information



Functions and features

Size	100	112	132
Motor			
Spring-applied brake			
Design	Standard or LongLife design Reduced, standard or increased braking torque With rectifier With manual release lever Low noise	Standard design Reduced, standard or increased braking torque With rectifier With manual release lever Low noise	
Feedback			
Design	Resolver ¹⁾ Incremental encoder ¹⁾ Absolute value encoder (multi-turn) ¹⁾		
Thermal sensor			
Thermal contact	TKO		
Thermal detector	KTY83-110 KTY84-130		
PTC thermistor	PTC		
Motor connection			
Power connection	Terminal box ICN connector HAN10E connector HAN modular connector	Terminal box ICN connector HAN modular connector	
Brake connection	Terminal box ICN connector HAN modular connector HAN10E connector	Terminal box ICN connector HAN modular connector	
Blower connection	Terminal box ICN connector		
Feedback connection	Terminal box ICN connector		
Temperature sensor connection	Terminal box TKO or PTC at connector in the power connection KTY at connector in the feedback connection		
Shaft bearings			
Position of the locating bearing	Standard motors (B3, B5, B14): side B Motors for gearbox direct mounting: side A		
Bearing type	Deep-groove ball bearing with high-temperature resistant grease, 2 sealing discs or cover plates		
Colour			
	Not coated Primed Paint in various corrosion-protection designs in accordance with RAL colours		
Further options			
	Protection cover Increased centrifugal mass Handwheel ¹⁾ 2nd shaft end		

¹⁾ With 2-pole motors not available.

MD three-phase AC motors

General information



Functions and features

Size	160	180	225
Motor			
Spring-applied brake			
Design	Standard design Reduced, standard or increased braking torque With rectifier With manual release lever Low noise		
Feedback			
Design	Resolver Incremental encoder Absolute value encoder (multi-turn)		
Thermal sensor			
Thermal contact	TKO		
Thermal detector	KTY83-110 KTY84-130		
PTC thermistor	PTC		
Motor connection			
Power connection	Terminal box HAN modular connector	Terminal box	
Brake connection	Terminal box HAN modular connector	Terminal box	
Blower connection	Terminal box ICN connector		
Feedback connection	Terminal box ICN connector		
Temperature sensor connection	Terminal box TKO or PTC at connector in the power connection KTY at connector in the feedback connection	Terminal box	
Shaft bearings			
Position of the locating bearing	Standard motors (B3, B5, B14): side B Motors for gearbox direct mounting: side A	Drive end	
Bearing type	Deep-groove ball bearing with high-temperature resistant grease, 2 sealing discs or cover plates		
Colour			
	Not coated Primed Paint in various corrosion-protection designs in accordance with RAL colours		
Further options			
	Protection cover		

MD three-phase AC motors

General information



Functions and features

Surface and corrosion protection

For optimum protection of three-phase AC motors against ambient conditions, the surface and corrosion protection system (OKS) offers tailor-made solutions.

Various surface coatings ensure that the motors operate reliably even at high air humidity, in outdoor installation or in the presence of atmospheric impurities. Any colour from the RAL Classic collection can be chosen for the top coat. The three-phase AC motors are also available unpainted (no surface and corrosion protection).

Surface and corrosion protection system	Applications	Measures
OKS-G (primed)	<ul style="list-style-type: none"> Dependent on subsequent top coat applied 	<ul style="list-style-type: none"> 2K PUR priming coat (grey)
OKS-S (small)	<ul style="list-style-type: none"> Standard applications Internal installation in heated buildings Air humidity up to 90% 	<ul style="list-style-type: none"> Surface coating as per corrosivity category C1 (in line with EN 12944-2)
OKS-M (medium)	<ul style="list-style-type: none"> Internal installation in non-heated buildings Covered, protected external installation Air humidity up to 95% 	<ul style="list-style-type: none"> Surface coating as per corrosivity category C2 (in line with EN 12944-2)
OKS-L (high)	<ul style="list-style-type: none"> External installation Air humidity above 95% Chemical industry plants Food industry 	<ul style="list-style-type: none"> Surface coating as per corrosivity category C3 (in line with EN 12944-2) Blower cover and B end shield additionally primed Screws zinc-coated Cable glands with gaskets Corrosion-resistant brake with cover ring, stainless friction plate, and chrome-plated armature plate (on request) <p>Optional measures:</p> <ul style="list-style-type: none"> Motor recesses sealed off (on request)

Structure of surface coating

Surface and corrosion protection system	Corrosivity category	Surface coating	Colour
	DIN EN ISO 12944-2	Structure	
Without OKS (uncoated)			
OKS-G (primed)		2K PUR priming coat	
OKS-S (small)	C1	2K-PUR top coat	Standard: RAL 7012 Optional: RAL Classic
OKS-M (medium)	C2	2K PUR priming coat	
OKS-L (high)	C3	2K-PUR top coat	

MD three-phase AC motors

General information



Motor – inverter assignment

Rated frequency 50/60 Hz

- ▶ Decentralised inverter 8400 motec (E84DVB)
- ▶ Inverter Drives 8400 (E84AV)

Rated power	Product key	
	Motor	Inverter
P_N [kW]		
0.12	MD□□□□□063-12	
0.18	MD□□□□□063-32	
0.25	MD□□□□□063-42	
0.37	MD□□□□□071-32	E84DVB□3714S□□□□2□
0.55	MD□□□□□071-42	E84DVB□5514S□□□□2□
0.75	MD□□□□□080-32	E84DVB□7514S□□□□2□
1.10	MD□□□□□080-42	E84DVB□1124S□□□□2□
1.50	MD□□□□□090-32	E84DVB□1524S□□□□2□
2.20	MD□□□□□100-12	E84DVB□2224S□□□□2□
3.00	MD□□□□□100-32	E84DVB□3024S□□□□2□
4.00	MD□□□□□112-22	E84DVB□4024S□□□□2□
5.50	MD□□□□□112-32	E84DVB□5524S□□□□2□
7.50	MD□□□□□132-22	E84DVB□7524S□□□□2□
11.0	MD□□□□□160-22	
15.0	MD□□□□□160-32	
18.5	MD□□□□□180-12	
22.0	MD□□□□□180-32	
30.0	MD□□□□□180-42	
37.0	MD□□□□□225-12	
45.0	MD□□□□□225-22	

MD three-phase AC motors

General information



Motor – inverter assignment

Rated frequency 87 Hz

- ▶ Decentralised inverter 8400 motec (E84DVB)
- ▶ Inverter Drives 8400 (E84AV)

Rated power	Product key	
	Motor	Inverter
P_N [kW]		
0.21	MD□□□□□063-12	E84DVB□5514S□□□□□
0.33	MD□□□□□063-32	
0.45	MD□□□□□063-42	
0.66	MD□□□□□071-32	
1.00	MD□□□□□071-42	
1.35	MD□□□□□080-32	
2.00	MD□□□□□080-42	
2.70	MD□□□□□090-32	
3.90	MD□□□□□100-12	
5.40	MD□□□□□100-32	
7.10	MD□□□□□112-22	
9.70	MD□□□□□112-32	
13.2	MD□□□□□132-22	
19.3	MD□□□□□160-22	
26.4	MD□□□□□160-32	
32.4	MD□□□□□180-12	
38.7	MD□□□□□180-32	

MD three-phase AC motors

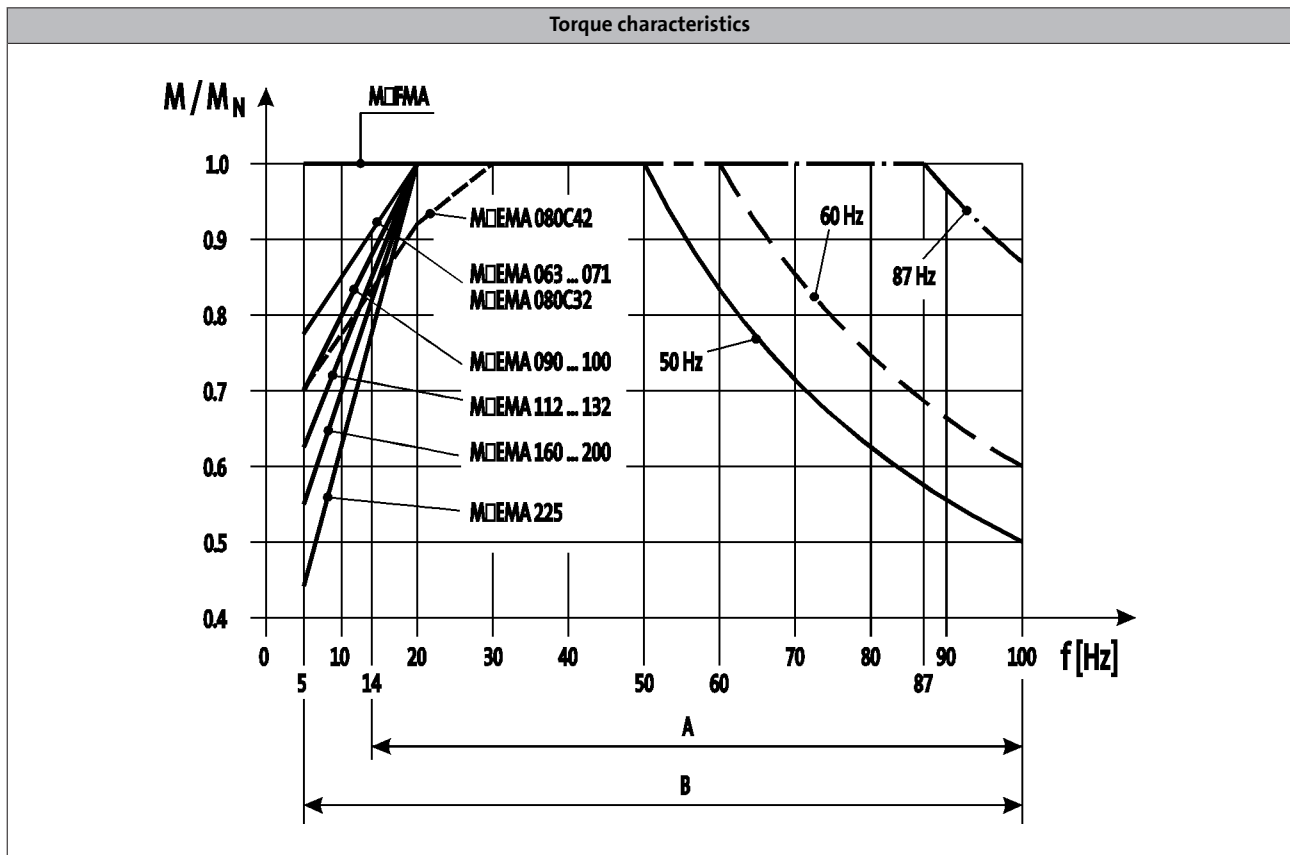
General information



Dimensioning

Torque derating at low motor frequencies

Motor size-dependent torque reduction, taking into account the thermal response during operation on the inverter.



A = Operation with integral fan and brake

B = Operation with integral fan and brake control "Holding current reduction"

- The motor specifications stated in this catalogue for inverter operation apply to operation with a Lenze inverter. If you are uncertain, get in touch with the manufacturer of the inverter to ask whether the device is capable of driving the motor with the stated specifications (e.g. setting range, base frequency).

You can use the Drive Solution Designer for precise drive dimensioning.

The Drive Solution Designer helps you to carry out a fast and high-quality drive dimensioning. The software includes well-founded and proven knowledge on drive applications and electro-mechanical drive components.

Please contact your Lenze sales office.

MD three-phase AC motors

General information



MD three-phase AC motors

Technical data



Standards and operating conditions

Enclosure			
EN 60529			IP55
Energy efficiency class			
IEC 60034-30			IE1 ¹⁾
IEC 60034-2-1			Methodology for measuring efficiency
Approval			
Class			cURus ²⁾ CCC GOST-R UkrSePro
Temperature class			
IEC/EN 60034-1; utilisation			B
IEC/EN 60034-1; insulation system (enamel-insulated wire)			F
Min. ambient operating temperature			
	$T_{opr,min}$	[°C]	-20
Max. ambient operating temperature			
	$T_{opr,max}$	[°C]	40
With power reduction	$T_{opr,max}$	[°C]	60
Site altitude			
Amsl	H_{max}	[m]	4000
Max. speed			
	n_{max}	[r/min]	4500

¹⁾ Only applies to 4-pole motors.

²⁾ Motor frame size 225, in preparation.

- In the European Union, the ErP Directive stipulates minimum efficiency levels for three-phase AC motors. Geared three-phase AC motors that do not conform with this Directive do not meet CE requirements and must not be marketed in the European Economic Area. For further information about the ErP Directive and the Lenze products to which it relates, please refer to the brochure entitled "International efficiency directives for three-phase AC motors".

MD three-phase AC motors

Technical data



Rated data for 50 Hz

2-pole motors

	P_N	n_N	$U_{N,\Delta}$	$I_{N,\Delta}$	$U_{N,Y}$	$I_{N,Y}$	I_a/I_N
			$\pm 10\%$		$\pm 10\%$		
	[kW]	[r/min]	[V]	[A]	[V]	[A]	
MD□□□□□063-11	0.18	2740	230	0.80	400	0.46	4.30
MD□□□□□063-31	0.25	2710	230	1.10	400	0.60	3.70
MD□□□□□071-11	0.37	2720	230	1.50	400	0.90	4.40
MD□□□□□071-31	0.55	2630	230	2.40	400	1.40	3.80
MD□□□□□080-11	0.75	2720	230	3.10	400	1.80	4.70
MD□□□□□080-31	1.10	2720	230	4.50	400	2.60	4.70
MD□□□□□090-11	1.50	2710	230	5.50	400	3.20	4.50
MD□□□□□090-31	2.20	2730	230	8.30	400	4.80	3.70
MD□□□□□100-31	3.00	2890	230	10.2	400	5.90	7.00
MD□□□□□100-41	4.00	2840	230	14.2	400	8.30	6.60
MD□□□□□112-31	5.50	2900	400 ²⁾	11.5			6.00
MD□□□□□112-41	7.50	2890	400 ²⁾	16.5			6.00
MD□□□□□132-21	9.00	2890	400 ²⁾	17.0			6.50

	M_N	M_a	M_b	$\cos \phi$	$\eta_{75\%}$	$\eta_{100\%}$	$J^{1)}$	$m^{1)}$
	[Nm]	[Nm]	[Nm]		[%]	[%]	[kgcm ²]	[kg]
MD□□□□□063-11	0.63	1.50	1.50	0.88	66.5	66.0	1.70	3.90
MD□□□□□063-31	0.90	1.90	2.00	0.89	67.0	66.0	1.70	3.80
MD□□□□□071-11	1.29	3.10	2.90	0.92	71.0	69.0	5.10	6.00
MD□□□□□071-31	2.00	3.80	4.20	0.93	70.0	63.0	5.10	6.50
MD□□□□□080-11	2.65	5.40	6.50	0.89	70.0	70.0	9.70	10.0
MD□□□□□080-31	3.90	7.50	8.50	0.89	75.0	73.0	9.70	10.0
MD□□□□□090-11	5.20	10.1	10.4	0.95	76.5	75.0	35.0	17.0
MD□□□□□090-31	7.60	16.4	15.5	0.90	77.0	76.0	35.0	17.0
MD□□□□□100-31	9.90	19.0	27.0	0.90	83.0	82.0	32.6	21.0
MD□□□□□100-41	13.6	24.0	29.0	0.91	77.0	78.0	32.6	21.0
MD□□□□□112-31	18.1	46.0	49.0	0.83	86.0	86.0	53.8	28.0
MD□□□□□112-41	24.8	71.0	77.0	0.78	87.0	87.0	70.0	35.0
MD□□□□□132-21	29.8	72.0	72.0	0.92	88.0	88.0	205	68.0

¹⁾ Without accessories

²⁾ Star/delta start-up possible at 400 V.

MD three-phase AC motors

Technical data



Rated data for 50 Hz

4-pole motors

	P_N	n_N	$U_{N,\Delta}^{2)}$	$I_{N,\Delta}$	$U_{N,Y}$	$I_{N,Y}$	I_a/I_N
			$\pm 10\%$		$\pm 10\%$		
	[kW]	[r/min]	[V]	[A]	[V]	[A]	
MD□□□□□063-02	0.060	1425	230	0.42	400	0.24	3.50
MD□□□□□063-22	0.090	1375	230	0.48	400	0.28	2.90
MD□□□□□063-12	0.12	1425	230	0.85	400	0.49	3.10
MD□□□□□063-32	0.18	1365	230	1.00	400	0.58	2.70
MD□□□□□063-42	0.25	1370	230	1.40	400	0.82	2.90
MD□□□□□071-32	0.37	1410	230	1.60	400	0.95	3.30
MD□□□□□071-42	0.55	1405	230	2.40	400	1.40	3.50
MD□□□□□080-32	0.75	1410	230	3.30	400	1.90	4.60
MD□□□□□080-42	1.10	1390	230	4.80	400	2.80	4.40
MD□□□□□090-32	1.50	1410	230	6.60	400	3.80	4.80
MD□□□□□100-12	2.20	1440	230	9.20	400	5.30	6.00
MD□□□□□100-32	3.00	1430	230	12.5	400	7.20	4.60
MD□□□□□112-22	4.00	1450	230	16.1	400	9.30	6.20
MD□□□□□112-32	5.50	1445	230 400 ³⁾	21.7 12.5	400	12.5	6.10
MD□□□□□132-22	7.50	1455	230 400 ³⁾	28.6 16.5	400	16.5	5.90
MD□□□□□132-32	9.20	1450	230 400 ³⁾	34.1 19.7	400	19.7	5.10

	M_N	M_a	M_b	$\cos \phi$	$\eta_{75\%}$	$\eta_{100\%}$	$J^{1)}$	$m^{1)}$
	[Nm]	[Nm]	[Nm]		[%]	[%]	[kgcm ²]	[kg]
MD□□□□□063-02	0.40	1.30	1.36	0.57	59.0	63.0	3.30	3.90
MD□□□□□063-22	0.63	1.30	1.39	0.71	63.0	65.0	3.30	3.90
MD□□□□□063-12	0.80	2.50	2.64	0.56	58.0	63.0	3.30	4.10
MD□□□□□063-32	1.26	2.50	2.61	0.70	63.0	64.0	3.30	4.10
MD□□□□□063-42	1.74	3.80	4.10	0.67	65.0	66.0	3.70	4.40
MD□□□□□071-32	2.51	4.76	5.81	0.77	73.0	73.0	10.7	5.80
MD□□□□□071-42	3.74	7.85	9.12	0.77	74.0	74.0	12.8	6.40
MD□□□□□080-32	5.10	11.0	12.1	0.80	73.0	74.0	26.0	11.0
MD□□□□□080-42	7.50	16.5	18.4	0.80	77.0	77.0	26.0	11.0
MD□□□□□090-32	10.1	23.7	27.1	0.76	78.0	79.0	28.4	15.0
MD□□□□□100-12	14.6	38.0	44.0	0.73	83.0	84.0	61.0	24.0
MD□□□□□100-32	20.5	43.0	50.0	0.75	83.0	83.0	61.0	24.0
MD□□□□□112-22	26.3	70.0	95.0	0.73	85.0	86.0	107	31.0
MD□□□□□112-32	36.6	95.0	120	0.77	85.0	86.0	135	38.0
MD□□□□□132-22	49.2	100	150	0.76	87.0	88.0	336	66.0
MD□□□□□132-32	60.6	100	150	0.80	88.0	88.0	336	66.0

¹⁾ Without accessories

²⁾ Operation at 87 Hz is possible with 4-pole motors whose rated data at 50 Hz displays the voltage values Δ 230 V.
With motor frame sizes 132-12 to 180-32, the required voltage must also be specified in your order.

³⁾ Star/delta start-up possible at 400 V.

MD three-phase AC motors

Technical data



Rated data for 50 Hz

4-pole motors

	P_N	n_N	$U_{N, \Delta}^{2)}$	$I_{N, \Delta}$	$U_{N, Y}$	$I_{N, Y}$	I_a/I_N
			$\pm 10\%$		$\pm 10\%$		
	[kW]	[r/min]	[V]	[A]	[V]	[A]	
MD□□□□□160-22	11.0	1460	230 400 ³⁾	36.5 21.0	400	21.0	7.00
MD□□□□□160-32	15.0	1460	230 400 ³⁾	48.4 27.8	400	27.8	7.10
MD□□□□□180-12	18.5	1470	230 400 ³⁾	57.8 32.8	400	32.8	6.80
MD□□□□□180-32	22.0	1465	230 400 ³⁾	67.4 38.8	400	38.8	7.30
MD□□□□□180-42	30.0	1465	230 400 ³⁾	91.1 52.6	400	52.6	7.50
MD□□□□□225-12	37.0	1475	230 400 ³⁾	114 66.0	400	66.0	6.30
MD□□□□□225-22	45.0	1480	230 400 ³⁾	137 79.0	400	79.0	7.60

	M_N	M_a	M_b	$\cos \phi$	$\eta_{75\%}$	$\eta_{100\%}$	$J^{1)}$	$m^{1)}$
	[Nm]	[Nm]	[Nm]		[%]	[%]	[kgcm ²]	[kg]
MD□□□□□160-22	71.9	150	204	0.85	89.2	89.0	610	110
MD□□□□□160-32	98.1	214	288	0.87	89.7	90.0	750	130
MD□□□□□180-12	120	260	313	0.90	90.7	90.5	1350	165
MD□□□□□180-32	144	330	360	0.90	91.2	91.0	1550	175
MD□□□□□180-42	196	548	547	0.90	91.6	91.0	1850	200
MD□□□□□225-12	240	504	528	0.88	93.0	93.0	4400	320
MD□□□□□225-22	290	698	669	0.88	94.5	94.3	5300	415

¹⁾ Without accessories

²⁾ Operation at 87 Hz is possible with 4-pole motors whose rated data at 50 Hz displays the voltage values Δ 230 V.
With motor frame sizes 132-12 to 180-32, the required voltage must also be specified in your order.

³⁾ Star/delta start-up possible at 400 V.

MD three-phase AC motors

Technical data



Rated data for 50 Hz

6-pole motors

	P_N	n_N	$U_{N,\Delta}$ $\pm 10\%$	$I_{N,\Delta}$	$U_{N,Y}$ $\pm 10\%$	$I_{N,Y}$	I_a/I_N
	[kW]	[r/min]	[V]	[A]	[V]	[A]	
MD□□□□□071-13	0.18	930	230	1.10	400	0.60	3.90
MD□□□□□071-33	0.25	930	230	1.80	400	1.10	2.80
MD□□□□□080-13	0.37	950	230	2.20	400	1.30	4.00
MD□□□□□080-33	0.55	930	230	2.90	400	1.70	3.50

	M_N	M_a	M_b	$\cos \phi$	$\eta_{75\%}$	$\eta_{100\%}$	$J^{1)}$	$m^{1)}$
	[Nm]	[Nm]	[Nm]		[%]	[%]	[kgcm ²]	[kg]
MD□□□□□071-13	1.80	5.00	5.00	0.66	67.0	69.0	12.5	6.50
MD□□□□□071-33	2.50	6.60	6.60	0.66	67.0	68.0	12.5	6.50
MD□□□□□080-13	3.70	10.1	10.7	0.63	68.0	69.0	26.0	11.0
MD□□□□□080-33	5.60	12.2	12.8	0.70	68.0	68.0	26.0	11.0

¹⁾ Without accessories

MD three-phase AC motors

Technical data



Rated data for 60 Hz

2-pole motors

- ▶ The motors are designed for an operation at 265/460 V but are also able to be operated at 230 V, 60 Hz. The same technical data apply, the starting torque is a bit lower.
- ▶ The motors have a service factor of 1.15 at 60 Hz. The service factor indicates the permissible overload during operation within the mains voltage fluctuations.

	P_N	n_N	$U_{N,\Delta}$ $\pm 10\%$	$I_{N,\Delta}$	$U_{N,Y}$ $\pm 10\%$	$I_{N,Y}$	I_a/I_N
	[kW]	[r/min]	[V]	[A]	[V]	[A]	
MD□□□□□063-11	0.18	3370	265	0.72	460	0.41	5.50
MD□□□□□063-31	0.25	3390	265	0.88	460	0.51	4.80
MD□□□□□071-11	0.37	3360	265	1.30	460	0.76	5.50
MD□□□□□071-31	0.55	3240	265	2.10	460	1.20	4.80
MD□□□□□080-11	0.75	3380	265	2.60	460	1.50	5.90
MD□□□□□080-31	1.10	3370	265	3.80	460	2.20	5.90
MD□□□□□090-11	1.50	3310	265	4.80	460	2.80	5.30
MD□□□□□090-31	2.20	3320	265	7.20	460	4.10	4.30
MD□□□□□100-31	3.00	3510	265	8.80	460	5.10	8.10
MD□□□□□100-41	4.00	3440	265	12.4	460	7.10	7.70
MD□□□□□112-31	5.50	3510	460 ²⁾	9.90			6.90
MD□□□□□112-41	7.50	3500	460 ²⁾	14.4			6.80
MD□□□□□132-21	9.00	3500	460 ²⁾	14.8			7.60

	M_N	M_a	M_b	$\cos \phi$	$\eta_{75\%}$	$\eta_{100\%}$	$J^{1)}$	$m^{1)}$
	[Nm]	[Nm]	[Nm]		[%]	[%]	[kgcm ²]	[kg]
MD□□□□□063-11	0.51	1.38	1.38	0.84	68.3	67.8	1.70	3.90
MD□□□□□063-31	0.72	1.74	1.84	0.86	71.1	70.0	1.70	3.80
MD□□□□□071-11	1.05	2.85	2.66	0.91	74.4	72.3	5.10	6.00
MD□□□□□071-31	1.62	3.49	3.86	0.90	73.6	66.3	5.10	6.50
MD□□□□□080-11	2.13	4.96	5.97	0.88	74.4	74.4	9.70	10.0
MD□□□□□080-31	3.14	6.89	7.81	0.87	79.2	77.1	9.70	10.0
MD□□□□□090-11	4.31	9.28	9.55	0.94	78.3	76.7	35.0	17.0
MD□□□□□090-31	6.25	15.1	14.2	0.89	78.7	77.7	35.0	17.0
MD□□□□□100-31	8.13	17.4	24.8	0.89	84.5	83.5	32.6	21.0
MD□□□□□100-41	11.3	22.0	26.6	0.90	78.6	79.7	32.6	21.0
MD□□□□□112-31	14.9	42.2	45.0	0.83	87.5	87.5	53.8	28.0
MD□□□□□112-41	20.5	65.2	70.7	0.77	88.5	88.5	70.0	35.0
MD□□□□□132-21	24.7	66.1	66.1	0.91	88.9	88.9	205	68.0

¹⁾ Without accessories

²⁾ Star/delta start-up possible at 460 V.

MD three-phase AC motors

Technical data



Rated data for 60 Hz

4-pole motors

- The motors are designed for an operation at 265/460 V but are also able to be operated at 230 V, 60 Hz. The same technical data apply, the starting torque is a bit lower.
- The motors have a service factor of 1.15 at 60 Hz. The service factor indicates the permissible overload during operation within the mains voltage fluctuations.

	P_N	n_N	$U_{N, \Delta}^{2)}$ $\pm 10 \%$	$I_{N, \Delta}$	$U_{N, Y}$ $\pm 10 \%$	$I_{N, Y}$	I_a/I_N
	[kW]	[r/min]	[V]	[A]	[V]	[A]	
MD□□□□□063-02	0.060	1735	265	0.37	460	0.21	4.40
MD□□□□□063-22	0.090	1695	265	0.43	460	0.25	4.20
MD□□□□□063-12	0.12	1735	265	0.69	460	0.40	4.00
MD□□□□□063-32	0.18	1695	265	0.80	460	0.46	3.60
MD□□□□□063-42	0.25	1680	265	1.30	460	0.75	3.80
MD□□□□□071-32	0.37	1720	265	1.50	460	0.84	3.90
MD□□□□□071-42	0.55	1720	265	2.10	460	1.20	4.10
MD□□□□□080-32	0.75	1720	265	2.90	460	1.70	5.60
MD□□□□□080-42	1.10	1705	265	4.20	460	2.40	5.40
MD□□□□□090-32	1.50	1720	265	5.80	460	3.40	5.70
MD□□□□□100-12	2.20	1745	265	8.10	460	4.70	6.90
MD□□□□□100-32	3.00	1740	265	10.8	460	6.30	5.30
MD□□□□□112-22	4.00	1755	265	14.1	460	8.20	6.90
MD□□□□□112-32	5.50	1750	265 460 ³⁾	18.9 10.9	460	10.9	6.90
MD□□□□□132-22	7.50	1760	265 460 ³⁾	25.7 14.8	460	14.8	6.50
MD□□□□□132-32	9.20	1750	265 460 ³⁾	29.6 17.1	460	17.1	5.70

	M_N	M_a	M_b	$\cos \phi$	$\eta_{75 \%}$	$\eta_{100 \%}$	$J^{1)}$	$m^{1)}$
	[Nm]	[Nm]	[Nm]		[%]	[%]	[kgcm ²]	[kg]
MD□□□□□063-02	0.33	1.10	1.36	0.54	60.0	63.0	3.30	3.90
MD□□□□□063-22	0.51	1.10	1.40	0.67	64.9	67.0	3.30	3.90
MD□□□□□063-12	0.66	2.25	2.64	0.55	58.0	63.0	3.30	4.10
MD□□□□□063-32	1.00	2.21	2.56	0.68	65.0	66.0	3.30	4.10
MD□□□□□063-42	1.40	3.71	4.20	0.60	64.0	66.0	3.70	4.40
MD□□□□□071-32	2.05	4.40	5.80	0.74	74.0	75.0	10.7	5.80
MD□□□□□071-42	3.05	7.00	9.00	0.73	76.0	77.0	12.8	6.40
MD□□□□□080-32	4.16	10.3	12.2	0.78	78.0	78.0	26.0	11.0
MD□□□□□080-42	6.16	15.5	18.5	0.78	79.0	80.0	26.0	11.0
MD□□□□□090-32	8.33	22.0	27.0	0.73	79.0	81.0	28.4	15.0
MD□□□□□100-12	12.0	33.0	43.0	0.71	83.0	85.0	61.0	24.0
MD□□□□□100-32	16.5	38.0	48.0	0.73	84.0	85.0	61.0	24.0
MD□□□□□112-22	21.8	57.0	89.0	0.72	85.0	87.0	107	31.0
MD□□□□□112-32	30.0	79.0	114	0.75	87.0	87.0	135	38.0
MD□□□□□132-22	40.7	83.0	137	0.75	88.0	89.0	336	66.0
MD□□□□□132-32	50.2	83.0	137	0.79	88.0	89.0	336	66.0

¹⁾ Without accessories

²⁾ Operation at 87 Hz is possible with 4-pole motors whose rated data at 60 Hz displays the voltage values Δ 265 V.
With motor frame sizes 112-32 to 180-42, the required voltage must also be specified in your order.

³⁾ Star/delta start-up possible at 460 V.

MD three-phase AC motors

Technical data



Rated data for 60 Hz

4-pole motors

- The motors are designed for an operation at 265/460 V but are also able to be operated at 230 V, 60 Hz. The same technical data apply, the starting torque is a bit lower.
- The motors have a service factor of 1.15 at 60 Hz. The service factor indicates the permissible overload during operation within the mains voltage fluctuations.

	P_N	n_N	$U_{N,\Delta}^{2)}$ $\pm 10\%$	$I_{N,\Delta}$	$U_{N,Y}$ $\pm 10\%$	$I_{N,Y}$	I_a/I_N
	[kW]	[r/min]	[V]	[A]	[V]	[A]	
MD□□□□□160-22	11.0	1770	265 460 ³⁾	31.7 18.3	460	18.3	7.60
MD□□□□□160-32	15.0	1760	265 460 ³⁾	40.7 23.5	460	23.5	7.60
MD□□□□□180-12	18.5	1780	265 460 ³⁾	48.5 28.0	460	28.0	7.20
MD□□□□□180-32	22.0	1760	265 460 ³⁾	57.2 33.0	460	33.0	7.60
MD□□□□□180-42	30.0	1770	265 460 ³⁾	78.8 45.5	460	45.5	7.80
MD□□□□□225-12	37.0	1780	265 460 ³⁾	97.2 56.1	460	56.1	6.50
MD□□□□□225-22	45.0	1784	265 460 ³⁾	111 64.2	460	64.2	8.80

	M_N	M_a	M_b	$\cos \phi$	$\eta_{75\%}$	$\eta_{100\%}$	$J^{1)}$	$m^{1)}$
	[Nm]	[Nm]	[Nm]		[%]	[%]	[kgcm ²]	[kg]
MD□□□□□160-22	59.5	122	187	0.84	91.1	90.0	610	110
MD□□□□□160-32	81.2	171	265	0.87	92.6	92.0	750	130
MD□□□□□180-12	99.3	203	287	0.90	93.0	92.0	1350	165
MD□□□□□180-32	119	248	331	0.90	94.0	93.0	1550	175
MD□□□□□180-42	162	395	502	0.90	91.8	92.0	1850	200
MD□□□□□225-12	199	358	485	0.88	94.0	94.0	4400	320
MD□□□□□225-22	241	660	635	0.88	93.5	93.6	5300	415

¹⁾ Without accessories

²⁾ Operation at 87 Hz is possible with 4-pole motors whose rated data at 60 Hz displays the voltage values Δ 265 V.

With motor frame sizes 112-32 to 180-42, the required voltage must also be specified in your order.

³⁾ Star/delta start-up possible at 460 V.

MD three-phase AC motors

Technical data



Rated data for 60 Hz

6-pole motors

- ▶ The motors are designed for an operation at 265/460 V but are also able to be operated at 230 V, 60 Hz. The same technical data apply, the starting torque is a bit lower.
- ▶ The motors have a service factor of 1.15 at 60 Hz. The service factor indicates the permissible overload during operation within the mains voltage fluctuations.

	P_N	n_N	$U_{N,\Delta}$ $\pm 10\%$	$I_{N,\Delta}$	$U_{N,Y}$ $\pm 10\%$	$I_{N,Y}$	I_a/I_N
	[kW]	[r/min]	[V]	[A]	[V]	[A]	
MD□□□□□071-13	0.18	1140	265	0.95	460	0.55	4.60
MD□□□□□071-33	0.25	1140	265	1.70	460	1.00	3.40
MD□□□□□080-13	0.37	1160	265	2.00	460	1.20	4.60
MD□□□□□080-33	0.55	1140	265	2.60	460	1.50	4.10

	M_N	M_a	M_b	$\cos \phi$	$\eta_{75\%}$	$\eta_{100\%}$	$J^{1)}$	$m^{1)}$
	[Nm]	[Nm]	[Nm]		[%]	[%]	[kgcm ²]	[kg]
MD□□□□□071-13	1.47	4.59	4.59	0.62	68.4	70.5	12.5	6.50
MD□□□□□071-33	2.04	6.06	6.06	0.61	69.1	70.1	12.5	6.50
MD□□□□□080-13	3.03	9.28	9.83	0.59	69.5	70.5	26.0	11.0
MD□□□□□080-33	4.56	11.2	11.8	0.66	70.7	70.7	26.0	11.0

¹⁾ Without accessories

MD three-phase AC motors

Technical data



Rated data for 87 Hz

4-pole motors

	P_N	n_N	M_N	M_{max}	$U_{N, \Delta}$	$I_{N, \Delta}$	$\cos \phi$	$\eta_{75\%}$	$\eta_{100\%}$	$J^1)$	$m^1)$
					$\pm 10\%$						
	[kW]	[r/min]	[Nm]	[Nm]	[V]	[A]		[%]	[%]	[kgcm ²]	[kg]
MD□□□□□063-02	0.11	2535	0.40	1.60	400	0.42	0.55	62.0	67.0	3.30	3.90
MD□□□□□063-22	0.16	2485	0.63	2.50	400	0.48	0.67	66.0	70.0	3.30	3.90
MD□□□□□063-12	0.21	2535	0.80	3.20	400	0.85	0.52	61.0	66.0	3.30	4.10
MD□□□□□063-32	0.33	2475	1.26	5.00	400	1.00	0.65	68.0	71.0	3.30	4.10
MD□□□□□063-42	0.45	2480	1.74	7.00	400	1.40	0.63	66.0	73.0	3.70	4.40
MD□□□□□071-32	0.66	2520	2.51	10.0	400	1.60	0.72	76.0	78.0	10.7	5.80
MD□□□□□071-42	1.00	2515	3.74	15.0	400	2.40	0.74	79.0	80.0	12.8	6.40
MD□□□□□080-32	1.35	2520	5.10	20.0	400	3.30	0.80	75.0	77.0	26.0	11.0
MD□□□□□080-42	2.00	2500	7.50	30.0	400	4.80	0.80	81.0	82.0	26.0	11.0
MD□□□□□090-32	2.70	2520	10.1	40.0	400	6.70	0.73	83.0	85.0	28.4	15.0
MD□□□□□100-12	3.90	2550	14.6	60.0	400	9.20	0.71	87.0	88.0	61.0	24.0
MD□□□□□100-32	5.40	2540	20.5	80.0	400	12.5	0.73	87.0	88.0	61.0	24.0
MD□□□□□112-22	7.10	2560	26.3	105	400	16.1	0.71	87.0	88.0	107	31.0
MD□□□□□112-32	9.70	2555	36.6	145	400	21.7	0.75	87.0	89.0	135	38.0
MD□□□□□132-22	13.2	2565	49.2	200	400	28.6	0.75	90.0	90.0	336	66.0
MD□□□□□132-32	16.2	2560	60.6	242	400	34.1	0.79	90.0	91.0	336	66.0
MD□□□□□160-22	19.3	2565	71.9	280	400	36.5	0.85	91.7	90.0	610	110
MD□□□□□160-32	26.4	2565	98.1	390	400	48.4	0.86	91.9	92.0	750	130
MD□□□□□180-12	32.4	2575	120	480	400	57.8	0.89	92.8	92.0	1350	165
MD□□□□□180-32	38.7	2560	144	572	400	67.4	0.89	92.8	92.0	1550	175
MD□□□□□180-42	52.7	2565	196	780	400	91.1	0.89	93.0	93.0	1850	200

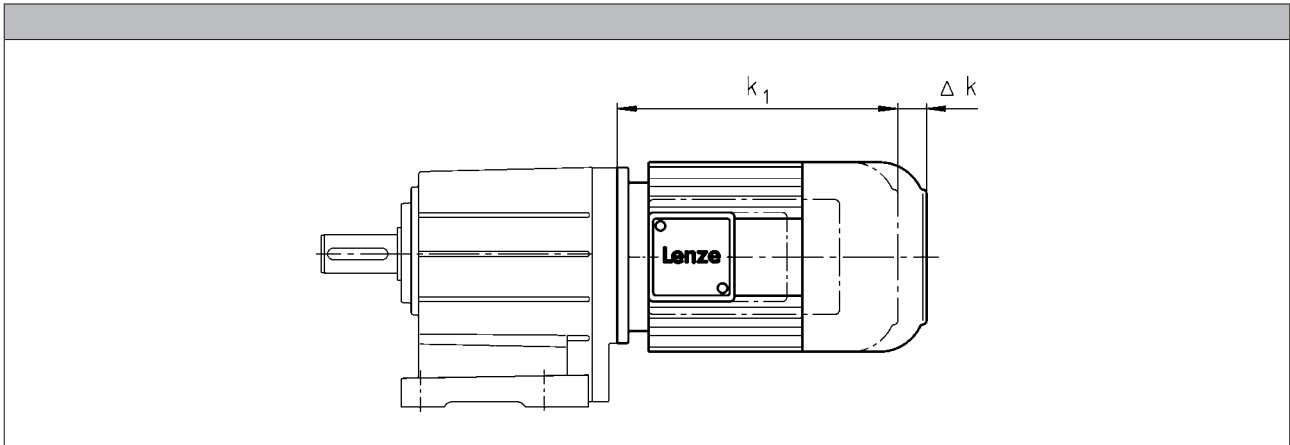
¹⁾ Without accessories

MD three-phase AC motors

Technical data



Dimensions, self-ventilated (2-pole)



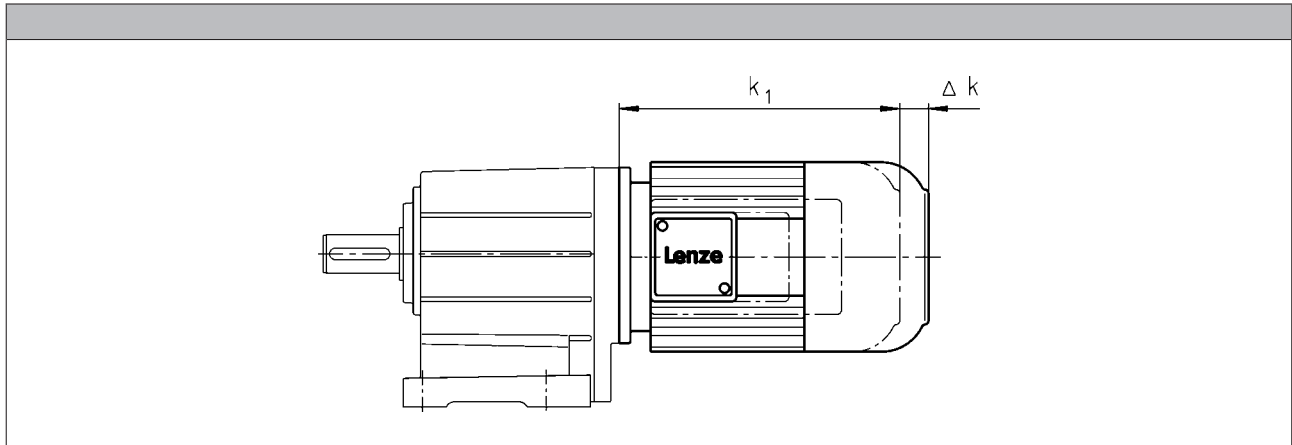
	Motor type			
	MDEMAXX	MDEMABR	MDEMABL	MDEMALL
Motor frame size				
	Δ k [mm]	Δ k [mm]	Δ k [mm]	Δ k [mm]
063-11 063-31	0	40		
071-11 071-31		52	52	0
080-11 080-31		73	73	4
090-11 090-31		68	68	0
100-31 100-41		76	76	76
112-31 112-41		90	90	0
132-21		110	110	

MD three-phase AC motors

Technical data



Dimensions, self-ventilated (4-pole)



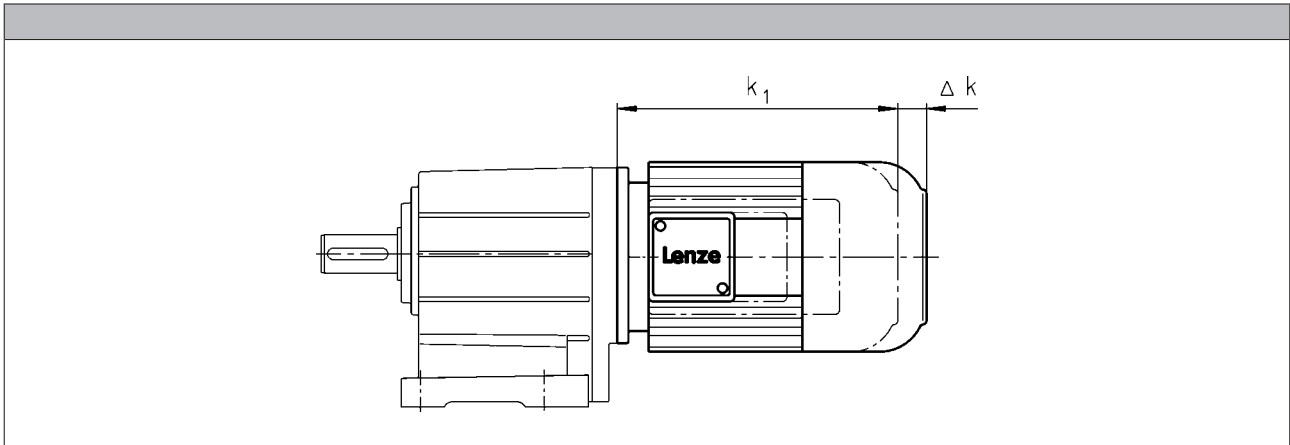
Motor type						
	MDEMAXX	MDEMABR	MDEMABS MDEMABI MDEMABA	MDEMABL	MDEMARS MDEMAIG MDEMAAG	MDEMALL
Motor frame size	Δ k	Δ k	Δ k	Δ k	Δ k	Δ k
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
063-02 063-22	0	71	135		71	
063-12 063-32 063-42		40	103		56	
071-32 071-42		52	96	52	52	0
080-32 080-42		73	111	73	111	4
090-32		68	105	68	87	0
100-12 100-32		76	101	76	81	76
112-22 112-32		90	120	90	80	0
132-22 132-32		110	125	110	103	
160-22 160-32		105	191		83	
180-12 180-32		113	192		79	
180-42						
225-12 225-22			193		80	

MD three-phase AC motors

Technical data



Dimensions, self-ventilated (6-pole)



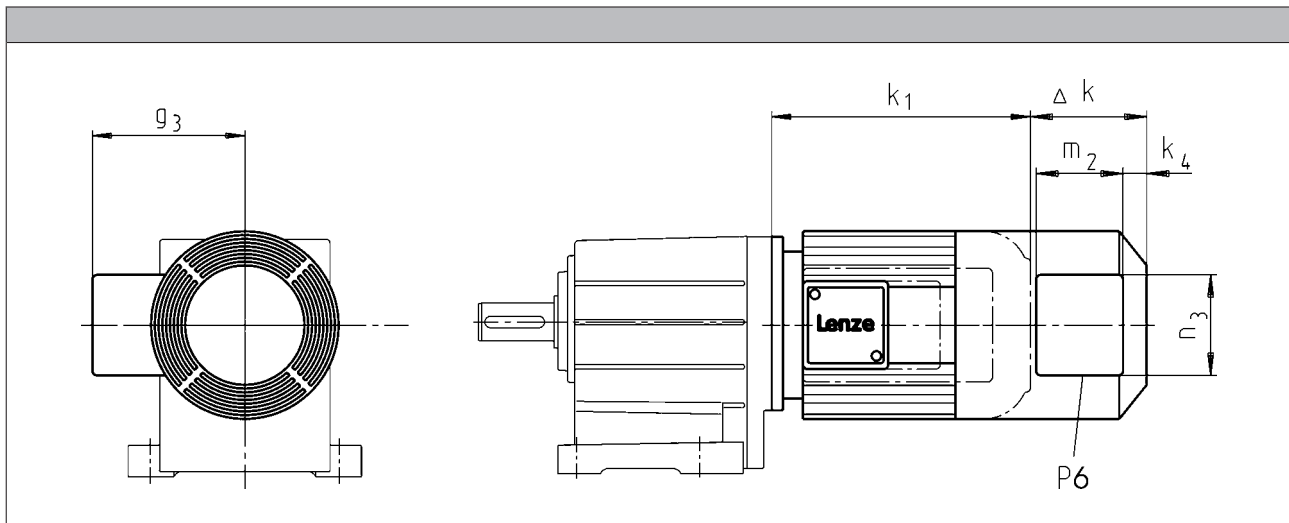
Motor type						
	MDEMAXX	MDEMABR	MDEMABS MDEMABI MDEMABA	MDEMABL	MDEMARS MDEMAIG MDEMAAG	MDEMALL
Motor frame size						
	Δk [mm]	Δk [mm]	Δk [mm]	Δk [mm]	Δk [mm]	Δk [mm]
071-13 071-33	0	52	96	52	52	0
080-13 080-33		73	111	73	111	4

MD three-phase AC motors

Technical data



Dimensions, forced ventilated (2-pole)



Motor type							
	MDFMAXX	MDFMABR					

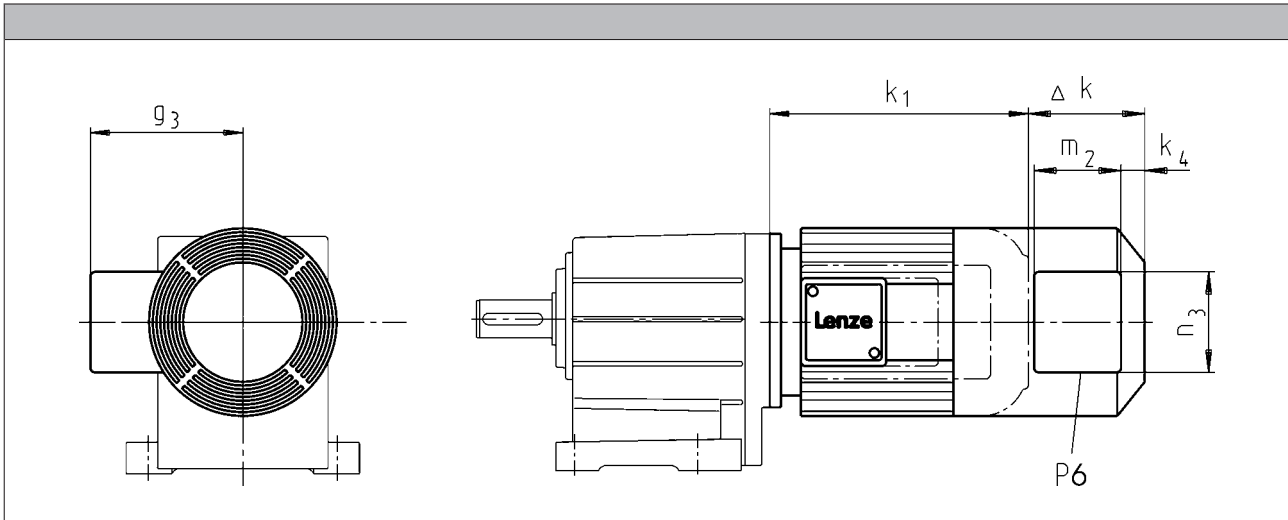
Motor frame size	Δ k	Δ k	k ₄	g ₃	m ₂	n ₃	P ₆
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
063-11 063-31	128	170	12	115	95	105	1x M16x1.5
071-11 071-31		165		122			
080-11 080-31		183	13	132	96	106	
090-11 090-31		181	22	141	95	105	
100-31 100-41		109		170			
112-31 112-41	102	183	162				
132-21	115	202	32	182			

MD three-phase AC motors

Technical data



Dimensions, forced ventilated (4-pole)



Motor type									
	MDFMAXX	MDFMABR	MDFMABS MDFMABI MDFMABA	MDFMARS MDFMAIG MDFMAAG					

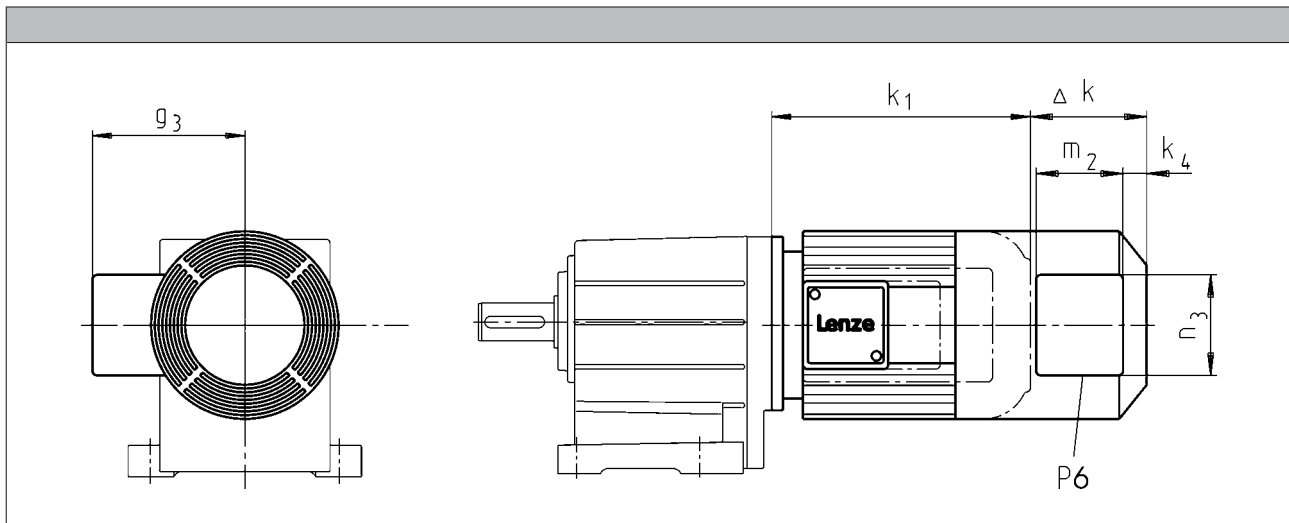
Motor frame size	Δ k	Δ k	Δ k	Δ k	k ₄	g ₃	m ₂	n ₃	P ₆
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
063-12 063-32 063-42	128	170	170	128	12	115	95	105	1xM16x1.5
071-32 071-42		165	165			13			
080-32 080-42		183	183		22		132		
090-32		181	181			141	141		
100-12 100-32	109	170	170	109	150		95	105	
112-22 112-32	102	183	183	183	162				
132-22 132-32	115	202	202	202	32	182	96	106	
160-22 160-32	149	179	237	224	31	209			
180-12 180-32		215	275	215					
180-42		155	260						
225-12 225-22	213	213	213	213					

MD three-phase AC motors

Technical data



Dimensions, forced ventilated (6-pole)



Motor type									
	MDFMAXX	MDFMABR	MDFMABS MDFMABI MDFMABA	MDFMARS MDFMAIG MDFMAAG					
Motor frame size	Δ k	Δ k	Δ k	Δ k	k ₄	g ₃	m ₂	n ₃	P ₆
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
071-13 071-33	128	165	165	128	12	122	95	105	1xM16x1.5
080-13 080-33		183	183		13	132	96	106	

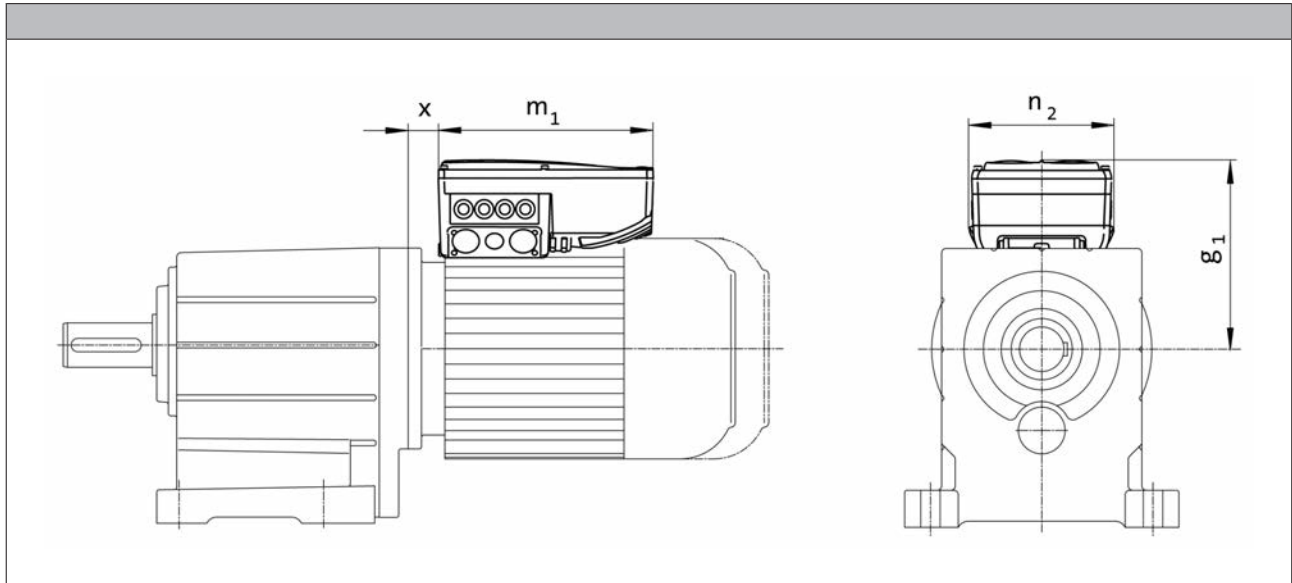
MD three-phase AC motors

Technical data



Dimensions, 8400 motec inverter

Rated frequency 50/60 Hz



Product key					
Motor	Inverter	$g_1, 50\text{Hz}$	$m_1, 50\text{Hz}$	$n_2, 50\text{Hz}$	$x_{50\text{Hz}}$
		[mm]	[mm]	[mm]	[mm]
MD□□□□□071-32	E84DVB□3714S□□□□2□	163	241	161	21.0
MD□□□□□071-42	E84DVB□5514S□□□□2□				25.5
MD□□□□□080-32	E84DVB□7514S□□□□2□				28.8
MD□□□□□080-42	E84DVB□1124S□□□□2□	172	260	176	29.6
MD□□□□□090-32	E84DVB□1524S□□□□2□	177			
MD□□□□□100-12	E84DVB□2224S□□□□2□	217	325	195	19.0
MD□□□□□100-32	E84DVB□3024S□□□□2□	282			
MD□□□□□112-22	E84DVB□4024S□□□□2□	301			34.5
MD□□□□□112-32	E84DVB□5524S□□□□2□				
MD□□□□□132-22	E84DVB□7524S□□□□2□				

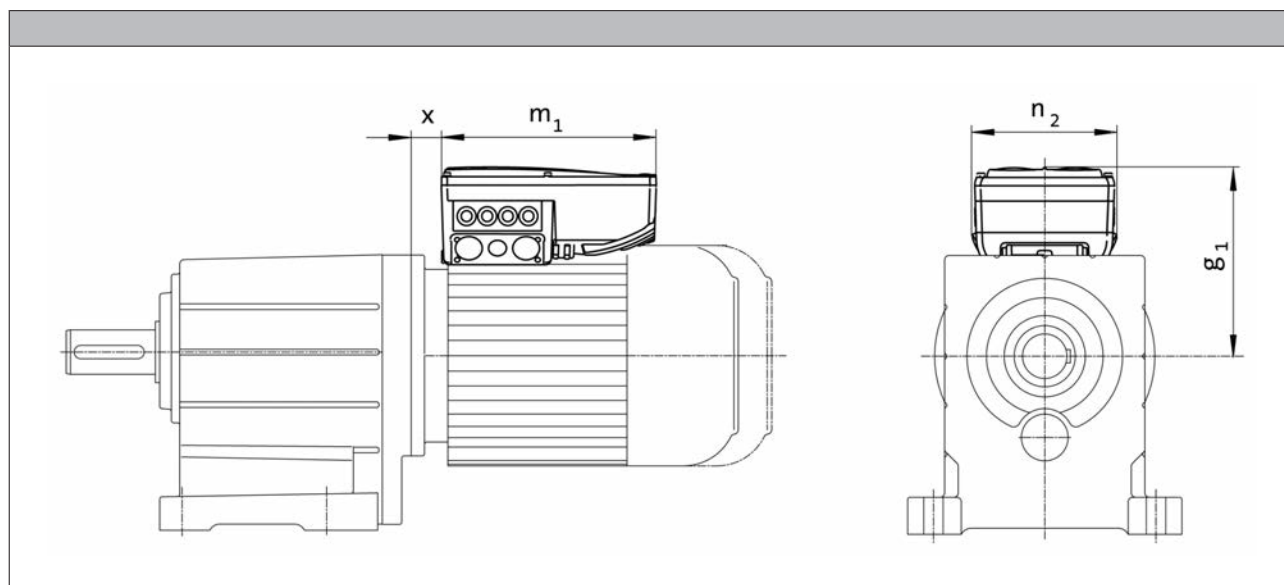
MD three-phase AC motors

Technical data



Dimensions, 8400 motec inverter

Rated frequency 87 Hz



Product key					
Motor	Inverter	$g_{1, 87\text{Hz}}$	$m_{1, 87\text{Hz}}$	$n_{2, 87\text{Hz}}$	$x_{87\text{Hz}}$
		[mm]	[mm]	[mm]	[mm]
MD□□□□□063-32	E84DVB□3714S□□□□2□	154	241	161	18.8
MD□□□□□063-42	E84DVB□5514S□□□□2□	163			21.0
MD□□□□□071-32	E84DVB□7514S□□□□2□	172			25.5
MD□□□□□071-42	E84DVB□1124S□□□□2□	201	260	176	24.5
MD□□□□□080-32	E84DVB□1524S□□□□2□	206			27.8
MD□□□□□080-42	E84DVB□2224S□□□□2□	272	325	195	17.1
MD□□□□□090-32	E84DVB□3024S□□□□2□	282			19.0
MD□□□□□100-12	E84DVB□4024S□□□□2□				
MD□□□□□100-32	E84DVB□5524S□□□□2□				
MD□□□□□112-22	E84DVB□7524S□□□□2□				

MD three-phase AC motors

Accessories



Spring-applied brake

Three-phase AC motors can be fitted with a spring-applied brake. This is activated after the supply voltage is switched off (closed-circuit principle). For optimum adjustment of the brake motor to the application, a range of braking torques and control modes is available for every motor frame size. For applications with very high operating frequencies the brake is also available in a LongLife version, with reinforced mechanical brake components.

Features

Versions

• Standard

- 1 x 10⁶ repeating switching cycles
- 1 x 10⁶ reversing switching cycles

• LongLife

- 10 x 10⁶ repeating switching cycles
- 15 x 10⁶ reversing switching cycles

Control

- DC supply
- AC supply via rectifier in the terminal box

Enclosure

- Without manual release IP55
- With manual release IP54

Friction lining

- Non-asbestos, low wearing

Options

- Manual release
- UL/CSA approval
- Noise-reduced

Assignment of 4-pole motors and brakes

Design	Standard		LongLife	
Motor frame size	Size Brake	Rated torque M_k [Nm]	Size Brake	Rated torque M_k [Nm]
063-02 063-12 063-22 063-32 063-42	06 06	2.50 4.00	06	4.00
071-12 071-32	06 06 08	2.50 4.00 3.50	06 08	4.00 3.50
071-42	06 06 08 08	2.50 4.00 3.50 8.00	06 08 08	4.00 3.50 8.00
080-12 080-32	08 08 10	3.50 8.00 7.00	08 10	8.00 7.00
080-42	08 08 10 10	3.50 8.00 7.00 16.0	08 10 10	8.00 7.00 16.0

MD three-phase AC motors

Accessories



Spring-applied brake

Assignment of 4-pole motors and brakes

Design		Standard		LongLife		
Motor frame size	Size Brake	Rated torque M_k [Nm]		Size Brake	Rated torque M_k [Nm]	
090-12 090-32	08	3.50		08 10 10	8.00 7.00 16.0	
	08	8.00				
	10	7.00				
	10	16.0				
	10	23.0				
100-12	10	7.00		10 12 12	16.0	
	10	16.0				
	12	14.0				
	12	32.0				
100-32	10	7.00			12 12	14.0 32.0
	10	16.0				
	12	14.0				
	12	32.0				
	12	46.0				
112-22 112-32	12	14.0				
	12	32.0				
	14	35.0				
132-12	14	60.0				
	14	35.0				
	14	60.0				
	16	80.0				
132-22 132-32	16	80.0				
	16	35.0				
	16	60.0				
	16	60.0				
	16	100				
160-22	16	60.0				
	16	80.0				
	18	80.0				
	18	150				
160-32	18	200				
	18	80.0				
	18	150				
180-12	20	145				
	20	260				
	20	80.0				
	20	150				
180-32	20	260				
	20	315				
	20	80.0				
	20	150				
	20	145				
180-42	20	260				
	20	315				
	20	400				
	20	80.0				
	20	150				
	20	145				

6.11

MD three-phase AC motors

Accessories



Spring-applied brake

Assignment of 4-pole motors and brakes

Design		Standard		LongLife	
Motor frame size	Size	Rated torque		Size	Rated torque
	Brake			Brake	
		M_k			M_k
		[Nm]			[Nm]
225-12	25	265			
	25	400			
	25	490			
225-22	25	265			
	25	400			
	25	490			
	25	600			

Assignment of 2-pole motors and brakes

Design		Standard		LongLife	
Motor frame size	Size	Rated torque		Size	Rated torque
	Brake			Brake	
		M_k			M_k
		[Nm]			[Nm]
063-11	06	2.50		06	2.50
063-31	06	4.00		06	4.00
071-11	06	2.50		06	4.00
	06	4.00			
071-31	08	3.50		08	3.50
	08	3.50			
080-11	08	3.50		08	8.00
	08	8.00			
	10	7.00			
090-31	08	3.50		08	8.00
	08	8.00			
	10	7.00			
	10	16.0			
100-31	12	14.0		12	14.0
	12	32.0			
100-41	12	14.0		12	32.0
	12	32.0			
112-31	12	14.0			
	12	32.0			
112-41	14	35.0			
	14	60.0			
132-21	14	35.0			
	16	60.0			
	14	60.0			
	16	80.0			



Spring-applied brake

Direct connection without rectifier

If the brake is activated directly without a rectifier, a freewheeling diode or a spark suppressor is required to protect against induction peaks.

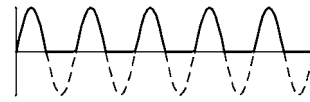
- Supply voltages
 - DC 24 V
 - DC 180 V
 - DC 205 V

Connection via mains voltage with brake rectifier

If the brake is not directly supplied with DC voltage, a rectifier is required. This is included in the scope of supply and is located in the terminal box of the motor. The rectifier converts the AC voltage of the connection into DC voltage. The following rectifiers are available:

Half-wave rectifier, 6-pole

- Ratio of supply voltage to brake coil voltage = 2.22
- Approved by UL/CSA
- Supply voltages
 - AC 230 V
 - AC 400 V
 - AC 460 V



Bridge rectifier, 6-pole

- Ratio of supply voltage to brake coil voltage = 1.11
- Supply voltage
 - AC 230 V



Bridge/half-wave rectifier, 6-pole

- Ratio of supply voltage to brake coil voltage
 - up to overexcitation time = 1.11
 - beyond overexcitation time = 2.22



Supply voltages:

- AC 230 V
- AC 400 V

MD three-phase AC motors

Accessories



Spring-applied brake

Connection via mains voltage with brake rectifier

Bridge/half-wave rectifier, 6-pole

- Ratio of supply voltage to brake coil voltage up to overexcitation time = 1.11
beyond overexcitation time = 2.22



Supply voltages:

- AC 230 V
- AC 400 V

During the switching operation the bridge/half-wave rectifier functions as a bridge rectifier for the overexcitation time t_{ij} and then as a half-wave rectifier. This combination optimises the performance of the brake – depending on the assignment of brake coil voltage and supply voltage:

• Short-time overexcitation of the brake coil

Activating the brake coil for the overexcitation time t_{ij} with twice the rated voltage allows the disengagement time to be reduced. The brake opens more quickly and wear on the friction lining is reduced.

These features make this activation version particularly suitable for lifting applications. It is therefore only available in combination with a brake with increased braking torque.

• Holding current reduction (cold brake)

By reducing the holding current, the bridge/half-wave rectifier is able to reduce the power input to the open brake. As the brake heats up less, this type of activation is known as "cold brake".

MD three-phase AC motors

Accessories



Spring-applied brake

Rated data with reduced braking torque

- Please enquire for braking torques and maximum switching work values not listed here.

Size			06	08	10	12	14	16	18	20	25
Power input											
	P_{in}	[kW]	0.020	0.025	0.030	0.040	0.050	0.055	0.085	0.10	0.11
Braking torque											
100	M_B	[Nm]	2.50	3.50	7.00	14.0	35.0	60.0	80.0	145	265
1000	M_B	[Nm]	2.30	3.10	6.10	12.0	30.0	50.0	65.0	115	203
1200	M_B	[Nm]	2.30	3.10	6.00	12.0	29.0	48.0	63.0	112	199
1500	M_B	[Nm]	2.20	3.00	5.80	11.0	28.0	47.0	61.0	109 ¹⁾	193 ¹⁾
1800	M_B	[Nm]	2.10	2.90	5.70	11.0	28.0	46.0	60.0 ¹⁾		
3000	M_B	[Nm]	2.00	2.80	5.30	10.0	26.0 ¹⁾	43.0 ¹⁾			
3600	M_B	[Nm]	2.00	2.70	5.20	10.0 ¹⁾					
Maximum switching energy											
100	Q_E	[KJ]	3.00	7.50	12.0	24.0	30.0	36.0	60.0	80.0	120
1000	Q_E	[KJ]	3.00	7.50	12.0	24.0	30.0	36.0	60.0	80.0	120
1200	Q_E	[KJ]	3.00	7.50	12.0	24.0	30.0	36.0	60.0	80.0	120
1500	Q_E	[KJ]	3.00	7.50	12.0	24.0	30.0	36.0	60.0	24.0 ¹⁾	36.0 ¹⁾
1800	Q_E	[KJ]	3.00	7.50	12.0	24.0	30.0	36.0	36.0 ¹⁾		
3000	Q_E	[KJ]	3.00	7.50	12.0	24.0	18.0 ¹⁾	11.0 ¹⁾			
3600	Q_E	[KJ]	3.00	7.50	12.0	7.00 ¹⁾					
Transition operating frequency											
	$S_{h\ddot{u}}$	[1/h]	79.0	50.0	40.0	30.0	28.0	27.0	20.0	19.0	15.0
Moment of inertia											
	J	[kgcm ²]	0.015	0.061	0.20	0.45	0.63	1.50	2.90	7.30	20.0
Mass											
	m	[kg]	0.90	1.50	2.60	4.20	5.80	8.70	12.6	19.5	31.0

¹⁾ In the region of the load limit the value for friction energy Q_{BW} can be reduced to 40 %.

MD three-phase AC motors

Accessories



Spring-applied brake

Rated data with reduced braking torque

- Activation via half-wave or bridge rectifier

Size			06	08	10	12	14	16	18	20	25
Friction energy	Q_{BW}	[MJ]	113	210	264	706	761	966	1542	2322	3522
Delay time											
Engaging	t_{11}	[ms]	11.0	14.0	20.0	21.0	37.0	53.0	32.0	47.0	264
Rise time											
Braking torque	t_{12}	[ms]	13.0	10.0	17.0	19.0	22.0	30.0	20.0	100	120
Engagement time											
	t_1	[ms]	24.0		37.0	40.0	59.0	83.0	52.0	147	384
Disengagement time											
	t_2	[ms]	35.0	37.0	57.0	65.0	148	169	230	207	269

- Activation via bridge/half-wave rectifier

Design			Holding current reduction (cold brake)								
Size			06	08	10	12	14	16	18	20	25
Friction energy	Q_{BW}	[MJ]	113	210	264	706	761	966	1542	2322	3522
Overexcitation time											
	$t_{\ddot{u}}$	[ms]	300				1300				
Min. rest time											
	t	[ms]	900				3900				
Delay time											
Engaging	t_{11}	[ms]	12.0	22.0	35.0	49.0	61.0	114	83.0	126	304
Rise time											
Braking torque	t_{12}	[ms]	14.0	16.0	30.0	45.0	37.0	65.0	52.0	269	138
Engagement time											
	t_1	[ms]	26.0	38.0	66.0	93.0	97.0	180	134	395	443
Disengagement time											
	t_2	[ms]	35.0	37.0	57.0	65.0	148	169	230	207	269

- The brake response and application times are guide values. The engagement time is 10 times longer with AC-side switching. With the maximum air gap the disengagement time t_2 – depending on the brake and control – is up to 4 times longer than the disengagement time with the rated air gap.

MD three-phase AC motors

Accessories



Spring-applied brake

Rated data with standard braking torque

- Please enquire for braking torques and maximum switching work values not listed here.

Size			06	08	10	12	14	16	18	20	25
Power input											
	P_{in}	[kW]	0.020	0.025	0.030	0.040	0.050	0.055	0.085	0.10	0.11
Braking torque											
100	M_B	[Nm]	4.00	8.00	16.0	32.0	60.0	80.0	150	260	400
1000	M_B	[Nm]	3.70	7.20	14.0	27.0	51.0	66.0	121	206	307
1200	M_B	[Nm]	3.60	7.00	14.0	27.0	50.0	65.0	118	201	300
1500	M_B	[Nm]	3.50	6.80	13.0	26.0	48.0	63.0	115	195 ¹⁾	291 ¹⁾
1800	M_B	[Nm]	3.40	6.70	13.0	26.0	47.0	61.0	112 ¹⁾		
3000	M_B	[Nm]	3.20	6.30	12.0	24.0	44.0 ¹⁾	57.0 ¹⁾			
3600	M_B	[Nm]	3.20	6.10	12.0	23.0 ¹⁾					
Maximum switching energy											
100	Q_E	[KJ]	3.00	7.50	12.0	24.0	30.0	36.0	60.0	80.0	120
1000	Q_E	[KJ]	3.00	7.50	12.0	24.0	30.0	36.0	60.0	80.0	120
1200	Q_E	[KJ]	3.00	7.50	12.0	24.0	30.0	36.0	60.0	80.0	120
1500	Q_E	[KJ]	3.00	7.50	12.0	24.0	30.0	36.0	60.0	24.0 ¹⁾	36.0 ¹⁾
1800	Q_E	[KJ]	3.00	7.50	12.0	24.0	30.0	36.0	36.0 ¹⁾		
3000	Q_E	[KJ]	3.00	7.50	12.0	24.0	18.0 ¹⁾	11.0 ¹⁾			
3600	Q_E	[KJ]	3.00	7.50	12.0	7.00 ¹⁾					
Transition operating frequency											
	$S_{h\ddot{u}}$	[1/h]	79.0	50.0	40.0	30.0	28.0	27.0	20.0	19.0	15.0
Moment of inertia											
	J	[kgcm ²]	0.015	0.061	0.20	0.45	0.63	1.50	2.90	7.30	20.0
Mass											
	m	[kg]	0.90	1.50	2.60	4.20	5.80	8.70	12.6	19.5	31.0

¹⁾ In the region of the load limit the value for friction energy Q_{BW} can be reduced to 40 %.

MD three-phase AC motors

Accessories



Spring-applied brake

Rated data with standard braking torque

- Activation via half-wave or bridge rectifier

Size			06	08	10	12	14	16	18	20	25
Friction energy	Q_{BW}	[MJ]	85.0	158	264	530	571	966	1542	2322	3522
Delay time											
Engaging	t_{11}	[ms]	15.0		28.0		17.0	27.0	33.0	65.0	110
Rise time											
Braking torque	t_{12}	[ms]	13.0	16.0	19.0	25.0		30.0	45.0	100	120
Engagement time											
	t_1	[ms]	28.0	31.0	47.0	53.0	42.0	57.0	78.0	165	230
Disengagement time											
	t_2	[ms]	45.0	57.0	76.0	115	210	220	270	340	390

- Activation via bridge/half-wave rectifier

Design			Holding current reduction (cold brake)								
Size			06	08	10	12	14	16	18	20	25
Friction energy	Q_{BW}	[MJ]	85.0	158	264	530	571	966	1542	2322	3522
Overexcitation time											
	$t_{\ddot{u}}$	[ms]	300				1300				
Min. rest time											
	t	[ms]	900				3900				
Delay time											
Engaging	t_{11}	[ms]	16.0	25.0	31.0	48.0	33.0	58.0	80.0	102	154
Rise time											
Braking torque	t_{12}	[ms]	14.0	27.0	21.0	43.0	49.0	64.0	109	157	168
Engagement time											
	t_1	[ms]	30.0	52.0		90.0	82.0	122	189	259	322
Disengagement time											
	t_2	[ms]	45.0	57.0	76.0	115	210	220	270	340	390

- The brake response and application times are guide values. The engagement time is 10 times longer with AC-side switching. With the maximum air gap the disengagement time t_2 – depending on the brake and control – is up to 4 times longer than the disengagement time with the rated air gap.

MD three-phase AC motors

Accessories



Spring-applied brake

Rated data with increased braking torque

- Please enquire for braking torques and maximum switching work values not listed here.

Size			10	12	14	16	16	18	20	20	25	25
Power input												
	P_{in}	[kW]	0.030	0.040	0.050	0.055	0.055	0.085	0.10	0.10	0.11	0.11
Braking torque												
100	M_B	[Nm]	23.0	46.0	75.0	100	125	200	315	400	490	600
1000	M_B	[Nm]	20.0	39.0	64.0	83.0	103	162	249	317	376	461
1200	M_B	[Nm]	20.0	39.0	62.0	81.0	101	158	244	309	367	449
1500	M_B	[Nm]	19.0	38.0	60.0	78.0	98.0	153	237 ¹⁾	300 ¹⁾	356 ¹⁾	436 ¹⁾
1800	M_B	[Nm]	19.0	37.0	59.0	77.0	96.0	150 ¹⁾				
3000	M_B	[Nm]	17.0	34.0	55.0 ¹⁾	71.0 ¹⁾	89.0 ¹⁾					
3600	M_B	[Nm]	17.0	33.0 ¹⁾								
Maximum switching energy												
100	Q_E	[KJ]	12.0	24.0	30.0	36.0	36.0	60.0	80.0	80.0	120	120
1000	Q_E	[KJ]	12.0	24.0	30.0	36.0	36.0	60.0	80.0	80.0	120	120
1200	Q_E	[KJ]	12.0	24.0	30.0	36.0	36.0	60.0	80.0	80.0	120	120
1500	Q_E	[KJ]	12.0	24.0	30.0	36.0	36.0	60.0	24.0 ¹⁾	24.0 ¹⁾	36.0 ¹⁾	36.0 ¹⁾
1800	Q_E	[KJ]	12.0	24.0	30.0	36.0	36.0	36.0 ¹⁾				
3000	Q_E	[KJ]	12.0	24.0	18.0 ¹⁾	11.0 ¹⁾	11.0 ¹⁾					
3600	Q_E	[KJ]	12.0	7.00 ¹⁾								
Transition operating frequency												
	$S_{h\ddot{u}}$	[1/h]	40.0	30.0	28.0	27.0	27.0	20.0	19.0	19.0	15.0	15.0
Moment of inertia												
	J	[kgcm ²]	0.20	0.45	0.63	1.50	1.50	2.90	7.30	7.30	20.0	20.0
Mass												
	m	[kg]	2.60	4.20	5.80	8.70	8.70	12.6	19.5	19.5	31.0	31.0

¹⁾ In the region of the load limit the value for friction energy Q_{BW} can be reduced to 40 %.

- Activation via half-wave or bridge rectifier

Size			10	12	14	16	18	20	25			
Friction energy												
	Q_{BW}	[MJ]	198	353	253	563	241	578	1596	580	2465	1409
Delay time												
Engaging	t_{11}	[ms]	10.0	16.0	11.0	22.0	17.0	24.0	46.0	17.0	77.0	38.0
Rise time												
Braking torque	t_{12}	[ms]	19.0	25.0	30.0	45.0	100	120				
Engagement time												
	t_1	[ms]	29.0	41.0	36.0	52.0	47.0	69.0	146	117	197	158
Disengagement time												
	t_2	[ms]	109	193	308	297	435	356	378	470	451	532

MD three-phase AC motors

Accessories



Spring-applied brake

Rated data with increased braking torque

- Activation via bridge/half-wave rectifier

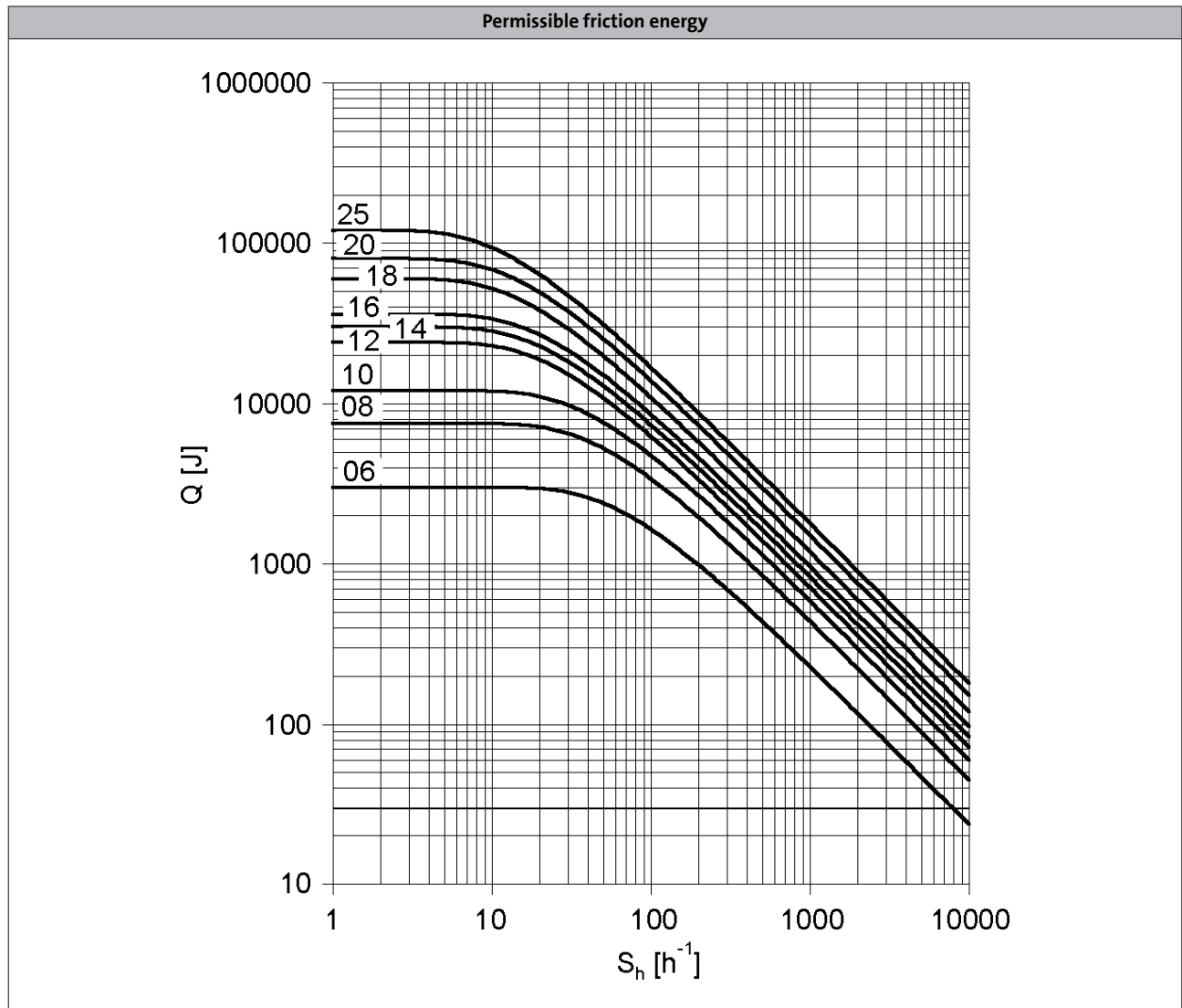
Design			Holding current reduction (cold brake)										
Size			10	12	14	16	18	20	25				
Friction energy													
	Q_{BW}	[MJ]	198	353	253	563	241	578	1596	580	2465	1409	
Overexcitation time													
	$t_{\ddot{u}}$	[ms]	300					1300					
Min. rest time													
	t	[ms]	900					3900					
Delay time													
Engaging	t_{11}	[ms]	24.0	27.0	17.0	41.0	21.0	60.0	69.0	17.0	123	85.0	
Rise time													
Braking torque	t_{12}	[ms]	44.0	43.0	37.0	55.0	37.0	113	148	100	190	270	
Engagement time													
	t_1	[ms]	68.0	70.0	54.0	97.0	57.0	173	217	334	313	355	
Disengagement time													
	t_2	[ms]	109	193	308	297	435	356	378	470	451	532	

Design			Over-excitation										
Size			10	12	14	16	18	20	25				
Friction energy													
	Q_{BW}	[MJ]	264	706	761	966	1542	2322	3522				
Overexcitation time													
	$t_{\ddot{u}}$	[ms]	300					1300					
Min. rest time													
	t	[ms]	900					3900					
Delay time													
Engaging	t_{11}	[ms]	29.0	54.0	31.0	70.0	46.0	86.0	103	55.0	171	135	
Rise time													
Braking torque	t_{12}	[ms]	53.0	87.0	68.0	93.0	83.0	160	222	319	266	430	
Engagement time													
	t_1	[ms]	82.0	141	99.0	163	129	246	325	374	437	565	
Disengagement time													
	t_2	[ms]	53.0	81.0	117	141	168	151	160	167	184	204	

- The brake response and application times are guide values. The engagement time is 10 times longer with AC-side switching. With the maximum air gap the disengagement time t_2 – depending on the brake and control – is up to 4 times longer than the disengagement time with the rated air gap.



Spring-applied brake



Q = Switching energy per switching cycle

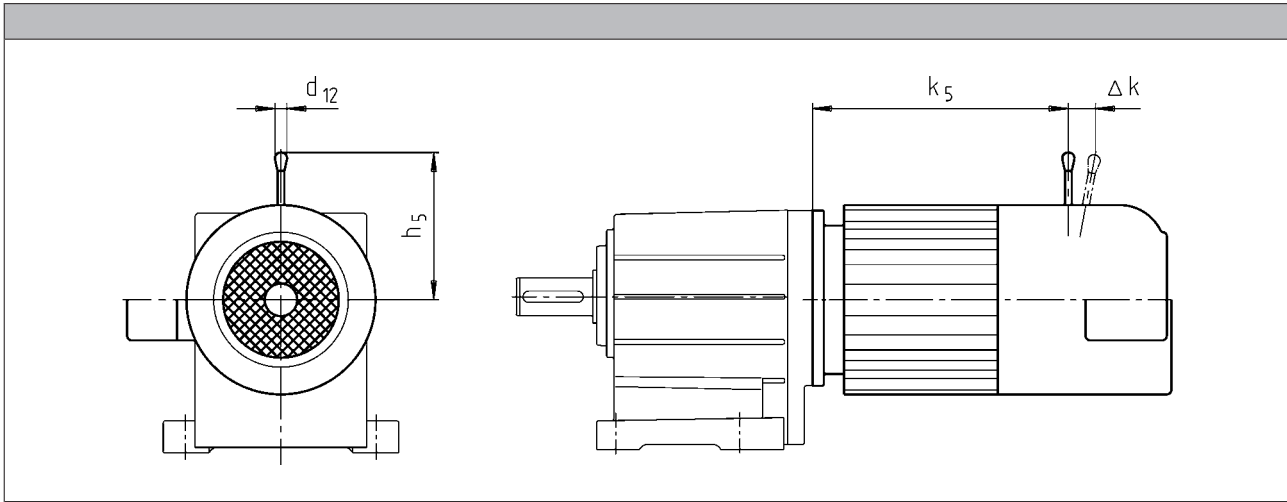
S_h = Operating frequency

Brake size = 06 to 25



Spring-applied brake

Manual release lever



Motor frame size			Size	Brake			
				k ₅	Δ k	h ₅	d ₁₂
				[mm]	[mm]	[mm]	[mm]
	063-02 063-22		06	185	29	107	13.0
063-11 063-31	063-12 063-32 063-42		06	173	29	107	13.0
071-11 071-31	071-32 071-42	071-13 071-33	06 08	186 187	29 27	107 116	13.0 13.0
080-11 080-31	080-32 080-42	080-13 080-33	06 08	207 218	29 27	107 116	13.0 13.0
090-11 090-31	090-32		08 10	245 256	27 28	116 132	13.0 13.0
100-31 100-41	100-12 100-32		10 12	279 281	28 37	132 161	13.0 13.0
112-31	112-22		12 14	292 296	37 41	161 195	13.0 24.0
112-41	112-32		12 14	336 340	37 41	161 195	13.0 24.0
132-21	132-22 132-32		14 16	373 373	41 55	195 240	24.0 24.0
	160-22		16 18	420 423	59 55	279 240	24.0 24.0
	160-32		16 18	464 467	55 59	240 279	24.0 24.0
	180-12 180-32		18 20	539 546	59 74	279 319	24.0 24.0
	180-42		18 20	596 603	59 74	279 319	24.0 24.0
	225-12 225-22		25 25	785 785	103 103	445 445	24.0 24.0

The following combinations with manual release lever and motor connection in the same position are not possible:

- HAN connector with connection in position 1
- Inverter motec
- Terminal box of motor sizes 071, 080, 090 for brake and retracting (M□□MA BR/BS/BA/BI)

MD three-phase AC motors

Accessories



Resolver

Stator-fed resolver with two stator windings offset by 90° and one rotor winding with transformer winding.

- ▶ The three-phase AC motors with resolver cannot be used for speed-dependent safety functions in connection with the SM 301 safety module.

Product key				RS1
Accuracy				
		[°]		-10 ... 10
Absolute positioning				
				1 revolution
Max. input voltage				
DC	$U_{in,max}$	[V]		10.0
Max. input frequency				
	$f_{in,max}$	[kHz]		4.00
Ratio				
Stator / rotor		$\pm 5\%$		0.30
Rotor impedance				
	Z_{ro}	[Ω]		$51 + j90$
Stator impedance				
	Z_{so}	[Ω]		$102 + j150$
Impedance				
	Z_{rs}	[Ω]		$44 + j76$
Min. insulation resistance				
At DC 500 V	R	[M Ω]		10.0
Number of pole pairs				
				1

MD three-phase AC motors

Accessories



Incremental encoder and SinCos absolute value encoder

- ▶ The three-phase AC motors with incremental encoders or SinCos absolute value encoders cannot be used for speed-dependent safety functions in connection with the SM 301 safety module.

Encoder type			HTL incremental				TTL incremental			SinCos absolute value
Product key			IG128-24V-H	IG512-24V-H	IG1024-24V-H	IG2048-24V-H	IG512-5V-T	IG1024-5V-T	IG2048-5V-T	AM1024-8V-H
Encoder type									Multi-turn	
Pulses			128	512	1024	2048	512	1024	2048	1024
Output signals			HTL				TTL			1 Vss
Interfaces			A, B track	A, B, N track and inverted					Hiperface	
Absolute revolutions			0						4096	
Accuracy			[°]	-22.5 ... 22.5		-2 ... 2			-0.8 ... 0.8	
Min. input voltage			DC	$U_{in,min}$	[V]	8.00		4.75	7.00	
Max. input voltage			DC	$U_{in,max}$	[V]	26.0	30.0		5.25	12.0
Max. current consumption				I_{max}	[A]	0.040	0.15			0.080
Limit frequency				f_{max}	[kHz]	30.0	160		300	200
Inverter assignment			E84AVSC E84AVHC	E84AVHC			E84AVTC E94A ECS EVS93			

Inverters

- Inverter Drives 8400 StateLine (E84AVSC)
- Inverter Drives 8400 HighLine (E84AVHC)
- Inverter Drives 8400 TopLine (E84AVTC)

Servo-Inverters

- Servo Drives 9400 (E94A)
- 9300 servo inverters (EVS93)
- Servo Drives ECS

MD three-phase AC motors

Accessories



Blowers

- The use of a blower enables operation below 20 Hz without torque derating.

Rated data for 50 Hz

Size	Number of phases	Connection method					
Motor			U_{\min}	U_{\max}	P_{\max}	I_{\max}	m
			[V]	[V]	[kW]	[A]	[kg]
063	1		230	277	0.027	0.11	2.00
	3	Δ	200	303	0.028	0.12	
Y		346	525	0.070			
071	1		230	277	0.027	0.10	2.10
	3	Δ	200	303	0.031	0.11	
Y		346	525	0.060			
080	1		230	277	0.029	0.11	2.30
	3	Δ	200	303	0.031	0.060	
Y		346	525				
090	1		220	277	0.065	0.29	2.70
	3	Δ	200	303	0.091	0.38	
Y		346	525	0.22			
100	1		220	277	0.066	0.28	3.00
	3	Δ	200	303	0.091	0.37	
Y		346	525	0.22			
112	1		220	277	0.071	0.28	3.10
	3	Δ	200	303	0.097	0.35	
Y		346	525	0.20			
132	1		230	277	0.098	0.40	4.20
	3	Δ	200	303	0.12	0.58	
Y		346	525	0.33			
160	1		230	277	0.25	0.97	6.20
	3	Δ	200	303		0.87	
Y		346	525	0.50			
180	1		230	277	0.25	0.97	8.00
	3	Δ	200	303		0.87	
Y		346	525	0.50			

MD three-phase AC motors

Accessories



Blowers

Rated data for 50 Hz

Size	Number of phases	Connection method					
Motor			U_{min}	U_{max}	P_{max}	I_{max}	m
			[V]	[V]	[kW]	[A]	[kg]
200	1		230	277	0.25	0.97	8.00
		Δ	200	303		0.87	
	3	Y	346	525		0.50	
225	3	Δ	200	400	0.28	1.10	15.0
		Y	346	525	0.17	0.35	

Rated data for 60 Hz

Size	Number of phases	Connection method					
Motor			U_{min}	U_{max}	P_{max}	I_{max}	m
			[V]	[V]	[kW]	[A]	[kg]
063	1		230	277	0.032	0.12	2.00
		Δ	220	332	0.028	0.10	
	3	Y	380	575		0.060	
071	1		230	277	0.033	0.12	2.10
		Δ	220	332	0.029	0.10	
	3	Y	380	575		0.060	
080	1		230	277	0.037	0.14	2.30
		Δ	220	332	0.034	0.10	
	3	Y	380	575		0.060	
090	1		220	277	0.065	0.25	2.70
		Δ	220	332	0.077	0.33	
	3	Y	380	575		0.19	
100	1		220	277	0.075	0.30	3.00
		Δ	220	332	0.087	0.31	
	3	Y	380	575		0.18	
112	1		220	277	0.094	0.37	3.10
		Δ	220	332	0.10	0.31	
	3	Y	380	575		0.18	
132	1		230	277	0.15	0.57	4.20
		Δ	220	332		0.44	
	3	Y	380	575		0.25	
160	1		220	332	0.36	0.93	6.20
		Δ	220	332		0.56	
	3	Y	380	575			
180	1		220	332	0.36	0.93	8.00
		Δ	220	332		0.56	
	3	Y	380	575			
200	1		220	332	0.28	0.76	15.0
		Δ	220	332		0.56	
	3	Y	380	575			
225	1		220	400	0.28	0.76	15.0
		Δ	220	400		0.43	
	3	Y	380	575			

6.11

MD three-phase AC motors

Accessories



Temperature monitoring

- The thermal sensors are integrated in the windings. The use of an additional motor protection switch is recommended.

TKO thermal contacts

Function	Operating temperature	Min. reset temperature	Max. reset temperature	Max. input current	Max. input voltage
	T	T_{min}	T_{max}	$I_{in,max}$	AC $U_{in,max}$
	-5 ... 5 [°C]	[°C]	[°C]	[A]	[V]
NC contact	150	90.0	135	2.50	250

PTC thermistor

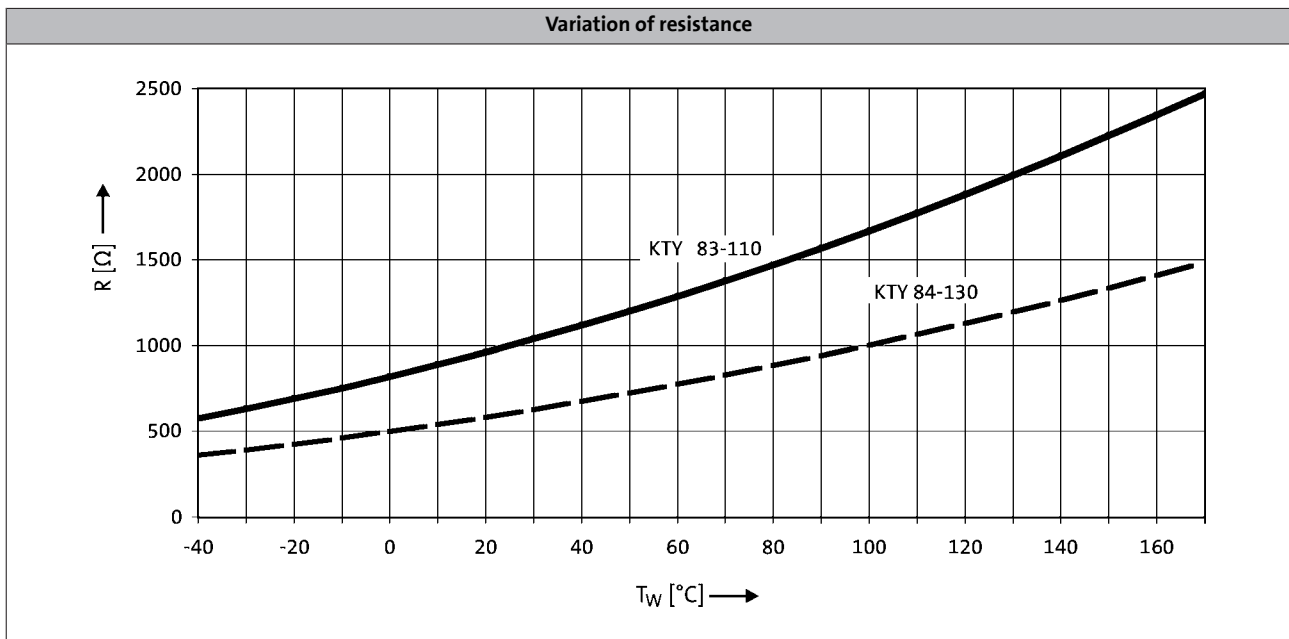
Function	Operating temperature	Rated resistance			Standard
		155 °C	-20 °C	140 °C	
	T	R_N	R_N	R_N	
	-5 ... 5 [°C]	[Ω]	[Ω]	[Ω]	
Sudden change in resistance	150	550	30.0	250	DIN 44080 DIN VDE 0660 Part 303



Temperature monitoring

KTY temperature sensor

	Function	Rated resistance			Max. input current	
		25 °C	150 °C	170 °C	25 °C	170 °C
		R_N [Ω]	R_N [Ω]	R_N [Ω]	$I_{in,max}$ [A]	$I_{in,max}$ [A]
KTY83-110	Continuous resistance change	1000	2225	2471	0.010	0.002
KTY84-130	Continuous resistance change	603	1334	1482	0.010	0.002



- If the detector is supplied with a measured current of 1 mA, the above relationship between the temperature and the resistance applies.

MD three-phase AC motors

Accessories



Terminal box

The three-phase AC motors are designed for operation at a constant mains frequency and with an inverter.

For 50 Hz operation, the motors are operated in Δ configuration at 230 V or in star configuration at 400 V.

For inverter operation, the base frequency has been specified as 87 Hz at a rated voltage of 400 V in Δ configuration.

In the standard version, the motors are connected in the terminal box. As an option, the motors are also available with the connectors described on the following pages as long as the permissible ratings are not exceeded.

Motor terminal box - built-on accessories assignment: 4-pole / 6-pole motors

Motor type	M□□MAXX	M□□MARS M□□MAIG M□□MAAG	M□□MAZE M□□MAHA	M□□MALL	M□□MALZ M□□MALH
Motor frame size	Terminal box				
063-02 063-22	KK1	KK2			
063-12 063-32 063-42	KK1	KK2			
071-32 071-42 071-13 071-33	KK1	KK2	KK2	KK1	KK1
080-13 080-32 080-33 080-42	KK1	KK2	KK2	KK1	KK1
090-12 090-32	KK1	KK2	KK2	KK1	KK1
100-12 100-32	KK1	KK2	KK2	KK2	KK2
112-22 112-32	KK1	KK2	KK2	KK1	KK1
132-12 132-22 132-32	KK1	KK3	KK3	KK1	KK1
160-22 160-32	KK3	KK3			
180-12 180-32 180-42 180-42	KK3	KK3			
225-12 225-22	KK3	KK3			

MD three-phase AC motors

Accessories



Terminal box

Motor terminal box - built-on accessories assignment: 4-pole / 6-pole motors

Motor type	M□□MABR	M□□MABS M□□MABI M□□MABA	M□□MABZ M□□MABH	M□□MABL
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Motor frame size	Terminal box			
	063-02 063-22	KK2	KK3	
063-12 063-32 063-42	KK2	KK3		
071-32 071-42 071-13 071-33	KK2	KK3	KK2	KK2
080-13 080-32 080-33 080-42	KK2	KK3	KK2	KK2
090-12 090-32	KK2	KK3	KK2	KK2
100-12 100-32	KK2	KK3	KK2	KK2
112-22 112-32	KK2	KK3	KK2	KK2
132-12 132-22 132-32	KK3	KK3	KK3	KK3
160-22 160-32	KK3	KK3		
180-12 180-32 180-42	KK3	KK3		
225-12 225-22	KK3	KK3		

MD three-phase AC motors

Accessories



Terminal box

Motor terminal box - built-on accessories assignment: 2-pole motors

Motor type	M□□MAXX	M□□MAZE	M□□MALL	M□□MALZ
Motor frame size	Terminal box			
063-11 063-31	KK1			
071-11 071-31	KK1	KK2	KK1	KK2
080-11 080-31	KK1	KK2	KK1	KK2
090-31 090-11	KK1	KK2	KK1	KK2
100-31 100-41	KK1	KK2	KK1	KK2
112-31 112-41	KK1	KK2	KK1	KK2
132-21	KK1	KK3	KK1	KK3

Motor type	MD□MABR	MD□MABZ	MD□MABL
Motor frame size	Terminal box		
063-11 063-31	KK2		
071-11 071-31	KK2	KK2	
080-11 080-31	KK2	KK2	KK2
090-31 090-11	KK2	KK2	KK2
100-31 100-41	KK2	KK2	KK2
112-31 112-41	KK2	KK2	KK2
132-21	KK3	KK3	KK3

MD three-phase AC motors

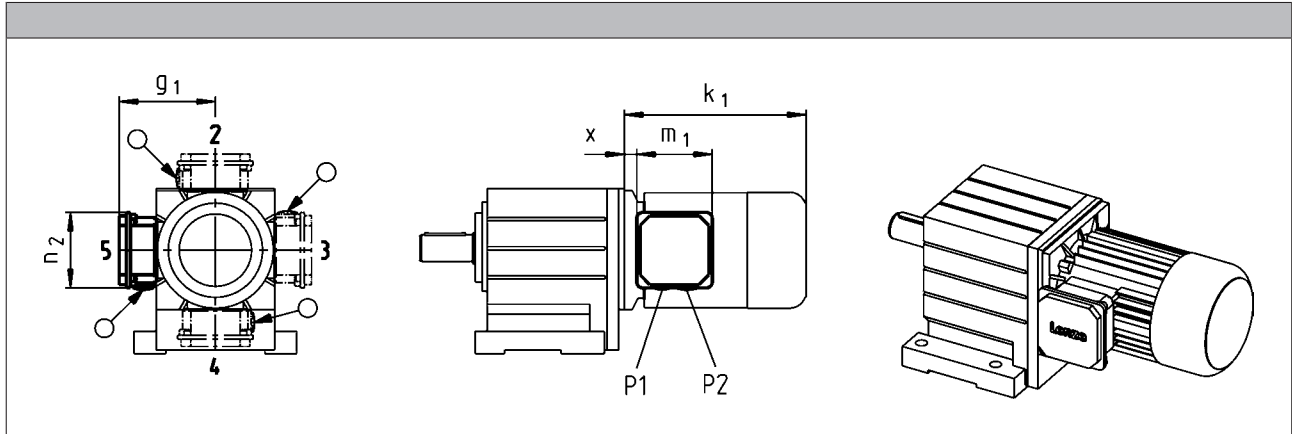
Accessories



Terminal box

Dimensions of KK1

- ▶ For motors with motor terminal box KK1, the connector position can be selected in accordance with the terminal box position.
- ▶ If preferred positions are not specified in the order, the cable entry will be positioned as circled on the diagram below.



Size						
Motor						
	x	g ₁	m ₁	n ₂	P ₁	P ₂
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
063	21 12 ¹⁾	100 117 ¹⁾	75.0 93.0 ¹⁾	75.0 93.0 ¹⁾	M16x1.5 M20x1.5 ¹⁾	M20x1.5 M20x1.5
071	24 15 ¹⁾	109 126 ¹⁾				
080	14	150	115	115	M20x1.5	M25x1.5
090	19	157				
100	20	166				
112	22	176				
132	33	195	122	122	M32x1.5	M32x1.5

¹⁾ UL/CSA approval: cURus

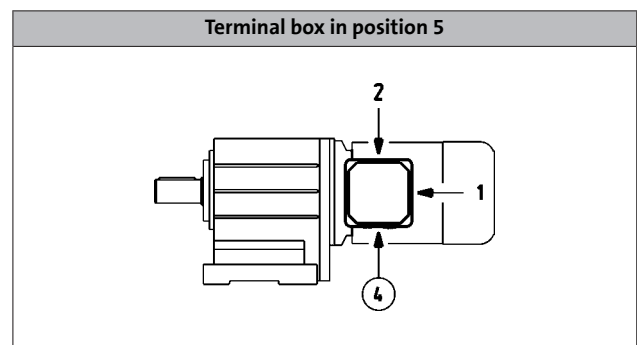
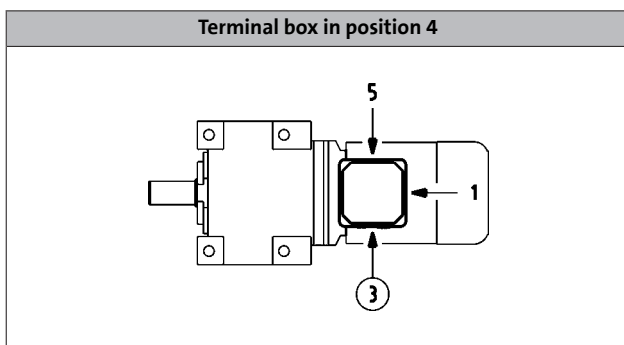
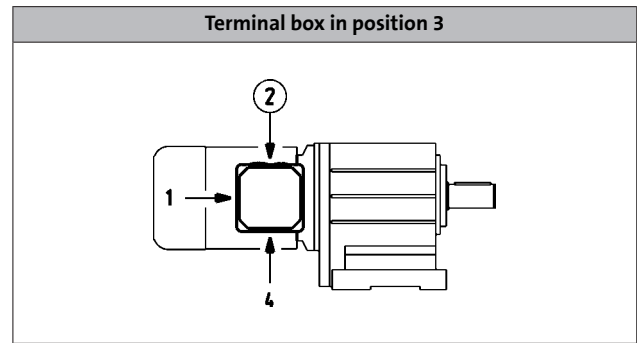
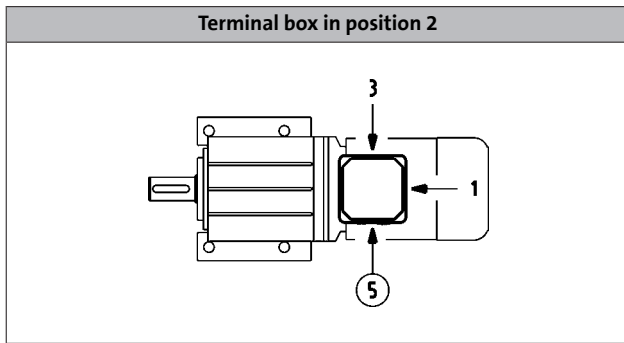
MD three-phase AC motors

Accessories



Terminal box

Cable entry position when using KK1



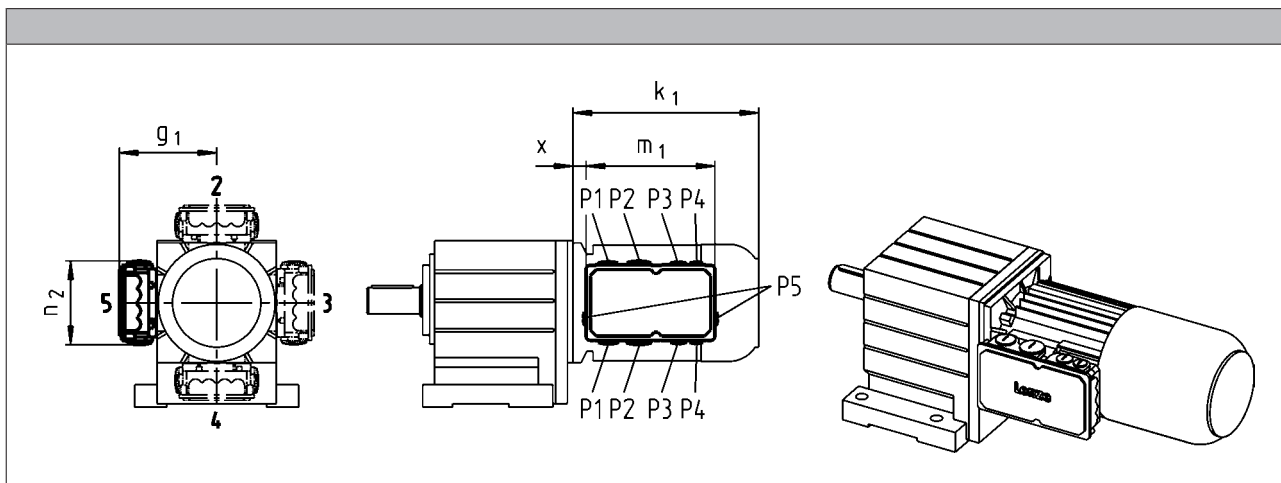
MD three-phase AC motors

Accessories



Terminal box

Dimensions of KK2



Size						
Motor						
	x	g ₁	m ₁	n ₂	P ₁	P ₂
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
063	13	107	136	103	M16x1.5	M20x1.5
071	15	118				
080	17	132				
090	22	137	152	121	M20x1.5	M25x1.5
100	23	147				
112	25	158				

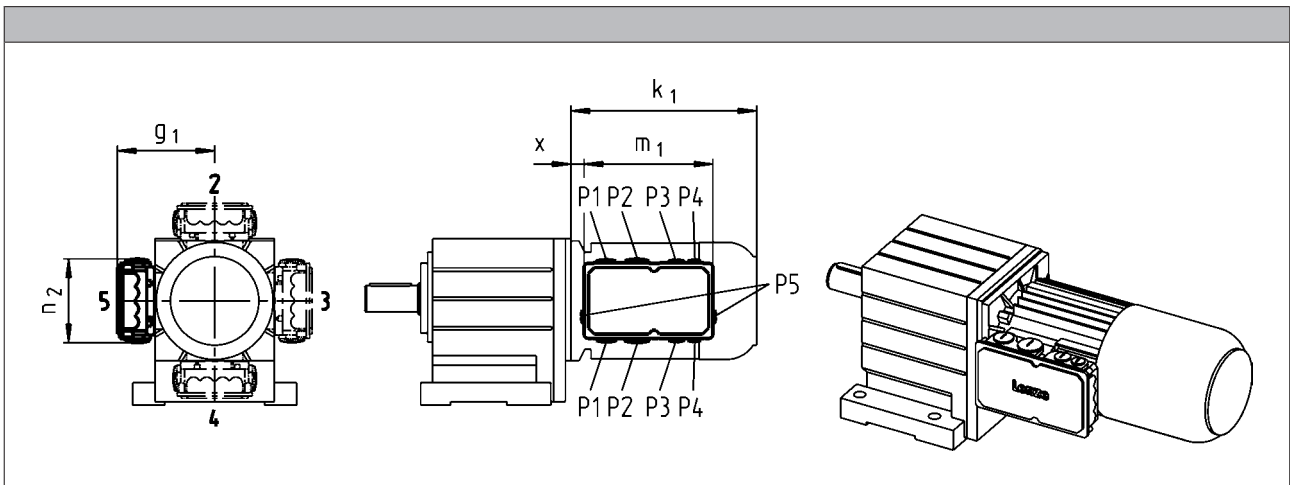
MD three-phase AC motors

Accessories



Terminal box

Dimensions of KK3



Size									
Motor	x	g ₁	m ₁	n ₂	P ₁	P ₂	P ₃	P ₄	P ₅
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
063	2	124	195	125	M25x1.5	M32x1.5	M20x1.5	M20x1.5	
071	5	133							
080	15	142							
090	20	147							
100	21	158							
112	23	168							
132	38	187	226	127	M50x1.5	M16x1.5	M16x1.5		
160	35	210							
180	73	230							
225	95	346	354	205		M63x1.5 ¹⁾	M50x1.5 ¹⁾		M16x1.5

¹⁾ Cable entry only possible at one position.
 Terminal box position 2: cable entry at position 5.
 Terminal box position 3: cable entry at position 2.
 Terminal box position 4: cable entry at position 3.
 Terminal box position 5: cable entry at position 4.

MD three-phase AC motors

Accessories

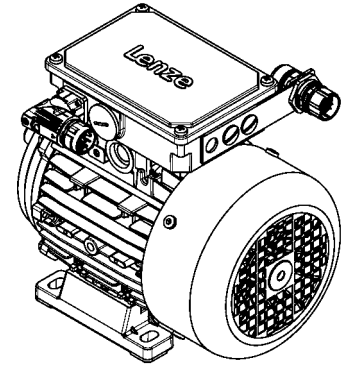


Plug connectors

ICN, HAN and M12 connectors (only for IG128-24V-H incremental encoder) are available for the three-phase AC motors.

ICN connector

A connector is used for power, brake and temperature monitoring. The connections to the feedback system and the blower each employ a separate connector.



Connection for power, brake and temperature monitoring

The connectors can be rotated through 270° and are fitted with a bayonet catch for SpeedTec connectors. As this connector is also compatible with conventional union nuts, existing mating connectors can continue to be used without difficulty. The motor connection is determined in the terminal box and must be checked before commissioning.

► ICN 6-pole

Pin assignment			
Contact	Designation	Meaning	
1	BD1 / BA1	Brake +/AC	
2	BD2 / BA2	Brake /AC	
PE	PE	PE conductor	
4	U	Phase U power	
5	V	Phase V power	
6	W	Phase W power	

► ICN 8-pole

Pin assignment			
Contact	Designation	Meaning	
1	U	Phase U power	
PE	PE	PE conductor	
3	V	Phase V power	
4	W	Phase W power	
A	TB1 / TP1 / R1	Thermal sensor: TKO/PTC/ +KTY	
B	TB2 / TP2 / R2	Thermal sensor: TKO/PTC/-KTY	
C	BD1 / BA1	Brake +/AC	
D	BD2 / BA2	Brake /AC	

MD three-phase AC motors

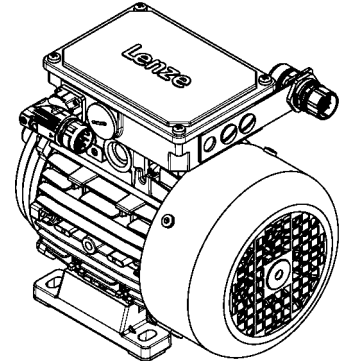
Accessories



ICN connector

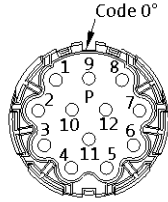
Feedback connection

All encoder systems (apart from IG128-24V-H) are also available with an ICN connector fixed to the motor terminal box for exceptionally fast commissioning. The connectors are fitted with a bayonet fixing, which is also compatible with conventional union nuts. Existing mating connectors can therefore continue to be used without difficulty.



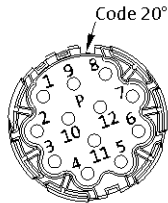
► Resolver

Pin assignment		
Contact	Designation	Meaning
1	+Ref	Transformer windings
2	-Ref	
3	+VCC ETS	Supply: Electronic nameplate
4	+COS	Cosine stator windings
5	-COS	
6	+SIN	Sine stator windings
7	-SIN	
8		Not assigned
9		
10		
11	+KTY	KTY temperature sensor
12	-KTY	



► Hiperface incremental encoder and SinCos absolute value encoder

Pin assignment		
Contact	Designation	Meaning
1	B	Track B/+SIN
2	A ⁻	Track A inverse/-COS
3	A	Track A/+COS
4	+U _B	Supply +
5	GND	Mass
6	Z ⁻	Zero track inverse/-RS485
7	Z	Zero track/+RS485
8		Not assigned
9	B ⁻	Track B inverse/-SIN
10		Not assigned
11	+KTY	KTY temperature sensor
12	-KTY	



MD three-phase AC motors

Accessories



ICN connector

Motor terminal box with ICN connectors - built-on accessories assignment: 2-pole motors

Motor type	M□□MAXX	M□□MAZE	M□□MALL	M□□MALZ
Motor frame size	Terminal box with ICN connector			
063-11 063-31	KK1			
071-11 071-31	KK1	KK2	KK1	KK2
080-11 080-31	KK1	KK2	KK1	KK2
090-31 090-11	KK1	KK2	KK1	KK2
100-31 100-41	KK1	KK2	KK1	KK2
112-31 112-41	KK1	KK2	KK1	KK2
132-21	KK1	KK3	KK1	KK3

Motor type	M□□MABR	M□□MABZ	M□□MABL
Motor frame size	Terminal box with ICN connector		
063-11 063-31	KK2		
071-11 071-31	KK2	KK2	
080-11 080-31	KK2	KK2	KK2
090-31 090-11	KK2	KK2	KK2
100-31 100-41	KK2	KK2	KK2
112-31 112-41	KK2	KK2	KK2
132-21	KK3	KK3	KK3

MD three-phase AC motors

Accessories



ICN connector

Motor terminal box with ICN connectors - built-on accessories assignment: 4-pole / 6-pole motors

Motor type	M□□MAXX	M□□MARS M□□MAIG M□□MAAG	M□□MAZE M□□MAHA	M□□MALL	M□□MALZ M□□MALH
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Motor frame size	Terminal box with ICN connector				
	063-02 063-22	KK1	KK2		
063-12 063-32 063-42	KK1	KK2			
071-32 071-42 071-13 071-33	KK1	KK2	KK2	KK1	KK1
080-13 080-32 080-33 080-42	KK1	KK2	KK2	KK1	KK1
090-12 090-32	KK1	KK2	KK2	KK1	KK1
100-12 100-32	KK1	KK2	KK2	KK2	KK2
112-22 112-32	KK1	KK2	KK2	KK1	KK1
132-12 132-22 132-32	KK1	KK3	KK3	KK1	KK1

MD three-phase AC motors

Accessories



ICN connector

Motor terminal box with ICN connectors - built-on accessories assignment: 4-pole / 6-pole motors

Motor type	M□□MABR	M□□MABS M□□MABI M□□MABA	M□□MABZ M□□MABH	M□□MABL
Motor frame size	Terminal box with ICN connector			
063-02 063-22	KK2	KK2		
063-12 063-32 063-42	KK2	KK2		
071-32 071-42 071-13 071-33	KK2	KK2	KK2	KK2
080-13 080-32 080-33 080-42	KK2	KK2	KK2	KK2
090-12 090-32	KK2	KK2	KK2	KK2
100-12 100-32	KK2	KK2	KK2	KK2
112-22 112-32	KK2	KK2	KK2	KK2
132-12 132-22 132-32	KK3	KK3	KK3	KK3

MD three-phase AC motors

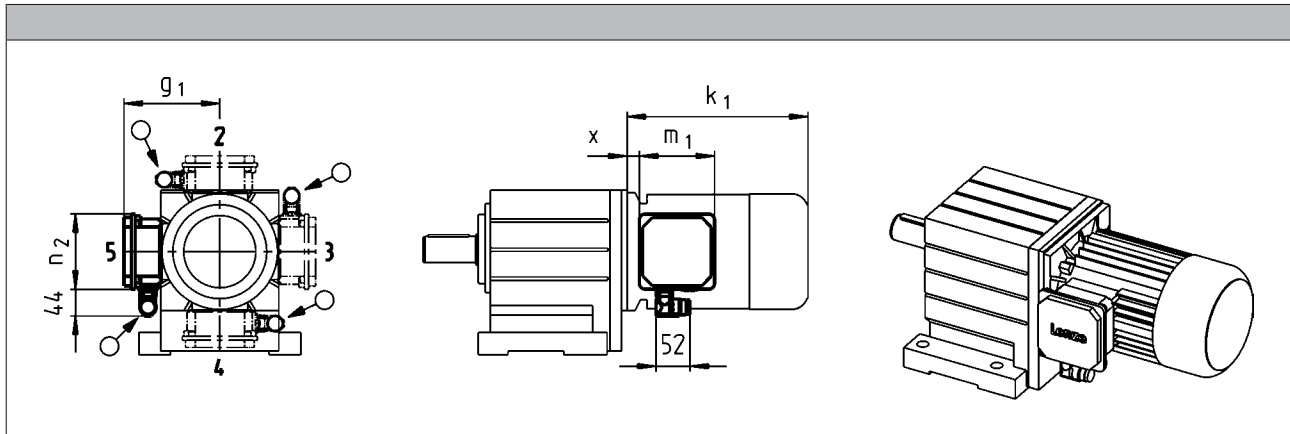
Accessories



ICN connector

Dimensions of KK1

- For motors with connectors, the connector position can be selected in accordance with the terminal box position.
- If preferred positions are not specified in the order, the connector will be positioned as circled on the diagram below.



Size				
Motor	x	g ₁	m ₁	n ₂
	[mm]	[mm]	[mm]	[mm]
063	12	117	93.0	93.0
071	15	126		
080	14	150		
090	19	157	115	115
100	20	166		
112	22	176		
132	33	195	122	122

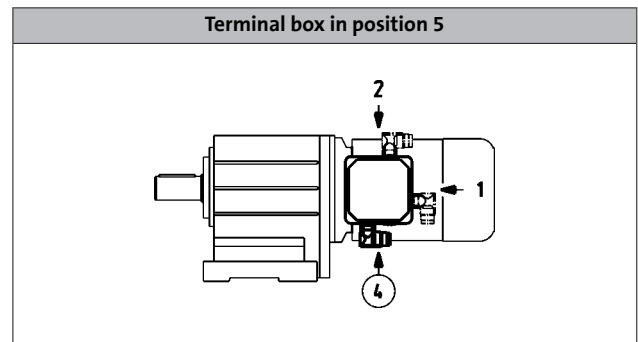
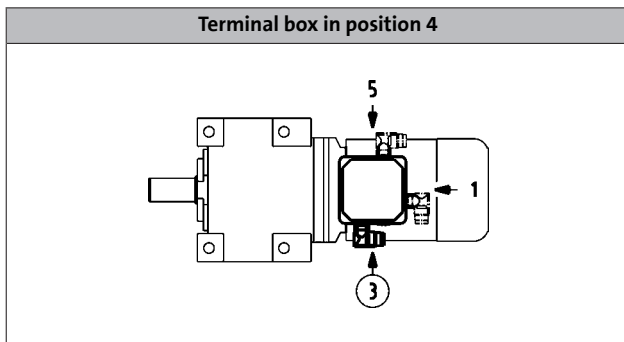
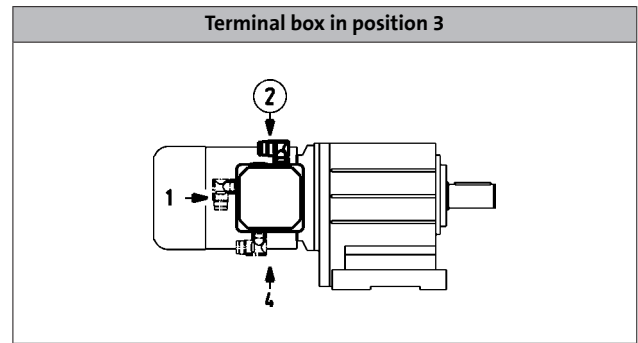
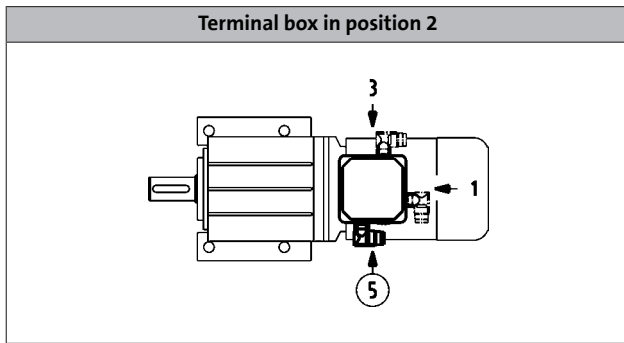
MD three-phase AC motors

Accessories



ICN connector

Connector position when using KK1



MD three-phase AC motors

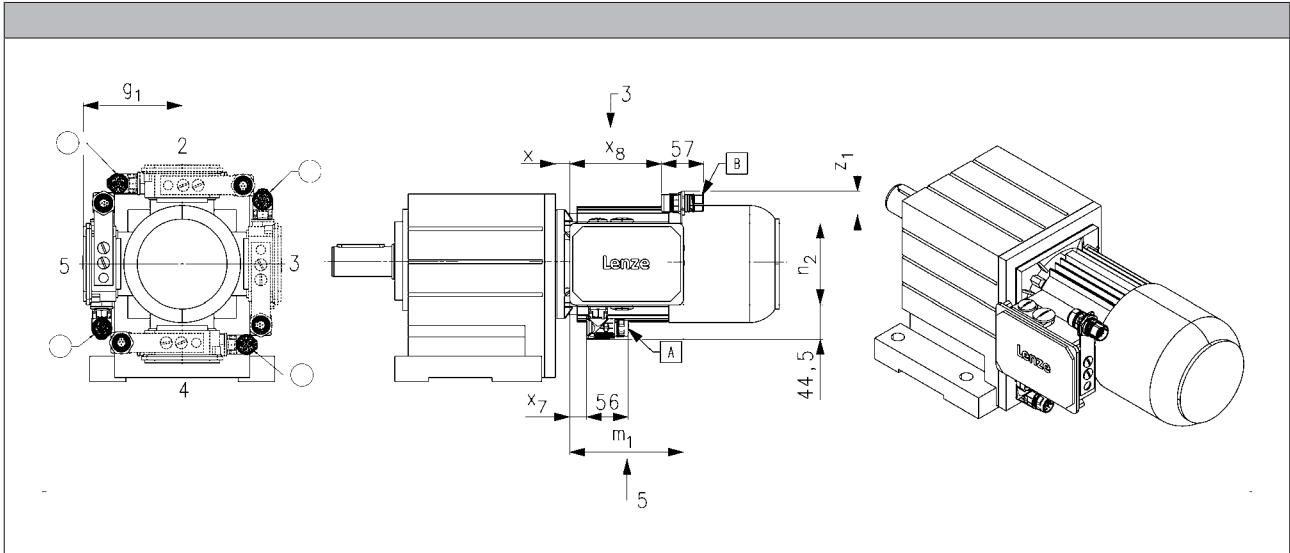
Accessories



ICN connector

Dimensions of KK2/KK3

- For motors with connectors, the connector position can be selected in accordance with the terminal box position.
- If preferred positions are not specified in the order, the connector will be positioned as circled on the diagram below.



Size							
Motor	x	g ₁	m ₁	n ₂	x ₇	x ₈	z _{1, max}
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
063	13	107	136	103	16	109	43
071	15	118					
080	17	132					
090	22	137	152	121	23	125	41
100	23	147					
112	25	158					
132	38	187	195	125	27	166	71

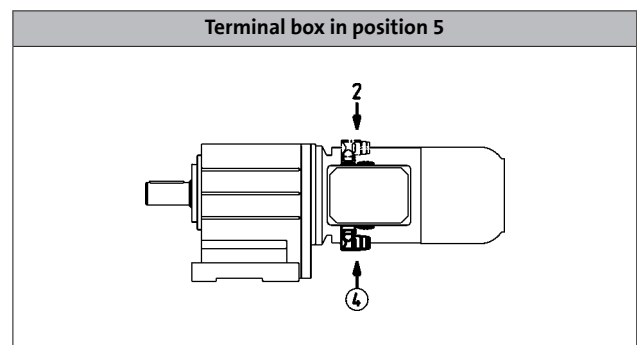
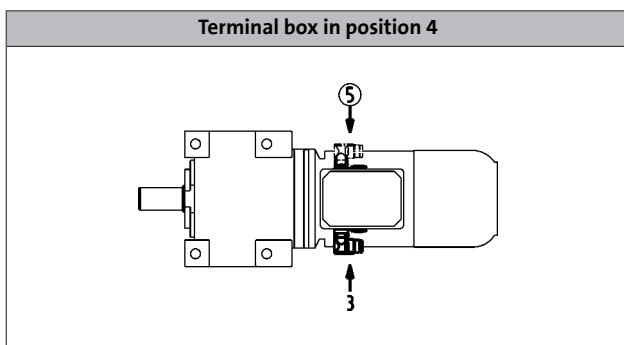
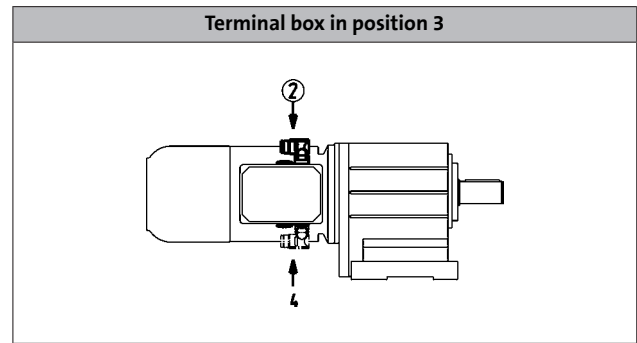
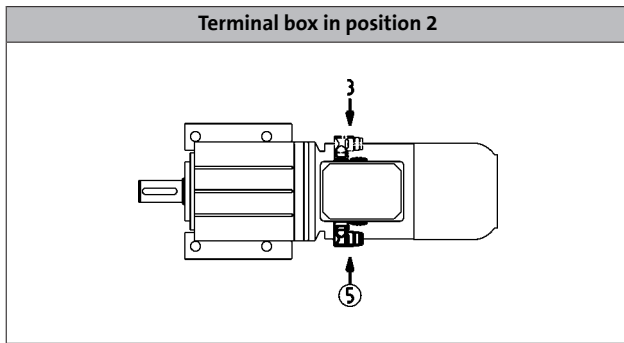
MD three-phase AC motors

Accessories



ICN connector

Connector position when using KK2/KK3



MD three-phase AC motors

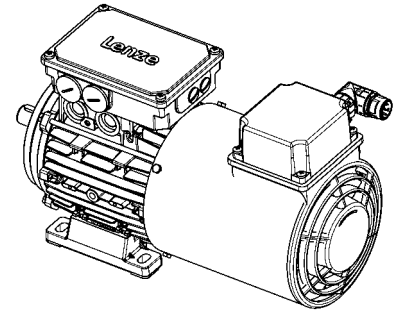
Accessories



ICN connector

Blower connection

The blower is also optionally available with an ICN connector fixed to the terminal box of the blower for exceptionally fast commissioning. The connectors are fitted with a bayonet fixing, which is also compatible with conventional union nuts. Existing counter plugs can therefore continue to be used without difficulty.



► Blower 1-ph

Pin assignment			
Contact	Designation	Meaning	
PE	PE	PE conductor	
1	U1	Fan	
2	U2		
3		Not assigned	
4			
5			
6			

► Blower 3-ph

Pin assignment			
Contact	Designation	Meaning	
PE	PE	PE conductor	
1	U	Phase U power	
2		Not assigned	
3	V	Phase V power	
4		Not assigned	
5			
6	W	Phase W power	

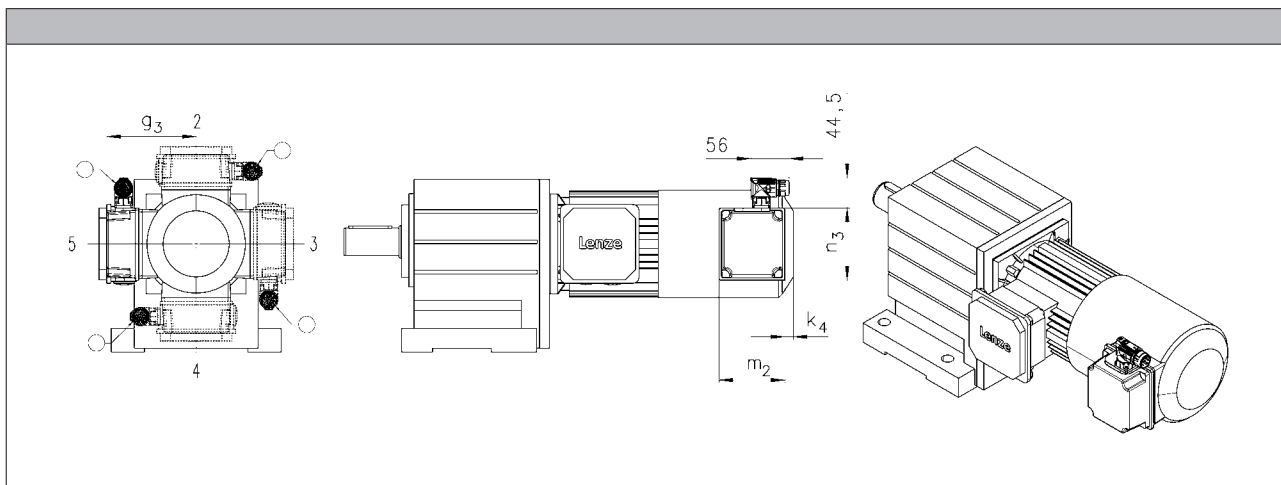
MD three-phase AC motors

Accessories



ICN connector

Dimensions of blower



Size				
Motor				
	k_4	g_3	m_2	n_3
	[mm]	[mm]	[mm]	[mm]
063	12	115	95	105
071		122		
080	13	132	96	106
090	22	141	95	105
100		150		
112		162		
132	32	182	96	106
160	31	209		
180				
225				

- In addition, the cover of the blower terminal box (including connectors) can be rotated progressively through 90° if necessary.

MD three-phase AC motors

Accessories

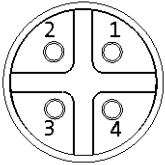


M12 connector

IG128-24V-H incremental encoder connection

As a standard this incremental encoder is equipped with a connection cable of about 0.5 m length and with a common industry standard M12 connector at its end.

Pin assignment		
Contact	Designation	Meaning
1	+U _B	Supply +
2	B	Track B
3	GND	Mass
4	A	Track A



MD three-phase AC motors

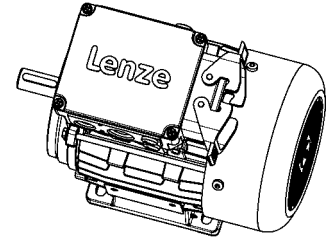
Accessories



HAN connector

10E

In the case of the rectangular HAN-10E connectors, all six ends of the three winding phases are taken out to the power contacts. The motor circuit is therefore determined in the mating connector.



Pin assignment	
Contact	Meaning
1	Terminal board: U1
2	Terminal board: V1
3	Terminal board: W1
4	Brake +/AC
5	Brake -/AC
6	Terminal board: W2
7	Terminal board: U2
8	Terminal board: V2
9	Thermal sensor: +KTY/PTC/TKO
10	Thermal sensor: KTY/PTC/TKO

MD three-phase AC motors

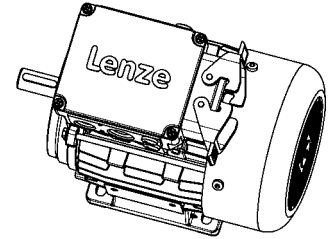
Accessories



HAN connector

Modular

The connector is available with two different power modules (16 A or 40 A), depending on the rated motor current. The motor connection is determined in the terminal box and must be checked before commissioning.



► HAN modular 16 A

Pin assignment			
Module	Contact	Meaning	
B		Dummy module	
C	1	Thermal sensor: +KTY/PTC/TKO	
	2	Brake +/AC	
	3	Brake -/AC	
	4	Rectifier: Switching contact	
	5		
6	Thermal sensor: KTY/PTC/TKO		

► HAN modular 40 A

Pin assignment			
Module	Contact	Meaning	
A	1	Terminal board: U1	
	2	Terminal board: V1	
	3	Terminal board: W1	
B		Dummy module	
C	1	Thermal sensor: +KTY/PTC/TKO	
	2	Brake +/AC	
	3	Brake -/AC	
	4	Rectifier: Switching contact	
5			
6	Thermal sensor: KTY/PTC/TKO		

MD three-phase AC motors

Accessories



HAN connector

Motor terminal box with HAN connectors - built-on accessories assignment: 2-pole motors

Motor type	M□□MAXX M□□MABR	M□□MAZE M□□MABZ	M□□MALL M□□MABL	M□□MALZ
Motor frame size	Terminal box with HAN connector			
063-11 063-31	HAN-10E HAN modular			
071-11 071-31	HAN-10E HAN modular	HAN-10E HAN modular	HAN-10E HAN modular	HAN-10E HAN modular
080-11 080-31	HAN-10E HAN modular	HAN-10E HAN modular	HAN-10E HAN modular	HAN-10E HAN modular
090-31 090-11	HAN-10E HAN modular	HAN-10E HAN modular	HAN-10E HAN modular	HAN-10E HAN modular
100-31 100-41	HAN-10E HAN modular	HAN-10E HAN modular	HAN-10E HAN modular	HAN-10E HAN modular
112-31 112-41	HAN-10E HAN modular	HAN-10E HAN modular	HAN-10E HAN modular	HAN-10E HAN modular
132-21	HAN modular	HAN modular	HAN modular	HAN modular

MD three-phase AC motors

Accessories



HAN connector

Motor terminal box with HAN connectors - built-on accessories assignment: 4-pole / 6-pole motors

Motor type	M□□MAXX M□□MABR	M□□MAZE M□□MAHA M□□MABZ M□□MABH	M□□MALL M□□MABL	M□□MALZ M□□MALH
------------	--------------------	--	--------------------	--------------------

Motor frame size	Terminal box with HAN connector			
063-02 063-22	HAN-10E HAN modular			
063-12 063-32 063-42	HAN-10E HAN modular			
071-32 071-42 071-13 071-33	HAN-10E HAN modular	HAN-10E HAN modular	HAN-10E HAN modular	HAN-10E HAN modular
080-13 080-32 080-33 080-42	HAN-10E HAN modular	HAN-10E HAN modular	HAN-10E HAN modular	HAN-10E HAN modular
090-12 090-32	HAN-10E HAN modular	HAN-10E HAN modular	HAN-10E HAN modular	HAN-10E HAN modular
100-12 100-32	HAN-10E HAN modular	HAN-10E HAN modular	HAN-10E HAN modular	HAN-10E HAN modular
112-22 112-32	HAN-10E HAN modular	HAN-10E HAN modular	HAN-10E HAN modular	HAN-10E HAN modular
132-12 132-22 132-32	HAN modular	HAN modular	HAN modular	HAN modular
160-22 160-32	HAN modular			

MD three-phase AC motors

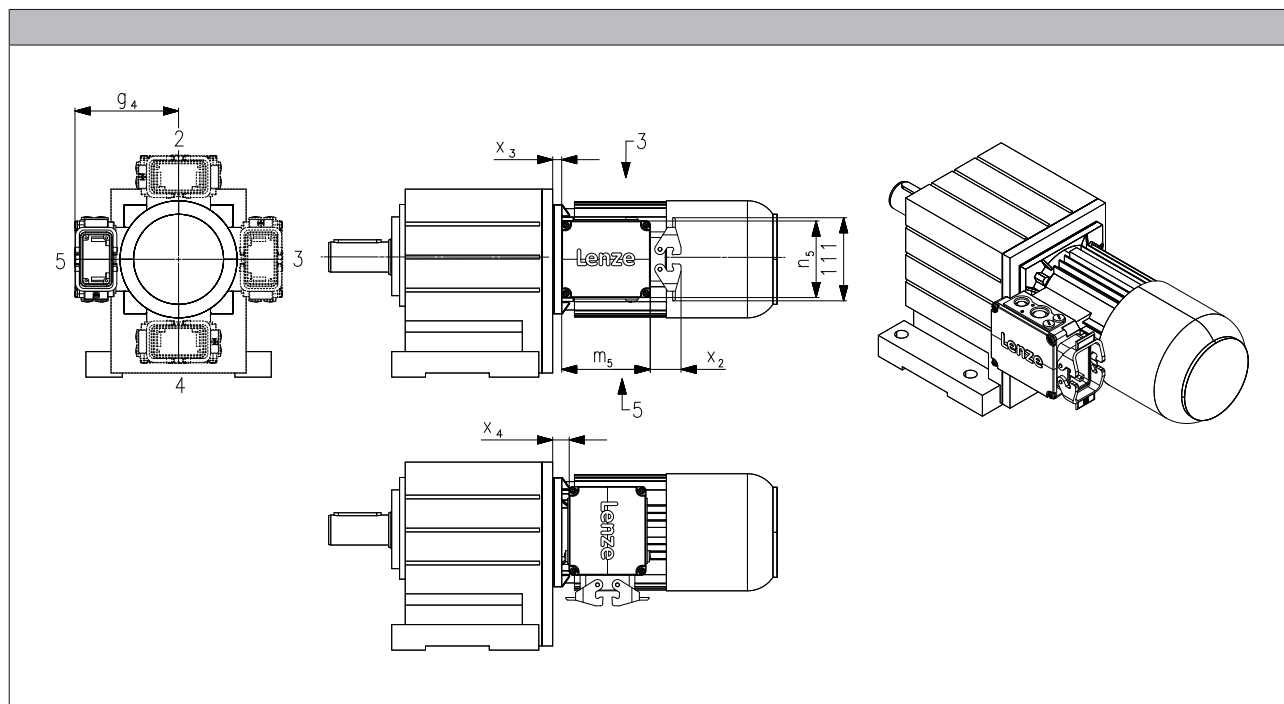
Accessories



HAN connector

Dimensions

- For motors with connectors, the connector position can be selected in accordance with the terminal box position.
- Unless the connector position is specified, it will be supplied in position 1.



Size			
Motor	g_4	x_3	x_4
	[mm]	[mm]	[mm]
063	120	5.00	6.00
071	129	7.00	8.00
080	138	11.0	19.0
090	143	15.0	23.0
100	154	16.0	24.0
112	164	13.5	21.5
132	233	34.5	4.50
160	248	39.0	9.00

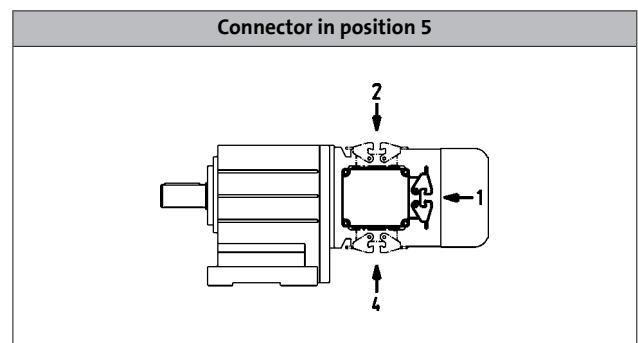
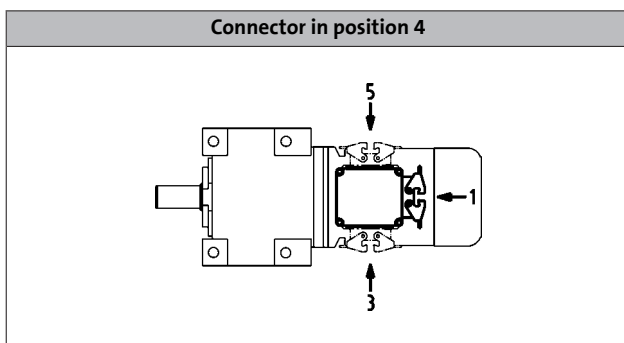
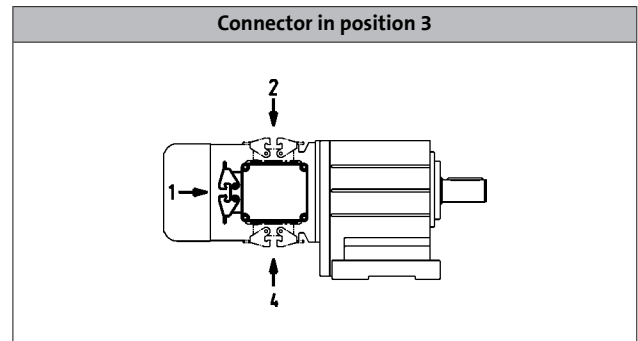
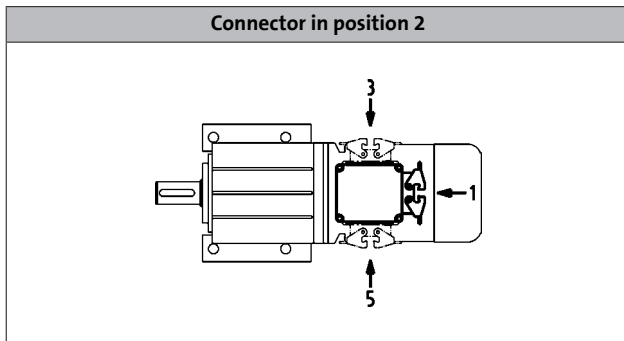
MD three-phase AC motors

Accessories



HAN connector

Position of connector



MD three-phase AC motors

Accessories



Handwheel

Design	Handwheel made from alloy, smooth wheel surface
Function	Manual operation: <ul style="list-style-type: none">• Emergency operation• Setting-up operation for machines/systems
Note	The increased moment of inertia must be taken into account during project planning! For frequent switching operations, in particular if the direction of rotation changes: Please contact Lenze.

Size	Moment of inertia	Mass
Motor	Additional	Additional
	J	m
	[kgcm ²]	[kg]
071	16.0	0.60
080	16.0	0.60
090	16.0	0.60
100	16.0	0.60
112	16.0	0.60
132	139	1.80

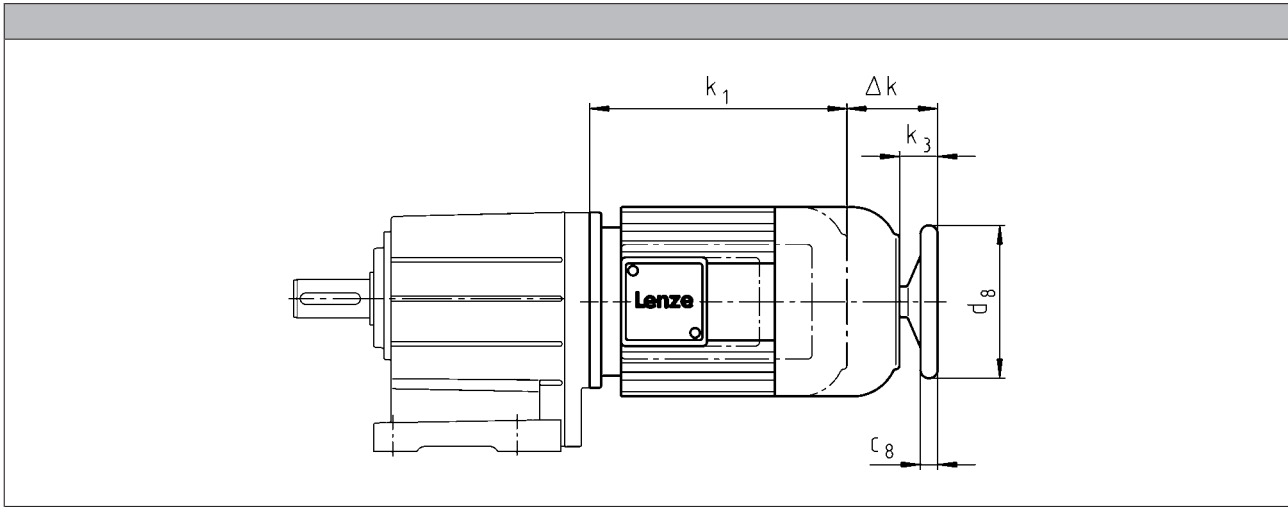
MD three-phase AC motors

Accessories



Handwheel

Dimensions, self-ventilated (4/6-pole)



Motor type	
Built-on accessories	M□□MAHA M□□MABH M□□MALH

Motor frame size	Δk	k_3	c_8	d_8
	[mm]	[mm]	[mm]	[mm]
071-32 071-42 071-13 071-33	70	34.0	18.0	160
080-32 080-42 080-13 080-33	91	34.0	18.0	160
090-12 090-32	80	32.0	18.0	160
100-12 100-32	94	42.0	18.0	160
112-22 112-32	107	39.0	18.0	160
132-12 132-22 132-32	126	50.0	26.0	250

MD three-phase AC motors

Accessories



Centrifugal mass

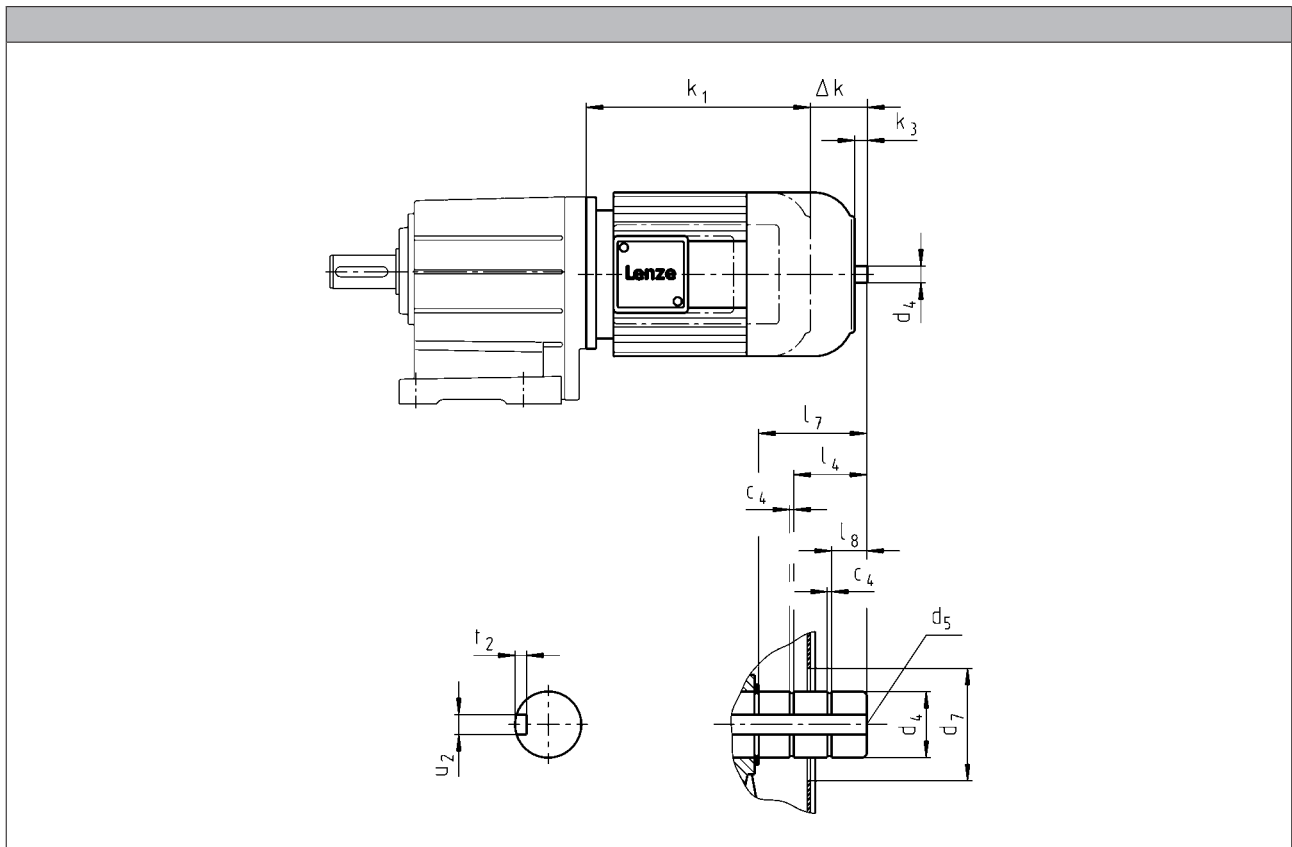
Note	The increased moment of inertia must be taken into account during project planning! For frequent switching operations, in particular if the direction of rotation changes: Please contact Lenze.
Function	Increased motor centrifugal mass for smooth starting/braking
Design	Integral fan made from cast iron

Motor frame size	Moment of inertia	Mass
	Additional J [kgcm ²]	Additional m [kg]
071	18.0	1.20
080	29.0	1.40
090-□1	83.0	2.80
090-□2	55.0	2.00
100	77.0	2.50
112	153	3.80
132	356	6.00



2nd shaft end

Dimensions, self-ventilated (2-pole)



Motor type	
Built-on accessories	M□MAZE M□MABZ M□MALZ

Motor frame size	Motor frame size											
	Δk	k_3	c_4	d_4 h6	d_4 j6	d_5	$d_7^{1)}$	l_4	l_7	l_8	u_2	t_2
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
071-11 071-31	47	11.0	1.10	14.0		M5	34.0		19.0	3.00	5.00	3.00
080-11 080-31	68	9.00	1.30	19.0		M6	34.0		19.0	4.50	6.00	3.20
090-11 090-31	57	9.00	1.30		20.0	M6	34.0		19.5	5.50	6.00	3.50
100-31 100-41	71	18.5	1.30		25.0	M10	34.0	17.0	32.5	10.5	8.00	4.00
112-31 112-41	84	16.0	1.30		25.0	M10	34.0	17.0	28.5	7.00	8.00	4.00
132-21	101	24.5	1.60		30.0	M10	48.0	24.5	42.0	8.50	8.00	4.00

¹⁾ During operation, appropriate measures must be taken to make fan cover opening safe.

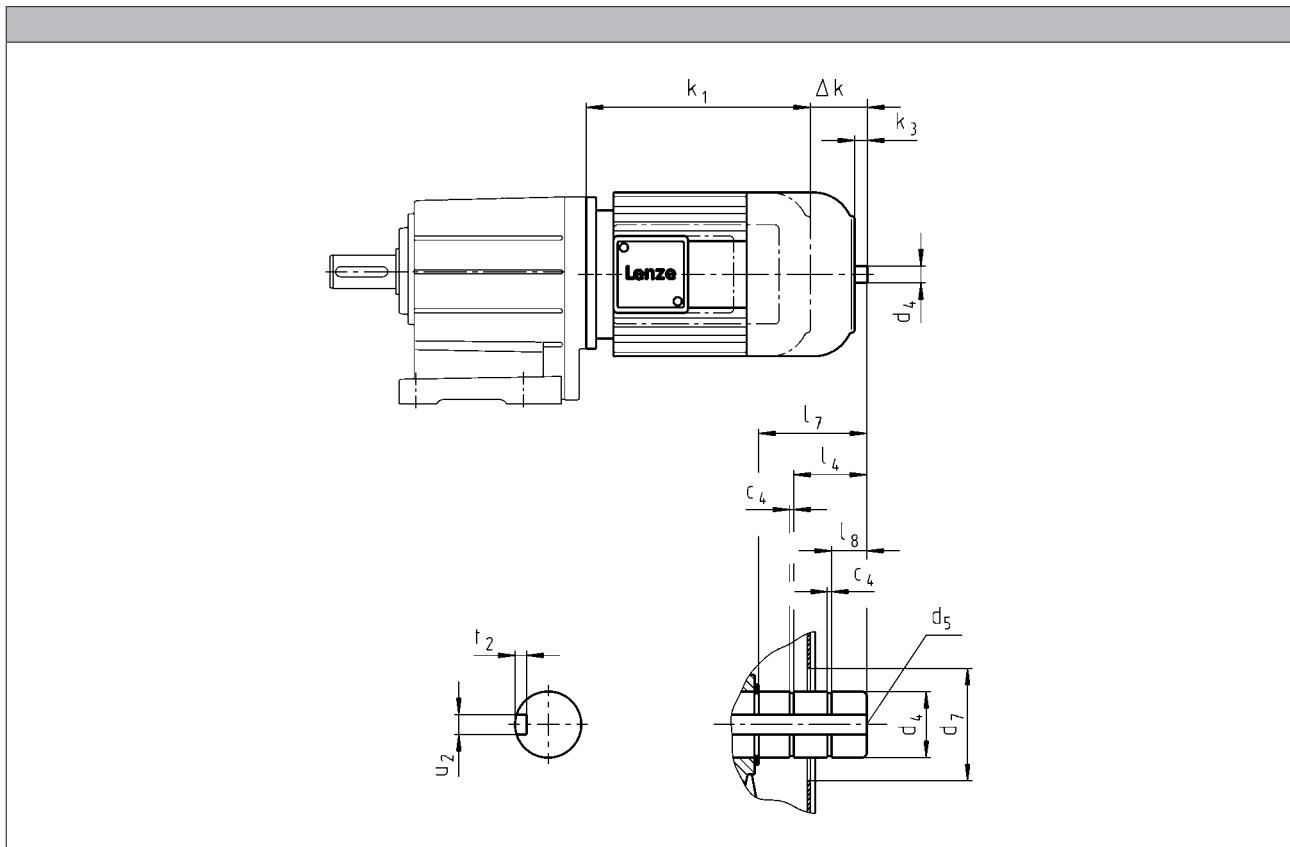
MD three-phase AC motors

Accessories



2nd shaft end

Dimensions, self-ventilated (4/6-pole)



Motor type	
Built-on accessories	M□MAZE M□MABZ M□MALZ

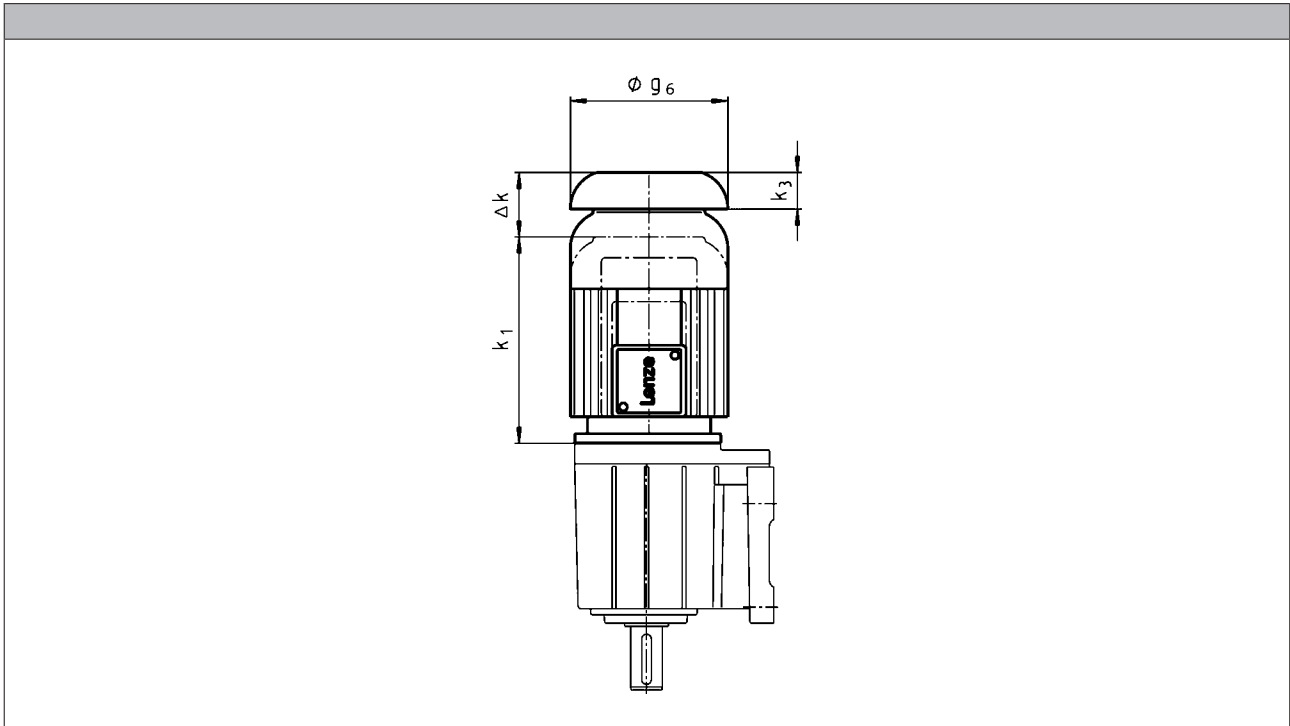
Motor frame size	Δk	k_3	c_4	d_4 h6	d_4 j6	d_5	$d_7^{1)}$	l_4	l_7	l_8	u_2	t_2
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
071-32 071-42 071-13 071-33	47	11.0	1.10	14.0		M5	34.0		19.0	3.00	5.00	3.00
080-32 080-42 080-13 080-33	68	9.00	1.10	14.0		M5	34.0		19.0	4.50	5.00	3.00
090-12 090-32	57	9.00	1.10	14.0		M5	34.0		19.0	5.00	5.00	3.00
100-12 100-32	71	18.5	1.30		20.0	M6	34.0	17.0	32.5	10.5	6.00	3.50
112-22 112-32	84	16.0	1.30		20.0	M6	34.0	17.0	28.5	7.00	6.00	3.50
132-12 132-22 132-32	101	24.5	1.60		30.0	M10	46.0	24.5	42.0	8.50	8.00	4.00

¹⁾ During operation, appropriate measures must be taken to make fan cover opening safe.



Protection cover

Dimensions, self-ventilated (2-pole)



Motor frame size	Motor type					
	M□□MAXX	M□□MABR	M□□MABL	M□□MALL		
	Δ k [mm]	Δ k [mm]	Δ k [mm]	Δ k [mm]	k ₃ [mm]	g ₆ [mm]
063-11 063-31	26	66			11.0	123
071-11 071-31	26	78	78	26	12.0	138
080-11 080-31	26	99	99	30	16.0	156
090-11 090-31	26	94	94	26	15.0	176
100-31 100-41	31	107	107	107	17.0	194
112-31 112-41	31	121	121	31	18.0	218
132-21	31	141	141	31	20.0	257

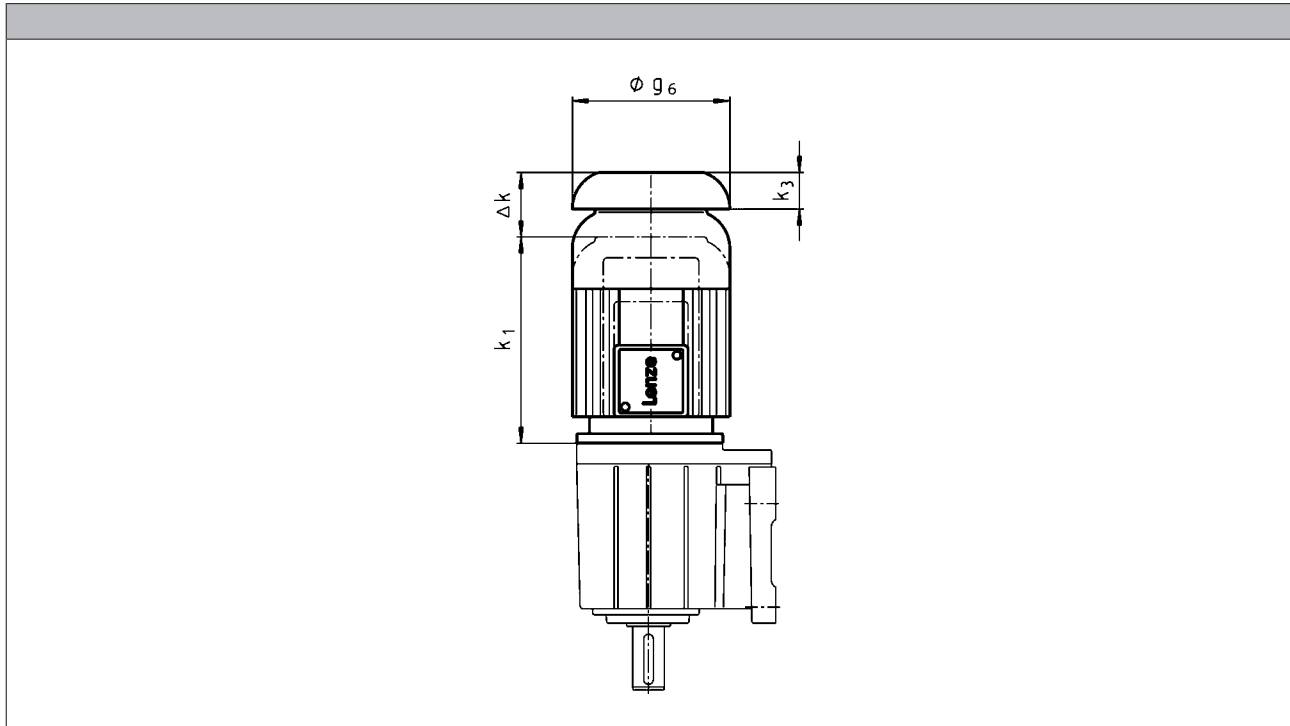
MD three-phase AC motors

Accessories



Protection cover

Dimensions, self-ventilated (4/6-pole)



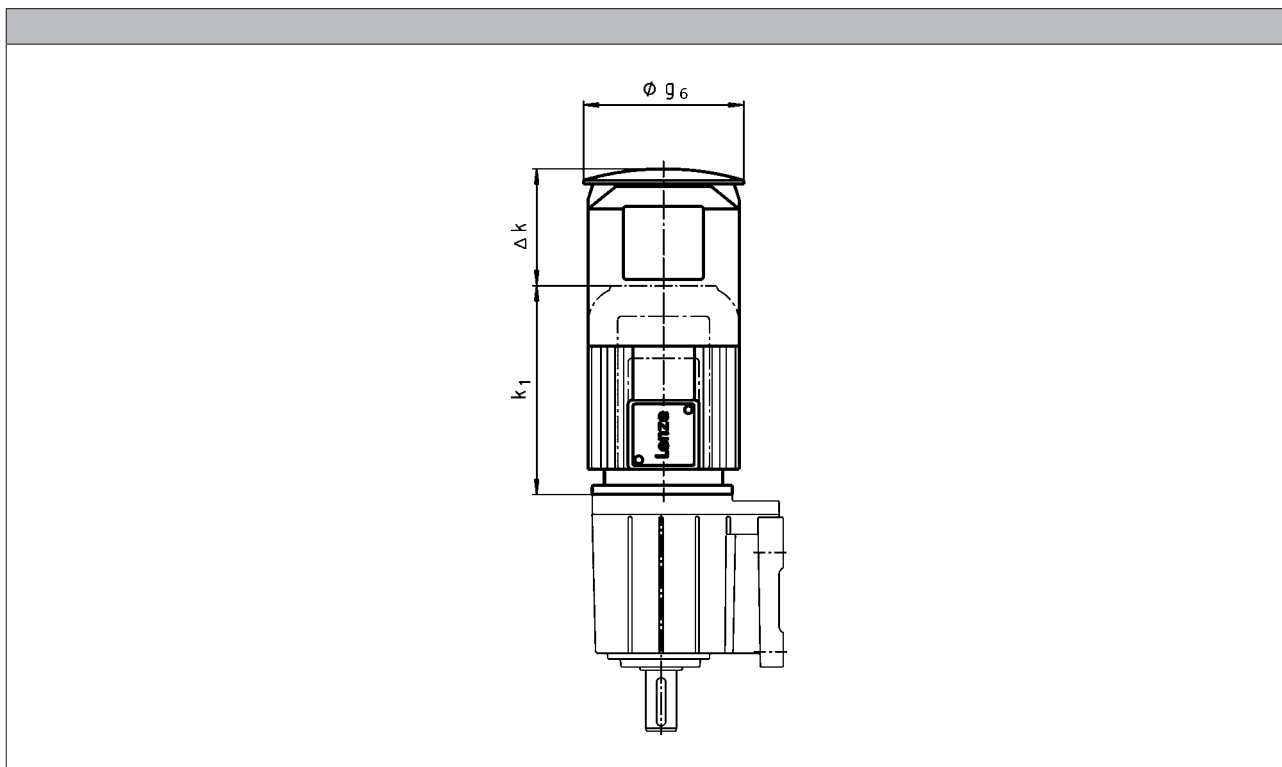
Motor type								
	M□□MAXX	M□□MABR	M□□MABS M□□MABI M□□MABA	M□□MABL	M□□MARS M□□MAIG M□□MAAG	M□□MALL		

Motor frame size	Motor type							k ₃	g ₆
	Δ k	Δ k	Δ k	Δ k	Δ k	Δ k	Δ k		
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	
063-02 063-22		97	160		97		11.0	123	
063-12 063-32 063-42	26	66	129		82		11.0	123	
071-32 071-42 071-13 071-33	26	78	122	78	78	26	12.0	138	
080-32 080-42 080-13 080-33	26	99	137	99	127	30	16.0	156	
090-12 090-32	26	94	131	94	113	26	15.0	176	
100-12 100-32	31	107	132	107	112	107	17.0	194	
112-22 112-32	31	121	151	121	111	31	18.0	218	
132-12 132-22 132-32	31	141	156	141	134	31	20.0	257	
160-22 160-32	37	142	228		120		25.0	310	



Protection cover

Dimensions, forced ventilated (2-pole)



Motor type			
	M□□MAXX	M□□MABR	
Motor frame size	Δ k	Δ k	g ₆
	[mm]	[mm]	[mm]
063-11 063-31	169	209	133
071-11 071-31	165	202	150
080-11 080-31	168	224	170
090-11 090-31	157		
100-31 100-41	137	198	210
112-31 112-41	135	216	249
132-21	140	226	300

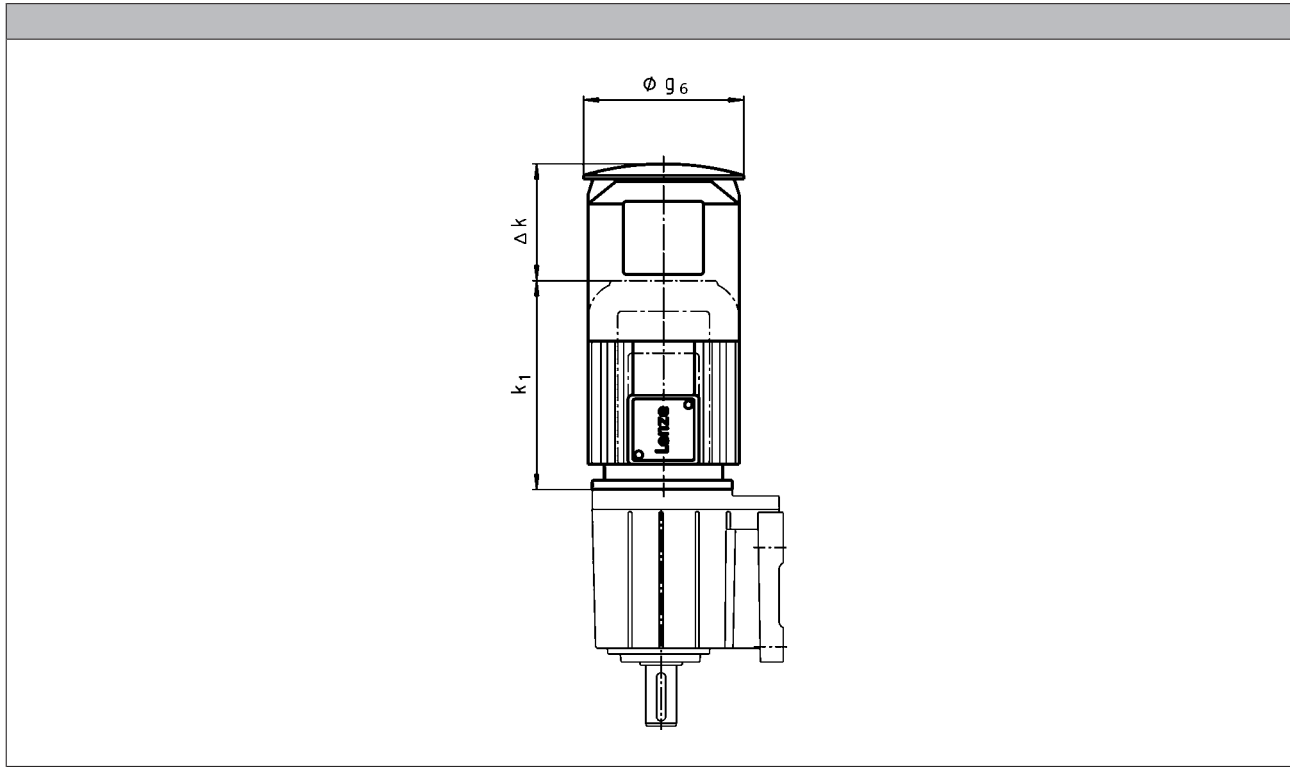
MD three-phase AC motors

Accessories



Protection cover

Dimensions, forced ventilated (4/6-pole)



Motor type			
M□□MAXX	M□□MABR M□□MABS M□□MABI M□□MABA	M□□MARS M□□MAIG M□□MAAG	

Motor frame size	Δ k			g ₆
	[mm]	[mm]	[mm]	
063-12 063-32 063-42	169	209	209	133
071-32 071-42 071-13 071-33	165	202	202	150
080-32 080-42 080-13 080-33	168	224	224	170
090-12 090-32	157	210	210	188
100-12 100-32	137	198	198	210
112-22 112-32	135	216	216	249
132-12 132-22 132-32	140	226	226	300
160-22 160-32	155	267	267	338

6.11

MD three-phase AC motors

Accessories



MD three-phase AC motors

Accessories



MD three-phase AC motors

Accessories



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