

g500-H / MCS helical geared servo motor



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About this document

Document description

This document addresses to all persons who want to carry out any configurations with the products described.

The data and information compiled in this document serve to support you in the dimensioning and selection processes and in carrying out the electrical and mechanical installation. You will receive information regarding product extensions and accessories.

- The document includes safety instructions which must be observed.
- All persons working on and with the drives must have the documentation at hand during work and observe the information and notes relevant for it.
- The documentation must always be complete and in a perfectly readable state.



Further documents



Information and tools with regard to the Lenze products can be found on the Internet:

www.lenze.com → Downloads



Notations and conventions

Conventions are used in this document to distinguish between different types of information.

Numeric notation		
Decimal separator	Point	Generally shown as a decimal point. Example: 1 234.56
Warnings		
UL Warnings	UL	Are used in English and French.
UR warnings	UR	
Text		
Engineering Tools	" "	Software Example: "EASY Starter", "PLC Designer"
Icons		
Page reference		Reference to another page with additional information. Example:  16 = see page 16
Documentation reference		Reference to other documentation with additional information. Example:  EDKxxx = see documentation EDKxxx

Layout of the safety instructions

DANGER!

Indicates an extremely hazardous situation. Failure to comply with this instruction will result in severe irreparable injury and even death.

WARNING!

Indicates an extremely hazardous situation. Failure to comply with this instruction may result in severe irreparable injury and even death.

CAUTION!

Indicates a hazardous situation. Failure to comply with this instruction may result in slight to medium injury.

NOTICE

Indicates a material hazard. Failure to comply with this instruction may result in material damage.



Product information

Product description

When used in combination with servo motors, our helical gearboxes form a compact, powerful and dynamic drive unit. Numerous options at the input and output end provide for the drive to be exactly adapted to your application.

The robust helical gearboxes are characterized by high permissible radial forces, closely stepped ratios and a low backlash. They are available in a 2-, 3- and 4-stage design with an output torque of up to 3000 Nm and a ratio of up to $i = 3529$.

Designs

- Fine-scaling of size/torque provides for an optimum machine adaptation
- Standardised shaft and flange dimensions for an easy machine integration
- High efficiency

Synchronous servo motors as a basis for geared motors

In a power range of 0.25 to 15.8 kW, Lenze offers servo motors with a scalable modular design.

The drives are designed for the open-loop or closed-loop controlled servo inverter operation.

These motors feature a high dynamic performance and overload capacity.

Customer benefit

- High dynamic performance thanks to a rotor with a low mass inertia
- High overload capacity of the motors
- Easy assembly and easy servicing thanks to connectors with bayonet catch and rotatable connector boxes
- Reduced cabling thanks to one cable technology in connection with digital absolute value encoders
- High efficiency
- Space-saving thanks to compact direct attachment to Lenze gearboxes
- Can be used universally for a wide range of machine tasks due to the market-oriented modular system



MCS12L synchronous servo motor - g500-H450 helical gearbox



MCS09D synchronous servo motor - g500-H450 helical gearbox with One Cable Technology (OCT) in connection with a digital absolute value encoder



Identification of the products

Gearbox product name

Gearbox type	Product series		Type	Rated torque Nm	Gearbox
Helical gearbox	g500	-	H	45	g500-H45
				100	g500-H100
				140	g500-H140
				210	g500-H210
				320	g500-H320
				450	g500-H450
				600	g500-H600
				850	g500-H850
				1500	g500-H1500
				3000	g500-H3000

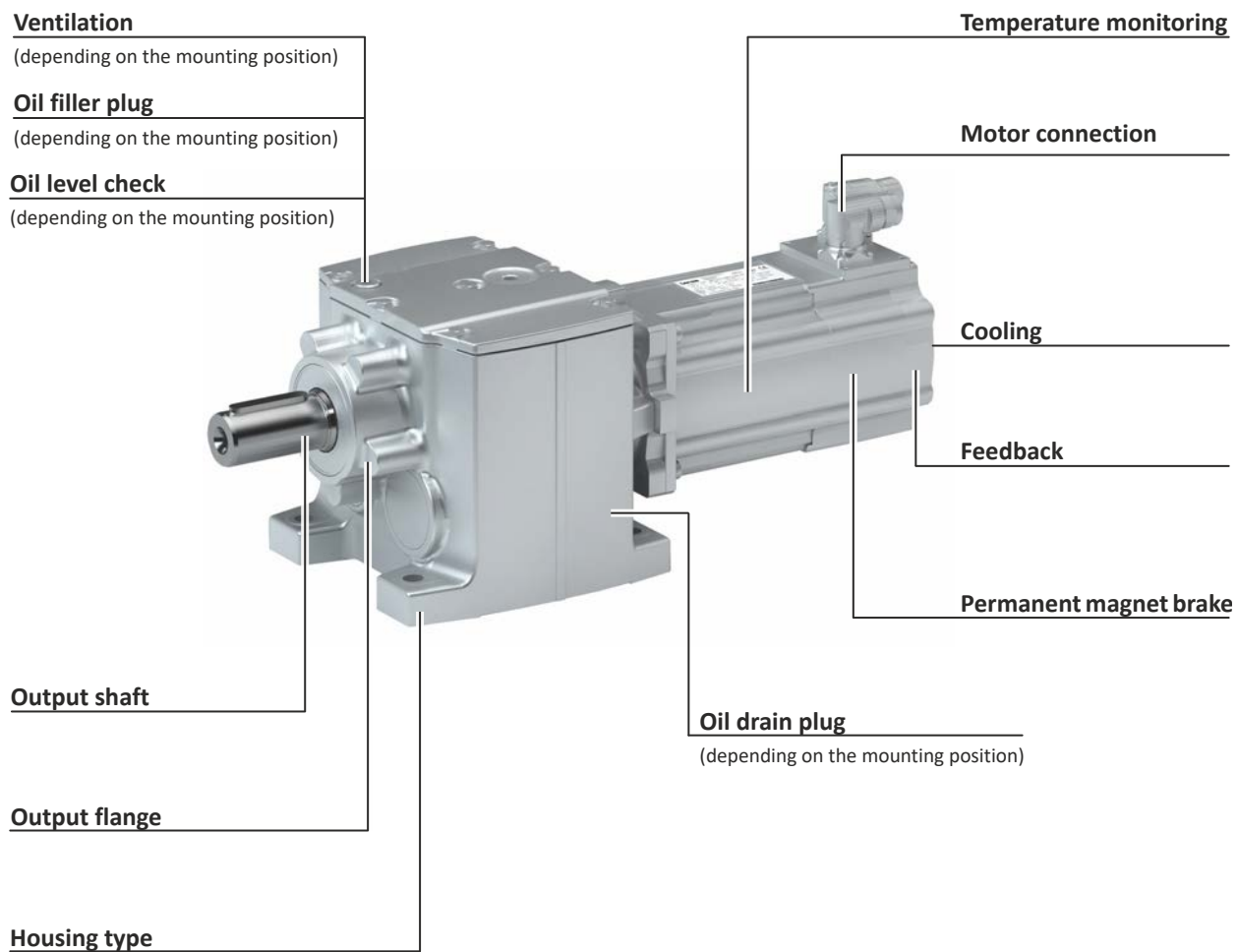
Product name: MCS synchronous servo motor

Meaning	Variant					
Product family		MCS				
Size			06 09 12 14 19			
Overall length				C ... P		
Rated speed	rpm x 100				11 ... 60	
Inverter mains connection	3 x 400 V					-
	3 x 230 V					L



Features

The following figure provides an overview of the elements and connections on the product. Their position, size and appearance may vary.





The modular system



Values printed in bold are standard designs. Values that are not printed in bold are potential extensions, some of them including a surcharge.

Geared motors up to 450 Nm

Gearboxes		g500-H45	g500-H100	g500-H140	g500-H210	g500-H320	g500-H450
Min. motor assignment		MCS06	MCS06	MCS06	MCS06	MCS06	MCS06
Max. motor assignment		MCS06	MCS09	MCS09	MCS12	MCS14	MCS14
Technical data							
Max. output torque	Nm	45	100	140	210	320	450
Min. drive torque	Nm	0.6	0.6	0.6	0.6	0.6	0.6
Max. drive torque	Nm	0.6	4.5	4.5	17	42	42
Mounting position							
Standard		M1, M2, M3, M4, M5, M6 (ABCDEF)					
Combined		M1-M6 (A-F)	M1/5/6 (AEF)				
Color		Primed Painted in RAL colors					
Surface and corrosion protection		OKS-G Different types of OKS					
Output shaft							
Solid shaft with featherkey	mm	14 x 28 20 x 40	20 x 40	25 x 50	25 x 50	30 x 60	30 x 60 35 x 70
Solid shaft without keyway	mm	20 x 40	20 x 40	25 x 50	25 x 50	30 x 60	35 x 70
Shaft material		Steel Stainless steel					
Shaft sealing ring material		NBR FKM (Viton)					
Output shaft bearing		Standard Reinforced					
Gearbox design		VBR VCR VCK	With foot (VBR) With foot and centering (VAR) With foot and output flange (VAK) With centering (VCR) With output flange (VCK) With output flange (VCP)				
Output flange	mm	120/140/160	120/140/160	120/140/160	120/140 160/200	160/200	160/200/250
Lubricant		Synthetic oil Food-grade oil					
Ventilation		Without				Vent valve	
Cooling		Self-ventilated			Self-ventilated Forced ventilated		
Motor connection		Connector Terminal box					
Permanent magnet holding brake		Without With					
Feedback							
Without functional safety		Digital absolute value encoder for One Cable Technology (OCT) Resolver Absolute value encoder					
With functional safety		Digital absolute value encoder for One Cable Technology (OCT) Resolver Absolute value encoder					
Temperature monitoring		MCS06: PT1000 temperature sensor MCS09 ... MCS19: PT1000 temperature sensor and 2x PTC thermistor					



Geared motors 600 Nm to 3000 Nm

Gearboxes		g500-H600	g500-H850	g500-H1500	g500-H3000
Min. motor assignment		MCS06	MCS06	MCS09	MCS12
Max. motor assignment		MCS14	MCS19	MCS19	MCS19
Technical data					
Max. output torque	Nm	600	850	1500	3000
Min. drive torque	Nm	0.6	0.6	2.3	4.3
Max. drive torque	Nm	42	72	72	72
Mounting position					
Standard		M1, M2, M3, M4, M5, M6 (ABCDEF)			
Combined					
Color		Primed Painted in RAL colors			
Surface and corrosion protection		OKS-G Different types of OKS			
Output shaft					
Solid shaft with featherkey	mm	35 x 70 40 x 80	40 x 80	50 x 100	60 x 120
Solid shaft without keyway	mm	35 x 70	40 x 80	50 x 100	60 x 120
Shaft material		Steel Stainless steel			
Shaft sealing ring material		NBR FKM (Viton)			
Output shaft bearing		Standard Reinforced			
Gearbox design		With foot (VBR) With foot and centering (VAR) With foot and output flange (VAK) With centering (VCR) With output flange (VCK)			
Output flange	mm	200/250	250/300	250/300/350	300/350/450
Lubricant		Synthetic oil Food-grade oil			
Ventilation		Vent valve		Vent valve Oil compensation reservoir	
Cooling		Self-ventilated Forced ventilated			
Motor connection		Connector Terminal box			
Permanent magnet holding brake		Without With			
Feedback					
Without functional safety		Digital absolute value encoder for One Cable Technology (OCT) Resolver Absolute value encoder			
With functional safety		Digital absolute value encoder for One Cable Technology (OCT) Resolver Absolute value encoder			
Temperature monitoring		MCS06: PT1000 temperature sensor MCS09 ... MCS19: PT1000 temperature sensor and 2x PTC thermistor			



Designs

Gearbox designs

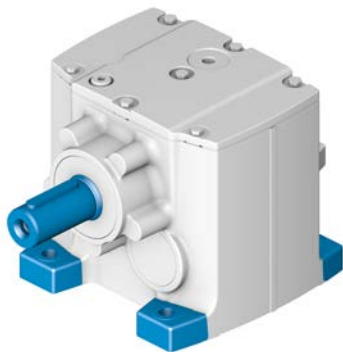


Observe the available gearbox designs!

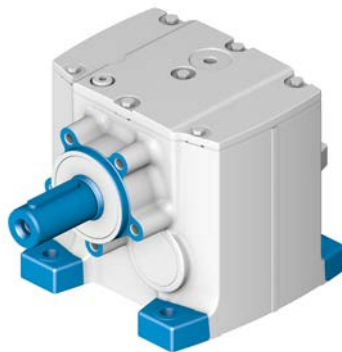
► [The modular system](#) [11](#)

The VCP design (reinforced flange) is suitable for absorbing high radial and axial forces [56](#).

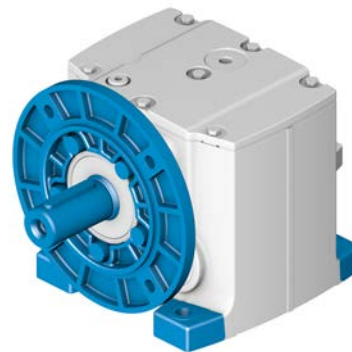
Solid shaft, with foot



Without centring (VBR)



With centring (VAR)



Flange with through holes (VAK)

Solid shaft, without foot



With centering (VCR)



Flange with through holes (VCK)



Reinforced flange with through holes (VCP)

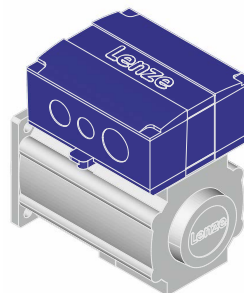
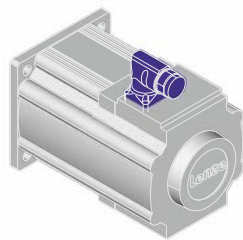
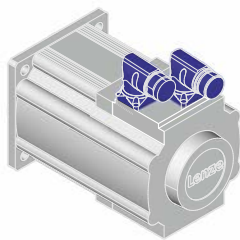
Product information

The modular system
Designs



Models at the output

Motor connection

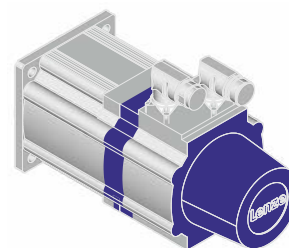
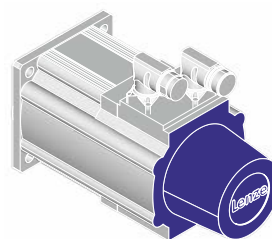
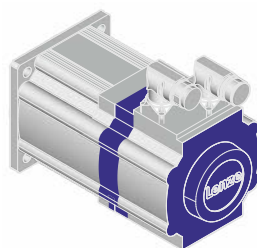
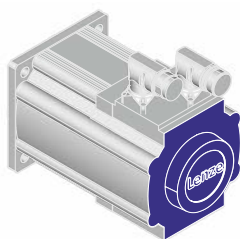


Connector

ICN hybrid connector for One Cable
Technology (OCT)

Terminal box

Cooling: Self-ventilated



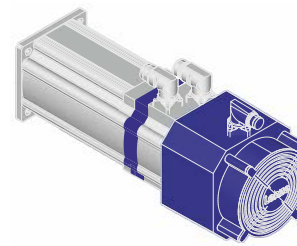
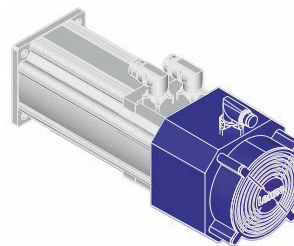
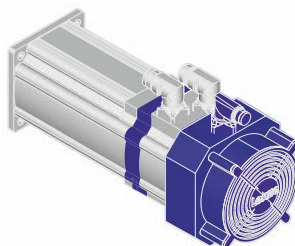
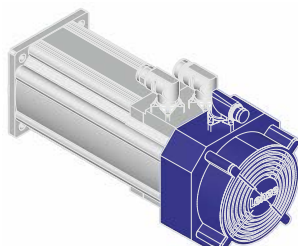
Resolver

Resolver and brake

Absolute value/incremental
encoder

Absolute value/incremental
encoder and brake

Cooling: Forced-ventilated



Resolver

Resolver and brake

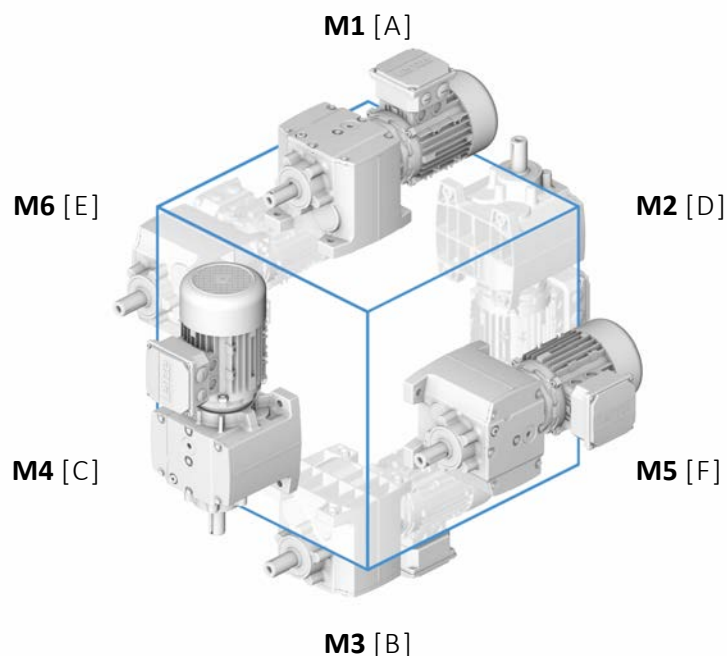
Absolute value/incremental
encoder

Absolute value/incremental
encoder and brake



Mounting positions

Details of the mounting position are needed to ensure the corresponding lubricant amount, position of the ventilation, oil checks and oil drain plug on the gearbox.

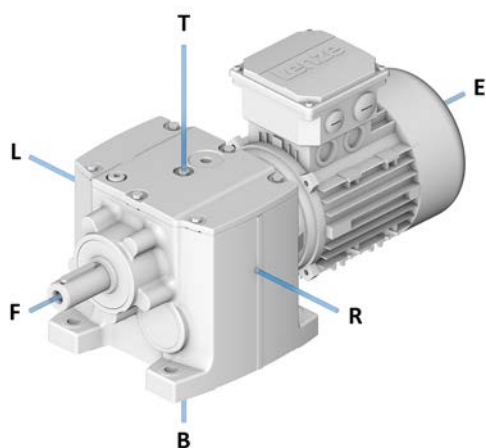


Defined positions on the geared motor

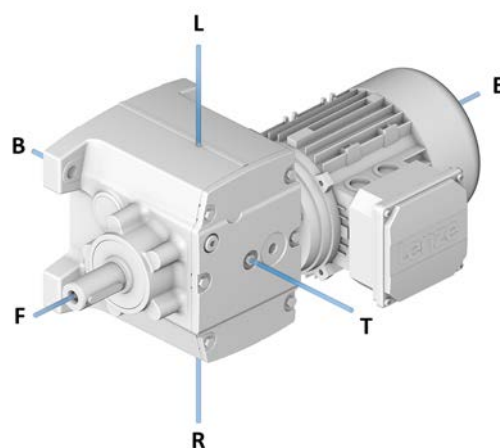
All of the defined positions refer to the areas on the geared motor in mounting position **M1 (A)**.

Position of the built-on accessories with T, L, R, B, F, E (Top, Left, Right, Bottom, Front and End)

If the geared motor is rotated into a different mounting position M2 ... M6 (B...F), the defined positions on the geared motor are retained.



Example: Mounting position M5 (F)



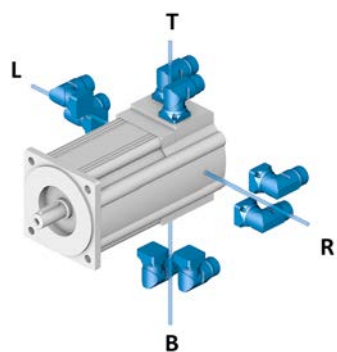
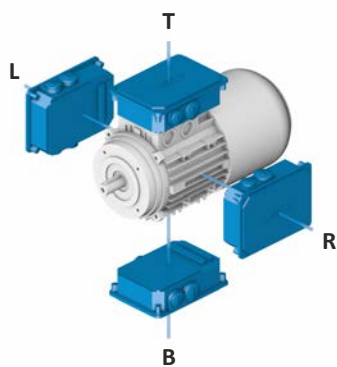
Product information

The modular system
Mounting positions



Positions of the terminal boxes/connectors

Terminal box	ICN connector
--------------	---------------





Safety instructions

Basic safety instructions

Disregarding the following basic safety instructions and safety information may lead to severe personal injury and damage to property!

- Only use the product as directed.
- Never commission the product in the event of visible damage.
- Never modify the product technically.
- Never commission the product before assembly has been completed.
- Never operate the product without the required covers.
- Connect/disconnect all pluggable connections only in deenergized condition!
- Only remove the product from the installation in the deenergized state.
- The product can – depending on their degree of protection – have live, movable or rotating parts during or after operation. Surfaces can be hot.
- Observe the specifications of the corresponding documentation. This is the condition for safe and trouble-free operation and the achievement of the specified product features.
- The procedural notes and circuit details given in the associated documentation are suggestions and their transferability to the respective application has to be checked. The manufacturer of the product does not take responsibility for the suitability of the process and circuit proposals.
- All work with and on the product may only be carried out by qualified personnel. IEC 60364 and CENELEC HD 384 define the qualifications of these persons:
 - They are familiar with installing, mounting, commissioning, and operating the product.
 - They have the corresponding qualifications for their work.
 - They know and can apply all regulations for the prevention of accidents, directives, and laws applicable at the place of use.

Please observe the specific safety information in the other sections!



Application as directed

- The product is a professional equipment intended for use by trades, specific professions or industry and not for sale to the general public. IEC 60050 [IEV 161-05-05]
- To prevent personal injury and damage to property, higher-level safety and protection systems must be used!
- All transport locks must be removed.
- Mounted eye bolts on the motor are not suitable for transporting geared motors.
- The product may only be operated under the specified operating conditions and in the specified mounting positions.
- The product may only be operated on the inverter.
- Built-in brakes must not be used as safety brakes.
- The product must not be operated in private areas, in potentially explosive atmospheres and in areas with harmful gases, oils, acids and radiation.



Foreseeable misuse

- Operate directly on the mains voltage
- Use in potentially explosive atmospheres
- Operate in aggressive environments (acids, gases, vapors, dusts, oils)
- Operate under water
- Operate under radiation
- Operate in generator mode



Residual hazards

Even if notes given are taken into consideration and protective measures are implemented, the occurrence of residual risks cannot be fully prevented.

The user must take the residual hazards mentioned into consideration in the risk assessment for his/her machine/system.

If the above is disregarded, this can lead to severe injuries to persons and damage to property!

Product

Observe the warning labels on the product!



Dangerous electrical voltage:

Before working on the product, make sure there is no voltage applied to the power terminals! After mains disconnection, the power terminals will still carry the hazardous electrical voltage for the time given next to the symbol!



Electrostatic sensitive devices:

Before working on the product, the staff must ensure to be free of electrostatic charge!



High leakage current:

Carry out fixed installation and PE connection in compliance with:
EN 61800-5-1 / EN 60204-1



Hot surface:

Use personal protective equipment or wait until the device has cooled down!

Protection of persons

- The power terminals may carry voltage in the switched-off state or when the motor is stopped.
 - Before working, check whether all power terminals are deenergized.
- Voltages may occur on the drive components (e.g. capacitive, caused by inverter supply).
 - Careful earthing in the marked positions of the components must be carried out.
- There is a risk of burns from hot surfaces.
 - Provide protection against accidental contact.
 - Use personal protective equipment or wait until the device has cooled down.
 - Prevent contact with flammable substances.
- There is a risk of injury due to rotating parts.
 - Before working on the drive system, ensure that the motor is at a standstill.
- There is a risk of accidental start-up or electric shock.

Motor protection

- Installed temperature sensors are no full protection for the machine.
 - If necessary, limit the maximum current. Parameterize the inverter so that it will be switched off after some seconds of operation with $I > I_{rated}$, especially if there is a risk of blocking.
 - Integrated overload protection does not prevent overloading under all conditions.
- The fuses are no motor protection.
 - Use a current-dependent motor protection switch.
 - Use the built-in temperature sensors.



Gearbox protection

- Excessive vibration accelerations and resonances will damage the gearbox.
 - Do not operate the gearbox at vibration accelerations $> 2 \text{ g}$ (20 m/s^2) of the machine.
 - Do not operate the gearbox in the resonance range of the machine.
- Excessive torques will damage the gearboxes.
 - Do not exceed the output torques specified on the nameplate.
- Excessive input speeds lead to increased temperatures.
 - Do not exceed the input speeds specified on the nameplate.
- Avoid excessive lateral forces on the gearbox shaft.
 - Align the shafts of the gearbox and driven machine exactly with each other.
- Machine elements can be damaged by a lack of lubricant.
 - Mount the gearbox only in the mounting position indicated on the nameplate.
 - When changing the lubricant, use the lubricant type and quantity specified on the nameplate.



Information on project planning

General information

Thermal power limit

The thermal power limit, defined by the heat balance, limits the permissible continuous gearbox power. It is affected by

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

NOTICE

A thermal check with the Drive Solution Designer (DSD) or contacting your Lenze representative is required if

- ▶ the input speed $n_1 > 1500$ rpm is fallen below in case of the gearbox ratios given in the following.
- ▶ the drive speeds mentioned in the following will be exceeded as a function of the mounting position. For a short period of time up to 5 min, 30 % higher speeds are permissible.
- ▶ the ambient temperature is predominantly above +30 °C.

Gearboxes		Ratio i	
g500-H850 ... H3000		≤ 50	

Motor	Mounting position A	Mounting position B, E, F	Mounting position C, D
MCS06 to 12	4000 r/min	3500 rpm	3000 r/min
MCS14 to 19	3000 r/min	2600 rpm	1500 r/min

Possible ways of extending the application area

- Shaft sealing ring made of FKM material/Viton (option)
- Reducing the lubricant amount (after consultation with Lenze)
- Cooling the geared motor by air convection on the machine/system



Drive dimensioning

In order to carry out an accurate drive dimensioning process, you can use our configuring software, the »EASY System Designer«.

With the »EASY System Designer«, you can design the drive both quickly and to a high quality. The software contains profound and proven expertise with regard to drive applications and mechatronic drive components.

Please get in touch with your Lenze representative.

NOTICE

The dimensioning is suitable for the operating modes S1, S2, S3 and S6

The following 3 elements are taken into consideration in the dimensioning process :

Drive function

On the basis of the values required for the process that are specified, a drive is selected, for which all operating points are within the speed-torque characteristic curve of the motor.

As a result, a motor with a suitable speed with an inverter with a sufficient maximum current is selected. Further limits (maximum speed, installation height...) are specified in tables.

Mechanical strength

On the basis of the forces and torques which build, a drive is selected that has a sufficient mechanic strength (endurance strength for the periodically occurring torques and fatigue strength for the sporadically occurring torques).

Thermal dimensioning

For the inverter, the thermal dimensioning process is carried out on the basis of the continuous inverter current or on the basis of the continuous torque from the motor-inverter combination, which can be reached.

The motor is thermally dimensioned on the basis of the mean speed and the effective torque.

The thermal dimensioning of the gearbox is based on the medium speed and the permanent torque of the motor/gearbox combination. The thermal limit speed is to be understood as a recommendation.

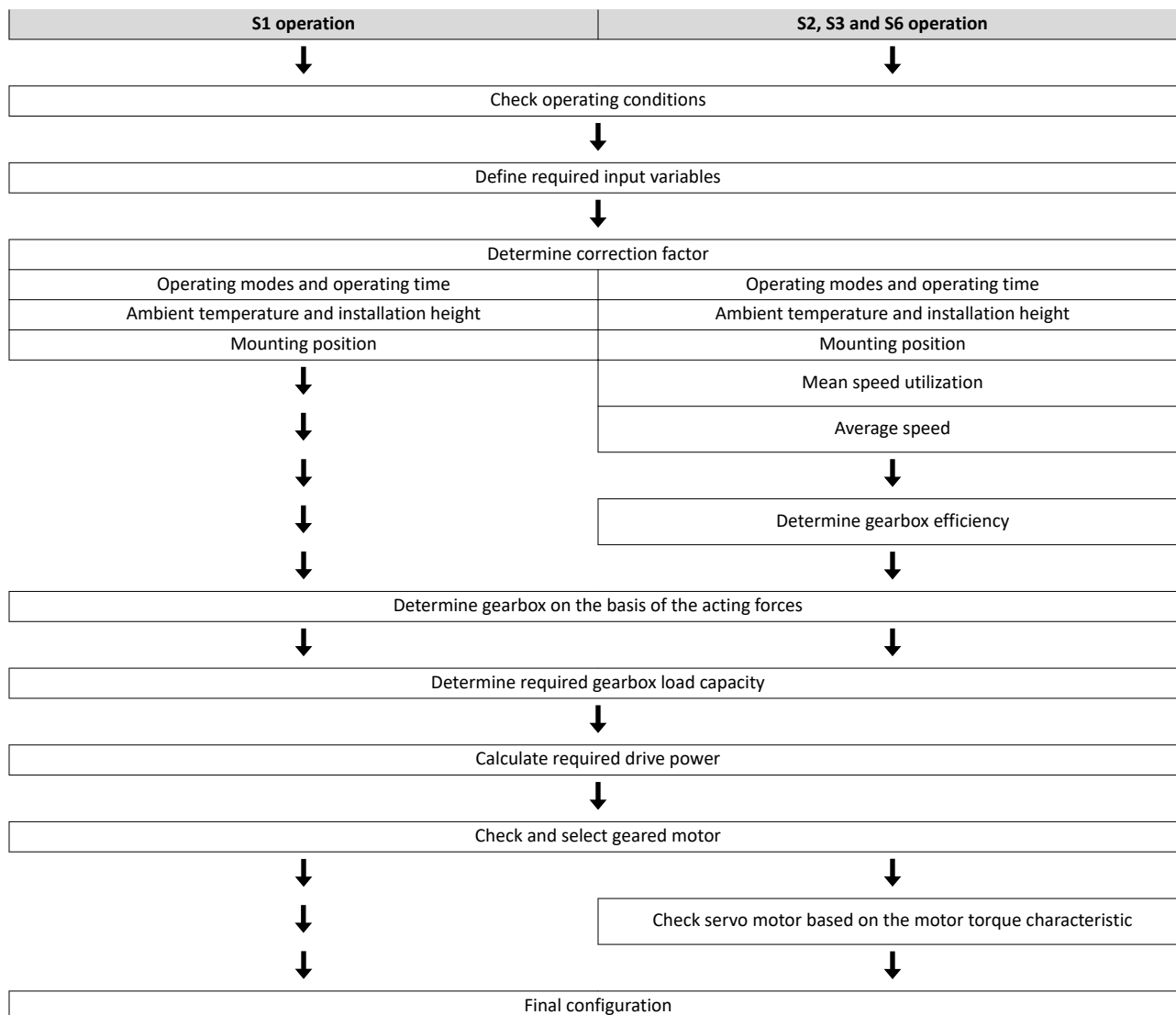
The mean speed of the drive should not exceed the values specified.



If dimensioning processes are complex or reach limit loads, please refer to your Lenze branch office



Workflow



Check operating conditions

Check
Approvals Conformities Supply voltage Degree of protection Ambient temperature Surface protection

► Standards and operating conditions [44](#)

► Surface and corrosion protection [30](#)



Define required input variables

Necessary input variables	Note	Symbol	Unit
Operating time/day		BD	h
Mean speed utilization of the geared motor	Relating to the load speed n_L		%
Ambient temperature		T_V	°C
Site altitude Amsl		H	m
Radial force		F_{rad}	rated
Axial force		F_{ax}	rated
Transmission element at the output	Gear wheels, sprockets ...		
Effective diameter of the transmission element		d_W	mm
Load torque	Only with S1, S2, S3, and S6 operating modes	M_L	Nm
Load speed	Only with S1, S2, S3, and S6 operating modes	n_L	rpm
Short-time maximum torque	Emergency off, quick stop, occasional high starting duty	$M_{L,max}$	Nm
Runtime with maximum torque		t_L	%

Determine correction factor

Operating modes S1, S2, S3, S6, and operating time							
Operating mode S1		Operating mode S2		Operating mode S3		Operating mode S6	
ED	k_L	ED	k_L	ED	k_L	ED	k_L
%		min		%		%	
100	1.0	10	1.4 - 1.5	15	1.4 - 1.5	15	1.5 - 1.6
		30	1.15 - 1.2	25	1.3 - 1.4	25	1.4 - 1.5
		60	1.07 - 1.1	40	1.15 - 1.2	40	1.3 - 1.4
		90	1.0 - 1.05	60	1.05 - 1.1	60	1.15 - 1.2

► Operating modes of the motor [373](#)

Ambient temperature and installation height				
Ambient temperature	Installation height amsl			
	≤ 1000 m	≤ 2000 m	≤ 3000 m	≤ 4000 m
	Correction factor			
T_U	k_H	k_H	k_H	k_H
≤ 20 °C	1.10	1.01	0.92	0.84
30 °C	1.05	0.97	0.88	0.80
40 °C	1.00	0.92	0.83	0.77
50 °C	0.92	0.85	0.76	0.70
60 °C	0.84	0.78	0.69	0.64

Mounting position						
Gearboxes	Mounting position					
	M1	M2	M3	M4	M5	M6
	Correction factor					
	k_E	k_E	k_E	k_E	k_E	k_E
g500-H	1.00	0.70	0.80	0.80	1.00	1.00
g500-S	1.00	0.70	0.80	0.85	0.80	0.90
g500-B	1.00	0.70	0.80	0.80	0.80	0.80

► Selection tables [61](#)



Mean speed utilisation					
Daily operating time	Mean speed utilisation relating to the load speed n_L				
	100 %	80 %	60 %	50 %	25 %
	Correction factor				
	k_N	k_N	k_N	k_N	k_N
1.0 h	1.29	1.33	1.38	1.42	1.55
2.0 h	1.15	1.20	1.25	1.29	1.42
3.0 h	1.08	1.12	1.17	1.21	1.34
4.0 h	1.02	1.06	1.12	1.15	1.29
5.5 h	0.96	1.00	1.06	1.09	1.22
8.0 h	0.89	0.93	0.99	1.02	1.15
12.0 h	0.81	0.85	0.91	0.94	1.08
16.0 h	0.76	0.80	0.85	0.89	1.02
22.0 h	0.71	0.76	0.81	0.85	0.98
24.0 h	0.68	0.72	0.78	0.81	0.94

Mean speed					
Operating mode S2		Operating mode S3		Operating mode S6	
ED	k_M	ED	k_M	ED	k_M
min		%		%]	
10	0.16	15	0.15	15	1.00
30	0.50	25	0.25	25	
60	1.00	40	0.40	40	
90		60	0.60	60	

Gearbox efficiency

Gearboxes	Gearbox efficiency	
	η_{c1}	
g500-H		
2-stage	0.96	
3-stage	0.95	
4-stage	0.94	

Determine product on the basis of the forces

Transmission element			Gear wheels	Sprockets	Toothed belt pulleys (depending on the pretension)	Narrow V-belt (depending on the pretension)
Additional radial force factor	f_z		≥ 17 teeth: 1.0 < 17 teeth: 1.15	≥ 20 teeth: 1.0 < 20 teeth: 1.25 < 13 teeth: 1.4	With belt tightener: 2.0 – 2.5 Without belt tightener: 2.5 – 3.0	1.5 – 2.0
			Calculation		Check	
Radial force	F_{rad}	N	$F_{rad} = 2000 \times \frac{M_{L,max} \times f_z}{dw}$		$F_{rad} \leq f_W \times F_{rad,max}$	
Axial force	F_{ax}	N			$F_{ax} \leq F_{rad,max} \times 0.5$	

dw Effective diameter of transmission element in mm

f_w Additional load factor

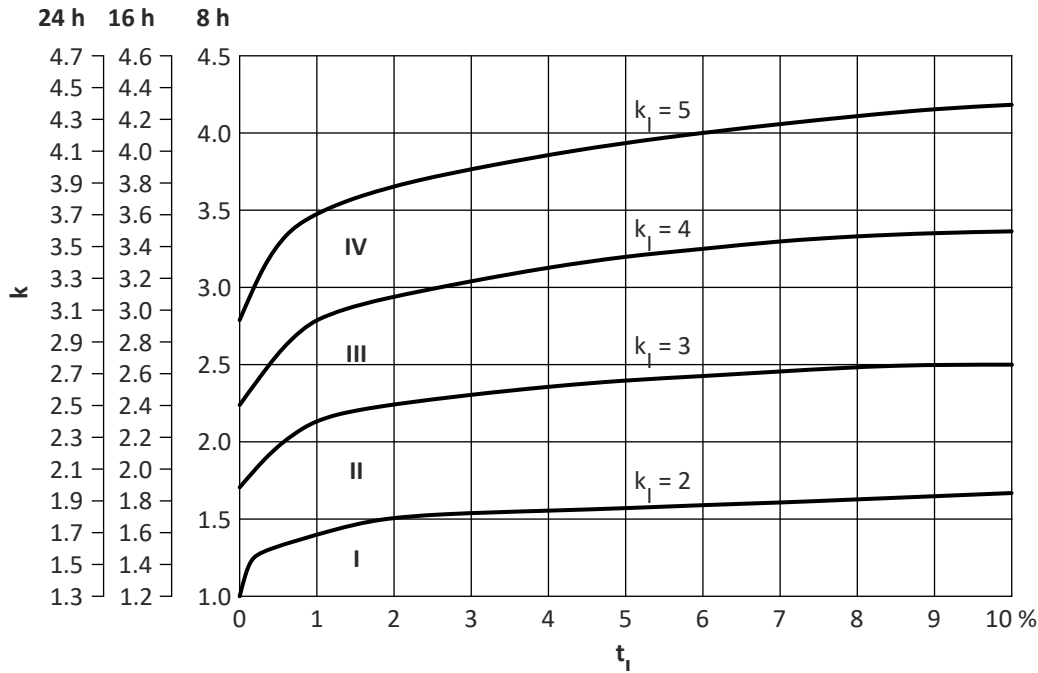
► [Radial forces and axial forces](#) 56



Determination of the required gearbox load capacity

Define the required load factor at runtime t_L		
Runtime $t_L \leq 10\%$	Take the load factor k from diagram into account	
Runtime $t_L > 10\%$	Take intensity k_i from calculation into account	
Calculate intensity		
no alternating load	$k_i = M_{L,max} / M_L$	$k_i =$
at alternating load	$k_i = M_{L,max} / M_L \times 1.4$	$k_i =$

Load factor k



Operating mode S1

Calculation of the required drive power			
	Calculation	Result	Unit
Output torque	$M_R \geq M_L / (k_L \times k_H)$	$M_R =$	Nm
Output speed	$n_R \geq n_L / k_E$	$n_R =$	rpm
Drive power	$P_R \geq M_R \times n_R / 9549$	$P_R =$	kW

Check geared servo motor and determine from the selection table			
	Check	Selection	Unit
Drive power	$P_1 \geq P_R$	$P_1 =$	kW
Output torque	$M_2 \geq M_L$	$M_2 =$	Nm
Output speed	$n_{2,th} \geq n_L$	$n_{2,th} =$	rpm
Load capacity of the geared motor	$c \geq k$ $c \geq k_I$	$c =$	
Short-time maximum torque			
no alternating load	$M_{2,max} \geq M_{L,max}$	$M_{2,max} =$	Nm
at alternating load	$M_{2,max} \times 1.5 \geq M_{L,max}$	$M_{2,max} =$	Nm
Ratio		$i =$	

► Selection tables 61



Order data			
	Ratio i	Geared motor	
Example	4.368	g500-H45	MCS06C40-
Example	35.493	g500-S130	MCS06C41-
Example	10.466	g500-B45	MCS06C41-

Operating modes S2, S3, and S6

Calculation of the required drive power			
	Calculation	Result	Unit
Output torque	$M_R \geq M_L / (k_L \times k_H)$	$M_R =$	Nm
Output speed	$n_R \geq (n_L \times k_M) / (k_E \times k_{rated})$	$n_R =$	rpm
Drive power	$P_R \geq M_R \times n_R / 9549$	$p_R =$	kW

Check geared servo motor and determine from the selection table			
	Check	Selection	Unit
Drive power	$P_1 \geq P_R$	$p_1 =$	kW
Output torque	$M_2 \geq M_L$	$M_2 =$	Nm
Output speed	$n_2 \geq n_L$	$n_2 =$	rpm
Load capacity of the geared motor	$c \geq k$ $c \geq k_i$	$c =$	
Short-time maximum torque			
no alternating load	$M_{2,max} \geq M_{L,max}$	$M_{2,max} =$	Nm
at alternating load	$M_{2,max} \times 1.5 \geq M_{L,max}$	$M_{2,max} =$	Nm
Ratio		$i =$	

► Selection tables [61](#)

Check servo motor based on the motor torque characteristic		
Gearbox efficiency	$\eta_G = \eta_{c1} - (c - 1) \times 0.01$	$\eta_G =$
All operating points (●)		$i \times n_L$
below the maximum torque characteristic of the servo motor/ inverter combination here, $M_{L,max}$ must be considered		$M_L / (i \times \eta_G)$
Thermally effective operating point (○)		$(i \times n_L \times k_M) / (k_E \times k_{rated})$ $M_L / (k_L \times k_H \times i \times \eta_G)$

► Torque characteristics [343](#)

Order data			
	Ratio i	Geared motor	
Example	4.368	g500-H45	MCS06C40-
Example	35.493	g500-S130	MCS06C41-
Example	10.466	g500-B45	MCS06C41-



Final configuration

	Screening
Connection dimensions	Output shaft Output flange/foot
Mounting position	Geared motor Connector/terminal box Driven shaft/output flange
Product extensions	Torque plate Shaft cover Connector/terminal box Brake Feedback Blower Temperature monitoring Second shaft end Handwheel Protection cover ...

More information about the final configuration:

► [The modular system](#)  11

► [Product extensions](#)  304



Surface and corrosion protection

Depending on the ambient conditions, the surface and corrosion protection system (called OKS) offers tailor-made solutions for optimum protection.

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 color from the "RAL Classic" collection can be chosen for the top coat.



The OKS-XL (extra Large) version requires a check by your responsible Lenze subsidiary.

Surface and corrosion protection	Applications	Product g500
OKS-G (primed)	Dependent on subsequent top coat applied	Standard
OKS-S (small)	- Standard applications - Internal installation in heated buildings - Air humidity up to 90%	Optional
OKS-M (medium)	- Internal installation in non-heated buildings - Covered, protected external installation - Air humidity up to 95 %	Optional
OKS-L (large)	- External installation - Air humidity above 95 % - Chemical industrial plants - Food industry	
OKS-XL (extra Large)	- External installation - Air humidity above 95 % - Chemical industrial plants - Food industry - Coastal areas with moderate salinity	

Surface and corrosion protection	Corrosivity category	Surface coating	Color	Coating thickness
	DIN EN ISO 12944-2	Design		
OKS-G (primed)		2K PUR priming coat		60 ... 90 µm
OKS-S (small)	Comparable to C1	2K-PUR top coat	- Standard: RAL 7012 - Optional: RAL Classic	80 ... 120 µm
OKS-M (medium)	Comparable to C2	2K PUR priming coat		110 ... 160 µm
OKS-L (large)	Comparable to C3	2K-PUR top coat		140 ... 200 µm
OKS-XL (extra large)	Comparable to C4	2K-EP priming coat (two times) 2K-PUR top coat		160 ... 240 µm



Lubricants

The following gearboxes are lubricated for life:

- g500-H45
- g500-H100
- g500-H140

Recommended lubricants:

Lubricant	CLP HC 220	CLP HC 320	CLP HC 46 NSF H1	CLP HC 220 NSF H1
Ambient temperature	-30 ... +40 °C	-20 ... +50 °C	-30 ... +10 °C	-20 ... +40 °C
Specification	Synthetic oil (polyalphaolefins basis)			
Changing interval				
Operating hours	25000	25000	16000	16000
Not later than after	4 years	4 years	3 Jahren	3 Jahren
At oil temperature	70 C°			
Fuchs	Renolin Unisyn XT 220	Renolin Unisyn XT 320		Cassida Fluid GL 220
Klüber	Klübersynth GEM4-220 N	Klübersynth GEM4-320 N	Klüberoil Summit HYSYN FG-46	Klüberoil 4 UH1-220 N
SHELL	Shell Omala S4 GXV 220	Shell Omala S4 GXV 320		

Lubricant amounts for stocking

All lubricant amounts are reference values for a change of lubricant. They serve stocking purposes, for example.

The exact values can be found on the nameplate.

Mounting position		M1 (A)	M2 (D)	M3 (B)	M4 (C)	M5 (F)	M6 (E)	M1-M6 (A-F)	M1, M5, M6 (AEF)
Gearbox									
g500-H45	I	0.2	0.2	0.2	0.2	0.2	0.2	0.2	-
g500-H100	I	0.5	0.7	0.8	0.7	0.5	0.7	-	0.7
g500-H140	I	0.5	0.8	0.9	0.7	0.5	0.8	-	0.8
g500-H210	I	0.8	1.1	1.2	1.3	0.9	1.2	-	1.2
g500-H320	I	0.8	1.2	1.3	1.3	1.0	1.2	-	1.2
g500-H450	I	1.1	1.6	1.7	1.8	1.4	1.6	-	1.6
g500-H600	I	1.7	2.6	2.4	3.0	1.9	2.3	-	-
g500-H850	I	2.3	3.5	3.0	4.0	2.5	3.2	-	-
g500-H1500	I	4.6	7.0	6.0	7.7	5.0	6.0	-	-
g500-H3000	I	8.0	12.6	10.0	13.2	9.5	9.8	-	-
Pre-stage	I	0.4							

► Gearbox with pre-stage  299



Ventilation



No ventilation is required for the gearboxes g500-H45 ...H210.
The gearbox g500-H210 can optionally be fitted with ventilation units.
From g500-H320onwards, the gearboxes are supplied with ventilation units as standard.

To reduce the number of different versions, the following gearboxes can also be ordered with combined mounting positions:

- g500-H45 in mounting position M1-M6 (A-F)
- g500-H100 ... H450 in mounting position M1/5/6 (AEF)



In these gearboxes, the lubricant amount has been optimised for the use in different mounting positions. If required, the breather elements are loosely enclosed and must be mounted before commissioning depending on the mounting position.

NOTICE

► For gearboxes with ventilation, a gap of at least 30 mm has to be observed to the machine wall on the corresponding gearbox side.

g500-H210

Mounting position		
M1 (A)	M2 (D)	M3 (B)
M1	M2	M3
M4 (C)	M5 (F)	M6 (E)
M4	M5	M6

Ventilation Change oil Fill oil Oil level



g500-H320

Mounting position		
M1 (A)	M2 (D)	M3 (B)
M1	M2	M3
M4 (C)	M5 (F)	M6 (E)
M4	M5	M6

🌀 Ventilation

🔄 Change oil

⬇️ Fill oil

📏 Oil level

g500-H450

Mounting position		
M1 (A)	M2 (D)	M3 (B)
M1	M2	M3
M4 (C)	M5 (F)	M6 (E)
M4	M5	M6

🌀 Ventilation

🔄 Change oil

⬇️ Fill oil

📏 Oil level



g500-H600

Mounting position		
M1 (A)	M2 (D)	M3 (B)
M1	M2	M3
M4 (C)	M5 (F)	M6 (E)
M4	M5	M6

Ventilation

Change oil

Fill oil

Oil level

g500-H850

Mounting position		
M1 (A)	M2 (D)	M3 (B)
M1	M2	M3
M4 (C)	M5 (F)	M6 (E)
M4	M5	M6

Ventilation

Change oil

Fill oil

Oil level



g500-H1500

Mounting position		
M1 (A)	M2 (D)	M3 (B)
M1	M2	M3
M4 (C)	M5 (F)	M6 (E)
M4	M5	M6

🌀 Ventilation

🔄 Change oil

⬇️ Fill oil

📏 Oil level

g500-H3000

Mounting position		
M1 (A)	M2 (D)	M3 (B)
M1	M2	M3
M4 (C)	M5 (F)	M6 (E)
M4	M5	M6

🌀 Ventilation

🔄 Change oil

⬇️ Fill oil

📏 Oil level



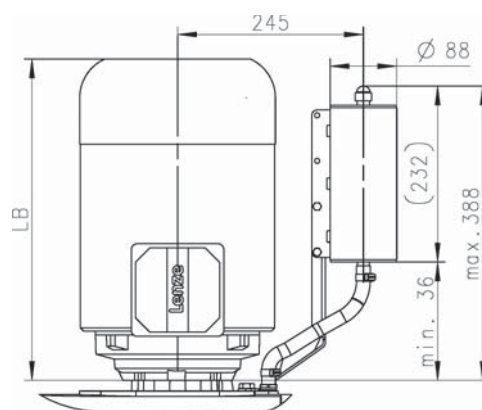
Gearbox with oil compensation reservoir for mounting position M4 (C)

In order to guarantee a reliable lubrication of the toothed parts in mounting position M4 (C) (motor is on the gearbox vertical from the top), a high filling level is required in the gearbox. As a result of the reduced volume of air in the gearbox, this may lead to oil escaping from the ventilation at higher input speeds. The oil compensation reservoir increases the expansion space for the lubricant.

The oil compensation reservoir can be ordered as a mounting set for fastening to the gearbox.

If insufficient space is available, the oil compensation reservoir can also be mounted over the gearbox hose connection on nearby system parts.

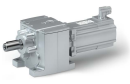
Dimensions of the oil compensation reservoir



8800783-00

For the following gearboxes in mounting position M4 (C), which exceed the specified min. input speed, an oil expansion reservoir is required depending on the specified gear ratio:

g500-H1500		g500-H3000	
Gearbox ratio	Min. input speed	Gearbox ratio	Min. input speed
	rpm		rpm
3.743	2000	4.496	2000
4.758	2000	5.902	2000
5.400	2000	6.344	2000
6.245	2000	6.968	2000
6.864	2000	8.327	2000
7.592	2000	9.146	2000
9.010	2000	10.005	2000
10.267	2000	11.619	2000
11.356	2000	12.762	2000
12.362	3000	14.233	2000
13.673	3000	15.633	2000
15.156	3000	18.752	3000
16.763	3000	20.596	3000
20.533	3000	23.044	3000
22.711	3000	25.311	3000
24.933	3000	29.822	3000
27.578	3000	32.756	3000
32.267	4000	36.193	4000
35.689	4000	39.753	4000
39.160	4000	45.750	4000
43.313	4000	50.250	4000
49.500	4000		
54.750	4000		



Mechanical installation

Important notes

- Install the product according to the information in the chapter "Standards and operating conditions".
 - ▶ [Standards and operating conditions](#)  44
- The technical data and the data regarding the supply conditions can be found on the nameplate and in this documentation.
- Ambient media – especially chemically aggressive ones – may damage shaft sealing rings, lacquers and plastics.
- Lenze offers special surface and corrosion protection in this case.



Transport

CAUTION!

Danger from tipping and falling loads!

Standing beneath suspended loads is prohibited!

Possible consequences: Minor or moderate injuries.

- ▶ To achieve a load direction that is as vertical as possible (maximum load-bearing capacity), use additional, suitable load carriers if necessary. Secure the load carrier against slipping!
- ▶ Screw in the transport aids completely. They must lie flat and over the entire surface!
- ▶ Load the transport aids vertically in the direction of the screw axis! Inclined or lateral tension reduces the load-bearing capacity! Observe the specifications in the DIN 580!

NOTICE

Eye bolts or lifting eyes on the motor are not suitable for transporting geared motors.

Only use these for mounting/dismounting the motor on the gearbox.

Possible consequences: Damage to the geared motor.

- ▶ Only use the threads provided on the gearbox for eye bolts or lifting eyes for transporting the geared motor.

Preconditions

- Ensure appropriate handling.
- Make sure that all component parts are securely mounted. Secure or remove loose component parts.
- Only use safely fixed transport aids (e.g., eye bolts or support plates).
- Do not damage any components during transport.
- Avoid electrostatic discharges on electronic components and contacts.
- Avoid impacts.
- Check the carrying capacity of the hoists and load handling devices. The weights can be found in the shipping documents.
- Secure the load against tipping and falling down.
- Standing beneath suspended loads is prohibited.



The eye bolt is not included in the scope of supply!

Position of the eye bolt

Geared motor		
	Eye bolt on the shaft	Eye bolt on the housing
G50AH045Mxxxxxx	M5 ... M6	-
G50BH110Mxxxxxx	M6	-
G50BH114Mxxxxxx	M10	-
G50BH121Mxxxxxx	-	M8
G50BH132Mxxxxxx	-	M10
G50BH145Mxxxxxx	-	M12
G50BH160Mxxxxxx	-	M12
G50BH185Mxxxxxx	-	M16
G50BH215Mxxxxxx	-	M16
G50BH230Mxxxxxx	-	M20
G50BH250Mxxxxxx	-	M20
G50BH280Mxxxxxx	-	M24
G50BH314Mxxxxxx	-	M24



Installation

Ventilation elements

Gearboxes that are supplied with a pre-assembled ventilation element:

- The ventilation element is identified by a sign on the gearbox.
- Remove the transport lock from the ventilation element before initial commissioning.

Gearboxes that are supplied with a loosely attached ventilation element:

- Before commissioning for the first time, install the ventilation element according to the mounting position.

Mounting surfaces

- The mounting surfaces must be plane, torsionally rigid and free from vibrations.
- The mounting areas must be suited to absorb the forces and torques generated during operation.
- Ensure an unhindered ventilation.
- For versions with a fan, keep a minimum distance of 10 % from the outside diameter of the fan cover in intake direction.



Electrical installation

Important notes

DANGER!

Risk of injury and risk of burns from dangerous voltage

Power terminals may also carry voltage in the switched-off state or when the motor is stopped and may cause life-threatening cardiac arrhythmia and serious burns.

- ▶ Disconnect the product from the mains.
 - ▶ Check that the power terminals are deenergized before starting work.
-

- When working on energized products, comply with the applicable national accident prevention regulations.
- The electrical installation must be carried out according to the appropriate regulations (e.g. cable cross-sections, fuses, PE connection).
- The manufacturer of the system or machine is responsible for adherence to the limits required in connection with EMC legislation.

Operation on an external inverter

A max. pulse voltage amplitude of $U_{pk} = 1560 \text{ V}$ at the motor terminals must not be exceeded.

Here, the minimum pulse rise time must be $t_r = 0.1 \text{ }\mu\text{s}$.

If it cannot be ruled out that the permissible voltage peaks will be exceeded or that the minimum pulse rise time will not be reached, the following measures must be initiated:

- Reduction of the DC-bus voltage (threshold for brake chopper voltage)
- Use of filters, chokes
- Use of special motor cables



Preparation



The notes for the electrical connection can be found in the enclosed mounting instructions.

EMC-compliant wiring



The EMC-compliant wiring is described in detail in the documentation of the Lenze inverters.



Technical data

Notes regarding the given data

Catalog data

The power values, torques and speeds specified in the configuration are rounded values and apply to:

- Operating time per day = 8 hrs (100 % ED)
- Duty class up to 10 switching operations per hour
- Ambient temperature = 40 °C
- Site altitude ≤ 1000 m above mean sea level
- The selection tables indicate the mechanically permissible power levels and torques.
- The ratings apply to the operating mode S1 (acc. to EN 60034-1).

NOTICE

In case of other operating conditions, the achievable values can differ for those mentioned.

► In case of extreme operating conditions, please get in touch with your Lenze representative.



Standards and operating conditions

Conformities and approvals

More information and certificates of approval can be found under

[g500 + MCS helical geared motors \(Lenze.com\)](https://www.lenze.com/g500-mcs-helical-geared-motors)

Europe					
Country	Conformity/ approval	Law/standard	Description	Special feature	Product representation
European Union	CE	2006/42/EC	Machinery Directive	Only for safety-relevant components	CE mark
		2011/65/EU	RoHS	-	
		2014/30/EU	EMC Directive		
		2014/35/EU	Low-Voltage Directive		
Great Britain	UKCA	S.I. 2008/1597	The Supply of Machinery (Safety) Regulations 2008	Only for safety-relevant components	UKCA mark
		S.I. 2012/3032	The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012	-	
		S.I. 2016/1091	The Electromagnetic Compatibility Regulations 2016		
		S.I. 2016/1101	The Electrical Equipment (Safety) Regulations 2016		

America					
Country	Conformity/ approval	Law/standard	Description	Special feature	Product representation
Canada	CSA	CSA 22.1 No. 100	CSA Standard for Motors and Generators	-	cURus mark
USA	UL	UL 1004-1	UL Standard for Rotating Electrical Machines		

Asia					
Country	Conformity/ approval	Law/standard	Description	Special feature	Product representation
China	-	GB 30253	Minimum allowable values of energy efficiency and energy efficiency grades for permanent magnet synchronous motors	-	CEL mark
		GB/T 26572	Requirements on concentration limits for certain restricted substances in electrical and electronic products		EFUP mark

Protection of persons and device protection

Degree of protection			
-	EN IEC 60529, EN IEC 60034-5	IP54	Self-ventilated: MCS06 ... MCS19
			Forced ventilated: MCS12 ... MCS19
		IP65	Self-ventilated: MCS06 ... MCS19
Temperature class			
-	EN IEC 60034-1	F (155 °C)	Insulation system
Permissible voltage			
-	IEC 60034-18-41	IVIC C	At 500 V
	IEC/TS 60034-25:2007	Limit curve A	Of the pulse voltage



EMC data

Noise emission		
-	EN IEC 60034-1	A final overall assessment of the drive system is indispensable
Noise immunity		
-	EN IEC 60034-1	A final overall assessment of the drive system is indispensable

Environmental conditions

Climate			
Storage	EN 60721-3-1:1997	1K3 (-20 ... +40 °C)	>3 months
		1K3 (-20 ... +60 °C)	<3 months
Transport	EN 60721-3-2:1997	2K3 (-20 ... +70 °C)	
Operation	EN 60721-3-3:1995 + A2:1997	3K3 (-10 ... +40 °C)	Operation, without brake
		3K3 (-15 ...+40 °C)	Operation without brake, forced ventilated
		3K3 (-20 ...+40 °C)	Operation without brake, self-ventilated
Site altitude			
0 ... 1000 m amsl	-	Without current derating	
1000 ... 4000 m amsl		Reduce rated output current by 5 %/1000 m	
Air humidity			
-	-	Average relative humidity 85 %	Without condensation



Technical data

Data overview

In order to calculate the exact ratio, the number of teeth z_g (driven) can be divided by the number of teeth z_t (driving).

g500-H45, 2-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
$M_{2, \max}$	i	z_g	z_t	
Nm				'
18.0	2.597	896	345	41
19.0	3.413	256	75	39
21.0	4.368	1376	315	38
27.0	5.312	1344	253	28
29.0	5.965	686	115	28
30.0	6.982	384	55	27
32.0	7.840	196	25	27
33.0	8.935	688	77	27
35.0	10.033	301	30	26
35.0	11.429	80	7	26
38.0	12.833	77	6	26
39.0	14.836	816	55	26
41.0	16.660	833	50	25
42.0	19.013	1464	77	26
44.0	21.350	427	20	25
45.0	24.595	2976	121	25
45.0	27.618	1519	55	25
45.0	32.000	32	1	26
45.0	35.933	539	15	25

g500-H100, 2-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
$M_{2, \max}$	i	z_g	z_t	
Nm				'
62.0	3.354	161	48	29
72.0	4.600	23	5	27
75.0	5.167	31	6	24
81.0	5.887	989	168	27
83.0	6.440	161	25	27
86.0	7.086	248	35	23
92.0	8.214	115	14	27
96.0	9.068	1333	147	23
99.0	10.063	161	16	27
100	11.360	284	25	22
100	12.653	620	49	23
100	14.490	710	49	22
100	15.500	31	2	23
100	17.750	71	4	22
100	19.486	682	35	23
100	22.314	781	35	22
100	25.095	527	21	23
100	28.738	1207	42	21



g500-H100, 3-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
$M_{2, \max}$	i	z_g	z_t	
Nm				'
100	51.962	5456	105	23
100	59.505	6248	105	22
100	66.499	29326	441	23
100	72.747	5456	75	23
100	83.307	6248	75	22
100	92.789	13640	147	23
100	106.259	15620	147	22
100	113.667	341	3	23
100	130.167	781	6	22
100	142.895	15004	105	23
100	163.638	17182	105	21
100	173.423	30349	175	22
100	198.597	69509	350	21
100	223.348	46903	210	22
100	255.769	107423	420	21
100	283.066	217961	770	22

g500-H140, 2-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
$M_{2, \max}$	i	z_g	z_t	
Nm				'
82.0	3.267	49	15	25
94.0	4.480	112	25	24
103	5.733	86	15	23
105	6.272	784	125	23
106	7.269	189	26	18
117	8.000	8	1	23
117	9.029	316	35	18
125	9.800	49	5	23
128	11.554	3397	294	18
132	12.640	316	25	18
136	13.957	4536	325	17
140	16.122	790	49	18
140	17.802	1620	91	17
140	19.750	79	4	18
140	21.808	567	26	17
140	24.829	869	35	18
140	27.415	1782	65	17
140	31.976	1343	42	18
140	35.308	459	13	17



g500-H140, 3-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
$M_{2, \max}$	i	z_g	z_t	
Nm				'
140	57.582	12956	225	18
140	63.582	20664	325	17
140	73.447	32390	441	18
140	84.732	37367	441	18
140	92.693	6952	75	18
140	102.351	33264	325	17
140	118.231	17380	147	18
140	130.549	11880	91	17
140	144.833	869	6	18
140	159.923	2079	13	17
140	182.076	19118	105	18
140	201.046	13068	65	17
140	220.974	77341	350	18
140	243.997	79299	325	17
140	284.588	119527	420	18
140	314.238	40851	130	17
140	360.681	555449	1540	18
140	398.259	569511	1430	17

g500-H210, 2-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
$M_{2, \max}$	i	z_g	z_t	
Nm				'
126	3.389	61	18	22
143	4.648	488	105	22
159	5.583	67	12	18
158	6.250	25	4	17
172	7.657	268	35	18
171	8.571	60	7	17
182	9.799	2881	294	18
189	10.720	268	25	18
186	12.000	12	1	17
201	13.673	670	49	17
200	15.306	750	49	17
210	16.750	67	4	17
210	18.750	75	4	16
210	21.802	2747	126	17
210	24.405	1025	42	16
210	27.119	1139	42	17
210	30.357	425	14	16
210	35.095	737	21	17
210	39.286	275	7	16
183	42.593	5963	140	16
206	47.679	1335	28	16



g500-H210, 3-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
M _{2, max}	i	z _g	z _t	
Nm				'
210	43.390	4556	105	17
210	48.571	340	7	16
210	55.529	48977	882	17
210	62.160	18275	294	16
210	71.026	62645	882	16
210	79.507	23375	294	16
210	92.205	19363	210	16
210	103.214	1445	14	16

g500-H210, 4-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
M _{2, max}	i	z _g	z _t	
Nm				'
210	318.197	100232	315	17
210	356.190	7480	21	16
210	407.216	538747	1323	17
210	455.839	201025	441	16
210	494.212	4358953	8820	17
210	553.223	325295	588	16
210	632.132	1115081	1764	17

g500-H320, 2-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
M _{2, max}	i	z _g	z _t	
Nm				'
165	3.389	61	18	20
189	4.648	488	105	20
227	6.083	73	12	16
218	6.910	539	78	15
249	8.343	292	35	16
238	9.477	616	65	15
265	10.677	3139	294	15
271	11.680	292	25	15
254	12.128	473	39	15
262	13.268	4312	325	15
294	14.898	730	49	15
281	16.923	220	13	14
313	18.250	73	4	15
299	20.731	539	26	14
320	23.754	2993	126	15
320	26.983	3157	117	14
320	29.548	1241	42	15
320	33.564	1309	39	14
251	38.238	803	21	15
285	43.436	1694	39	14
218	46.407	6497	140	14
248	52.715	6853	130	14



g500-H320, 3-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
$M_{2, \max}$	i	z_g	z_t	
Nm				'
320	47.276	4964	105	15
320	53.703	10472	195	14
320	60.502	53363	882	15
320	68.726	8041	117	14
320	77.387	68255	882	15
320	87.906	10285	117	14
320	100.462	21097	210	15
320	114.118	22253	195	14

g500-H320, 4-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
$M_{2, \max}$	i	z_g	z_t	
Nm				'
320	346.692	109208	315	15
320	393.819	230384	585	14
320	443.683	586993	1323	15
320	503.994	176902	351	14
320	567.502	750805	1323	15
320	644.644	226270	351	14
320	736.721	232067	315	15
320	836.865	489566	585	14
320	894.111	1877633	2100	15
320	1015.650	1980517	1950	14



g500-H450, 2-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
M _{2, max}	i	z _g	z _t	'
Nm				
256	3.444	31	9	19
293	4.724	496	105	17
315	5.678	511	90	15
323	6.045	2666	441	17
334	6.613	496	75	17
354	7.787	584	75	14
370	8.800	44	5	13
384	9.965	3139	315	14
400	11.262	473	42	13
411	12.320	308	25	13
426	13.905	292	21	13
441	15.714	110	7	13
450	17.033	511	30	13
448	19.250	77	4	13
450	22.170	2993	135	13
450	25.056	451	18	13
450	27.578	1241	45	13
450	31.167	187	6	13
450	35.689	1606	45	13
450	40.333	121	3	12
322	43.313	6497	150	13
366	48.950	979	20	12
273	54.750	219	4	13
307	61.875	495	8	12

g500-H450, 3-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
M _{2, max}	i	z _g	z _t	
Nm				'
450	44.124	9928	225	14
450	49.867	748	15	13
450	56.469	53363	945	14
450	61.774	69496	1125	14
450	69.813	5236	75	13
450	78.794	4964	63	14
450	89.048	1870	21	13
450	96.522	8687	90	14
450	109.083	1309	12	13
450	121.342	27302	225	14
450	137.133	2057	15	13
450	156.274	21097	135	14
450	176.611	3179	18	13



g500-H450, 4-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
$M_{2, \max}$	i	z_g	z_t	
Nm				'
450	323.579	218416	675	13
450	365.689	16456	45	14
450	414.104	1173986	2835	14
450	453.011	1528912	3375	14
450	511.964	115192	225	13
450	577.820	109208	189	14
450	653.016	41140	63	13
450	707.830	95557	135	14
450	799.944	14399	18	13
450	889.843	600644	675	14
450	1005.644	45254	45	13
450	1146.010	464134	405	14
450	1295.148	34969	27	13

g500-H600, 2-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
$M_{2, \max}$	i	z_g	z_t	
Nm				'
240	3.267	49	15	17
297	4.480	112	25	15
339	5.733	86	15	15
404	6.456	581	90	13
435	7.250	29	4	13
487	8.853	664	75	12
510	9.943	348	35	12
537	11.330	3569	315	12
553	12.395	4648	375	12
578	13.920	348	25	12
600	15.810	332	21	12
600	17.755	870	49	12
600	19.367	581	30	12
600	21.750	87	4	11
600	25.207	3403	135	12
600	28.310	1189	42	11
600	31.356	1411	45	12
600	35.214	493	14	11
558	40.578	1826	45	11
600	45.571	319	7	11
456	49.247	7387	150	11
513	55.307	7743	140	11
371	62.250	249	4	11
418	69.911	3915	56	11



g500-H600, 3-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
$M_{2, \max}$	i	z_g	z_t	
Nm				'
600	31.197	49136	1575	13
600	35.037	8584	245	12
600	39.925	264106	6615	13
600	43.676	49136	1125	12
600	49.051	8584	175	12
600	55.710	24568	441	12
600	62.566	21460	343	12
600	68.244	3071	45	12
600	76.643	1073	14	12
600	88.826	251822	2835	12
600	99.757	43993	441	12
600	110.491	104414	945	12
600	124.088	18241	147	12
600	142.988	135124	945	12
600	160.585	23606	147	12
600	173.536	273319	1575	12
600	194.892	95497	490	12
600	221.794	39923	180	12
600	249.089	13949	56	12

g500-H600, 4-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
$M_{2, \max}$	i	z_g	z_t	
Nm				'
600	198.970	2014576	10125	13
600	223.457	351944	1575	12
600	253.789	1007288	3969	13
600	285.021	879860	3087	12
600	320.294	1080992	3375	12
600	359.710	188848	525	12
600	408.538	540496	1323	12
600	458.814	472120	1029	12
600	500.459	67562	135	12
600	562.048	11803	21	12
600	651.391	5540084	8505	12
600	731.554	967846	1323	12
600	810.267	2297108	2835	12
600	909.982	401302	441	12
600	1048.581	2972728	2835	12
600	1177.624	519332	441	12
600	1272.596	6013018	4725	12
600	1429.207	1050467	735	12
600	1544.469	24325391	15750	12
600	1734.537	8499233	4900	12



g500-H850, 2-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
M _{2, max}	i	z _g	z _t	'
Nm				
306	3.147	1734	551	15
378	4.362	663	152	15
429	5.368	102	19	14
551	5.946	1207	203	13
578	6.644	578	87	12
615	8.241	923	112	12
649	9.208	221	24	12
667	10.143	71	7	12
696	11.360	284	25	12
725	12.693	952	75	11
758	14.490	710	49	11
792	16.190	340	21	11
814	17.750	71	4	11
833	19.833	119	6	11
850	23.103	2911	126	11
850	25.815	697	27	11
850	28.315	4757	168	11
850	31.639	1139	36	11
850	37.190	781	21	11
850	41.556	374	9	11
850	45.136	6319	140	11
850	50.433	1513	30	11

g500-H850, 3-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
M _{z, max}	i	z _g	z _t	'
Nm				
850	29.536	3692	125	12
850	33.003	12376	375	12
850	37.799	39689	1050	12
850	41.350	25844	625	12
850	46.204	86632	1875	12
850	52.743	1846	35	12
850	58.933	884	15	12
850	64.610	6461	100	12
850	72.193	10829	150	12
850	84.096	37843	450	12
850	93.966	63427	675	12
850	104.607	15691	150	12
850	116.884	26299	225	12
850	135.373	10153	75	12
850	151.262	34034	225	12
850	164.294	82147	500	12
850	183.577	137683	750	12
850	207.675	8307	40	12
850	232.050	4641	20	12



g500-H850, 4-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
$M_{2, \max}$	i	z_g	z_t	
Nm				'
850	210.484	3551912	16875	12
850	234.319	439348	1875	12
850	261.821	1472744	5625	12
850	294.334	264901	900	12
850	328.881	443989	1350	12
850	368.019	1150058	3125	12
850	411.213	3855124	9375	12
850	473.807	71071	150	12
850	529.418	119119	225	12
850	575.029	575029	1000	12
850	616.701	416273	675	12
850	689.083	1395394	2025	12
850	767.116	172601	225	12
850	857.153	578578	675	12
850	992.738	223366	225	12
850	1109.256	748748	675	12
850	1204.823	903617	750	12
850	1346.234	1514513	1125	12
850	1462.217	7311083	5000	12
850	1633.838	12253787	7500	12
850	1868.844	7475377	4000	12
850	2088.192	12529153	6000	12
850	2362.303	755937	320	12
850	2639.569	422331	160	12



g500-H1500, 2-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
M _{z, max}	i	z _g	z _t	'
Nm				
775	3.743	1647	440	14
924	4.758	2379	500	13
1021	5.400	27	5	10
1098	6.245	2623	420	13
1157	6.864	858	125	10
1217	7.592	949	125	10
1320	9.010	946	105	10
1380	10.267	154	15	10
1400	11.356	511	45	9
1420	12.362	1298	105	10
1430	13.673	4307	315	9
1440	15.156	682	45	10
1450	16.763	2263	135	9
1500	20.533	308	15	10
1500	22.711	1022	45	9
1500	24.933	374	15	9
1500	27.578	1241	45	9
1484	32.267	484	15	9
1500	35.689	1606	45	9
1500	39.160	979	25	9
1500	43.313	6497	150	9
1250	49.500	99	2	9
1382	54.750	219	4	9

g500-H1500, 3-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
M _{z, max}	i	z _g	z _t	'
Nm				
1500	40.517	2431	60	10
1500	44.814	16133	360	10
1500	49.867	748	15	10
1500	55.851	20944	375	10
1500	61.774	69496	1125	10
1500	71.238	1496	21	10
1500	78.794	4964	63	10
1500	87.267	1309	15	10
1500	96.522	8687	90	10
1500	113.585	15334	135	10
1500	125.632	50881	405	10
1500	139.211	12529	90	10
1500	153.976	83147	540	10
1500	182.844	8228	45	10
1500	202.237	27302	135	10
1500	221.907	16643	75	10
1500	245.442	110449	450	10
1500	280.500	561	2	10
1500	310.250	1241	4	10



g500-H1500, 4-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
$M_{2, \max}$	i	z_g	z_t	
Nm				'
1500	203.537	29920	147	10
1500	225.125	99280	441	10
1500	254.431	858704	3375	10
1500	281.416	2849336	10125	10
1500	316.487	356048	1125	10
1500	350.054	1181432	3375	10
1500	397.548	53669	135	10
1500	446.497	84388	189	10
1500	494.511	22253	45	10
1500	572.324	2086121	3645	10
1500	634.184	513689	810	10
1500	701.446	3409027	4860	10
1500	788.863	212993	270	10
1500	872.530	1413499	1620	10
1500	921.302	1119382	1215	10
1500	1020.881	137819	135	10
1500	1129.157	914617	810	10
1500	1340.859	181016	135	10
1500	1483.072	600644	405	10
1500	1627.316	366146	225	10
1500	1799.910	1214939	675	10
1500	1974.969	1481227	750	10
1500	2184.436	9829961	4500	10
1500	2524.188	1514513	600	10
1500	2791.905	10050859	3600	10
1500	3190.688	51051	16	10
1500	3529.094	112931	32	10



g500-H3000, 2-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
$M_{2, \max}$	i	z_g	z_t	
Nm				'
1360	4.496	1911	425	12
1610	5.902	301	51	12
1910	6.344	793	125	9
2025	6.968	871	125	9
2155	8.327	2623	315	9
2225	9.146	2881	315	9
2300	10.005	3752	375	9
2400	11.619	244	21	9
2475	12.762	268	21	9
2530	14.233	427	30	8
2610	15.633	469	30	8
2750	18.752	5063	270	8
2815	20.596	5561	270	8
2900	23.044	1037	45	8
2965	25.311	1139	45	8
3000	29.822	1342	45	8
3000	32.756	1474	45	8
3000	36.193	5429	150	8
3000	39.753	5963	150	8
1765	45.750	183	4	8
1938	50.250	201	4	8

g500-H3000, 3-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
$M_{2, \max}$	i	z_g	z_t	
Nm				'
2830	47.186	44591	945	9
2910	51.828	48977	945	9
2950	53.770	7259	135	9
3000	59.059	7973	135	9
3000	64.744	61183	945	9
3000	71.112	67201	945	9
3000	79.375	32147	405	9
3000	87.183	35309	405	9
3000	107.541	14518	135	9
3000	118.119	15946	135	9
3000	130.585	17629	135	9
3000	143.430	19363	135	9
3000	168.993	22814	135	9
3000	185.615	25058	135	9
3000	205.096	92293	450	9
3000	225.269	101371	450	9
3000	259.250	1037	4	9
3000	284.750	1139	4	9



g500-H3000, 4-stage gearboxes

Max. output torque	Ratio	Number of teeth		Max. backlash
				Standard
$M_{2, \max}$	i	z_g	z_t	
Nm				'
2850	203.178	268804	1323	9
2650	226.604	61183	270	9
2950	248.893	67201	270	9
3000	292.511	987224	3375	9
3000	321.282	1084328	3375	9
3000	376.393	50813	135	9
3000	413.415	55811	135	9
3000	457.048	123403	270	9
3000	489.908	595238	1215	9
3000	538.095	653786	1215	9
3000	594.888	722789	1215	9
3000	653.402	793883	1215	9
3000	739.983	299693	405	9
3000	788.632	319396	405	9
3000	866.202	350812	405	9
3000	957.625	387838	405	9
3000	1051.817	425986	405	9
3000	1239.279	501908	405	9
3000	1361.175	551276	405	9
3000	1504.034	1015223	675	9
3000	1651.972	1115081	675	9
3000	1825.350	8214077	4500	9
3000	2004.893	9022019	4500	9
3000	2332.962	8398663	3600	9
3000	2562.434	9224761	3600	9
3000	2948.969	94367	32	9
3000	3239.031	103649	32	9



Radial forces and axial forces

Permissible radial force

The calculation of the permissible radial force must take account of the additional load factor f_w .

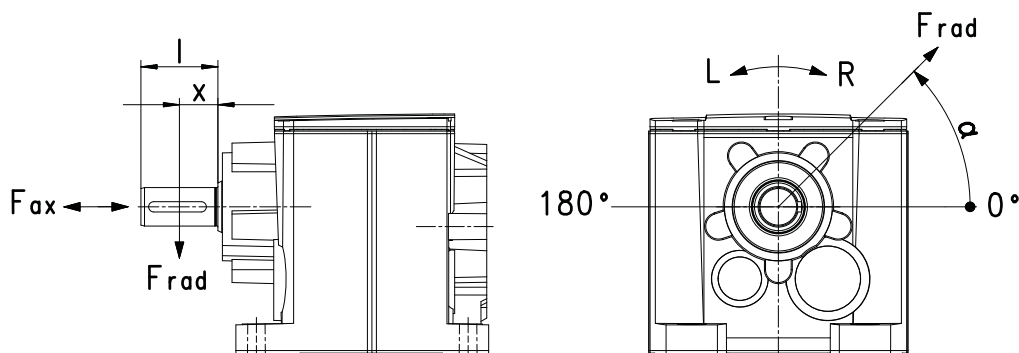
$$F_{\text{rad, perm}} = f_w \times F_{\text{rad, max}}$$

Permissible axial force

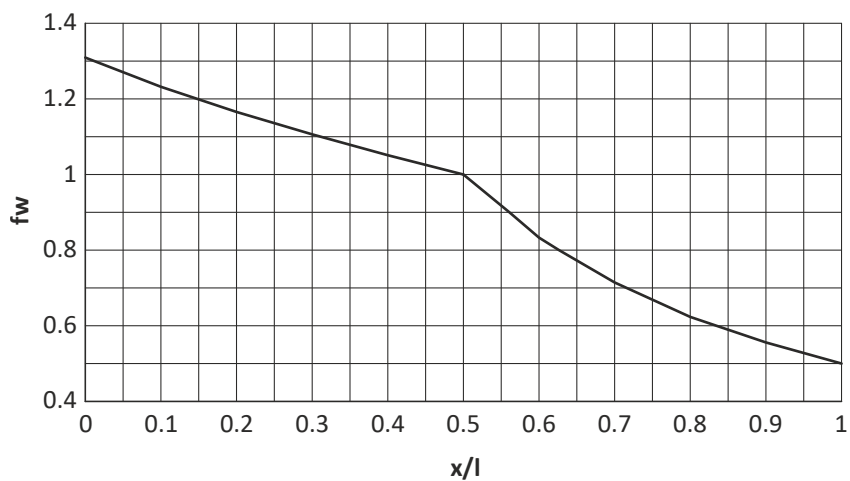
If there is no radial force, the maximum axial force is 50% of the value in the table $F_{\text{rad, max}}$

$$F_{\text{ax, zul}} = 0.5 \times F_{\text{rad, max}}$$

Application of forces



Additional load factor f_w on the drive shaft





The values given in the tables refer to the centre shaft end force application point and are minimum values calculated according to the most unfavourable conditions (force application angle, mounting position, direction of rotation). The values were calculated with a load capacity of $c = 1.3$ and an input speed of 1400 rpm.



In case of different operating conditions, considerably higher forces can be transmitted. Please get in touch with your Lenze representative

Max. radial force, gearbox with foot (VBR)

Getriebe	Output speed n_2 [rpm]									
	1000	630	400	250	160	100	63	40	25	16
	Max. radial force $F_{\text{rad,max}}$ [rated]									
g500-H45	300	400	600	700	800	900	1100	1400	1500	1500
g500-H100	800	1000	1200	1500	1800	2100	2600	2700	2700	2700
g500-H140	1000	1440	1800	2200	2500	3000	3300	3700	4100	4200
g500-H210	1100	1600	2000	2400	2800	3400	3900	4100	4400	4800
g500-H320	1760	2090	2480	3000	3520	4190	5000	5700	5700	5700
g500-H450	2440	2820	3340	4020	4660	5540	6500	7100	7100	7100
g500-H600	3820	4480	5250	6100	7260	8450	9500	9500	9500	9500
g500-H850	4700	5510	6430	7500	8860	10400	11500	11500	11500	11500
g500-H1500	6300	7440	8790	10300	12200	14500	17000	17000	17000	17000
g500-H3000	7510	8880	10100	12400	14600	17200	20000	20000	20000	20000

Reinforced bearings

Getriebe	Output speed n_2 [rpm]									
	1000	630	400	250	160	100	63	40	25	16
	Max. radial force $F_{\text{rad,max}}$ [rated]									
g500-H100	1000	1200	1500	1800	2200	2700	3200	3300	3300	3300
g500-H140	1300	1800	2300	2700	3100	3700	4100	4600	5100	5300
g500-H210	1400	2000	2500	3000	3500	4200	4900	5100	5500	6000
g500-H320	2380	3250	4380	5600	6800	7100	7100	7100	7100	7100
g500-H450	4030	5100	6870	8650	8900	8900	8900	8900	8900	8900
g500-H600	7180	8710	9860	11300	12000	12000	12000	12000	12000	12000
g500-H850	9520	10500	11900	13300	15400	15600	15600	15600	15600	15600
g500-H1500	12600	14600	16500	19100	21000	21000	21000	21000	21000	21000
g500-H3000	16100	18000	20200	23600	25000	25000	25000	25000	25000	25000



Max. radial force, gearbox with/without foot with threaded pitch circle (V□R/V□K)

Getriebe	Output speed n_2 [rpm]									
	1000	630	400	250	160	100	63	40	25	16
	Max. radial force $F_{rad,max}$ [rated]									
g500-H45	300	400	600	700	800	900	1100	1400	1500	1500
g500-H100	800	1000	1200	1500	1700	1700	1700	1700	1700	1700
g500-H140	1000	1400	1800	2200	2500	2600	2600	2600	2600	2600
g500-H210	1100	1600	2000	2400	2800	3000	3000	3000	3000	3000
g500-H320	1760	2090	2480	3000	3520	3600	3600	3600	3600	3600
g500-H450	2440	2820	3340	4020	4400	4400	4400	4400	4400	4400
g500-H600	3820	4480	5250	6100	7260	8450	8500	8500	8500	8500
g500-H850	4700	5510	6430	7500	8860	10000	10000	10000	10000	10000
g500-H1500	6300	7440	8790	10300	12200	14000	14000	14000	14000	14000
g500-H3000	7510	8880	10100	12400	14600	17000	17000	17000	17000	17000

Reinforced bearings

Getriebe	Output speed n_2 [rpm]									
	1000	630	400	250	160	100	63	40	25	16
	Max. radial force $F_{rad,max}$ [rated]									
g500-H45	300	400	600	700	800	900	1100	1400	1500	1500
g500-H100	800	1000	1200	1500	1700	1700	1700	1700	1700	1700
g500-H140	1000	1400	1800	2200	2500	2600	2600	2600	2600	2600
g500-H210	1100	1600	2000	2400	2800	3000	3000	3000	3000	3000
g500-H320	1760	2090	2480	3000	3520	3600	3600	3600	3600	3600
g500-H450	2440	2820	3340	4020	4400	4400	4400	4400	4400	4400
g500-H600	3820	4480	5250	6100	7260	8450	8500	8500	8500	8500
g500-H850	4700	5510	6430	7500	8860	10000	10000	10000	10000	10000
g500-H1500	6300	7440	8790	10300	12200	14000	14000	14000	14000	14000
g500-H3000	7510	8880	10100	12400	14600	17000	17000	17000	17000	17000

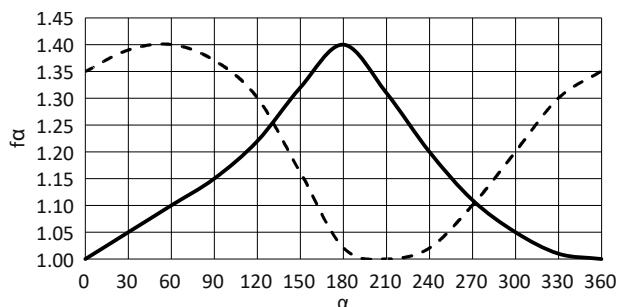
Max. radial force, gearbox with reinforced flange (VCP)

Getriebe	Output speed n_2 [rpm]									
	1000	630	400	250	160	100	63	40	25	16
	Max. radial force $F_{rad,max}$ [rated]									
g500-H100	1900	2400	2900	3330	3650	3890	4060	4160	4240	4280
g500-H140	3000	3500	4000	5510	5950	6270	6480	6620	6710	6770
g500-H210	3400	4000	5000	6170	6670	7060	7330	7500	7620	7700
g500-H320	3900	4500	6000	7040	7690	8210	8570	8810	8970	9080
g500-H450	4300	5200	6400	7810	8550	9160	9590	9880	10100	10200



Effective direction factor f_α on the output shaft

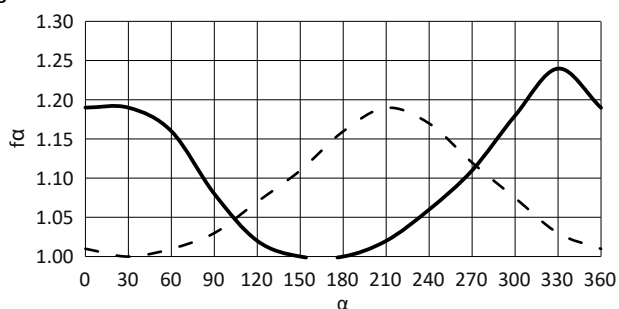
g500-H45



— 2-stage: Direction of rotation R

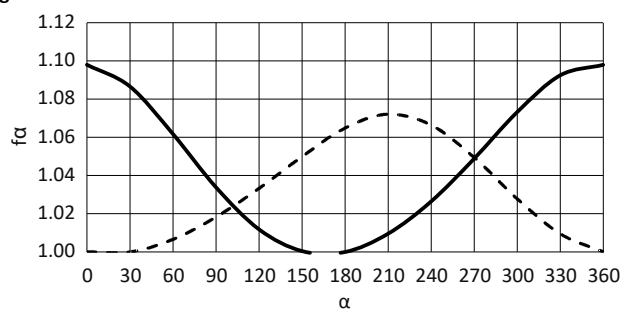
--- 2-stage: Direction of rotation L

g500-H100



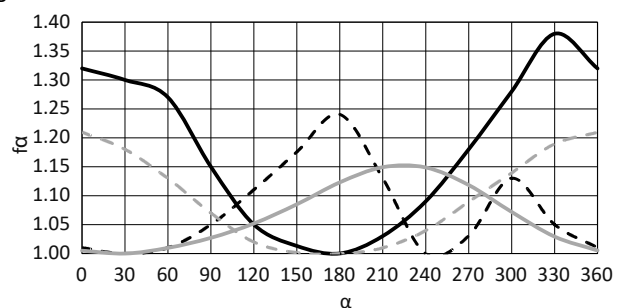
— 2-stage: Direction of rotation R
--- 3-stage: Direction of rotation L

g500-H140



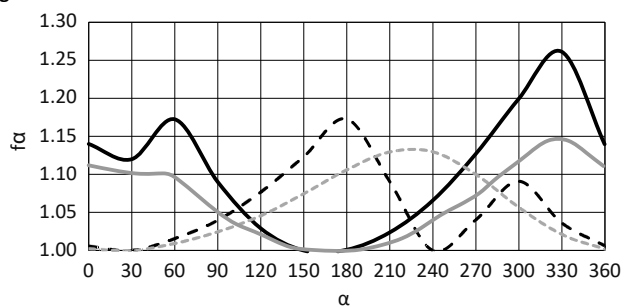
--- 2-stage: Direction of rotation L
— 3-stage: Direction of rotation R

g500-H210



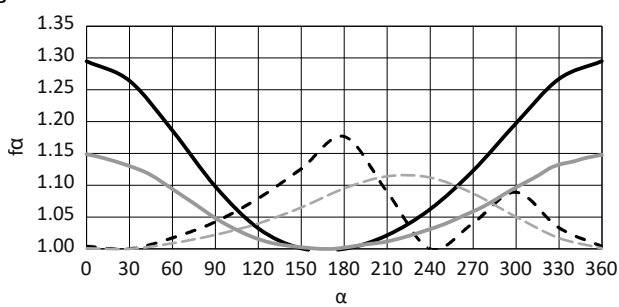
— 2-stage: Direction of rotation R
--- 4-stage: Direction of rotation L
--- 2-stage: Direction of rotation L
--- 4-stage: Direction of rotation R

g500-H320



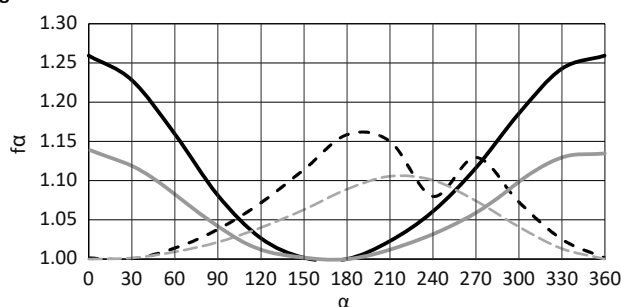
— 3-stage: Direction of rotation R
--- 3-stage: Direction of rotation L

g500-H450



— 2-stage: Direction of rotation R
--- 4-stage: Direction of rotation L
--- 2-stage: Direction of rotation L
--- 4-stage: Direction of rotation R

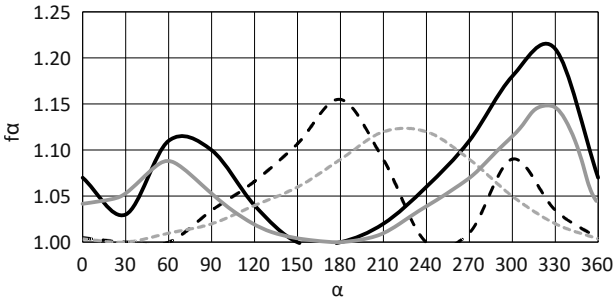
g500-H600



— 3-stage: Direction of rotation R
--- 3-stage: Direction of rotation L

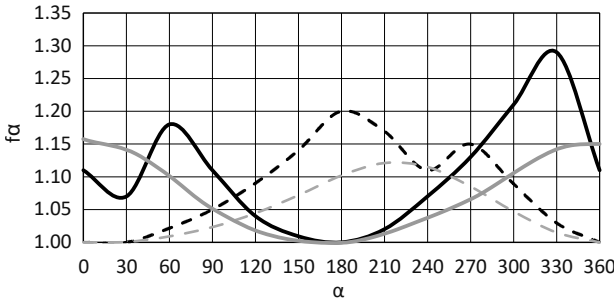


g500-H850



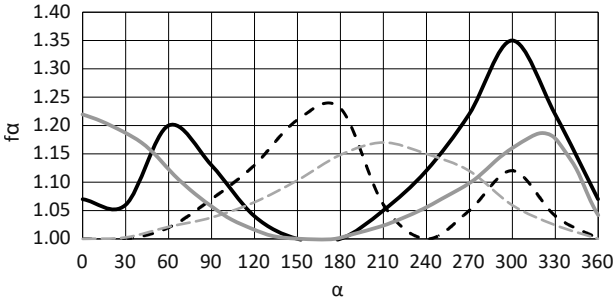
— 2-stage: Direction of rotation R
— 4-stage: Direction of rotation L
- - - 2-stage: Direction of rotation L
- - - 4-stage: Direction of rotation R

g500-H1500



— 3-stage: Direction of rotation R
— 3-stage: Direction of rotation L
- - - 3-stage: Direction of rotation L
- - - 3-stage: Direction of rotation R

g500-H3000



— 2-stage: Direction of rotation R
— 4-stage: Direction of rotation L
- - - 2-stage: Direction of rotation L
- - - 4-stage: Direction of rotation R

— 3-stage: Direction of rotation R
— 3-stage: Direction of rotation L
- - - 3-stage: Direction of rotation L
- - - 3-stage: Direction of rotation R



Selection tables

Notes on the selection tables

The selection tables represent the available combinations of gearbox, number of stages, ratio and motor for the mounting position M1. They only serve as a rough overview.

The following legend shows the layout of the selection tables:

Example

Inverter power supply 400 V, self-ventilated motors
0.25 kW

Explanation

Voltage of inverter mains connection, motor cooling type
Rated motor power

Inverter operation						Geared motor		Number of stages	m
M_2	n_2	c	$M_{2,max}$	$n_{2,th}$	J	i	g500-	MCS	
Nm	rpm		Nm	rpm	kgcm ²				kg
3.0	927	5.9	10.0	927	0.257	4.368	H45	06C41-	2
3.0	679	6.0	14.0	679	0.313	5.965	H45	06C41-	2
4.0	580	5.3	16.0	580	0.262	6.982	H45	06C41-	2
5.0	517	5.0	18.0	517	0.259	7.840	H45	06C41-	2

									Mass
									Number of gear stages
									Motor product name
									Gearbox product name
									Ratio
									Moment of inertia
									With feedback, without brake
									Max. permissible output speed in S1 operation
									Max. permissible acceleration torque
									Dependent on inverter
									Load capacity of the gearbox
									c is the ratio of permissible rated torque of the gearbox to the rated torque of the motor (converted to the driven shaft). c must always be higher than the application factor detected for the application k.
									$c = \frac{M_{2,zul}}{M_{1,N} \times i \times \eta_{Getr}} > k$
									Output speed
									Output torque



Motors for inverter mains connection 230 V



The data in the selection tables are given for an inverter mains connection 3x 400 V. These motors are identified via "-" (example MCS06C41-).

In case of an inverter mains connection 1x 230 V, or 3x 230 V, the same data in the selection tables for the following self-ventilated motors with the "L" ID apply (example MCS06C41L).

MCS06		MCS09		MCS12	
Rated power	Product name	Rated power	Product name	Rated power	Product name
P_{rated}		P_{rated}		P_{rated}	
kW		kW		kW	
0.25	MCS06C41L	1.0	MCS09D41L	1.1	MCS12D20L
0.51	MCS06F41L	1.2	MCS09F38L	1.8	MCS12D41L
0.64	MCS06I41L	1.6	MCS09H41L	1.6	MCS12H15L
		1.9	MCS09L41L	2.5	MCS12H30L
				2.8	MCS12L20L

► [Rated data](#) 330

► [Torque characteristics](#) 343



Inverter mains connection 400 V, Self-ventilated motors

0.25 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
3.0	927	5.9	10.0	927	0.257	4.368	H45	06C41-	2	3.8
3.0	679	6.0	14.0	679	0.313	5.965	H45	06C41-	2	3.8
5.0	517	5.0	18.0	517	0.259	7.840	H45	06C41-	2	3.8
6.0	404	4.3	23.0	404	0.226	10.033	H45	06C41-	2	3.8
7.0	316	3.7	30.0	316	0.197	12.833	H45	06C41-	2	3.8
10.0	243	3.5	39.0	243	0.180	16.660	H45	06C41-	2	3.8
12.0	190	2.9	44.0	190	0.167	21.350	H45	06C41-	2	3.8
13.0	182	5.5	52.0	182	0.207	22.314	H100	06C41-	2	5.8
16.0	147	2.3	45.0	147	0.159	27.618	H45	06C41-	2	3.8
17.0	141	4.9	67.0	141	0.187	28.738	H100	06C41-	2	5.8
21.0	113	1.8	45.0	113	0.152	35.933	H45	06C41-	2	3.8
33.0	70.3	3.5	132	70.3	0.342	57.582	H140	06C41-	3	9.9
34.0	68.1	2.4	100	68.1	0.233	59.505	H100	06C41-	3	8.8
36.0	65.2	4.8	143	65.2	0.228	62.160	H210	06C41-	3	8.5
42.0	55.1	2.7	140	55.1	0.339	73.447	H140	06C41-	3	9.9
44.0	52.3	5.9	177	52.3	0.202	77.387	H320	06C41-	3	10
46.0	50.9	3.8	182	50.9	0.199	79.507	H210	06C41-	3	8.5
48.0	48.6	1.9	100	48.6	0.232	83.307	H100	06C41-	3	8.8
49.0	47.8	2.6	140	47.8	0.233	84.732	H140	06C41-	3	9.9
53.0	43.7	2.4	140	43.7	0.232	92.693	H140	06C41-	3	9.9
58.0	40.3	5.0	230	40.3	0.184	100.462	H320	06C41-	3	10
59.0	39.2	3.2	210	39.2	0.182	103.214	H210	06C41-	3	8.5
61.0	38.1	1.5	100	38.1	0.231	106.259	H100	06C41-	3	8.8
68.0	34.3	1.9	140	34.3	0.231	118.231	H140	06C41-	3	9.9
75.0	31.1	1.2	100	31.1	0.230	130.167	H100	06C41-	3	8.8
79.0	29.5	5.2	315	29.5	0.218	137.133	H450	06C41-	3	14
83.0	28.0	1.5	140	28.0	0.231	144.833	H140	06C41-	3	9.9
100	23.3	5.5	398	23.3	0.212	173.536	H600	06C41-	3	26
101	22.9	4.0	405	22.9	0.194	176.611	H450	06C41-	3	14
104	22.2	1.2	140	22.2	0.230	182.076	H140	06C41-	3	9.9
112	20.4	4.8	450	20.4	0.364	198.970	H600	06C41-	4	29
127	18.3	1.0	140	18.3	0.206	220.974	H140	06C41-	3	9.9
132	17.3	5.8	529	17.3	0.328	234.319	H850	06C41-	4	38
143	16.0	3.8	573	16.0	0.354	253.789	H600	06C41-	4	29
166	13.8	4.6	665	13.8	0.372	294.334	H850	06C41-	4	38
180	12.7	1.1	210	12.7	0.231	318.197	H210	06C41-	4	12
181	12.6	3.0	600	12.6	0.241	320.294	H600	06C41-	4	29
196	11.7	1.5	320	11.7	0.231	346.692	H320	06C41-	4	13
207	11.1	2.0	450	11.1	0.235	365.689	H450	06C41-	4	17
208	11.0	3.7	831	11.0	0.224	368.019	H850	06C41-	4	38
231	9.9	2.4	600	9.9	0.237	408.538	H600	06C41-	4	29
251	9.1	1.2	320	9.1	0.230	443.683	H320	06C41-	4	13
252	9.1	5.4	1009	9.1	0.362	446.497	H1500	06C41-	4	68
268	8.5	2.9	850	8.5	0.244	473.807	H850	06C41-	4	38
283	8.1	1.9	600	8.1	0.235	500.459	H600	06C41-	4	29
289	7.9	1.4	450	7.9	0.232	511.964	H450	06C41-	4	17
323	7.1	4.2	1293	7.1	0.398	572.324	H1500	06C41-	4	68
325	7.0	2.4	850	7.0	0.215	575.029	H850	06C41-	4	38
348	6.6	2.2	850	6.6	0.239	616.701	H850	06C41-	4	38
368	6.2	1.5	600	6.2	0.232	651.391	H600	06C41-	4	29

Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors



Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, th}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
369	6.2	1.1	450	6.2	0.231	653.016	H450	06C41-	4	17
396	5.8	3.4	1500	5.8	0.381	701.446	H1500	06C41-	4	68
433	5.3	1.8	850	5.3	0.236	767.116	H850	06C41-	4	38
458	5.0	1.2	600	5.0	0.231	810.267	H600	06C41-	4	29
493	4.6	2.8	1500	4.6	0.312	872.530	H1500	06C41-	4	68
520	4.4	2.6	1500	4.4	0.254	921.302	H1500	06C41-	4	68
541	4.2	5.0	2163	4.2	0.291	957.625	H3000	06C41-	4	113
561	4.1	1.4	850	4.1	0.233	992.738	H850	06C41-	4	38
638	3.6	2.1	1500	3.6	0.248	1129.157	H1500	06C41-	4	68
680	3.4	1.1	850	3.4	0.208	1204.823	H850	06C41-	4	38
700	3.3	3.9	2800	3.3	0.270	1239.279	H3000	06C41-	4	113
838	2.7	1.6	1500	2.7	0.241	1483.072	H1500	06C41-	4	68
849	2.7	3.2	3000	2.7	0.233	1504.034	H3000	06C41-	4	113
1017	2.3	1.3	1500	2.3	0.213	1799.910	H1500	06C41-	4	68
1031	2.2	2.6	3000	2.2	0.225	1825.350	H3000	06C41-	4	113
1234	1.9	1.1	1500	1.9	0.211	2184.436	H1500	06C41-	4	68



Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors

0.51 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
3.0	1559	4.3	11.0	1559	0.480	2.597	H45	06F41-	2	4.2
4.0	1187	3.4	15.0	1187	0.389	3.413	H45	06F41-	2	4.2
5.0	927	3.0	19.0	927	0.337	4.368	H45	06F41-	2	4.2
7.0	679	3.0	25.0	679	0.393	5.965	H45	06F41-	2	4.2
9.0	517	2.5	32.0	517	0.339	7.840	H45	06F41-	2	4.2
11.0	413	5.6	42.0	413	0.375	9.800	H140	06F41-	2	7.3
12.0	404	2.2	35.0	404	0.306	10.033	H45	06F41-	2	4.2
12.0	403	5.6	43.0	403	0.333	10.063	H100	06F41-	2	6.2
13.0	357	5.4	48.0	357	0.395	11.360	H100	06F41-	2	6.2
15.0	316	1.8	38.0	316	0.277	12.833	H45	06F41-	2	4.2
17.0	280	4.3	62.0	280	0.349	14.490	H100	06F41-	2	6.2
19.0	251	5.4	69.0	251	0.370	16.122	H140	06F41-	2	7.3
19.0	243	1.7	41.0	243	0.260	16.660	H45	06F41-	2	4.2
21.0	228	3.5	76.0	228	0.320	17.750	H100	06F41-	2	6.2
23.0	205	4.4	84.0	205	0.334	19.750	H140	06F41-	2	7.3
25.0	190	1.4	44.0	190	0.247	21.350	H45	06F41-	2	4.2
26.0	182	2.8	95.0	182	0.287	22.314	H100	06F41-	2	6.2
28.0	171	5.7	101	171	0.429	23.754	H320	06F41-	2	11
28.0	166	5.3	104	166	0.399	24.405	H210	06F41-	2	8.7
29.0	163	3.5	106	163	0.297	24.829	H140	06F41-	2	7.3
32.0	147	1.1	45.0	147	0.239	27.618	H45	06F41-	2	4.2
33.0	141	2.4	100	141	0.267	28.738	H100	06F41-	2	6.2
34.0	137	5.4	126	137	0.372	29.548	H320	06F41-	2	11
35.0	133	4.9	130	133	0.352	30.357	H210	06F41-	2	8.7
37.0	127	3.1	137	127	0.273	31.976	H140	06F41-	2	7.3
45.0	106	4.3	163	106	0.315	38.238	H320	06F41-	2	11
46.0	103	3.8	168	103	0.303	39.286	H210	06F41-	2	8.7
47.0	100	5.9	172	100	0.458	40.333	H450	06F41-	2	14
47.0	99.8	5.9	173	99.8	0.484	40.578	H600	06F41-	2	25
54.0	87.3	3.7	198	87.3	0.290	46.407	H320	06F41-	2	11
54.0	85.7	4.8	199	85.7	0.354	47.276	H320	06F41-	3	11
56.0	84.9	3.4	204	84.9	0.281	47.679	H210	06F41-	2	8.7
56.0	83.4	3.1	204	83.4	0.346	48.571	H210	06F41-	3	8.9
57.0	82.7	4.9	209	82.7	0.395	48.950	H450	06F41-	2	14
57.0	82.2	4.9	210	82.2	0.413	49.247	H600	06F41-	2	25
66.0	70.3	1.7	140	70.3	0.422	57.582	H140	06F41-	3	10
68.0	68.1	1.2	100	68.1	0.313	59.505	H100	06F41-	3	9.2
69.0	66.9	3.8	254	66.9	0.313	60.502	H320	06F41-	3	11
71.0	65.2	2.4	210	65.2	0.308	62.160	H210	06F41-	3	8.9
72.0	65.5	3.8	264	65.5	0.334	61.875	H450	06F41-	2	14
72.0	65.1	3.8	266	65.1	0.345	62.250	H600	06F41-	2	25
80.0	58.0	4.6	294	58.0	0.437	69.813	H450	06F41-	3	14
84.0	55.1	1.4	140	55.1	0.419	73.447	H140	06F41-	3	10
89.0	52.3	2.9	320	52.3	0.282	77.387	H320	06F41-	3	11
91.0	50.9	1.9	210	50.9	0.279	79.507	H210	06F41-	3	8.9
97.0	47.8	1.3	140	47.8	0.313	84.732	H140	06F41-	3	10
102	45.6	5.3	374	45.6	0.437	88.826	H600	06F41-	3	26
102	45.5	4.0	374	45.5	0.375	89.048	H450	06F41-	3	14
106	43.7	1.2	140	43.7	0.312	92.693	H140	06F41-	3	10
115	40.3	2.5	320	40.3	0.264	100.462	H320	06F41-	3	11
118	39.2	1.6	210	39.2	0.262	103.214	H210	06F41-	3	8.9

Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors



Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, th}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
125	37.1	3.3	450	37.1	0.337	109.083	H450	06F41-	3	14
127	36.7	4.3	465	36.7	0.377	110.491	H600	06F41-	3	26
155	29.9	5.0	569	29.9	0.473	135.373	H850	06F41-	3	35
157	29.5	2.6	450	29.5	0.298	137.133	H450	06F41-	3	14
164	28.3	3.3	600	28.3	0.318	142.988	H600	06F41-	3	26
188	24.7	4.1	691	24.7	0.406	164.294	H850	06F41-	3	35
199	23.3	2.7	600	23.3	0.292	173.536	H600	06F41-	3	26
203	22.9	2.0	450	22.9	0.274	176.611	H450	06F41-	3	14
225	20.4	2.4	600	20.4	0.444	198.970	H600	06F41-	4	29
238	19.5	3.2	850	19.5	0.340	207.675	H850	06F41-	3	35
254	18.0	5.3	932	18.0	0.942	225.125	H1500	06F41-	4	69
265	17.3	2.9	850	17.3	0.408	234.319	H850	06F41-	4	38
287	16.0	1.9	600	16.0	0.434	253.789	H600	06F41-	4	29
318	14.4	4.3	1166	14.4	0.586	281.416	H1500	06F41-	4	69
332	13.8	2.3	850	13.8	0.452	294.334	H850	06F41-	4	38
362	12.6	1.5	600	12.6	0.321	320.294	H600	06F41-	4	29
395	11.6	3.4	1450	11.6	0.473	350.054	H1500	06F41-	4	69
416	11.0	1.9	850	11.0	0.304	368.019	H850	06F41-	4	38
461	9.9	1.2	600	9.9	0.317	408.538	H600	06F41-	4	29
504	9.1	2.7	1500	9.1	0.442	446.497	H1500	06F41-	4	69
516	8.9	5.3	1893	8.9	0.801	457.048	H3000	06F41-	4	114
535	8.5	1.4	850	8.5	0.324	473.807	H850	06F41-	4	38
553	8.3	4.9	2029	8.3	0.626	489.908	H3000	06F41-	4	114
646	7.1	2.1	1500	7.1	0.478	572.324	H1500	06F41-	4	69
650	7.0	1.2	850	7.0	0.295	575.029	H850	06F41-	4	38
672	6.8	4.0	2464	6.8	0.573	594.888	H3000	06F41-	4	114
697	6.6	1.1	850	6.6	0.319	616.701	H850	06F41-	4	38
792	5.8	1.7	1500	5.8	0.461	701.446	H1500	06F41-	4	69
836	5.5	3.3	3000	5.5	0.464	739.983	H3000	06F41-	4	114
891	5.1	3.1	3000	5.1	0.391	788.632	H3000	06F41-	4	114
986	4.6	1.4	1500	4.6	0.392	872.530	H1500	06F41-	4	69
1041	4.4	1.3	1500	4.4	0.334	921.302	H1500	06F41-	4	69
1082	4.2	2.5	3000	4.2	0.371	957.625	H3000	06F41-	4	114
1276	3.6	1.1	1500	3.6	0.328	1129.157	H1500	06F41-	4	69
1400	3.3	1.9	3000	3.3	0.350	1239.279	H3000	06F41-	4	114
1699	2.7	1.6	3000	2.7	0.313	1504.034	H3000	06F41-	4	114
2062	2.2	1.3	3000	2.2	0.305	1825.350	H3000	06F41-	4	114



0.64 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
4.0	1559	3.4	16.0	1559	0.560	2.597	H45	06I41-	2	4.9
5.0	1187	2.8	19.0	1187	0.469	3.413	H45	06I41-	2	4.9
6.0	927	2.4	21.0	927	0.417	4.368	H45	06I41-	2	4.9
9.0	679	2.4	29.0	654	0.473	5.965	H45	06I41-	2	4.9
11.0	517	2.0	32.0	517	0.419	7.840	H45	06I41-	2	4.9
12.0	506	5.2	48.0	506	0.511	8.000	H140	06I41-	2	8.0
12.0	493	5.2	49.0	493	0.448	8.214	H100	06I41-	2	6.9
14.0	413	4.5	59.0	413	0.455	9.800	H140	06I41-	2	8.0
15.0	404	1.7	35.0	404	0.386	10.033	H45	06I41-	2	4.9
15.0	403	4.5	61.0	403	0.413	10.063	H100	06I41-	2	6.9
17.0	357	4.3	68.0	357	0.475	11.360	H100	06I41-	2	6.9
17.0	351	5.5	70.0	351	0.540	11.554	H140	06I41-	2	8.0
18.0	320	5.2	76.0	320	0.510	12.640	H140	06I41-	2	8.0
19.0	316	1.5	38.0	316	0.357	12.833	H45	06I41-	2	4.9
21.0	280	3.4	87.0	280	0.429	14.490	H100	06I41-	2	6.9
23.0	251	4.3	97.0	251	0.450	16.122	H140	06I41-	2	8.0
24.0	243	1.4	41.0	243	0.340	16.660	H45	06I41-	2	4.9
26.0	228	2.8	100	228	0.400	17.750	H100	06I41-	2	6.9
27.0	222	5.6	110	222	0.638	18.250	H320	06I41-	2	11
27.0	216	5.5	113	216	0.585	18.750	H210	06I41-	2	9.4
29.0	205	3.5	119	205	0.414	19.750	H140	06I41-	2	8.0
31.0	190	1.2	44.0	190	0.327	21.350	H45	06I41-	2	4.9
32.0	182	2.2	100	182	0.367	22.314	H100	06I41-	2	6.9
35.0	171	4.5	143	171	0.509	23.754	H320	06I41-	2	11
36.0	166	4.3	147	166	0.479	24.405	H210	06I41-	2	9.4
36.0	163	2.8	140	163	0.377	24.829	H140	06I41-	2	8.0
36.0	162	5.6	151	162	0.812	25.056	H450	06I41-	2	15
37.0	161	5.6	152	161	0.879	25.207	H600	06I41-	2	26
42.0	141	2.0	100	141	0.347	28.738	H100	06I41-	2	6.9
43.0	137	4.3	178	137	0.452	29.548	H320	06I41-	2	11
44.0	133	3.9	183	133	0.432	30.357	H210	06I41-	2	9.4
45.0	130	5.3	187	130	0.679	31.167	H450	06I41-	2	15
46.0	129	5.3	189	129	0.723	31.356	H600	06I41-	2	26
47.0	127	2.5	140	127	0.353	31.976	H140	06I41-	2	8.0
56.0	106	3.4	230	106	0.395	38.238	H320	06I41-	2	11
57.0	103	3.0	210	103	0.383	39.286	H210	06I41-	2	9.4
59.0	100	4.7	243	100	0.538	40.333	H450	06I41-	2	15
59.0	99.8	4.7	244	99.8	0.564	40.578	H600	06I41-	2	26
68.0	87.3	2.9	218	87.3	0.370	46.407	H320	06I41-	2	11
68.0	85.7	3.9	280	85.7	0.434	47.276	H320	06I41-	3	12
69.0	84.9	2.7	206	84.9	0.361	47.679	H210	06I41-	2	9.4
70.0	83.4	2.5	210	83.4	0.426	48.571	H210	06I41-	3	9.6
71.0	82.7	3.9	294	82.7	0.475	48.950	H450	06I41-	2	15
71.0	81.2	5.1	295	81.2	0.656	49.867	H450	06I41-	3	15
72.0	82.2	3.9	296	82.2	0.493	49.247	H600	06I41-	2	26
83.0	70.3	1.4	140	70.3	0.502	57.582	H140	06I41-	3	11
87.0	66.9	3.0	320	66.9	0.393	60.502	H320	06I41-	3	12
89.0	65.2	1.9	210	65.2	0.388	62.160	H210	06I41-	3	9.6
90.0	65.5	3.1	305	65.5	0.414	61.875	H450	06I41-	2	15
91.0	65.1	3.1	307	65.1	0.425	62.250	H600	06I41-	2	26
98.0	59.3	5.0	404	59.3	0.651	68.244	H600	06I41-	3	27

Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors



Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
100	58.0	3.7	414	58.0	0.517	69.813	H450	06I41-	3	15
105	55.1	1.1	140	55.1	0.499	73.447	H140	06I41-	3	11
111	52.3	2.4	320	52.3	0.362	77.387	H320	06I41-	3	12
114	50.9	1.5	210	50.9	0.359	79.507	H210	06I41-	3	9.6
121	47.8	1.0	140	47.8	0.393	84.732	H140	06I41-	3	11
127	45.6	4.3	526	45.6	0.517	88.826	H600	06I41-	3	27
128	45.5	3.2	450	45.5	0.455	89.048	H450	06I41-	3	15
144	40.3	2.0	320	40.3	0.344	100.462	H320	06I41-	3	12
148	39.2	1.3	210	39.2	0.342	103.214	H210	06I41-	3	9.6
150	38.7	5.1	620	38.7	0.705	104.607	H850	06I41-	3	36
156	37.1	2.6	450	37.1	0.417	109.083	H450	06I41-	3	15
158	36.7	3.4	600	36.7	0.457	110.491	H600	06I41-	3	27
194	29.9	4.0	802	29.9	0.553	135.373	H850	06I41-	3	36
197	29.5	2.1	450	29.5	0.378	137.133	H450	06I41-	3	15
205	28.3	2.7	600	28.3	0.398	142.988	H600	06I41-	3	27
236	24.7	3.3	850	24.7	0.486	164.294	H850	06I41-	3	36
249	23.3	2.2	600	23.3	0.372	173.536	H600	06I41-	3	27
253	22.9	1.6	450	22.9	0.354	176.611	H450	06I41-	3	15
281	20.4	1.9	600	20.4	0.524	198.970	H600	06I41-	4	30
298	19.5	2.6	850	19.5	0.420	207.675	H850	06I41-	3	36
318	18.0	4.3	1314	18.0	1.022	225.125	H1500	06I41-	4	69
331	17.3	2.3	850	17.3	0.488	234.319	H850	06I41-	4	39
358	16.0	1.5	600	16.0	0.514	253.789	H600	06I41-	4	30
397	14.4	3.4	1500	14.4	0.666	281.416	H1500	06I41-	4	69
416	13.8	1.9	850	13.8	0.532	294.334	H850	06I41-	4	39
452	12.6	1.2	600	12.6	0.401	320.294	H600	06I41-	4	30
494	11.6	2.8	1500	11.6	0.553	350.054	H1500	06I41-	4	69
520	11.0	1.5	850	11.0	0.384	368.019	H850	06I41-	4	39
531	10.8	5.1	2197	10.8	0.970	376.393	H3000	06I41-	4	114
630	9.1	2.2	1500	9.1	0.522	446.497	H1500	06I41-	4	69
645	8.9	4.2	2667	8.9	0.881	457.048	H3000	06I41-	4	114
669	8.5	1.2	850	8.5	0.404	473.807	H850	06I41-	4	39
692	8.3	3.9	2859	8.3	0.706	489.908	H3000	06I41-	4	114
808	7.1	1.7	1500	7.1	0.558	572.324	H1500	06I41-	4	69
840	6.8	3.2	3000	6.8	0.653	594.888	H3000	06I41-	4	114
990	5.8	1.4	1500	5.8	0.541	701.446	H1500	06I41-	4	69
1045	5.5	2.6	3000	5.5	0.544	739.983	H3000	06I41-	4	114
1114	5.1	2.4	3000	5.1	0.471	788.632	H3000	06I41-	4	114
1232	4.6	1.1	1500	4.6	0.472	872.530	H1500	06I41-	4	69
1301	4.4	1.0	1500	4.4	0.414	921.302	H1500	06I41-	4	69
1352	4.2	2.0	3000	4.2	0.451	957.625	H3000	06I41-	4	114
1750	3.3	1.6	3000	3.3	0.430	1239.279	H3000	06I41-	4	114
2124	2.7	1.3	3000	2.7	0.393	1504.034	H3000	06I41-	4	114
2577	2.2	1.1	3000	2.2	0.385	1825.350	H3000	06I41-	4	114



Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors

0.75 kW

Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, \text{th}}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
3.0	2310	3.8	16.0	1617	0.560	2.597	H45	06I60-	2	4.9
4.0	1758	3.0	19.0	1231	0.469	3.413	H45	06I60-	2	4.9
5.0	1374	2.6	21.0	962	0.417	4.368	H45	06I60-	2	4.9
7.0	1006	2.6	29.0	666	0.473	5.965	H45	06I60-	2	4.9
9.0	765	2.2	32.0	536	0.419	7.840	H45	06I60-	2	4.9
12.0	598	1.9	35.0	419	0.386	10.033	H45	06I60-	2	4.9
15.0	468	1.6	38.0	327	0.357	12.833	H45	06I60-	2	4.9
19.0	360	1.5	41.0	252	0.340	16.660	H45	06I60-	2	4.9
25.0	281	1.3	44.0	197	0.327	21.350	H45	06I60-	2	4.9
32.0	217	1.0	45.0	152	0.319	27.618	H45	06I60-	2	4.9

Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors



1 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
7.0	1208	6.0	31.0	1109	1.625	3.354	H100	09D41-	2	8.3
10.0	880	5.0	42.0	867	1.435	4.600	H100	09D41-	2	8.3
13.0	706	5.8	53.0	706	1.459	5.733	H140	09D41-	2	9.4
13.0	688	4.4	54.0	688	1.336	5.887	H100	09D41-	2	8.3
14.0	646	5.4	58.0	646	1.409	6.272	H140	09D41-	2	9.4
14.0	629	4.2	59.0	629	1.307	6.440	H100	09D41-	2	8.3
18.0	506	4.7	74.0	506	1.311	8.000	H140	09D41-	2	9.4
18.0	493	3.6	76.0	493	1.248	8.214	H100	09D41-	2	8.3
20.0	449	4.2	83.0	428	1.442	9.029	H140	09D41-	2	9.4
22.0	413	4.1	90.0	413	1.255	9.800	H140	09D41-	2	9.4
22.0	403	3.2	93.0	403	1.213	10.063	H100	09D41-	2	8.3
25.0	357	2.8	100	357	1.275	11.360	H100	09D41-	2	8.3
26.0	351	3.6	106	351	1.340	11.554	H140	09D41-	2	9.4
27.0	338	5.0	111	331	1.597	12.000	H210	09D41-	2	11
28.0	320	3.4	117	320	1.310	12.640	H140	09D41-	2	9.4
32.0	280	2.2	100	280	1.229	14.490	H100	09D41-	2	8.3
34.0	265	4.2	141	265	1.465	15.306	H210	09D41-	2	11
36.0	251	2.8	140	251	1.250	16.122	H140	09D41-	2	9.4
40.0	228	1.8	100	228	1.200	17.750	H100	09D41-	2	8.3
41.0	222	5.4	168	222	1.438	18.250	H320	09D41-	2	13
42.0	216	3.6	173	216	1.385	18.750	H210	09D41-	2	11
44.0	205	2.3	140	205	1.214	19.750	H140	09D41-	2	9.4
53.0	171	4.3	219	171	1.309	23.754	H320	09D41-	2	13
54.0	166	2.8	210	166	1.279	24.405	H210	09D41-	2	11
56.0	162	5.4	231	162	1.612	25.056	H450	09D41-	2	16
56.0	161	5.4	232	161	1.679	25.207	H600	09D41-	2	27
66.0	137	4.0	272	137	1.252	29.548	H320	09D41-	2	13
68.0	133	2.5	210	133	1.232	30.357	H210	09D41-	2	11
70.0	130	5.1	287	130	1.479	31.167	H450	09D41-	2	16
70.0	129	5.1	289	129	1.523	31.356	H600	09D41-	2	27
83.0	109	5.1	343	109	1.819	37.190	H850	09D41-	2	36
88.0	101	4.9	362	101	1.862	39.925	H600	09D41-	3	28
90.0	100	4.5	372	100	1.338	40.333	H450	09D41-	2	16
91.0	99.8	4.5	374	99.8	1.364	40.578	H600	09D41-	2	27
96.0	92.7	4.5	397	92.7	1.758	43.676	H600	09D41-	3	28
101	89.7	4.7	416	89.7	1.631	45.136	H850	09D41-	2	36
104	85.7	2.5	320	85.7	1.234	47.276	H320	09D41-	3	13
107	83.4	1.6	210	83.4	1.226	48.571	H210	09D41-	3	11
109	82.7	3.0	366	82.7	1.275	48.950	H450	09D41-	2	16
110	82.2	3.8	454	82.2	1.293	49.247	H600	09D41-	2	27
110	81.2	3.4	450	81.2	1.456	49.867	H450	09D41-	3	17
116	76.8	6.0	479	76.8	2.369	52.743	H850	09D41-	3	37
122	72.7	4.0	506	72.7	1.564	55.710	H600	09D41-	3	28
133	66.9	2.0	320	66.9	1.193	60.502	H320	09D41-	3	13
137	65.2	1.3	210	65.2	1.188	62.160	H210	09D41-	3	11
142	62.7	4.9	587	62.7	2.092	64.610	H850	09D41-	3	37
150	59.3	3.3	600	59.3	1.451	68.244	H600	09D41-	3	28
153	58.0	2.4	450	58.0	1.317	69.813	H450	09D41-	3	17
185	48.2	4.2	763	48.2	1.651	84.096	H850	09D41-	3	37
195	45.6	2.8	600	45.6	1.317	88.826	H600	09D41-	3	28
196	45.5	2.1	450	45.5	1.255	89.048	H450	09D41-	3	17



Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors

Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, \text{th}}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
230	38.7	3.3	850	38.7	1.505	104.607	H850	09D41-	3	37
240	37.1	1.7	450	37.1	1.217	109.083	H450	09D41-	3	17
243	36.7	2.2	600	36.7	1.257	110.491	H600	09D41-	3	28
276	32.2	4.9	1141	32.2	2.772	125.632	H1500	09D41-	3	68
298	29.9	2.6	850	29.9	1.353	135.373	H850	09D41-	3	37
338	26.3	4.0	1398	26.3	2.168	153.976	H1500	09D41-	3	68
361	24.7	2.1	850	24.7	1.286	164.294	H850	09D41-	3	37
431	20.4	1.3	600	20.4	1.324	198.970	H600	09D41-	4	31
445	20.0	3.1	1500	20.0	1.776	202.237	H1500	09D41-	3	68
487	18.0	2.8	1500	18.0	1.822	225.125	H1500	09D41-	4	71
491	17.9	4.9	2026	17.9	2.152	226.604	H3000	09D41-	4	116
507	17.3	1.5	850	17.3	1.288	234.319	H850	09D41-	4	40
539	16.5	2.5	1500	16.5	1.603	245.442	H1500	09D41-	3	68
609	14.4	2.2	1500	14.4	1.466	281.416	H1500	09D41-	4	71
633	13.8	4.3	2616	13.8	2.319	292.511	H3000	09D41-	4	116
637	13.8	1.2	850	13.8	1.332	294.334	H850	09D41-	4	40
682	13.1	2.0	1500	13.1	1.425	310.250	H1500	09D41-	3	68
758	11.6	1.8	1500	11.6	1.353	350.054	H1500	09D41-	4	71
815	10.8	3.3	3000	10.8	1.770	376.393	H3000	09D41-	4	116
967	9.1	1.4	1500	9.1	1.322	446.497	H1500	09D41-	4	71
990	8.9	2.7	3000	8.9	1.681	457.048	H3000	09D41-	4	116
1061	8.3	2.6	3000	8.3	1.506	489.908	H3000	09D41-	4	116
1239	7.1	1.1	1500	7.1	1.358	572.324	H1500	09D41-	4	71
1288	6.8	2.1	3000	6.8	1.453	594.888	H3000	09D41-	4	116
1602	5.5	1.7	3000	5.5	1.344	739.983	H3000	09D41-	4	116

Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors



1.1 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
25.0	420	5.3	81.0	420	4.977	4.648	H210	12D20-	2	13
33.0	312	4.3	109	312	5.184	6.250	H210	12D20-	2	13
45.0	234	5.1	146	234	5.044	8.343	H320	12D20-	2	15
46.0	228	3.4	150	228	4.793	8.571	H210	12D20-	2	13
57.0	183	4.3	186	183	4.723	10.677	H320	12D20-	2	15
62.0	167	4.0	204	167	4.625	11.680	H320	12D20-	2	15
64.0	163	2.7	186	163	4.497	12.000	H210	12D20-	2	13
66.0	158	5.7	215	158	5.563	12.320	H450	12D20-	2	18
79.0	131	3.4	260	131	4.444	14.898	H320	12D20-	2	15
82.0	127	2.2	200	127	4.365	15.306	H210	12D20-	2	13
84.0	124	4.8	274	124	5.169	15.714	H450	12D20-	2	18
84.0	123	5.4	276	123	5.340	15.810	H600	12D20-	2	30
95.0	110	5.7	310	110	6.387	17.750	H850	12D20-	2	38
97.0	107	2.9	313	107	4.338	18.250	H320	12D20-	2	15
100	104	1.9	210	104	4.285	18.750	H210	12D20-	2	13
103	101	4.0	336	101	4.925	19.250	H450	12D20-	2	18
103	101	4.6	338	101	5.038	19.367	H600	12D20-	2	30
121	85.9	5.7	397	85.9	8.766	22.711	H1500	12D20-	2	69
123	84.4	4.6	403	84.4	5.653	23.103	H850	12D20-	2	38
134	77.8	3.1	438	77.8	4.512	25.056	H450	12D20-	2	18
135	77.4	3.7	440	77.4	4.579	25.207	H600	12D20-	2	30
147	70.7	5.3	482	70.7	7.627	27.578	H1500	12D20-	2	69
151	68.9	4.3	495	68.9	5.141	28.315	H850	12D20-	2	38
155	66.0	5.0	508	66.0	6.723	29.536	H850	12D20-	3	40
164	62.5	3.4	537	62.5	5.108	31.197	H600	12D20-	3	30
166	62.6	2.7	450	62.6	4.379	31.167	H450	12D20-	2	18
167	62.2	3.4	548	62.2	4.423	31.356	H600	12D20-	2	30
190	54.6	4.2	623	54.6	6.325	35.689	H1500	12D20-	2	69
198	52.4	3.4	649	52.4	4.719	37.190	H850	12D20-	2	38
199	51.6	3.9	650	51.6	5.932	37.799	H850	12D20-	3	40
210	48.8	2.6	600	48.8	4.762	39.925	H600	12D20-	3	30
217	47.2	3.6	711	47.2	5.726	41.350	H850	12D20-	3	40
230	44.6	2.4	600	44.6	4.658	43.676	H600	12D20-	3	30
231	45.0	3.5	756	45.0	5.711	43.313	H1500	12D20-	2	69
241	43.2	2.8	676	43.2	4.531	45.136	H850	12D20-	2	38
277	37.0	3.1	850	37.0	5.269	52.743	H850	12D20-	3	40
292	35.6	2.8	827	35.6	5.134	54.750	H1500	12D20-	2	69
293	35.0	2.1	600	35.0	4.464	55.710	H600	12D20-	3	30
325	31.6	4.6	1063	31.6	8.157	61.774	H1500	12D20-	3	70
340	30.2	2.5	850	30.2	4.992	64.610	H850	12D20-	3	40
359	28.6	1.7	600	28.6	4.351	68.244	H600	12D20-	3	30
414	24.7	3.6	1355	24.7	6.783	78.794	H1500	12D20-	3	70
442	23.2	1.9	850	23.2	4.551	84.096	H850	12D20-	3	40
507	20.2	3.0	1500	20.2	6.202	96.522	H1500	12D20-	3	70
550	18.6	1.6	850	18.6	4.405	104.607	H850	12D20-	3	40
565	18.1	5.3	1850	18.1	8.608	107.541	H3000	12D20-	3	115
660	15.5	2.3	1500	15.5	5.672	125.632	H1500	12D20-	3	70
686	14.9	4.4	2246	14.9	7.519	130.585	H3000	12D20-	3	115
809	12.7	1.9	1500	12.7	5.068	153.976	H1500	12D20-	3	70
888	11.5	3.4	2907	11.5	6.261	168.993	H3000	12D20-	3	115
1063	9.6	1.4	1500	9.6	4.676	202.237	H1500	12D20-	3	70



Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors

Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, th}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
1078	9.5	2.8	3000	9.5	5.667	205.096	H3000	12D20-	3	115
1166	8.7	1.3	1500	8.7	4.722	225.125	H1500	12D20-	4	73
1173	8.6	2.3	2650	8.6	5.052	226.604	H3000	12D20-	4	118
1290	7.9	1.2	1500	7.9	4.503	245.442	H1500	12D20-	3	70
1363	7.5	2.2	3000	7.5	5.107	259.250	H3000	12D20-	3	115
1514	6.7	2.0	3000	6.7	5.219	292.511	H3000	12D20-	4	118
1949	5.2	1.5	3000	5.2	4.670	376.393	H3000	12D20-	4	118
2366	4.3	1.3	3000	4.3	4.581	457.048	H3000	12D20-	4	118

Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors



1.2 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
10.0	1118	4.5	49.0	1057	2.025	3.354	H100	09F38-	2	9.2
13.0	837	5.1	65.0	837	2.036	4.480	H140	09F38-	2	10
14.0	815	3.8	67.0	815	1.835	4.600	H100	09F38-	2	9.2
17.0	654	4.4	83.0	654	1.859	5.733	H140	09F38-	2	10
18.0	637	3.4	81.0	637	1.736	5.887	H100	09F38-	2	9.2
19.0	598	4.1	91.0	598	1.809	6.272	H140	09F38-	2	10
19.0	582	3.2	83.0	582	1.707	6.440	H100	09F38-	2	9.2
24.0	469	3.6	116	469	1.711	8.000	H140	09F38-	2	10
25.0	457	2.7	92.0	457	1.648	8.214	H100	09F38-	2	9.2
26.0	438	4.9	125	410	2.293	8.571	H210	09F38-	2	12
27.0	415	3.2	117	409	1.842	9.029	H140	09F38-	2	10
29.0	383	3.1	125	383	1.655	9.800	H140	09F38-	2	10
30.0	373	2.4	99.0	373	1.613	10.063	H100	09F38-	2	9.2
32.0	351	6.0	155	351	2.223	10.677	H320	09F38-	2	14
34.0	330	2.2	100	330	1.675	11.360	H100	09F38-	2	9.2
35.0	325	2.7	128	325	1.740	11.554	H140	09F38-	2	10
35.0	321	5.7	170	321	2.125	11.680	H320	09F38-	2	14
36.0	313	3.8	175	313	1.997	12.000	H210	09F38-	2	12
38.0	297	2.6	132	297	1.710	12.640	H140	09F38-	2	10
44.0	259	1.7	100	259	1.629	14.490	H100	09F38-	2	9.2
45.0	252	4.8	217	252	1.944	14.898	H320	09F38-	2	14
46.0	245	3.2	200	245	1.865	15.306	H210	09F38-	2	12
47.0	239	6.0	229	239	2.669	15.714	H450	09F38-	2	17
48.0	237	6.0	230	237	2.840	15.810	H600	09F38-	2	28
48.0	233	2.1	140	233	1.650	16.122	H140	09F38-	2	10
53.0	211	1.4	100	211	1.600	17.750	H100	09F38-	2	9.2
55.0	206	4.1	266	206	1.838	18.250	H320	09F38-	2	14
56.0	200	2.7	210	200	1.785	18.750	H210	09F38-	2	12
58.0	195	5.1	280	195	2.425	19.250	H450	09F38-	2	17
58.0	194	5.1	282	194	2.538	19.367	H600	09F38-	2	28
59.0	190	1.7	140	190	1.614	19.750	H140	09F38-	2	10
69.0	162	5.1	336	162	3.153	23.103	H850	09F38-	2	37
71.0	158	3.3	320	158	1.709	23.754	H320	09F38-	2	14
73.0	154	2.1	210	154	1.679	24.405	H210	09F38-	2	12
75.0	150	4.1	365	150	2.012	25.056	H450	09F38-	2	17
76.0	149	4.1	367	149	2.079	25.207	H600	09F38-	2	28
85.0	132	5.0	412	132	2.641	28.315	H850	09F38-	2	37
89.0	127	3.0	320	127	1.652	29.548	H320	09F38-	2	14
91.0	124	1.9	210	124	1.632	30.357	H210	09F38-	2	12
92.0	120	4.8	447	120	2.608	31.197	H600	09F38-	3	29
94.0	120	3.9	436	120	1.879	31.167	H450	09F38-	2	17
94.0	120	3.9	439	120	1.923	31.356	H600	09F38-	2	28
112	101	3.9	519	101	2.219	37.190	H850	09F38-	2	37
112	99.2	5.6	542	99.2	3.432	37.799	H850	09F38-	3	38
118	93.9	3.7	572	93.9	2.262	39.925	H600	09F38-	3	29
121	93.0	3.4	450	93.0	1.738	40.333	H450	09F38-	2	17
122	92.4	3.5	455	92.4	1.764	40.578	H600	09F38-	2	28
123	90.7	5.1	593	90.7	3.226	41.350	H850	09F38-	3	38
129	85.9	3.4	600	85.9	2.158	43.676	H600	09F38-	3	29
136	83.1	3.6	525	83.1	2.031	45.136	H850	09F38-	2	37
140	79.3	1.9	320	79.3	1.634	47.276	H320	09F38-	3	14



Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors

Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, th}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
144	77.2	1.2	210	77.2	1.626	48.571	H210	09F38-	3	12
147	76.6	2.3	366	76.6	1.675	48.950	H450	09F38-	2	17
148	76.1	2.9	456	76.1	1.693	49.247	H600	09F38-	2	28
148	75.2	2.6	450	75.2	1.856	49.867	H450	09F38-	3	17
156	71.1	4.6	756	71.1	2.769	52.743	H850	09F38-	3	38
165	67.3	3.0	600	67.3	1.964	55.710	H600	09F38-	3	29
179	62.0	1.5	320	62.0	1.593	60.502	H320	09F38-	3	14
191	58.0	3.7	850	58.0	2.492	64.610	H850	09F38-	3	38
202	54.9	2.5	600	54.9	1.851	68.244	H600	09F38-	3	29
207	53.7	1.8	450	53.7	1.717	69.813	H450	09F38-	3	17
233	47.6	5.4	1130	47.6	4.283	78.794	H1500	09F38-	3	69
249	44.6	3.2	850	44.6	2.051	84.096	H850	09F38-	3	38
263	42.2	2.1	600	42.2	1.717	88.826	H600	09F38-	3	29
264	42.1	1.6	450	42.1	1.655	89.048	H450	09F38-	3	17
310	35.8	2.6	850	35.8	1.905	104.607	H850	09F38-	3	38
323	34.4	1.3	450	34.4	1.617	109.083	H450	09F38-	3	17
327	33.9	1.7	600	33.9	1.657	110.491	H600	09F38-	3	29
372	29.8	3.7	1500	29.8	3.172	125.632	H1500	09F38-	3	69
401	27.7	2.0	850	27.7	1.753	135.373	H850	09F38-	3	38
456	24.4	3.1	1500	24.4	2.568	153.976	H1500	09F38-	3	69
487	22.8	1.6	850	22.8	1.686	164.294	H850	09F38-	3	38
599	18.5	2.3	1500	18.5	2.176	202.237	H1500	09F38-	3	69
657	16.7	2.1	1500	16.7	2.222	225.125	H1500	09F38-	4	72
661	16.5	3.7	2650	16.5	2.552	226.604	H3000	09F38-	4	117
684	16.0	1.2	850	16.0	1.688	234.319	H850	09F38-	4	41
727	15.3	1.9	1500	15.3	2.003	245.442	H1500	09F38-	3	69
821	13.3	1.7	1500	13.3	1.866	281.416	H1500	09F38-	4	72
854	12.8	3.3	3000	12.8	2.719	292.511	H3000	09F38-	4	117
919	12.1	1.5	1500	12.1	1.825	310.250	H1500	09F38-	3	69
1022	10.7	1.4	1500	10.7	1.753	350.054	H1500	09F38-	4	72
1098	10.0	2.5	3000	10.0	2.170	376.393	H3000	09F38-	4	117
1303	8.4	1.1	1500	8.4	1.722	446.497	H1500	09F38-	4	72
1334	8.2	2.1	3000	8.2	2.081	457.048	H3000	09F38-	4	117
1430	7.7	2.0	3000	7.7	1.906	489.908	H3000	09F38-	4	117
1736	6.3	1.6	3000	6.3	1.853	594.888	H3000	09F38-	4	117
2159	5.1	1.3	3000	5.1	1.744	739.983	H3000	09F38-	4	117

Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors



1.45 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
30.0	443	5.5	95.0	443	9.325	3.389	H320	14D15-	2	19
41.0	323	4.6	131	323	8.915	4.648	H320	14D15-	2	19
54.0	248	6.0	170	248	10.331	6.045	H450	14D15-	2	23
54.0	247	4.2	171	247	9.755	6.083	H320	14D15-	2	19
59.0	227	5.7	186	227	10.076	6.613	H450	14D15-	2	23
74.0	180	3.4	235	180	9.144	8.343	H320	14D15-	2	19
79.0	171	4.7	248	171	10.504	8.800	H450	14D15-	2	23
95.0	141	2.8	265	141	8.823	10.677	H320	14D15-	2	19
101	133	4.0	317	133	9.837	11.262	H450	14D15-	2	23
101	132	5.3	319	132	10.169	11.330	H600	14D15-	2	34
104	128	2.6	271	128	8.725	11.680	H320	14D15-	2	19
110	122	3.7	347	122	9.663	12.320	H450	14D15-	2	23
111	121	5.0	349	121	9.941	12.395	H600	14D15-	2	34
129	104	5.9	408	104	11.161	14.490	H850	14D15-	2	43
133	101	2.2	294	101	8.544	14.898	H320	14D15-	2	19
140	95.5	3.1	441	95.5	9.269	15.714	H450	14D15-	2	23
141	94.9	4.3	445	94.9	9.440	15.810	H600	14D15-	2	34
158	84.5	5.1	499	84.5	10.487	17.750	H850	14D15-	2	43
172	77.9	2.6	448	77.9	9.025	19.250	H450	14D15-	2	23
173	77.5	3.5	545	77.5	9.138	19.367	H600	14D15-	2	34
203	66.0	5.8	639	66.0	12.866	22.711	H1500	14D15-	2	73
206	64.9	4.1	650	64.9	9.753	23.103	H850	14D15-	2	43
224	59.9	2.0	450	59.9	8.612	25.056	H450	14D15-	2	23
225	59.5	2.7	600	59.5	8.679	25.207	H600	14D15-	2	34
246	54.4	4.9	776	54.4	11.727	27.578	H1500	14D15-	2	73
253	53.0	3.4	797	53.0	9.241	28.315	H850	14D15-	2	43
260	50.8	3.3	819	50.8	10.823	29.536	H850	14D15-	3	44
266	50.3	4.9	839	50.3	15.404	29.822	H3000	14D15-	2	114
274	48.1	2.2	600	48.1	9.208	31.197	H600	14D15-	3	35
319	42.0	4.0	1004	42.0	10.425	35.689	H1500	14D15-	2	73
323	41.4	4.1	1018	41.4	13.477	36.193	H3000	14D15-	2	114
332	39.7	2.6	850	39.7	10.032	37.799	H850	14D15-	3	44
351	37.6	1.7	600	37.6	8.862	39.925	H600	14D15-	3	35
364	36.3	2.3	850	36.3	9.826	41.350	H850	14D15-	3	44
384	34.3	1.6	600	34.3	8.758	43.676	H600	14D15-	3	35
387	34.6	3.3	1219	34.6	9.811	43.313	H1500	14D15-	2	73
394	33.5	3.8	1242	33.5	14.504	44.814	H1500	14D15-	3	74
408	32.8	3.3	1287	32.8	11.643	45.750	H3000	14D15-	2	114
464	28.4	1.8	850	28.4	9.369	52.743	H850	14D15-	3	44
490	26.9	1.2	600	26.9	8.564	55.710	H600	14D15-	3	35
543	24.3	2.8	1500	24.3	12.257	61.774	H1500	14D15-	3	74
568	23.2	1.5	850	23.2	9.092	64.610	H850	14D15-	3	44
569	23.2	5.3	1794	23.2	17.727	64.744	H3000	14D15-	3	119
693	19.0	2.2	1500	19.0	10.883	78.794	H1500	14D15-	3	74
698	18.9	4.3	2200	18.9	15.644	79.375	H3000	14D15-	3	119
739	17.8	1.2	850	17.8	8.651	84.096	H850	14D15-	3	44
849	15.5	1.8	1500	15.5	10.302	96.522	H1500	14D15-	3	74
946	13.9	3.2	2980	13.9	12.708	107.541	H3000	14D15-	3	119
1105	11.9	1.4	1500	11.9	9.772	125.632	H1500	14D15-	3	74
1148	11.5	2.6	3000	11.5	11.619	130.585	H3000	14D15-	3	119
1354	9.7	1.1	1500	9.7	9.168	153.976	H1500	14D15-	3	74



Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors

Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, \text{th}}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
1486	8.9	2.0	3000	8.9	10.361	168.993	H3000	14D15-	3	119
1803	7.3	1.7	3000	7.3	9.767	205.096	H3000	14D15-	3	119
2533	5.1	1.2	3000	5.1	9.319	292.511	H3000	14D15-	4	122

Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors



1.6 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
12.0	1240	4.9	63.0	1100	2.802	3.267	H140	09H41-	2	11
12.0	1208	3.6	62.0	1013	2.425	3.354	H100	09H41-	2	10
17.0	904	4.1	87.0	860	2.436	4.480	H140	09H41-	2	11
17.0	880	3.1	72.0	797	2.235	4.600	H100	09H41-	2	10
17.0	871	5.7	90.0	777	2.877	4.648	H210	09H41-	2	13
17.0	871	5.7	90.0	777	2.715	4.648	H320	09H41-	2	15
21.0	706	3.5	103	706	2.259	5.733	H140	09H41-	2	11
21.0	706	5.9	111	616	4.766	5.733	H600	09H41-	2	29
22.0	688	2.7	81.0	688	2.136	5.887	H100	09H41-	2	10
22.0	670	5.9	117	584	4.131	6.045	H450	09H41-	2	18
23.0	648	4.9	121	481	3.084	6.250	H210	09H41-	2	13
23.0	646	3.3	105	646	2.209	6.272	H140	09H41-	2	11
24.0	629	2.5	83.0	629	2.107	6.440	H100	09H41-	2	10
24.0	612	5.6	128	546	3.876	6.613	H450	09H41-	2	18
29.0	506	2.9	117	506	2.111	8.000	H140	09H41-	2	11
30.0	493	2.2	92.0	493	2.048	8.214	H100	09H41-	2	10
31.0	485	5.7	162	433	2.944	8.343	H320	09H41-	2	15
32.0	473	3.9	166	393	2.693	8.571	H210	09H41-	2	13
32.0	459	5.8	92.0	459	14.200	3.267	H600	12H15-	2	33
33.0	449	2.5	117	393	2.242	9.029	H140	09H41-	2	11
33.0	443	3.8	95.0	443	8.830	3.389	H210	12H15-	2	16
33.0	443	4.6	95.0	443	8.525	3.389	H320	12H15-	2	18
33.0	436	5.8	97.0	436	12.243	3.444	H450	12H15-	2	21
36.0	413	2.5	125	413	2.055	9.800	H140	09H41-	2	11
37.0	403	1.9	99.0	403	2.013	10.063	H100	09H41-	2	10
39.0	379	4.8	207	357	2.623	10.677	H320	09H41-	2	15
42.0	360	5.9	219	314	3.637	11.262	H450	09H41-	2	18
42.0	358	5.9	220	312	3.969	11.330	H600	09H41-	2	29
42.0	357	1.7	100	342	2.075	11.360	H100	09H41-	2	10
43.0	351	2.2	128	351	2.140	11.554	H140	09H41-	2	11
43.0	347	4.5	227	335	2.525	11.680	H320	09H41-	2	15
43.0	335	4.8	126	335	11.553	4.480	H600	12H15-	2	33
44.0	338	3.0	186	305	2.397	12.000	H210	09H41-	2	13
45.0	329	5.6	239	293	3.463	12.320	H450	09H41-	2	18
45.0	323	3.2	131	323	8.277	4.648	H210	12H15-	2	16
45.0	323	3.9	131	323	8.115	4.648	H320	12H15-	2	18
46.0	327	5.6	241	291	3.741	12.395	H600	09H41-	2	29
46.0	318	4.8	133	318	10.513	4.724	H450	12H15-	2	21
47.0	320	2.0	132	320	2.110	12.640	H140	09H41-	2	11
52.0	279	5.0	151	279	13.688	5.368	H850	12H15-	2	42
53.0	280	1.3	100	274	2.029	14.490	H100	09H41-	2	10
53.0	280	5.9	281	245	4.961	14.490	H850	09H41-	2	38
55.0	272	3.8	289	272	2.344	14.898	H320	09H41-	2	15
56.0	265	2.6	200	265	2.265	15.306	H210	09H41-	2	13
56.0	262	4.0	161	262	10.166	5.733	H600	12H15-	2	33
58.0	258	4.8	305	245	3.069	15.714	H450	09H41-	2	18
58.0	256	4.8	307	243	3.240	15.810	H600	09H41-	2	29
59.0	251	1.7	140	251	2.050	16.122	H140	09H41-	2	11
59.0	248	4.0	170	248	9.531	6.045	H450	12H15-	2	21
59.0	247	3.9	171	247	8.955	6.083	H320	12H15-	2	18
61.0	240	2.6	158	240	8.484	6.250	H210	12H15-	2	16



Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
63.0	232	5.8	182	232	11.744	6.456	H600	12H15-	2	33
64.0	227	3.9	186	227	9.276	6.613	H450	12H15-	2	21
65.0	228	1.1	100	228	2.000	17.750	H100	09H41-	2	10
67.0	222	3.3	307	222	2.238	18.250	H320	09H41-	2	15
69.0	216	2.2	210	216	2.185	18.750	H210	09H41-	2	13
71.0	210	4.1	374	210	2.825	19.250	H450	09H41-	2	18
71.0	209	4.1	376	209	2.938	19.367	H600	09H41-	2	29
73.0	205	1.4	140	205	2.014	19.750	H140	09H41-	2	11
81.0	180	3.1	235	180	8.344	8.343	H320	12H15-	2	18
83.0	175	2.1	171	175	8.093	8.571	H210	12H15-	2	16
85.0	175	4.1	448	175	3.553	23.103	H850	09H41-	2	38
85.0	171	4.3	248	171	9.704	8.800	H450	12H15-	2	21
86.0	169	4.8	249	169	10.247	8.853	H600	12H15-	2	33
88.0	171	2.6	320	171	2.109	23.754	H320	09H41-	2	15
90.0	166	1.7	210	166	2.079	24.405	H210	09H41-	2	13
92.0	162	3.3	420	162	2.412	25.056	H450	09H41-	2	18
93.0	161	3.3	423	161	2.479	25.207	H600	09H41-	2	29
98.0	148	5.0	285	148	12.429	10.143	H850	12H15-	2	42
104	143	4.0	505	143	3.041	28.315	H850	09H41-	2	38
104	141	2.6	265	141	8.023	10.677	H320	12H15-	2	18
109	137	2.4	320	137	2.052	29.548	H320	09H41-	2	15
109	133	3.7	317	133	9.037	11.262	H450	12H15-	2	21
110	132	4.0	319	132	9.369	11.330	H600	12H15-	2	33
110	132	4.8	320	132	11.523	11.360	H850	12H15-	2	42
112	133	1.5	210	133	2.032	30.357	H210	09H41-	2	13
113	130	3.8	596	130	3.008	31.197	H600	09H41-	3	30
113	128	2.4	271	128	7.925	11.680	H320	12H15-	2	18
115	130	3.1	436	130	2.279	31.167	H450	09H41-	2	18
116	129	3.1	439	129	2.323	31.356	H600	09H41-	2	29
116	125	1.6	186	125	7.797	12.000	H210	12H15-	2	16
120	122	3.4	347	122	8.863	12.320	H450	12H15-	2	21
120	121	3.9	349	121	9.141	12.395	H600	12H15-	2	33
133	110	5.0	385	110	17.363	13.673	H1500	12H15-	2	72
137	109	3.1	519	109	2.619	37.190	H850	09H41-	2	38
137	107	4.5	722	107	3.832	37.799	H850	09H41-	3	39
141	104	4.0	408	104	10.361	14.490	H850	12H15-	2	42
145	101	3.0	600	101	2.662	39.925	H600	09H41-	3	30
145	101	2.0	294	101	7.744	14.898	H320	12H15-	2	18
149	100	2.7	450	100	2.138	40.333	H450	09H41-	2	18
149	98.0	1.4	200	98.0	7.665	15.306	H210	12H15-	2	16
150	99.8	2.8	455	99.8	2.164	40.578	H600	09H41-	2	29
150	97.9	4.1	790	97.9	3.626	41.350	H850	09H41-	3	39
152	95.5	2.9	441	95.5	8.469	15.714	H450	12H15-	2	21
153	94.9	3.3	445	94.9	8.640	15.810	H600	12H15-	2	33
159	92.7	2.7	600	92.7	2.558	43.676	H600	09H41-	3	30
166	89.7	2.9	525	89.7	2.431	45.136	H850	09H41-	2	38
172	85.7	1.5	320	85.7	2.034	47.276	H320	09H41-	3	15
172	84.5	3.5	499	84.5	9.687	17.750	H850	12H15-	2	42
177	82.2	1.8	313	82.2	7.638	18.250	H320	12H15-	2	18
180	82.7	1.8	366	82.7	2.075	48.950	H450	09H41-	2	18
181	81.2	2.0	450	81.2	2.256	49.867	H450	09H41-	3	18
182	82.2	2.3	456	82.2	2.093	49.247	H600	09H41-	2	29

Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors



Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
182	80.0	1.2	210	80.0	7.585	18.750	H210	12H15-	2	16
187	77.9	2.4	448	77.9	8.225	19.250	H450	12H15-	2	21
188	77.5	2.8	524	77.5	8.338	19.367	H600	12H15-	2	33
192	76.8	3.6	850	76.8	3.169	52.743	H850	09H41-	3	39
202	72.7	2.4	600	72.7	2.364	55.710	H600	09H41-	3	30
220	66.9	1.2	320	66.9	1.993	60.502	H320	09H41-	3	15
220	66.0	3.4	639	66.0	12.066	22.711	H1500	12H15-	2	72
224	64.9	2.8	620	64.9	8.953	23.103	H850	12H15-	2	42
235	62.7	3.0	850	62.7	2.892	64.610	H850	09H41-	3	39
243	59.9	1.9	450	59.9	7.812	25.056	H450	12H15-	2	21
245	59.5	2.2	546	59.5	7.879	25.207	H600	12H15-	2	33
248	59.3	2.0	600	59.3	2.251	68.244	H600	09H41-	3	30
254	58.0	1.5	450	58.0	2.117	69.813	H450	09H41-	3	18
268	54.4	2.9	776	54.4	10.927	27.578	H1500	12H15-	2	72
275	53.0	2.4	650	53.0	8.441	28.315	H850	12H15-	2	42
282	50.8	3.0	819	50.8	10.023	29.536	H850	12H15-	3	43
286	51.4	4.3	1500	51.4	4.683	78.794	H1500	09H41-	3	70
298	48.1	2.0	600	48.1	8.408	31.197	H600	12H15-	3	34
302	48.1	1.5	450	48.1	7.679	31.167	H450	12H15-	2	21
304	47.8	1.9	566	47.8	7.723	31.356	H600	12H15-	2	33
305	48.2	2.5	850	48.2	2.451	84.096	H850	09H41-	3	39
323	45.6	1.7	600	45.6	2.117	88.826	H600	09H41-	3	30
323	45.5	1.3	450	45.5	2.055	89.048	H450	09H41-	3	18
346	42.0	2.3	806	42.0	9.625	35.689	H1500	12H15-	2	72
361	40.3	1.9	668	40.3	8.019	37.190	H850	12H15-	2	42
361	39.7	2.4	850	39.7	9.232	37.799	H850	12H15-	3	43
380	38.7	2.0	850	38.7	2.305	104.607	H850	09H41-	3	39
382	37.6	1.6	600	37.6	8.062	39.925	H600	12H15-	3	34
395	36.3	2.2	850	36.3	9.026	41.350	H850	12H15-	3	43
396	37.1	1.0	450	37.1	2.017	109.083	H450	09H41-	3	18
401	36.7	1.4	600	36.7	2.057	110.491	H600	09H41-	3	30
417	34.3	1.4	600	34.3	7.958	43.676	H600	12H15-	3	34
420	34.6	1.9	817	34.6	9.011	43.313	H1500	12H15-	2	72
438	33.2	1.5	676	33.2	7.831	45.136	H850	12H15-	2	42
456	32.2	3.0	1500	32.2	3.572	125.632	H1500	09H41-	3	70
492	29.9	1.6	850	29.9	2.153	135.373	H850	09H41-	3	39
504	28.4	1.7	850	28.4	8.569	52.743	H850	12H15-	3	43
531	27.4	1.6	827	27.4	8.434	54.750	H1500	12H15-	2	72
532	26.9	1.1	600	26.9	7.764	55.710	H600	12H15-	3	34
559	26.3	2.4	1500	26.3	2.968	153.976	H1500	09H41-	3	70
590	24.3	2.5	1500	24.3	11.457	61.774	H1500	12H15-	3	73
597	24.7	1.3	850	24.7	2.086	164.294	H850	09H41-	3	39
617	23.2	1.4	850	23.2	8.292	64.610	H850	12H15-	3	43
619	23.2	4.9	1794	23.2	16.927	64.744	H3000	12H15-	3	118
734	20.0	1.9	1500	20.0	2.576	202.237	H1500	09H41-	3	70
753	19.0	2.0	1500	19.0	10.083	78.794	H1500	12H15-	3	73
804	17.8	1.1	850	17.8	7.851	84.096	H850	12H15-	3	43
805	18.0	1.7	1500	18.0	2.622	225.125	H1500	09H41-	4	73
811	17.9	3.0	2650	17.9	2.952	226.604	H3000	09H41-	4	118
891	16.5	1.5	1500	16.5	2.403	245.442	H1500	09H41-	3	70
922	15.5	1.6	1500	15.5	9.502	96.522	H1500	12H15-	3	73
1007	14.4	1.4	1500	14.4	2.266	281.416	H1500	09H41-	4	73



Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors

Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, th}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
1028	13.9	2.9	2980	13.9	11.908	107.541	H3000	12H15-	3	118
1046	13.8	2.6	3000	13.8	3.119	292.511	H3000	09H41-	4	118
1127	13.1	1.2	1500	13.1	2.225	310.250	H1500	09H41-	3	70
1201	11.9	1.3	1500	11.9	8.972	125.632	H1500	12H15-	3	73
1248	11.5	2.4	3000	11.5	10.819	130.585	H3000	12H15-	3	118
1252	11.6	1.1	1500	11.6	2.153	350.054	H1500	09H41-	4	73
1346	10.8	2.0	3000	10.8	2.570	376.393	H3000	09H41-	4	118
1472	9.7	1.0	1500	9.7	8.368	153.976	H1500	12H15-	3	73
1615	8.9	1.9	3000	8.9	9.561	168.993	H3000	12H15-	3	118
1635	8.9	1.7	3000	8.9	2.481	457.048	H3000	09H41-	4	118
1752	8.3	1.6	3000	8.3	2.306	489.908	H3000	09H41-	4	118
1960	7.3	1.5	3000	7.3	8.967	205.096	H3000	12H15-	3	118
2128	6.8	1.3	3000	6.8	2.253	594.888	H3000	09H41-	4	118
2133	6.6	1.2	2650	6.6	8.352	226.604	H3000	12H15-	4	121
2478	5.8	1.2	3000	5.8	8.407	259.250	H3000	12H15-	3	118
2647	5.5	1.0	3000	5.5	2.144	739.983	H3000	09H41-	4	118
2754	5.1	1.1	3000	5.1	8.519	292.511	H3000	12H15-	4	121

Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors



1.8 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
19.0	871	5.3	81.0	768	4.977	4.648	H210	12D41-	2	13
26.0	648	4.4	109	470	5.184	6.250	H210	12D41-	2	13
35.0	485	5.1	146	426	5.044	8.343	H320	12D41-	2	15
36.0	473	3.4	150	384	4.793	8.571	H210	12D41-	2	13
45.0	379	4.3	186	351	4.723	10.677	H320	12D41-	2	15
49.0	347	4.0	204	328	4.625	11.680	H320	12D41-	2	15
50.0	338	2.7	186	298	4.497	12.000	H210	12D41-	2	13
51.0	329	5.7	215	294	5.563	12.320	H450	12D41-	2	18
62.0	272	3.4	260	272	4.444	14.898	H320	12D41-	2	15
64.0	265	2.3	200	265	4.365	15.306	H210	12D41-	2	13
66.0	258	4.8	274	246	5.169	15.714	H450	12D41-	2	18
66.0	256	5.4	276	249	5.340	15.810	H600	12D41-	2	30
74.0	228	5.8	310	216	6.387	17.750	H850	12D41-	2	38
76.0	222	3.0	313	222	4.338	18.250	H320	12D41-	2	15
78.0	216	1.9	210	216	4.285	18.750	H210	12D41-	2	13
80.0	210	4.0	336	210	4.925	19.250	H450	12D41-	2	18
81.0	209	4.7	338	209	5.038	19.367	H600	12D41-	2	30
95.0	178	5.7	397	167	8.766	22.711	H1500	12D41-	2	69
96.0	175	4.6	403	175	5.653	23.103	H850	12D41-	2	38
105	162	3.1	438	162	4.512	25.056	H450	12D41-	2	18
105	161	3.7	440	161	4.579	25.207	H600	12D41-	2	30
115	147	5.5	482	147	7.627	27.578	H1500	12D41-	2	69
118	143	4.5	495	143	5.141	28.315	H850	12D41-	2	38
121	137	5.0	508	131	6.723	29.536	H850	12D41-	3	40
128	130	3.4	537	130	5.108	31.197	H600	12D41-	3	30
130	130	2.8	450	130	4.379	31.167	H450	12D41-	2	18
131	129	3.5	548	129	4.423	31.356	H600	12D41-	2	30
149	114	4.4	623	114	6.325	35.689	H1500	12D41-	2	69
155	109	3.5	649	109	4.719	37.190	H850	12D41-	2	38
155	107	3.9	650	107	5.932	37.799	H850	12D41-	3	40
164	101	2.6	600	101	4.762	39.925	H600	12D41-	3	30
170	97.9	3.6	711	97.9	5.726	41.350	H850	12D41-	3	40
179	92.7	2.4	600	92.7	4.658	43.676	H600	12D41-	3	30
181	93.5	4.1	756	93.5	5.711	43.313	H1500	12D41-	2	69
188	89.7	3.3	676	89.7	4.531	45.136	H850	12D41-	2	38
217	76.8	3.2	850	76.8	5.269	52.743	H850	12D41-	3	40
228	74.0	3.3	827	74.0	5.134	54.750	H1500	12D41-	2	69
229	72.7	2.1	600	72.7	4.464	55.710	H600	12D41-	3	30
254	65.6	4.8	1063	61.8	8.157	61.774	H1500	12D41-	3	70
266	62.7	2.6	850	62.7	4.992	64.610	H850	12D41-	3	40
280	59.3	1.8	600	59.3	4.351	68.244	H600	12D41-	3	30
324	51.4	3.8	1355	51.4	6.783	78.794	H1500	12D41-	3	70
346	48.2	2.2	850	48.2	4.551	84.096	H850	12D41-	3	40
397	42.0	3.4	1500	42.0	6.202	96.522	H1500	12D41-	3	70
430	38.7	1.8	850	38.7	4.405	104.607	H850	12D41-	3	40
516	32.2	2.6	1500	32.2	5.672	125.632	H1500	12D41-	3	70
537	31.0	5.1	2246	31.0	7.519	130.585	H3000	12D41-	3	115
633	26.3	2.1	1500	26.3	5.068	153.976	H1500	12D41-	3	70
694	24.0	3.9	2907	24.0	6.261	168.993	H3000	12D41-	3	115
831	20.0	1.6	1500	20.0	4.676	202.237	H1500	12D41-	3	70
843	19.7	3.2	3000	19.7	5.667	205.096	H3000	12D41-	3	115



Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors

Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, \text{th}}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
911	18.0	1.5	1500	18.0	4.722	225.125	H1500	12D41-	4	73
917	17.9	2.6	2650	17.9	5.052	226.604	H3000	12D41-	4	118
1009	16.5	1.4	1500	16.5	4.503	245.442	H1500	12D41-	3	70
1065	15.6	2.6	3000	15.6	5.107	259.250	H3000	12D41-	3	115
1184	13.8	2.3	3000	13.8	5.219	292.511	H3000	12D41-	4	118
1524	10.8	1.8	3000	10.8	4.670	376.393	H3000	12D41-	4	118
1850	8.9	1.5	3000	8.9	4.581	457.048	H3000	12D41-	4	118

Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors



1.9 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
14.0	1240	4.1	82.0	1067	3.702	3.267	H140	09L41-	2	13
15.0	1208	3.0	62.0	981	3.325	3.354	H100	09L41-	2	12
15.0	1195	5.4	105	904	4.330	3.389	H210	09L41-	2	14
15.0	1195	5.4	105	904	4.025	3.389	H320	09L41-	2	16
20.0	904	3.5	94.0	836	3.336	4.480	H140	09L41-	2	13
20.0	880	2.6	72.0	774	3.135	4.600	H100	09L41-	2	12
20.0	871	4.8	135	754	3.777	4.648	H210	09L41-	2	14
20.0	871	4.8	135	754	3.615	4.648	H320	09L41-	2	16
25.0	706	3.0	103	706	3.159	5.733	H140	09L41-	2	13
25.0	706	5.0	174	597	5.666	5.733	H600	09L41-	2	31
26.0	688	2.3	81.0	688	3.036	5.887	H100	09L41-	2	12
26.0	670	5.0	183	566	5.031	6.045	H450	09L41-	2	20
27.0	666	5.4	189	504	4.455	6.083	H320	09L41-	2	16
27.0	648	4.2	158	466	3.984	6.250	H210	09L41-	2	14
27.0	646	2.8	105	646	3.109	6.272	H140	09L41-	2	13
28.0	629	2.1	83.0	629	3.007	6.440	H100	09L41-	2	12
29.0	612	4.8	191	530	4.776	6.613	H450	09L41-	2	20
35.0	506	2.4	117	506	3.011	8.000	H140	09L41-	2	13
36.0	493	1.8	92.0	493	2.948	8.214	H100	09L41-	2	12
36.0	485	4.8	243	420	3.844	8.343	H320	09L41-	2	16
37.0	473	3.3	171	381	3.593	8.571	H210	09L41-	2	14
39.0	449	2.1	117	381	3.142	9.029	H140	09L41-	2	13
43.0	413	2.1	125	413	2.955	9.800	H140	09L41-	2	13
44.0	403	1.6	99.0	403	2.913	10.063	H100	09L41-	2	12
47.0	379	4.0	261	347	3.523	10.677	H320	09L41-	2	16
49.0	360	5.0	341	304	4.537	11.262	H450	09L41-	2	20
49.0	358	5.0	343	302	4.869	11.330	H600	09L41-	2	31
50.0	357	1.5	100	315	2.975	11.360	H100	09L41-	2	12
50.0	351	1.8	128	333	3.040	11.554	H140	09L41-	2	13
51.0	347	3.8	271	326	3.425	11.680	H320	09L41-	2	16
52.0	338	2.6	186	295	3.297	12.000	H210	09L41-	2	14
54.0	329	4.8	357	284	4.363	12.320	H450	09L41-	2	20
54.0	327	4.8	359	283	4.641	12.395	H600	09L41-	2	31
55.0	320	1.7	132	307	3.010	12.640	H140	09L41-	2	13
63.0	280	1.1	100	258	2.929	14.490	H100	09L41-	2	12
63.0	280	5.0	438	238	5.861	14.490	H850	09L41-	2	40
65.0	272	3.2	292	272	3.244	14.898	H320	09L41-	2	16
67.0	265	2.2	200	265	3.165	15.306	H210	09L41-	2	14
69.0	258	4.0	383	238	3.969	15.714	H450	09L41-	2	20
69.0	256	4.0	385	237	4.140	15.810	H600	09L41-	2	31
70.0	251	1.4	140	251	2.950	16.122	H140	09L41-	2	13
80.0	222	2.8	307	222	3.138	18.250	H320	09L41-	2	16
82.0	216	1.8	210	216	3.085	18.750	H210	09L41-	2	14
84.0	210	3.4	403	210	3.725	19.250	H450	09L41-	2	20
85.0	209	3.4	405	209	3.838	19.367	H600	09L41-	2	31
86.0	205	1.2	140	205	2.914	19.750	H140	09L41-	2	13
101	175	3.4	482	175	4.453	23.103	H850	09L41-	2	40
104	171	2.2	320	171	3.009	23.754	H320	09L41-	2	16
107	166	1.4	210	166	2.979	24.405	H210	09L41-	2	14
109	162	2.8	420	162	3.312	25.056	H450	09L41-	2	20
110	161	2.8	423	161	3.379	25.207	H600	09L41-	2	31



Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
124	143	3.3	505	143	3.941	28.315	H850	09L41-	2	40
129	137	2.0	320	137	2.952	29.548	H320	09L41-	2	16
133	133	1.3	210	133	2.932	30.357	H210	09L41-	2	14
134	130	3.2	600	130	3.908	31.197	H600	09L41-	3	32
136	130	2.6	436	130	3.179	31.167	H450	09L41-	2	20
137	129	2.6	439	129	3.223	31.356	H600	09L41-	2	31
162	109	2.6	519	109	3.519	37.190	H850	09L41-	2	40
163	107	3.8	850	107	4.732	37.799	H850	09L41-	3	41
172	101	2.5	600	101	3.562	39.925	H600	09L41-	3	32
176	100	2.3	450	100	3.038	40.333	H450	09L41-	2	20
177	99.8	2.3	455	99.8	3.064	40.578	H600	09L41-	2	31
178	97.9	3.4	850	97.9	4.526	41.350	H850	09L41-	3	41
188	92.7	2.3	600	92.7	3.458	43.676	H600	09L41-	3	32
197	89.7	2.4	525	89.7	3.331	45.136	H850	09L41-	2	40
203	85.7	1.3	320	85.7	2.934	47.276	H320	09L41-	3	17
214	82.7	1.6	366	82.7	2.975	48.950	H450	09L41-	2	20
214	81.2	1.7	450	81.2	3.156	49.867	H450	09L41-	3	20
215	82.2	1.9	456	82.2	2.993	49.247	H600	09L41-	2	31
227	76.8	3.1	850	76.8	4.069	52.743	H850	09L41-	3	41
240	72.7	2.0	600	72.7	3.264	55.710	H600	09L41-	3	32
260	66.9	1.0	320	66.9	2.893	60.502	H320	09L41-	3	17
278	62.7	2.5	850	62.7	3.792	64.610	H850	09L41-	3	41
293	59.3	1.7	600	59.3	3.151	68.244	H600	09L41-	3	32
300	58.0	1.2	450	58.0	3.017	69.813	H450	09L41-	3	20
339	51.4	3.6	1500	51.4	5.583	78.794	H1500	09L41-	3	71
362	48.2	2.1	850	48.2	3.351	84.096	H850	09L41-	3	41
382	45.6	1.4	600	45.6	3.017	88.826	H600	09L41-	3	32
383	45.5	1.1	450	45.5	2.955	89.048	H450	09L41-	3	20
450	38.7	1.7	850	38.7	3.205	104.607	H850	09L41-	3	41
475	36.7	1.1	600	36.7	2.957	110.491	H600	09L41-	3	32
540	32.2	2.5	1500	32.2	4.472	125.632	H1500	09L41-	3	71
582	29.9	1.3	850	29.9	3.053	135.373	H850	09L41-	3	41
662	26.3	2.1	1500	26.3	3.868	153.976	H1500	09L41-	3	71
707	24.7	1.1	850	24.7	2.986	164.294	H850	09L41-	3	41
870	20.0	1.6	1500	20.0	3.476	202.237	H1500	09L41-	3	71
954	18.0	1.4	1500	18.0	3.522	225.125	H1500	09L41-	4	74
960	17.9	2.5	2650	17.9	3.852	226.604	H3000	09L41-	4	119
1056	16.5	1.3	1500	16.5	3.303	245.442	H1500	09L41-	3	71
1192	14.4	1.1	1500	14.4	3.166	281.416	H1500	09L41-	4	74
1239	13.8	2.2	3000	13.8	4.019	292.511	H3000	09L41-	4	119
1334	13.1	1.0	1500	13.1	3.125	310.250	H1500	09L41-	3	71
1594	10.8	1.7	3000	10.8	3.470	376.393	H3000	09L41-	4	119
1936	8.9	1.4	3000	8.9	3.381	457.048	H3000	09L41-	4	119
2075	8.3	1.3	3000	8.3	3.206	489.908	H3000	09L41-	4	119
2520	6.8	1.1	3000	6.8	3.153	594.888	H3000	09L41-	4	119

Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors



2.5 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
51.0	459	4.7	174	459	21.100	3.267	H600	14H15-	2	39
53.0	443	3.1	165	443	15.425	3.389	H320	14H15-	2	24
53.0	436	4.8	184	436	19.143	3.444	H450	14H15-	2	28
68.0	344	5.6	233	344	22.986	4.362	H850	14H15-	2	48
70.0	335	4.3	239	335	18.453	4.480	H600	14H15-	2	39
72.0	323	2.6	189	323	15.015	4.648	H320	14H15-	2	24
73.0	318	4.0	252	318	17.413	4.724	H450	14H15-	2	28
83.0	279	4.9	286	279	20.588	5.368	H850	14H15-	2	48
89.0	262	3.8	306	262	17.066	5.733	H600	14H15-	2	39
92.0	252	6.0	317	252	24.632	5.946	H850	14H15-	2	48
94.0	248	3.4	323	248	16.431	6.045	H450	14H15-	2	28
94.0	247	2.4	227	247	15.855	6.083	H320	14H15-	2	24
100	232	4.0	344	232	18.644	6.456	H600	14H15-	2	39
103	227	3.3	334	227	16.176	6.613	H450	14H15-	2	28
128	182	4.8	440	182	21.078	8.241	H850	14H15-	2	48
130	180	1.9	249	180	15.244	8.343	H320	14H15-	2	24
137	171	2.7	370	171	16.604	8.800	H450	14H15-	2	28
137	169	3.5	472	169	17.147	8.853	H600	14H15-	2	39
157	148	4.2	541	148	19.329	10.143	H850	14H15-	2	48
166	141	1.6	265	141	14.923	10.677	H320	14H15-	2	24
175	133	2.3	400	133	15.937	11.262	H450	14H15-	2	28
176	132	3.1	537	132	16.269	11.330	H600	14H15-	2	39
176	132	5.6	606	132	27.006	11.356	H1500	14H15-	2	78
176	132	4.0	606	132	18.423	11.360	H850	14H15-	2	48
181	128	1.5	271	128	14.825	11.680	H320	14H15-	2	24
191	122	2.2	411	122	15.763	12.320	H450	14H15-	2	28
192	121	2.9	553	121	16.041	12.395	H600	14H15-	2	39
212	110	4.9	730	110	24.263	13.673	H1500	14H15-	2	78
225	104	3.4	758	104	17.261	14.490	H850	14H15-	2	48
231	101	1.3	294	101	14.644	14.898	H320	14H15-	2	24
244	95.5	1.8	441	95.5	15.369	15.714	H450	14H15-	2	28
245	94.9	2.4	600	94.9	15.540	15.810	H600	14H15-	2	39
260	89.5	4.2	895	89.5	22.034	16.763	H1500	14H15-	2	78
276	84.5	3.0	814	84.5	16.587	17.750	H850	14H15-	2	48
291	80.0	4.2	1001	80.0	29.400	18.752	H3000	14H15-	2	119
299	77.9	1.5	448	77.9	15.125	19.250	H450	14H15-	2	28
301	77.5	2.0	600	77.5	15.238	19.367	H600	14H15-	2	39
353	66.0	3.3	1167	66.0	18.966	22.711	H1500	14H15-	2	78
358	65.1	3.5	1230	65.1	25.550	23.044	H3000	14H15-	2	119
359	64.9	2.4	850	64.9	15.853	23.103	H850	14H15-	2	48
389	59.9	1.2	450	59.9	14.712	25.056	H450	14H15-	2	28
391	59.5	1.5	600	59.5	14.779	25.207	H600	14H15-	2	39
428	54.4	2.8	1212	54.4	17.827	27.578	H1500	14H15-	2	78
440	53.0	1.9	850	53.0	15.341	28.315	H850	14H15-	2	48
452	50.8	1.9	850	50.8	16.923	29.536	H850	14H15-	3	49
463	50.3	2.8	1300	50.3	21.504	29.822	H3000	14H15-	2	119
477	48.1	1.3	600	48.1	15.308	31.197	H600	14H15-	3	40
554	42.0	2.3	1257	42.0	16.525	35.689	H1500	14H15-	2	78
562	41.4	2.3	1316	41.4	19.577	36.193	H3000	14H15-	2	119
578	39.7	1.5	850	39.7	16.132	37.799	H850	14H15-	3	49
632	36.3	1.3	850	36.3	15.926	41.350	H850	14H15-	3	49



Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors

Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, th}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
672	34.6	1.9	1272	34.6	15.911	43.313	H1500	14H15-	2	78
685	33.5	2.2	1500	33.5	20.604	44.814	H1500	14H15-	3	79
710	32.8	1.9	1332	32.8	17.743	45.750	H3000	14H15-	2	119
722	31.8	3.9	2480	31.8	29.942	47.186	H3000	14H15-	3	124
806	28.4	1.1	850	28.4	15.469	52.743	H850	14H15-	3	49
822	27.9	3.6	2826	27.9	26.374	53.770	H3000	14H15-	3	124
945	24.3	1.6	1500	24.3	18.357	61.774	H1500	14H15-	3	79
990	23.2	3.0	3000	23.2	23.827	64.744	H3000	14H15-	3	124
1205	19.0	1.3	1500	19.0	16.983	78.794	H1500	14H15-	3	79
1214	18.9	2.5	3000	18.9	21.744	79.375	H3000	14H15-	3	124
1476	15.5	1.0	1500	15.5	16.402	96.522	H1500	14H15-	3	79
1644	13.9	1.8	3000	13.9	18.808	107.541	H3000	14H15-	3	124
1997	11.5	1.5	3000	11.5	17.719	130.585	H3000	14H15-	3	124
2584	8.9	1.2	3000	8.9	16.461	168.993	H3000	14H15-	3	124

Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors



2.8 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
24.0	1079	5.8	92.0	805	14.200	3.267	H600	12H35-	2	33
25.0	1062	5.0	95.0	890	9.325	3.389	H320	14D36-	2	19
25.0	1040	3.8	95.0	846	8.830	3.389	H210	12H35-	2	16
25.0	1040	4.7	95.0	878	8.525	3.389	H320	12H35-	2	18
25.0	1023	5.8	97.0	763	12.243	3.444	H450	12H35-	2	21
33.0	787	4.8	126	656	11.553	4.480	H600	12H35-	2	33
34.0	775	4.2	131	735	8.915	4.648	H320	14D36-	2	19
34.0	759	3.2	131	698	8.277	4.648	H210	12H35-	2	16
34.0	759	3.9	131	725	8.115	4.648	H320	12H35-	2	18
34.0	746	4.8	133	622	10.513	4.724	H450	12H35-	2	21
39.0	657	5.1	151	531	13.688	5.368	H850	12H35-	2	42
42.0	615	4.1	161	574	10.166	5.733	H600	12H35-	2	33
43.0	597	3.9	177	597	17.500	3.267	H600	12L20-	2	36
44.0	596	5.5	170	577	10.331	6.045	H450	14D36-	2	23
44.0	592	3.8	171	471	9.755	6.083	H320	14D36-	2	19
44.0	583	4.1	170	544	9.531	6.045	H450	12H35-	2	21
44.0	580	3.9	171	472	8.955	6.083	H320	12H35-	2	18
44.0	575	2.6	126	575	12.130	3.389	H210	12L20-	2	19
44.0	575	3.2	153	575	11.825	3.389	H320	12L20-	2	21
45.0	566	3.9	187	566	15.543	3.444	H450	12L20-	2	25
45.0	564	2.6	158	424	8.484	6.250	H210	12H35-	2	16
47.0	546	5.8	182	407	11.744	6.456	H600	12H35-	2	33
48.0	544	5.2	186	538	10.076	6.613	H450	14D36-	2	23
48.0	533	3.9	186	510	9.276	6.613	H450	12H35-	2	21
59.0	435	3.3	209	435	14.853	4.480	H600	12L20-	2	36
61.0	432	3.1	235	386	9.144	8.343	H320	14D36-	2	19
61.0	423	3.1	235	387	8.344	8.343	H320	12H35-	2	18
61.0	420	2.2	143	420	11.577	4.648	H210	12L20-	2	19
61.0	420	2.6	175	420	11.415	4.648	H320	12L20-	2	21
62.0	413	3.3	220	413	13.813	4.724	H450	12L20-	2	25
62.0	411	2.1	171	346	8.093	8.571	H210	12H35-	2	16
64.0	409	4.3	248	327	10.504	8.800	H450	14D36-	2	23
64.0	407	5.7	249	342	11.047	8.853	H600	14D36-	2	34
64.0	401	4.3	248	327	9.704	8.800	H450	12H35-	2	21
64.0	398	4.8	249	332	10.247	8.853	H600	12H35-	2	33
70.0	363	3.4	262	363	16.988	5.368	H850	12L20-	2	45
74.0	348	5.1	285	281	12.429	10.143	H850	12H35-	2	42
75.0	340	2.7	224	340	13.466	5.733	H600	12L20-	2	36
78.0	337	2.6	265	320	8.823	10.677	H320	14D36-	2	19
78.0	330	2.6	265	320	8.023	10.677	H320	12H35-	2	18
79.0	323	2.7	237	323	12.831	6.045	H450	12L20-	2	25
80.0	321	2.6	227	321	12.255	6.083	H320	12L20-	2	21
82.0	320	3.6	317	286	9.837	11.262	H450	14D36-	2	23
82.0	318	4.9	319	301	10.169	11.330	H600	14D36-	2	34
82.0	313	3.7	317	287	9.037	11.262	H450	12H35-	2	21
82.0	312	1.8	158	312	11.784	6.250	H210	12L20-	2	19
82.0	311	4.1	319	290	9.369	11.330	H600	12H35-	2	33
83.0	310	4.8	320	258	11.523	11.360	H850	12H35-	2	42
85.0	308	2.4	271	300	8.725	11.680	H320	14D36-	2	19
85.0	302	3.9	351	302	15.044	6.456	H600	12L20-	2	36
85.0	302	2.4	271	300	7.925	11.680	H320	12H35-	2	18



Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
87.0	295	2.6	247	295	12.576	6.613	H450	12L20-	2	25
87.0	294	1.6	186	255	7.797	12.000	H210	12H35-	2	16
90.0	292	3.4	347	267	9.663	12.320	H450	14D36-	2	23
90.0	290	4.6	349	281	9.941	12.395	H600	14D36-	2	34
90.0	286	3.5	347	268	8.863	12.320	H450	12H35-	2	21
90.0	284	3.9	349	272	9.141	12.395	H600	12H35-	2	33
99.0	258	5.1	385	208	17.363	13.673	H1500	12H35-	2	72
105	249	5.4	408	241	11.161	14.490	H850	14D36-	2	43
105	243	4.0	408	228	10.361	14.490	H850	12H35-	2	42
108	242	2.0	294	241	8.544	14.898	H320	14D36-	2	19
108	237	2.0	294	237	7.744	14.898	H320	12H35-	2	18
109	234	2.1	249	234	11.644	8.343	H320	12L20-	2	21
111	230	1.4	200	218	7.665	15.306	H210	12H35-	2	16
112	228	1.4	171	228	11.393	8.571	H210	12L20-	2	19
114	229	2.9	441	225	9.269	15.714	H450	14D36-	2	23
114	224	2.9	441	224	8.469	15.714	H450	12H35-	2	21
115	228	3.9	445	227	9.440	15.810	H600	14D36-	2	34
115	223	3.3	445	223	8.640	15.810	H600	12H35-	2	33
115	222	2.9	370	222	13.004	8.800	H450	12L20-	2	25
116	220	3.3	412	220	13.547	8.853	H600	12L20-	2	36
129	203	4.7	499	202	10.487	17.750	H850	14D36-	2	43
129	199	3.5	499	197	9.687	17.750	H850	12H35-	2	42
133	193	1.8	313	193	7.638	18.250	H320	12H35-	2	18
133	192	3.4	496	192	15.729	10.143	H850	12L20-	2	45
136	188	1.2	210	188	7.585	18.750	H210	12H35-	2	16
140	187	2.4	448	187	9.025	19.250	H450	14D36-	2	23
140	183	2.4	448	183	8.225	19.250	H450	12H35-	2	21
140	183	1.7	265	183	11.323	10.677	H320	12L20-	2	21
141	186	3.2	545	185	9.138	19.367	H600	14D36-	2	34
141	182	2.8	524	182	8.338	19.367	H600	12H35-	2	33
148	173	2.5	400	173	12.337	11.262	H450	12L20-	2	25
148	172	2.7	443	172	12.669	11.330	H600	12L20-	2	36
149	172	3.2	525	172	14.823	11.360	H850	12L20-	2	45
153	167	1.6	271	167	11.225	11.680	H320	12L20-	2	21
157	163	1.1	186	163	11.097	12.000	H210	12L20-	2	19
161	158	2.3	411	158	12.163	12.320	H450	12L20-	2	25
162	157	2.6	463	157	12.441	12.395	H600	12L20-	2	36
165	159	5.3	639	158	12.866	22.711	H1500	14D36-	2	73
165	155	3.4	639	153	12.066	22.711	H1500	12H35-	2	72
168	156	5.6	648	156	19.450	23.044	H3000	14D36-	2	114
168	156	3.8	650	155	9.753	23.103	H850	14D36-	2	43
168	153	2.8	620	153	8.953	23.103	H850	12H35-	2	42
179	143	3.4	669	143	20.663	13.673	H1500	12L20-	2	75
182	144	1.8	450	143	8.612	25.056	H450	14D36-	2	23
182	141	1.9	450	141	7.812	25.056	H450	12H35-	2	21
183	143	2.4	600	142	8.679	25.207	H600	14D36-	2	34
183	140	2.2	546	140	7.879	25.207	H600	12H35-	2	33
190	135	2.7	564	135	13.661	14.490	H850	12L20-	2	45
195	131	1.4	294	131	11.044	14.898	H320	12L20-	2	21
201	131	5.1	776	130	11.727	27.578	H1500	14D36-	2	73
201	128	3.3	776	128	10.927	27.578	H1500	12H35-	2	72
206	127	3.5	797	127	9.241	28.315	H850	14D36-	2	43

Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors



Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
206	125	2.7	650	125	8.441	28.315	H850	12H35-	2	42
206	124	2.0	441	124	11.769	15.714	H450	12L20-	2	25
207	123	2.2	498	123	11.940	15.810	H600	12L20-	2	36
212	122	3.0	819	118	10.823	29.536	H850	14D36-	3	44
212	119	3.0	819	118	10.023	29.536	H850	12H35-	3	43
217	121	5.1	839	120	15.404	29.822	H3000	14D36-	2	114
224	115	2.0	600	115	9.208	31.197	H600	14D36-	3	35
224	113	2.0	600	113	8.408	31.197	H600	12H35-	3	34
227	113	1.7	450	113	7.679	31.167	H450	12H35-	2	21
228	112	2.1	566	112	7.723	31.356	H600	12H35-	2	33
232	110	2.3	593	110	12.987	17.750	H850	12L20-	2	45
239	107	1.2	313	107	10.938	18.250	H320	12L20-	2	21
252	101	1.6	448	101	11.525	19.250	H450	12L20-	2	25
254	101	1.9	524	101	11.638	19.367	H600	12L20-	2	36
260	101	4.1	1004	101	10.425	35.689	H1500	14D36-	2	73
260	98.8	2.7	806	98.8	9.625	35.689	H1500	12H35-	2	72
263	99.5	4.2	1018	99.2	13.477	36.193	H3000	14D36-	2	114
271	95.2	2.3	850	95.0	10.032	37.799	H850	14D36-	3	44
271	94.8	2.1	668	94.8	8.019	37.190	H850	12H35-	2	42
271	93.3	2.4	850	93.3	9.232	37.799	H850	12H35-	3	43
286	90.2	1.6	600	89.9	8.862	39.925	H600	14D36-	3	35
286	88.3	1.6	600	88.3	8.062	39.925	H600	12H35-	3	34
296	87.1	2.1	850	86.8	9.826	41.350	H850	14D36-	3	44
296	85.2	2.2	850	85.2	9.026	41.350	H850	12H35-	3	43
297	85.9	2.3	747	85.9	15.366	22.711	H1500	12L20-	2	75
303	84.4	1.9	620	84.4	12.253	23.103	H850	12L20-	2	45
313	82.4	1.4	600	82.2	8.758	43.676	H600	14D36-	3	35
313	80.7	1.4	600	80.7	7.958	43.676	H600	12H35-	3	34
315	83.1	3.8	1219	82.9	9.811	43.313	H1500	14D36-	2	73
315	81.4	2.5	817	81.4	9.011	43.313	H1500	12H35-	2	72
321	80.3	3.5	1242	67.7	14.504	44.814	H1500	14D36-	3	74
328	78.1	2.0	676	78.1	7.831	45.136	H850	12H35-	2	42
328	77.8	1.3	450	77.8	11.112	25.056	H450	12L20-	2	25
330	77.4	1.5	546	77.4	11.179	25.207	H600	12L20-	2	36
333	78.7	3.8	1287	78.5	11.643	45.750	H3000	14D36-	2	114
361	70.7	2.2	777	70.7	14.227	27.578	H1500	12L20-	2	75
371	68.9	1.8	650	68.9	11.741	28.315	H850	12L20-	2	45
378	68.3	1.9	850	68.1	9.369	52.743	H850	14D36-	3	44
378	66.8	1.9	850	66.8	8.569	52.743	H850	12H35-	3	43
381	66.0	2.0	850	66.0	13.323	29.536	H850	12L20-	3	46
398	64.4	2.0	827	64.4	8.434	54.750	H1500	12H35-	2	72
399	64.6	1.3	600	64.4	8.564	55.710	H600	14D36-	3	35
399	63.3	1.3	600	63.3	7.764	55.710	H600	12H35-	3	34
402	62.5	1.4	600	62.5	11.708	31.197	H600	12L20-	3	37
408	62.6	1.1	450	62.6	10.979	31.167	H450	12L20-	2	25
411	62.2	1.4	566	62.2	11.023	31.356	H600	12L20-	2	36
443	58.3	2.9	1500	55.6	12.257	61.774	H1500	14D36-	3	74
443	57.1	2.9	1500	55.7	11.457	61.774	H1500	12H35-	3	73
463	55.7	1.6	850	55.6	9.092	64.610	H850	14D36-	3	44
463	54.6	1.6	850	54.6	8.292	64.610	H850	12H35-	3	43
464	55.6	5.5	1794	55.5	17.727	64.744	H3000	14D36-	3	119
464	54.4	5.5	1794	54.4	16.927	64.744	H3000	12H35-	3	118



Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors

Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, th}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
467	54.6	1.7	806	54.6	12.925	35.689	H1500	12L20-	2	75
487	52.4	1.4	668	52.4	11.319	37.190	H850	12L20-	2	45
488	51.6	1.6	850	51.6	12.532	37.799	H850	12L20-	3	46
489	51.7	1.1	600	51.7	7.651	68.244	H600	12H35-	3	34
515	48.8	1.1	600	48.8	11.362	39.925	H600	12L20-	3	37
533	47.2	1.5	850	47.2	12.326	41.350	H850	12L20-	3	46
565	45.7	2.3	1500	45.6	10.883	78.794	H1500	14D36-	3	74
565	44.7	2.3	1500	44.7	10.083	78.794	H1500	12H35-	3	73
567	45.0	1.4	817	45.0	12.311	43.313	H1500	12L20-	2	75
569	45.4	4.5	2200	45.2	15.644	79.375	H3000	14D36-	3	119
591	43.2	1.1	676	43.2	11.131	45.136	H850	12L20-	2	45
603	42.8	1.3	850	42.7	8.651	84.096	H850	14D36-	3	44
603	41.9	1.3	850	41.9	7.851	84.096	H850	12H35-	3	43
680	37.0	1.3	850	37.0	11.869	52.743	H850	12L20-	3	46
692	37.3	2.0	1500	37.2	10.302	96.522	H1500	14D36-	3	74
692	36.5	2.1	1500	36.5	9.502	96.522	H1500	12H35-	3	73
717	35.6	1.2	827	35.6	11.734	54.750	H1500	12L20-	2	75
750	33.7	1.1	850	33.7	7.705	104.607	H850	12H35-	3	43
771	33.5	3.7	2980	33.4	12.708	107.541	H3000	14D36-	3	119
771	32.8	3.7	2980	32.8	11.908	107.541	H3000	12H35-	3	118
797	31.6	1.9	1500	31.6	14.757	61.774	H1500	12L20-	3	76
834	30.2	1.0	850	30.2	11.592	64.610	H850	12L20-	3	46
835	30.1	3.6	3000	30.1	20.227	64.744	H3000	12L20-	3	121
900	28.7	1.6	1500	28.6	9.772	125.632	H1500	14D36-	3	74
900	28.1	1.6	1500	28.1	8.972	125.632	H1500	12H35-	3	73
936	27.6	3.0	3000	27.5	11.619	130.585	H3000	14D36-	3	119
936	27.0	3.0	3000	27.0	10.819	130.585	H3000	12H35-	3	118
1017	24.7	1.5	1500	24.7	13.383	78.794	H1500	12L20-	3	76
1104	23.4	1.3	1500	23.3	9.168	153.976	H1500	14D36-	3	74
1104	22.9	1.3	1500	22.9	8.368	153.976	H1500	12H35-	3	73
1211	21.3	2.3	3000	21.2	10.361	168.993	H3000	14D36-	3	119
1211	20.9	2.4	3000	20.9	9.561	168.993	H3000	12H35-	3	118
1245	20.2	1.2	1500	20.2	12.802	96.522	H1500	12L20-	3	76
1387	18.1	2.2	3000	18.1	15.208	107.541	H3000	12L20-	3	121
1470	17.6	1.9	3000	17.5	9.767	205.096	H3000	14D36-	3	119
1470	17.2	1.9	3000	17.2	8.967	205.096	H3000	12H35-	3	118
1600	15.6	1.6	2650	15.6	8.352	226.604	H3000	12H35-	4	121
1685	14.9	1.8	3000	14.9	14.119	130.585	H3000	12L20-	3	121
1858	13.6	1.5	3000	13.6	8.407	259.250	H3000	12H35-	3	118
2065	12.3	1.4	3000	12.3	9.319	292.511	H3000	14D36-	4	122
2065	12.1	1.4	3000	12.1	8.519	292.511	H3000	12H35-	4	121
2180	11.5	1.4	3000	11.5	12.861	168.993	H3000	12L20-	3	121
2646	9.5	1.1	3000	9.5	12.267	205.096	H3000	12L20-	3	121
2657	9.4	1.1	3000	9.4	7.970	376.393	H3000	12H35-	4	121

Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors



3.6 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
70.0	477	4.4	235	477	37.497	3.147	H850	14L15-	2	52
73.0	459	3.3	240	459	30.300	3.267	H600	14L15-	2	43
76.0	443	2.2	165	443	24.625	3.389	H320	14L15-	2	29
77.0	436	3.3	256	436	28.343	3.444	H450	14L15-	2	32
97.0	344	3.9	326	344	32.186	4.362	H850	14L15-	2	52
100	335	3.0	297	335	27.653	4.480	H600	14L15-	2	43
104	323	1.8	189	323	24.215	4.648	H320	14L15-	2	29
105	318	2.8	293	318	26.613	4.724	H450	14L15-	2	32
120	279	3.4	401	279	29.788	5.368	H850	14L15-	2	52
128	262	2.7	339	262	26.266	5.733	H600	14L15-	2	43
133	252	4.2	444	252	33.832	5.946	H850	14L15-	2	52
135	248	2.4	323	248	25.631	6.045	H450	14L15-	2	32
136	247	1.7	227	247	25.055	6.083	H320	14L15-	2	29
139	240	4.3	467	240	42.263	6.245	H1500	14L15-	2	82
144	232	2.8	404	232	27.844	6.456	H600	14L15-	2	43
148	227	2.3	334	227	25.376	6.613	H450	14L15-	2	32
184	182	3.4	615	182	30.278	8.241	H850	14L15-	2	52
186	180	1.3	249	180	24.444	8.343	H320	14L15-	2	29
196	171	1.9	370	171	25.804	8.800	H450	14L15-	2	32
198	169	2.5	487	169	26.347	8.853	H600	14L15-	2	43
226	148	3.0	667	148	28.529	10.143	H850	14L15-	2	52
238	141	1.1	265	141	24.123	10.677	H320	14L15-	2	29
251	133	1.6	400	133	25.137	11.262	H450	14L15-	2	32
253	132	2.1	537	132	25.469	11.330	H600	14L15-	2	43
253	132	3.9	848	132	36.206	11.356	H1500	14L15-	2	82
254	132	2.8	696	132	27.623	11.360	H850	14L15-	2	52
259	129	4.2	868	129	53.715	11.619	H3000	14L15-	2	124
261	128	1.0	271	128	24.025	11.680	H320	14L15-	2	29
275	122	1.5	411	122	24.963	12.320	H450	14L15-	2	32
277	121	2.0	553	121	25.241	12.395	H600	14L15-	2	43
305	110	3.4	1021	110	33.463	13.673	H1500	14L15-	2	82
323	104	2.3	758	104	26.461	14.490	H850	14L15-	2	52
351	95.5	1.3	441	95.5	24.569	15.714	H450	14L15-	2	32
353	94.9	1.7	600	94.9	24.740	15.810	H600	14L15-	2	43
374	89.5	3.0	1102	89.5	31.234	16.763	H1500	14L15-	2	82
396	84.5	2.1	814	84.5	25.787	17.750	H850	14L15-	2	52
418	80.0	2.9	1223	80.0	38.600	18.752	H3000	14L15-	2	124
430	77.9	1.0	448	77.9	24.325	19.250	H450	14L15-	2	32
432	77.5	1.4	600	77.5	24.438	19.367	H600	14L15-	2	43
507	66.0	2.3	1167	66.0	28.166	22.711	H1500	14L15-	2	82
514	65.1	2.4	1254	65.1	34.750	23.044	H3000	14L15-	2	124
516	64.9	1.7	850	64.9	25.053	23.103	H850	14L15-	2	52
563	59.5	1.1	600	59.5	23.979	25.207	H600	14L15-	2	43
615	54.4	2.0	1212	54.4	27.027	27.578	H1500	14L15-	2	82
632	53.0	1.4	850	53.0	24.541	28.315	H850	14L15-	2	52
649	50.8	1.3	850	50.8	26.123	29.536	H850	14L15-	3	53
665	50.3	2.0	1300	50.3	30.704	29.822	H3000	14L15-	2	124
796	42.0	1.6	1257	42.0	25.725	35.689	H1500	14L15-	2	82
808	41.4	1.6	1316	41.4	28.777	36.193	H3000	14L15-	2	124
831	39.7	1.0	850	39.7	25.332	37.799	H850	14L15-	3	53
967	34.6	1.3	1272	34.6	25.111	43.313	H1500	14L15-	2	82



Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors

Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, \text{th}}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
985	33.5	1.5	1500	33.5	29.804	44.814	H1500	14L15-	3	84
1021	32.8	1.3	1332	32.8	26.943	45.750	H3000	14L15-	2	124
1037	31.8	2.7	2830	31.8	39.142	47.186	H3000	14L15-	3	129
1182	27.9	2.5	2950	27.9	35.574	53.770	H3000	14L15-	3	129
1358	24.3	1.1	1500	24.3	27.557	61.774	H1500	14L15-	3	84
1423	23.2	2.1	3000	23.2	33.027	64.744	H3000	14L15-	3	129
1745	18.9	1.7	3000	18.9	30.944	79.375	H3000	14L15-	3	129
2364	13.9	1.3	3000	13.9	28.008	107.541	H3000	14L15-	3	129
2870	11.5	1.1	3000	11.5	26.919	130.585	H3000	14L15-	3	129

4 kW

Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, \text{th}}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
82.0	453	3.7	263	453	79.097	3.147	H850	19F14-	2	55
114	327	3.3	364	327	73.786	4.362	H850	19F14-	2	55
141	265	3.1	429	265	71.388	5.368	H850	19F14-	2	55
156	240	3.5	496	240	75.432	5.946	H850	19F14-	2	55
164	228	5.7	521	228	83.863	6.245	H1500	19F14-	2	86
216	173	2.9	615	173	71.878	8.241	H850	19F14-	2	55
266	141	2.5	667	141	70.129	10.143	H850	19F14-	2	55
297	126	4.7	948	126	77.806	11.356	H1500	19F14-	2	86
298	125	2.3	696	125	69.223	11.360	H850	19F14-	2	55
304	123	5.6	969	123	95.315	11.619	H3000	19F14-	2	127
358	104	4.0	1141	104	75.063	13.673	H1500	19F14-	2	86
373	100	4.8	1188	100	88.535	14.233	H3000	19F14-	2	127
439	85.0	3.3	1399	85.0	72.834	16.763	H1500	19F14-	2	86
491	76.0	3.9	1565	76.0	80.200	18.752	H3000	19F14-	2	127
604	61.8	3.2	1923	61.8	76.350	23.044	H3000	19F14-	2	127
1156	31.8	1.3	1500	31.8	71.404	44.814	H1500	19F14-	3	87
1218	30.2	2.3	2830	30.2	80.742	47.186	H3000	19F14-	3	132
1387	26.5	2.1	2950	26.5	77.174	53.770	H3000	19F14-	3	132
1671	22.0	1.8	3000	22.0	74.627	64.744	H3000	19F14-	3	132
2048	18.0	1.5	3000	18.0	72.544	79.375	H3000	19F14-	3	132

Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors



4.2 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
92.0	429	3.3	306	429	48.797	3.147	H850	14P14-	2	57
95.0	413	2.5	240	413	41.600	3.267	H600	14P14-	2	48
99.0	398	1.7	165	398	35.925	3.389	H320	14P14-	2	34
100	392	2.6	256	392	39.643	3.444	H450	14P14-	2	37
127	310	3.0	378	310	43.486	4.362	H850	14P14-	2	57
130	301	2.3	297	301	38.953	4.480	H600	14P14-	2	48
135	291	1.4	189	291	35.515	4.648	H320	14P14-	2	34
137	286	2.1	293	286	37.913	4.724	H450	14P14-	2	37
156	252	2.6	412	252	41.088	5.368	H850	14P14-	2	57
167	236	2.0	339	236	37.566	5.733	H600	14P14-	2	48
173	227	3.2	551	227	45.132	5.946	H850	14P14-	2	57
176	223	1.8	323	223	36.931	6.045	H450	14P14-	2	37
177	222	1.3	227	222	36.355	6.083	H320	14P14-	2	34
182	216	3.3	596	216	53.563	6.245	H1500	14P14-	2	87
188	209	2.2	404	209	39.144	6.456	H600	14P14-	2	48
192	204	1.7	334	204	36.676	6.613	H450	14P14-	2	37
240	164	2.6	615	164	41.578	8.241	H850	14P14-	2	57
243	162	1.0	249	162	35.744	8.343	H320	14P14-	2	34
256	153	1.4	370	153	37.104	8.800	H450	14P14-	2	37
258	153	1.9	487	153	37.647	8.853	H600	14P14-	2	48
295	133	2.3	667	133	39.829	10.143	H850	14P14-	2	57
328	120	1.2	400	120	36.437	11.262	H450	14P14-	2	37
330	119	1.6	537	119	36.769	11.330	H600	14P14-	2	48
331	119	3.0	992	119	47.506	11.356	H1500	14P14-	2	87
331	119	2.1	696	119	38.923	11.360	H850	14P14-	2	57
338	116	3.3	1100	116	65.015	11.619	H3000	14P14-	2	129
359	110	1.2	411	110	36.263	12.320	H450	14P14-	2	37
361	109	1.5	553	109	36.541	12.395	H600	14P14-	2	48
398	98.7	2.6	1047	98.7	44.763	13.673	H1500	14P14-	2	87
422	93.2	1.8	758	93.2	37.761	14.490	H850	14P14-	2	57
460	85.4	1.3	600	85.4	36.040	15.810	H600	14P14-	2	48
488	80.5	2.3	1102	80.5	42.534	16.763	H1500	14P14-	2	87
517	76.1	1.6	814	76.1	37.087	17.750	H850	14P14-	2	57
546	72.0	2.2	1223	72.0	49.900	18.752	H3000	14P14-	2	129
564	69.7	1.1	600	69.7	35.738	19.367	H600	14P14-	2	48
661	59.4	1.8	1167	59.4	39.466	22.711	H1500	14P14-	2	87
671	58.6	1.9	1254	58.6	46.050	23.044	H3000	14P14-	2	129
672	58.4	1.3	850	58.4	36.353	23.103	H850	14P14-	2	57
803	49.0	1.5	1212	49.0	38.327	27.578	H1500	14P14-	2	87
824	47.7	1.0	850	47.7	35.841	28.315	H850	14P14-	2	57
847	45.7	1.0	850	45.7	37.423	29.536	H850	14P14-	3	58
868	45.3	1.5	1300	45.3	42.004	29.822	H3000	14P14-	2	129
1039	37.8	1.2	1257	37.8	37.025	35.689	H1500	14P14-	2	87
1053	37.3	1.3	1316	37.3	40.077	36.193	H3000	14P14-	2	129
1261	31.2	1.0	1272	31.2	36.411	43.313	H1500	14P14-	2	87
1285	30.1	1.2	1500	30.1	41.104	44.814	H1500	14P14-	3	89
1332	29.5	1.0	1332	29.5	38.243	45.750	H3000	14P14-	2	129
1353	28.6	2.1	2830	28.6	50.442	47.186	H3000	14P14-	3	134
1542	25.1	1.9	2950	25.1	46.874	53.770	H3000	14P14-	3	134
1856	20.9	1.6	3000	20.9	44.327	64.744	H3000	14P14-	3	134
2276	17.0	1.3	3000	17.0	42.244	79.375	H3000	14P14-	3	134



4.7 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
35.0	1240	3.8	177	738	17.500	3.267	H600	12L41-	2	36
36.0	1195	2.5	126	774	12.130	3.389	H210	12L41-	2	19
36.0	1195	3.0	153	806	11.825	3.389	H320	12L41-	2	21
37.0	1176	3.8	187	700	15.543	3.444	H450	12L41-	2	25
43.0	1025	5.6	168	711	28.297	3.147	H850	14H32-	2	48
44.0	987	4.2	174	755	21.100	3.267	H600	14H32-	2	39
46.0	952	2.8	165	792	15.425	3.389	H320	14H32-	2	24
47.0	936	4.2	184	718	19.143	3.444	H450	14H32-	2	28
48.0	904	3.1	209	602	14.853	4.480	H600	12L41-	2	36
50.0	871	2.1	143	639	11.577	4.648	H210	12L41-	2	19
50.0	871	2.5	175	666	11.415	4.648	H320	12L41-	2	21
50.0	857	3.1	220	570	13.813	4.724	H450	12L41-	2	25
57.0	754	3.3	262	485	16.988	5.368	H850	12L41-	2	45
59.0	739	5.0	233	576	22.986	4.362	H850	14H32-	2	48
61.0	720	3.8	239	625	18.453	4.480	H600	14H32-	2	39
61.0	706	2.6	224	526	13.466	5.733	H600	12L41-	2	36
63.0	694	2.3	189	654	15.015	4.648	H320	14H32-	2	24
64.0	683	3.5	252	585	17.413	4.724	H450	14H32-	2	28
65.0	670	2.6	237	499	12.831	6.045	H450	12L41-	2	25
65.0	666	2.5	227	432	12.255	6.083	H320	12L41-	2	21
67.0	648	1.7	158	366	11.784	6.250	H210	12L41-	2	19
69.0	627	3.8	351	373	15.044	6.456	H600	12L41-	2	36
71.0	612	2.5	247	468	12.576	6.613	H450	12L41-	2	25
73.0	601	4.4	286	516	20.588	5.368	H850	14H32-	2	48
78.0	563	3.4	306	554	17.066	5.733	H600	14H32-	2	39
81.0	542	5.3	317	373	24.632	5.946	H850	14H32-	2	48
82.0	534	3.1	323	514	16.431	6.045	H450	14H32-	2	28
83.0	530	2.1	227	416	15.855	6.083	H320	14H32-	2	24
85.0	516	5.4	333	374	33.063	6.245	H1500	14H32-	2	78
88.0	500	3.6	344	369	18.644	6.456	H600	14H32-	2	39
89.0	485	2.0	249	354	11.644	8.343	H320	12L41-	2	21
90.0	488	2.9	334	481	16.176	6.613	H450	14H32-	2	28
91.0	473	1.3	171	278	11.393	8.571	H210	12L41-	2	19
94.0	460	2.8	370	300	13.004	8.800	H450	12L41-	2	25
94.0	458	3.1	412	304	13.547	8.853	H600	12L41-	2	36
108	399	3.3	496	257	15.729	10.143	H850	12L41-	2	45
112	391	4.3	440	295	21.078	8.241	H850	14H32-	2	48
113	387	1.7	249	324	15.244	8.343	H320	14H32-	2	24
114	379	1.7	265	279	11.323	10.677	H320	12L41-	2	21
120	367	2.4	370	289	16.604	8.800	H450	14H32-	2	28
120	364	3.1	472	305	17.147	8.853	H600	14H32-	2	39
120	360	2.4	400	262	12.337	11.262	H450	12L41-	2	25
121	358	2.6	443	266	12.669	11.330	H600	12L41-	2	36
121	357	3.1	525	236	14.823	11.360	H850	12L41-	2	45
125	347	1.6	271	259	11.225	11.680	H320	12L41-	2	21
128	338	1.0	186	213	11.097	12.000	H210	12L41-	2	19
131	329	2.2	411	245	12.163	12.320	H450	12L41-	2	25
132	327	2.5	463	250	12.441	12.395	H600	12L41-	2	36
138	318	3.8	541	264	19.329	10.143	H850	14H32-	2	48
145	302	1.4	265	258	14.923	10.677	H320	14H32-	2	24
146	296	3.3	669	191	20.663	13.673	H1500	12L41-	2	75

Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors



Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
153	286	2.0	400	253	15.937	11.262	H450	14H32-	2	28
154	285	2.7	537	268	16.269	11.330	H600	14H32-	2	39
154	284	5.0	606	221	27.006	11.356	H1500	14H32-	2	78
154	284	3.5	606	242	18.423	11.360	H850	14H32-	2	48
155	280	2.6	564	209	13.661	14.490	H850	12L41-	2	45
158	278	5.4	620	201	44.515	11.619	H3000	14H32-	2	119
159	276	1.3	271	241	14.825	11.680	H320	14H32-	2	24
159	272	1.3	294	222	11.044	14.898	H320	12L41-	2	21
167	262	1.9	411	234	15.763	12.320	H450	14H32-	2	28
168	260	2.6	553	250	16.041	12.395	H600	14H32-	2	39
168	258	1.9	441	205	11.769	15.714	H450	12L41-	2	25
169	256	2.1	498	211	11.940	15.810	H600	12L41-	2	36
186	236	4.4	730	202	24.263	13.673	H1500	14H32-	2	78
189	228	2.3	593	182	12.987	17.750	H850	12L41-	2	45
195	222	1.2	313	194	10.938	18.250	H320	12L41-	2	21
197	223	3.0	758	215	17.261	14.490	H850	14H32-	2	48
202	217	1.1	294	207	14.644	14.898	H320	14H32-	2	24
205	210	1.6	448	178	11.525	19.250	H450	12L41-	2	25
207	209	1.8	524	192	11.638	19.367	H600	12L41-	2	36
213	205	1.6	441	188	15.369	15.714	H450	14H32-	2	28
215	204	2.2	600	204	15.540	15.810	H600	14H32-	2	39
228	192	3.8	895	174	22.034	16.763	H1500	14H32-	2	78
241	182	2.6	814	182	16.587	17.750	H850	14H32-	2	48
242	178	2.2	747	141	15.366	22.711	H1500	12L41-	2	75
247	175	1.8	620	159	12.253	23.103	H850	12L41-	2	45
255	172	3.7	1001	155	29.400	18.752	H3000	14H32-	2	119
261	168	1.3	448	164	15.125	19.250	H450	14H32-	2	28
263	167	1.8	600	167	15.238	19.367	H600	14H32-	2	39
267	162	1.2	450	143	11.112	25.056	H450	12L41-	2	25
269	161	1.5	546	153	11.179	25.207	H600	12L41-	2	36
294	147	2.2	777	137	14.227	27.578	H1500	12L41-	2	75
302	143	1.8	650	143	11.741	28.315	H850	12L41-	2	45
308	142	2.9	1167	142	18.966	22.711	H1500	14H32-	2	78
310	137	2.0	850	107	13.323	29.536	H850	12L41-	3	46
313	140	3.1	1230	140	25.550	23.044	H3000	14H32-	2	119
314	140	2.1	850	140	15.853	23.103	H850	14H32-	2	48
328	130	1.3	600	98.2	11.708	31.197	H600	12L41-	3	37
333	130	1.1	450	130	10.979	31.167	H450	12L41-	2	25
335	129	1.4	566	129	11.023	31.356	H600	12L41-	2	36
340	129	1.0	450	129	14.712	25.056	H450	14H32-	2	28
342	128	1.4	600	128	14.779	25.207	H600	14H32-	2	39
375	117	2.9	1212	117	17.827	27.578	H1500	14H32-	2	78
381	114	1.7	806	112	12.925	35.689	H1500	12L41-	2	75
385	114	2.0	850	114	15.341	28.315	H850	14H32-	2	48
395	109	1.7	850	97.2	16.923	29.536	H850	14H32-	3	49
397	109	1.4	668	109	11.319	37.190	H850	12L41-	2	45
397	107	1.5	850	84.2	12.532	37.799	H850	12L41-	3	46
405	108	2.8	1300	108	21.504	29.822	H3000	14H32-	2	119
417	103	1.1	600	90.8	15.308	31.197	H600	14H32-	3	40
420	101	1.0	600	78.6	11.362	39.925	H600	12L41-	3	37
435	97.9	1.4	850	76.7	12.326	41.350	H850	12L41-	3	46
462	93.5	1.6	817	93.5	12.311	43.313	H1500	12L41-	2	75



Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors

Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, th}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
482	89.7	1.3	676	89.7	11.131	45.136	H850	12L41-	2	45
485	90.4	2.3	1257	90.4	16.525	35.689	H1500	14H32-	2	78
492	89.1	2.4	1316	89.1	19.577	36.193	H3000	14H32-	2	119
506	85.3	1.3	850	77.0	16.132	37.799	H850	14H32-	3	49
553	78.0	1.2	850	70.7	15.926	41.350	H850	14H32-	3	49
554	76.8	1.3	850	65.3	11.869	52.743	H850	12L41-	3	46
584	74.0	1.3	827	74.0	11.734	54.750	H1500	12L41-	2	75
588	74.5	2.1	1272	74.5	15.911	43.313	H1500	14H32-	2	78
600	72.0	1.9	1500	58.7	20.604	44.814	H1500	14H32-	3	79
621	70.5	2.1	1332	70.5	17.743	45.750	H3000	14H32-	2	119
631	68.3	4.0	2480	60.2	29.942	47.186	H3000	14H32-	3	124
649	65.6	1.9	1500	49.8	14.757	61.774	H1500	12L41-	3	76
679	62.7	1.0	850	56.4	11.592	64.610	H850	12L41-	3	46
681	62.6	3.6	3000	53.3	20.227	64.744	H3000	12L41-	3	121
706	61.1	1.1	850	61.1	15.469	52.743	H850	14H32-	3	49
719	60.0	3.6	2826	56.8	26.374	53.770	H3000	14H32-	3	124
827	52.2	1.6	1500	45.3	18.357	61.774	H1500	14H32-	3	79
828	51.4	1.5	1500	39.9	13.383	78.794	H1500	12L41-	3	76
866	49.8	3.1	3000	49.8	23.827	64.744	H3000	14H32-	3	124
1015	42.0	1.3	1500	34.8	12.802	96.522	H1500	12L41-	3	76
1054	40.9	1.3	1500	36.6	16.983	78.794	H1500	14H32-	3	79
1062	40.6	2.5	3000	40.6	21.744	79.375	H3000	14H32-	3	124
1131	37.7	2.4	3000	37.7	15.208	107.541	H3000	12L41-	3	121
1291	33.4	1.1	1500	32.3	16.402	96.522	H1500	14H32-	3	79
1321	32.2	1.0	1500	32.2	12.272	125.632	H1500	12L41-	3	76
1373	31.0	2.0	3000	31.0	14.119	130.585	H3000	12L41-	3	121
1439	30.0	2.0	3000	30.0	18.808	107.541	H3000	14H32-	3	124
1747	24.7	1.7	3000	24.7	17.719	130.585	H3000	14H32-	3	124
1777	24.0	1.5	3000	24.0	12.861	168.993	H3000	12L41-	3	121
2156	19.7	1.3	3000	19.7	12.267	205.096	H3000	12L41-	3	121
2261	19.1	1.3	3000	19.1	16.461	168.993	H3000	14H32-	3	124
2346	17.9	1.0	2650	17.9	11.652	226.604	H3000	12L41-	4	124
2725	15.6	1.0	3000	15.6	11.707	259.250	H3000	12L41-	3	121
2744	15.7	1.1	3000	15.7	15.867	205.096	H3000	14H32-	3	124

Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors



5.8 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
53.0	1025	4.5	235	680	37.497	3.147	H850	14L32-	2	52
55.0	987	3.4	240	722	30.300	3.267	H600	14L32-	2	43
57.0	952	2.3	165	757	24.625	3.389	H320	14L32-	2	29
57.0	936	3.5	256	687	28.343	3.444	H450	14L32-	2	32
73.0	739	4.0	326	552	32.186	4.362	H850	14L32-	2	52
75.0	720	3.1	297	599	27.653	4.480	H600	14L32-	2	43
78.0	694	1.9	189	617	24.215	4.648	H320	14L32-	2	29
79.0	683	2.9	293	560	26.613	4.724	H450	14L32-	2	32
90.0	601	3.6	401	494	29.788	5.368	H850	14L32-	2	52
96.0	563	2.7	339	531	26.266	5.733	H600	14L32-	2	43
99.0	542	4.3	444	356	33.832	5.946	H850	14L32-	2	52
101	534	2.5	323	493	25.631	6.045	H450	14L32-	2	32
102	530	1.7	227	380	25.055	6.083	H320	14L32-	2	29
104	516	4.4	467	359	42.263	6.245	H1500	14L32-	2	82
108	500	2.9	404	353	27.844	6.456	H600	14L32-	2	43
110	488	2.3	334	461	25.376	6.613	H450	14L32-	2	32
138	391	3.5	615	283	30.278	8.241	H850	14L32-	2	52
139	387	1.4	249	290	24.444	8.343	H320	14L32-	2	29
147	367	2.0	370	275	25.804	8.800	H450	14L32-	2	32
148	364	2.6	487	291	26.347	8.853	H600	14L32-	2	43
169	318	3.1	667	253	28.529	10.143	H850	14L32-	2	52
178	302	1.2	265	236	24.123	10.677	H320	14L32-	2	29
188	286	1.7	400	226	25.137	11.262	H450	14L32-	2	32
189	285	2.2	537	256	25.469	11.330	H600	14L32-	2	43
190	284	4.1	848	212	36.206	11.356	H1500	14L32-	2	82
190	284	2.9	696	232	27.623	11.360	H850	14L32-	2	52
194	278	4.4	868	193	53.715	11.619	H3000	14L32-	2	124
195	276	1.1	271	222	24.025	11.680	H320	14L32-	2	29
206	262	1.6	411	208	24.963	12.320	H450	14L32-	2	32
207	260	2.1	553	240	25.241	12.395	H600	14L32-	2	43
228	236	3.6	1021	194	33.463	13.673	H1500	14L32-	2	82
242	223	2.4	758	206	26.461	14.490	H850	14L32-	2	52
262	205	1.3	441	172	24.569	15.714	H450	14L32-	2	32
264	204	1.8	600	196	24.740	15.810	H600	14L32-	2	43
280	192	3.1	1102	167	31.234	16.763	H1500	14L32-	2	82
296	182	2.1	814	180	25.787	17.750	H850	14L32-	2	52
313	172	3.0	1223	149	38.600	18.752	H3000	14L32-	2	124
321	168	1.1	448	149	24.325	19.250	H450	14L32-	2	32
323	167	1.4	600	167	24.438	19.367	H600	14L32-	2	43
379	142	2.4	1167	142	28.166	22.711	H1500	14L32-	2	82
385	140	2.5	1254	137	34.750	23.044	H3000	14L32-	2	124
386	140	1.7	850	140	25.053	23.103	H850	14L32-	2	52
421	128	1.1	600	128	23.979	25.207	H600	14L32-	2	43
460	117	2.3	1212	117	27.027	27.578	H1500	14L32-	2	82
473	114	1.6	850	114	24.541	28.315	H850	14L32-	2	52
485	109	1.4	850	87.1	26.123	29.536	H850	14L32-	3	53
498	108	2.3	1300	108	30.704	29.822	H3000	14L32-	2	124
596	90.4	1.9	1257	90.4	25.725	35.689	H1500	14L32-	2	82
604	89.1	1.9	1316	89.1	28.777	36.193	H3000	14L32-	2	124
621	85.3	1.1	850	69.6	25.332	37.799	H850	14L32-	3	53
723	74.5	1.7	1272	74.5	25.111	43.313	H1500	14L32-	2	82



Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors

Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, \text{th}}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
737	72.0	1.6	1500	52.0	29.804	44.814	H1500	14L32-	3	84
763	70.5	1.7	1332	70.5	26.943	45.750	H3000	14L32-	2	124
776	68.3	3.2	2830	57.6	39.142	47.186	H3000	14L32-	3	129
884	60.0	2.9	2950	54.2	35.574	53.770	H3000	14L32-	3	129
1015	52.2	1.3	1500	40.7	27.557	61.774	H1500	14L32-	3	84
1064	49.8	2.5	3000	49.1	33.027	64.744	H3000	14L32-	3	129
1295	40.9	1.0	1500	33.2	26.183	78.794	H1500	14L32-	3	84
1305	40.6	2.0	3000	40.6	30.944	79.375	H3000	14L32-	3	129
1768	30.0	1.7	3000	30.0	28.008	107.541	H3000	14L32-	3	129
2147	24.7	1.4	3000	24.7	26.919	130.585	H3000	14L32-	3	129
2778	19.1	1.1	3000	19.1	25.661	168.993	H3000	14L32-	3	129

6 kW

Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, \text{th}}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
122	453	2.5	306	453	119.097	3.147	H850	19J14-	2	62
145	381	5.1	468	381	142.796	3.743	H1500	19J14-	2	93
169	327	2.2	378	327	113.786	4.362	H850	19J14-	2	62
175	317	5.6	563	317	182.626	4.496	H3000	19J14-	2	134
185	300	4.5	596	300	132.688	4.758	H1500	19J14-	2	93
208	265	2.1	429	265	111.388	5.368	H850	19J14-	2	62
229	241	4.8	739	241	157.695	5.902	H3000	19J14-	2	134
231	240	2.4	551	240	115.432	5.946	H850	19J14-	2	62
242	228	3.8	782	228	123.863	6.245	H1500	19J14-	2	93
246	225	5.6	794	225	175.420	6.344	H3000	19J14-	2	134
295	188	4.1	950	188	128.724	7.592	H1500	19J14-	2	93
320	173	1.9	615	173	111.878	8.241	H850	19J14-	2	62
323	171	4.8	1042	171	153.512	8.327	H3000	19J14-	2	134
394	141	1.7	667	141	110.129	10.143	H850	19J14-	2	62
441	126	3.2	1400	126	117.806	11.356	H1500	19J14-	2	93
441	125	1.6	696	125	109.223	11.360	H850	19J14-	2	62
451	123	3.8	1454	123	135.315	11.619	H3000	19J14-	2	134
531	104	2.7	1430	104	115.063	13.673	H1500	19J14-	2	93
552	100	3.3	1781	100	128.535	14.233	H3000	19J14-	2	134
651	85.0	2.2	1450	85.0	112.834	16.763	H1500	19J14-	2	93
728	76.0	2.6	1901	76.0	120.200	18.752	H3000	19J14-	2	134
894	61.8	2.2	1948	61.8	116.350	23.044	H3000	19J14-	2	134
1804	30.2	1.6	2830	30.2	120.742	47.186	H3000	19J14-	3	139
2055	26.5	1.4	2950	26.5	117.174	53.770	H3000	19J14-	3	139
2475	22.0	1.2	3000	22.0	114.627	64.744	H3000	19J14-	3	139

Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors



6.6 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
64.0	953	3.8	263	654	79.097	3.147	H850	19F30-	2	55
89.0	688	3.4	364	507	73.786	4.362	H850	19F30-	2	55
109	559	3.1	429	412	71.388	5.368	H850	19F30-	2	55
121	505	3.6	496	342	75.432	5.946	H850	19F30-	2	55
127	480	5.8	521	354	83.863	6.245	H1500	19F30-	2	86
168	364	2.9	615	268	71.878	8.241	H850	19F30-	2	55
207	296	2.6	667	218	70.129	10.143	H850	19F30-	2	55
231	264	4.8	948	195	77.806	11.356	H1500	19F30-	2	86
231	264	2.4	696	195	69.223	11.360	H850	19F30-	2	55
237	258	5.7	969	190	95.315	11.619	H3000	19F30-	2	127
279	219	4.1	1141	162	75.063	13.673	H1500	19F30-	2	86
290	211	4.9	1188	155	88.535	14.233	H3000	19F30-	2	127
342	179	3.4	1399	132	72.834	16.763	H1500	19F30-	2	86
382	160	4.0	1565	118	80.200	18.752	H3000	19F30-	2	127
470	130	3.3	1923	95.9	76.350	23.044	H3000	19F30-	2	127
899	66.9	1.3	1500	47.2	71.404	44.814	H1500	19F30-	3	87
947	63.6	2.7	2830	46.8	80.742	47.186	H3000	19F30-	3	132
1079	55.8	2.5	2950	41.1	77.174	53.770	H3000	19F30-	3	132
1240	48.6	1.1	1500	35.8	69.157	61.774	H1500	19F30-	3	87
1299	46.3	2.1	3000	34.1	74.627	64.744	H3000	19F30-	3	132
1593	37.8	1.7	3000	27.9	72.544	79.375	H3000	19F30-	3	132



7.1 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
64.0	1025	3.7	306	650	48.797	3.147	H850	14P32-	2	57
67.0	987	2.8	240	691	41.600	3.267	H600	14P32-	2	48
69.0	952	1.9	165	709	35.925	3.389	H320	14P32-	2	34
70.0	936	2.8	256	658	39.643	3.444	H450	14P32-	2	37
89.0	739	3.3	378	528	43.486	4.362	H850	14P32-	2	57
91.0	720	2.5	297	574	38.953	4.480	H600	14P32-	2	48
95.0	694	1.6	189	551	35.515	4.648	H320	14P32-	2	34
96.0	683	2.4	293	536	37.913	4.724	H450	14P32-	2	37
109	601	2.9	412	473	41.088	5.368	H850	14P32-	2	57
117	563	2.3	339	508	37.566	5.733	H600	14P32-	2	48
121	542	3.5	551	341	45.132	5.946	H850	14P32-	2	57
123	534	2.0	323	471	36.931	6.045	H450	14P32-	2	37
124	530	1.4	227	342	36.355	6.083	H320	14P32-	2	34
127	516	3.6	596	344	53.563	6.245	H1500	14P32-	2	87
132	500	2.4	404	337	39.144	6.456	H600	14P32-	2	48
135	488	1.9	334	438	36.676	6.613	H450	14P32-	2	37
168	391	2.8	615	270	41.578	8.241	H850	14P32-	2	57
170	387	1.1	249	264	35.744	8.343	H320	14P32-	2	34
179	367	1.6	370	245	37.104	8.800	H450	14P32-	2	37
180	364	2.1	487	278	37.647	8.853	H600	14P32-	2	48
207	318	2.5	667	242	39.829	10.143	H850	14P32-	2	57
229	286	1.4	400	203	36.437	11.262	H450	14P32-	2	37
231	285	1.8	537	237	36.769	11.330	H600	14P32-	2	48
231	284	3.3	992	203	47.506	11.356	H1500	14P32-	2	87
231	284	2.3	696	222	38.923	11.360	H850	14P32-	2	57
237	278	3.6	1100	185	65.015	11.619	H3000	14P32-	2	129
251	262	1.3	411	188	36.263	12.320	H450	14P32-	2	37
253	260	1.7	553	218	36.541	12.395	H600	14P32-	2	48
279	236	2.9	1047	185	44.763	13.673	H1500	14P32-	2	87
295	223	2.0	758	198	37.761	14.490	H850	14P32-	2	57
320	205	1.1	441	158	35.869	15.714	H450	14P32-	2	37
322	204	1.4	600	178	36.040	15.810	H600	14P32-	2	48
342	192	2.5	1102	160	42.534	16.763	H1500	14P32-	2	87
362	182	1.7	814	166	37.087	17.750	H850	14P32-	2	57
382	172	2.5	1223	143	49.900	18.752	H3000	14P32-	2	129
395	167	1.2	600	154	35.738	19.367	H600	14P32-	2	48
463	142	2.0	1167	137	39.466	22.711	H1500	14P32-	2	87
470	140	2.1	1254	131	46.050	23.044	H3000	14P32-	2	129
471	140	1.4	850	139	36.353	23.103	H850	14P32-	2	57
562	117	1.9	1212	117	38.327	27.578	H1500	14P32-	2	87
577	114	1.3	850	114	35.841	28.315	H850	14P32-	2	57
593	109	1.1	850	79.1	37.423	29.536	H850	14P32-	3	58
608	108	1.9	1300	108	42.004	29.822	H3000	14P32-	2	129
727	90.4	1.5	1257	90.4	37.025	35.689	H1500	14P32-	2	87
737	89.1	1.6	1316	89.1	40.077	36.193	H3000	14P32-	2	129
882	74.5	1.4	1272	74.5	36.411	43.313	H1500	14P32-	2	87
899	72.0	1.3	1500	46.6	41.104	44.814	H1500	14P32-	3	89
932	70.5	1.4	1332	70.5	38.243	45.750	H3000	14P32-	2	129
947	68.3	2.6	2830	55.0	50.442	47.186	H3000	14P32-	3	134
1079	60.0	2.4	2950	51.8	46.874	53.770	H3000	14P32-	3	134
1240	52.2	1.1	1500	37.0	38.857	61.774	H1500	14P32-	3	89

Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors



Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, \text{th}}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
1299	49.8	2.0	3000	46.8	44.327	64.744	H3000	14P32-	3	134
1593	40.6	1.7	3000	37.9	42.244	79.375	H3000	14P32-	3	134
2158	30.0	1.4	3000	30.0	39.308	107.541	H3000	14P32-	3	134
2621	24.7	1.1	3000	24.7	38.219	130.585	H3000	14P32-	3	134

7.2 kW

Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, \text{th}}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
156	429	2.0	306	429	174.097	3.147	H850	19P14-	2	72
185	361	4.0	690	361	197.796	3.743	H1500	19P14-	2	103
216	310	1.8	378	310	168.786	4.362	H850	19P14-	2	72
222	300	4.4	829	300	237.626	4.496	H3000	19P14-	2	144
235	284	3.6	837	284	187.688	4.758	H1500	19P14-	2	103
266	252	1.6	429	252	166.388	5.368	H850	19P14-	2	72
292	229	3.7	1088	229	212.695	5.902	H3000	19P14-	2	144
294	227	1.9	551	227	170.432	5.946	H850	19P14-	2	72
309	216	3.0	926	216	178.863	6.245	H1500	19P14-	2	103
314	213	4.4	1169	213	230.420	6.344	H3000	19P14-	2	144
376	178	3.2	1217	178	183.724	7.592	H1500	19P14-	2	103
408	164	1.5	615	164	166.878	8.241	H850	19P14-	2	72
412	162	3.7	1535	162	208.512	8.327	H3000	19P14-	2	144
502	133	1.3	667	133	165.129	10.143	H850	19P14-	2	72
562	119	2.5	1400	119	172.806	11.356	H1500	19P14-	2	103
562	119	1.2	696	119	164.223	11.360	H850	19P14-	2	72
575	116	3.0	1709	116	190.315	11.619	H3000	19P14-	2	144
677	98.7	2.1	1430	98.7	170.063	13.673	H1500	19P14-	2	103
704	94.8	2.6	1799	94.8	183.535	14.233	H3000	19P14-	2	144
829	80.5	1.8	1450	80.5	167.834	16.763	H1500	19P14-	2	103
928	72.0	2.1	1901	72.0	175.200	18.752	H3000	19P14-	2	144
1140	58.6	1.7	1948	58.6	171.350	23.044	H3000	19P14-	2	144
2300	28.6	1.2	2830	28.6	175.742	47.186	H3000	19P14-	3	149
2621	25.1	1.1	2950	25.1	172.174	53.770	H3000	19P14-	3	149



9.1 kW

Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, \text{th}}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
89.0	953	2.7	306	606	119.097	3.147	H850	19J30-	2	62
105	802	5.5	468	499	142.796	3.743	H1500	19J30-	2	93
123	688	2.5	378	493	113.786	4.362	H850	19J30-	2	62
134	631	5.0	596	425	132.688	4.758	H1500	19J30-	2	93
151	559	2.3	429	412	111.388	5.368	H850	19J30-	2	62
166	508	5.2	739	337	157.695	5.902	H3000	19J30-	2	134
167	505	2.6	551	317	115.432	5.946	H850	19J30-	2	62
176	480	4.2	782	354	123.863	6.245	H1500	19J30-	2	93
214	395	4.5	950	261	128.724	7.592	H1500	19J30-	2	93
232	364	2.1	615	252	111.878	8.241	H850	19J30-	2	62
234	360	5.2	1042	239	153.512	8.327	H3000	19J30-	2	134
285	296	1.9	667	218	110.129	10.143	H850	19J30-	2	62
320	264	3.5	1400	195	117.806	11.356	H1500	19J30-	2	93
320	264	1.7	696	195	109.223	11.360	H850	19J30-	2	62
327	258	4.2	1454	190	135.315	11.619	H3000	19J30-	2	134
385	219	3.0	1430	162	115.063	13.673	H1500	19J30-	2	93
400	211	3.6	1781	155	128.535	14.233	H3000	19J30-	2	134
472	179	2.4	1450	132	112.834	16.763	H1500	19J30-	2	93
528	160	2.9	1901	118	120.200	18.752	H3000	19J30-	2	134
648	130	2.4	1948	95.9	116.350	23.044	H3000	19J30-	2	134
1308	63.6	2.0	2830	46.8	120.742	47.186	H3000	19J30-	3	139
1490	55.8	1.8	2950	41.1	117.174	53.770	H3000	19J30-	3	139
1794	46.3	1.5	3000	34.1	114.627	64.744	H3000	19J30-	3	139
2200	37.8	1.2	3000	27.9	112.544	79.375	H3000	19J30-	3	139

Technical data

Selection tables

Inverter mains connection 400 V, Self-ventilated motors



10 kW

Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, \text{th}}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
98.0	953	2.5	306	591	174.097	3.147	H850	19P30-	2	72
116	802	5.0	690	488	197.796	3.743	H1500	19P30-	2	103
135	688	2.2	378	482	168.786	4.362	H850	19P30-	2	72
140	667	5.6	829	387	237.626	4.496	H3000	19P30-	2	144
148	631	4.5	837	416	187.688	4.758	H1500	19P30-	2	103
167	559	2.1	429	412	166.388	5.368	H850	19P30-	2	72
183	508	4.7	1088	330	212.695	5.902	H3000	19P30-	2	144
185	505	2.4	551	309	170.432	5.946	H850	19P30-	2	72
194	480	3.8	926	347	178.863	6.245	H1500	19P30-	2	103
197	473	5.6	1169	274	230.420	6.344	H3000	19P30-	2	144
236	395	4.1	1217	255	183.724	7.592	H1500	19P30-	2	103
256	364	1.9	615	243	166.878	8.241	H850	19P30-	2	72
259	360	4.7	1535	234	208.512	8.327	H3000	19P30-	2	144
315	296	1.7	667	207	165.129	10.143	H850	19P30-	2	72
353	264	3.2	1400	195	172.806	11.356	H1500	19P30-	2	103
353	264	1.6	696	187	164.223	11.360	H850	19P30-	2	72
361	258	3.8	1709	187	190.315	11.619	H3000	19P30-	2	144
425	219	2.7	1430	162	170.063	13.673	H1500	19P30-	2	103
442	211	3.2	1799	155	183.535	14.233	H3000	19P30-	2	144
520	179	2.2	1450	132	167.834	16.763	H1500	19P30-	2	103
582	160	2.6	1901	118	175.200	18.752	H3000	19P30-	2	144
715	130	2.2	1948	95.9	171.350	23.044	H3000	19P30-	2	144
1443	63.6	1.8	2830	46.8	175.742	47.186	H3000	19P30-	3	149
1644	55.8	1.6	2950	41.1	172.174	53.770	H3000	19P30-	3	149
1980	46.3	1.4	3000	34.1	169.627	64.744	H3000	19P30-	3	149
2427	37.8	1.1	3000	27.9	167.544	79.375	H3000	19P30-	3	149



Inverter mains connection 400 V, Forced ventilated motors

1.2 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
23.0	487	5.3	58.0	487	5.530	3.389	H210	12D17-	2	15
32.0	355	4.4	80.0	355	4.977	4.648	H210	12D17-	2	15
32.0	355	5.4	80.0	355	4.815	4.648	H320	12D17-	2	17
39.0	288	5.6	98.0	288	6.866	5.733	H600	12D17-	2	32
41.0	273	5.6	104	273	6.231	6.045	H450	12D17-	2	20
41.0	271	5.3	104	271	5.655	6.083	H320	12D17-	2	17
42.0	264	3.6	107	264	5.184	6.250	H210	12D17-	2	15
45.0	250	5.3	114	250	5.976	6.613	H450	12D17-	2	20
57.0	198	4.3	143	198	5.044	8.343	H320	12D17-	2	17
58.0	193	2.9	147	193	4.793	8.571	H210	12D17-	2	15
60.0	188	6.0	151	188	6.404	8.800	H450	12D17-	2	20
73.0	155	3.5	183	155	4.723	10.677	H320	12D17-	2	17
76.0	147	5.1	193	147	5.737	11.262	H450	12D17-	2	20
77.0	146	5.6	195	146	6.069	11.330	H600	12D17-	2	32
79.0	141	3.3	201	141	4.625	11.680	H320	12D17-	2	17
81.0	138	2.2	186	138	4.497	12.000	H210	12D17-	2	15
84.0	134	4.8	212	134	5.563	12.320	H450	12D17-	2	20
84.0	133	5.3	213	133	5.841	12.395	H600	12D17-	2	32
98.0	114	5.6	249	114	7.061	14.490	H850	12D17-	2	41
101	111	2.8	256	111	4.444	14.898	H320	12D17-	2	17
104	108	1.9	200	108	4.365	15.306	H210	12D17-	2	15
107	105	4.0	270	105	5.169	15.714	H450	12D17-	2	20
107	104	4.5	271	104	5.340	15.810	H600	12D17-	2	32
121	93.0	4.8	305	93.0	6.387	17.750	H850	12D17-	2	41
124	90.4	2.5	313	90.4	4.338	18.250	H320	12D17-	2	17
127	88.0	1.6	210	88.0	4.285	18.750	H210	12D17-	2	15
131	85.7	3.3	331	85.7	4.925	19.250	H450	12D17-	2	20
132	85.2	3.9	333	85.2	5.038	19.367	H600	12D17-	2	32
154	72.7	4.7	390	72.7	8.766	22.711	H1500	12D17-	2	71
157	71.4	3.8	397	71.4	5.653	23.103	H850	12D17-	2	41
170	65.9	2.6	430	65.9	4.512	25.056	H450	12D17-	2	20
171	65.5	3.1	433	65.5	4.579	25.207	H600	12D17-	2	32
187	59.8	4.2	474	59.8	7.627	27.578	H1500	12D17-	2	71
192	58.3	3.4	486	58.3	5.141	28.315	H850	12D17-	2	41
198	55.9	4.2	500	55.9	6.723	29.536	H850	12D17-	3	42
209	52.9	2.8	528	52.9	5.108	31.197	H600	12D17-	3	33
212	52.9	2.1	450	52.9	4.379	31.167	H450	12D17-	2	20
213	52.6	2.7	538	52.6	4.423	31.356	H600	12D17-	2	32
242	46.2	3.3	613	46.2	6.325	35.689	H1500	12D17-	2	71
253	44.4	2.6	639	44.4	4.719	37.190	H850	12D17-	2	41
253	43.7	3.3	639	43.7	5.932	37.799	H850	12D17-	3	42
267	41.3	2.2	600	41.3	4.762	39.925	H600	12D17-	3	33
277	39.9	3.0	699	39.9	5.726	41.350	H850	12D17-	3	42
292	37.8	2.0	600	37.8	4.658	43.676	H600	12D17-	3	33
294	38.1	2.8	744	38.1	5.711	43.313	H1500	12D17-	2	71
307	36.6	2.2	676	36.6	4.531	45.136	H850	12D17-	2	41
353	31.3	2.4	850	31.3	5.269	52.743	H850	12D17-	3	42
372	30.1	2.2	827	30.1	5.134	54.750	H1500	12D17-	2	71
373	29.6	1.6	600	29.6	4.464	55.710	H600	12D17-	3	33
413	26.7	3.6	1045	26.7	8.157	61.774	H1500	12D17-	3	72

Technical data

Selection tables

Inverter mains connection 400 V, Forced ventilated motors



Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, th}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
432	25.5	2.0	850	25.5	4.992	64.610	H850	12D17-	3	42
457	24.2	1.3	600	24.2	4.351	68.244	H600	12D17-	3	33
527	20.9	2.9	1333	20.9	6.783	78.794	H1500	12D17-	3	72
563	19.6	1.5	850	19.6	4.551	84.096	H850	12D17-	3	42
646	17.1	2.3	1500	17.1	6.202	96.522	H1500	12D17-	3	72
700	15.8	1.2	850	15.8	4.405	104.607	H850	12D17-	3	42
719	15.3	4.2	1819	15.3	8.608	107.541	H3000	12D17-	3	117
840	13.1	1.8	1500	13.1	5.672	125.632	H1500	12D17-	3	72
874	12.6	3.4	2209	12.6	7.519	130.585	H3000	12D17-	3	117
1030	10.7	1.5	1500	10.7	5.068	153.976	H1500	12D17-	3	72
1131	9.8	2.7	2859	9.8	6.261	168.993	H3000	12D17-	3	117
1353	8.2	1.1	1500	8.2	4.676	202.237	H1500	12D17-	3	72
1372	8.0	2.2	3000	8.0	5.667	205.096	H3000	12D17-	3	117
1483	7.3	1.0	1500	7.3	4.722	225.125	H1500	12D17-	4	75
1493	7.3	1.8	2650	7.3	5.052	226.604	H3000	12D17-	4	120
1734	6.4	1.7	3000	6.4	5.107	259.250	H3000	12D17-	3	117
1927	5.6	1.6	3000	5.6	5.219	292.511	H3000	12D17-	4	120
2480	4.4	1.2	3000	4.4	4.670	376.393	H3000	12D17-	4	120
3012	3.6	1.0	3000	3.6	4.581	457.048	H3000	12D17-	4	120



1.7 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
38.0	413	4.8	92.0	413	14.200	3.267	H600	12H14-	2	35
39.0	398	3.2	95.0	398	8.830	3.389	H210	12H14-	2	18
39.0	398	3.9	95.0	398	8.525	3.389	H320	12H14-	2	20
39.0	398	4.2	95.0	398	9.325	3.389	H320	14D14-	2	23
40.0	392	4.8	97.0	392	12.243	3.444	H450	12H14-	2	24
52.0	301	4.0	126	301	11.553	4.480	H600	12H14-	2	35
52.0	301	5.7	126	301	12.353	4.480	H600	14D14-	2	38
54.0	291	2.6	131	291	8.277	4.648	H210	12H14-	2	18
54.0	291	3.2	131	291	8.115	4.648	H320	12H14-	2	20
54.0	291	3.5	131	291	8.915	4.648	H320	14D14-	2	23
55.0	286	4.0	133	286	10.513	4.724	H450	12H14-	2	24
55.0	286	5.3	133	286	11.313	4.724	H450	14D14-	2	27
63.0	252	4.2	151	252	13.688	5.368	H850	12H14-	2	44
67.0	236	3.4	161	236	10.166	5.733	H600	12H14-	2	35
67.0	236	5.1	161	236	10.966	5.733	H600	14D14-	2	38
70.0	223	3.4	170	223	9.531	6.045	H450	12H14-	2	24
70.0	223	4.6	170	223	10.331	6.045	H450	14D14-	2	27
71.0	222	3.2	171	222	8.955	6.083	H320	12H14-	2	20
71.0	222	3.2	171	222	9.755	6.083	H320	14D14-	2	23
73.0	216	2.2	158	216	8.484	6.250	H210	12H14-	2	18
75.0	209	4.8	182	209	11.744	6.456	H600	12H14-	2	35
75.0	209	5.4	182	209	12.544	6.456	H600	14D14-	2	38
77.0	204	3.2	186	204	9.276	6.613	H450	12H14-	2	24
77.0	204	4.3	186	204	10.076	6.613	H450	14D14-	2	27
97.0	162	2.6	235	162	8.344	8.343	H320	12H14-	2	20
97.0	162	2.6	235	162	9.144	8.343	H320	14D14-	2	23
100	158	1.7	171	158	8.093	8.571	H210	12H14-	2	18
102	153	3.6	248	153	9.704	8.800	H450	12H14-	2	24
102	153	3.6	248	153	10.504	8.800	H450	14D14-	2	27
103	153	4.0	249	153	10.247	8.853	H600	12H14-	2	35
103	153	4.7	249	153	11.047	8.853	H600	14D14-	2	38
118	133	4.2	285	133	12.429	10.143	H850	12H14-	2	44
118	133	5.7	285	133	13.229	10.143	H850	14D14-	2	47
124	126	2.1	265	126	8.023	10.677	H320	12H14-	2	20
124	126	2.1	265	126	8.823	10.677	H320	14D14-	2	23
131	120	3.1	317	120	9.037	11.262	H450	12H14-	2	24
131	120	3.1	317	120	9.837	11.262	H450	14D14-	2	27
132	119	3.4	319	119	9.369	11.330	H600	12H14-	2	35
132	119	4.1	319	119	10.169	11.330	H600	14D14-	2	38
132	119	4.0	320	119	11.523	11.360	H850	12H14-	2	44
132	119	5.3	320	119	12.323	11.360	H850	14D14-	2	47
136	116	2.0	271	116	7.925	11.680	H320	12H14-	2	20
136	116	2.0	271	116	8.725	11.680	H320	14D14-	2	23
140	113	1.3	186	113	7.797	12.000	H210	12H14-	2	18
143	110	2.9	347	110	8.863	12.320	H450	12H14-	2	24
143	110	2.9	347	110	9.663	12.320	H450	14D14-	2	27
144	109	3.2	349	109	9.141	12.395	H600	12H14-	2	35
144	109	3.8	349	109	9.941	12.395	H600	14D14-	2	38
159	98.7	4.2	385	98.7	17.363	13.673	H1500	12H14-	2	74
169	93.2	3.3	408	93.2	10.361	14.490	H850	12H14-	2	44
169	93.2	4.5	408	93.2	11.161	14.490	H850	14D14-	2	47

Technical data

Selection tables

Inverter mains connection 400 V, Forced ventilated motors



Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
173	90.6	1.7	294	90.6	7.744	14.898	H320	12H14-	2	20
173	90.6	1.7	294	90.6	8.544	14.898	H320	14D14-	2	23
178	88.2	1.1	200	88.2	7.665	15.306	H210	12H14-	2	18
183	85.9	2.4	441	85.9	8.469	15.714	H450	12H14-	2	24
183	85.9	2.4	441	85.9	9.269	15.714	H450	14D14-	2	27
184	85.4	2.7	445	85.4	8.640	15.810	H600	12H14-	2	35
184	85.4	3.3	445	85.4	9.440	15.810	H600	14D14-	2	38
195	80.5	5.6	472	80.5	15.934	16.763	H1500	14D14-	2	77
207	76.1	2.9	499	76.1	9.687	17.750	H850	12H14-	2	44
207	76.1	3.9	499	76.1	10.487	17.750	H850	14D14-	2	47
212	74.0	1.5	313	74.0	7.638	18.250	H320	12H14-	2	20
218	72.0	5.6	528	72.0	23.300	18.752	H3000	14D14-	2	118
224	70.1	2.0	448	70.1	8.225	19.250	H450	12H14-	2	24
224	70.1	2.0	448	70.1	9.025	19.250	H450	14D14-	2	27
225	69.7	2.3	524	69.7	8.338	19.367	H600	12H14-	2	35
225	69.7	2.7	545	69.7	9.138	19.367	H600	14D14-	2	38
264	59.4	2.8	639	59.4	12.066	22.711	H1500	12H14-	2	74
264	59.4	4.4	639	59.4	12.866	22.711	H1500	14D14-	2	77
268	58.6	4.7	648	58.6	19.450	23.044	H3000	14D14-	2	118
269	58.4	2.3	620	58.4	8.953	23.103	H850	12H14-	2	44
269	58.4	3.2	650	58.4	9.753	23.103	H850	14D14-	2	47
292	53.9	1.5	450	53.9	7.812	25.056	H450	12H14-	2	24
292	53.9	1.5	450	53.9	8.612	25.056	H450	14D14-	2	27
293	53.6	1.9	546	53.6	7.879	25.207	H600	12H14-	2	35
293	53.6	2.0	600	53.6	8.679	25.207	H600	14D14-	2	38
321	49.0	2.4	776	49.0	10.927	27.578	H1500	12H14-	2	74
321	49.0	3.8	776	49.0	11.727	27.578	H1500	14D14-	2	77
330	47.7	2.0	650	47.7	8.441	28.315	H850	12H14-	2	44
330	47.7	2.6	797	47.7	9.241	28.315	H850	14D14-	2	47
339	45.7	2.5	819	45.7	10.023	29.536	H850	12H14-	3	45
339	45.7	2.5	819	45.7	10.823	29.536	H850	14D14-	3	48
347	45.3	3.7	839	45.3	15.404	29.822	H3000	14D14-	2	118
358	43.3	1.7	600	43.3	8.408	31.197	H600	12H14-	3	36
358	43.3	1.7	600	43.3	9.208	31.197	H600	14D14-	3	39
363	43.3	1.2	450	43.3	7.679	31.167	H450	12H14-	2	24
365	43.1	1.6	566	43.1	7.723	31.356	H600	12H14-	2	35
416	37.8	1.9	806	37.8	9.625	35.689	H1500	12H14-	2	74
416	37.8	3.0	1004	37.8	10.425	35.689	H1500	14D14-	2	77
421	37.3	3.1	1018	37.3	13.477	36.193	H3000	14D14-	2	118
433	36.3	1.5	668	36.3	8.019	37.190	H850	12H14-	2	44
433	35.7	2.0	850	35.7	9.232	37.799	H850	12H14-	3	45
433	35.7	2.0	850	35.7	10.032	37.799	H850	14D14-	3	48
458	33.8	1.3	600	33.8	8.062	39.925	H600	12H14-	3	36
458	33.8	1.3	600	33.8	8.862	39.925	H600	14D14-	3	39
474	32.6	1.8	850	32.6	9.026	41.350	H850	12H14-	3	45
474	32.6	1.8	850	32.6	9.826	41.350	H850	14D14-	3	48
501	30.9	1.2	600	30.9	7.958	43.676	H600	12H14-	3	36
501	30.9	1.2	600	30.9	8.758	43.676	H600	14D14-	3	39
504	31.2	1.6	817	31.2	9.011	43.313	H1500	12H14-	2	74
504	31.2	2.5	1219	31.2	9.811	43.313	H1500	14D14-	2	77
514	30.1	2.9	1242	30.1	14.504	44.814	H1500	14D14-	3	78
526	29.9	1.3	676	29.9	7.831	45.136	H850	12H14-	2	44



Technical data

Selection tables

Inverter mains connection 400 V, Forced ventilated motors

Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, th}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
533	29.5	2.5	1287	29.5	11.643	45.750	H3000	14D14-	2	118
541	28.6	5.2	1308	28.6	23.842	47.186	H3000	14D14-	3	123
605	25.6	1.4	850	25.6	8.569	52.743	H850	12H14-	3	45
605	25.6	1.4	850	25.6	9.369	52.743	H850	14D14-	3	48
617	25.1	4.8	1490	25.1	20.274	53.770	H3000	14D14-	3	123
637	24.7	1.3	827	24.7	8.434	54.750	H1500	12H14-	2	74
708	21.9	2.1	1500	21.9	11.457	61.774	H1500	12H14-	3	75
708	21.9	2.1	1500	21.9	12.257	61.774	H1500	14D14-	3	78
741	20.9	1.2	850	20.9	8.292	64.610	H850	12H14-	3	45
741	20.9	1.2	850	20.9	9.092	64.610	H850	14D14-	3	48
742	20.9	4.0	1794	20.9	16.927	64.744	H3000	12H14-	3	120
742	20.9	4.0	1794	20.9	17.727	64.744	H3000	14D14-	3	123
904	17.1	1.7	1500	17.1	10.083	78.794	H1500	12H14-	3	75
904	17.1	1.7	1500	17.1	10.883	78.794	H1500	14D14-	3	78
910	17.0	3.3	2200	17.0	15.644	79.375	H3000	14D14-	3	123
1107	14.0	1.4	1500	14.0	9.502	96.522	H1500	12H14-	3	75
1107	14.0	1.4	1500	14.0	10.302	96.522	H1500	14D14-	3	78
1233	12.6	2.4	2980	12.6	11.908	107.541	H3000	12H14-	3	120
1233	12.6	2.4	2980	12.6	12.708	107.541	H3000	14D14-	3	123
1441	10.7	1.0	1500	10.7	8.972	125.632	H1500	12H14-	3	75
1441	10.7	1.0	1500	10.7	9.772	125.632	H1500	14D14-	3	78
1498	10.3	2.0	3000	10.3	10.819	130.585	H3000	12H14-	3	120
1498	10.3	2.0	3000	10.3	11.619	130.585	H3000	14D14-	3	123
1938	8.0	1.6	3000	8.0	9.561	168.993	H3000	12H14-	3	120
1938	8.0	1.6	3000	8.0	10.361	168.993	H3000	14D14-	3	123
2352	6.6	1.3	3000	6.6	8.967	205.096	H3000	12H14-	3	120
2352	6.6	1.3	3000	6.6	9.767	205.096	H3000	14D14-	3	123
2560	6.0	1.0	2650	6.0	8.352	226.604	H3000	12H14-	4	123
2973	5.2	1.0	3000	5.2	8.407	259.250	H3000	12H14-	3	120

Technical data

Selection tables

Inverter mains connection 400 V, Forced ventilated motors



2.2 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
20.0	1040	4.8	58.0	884	5.530	3.389	H210	12D35-	2	15
20.0	1040	5.8	58.0	916	5.225	3.389	H320	12D35-	2	17
27.0	759	4.0	80.0	729	4.977	4.648	H210	12D35-	2	15
27.0	759	4.9	80.0	756	4.815	4.648	H320	12D35-	2	17
33.0	615	5.1	98.0	599	6.866	5.733	H600	12D35-	2	32
35.0	583	5.1	104	568	6.231	6.045	H450	12D35-	2	20
35.0	580	4.8	104	493	5.655	6.083	H320	12D35-	2	17
36.0	564	3.3	107	444	5.184	6.250	H210	12D35-	2	15
38.0	533	4.8	114	531	5.976	6.613	H450	12D35-	2	20
49.0	423	3.9	143	404	5.044	8.343	H320	12D35-	2	17
50.0	411	2.6	147	363	4.793	8.571	H210	12D35-	2	15
51.0	401	5.4	151	342	6.404	8.800	H450	12D35-	2	20
62.0	330	3.2	183	330	4.723	10.677	H320	12D35-	2	17
66.0	313	4.6	193	299	5.737	11.262	H450	12D35-	2	20
66.0	311	5.1	195	303	6.069	11.330	H600	12D35-	2	32
66.0	310	6.0	195	269	8.223	11.360	H850	12D35-	2	41
68.0	302	3.0	201	302	4.625	11.680	H320	12D35-	2	17
70.0	294	2.0	186	283	4.497	12.000	H210	12D35-	2	15
72.0	286	4.3	212	279	5.563	12.320	H450	12D35-	2	20
72.0	284	4.8	213	283	5.841	12.395	H600	12D35-	2	32
84.0	243	5.0	249	238	7.061	14.490	H850	12D35-	2	41
87.0	237	2.6	256	237	4.444	14.898	H320	12D35-	2	17
89.0	230	1.7	200	230	4.365	15.306	H210	12D35-	2	15
91.0	224	3.6	270	224	5.169	15.714	H450	12D35-	2	20
92.0	223	4.1	271	223	5.340	15.810	H600	12D35-	2	32
103	199	4.3	305	199	6.387	17.750	H850	12D35-	2	41
106	193	2.2	313	193	4.338	18.250	H320	12D35-	2	17
109	188	1.5	210	188	4.285	18.750	H210	12D35-	2	15
112	183	3.0	331	183	4.925	19.250	H450	12D35-	2	20
113	182	3.5	333	182	5.038	19.367	H600	12D35-	2	32
132	155	4.3	390	155	8.766	22.711	H1500	12D35-	2	71
134	153	3.5	397	153	5.653	23.103	H850	12D35-	2	41
146	141	2.3	430	141	4.512	25.056	H450	12D35-	2	20
147	140	2.8	433	140	4.579	25.207	H600	12D35-	2	32
161	128	4.1	474	128	7.627	27.578	H1500	12D35-	2	71
165	125	3.4	486	125	5.141	28.315	H850	12D35-	2	41
169	119	3.8	500	119	6.723	29.536	H850	12D35-	3	42
179	113	2.5	528	113	5.108	31.197	H600	12D35-	3	33
181	113	2.1	450	113	4.379	31.167	H450	12D35-	2	20
183	112	2.7	538	112	4.423	31.356	H600	12D35-	2	32
208	98.8	3.3	613	98.8	6.325	35.689	H1500	12D35-	2	71
216	94.8	2.6	639	94.8	4.719	37.190	H850	12D35-	2	41
217	93.3	3.0	639	93.3	5.932	37.799	H850	12D35-	3	42
229	88.3	2.0	600	88.3	4.762	39.925	H600	12D35-	3	33
237	85.2	2.7	699	85.2	5.726	41.350	H850	12D35-	3	42
250	80.7	1.8	600	80.7	4.658	43.676	H600	12D35-	3	33
252	81.4	3.1	744	81.4	5.711	43.313	H1500	12D35-	2	71
263	78.1	2.4	676	78.1	4.531	45.136	H850	12D35-	2	41
302	66.8	2.4	850	66.8	5.269	52.743	H850	12D35-	3	42
319	64.4	2.5	827	64.4	5.134	54.750	H1500	12D35-	2	71
319	63.3	1.6	600	63.3	4.464	55.710	H600	12D35-	3	33



Technical data

Selection tables

Inverter mains connection 400 V, Forced ventilated motors

Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, th}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
354	57.1	3.6	1045	57.1	8.157	61.774	H1500	12D35-	3	72
370	54.6	2.0	850	54.6	4.992	64.610	H850	12D35-	3	42
391	51.7	1.3	600	51.7	4.351	68.244	H600	12D35-	3	33
452	44.7	2.8	1333	44.7	6.783	78.794	H1500	12D35-	3	72
482	41.9	1.7	850	41.9	4.551	84.096	H850	12D35-	3	42
553	36.5	2.6	1500	36.5	6.202	96.522	H1500	12D35-	3	72
600	33.7	1.3	850	33.7	4.405	104.607	H850	12D35-	3	42
617	32.8	4.6	1819	32.8	8.608	107.541	H3000	12D35-	3	117
720	28.1	2.0	1500	28.1	5.672	125.632	H1500	12D35-	3	72
749	27.0	3.8	2209	27.0	7.519	130.585	H3000	12D35-	3	117
883	22.9	1.6	1500	22.9	5.068	153.976	H1500	12D35-	3	72
969	20.9	2.9	2859	20.9	6.261	168.993	H3000	12D35-	3	117
1160	17.4	1.2	1500	17.4	4.676	202.237	H1500	12D35-	3	72
1176	17.2	2.4	3000	17.2	5.667	205.096	H3000	12D35-	3	117
1272	15.7	1.1	1500	15.7	4.722	225.125	H1500	12D35-	4	75
1280	15.6	2.0	2650	15.6	5.052	226.604	H3000	12D35-	4	120
1407	14.4	1.0	1500	14.4	4.503	245.442	H1500	12D35-	3	72
1487	13.6	1.9	3000	13.6	5.107	259.250	H3000	12D35-	3	117
1652	12.1	1.7	3000	12.1	5.219	292.511	H3000	12D35-	4	120
2126	9.4	1.3	3000	9.4	4.670	376.393	H3000	12D35-	4	120
2581	7.7	1.1	3000	7.7	4.581	457.048	H3000	12D35-	4	120

Technical data

Selection tables

Inverter mains connection 400 V, Forced ventilated motors



2.9 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
54.0	505	3.3	179	505	17.500	3.267	H600	12L17-	2	38
56.0	487	2.2	126	487	12.130	3.389	H210	12L17-	2	21
56.0	487	2.6	153	487	11.825	3.389	H320	12L17-	2	23
57.0	479	3.3	188	479	15.543	3.444	H450	12L17-	2	27
74.0	368	2.7	209	368	14.853	4.480	H600	12L17-	2	38
77.0	355	1.8	143	355	11.577	4.648	H210	12L17-	2	21
77.0	355	2.2	175	355	11.415	4.648	H320	12L17-	2	23
78.0	349	2.7	220	349	13.813	4.724	H450	12L17-	2	27
89.0	307	2.9	262	307	16.988	5.368	H850	12L17-	2	47
95.0	288	2.3	224	288	13.466	5.733	H600	12L17-	2	38
100	273	2.3	237	273	12.831	6.045	H450	12L17-	2	27
100	271	2.2	227	271	12.255	6.083	H320	12L17-	2	23
103	264	1.5	158	264	11.784	6.250	H210	12L17-	2	21
106	256	3.3	353	256	15.044	6.456	H600	12L17-	2	38
109	250	2.2	247	250	12.576	6.613	H450	12L17-	2	27
138	198	1.8	249	198	11.644	8.343	H320	12L17-	2	23
141	193	1.2	171	193	11.393	8.571	H210	12L17-	2	21
145	188	2.5	370	188	13.004	8.800	H450	12L17-	2	27
146	186	2.7	412	186	13.547	8.853	H600	12L17-	2	38
167	163	2.9	496	163	15.729	10.143	H850	12L17-	2	47
176	155	1.5	265	155	11.323	10.677	H320	12L17-	2	23
186	147	2.1	400	147	12.337	11.262	H450	12L17-	2	27
187	146	2.3	443	146	12.669	11.330	H600	12L17-	2	38
187	145	2.7	525	145	14.823	11.360	H850	12L17-	2	47
193	141	1.4	271	141	11.225	11.680	H320	12L17-	2	23
203	134	2.0	411	134	12.163	12.320	H450	12L17-	2	27
204	133	2.2	463	133	12.441	12.395	H600	12L17-	2	38
226	121	2.9	669	121	20.663	13.673	H1500	12L17-	2	77
239	114	2.3	564	114	13.661	14.490	H850	12L17-	2	47
246	111	1.2	294	111	11.044	14.898	H320	12L17-	2	23
259	105	1.7	441	105	11.769	15.714	H450	12L17-	2	27
261	104	1.9	498	104	11.940	15.810	H600	12L17-	2	38
293	93.0	2.0	593	93.0	12.987	17.750	H850	12L17-	2	47
301	90.4	1.0	313	90.4	10.938	18.250	H320	12L17-	2	23
318	85.7	1.4	448	85.7	11.525	19.250	H450	12L17-	2	27
319	85.2	1.6	524	85.2	11.638	19.367	H600	12L17-	2	38
375	72.7	1.9	747	72.7	15.366	22.711	H1500	12L17-	2	77
381	71.4	1.6	620	71.4	12.253	23.103	H850	12L17-	2	47
413	65.9	1.1	450	65.9	11.112	25.056	H450	12L17-	2	27
416	65.5	1.3	546	65.5	11.179	25.207	H600	12L17-	2	38
455	59.8	1.7	777	59.8	14.227	27.578	H1500	12L17-	2	77
467	58.3	1.4	650	58.3	11.741	28.315	H850	12L17-	2	47
480	55.9	1.7	850	55.9	13.323	29.536	H850	12L17-	3	48
507	52.9	1.2	600	52.9	11.708	31.197	H600	12L17-	3	39
517	52.6	1.1	566	52.6	11.023	31.356	H600	12L17-	2	38
589	46.2	1.4	806	46.2	12.925	35.689	H1500	12L17-	2	77
613	44.4	1.1	668	44.4	11.319	37.190	H850	12L17-	2	47
614	43.7	1.3	850	43.7	12.532	37.799	H850	12L17-	3	48
672	39.9	1.2	850	39.9	12.326	41.350	H850	12L17-	3	48
714	38.1	1.1	817	38.1	12.311	43.313	H1500	12L17-	2	77
1004	26.7	1.5	1500	26.7	14.757	61.774	H1500	12L17-	3	78



Technical data

Selection tables

Inverter mains connection 400 V, Forced ventilated motors

Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, \text{th}}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
1052	25.5	2.9	3000	25.5	20.227	64.744	H3000	12L17-	3	123
1280	20.9	1.2	1500	20.9	13.383	78.794	H1500	12L17-	3	78
1747	15.3	1.7	3000	15.3	15.208	107.541	H3000	12L17-	3	123
2122	12.6	1.4	3000	12.6	14.119	130.585	H3000	12L17-	3	123
2746	9.8	1.1	3000	9.8	12.861	168.993	H3000	12L17-	3	123

Technical data

Selection tables

Inverter mains connection 400 V, Forced ventilated motors



3 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
72.0	381	4.3	167	381	28.297	3.147	H850	14H12-	2	52
74.0	367	3.2	174	367	21.100	3.267	H600	14H12-	2	43
77.0	354	2.1	165	354	15.425	3.389	H320	14H12-	2	28
79.0	348	3.3	183	348	19.143	3.444	H450	14H12-	2	32
99.0	275	3.8	232	275	22.986	4.362	H850	14H12-	2	52
102	268	2.9	238	268	18.453	4.480	H600	14H12-	2	43
106	258	1.8	189	258	15.015	4.648	H320	14H12-	2	28
108	254	2.7	251	254	17.413	4.724	H450	14H12-	2	32
122	224	3.4	285	224	20.588	5.368	H850	14H12-	2	52
131	209	2.6	305	209	17.066	5.733	H600	14H12-	2	43
136	202	4.1	316	202	24.632	5.946	H850	14H12-	2	52
138	199	2.3	321	199	16.431	6.045	H450	14H12-	2	32
139	197	1.6	227	197	15.855	6.083	H320	14H12-	2	28
142	192	4.2	332	192	33.063	6.245	H1500	14H12-	2	82
147	186	2.7	343	186	18.644	6.456	H600	14H12-	2	43
151	182	2.2	334	182	16.176	6.613	H450	14H12-	2	32
188	146	3.3	438	146	21.078	8.241	H850	14H12-	2	52
190	144	1.3	249	144	15.244	8.343	H320	14H12-	2	28
201	136	1.8	370	136	16.604	8.800	H450	14H12-	2	32
202	136	2.4	471	136	17.147	8.853	H600	14H12-	2	43
231	118	2.9	539	118	19.329	10.143	H850	14H12-	2	52
243	112	1.1	265	112	14.923	10.677	H320	14H12-	2	28
257	107	1.6	400	107	15.937	11.262	H450	14H12-	2	32
258	106	2.1	537	106	16.269	11.330	H600	14H12-	2	43
259	106	3.8	604	106	27.006	11.356	H1500	14H12-	2	82
259	106	2.7	604	106	18.423	11.360	H850	14H12-	2	52
265	103	4.2	618	103	44.515	11.619	H3000	14H12-	2	123
266	103	1.0	271	103	14.825	11.680	H320	14H12-	2	28
281	97.4	1.5	411	97.4	15.763	12.320	H450	14H12-	2	32
283	96.8	2.0	553	96.8	16.041	12.395	H600	14H12-	2	43
312	87.8	3.4	727	87.8	24.263	13.673	H1500	14H12-	2	82
330	82.8	2.3	758	82.8	17.261	14.490	H850	14H12-	2	52
358	76.4	1.2	441	76.4	15.369	15.714	H450	14H12-	2	32
360	75.9	1.7	600	75.9	15.540	15.810	H600	14H12-	2	43
382	71.6	2.9	891	71.6	22.034	16.763	H1500	14H12-	2	82
405	67.6	2.0	814	67.6	16.587	17.750	H850	14H12-	2	52
428	64.0	2.9	997	64.0	29.400	18.752	H3000	14H12-	2	123
439	62.3	1.0	448	62.3	15.125	19.250	H450	14H12-	2	32
442	62.0	1.4	600	62.0	15.238	19.367	H600	14H12-	2	43
518	52.8	2.3	1167	52.8	18.966	22.711	H1500	14H12-	2	82
525	52.1	2.4	1225	52.1	25.550	23.044	H3000	14H12-	2	123
527	51.9	1.6	850	51.9	15.853	23.103	H850	14H12-	2	52
575	47.6	1.0	600	47.6	14.779	25.207	H600	14H12-	2	43
629	43.5	1.9	1212	43.5	17.827	27.578	H1500	14H12-	2	82
646	42.4	1.3	850	42.4	15.341	28.315	H850	14H12-	2	52
663	40.6	1.3	850	40.6	16.923	29.536	H850	14H12-	3	53
680	40.2	1.9	1300	40.2	21.504	29.822	H3000	14H12-	2	123
814	33.6	1.5	1257	33.6	16.525	35.689	H1500	14H12-	2	82
825	33.2	1.6	1316	33.2	19.577	36.193	H3000	14H12-	2	123
849	31.7	1.0	850	31.7	16.132	37.799	H850	14H12-	3	53
988	27.7	1.3	1272	27.7	15.911	43.313	H1500	14H12-	2	82



Technical data

Selection tables

Inverter mains connection 400 V, Forced ventilated motors

Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, \text{th}}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
1006	26.8	1.5	1500	26.8	20.604	44.814	H1500	14H12-	3	83
1043	26.2	1.3	1332	26.2	17.743	45.750	H3000	14H12-	2	123
1060	25.4	2.7	2471	25.4	29.942	47.186	H3000	14H12-	3	128
1208	22.3	2.4	2816	22.3	26.374	53.770	H3000	14H12-	3	128
1387	19.4	1.1	1500	19.4	18.357	61.774	H1500	14H12-	3	83
1454	18.5	2.1	3000	18.5	23.827	64.744	H3000	14H12-	3	128
1783	15.1	1.7	3000	15.1	21.744	79.375	H3000	14H12-	3	128
2415	11.2	1.2	3000	11.2	18.808	107.541	H3000	14H12-	3	128
2933	9.2	1.0	3000	9.2	17.719	130.585	H3000	14H12-	3	128

Technical data

Selection tables

Inverter mains connection 400 V, Forced ventilated motors



3.3 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
33.0	918	5.7	92.0	803	15.000	3.267	H600	14D30-	2	38
35.0	885	3.8	95.0	844	9.325	3.389	H320	14D30-	2	23
35.0	871	5.8	97.0	764	13.043	3.444	H450	14D30-	2	27
46.0	670	5.2	126	665	12.353	4.480	H600	14D30-	2	38
47.0	646	3.2	131	646	8.915	4.648	H320	14D30-	2	23
48.0	635	4.8	133	623	11.313	4.724	H450	14D30-	2	27
55.0	559	6.0	151	549	14.488	5.368	H850	14D30-	2	47
58.0	523	4.6	161	523	10.966	5.733	H600	14D30-	2	38
62.0	496	4.2	170	496	10.331	6.045	H450	14D30-	2	27
62.0	493	2.9	171	445	9.755	6.083	H320	14D30-	2	23
66.0	465	4.9	182	394	12.544	6.456	H600	14D30-	2	38
67.0	454	3.9	186	454	10.076	6.613	H450	14D30-	2	27
84.0	364	5.8	232	315	14.978	8.241	H850	14D30-	2	47
85.0	360	2.3	235	360	9.144	8.343	H320	14D30-	2	23
90.0	341	3.3	248	309	10.504	8.800	H450	14D30-	2	27
90.0	339	4.3	249	325	11.047	8.853	H600	14D30-	2	38
103	296	5.1	285	282	13.229	10.143	H850	14D30-	2	47
109	281	1.9	265	281	8.823	10.677	H320	14D30-	2	23
115	266	2.8	317	266	9.837	11.262	H450	14D30-	2	27
115	265	3.7	319	265	10.169	11.330	H600	14D30-	2	38
116	264	4.8	320	258	12.323	11.360	H850	14D30-	2	47
119	257	1.8	271	257	8.725	11.680	H320	14D30-	2	23
126	244	2.6	347	244	9.663	12.320	H450	14D30-	2	27
126	242	3.5	349	242	9.941	12.395	H600	14D30-	2	38
139	219	6.0	385	215	18.163	13.673	H1500	14D30-	2	77
148	207	4.1	408	207	11.161	14.490	H850	14D30-	2	47
152	201	1.5	294	201	8.544	14.898	H320	14D30-	2	23
160	191	2.2	441	191	9.269	15.714	H450	14D30-	2	27
161	190	3.0	445	190	9.440	15.810	H600	14D30-	2	38
171	179	5.1	472	179	15.934	16.763	H1500	14D30-	2	77
181	169	3.6	499	169	10.487	17.750	H850	14D30-	2	47
191	160	5.1	528	160	23.300	18.752	H3000	14D30-	2	118
196	156	1.8	448	156	9.025	19.250	H450	14D30-	2	27
197	155	2.4	545	155	9.138	19.367	H600	14D30-	2	38
231	132	4.0	639	132	12.866	22.711	H1500	14D30-	2	77
235	130	4.2	648	130	19.450	23.044	H3000	14D30-	2	118
235	130	2.9	650	130	9.753	23.103	H850	14D30-	2	47
255	120	1.4	450	120	8.612	25.056	H450	14D30-	2	27
257	119	1.9	600	119	8.679	25.207	H600	14D30-	2	38
281	109	3.9	776	109	11.727	27.578	H1500	14D30-	2	77
288	106	2.7	797	106	9.241	28.315	H850	14D30-	2	47
296	102	2.3	819	102	10.823	29.536	H850	14D30-	3	48
304	101	3.9	839	101	15.404	29.822	H3000	14D30-	2	118
313	96.2	1.5	600	96.2	9.208	31.197	H600	14D30-	3	39
364	84.1	3.1	1004	84.1	10.425	35.689	H1500	14D30-	2	77
369	82.9	3.2	1018	82.9	13.477	36.193	H3000	14D30-	2	118
379	79.4	1.8	850	79.4	10.032	37.799	H850	14D30-	3	48
401	75.1	1.2	600	75.1	8.862	39.925	H600	14D30-	3	39
415	72.6	1.6	850	72.6	9.826	41.350	H850	14D30-	3	48
438	68.7	1.1	600	68.7	8.758	43.676	H600	14D30-	3	39
441	69.3	2.9	1219	69.3	9.811	43.313	H1500	14D30-	2	77



Technical data

Selection tables

Inverter mains connection 400 V, Forced ventilated motors

Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, th}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
450	66.9	2.7	1242	63.6	14.504	44.814	H1500	14D30-	3	78
466	65.6	2.9	1287	65.6	11.643	45.750	H3000	14D30-	2	118
473	63.6	5.4	1308	63.6	23.842	47.186	H3000	14D30-	3	123
529	56.9	1.5	850	56.9	9.369	52.743	H850	14D30-	3	48
540	55.8	4.9	1490	55.8	20.274	53.770	H3000	14D30-	3	123
620	48.6	2.2	1500	48.6	12.257	61.774	H1500	14D30-	3	78
648	46.4	1.2	850	46.4	9.092	64.610	H850	14D30-	3	48
650	46.3	4.2	1794	46.3	17.727	64.744	H3000	14D30-	3	123
791	38.1	1.7	1500	38.1	10.883	78.794	H1500	14D30-	3	78
796	37.8	3.4	2200	37.8	15.644	79.375	H3000	14D30-	3	123
844	35.7	1.0	850	35.7	8.651	84.096	H850	14D30-	3	48
969	31.1	1.6	1500	31.1	10.302	96.522	H1500	14D30-	3	78
1079	27.9	2.8	2980	27.9	12.708	107.541	H3000	14D30-	3	123
1261	23.9	1.2	1500	23.9	9.772	125.632	H1500	14D30-	3	78
1310	23.0	2.3	3000	23.0	11.619	130.585	H3000	14D30-	3	123
1696	17.8	1.8	3000	17.8	10.361	168.993	H3000	14D30-	3	123
2058	14.6	1.5	3000	14.6	9.767	205.096	H3000	14D30-	3	123
2891	10.3	1.0	3000	10.3	9.319	292.511	H3000	14D30-	4	126

Technical data

Selection tables

Inverter mains connection 400 V, Forced ventilated motors



3.7 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
33.0	1033	4.2	92.0	755	14.200	3.267	H600	12H34-	2	35
35.0	996	2.8	95.0	792	8.830	3.389	H210	12H34-	2	18
35.0	996	3.4	95.0	824	8.525	3.389	H320	12H34-	2	20
35.0	980	4.2	97.0	716	12.243	3.444	H450	12H34-	2	24
46.0	753	3.5	126	615	11.553	4.480	H600	12H34-	2	35
47.0	726	2.3	131	653	8.277	4.648	H210	12H34-	2	18
47.0	726	2.8	131	681	8.115	4.648	H320	12H34-	2	20
48.0	715	3.5	133	583	10.513	4.724	H450	12H34-	2	24
55.0	629	3.7	151	497	13.688	5.368	H850	12H34-	2	44
58.0	589	2.9	161	538	10.166	5.733	H600	12H34-	2	35
62.0	558	2.9	170	510	9.531	6.045	H450	12H34-	2	24
62.0	555	2.8	171	442	8.955	6.083	H320	12H34-	2	20
64.0	540	1.9	158	389	8.484	6.250	H210	12H34-	2	18
66.0	523	4.2	182	382	11.744	6.456	H600	12H34-	2	35
67.0	510	2.8	186	479	9.276	6.613	H450	12H34-	2	24
85.0	405	2.2	235	362	8.344	8.343	H320	12H34-	2	20
87.0	394	1.5	171	294	8.093	8.571	H210	12H34-	2	18
90.0	384	3.2	248	307	9.704	8.800	H450	12H34-	2	24
90.0	381	3.5	249	311	10.247	8.853	H600	12H34-	2	35
103	333	3.7	285	263	12.429	10.143	H850	12H34-	2	44
109	316	1.9	265	295	8.023	10.677	H320	12H34-	2	20
115	300	2.7	317	268	9.037	11.262	H450	12H34-	2	24
115	298	2.9	319	272	9.369	11.330	H600	12H34-	2	35
116	297	3.5	320	242	11.523	11.360	H850	12H34-	2	44
119	289	1.7	271	272	7.925	11.680	H320	12H34-	2	20
122	281	1.2	186	222	7.797	12.000	H210	12H34-	2	18
126	274	2.5	347	251	8.863	12.320	H450	12H34-	2	24
126	272	2.8	349	255	9.141	12.395	H600	12H34-	2	35
139	247	3.7	385	195	17.363	13.673	H1500	12H34-	2	74
148	233	2.9	408	214	10.361	14.490	H850	12H34-	2	44
152	227	1.5	294	227	7.744	14.898	H320	12H34-	2	20
160	215	2.1	441	212	8.469	15.714	H450	12H34-	2	24
161	214	2.4	445	214	8.640	15.810	H600	12H34-	2	35
181	190	2.5	499	186	9.687	17.750	H850	12H34-	2	44
186	185	1.3	313	185	7.638	18.250	H320	12H34-	2	20
196	175	1.7	448	175	8.225	19.250	H450	12H34-	2	24
197	174	2.0	524	174	8.338	19.367	H600	12H34-	2	35
231	149	2.5	639	144	12.066	22.711	H1500	12H34-	2	74
235	146	2.0	620	146	8.953	23.103	H850	12H34-	2	44
255	135	1.4	450	135	7.812	25.056	H450	12H34-	2	24
257	134	1.6	546	134	7.879	25.207	H600	12H34-	2	35
281	122	2.4	776	122	10.927	27.578	H1500	12H34-	2	74
288	119	2.0	650	119	8.441	28.315	H850	12H34-	2	44
296	114	2.2	819	110	10.023	29.536	H850	12H34-	3	45
313	108	1.5	600	104	8.408	31.197	H600	12H34-	3	36
318	108	1.2	450	108	7.679	31.167	H450	12H34-	2	24
319	108	1.5	566	108	7.723	31.356	H600	12H34-	2	35
364	94.6	1.9	806	94.6	9.625	35.689	H1500	12H34-	2	74
379	90.7	1.5	668	90.7	8.019	37.190	H850	12H34-	2	44
379	89.3	1.7	850	89.3	9.232	37.799	H850	12H34-	3	45
401	84.5	1.1	600	81.9	8.062	39.925	H600	12H34-	3	36



Technical data

Selection tables

Inverter mains connection 400 V, Forced ventilated motors

Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, \text{th}}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
415	81.6	1.6	850	81.1	9.026	41.350	H850	12H34-	3	45
438	77.3	1.0	600	76.2	7.958	43.676	H600	12H34-	3	36
441	77.9	1.8	817	77.9	9.011	43.313	H1500	12H34-	2	74
460	74.8	1.4	676	74.8	7.831	45.136	H850	12H34-	2	44
529	64.0	1.4	850	64.0	8.569	52.743	H850	12H34-	3	45
558	61.6	1.4	827	61.6	8.434	54.750	H1500	12H34-	2	74
620	54.6	2.1	1500	51.8	11.457	61.774	H1500	12H34-	3	75
648	52.2	1.1	850	52.2	8.292	64.610	H850	12H34-	3	45
650	52.1	4.0	1794	52.1	16.927	64.744	H3000	12H34-	3	120
791	42.8	1.6	1500	42.3	10.083	78.794	H1500	12H34-	3	75
969	35.0	1.5	1500	35.0	9.502	96.522	H1500	12H34-	3	75
1079	31.4	2.7	2980	31.4	11.908	107.541	H3000	12H34-	3	120
1261	26.9	1.1	1500	26.9	8.972	125.632	H1500	12H34-	3	75
1310	25.8	2.2	3000	25.8	10.819	130.585	H3000	12H34-	3	120
1696	20.0	1.7	3000	20.0	9.561	168.993	H3000	12H34-	3	120
2058	16.5	1.4	3000	16.5	8.967	205.096	H3000	12H34-	3	120
2240	14.9	1.1	2650	14.9	8.352	226.604	H3000	12H34-	4	123
2601	13.0	1.1	3000	13.0	8.407	259.250	H3000	12H34-	3	120
2891	11.5	1.0	3000	11.5	8.519	292.511	H3000	12H34-	4	123

Technical data

Selection tables

Inverter mains connection 400 V, Forced ventilated motors



4.3 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
93.0	429	3.3	235	429	37.497	3.147	H850	14L14-	2	56
97.0	413	2.5	240	413	30.300	3.267	H600	14L14-	2	47
100	398	1.7	165	398	24.625	3.389	H320	14L14-	2	33
102	392	2.5	256	392	28.343	3.444	H450	14L14-	2	36
129	310	2.9	326	310	32.186	4.362	H850	14L14-	2	56
133	301	2.2	297	301	27.653	4.480	H600	14L14-	2	47
138	291	1.4	189	291	24.215	4.648	H320	14L14-	2	33
140	286	2.1	293	286	26.613	4.724	H450	14L14-	2	36
159	252	2.6	402	252	29.788	5.368	H850	14L14-	2	56
170	236	2.0	339	236	26.266	5.733	H600	14L14-	2	47
176	227	3.1	445	227	33.832	5.946	H850	14L14-	2	56
179	223	1.8	323	223	25.631	6.045	H450	14L14-	2	36
180	222	1.3	227	222	25.055	6.083	H320	14L14-	2	33
185	216	3.2	467	216	42.263	6.245	H1500	14L14-	2	86
191	209	2.1	404	209	27.844	6.456	H600	14L14-	2	47
196	204	1.7	334	204	25.376	6.613	H450	14L14-	2	36
244	164	2.5	615	164	30.278	8.241	H850	14L14-	2	56
247	162	1.0	249	162	24.444	8.343	H320	14L14-	2	33
260	153	1.4	370	153	25.804	8.800	H450	14L14-	2	36
262	153	1.9	487	153	26.347	8.853	H600	14L14-	2	47
300	133	2.2	667	133	28.529	10.143	H850	14L14-	2	56
333	120	1.2	400	120	25.137	11.262	H450	14L14-	2	36
335	119	1.6	537	119	25.469	11.330	H600	14L14-	2	47
336	119	3.0	849	119	36.206	11.356	H1500	14L14-	2	86
336	119	2.1	696	119	27.623	11.360	H850	14L14-	2	56
344	116	3.2	869	116	53.715	11.619	H3000	14L14-	2	128
365	110	1.1	411	110	24.963	12.320	H450	14L14-	2	36
367	109	1.5	553	109	25.241	12.395	H600	14L14-	2	47
405	98.7	2.6	1023	98.7	33.463	13.673	H1500	14L14-	2	86
429	93.2	1.8	758	93.2	26.461	14.490	H850	14L14-	2	56
468	85.4	1.3	600	85.4	24.740	15.810	H600	14L14-	2	47
496	80.5	2.2	1102	80.5	31.234	16.763	H1500	14L14-	2	86
525	76.1	1.6	814	76.1	25.787	17.750	H850	14L14-	2	56
555	72.0	2.2	1223	72.0	38.600	18.752	H3000	14L14-	2	128
573	69.7	1.1	600	69.7	24.438	19.367	H600	14L14-	2	47
672	59.4	1.7	1167	59.4	28.166	22.711	H1500	14L14-	2	86
682	58.6	1.8	1254	58.6	34.750	23.044	H3000	14L14-	2	128
684	58.4	1.2	850	58.4	25.053	23.103	H850	14L14-	2	56
816	49.0	1.5	1212	49.0	27.027	27.578	H1500	14L14-	2	86
838	47.7	1.0	850	47.7	24.541	28.315	H850	14L14-	2	56
882	45.3	1.5	1300	45.3	30.704	29.822	H3000	14L14-	2	128
1056	37.8	1.2	1257	37.8	25.725	35.689	H1500	14L14-	2	86
1071	37.3	1.2	1316	37.3	28.777	36.193	H3000	14L14-	2	128
1306	30.1	1.2	1500	30.1	29.804	44.814	H1500	14L14-	3	88
1375	28.6	2.1	2830	28.6	39.142	47.186	H3000	14L14-	3	133
1567	25.1	1.9	2950	25.1	35.574	53.770	H3000	14L14-	3	133
1887	20.9	1.6	3000	20.9	33.027	64.744	H3000	14L14-	3	133
2314	17.0	1.3	3000	17.0	30.944	79.375	H3000	14L14-	3	133



4.6 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
128	334	2.4	306	334	48.797	3.147	H850	14P11-	2	61
133	321	1.8	240	321	41.600	3.267	H600	14P11-	2	52
138	310	1.2	165	310	35.925	3.389	H320	14P11-	2	38
140	305	1.8	256	305	39.643	3.444	H450	14P11-	2	41
178	241	2.1	378	241	43.486	4.362	H850	14P11-	2	61
183	234	1.6	297	234	38.953	4.480	H600	14P11-	2	52
189	226	1.0	189	226	35.515	4.648	H320	14P11-	2	38
192	222	1.5	293	222	37.913	4.724	H450	14P11-	2	41
219	196	1.9	412	196	41.088	5.368	H850	14P11-	2	61
234	183	1.5	339	183	37.566	5.733	H600	14P11-	2	52
242	177	2.3	551	177	45.132	5.946	H850	14P11-	2	61
246	174	1.3	323	174	36.931	6.045	H450	14P11-	2	41
254	168	2.3	596	168	53.563	6.245	H1500	14P11-	2	91
263	163	1.5	404	163	39.144	6.456	H600	14P11-	2	52
269	159	1.2	334	159	36.676	6.613	H450	14P11-	2	41
336	127	1.8	615	127	41.578	8.241	H850	14P11-	2	61
359	119	1.0	370	119	37.104	8.800	H450	14P11-	2	41
361	119	1.4	487	119	37.647	8.853	H600	14P11-	2	52
413	104	1.6	667	104	39.829	10.143	H850	14P11-	2	61
462	92.7	1.2	537	92.7	36.769	11.330	H600	14P11-	2	52
463	92.5	2.1	992	92.5	47.506	11.356	H1500	14P11-	2	91
463	92.4	1.5	696	92.4	38.923	11.360	H850	14P11-	2	61
473	90.4	2.3	1100	90.4	65.015	11.619	H3000	14P11-	2	133
505	84.7	1.1	553	84.7	36.541	12.395	H600	14P11-	2	52
557	76.8	1.9	1047	76.8	44.763	13.673	H1500	14P11-	2	91
590	72.5	1.3	758	72.5	37.761	14.490	H850	14P11-	2	61
683	62.6	1.6	1102	62.6	42.534	16.763	H1500	14P11-	2	91
723	59.2	1.1	814	59.2	37.087	17.750	H850	14P11-	2	61
764	56.0	1.6	1223	56.0	49.900	18.752	H3000	14P11-	2	133
925	46.2	1.3	1167	46.2	39.466	22.711	H1500	14P11-	2	91
939	45.6	1.3	1254	45.6	46.050	23.044	H3000	14P11-	2	133
1124	38.1	1.1	1212	38.1	38.327	27.578	H1500	14P11-	2	91
1215	35.2	1.1	1300	35.2	42.004	29.822	H3000	14P11-	2	133
1894	22.3	1.5	2830	22.3	50.442	47.186	H3000	14P11-	3	138
2158	19.5	1.4	2950	19.5	46.874	53.770	H3000	14P11-	3	138
2599	16.2	1.2	3000	16.2	44.327	64.744	H3000	14P11-	3	138

Technical data

Selection tables

Inverter mains connection 400 V, Forced ventilated motors



4.8 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
116	381	2.6	263	381	79.097	3.147	H850	19F12-	2	61
138	321	5.3	312	321	102.796	3.743	H1500	19F12-	2	92
161	275	2.4	364	275	73.786	4.362	H850	19F12-	2	61
166	267	5.9	375	267	142.626	4.496	H3000	19F12-	2	133
175	252	4.8	397	252	92.688	4.758	H1500	19F12-	2	92
198	224	2.2	429	224	71.388	5.368	H850	19F12-	2	61
218	203	5.0	492	203	117.695	5.902	H3000	19F12-	2	133
219	202	2.5	496	202	75.432	5.946	H850	19F12-	2	61
230	192	4.0	521	192	83.863	6.245	H1500	19F12-	2	92
234	189	5.9	529	189	135.420	6.344	H3000	19F12-	2	133
280	158	4.4	633	158	88.724	7.592	H1500	19F12-	2	92
304	146	2.0	615	146	71.878	8.241	H850	19F12-	2	61
307	144	5.0	695	144	113.512	8.327	H3000	19F12-	2	133
374	118	1.8	667	118	70.129	10.143	H850	19F12-	2	61
419	106	3.3	948	106	77.806	11.356	H1500	19F12-	2	92
419	106	1.7	696	106	69.223	11.360	H850	19F12-	2	61
428	103	4.0	969	103	95.315	11.619	H3000	19F12-	2	133
504	87.8	2.8	1141	87.8	75.063	13.673	H1500	19F12-	2	92
525	84.3	3.4	1188	84.3	88.535	14.233	H3000	19F12-	2	133
618	71.6	2.4	1399	71.6	72.834	16.763	H1500	19F12-	2	92
691	64.0	2.8	1565	64.0	80.200	18.752	H3000	19F12-	2	133
850	52.1	2.3	1923	52.1	76.350	23.044	H3000	19F12-	2	133
1714	25.4	1.7	2830	25.4	80.742	47.186	H3000	19F12-	3	138
1953	22.3	1.5	2950	22.3	77.174	53.770	H3000	19F12-	3	138
2351	18.5	1.3	3000	18.5	74.627	64.744	H3000	19F12-	3	138
2883	15.1	1.0	3000	15.1	72.544	79.375	H3000	19F12-	3	138



5.7 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
44.0	1194	3.0	179	702	17.500	3.267	H600	12L39-	2	38
46.0	1151	2.0	126	739	12.130	3.389	H210	12L39-	2	21
46.0	1151	2.4	153	768	11.825	3.389	H320	12L39-	2	23
47.0	1132	3.0	188	666	15.543	3.444	H450	12L39-	2	27
61.0	871	2.5	209	572	14.853	4.480	H600	12L39-	2	38
63.0	839	1.7	143	571	11.577	4.648	H210	12L39-	2	21
63.0	839	2.0	175	635	11.415	4.648	H320	12L39-	2	23
64.0	826	2.5	220	543	13.813	4.724	H450	12L39-	2	27
73.0	727	2.6	262	461	16.988	5.368	H850	12L39-	2	47
78.0	680	2.1	224	501	13.466	5.733	H600	12L39-	2	38
82.0	645	2.1	237	475	12.831	6.045	H450	12L39-	2	27
83.0	641	2.0	227	410	12.255	6.083	H320	12L39-	2	23
85.0	624	1.4	158	325	11.784	6.250	H210	12L39-	2	21
88.0	604	3.0	353	355	15.044	6.456	H600	12L39-	2	38
90.0	590	2.0	247	446	12.576	6.613	H450	12L39-	2	27
113	468	1.6	249	313	11.644	8.343	H320	12L39-	2	23
116	455	1.1	171	249	11.393	8.571	H210	12L39-	2	21
120	443	2.3	370	285	13.004	8.800	H450	12L39-	2	27
120	441	2.5	412	290	13.547	8.853	H600	12L39-	2	38
138	385	2.6	496	244	15.729	10.143	H850	12L39-	2	47
145	365	1.3	265	251	11.323	10.677	H320	12L39-	2	23
153	346	1.9	400	246	12.337	11.262	H450	12L39-	2	27
154	344	2.1	443	253	12.669	11.330	H600	12L39-	2	38
154	343	2.5	525	225	14.823	11.360	H850	12L39-	2	47
159	334	1.2	271	234	11.225	11.680	H320	12L39-	2	23
167	317	1.8	411	225	12.163	12.320	H450	12L39-	2	27
168	315	2.0	463	238	12.441	12.395	H600	12L39-	2	38
186	285	2.6	669	181	20.663	13.673	H1500	12L39-	2	77
197	269	2.1	564	199	13.661	14.490	H850	12L39-	2	47
202	262	1.1	294	202	11.044	14.898	H320	12L39-	2	23
213	248	1.5	441	183	11.769	15.714	H450	12L39-	2	27
215	247	1.7	498	192	11.940	15.810	H600	12L39-	2	38
241	220	1.8	593	168	12.987	17.750	H850	12L39-	2	47
261	203	1.3	448	159	11.525	19.250	H450	12L39-	2	27
263	201	1.5	524	170	11.638	19.367	H600	12L39-	2	38
308	172	1.8	747	129	15.366	22.711	H1500	12L39-	2	77
314	169	1.4	620	140	12.253	23.103	H850	12L39-	2	47
342	155	1.2	546	140	11.179	25.207	H600	12L39-	2	38
375	141	1.7	777	124	14.227	27.578	H1500	12L39-	2	77
385	138	1.4	650	129	11.741	28.315	H850	12L39-	2	47
395	132	1.6	850	93.8	13.323	29.536	H850	12L39-	3	48
417	125	1.1	600	88.2	11.708	31.197	H600	12L39-	3	39
426	124	1.1	566	124	11.023	31.356	H600	12L39-	2	38
485	109	1.4	806	101	12.925	35.689	H1500	12L39-	2	77
505	105	1.1	668	105	11.319	37.190	H850	12L39-	2	47
506	103	1.2	850	74.6	12.532	37.799	H850	12L39-	3	48
553	94.3	1.1	850	68.7	12.326	41.350	H850	12L39-	3	48
588	90.0	1.3	817	90.0	12.311	43.313	H1500	12L39-	2	77
613	86.4	1.0	676	86.4	11.131	45.136	H850	12L39-	2	47
706	73.9	1.0	850	59.5	11.869	52.743	H850	12L39-	3	48
744	71.2	1.0	827	71.2	11.734	54.750	H1500	12L39-	2	77

Technical data

Selection tables

Inverter mains connection 400 V, Forced ventilated motors



Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, \text{th}}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
827	63.1	1.5	1500	43.8	14.757	61.774	H1500	12L39-	3	78
866	60.2	2.9	3000	50.7	20.227	64.744	H3000	12L39-	3	123
1054	49.5	1.2	1500	35.4	13.383	78.794	H1500	12L39-	3	78
1291	40.4	1.1	1500	31.5	12.802	96.522	H1500	12L39-	3	78
1439	36.3	1.9	3000	36.3	15.208	107.541	H3000	12L39-	3	123
1747	29.9	1.6	3000	29.9	14.119	130.585	H3000	12L39-	3	123
2261	23.1	1.2	3000	23.1	12.861	168.993	H3000	12L39-	3	123
2744	19.0	1.0	3000	19.0	12.267	205.096	H3000	12L39-	3	123



Technical data

Selection tables

Inverter mains connection 400 V, Forced ventilated motors

6 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
63.0	882	4.0	167	662	28.297	3.147	H850	14H28-	2	52
65.0	850	3.0	174	703	21.100	3.267	H600	14H28-	2	43
67.0	819	2.0	165	740	15.425	3.389	H320	14H28-	2	28
69.0	806	3.0	183	669	19.143	3.444	H450	14H28-	2	32
87.0	636	3.6	232	537	22.986	4.362	H850	14H28-	2	52
89.0	619	2.7	238	583	18.453	4.480	H600	14H28-	2	43
92.0	597	1.7	189	574	15.015	4.648	H320	14H28-	2	28
94.0	587	2.5	251	545	17.413	4.724	H450	14H28-	2	32
107	517	3.1	285	481	20.588	5.368	H850	14H28-	2	52
114	484	2.4	305	484	17.066	5.733	H600	14H28-	2	43
118	467	3.8	316	346	24.632	5.946	H850	14H28-	2	52
120	459	2.2	321	459	16.431	6.045	H450	14H28-	2	32
121	456	1.5	227	356	15.855	6.083	H320	14H28-	2	28
124	444	3.9	332	349	33.063	6.245	H1500	14H28-	2	82
128	430	2.6	343	343	18.644	6.456	H600	14H28-	2	43
132	420	2.1	334	420	16.176	6.613	H450	14H28-	2	32
164	337	3.1	438	275	21.078	8.241	H850	14H28-	2	52
166	333	1.2	249	273	15.244	8.343	H320	14H28-	2	28
175	315	1.7	370	255	16.604	8.800	H450	14H28-	2	32
176	313	2.3	471	283	17.147	8.853	H600	14H28-	2	43
202	274	2.7	539	246	19.329	10.143	H850	14H28-	2	52
212	260	1.0	265	225	14.923	10.677	H320	14H28-	2	28
224	246	1.5	400	211	15.937	11.262	H450	14H28-	2	32
225	245	1.9	537	245	16.269	11.330	H600	14H28-	2	43
226	244	3.6	604	206	27.006	11.356	H1500	14H28-	2	82
226	244	2.5	604	226	18.423	11.360	H850	14H28-	2	52
231	239	3.9	618	188	44.515	11.619	H3000	14H28-	2	123
245	225	1.4	411	195	15.763	12.320	H450	14H28-	2	32
247	224	1.8	553	224	16.041	12.395	H600	14H28-	2	43
272	203	3.1	727	189	24.263	13.673	H1500	14H28-	2	82
288	192	2.1	758	192	17.261	14.490	H850	14H28-	2	52
313	177	1.2	441	163	15.369	15.714	H450	14H28-	2	32
314	176	1.6	600	176	15.540	15.810	H600	14H28-	2	43
333	166	2.7	891	162	22.034	16.763	H1500	14H28-	2	82
353	156	1.9	814	156	16.587	17.750	H850	14H28-	2	52
373	148	2.7	997	145	29.400	18.752	H3000	14H28-	2	123
385	143	1.3	600	143	15.238	19.367	H600	14H28-	2	43
452	122	2.1	1167	122	18.966	22.711	H1500	14H28-	2	82
458	120	2.2	1225	120	25.550	23.044	H3000	14H28-	2	123
460	120	1.5	850	120	15.853	23.103	H850	14H28-	2	52
549	101	2.1	1212	101	17.827	27.578	H1500	14H28-	2	82
563	98.0	1.4	850	98.0	15.341	28.315	H850	14H28-	2	52
579	94.0	1.2	850	81.8	16.923	29.536	H850	14H28-	3	53
593	93.1	2.0	1300	93.1	21.504	29.822	H3000	14H28-	2	123
710	77.8	1.6	1257	77.8	16.525	35.689	H1500	14H28-	2	82
720	76.7	1.7	1316	76.7	19.577	36.193	H3000	14H28-	2	123
861	64.1	1.5	1272	64.1	15.911	43.313	H1500	14H28-	2	82
878	61.9	1.4	1500	48.5	20.604	44.814	H1500	14H28-	3	83
910	60.7	1.5	1332	60.7	17.743	45.750	H3000	14H28-	2	123
924	58.8	2.8	2471	55.9	29.942	47.186	H3000	14H28-	3	128
1053	51.6	2.6	2816	51.6	26.374	53.770	H3000	14H28-	3	128

Technical data

Selection tables

Inverter mains connection 400 V, Forced ventilated motors



Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, th}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
1210	44.9	1.2	1500	38.3	18.357	61.774	H1500	14H28-	3	83
1268	42.9	2.2	3000	42.9	23.827	64.744	H3000	14H28-	3	128
1555	35.0	1.8	3000	35.0	21.744	79.375	H3000	14H28-	3	128
2107	25.8	1.4	3000	25.8	18.808	107.541	H3000	14H28-	3	128
2558	21.3	1.2	3000	21.3	17.719	130.585	H3000	14H28-	3	128

7.9 kW

Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, th}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
191	381	1.6	306	381	119.097	3.147	H850	19J12-	2	68
227	321	3.2	468	321	142.796	3.743	H1500	19J12-	2	99
264	275	1.4	378	275	113.786	4.362	H850	19J12-	2	68
273	267	3.6	563	267	182.626	4.496	H3000	19J12-	2	140
289	252	2.9	596	252	132.688	4.758	H1500	19J12-	2	99
326	224	1.3	429	224	111.388	5.368	H850	19J12-	2	68
358	203	3.0	739	203	157.695	5.902	H3000	19J12-	2	140
361	202	1.5	551	202	115.432	5.946	H850	19J12-	2	68
379	192	2.4	782	192	123.863	6.245	H1500	19J12-	2	99
385	189	3.6	794	189	175.420	6.344	H3000	19J12-	2	140
460	158	2.6	950	158	128.724	7.592	H1500	19J12-	2	99
500	146	1.2	615	146	111.878	8.241	H850	19J12-	2	68
505	144	3.0	1042	144	153.512	8.327	H3000	19J12-	2	140
615	118	1.1	667	118	110.129	10.143	H850	19J12-	2	68
689	106	2.0	1400	106	117.806	11.356	H1500	19J12-	2	99
689	106	1.0	696	106	109.223	11.360	H850	19J12-	2	68
705	103	2.4	1454	103	135.315	11.619	H3000	19J12-	2	140
829	87.8	1.7	1430	87.8	115.063	13.673	H1500	19J12-	2	99
863	84.3	2.1	1781	84.3	128.535	14.233	H3000	19J12-	2	140
1016	71.6	1.4	1450	71.6	112.834	16.763	H1500	19J12-	2	99
1137	64.0	1.7	1901	64.0	120.200	18.752	H3000	19J12-	2	140
1397	52.1	1.4	1948	52.1	116.350	23.044	H3000	19J12-	2	140
2818	25.4	1.0	2830	25.4	120.742	47.186	H3000	19J12-	3	145



Technical data

Selection tables

Inverter mains connection 400 V, Forced ventilated motors

8 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
78.0	953	3.1	235	625	37.497	3.147	H850	14L30-	2	56
81.0	918	2.4	240	665	30.300	3.267	H600	14L30-	2	47
84.0	885	1.6	165	646	24.625	3.389	H320	14L30-	2	33
85.0	871	2.4	256	632	28.343	3.444	H450	14L30-	2	36
108	688	2.8	326	508	32.186	4.362	H850	14L30-	2	56
111	670	2.1	297	552	27.653	4.480	H600	14L30-	2	47
115	646	1.3	189	505	24.215	4.648	H320	14L30-	2	33
117	635	2.0	293	518	26.613	4.724	H450	14L30-	2	36
133	559	2.5	402	455	29.788	5.368	H850	14L30-	2	56
142	523	1.9	339	483	26.266	5.733	H600	14L30-	2	47
147	505	3.0	445	327	33.832	5.946	H850	14L30-	2	56
150	496	1.7	323	431	25.631	6.045	H450	14L30-	2	36
151	493	1.2	227	315	25.055	6.083	H320	14L30-	2	33
155	480	3.1	467	331	42.263	6.245	H1500	14L30-	2	86
160	465	2.0	404	324	27.844	6.456	H600	14L30-	2	47
164	454	1.6	334	398	25.376	6.613	H450	14L30-	2	36
204	364	2.4	615	260	30.278	8.241	H850	14L30-	2	56
218	341	1.4	370	224	25.804	8.800	H450	14L30-	2	36
219	339	1.8	487	258	26.347	8.853	H600	14L30-	2	47
251	296	2.1	667	232	28.529	10.143	H850	14L30-	2	56
279	266	1.1	400	186	25.137	11.262	H450	14L30-	2	36
280	265	1.5	537	215	25.469	11.330	H600	14L30-	2	47
281	264	2.8	849	195	36.206	11.356	H1500	14L30-	2	86
281	264	2.0	696	214	27.623	11.360	H850	14L30-	2	56
287	258	3.0	869	178	53.715	11.619	H3000	14L30-	2	128
305	244	1.1	411	174	24.963	12.320	H450	14L30-	2	36
307	242	1.4	553	199	25.241	12.395	H600	14L30-	2	47
338	219	2.5	1023	178	33.463	13.673	H1500	14L30-	2	86
358	207	1.7	758	179	26.461	14.490	H850	14L30-	2	56
391	190	1.2	600	166	24.740	15.810	H600	14L30-	2	47
415	179	2.1	1102	154	31.234	16.763	H1500	14L30-	2	86
439	169	1.5	814	152	25.787	17.750	H850	14L30-	2	56
464	160	2.1	1223	138	38.600	18.752	H3000	14L30-	2	128
562	132	1.7	1167	125	28.166	22.711	H1500	14L30-	2	86
570	130	1.8	1254	121	34.750	23.044	H3000	14L30-	2	128
572	130	1.2	850	128	25.053	23.103	H850	14L30-	2	56
682	109	1.6	1212	109	27.027	27.578	H1500	14L30-	2	86
701	106	1.1	850	106	24.541	28.315	H850	14L30-	2	56
738	101	1.6	1300	101	30.704	29.822	H3000	14L30-	2	128
883	84.1	1.3	1257	84.1	25.725	35.689	H1500	14L30-	2	86
895	82.9	1.3	1316	82.9	28.777	36.193	H3000	14L30-	2	128
1072	69.3	1.2	1272	69.3	25.111	43.313	H1500	14L30-	2	86
1092	66.9	1.1	1500	42.9	29.804	44.814	H1500	14L30-	3	88
1132	65.6	1.2	1332	65.6	26.943	45.750	H3000	14L30-	2	128
1150	63.6	2.2	2830	52.8	39.142	47.186	H3000	14L30-	3	133
1310	55.8	2.0	2950	49.7	35.574	53.770	H3000	14L30-	3	133
1578	46.3	1.7	3000	42.7	33.027	64.744	H3000	14L30-	3	133
1934	37.8	1.4	3000	34.8	30.944	79.375	H3000	14L30-	3	133
2621	27.9	1.1	3000	27.9	28.008	107.541	H3000	14L30-	3	133

Technical data

Selection tables

Inverter mains connection 400 V, Forced ventilated motors



9 kW

Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, \text{th}}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
220	381	1.4	306	381	174.097	3.147	H850	19P12-	2	78
261	321	2.8	690	321	197.796	3.743	H1500	19P12-	2	109
305	275	1.2	378	275	168.786	4.362	H850	19P12-	2	78
314	267	3.1	829	267	237.626	4.496	H3000	19P12-	2	150
332	252	2.5	837	252	187.688	4.758	H1500	19P12-	2	109
375	224	1.2	429	224	166.388	5.368	H850	19P12-	2	78
412	203	2.6	1088	203	212.695	5.902	H3000	19P12-	2	150
415	202	1.3	551	202	170.432	5.946	H850	19P12-	2	78
436	192	2.1	926	192	178.863	6.245	H1500	19P12-	2	109
443	189	3.1	1169	189	230.420	6.344	H3000	19P12-	2	150
530	158	2.3	1217	158	183.724	7.592	H1500	19P12-	2	109
576	146	1.1	615	146	166.878	8.241	H850	19P12-	2	78
582	144	2.6	1535	144	208.512	8.327	H3000	19P12-	2	150
793	106	1.8	1400	106	172.806	11.356	H1500	19P12-	2	109
812	103	2.1	1709	103	190.315	11.619	H3000	19P12-	2	150
955	87.8	1.5	1430	87.8	170.063	13.673	H1500	19P12-	2	109
994	84.3	1.8	1799	84.3	183.535	14.233	H3000	19P12-	2	150
1171	71.6	1.2	1450	71.6	167.834	16.763	H1500	19P12-	2	109
1310	64.0	1.5	1901	64.0	175.200	18.752	H3000	19P12-	2	150
1610	52.1	1.2	1948	52.1	171.350	23.044	H3000	19P12-	2	150



9.1 kW

Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, th}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
101	834	2.5	306	593	48.797	3.147	H850	14P26-	2	61
105	804	1.9	240	624	41.600	3.267	H600	14P26-	2	52
109	775	1.3	165	580	35.925	3.389	H320	14P26-	2	38
110	762	1.9	256	597	39.643	3.444	H450	14P26-	2	41
140	602	2.3	378	483	43.486	4.362	H850	14P26-	2	61
143	586	1.7	297	501	38.953	4.480	H600	14P26-	2	52
149	565	1.1	189	457	35.515	4.648	H320	14P26-	2	38
151	556	1.6	293	458	37.913	4.724	H450	14P26-	2	41
172	489	2.0	412	434	41.088	5.368	H850	14P26-	2	61
184	458	1.5	339	426	37.566	5.733	H600	14P26-	2	52
190	442	2.4	551	310	45.132	5.946	H850	14P26-	2	61
194	434	1.4	323	383	36.931	6.045	H450	14P26-	2	41
200	420	2.5	596	315	53.563	6.245	H1500	14P26-	2	91
207	407	1.6	404	288	39.144	6.456	H600	14P26-	2	52
212	397	1.3	334	356	36.676	6.613	H450	14P26-	2	41
264	319	1.9	615	245	41.578	8.241	H850	14P26-	2	61
282	298	1.1	370	202	37.104	8.800	H450	14P26-	2	41
283	297	1.4	487	229	37.647	8.853	H600	14P26-	2	52
325	259	1.7	667	209	39.829	10.143	H850	14P26-	2	61
363	232	1.2	537	192	36.769	11.330	H600	14P26-	2	52
364	231	2.3	992	186	47.506	11.356	H1500	14P26-	2	91
364	231	1.6	696	189	38.923	11.360	H850	14P26-	2	61
372	226	2.5	1100	170	65.015	11.619	H3000	14P26-	2	133
397	212	1.2	553	179	36.541	12.395	H600	14P26-	2	52
438	192	2.0	1047	170	44.763	13.673	H1500	14P26-	2	91
464	181	1.4	758	159	37.761	14.490	H850	14P26-	2	61
537	157	1.7	1102	140	42.534	16.763	H1500	14P26-	2	91
568	148	1.2	814	138	37.087	17.750	H850	14P26-	2	61
600	140	1.7	1223	125	49.900	18.752	H3000	14P26-	2	133
727	116	1.3	1167	113	39.466	22.711	H1500	14P26-	2	91
738	114	1.4	1254	108	46.050	23.044	H3000	14P26-	2	133
883	95.2	1.3	1212	95.2	38.327	27.578	H1500	14P26-	2	91
955	88.0	1.3	1300	88.0	42.004	29.822	H3000	14P26-	2	133
1143	73.6	1.0	1257	73.6	37.025	35.689	H1500	14P26-	2	91
1159	72.5	1.1	1316	72.5	40.077	36.193	H3000	14P26-	2	133
1488	55.6	1.8	2830	48.6	50.442	47.186	H3000	14P26-	3	138
1696	48.8	1.6	2950	44.2	46.874	53.770	H3000	14P26-	3	138
2042	40.5	1.4	3000	37.8	44.327	64.744	H3000	14P26-	3	138
2503	33.1	1.1	3000	31.5	42.244	79.375	H3000	14P26-	3	138

Technical data

Selection tables

Inverter mains connection 400 V, Forced ventilated motors



9.7 kW

Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, th}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
99.0	906	2.5	263	591	79.097	3.147	H850	19F29-	2	61
118	761	5.0	312	489	102.796	3.743	H1500	19F29-	2	92
138	653	2.2	364	482	73.786	4.362	H850	19F29-	2	61
142	634	5.6	375	387	142.626	4.496	H3000	19F29-	2	133
150	599	4.5	397	416	92.688	4.758	H1500	19F29-	2	92
169	531	2.1	429	412	71.388	5.368	H850	19F29-	2	61
186	483	4.7	492	330	117.695	5.902	H3000	19F29-	2	133
187	479	2.4	496	309	75.432	5.946	H850	19F29-	2	61
197	456	3.8	521	347	83.863	6.245	H1500	19F29-	2	92
200	449	5.6	529	274	135.420	6.344	H3000	19F29-	2	133
239	375	4.1	633	255	88.724	7.592	H1500	19F29-	2	92
260	346	1.9	615	243	71.878	8.241	H850	19F29-	2	61
263	342	4.7	695	234	113.512	8.327	H3000	19F29-	2	133
320	281	1.7	667	207	70.129	10.143	H850	19F29-	2	61
358	251	3.2	948	195	77.806	11.356	H1500	19F29-	2	92
358	251	1.6	696	188	69.223	11.360	H850	19F29-	2	61
366	245	3.8	969	187	95.315	11.619	H3000	19F29-	2	133
431	208	2.7	1141	162	75.063	13.673	H1500	19F29-	2	92
449	200	3.2	1188	155	88.535	14.233	H3000	19F29-	2	133
529	170	2.2	1399	132	72.834	16.763	H1500	19F29-	2	92
591	152	2.6	1565	118	80.200	18.752	H3000	19F29-	2	133
727	124	2.2	1923	95.9	76.350	23.044	H3000	19F29-	2	133
1466	60.4	1.8	2830	46.8	80.742	47.186	H3000	19F29-	3	138
1670	53.0	1.6	2950	41.1	77.174	53.770	H3000	19F29-	3	138
2011	44.0	1.4	3000	34.1	74.627	64.744	H3000	19F29-	3	138
2465	35.9	1.1	3000	27.9	72.544	79.375	H3000	19F29-	3	138



15.1 kW

Inverter operation							Geared motor		Number of stages	
M_2	n_2	c	$M_{2, \max}$	$n_{2, th}$	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
154	906	1.6	306	491	119.097	3.147	H850	19J29-	2	68
183	761	3.2	468	441	142.796	3.743	H1500	19J29-	2	99
214	653	1.4	378	389	113.786	4.362	H850	19J29-	2	68
220	634	3.6	563	349	182.626	4.496	H3000	19J29-	2	140
233	599	2.9	596	376	132.688	4.758	H1500	19J29-	2	99
263	531	1.3	429	342	111.388	5.368	H850	19J29-	2	68
289	483	3.0	739	297	157.695	5.902	H3000	19J29-	2	140
291	479	1.5	551	253	115.432	5.946	H850	19J29-	2	68
306	456	2.4	782	314	123.863	6.245	H1500	19J29-	2	99
311	449	3.6	794	248	175.420	6.344	H3000	19J29-	2	140
372	375	2.6	950	230	128.724	7.592	H1500	19J29-	2	99
404	346	1.2	615	190	111.878	8.241	H850	19J29-	2	68
408	342	3.0	1042	211	153.512	8.327	H3000	19J29-	2	140
497	281	1.1	667	164	110.129	10.143	H850	19J29-	2	68
556	251	2.0	1400	181	117.806	11.356	H1500	19J29-	2	99
557	251	1.0	696	151	109.223	11.360	H850	19J29-	2	68
569	245	2.4	1454	169	135.315	11.619	H3000	19J29-	2	140
670	208	1.7	1430	156	115.063	13.673	H1500	19J29-	2	99
697	200	2.1	1781	152	128.535	14.233	H3000	19J29-	2	140
821	170	1.4	1450	128	112.834	16.763	H1500	19J29-	2	99
919	152	1.7	1901	118	120.200	18.752	H3000	19J29-	2	140
1129	124	1.4	1948	95.9	116.350	23.044	H3000	19J29-	2	140
2277	60.4	1.1	2830	38.3	120.742	47.186	H3000	19J29-	3	145
2595	53.0	1.0	2950	35.0	117.174	53.770	H3000	19J29-	3	145

Technical data

Selection tables

Inverter mains connection 400 V, Forced ventilated motors



15.8 kW

Inverter operation							Geared motor		Number of stages	
M ₂	n ₂	c	M _{2, max}	n _{2, th}	J	i	g500-	MCS	z	m
Nm	rpm		Nm	rpm	kgcm ²					kg
162	906	1.5	306	477	174.097	3.147	H850	19P29-	2	78
192	761	3.1	690	436	197.796	3.743	H1500	19P29-	2	109
224	653	1.4	378	379	168.786	4.362	H850	19P29-	2	78
231	634	3.4	829	345	237.626	4.496	H3000	19P29-	2	150
245	599	2.8	837	371	187.688	4.758	H1500	19P29-	2	109
276	531	1.3	429	333	166.388	5.368	H850	19P29-	2	78
303	483	2.9	1088	294	212.695	5.902	H3000	19P29-	2	150
306	479	1.5	551	246	170.432	5.946	H850	19P29-	2	78
321	456	2.3	926	310	178.863	6.245	H1500	19P29-	2	109
326	449	3.4	1169	245	230.420	6.344	H3000	19P29-	2	150
390	375	2.5	1217	227	183.724	7.592	H1500	19P29-	2	109
424	346	1.2	615	186	166.878	8.241	H850	19P29-	2	78
428	342	2.9	1535	208	208.512	8.327	H3000	19P29-	2	150
522	281	1.0	667	160	165.129	10.143	H850	19P29-	2	78
584	251	1.9	1400	178	172.806	11.356	H1500	19P29-	2	109
597	245	2.3	1709	167	190.315	11.619	H3000	19P29-	2	150
703	208	1.6	1430	152	170.063	13.673	H1500	19P29-	2	109
732	200	2.0	1799	150	183.535	14.233	H3000	19P29-	2	150
862	170	1.4	1450	125	167.834	16.763	H1500	19P29-	2	109
964	152	1.6	1901	118	175.200	18.752	H3000	19P29-	2	150
1185	124	1.3	1948	95.9	171.350	23.044	H3000	19P29-	2	150
2390	60.4	1.1	2830	37.5	175.742	47.186	H3000	19P29-	3	155



Dimensions

Notes on the basic dimensions

Gearbox	Without pre-stage	With pre-stage
g500-H45	2-stage	-
g500-H100 ... g500-H140	2-stage	3-stage
g500-H210 ... g500-H3000	2-/3-stage	4-stage

The ratio range of gearboxes with pre-stage is extended via an additional housing with gear stage between the gearbox and motor.

The basic dimensions are shown without pre-stage and are valid up to the following deviating dimensions for gearbox with pre-stage valid:

- Total length "L"
- Center distance "a" (gearbox output shaft – motor shaft)

Deviating dimensions: [► Gearbox with pre-stage](#) [□ 299](#)

Example

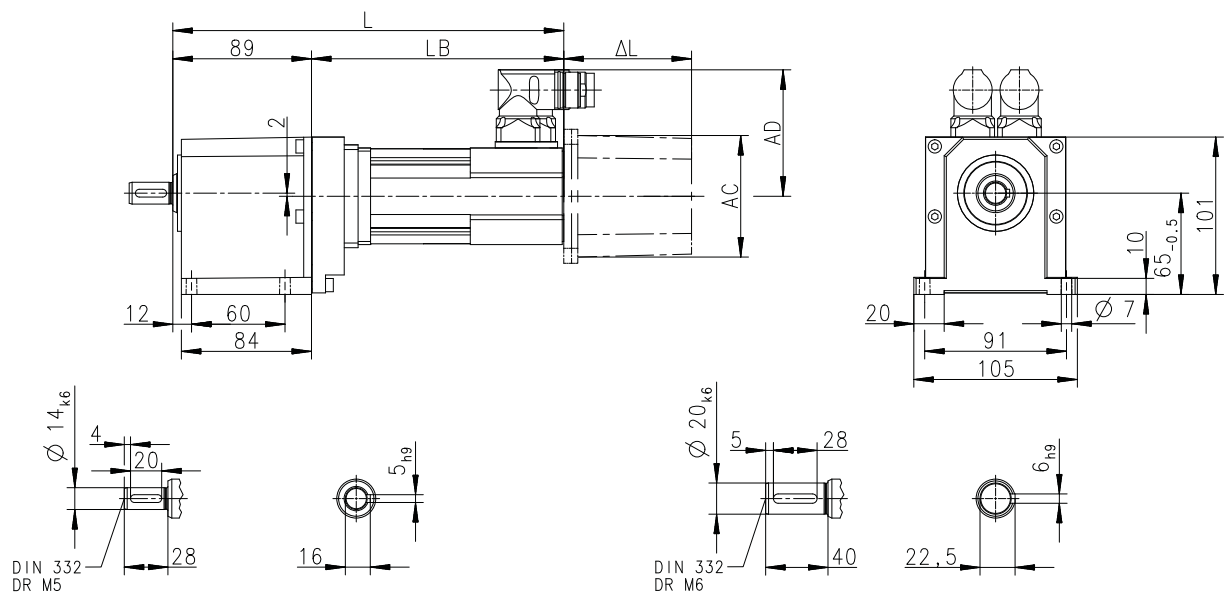
g500-H45 with MCS06

Gearbox version: Solid shaft with foot (VBR)

Explanation

Gearbox with motor

[► Designs](#) [□ 13](#)



Motor	MCS		
	06C41- 06C41L	06F41- 06F41L	06I41- 06I41L
Cooling type	natural	natural	natural
Table content		Explanation	
Total length	L	Total length of the drive with resolver	
Motor length	LB	Length of the motor with resolver	
Length of motor options	Δ L	Additional length (longest version) In detail ► Additional lengths □ 300	
Motor diameter	AC	Motor diameter	
Motor/connection distance	AD	Distance from motor center to connector end	



The dimensions shown in the dimensional drawings for the solid shafts with featherkey (V□□) also apply for solid shafts without a keyway (G□□).

Please observe the available output shaft designs!

► [The modular system](#)  11

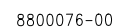


If the mounting area (foot support) towards the motor is longer than the gearbox foot, some motors collide with the mounting area!

For an accurate check of the geometrical data, Lenze recommends the use of the »Product Finder« at **www.Lenze.com**.



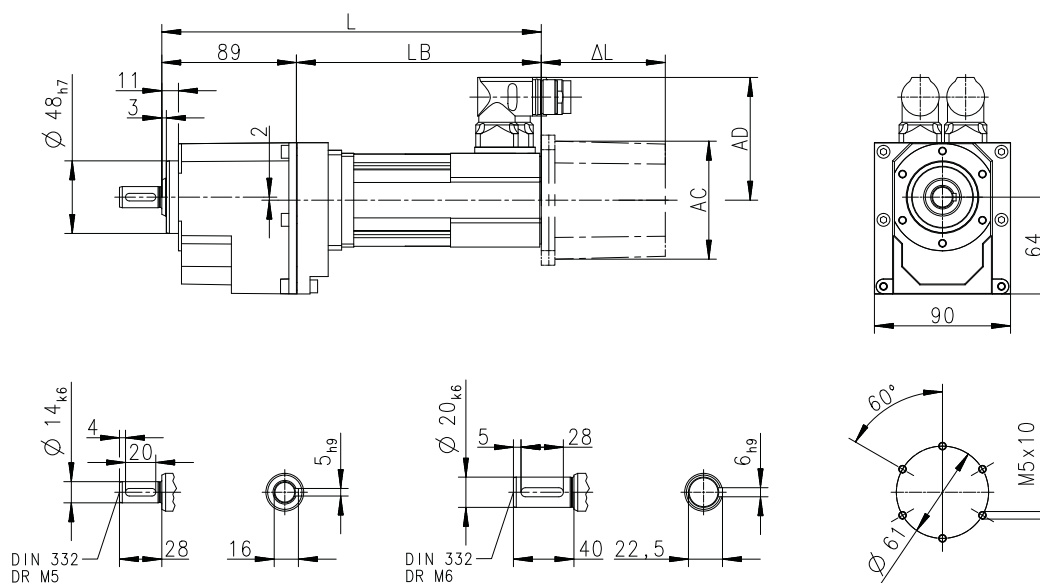
Gearbox version: Solid shaft with foot (VBR)

135



g500-H45, 2-stage with MCS06

Gearbox version: Solid shaft and centering (VCR)



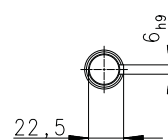
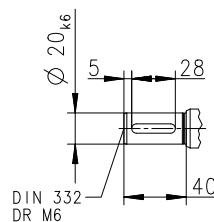
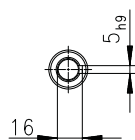
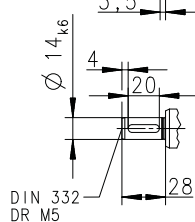
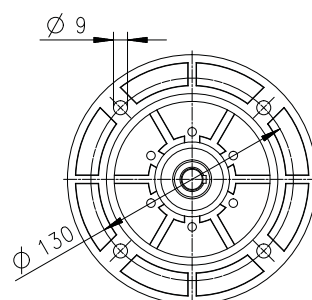
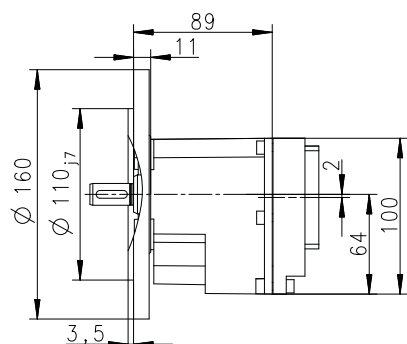
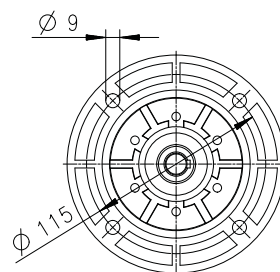
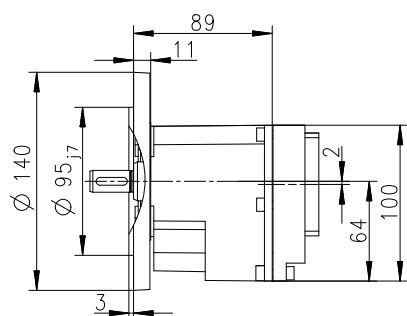
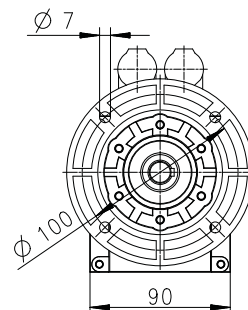
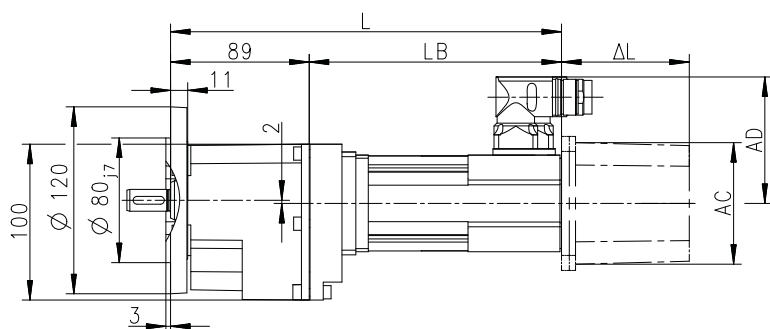
8800078-00

Motor			MCS		
			06C41- 06C41L	06F41- 06F41L	06I41- 06I41L
Cooling type			natural	natural	natural
Total length	L	mm	251	281	311
Motor length	LB	mm	162	192	222
Length of motor options	Δ L	mm	100		
Motor diameter	AC	mm	86		
Motor/connection distance	AD	mm	77		



g500-H45, 2-stage with MCS06

Gearbox version: Solid shaft and flange (VCK)



8800077-00

Motor			MCS		
			06C41-06C41L	06F41-06F41L	06I41-06I41L
Cooling type			natural	natural	natural
Total length	L	mm	251	281	311
Motor length	LB	mm	162	192	222
Length of motor options	Δ L	mm		100	
Motor diameter	AC	mm		86	
Motor/connection distance	AD	mm		77	

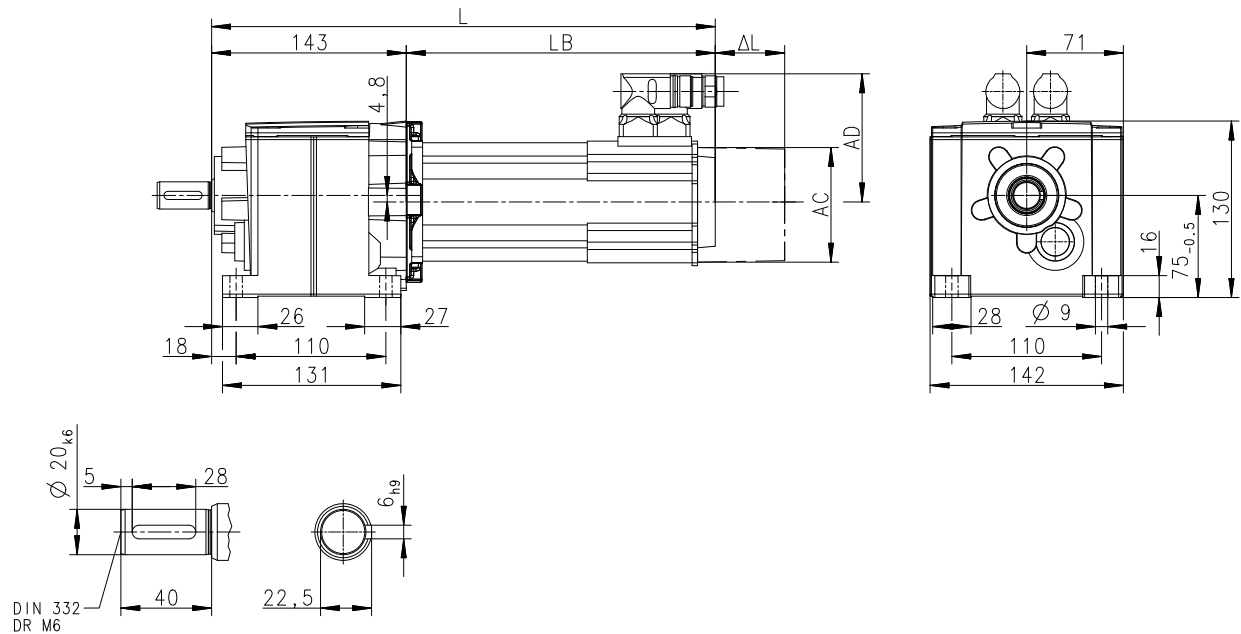
Technical data

Dimensions
Basic dimensions



g500-H100, 2-stage with MCS06

Gearbox version: Solid shaft with foot (VBR)



8800088-00

Motor			MCS		
			06C41- 06C41L	06F41- 06F41L	06I41- 06I41L
Cooling type			natural	natural	natural
Total length	L	mm	274	304	334
Motor length	LB	mm	131	161	191
Length of motor options	Δ L	mm	82		
Motor diameter	AC	mm	86		
Motor/connection distance	AD	mm	77		

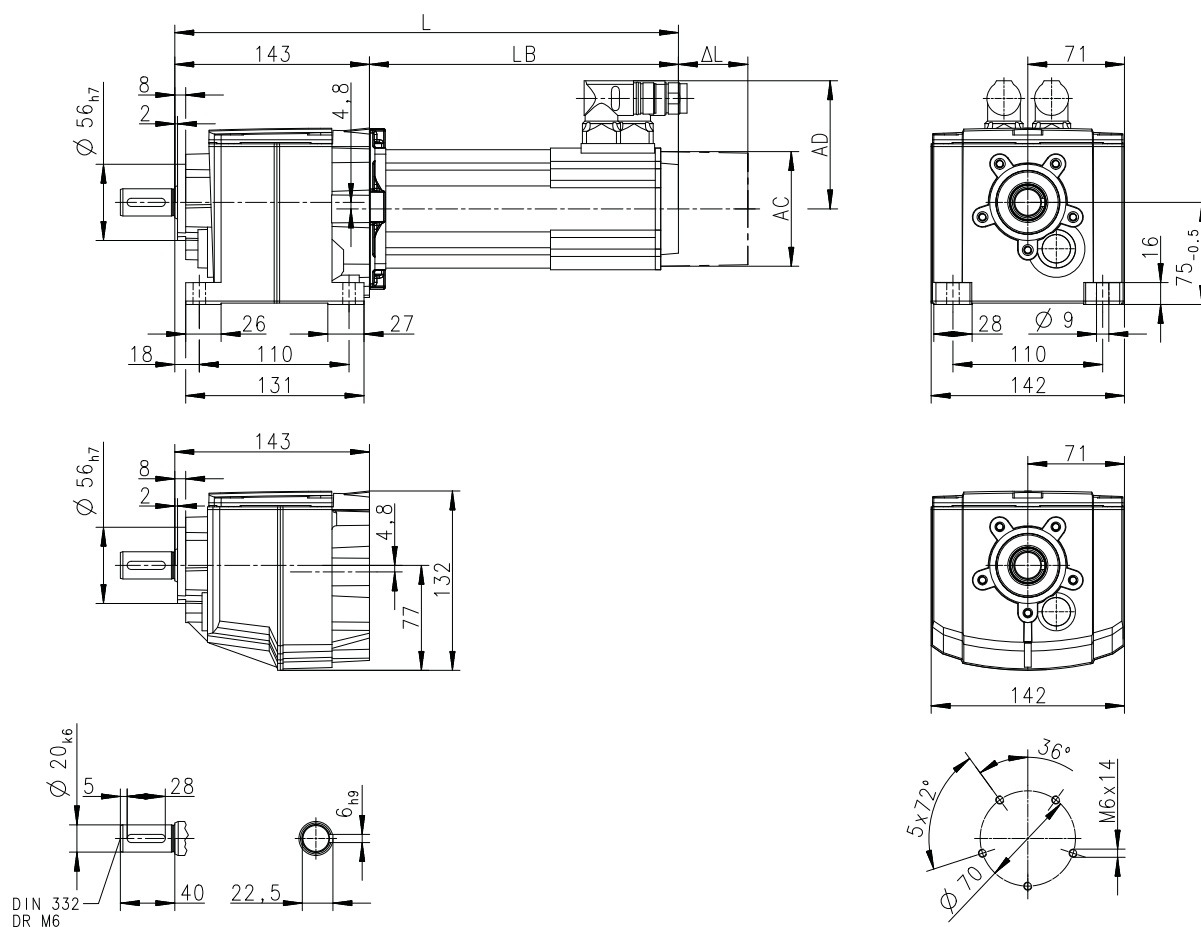


Technical data

Dimensions
Basic dimensions

g500-H100, 2-stage with MCS06

Gearbox version: Solid shaft with foot/centering (VAR/VCR)



8800090-00

Motor			MCS		
			06C41-06C41L	06F41-06F41L	06I41-06I41L
Cooling type			natural	natural	natural
Total length	L	mm	274	304	334
Motor length	LB	mm	131	161	191
Length of motor options	ΔL	mm	82		
Motor diameter	AC	mm	86		
Motor/connection distance	AD	mm	77		

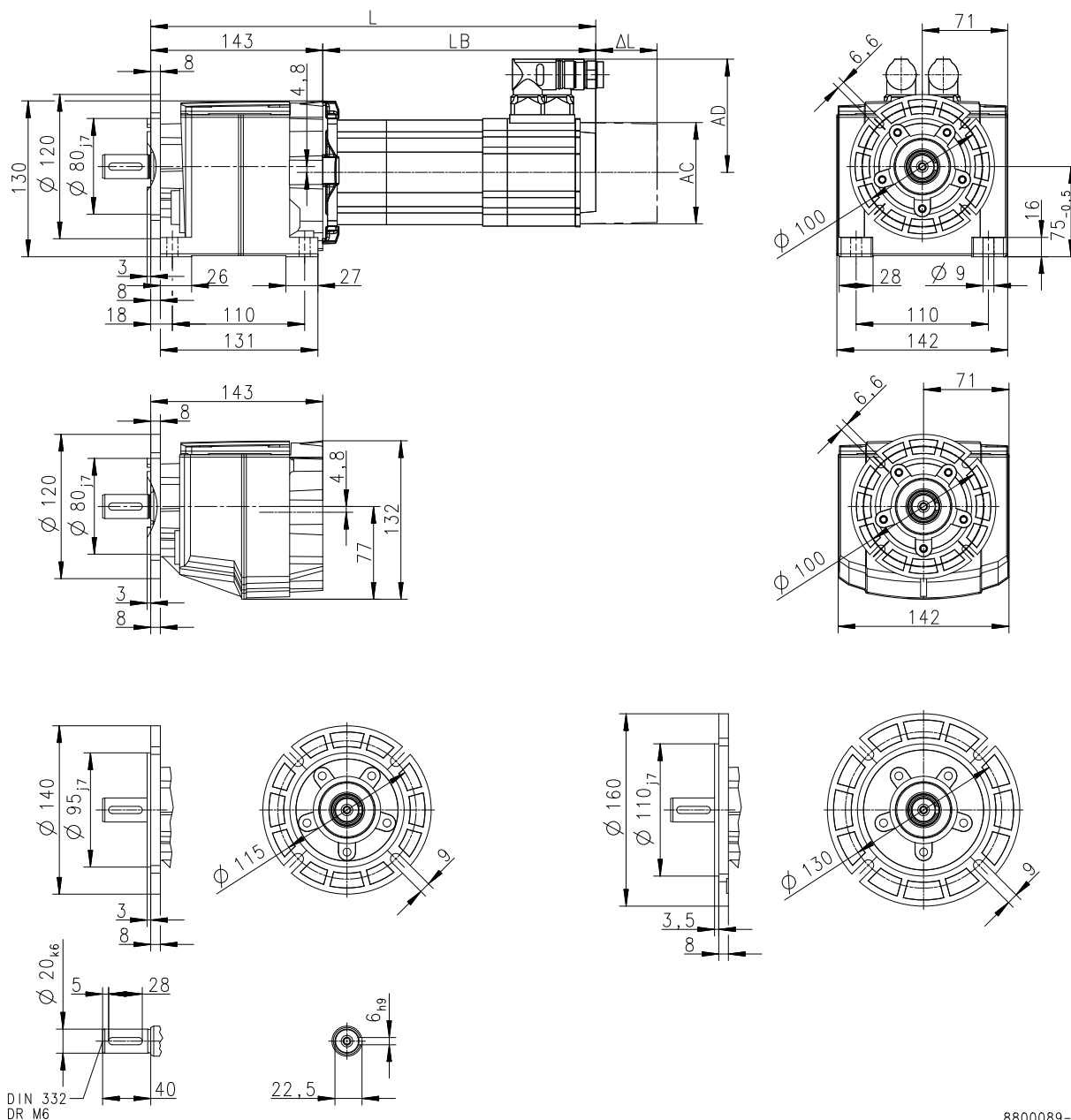
Technical data

Dimensions
Basic dimensions



g500-H100, 2-stage with MCS06

Gearbox version: Solid shaft with foot/flange (VAK/VCK)



8800089-03

Motor			MCS		
			06C41- 06C41L	06F41- 06F41L	06I41- 06I41L
Cooling type			natural	natural	natural
Total length	L	mm	274	304	334
Motor length	LB	mm	131	161	191
Length of motor options	ΔL	mm		82	
Motor diameter	AC	mm		86	
Motor/connection distance	AD	mm		77	



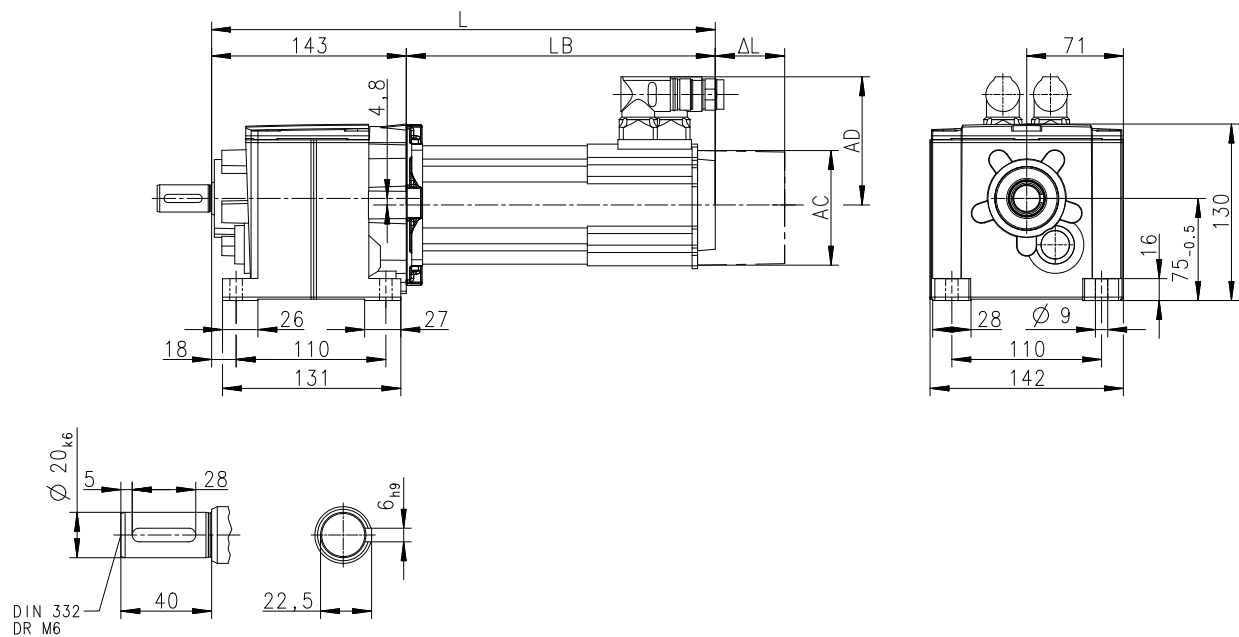
Technical data

Dimensions
Basic dimensions



g500-H100, 2-stage with MCS09

Gearbox version: Solid shaft with foot (VBR)



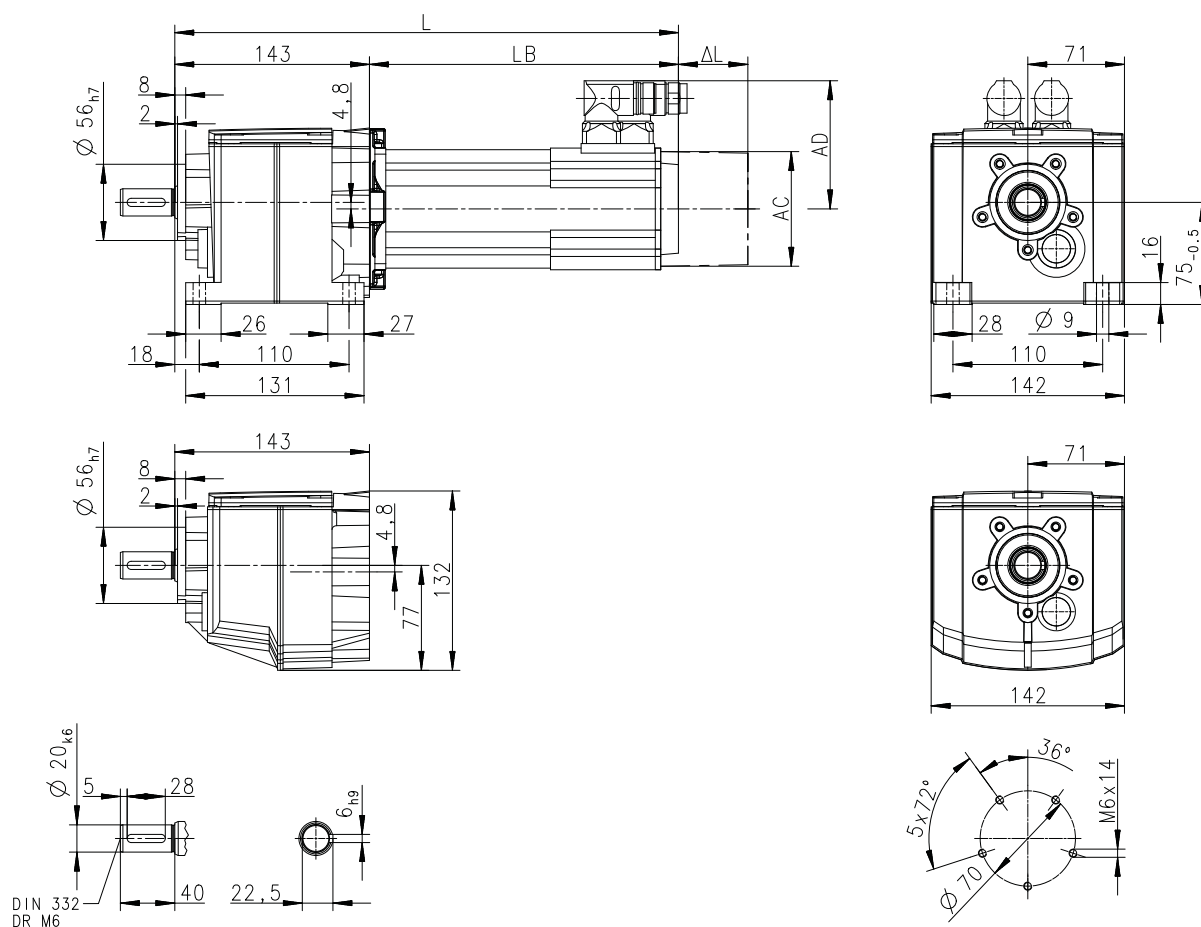
8800088-00

Motor			MCS			
			09D41- 09D41L	09F38- 09F38L	09H41- 09H41L	09L41- 09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	327	347	367	407
Motor length	LB	mm	184	204	224	264
Length of motor options	Δ L	mm	71			
Motor diameter	AC	mm	89			
Motor/connection distance	AD	mm	90			



g500-H100, 2-stage with MCS09

Gearbox version: Solid shaft with foot/centering (VAR/VCR)



8800090-00

Motor			MCS			
			09D41- 09D41L	09F38- 09F38L	09H41- 09H41L	09L41- 09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	327	347	367	407
Motor length	LB	mm	184	204	224	264
Length of motor options	Δ L	mm	71			
Motor diameter	AC	mm	89			
Motor/connection distance	AD	mm	90			

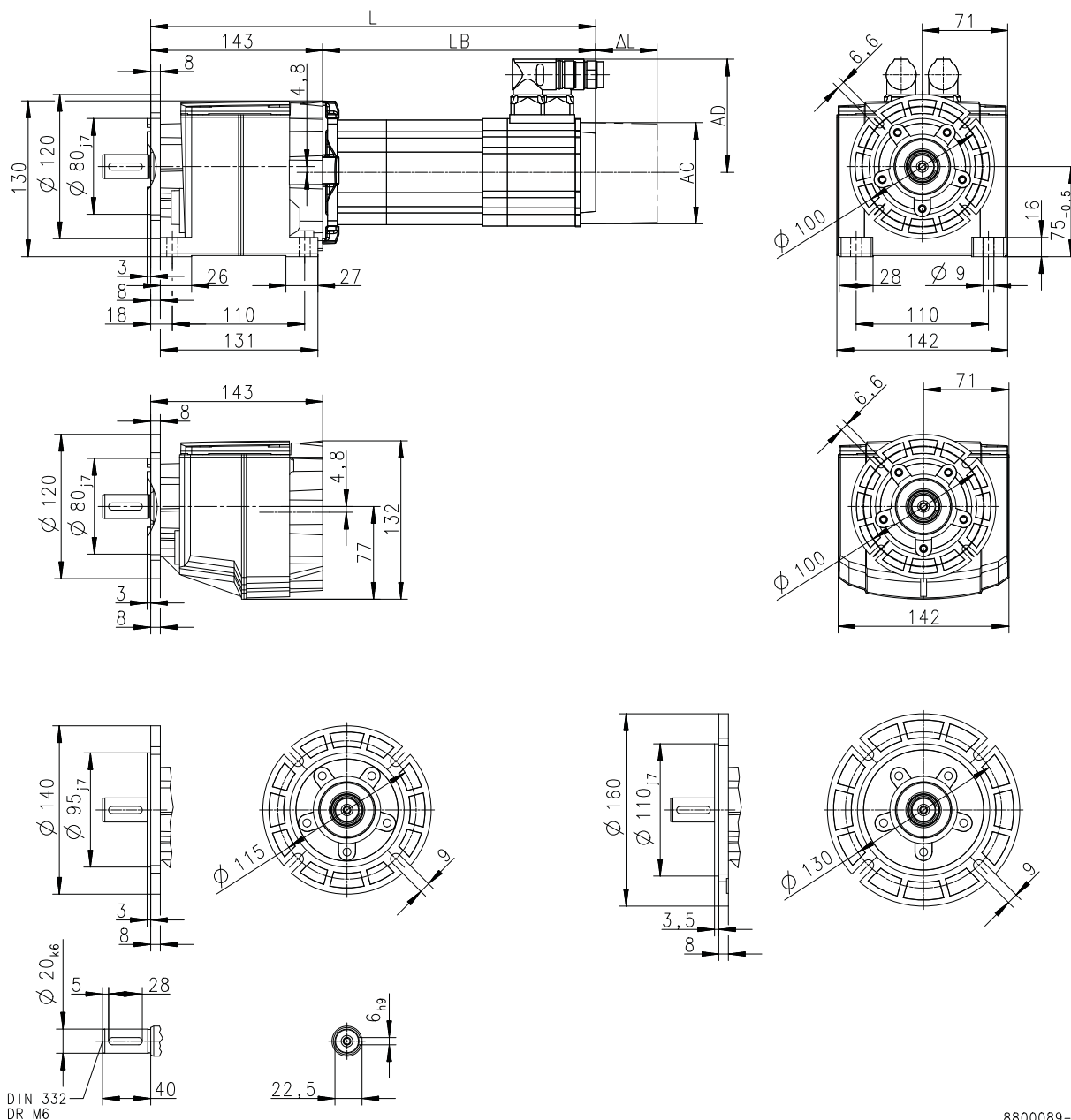
Technical data

Dimensions
Basic dimensions



g500-H100, 2-stage with MCS09

Gearbox version: Solid shaft with foot/flange (VAK/VCK)



8800089-03

Motor			MCS			
			09D41- 09D41L	09F38- 09F38L	09H41- 09H41L	09L41- 09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	327	347	367	407
Motor length	LB	mm	184	204	224	264
Length of motor options	Δ L	mm	71			
Motor diameter	AC	mm	89			
Motor/connection distance	AD	mm	90			

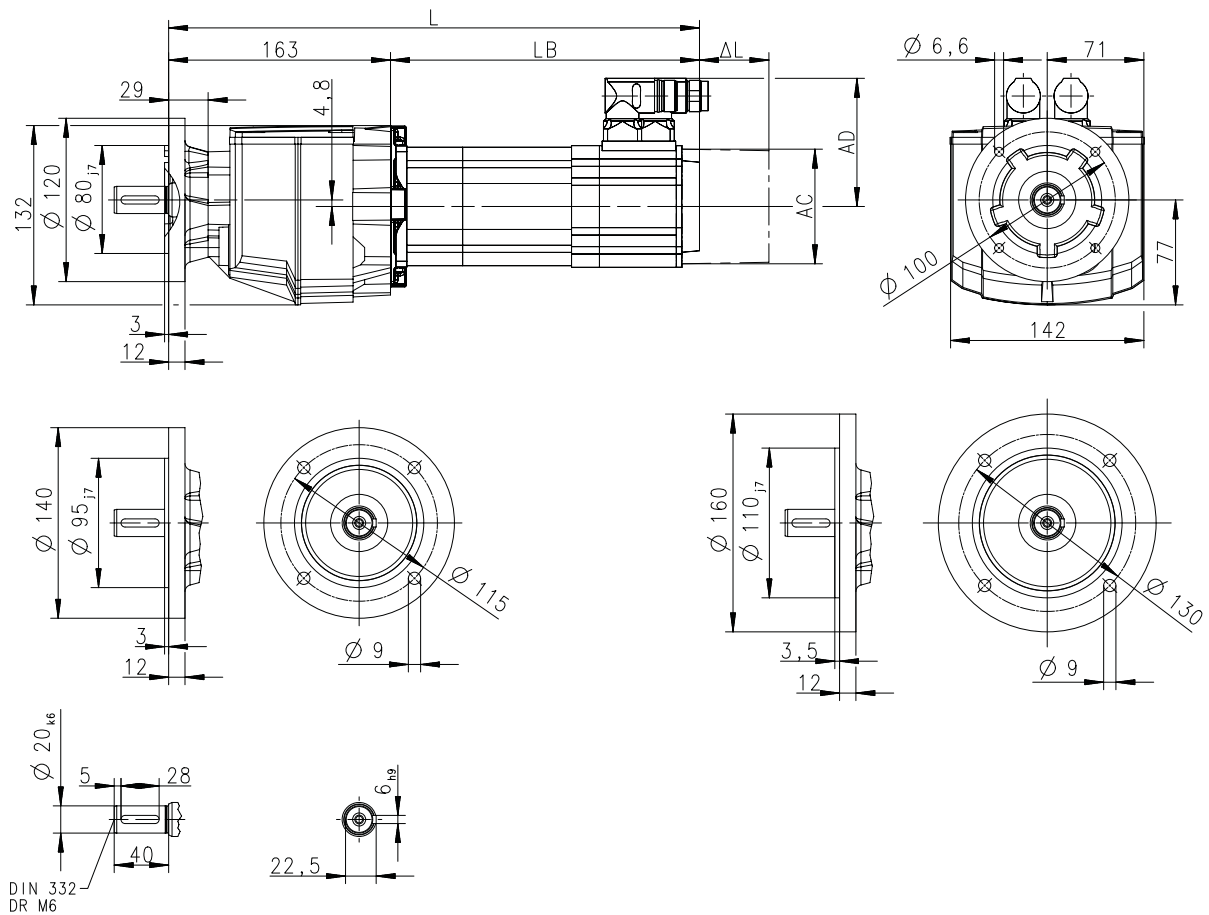


Technical data

Dimensions
Basic dimensions

g500-H100, 2-stage with MCS09

Gearbox version: Solid shaft and flange (VCP)



8800317-00

Motor			MCS			
			09D41- 09D41L	09F38- 09F38L	09H41- 09H41L	09L41- 09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	347	367	387	427
Motor length	LB	mm	184	204	224	264
Length of motor options	ΔL	mm	71			
Motor diameter	AC	mm	89			
Motor/connection distance	AD	mm	90			

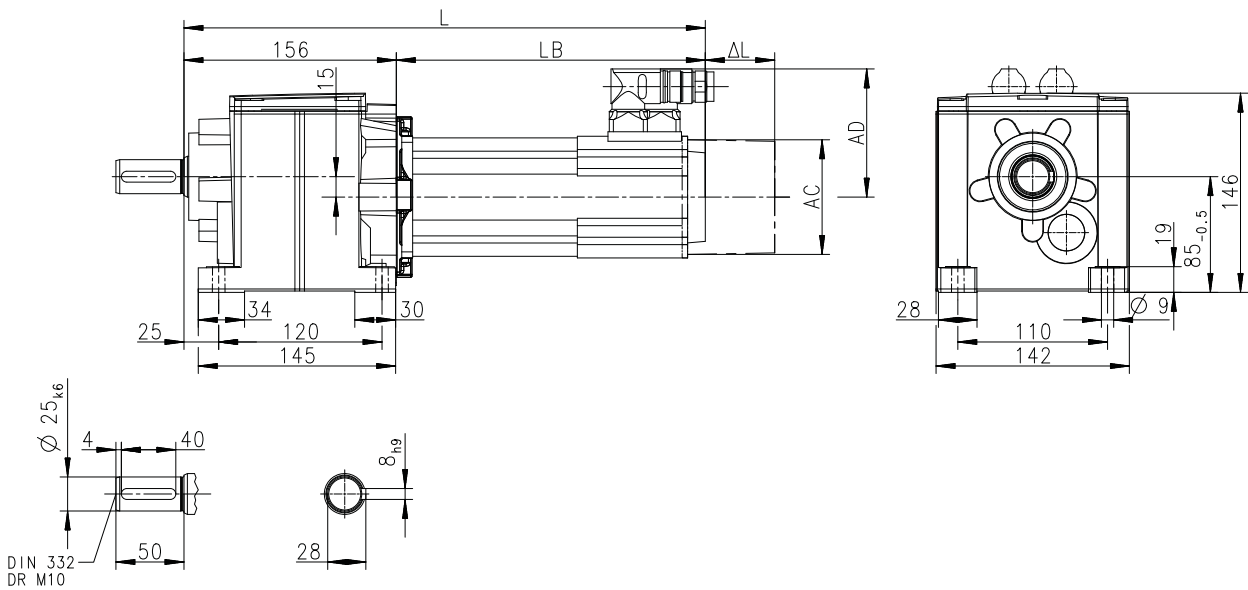
Technical data

Dimensions
Basic dimensions



g500-H140, 2-stage with MCS06

Gearbox version: Solid shaft with foot (VBR)



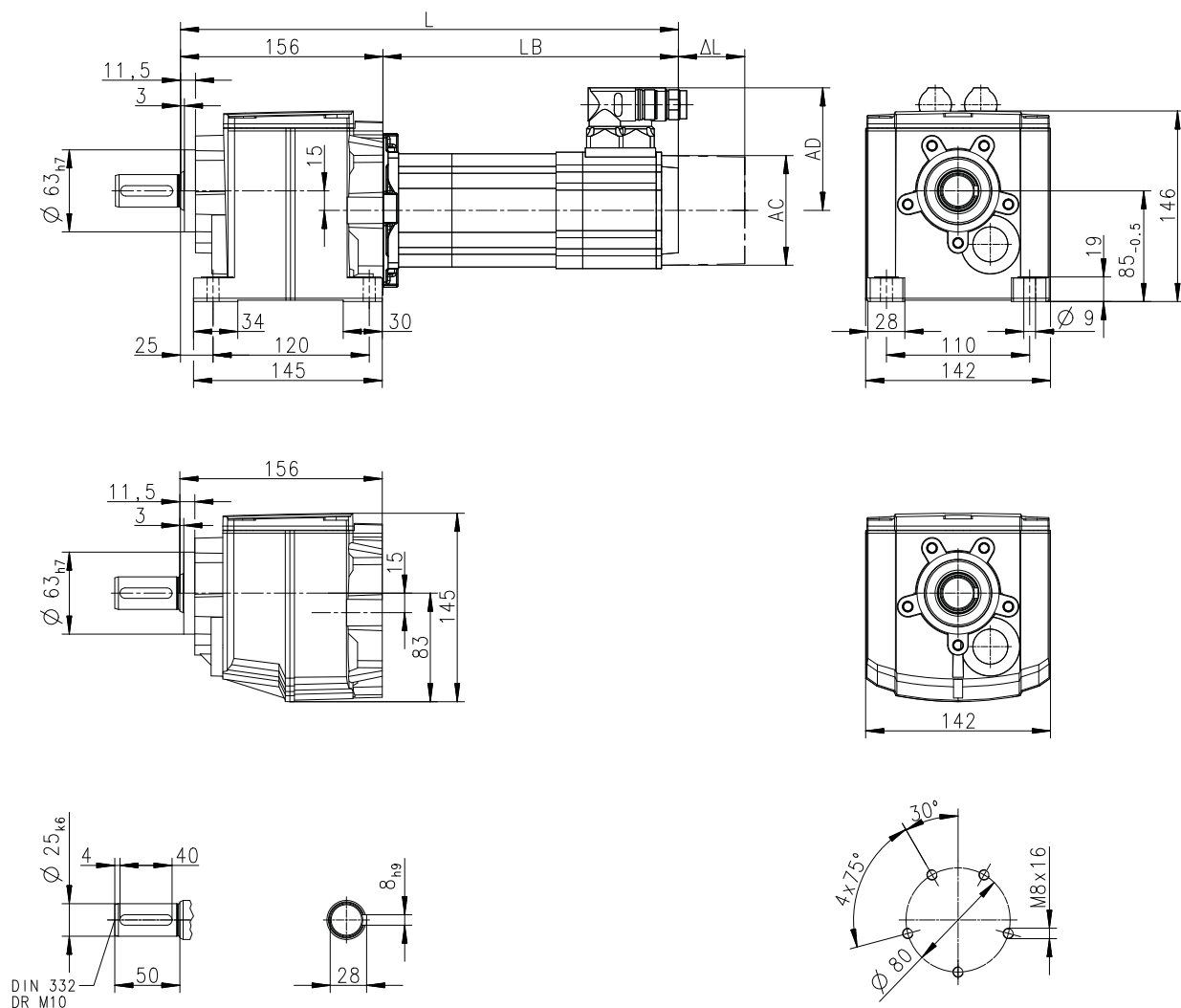
8800100-00

Motor			MCS		
			06C41- 06C41L	06F41- 06F41L	06I41- 06I41L
Cooling type			natural	natural	natural
Total length	L	mm	287	317	347
Motor length	LB	mm	131	161	191
Length of motor options	Δ L	mm	82		
Motor diameter	AC	mm	86		
Motor/connection distance	AD	mm	77		



g500-H140, 2-stage with MCS06

Gearbox version: Solid shaft with foot/centering (VAR/VCR)



8800102-01

Motor			MCS		
			06C41-06C41L	06F41-06F41L	06I41-06I41L
Cooling type			natural	natural	natural
Total length	L	mm	287	317	347
Motor length	LB	mm	131	161	191
Length of motor options	Δ L	mm	82		
Motor diameter	AC	mm	86		
Motor/connection distance	AD	mm	77		

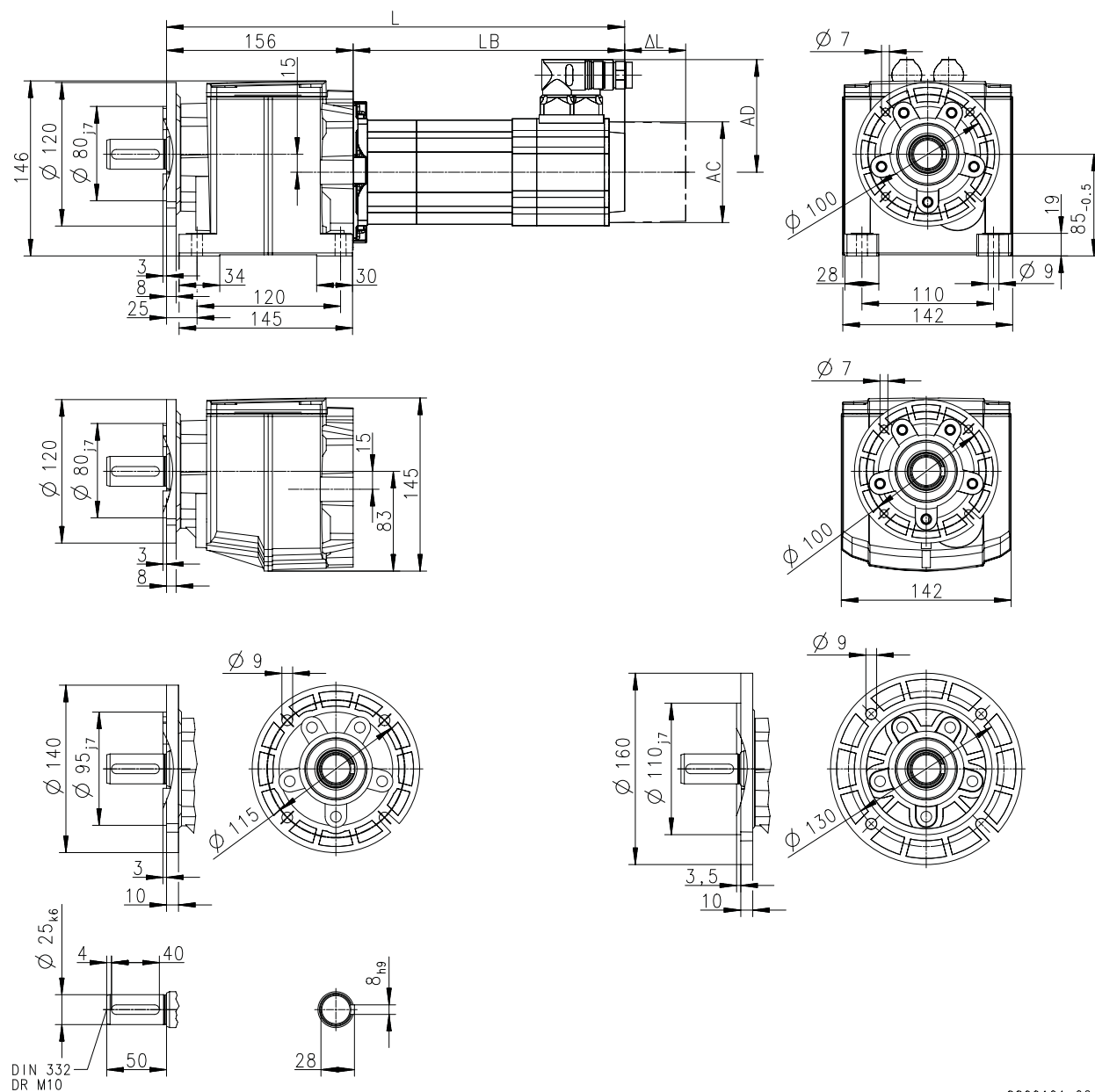
Technical data

Dimensions
Basic dimensions



g500-H140, 2-stage with MCS06

Gearbox version: Solid shaft with foot/flange (VAK/VCK)



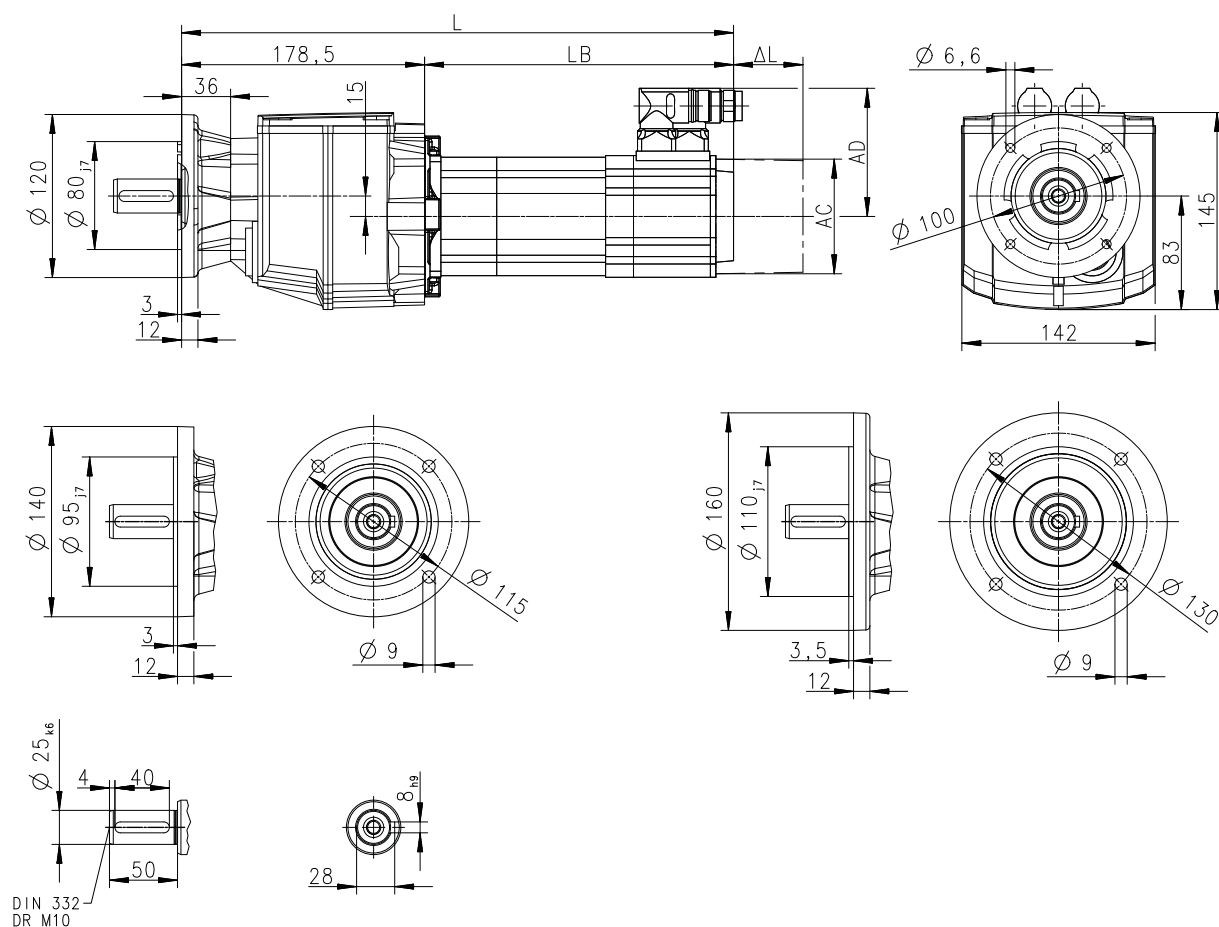
8800101-02

Motor			MCS		
			06C41- 06C41L	06F41- 06F41L	06I41- 06I41L
Cooling type			natural	natural	natural
Total length	L	mm	287	317	347
Motor length	LB	mm	131	161	191
Length of motor options	ΔL	mm	82		
Motor diameter	AC	mm	86		
Motor/connection distance	AD	mm	77		



g500-H140, 2-stage with MCS06

Gearbox version: Solid shaft and flange (VCP)



8800318-01

Motor			MCS		
			06C41-06C41L	06F41-06F41L	06I41-06I41L
Cooling type			natural	natural	natural
Total length	L	mm	310	340	370
Motor length	LB	mm	131	161	191
Length of motor options	ΔL	mm	82		
Motor diameter	AC	mm	86		
Motor/connection distance	AD	mm	77		

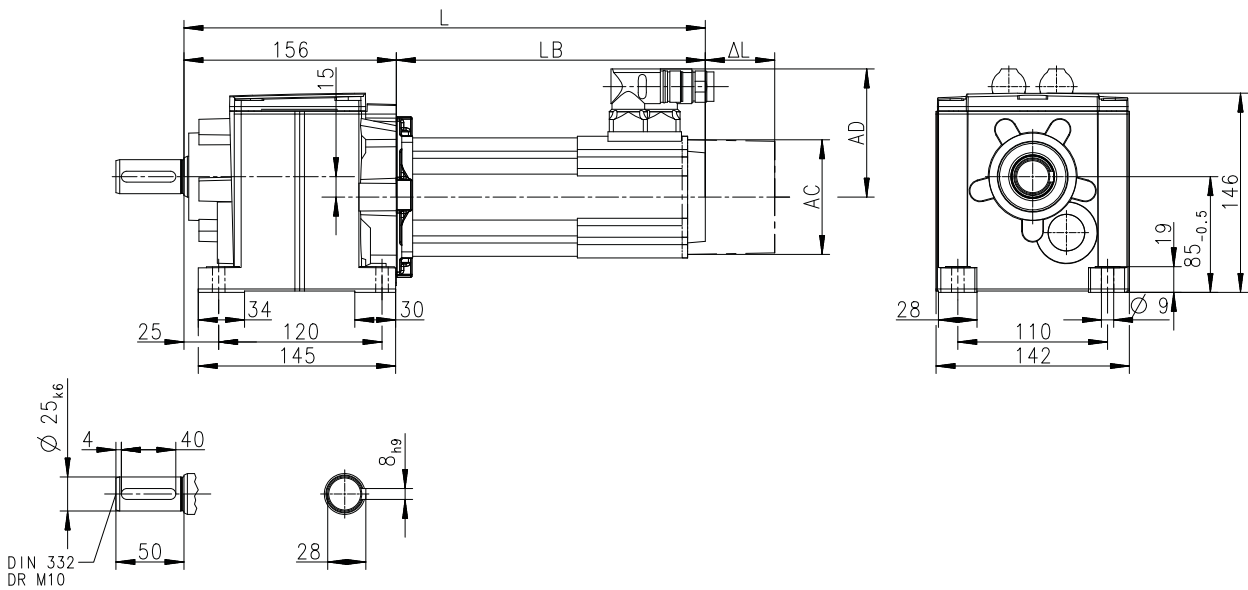
Technical data

Dimensions
Basic dimensions



g500-H140, 2-stage with MCS09

Gearbox version: Solid shaft with foot (VBR)



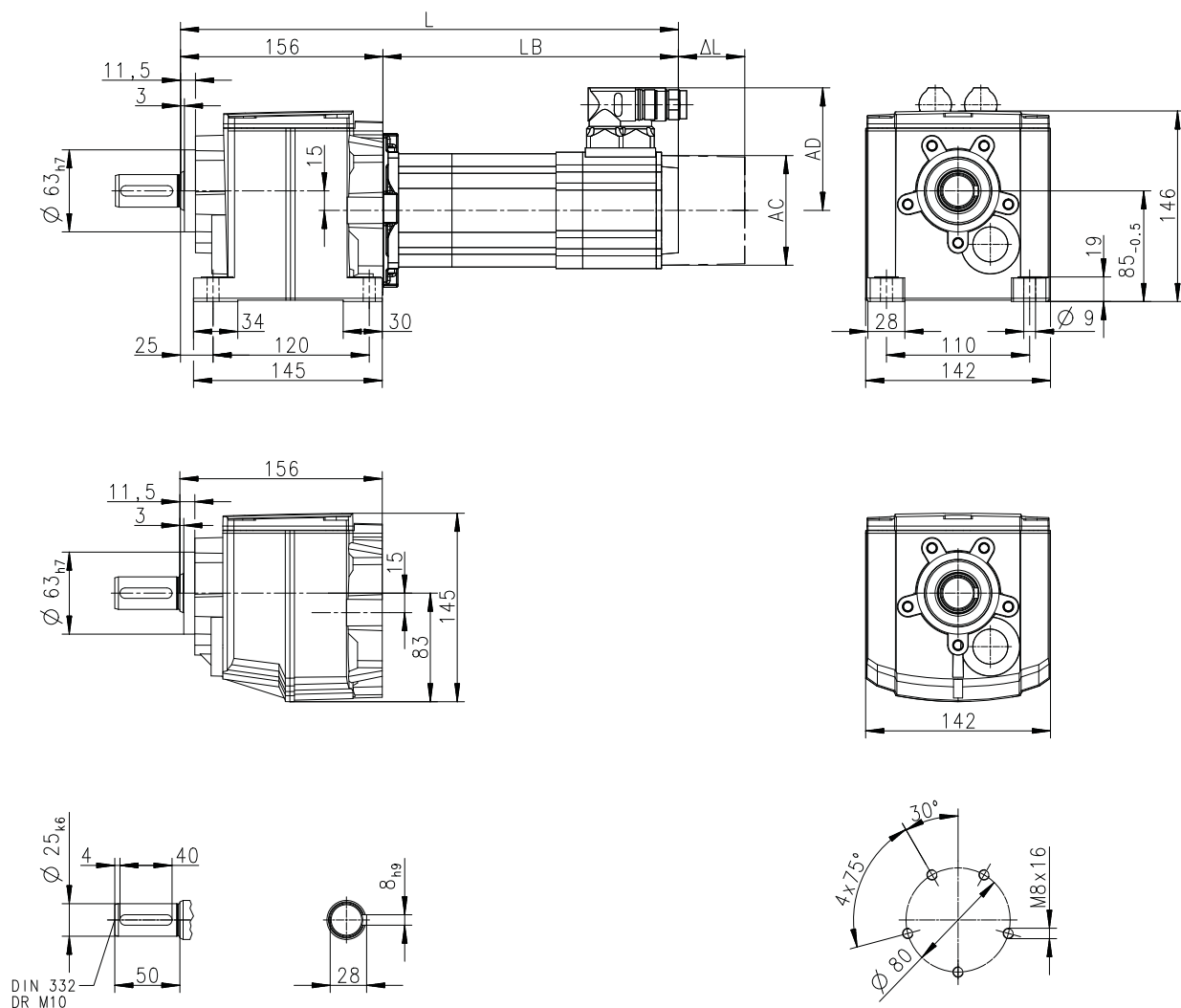
8800100-00

Motor			MCS			
			09D41- 09D41L	09F38- 09F38L	09H41- 09H41L	09L41- 09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	340	360	380	420
Motor length	LB	mm	184	204	224	264
Length of motor options	Δ L	mm	71			
Motor diameter	AC	mm	89			
Motor/connection distance	AD	mm	90			



g500-H140, 2-stage with MCS09

Gearbox version: Solid shaft with foot/centering (VAR/VCR)



8800102-01

Motor			MCS			
			09D41- 09D41L	09F38- 09F38L	09H41- 09H41L	09L41- 09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	340	360	380	420
Motor length	LB	mm	184	204	224	264
Length of motor options	Δ L	mm	71			
Motor diameter	AC	mm	89			
Motor/connection distance	AD	mm	90			

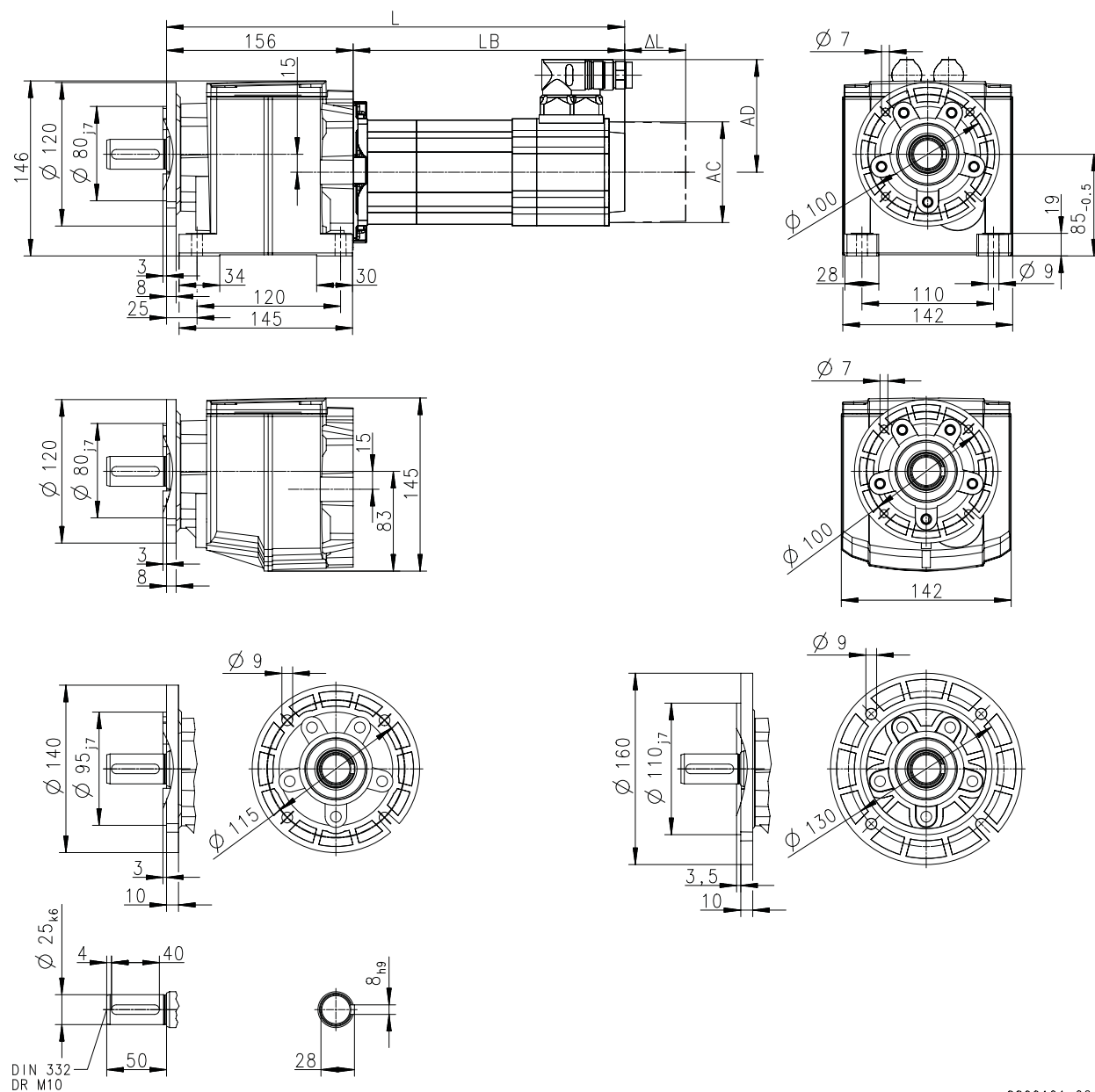
Technical data

Dimensions
Basic dimensions



g500-H140, 2-stage with MCS09

Gearbox version: Solid shaft with foot/flange (VAK/VCK)



8800101-02

Motor			MCS			
			09D41- 09D41L	09F38- 09F38L	09H41- 09H41L	09L41- 09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	340	360	380	420
Motor length	LB	mm	184	204	224	264
Length of motor options	ΔL	mm	71			
Motor diameter	AC	mm	89			
Motor/connection distance	AD	mm	90			



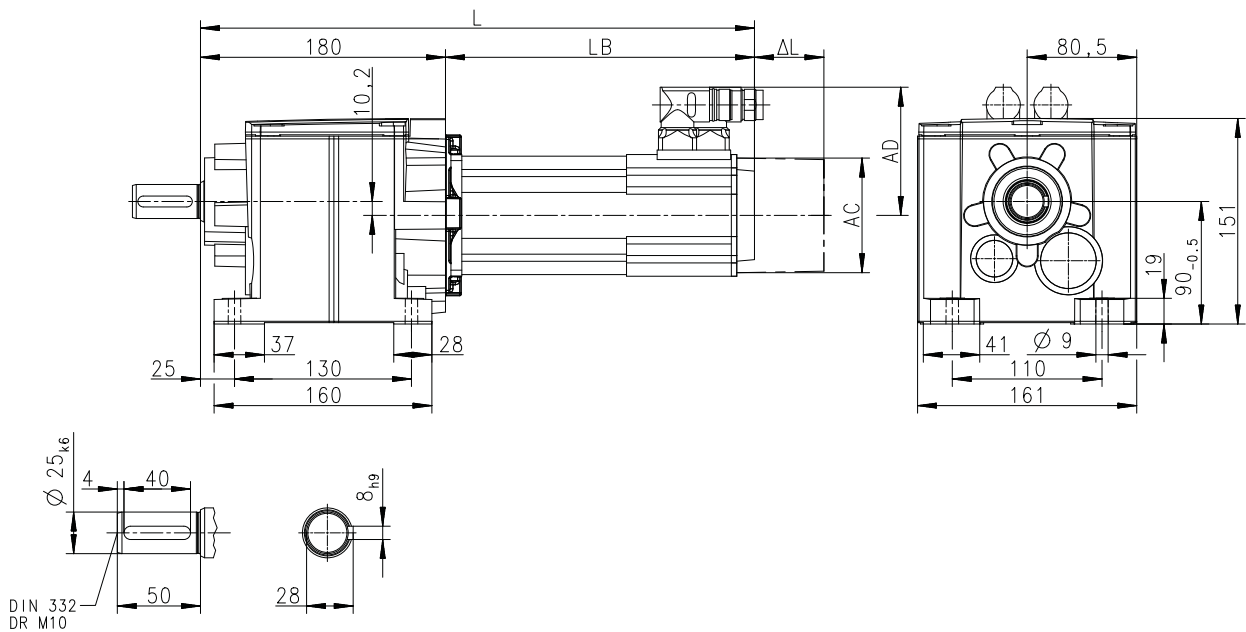
Technical data

Dimensions
Basic dimensions



g500-H210, 2-/3-stage with MCS06

Gearbox version: Solid shaft with foot (VBR)

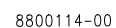


8800112-00

Motor			MCS		
			06C41- 06C41L	06F41- 06F41L	06I41- 06I41L
Cooling type			natural	natural	natural
Total length	L	mm	311	341	371
Motor length	LB	mm	131	161	191
Length of motor options	Δ L	mm	82		
Motor diameter	AC	mm	86		
Motor/connection distance	AD	mm	77		



Gearbox version: Solid shaft with foot/centering (VAR/VCR)

155

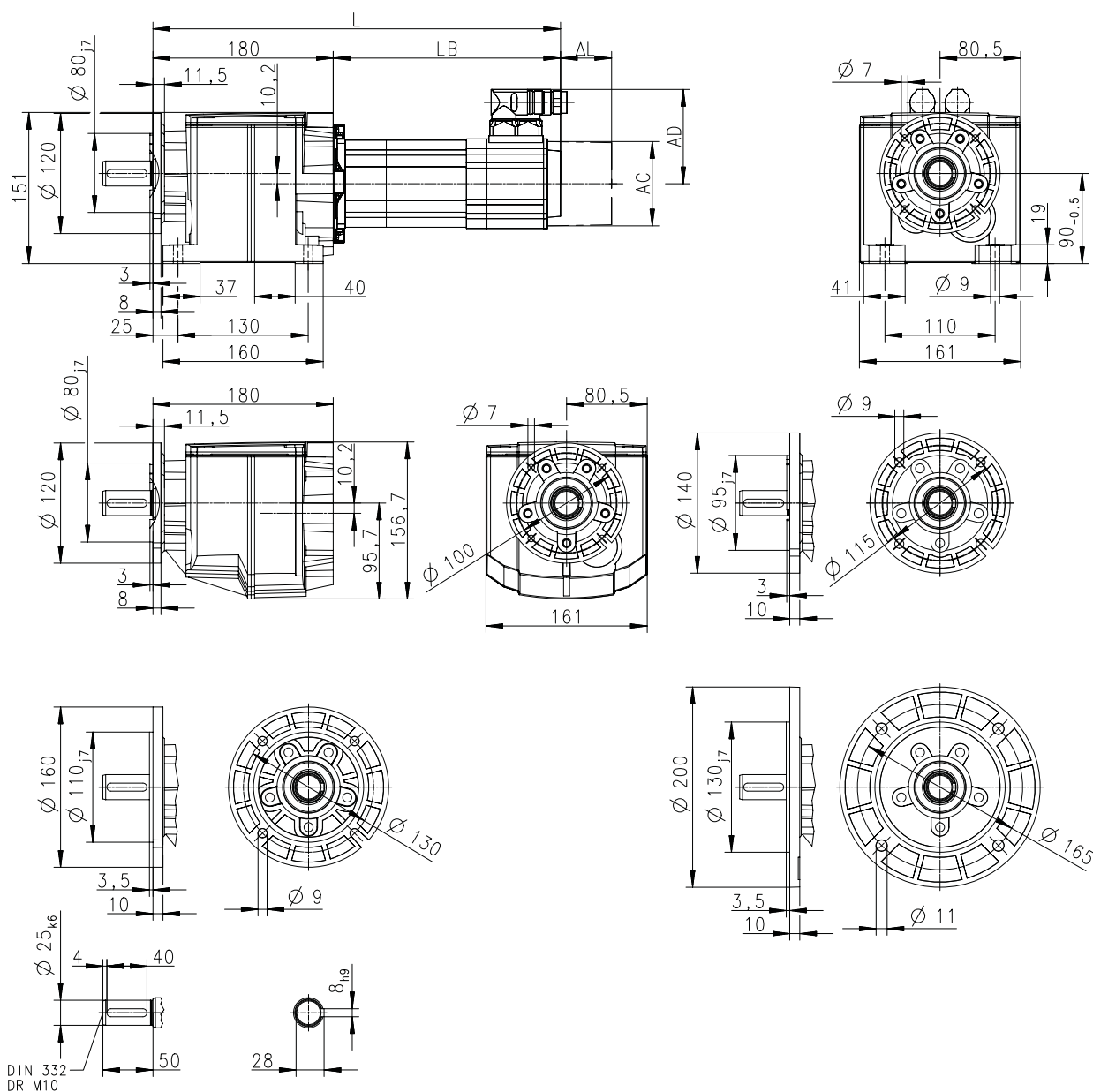
Technical data

Dimensions
Basic dimensions



g500-H210, 2-/3-stage with MCS06

Gearbox version: Solid shaft with foot/flange (VAK/VCK)



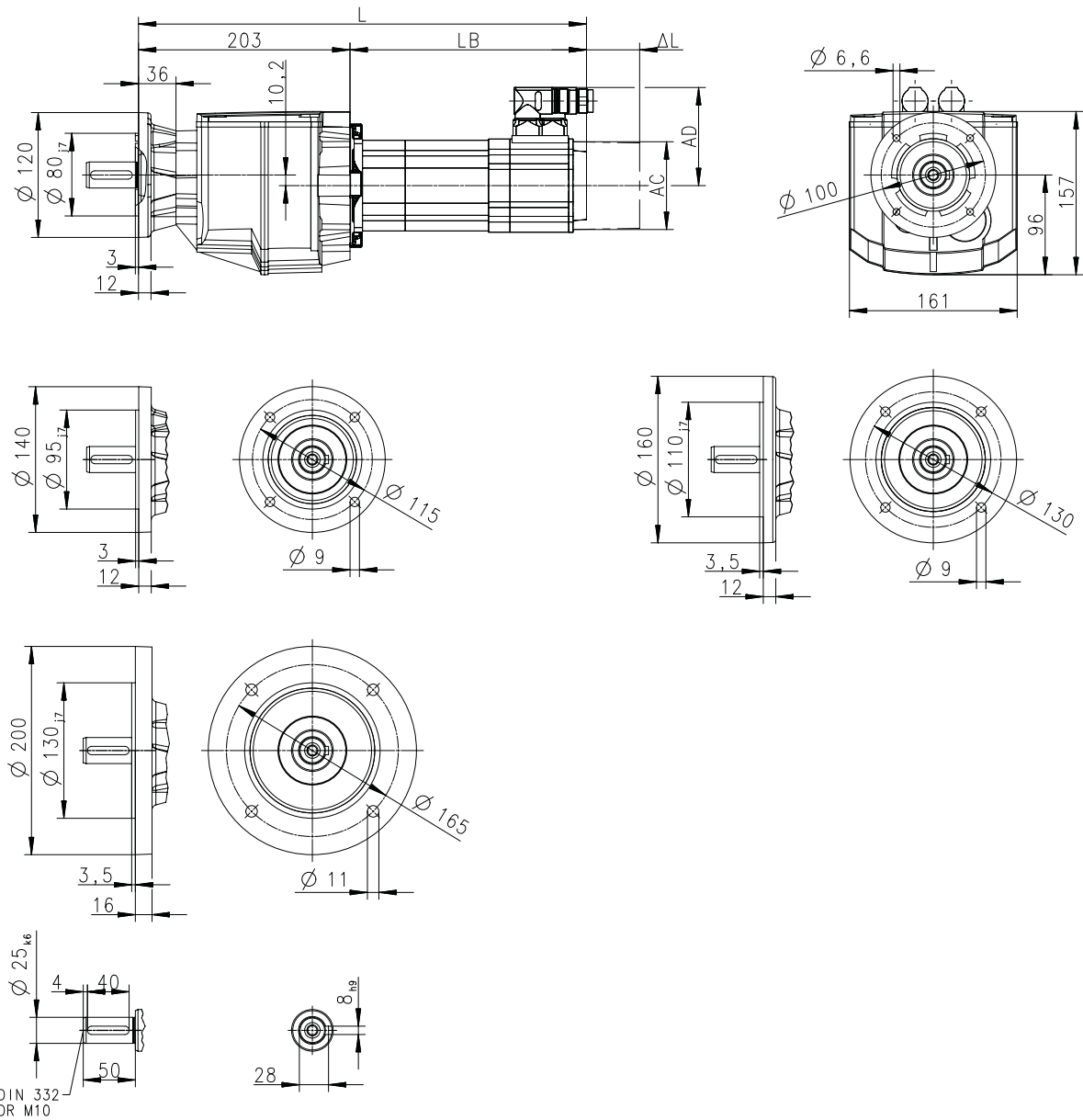
8800113-02

Motor			MCS		
			06C41- 06C41L	06F41- 06F41L	06I41- 06I41L
Cooling type			natural	natural	natural
Total length	L	mm	311	341	371
Motor length	LB	mm	131	161	191
Length of motor options	Δ L	mm	82		
Motor diameter	AC	mm	86		
Motor/connection distance	AD	mm	77		



g500-H210, 2-/3-stage with MCS06

Gearbox version: Solid shaft and flange (VCP)



8800319-01

Motor			MCS		
			06C41- 06C41L	06F41- 06F41L	06I41- 06I41L
Cooling type			natural	natural	natural
Total length	L	mm	334	364	394
Motor length	LB	mm	131	161	191
Length of motor options	ΔL	mm	82		
Motor diameter	AC	mm	86		
Motor/connection distance	AD	mm	77		

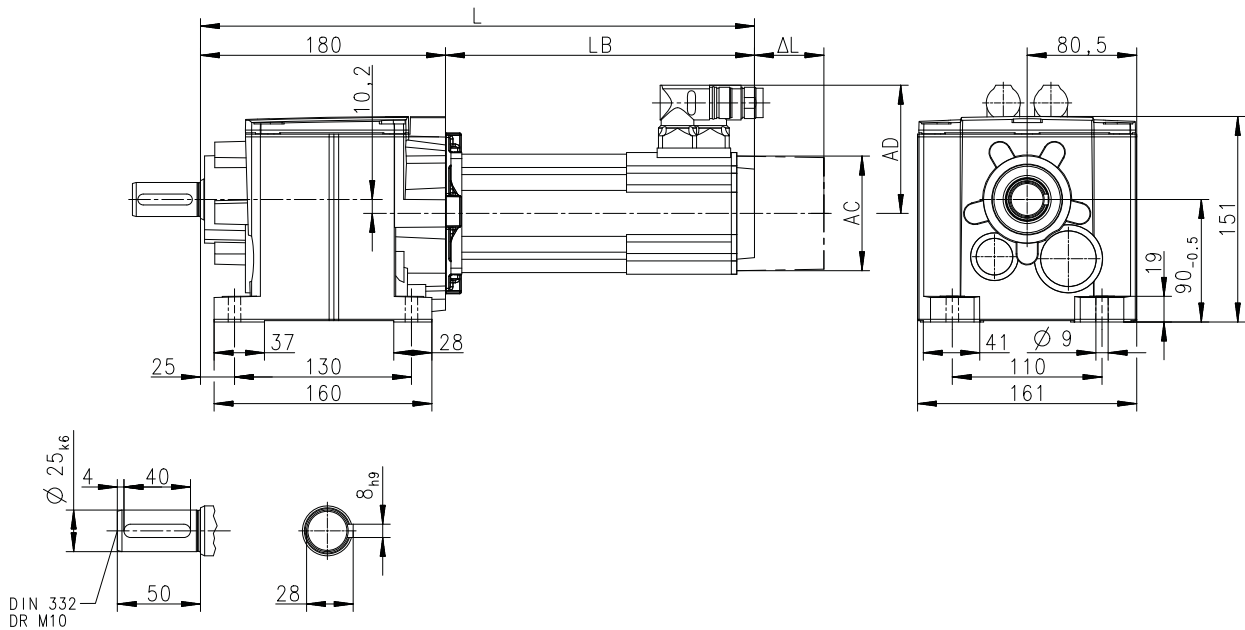
Technical data

Dimensions
Basic dimensions



g500-H210, 2-/3-stage with MCS09

Gearbox version: Solid shaft with foot (VBR)



8800112-00

Motor			MCS			
			09D41- 09D41L	09F38- 09F38L	09H41- 09H41L	09L41- 09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	364	384	404	444
Motor length	LB	mm	184	204	224	264
Length of motor options	Δ L	mm	71			
Motor diameter	AC	mm	89			
Motor/connection distance	AD	mm	90			

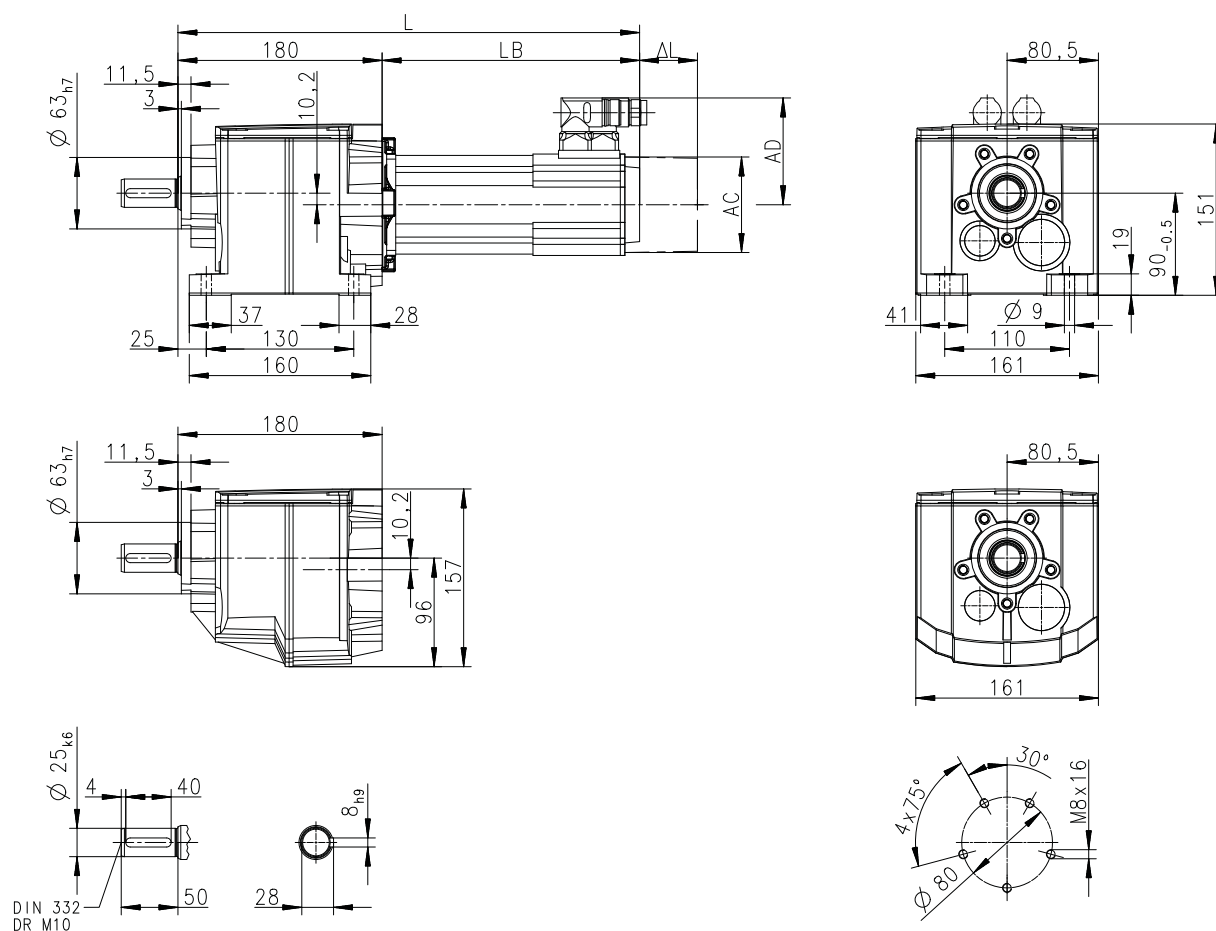


Technical data

Dimensions
Basic dimensions

g500-H210, 2-/3-stage with MCS09

Gearbox version: Solid shaft with foot/centering (VAR/VCR)



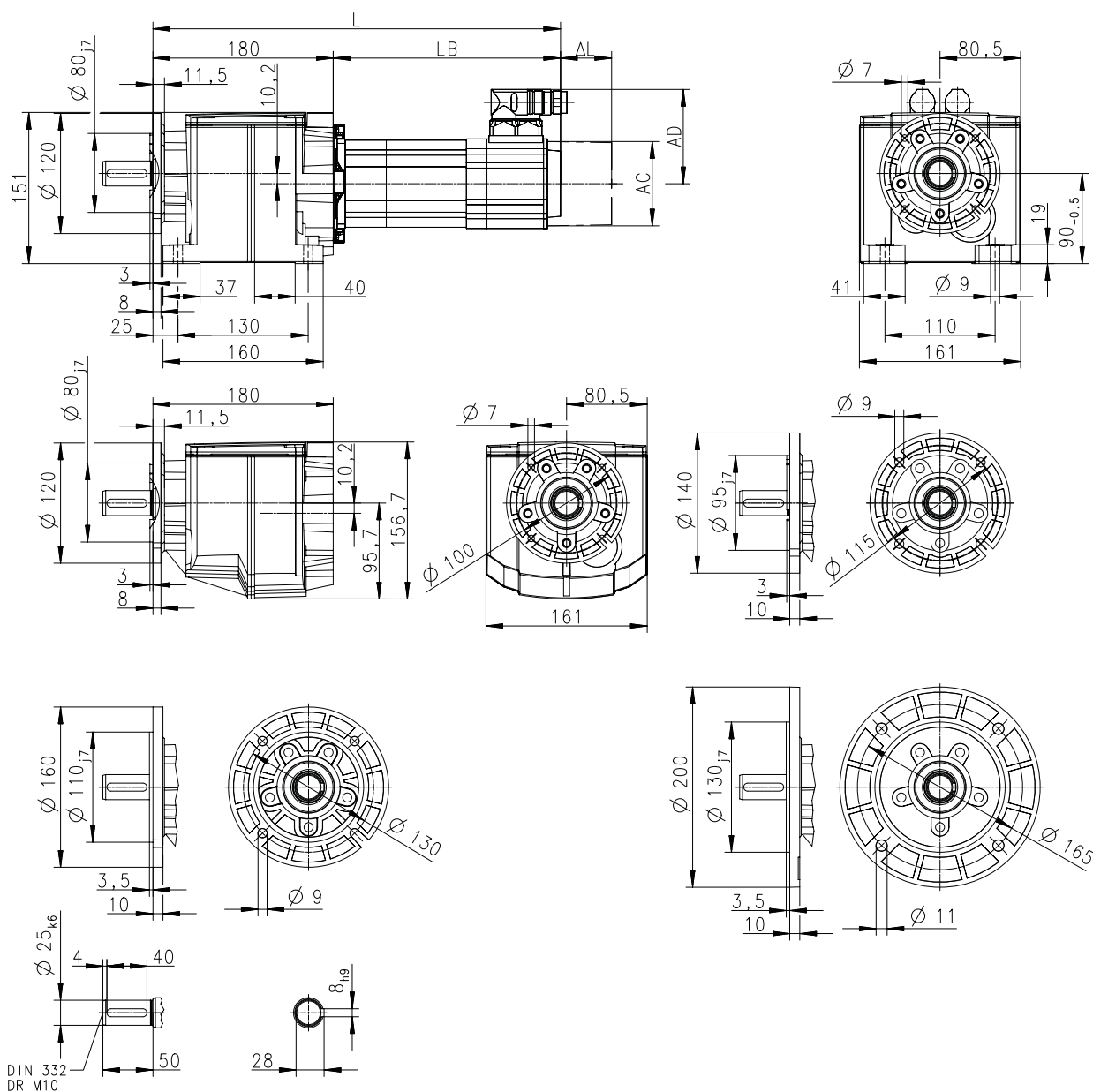
8800114-00

Motor			MCS			
			09D41- 09D41L	09F38- 09F38L	09H41- 09H41L	09L41- 09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	364	384	404	444
Motor length	LB	mm	184	204	224	264
Length of motor options	ΔL	mm	71			
Motor diameter	AC	mm	89			
Motor/connection distance	AD	mm	90			



g500-H210, 2-/3-stage with MCS09

Gearbox version: Solid shaft with foot/flange (VAK/VCK)



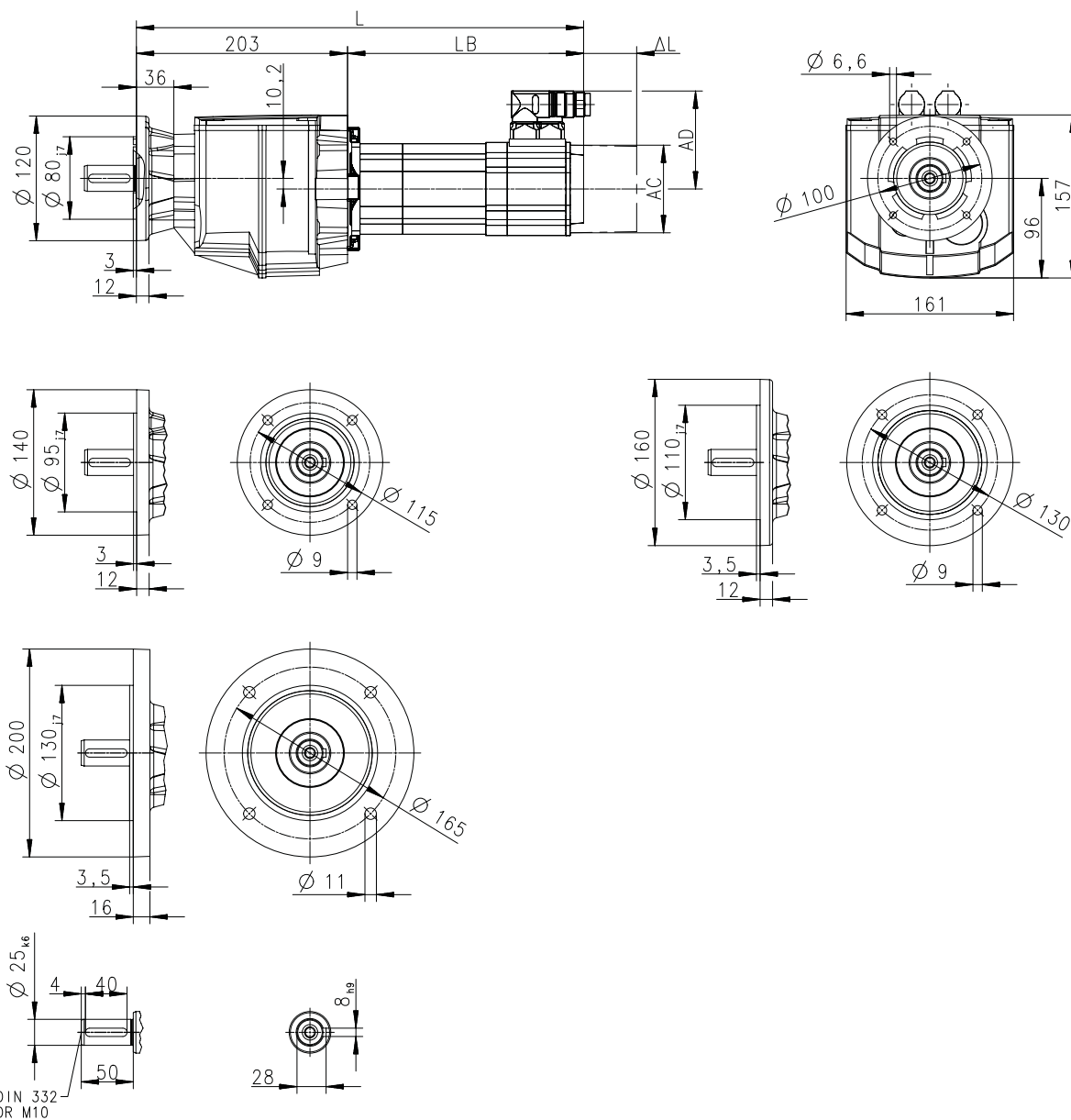
8800113-02

Motor			MCS			
			09D41- 09D41L	09F38- 09F38L	09H41- 09H41L	09L41- 09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	364	384	404	444
Motor length	LB	mm	184	204	224	264
Length of motor options	Δ L	mm	71			
Motor diameter	AC	mm	89			
Motor/connection distance	AD	mm	90			



g500-H210, 2-/3-stage with MCS09

Gearbox version: Solid shaft and flange (VCP)



8800319-01

Motor			MCS			
			09D41- 09D41L	09F38- 09F38L	09H41- 09H41L	09L41- 09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	387	407	427	467
Motor length	LB	mm	184	204	224	264
Length of motor options	Δ L	mm	71			
Motor diameter	AC	mm	89			
Motor/connection distance	AD	mm	90			

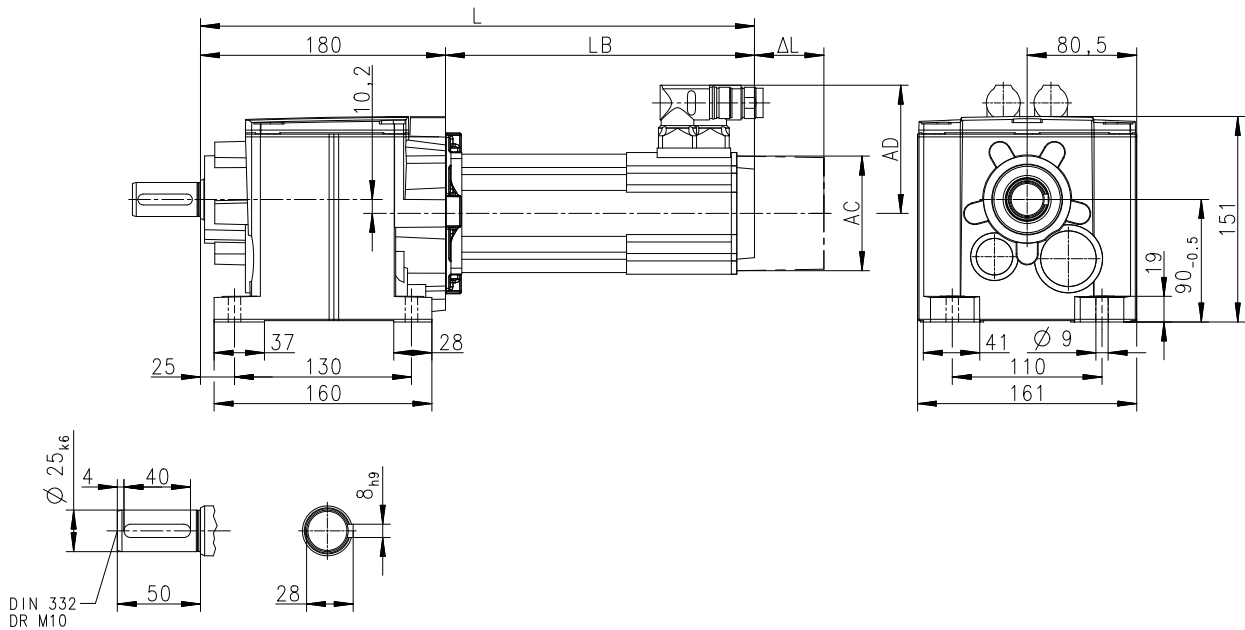
Technical data

Dimensions
Basic dimensions



g500-H210, 2-/3-stage with MCS12

Gearbox version: Solid shaft with foot (VBR)



8800112-00

Motor			MCS					
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	454	381	454	381	494	421
Motor length	LB	mm	274	201	274	201	314	241
Length of motor options	ΔL	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105

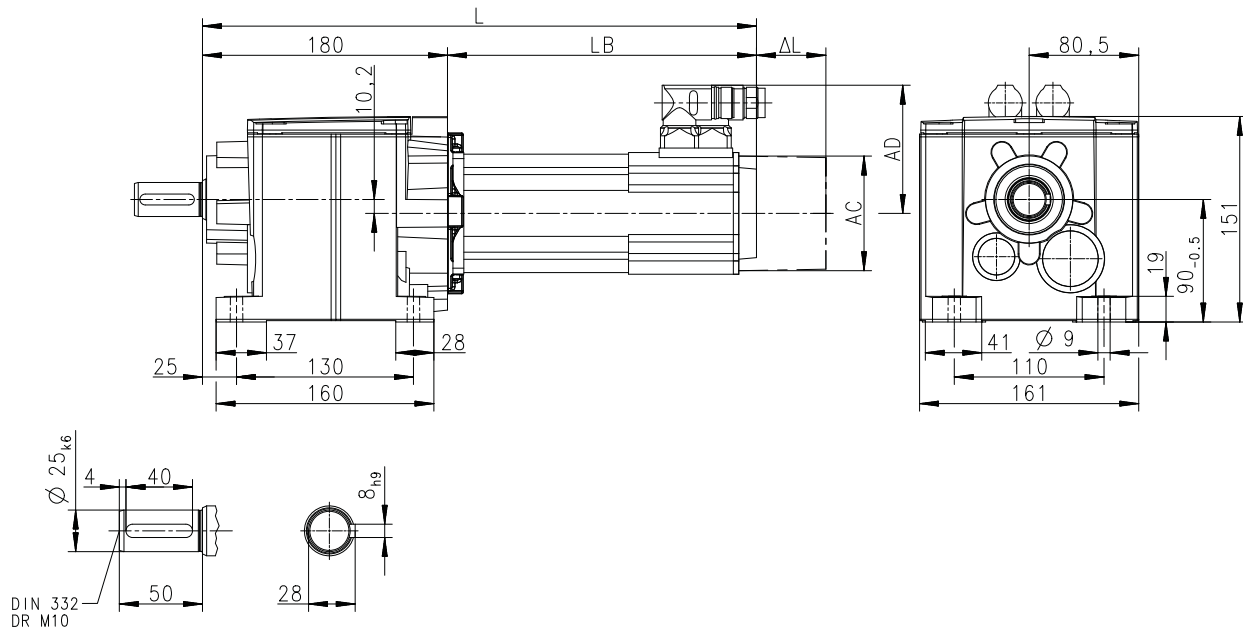


Technical data

Dimensions
Basic dimensions

g500-H210, 2-/3-stage with MCS12

Gearbox version: Solid shaft with foot (VBR)



8800112-00

Motor			MCS					
			12H34-	12H35- 12H30L	12L17-	12L20- 12L20L	12L39-	12L41- 12L41L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	494	421	534	461	534	461
Motor length	LB	mm	314	241	354	281	354	281
Length of motor options	Δ L	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105

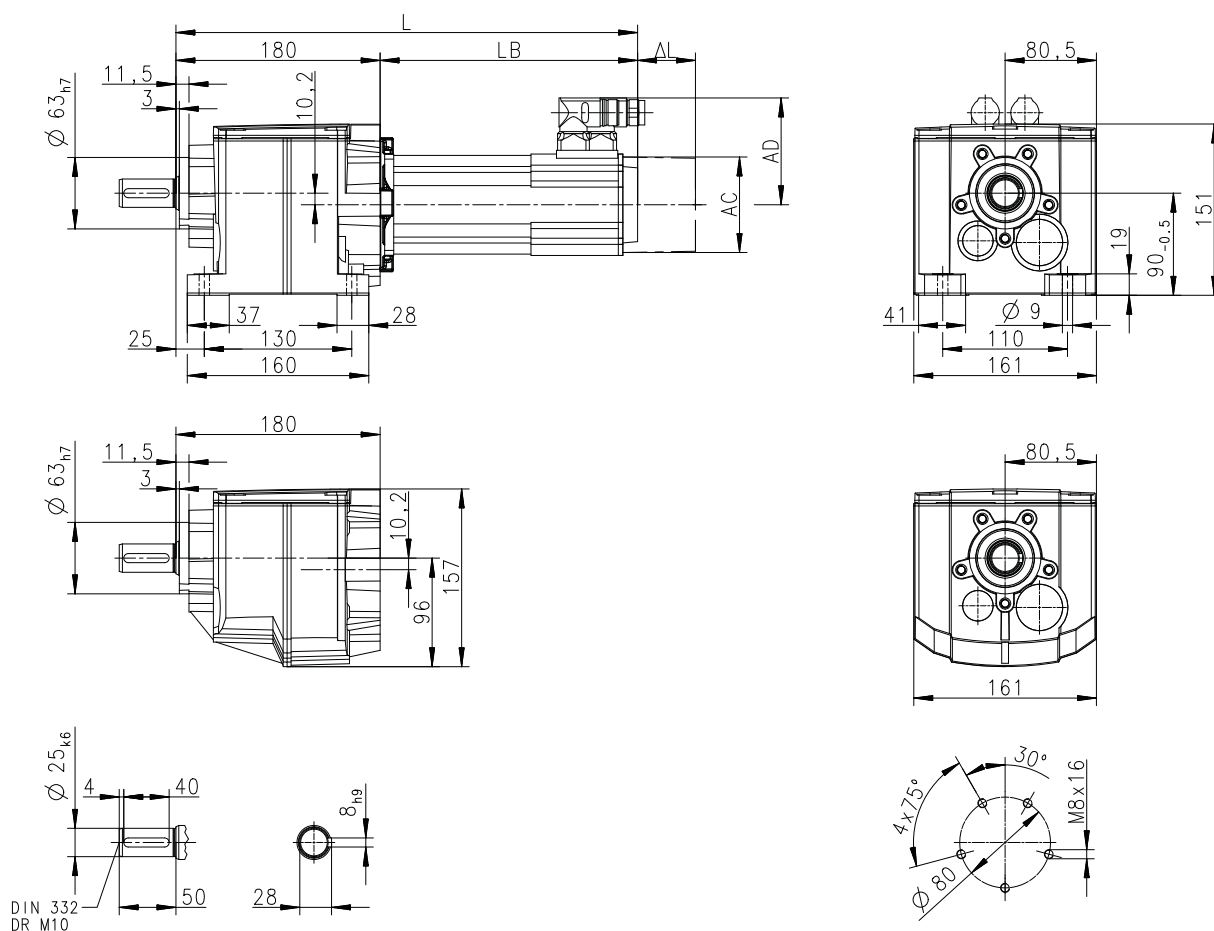
Technical data

Dimensions
Basic dimensions



g500-H210, 2-/3-stage with MCS12

Gearbox version: Solid shaft with foot/centering (VAR/VCR)



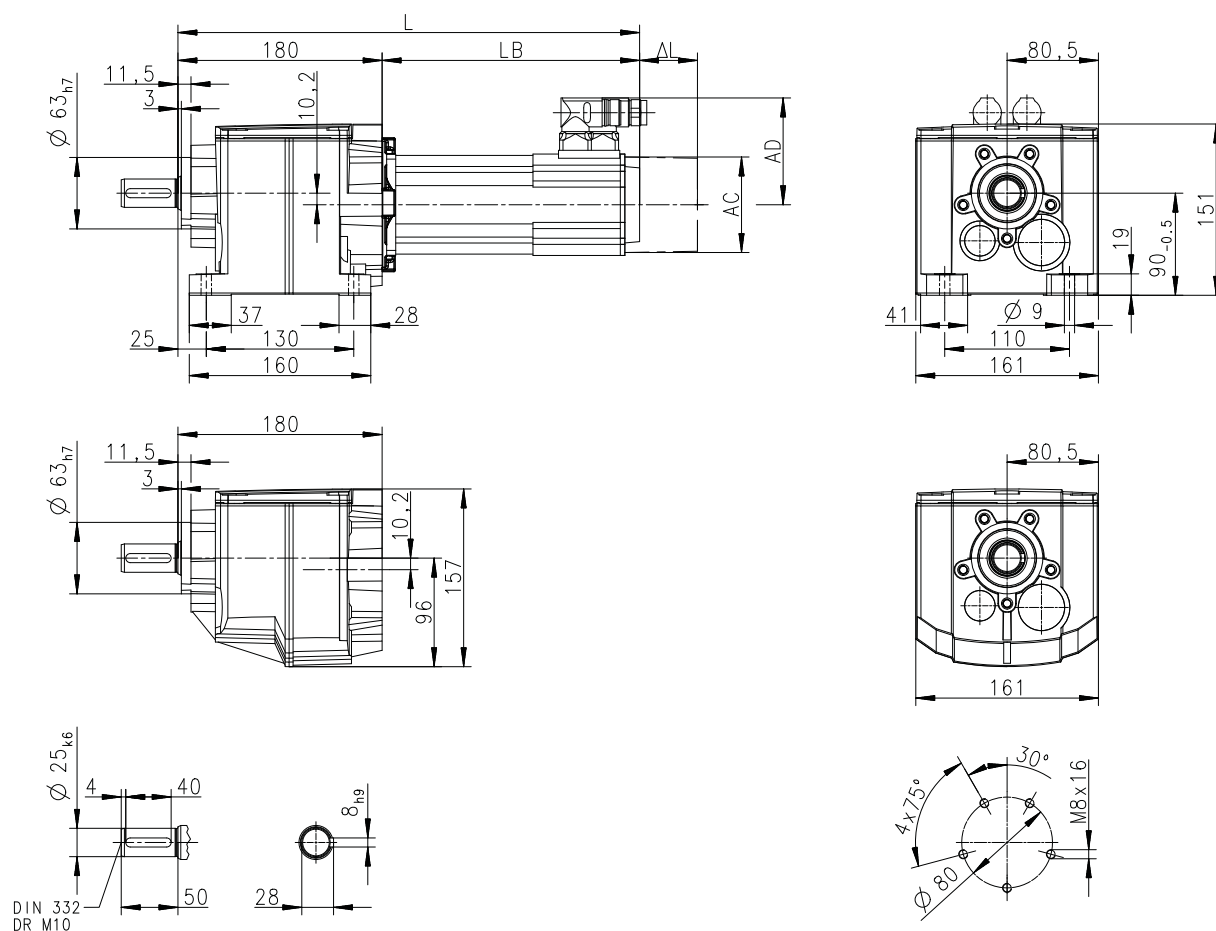
8800114-00

Motor			MCS					
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	454	381	454	381	494	421
Motor length	LB	mm	274	201	274	201	314	241
Length of motor options	Δ L	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105



g500-H210, 2-/3-stage with MCS12

Gearbox version: Solid shaft with foot/centering (VAR/VCR)



8800114-00

Motor			MCS					
			12H34-	12H35- 12H30L	12L17-	12L20- 12L20L	12L39-	12L41- 12L41L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	494	421	534	461	534	461
Motor length	LB	mm	314	241	354	281	354	281
Length of motor options	Δ L	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105

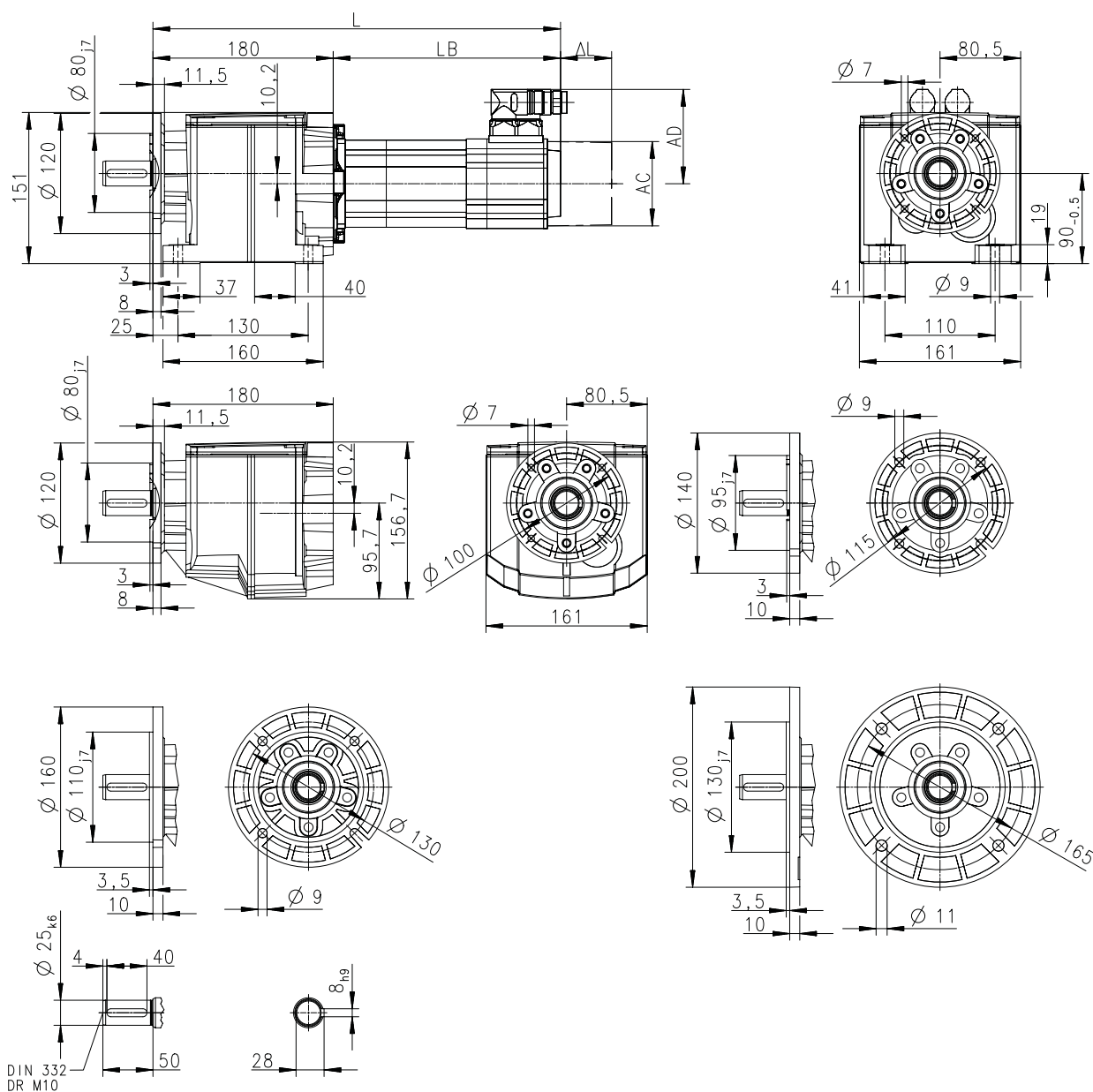
Technical data

Dimensions
Basic dimensions



g500-H210, 2-/3-stage with MCS12

Gearbox version: Solid shaft with foot/flange (VAK/VCK)



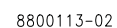
DIN 332
DR M10

8800113-02

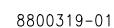
Motor			MCS					
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	454	381	454	381	494	421
Motor length	LB	mm	274	201	274	201	314	241
Length of motor options	Δ L	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105



Gearbox version: Solid shaft with foot/flange (VAK/VCK)

167

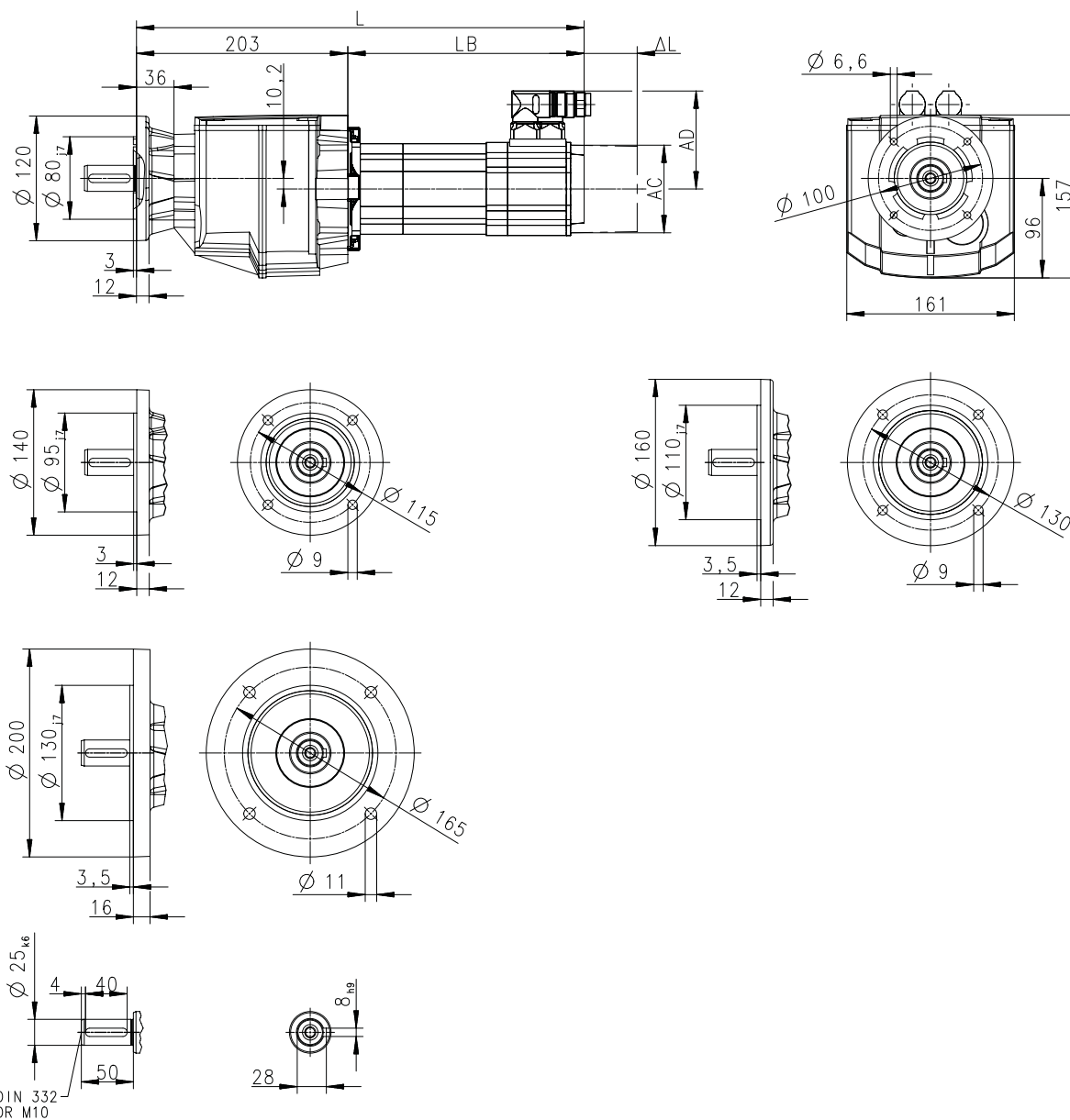
Gearbox version: Solid shaft and flange (VCP)

168



g500-H210, 2-/3-stage with MCS12

Gearbox version: Solid shaft and flange (VCP)



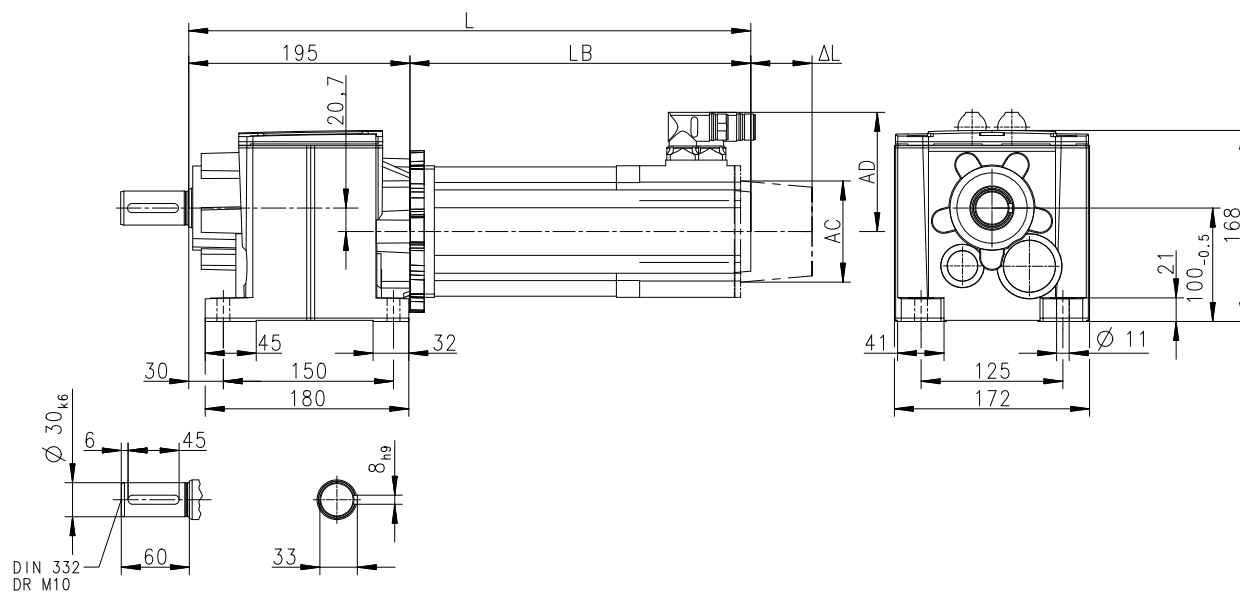
8800319-01

Motor			MCS					
			12H34-	12H35- 12H30L	12L17-	12L20- 12L20L	12L39-	12L41- 12L41L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	517	444	557	484	557	484
Motor length	LB	mm	314	241	354	281	354	281
Length of motor options	ΔL	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105



g500-H320, 2-/3-stage with MCS06

Gearbox version: Solid shaft with foot (VBR)



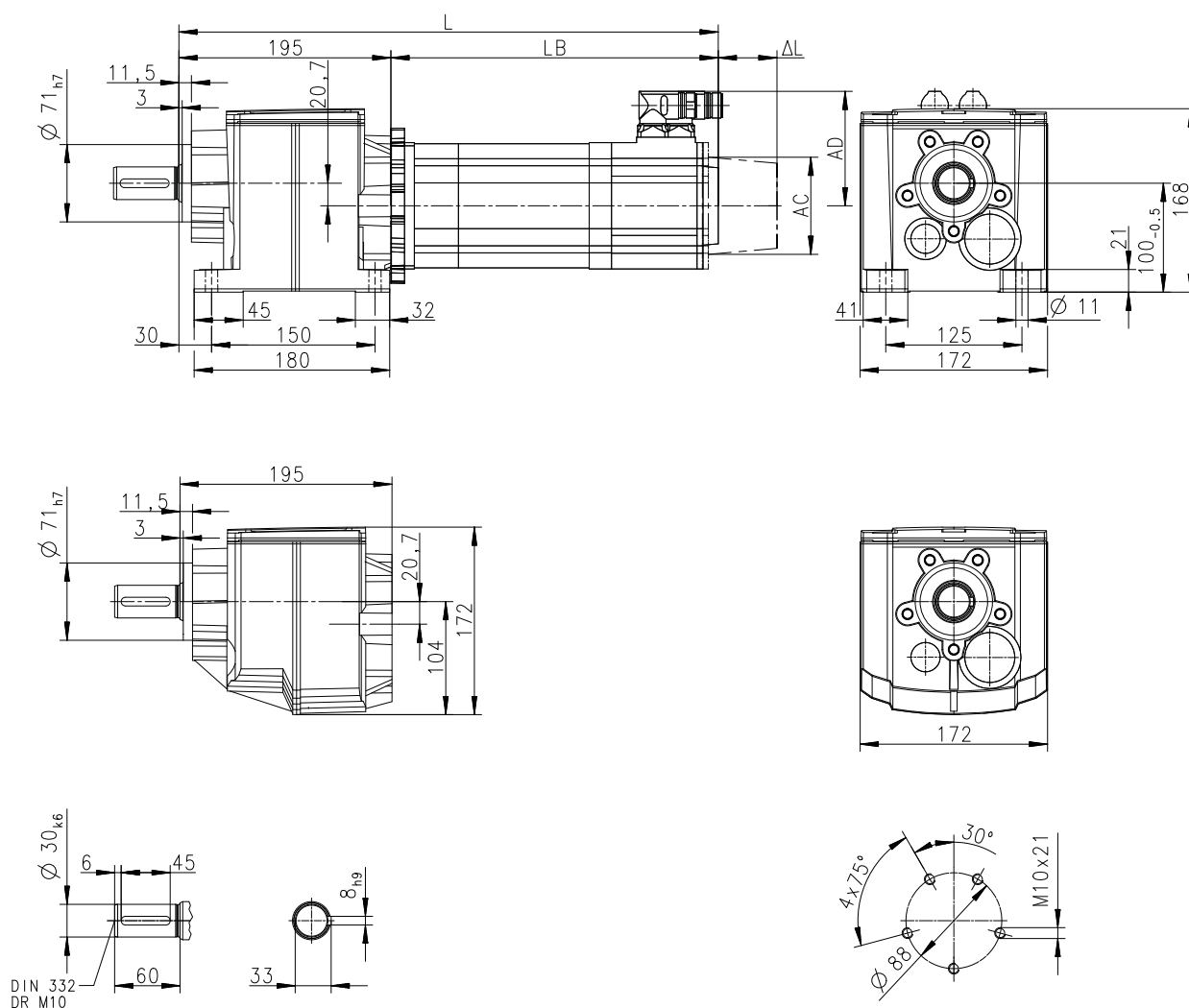
8800124-00

Motor			MCS		
			06C41-06C41L	06F41-06F41L	06I41-06I41L
Cooling type			natural	natural	natural
Total length	L	mm	326	356	386
Motor length	LB	mm	131	161	191
Length of motor options	Δ L	mm	82		
Motor diameter	AC	mm	86		
Motor/connection distance	AD	mm	77		



g500-H320, 2-/3-stage with MCS06

Gearbox version: Solid shaft with foot/centering (VAR/VCR)



8800126-01

Motor			MCS		
			06C41- 06C41L	06F41- 06F41L	06I41- 06I41L
Cooling type			natural	natural	natural
Total length	L	mm	326	356	386
Motor length	LB	mm	131	161	191
Length of motor options	Δ L	mm	82		
Motor diameter	AC	mm	86		
Motor/connection distance	AD	mm	77		

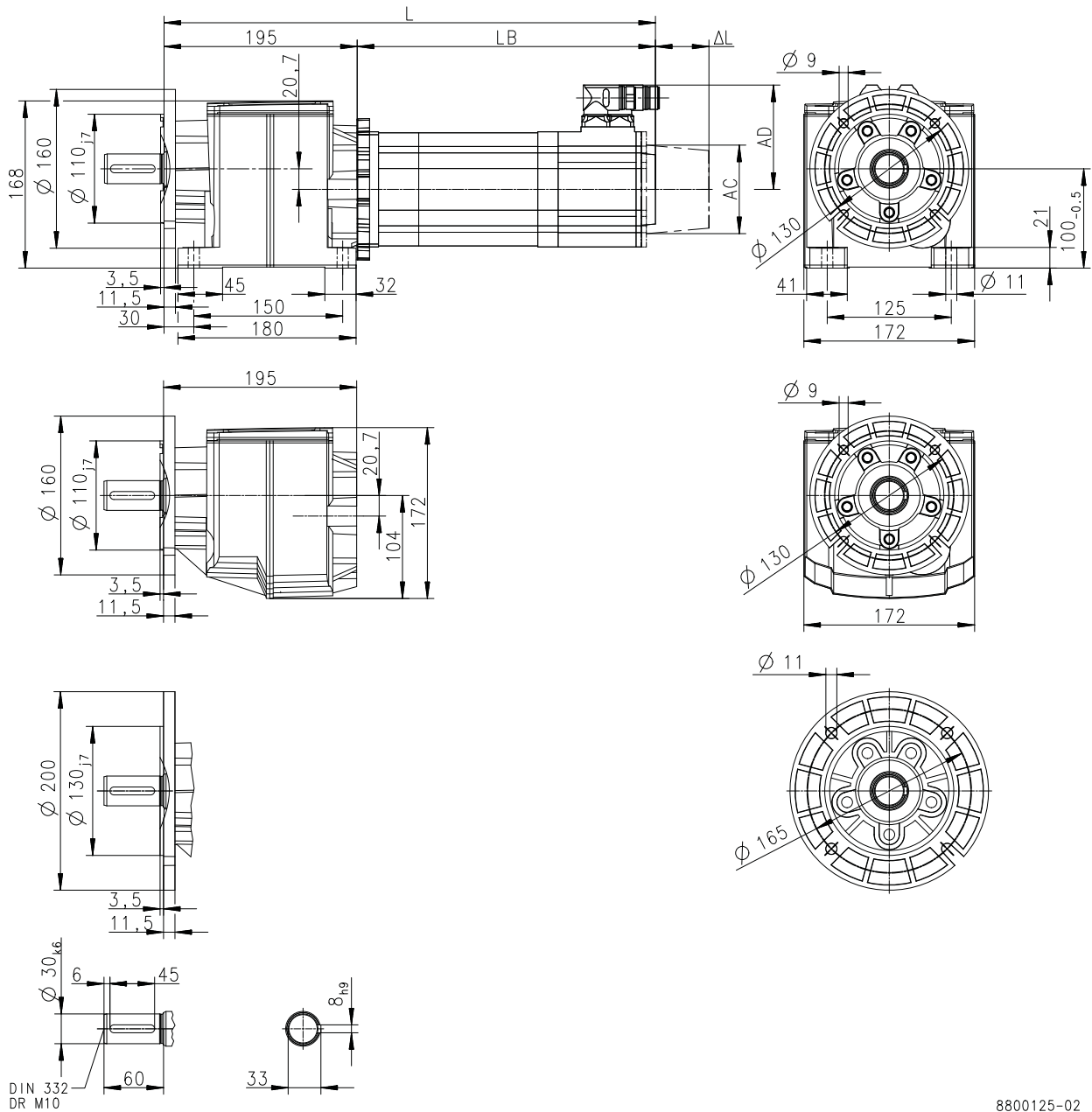
Technical data

Dimensions
Basic dimensions



g500-H320, 2-/3-stage with MCS06

Gearbox version: Solid shaft with foot/flange (VAK/VCK)



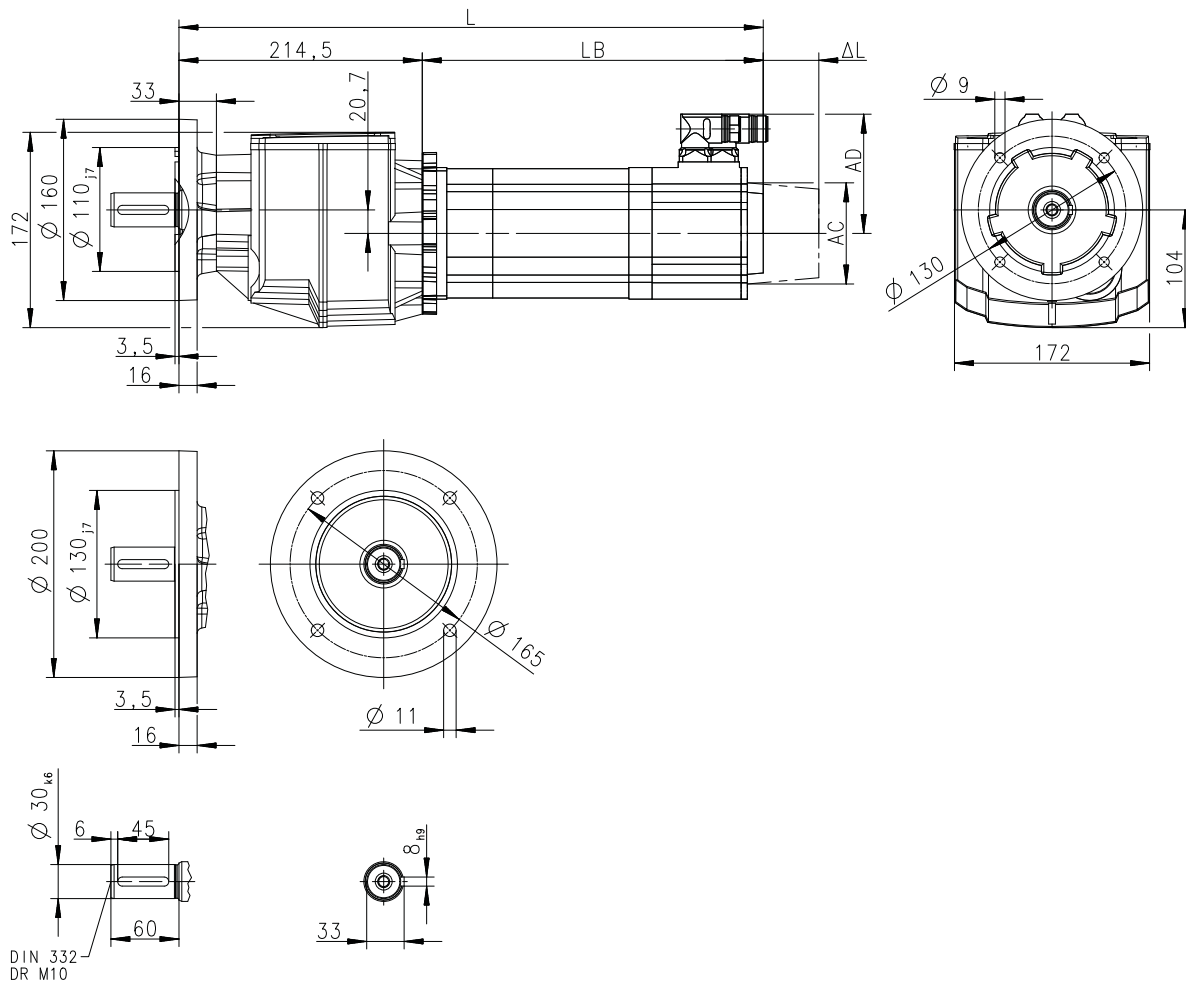
8800125-02

Motor			MCS		
			06C41-06C41L	06F41-06F41L	06I41-06I41L
Cooling type			natural	natural	natural
Total length	L	mm	326	356	386
Motor length	LB	mm	131	161	191
Length of motor options	Δ L	mm	82		
Motor diameter	AC	mm	86		
Motor/connection distance	AD	mm	77		



g500-H320, 2-/3-stage with MCS06

Gearbox version: Solid shaft and flange (VCP)



8800320-00

Motor			MCS		
			06C41- 06C41L	06F41- 06F41L	06I41- 06I41L
Cooling type			natural	natural	natural
Total length	L	mm	346	376	406
Motor length	LB	mm	131	161	191
Length of motor options	ΔL	mm	82		
Motor diameter	AC	mm	86		
Motor/connection distance	AD	mm	77		

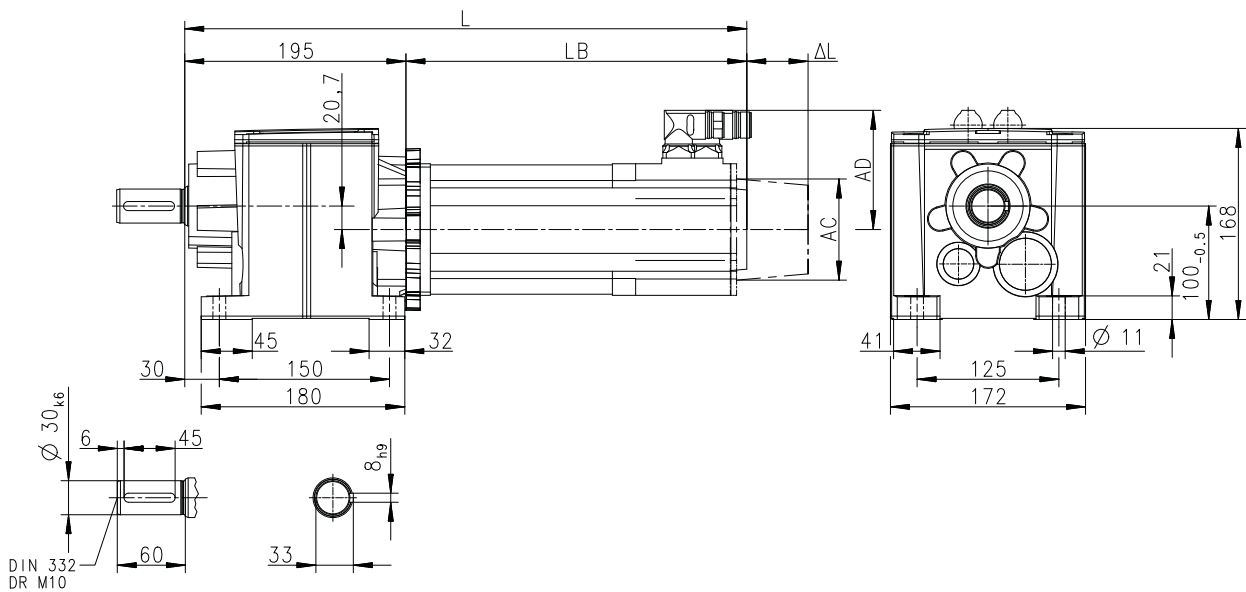
Technical data

Dimensions
Basic dimensions



g500-H320, 2-/3-stage with MCS09

Gearbox version: Solid shaft with foot (VBR)



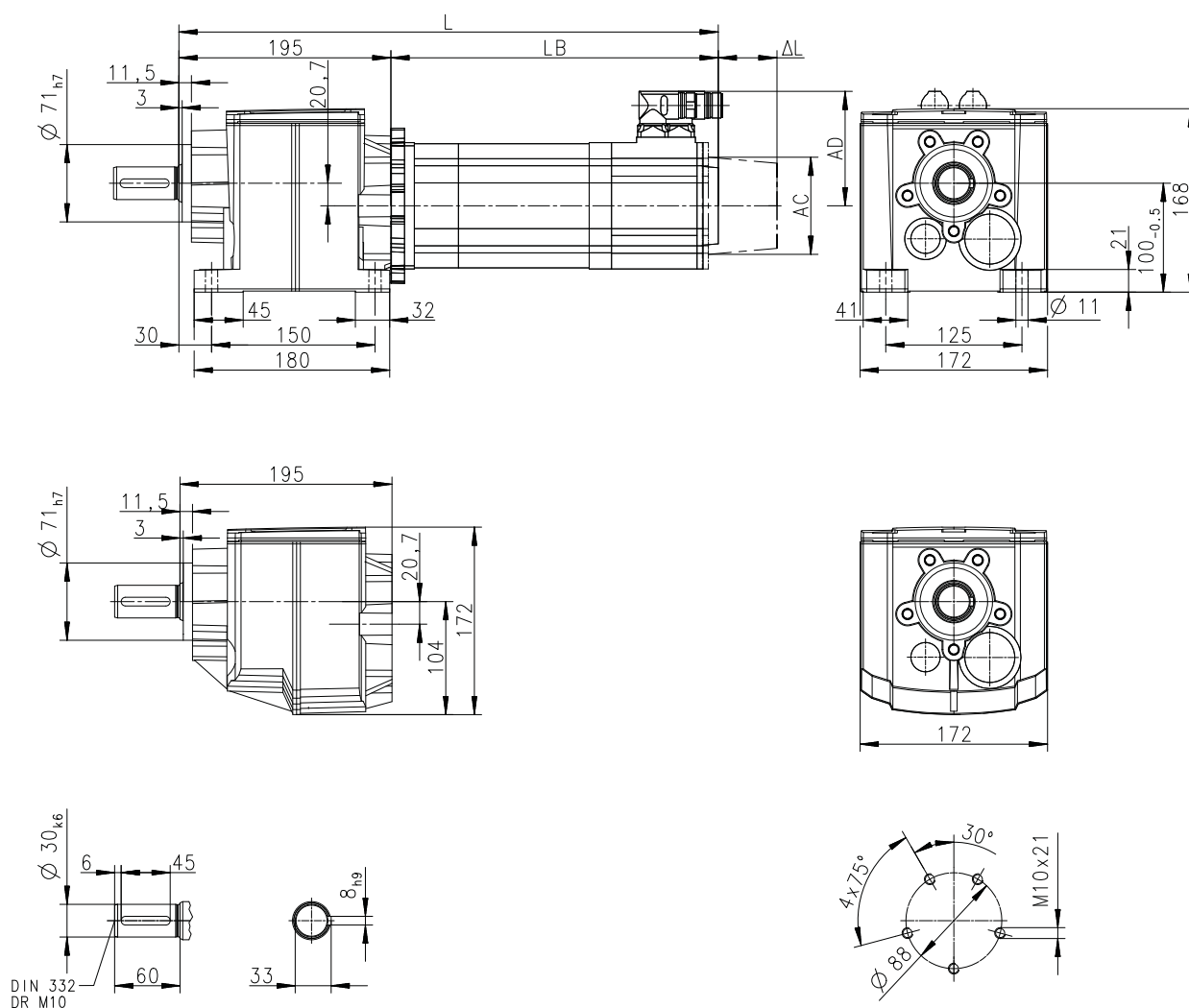
8800124-00

Motor			MCS			
			09D41- 09D41L	09F38- 09F38L	09H41- 09H41L	09L41- 09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	379	399	419	459
Motor length	LB	mm	184	204	224	264
Length of motor options	Δ L	mm	71			
Motor diameter	AC	mm	89			
Motor/connection distance	AD	mm	90			



g500-H320, 2-/3-stage with MCS09

Gearbox version: Solid shaft with foot/centering (VAR/VCR)



8800126-01

Motor			MCS			
			09D41- 09D41L	09F38- 09F38L	09H41- 09H41L	09L41- 09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	379	399	419	459
Motor length	LB	mm	184	204	224	264
Length of motor options	Δ L	mm	71			
Motor diameter	AC	mm	89			
Motor/connection distance	AD	mm	90			

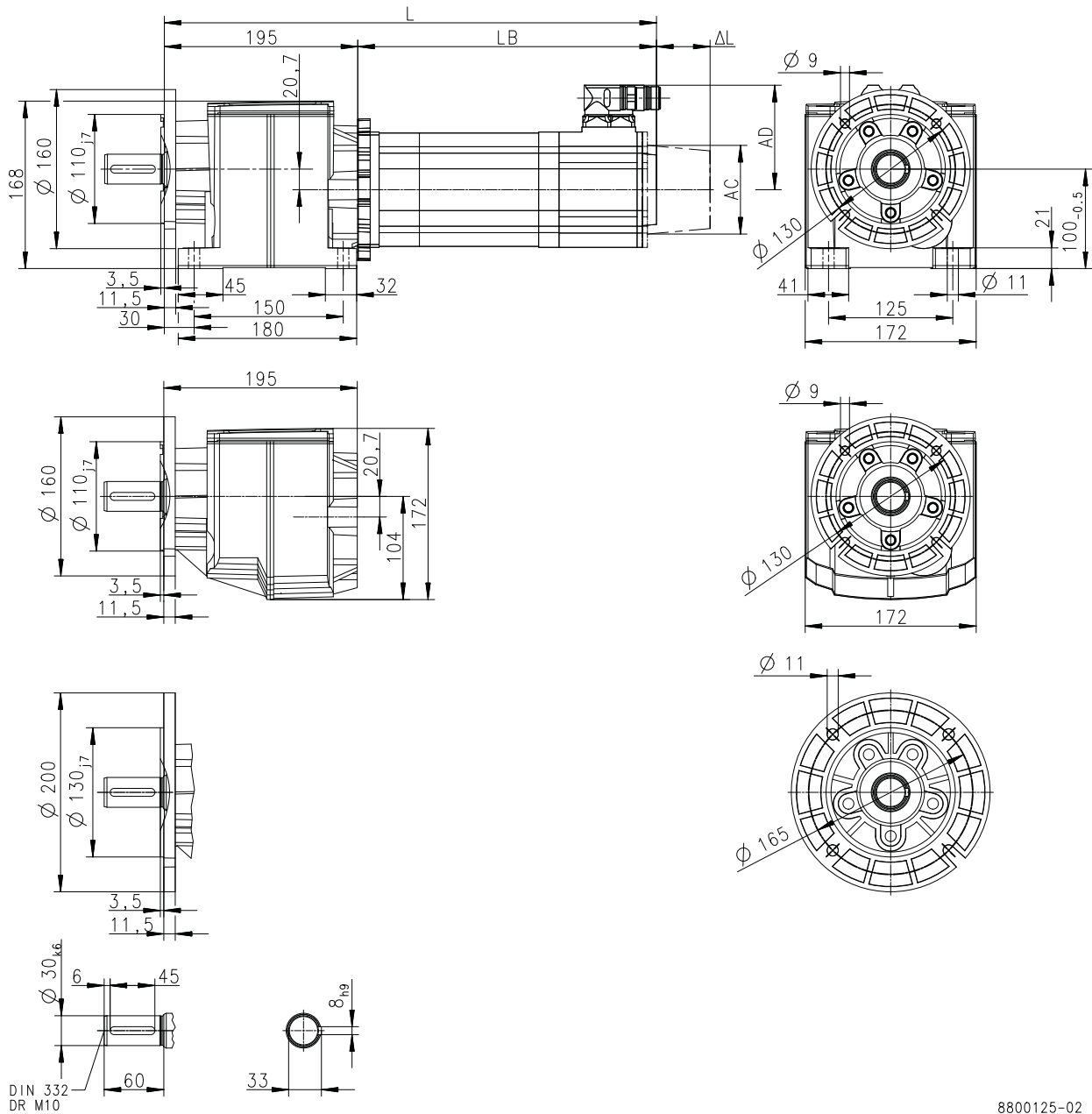
Technical data

Dimensions
Basic dimensions



g500-H320, 2-/3-stage with MCS09

Gearbox version: Solid shaft with foot/flange (VAK/VCK)



8800125-02

Motor			MCS			
			09D41-09D41L	09F38-09F38L	09H41-09H41L	09L41-09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	379	399	419	459
Motor length	LB	mm	184	204	224	264
Length of motor options	Δ L	mm	71			
Motor diameter	AC	mm	89			
Motor/connection distance	AD	mm	90			

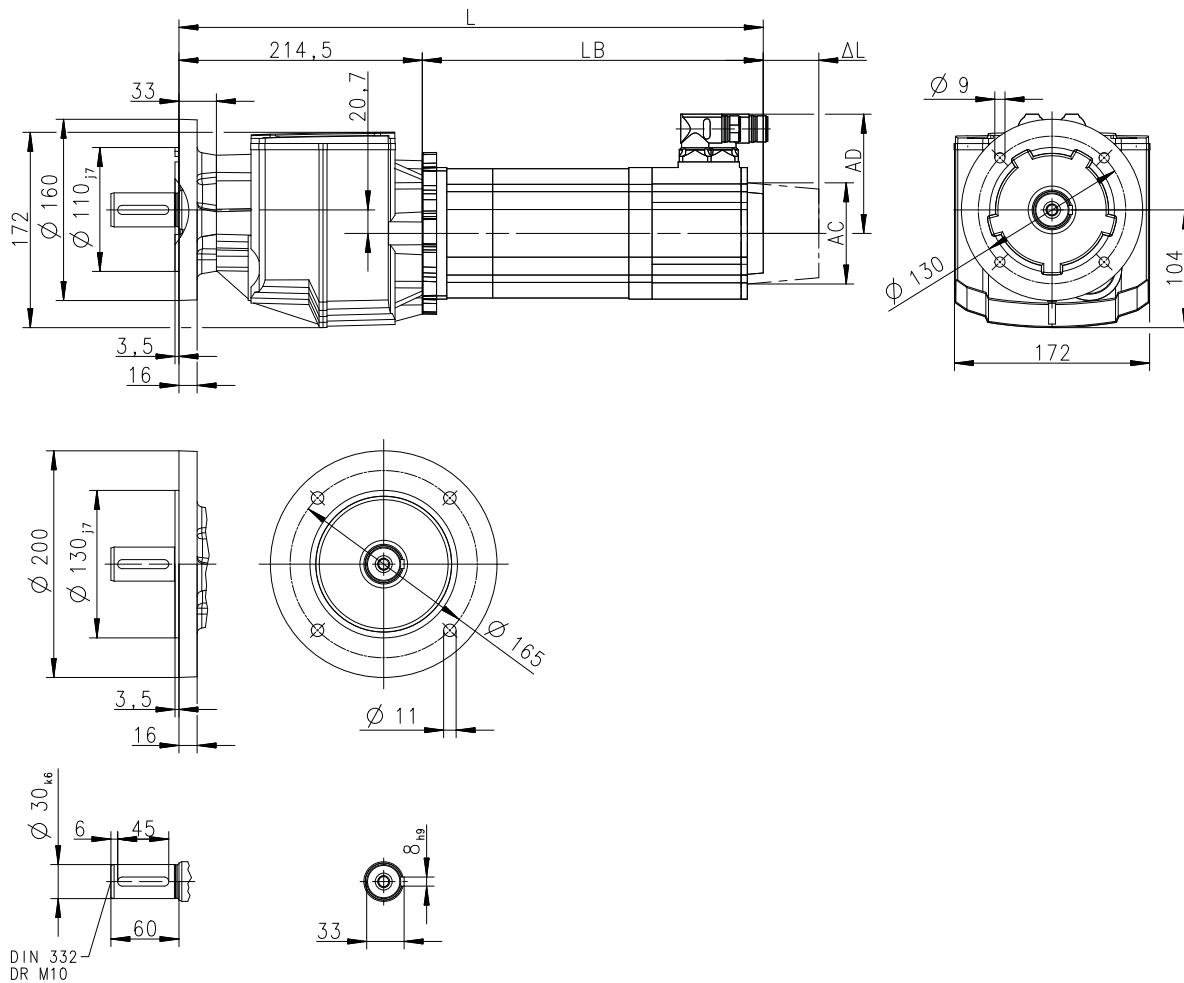


Technical data

Dimensions
Basic dimensions

g500-H320, 2-/3-stage with MCS09

Gearbox version: Solid shaft and flange (VCP)



8800320-00

Motor			MCS			
			09D41- 09D41L	09F38- 09F38L	09H41- 09H41L	09L41- 09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	399	419	439	479
Motor length	LB	mm	184	204	224	264
Length of motor options	Δ L	mm	71			
Motor diameter	AC	mm	89			
Motor/connection distance	AD	mm	90			

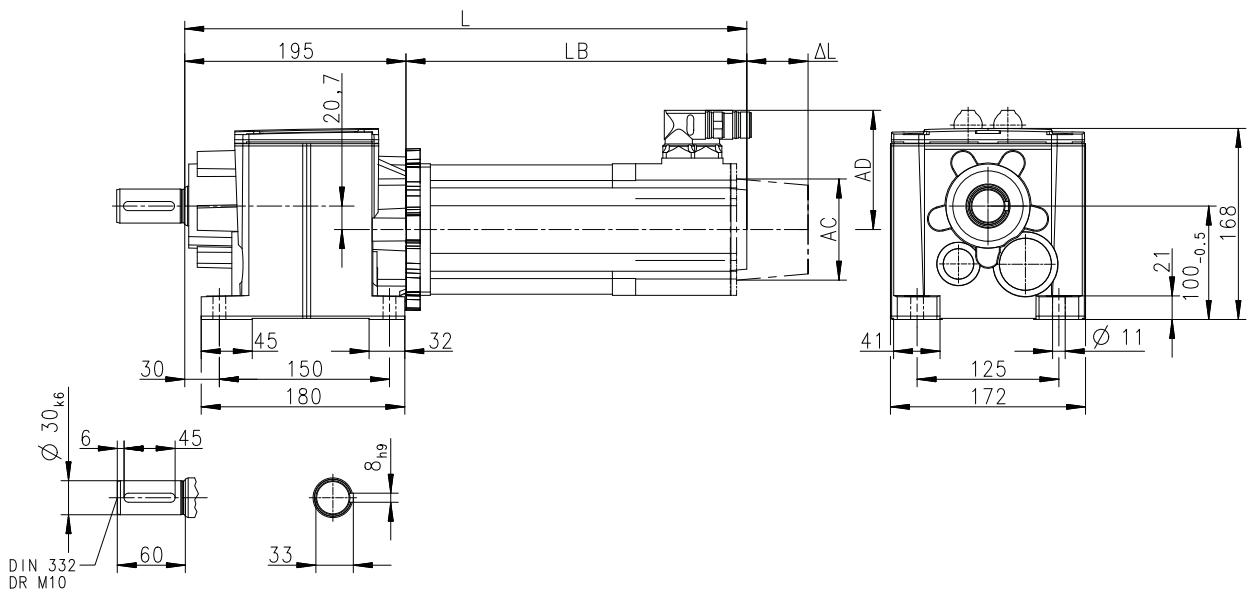
Technical data

Dimensions
Basic dimensions



g500-H320, 2-/3-stage with MCS12

Gearbox version: Solid shaft with foot (VBR)



8800124-00

Motor			MCS					
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	469	396	469	396	509	436
Motor length	LB	mm	274	201	274	201	314	241
Length of motor options	Δ L	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105



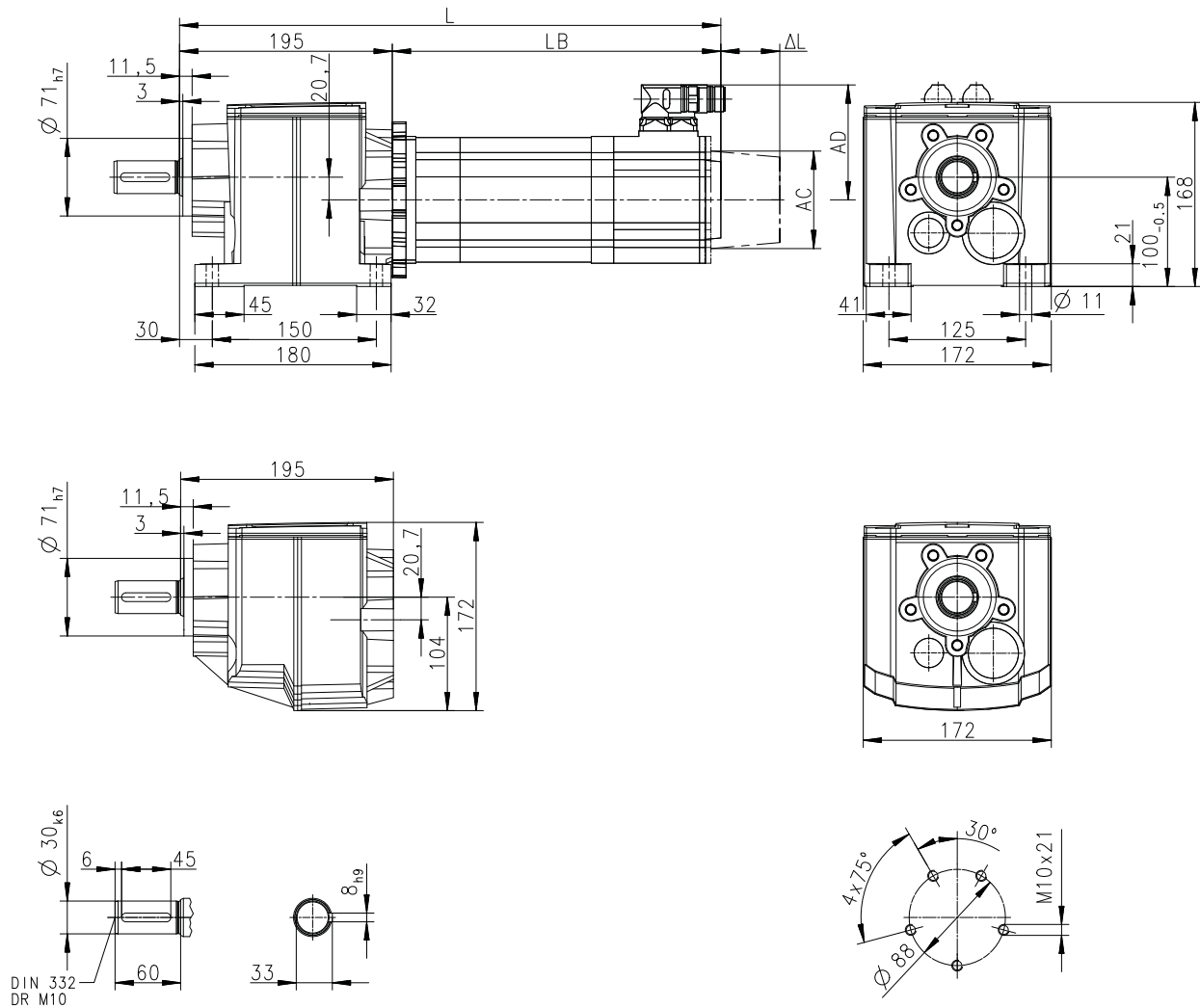
Technical data

Dimensions
Basic dimensions



g500-H320, 2-/3-stage with MCS12

Gearbox version: Solid shaft with foot/centering (VAR/VCR)



8800126-01

Motor			MCS					
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	469	396	469	396	509	436
Motor length	LB	mm	274	201	274	201	314	241
Length of motor options	Δ L	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105

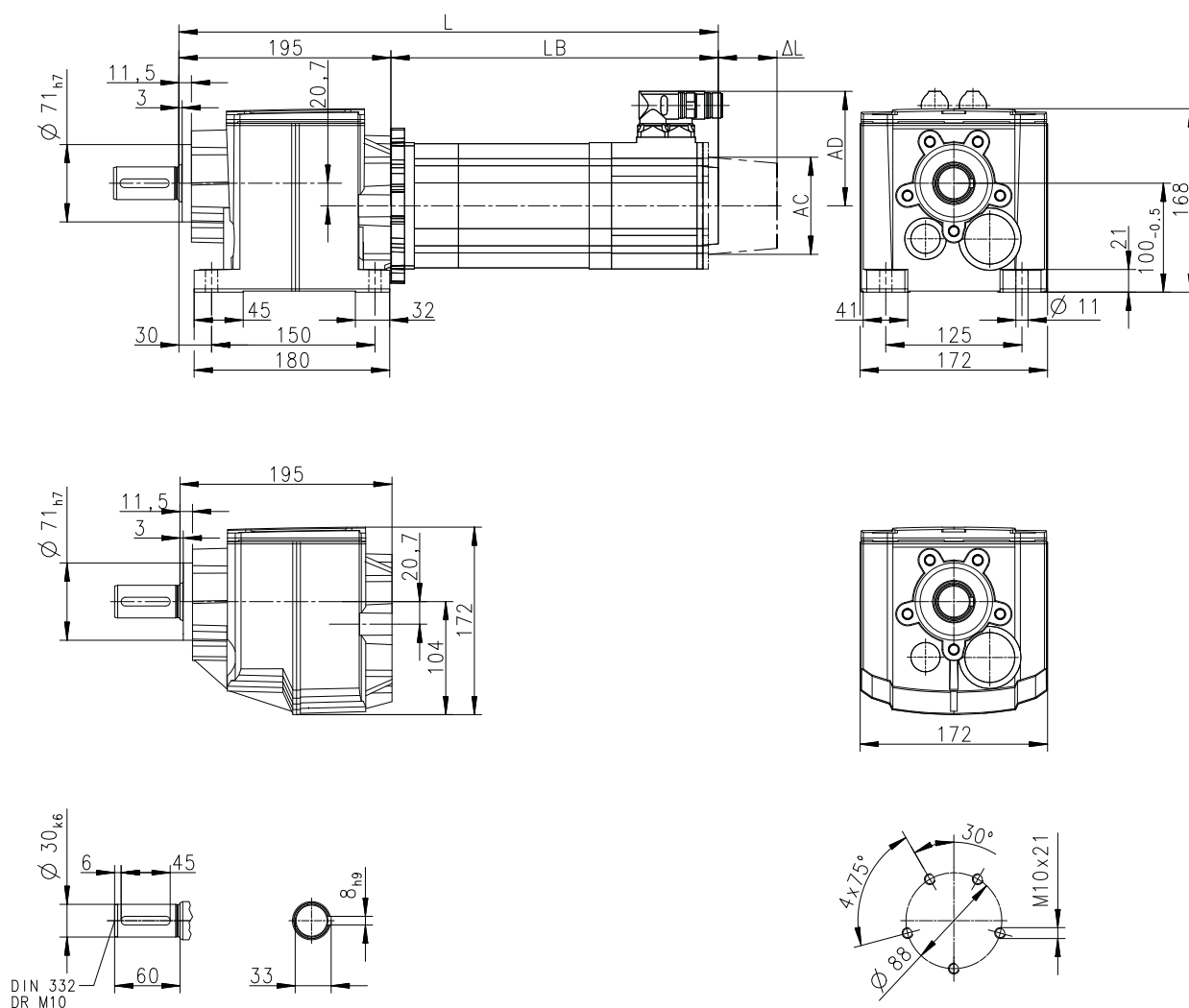


Technical data

Dimensions
Basic dimensions

g500-H320, 2-/3-stage with MCS12

Gearbox version: Solid shaft with foot/centering (VAR/VCR)



8800126-01

Motor			MCS					
			12H34-	12H35- 12H30L	12L17-	12L20- 12L20L	12L39-	12L41- 12L41L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	509	436	549	476	549	476
Motor length	LB	mm	314	241	354	281	354	281
Length of motor options	Δ L	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105

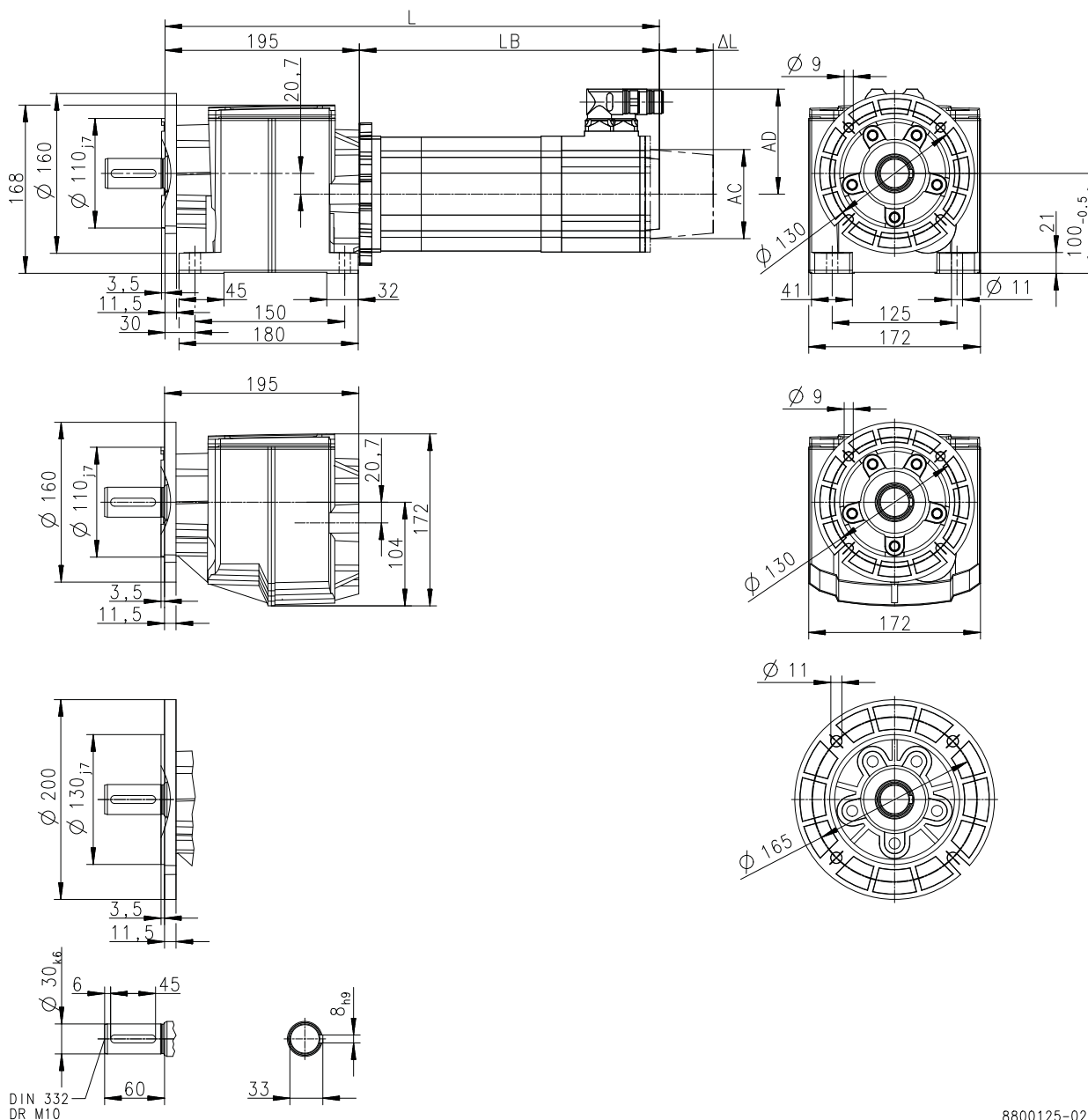
Technical data

Dimensions
Basic dimensions



g500-H320, 2-/3-stage with MCS12

Gearbox version: Solid shaft with foot/flange (VAK/VCK)

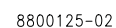


8800125-02

Motor			MCS					
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	469	396	469	396	509	436
Motor length	LB	mm	274	201	274	201	314	241
Length of motor options	Δ L	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105



Gearbox version: Solid shaft with foot/flange (VAK/VCK)

183

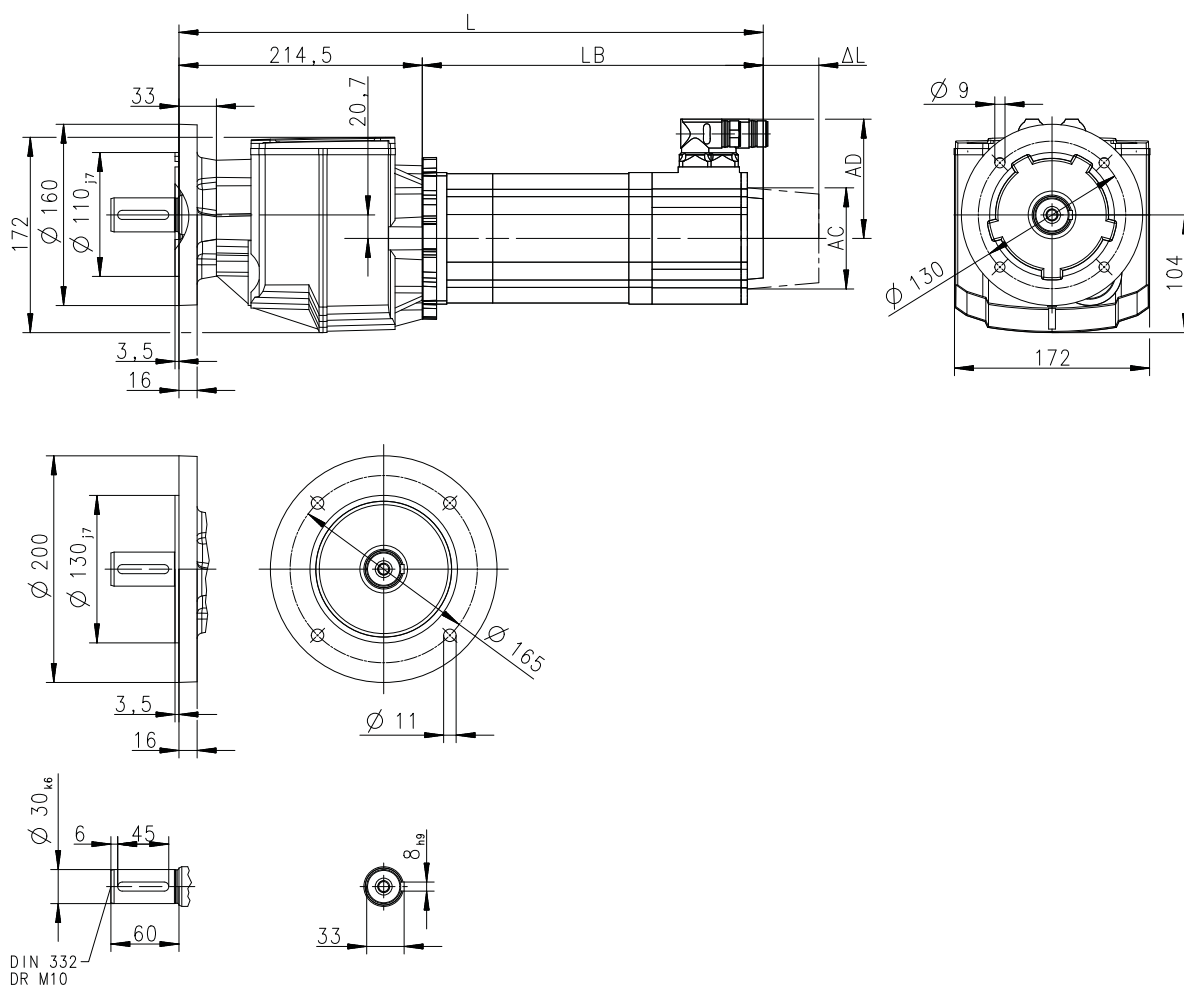
Technical data

Dimensions
Basic dimensions



g500-H320, 2-/3-stage with MCS12

Gearbox version: Solid shaft and flange (VCP)



8800320-00

Motor			MCS					
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	488	415	488	415	528	455
Motor length	LB	mm	274	201	274	201	314	241
Length of motor options	Δ L	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105



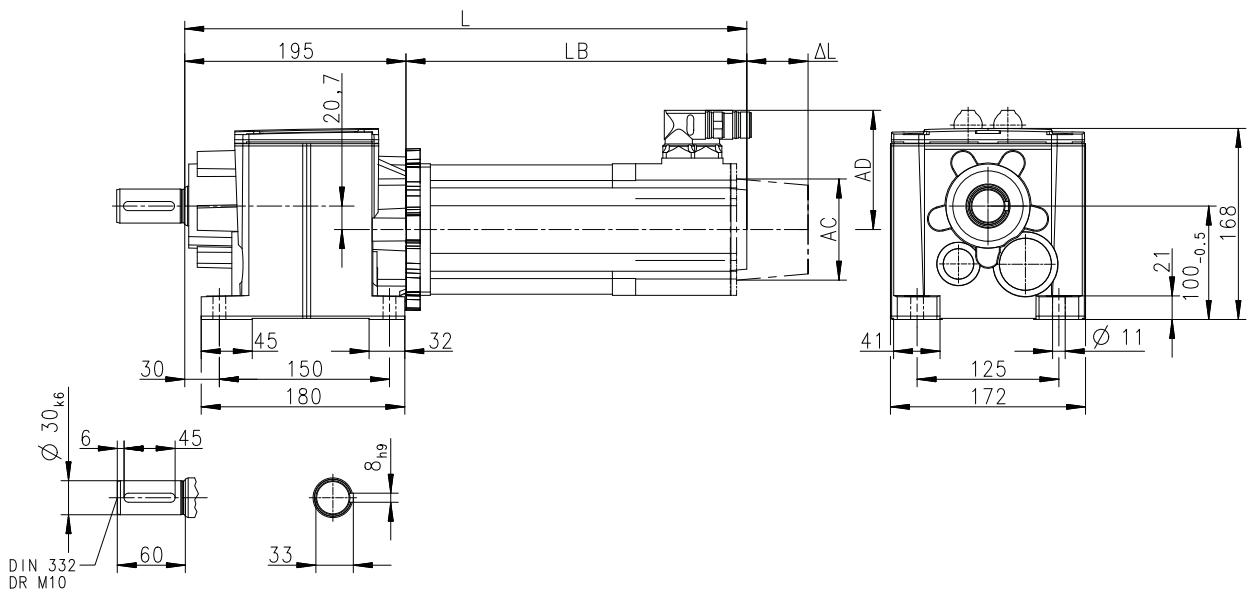
Technical data

Dimensions
Basic dimensions



g500-H320, 2-/3-stage with MCS14

Gearbox version: Solid shaft with foot (VBR)



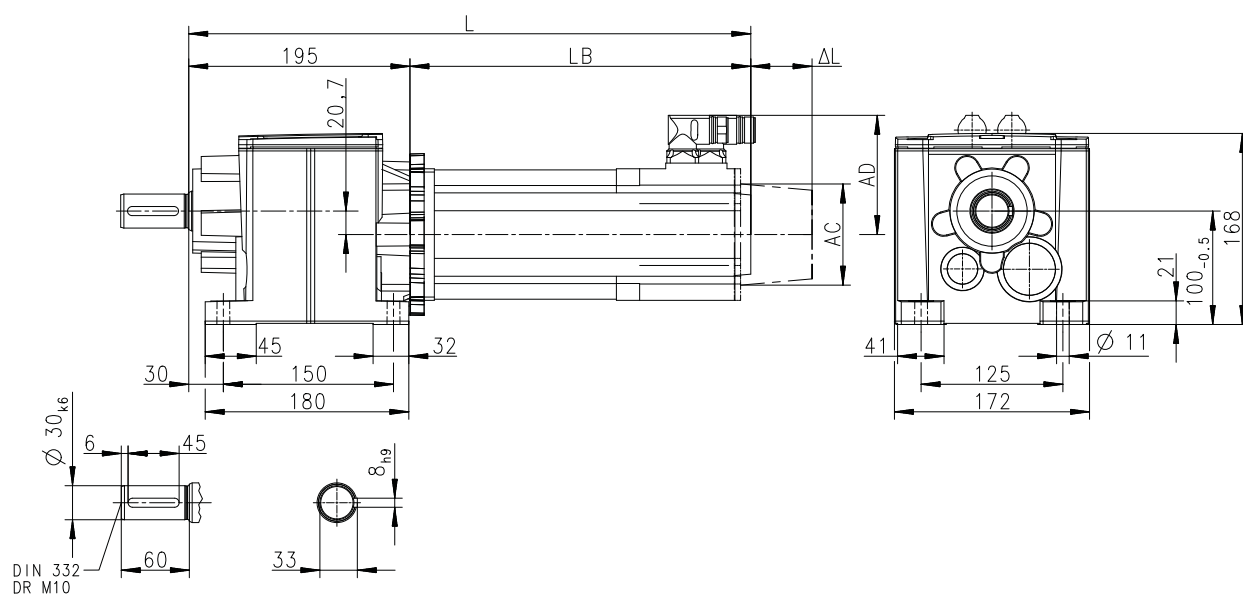
8800124-00

Motor			MCS							
			14D14-	14D15-	14D30-	14D36-	14H12-	14H15-	14H28-	14H32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	499	411	499	411	539	451	539	451
Motor length	LB	mm	304	216	304	216	344	256	344	256
Length of motor options	Δ L	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	117	117	117	117	146	117



g500-H320, 2-/3-stage with MCS14

Gearbox version: Solid shaft with foot (VBR)



8800124-00

Motor			MCS							
			14L14-	14L15-	14L30-	14L32-	14P11-	14P14-	14P26-	14P32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	579	491	579	491	619	531	619	531
Motor length	LB	mm	384	296	384	296	424	336	424	336
Length of motor options	ΔL	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	146	146	117	117	146	146

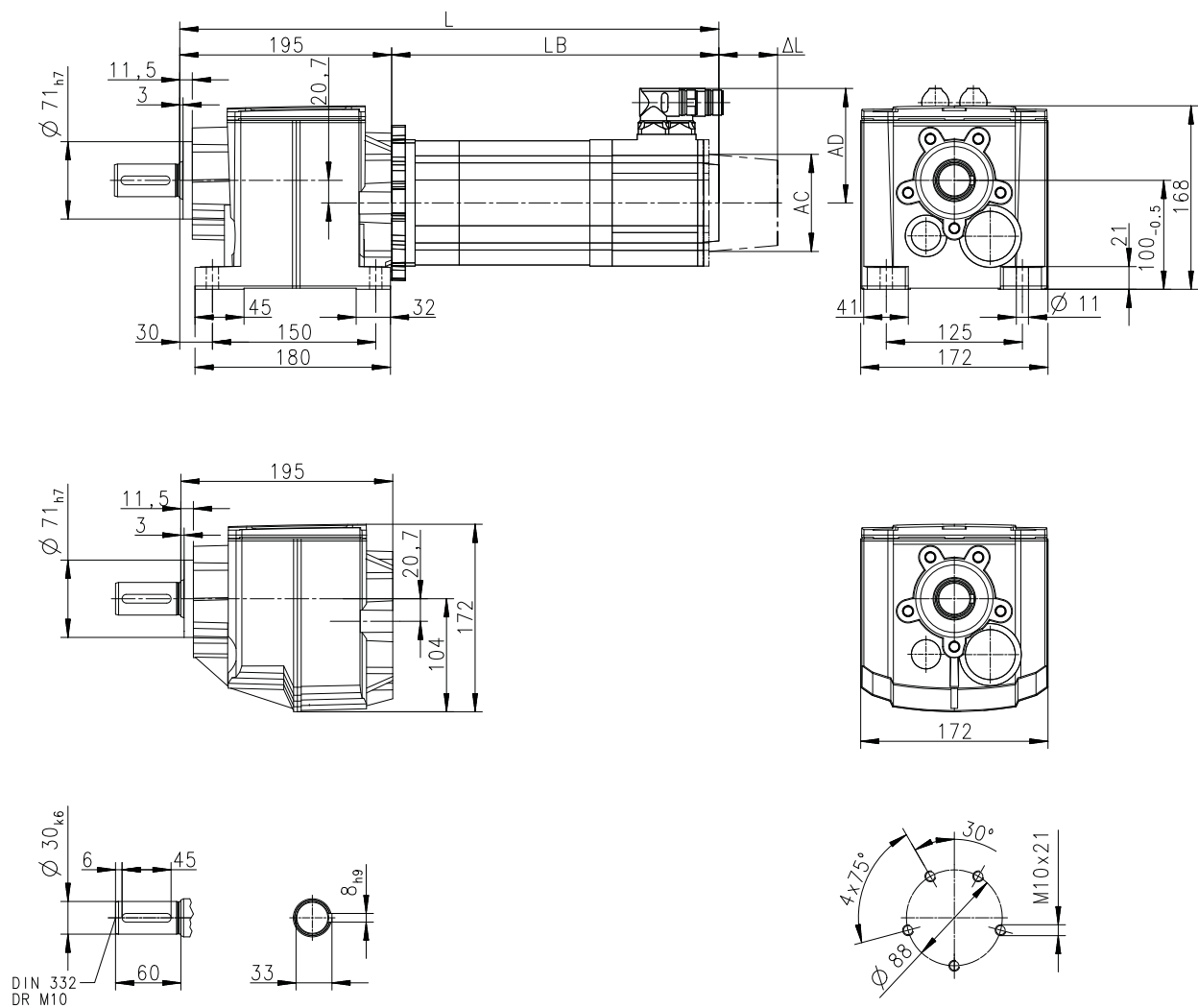
Technical data

Dimensions
Basic dimensions



g500-H320, 2-/3-stage with MCS14

Gearbox version: Solid shaft with foot/centering (VAR/VCR)



8800126-01

Motor			MCS							
			14D14-	14D15-	14D30-	14D36-	14H12-	14H15-	14H28-	14H32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	499	411	499	411	539	451	539	451
Motor length	LB	mm	304	216	304	216	344	256	344	256
Length of motor options	Δ L	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	117	117	117	117	146	117

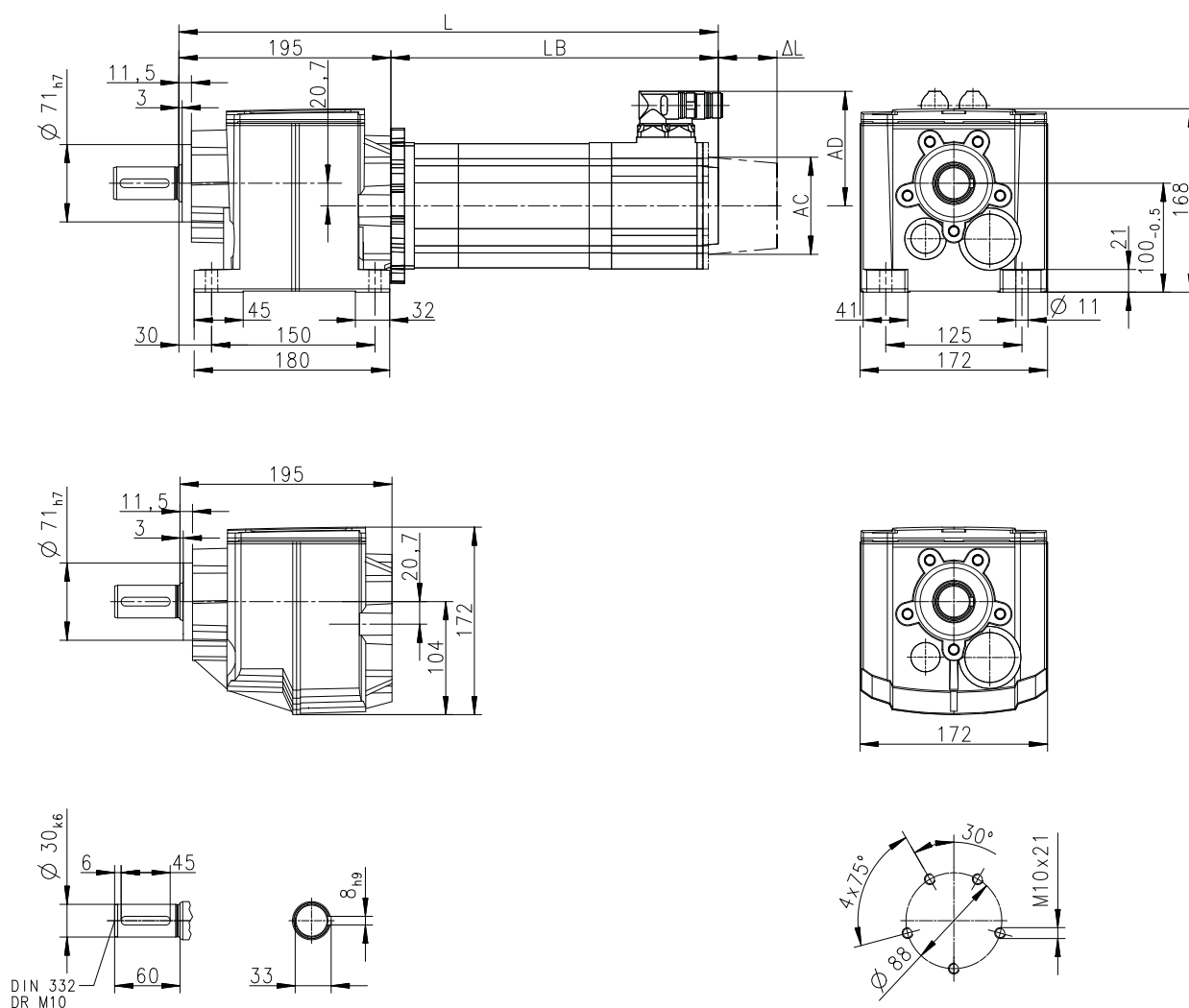


Technical data

Dimensions
Basic dimensions

g500-H320, 2-/3-stage with MCS14

Gearbox version: Solid shaft with foot/centering (VAR/VCR)



8800126-01

Motor			MCS							
			14L14-	14L15-	14L30-	14L32-	14P11-	14P14-	14P26-	14P32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	579	491	579	491	619	531	619	531
Motor length	LB	mm	384	296	384	296	424	336	424	336
Length of motor options	ΔL	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	146	146	117	117	146	146

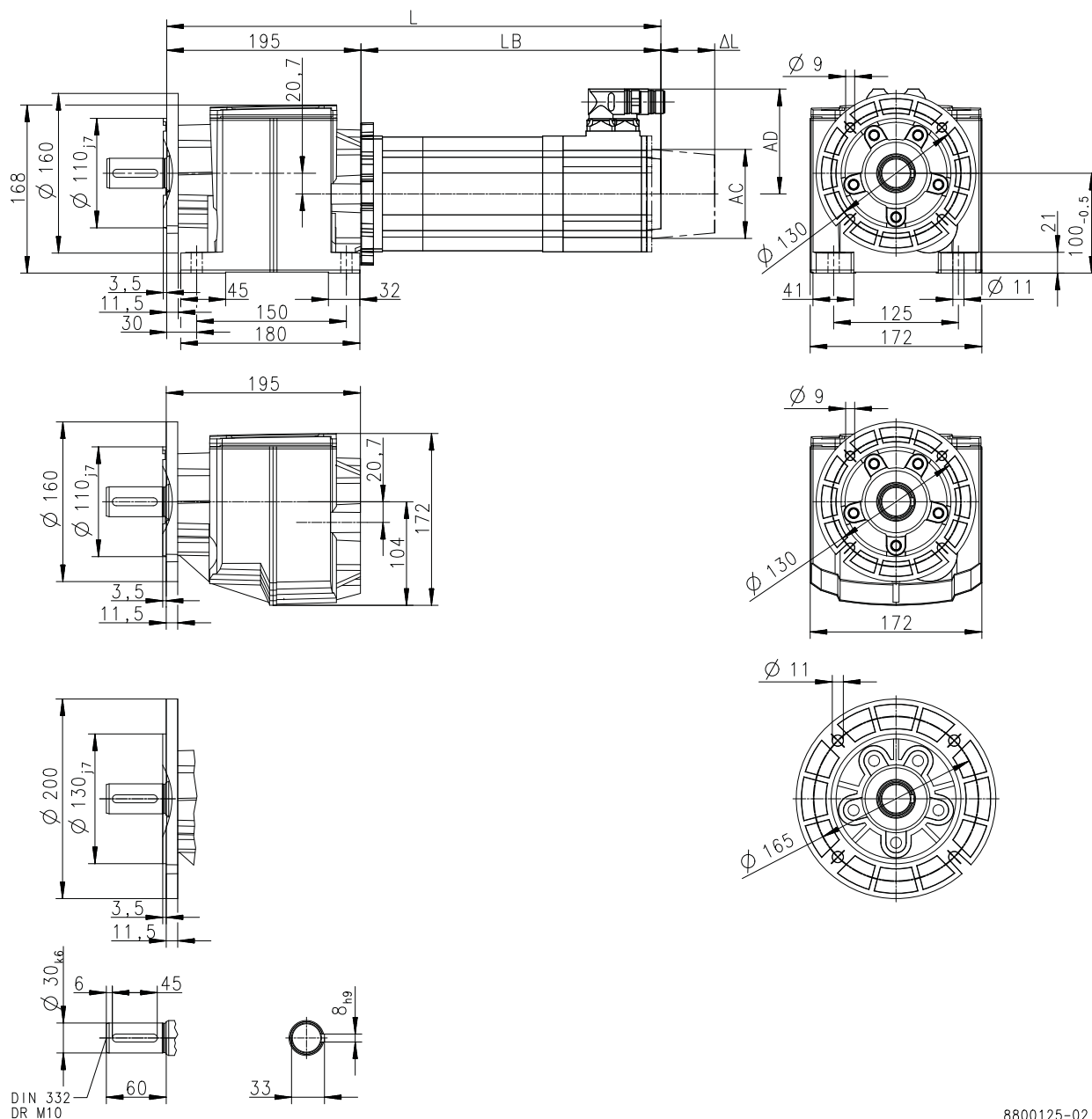
Technical data

Dimensions
Basic dimensions



g500-H320, 2-/3-stage with MCS14

Gearbox version: Solid shaft with foot/flange (VAK/VCK)



8800125-02

Motor			MCS							
			14D14-	14D15-	14D30-	14D36-	14H12-	14H15-	14H28-	14H32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	499	411	499	411	539	451	539	451
Motor length	LB	mm	304	216	304	216	344	256	344	256
Length of motor options	Δ L	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	117	117	117	117	146	117

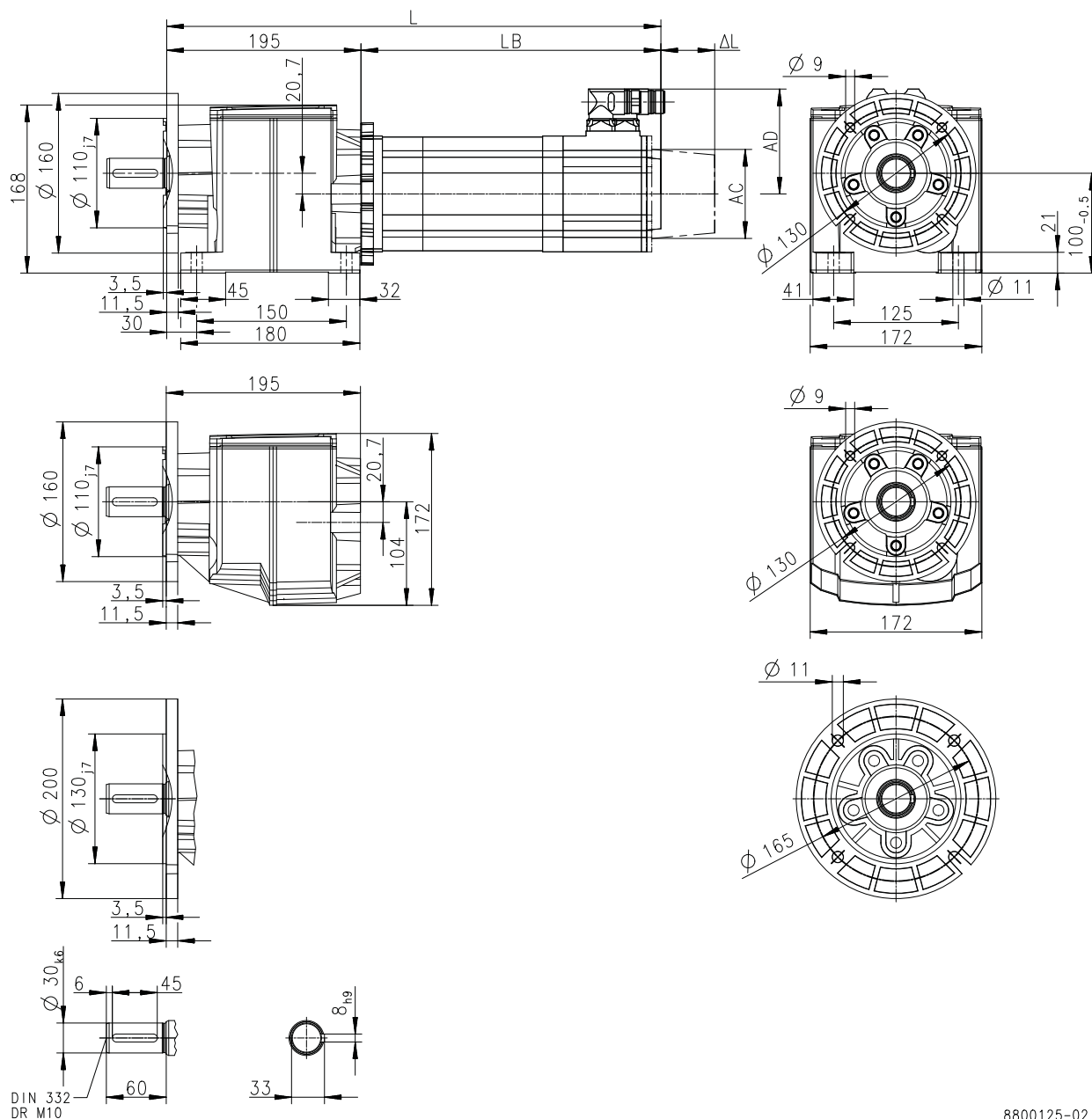


Technical data

Dimensions
Basic dimensions

g500-H320, 2-/3-stage with MCS14

Gearbox version: Solid shaft with foot/flange (VAK/VCK)



8800125-02

Motor			MCS							
			14L14-	14L15-	14L30-	14L32-	14P11-	14P14-	14P26-	14P32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	579	491	579	491	619	531	619	531
Motor length	LB	mm	384	296	384	296	424	336	424	336
Length of motor options	Δ L	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	146	146	117	117	146	146

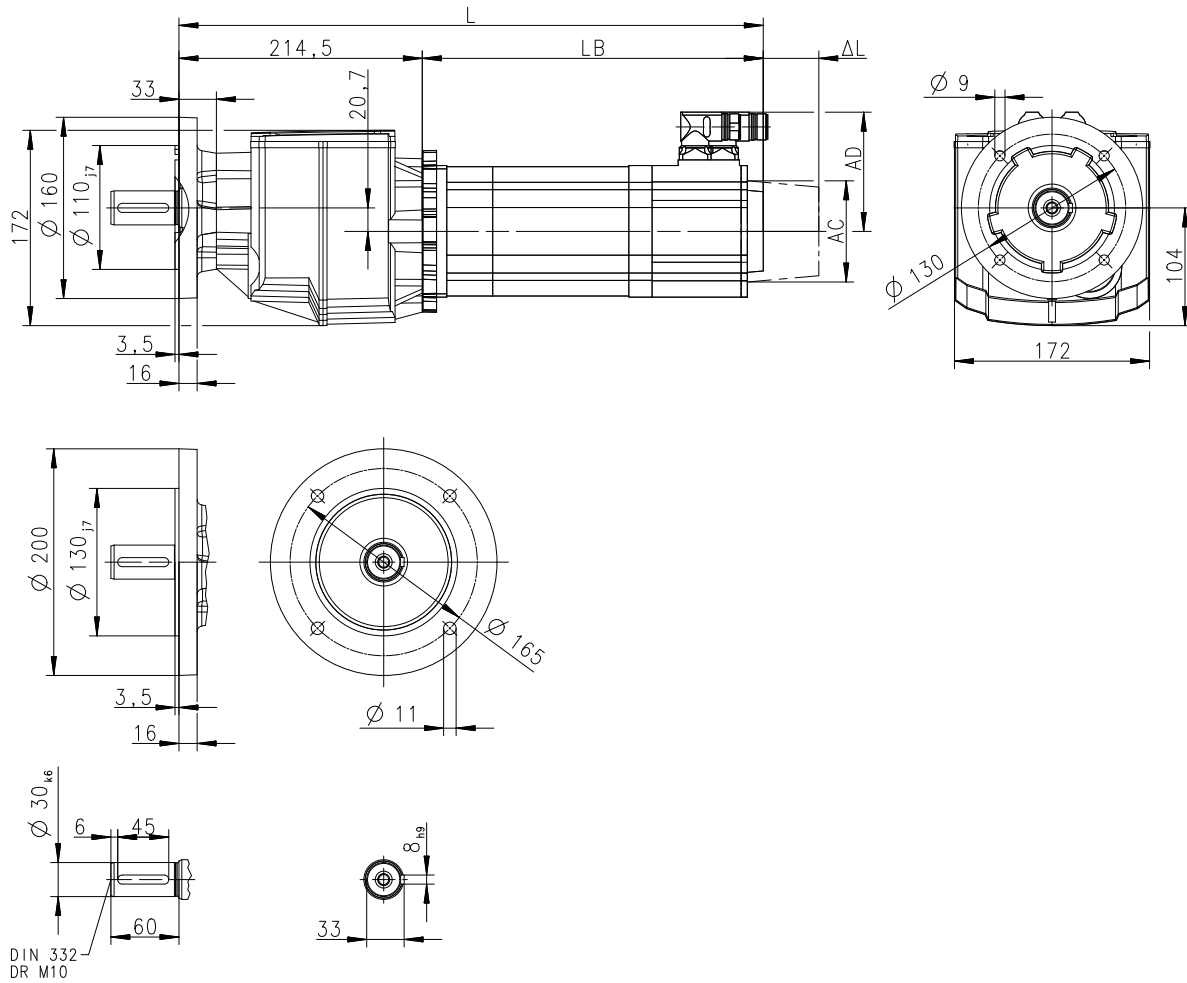
Technical data

Dimensions
Basic dimensions



g500-H320, 2-/3-stage with MCS14

Gearbox version: Solid shaft and flange (VCP)



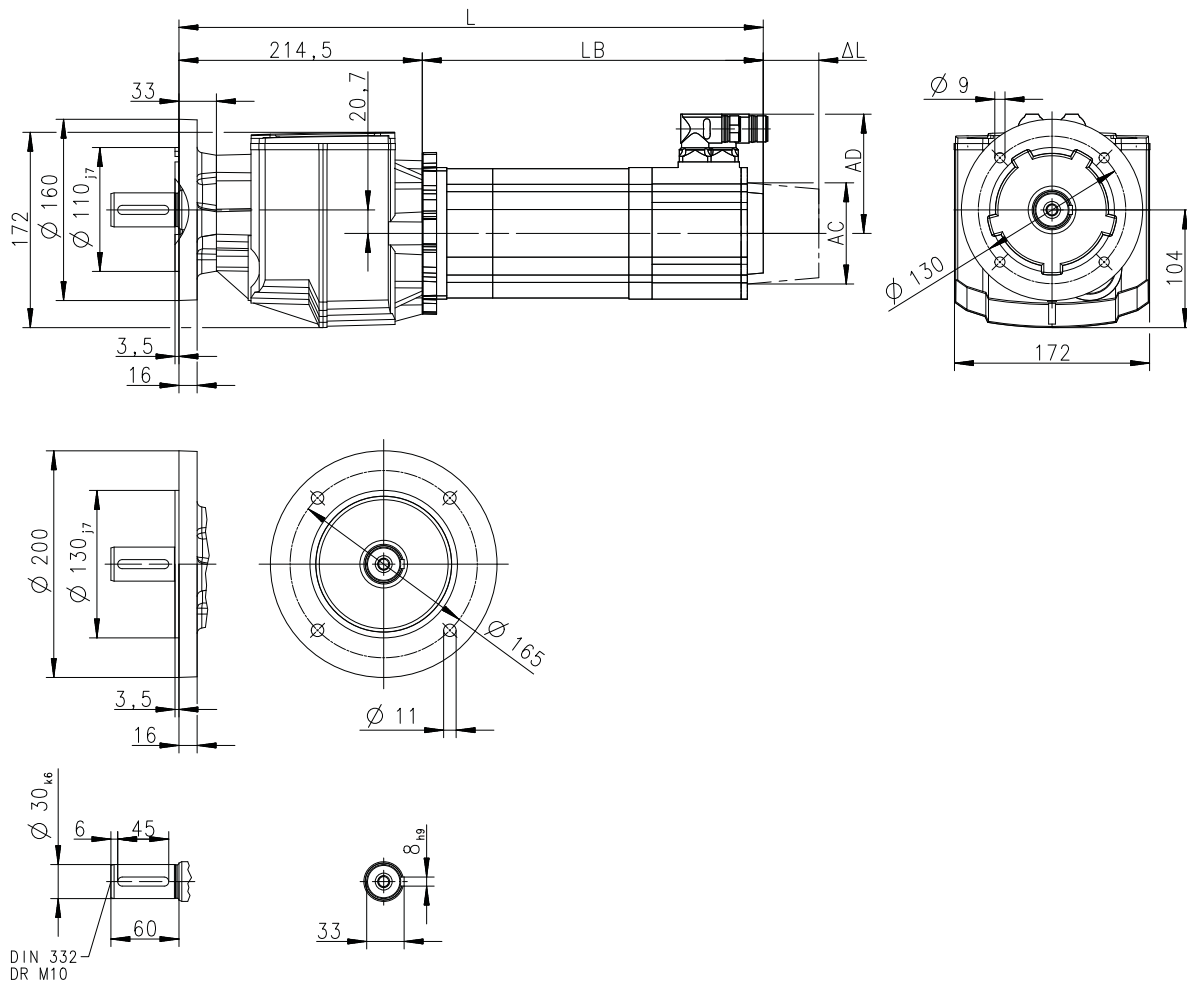
8800320-00

Motor			MCS							
			14D14-	14D15-	14D30-	14D36-	14H12-	14H15-	14H28-	14H32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	519	431	519	431	559	471	559	471
Motor length	LB	mm	304	216	304	216	344	256	344	256
Length of motor options	Δ L	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	117	117	117	117	146	117



g500-H320, 2-/3-stage with MCS14

Gearbox version: Solid shaft and flange (VCP)



8800320-00

Motor			MCS							
			14L14-	14L15-	14L30-	14L32-	14P11-	14P14-	14P26-	14P32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	599	511	599	511	639	551	639	551
Motor length	LB	mm	384	296	384	296	424	336	424	336
Length of motor options	Δ L	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	146	146	117	117	146	146

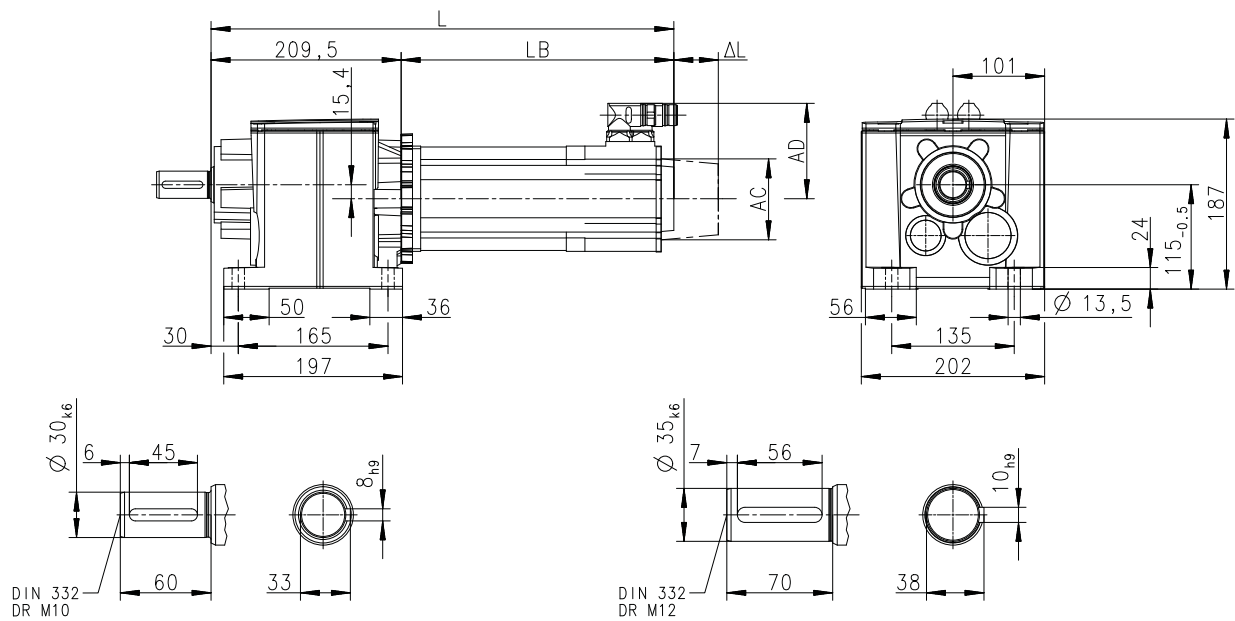
Technical data

Dimensions
Basic dimensions



g500-H450, 2-/3-stage with MCS06

Gearbox version: Solid shaft with foot (VBR)



8800136-00

Motor			MCS		
			06C41- 06C41L	06F41- 06F41L	06I41- 06I41L
Cooling type			natural	natural	natural
Total length	L	mm	341	371	401
Motor length	LB	mm	131	161	191
Length of motor options	ΔL	mm	82		
Motor diameter	AC	mm	86		
Motor/connection distance	AD	mm	77		

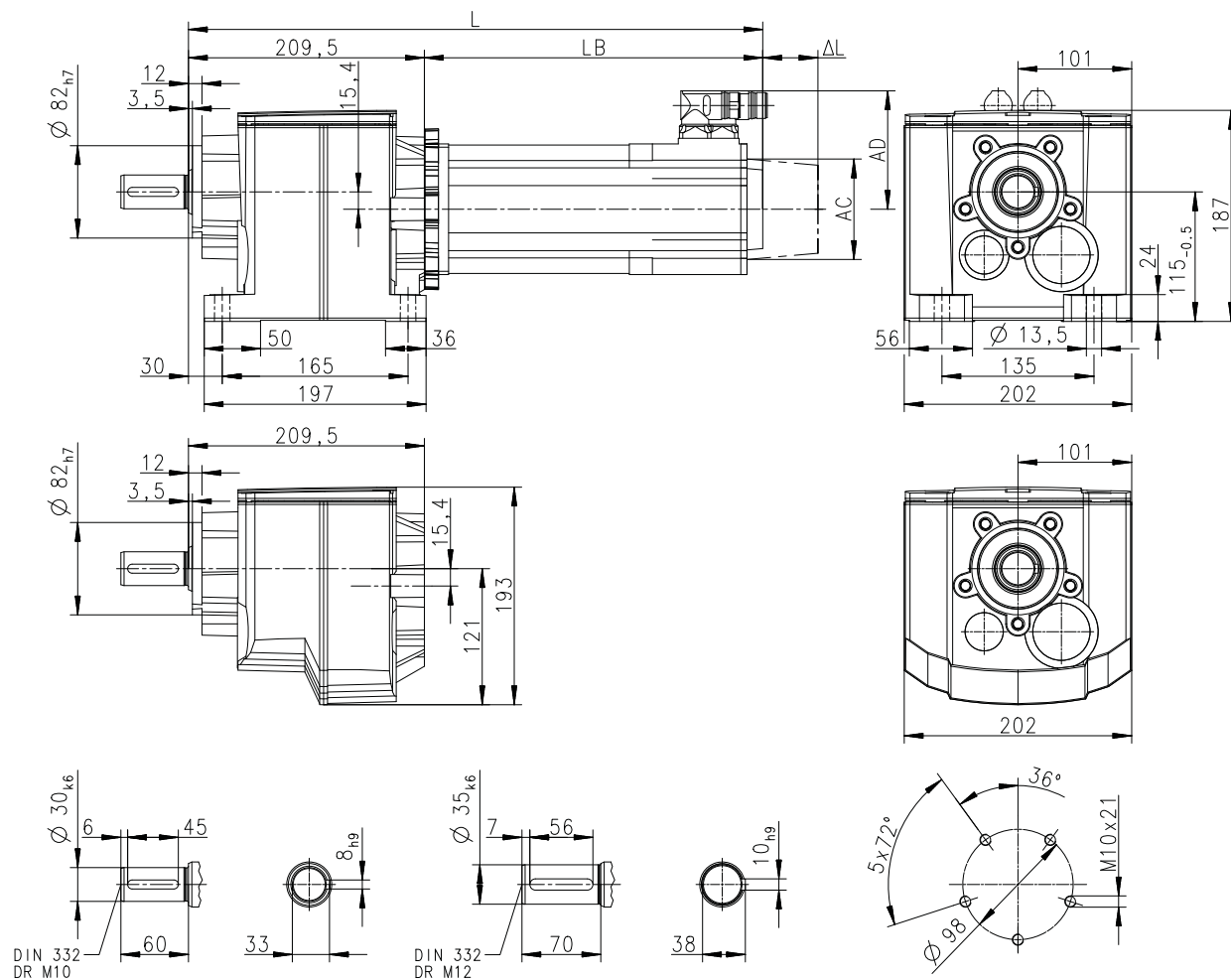


Technical data

Dimensions
Basic dimensions

g500-H450, 2-/3-stage with MCS06

Gearbox version: Solid shaft with foot/centering (VAR/VCR)



8800138-00

Motor			MCS		
			06C41-06C41L	06F41-06F41L	06I41-06I41L
Cooling type			natural	natural	natural
Total length	L	mm	341	371	401
Motor length	LB	mm	131	161	191
Length of motor options	ΔL	mm	82		
Motor diameter	AC	mm	86		
Motor/connection distance	AD	mm	77		

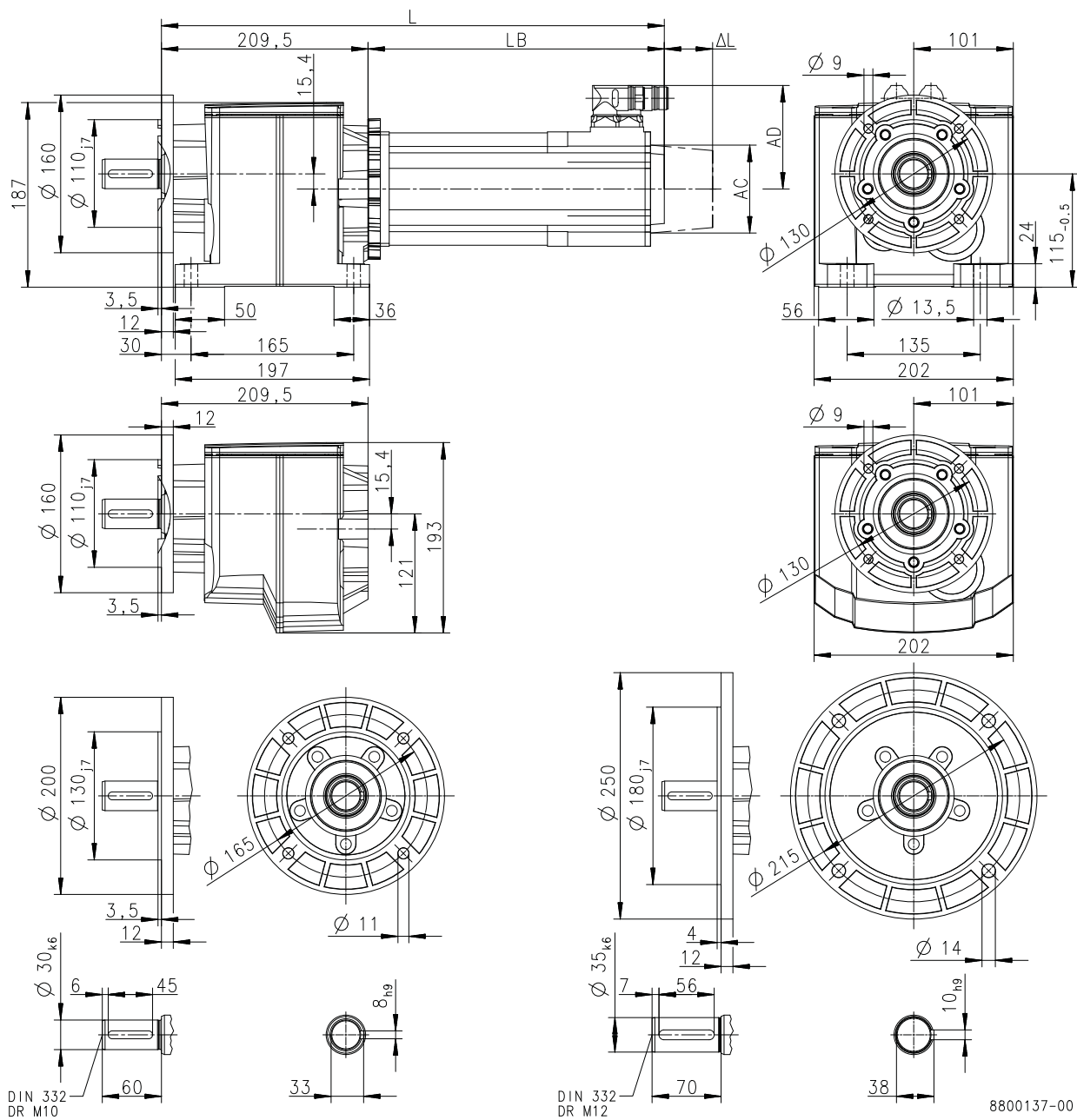
Technical data

Dimensions
Basic dimensions



g500-H450, 2-/3-stage with MCS06

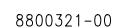
Gearbox version: Solid shaft with foot/flange (VAK/VCK)



Motor			MCS		
			06C41- 06C41L	06F41- 06F41L	06I41- 06I41L
Cooling type			natural	natural	natural
Total length	L	mm	341	371	401
Motor length	LB	mm	131	161	191
Length of motor options	Δ L	mm	82		
Motor diameter	AC	mm	86		
Motor/connection distance	AD	mm	77		



Gearbox version: Solid shaft and flange (VCP)

197

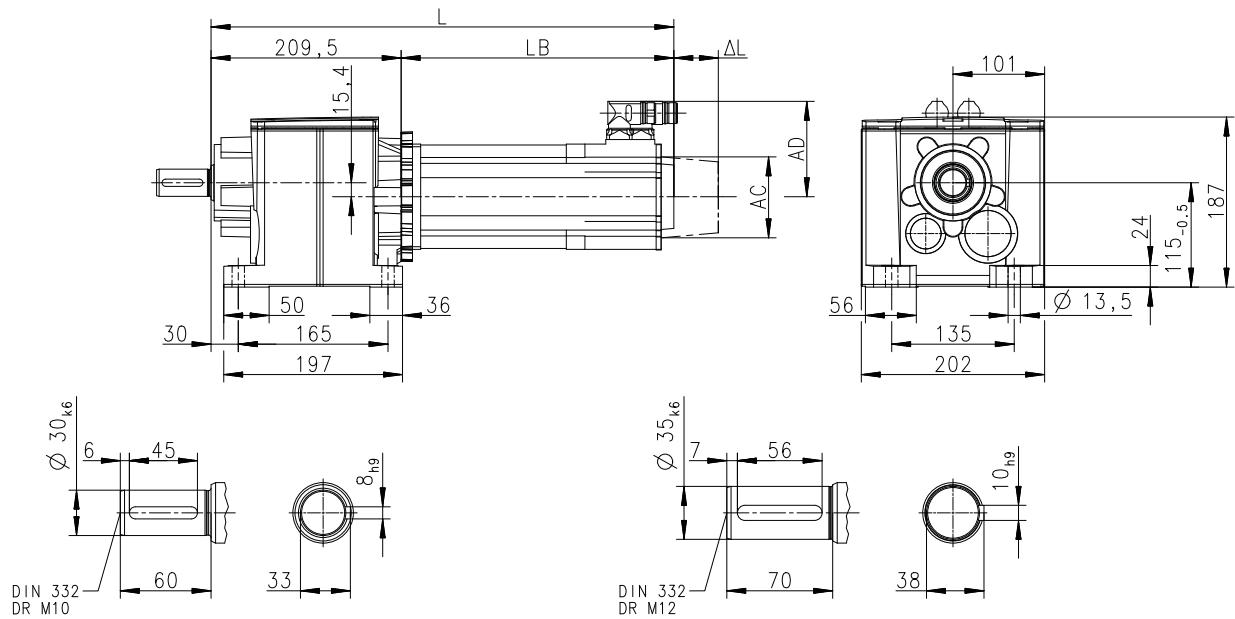
Technical data

Dimensions
Basic dimensions



g500-H450, 2-/3-stage with MCS09

Gearbox version: Solid shaft with foot (VBR)



8800136-00

Motor			MCS			
			09D41- 09D41L	09F38- 09F38L	09H41- 09H41L	09L41- 09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	393	413	433	473
Motor length	LB	mm	184	204	224	264
Length of motor options	ΔL	mm	71			
Motor diameter	AC	mm	89			
Motor/connection distance	AD	mm	90			

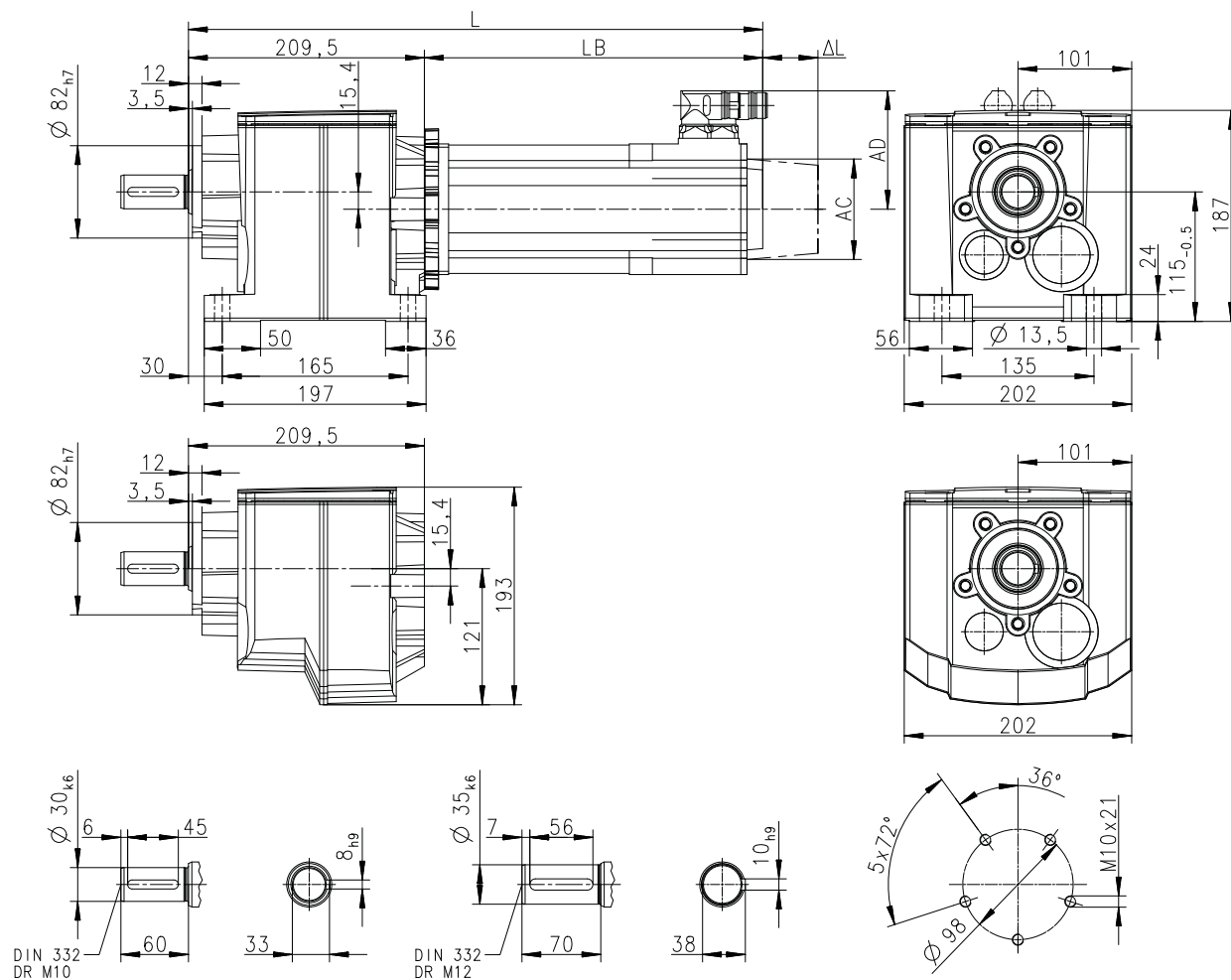


Technical data

Dimensions
Basic dimensions

g500-H450, 2-/3-stage with MCS09

Gearbox version: Solid shaft with foot/centering (VAR/VCR)



8800138-00

Motor			MCS			
			09D41- 09D41L	09F38- 09F38L	09H41- 09H41L	09L41- 09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	393	413	433	473
Motor length	LB	mm	184	204	224	264
Length of motor options	ΔL	mm	71			
Motor diameter	AC	mm	89			
Motor/connection distance	AD	mm	90			

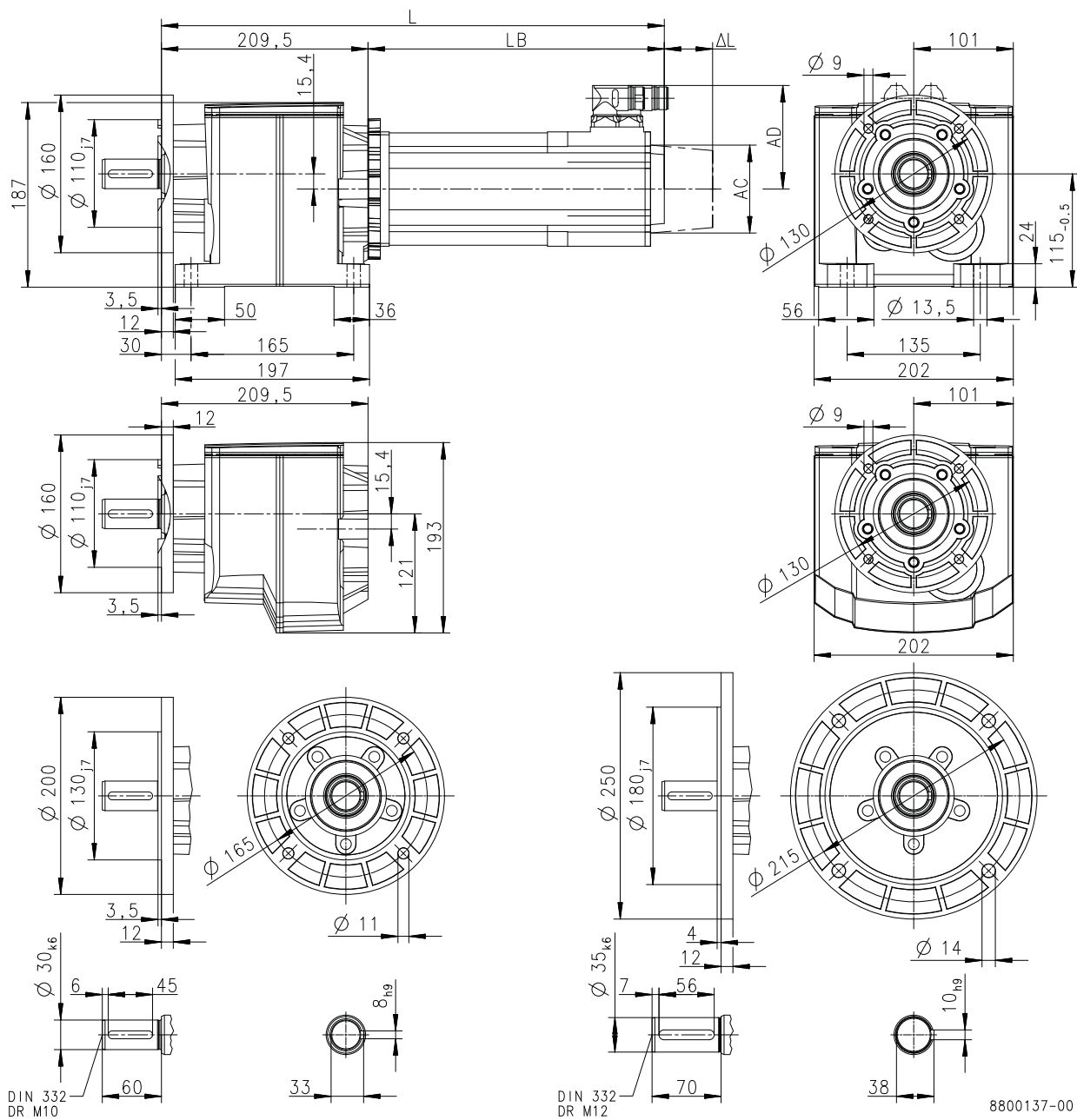
Technical data

Dimensions
Basic dimensions



g500-H450, 2-/3-stage with MCS09

Gearbox version: Solid shaft with foot/flange (VAK/VCK)

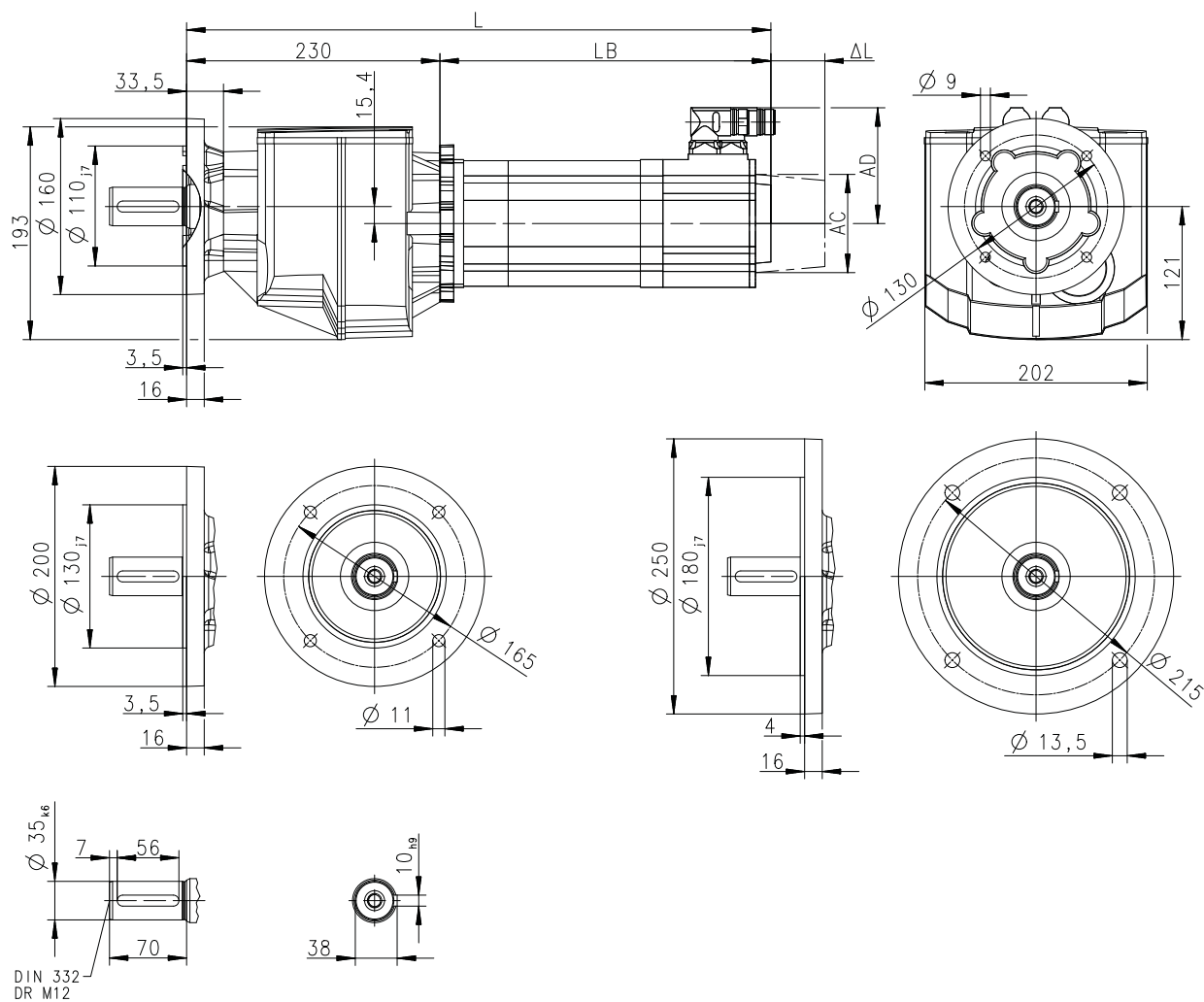


Motor			MCS			
			09D41- 09D41L	09F38- 09F38L	09H41- 09H41L	09L41- 09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	393	413	433	473
Motor length	LB	mm	184	204	224	264
Length of motor options	Δ L	mm	71			
Motor diameter	AC	mm	89			
Motor/connection distance	AD	mm	90			



g500-H450, 2-/3-stage with MCS09

Gearbox version: Solid shaft and flange (VCP)



8800321-00

Motor			MCS			
			09D41- 09D41L	09F38- 09F38L	09H41- 09H41L	09L41- 09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	413	433	453	493
Motor length	LB	mm	184	204	224	264
Length of motor options	Δ L	mm	71			
Motor diameter	AC	mm	89			
Motor/connection distance	AD	mm	90			

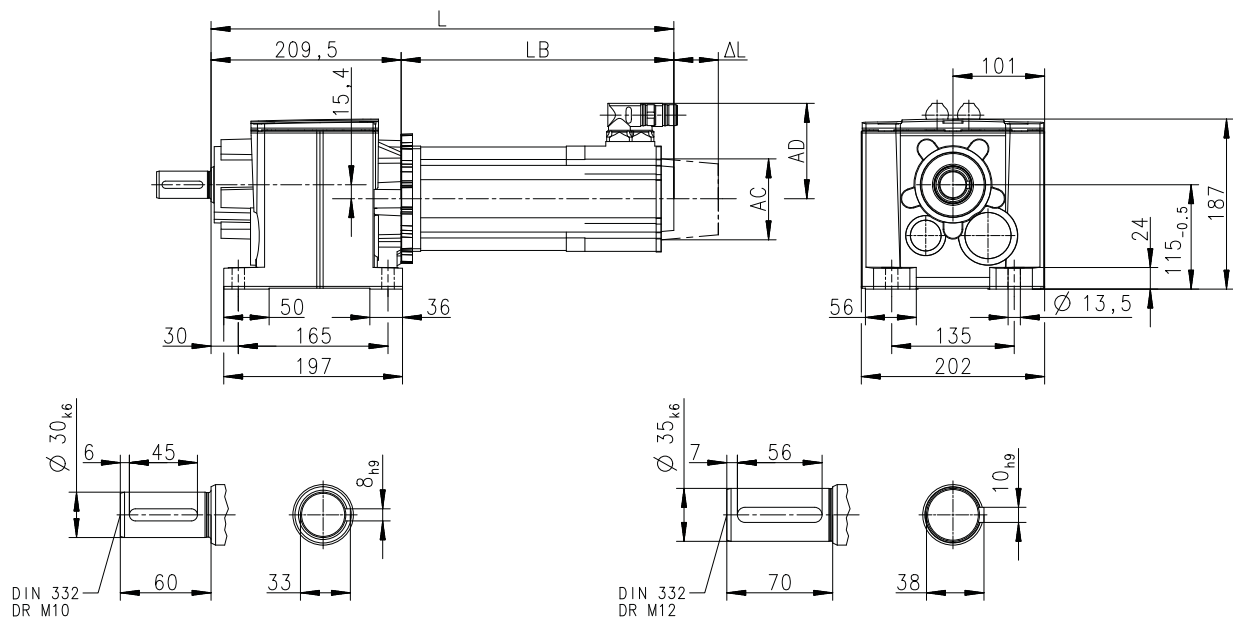
Technical data

Dimensions
Basic dimensions



g500-H450, 2-/3-stage with MCS12

Gearbox version: Solid shaft with foot (VBR)

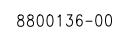


8800136-00

Motor			MCS					
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	483	410	483	410	523	450
Motor length	LB	mm	274	201	274	201	314	241
Length of motor options	Δ L	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105



Gearbox version: Solid shaft with foot (VBR)

203

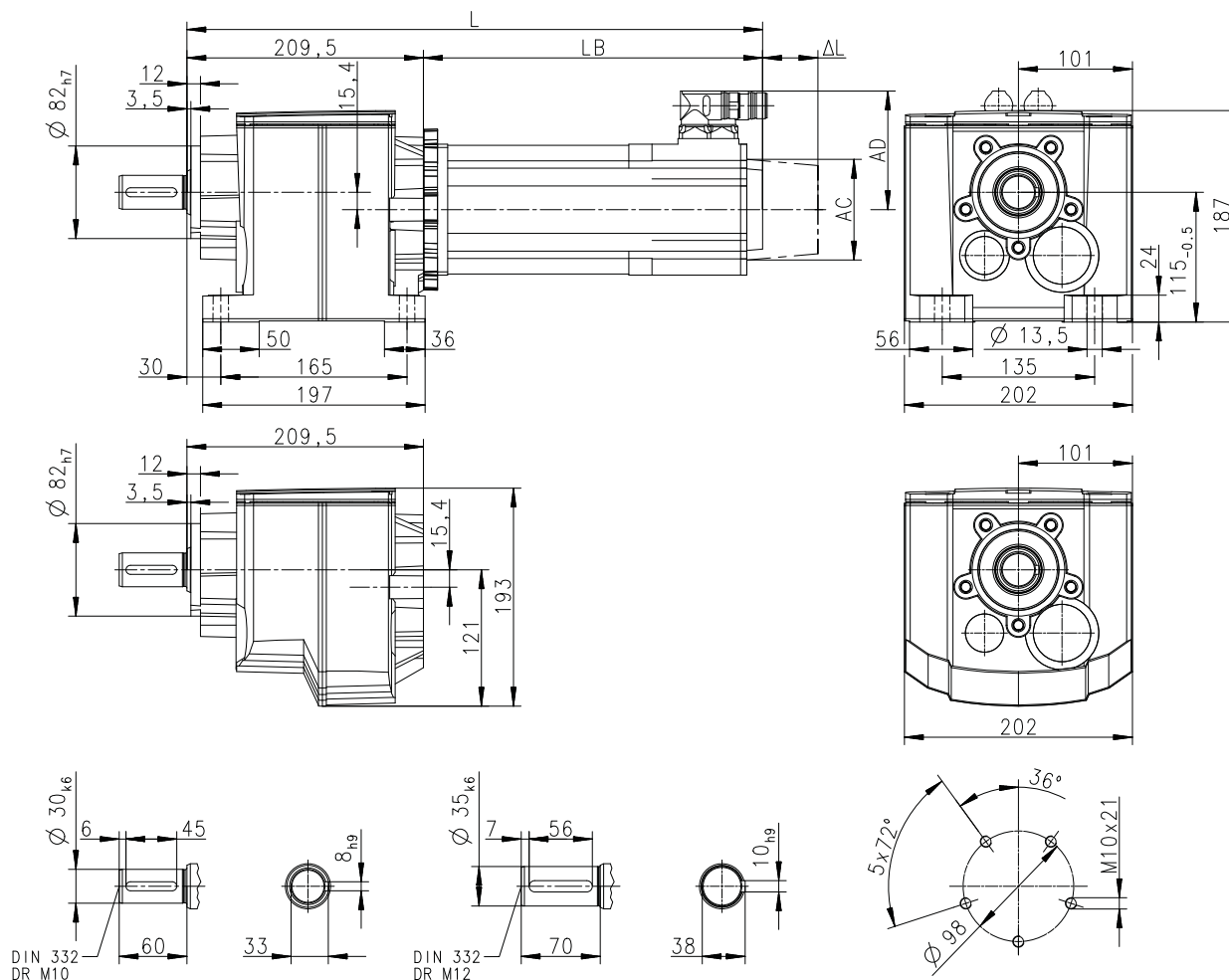
Technical data

Dimensions
Basic dimensions



g500-H450, 2-/3-stage with MCS12

Gearbox version: Solid shaft with foot/centering (VAR/VCR)



8800138-00

Motor			MCS					
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	483	410	483	410	523	450
Motor length	LB	mm	274	201	274	201	314	241
Length of motor options	ΔL	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105

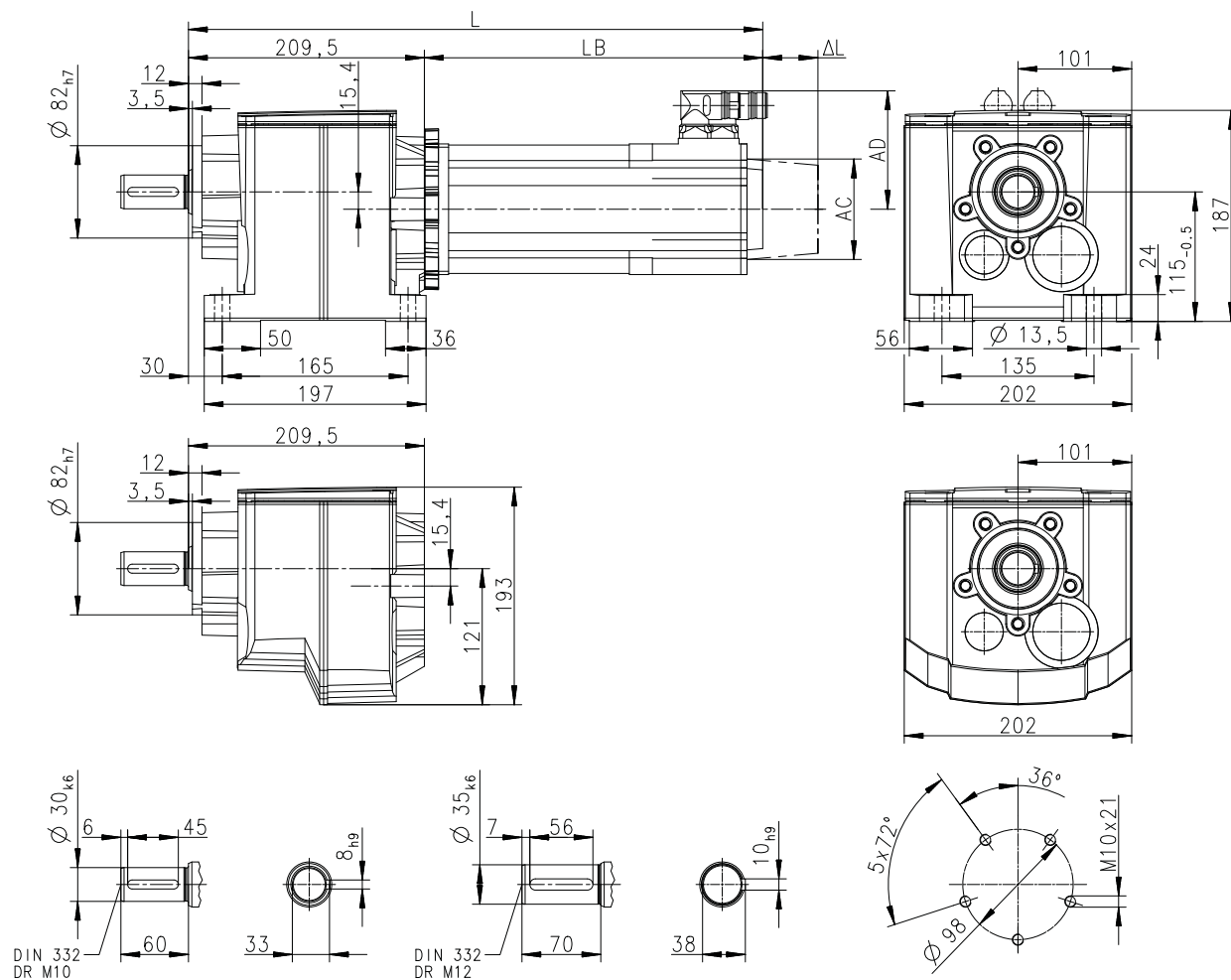


Technical data

Dimensions
Basic dimensions

g500-H450, 2-/3-stage with MCS12

Gearbox version: Solid shaft with foot/centering (VAR/VCR)



8800138-00

Motor			MCS					
			12H34-	12H35- 12H30L	12L17-	12L20- 12L20L	12L39-	12L41- 12L41L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	523	450	563	490	563	490
Motor length	LB	mm	314	241	354	281	354	281
Length of motor options	ΔL	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/centering distance	AD	mm	105	105	105	105	105	105

Dimensions

Basic dimensions



Technical drawing of a 100 mm diameter ball valve. The drawing includes a side view, a front view, and a cross-section view. Key dimensions include: overall length 209.5, ball diameter 110, handle diameter 160, and handle length 187. The drawing also shows the valve body dimensions, including the 101 mm diameter of the handle and the 130 mm diameter of the valve body. The drawing is labeled with 'DIN 332 DR M10' and '8800137-00'.

Motor			MCS					
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	483	410	483	410	523	450
Motor length	LB	mm	274	201	274	201	314	241
Length of motor options	Δ L	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105



Gearbox version: Solid shaft with foot/flange (VAK/VCK)

207

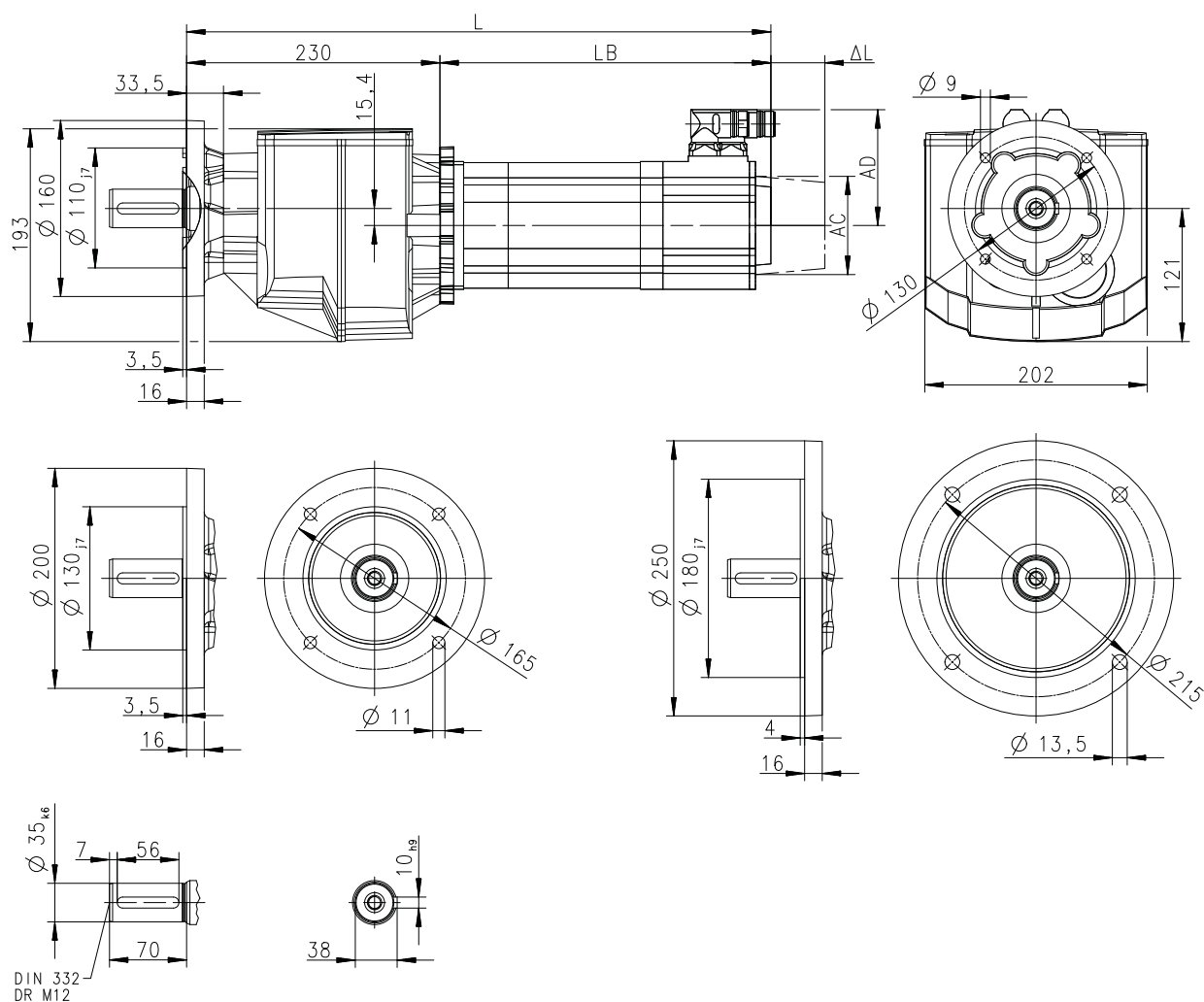
Technical data

Dimensions
Basic dimensions



g500-H450, 2-/3-stage with MCS12

Gearbox version: Solid shaft and flange (VCP)



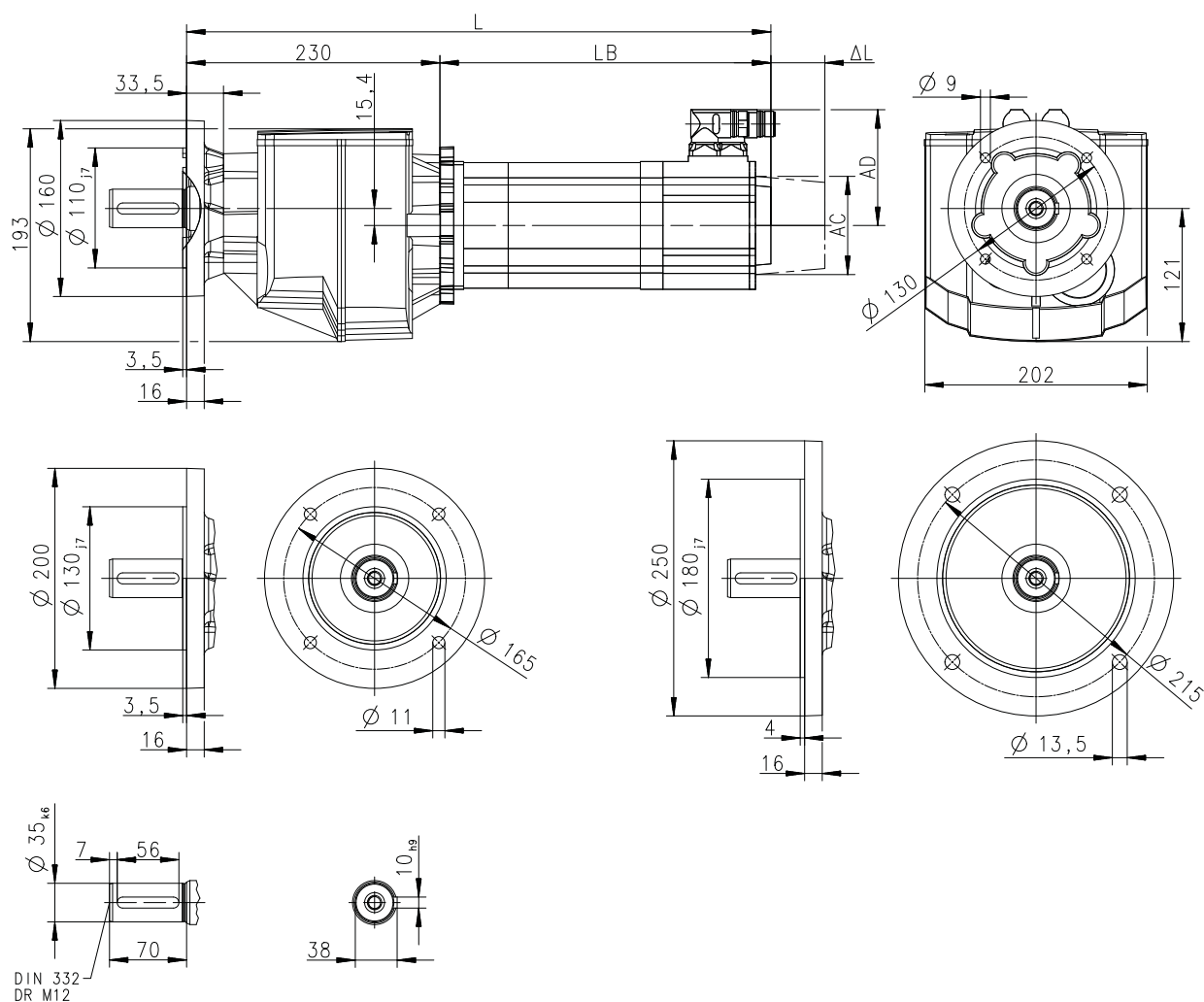
8800321-00

Motor			MCS					
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	504	431	504	431	544	471
Motor length	LB	mm	274	201	274	201	314	241
Length of motor options	ΔL	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105



g500-H450, 2-/3-stage with MCS12

Gearbox version: Solid shaft and flange (VCP)



8800321-00

Motor			MCS					
			12H34-	12H35- 12H30L	12L17-	12L20- 12L20L	12L39-	12L41- 12L41L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	544	471	584	511	584	511
Motor length	LB	mm	314	241	354	281	354	281
Length of motor options	ΔL	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105

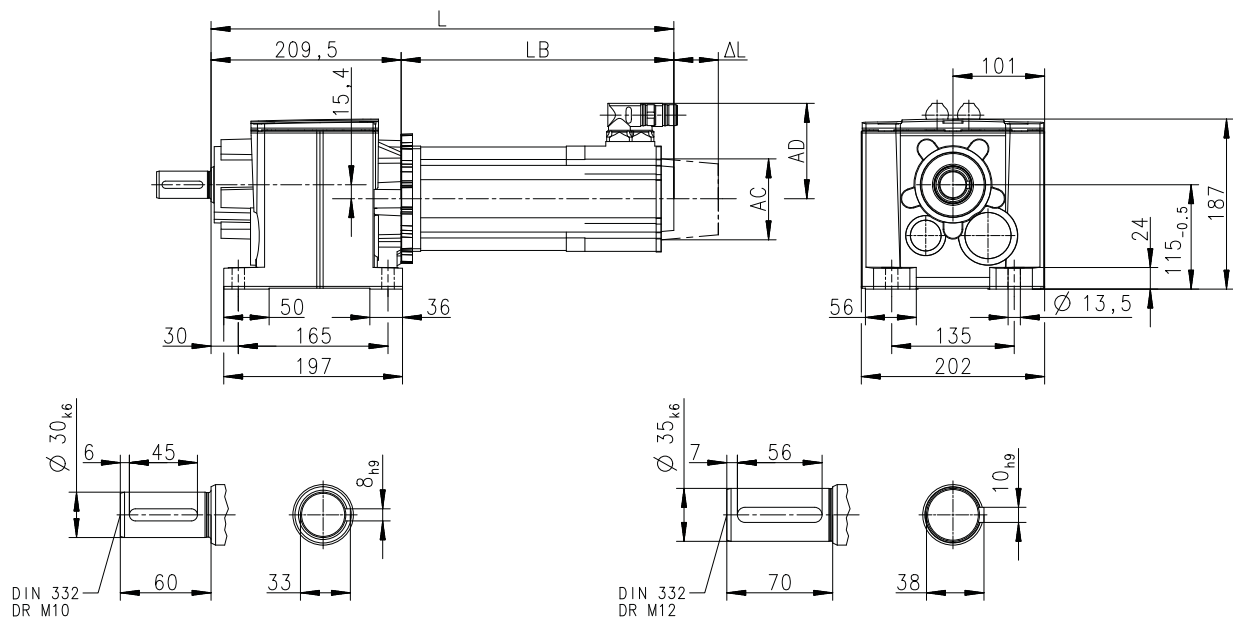
Technical data

Dimensions
Basic dimensions



g500-H450, 2-/3-stage with MCS14

Gearbox version: Solid shaft with foot (VBR)



8800136-00

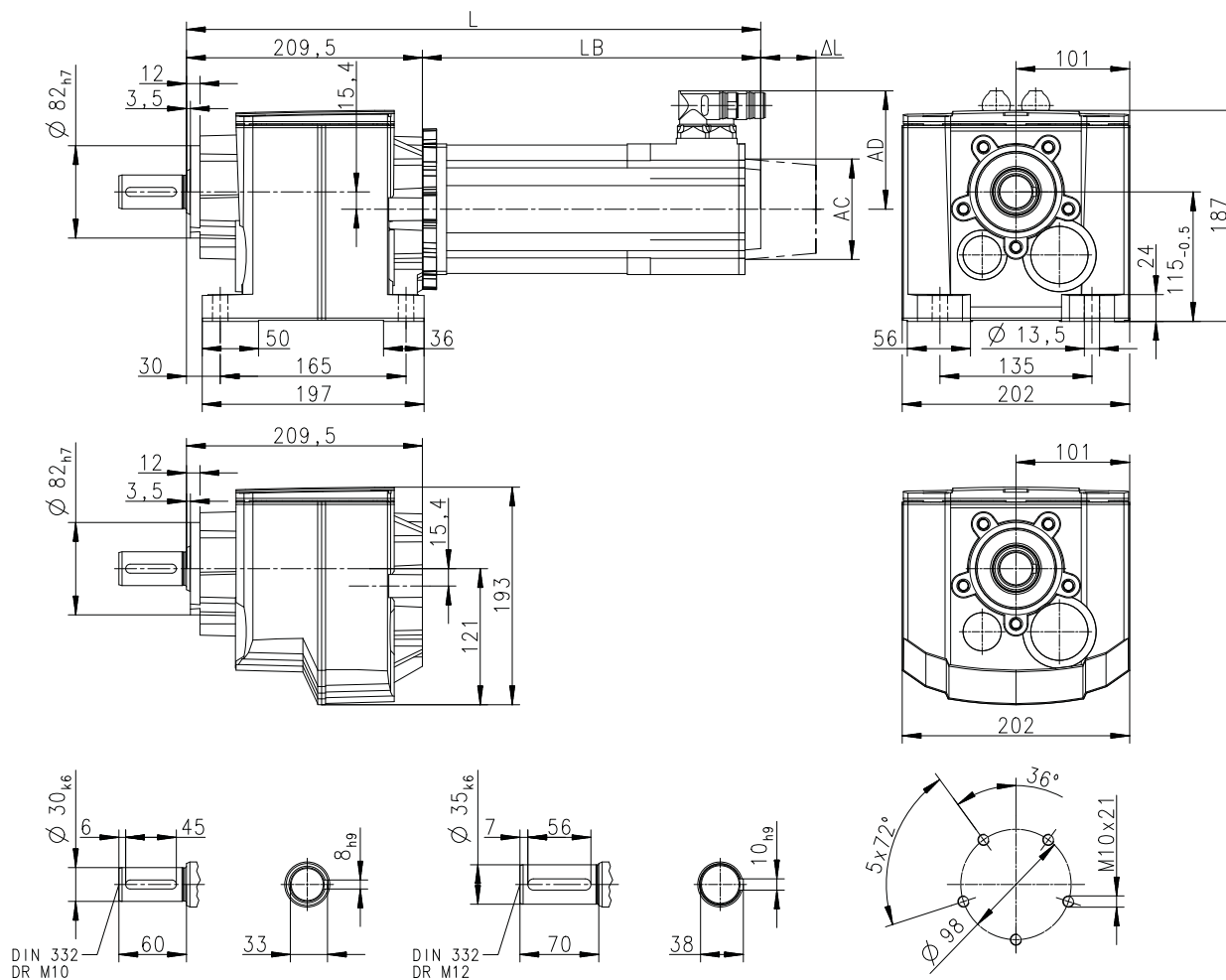
Motor			MCS							
			14D14-	14D15-	14D30-	14D36-	14H12-	14H15-	14H28-	14H32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	514	426	514	426	554	466	554	466
Motor length	LB	mm	304	216	304	216	344	256	344	256
Length of motor options	ΔL	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	117	117	117	117	146	117





g500-H450, 2-/3-stage with MCS14

Gearbox version: Solid shaft with foot/centering (VAR/VCR)

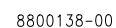


8800138-00

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Gearbox version: Solid shaft with foot/centering (VAR/VCR)

213

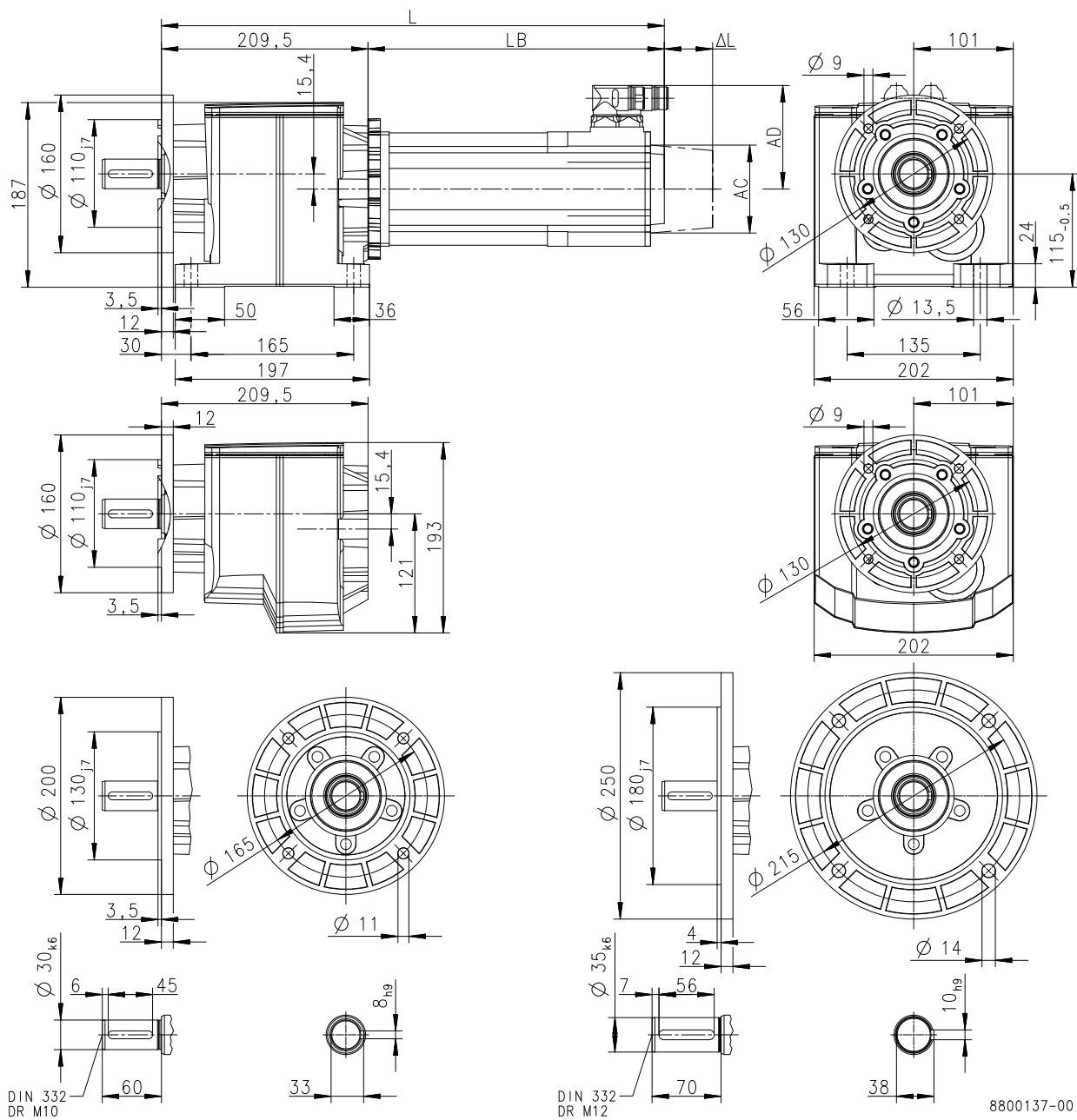
Technical data

Dimensions
Basic dimensions



g500-H450, 2-/3-stage with MCS14

Gearbox version: Solid shaft with foot/flange (VAK/VCK)



8800137-00

Motor			MCS							
			14D14-	14D15-	14D30-	14D36-	14H12-	14H15-	14H28-	14H32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	514	426	514	426	554	466	554	466
Motor length	LB	mm	304	216	304	216	344	256	344	256
Length of motor options	Δ L	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	117	117	117	117	146	117

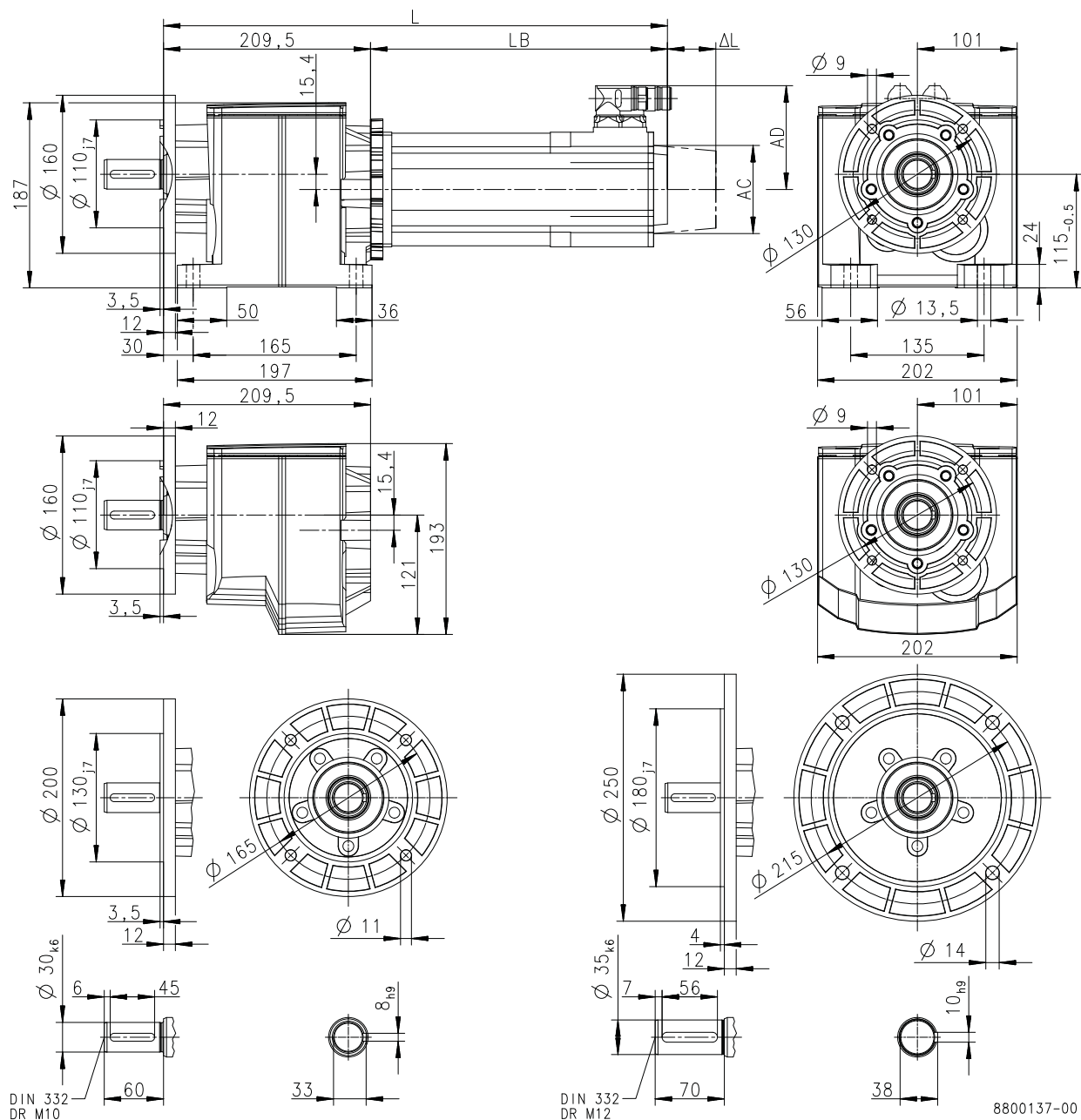


Technical data

Dimensions
Basic dimensions

g500-H450, 2-/3-stage with MCS14

Gearbox version: Solid shaft with foot/flange (VAK/VCK)



Motor			MCS							
			14L14-	14L15-	14L30-	14L32-	14P11-	14P14-	14P26-	14P32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	594	506	594	506	634	546	634	546
Motor length	LB	mm	384	296	384	296	424	336	424	336
Length of motor options	Δ L	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	146	146	117	117	146	146

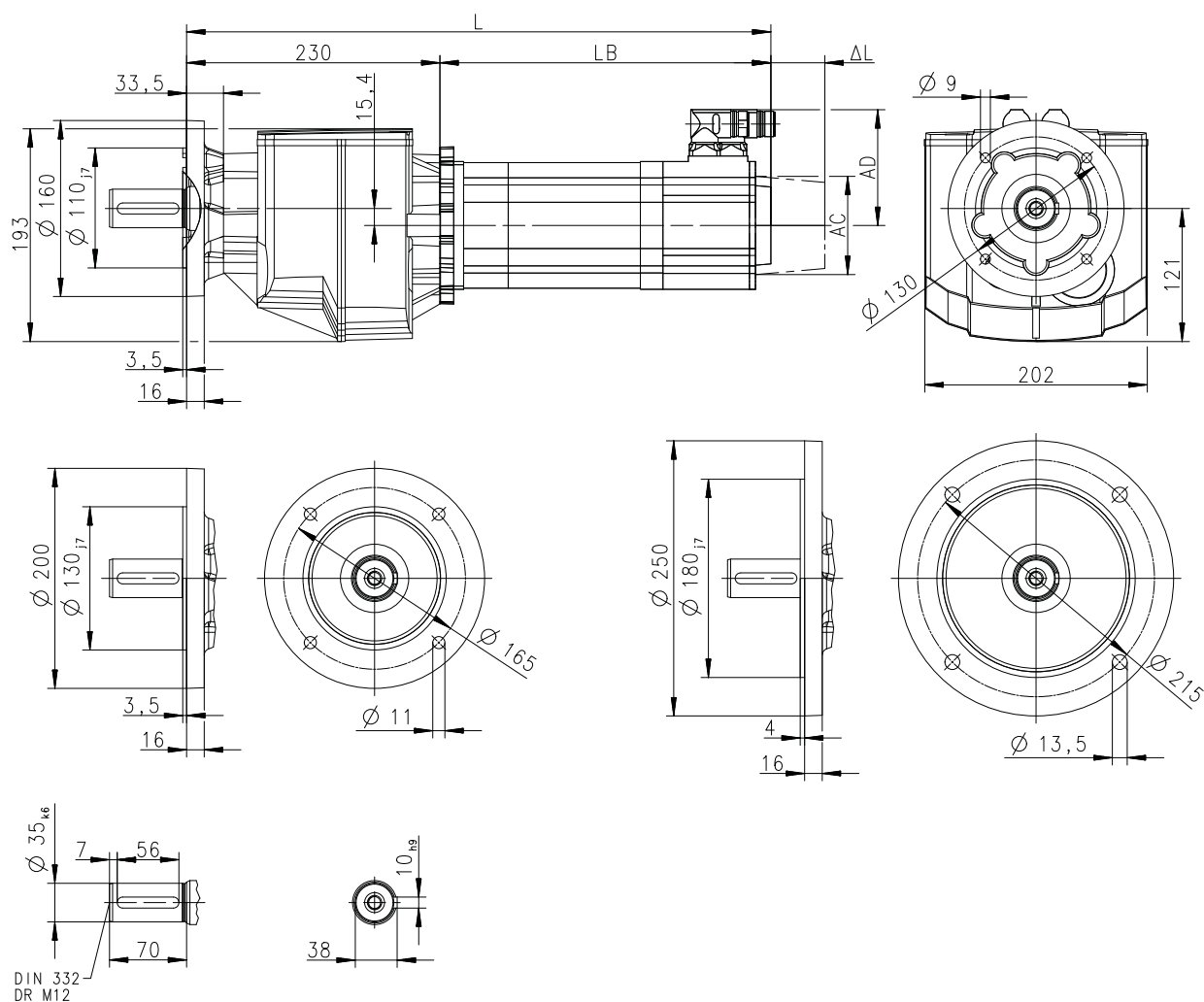
Technical data

Dimensions
Basic dimensions



g500-H450, 2-/3-stage with MCS14

Gearbox version: Solid shaft and flange (VCP)



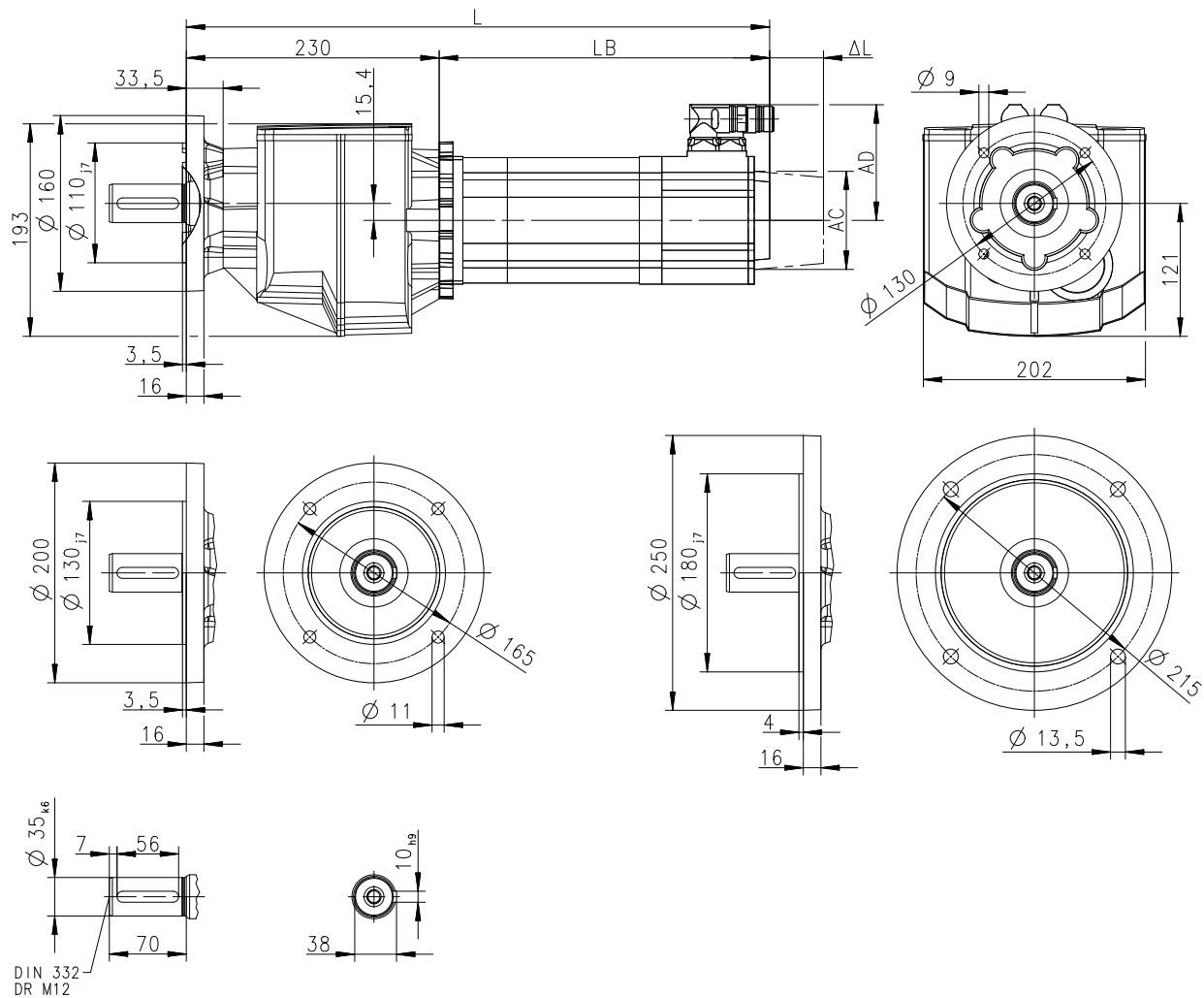
8800321-00

Motor			MCS							
			14D14-	14D15-	14D30-	14D36-	14H12-	14H15-	14H28-	14H32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	534	446	534	446	574	486	574	486
Motor length	LB	mm	304	216	304	216	344	256	344	256
Length of motor options	ΔL	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	117	117	117	117	146	117



g500-H450, 2-/3-stage with MCS14

Gearbox version: Solid shaft and flange (VCP)



8800321-00

Motor			MCS							
			14L14-	14L15-	14L30-	14L32-	14P11-	14P14-	14P26-	14P32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	614	526	614	526	654	566	654	566
Motor length	LB	mm	384	296	384	296	424	336	424	336
Length of motor options	Δ L	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	146	146	117	117	146	146

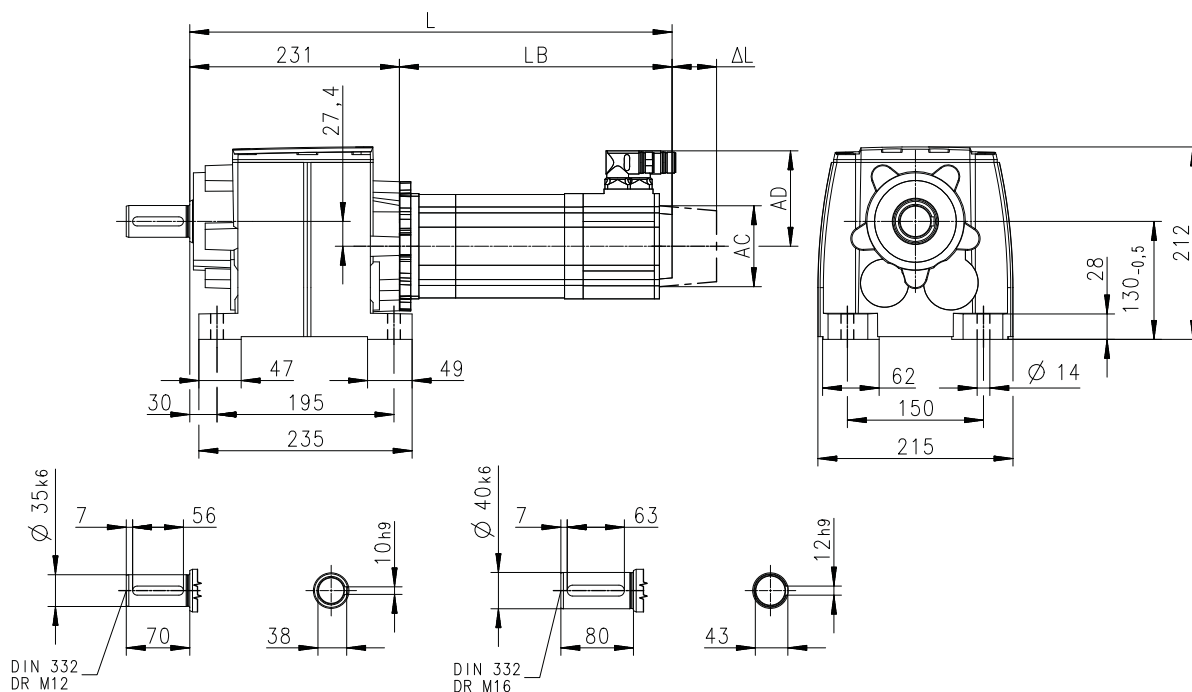
Technical data

Dimensions
Basic dimensions



g500-H600, 2-/3-stage with MCS06

Gearbox version: Solid shaft with foot (VBR)



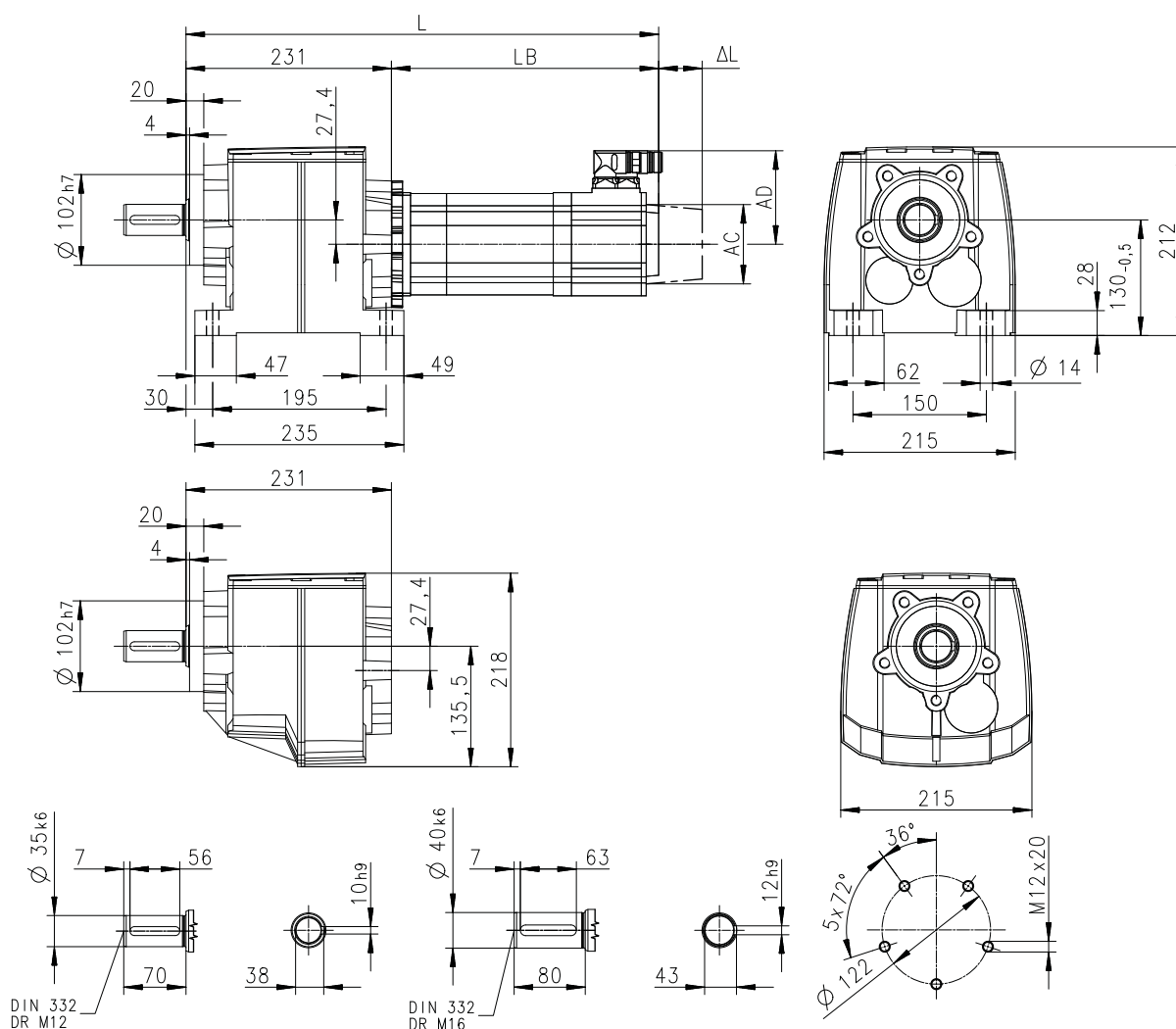
8800540-00

Motor			MCS		
			06C41- 06C41L	06F41- 06F41L	06I41- 06I41L
Cooling type			natural	natural	natural
Total length	L	mm	362	392	422
Motor length	LB	mm	131	161	191
Length of motor options	ΔL	mm	82		
Motor diameter	AC	mm	86		
Motor/connection distance	AD	mm	77		



g500-H600, 2-/3-stage with MCS06

Gearbox version: Solid shaft with foot/centering (VAR/VCR)



8800541-00

Motor			MCS		
			06C41-06C41L	06F41-06F41L	06I41-06I41L
Cooling type			natural	natural	natural
Total length	L	mm	362	392	422
Motor length	LB	mm	131	161	191
Length of motor options	ΔL	mm		82	
Motor diameter	AC	mm		86	
Motor/connection distance	AD	mm		77	

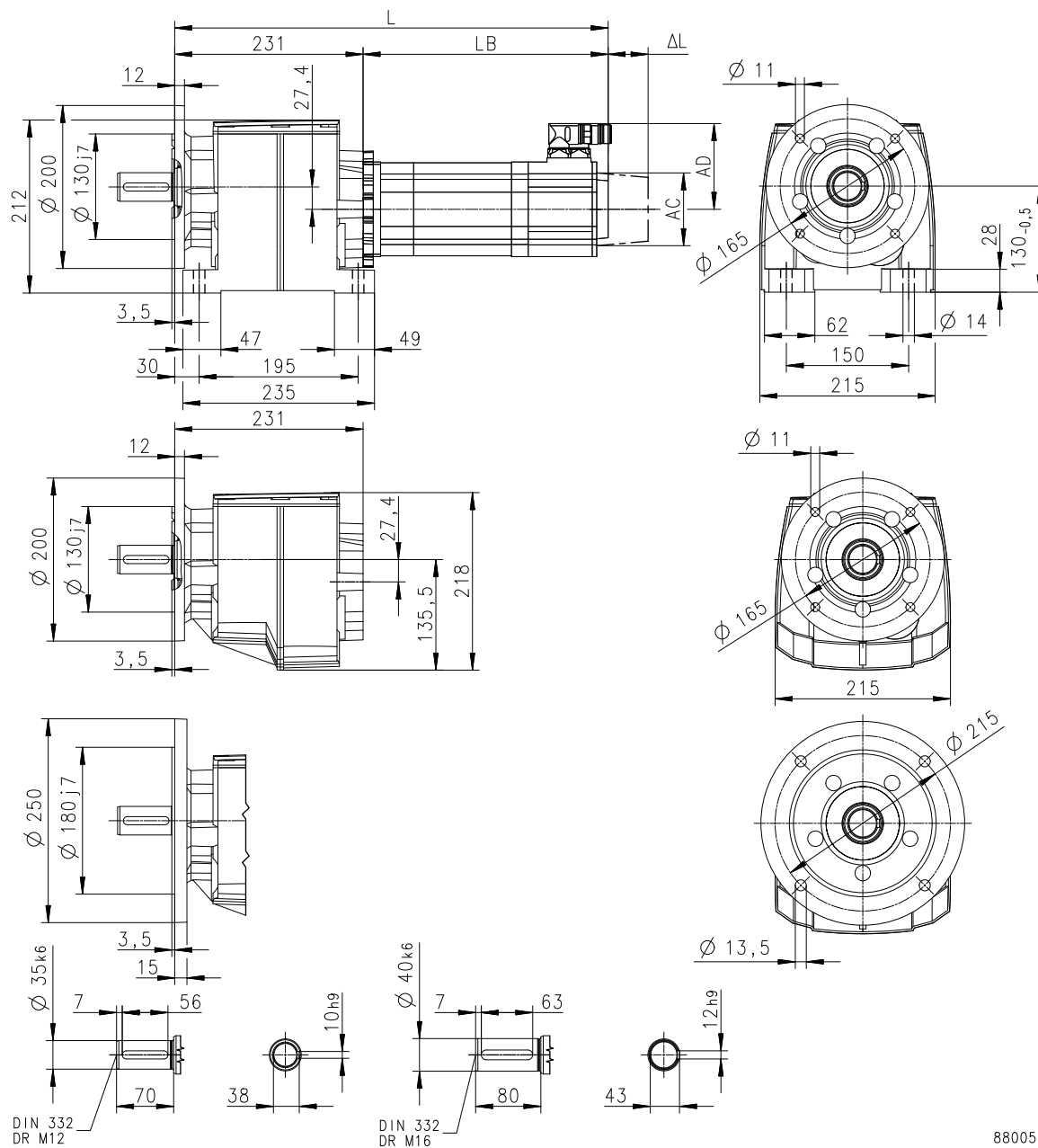
Technical data

Dimensions
Basic dimensions



g500-H600, 2-/3-stage with MCS06

Gearbox version: Solid shaft with foot/flange (VAK/VCK)



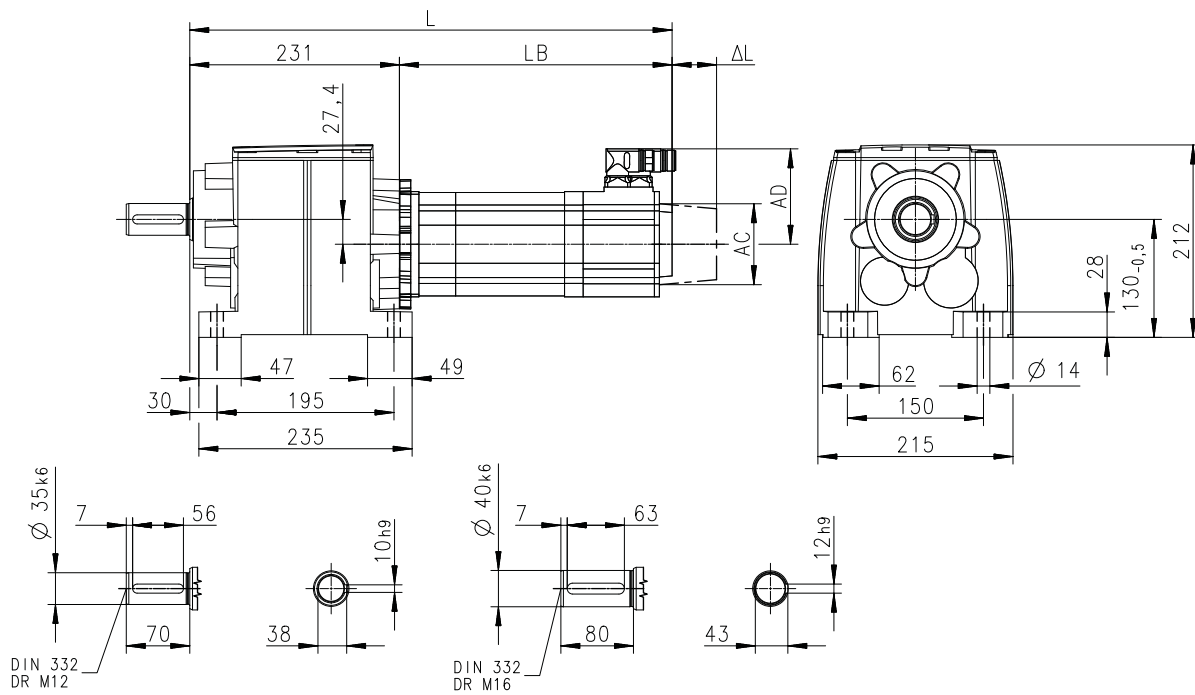
8800542-00

Motor			MCS		
			06C41-06C41L	06F41-06F41L	06I41-06I41L
Cooling type			natural	natural	natural
Total length	L	mm	362	392	422
Motor length	LB	mm	131	161	191
Length of motor options	ΔL	mm		82	
Motor diameter	AC	mm		86	
Motor/connection distance	AD	mm		77	



g500-H600, 2-/3-stage with MCS09

Gearbox version: Solid shaft with foot (VBR)



8800540-00

Motor			MCS			
			09D41- 09D41L	09F38- 09F38L	09H41- 09H41L	09L41- 09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	415	435	455	495
Motor length	LB	mm	184	204	224	264
Length of motor options	ΔL	mm	71			
Motor diameter	AC	mm	89			
Motor/connection distance	AD	mm	90			

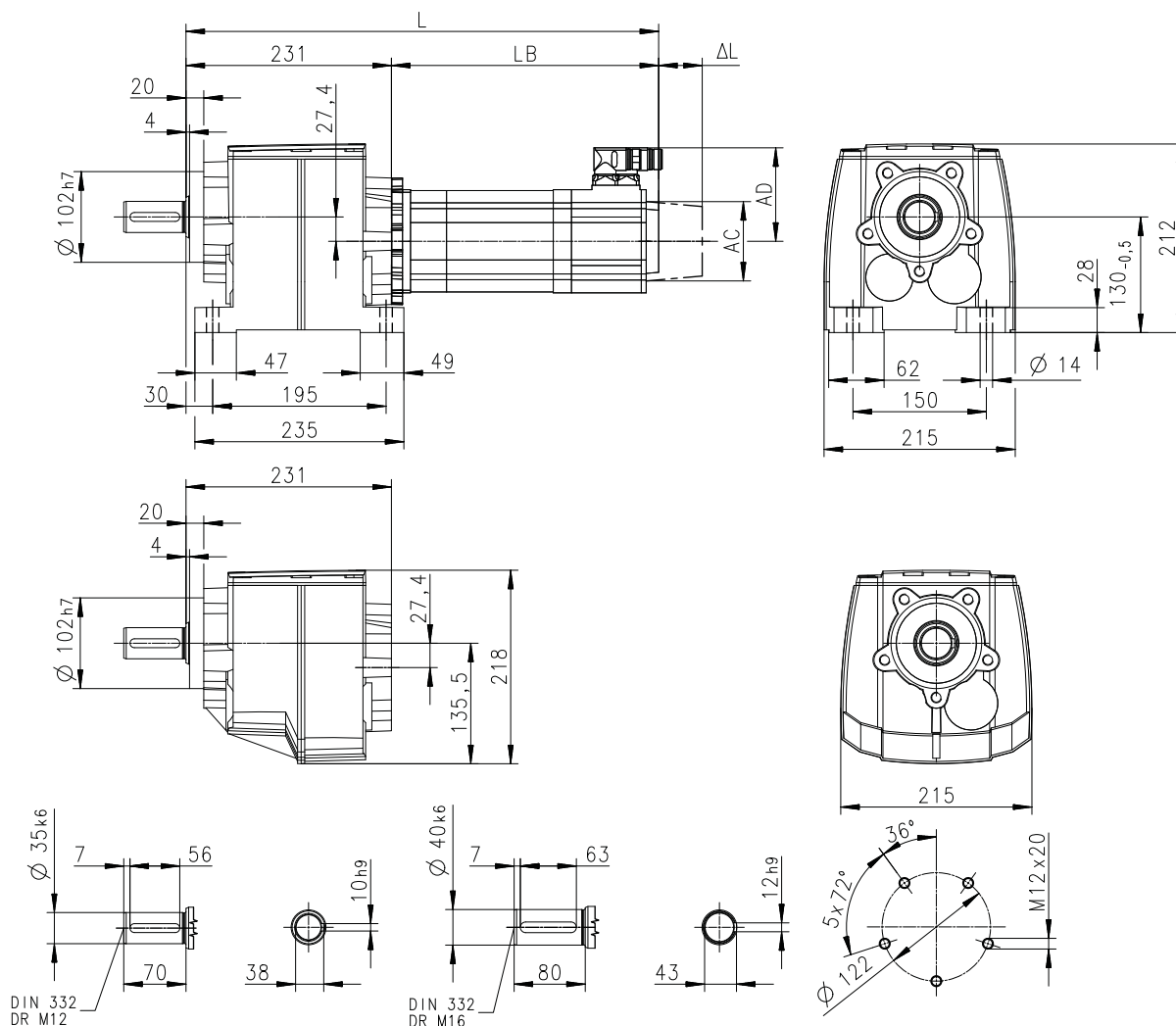
Technical data

Dimensions
Basic dimensions



g500-H600, 2-/3-stage with MCS09

Gearbox version: Solid shaft with foot/centering (VAR/VCR)



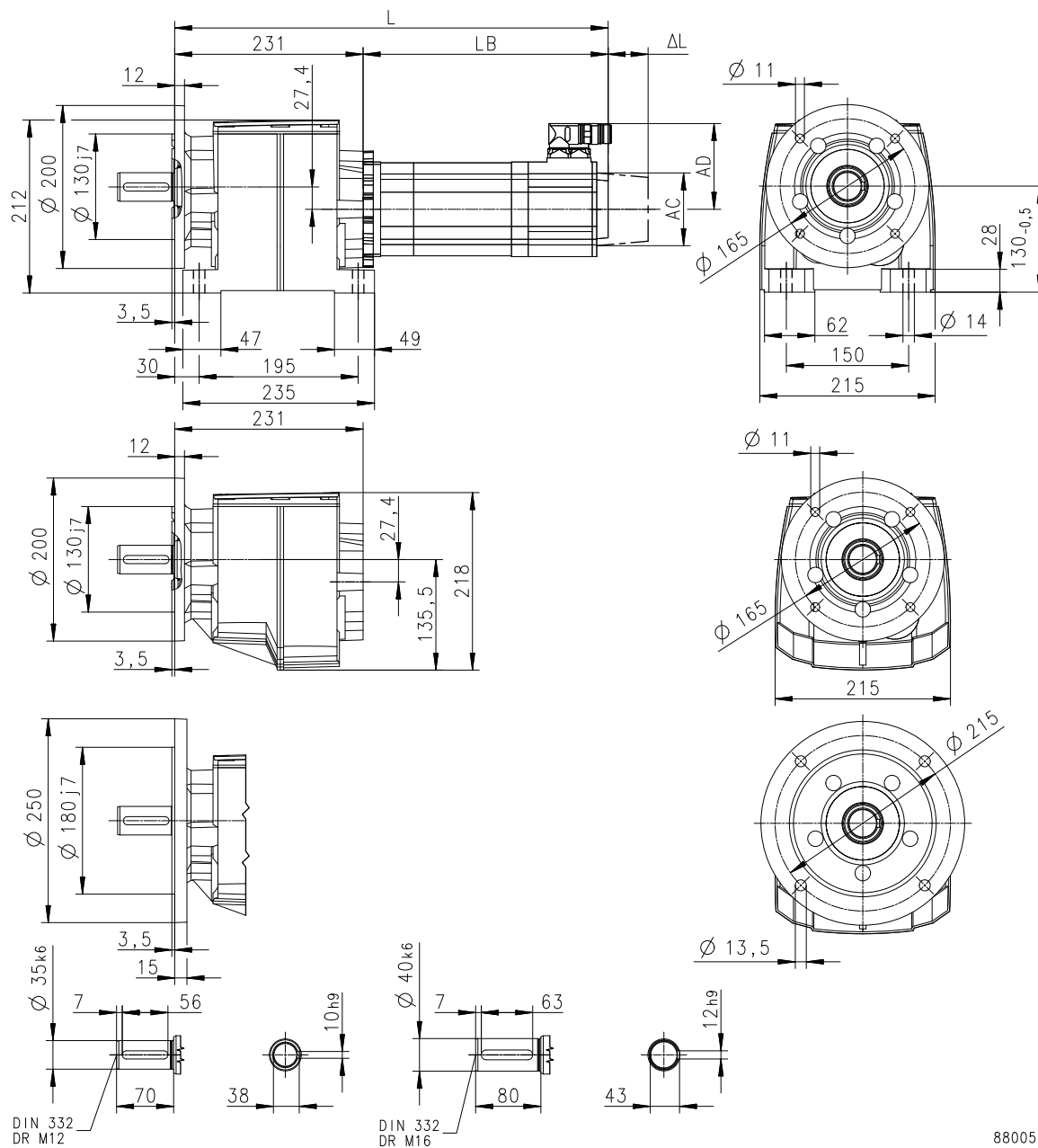
8800541-00

Motor			MCS			
			09D41-09D41L	09F38-09F38L	09H41-09H41L	09L41-09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	415	435	455	495
Motor length	LB	mm	184	204	224	264
Length of motor options	ΔL	mm	71			
Motor diameter	AC	mm	89			
Motor/connection distance	AD	mm	90			



g500-H600, 2-/3-stage with MCS09

Gearbox version: Solid shaft with foot/flange (VAK/VCK)



8800542-00

Motor			MCS			
			09D41-09D41L	09F38-09F38L	09H41-09H41L	09L41-09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	415	435	455	495
Motor length	LB	mm	184	204	224	264
Length of motor options	ΔL	mm	71			
Motor diameter	AC	mm	89			
Motor/connection distance	AD	mm	90			

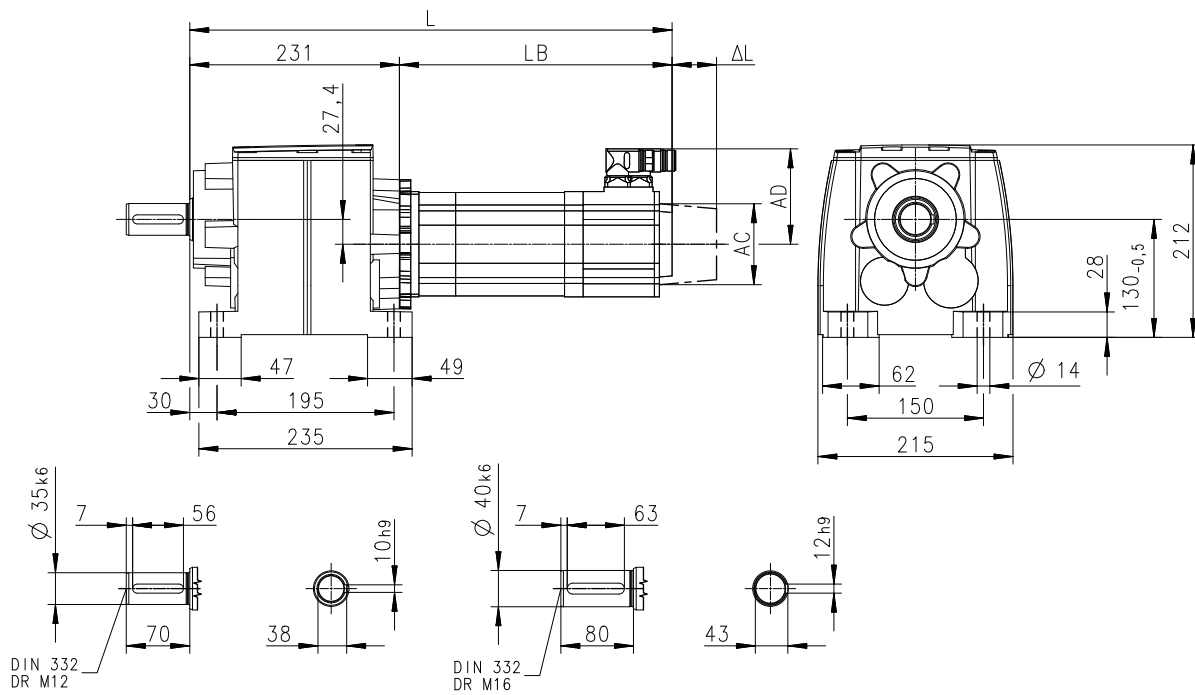
Technical data

Dimensions
Basic dimensions



g500-H600, 2-/3-stage with MCS12

Gearbox version: Solid shaft with foot (VBR)



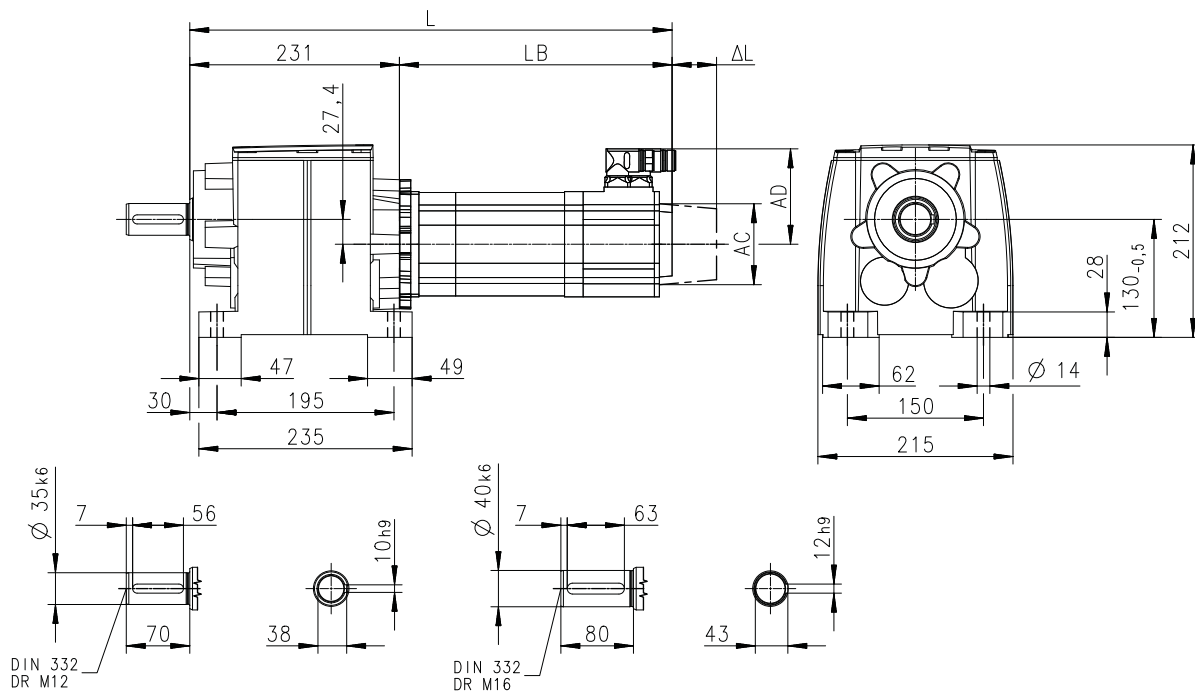
8800540-00

Motor			MCS					
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	505	432	505	432	545	472
Motor length	LB	mm	274	201	274	201	314	241
Length of motor options	ΔL	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105



g500-H600, 2-/3-stage with MCS12

Gearbox version: Solid shaft with foot (VBR)



8800540-00

Motor			MCS					
			12H34-	12H35- 12H30L	12L17-	12L20- 12L20L	12L39-	12L41- 12L41L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	545	472	585	512	585	512
Motor length	LB	mm	314	241	354	281	354	281
Length of motor options	Δ L	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105

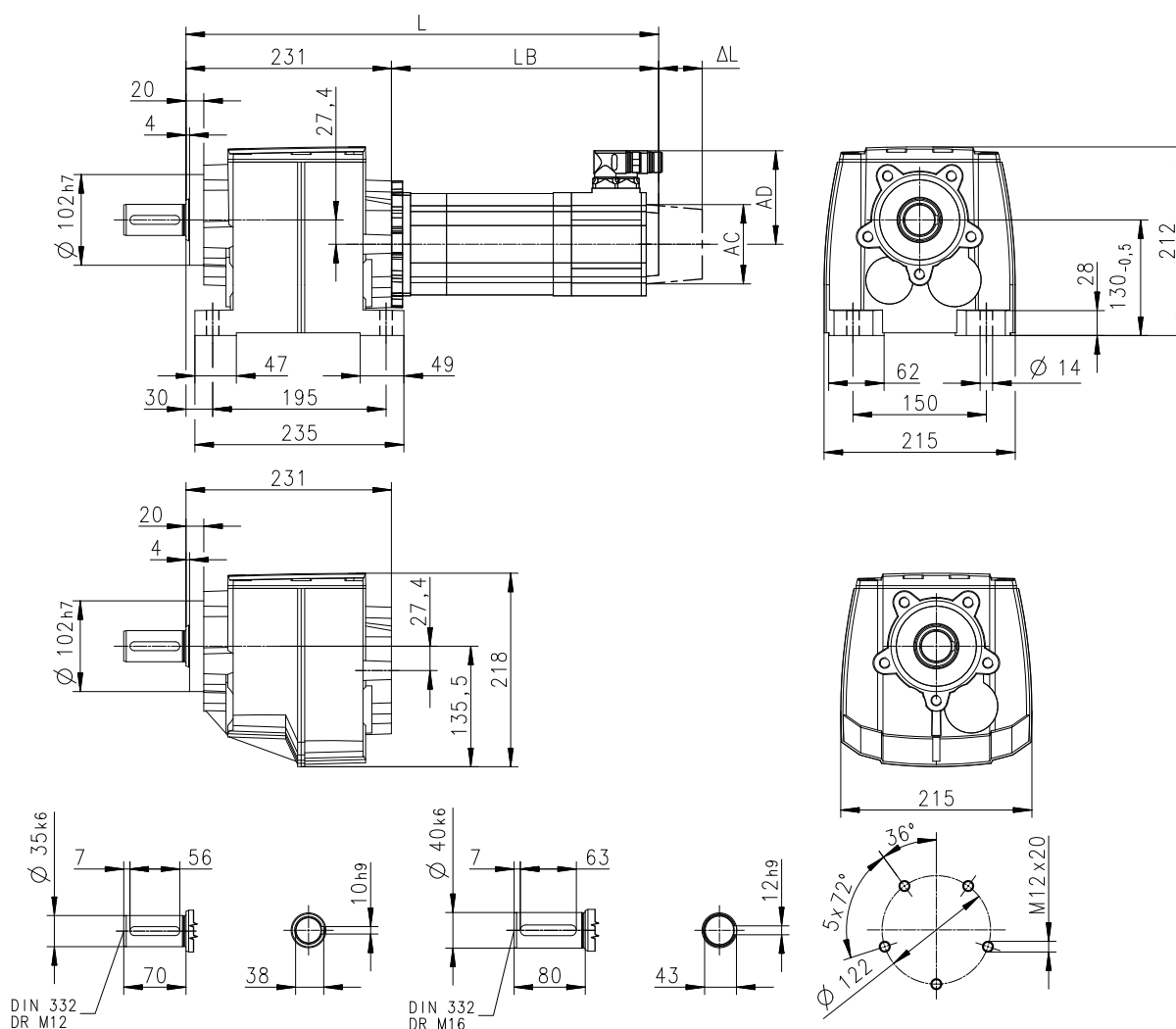
Technical data

Dimensions
Basic dimensions



g500-H600, 2-/3-stage with MCS12

Gearbox version: Solid shaft with foot/centering (VAR/VCR)



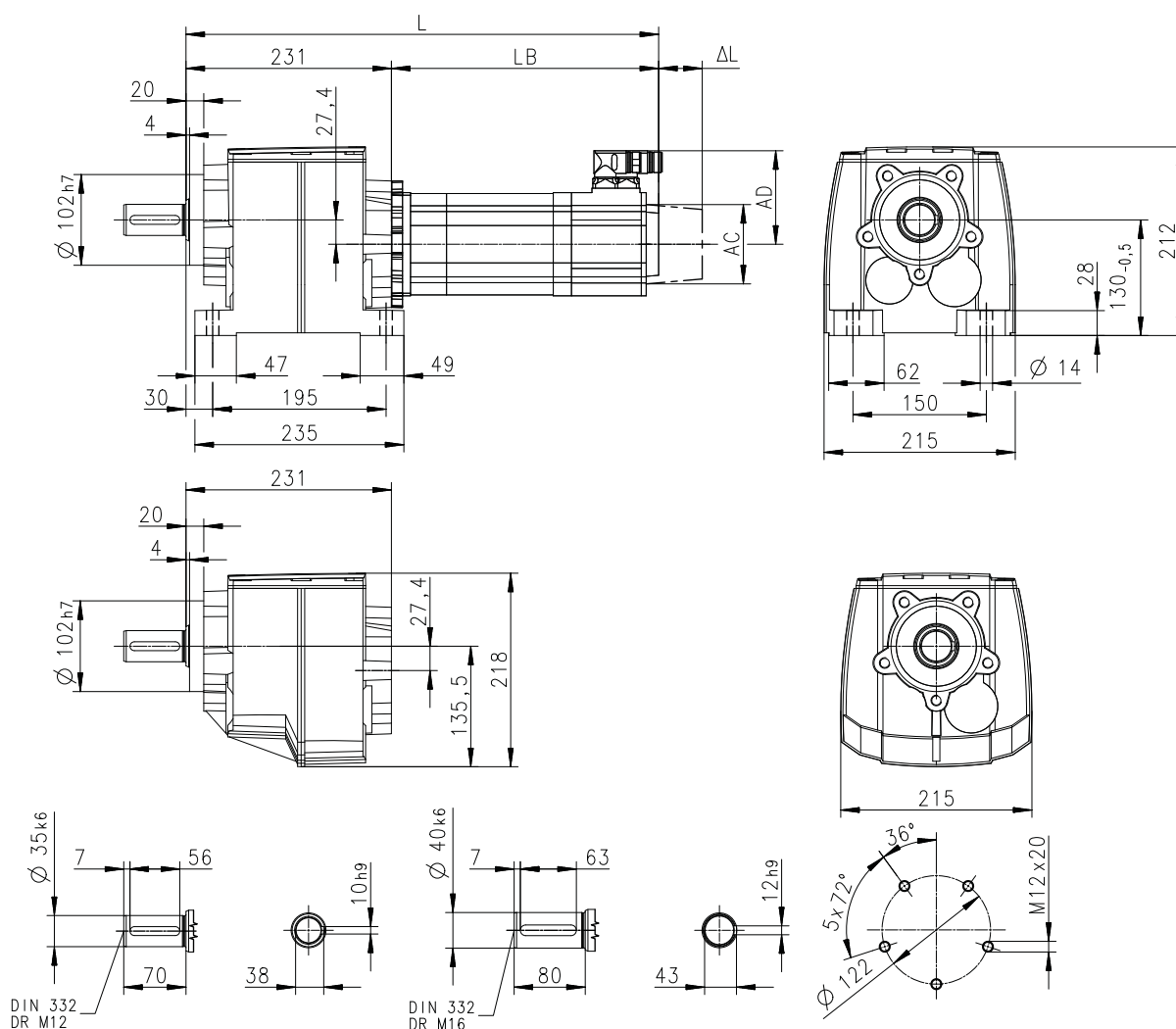
8800541-00

Motor			MCS					
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	505	432	505	432	545	472
Motor length	LB	mm	274	201	274	201	314	241
Length of motor options	Δ L	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105



g500-H600, 2-/3-stage with MCS12

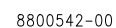
Gearbox version: Solid shaft with foot/centering (VAR/VCR)



8800541-00

Motor			MCS					
			12H34-	12H35- 12H30L	12L17-	12L20- 12L20L	12L39-	12L41- 12L41L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	545	472	585	512	585	512
Motor length	LB	mm	314	241	354	281	354	281
Length of motor options	Δ L	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105

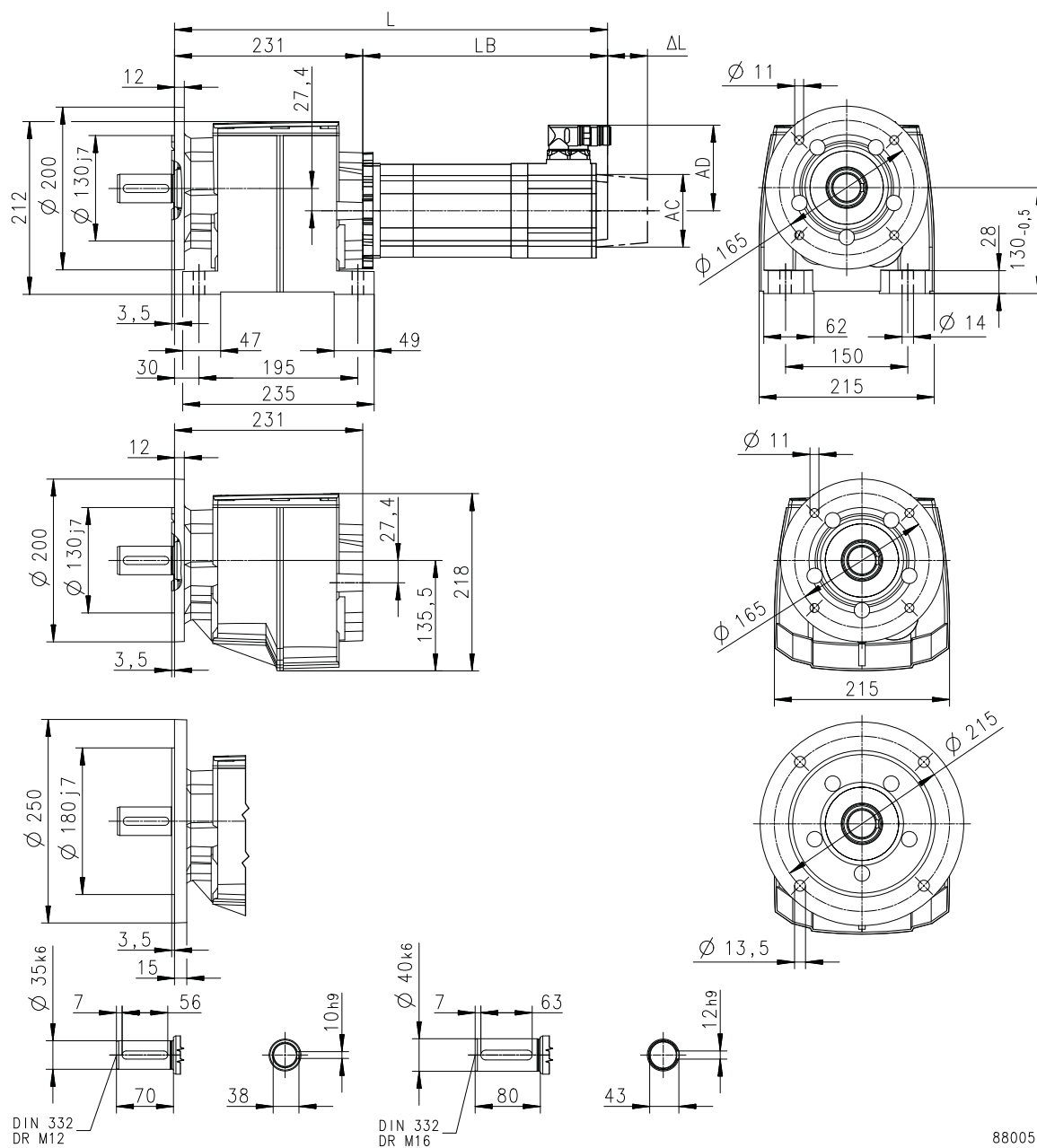
Gearbox version: Solid shaft with foot/flange (VAK/VCK)

228



g500-H600, 2-/3-stage with MCS12

Gearbox version: Solid shaft with foot/flange (VAK/VCK)



8800542-00

Motor			MCS					
			12H34-	12H35- 12H30L	12L17-	12L20- 12L20L	12L39-	12L41- 12L41L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	545	472	585	512	585	512
Motor length	LB	mm	314	241	354	281	354	281
Length of motor options	Δ L	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105

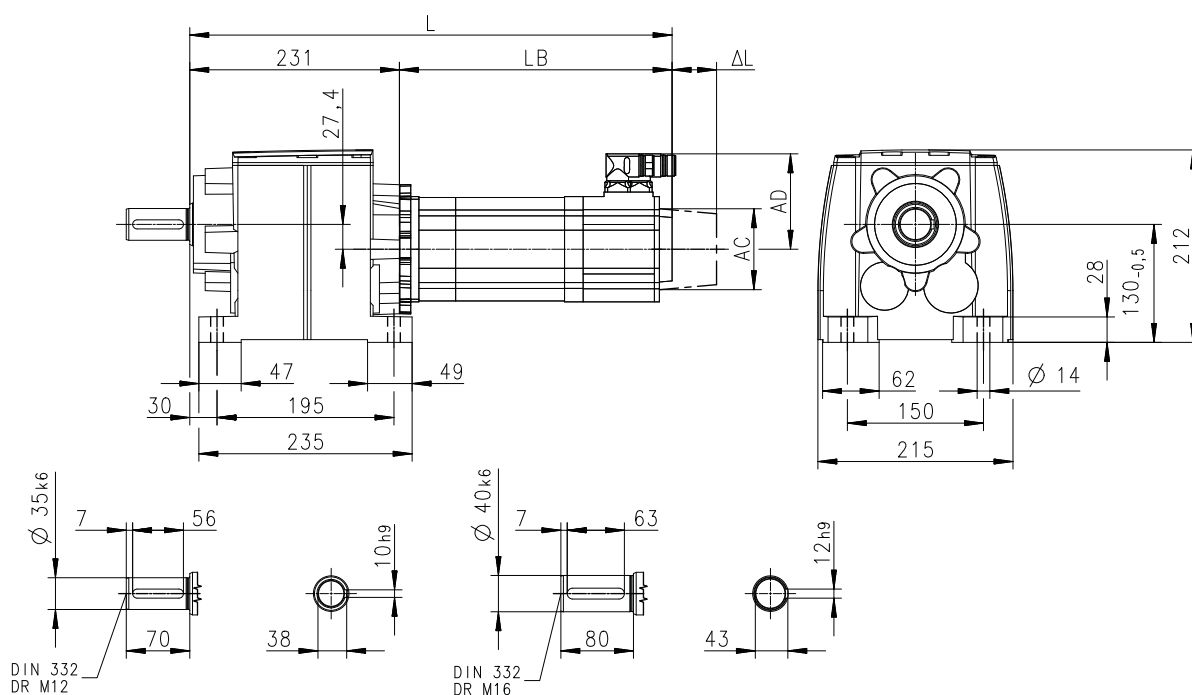
Technical data

Dimensions
Basic dimensions



g500-H600, 2-/3-stage with MCS14

Gearbox version: Solid shaft with foot (VBR)



8800540-00

Motor			MCS							
			14D14-	14D15-	14D30-	14D36-	14H12-	14H15-	14H28-	14H32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	535	447	535	447	575	487	575	487
Motor length	LB	mm	304	216	304	216	344	256	344	256
Length of motor options	ΔL	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	117	117	117	117	146	117



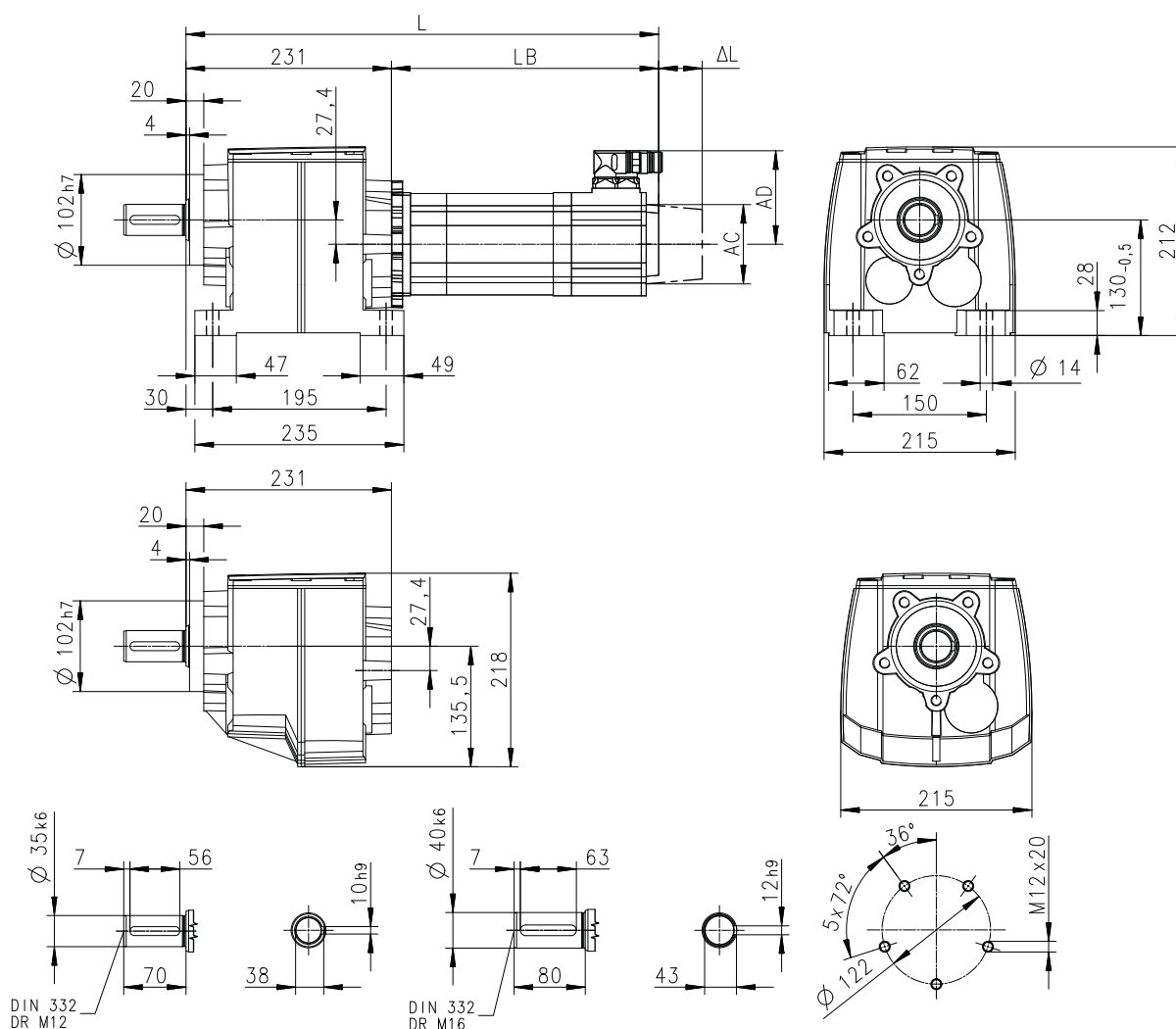
Technical data

Dimensions
Basic dimensions



g500-H600, 2-/3-stage with MCS14

Gearbox version: Solid shaft with foot/centering (VAR/VCR)



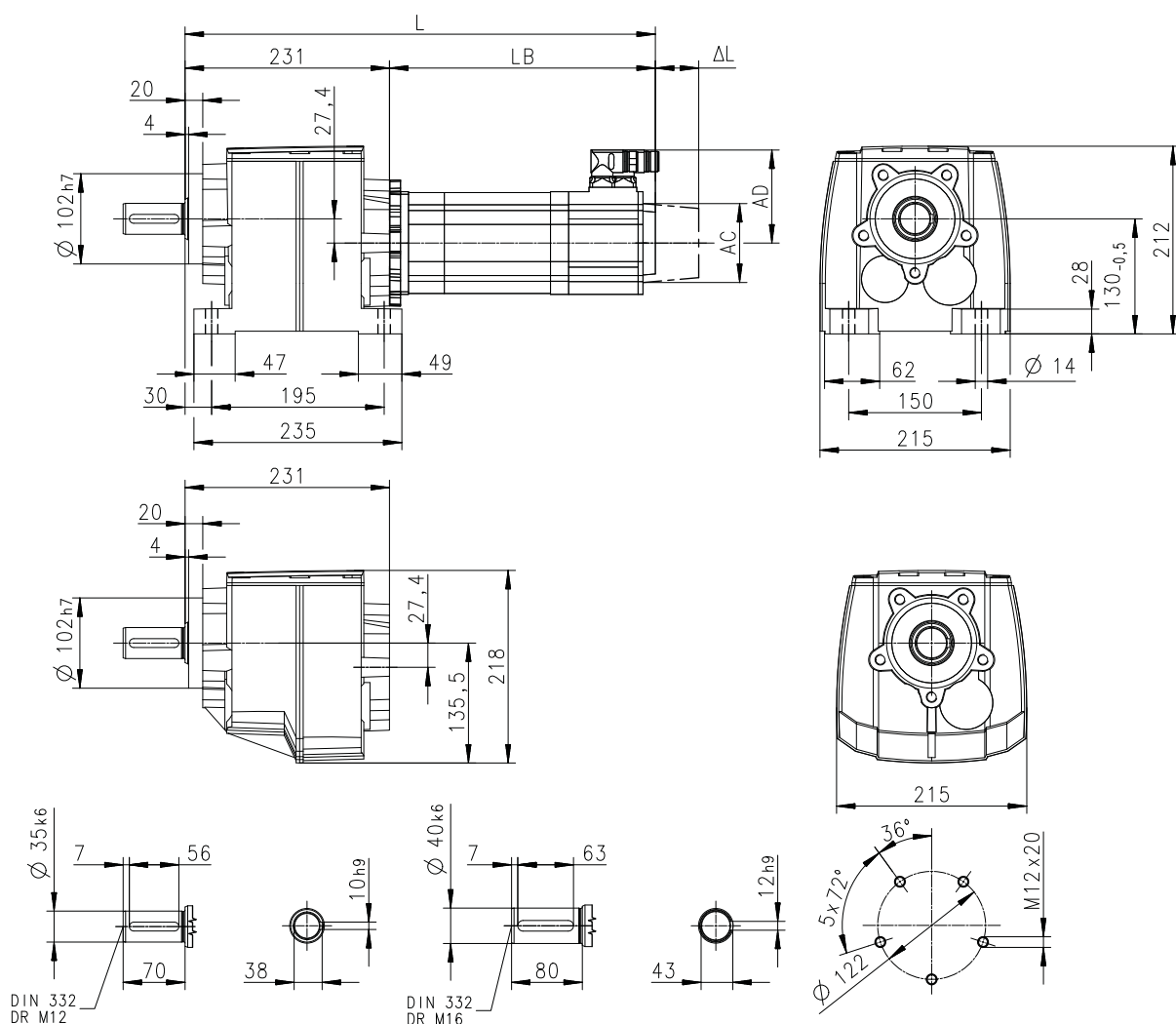
8800541-00

Motor			MCS							
			14D14-	14D15-	14D30-	14D36-	14H12-	14H15-	14H28-	14H32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	535	447	535	447	575	487	575	487
Motor length	LB	mm	304	216	304	216	344	256	344	256
Length of motor options	Δ L	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	117	117	117	117	146	117



g500-H600, 2-/3-stage with MCS14

Gearbox version: Solid shaft with foot/centering (VAR/VCR)



8800541-00

Motor			MCS							
			14L14-	14L15-	14L30-	14L32-	14P11-	14P14-	14P26-	14P32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	615	527	615	527	655	567	655	567
Motor length	LB	mm	384	296	384	296	424	336	424	336
Length of motor options	Δ L	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	146	146	117	117	146	146

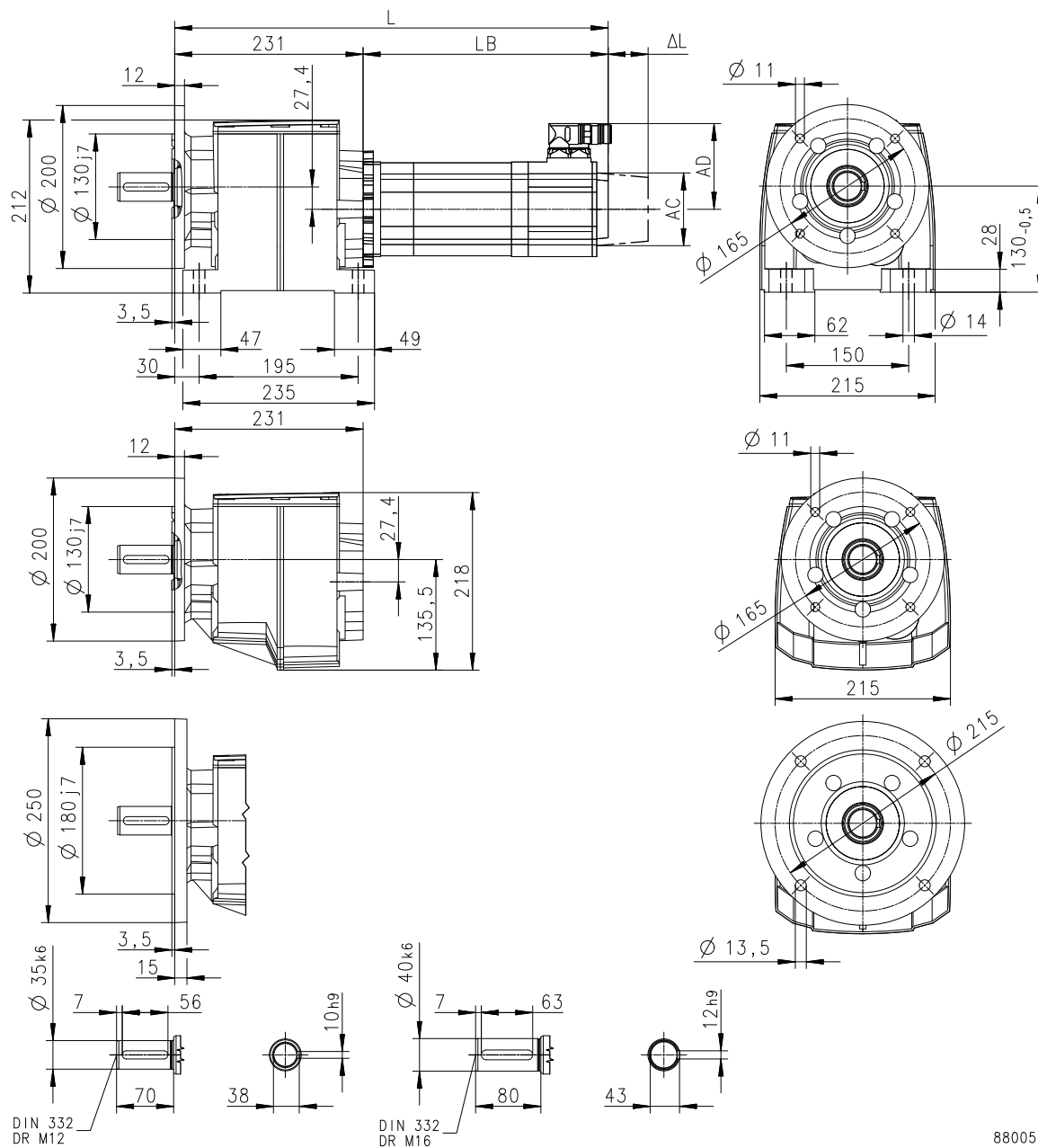
Technical data

Dimensions
Basic dimensions



g500-H600, 2-/3-stage with MCS14

Gearbox version: Solid shaft with foot/flange (VAK/VCK)



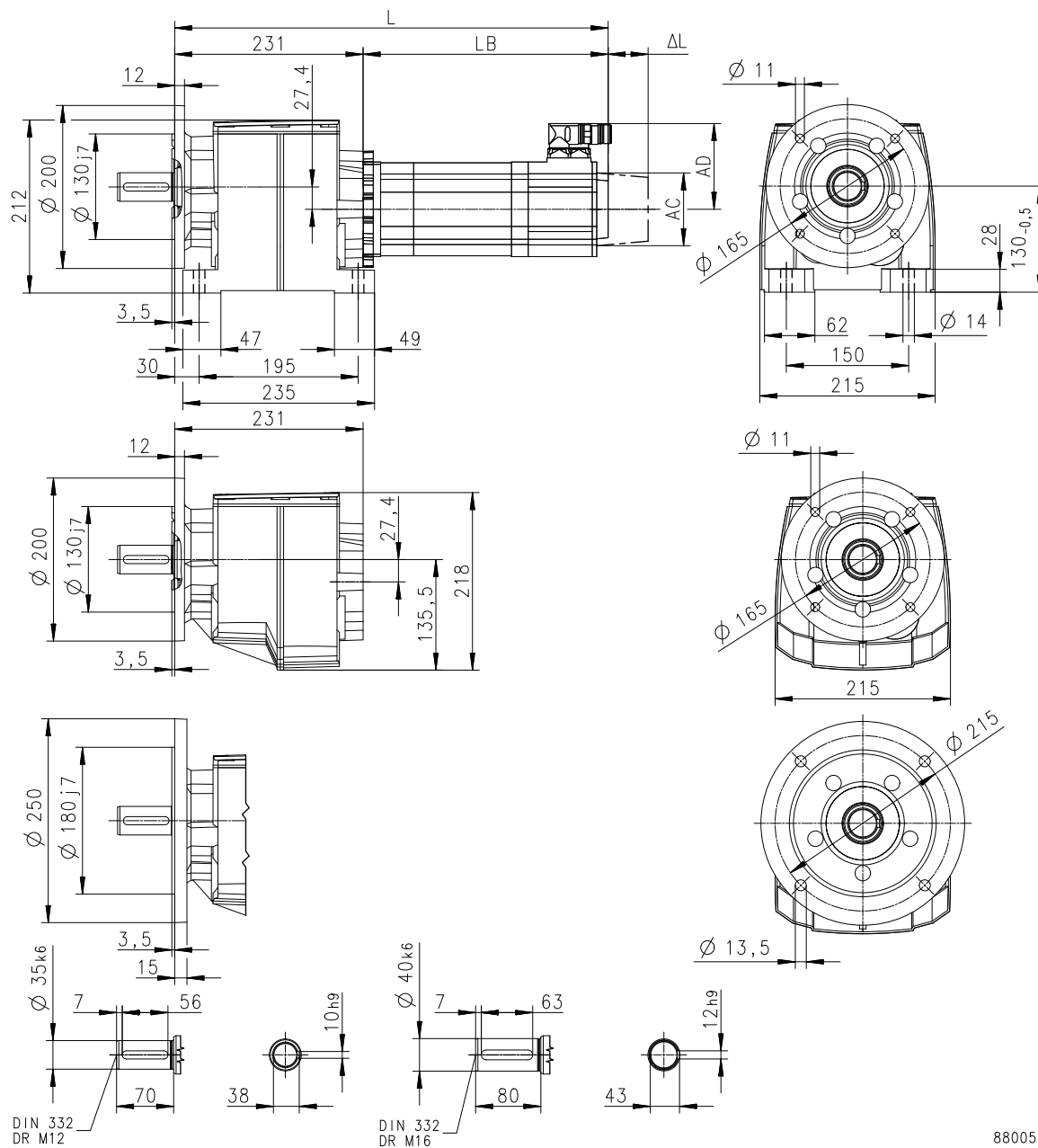
8800542-00

Motor			MCS							
			14D14-Blower	14D15-natural	14D30-Blower	14D36-natural	14H12-Blower	14H15-natural	14H28-Blower	14H32-natural
Cooling type										
Total length	L	mm	535	447	535	447	575	487	575	487
Motor length	LB	mm	304	216	304	216	344	256	344	256
Length of motor options	ΔL	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	117	117	117	117	146	117



g500-H600, 2-/3-stage with MCS14

Gearbox version: Solid shaft with foot/flange (VAK/VCK)



8800542-00

Motor			MCS							
			14L14-	14L15-	14L30-	14L32-	14P11-	14P14-	14P26-	14P32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	615	527	615	527	655	567	655	567
Motor length	LB	mm	384	296	384	296	424	336	424	336
Length of motor options	ΔL	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	146	146	117	117	146	146

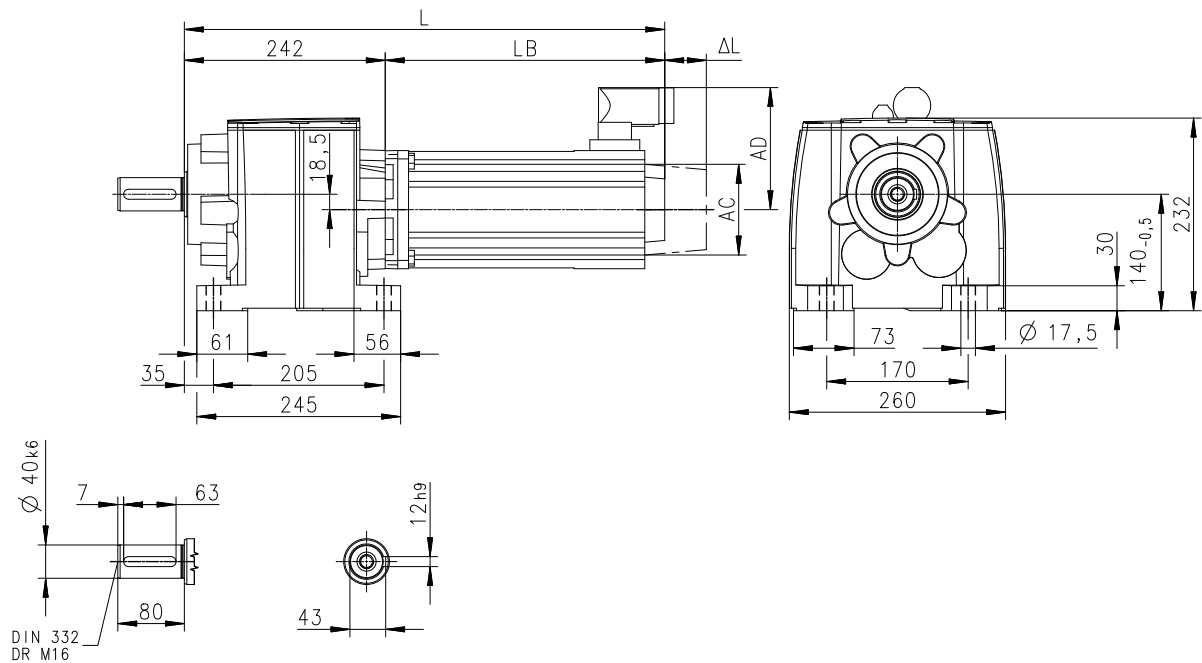
Technical data

Dimensions
Basic dimensions



g500-H850, 2-/3-stage with MCS06

Gearbox version: Solid shaft with foot (VBR)



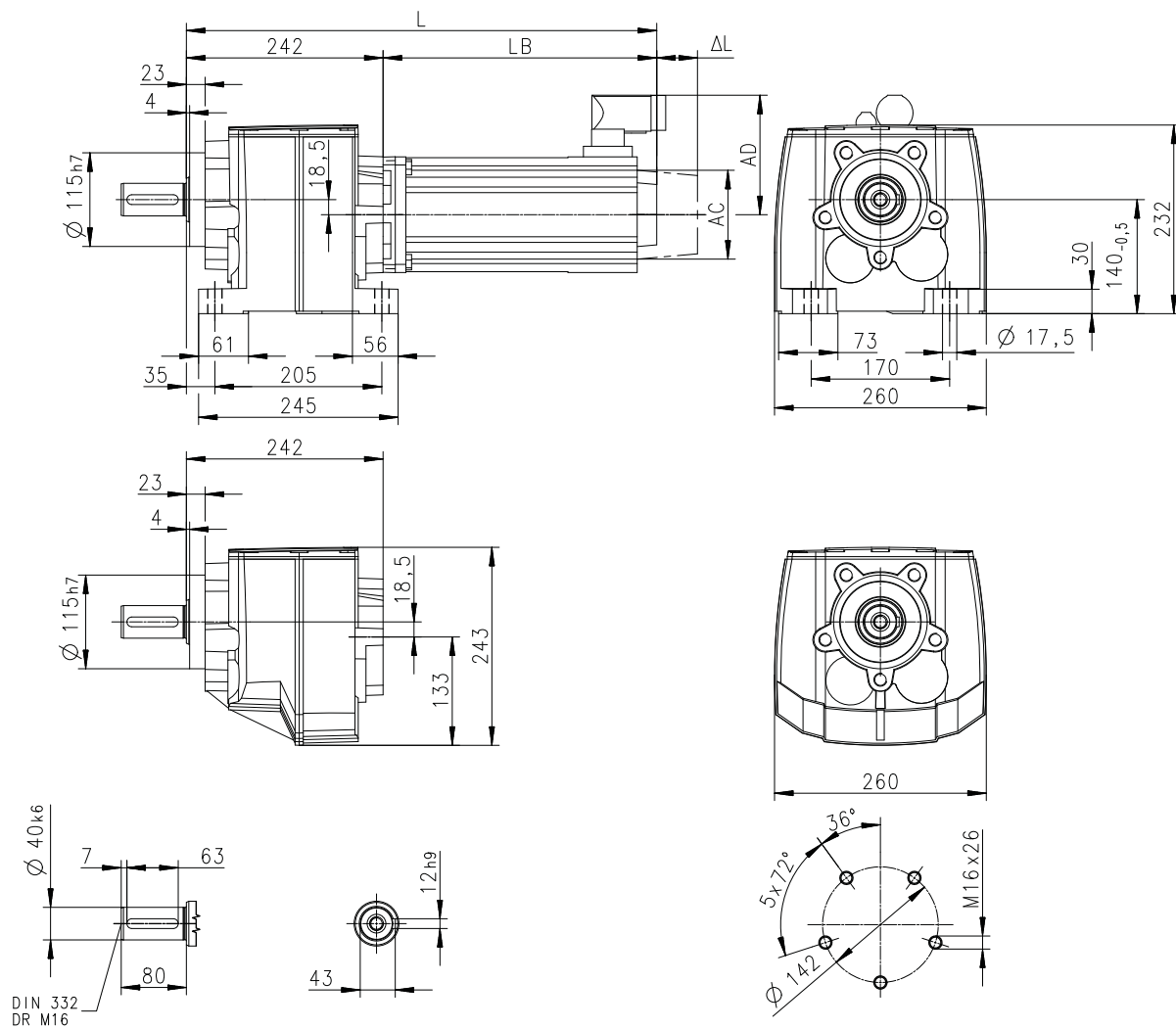
8800543-00

Motor			MCS		
			06C41-06C41L	06F41-06F41L	06I41-06I41L
Cooling type			natural	natural	natural
Total length	L	mm	373	403	433
Motor length	LB	mm	131	161	191
Length of motor options	ΔL	mm	82		
Motor diameter	AC	mm	86		
Motor/connection distance	AD	mm	77		



g500-H850, 2-/3-stage with MCS06

Gearbox version: Solid shaft with foot/centering (VAR/VCR)



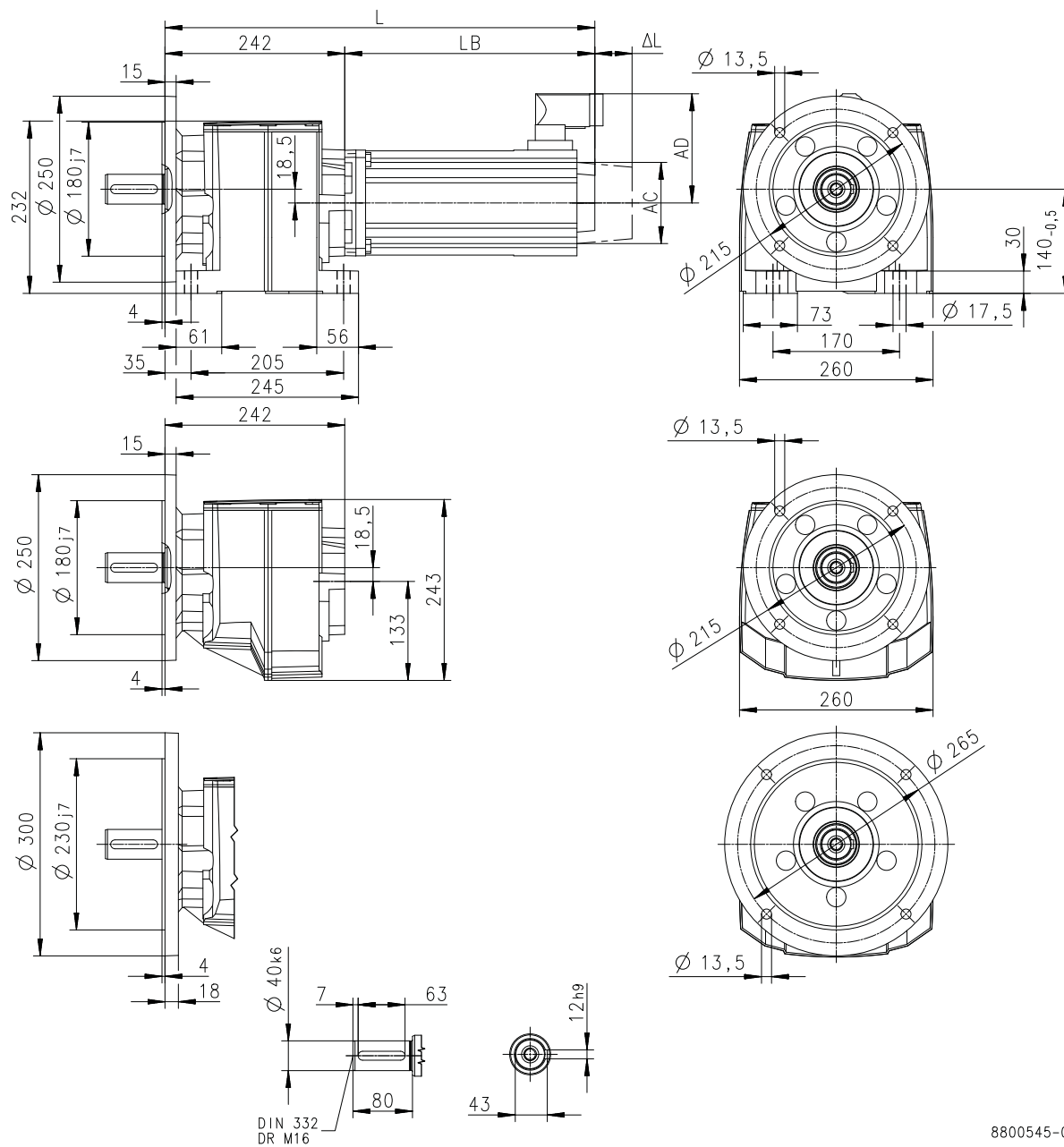
8800544-00

Motor			MCS		
			06C41-06C41L	06F41-06F41L	06I41-06I41L
Cooling type			natural	natural	natural
Total length	L	mm	373	403	433
Motor length	LB	mm	131	161	191
Length of motor options	ΔL	mm	82		
Motor diameter	AC	mm	86		
Motor/connection distance	AD	mm	77		



g500-H850, 2-/3-stage with MCS06

Gearbox version: Solid shaft with foot/flange (VAK/VCK)



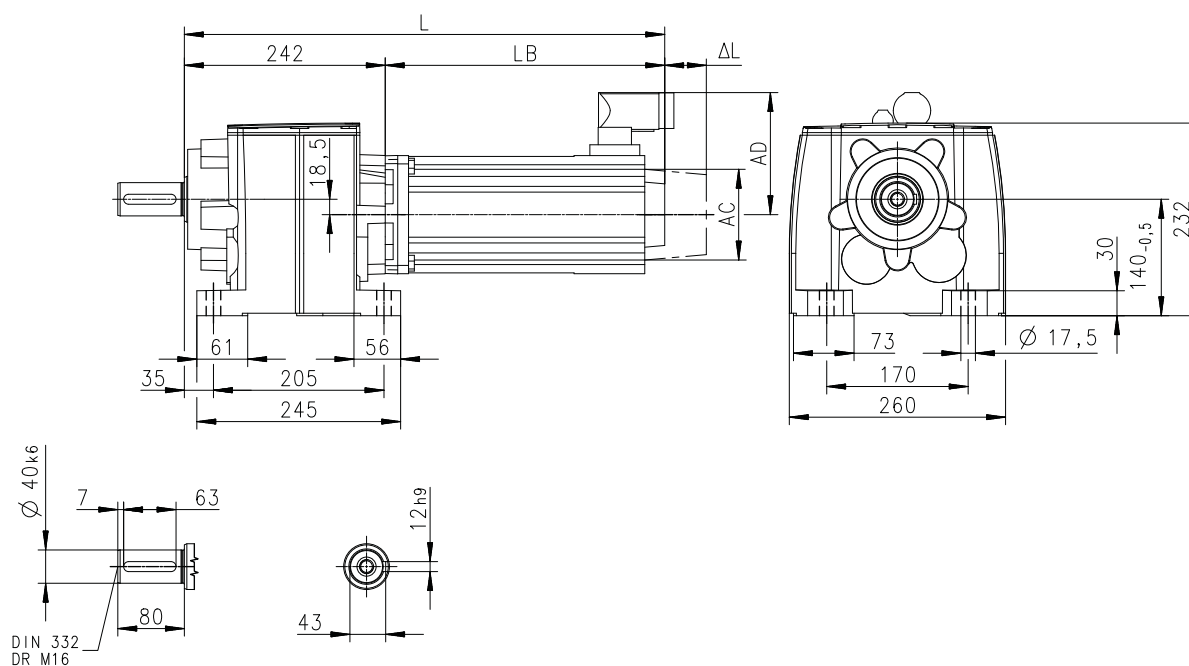
8800545-00

Motor			MCS		
			06C41- 06C41L	06F41- 06F41L	06I41- 06I41L
Cooling type			natural	natural	natural
Total length	L	mm	373	403	433
Motor length	LB	mm	131	161	191
Length of motor options	Δ L	mm	82		
Motor diameter	AC	mm	86		
Motor/connection distance	AD	mm	77		



g500-H850, 2-/3-stage with MCS09

Gearbox version: Solid shaft with foot (VBR)



8800543-00

Motor			MCS			
			09D41- 09D41L	09F38- 09F38L	09H41- 09H41L	09L41- 09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	426	446	466	506
Motor length	LB	mm	184	204	224	264
Length of motor options	ΔL	mm	71			
Motor diameter	AC	mm	89			
Motor/connection distance	AD	mm	90			

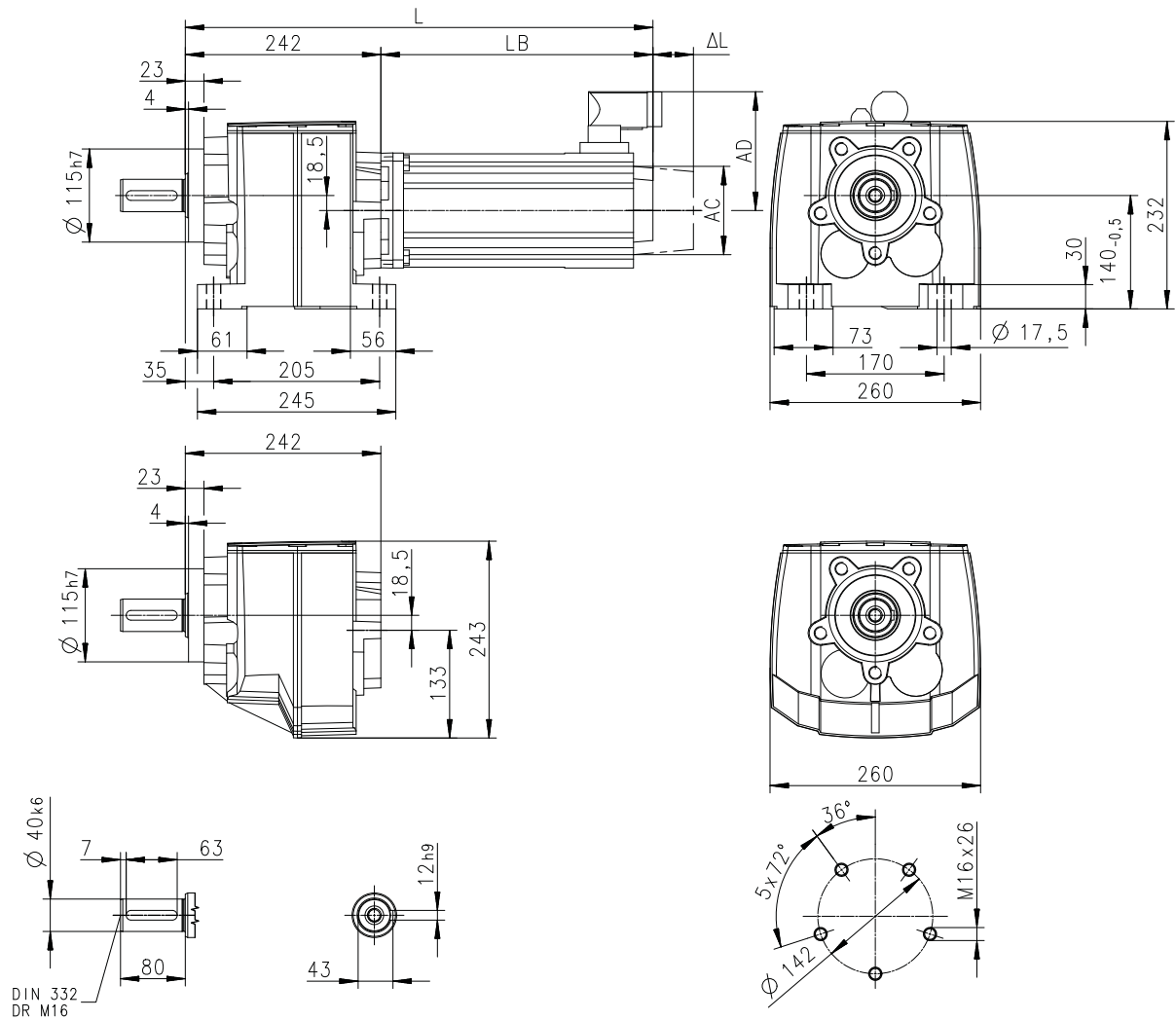
Technical data

Dimensions
Basic dimensions



g500-H850, 2-/3-stage with MCS09

Gearbox version: Solid shaft with foot/centering (VAR/VCR)



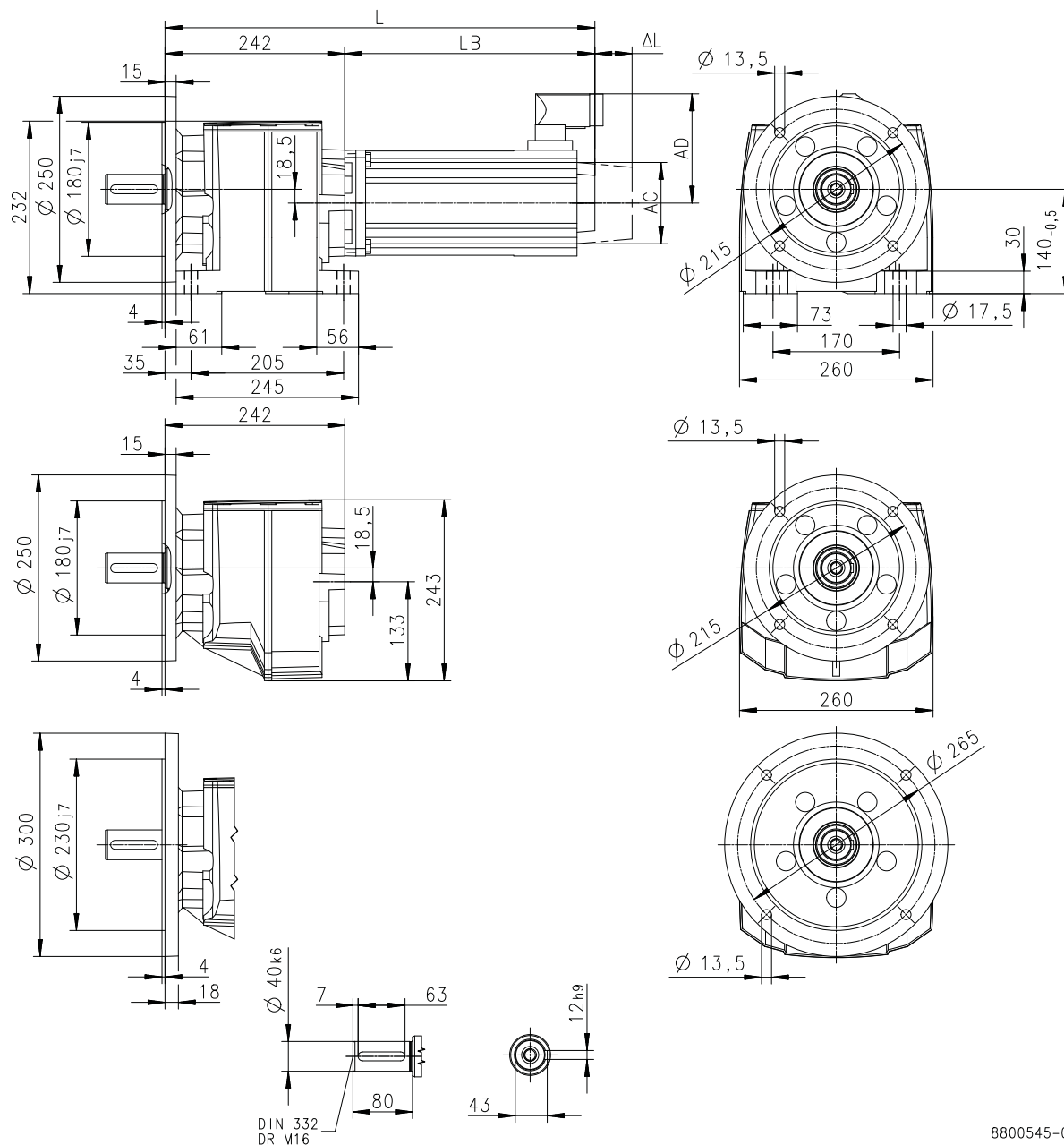
8800544-00

Motor			MCS			
			09D41-09D41L	09F38-09F38L	09H41-09H41L	09L41-09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	426	446	466	506
Motor length	LB	mm	184	204	224	264
Length of motor options	Δ L	mm	71			
Motor diameter	AC	mm	89			
Motor/connection distance	AD	mm	90			



g500-H850, 2-/3-stage with MCS09

Gearbox version: Solid shaft with foot/flange (VAK/VCK)



8800545-00

Motor			MCS			
			09D41-09D41L	09F38-09F38L	09H41-09H41L	09L41-09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	426	446	466	506
Motor length	LB	mm	184	204	224	264
Length of motor options	ΔL	mm	71			
Motor diameter	AC	mm	89			
Motor/connection distance	AD	mm	90			

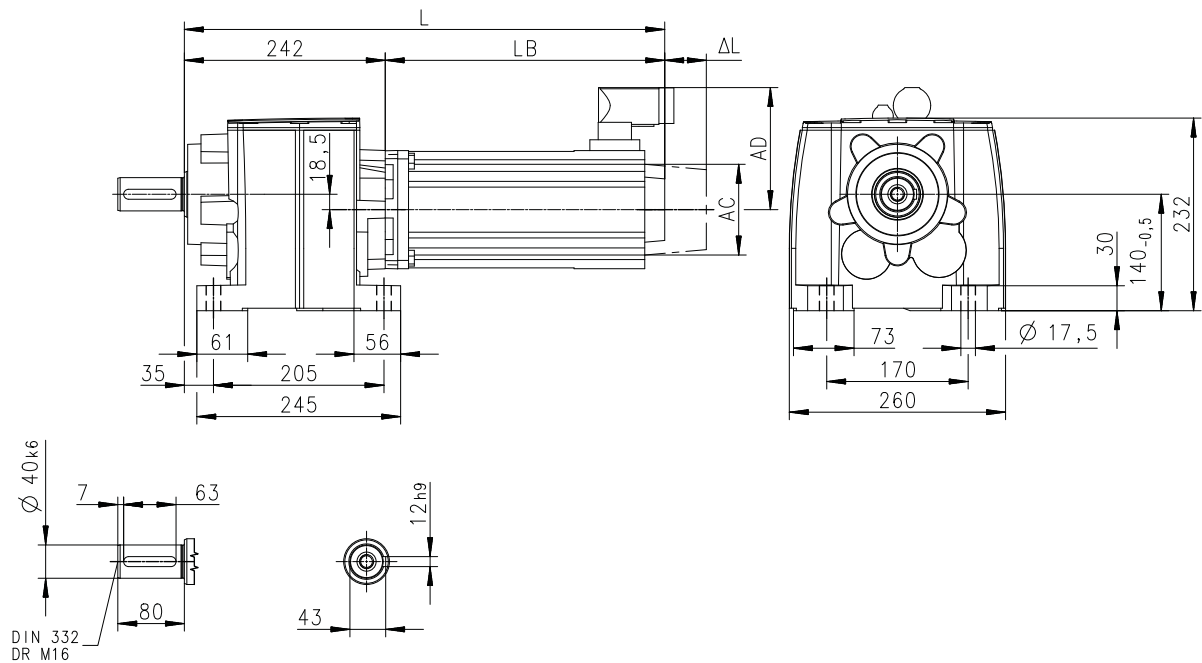
Technical data

Dimensions
Basic dimensions



g500-H850, 2-/3-stage with MCS12

Gearbox version: Solid shaft with foot (VBR)



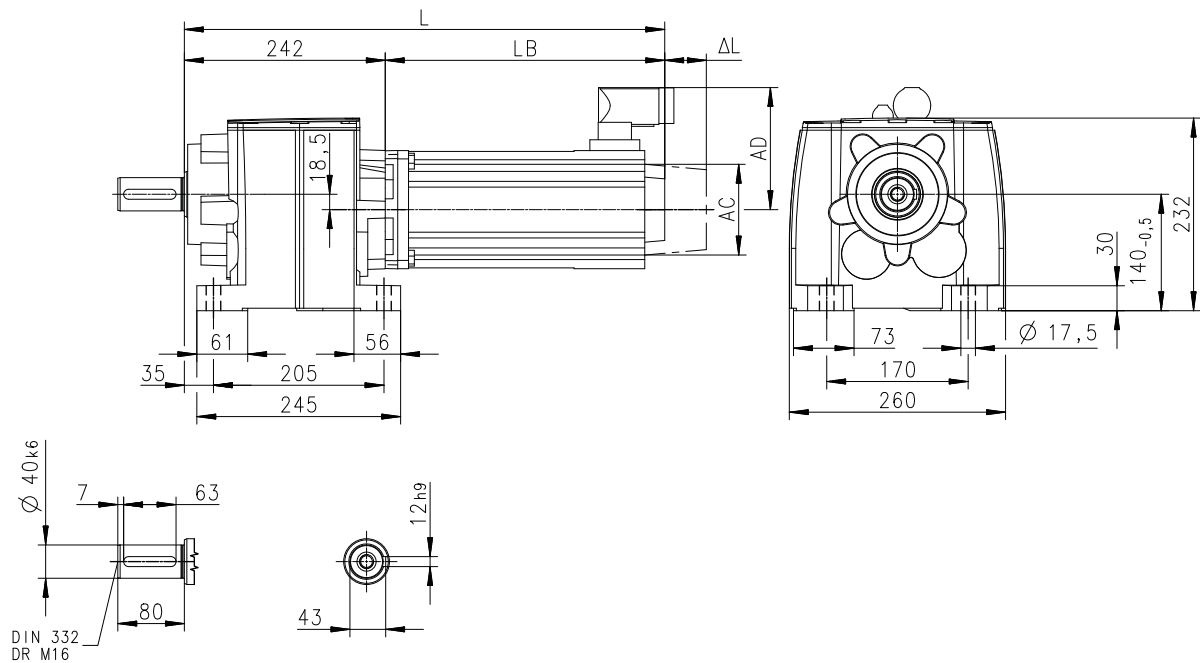
8800543-00

Motor			MCS					
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	516	443	516	443	556	483
Motor length	LB	mm	274	201	274	201	314	241
Length of motor options	Δ L	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105



g500-H850, 2-/3-stage with MCS12

Gearbox version: Solid shaft with foot/flange (VAK/VCK)



8800543-00

Motor			MCS					
			12H34-	12H35- 12H30L	12L17-	12L20- 12L20L	12L39-	12L41- 12L41L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	556	483	596	523	596	523
Motor length	LB	mm	314	241	354	281	354	281
Length of motor options	ΔL	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105

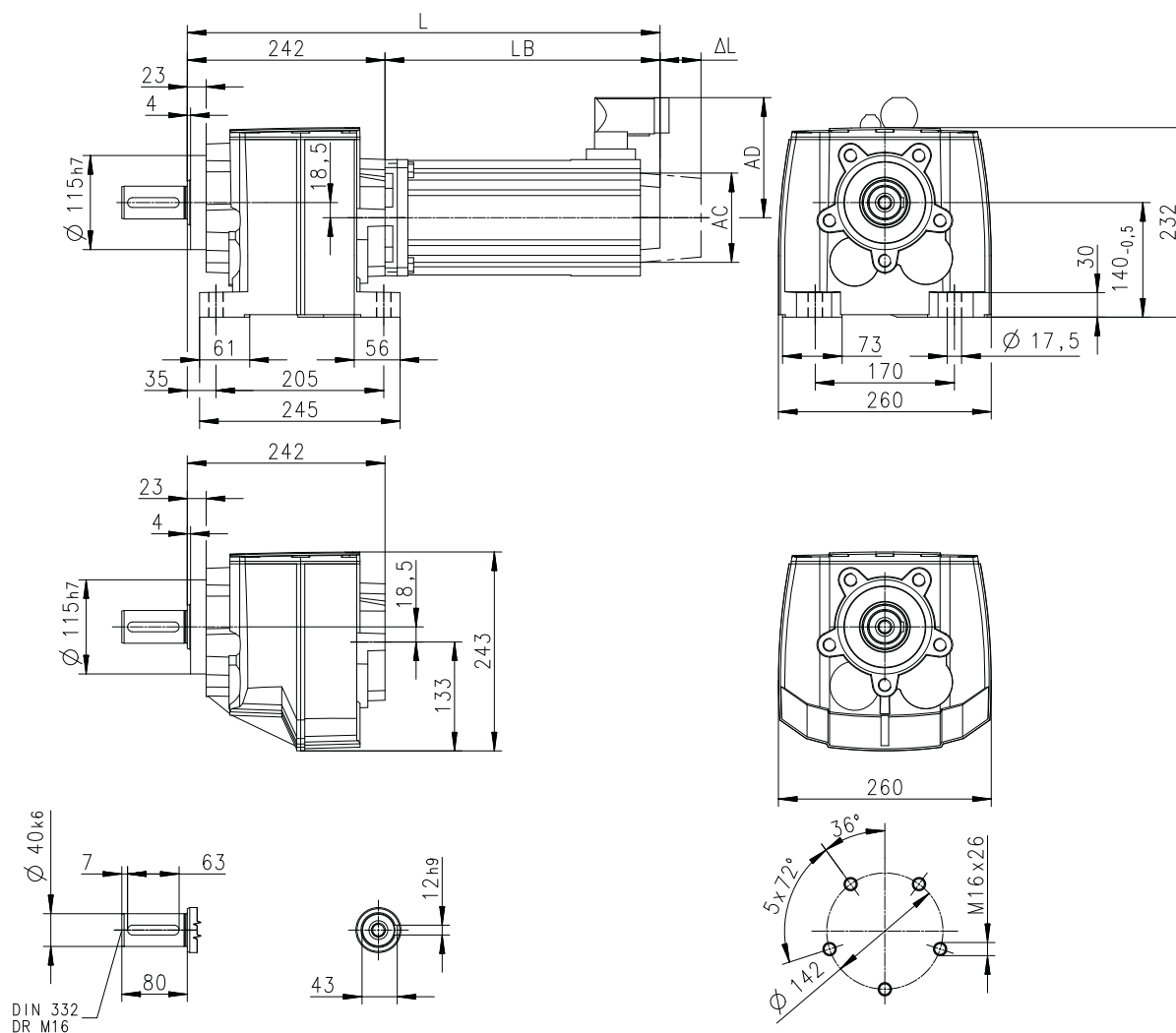
Technical data

Dimensions
Basic dimensions



g500-H850, 2-/3-stage with MCS12

Gearbox version: Solid shaft with foot/centering (VAR/VCR)



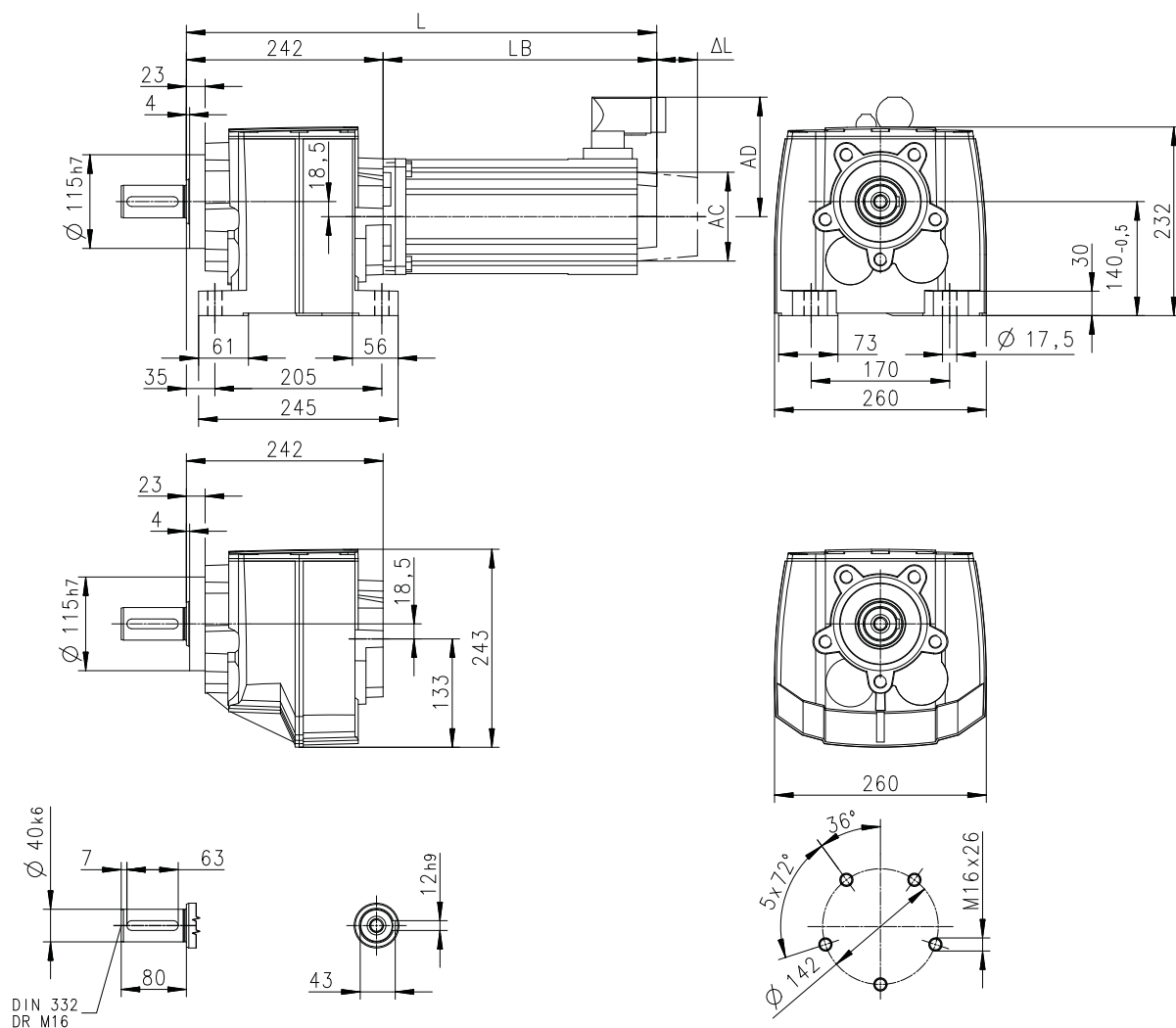
8800544-00

Motor			MCS					
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	516	443	516	443	556	483
Motor length	LB	mm	274	201	274	201	314	241
Length of motor options	Δ L	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105



g500-H850, 2-/3-stage with MCS12

Gearbox version: Solid shaft with foot/centering (VAR/VCR)



8800544-00

Motor			MCS					
			12H34-	12H35- 12H30L	12L17-	12L20- 12L20L	12L39-	12L41- 12L41L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	556	483	596	523	596	523
Motor length	LB	mm	314	241	354	281	354	281
Length of motor options	Δ L	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105

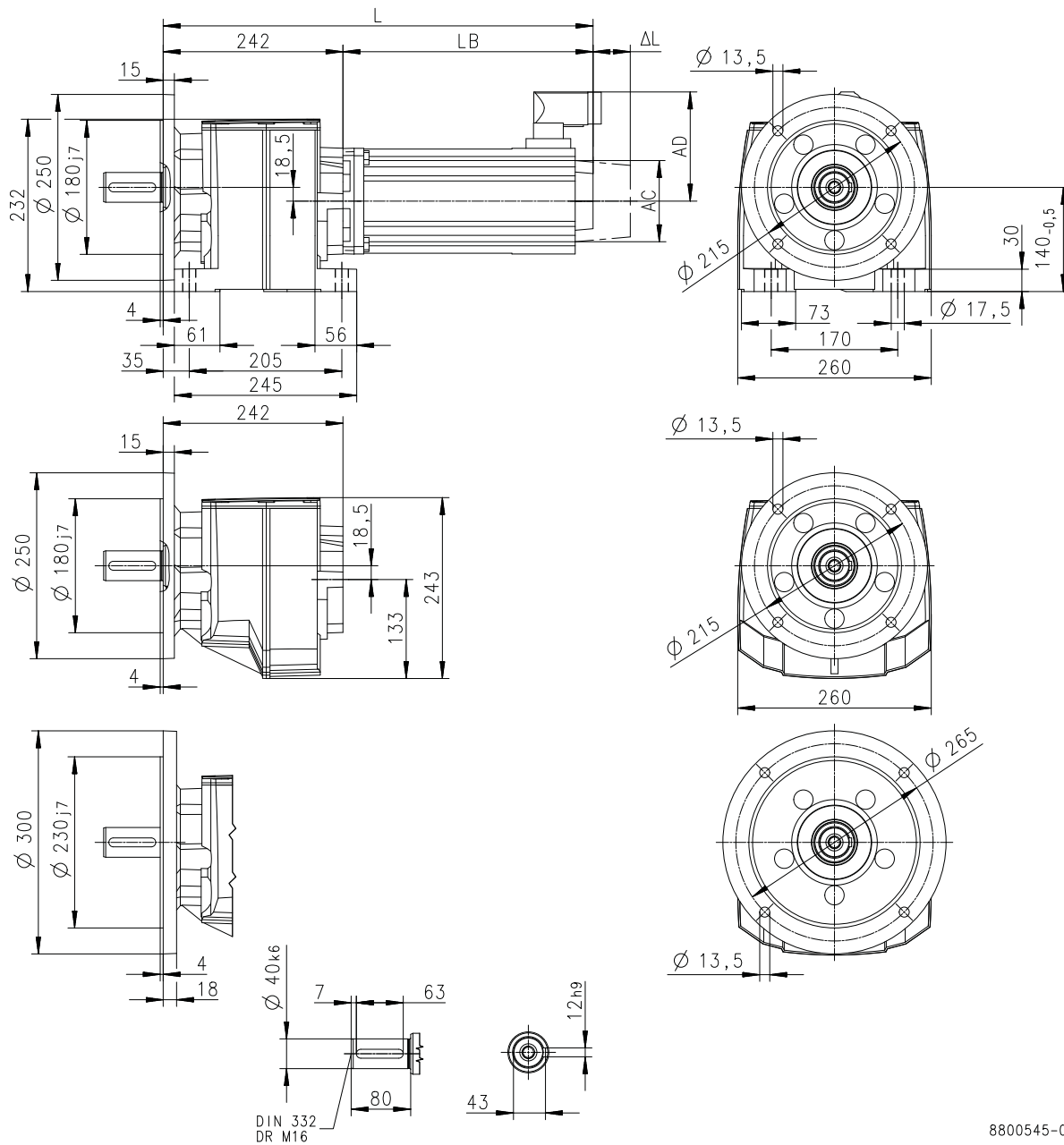
Technical data

Dimensions
Basic dimensions



g500-H850, 2-/3-stage with MCS12

Gearbox version: Solid shaft with foot/flange (VAK/VCK)

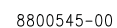


8800545-00

Motor			MCS					
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	516	443	516	443	556	483
Motor length	LB	mm	274	201	274	201	314	241
Length of motor options	Δ L	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105



Gearbox version: Solid shaft with foot/flange (VAK/VCK)

247

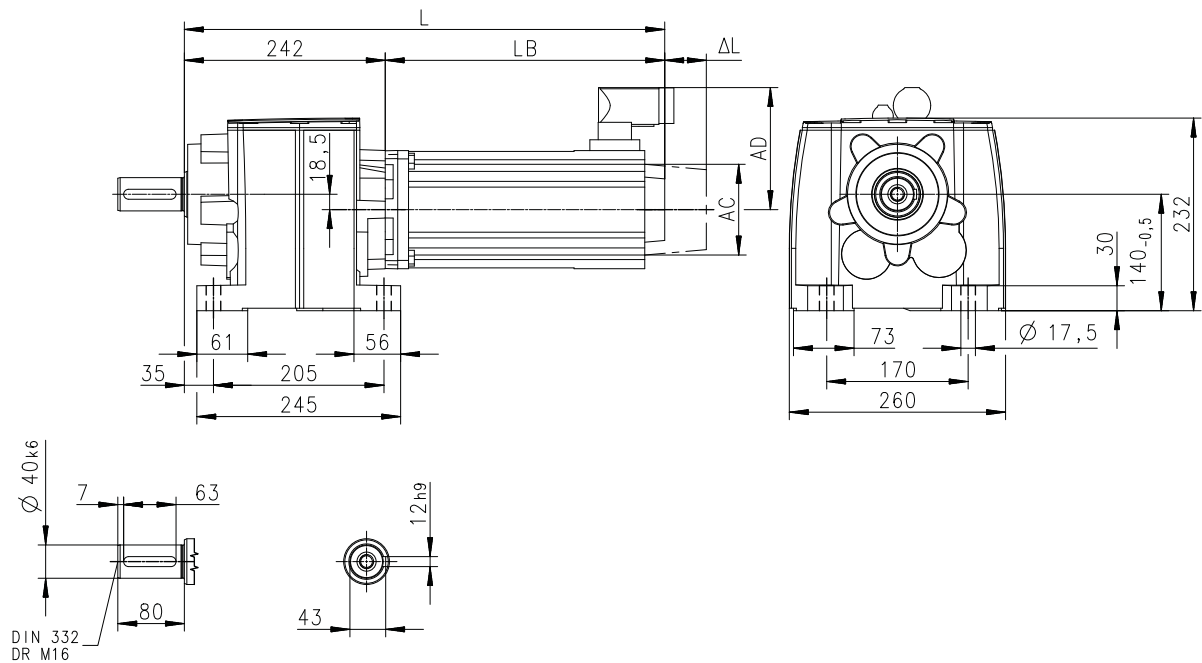
Technical data

Dimensions
Basic dimensions



g500-H850, 2-/3-stage with MCS14

Gearbox version: Solid shaft with foot (VBR)

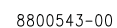


8800543-00

Motor			MCS							
			14D14-	14D15-	14D30-	14D36-	14H12-	14H15-	14H28-	14H32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	546	458	546	458	586	498	586	498
Motor length	LB	mm	304	216	304	216	344	256	344	256
Length of motor options	ΔL	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	117	117	117	117	146	117



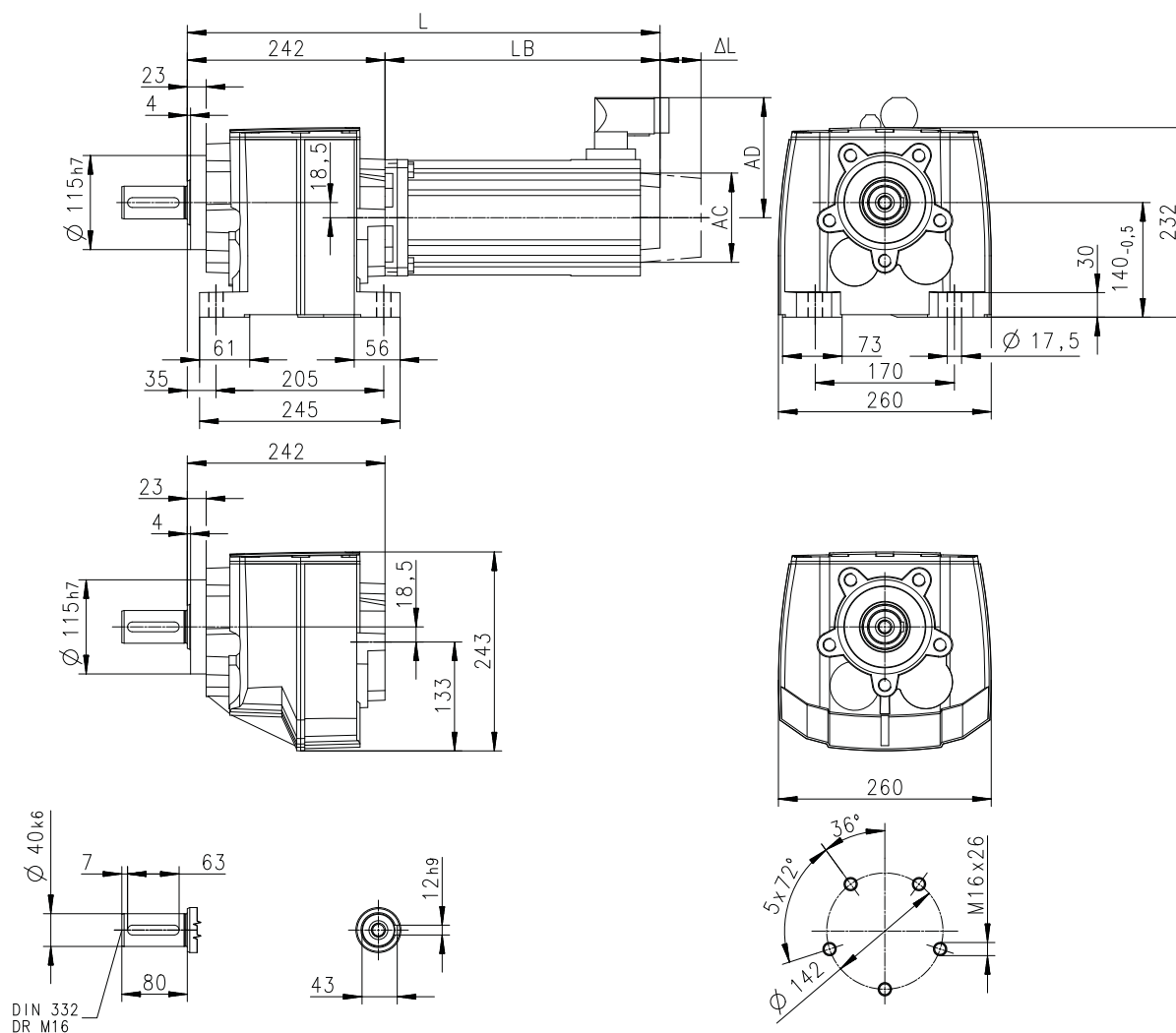
Gearbox version: Solid shaft with foot (VBR)

249



g500-H850, 2-/3-stage with MCS14

Gearbox version: Solid shaft with foot/centering (VAR/VCR)



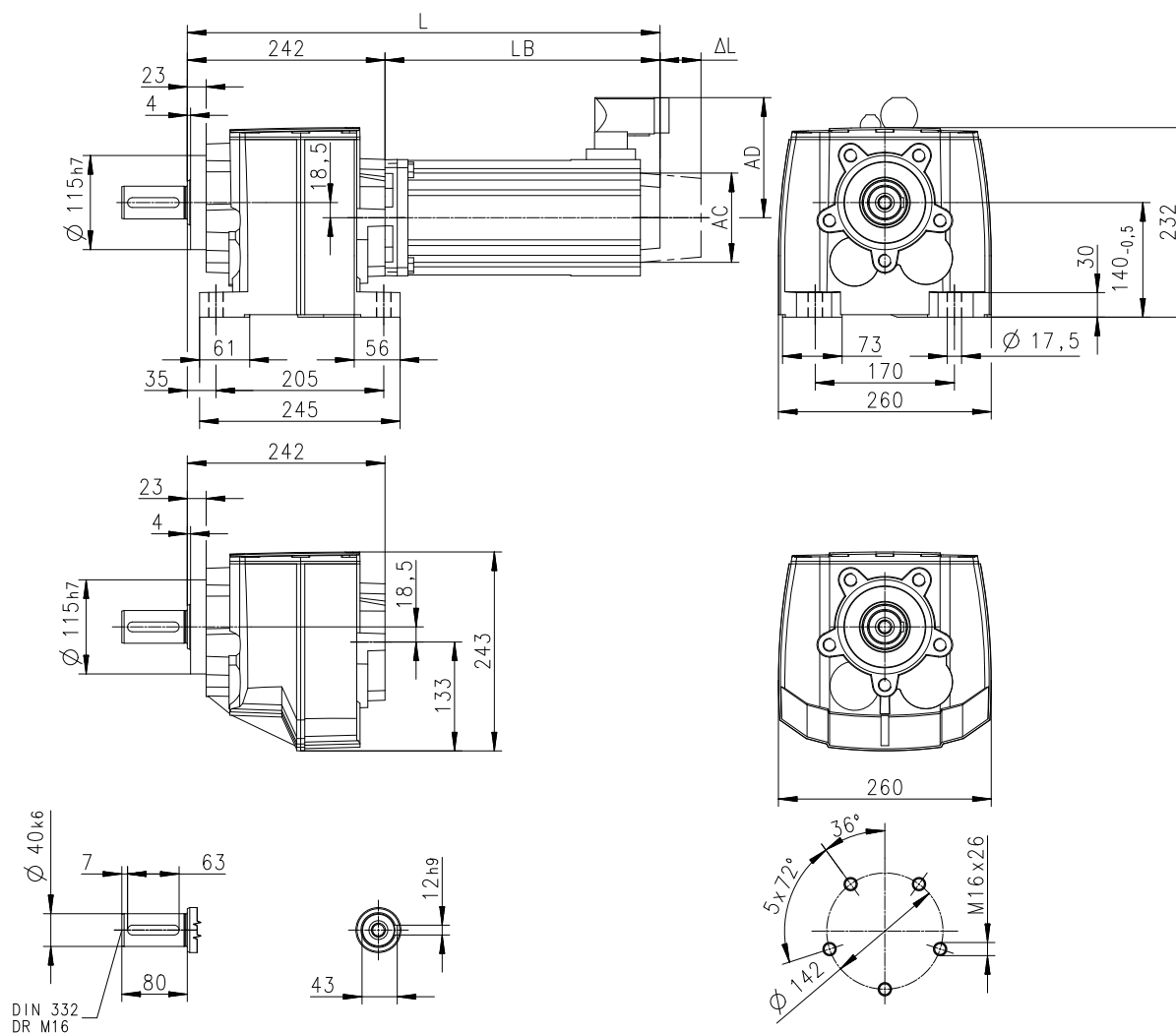
8800544-00

Motor			MCS							
			14D14-	14D15-	14D30-	14D36-	14H12-	14H15-	14H28-	14H32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	546	458	546	458	586	498	586	498
Motor length	LB	mm	304	216	304	216	344	256	344	256
Length of motor options	Δ L	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	117	117	117	117	146	117



g500-H850, 2-/3-stage with MCS14

Gearbox version: Solid shaft with foot/centering (VAR/VCR)



8800544-00

Motor			MCS							
			14L14-	14L15-	14L30-	14L32-	14P11-	14P14-	14P26-	14P32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	626	538	626	538	666	578	666	578
Motor length	LB	mm	384	296	384	296	424	336	424	336
Length of motor options	Δ L	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	146	146	117	117	146	146

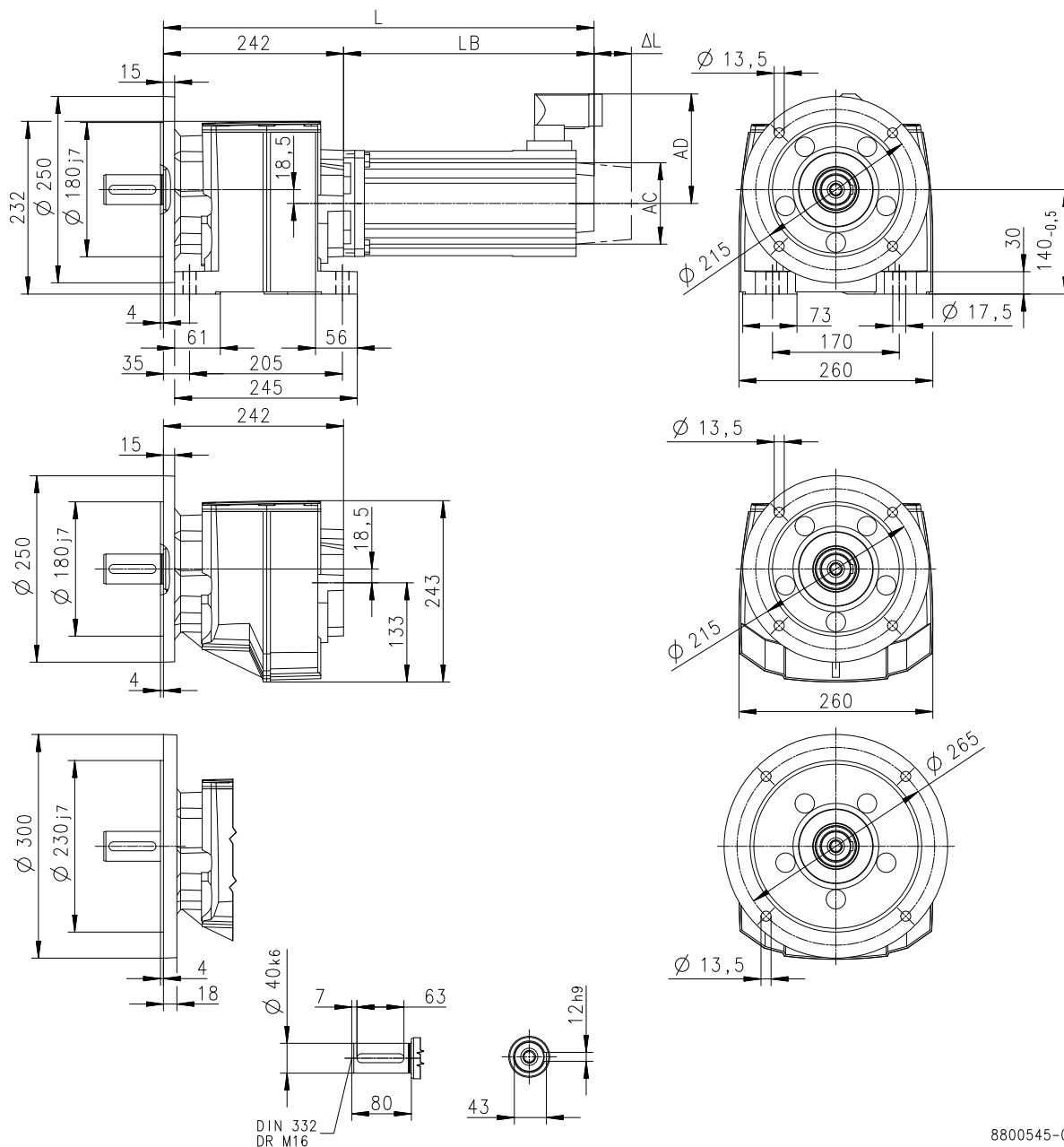
Technical data

Dimensions
Basic dimensions



g500-H850, 2-/3-stage with MCS14

Gearbox version: Solid shaft with foot/flange (VAK/VCK)



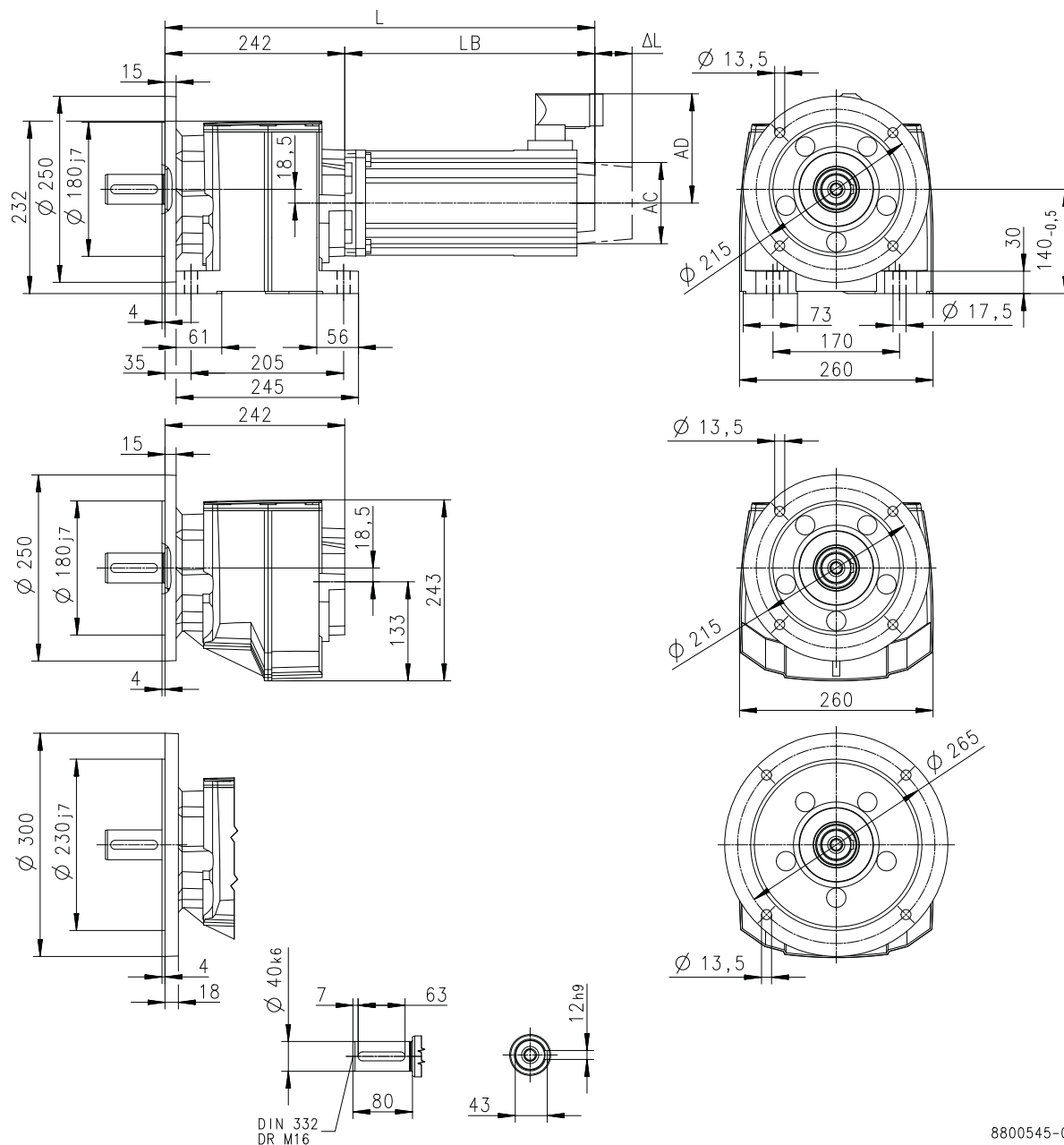
8800545-00

Motor			MCS							
			14D14-	14D15-	14D30-	14D36-	14H12-	14H15-	14H28-	14H32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	546	458	546	458	586	498	586	498
Motor length	LB	mm	304	216	304	216	344	256	344	256
Length of motor options	ΔL	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	117	117	117	117	146	117



g500-H850, 2-/3-stage with MCS14

Gearbox version: Solid shaft with foot/flange (VAK/VCK)



8800545-00

Motor			MCS							
			14L14-	14L15-	14L30-	14L32-	14P11-	14P14-	14P26-	14P32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	626	538	626	538	666	578	666	578
Motor length	LB	mm	384	296	384	296	424	336	424	336
Length of motor options	Δ L	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	146	146	117	117	146	146

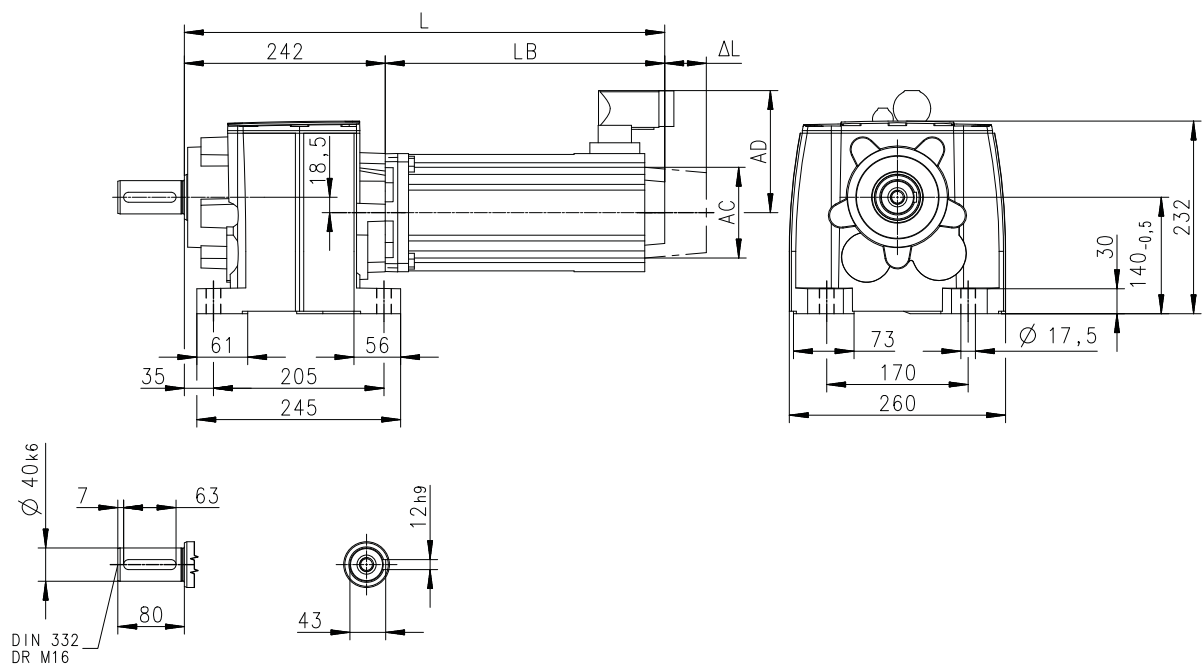
Technical data

Dimensions
Basic dimensions



g500-H850, 2-/3-stage with MCS19

Gearbox version: Solid shaft with foot (VBR)

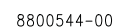


8800543-00

Motor			MCS									
			19F12-	19F14-	19F29-	19F30-	19J12- 19J29-	19J14-	19J30-	19P12- 19P29-	19P14-	19P30-
Cooling type			Blower	natural	Blower	natural	Blower	natural	natural	Blower	natural	natural
Total length	L	mm	604	497	604	497	644	537	537	644	597	597
Motor length	LB	mm	362	255	362	255	402	295	295	402	355	355
Length of motor options	ΔL	mm	72	93	72	93	72	93	93	72	93	93
Motor diameter	AC	mm	212	192	212	192	212	192	192	212	192	192
Motor/connection distance	AD	mm	142	142	171	171	171	142	171	171	171	171



Gearbox version: Solid shaft with foot/centering (VAR/VCR)

255

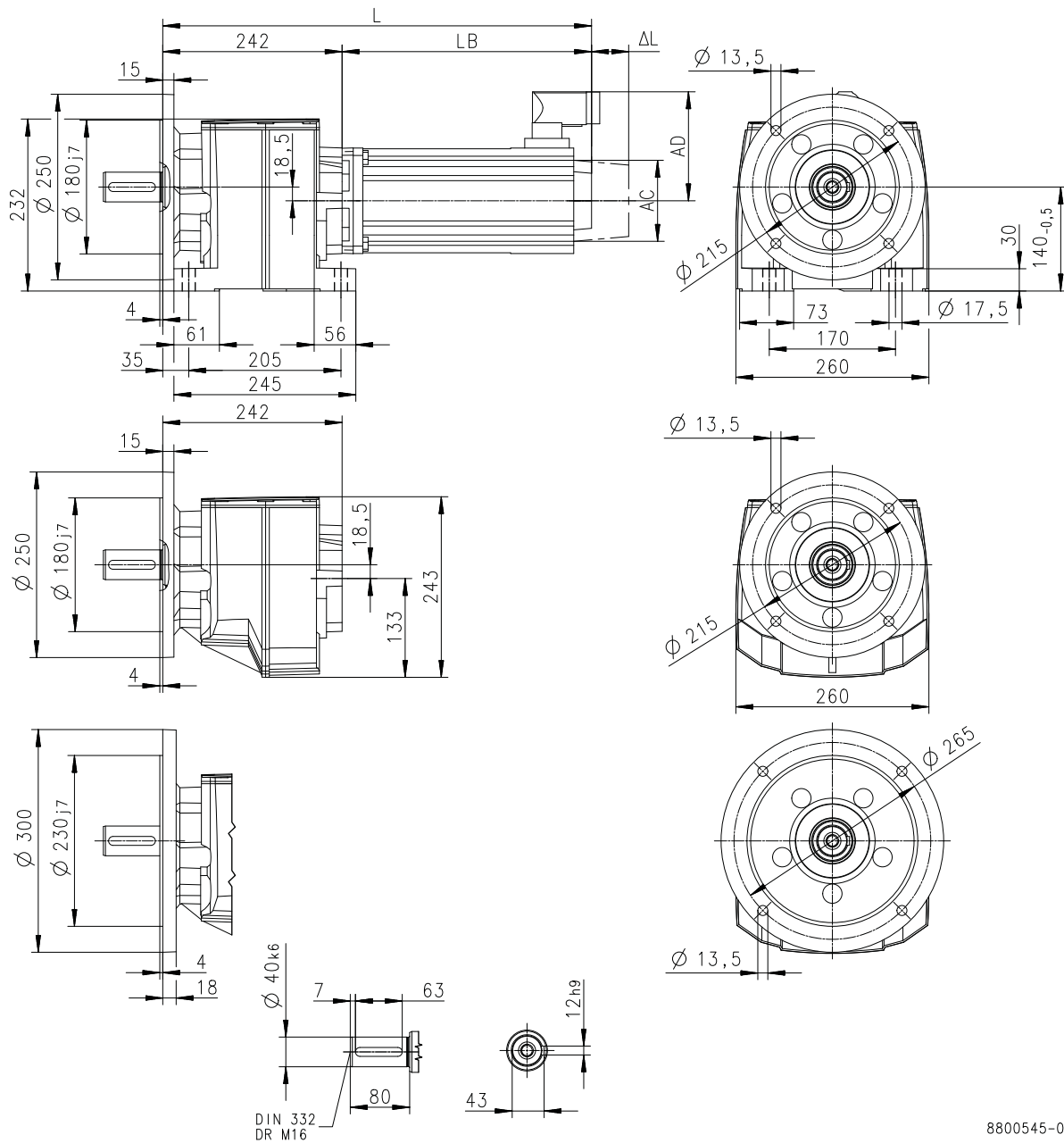
Technical data

Dimensions
Basic dimensions



g500-H850, 2-/3-stage with MCS19

Gearbox version: Solid shaft with foot/flange (VAK/VCK)



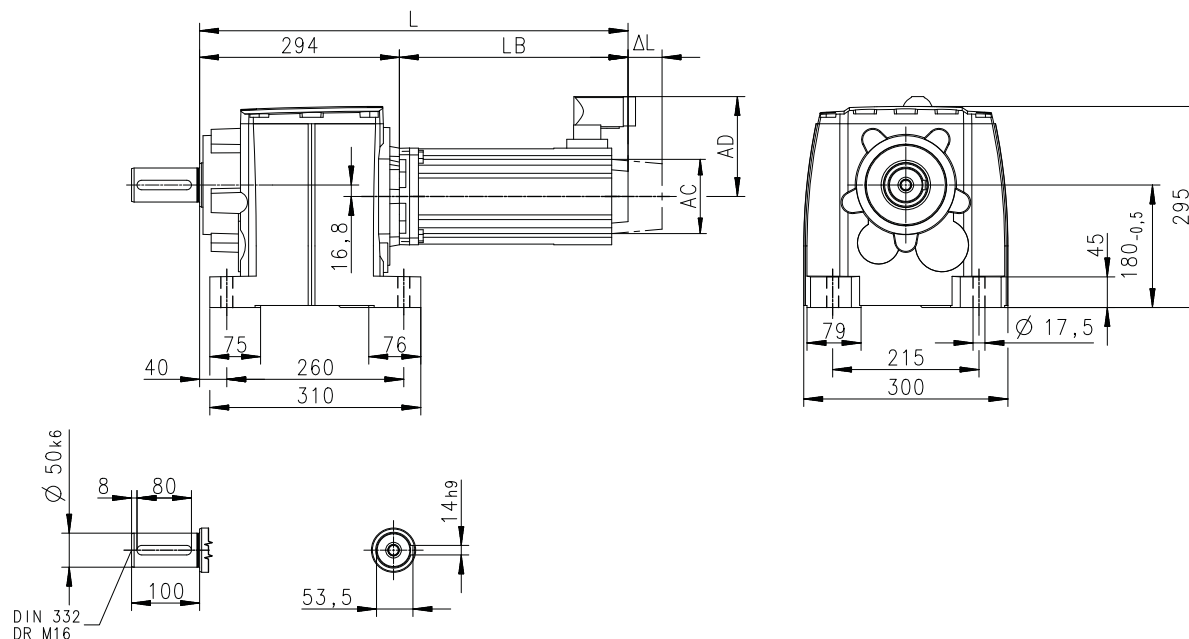
8800545-00

Motor			MCS									
			19F12-	19F14-	19F29-	19F30-	19J12- 19J29-	19J14-	19J30-	19P12- 19P29-	19P14-	19P30-
Cooling type			Blower	natural	Blower	natural	Blower	natural	natural	Blower	natural	natural
Total length	L	mm	604	497	604	497	644	537	537	644	597	597
Motor length	LB	mm	362	255	362	255	402	295	295	402	355	355
Length of motor options	Δ L	mm	72	93	72	93	72	93	93	72	93	93
Motor diameter	AC	mm	212	192	212	192	212	192	192	212	192	192
Motor/connection distance	AD	mm	142	142	171	171	171	142	171	171	171	171



g500-H1500, 2-/3-stage with MCS06

Gearbox version: Solid shaft with foot (VBR)



8800546-00

Motor			MCS		
			06C41- 06C41L	06F41- 06F41L	06I41- 06I41L
Cooling type			natural	natural	natural
Total length	L	mm	425	455	485
Motor length	LB	mm	131	161	191
Length of motor options	Δ L	mm	82		
Motor diameter	AC	mm	86		
Motor/connection distance	AD	mm	77		

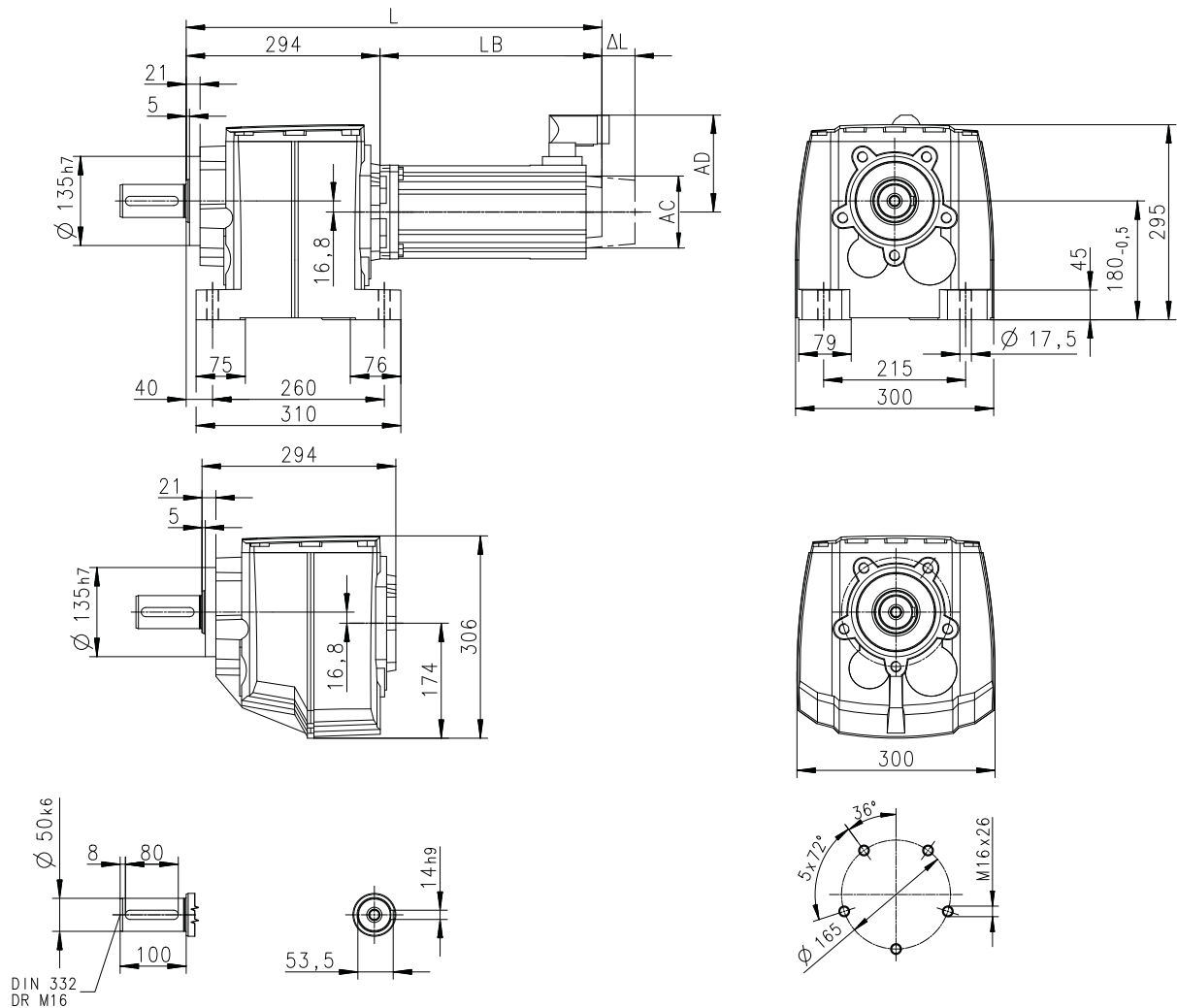
Technical data

Dimensions
Basic dimensions



g500-H1500, 2-/3-stage with MCS06

Gearbox version: Solid shaft with foot/centering (VAR/VCR)



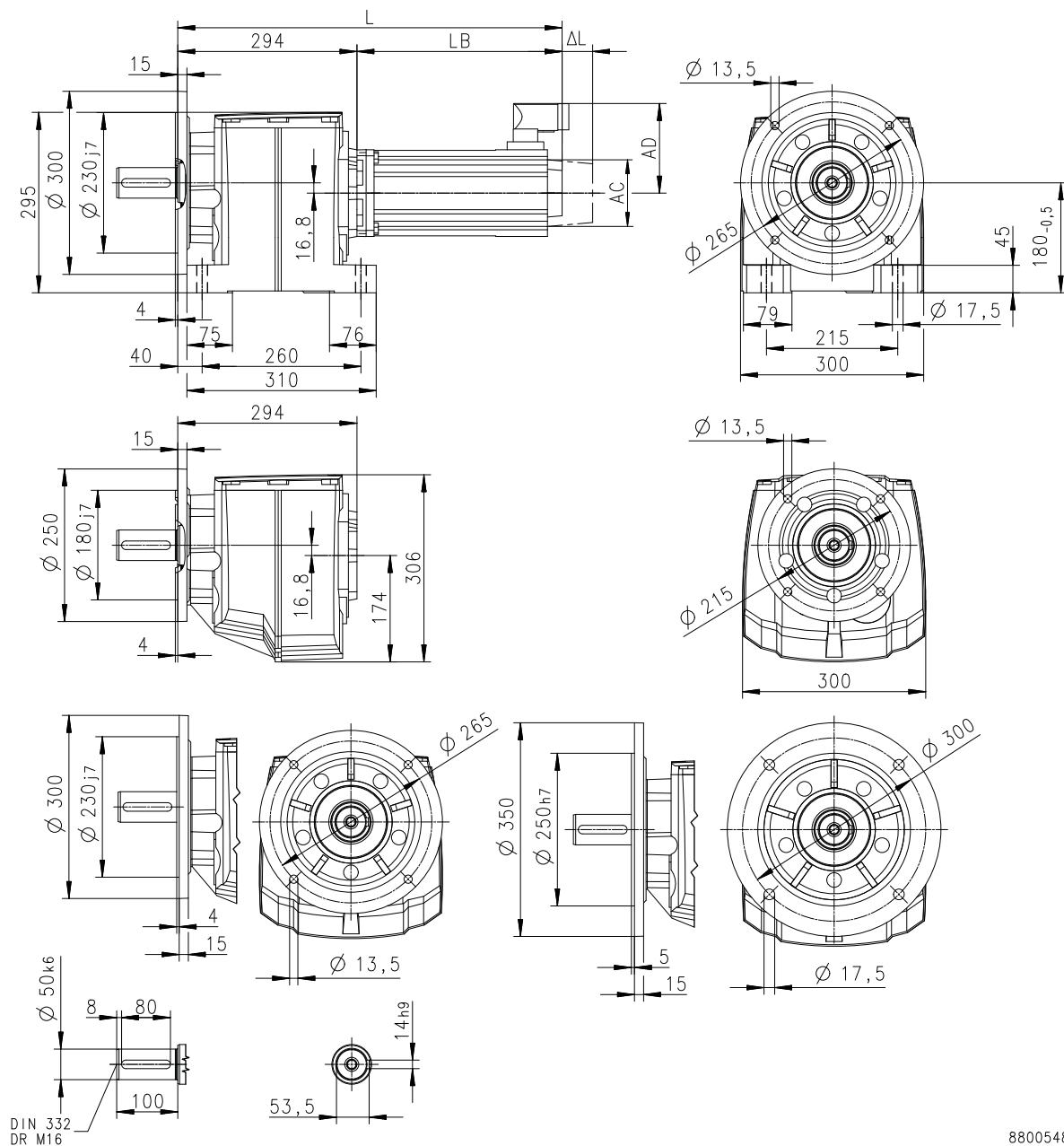
8800547-00

Motor			MCS		
			06C41-06C41L	06F41-06F41L	06I41-06I41L
Cooling type			natural	natural	natural
Total length	L	mm	425	455	485
Motor length	LB	mm	131	161	191
Length of motor options	Δ L	mm	82		
Motor diameter	AC	mm	86		
Motor/connection distance	AD	mm	77		



g500-H1500, 2-/3-stage with MCS06

Gearbox version: Solid shaft with foot/flange (VAK/VCK)



8800548-00

Motor			MCS		
			06C41- 06C41L	06F41- 06F41L	06I41- 06I41L
Cooling type			natural	natural	natural
Total length	L	mm	425	455	485
Motor length	LB	mm	131	161	191
Length of motor options	Δ L	mm	82		
Motor diameter	AC	mm	86		
Motor/connection distance	AD	mm	77		

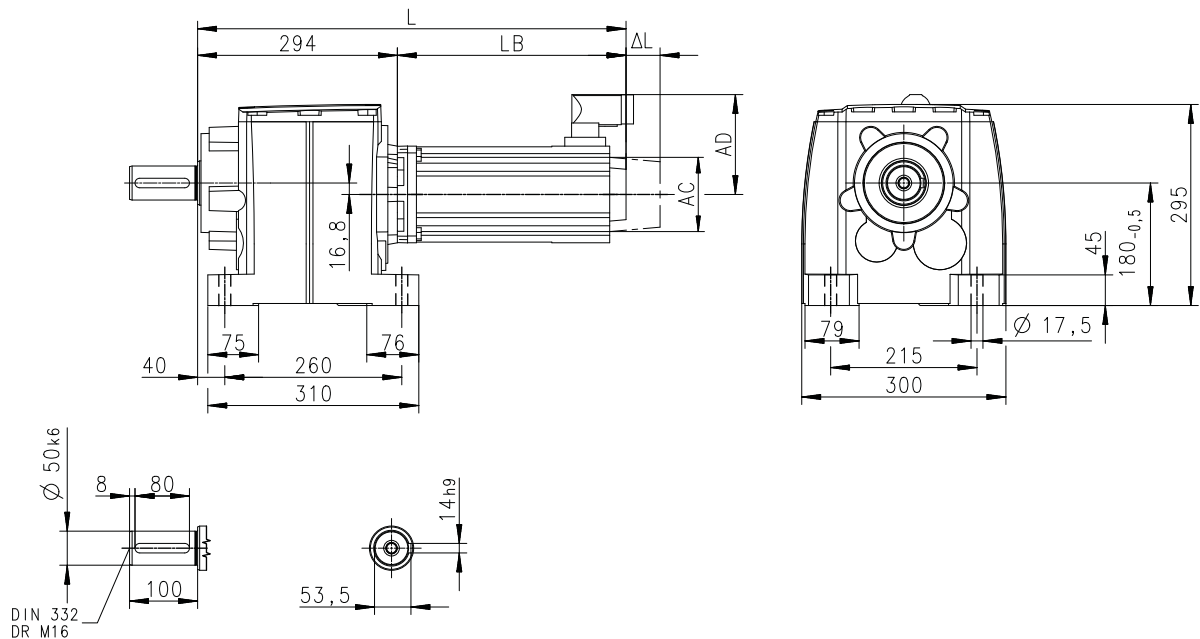
Technical data

Dimensions
Basic dimensions



g500-H1500, 2-/3-stage with MCS09

Gearbox version: Solid shaft with foot (VBR)



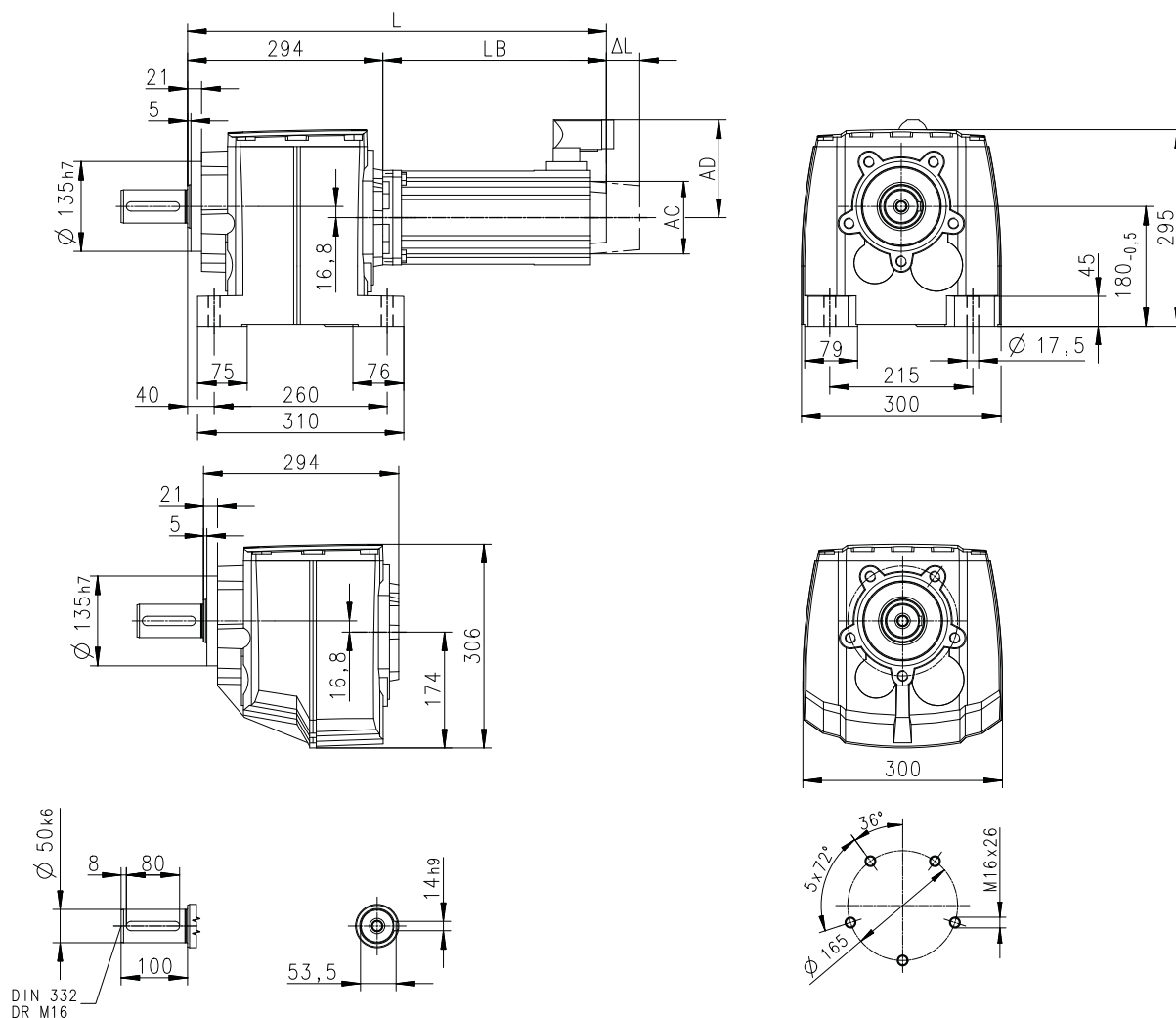
8800546-00

Motor			MCS			
			09D41- 09D41L	09F38- 09F38L	09H41- 09H41L	09L41- 09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	478	498	518	558
Motor length	LB	mm	184	204	224	264
Length of motor options	Δ L	mm	71			
Motor diameter	AC	mm	89			
Motor/connection distance	AD	mm	90			



g500-H1500, 2-/3-stage with MCS09

Gearbox version: Solid shaft with foot/centering (VAR/VCR)

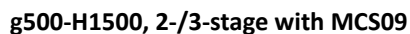


8800547-00

Motor			MCS			
			09D41- 09D41L	09F38- 09F38L	09H41- 09H41L	09L41- 09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	478	498	518	558
Motor length	LB	mm	184	204	224	264
Length of motor options	ΔL	mm	71			
Motor diameter	AC	mm	89			
Motor/connection distance	AD	mm	90			

Dimensions

Basic dimensions



Technical drawing of a 1000 series motor, showing dimensions in mm.

Key dimensions and features:

- Overall length: 294
- Mounting bracket length: LB
- Shaft length: ΔL
- Shaft diameter: $\varnothing 230j7$
- Total height: 300
- Mounting hole diameter: $\varnothing 13,5$
- Base diameter: $\varnothing 265$
- Mounting bracket detail dimensions: 8, 80, 100, 14h9
- Motor specification: DIN 332 DR M16

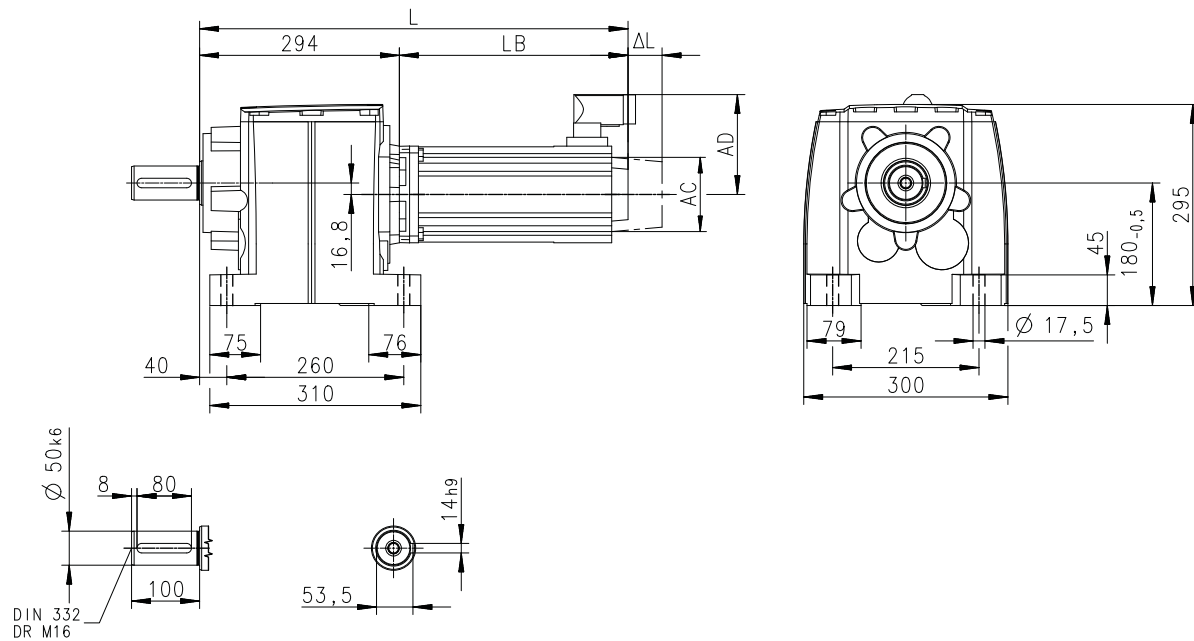
8800548-00

262



g500-H1500, 2-/3-stage with MCS12

Gearbox version: Solid shaft with foot (VBR)



8800546-00

Motor			MCS					
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	568	495	568	495	608	535
Motor length	LB	mm	274	201	274	201	314	241
Length of motor options	Δ L	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105

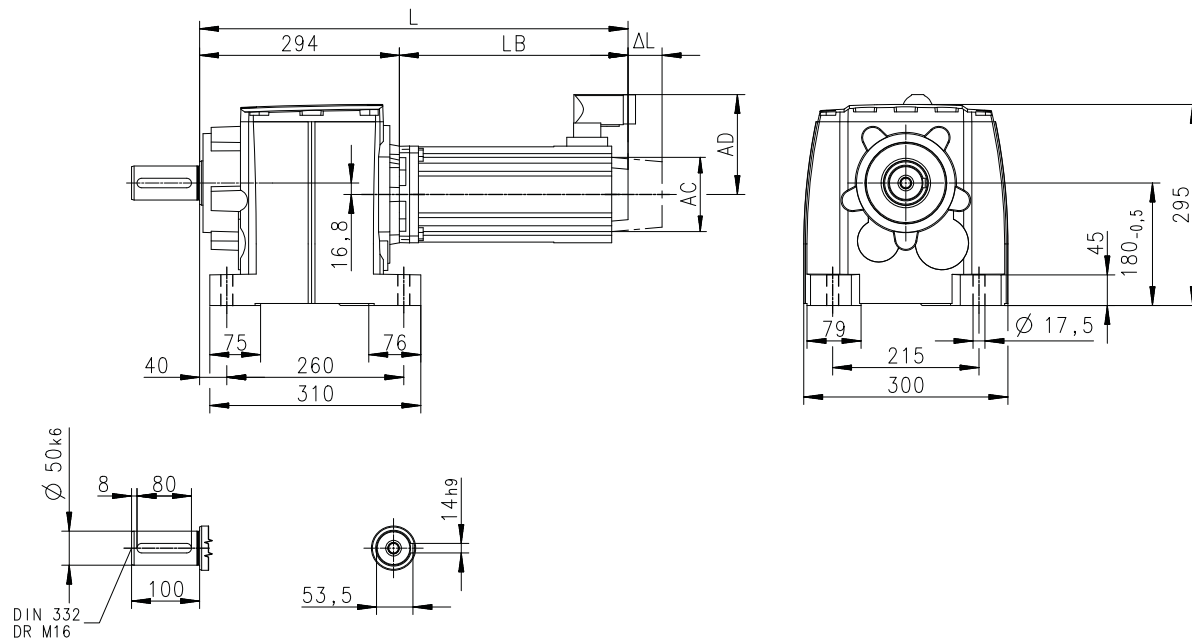
Technical data

Dimensions
Basic dimensions



g500-H1500, 2-/3-stage with MCS12

Gearbox version: Solid shaft with foot (VBR)



8800546-00

Motor			MCS					
			12H34-	12H35- 12H30L	12L17-	12L20- 12L20L	12L39-	12L41- 12L41L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	608	535	648	575	648	575
Motor length	LB	mm	314	241	354	281	354	281
Length of motor options	Δ L	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105

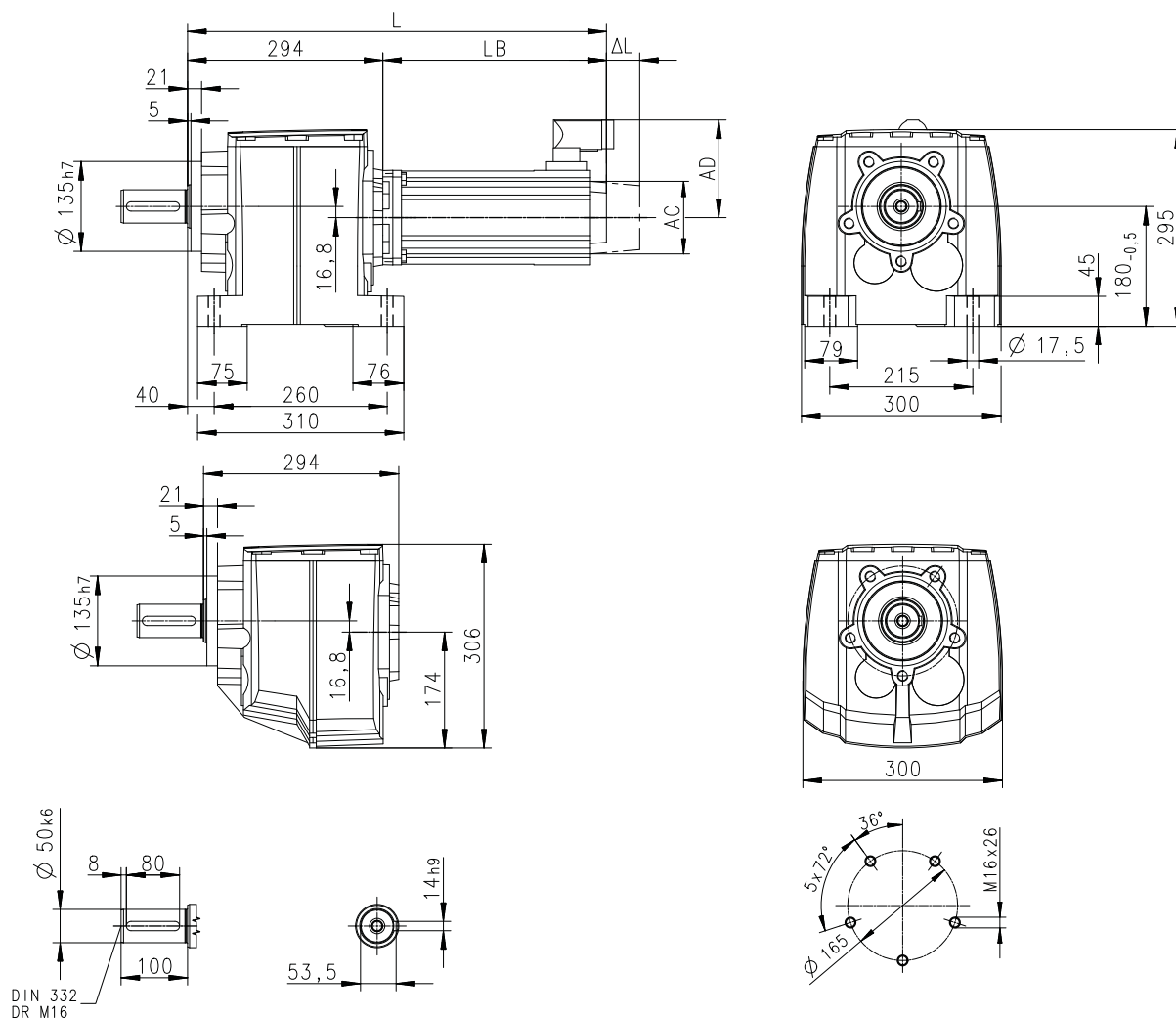


Technical data

Dimensions
Basic dimensions

g500-H1500, 2-/3-stage with MCS12

Gearbox version: Solid shaft with foot/centering (VAR/VCR)



8800547-00

Motor			MCS					
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	568	495	568	495	608	535
Motor length	LB	mm	274	201	274	201	314	241
Length of motor options	Δ L	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105

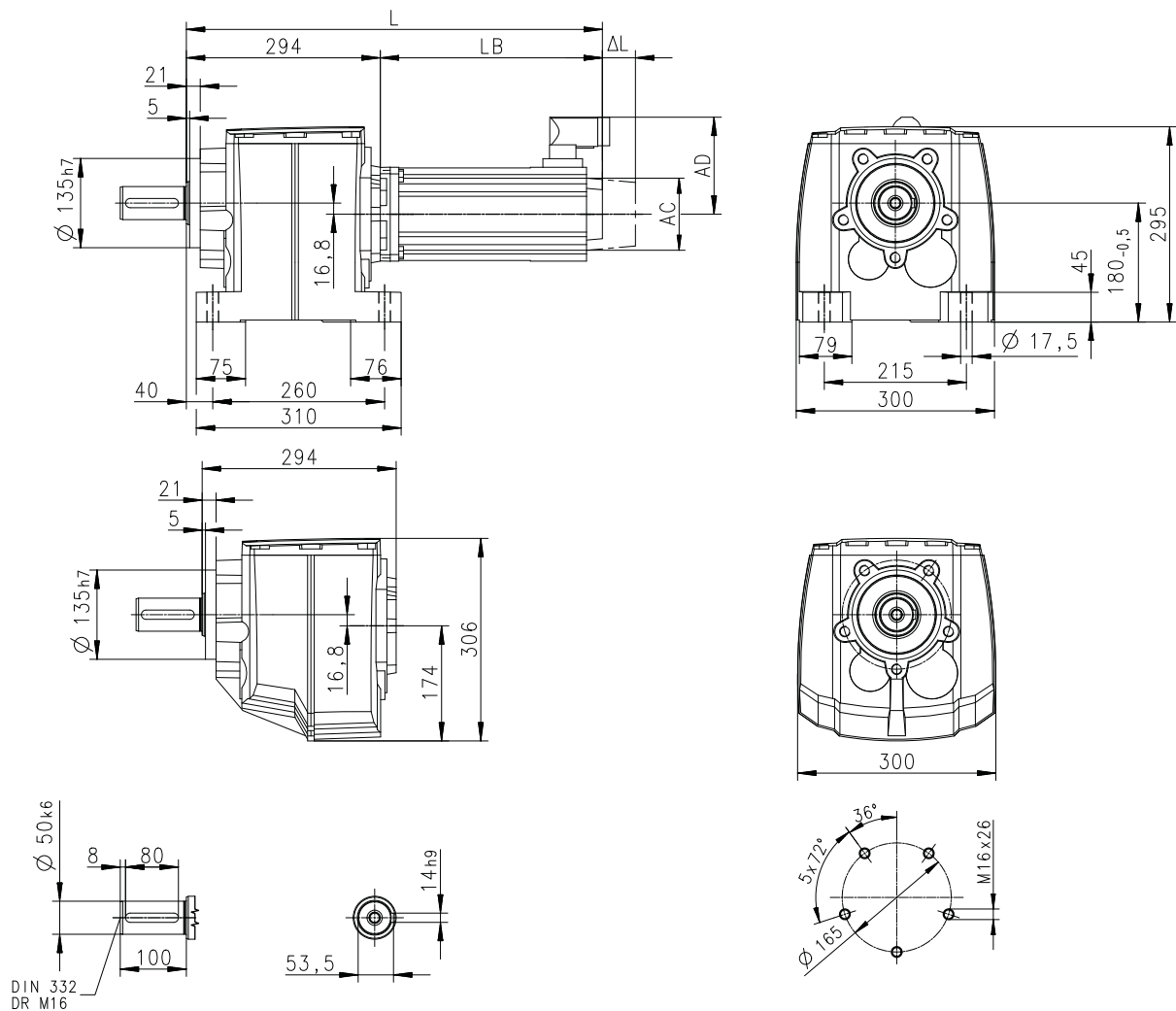
Technical data

Dimensions
Basic dimensions



g500-H1500, 2-/3-stage with MCS12

Gearbox version: Solid shaft with foot/centering (VAR/VCR)



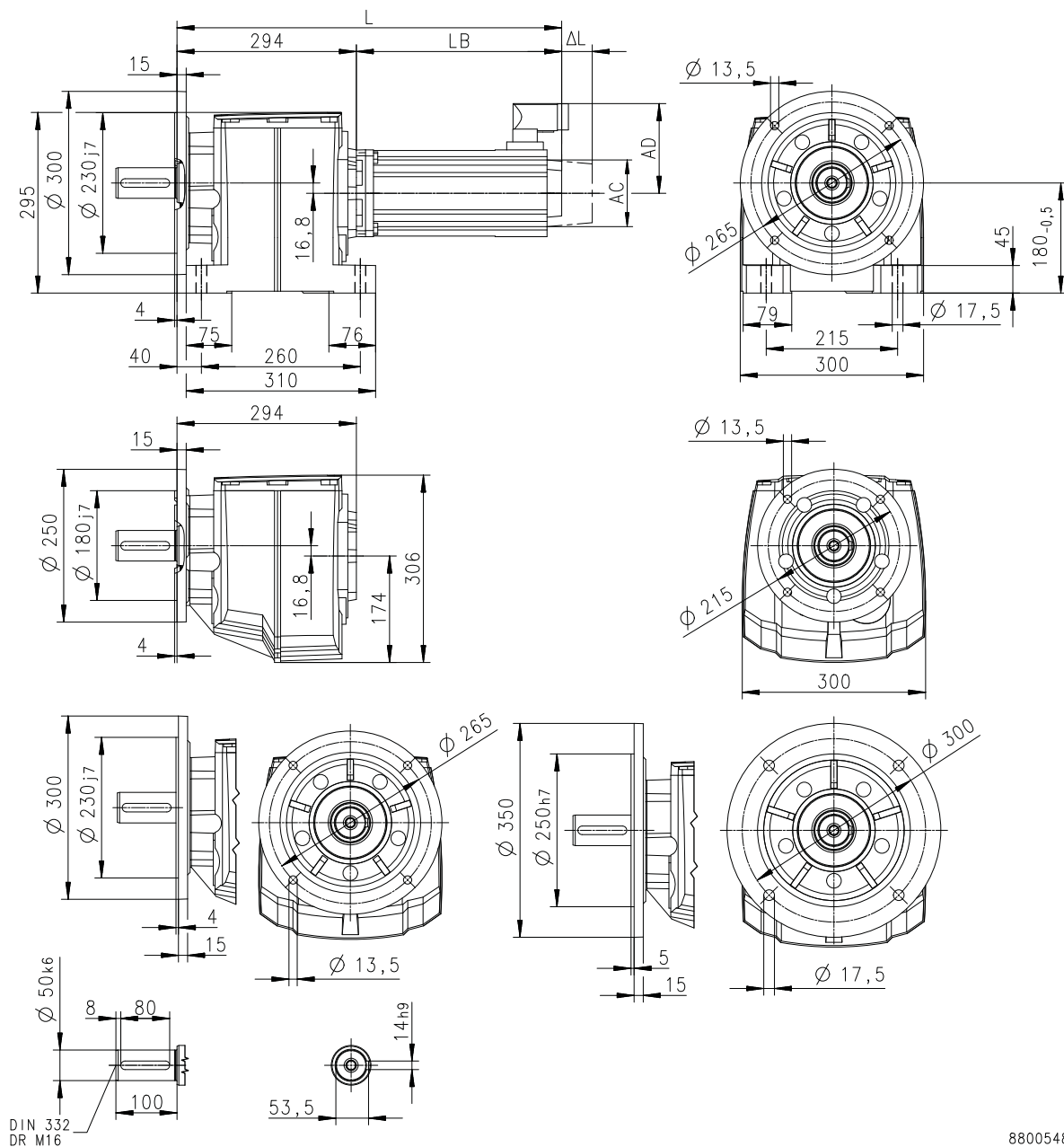
8800547-00

Motor			MCS					
			12H34-	12H35- 12H30L	12L17-	12L20- 12L20L	12L39-	12L41- 12L41L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	608	535	648	575	648	575
Motor length	LB	mm	314	241	354	281	354	281
Length of motor options	Δ L	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105



g500-H1500, 2-/3-stage with MCS12

Gearbox version: Solid shaft with foot/flange (VAK/VCK)



8800548-00

Motor			MCS					
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	568	495	568	495	608	535
Motor length	LB	mm	274	201	274	201	314	241
Length of motor options	Δ L	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105

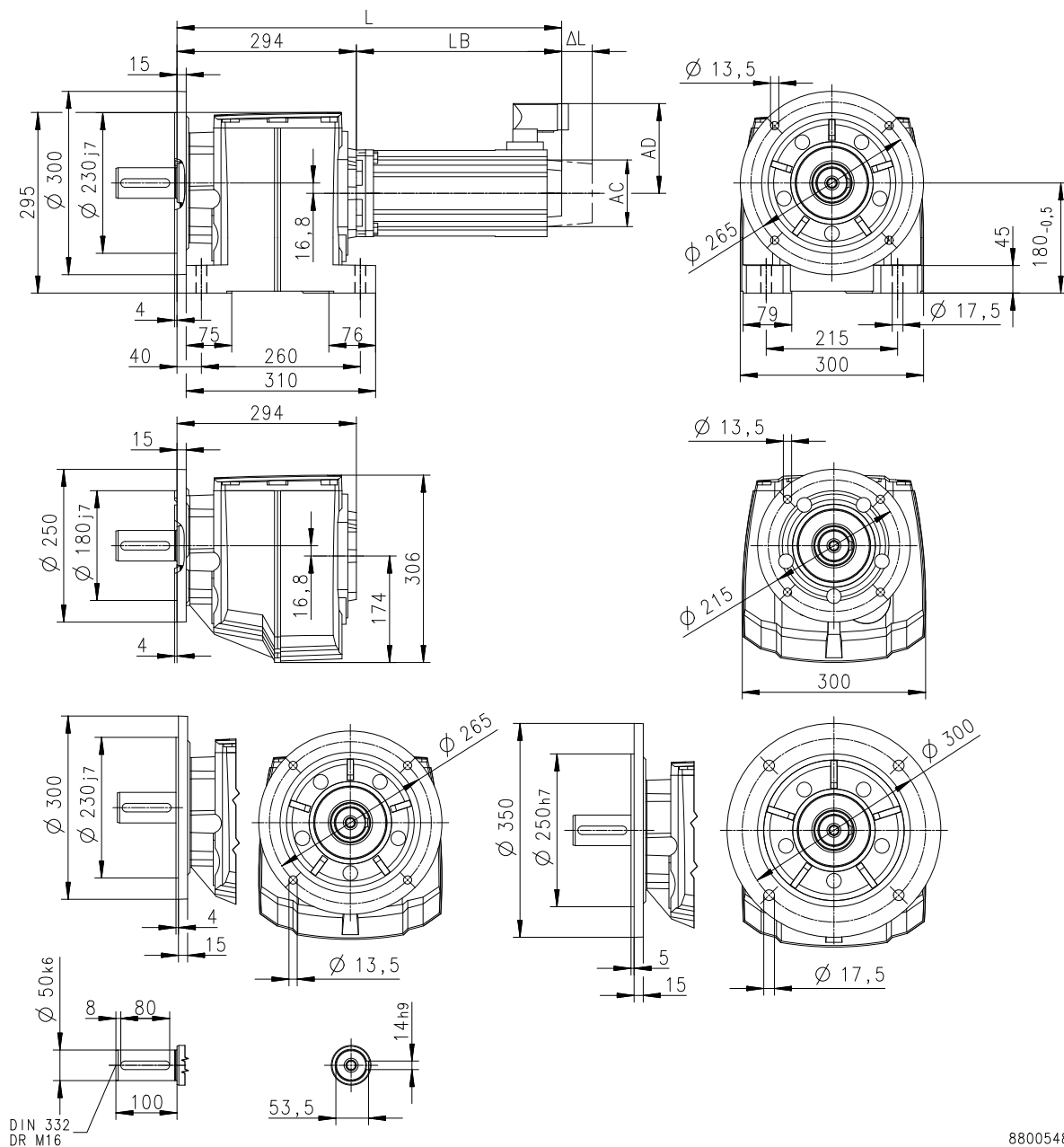
Technical data

Dimensions
Basic dimensions



g500-H1500, 2-/3-stage with MCS12

Gearbox version: Solid shaft with foot/flange (VAK/VCK)



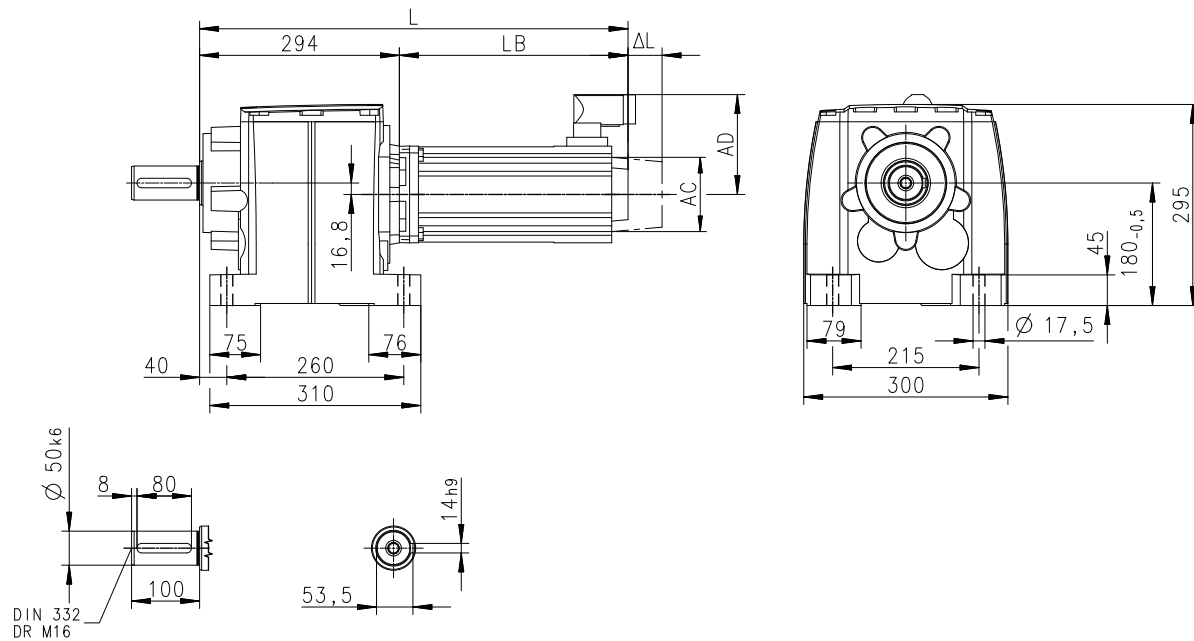
8800548-00

Motor			MCS					
			12H34-	12H35- 12H30L	12L17-	12L20- 12L20L	12L39-	12L41- 12L41L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	608	535	648	575	648	575
Motor length	LB	mm	314	241	354	281	354	281
Length of motor options	Δ L	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105



g500-H1500, 2-/3-stage with MCS14

Gearbox version: Solid shaft with foot (VBR)



8800546-00

Motor			MCS							
			14D14-	14D15-	14D30-	14D36-	14H12-	14H15-	14H28-	14H32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	598	510	598	510	638	550	638	550
Motor length	LB	mm	304	216	304	216	344	256	344	256
Length of motor options	Δ L	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	117	117	117	117	146	117

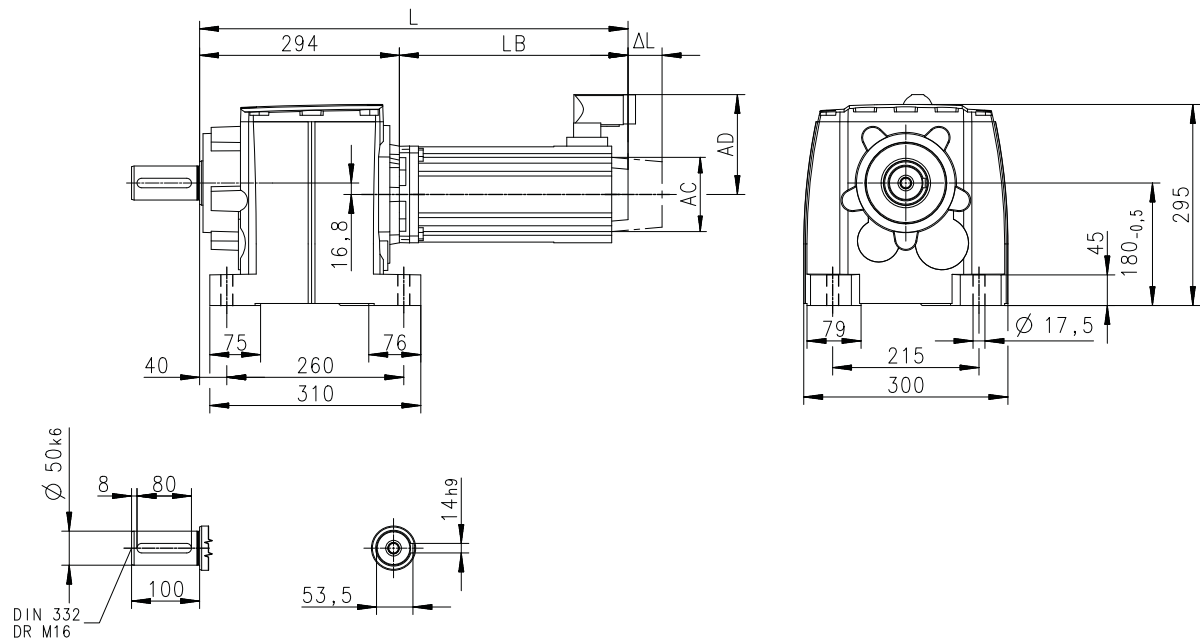
Technical data

Dimensions
Basic dimensions



g500-H1500, 2-/3-stage with MCS14

Gearbox version: Solid shaft with foot (VBR)



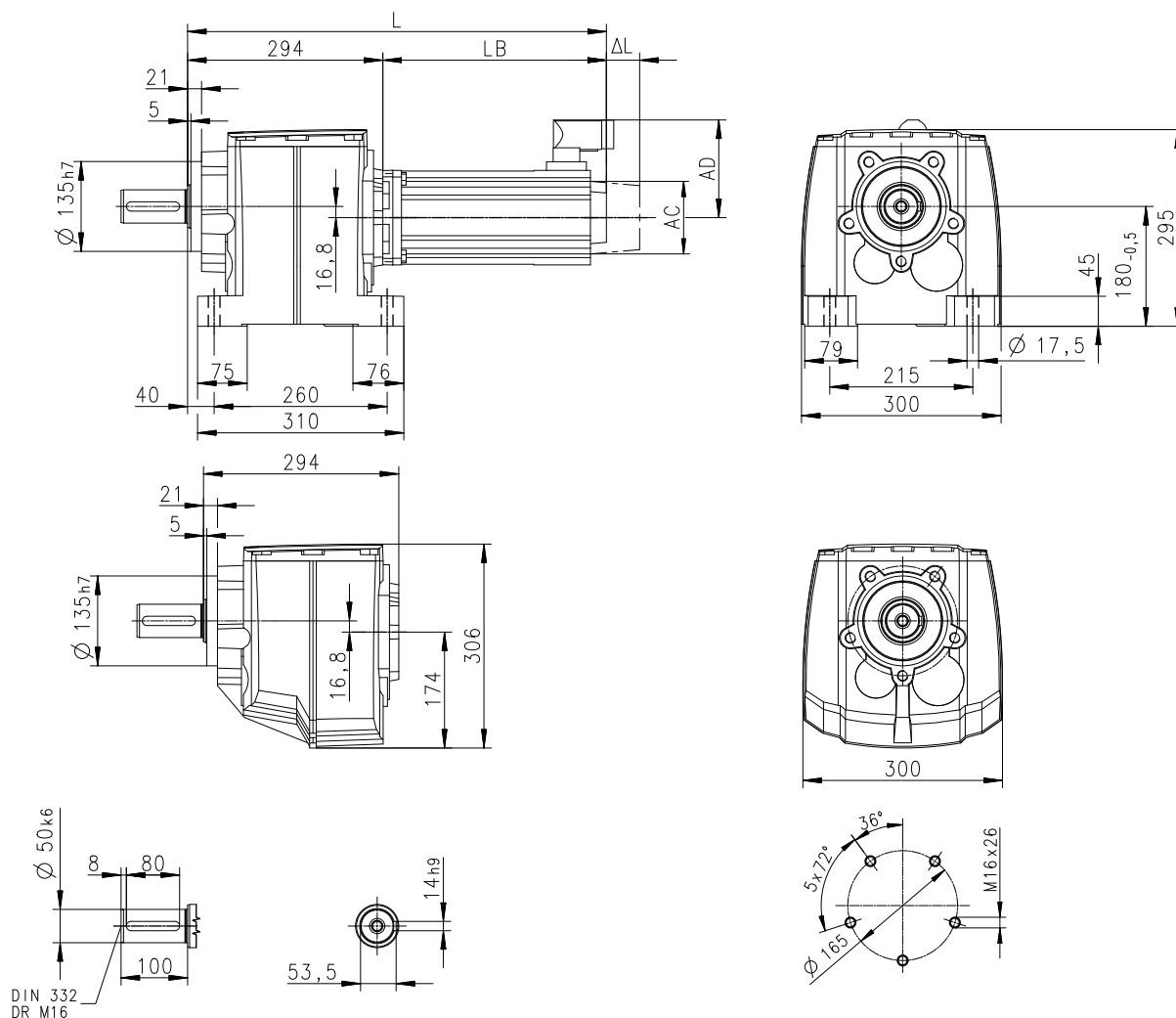
8800546-00

Motor			MCS							
			14L14-	14L15-	14L30-	14L32-	14P11-	14P14-	14P26-	14P32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	678	590	678	590	718	630	718	630
Motor length	LB	mm	384	296	384	296	424	336	424	336
Length of motor options	Δ L	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	146	146	117	117	146	146



g500-H1500, 2-/3-stage with MCS14

Gearbox version: Solid shaft with foot/centering (VAR/VCR)



8800547-00

Motor			MCS							
			14D14-	14D15-	14D30-	14D36-	14H12-	14H15-	14H28-	14H32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	598	510	598	510	638	550	638	550
Motor length	LB	mm	304	216	304	216	344	256	344	256
Length of motor options	Δ L	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	117	117	117	117	146	117

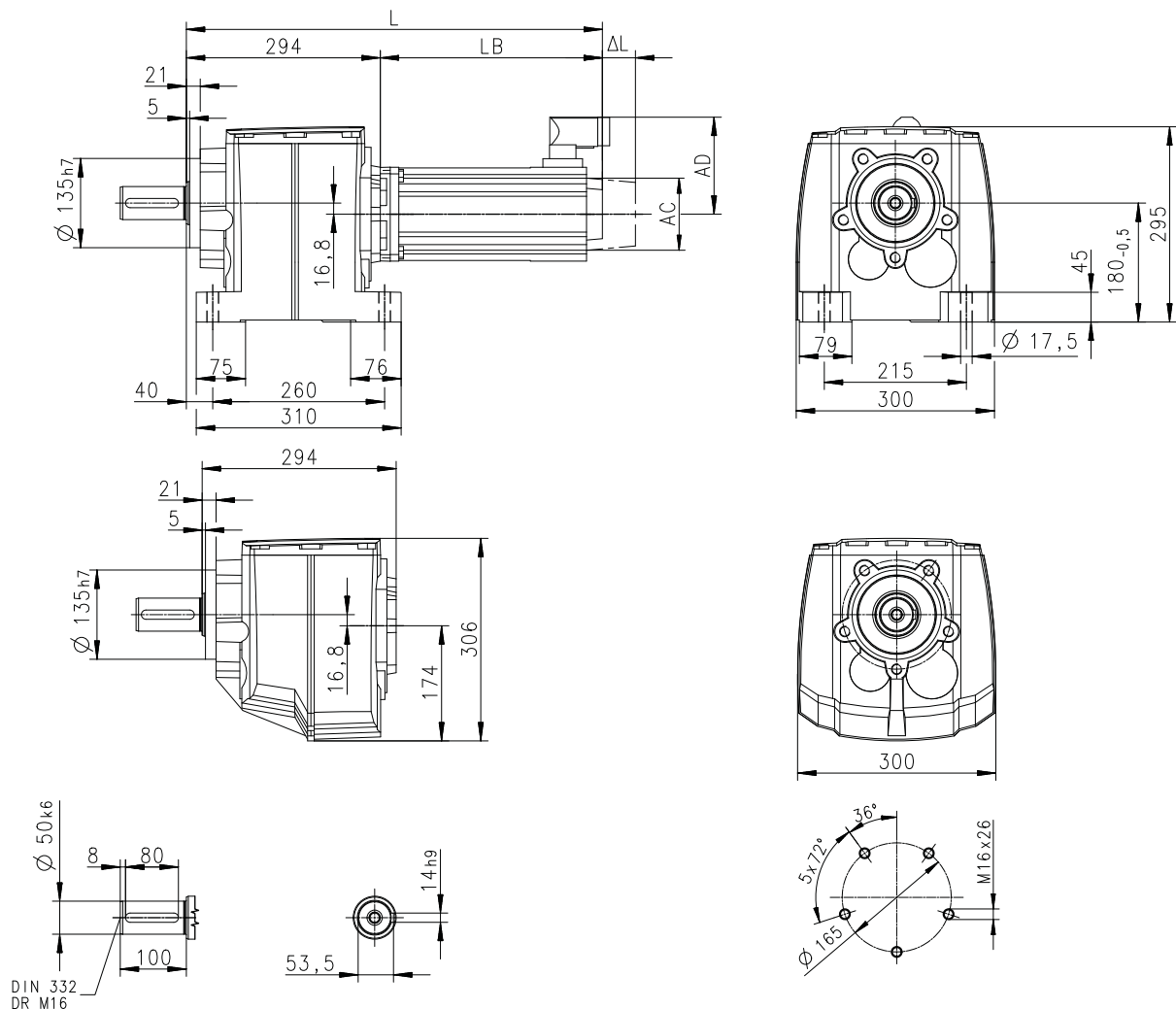
Technical data

Dimensions
Basic dimensions



g500-H1500, 2-/3-stage with MCS14

Gearbox version: Solid shaft with foot/centering (VAR/VCR)



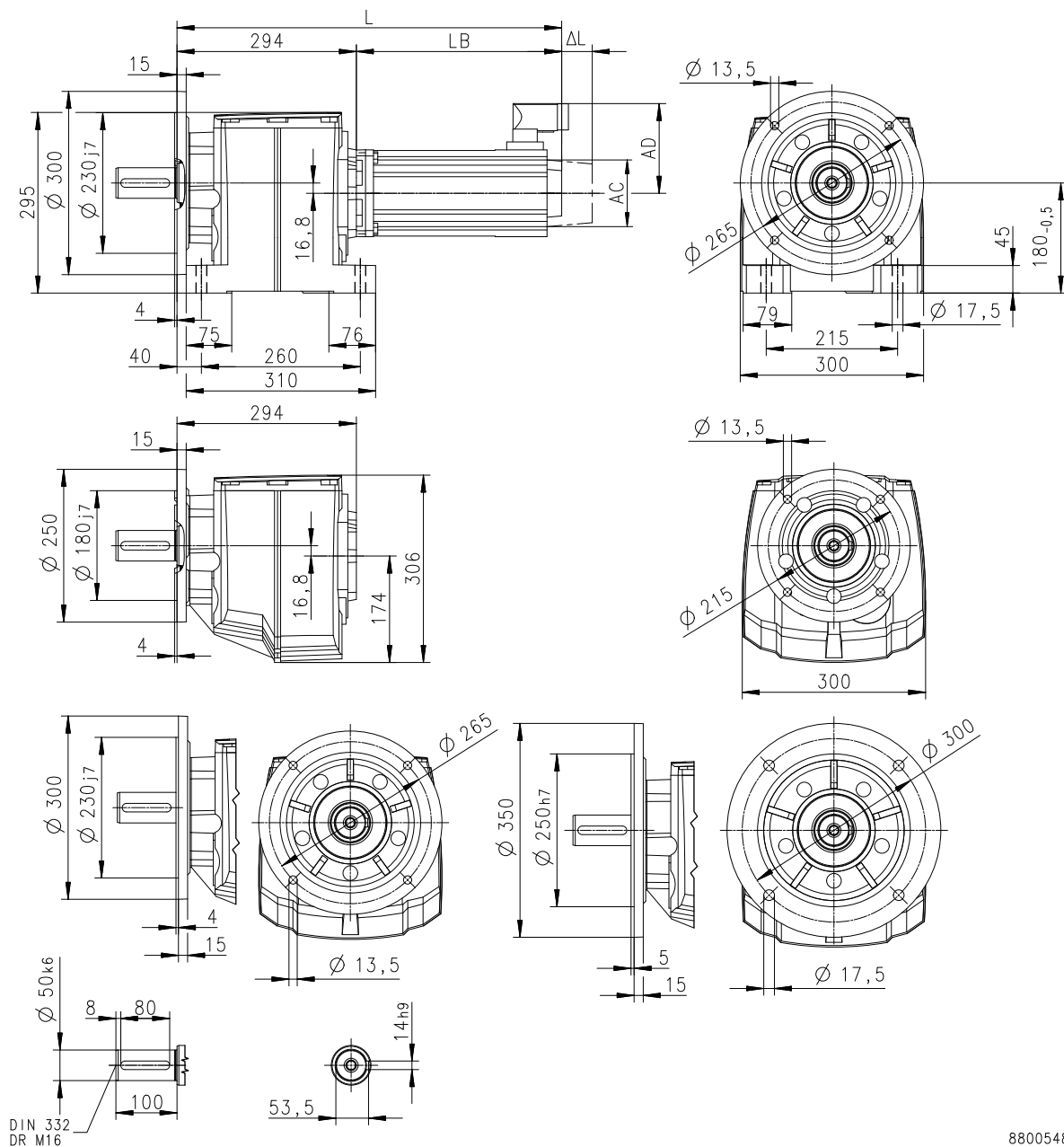
8800547-00

Motor			MCS							
			14L14-	14L15-	14L30-	14L32-	14P11-	14P14-	14P26-	14P32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	678	590	678	590	718	630	718	630
Motor length	LB	mm	384	296	384	296	424	336	424	336
Length of motor options	Δ L	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	146	146	117	117	146	146



g500-H1500, 2-/3-stage with MCS14

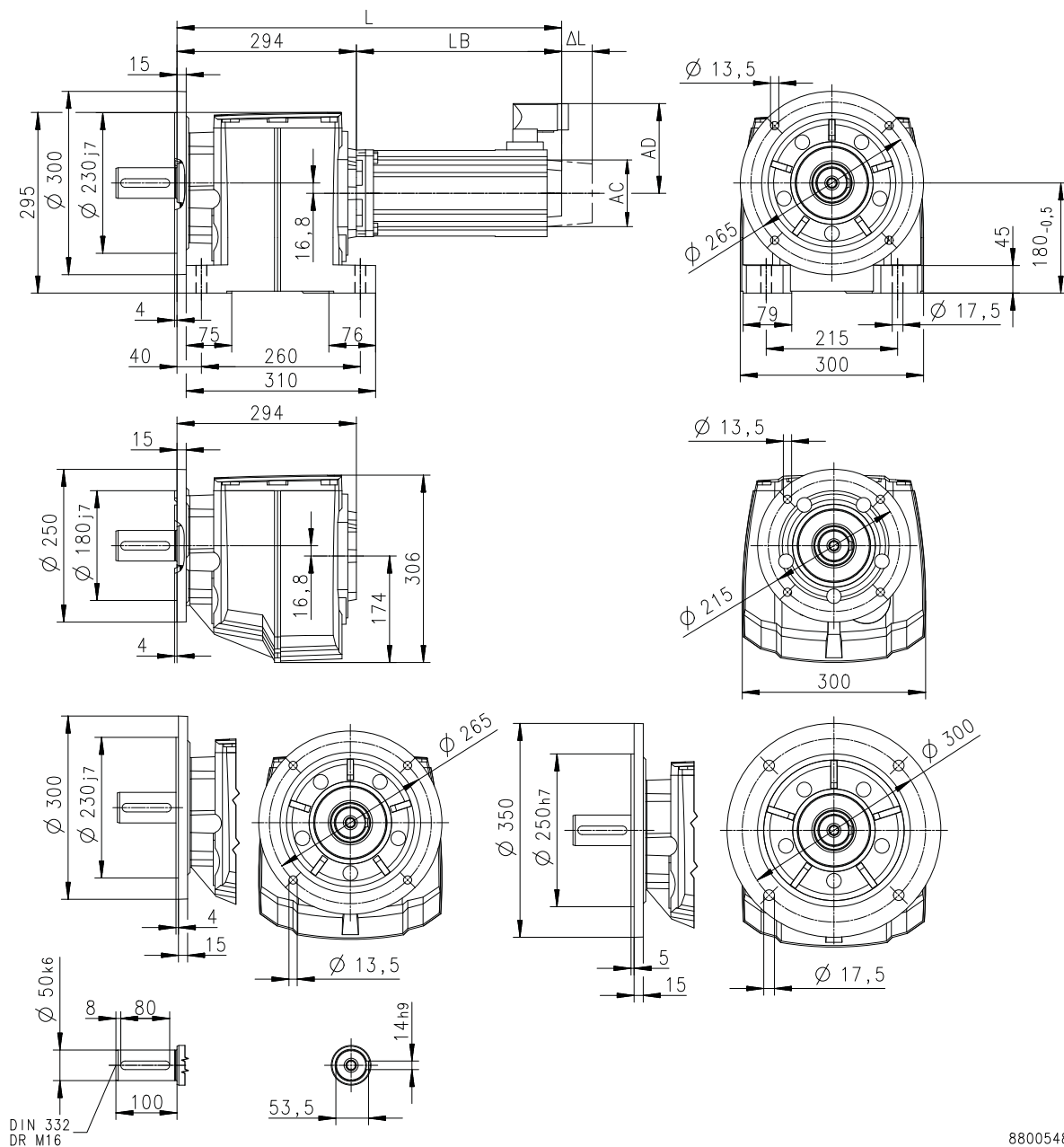
Gearbox version: Solid shaft with foot/flange (VAK/VCK)



8800548-00

Motor			MCS							
			14D14-	14D15-	14D30-	14D36-	14H12-	14H15-	14H28-	14H32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	598	510	598	510	638	550	638	550
Motor length	LB	mm	304	216	304	216	344	256	344	256
Length of motor options	Δ L	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	117	117	117	117	146	117

Gearbox version: Solid shaft with foot/flange (VAK/VCK)



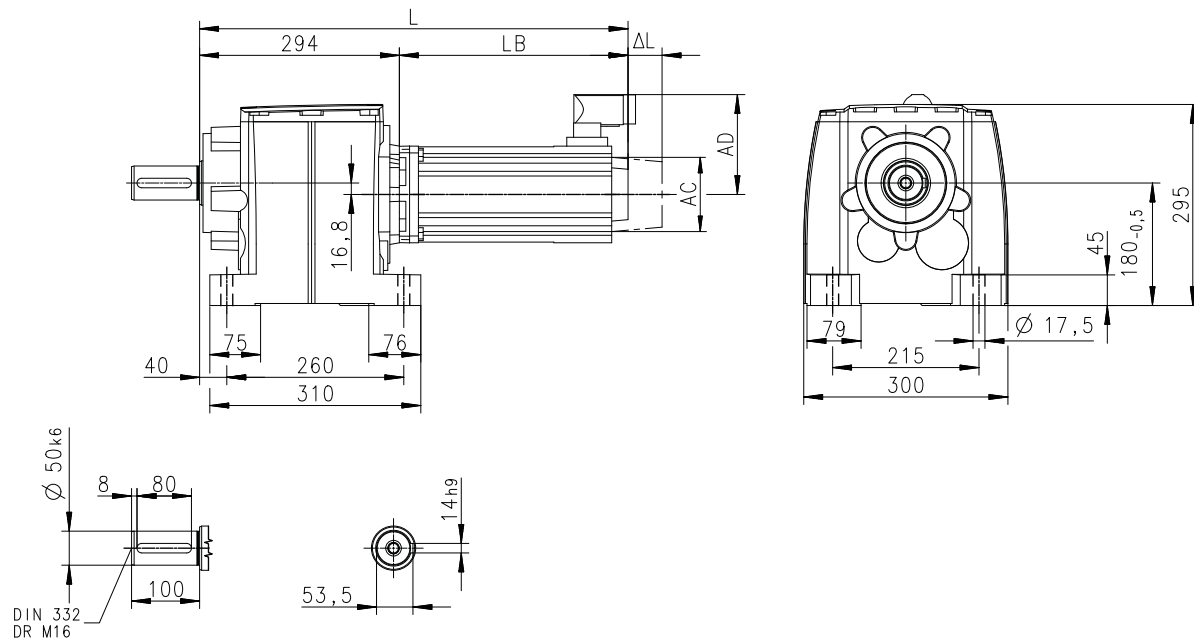
8800548-00

Motor			MCS							
			14L14-	14L15-	14L30-	14L32-	14P11-	14P14-	14P26-	14P32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	678	590	678	590	718	630	718	630
Motor length	LB	mm	384	296	384	296	424	336	424	336
Length of motor options	Δ L	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	146	146	117	117	146	146



g500-H1500, 2-/3-stage with MCS19

Gearbox version: Solid shaft with foot (VBR)



8800546-00

Motor			MCS									
			19F12-	19F14-	19F29-	19F30-	19J12- 19J29-	19J14-	19J30-	19J12- 19P29-	19P14-	19P30-
Cooling type			Blower	natural	Blower	natural	Blower	natural	natural	Blower	natural	natural
Total length	L	mm	656	549	656	549	696	589	589	696	649	649
Motor length	LB	mm	362	255	362	255	402	295	295	402	355	355
Length of motor options	Δ L	mm	72	93	72	93	72	93	93	72	93	93
Motor diameter	AC	mm	212	192	212	192	212	192	192	212	192	192
Motor/connection distance	AD	mm	142	142	171	171	171	142	171	171	171	171

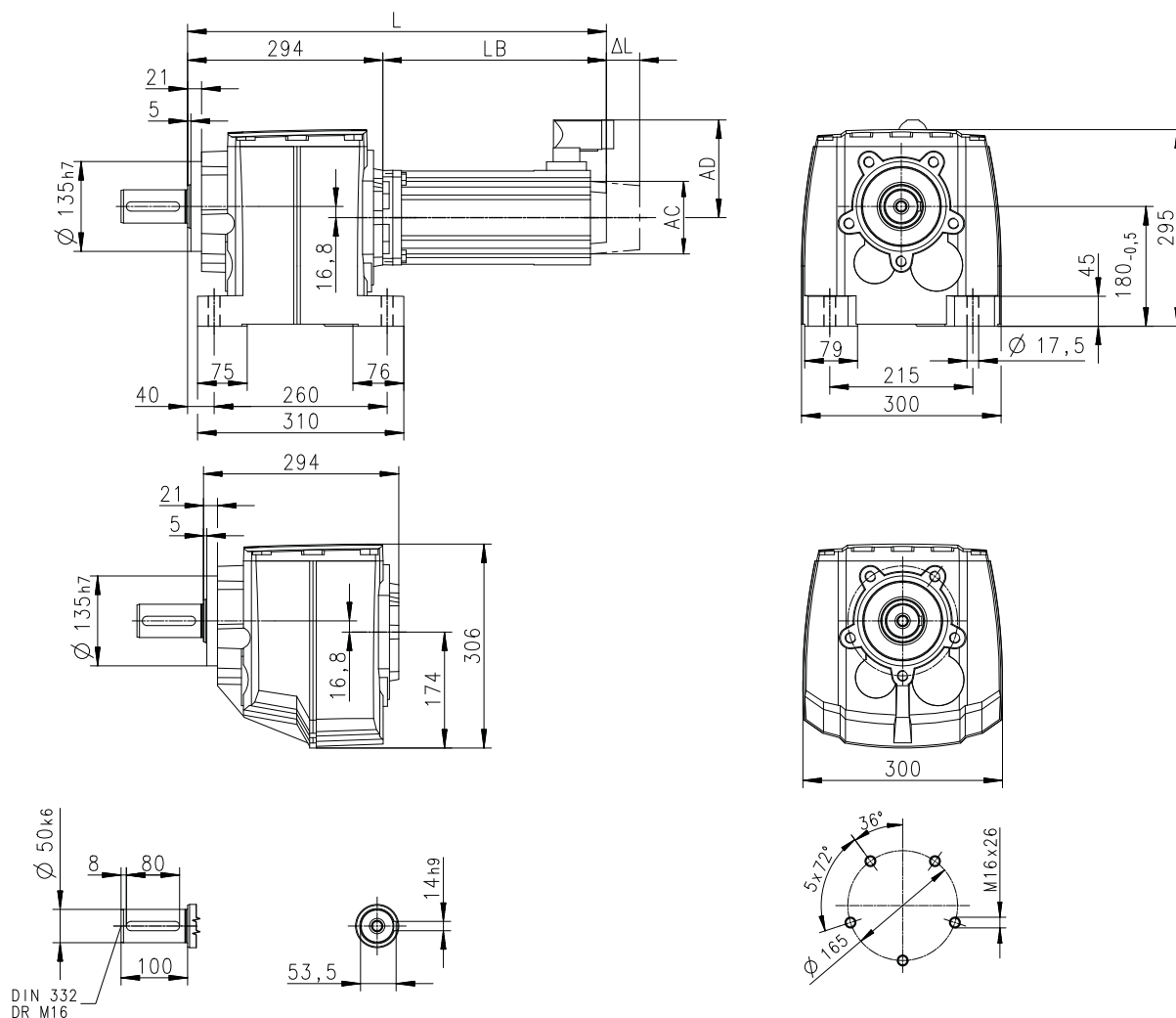
Technical data

Dimensions
Basic dimensions



g500-H1500, 2-/3-stage with MCS19

Gearbox version: Solid shaft with foot/centering (VAR/VCR)

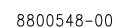


8800547-00

Motor			MCS									
			19F12-	19F14-	19F29-	19F30-	19J12- 19J29-	19J14-	19J30-	19J12- 19P29-	19P14-	19P30-
Cooling type			Blower	natural	Blower	natural	Blower	natural	natural	Blower	natural	natural
Total length	L	mm	656	549	656	549	696	589	589	696	649	649
Motor length	LB	mm	362	255	362	255	402	295	295	402	355	355
Length of motor options	Δ L	mm	72	93	72	93	72	93	93	72	93	93
Motor diameter	AC	mm	212	192	212	192	212	192	192	212	192	192
Motor/connection distance	AD	mm	142	142	171	171	171	142	171	171	171	171



Gearbox version: Solid shaft with foot/flange (VAK/VCK)

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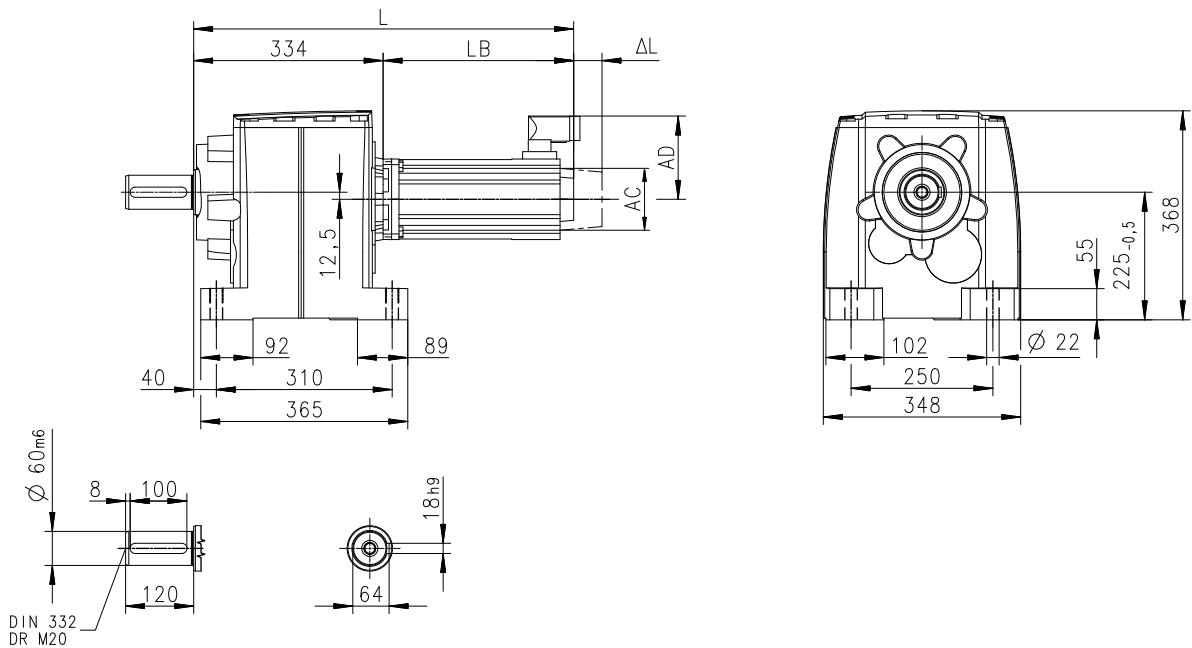
Technical data

Dimensions
Basic dimensions



g500-H3000, 2-/3-stage with MCS06

Gearbox version: Solid shaft with foot (VBR)



8800549-00

Motor			MCS		
			06C41- 06C41L	06F41- 06F41L	06I41- 06I41L
Cooling type			natural	natural	natural
Total length	L	mm	465	495	525
Motor length	LB	mm	131	161	191
Length of motor options	Δ L	mm	82		
Motor diameter	AC	mm	86		
Motor/connection distance	AD	mm	77		

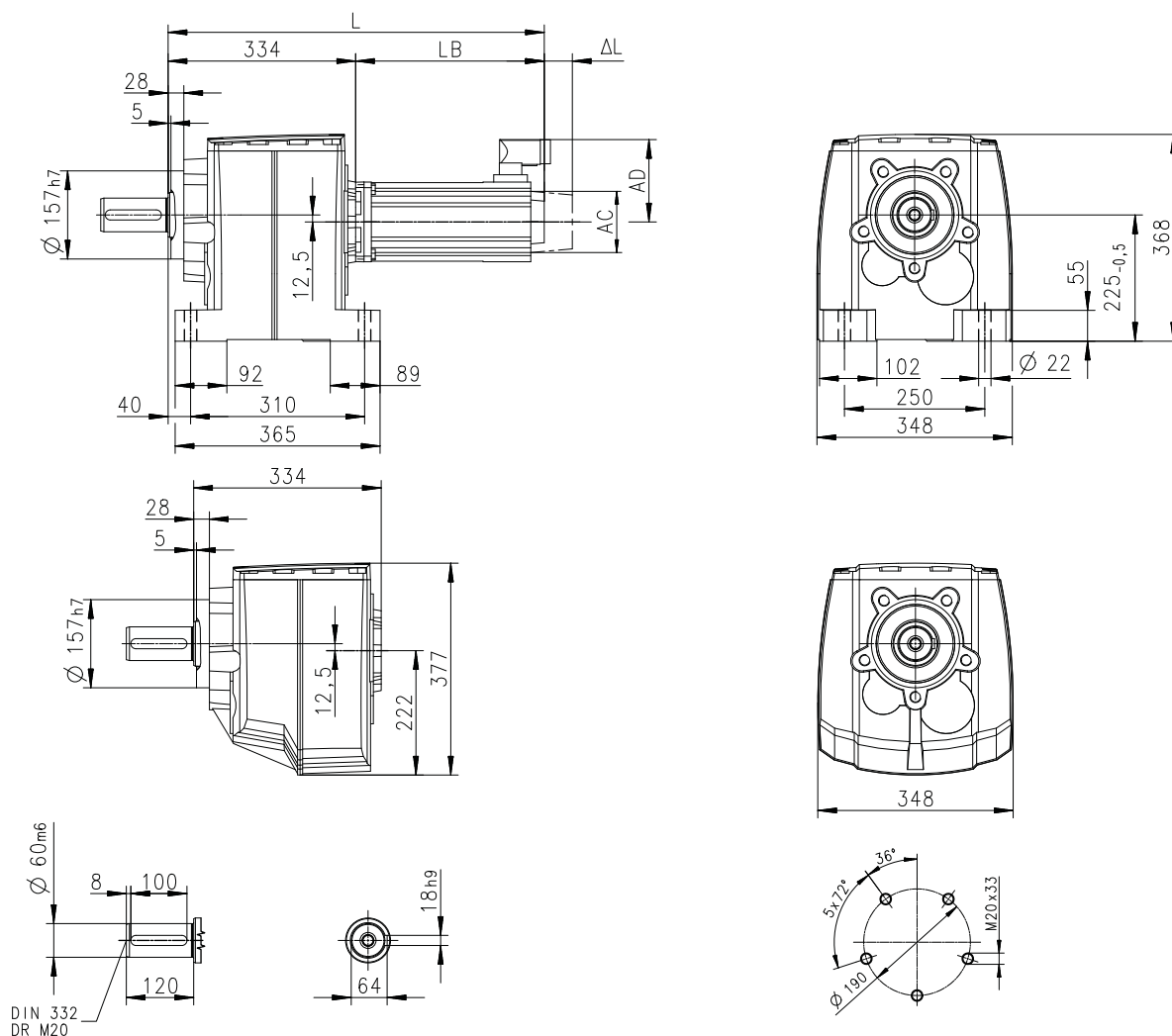


Technical data

Dimensions
Basic dimensions

g500-H3000, 2-/3-stage with MCS06

Gearbox version: Solid shaft with foot/centering (VAR/VCR)



8800550-00

Motor			MCS		
			06C41-06C41L	06F41-06F41L	06I41-06I41L
Cooling type			natural	natural	natural
Total length	L	mm	465	495	525
Motor length	LB	mm	131	161	191
Length of motor options	ΔL	mm	82		
Motor diameter	AC	mm	86		
Motor/connection distance	AD	mm	77		

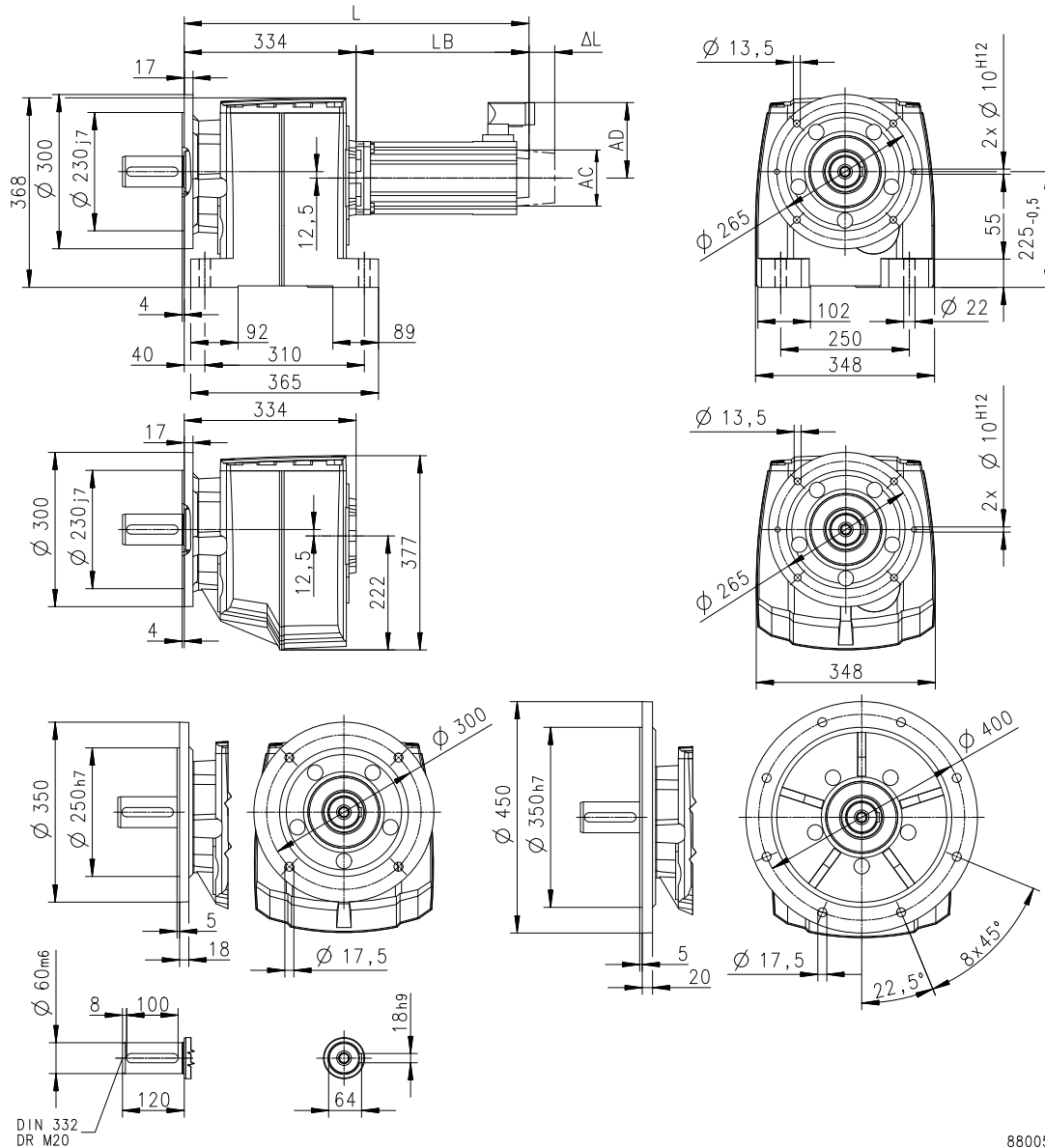


g500-H3000, 2-/3-stage with MCS06

Gearbox version: Solid shaft with foot/flange (VAK/VCK)

NOTICE

► Additionally secure the Ø300 output flange with two spiral pins.



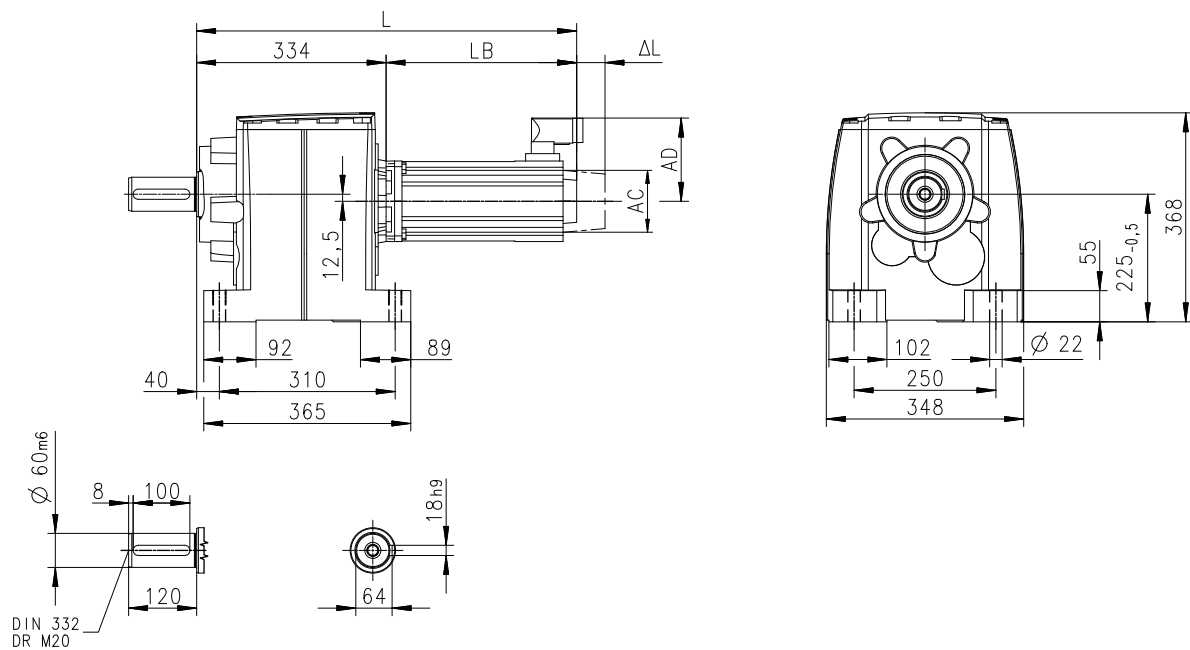
8800551-02

Motor			MCS		
			06C41- 06C41L	06F41- 06F41L	06I41- 06I41L
Cooling type			natural	natural	natural
Total length	L	mm	465	495	525
Motor length	LB	mm	131	161	191
Length of motor options	Δ L	mm	82		
Motor diameter	AC	mm	86		
Motor/connection distance	AD	mm	77		



g500-H3000, 2-/3-stage with MCS09

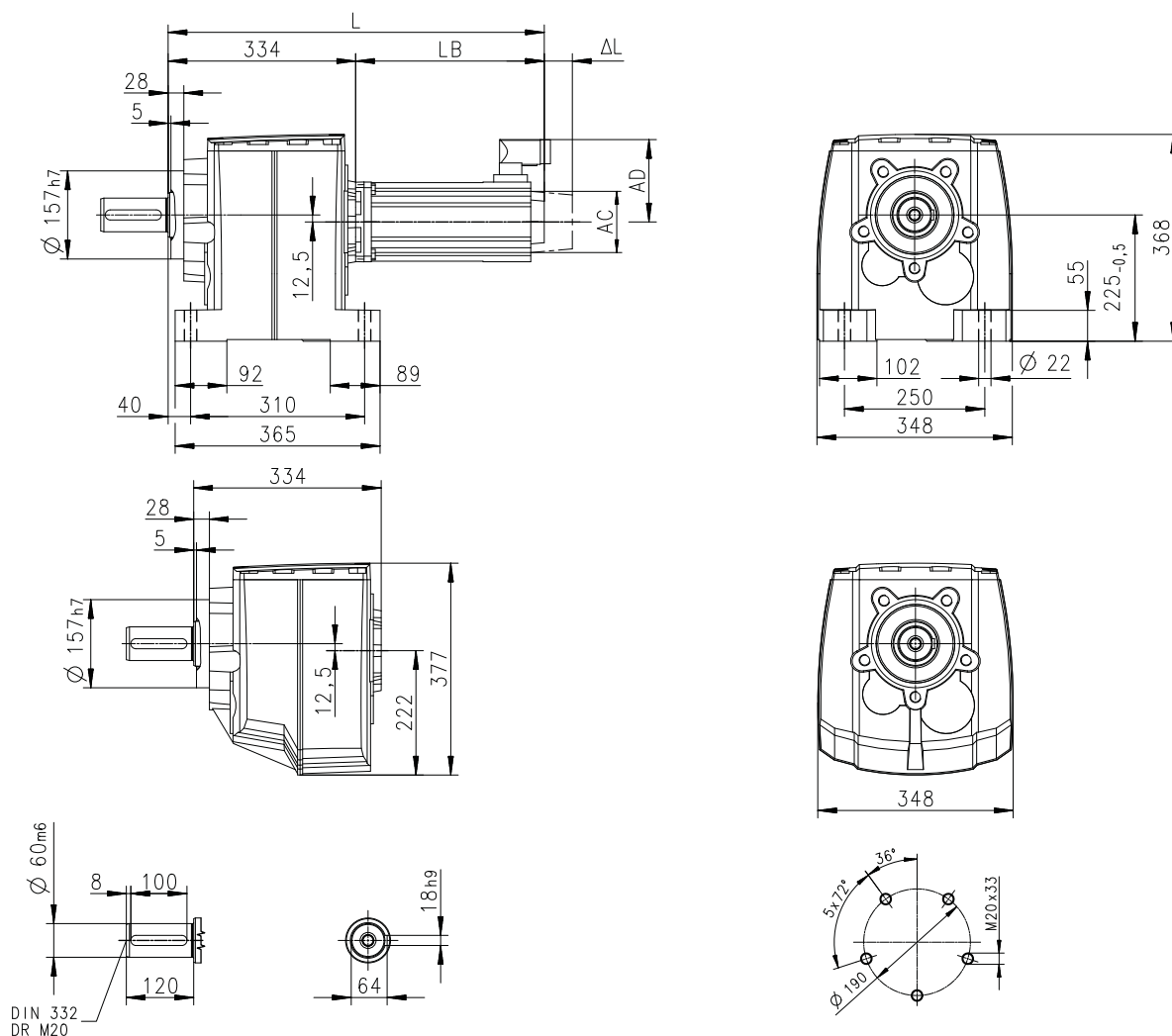
Gearbox version: Solid shaft with foot (VBR)



8800549-00

Motor			MCS			
			09D41- 09D41L	09F38- 09F38L	09H41- 09H41L	09L41- 09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	518	538	558	598
Motor length	LB	mm	184	204	224	264
Length of motor options	Δ L	mm	71			
Motor diameter	AC	mm	89			
Motor/connection distance	AD	mm	90			

Gearbox version: Solid shaft with foot/centering (VAR/VCR)

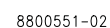


Motor			MCS			
			09D41- 09D41L	09F38- 09F38L	09H41- 09H41L	09L41- 09L41L
Cooling type			natural	natural	natural	natural
Total length	L	mm	518	538	558	598
Motor length	LB	mm	184	204	224	264
Length of motor options	Δ L	mm	71			
Motor diameter	AC	mm	89			
Motor/connection distance	AD	mm	90			



Gearbox version: Solid shaft with foot/flange (VAK/VCK)

► Additionally secure the Ø300 output flange with two spiral pins.

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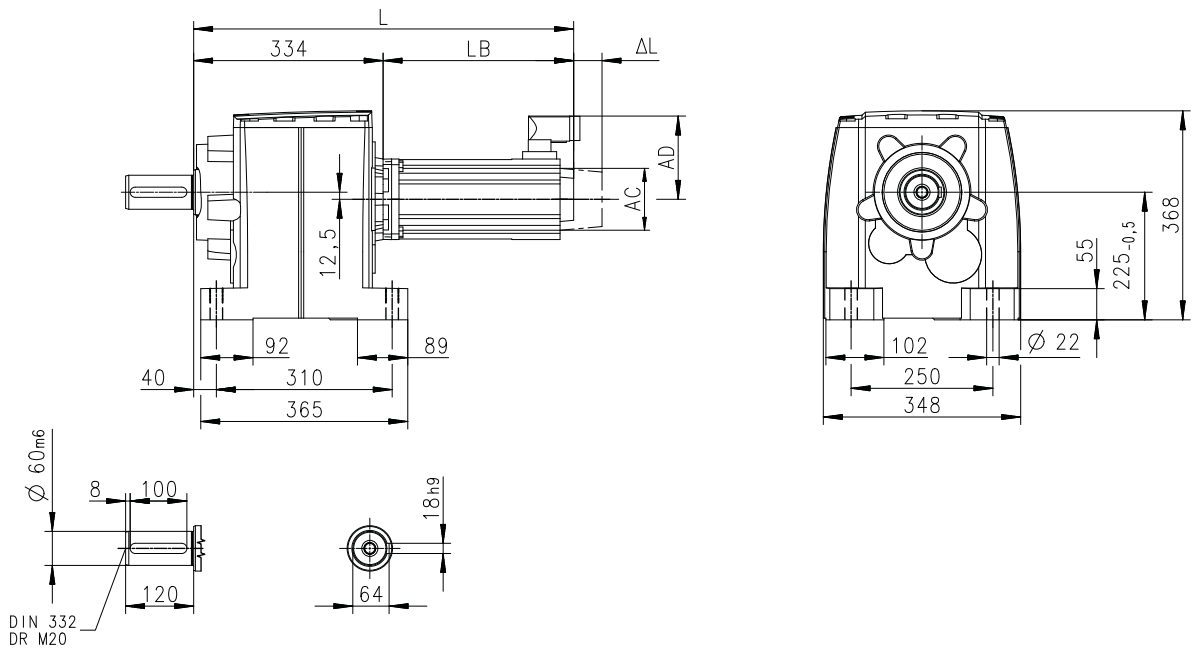
Technical data

Dimensions
Basic dimensions



g500-H3000, 2-/3-stage with MCS12

Gearbox version: Solid shaft with foot (VBR)



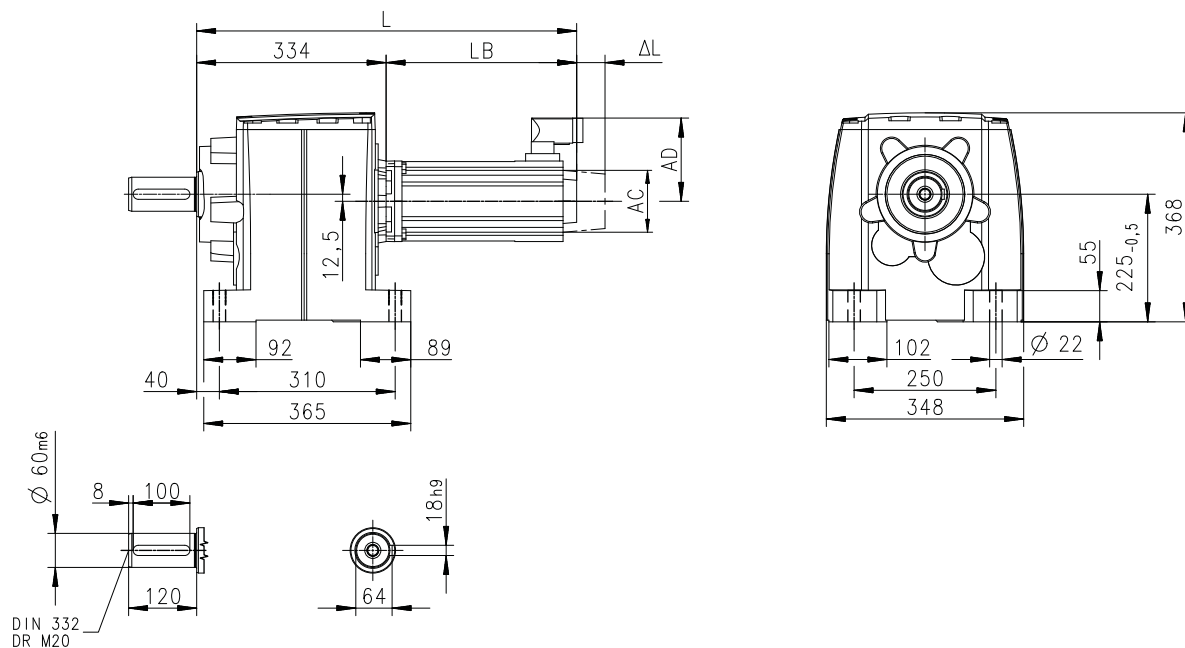
8800549-00

Motor			MCS					
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	608	535	608	535	648	575
Motor length	LB	mm	274	201	274	201	314	241
Length of motor options	Δ L	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105



g500-H3000, 2-/3-stage with MCS12

Gearbox version: Solid shaft with foot (VBR)



8800549-00

Motor			MCS					
			12H34-	12H35- 12H30L	12L17-	12L20- 12L20L	12L39-	12L41- 12L41L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	648	575	688	615	688	615
Motor length	LB	mm	314	241	354	281	354	281
Length of motor options	Δ L	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105

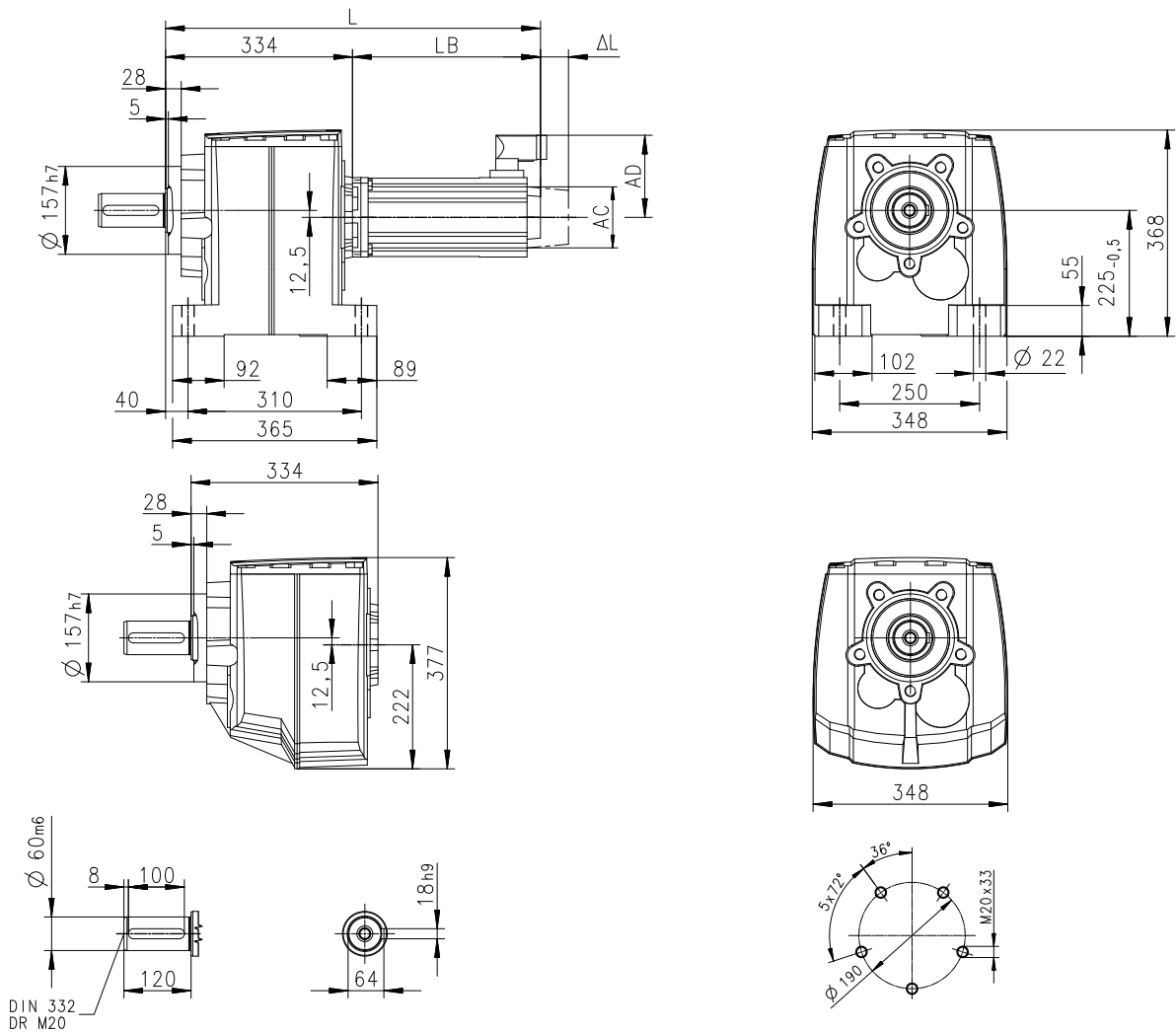
Technical data

Dimensions
Basic dimensions



g500-H3000, 2-/3-stage with MCS12

Gearbox version: Solid shaft with foot/centering (VAR/VCR)



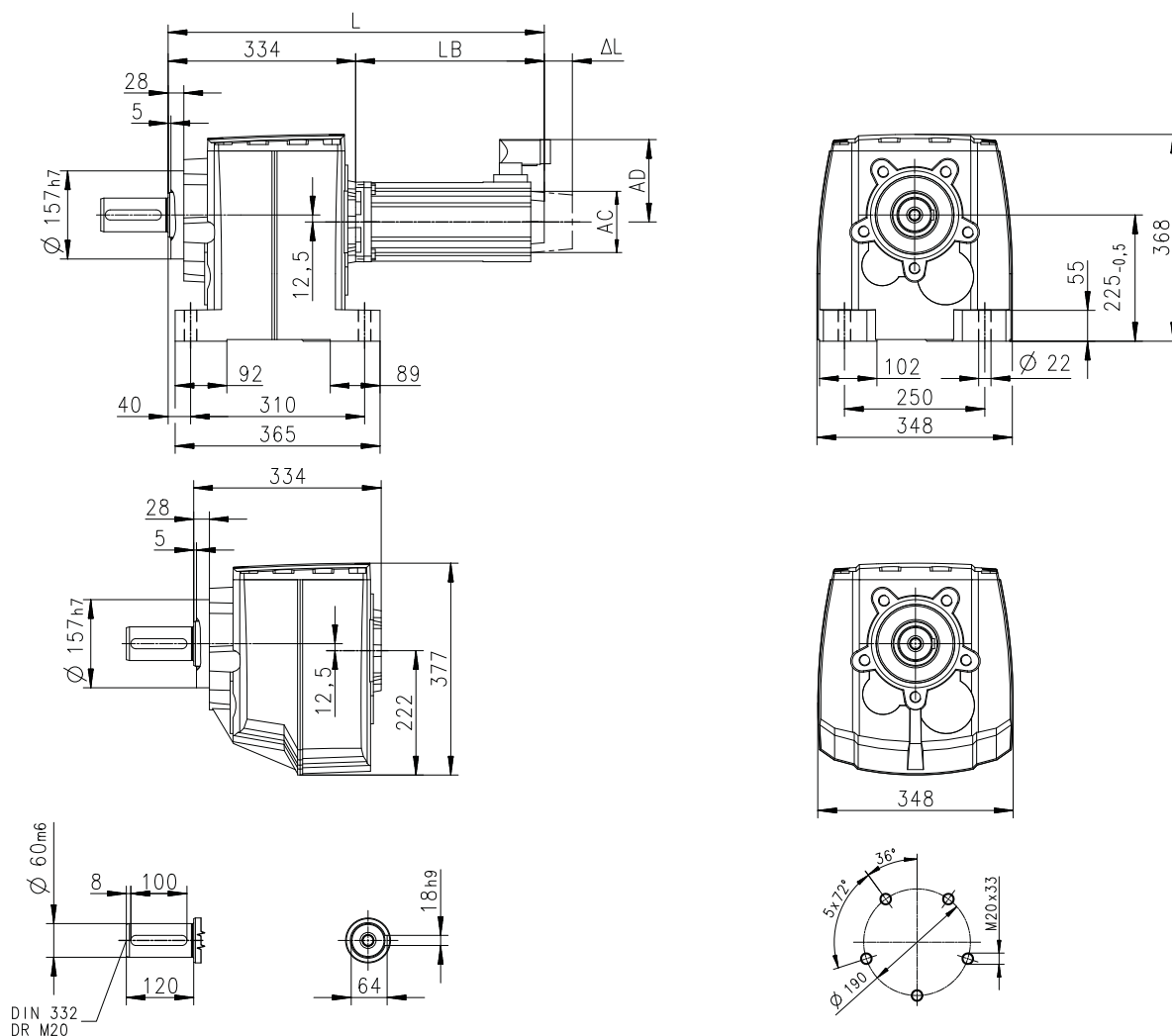
8800550-00

Motor			MCS					
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	608	535	608	535	648	575
Motor length	LB	mm	274	201	274	201	314	241
Length of motor options	Δ L	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105



g500-H3000, 2-/3-stage with MCS12

Gearbox version: Solid shaft with foot/centering (VAR/VCR)



8800550-00

Motor			MCS					
			12H34-	12H35- 12H30L	12L17-	12L20- 12L20L	12L39-	12L41- 12L41L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	648	575	688	615	688	615
Motor length	LB	mm	314	241	354	281	354	281
Length of motor options	ΔL	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105

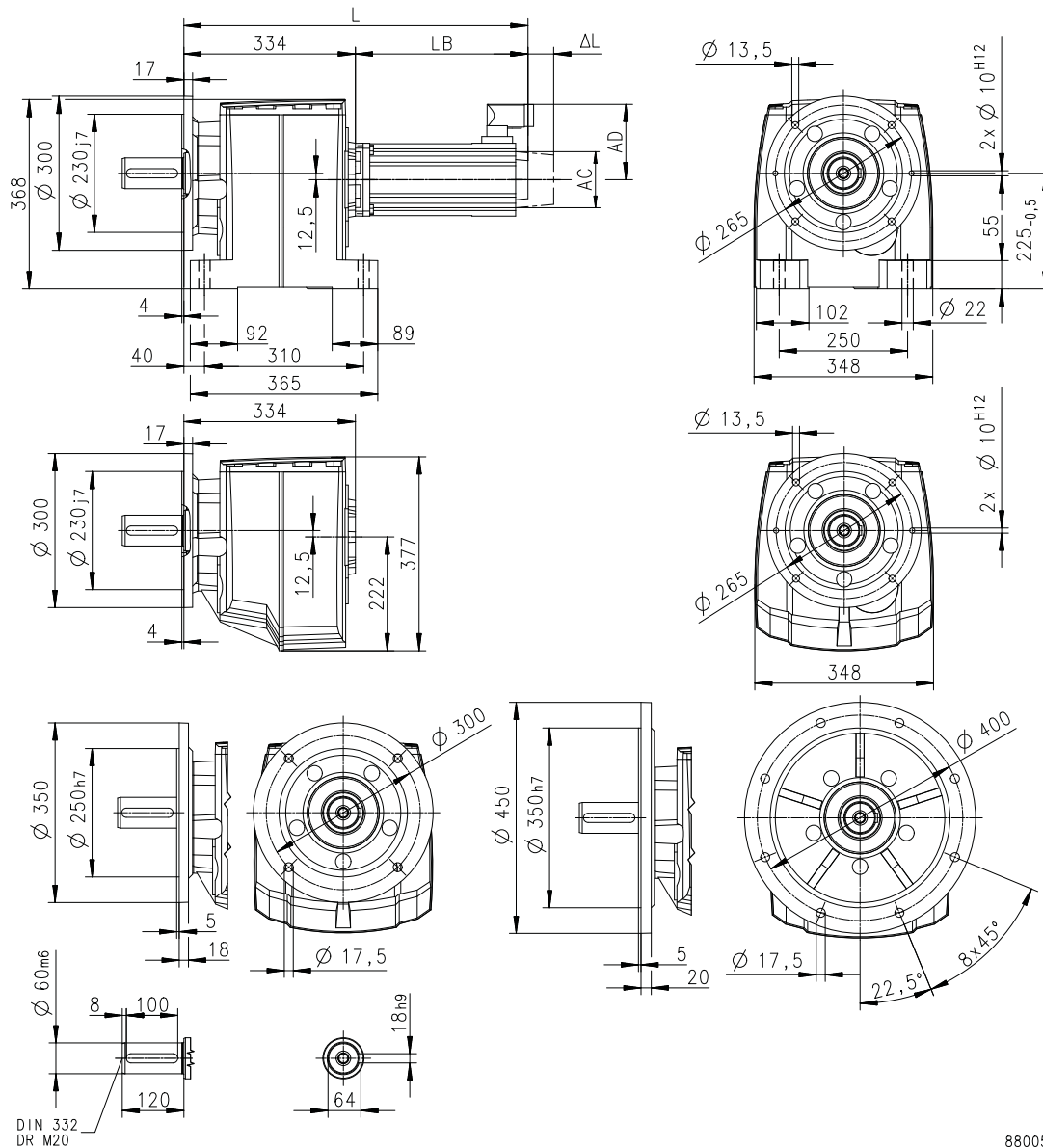


g500-H3000, 2-/3-stage with MCS12

Gearbox version: Solid shaft with foot/flange (VAK/VCK)

NOTICE

► Additionally secure the Ø300 output flange with two spiral pins.



8800551-02

Motor			MCS					
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	608	535	608	535	648	575
Motor length	LB	mm	274	201	274	201	314	241
Length of motor options	Δ L	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105

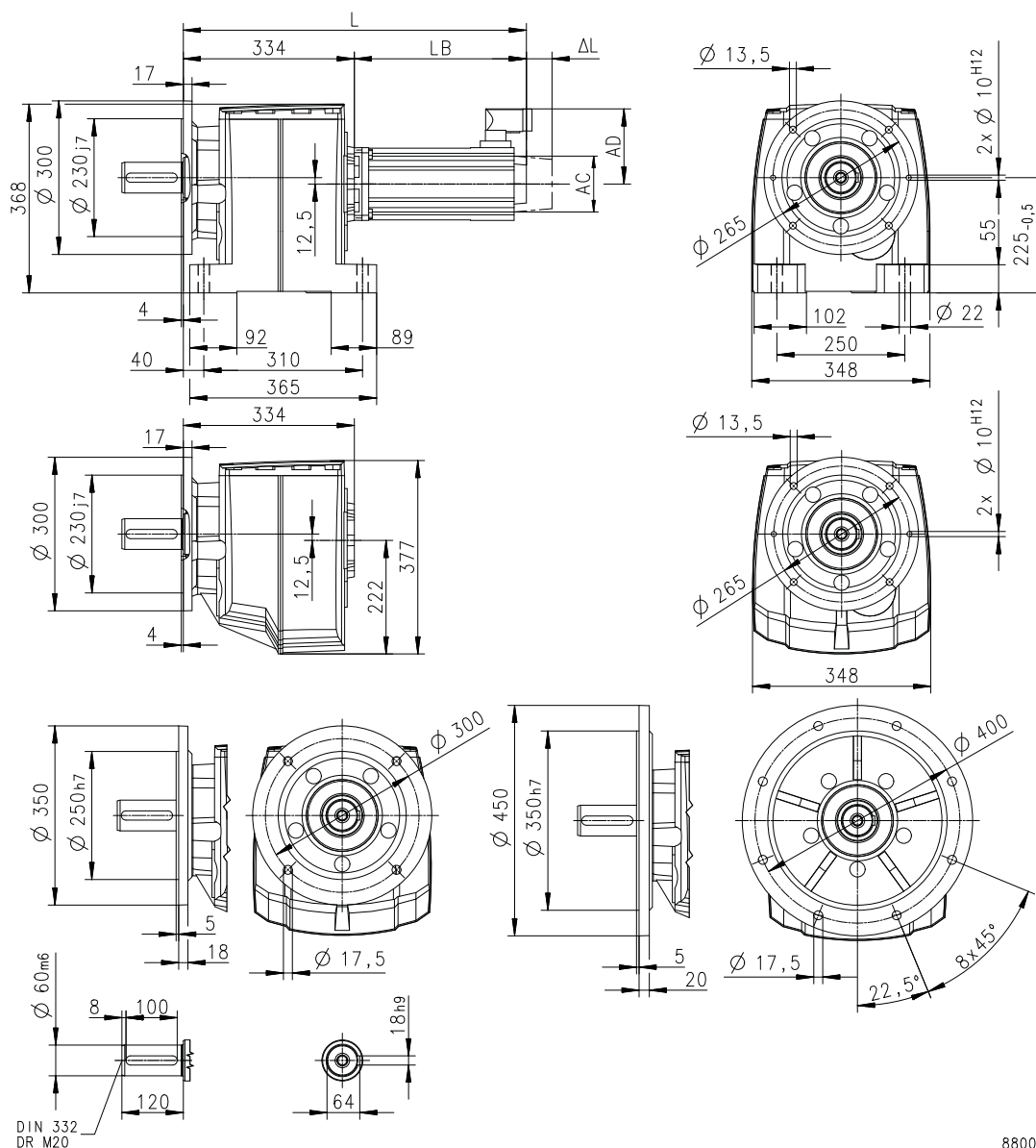


g500-H3000, 2-/3-stage with MCS12

Gearbox version: Solid shaft with foot/flange (VAK/VCK)

NOTICE

► Additionally secure the $\varnothing 300$ output flange with two spiral pins.



8800551-02

Motor			MCS					
			12H34-	12H35- 12H30L	12L17-	12L20- 12L20L	12L39-	12L41- 12L41L
Cooling type			Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	648	575	688	615	688	615
Motor length	LB	mm	314	241	354	281	354	281
Length of motor options	ΔL	mm	63	69	63	69	63	69
Motor diameter	AC	mm	140	116	140	116	140	116
Motor/connection distance	AD	mm	105	105	105	105	105	105

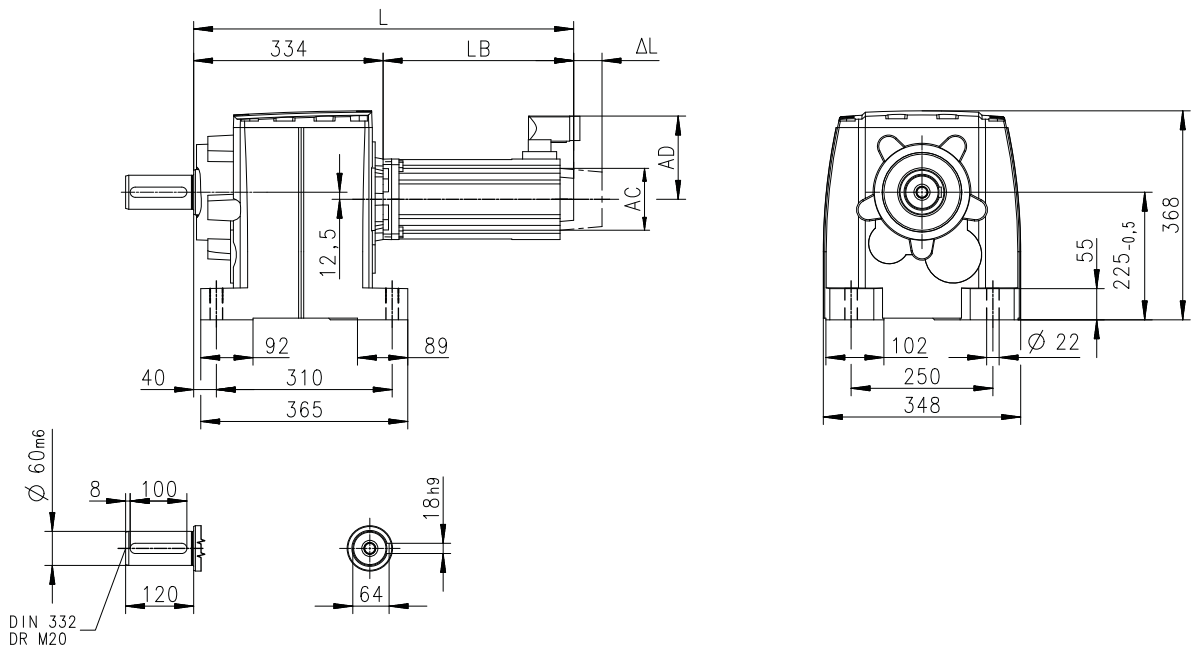
Technical data

Dimensions
Basic dimensions



g500-H3000, 2-/3-stage with MCS14

Gearbox version: Solid shaft with foot (VBR)



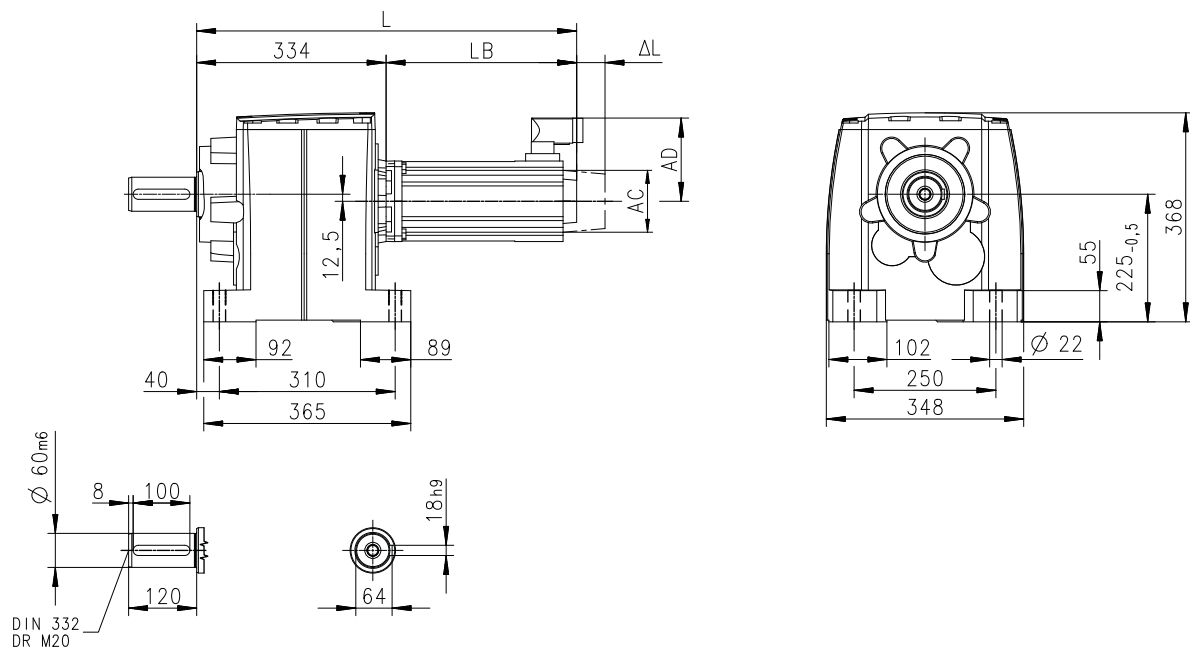
8800549-00

Motor			MCS							
			14D14-	14D15-	14D30-	14D36-	14H12-	14H15-	14H28-	14H32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	638	550	638	550	678	590	678	590
Motor length	LB	mm	304	216	304	216	344	256	344	256
Length of motor options	Δ L	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	117	117	117	117	146	117



g500-H3000, 2-/3-stage with MCS14

Gearbox version: Solid shaft with foot (VBR)



8800549-00

Motor			MCS							
			14L14-	14L15-	14L30-	14L32-	14P11-	14P14-	14P26-	14P32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	718	630	718	630	758	670	758	670
Motor length	LB	mm	384	296	384	296	424	336	424	336
Length of motor options	Δ L	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	146	146	117	117	146	146

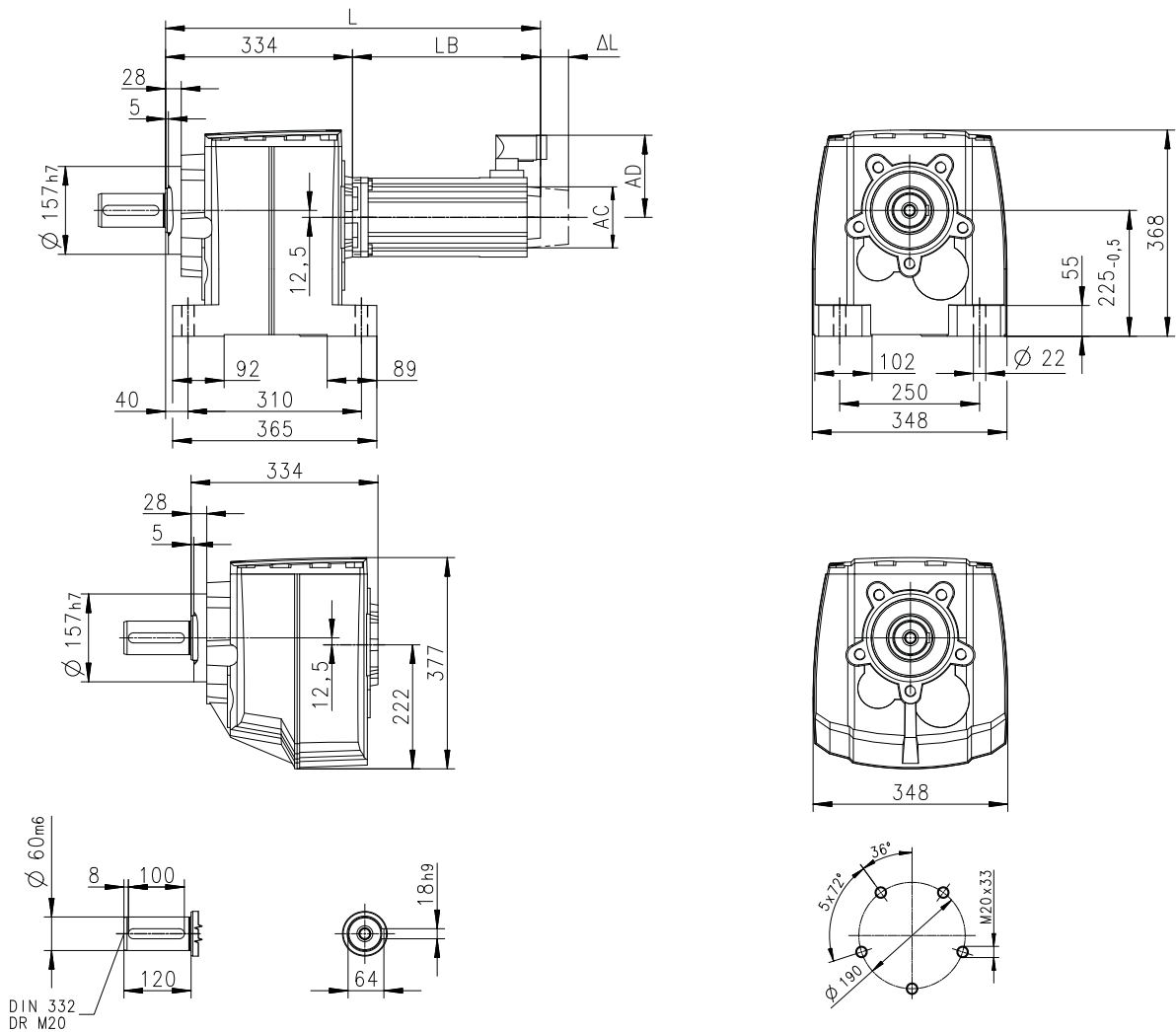
Technical data

Dimensions
Basic dimensions



g500-H3000, 2-/3-stage with MCS14

Gearbox version: Solid shaft with foot/centering (VAR/VCR)



8800550-00

Motor			MCS							
			14D14-	14D15-	14D30-	14D36-	14H12-	14H15-	14H28-	14H32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	638	550	638	550	678	590	678	590
Motor length	LB	mm	304	216	304	216	344	256	344	256
Length of motor options	Δ L	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	117	117	117	117	146	117

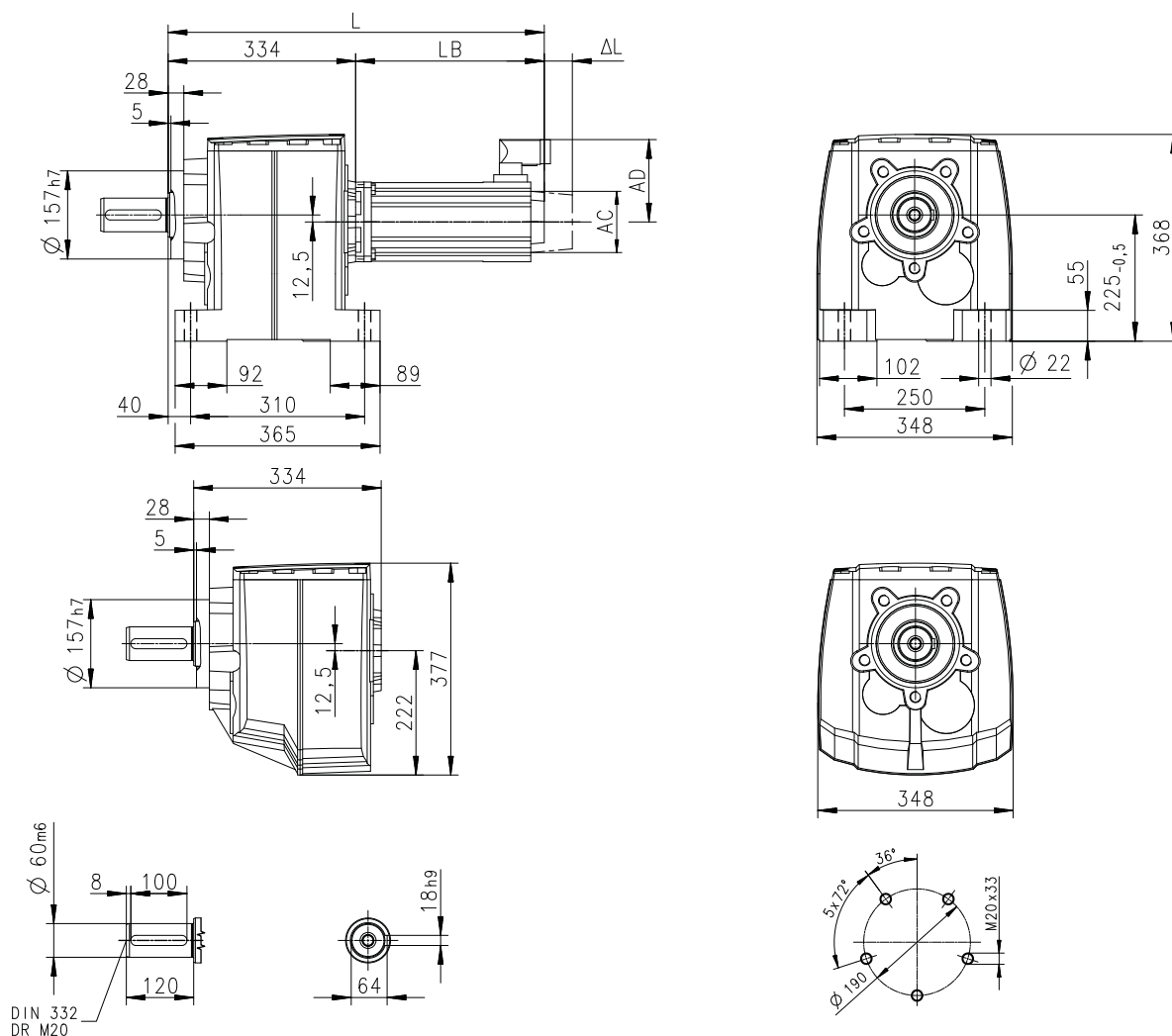


Technical data

Dimensions
Basic dimensions

g500-H3000, 2-/3-stage with MCS14

Gearbox version: Solid shaft with foot/centering (VAR/VCR)



8800550-00

Motor			MCS							
			14L14-	14L15-	14L30-	14L32-	14P11-	14P14-	14P26-	14P32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	718	630	718	630	758	670	758	670
Motor length	LB	mm	384	296	384	296	424	336	424	336
Length of motor options	Δ L	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	146	146	117	117	146	146

Technical data

Dimensions
Basic dimensions

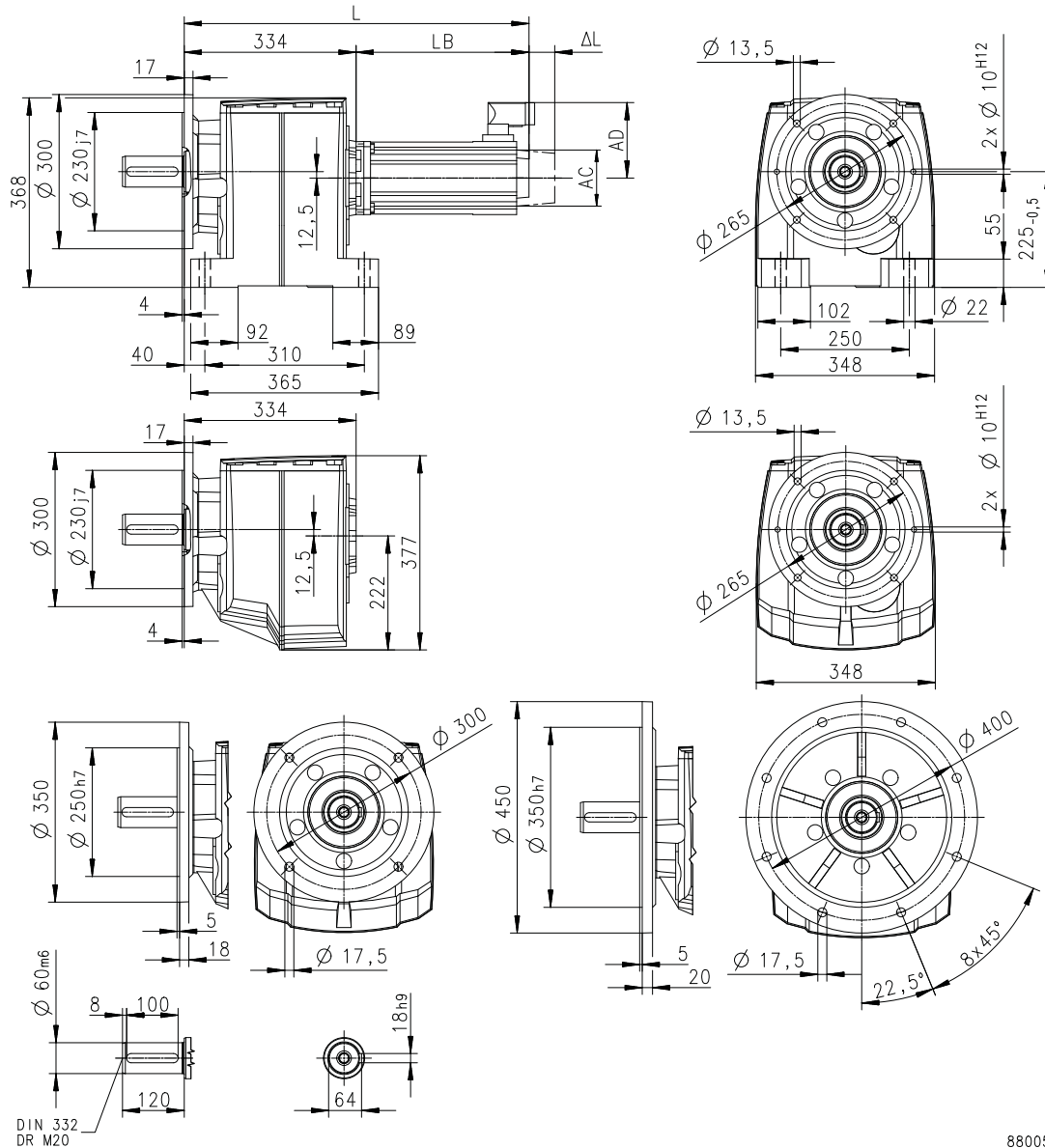


g500-H3000, 2-/3-stage with MCS14

Gearbox version: Solid shaft with foot/flange (VAK/VCK)

NOTICE

► Additionally secure the Ø300 output flange with two spiral pins.



8800551-02

Motor			MCS							
			14D14-	14D15-	14D30-	14D36-	14H12-	14H15-	14H28-	14H32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	638	550	638	550	678	590	678	590
Motor length	LB	mm	304	216	304	216	344	256	344	256
Length of motor options	Δ L	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	117	117	117	117	146	117

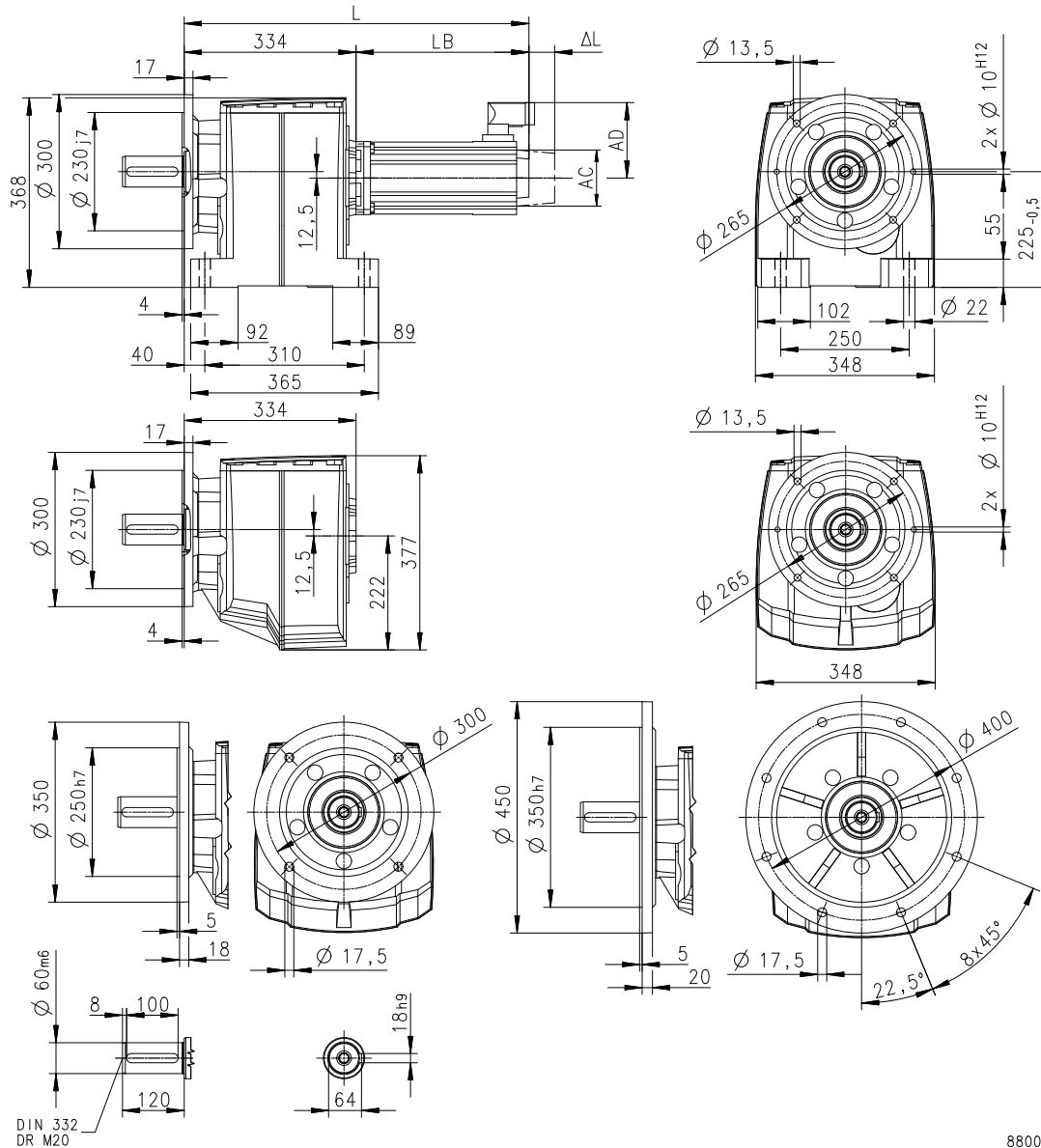


g500-H3000, 2-/3-stage with MCS14

Gearbox version: Solid shaft with foot/flange (VAK/VCK)

NOTICE

► Additionally secure the $\varnothing 300$ output flange with two spiral pins.



8800551-02

Motor			MCS							
			14L14-	14L15-	14L30-	14L32-	14P11-	14P14-	14P26-	14P32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Total length	L	mm	718	630	718	630	758	670	758	670
Motor length	LB	mm	384	296	384	296	424	336	424	336
Length of motor options	Δ L	mm	82	78	82	78	82	78	82	78
Motor diameter	AC	mm	167	143	167	143	167	143	167	143
Motor/connection distance	AD	mm	117	117	146	146	117	117	146	146

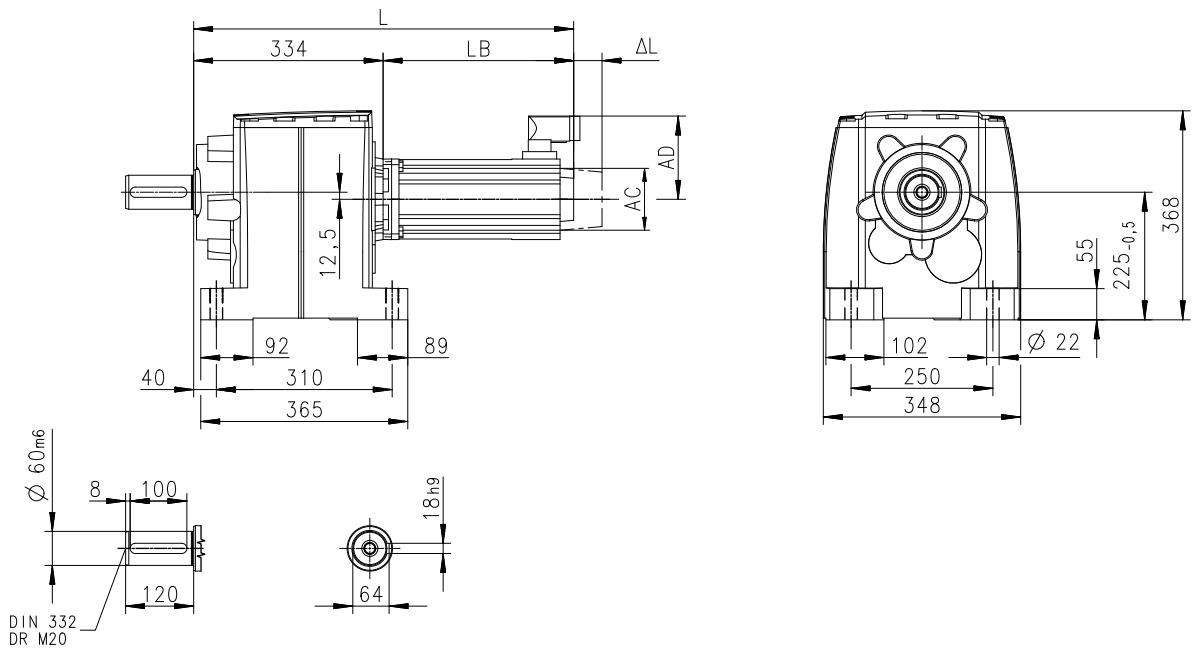
Technical data

Dimensions
Basic dimensions



g500-H3000, 2-/3-stage with MCS19

Gearbox version: Solid shaft with foot (VBR)



8800549-00

Motor			MCS									
			19F12-	19F14-	19F29-	19F30-	19J12- 19J29-	19J14-	19J30-	19P12- 19P29-	19P14-	19P30-
Cooling type			Blower	natural	Blower	natural	Blower	natural	natural	Blower	natural	natural
Total length	L	mm	696	589	696	589	736	629	629	736	689	689
Motor length	LB	mm	362	255	362	255	402	295	295	402	355	355
Length of motor options	Δ L	mm	72	93	72	93	72	93	93	72	93	93
Motor diameter	AC	mm	212	192	212	192	212	192	192	212	192	192
Motor/connection distance	AD	mm	142	142	171	171	171	142	171	171	171	171

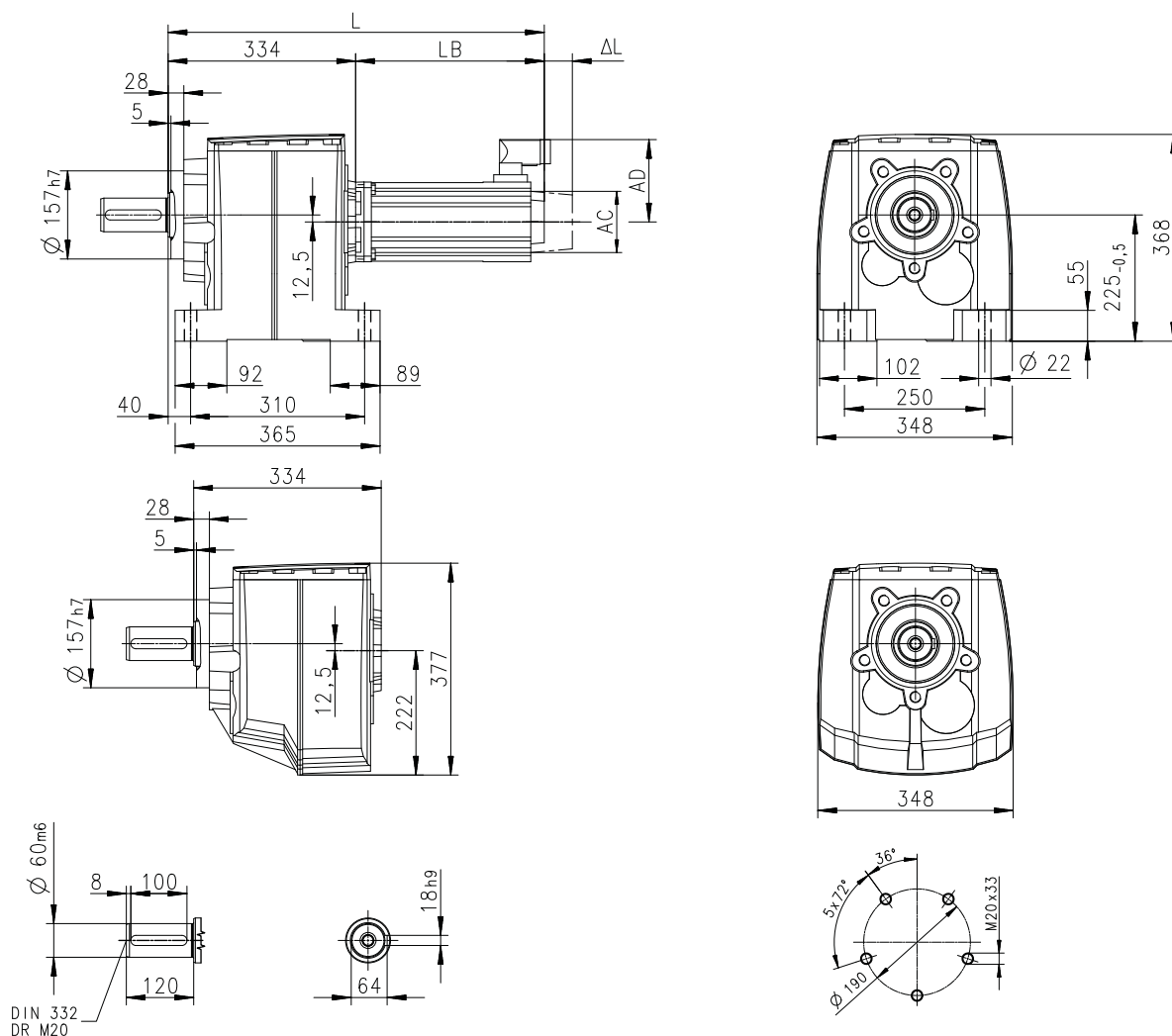


Technical data

Dimensions
Basic dimensions

g500-H3000, 2-/3-stage with MCS19

Gearbox version: Solid shaft with foot/centering (VAR/VCR)



8800550-00

Motor			MCS									
			19F12-	19F14-	19F29-	19F30-	19J12- 19J29-	19J14-	19J30-	19P12- 19P29-	19P14-	19P30-
Cooling type			Blower	natural	Blower	natural	Blower	natural	natural	Blower	natural	natural
Total length	L	mm	696	589	696	589	736	629	629	736	689	689
Motor length	LB	mm	362	255	362	255	402	295	295	402	355	355
Length of motor options	Δ L	mm	72	93	72	93	72	93	93	72	93	93
Motor diameter	AC	mm	212	192	212	192	212	192	192	212	192	192
Motor/connection distance	AD	mm	142	142	171	171	171	142	171	171	171	171

Technical data

Dimensions
Basic dimensions

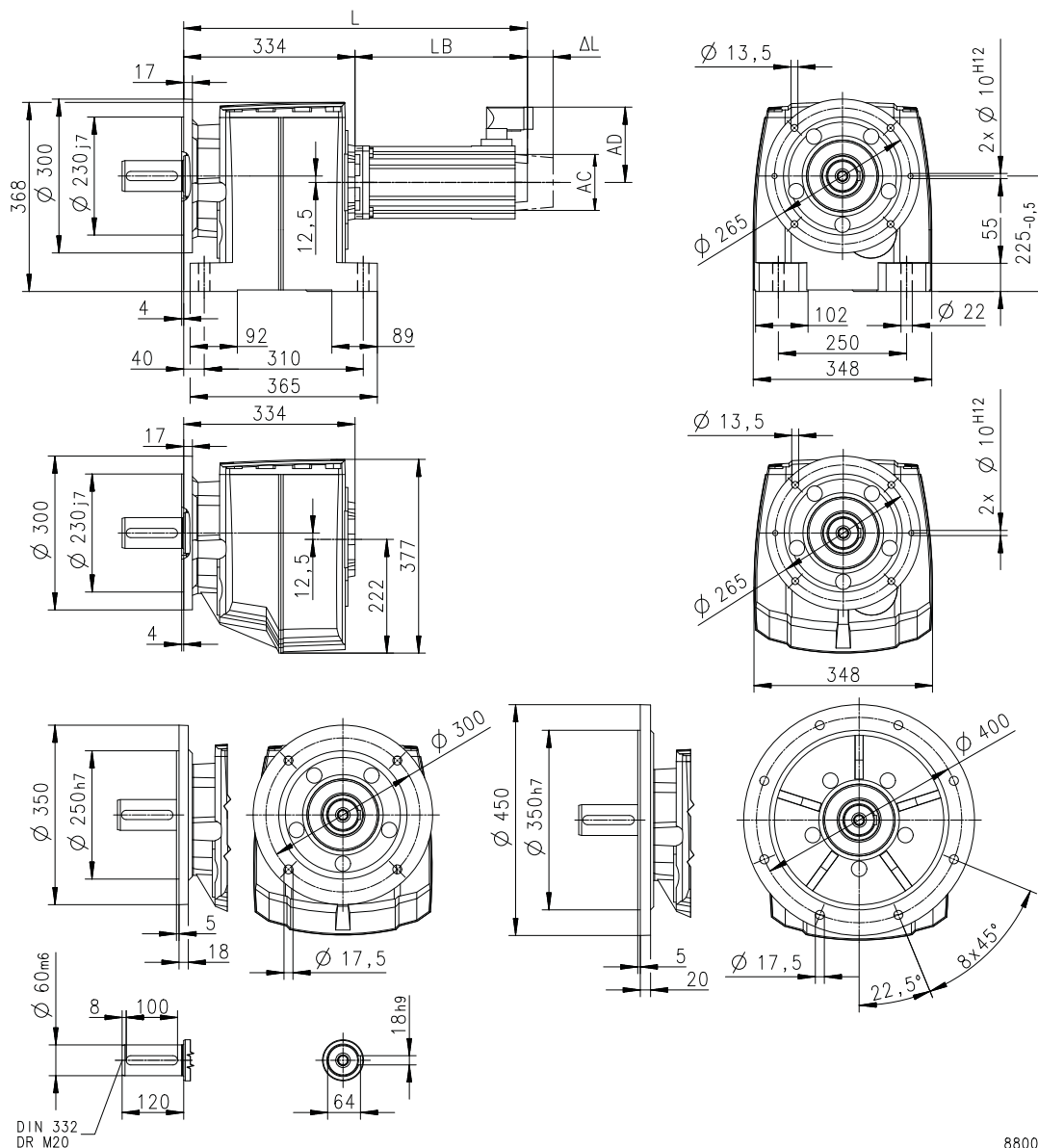


g500-H3000, 2-/3-stage with MCS19

Gearbox version: Solid shaft with foot/flange (VAK/VCK)

NOTICE

► Additionally secure the $\varnothing 300$ output flange with two spiral pins.



8800551-02

Motor			MCS								
			19F12-	19F14-	19F29-	19F30-	19J12- 19J29-	19J14-	19J30-	19P12- 19P29-	19P14- 19P30-
Cooling type			Blower	natural	Blower	natural	Blower	natural	natural	Blower	natural
Total length	L	mm	696	589	696	589	736	629	629	736	689
Motor length	LB	mm	362	255	362	255	402	295	295	402	355
Length of motor options	Δ L	mm	72	93	72	93	72	93	93	72	93
Motor diameter	AC	mm	212	192	212	192	212	192	192	212	192
Motor/connection distance	AD	mm	142	142	171	171	171	142	171	171	171



Gearbox with pre-stage

g500-H100 ... H140, 3-stage

g500-H210 ... H3000, 4-stage

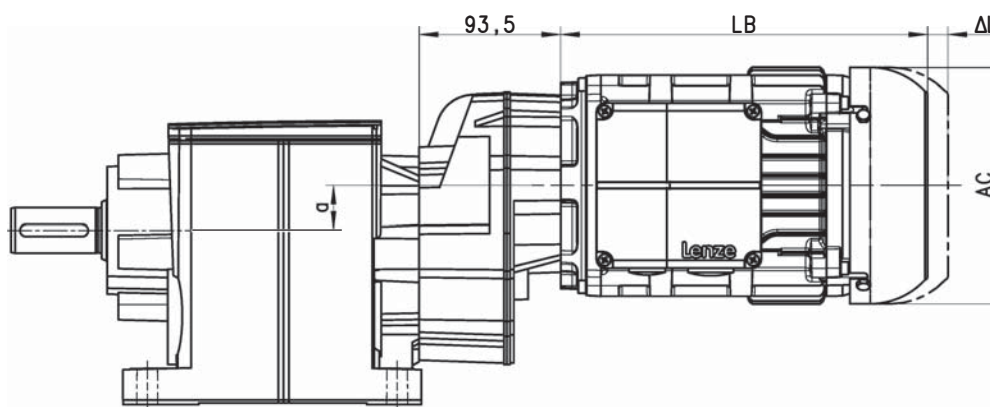


The geared motor dimensions can be found in the basic dimensions, except the total length "L" and the center distance "a".

► [Basic dimensions](#) 135

The total length "L" in the basic dimensions is extended by the 93.5 mm of the pre-stage.

Observe the altered center distance "a" between the gearbox and motor shaft.



8801279-00

Gearboxes			g500-H100	g500-H140	g500-H210	g500-H320	g500-H450	g500-H600	g500-H850	g500-H1500	g500-H3000
			3-stage		4-stage						
Center distance	a	mm	40.2	30	34.8	24.3	29.6	17.6	26.5	28.2	32.5



Additional lengths



The motor code indicates the short designation of the brake and feedback. Detailed information can be found for

► [Product codes](#) 328

► [Brakes](#) 315

► [Feedback](#) 320

MCS06

Motor	MCS		
	06C41- 06C41L	06F41- 06F41L	06I41- 06I41L
Cooling type	natural	natural	natural
Feedback (without brake B0)			
R□0	Δ L mm	0	
S□M (AM1024...) / SRS / SVS / ECN / EQI / EQN	Δ L mm	82	
S□M (AM128...) / EKM / EVM	Δ L mm	35	
Brake (P1/P2) and feedback			
R□0	Δ L mm	19	
S□M (AM1024...) / SRS / SVS / ECN / EQI / EQN	Δ L mm	101	
S□M (AM128...) / EKM / EVM	Δ L mm	54	

MCS09

Motor	MCS			
	09D41- 09D41L	09F38- 09F38L	09H41- 09H41L	09L41- 09L41L
Cooling type	natural	natural	natural	natural
Feedback (without brake B0)				
R□0	Δ L mm	0		
S□M (AM1024...) / SRS / SVS / ECN / EQI / EQN	Δ L mm	51		
S□M (AM128...) / EKM / EVM	Δ L mm	20		
Brake (P1/P2) and feedback				
R□0	Δ L mm	20		
S□M (AM1024...) / SRS / SVS / ECN / EQI / EQN	Δ L mm	71		
S□M (AM128...) / EKM / EVM	Δ L mm	40		



MCS12

Motor			MCS									
			12D17-	12D20- 12D20L	12D35-	12D41- 12D41L	12H14-	12H15- 12H15L 12H30L	12H34-	12H35-	12L17- 12L39-	12L20- 12L20L 12L41- 12L41L
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural	Blower	natural
Feedback (without brake B0)												
R□0	Δ L	mm	0	0	0	0	0	0	0	0	0	0
S□M (AM1024...) / SRS / SVS / ECN / EQI / EQN	Δ L	mm	43	49	43	49	43	49	43	49	43	49
S□M (AM128...) / EKM / EVM	Δ L	mm		20		20		20		20		20
Brake (P1/P2) and feedback												
R□0	Δ L	mm	20	20	20	20	20	20	20	20	20	20
S□M (AM1024...) / SRS / SVS / ECN / EQI / EQN	Δ L	mm	63	69	63	69	63	69	63	69	63	69
S□M (AM128...) / EKM / EVM	Δ L	mm		40		40		40		40		40

MCS14

Motor			MCS							
			14D14-	14D15-	14D30-	14D36-	14H12-	14H15-	14H28-	14H32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Feedback (without brake B0)										
R□0	Δ L	mm	0	0	0	0	0	0	0	0
S□M (AM1024...) / SRS / SVS / ECN / EQI / EQN	Δ L	mm	53	50	53	50	53	50	53	50
S□M (AM128...) / EKM / EVM	Δ L	mm		18		18		18		18
Brake (P1/P2) and feedback										
R□0	Δ L	mm	29	28	29	28	29	28	29	28
S□M (AM1024...) / SRS / SVS / ECN / EQI / EQN	Δ L	mm	82	78	82	78	82	78	82	78
S□M (AM128...) / EKM / EVM	Δ L	mm		46		46		46		46

Motor			MCS							
			14L14-	14L15-	14L30-	14L32-	14P11-	14P14-	14P26-	14P32-
Cooling type			Blower	natural	Blower	natural	Blower	natural	Blower	natural
Feedback (without brake B0)										
R□0	Δ L	mm	0	0	0	0	0	0	0	0
S□M (AM1024...) / SRS / SVS / ECN / EQI / EQN	Δ L	mm	53	50	53	50	53	50	53	50
S□M (AM128...) / EKM / EVM	Δ L	mm		18		18		18		18
Brake (P1/P2) and feedback										
R□0	Δ L	mm	29	28	29	28	29	28	29	28
S□M (AM1024...) / SRS / SVS / ECN / EQI / EQN	Δ L	mm	82	78	82	78	82	78	82	78
S□M (AM128...) / EKM / EVM	Δ L	mm		46		46		46		46

Technical data

Dimensions
Additional lengths



MCS19

Motor			MCS									
			19F12-	19F14-	19F29-	19F30-	19J14-	19J29-	19J30-	19P14-	19P29-	19P30-
Cooling type			Forced	Natural	Forced	Natural	Natural	Forced	Natural	Natural	Forced	Natural
Feedback (without brake B0)												
R□0	Δ L	mm	0	0	0	0	0	0	0	0	0	0
S□M (AM1024...) / SRS / SVS / ECN / EQI / EQN	Δ L	mm	72	49	72	49	49	72	49	49	72	49
S□M (AM128...) / EKM / EVM	Δ L	mm		19		19	19		19	19		19
Brake (P1/P2) and feedback												
R□0	Δ L	mm	34	34	34	34	34	34	34	34	34	34
S□M (AM1024...) / SRS / SVS / ECN / EQI / EQN	Δ L	mm	72	83	72	83	83	72	83	83	72	83
S□M (AM128...) / EKM / EVM	Δ L	mm		53		53	53		53	53		53



Weights

Basic weights



The basic weights are listed in the selection tables.

Weights with lubricant for mounting position M1, all data approximate values. The exact values can be found in the delivery documents

► [Selection tables](#)  61

Observe ► [Additional weights](#)  303!

Additional weights

Gearbox

Gearbox			g500-H45	g500-H100	g500-H140	g500-H210	g500-H320	g500-H450
Foot	m	kg	0.1	0.1	0.2	0.1	0.1	0.2
Flange	m	kg	0.3	0.4	0.6	0.6	0.8	0.9
Flange (VCP)	m	kg		2.0	3.9	3.9	4.1	6.1

Gearbox			g500-H600	g500-H850	g500-H1500	g500-H3000
Foot	m	kg	2.0	2.8	4.3	5.8
Flange	m	kg	4.3	7.6	8.3	20
Flange (VCP)	m	kg				

Motors

Motor			MCS06C MCS06F MCS06I	MCS09D MCS09F MCS09H MCS09L	MCS12D MCS12H MCS12L	MCS14D MCS14H MCS14L MCS14P	MCS19F	MCS19J MCS19P
Permanent magnet holding brake								
Standard braking torque	m	kg	0.3	0.8	0.9	1.9	3.1	
Increased braking torque	m	kg		0.8	1.2	3.1		4.3



Product extensions

Motor connection

Connection via terminal box

If a motor is to be connected to an existing cable or plug connectors are not to be used for other reasons, the connection can also be made via a terminal box.

The terminals are designed as tension spring terminals to ensure here the long-term vibration resistance of the cable contacts with adequate contact pressure required.

The terminal boxes have generously dimensioned space for the customer's own wiring and large surface shield connection areas to ensure a secure EMC-compliant connection. The cable outlet may be to the left or to the right, depending on requirements.



It is not possible to attach a terminal box to the MCS06 or to models with the blower.

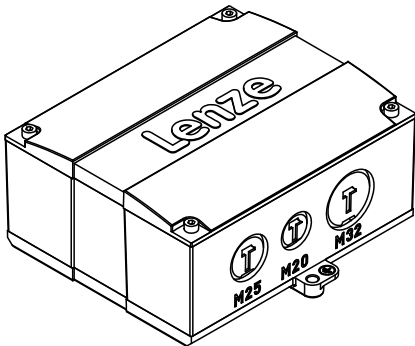




Cable glands

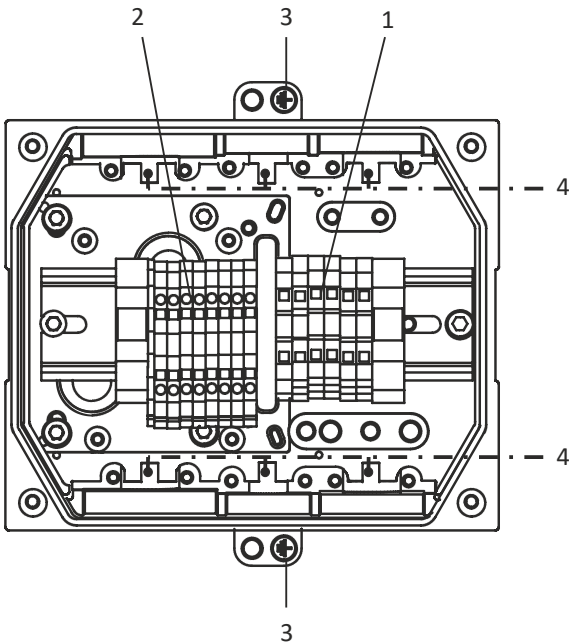


The bore holes for the cable glands M25, M20 and M32 are located on both sides and closed. They can be opened according to need.



Motor		MCS09 MCS12 MCS14H	MCS14L15 MCS14P14 MCS19F15 MCS19J15	MCS14L32 MCS14P32 MCS19F13 MCS19J30 MCS19P
Screwed connections		2x M20 2x M25 2x M32		
cable cross-section	mm ²	0.08 ... 2.5 4 (without wire end ferrule)		0.2 ... 10
Stripping length	mm	10 ... 11		
Terminal design		Spring-loaded terminal		

Position of the connections



Position	Meaning
1	Power connection Brake connection
2	Feedback connection Connection of temperature monitoring
3	PE connection
4	Large area shield contact.

Product extensions

Motor connection
Connection via terminal box



Terminal box, power		
Contact	Name	Meaning
U1	L1	Motor winding phase
V1	L2	
W1	L3	
PE	PE	PE conductor

Terminal box, DC brake		
Contact	Name	Meaning
BD1	+	Brake +
BD2	-	Brake -

Terminal box, resolver		
Contact	Name	Meaning
B1	+Ref	Transformer windings (reference windings)
B2	-Ref	
B3	+VCC ETS	Supply: Electronic nameplate (only for variant with electronic nameplate ETS)
B4	+COS	Cosine stator windings
B5	-COS	
B6	+SIN	Sine stator windings
B7	-SIN	
B8		Not assigned

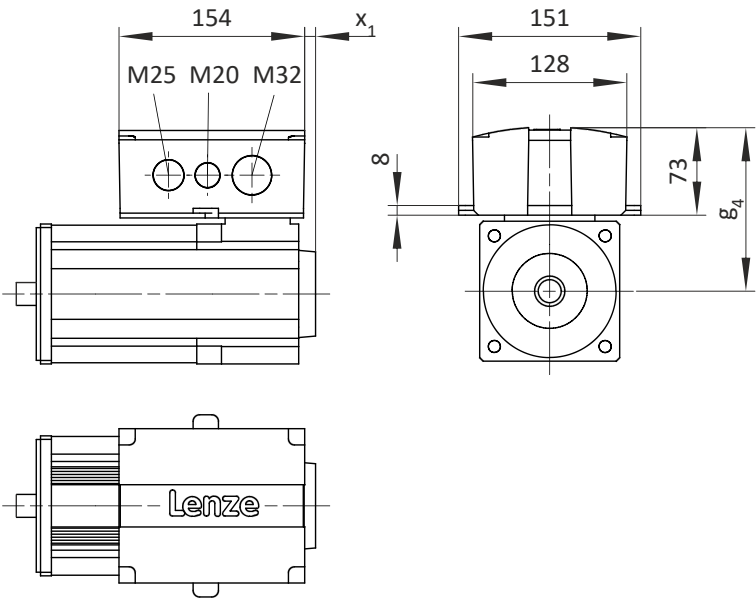
Terminal box, SinCos absolute value encoder with Hiperface		
Contact	Name	Meaning
B1	+ UB	Supply +
B2	GND	Mass
B3	A	Track A / + COS
B4	A ⁻	Track A inverse /-COS
B5	B	Track B / +SIN
B6	B ⁻	Track B inverse/-SIN
B7	Z	Zero track / + RS485
B8	Z ⁻	Zero track inverse /-RS485
B10		Incremental encoder shield

Terminal box, SinCos absolute value encoder with EnDat		
Contact	Name	Meaning
B1	+ UB	Supply +
B2	GND	Mass
B3	A	Track A / + COS
B4	A-	Track A inverse /-COS
B5	B	Track B / +SIN
B6	B-	Track B inverse/-SIN
B7	Daten	EnDat interface data
B8	Daten-	Data inverse EnDat interface
B20	Takt	EnDat interface cycle
B21	Takt-	Inverse EnDat interface cycle
B22	Up Sensor	Up Sensor
B23	0 V Sensor	0 V sensor
B24	Schirm	Encoder housing shield
B25		Not assigned

Terminal box with temperature monitoring R		
Contact	Name	Meaning
R1	+	Temperature sensor +
R2	-	Temperature sensor -



Terminal box dimensions



Motor			MCS09D MCS09F MCS09H MCS09L	MCS12D MCS12H MCS12L	MCS14D MCS14H MCS14L MCS14P	MCS19F MCS19J MCS19P
Motor/connection distance	g ₄	mm	121	136	147	172
Feedback						
Resolver/TTL incremental encoder	x ₁	mm	5	9	21	12
SinCos absolute value encoder	x ₁	mm	56	58	71	61



Connection via connector

The electrical connection to the servo motors is made via M23 or M40 plug connectors as standard.

The connection is made via two connectors:

- For power and brake
- For feedback and temperature monitoring

Alternatively, Lenze offers a One Cable Technology (OCT).

The connectors can be rotated by 270 ° and are provided with a bayonet catch. Since the catch of the connector is also compatible with conventional box nuts, existing mating connectors with a screw plug can continue to be used without any problems.



Preassembled Lenze system cables are available for fast and error-free connection of Lenze motors to Lenze inverters.

Details and data can be found in the "Accessories" brochure on the Internet.

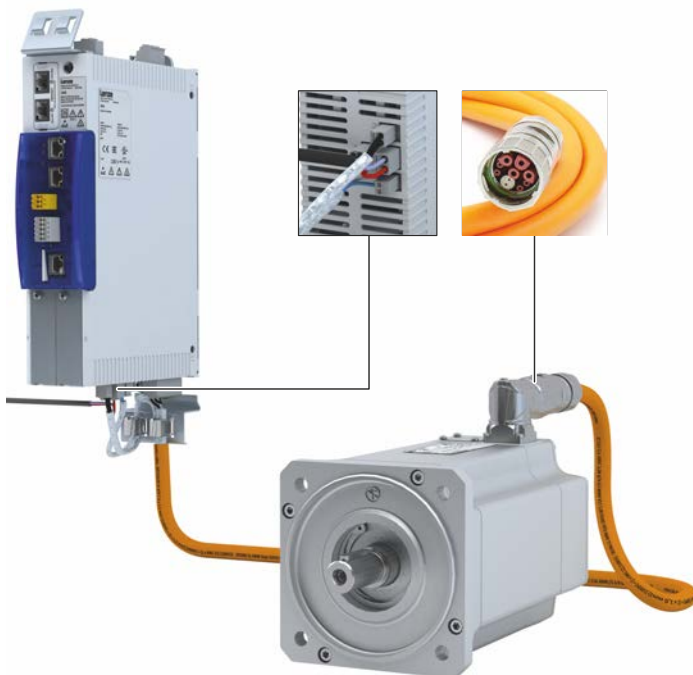


One Cable Technology (OCT)

With the help of digital absolute value encoders and the HIPERFACE DSL® open motor feedback protocol, the motor supports the use of future-oriented One Cable Technology (OCT).

Advantages

- All the wiring required is carried out in just one connector.
- The use of system cables merges the servo and feedback cables.
- Connection cables, cable variance, and connection costs are thus reasonably minimized.
- The motor temperature is transmitted digitally together with the encoder signal. An additional connection for a motor temperature sensor is not required.
- Speed-dependent safety functions can be realized by using the safety-rated digital absolute value encoder.



The M23 connector for One Cable Technology (OCT) has been changed; the change can be recognized by the color of the connector:

- Old connector: Blue
- New connector: Red

Only motor/system cable connectors of the same color can be plugged in.

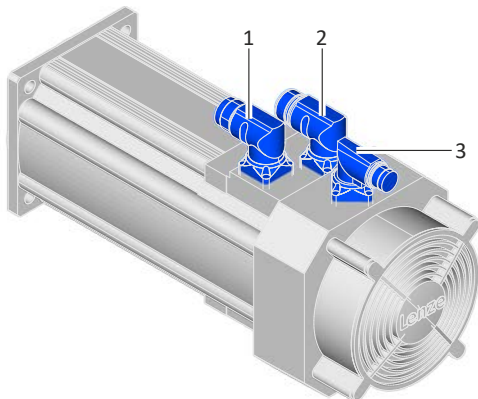
Product extensions

Motor connection
Connection via connector

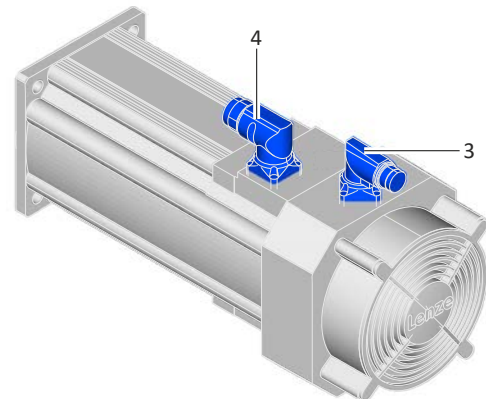


Position of the connections

Standard connection



One Cable Technology (OCT)



Position	Meaning	Position	Meaning
1	M23 connector, 6-pole M40 connector, 8-pole - Power connection - Brake connection - PE connection	4	For One Cable Technology (OCT) M23 connector, hybrid M40 connector, hybrid - Power connection - Brake connection - PE connection - Digital absolute value encoder connection - Temperature monitoring connection
2	M23 connector - Feedback connection - Temperature monitoring connection		
3	M17 connector Blower connection		

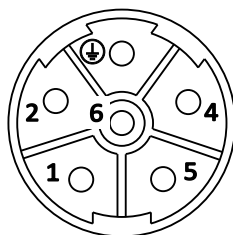
Motor/connector assignment

Standard connection: Power and brake							
One Cable Technology (OCT): Power, brake, feedback and temperature monitoring connection							
Motor	Connector	Motor	Connector	Motor	Connector	Motor	Connector
MCS06...	M23	MCS14H15-	M23	MCS14P14-	M23	MCS19J14-	M23
MCS09...	M23	MCS14H28-	M40	MCS14P26-	M40	MCS19J29-	M40
MCS12...	M23	MCS14H32-	M23	MCS14P32-	M40	MCS19J30-	M40
MCS14D14-	M23	MCS14L14-	M23	MCS19F12-	M23	MCS19P12-	M40
MCS14D15-	M23	MCS14L15-	M23	MCS19F14-	M23	MCS19P14-	M40
MCS14D30-	M23	MCS14L30-	M40	MCS19F29-	M40	MCS19P29-	M40
MCS14D36-	M23	MCS14L32-	M40	MCS19F30-	M40	MCS19P30-	M40
MCS14H12-	M23	MCS14P11-	M23	MCS19J12-	M40		



ICN-M23 connector assignment

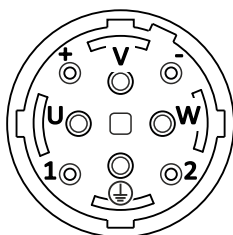
6-pole



M23 6-pole		
Contact	Name	Meaning
PE	PE	PE conductor
1	BD1	DC +/AC brake
2	BD2	DC -/AC brake
4	U	Power phase U
5	V	Power phase V
6	W	Power phase W

M40 connector assignment for motor cables

8-pole



M40 8-pole		
Contact	Name	Meaning
V	V	Power phase V
PE	PE	PE conductor
W	W	Power phase W
-	BD2	Holding brake -
U	U	Power phase U
+	BD1	Holding brake +
1		Not assigned
2		Not assigned

Product extensions

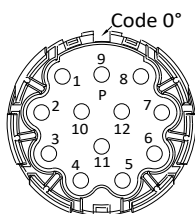
Motor connection
Connection via connector



Feedback and temperature monitoring connection

ICN-M23 connector assignment

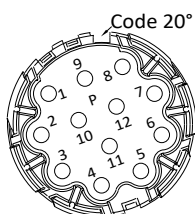
Resolver



M23 for resolvers		
Contact	Name	Meaning
1	+Ref	Transformer windings
2	-Ref	Transformer windings
3	+VCC ETS	Supply: Electronic nameplate (Only for motors and inverters that support this function)
4	+COS	Cosine stator windings
5	-COS	Cosine stator windings
6	+SIN	Sine stator windings
7	-SIN	Sine stator windings
8		Not assigned
9		Not assigned
10	Schirm	Encoder housing shield
11	+	Temperature monitoring: PT1000
12	-	Temperature monitoring: PT1000

ICN-M23 connector assignment

Incremental and SinCos absolute value encoder Hiperface®



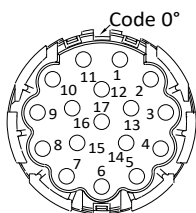
ICN M23 for encoders		
Contact	Name	Meaning
1	B	Track B / +SIN
2	A ⁻	Track A inverse / -COS
3	A	Track A / + COS
4	+UB	Supply +
5	GND	Mass
6	Z ⁻	Zero track inverse / -RS485
7	Z	Zero track / + RS485
8		Not assigned
9	B ⁻	Track B inverse/-SIN
10	Schirm	Encoder housing shield
11	+	Temperature monitoring: PT1000
12	-	Temperature monitoring: PT1000



Product extensions

Motor connection
Connection via connector

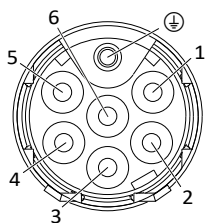
M23 connector assignment for EnDat cables



M23 for EnDat encoders		
Contact	Name	Meaning
1	UP Sensor	Up Sensor
2		Not assigned
3		Not assigned
4	0 V Sensor	0 V sensor
5	+	PT1000/KTY temperature sensor
6	-	PT1000/KTY temperature sensor
7	+UB	Supply +
8	Takt	EnDat interface cycle
9	Takt-	Inverse EnDat interface cycle
10	GND	Mass
11	Schirm	Encoder housing shield
12	B	Track B
13	B-	Track B inverse/-SIN
14	Daten	EnDat interface data
15	A	Track A
16	A-	Track A inverse /-COS
17	Daten-	Data inverse EnDat interface

Blower

Pin assignment ICN-M17



M17 for blowers 1-ph		
Contact	Name	Meaning
PE	PE	PE conductor
1	U1	Fan
2	U2	Fan
3		Not assigned
4		Not assigned
5		Not assigned
6		Not assigned

Product extensions

Motor connection
Connection via connector



One Cable Technology (OCT)

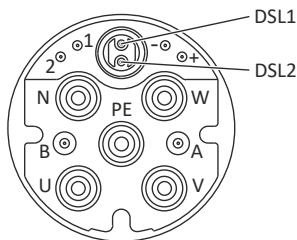
Power, brake, feedback and temperature monitoring connection

M23 connector assignment for OCT motor cables



M23_OCT		
Contact	Name	Meaning
A	BD1	Holding brake +
B	BD2	Holding brake -
C		Not assigned
D		Not assigned
H	VCC/Daten +	VCC/data +
L	GND/Daten -	GND/data -
PE	PE	PE
U	U	Power phase U
V	V	Power phase V
W	W	Power phase W

M40 connector assignment for OCT motor cables



M40_OCT		
Contact	Name	Meaning
-		Not assigned
+		Not assigned
1		Not assigned
2		Not assigned
A	BD1	Holding brake +
B	BD2	Holding brake -
DSL1	+	VCC/data +
DSL2	-	GND/data -
N		Not assigned
PE	PE	PE
U	U	Power phase U
V	V	Power phase V
W	W	Power phase W



Brakes

Optionally, the motors can be ordered with a permanent magnet brake as holding brake.

⚠ CAUTION!

They may not be used as safety elements (particularly with hoist axes) without additional measures being implemented.

The brakes used are not fail-safe brakes in the sense that prospective disruptive factors, e.g. oil ingress, can lead to a reduction in torque!

- ▶ The brakes must only be used as holding brakes for holding the axes at a standstill or in the deenergised state.
- ▶ The brake must not be used as a service brake.

⚠ CAUTION!

If no suitable voltage (incorrect value, incorrect polarity) is applied to the brake, the brake will be applied and can be overheated and destroyed by the motor continuing to rotate.

Motor supply cables

If long motor supply cables are used, pay attention to the ohmic voltage drop along the cable and compensate for it with a higher voltage at the input end of the cable.

The following applies to Lenze system cables:

$U[V] = U_B[V] + 0.08 \frac{[V]}{[A] \times [m]} \times I_{Lg}[m] \times I_B[A]$	U	V	Resulting supply voltage
	U _B	V	Rated voltage of the brake
	I _{Lg}	m	Cable length
	I _B	A	Rated current of the brake

NOTICE

- ▶ The brakes become active when the supply voltage has been switched off (closed-circuit principle).
- ▶ When using the brakes purely as holding brakes, virtually no wear occurs on the friction surfaces.
- ▶ The friction surfaces must always be free from oil and grease because even small amounts of grease or oil will considerably reduce the braking torque.

NOTICE

In case of these permanent magnet brakes, the rated torque applies solely as holding torque at standstill.

- ▶ Emergency stops at higher speeds are possible but high switching energy increases wear on the friction surfaces and the hub.
- ▶ During braking from full motor speed, e.g. in the event of emergency stops, the braking torque is significantly reduced.



NOTICE

In case of travel axes, the compliance of the permissible ratio of mass inertia load/brake motor (J_L/J_{MB}) ensures that the permissible maximum switching energy of the brake will not be exceeded and at least the values given for the emergency stop functions from the given speed (see rated data) are applied.

For hoist axes, the load torque resulting from the weight acts additionally. In this case, the specifications for (J_L/J_{MB}) do not apply.

To simplify matters, the friction energy per switching cycle can be calculated using the formula below and must not exceed the limit value for emergency stops, which depends on the switching rate:

$Q = \frac{1}{2} \times J_{ges} \times \left(2\pi \times \frac{\Delta n}{60} \right)^2 \times \frac{M_N}{M_N - M_L}$	Q	J	Friction energy
	J_{total}	kgm ²	Total mass inertia (motor + load)
	Δn	rpm	Differential speed
	M_N	Nm	Rated torque of the brake
	M_L	nM	Load torque

i The shortest operating times of the brakes are achieved by DC switching of the voltage and an external suppressor circuit (varistor or spark suppressor).

Without suppressor circuit, the operating times may increase. A varistor/ spark suppressor limits the breaking voltage peaks. It must be ensured that the power limit of the suppressor circuit is not exceeded. This limit depends on the brake current, brake voltage, disengagement time and the switching operations per time unit.

Furthermore the suppressor circuit is necessary for interference suppression and for increasing the service life of the relay contacts (external, is not integrated into the motor).

i It is not possible to readjust the brake.



Permanent magnet brakes

Rated data

NOTICE

Engagement and disengagement times apply to rated voltage ($\pm 0\%$) and suppressor circuit of the brakes with a varistor with DC switching. Without a suppressor circuit, the times may be longer.

The currents are the maximum values when the brake is cold (value used for dimensioning the current supply). The values for a motor at operating temperature are considerably lower.

Requirements with regard to the DC 24 V brake: smoothed DC voltage, ripple $\leq 1\%$.

Maximum switching energy per emergency stop with $n = 3000$ rpm for at least 2000 emergency stops.



Motor			MCS06C	MCS06F	MCS06I	MCS09D		MCS09F		MCS09H
Motor code			P1	P1	P1	P1	P2	P1	P2	P1
Supply voltage range	V_{in}	V	21.84 ... 25.2							
Supply voltage	V_{rated}	V	24							
Bemessungsdrehmoment										
At 20 °C	M_{rated}	Nm	2.2			8	12	8	12	8
At 120 °C	M_{rated}	Nm	2			6	10	6	10	6
Rated current	I_{rated}	A	0.34			0.67				
Engagement time t_1	t_1	ms	15			20	13	20	13	20
Disengagement time t_2	t_2	ms	30			40	43	40	43	40
Friction energy	Q_E	kJ	0.030			0.400				
Weight	m	kg	0.30			0.80	0.9	0.80	0.9	0.80
Massenträgheitsmoment										
Brake	J	kgcm ²	0.12			1.07				
Brake motor	J_{MB}	kgcm ²	0.26	0.34	0.42	2.17		2.57		2.97
Load/brake motor ratio	J_L/J_{MB}		22.1	16.6	13.3	36.4		30.5		26.3

Motor			MCS09H	MCS09L		MCS12D		MCS12H		MCS12L
Motor code			P2	P1	P2	P1	P2	P1	P2	P1
Supply voltage range	V_{in}	V	21.84 ... 25.2							
Supply voltage	V_{rated}	V	24							
Bemessungsdrehmoment										
At 20 °C	M_{rated}	Nm	12	8	12	24	12	24	12	12
At 120 °C	M_{rated}	Nm	10	6	10	19	10	19	10	10
Rated current	I_{rated}	A	0.67				0.75	0.67	0.75	0.67
Engagement time t_1	t_1	ms	13	20	13	16	13	16	13	13
Disengagement time t_2	t_2	ms	43	40	43	90	43	90	43	43
Friction energy	Q_E	kJ	0.400				0.890	0.400	0.890	0.400
Weight	m	kg	0.9	0.80	0.9	1.20	0.9	1.20	0.9	0.9
Massenträgheitsmoment										
Brake	J	kgcm ²	1.07				3.13	1.07	3.13	1.07
Brake motor	J_{MB}	kgcm ²	2.97	3.87		5.07	7.1	8.4	10.4	11.7
Load/brake motor ratio	J_L/J_{MB}		26.3	19.9		15	24.3	8.7	16.3	5.9



Product extensions

Permanent magnet brakes

Motor			MCS12L	MCS14D		MCS14H		MCS14L		MCS14P
Motor code			P2	P1	P2	P1	P2	P1	P2	P1
Supply voltage range	V_{in}	V	21.84 ... 25.2							
Supply voltage	V_{rated}	V	24							
Bemessungsdrehmoment										
At 20 °C	M_{rated}	Nm	24	22	37	22	37	22	37	22
At 120 °C	M_{rated}	Nm	19	18	32	18	32	18	32	18
Rated current	I_{rated}	A	0.75		0.81	0.75	0.81	0.75	0.81	0.75
Engagement time t1	t_1	ms	16	15	96	15	96	15	96	15
Disengagement time t2	t_2	ms	90	150	113	150	113	150	113	150
Friction energy	Q_E	kJ	0.890	0.640	2.350	0.640	2.350	0.640	2.350	0.640
Weight	m	kg	1.20	1.9	3.1	1.9	3.1	1.9	3.1	1.9
Massenträgheitsmoment										
Brake	J	kgcm ²	3.13	3.2	12.4	3.2	12.4	3.2	12.4	3.2
Brake motor	J_{MB}	kgcm ²	13.7	11.3	20.5	17.4	26.6		35.8	37.9
Load/brake motor ratio	J_L/J_{MB}		12.1	10.5	22.2	6.5	16.9	3.9	12.3	2.4

Motor			MCS14P	MCS19F	MCS19J	MCS19P
Motor code			P2	P1	P2	P2
Supply voltage range	V _{in}	V	21.84 ... 25.2			
Supply voltage	V _{rated}	V	24			
Bemessungsdrehmoment						
At 20 °C	M _{rated}	Nm	37		95	
At 120 °C	M _{rated}	Nm	32		80	
Rated current	I _{rated}	A	0.81		1.46	
Engagement time t1	t ₁	ms	96		23	
Disengagement time t2	t ₂	ms	113		140	
Friction energy	Q _E	kJ	2.350		2.80	
Weight	m	kg	3.1		3.9	
Massenträgheitsmoment						
Brake	J	kgcm²	12.4		31.8	
Brake motor	J _{MB}	kgcm²	47.1	77	135	190
Load/brake motor ratio	J _L /J _{MB}		9.1	5.2	2.2	1.2



Feedback

For speed control with a servo inverter, the servo motor can be equipped with the following feedback systems:

Inverter	Feedback without functional safety		
	Resolver	Absolute value encoder	Digital absolute value encoder for OCT
i950 servo inverter	RS0	AM128-8V-H AM1024-8V-H AS1024-8V-H	AM20-8V-D
i750 servo inverter	RS0	AM128-8V-H AM1024-8V-H AS1024-8V-H	-
8400 TopLine inverter drives	RS0	AM128-8V-H AM1024-8V-H AS1024-8V-H	-
9400 HighLine servo drives	RS0	AM32-5V-E AM128-8V-H AM1024-8V-H AM2048-5V-E AS1024-8V-H AS2048-5V-E	-

Inverter	Feedback with functional safety		
	Resolver	Absolute value encoder	Digital absolute value encoder for OCT
i950 servo inverter	RV03	AM128-8V-K2 AM1024-8V-K2 AS1024-8V-K2	AM20-8V-D2
9400 HighLine servo drives	RV03	AM128-8V-K2 AM1024-8V-K2 AS1024-8V-K2	-

Feedbacks in the environment of functional safety

Motors can perform speed-dependent safety functions for safe speed and/or safe relative position monitoring in a drive system by Lenze inverters or Controllers. In case of inverters, these functions are implemented by integrable safety modules and in case of Controllers by the additionally required Safety Controller.

When planning systems/installations of this kind, always observe the following:

- When using just one single feedback system in the environment of these safety applications, the applicable safety engineering standard EN 61800-5-2 (adjustable speed electrical power drive systems - Part: 5-2: Safety requirements - Functional) stipulates special requirements for the connection between feedback system and motor shaft.
- This is due to the fact that two-channel safety systems at this point in the mechanical system are actually designed as single-channel systems. If this mechanical connection is designed with considerable overdimensioning, the standard permits exclusion of the fault "encoder-shaft breakage" or "encoder-shaft slip". As such, the permissible angular acceleration limit values must not be exceeded for the individual drive solutions.

You can find the limit values in the corresponding feedback data of the individual motor ranges.



Speed-dependent safety functions

Examples of speed-dependent safety functions:

- Safe stop 1 (SS1)
- Safe operational stop (SOS)
- Safely limited speed (SLS)
- Safe maximum speed (SMS)
- Safe direction (SDI)
- Operation mode selector (OMS) with confirmation (ES)
- Safe speed monitor (SSM)
- Safely limited increment (SLI)

Resolver

The stator-supplied, 2-pole resolver with two stator windings shifted by 90 degrees and a rotor winding with a transformer winding can record both the speed and the rotor position, just like a single-turn absolute value encoder. The rotor position can be determined within one mechanical motor revolution after a voltage failure.

Feedback type			Resolver	
Feedback			RS0	RV03
Speed-dependent safety functions			Nein	Ja
Design			Mounting	
Resolution - angle		'	0.8	0.8
Min. accuracy		'	-10	-10
Max. accuracy		'	10	10
Absolute positioning			1 revolution	1 revolution
Max. speed	$n_{\max}$	rpm	8000	8000
Max. DC input voltage	$V_{\text{in,max}}$	V	10	10
Max. input frequency	$f_{\text{in,max}}$	kHz	4	4
Ratio stator/rotor			0.3	0.3
Min ratio tolerance		%	-5	-5
Max ratio tolerance		%	5	5
Rotor impedance	Z_{ro}	Ω	51+j90	51+j90
Stator impedance	Z_{so}	Ω	102+j150	102+j150
Impedance	Z_{rs}	Ω	44+j76	44+j76
Min. insulation resistance at DC 500 V	R_{min}	M Ω	10	10
Number of pole pairs			1	1
Max. angle error Min		'	-10	-10
Max. angle error Max		'	10	10

Speed-dependent safety functions

Feedback			RV03
Motor code			RV03
Max. permissible angular acceleration			
MCS06	α	rad/s ²	56000
MCS09 ... MCS19	α	rad/s ²	19000
Functional safety			
IEC 61508			SIL3
EN 13849-1			Up to Performance Level e



Absolute value encoder

Absolute value encoders can detect the speed, the rotor position, and the machine position with a very high resolution. They are used for the positioning of dynamic applications and do not require homing.



In conjunction with the AMxx-8V-D digital absolute value encoder, the motor supports the HIPERFACE DSL® open motor feedback protocol for One Cable Technology (OCT).



Product extensions

Feedback
Absolute value encoder

Feedback type			Digital absolute value encoder		SinCos absolute value encoder			
Feedback			AM20-8V-D	AM20-8V-D2	AM32-5V-E	AM128-8V-H	AM128-8V-K2	AM1024-8V-H
Speed-dependent safety functions			Nein	Ja	Nein	Nein	Ja	Nein
Design			Mounting	Mounting	Mounting	Mounting	Mounting	Mounting
Encoder type			Multi-turn	Multi-turn	Multi-turn	Multi-turn	Multi-turn	Multi-turn
Resolution		bit	20	20	-	-	-	-
Pulses			-	-	32	128	128	1024
Output signals			Digital	Digital	SinCos 1 Vss	SinCos 1 Vss	SinCos 1 Vss	SinCos 1 Vss
Interfaces			Hiperface	Hiperface	EnDat	Hiperface	Hiperface	Hiperface
Absolute revolution			4096	4096	4096	4096	4096	4096
Resolution - angle			0.02	0.02	0.4	0.4	0.4	0.4
Min. accuracy		'	-	-	-5	-1.3	-1.3	-0.8
Max. accuracy		'	-	-	5	1.3	1.3	0.8
Fehlergrenze Positionswert								
System accuracy			1.7	1.7	-	-	-	-
Integral nonlinearity			1	1	-	-	-	-
Min. DC input voltage	$V_{in,min}$	V	-	-	4.75	7	7	7
Max. DC input voltage	$V_{in,max}$	V	-	-	5.25	12	12	12
Max. current consumption	I_{max}	A	0.15	0.15	0.17	0.06	0.06	0.08
Limit frequency	f_{max}	kHz	-	-	600	200	200	200

Feedback type			SinCos absolute value encoder				
Feedback			AM1024-8V-K2	AM2048-5V-E	AS1024-8V-H	AS1024-8V-K2	AS2048-5V-E
Speed-dependent safety functions			Ja	Nein	Nein	Ja	Nein
Design			Mounting	Mounting	Mounting	Mounting	Mounting
Encoder type			Multi-turn	Multi-turn	Single-turn	Single-turn	Single-turn
Resolution		bit	-	-	-	-	-
Pulses			1024	2048	1024	1024	2048
Output signals			SinCos 1 Vss	SinCos 1 Vss	SinCos 1 Vss	SinCos 1 Vss	SinCos 1 Vss
Interfaces			Hiperface	EnDat	Hiperface	Hiperface	EnDat
Absolute revolution			4096	4096	1	1	1
Resolution - angle			0.4	0.4	0.4	0.4	0.4
Min. accuracy		'	-0.8	-0.6	-0.8	-0.8	-0.6
Max. accuracy		'	0.8	0.6	0.8	0.8	0.6
Fehlergrenze Positionswert							
System accuracy			-	-	-	-	-
Integral nonlinearity			-	-	-	-	-
Min. DC input voltage	$V_{in,min}$	V	7	4.75	7	7	4.75
Max. DC input voltage	$V_{in,max}$	V	12	5.25	12	12	5.25
Max. current consumption	I_{max}	A	0.08	0.25	0.08	0.08	0.15
Limit frequency	f_{max}	kHz	200	200	200	200	200

Product extensions

Feedback
Absolute value encoder



Speed-dependent safety functions

Feedback			AM20-8V-D2	AM128-8V-K2	AM1024-8V-K2	AS1024-8V-K2
Motor code			EVM	SVM	SVM	SVS
Max. permissible angular acceleration						
MCS06	α	rad/s^2	240000	970000		
MCS09 ... MCS19	α	rad/s^2	240000	240000		
Functional safety						
IEC 61508			SIL2			
EN 13849-1			Up to Performance Level d			



Blower

The forced ventilation motors are cooled as a standard by means of a separate axial fan.

Rated data 50 Hz

Motor series			MCS					
Size			12		14		19	
Degree of protection			IP54					
Number of phases			1	1	1	1	1	1
Rated voltage	V _{rated}	V	115	230	115	230	115	230
Rated power	P _{rated}	kW	0.018	0.019	0.042	0.05	0.055	0.055
Rated current	I _{rated}	A	0.22	0.12	0.56	0.3	0.5	0.25

Rated data 60 Hz

Motor series			MCS					
Size			12		14		19	
Degree of protection			IP54					
Number of phases			1	1	1	1	1	1
Rated voltage	V _{rated}	V	115	230	115	230	115	230
Rated power	P _{rated}	kW	0.018	0.019	0.044	0.044	0.07	0.065
Rated current	I _{rated}	A	0.22	0.12	0.56	0.25	0.61	0.29



Temperature monitoring

Thermal detectors PT1000

The thermal detector used continuously monitors the motor temperature. The temperature information is transferred to the inverter using the system cable of the feedback system. **This is not a full motor protection!**

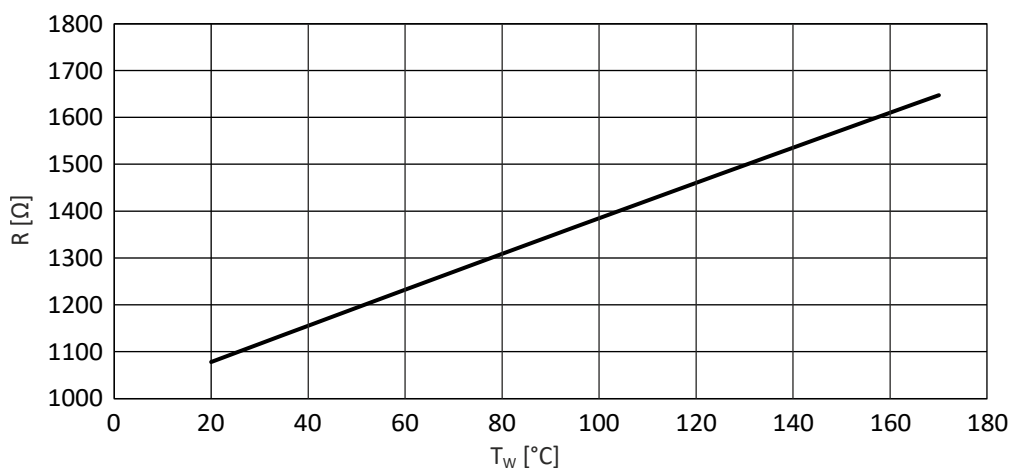
This makes it possible to determine the motor temperature in the permissible operating range with great accuracy.

MCS06

In case of this motor, the winding temperature of a winding phase is monitored with a thermal sensor PT1000.



When supplying the thermal sensors with a measurement current of 1 mA, the connection between the temperature and the resistance measured applies.



R Resistance
 T_w Winding temperature

MCS09 ... 19

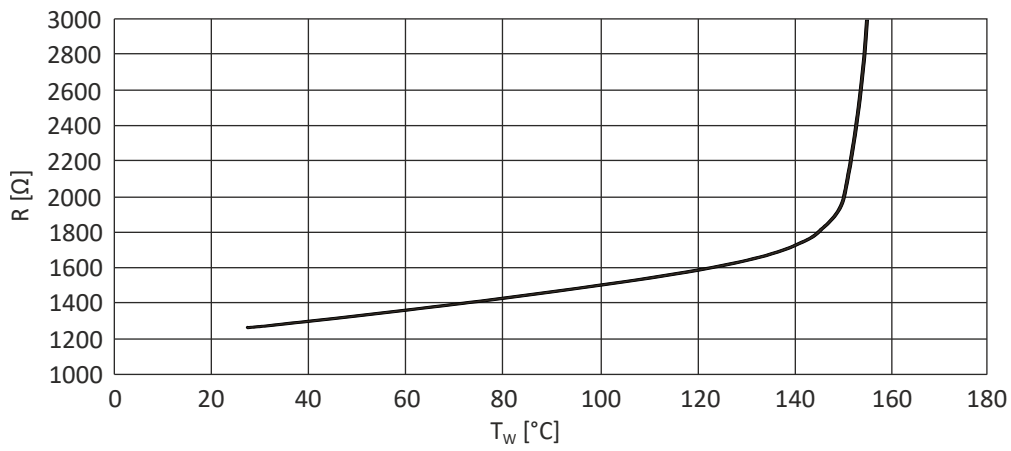
These motors are monitored via three thermal sensors connected in series (1x PT1000 + 2x PTC 150 °C). This makes it possible to determine the motor temperature in the permissible operating range and at the same time execute the overtemperature response configured in the controller in one of the winding strands.



The three thermal sensors connected in series are identified on the nameplate by the short designation "PT1k+2PTC".



When supplying the thermal sensors with a measurement current of 1 mA, the connection between the temperature and the resistance measured applies.



R Resistance
 T_w Winding temperature



Product codes

Gearbox product code

Example		G	50	A	H	045	M	V	C	R	2	C	1A
Product type	Gearboxes	G											
Product family			50										
Generation				A B									
Gearbox type	Helical gearbox				H								
Output torque	45 Nm					045							
	100 Nm					110							
	140 Nm					114							
	210 Nm					121							
	320 Nm					132							
	450 Nm					145							
	600 Nm					160							
	850 Nm					185							
	1500 Nm					215							
	3000 Nm					230							
	5000 Nm					250							
	8000 Nm					280							
	14000 Nm					314							
Type of construction	Geared motor						M						
	Gearboxes						N						
Shaft type	Solid shaft with featherkey							V					
	Solid shaft without featherkey							G					
Housing type	Foot mounting + centering								A				
	Foot mounting								B				
	With centering								C				
Flange mounting	Without flange									R			
	Flange with through holes									K			
	Reinforced flange with through holes									P			
Number of stages	2-stage										2		
	3-stage										3		
	4-stage										4		
Motor mounting	Integrated motor											C	
	IEC adapter with jaw coupling											N T	
	IEC adapter with plug-in hollow shaft											H	
	NEMA adapter with jaw coupling											A	
	NEMA adapter with plug-in hollow shaft											B	
	Servomotor adapter with plug-in hollow shaft											S	
	Servomotor adapter with jaw coupling											E D G	
Drive size													1A ... □H 08 ... 82



Product code of MCS synchronous servo motor

Example		M	C	S	06	C	41	-	RS0	B0
Meaning	Variant	Product code								
Product family	Motor	M								
Type	Compact servo motors		C							
Version	Synchronous			S						
Motor frame size	Square dimension 62 mm				06					
	Square dimension 89 mm				09					
	Square dimension 116 mm				12					
	Square dimension 142 mm				14					
	Square dimension 192 mm				19					
Overall length						C ... P				
Rated speed	rpm x 100						11 ... 60			
Inverter mains connection	3 x 230 V							L		
	3 x 400 V							-		
Feedback	SinCos absolute value encoder, single-turn, EnDat AS2048-5V-E									ECN
	Digital absolute value encoder, multi-turn, Hiperface DSL® AM20-8V-D									EKM
	SinCos absolute value encoder, multi-turn, EnDat AM32-5V-E									EQI
	SinCos absolute value encoder, multi-turn, EnDat AM2048-5V-E									EQN
	Digital safety absolute value encoder, multi-turn, Hiperface DSL® AM20-8V-D2									EVM
	Resolver p=1									RS0
	Safety resolver, p=1 RV03									RV0
	SinCos absolute value encoder, multi-turn, Hiperface® AM128-8V-H									SKM
	SinCos absolute value encoder, multi-turn, Hiperface® AM1024-8V-H									SRM
	SinCos absolute value encoder, single-turn, Hiperface® AS1024-8V-H									SRS
	SinCos safety absolute value encoder, multi-turn, Hiperface® AM128-8V-K2									SVM
	SinCos safety absolute value encoder, multi-turn, Hiperface® AM1024-8V-K2									SVM
	SinCos safety absolute value encoder, single-turn, Hiperface® AS1024-8V-K2									SVS
Brake	Without brake									B0
	Permanent magnet brake DC 24V									P1
	Permanent magnet brake DC 24V, reinforced									P2

Motor data

Rated data

Inverter mains connection 400 V, Self-ventilated motors



Motor data

Rated data

Inverter mains connection 400 V, Self-ventilated motors

Motor			MCS 06C60-	MCS 06C41-	MCS 06F60-	MCS 06F41-	MCS 06I60-	MCS 06I41-
Standstill torque	M_0	Nm	0.800	0.800	1.50	1.50	2.00	2.00
Rated torque	M_{rated}	Nm	0.500	0.600	0.900	1.20	1.20	1.50
Max. torque	M_{max}	Nm	2.40	2.40	4.40	4.40	6.20	6.20
Rated speed	n_{rated}	rpm	6000	4050	6000	4050	6000	4050
Max. speed	n_{max}	rpm	8000	8000	8000	8000	8000	8000
Rated power	P_{rated}	kW	0.31	0.25	0.57	0.51	0.75	0.64
Standstill current	I_0	A	2.50	1.30	2.90	1.50	3.40	1.70
Rated current	I_{rated}	A	2.40	1.30	2.50	1.50	2.90	1.60
Max. current	I_{max}	A	10.8	5.40	10.5	5.30	11.8	5.90
Rated voltage	V_{rated}	V	135	225	180	320	190	325
Rated frequency	f_{rated}	Hz	400	270	400	270	400	270
Moment of inertia	J	kgcm ²	0.140	0.140	0.220	0.220	0.300	0.300
Efficiency	η		0.7	0.65	0.81	0.77	0.84	0.81
Torque constant	$Kt_{0.150}$	Nm/A	0.320	0.615	0.517	1.00	0.588	1.18
Voltage constant	$KE_{LL 150}$	V/(1000/min) °C	17.89	35.79	29.33	58.76	35.88	71.77
Stator terminal resistance	$R_{UV 20}$	Ω	6.8	27	5.4	21.8	4.6	18.8
Stator terminal resistance	$R_{UV 150}$	Ω	10.248	40.689	8.138	32.853	6.932	28.332
Stator inductance	L	mH	12.8	51.0	15.9	63.5	15.1	60.2
Weight	m	kg	2.30	2.30	2.70	2.70	3.40	3.40



Motor data

Rated data
Inverter mains connection 400 V, Self-ventilated motors

Motor			MCS 09D60-	MCS 09D41-	MCS 09F60-	MCS 09H60-	MCS 09F38-	MCS 09L51-
Standstill torque	M_0	Nm	3.30	3.30	4.20	5.50	4.20	7.50
Rated torque	M_{rated}	Nm	1.80	2.30	2.40	3.00	3.10	3.60
Max. torque	M_{max}	Nm	9.50	9.50	15.0	20.0	15.0	32.0
Rated speed	n_{rated}	rpm	6000	4050	6000	6000	3750	5100
Max. speed	n_{max}	rpm	7000	7000	7000	7000	7000	7000
Rated power	P_{rated}	kW	1.1	1	1.5	1.9	1.2	1.9
Standstill current	I_0	A	5.30	2.60	6.00	8.50	3.00	12.4
Rated current	I_{rated}	A	3.80	2.30	4.50	6.00	2.50	6.90
Max. current	I_{max}	A	20.0	10.0	30.0	40.0	15.0	64.0
Rated voltage	V_{rated}	V	210	320	230	190	330	180
Rated frequency	f_{rated}	Hz	400	270	400	400	250	340
Moment of inertia	J	kgcm ²	1.10	1.10	1.50	1.90	1.50	2.80
Efficiency	η		0.87	0.82	0.9	0.91	0.9	0.91
Torque constant	$K_{t_{0.150}}$ °C	Nm/A	0.623	1.27	0.700	0.647	1.40	0.605
Voltage constant	$K_{E_{LL 150}}$ °C	V/ (1000/ min)	34.81	69.62	39.01	36.96	78.02	35.1
Stator terminal resistance	$R_{UV 20}$ °C	Ω	1.8	7	1.2	0.8	5.2	0.44
Stator terminal resistance	$R_{UV 150}$ °C	Ω	2.713	10.549	1.808	1.206	7.836	0.663
Stator inductance	L	mH	6.30	25.1	6.15	4.02	24.6	2.50
Weight	m	kg	4.80	4.80	5.70	6.60	5.70	8.40

Motor data

Rated data

Inverter mains connection 400 V, Self-ventilated motors



Motor			MCS 09H41-	MCS 09L41-	MCS 12D41-	MCS 12D20-	MCS 12H35-	MCS 12H15-
Standstill torque	M_0	Nm	5.50	7.50	6.40	6.40	11.4	11.4
Rated torque	M_{rated}	Nm	3.80	4.50	4.30	5.50	7.50	10.0
Max. torque	M_{max}	Nm	20.0	32.0	18.0	18.0	29.0	29.0
Rated speed	n_{rated}	rpm	4050	4050	4050	1950	3525	1500
Max. speed	n_{max}	rpm	7000	7000	6000	6000	6000	6000
Rated power	P_{rated}	kW	1.6	1.9	1.8	1.1	2.8	1.6
Standstill current	I_0	A	4.30	6.20	5.50	2.70	8.20	4.10
Rated current	I_{rated}	A	3.40	4.20	4.50	2.60	5.70	3.80
Max. current	I_{max}	A	20.0	32.0	20.0	10.0	24.0	12.0
Rated voltage	V_{rated}	V	300	295	310	345	325	300
Rated frequency	f_{rated}	Hz	270	270	270	130	235	100
Moment of inertia	J	kgcm ²	1.90	2.80	4.00	4.00	7.30	7.30
Efficiency	η		0.91	0.91	0.84	0.85	0.91	0.88
Torque constant	$K_{t_{0.150}}$ °C	Nm/A	1.28	1.21	1.16	2.37	1.39	2.78
Voltage constant	$K_{E_{LL 150}}$ °C	V/ (1000/ min)	74.02	70.1	67.07	133.95	84.58	169.15
Stator terminal resistance	$R_{UV 20}$ °C	Ω	3.2	1.8	2.2	8.7	1.4	5.8
Stator terminal resistance	$R_{UV 150}$ °C	Ω	4.822	2.713	3.315	13.111	2.11	8.741
Stator inductance	L	mH	16.1	9.90	13.0	52.2	10.5	42.1
Weight	m	kg	6.60	8.40	7	7	10.1	10.1



Motor data

Rated data
Inverter mains connection 400 V, Self-ventilated motors

Motor			MCS 12L41-	MCS 12L20-	MCS 14D36-	MCS 14D15-	MCS 14H32-	MCS 14H15-
Standstill torque	M_0	Nm	15.0	15.0	11.0	11.0	21.0	21.0
Rated torque	M_{rated}	Nm	11.0	13.5	7.50	9.20	14.0	16.0
Max. torque	M_{max}	Nm	56.0	56.0	29.0	29.0	55.0	55.0
Rated speed	n_{rated}	rpm	4050	1950	3600	1500	3225	1500
Max. speed	n_{max}	rpm	6000	6000	6000	6000	6000	6000
Rated power	P_{rated}	kW	4.7	2.8	2.8	1.45	4.7	2.5
Standstill current	I_0	A	12.4	6.20	10.0	5.00	16.9	8.50
Rated current	I_{rated}	A	10.2	5.90	7.50	4.50	11.9	6.60
Max. current	I_{max}	A	56.0	28.0	33.0	16.5	51.5	25.8
Rated voltage	V_{rated}	V	300	330	295	305	295	325
Rated frequency	f_{rated}	Hz	270	130	240	100	215	100
Moment of inertia	J	kgcm ²	10.6	10.6	8.10	8.10	14.2	14.2
Efficiency	η		0.91	0.9	0.92	0.88	0.93	0.92
Torque constant	$K_{t_{0.150}}$ °C	Nm/A	1.21	2.42	1.10	2.20	1.24	2.47
Voltage constant	$K_{E_{LL 150}}$ °C	V/ (1000/ min)	72.94	145.69	62.77	126.13	74.6	149.6
Stator terminal resistance	$R_{UV 20}$ °C	Ω	0.6	2.2	1	4	0.52	2.08
Stator terminal resistance	$R_{UV 150}$ °C	Ω	0.904	3.315	1.507	6.028	0.784	3.135
Stator inductance	L	mH	5.45	21.8	12.5	49.8	8.53	34.1
Weight	m	kg	13.2	13.2	11.4	11.4	16.2	16.2

Motor data

Rated data

Inverter mains connection 400 V, Self-ventilated motors



Motor			MCS 14L32-	MCS 14P32-	MCS 14L15-	MCS 14P14-	MCS 19F30-	MCS 19F14-
Standstill torque	M_0	Nm	28.0	37.0	28.0	37.0	32.0	32.0
Rated torque	M_{rated}	Nm	17.2	21.0	23.0	30.0	21.0	27.0
Max. torque	M_{max}	Nm	77.0	105	77.0	105	86.0	86.0
Rated speed	n_{rated}	rpm	3225	3225	1500	1350	3000	1425
Max. speed	n_{max}	rpm	6000	6000	6000	6000	4000	4000
Rated power	P_{rated}	kW	5.8	7.1	3.6	4.2	6.6	4
Standstill current	I_0	A	24.0	24.3	12.0	12.2	19.8	9.90
Rated current	I_{rated}	A	15.0	15.6	9.70	10.8	14.0	8.60
Max. current	I_{max}	A	74.5	92.0	37.3	46.0	62.5	31.3
Rated voltage	V_{rated}	V	275	315	315	340	300	335
Rated frequency	f_{rated}	Hz	215	215	100	90	200	95
Moment of inertia	J	kgcm ²	23.4	34.7	23.4	34.7	65.0	65.0
Efficiency	η		0.93	0.93	0.9	0.9	0.93	0.92
Torque constant	$K_{t_{0.150}}$ °C	Nm/A	1.17	1.52	2.33	3.03	1.62	3.23
Voltage constant	$K_{E_{LL 150}}$ °C	V/ (1000/ min)	74.5	87.41	148.62	175.02	95.04	190.66
Stator terminal resistance	$R_{UV 20}$ °C	Ω	0.4	0.28	1.2	1.2	0.32	1.3
Stator terminal resistance	$R_{UV 150}$ °C	Ω	0.603	0.422	1.808	1.808	0.482	1.959
Stator inductance	L	mH	5.51	5.99	22.0	23.9	5.20	20.8
Weight	m	kg	20.8	25.6	20.8	25.6	24	24



Motor data

Rated data
Inverter mains connection 400 V, Self-ventilated motors

Motor			MCS 19J30-	MCS 19P30-	MCS 19J14-	MCS 19P14-
Standstill torque	M_0	Nm	51.0	64.0	51.0	64.0
Rated torque	M_{rated}	Nm	29.0	32.0	40.0	51.0
Max. torque	M_{max}	Nm	129	190	129	190
Rated speed	n_{rated}	rpm	3000	3000	1425	1350
Max. speed	n_{max}	rpm	4000	4000	4000	4000
Rated power	P_{rated}	kW	9.1	10	6	7.2
Standstill current	I_0	A	30.5	34.9	15.2	17.5
Rated current	I_{rated}	A	18.5	19.0	12.3	14.3
Max. current	I_{max}	A	89.6	120	44.8	60.0
Rated voltage	V_{rated}	V	300	320	330	330
Rated frequency	f_{rated}	Hz	200	200	95	90
Moment of inertia	J	kgcm ²	105	160	105	160
Efficiency	η		0.93	0.93	0.92	0.92
Torque constant	$K_{t_{0.150}}$ °C	Nm/A	1.67	1.83	3.36	3.66
Voltage constant	$K_{E_{LL 150}}$ °C	V/ (1000/ min)	97.29	105.6	194.57	211.19
Stator terminal resistance	$R_{UV 20}$ °C	Ω	0.16	0.14	0.66	0.54
Stator terminal resistance	$R_{UV 150}$ °C	Ω	0.241	0.211	0.995	0.814
Stator inductance	L	mH	3.20	2.40	12.8	9.60
Weight	m	kg	31	41	31	41

Motor data

Rated data

Inverter mains connection 400 V, Forced ventilated motors



Inverter mains connection 400 V, Forced ventilated motors

Motor			MCS 12H34-	MCS 12H14-	MCS 12L39-	MCS 12L17-	MCS 12D35-	MCS 12D17-
Standstill torque	M_0	Nm	12.8	12.8	19.0	19.0	7.50	7.50
Rated torque	M_{rated}	Nm	10.5	12.0	14.0	17.0	6.00	7.00
Max. torque	M_{max}	Nm	29.0	29.0	56.4	56.4	17.7	17.7
Rated speed	n_{rated}	rpm	3375	1350	3900	1650	3525	1650
Max. speed	n_{max}	rpm	6000	6000	6000	6000	6000	6000
Rated power	P_{rated}	kW	3.7	1.7	5.7	2.9	2.2	1.2
Standstill current	I_0	A	8.50	4.60	14.4	7.20	6.40	3.20
Rated current	I_{rated}	A	7.50	4.10	11.7	6.70	5.60	3.00
Max. current	I_{max}	A	24.0	12.0	57.0	28.0	20.0	10.0
Rated voltage	V_{rated}	V	320	310	295	300	300	330
Rated frequency	f_{rated}	Hz	225	90	260	110	235	110
Moment of inertia	J	kgcm ²	7.30	7.30	10.6	10.6	4.00	4.00
Efficiency	η		0.86	0.8	0.94	0.9	0.85	0.75
Torque constant	$K_{t0\ 150}$ °C	Nm/A	1.51	2.78	1.32	2.64	1.17	2.34
Voltage constant	$K_{eLL\ 150}$ °C	V/ (1000/ min)	84.58	169.15	72.94	145.69	67.07	133.95
Stator terminal resistance	$R_{UV\ 20}$ °C	Ω	1.4	5.8	0.6	2.2	4.4	17.4
Stator terminal resistance	$R_{UV\ 150}$ °C	Ω	2.11	8.741	0.904	3.315	6.631	26.222
Stator inductance	L	mH	10.5	42.1	5.45	21.8	13.0	52.2
Weight	m	kg	12.2	12.2	15.3	15.3	9.1	9.1



Motor data

Rated data

Inverter mains connection 400 V, Forced ventilated motors

Motor			MCS 14D30-	MCS 14D14-	MCS 14H28-	MCS 14H12-	MCS 14L30-	MCS 14L14-
Standstill torque	M_0	Nm	12.5	12.5	25.5	25.5	34.5	34.5
Rated torque	M_{rated}	Nm	10.5	12.0	20.5	23.5	25.5	30.5
Max. torque	M_{max}	Nm	29.0	29.0	54.8	54.8	77.1	77.1
Rated speed	n_{rated}	rpm	3000	1350	2775	1200	3000	1350
Max. speed	n_{max}	rpm	6000	6000	6000	6000	6000	6000
Rated power	P_{rated}	kW	3.3	1.7	6	3	8	4.3
Standstill current	I_0	A	11.4	5.70	18.4	9.30	26.7	13.4
Rated current	I_{rated}	A	9.70	5.40	15.0	8.30	20.8	11.8
Max. current	I_{max}	A	33.0	16.5	51.5	25.8	74.5	37.3
Rated voltage	V_{rated}	V	325	345	325	335	310	335
Rated frequency	f_{rated}	Hz	200	90	185	80	200	90
Moment of inertia	J	kgcm ²	8.10	8.10	14.2	14.2	23.4	23.4
Efficiency	η		0.92	0.84	0.93	0.87	0.92	0.88
Torque constant	$K_{t_{0.150}}$	Nm/A	1.10	2.19	1.39	2.74	1.29	2.57
	°C							
Voltage constant	$K_{E_{LL 150}}$	V/(1000/min)	62.77	126.13	74.6	149.6	74.5	148.62
	°C							
Stator terminal resistance	$R_{UV 20}$	Ω	1	4	0.52	2.08	0.4	1.2
	°C							
Stator terminal resistance	$R_{UV 150}$	Ω	1.507	6.028	0.784	3.135	0.603	1.808
	°C							
Stator inductance	L	mH	12.5	49.8	8.53	34.1	5.51	22.0
Weight	m	kg	15.2	15.2	20.2	20.2	24.7	24.7

Motor data

Rated data

Inverter mains connection 400 V, Forced ventilated motors



Motor			MCS 14P26-	MCS 14P11-	MCS 19F29-	MCS 19F12-	MCS 19J29-	MCS 19P29-
Standstill torque	M_0	Nm	43.5	43.5	41.5	41.5	70.5	86.0
Rated torque	M_{rated}	Nm	33.0	42.0	32.5	38.0	50.5	53.0
Max. torque	M_{max}	Nm	105	105	86.0	86.0	129	190
Rated speed	n_{rated}	rpm	2625	1050	2850	1200	2850	2850
Max. speed	n_{max}	rpm	6000	6000	4000	4000	4000	4000
Rated power	P_{rated}	kW	9.1	4.6	9.7	4.8	15.1	15.8
Standstill current	I_0	A	28.3	14.1	24.5	12.2	40.6	44.7
Rated current	I_{rated}	A	21.9	13.4	20.1	11.3	31.0	29.5
Max. current	I_{max}	A	92.0	46.0	62.5	31.3	89.6	120
Rated voltage	V_{rated}	V	325	330	320	320	315	315
Rated frequency	f_{rated}	Hz	175	70	190	80	190	190
Moment of inertia	J	kgcm ²	34.7	34.7	65.0	65.0	105	160
Efficiency	η		0.92	0.86	0.95	0.9	0.93	0.93
Torque constant	$K_{t_{0.150}}$ °C	Nm/A	1.54	3.09	1.69	3.40	1.74	1.92
Voltage constant	$K_{E_{LL 150}}$ °C	V/ (1000/ min)	87.41	175.02	95.04	190.66	97.29	105.6
Stator terminal resistance	$R_{UV 20}$ °C	Ω	0.28	1.2	0.32	1.3	0.16	0.14
Stator terminal resistance	$R_{UV 150}$ °C	Ω	0.422	1.808	0.482	1.959	0.241	0.211
Stator inductance	L	mH	5.99	23.9	5.20	20.8	3.20	2.40
Weight	m	kg	29.7	29.7	30	30	37	47



Motor data

Rated data

Inverter mains connection 400 V, Forced ventilated motors

Motor			MCS 19J12-	MCS 19P12-
Standstill torque	M_0	Nm	70.5	86.0
Rated torque	M_{rated}	Nm	62.5	72.0
Max. torque	M_{max}	Nm	129	190
Rated speed	n_{rated}	rpm	1200	1200
Max. speed	n_{max}	rpm	4000	4000
Rated power	P_{rated}	kW	7.9	9
Standstill current	I_0	A	20.3	22.4
Rated current	I_{rated}	A	18.3	21.3
Max. current	I_{max}	A	44.8	60.0
Rated voltage	V_{rated}	V	320	310
Rated frequency	f_{rated}	Hz	80	80
Moment of inertia	J	kgcm ²	105	160
Efficiency	η		0.89	0.9
Torque constant	$K_{t_{0.150}}$ °C	Nm/A	3.47	3.84
Voltage constant	$K_{E_{LL 150}}$ °C	V/ (1000/ min)	194.57	211.19
Stator terminal resistance	$R_{UV 20}$ °C	Ω	0.66	0.54
Stator terminal resistance	$R_{UV 150}$ °C	Ω	0.995	0.814
Stator inductance	L	mH	12.8	9.60
Weight	m	kg	37	47

Motor data

Rated data

Inverter mains connection 230 V, Self-ventilated motors



Inverter mains connection 230 V, Self-ventilated motors

Motor			MCS 06C60L	MCS 06C41L	MCS 06F60L	MCS 06F41L	MCS 06I60L	MCS 06I41L
Standstill torque	M_0	Nm	0.800	0.800	1.50	1.50	2.00	2.00
Rated torque	M_{rated}	Nm	0.500	0.600	0.900	1.20	1.20	1.50
Max. torque	M_{max}	Nm	2.40	2.40	4.40	4.40	6.20	6.20
Rated speed	n_{rated}	rpm	6000	4050	6000	4050	6000	4050
Max. speed	n_{max}	rpm	8000	8000	8000	8000	8000	8000
Rated power	P_{rated}	kW	0.31	0.25	0.57	0.51	0.75	0.64
Standstill current	I_0	A	4.30	2.50	3.80	2.90	4.20	3.10
Rated current	I_{rated}	A	4.00	2.50	3.40	2.90	3.60	2.90
Max. current	I_{max}	A	18.5	10.8	16.5	10.5	16.0	11.8
Rated voltage	V_{rated}	V	85	125	125	165	150	175
Rated frequency	f_{rated}	Hz	400	270	400	270	400	270
Moment of inertia	J	kgcm ²	0.140	0.140	0.220	0.220	0.300	0.300
Efficiency	η		0.7	0.65	0.82	0.81	0.84	0.81
Torque constant	$K_{t0\ 150}$	Nm/A	0.186	0.320	0.395	0.517	0.476	0.645
Voltage constant	$K_{E\ LL\ 150}$	V/(1000/min) °C	12.22	21.02	21.71	33.73	27.87	37.15
Stator terminal resistance	$R_{UV\ 20}$	Ω	2.148	5.926	2.222	5.481	2.519	4.593
Stator terminal resistance	$R_{UV\ 150}$	Ω	3.237	8.93	3.349	8.26	3.796	6.922
Stator inductance	L	mH	4.30	12.8	6.90	15.9	9.30	15.1
Weight	m	kg	2.30	2.30	2.70	2.70	3.40	3.40



Motor data

Rated data
Inverter mains connection 230 V, Self-ventilated motors

Motor			MCS 09D60L	MCS 09D41L	MCS 09F60L	MCS 09H60L	MCS 09F38L	MCS 09H41L
Standstill torque	M_0	Nm	3.30	3.30	4.20	5.50	4.20	5.50
Rated torque	M_{rated}	Nm	1.80	2.30	2.40	3.00	3.10	3.80
Max. torque	M_{max}	Nm	9.50	9.50	15.0	20.0	15.0	20.0
Rated speed	n_{rated}	rpm	6000	4050	6000	6000	3750	4050
Max. speed	n_{max}	rpm	7000	7000	7000	7000	7000	7000
Rated power	P_{rated}	kW	1.1	1	1.5	1.9	1.2	1.6
Standstill current	I_0	A	10.3	5.30	10.5	12.0	6.00	8.50
Rated current	I_{rated}	A	7.00	4.60	7.90	8.00	5.00	6.80
Max. current	I_{max}	A	39.0	20.0	52.5	57.0	30.0	40.0
Rated voltage	V_{rated}	V	110	165	125	145	160	160
Rated frequency	f_{rated}	Hz	400	270	400	400	250	270
Moment of inertia	J	kgcm ²	1.10	1.10	1.50	1.90	1.50	1.90
Efficiency	η		0.87	0.87	0.9	0.91	0.9	0.91
Torque constant	$K_{t_{0.150}}$ °C	Nm/A	0.320	0.623	0.400	0.458	0.700	0.647
Voltage constant	$K_{E_{LL 150}}$ °C	V/ (1000/ min)	17.89	34.81	22.29	26.01	39.01	36.96
Stator terminal resistance	$R_{UV 20}$ °C	Ω	0.45	1.75	0.415	0.356	1.333	0.889
Stator terminal resistance	$R_{UV 150}$ °C	Ω	0.678	2.637	0.625	0.536	2.009	1.34
Stator inductance	L	mH	1.70	6.30	2.00	2.00	6.20	4.00
Weight	m	kg	4.90	4.90	5.80	6.70	5.80	6.70

Motor data

Rated data

Inverter mains connection 230 V, Self-ventilated motors



Motor			MCS 09L41L	MCS 12H15L	MCS 12L20L	MCS 12D41L	MCS 12D20L	MCS 12H30L
Standstill torque	M_0	Nm	7.50	11.4	15.0	6.40	6.40	11.4
Rated torque	M_{rated}	Nm	4.50	10.0	13.5	4.30	5.50	8.00
Max. torque	M_{max}	Nm	32.0	29.0	56.0	18.0	18.0	29.0
Rated speed	n_{rated}	rpm	4050	1500	1950	4050	1950	3000
Max. speed	n_{max}	rpm	7000	6000	6000	6000	6000	6000
Rated power	P_{rated}	kW	1.9	1.6	2.8	1.8	1.1	2.5
Standstill current	I_0	A	12.4	8.20	12.4	10.7	5.50	13.5
Rated current	I_{rated}	A	8.40	7.60	11.8	8.80	5.20	10.5
Max. current	I_{max}	A	64.0	24.0	57.0	40.0	20.0	39.0
Rated voltage	V_{rated}	V	145	158	165	155	175	165
Rated frequency	f_{rated}	Hz	270	100	130	270	130	200
Moment of inertia	J	kgcm ²	2.80	7.30	10.6	4.00	4.00	7.30
Efficiency	η		0.91	0.86	0.9	0.84	0.85	0.87
Torque constant	$K_{t_{0.150}}$ °C	Nm/A	0.605	1.39	1.21	0.598	1.16	0.844
Voltage constant	$K_{E_{LL 150}}$ °C	V/ (1000/ min)	35.1	84.58	75.19	34.22	67.07	51.82
Stator terminal resistance	$R_{UV 20}$ °C	Ω	0.44	1.41	0.548	0.55	2.2	0.489
Stator terminal resistance	$R_{UV 150}$ °C	Ω	0.663	2.125	0.826	0.829	3.315	0.737
Stator inductance	L	mH	2.50	10.5	5.50	3.40	13.0	4.00
Weight	m	kg	8.50	10.2	13.3	7.10	7.10	10.2



Torque characteristics



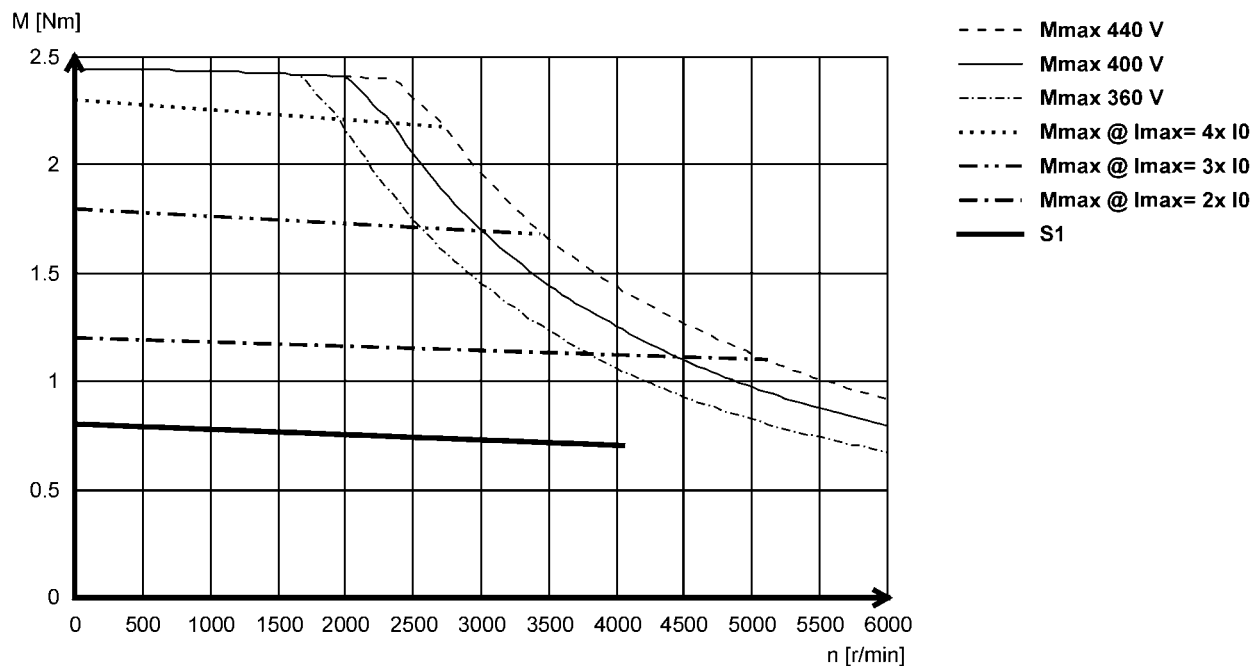
The torque/speed characteristic for your motor/inverter combination can be found on the Internet:

<http://www.lenze.com> → Product Finder → M-n characteristics

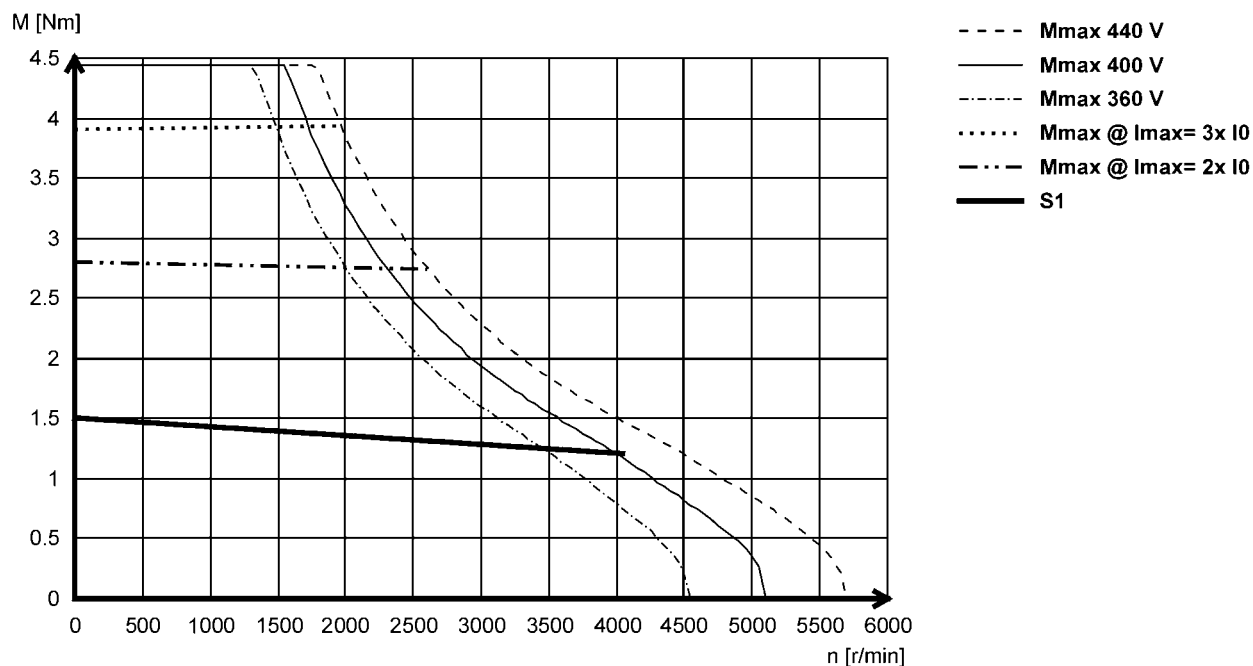


The following data apply to a mains voltage 3 x 400 V of the inverter.

MCS06C41- (self-ventilated)

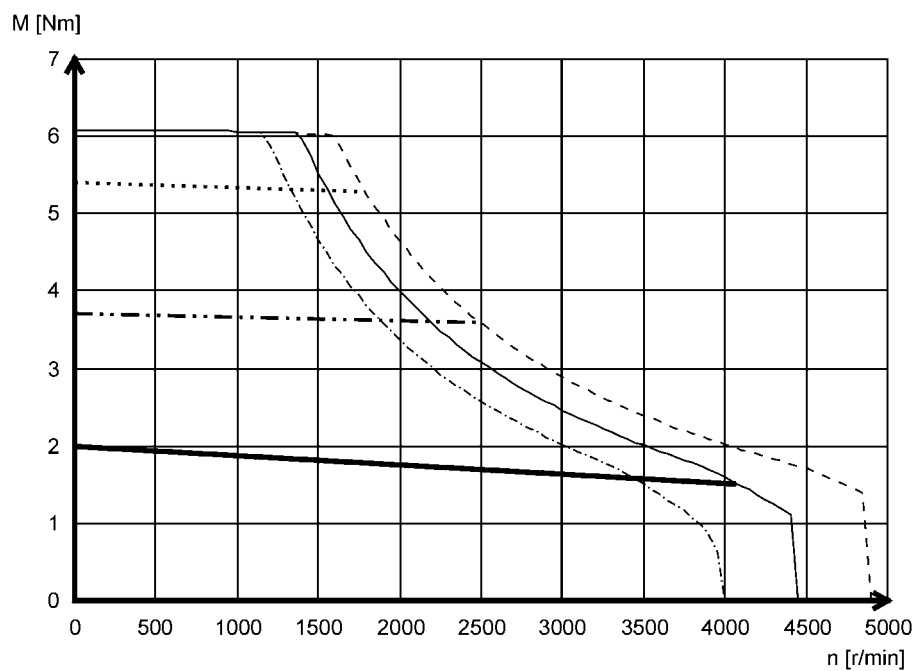


MCS06F41- (self-ventilated)



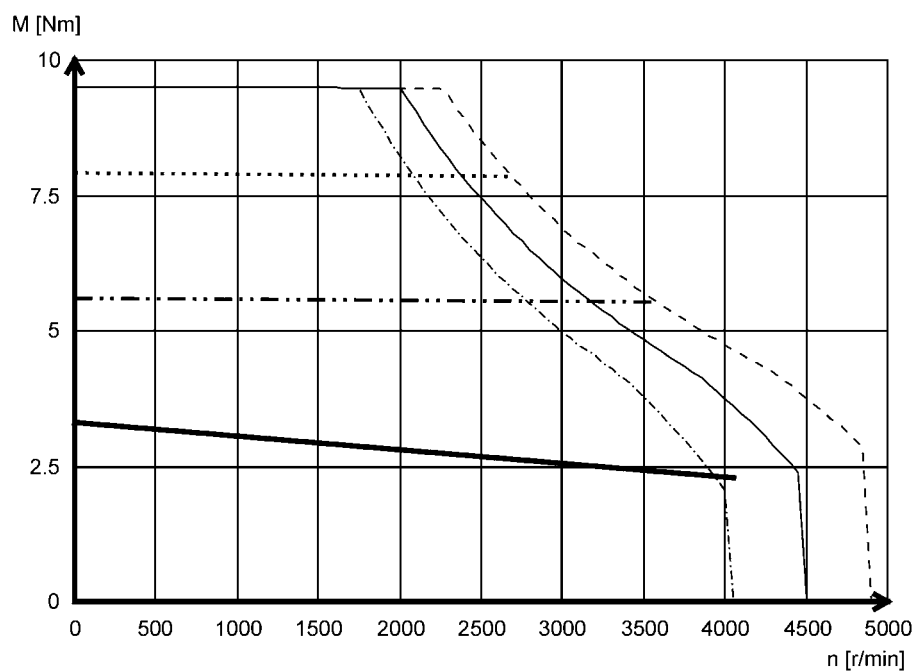


MCS06I41- (self-ventilated)



- Mmax 440 V
- Mmax 400 V
- Mmax 360 V
- Mmax @ Imax= 3x I₀
- · - · - Mmax @ Imax= 2x I₀
- S1

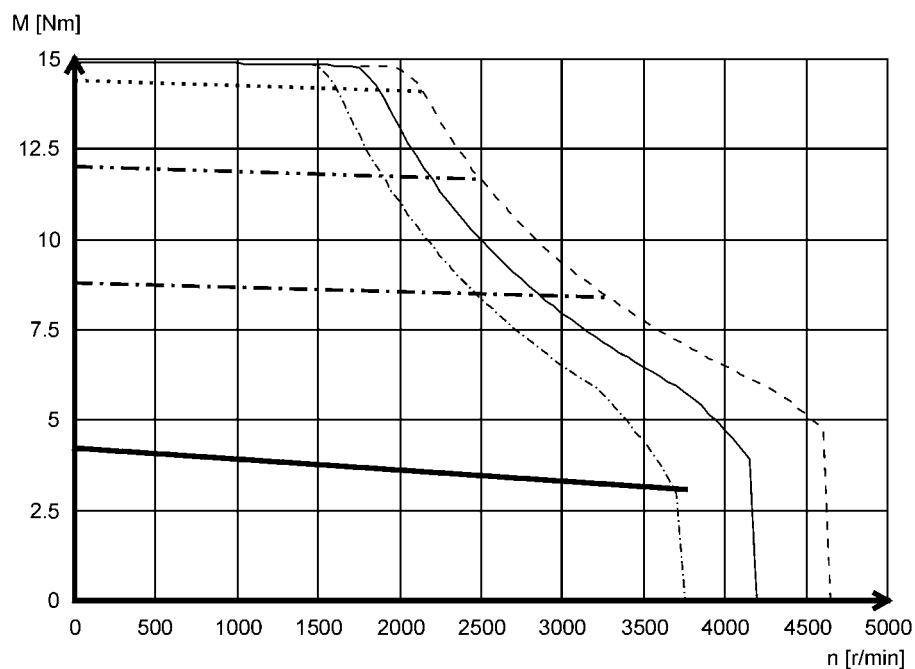
MCS09D41- (self-ventilated)



- Mmax 440 V
- Mmax 400 V
- Mmax 360 V
- Mmax @ Imax= 3x I₀
- · - · - Mmax @ Imax= 2x I₀
- S1

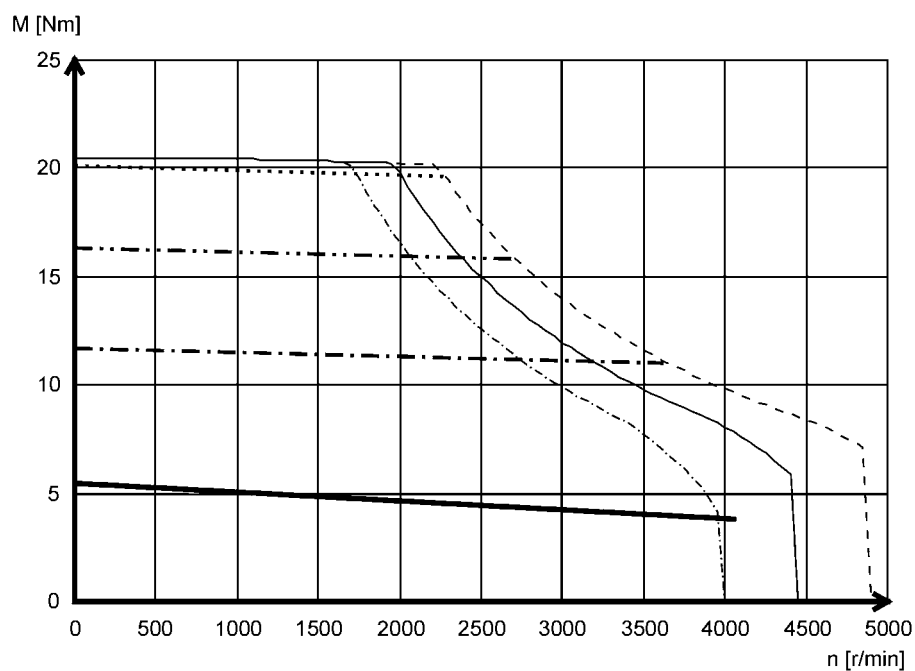


MCS09F38- (self-ventilated)



- Mmax 440 V
- Mmax 400 V
- · - · Mmax 360 V
- Mmax @ Imax= 4x I0
- Mmax @ Imax= 3x I0
- · - · Mmax @ Imax= 2x I0
- S1

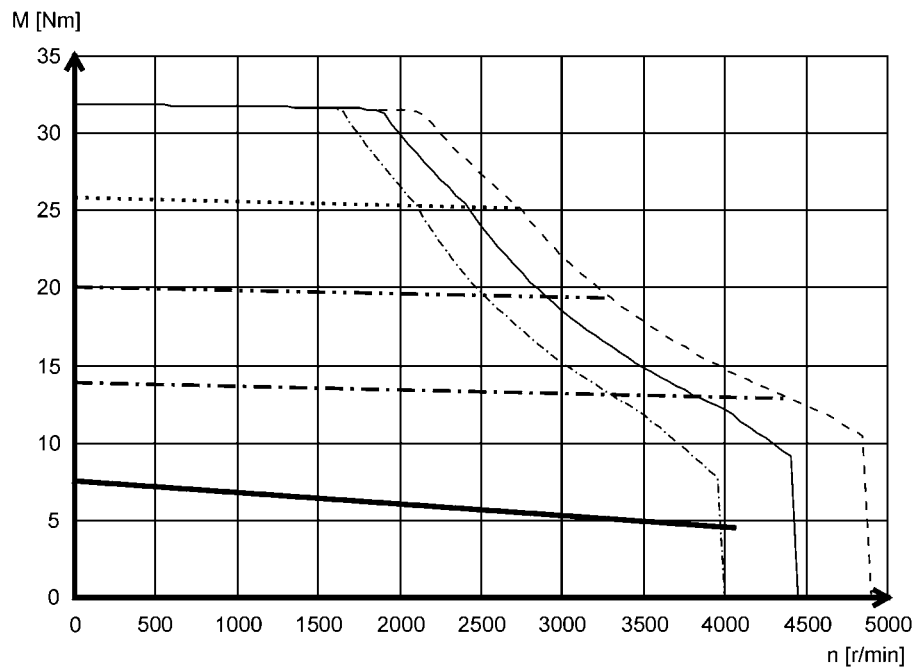
MCS09H41- (self-ventilated)



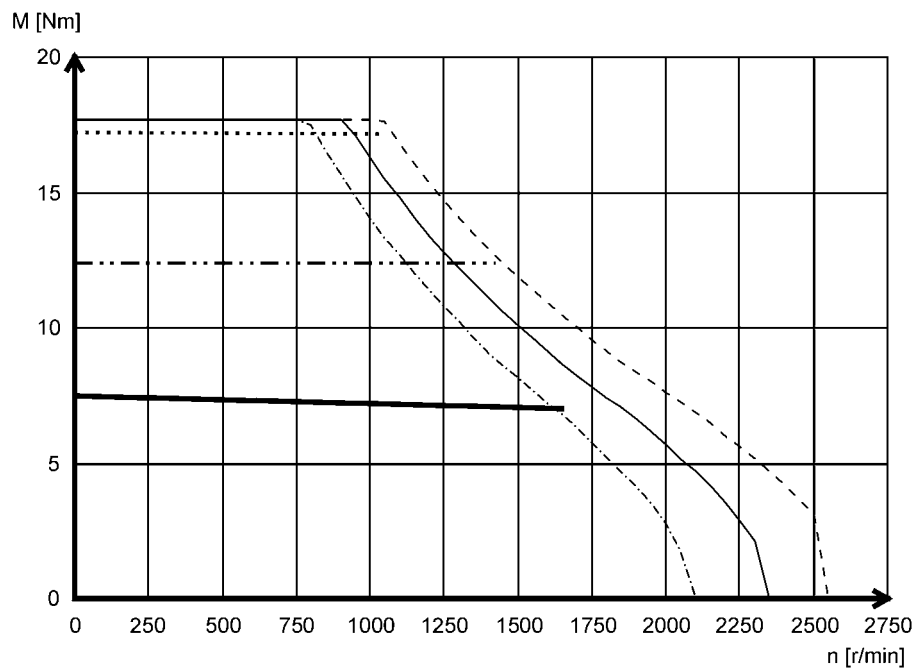
- Mmax 440 V
- Mmax 400 V
- · - · Mmax 360 V
- Mmax @ Imax= 4x I0
- Mmax @ Imax= 3x I0
- · - · Mmax @ Imax= 2x I0
- S1



MCS09L41- (self-ventilated)

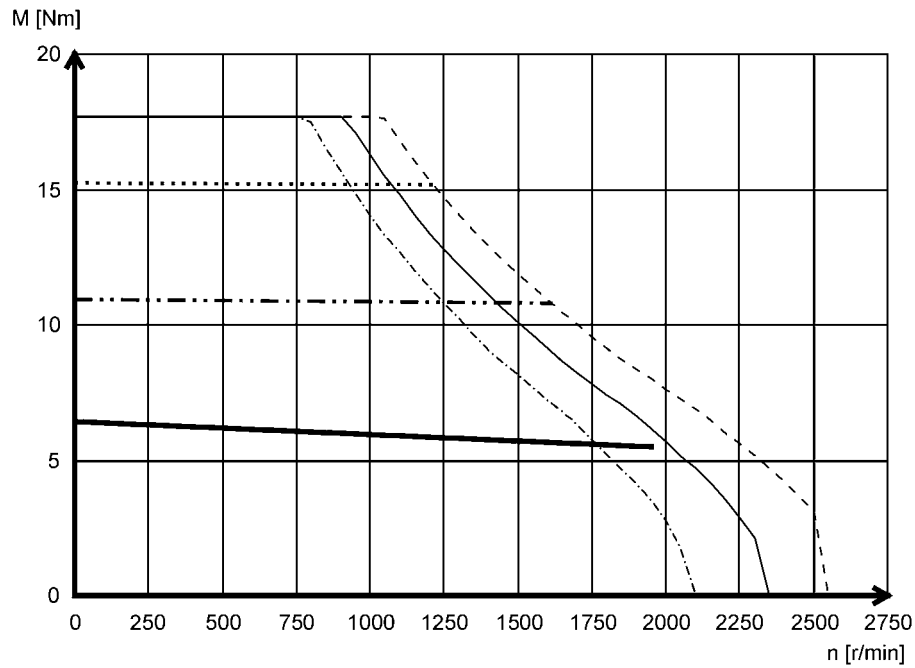


MCS12D17- (forced ventilated)



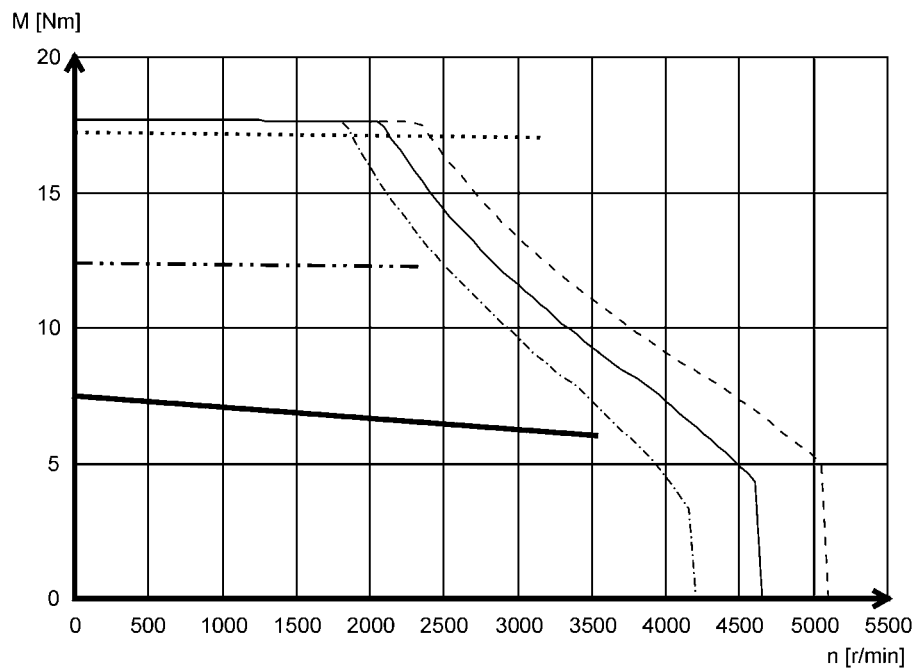


MCS12D20- (self-ventilated)



- Mmax 440 V
- Mmax 400 V
- · - · - Mmax 360 V
- Mmax @ Imax= 3x I₀
- · - · - Mmax @ Imax= 2x I₀
- S1

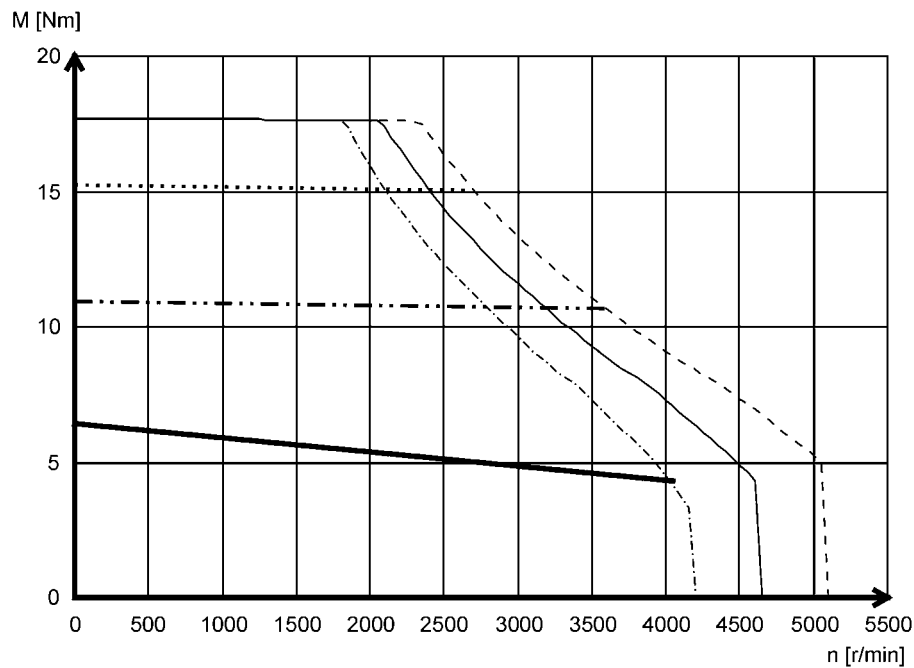
MCS12D35- (forced ventilated)



- Mmax 440 V
- Mmax 400 V
- · - · - Mmax 360 V
- Mmax @ Imax= 3x I₀
- · - · - Mmax @ Imax= 2x I₀
- S1

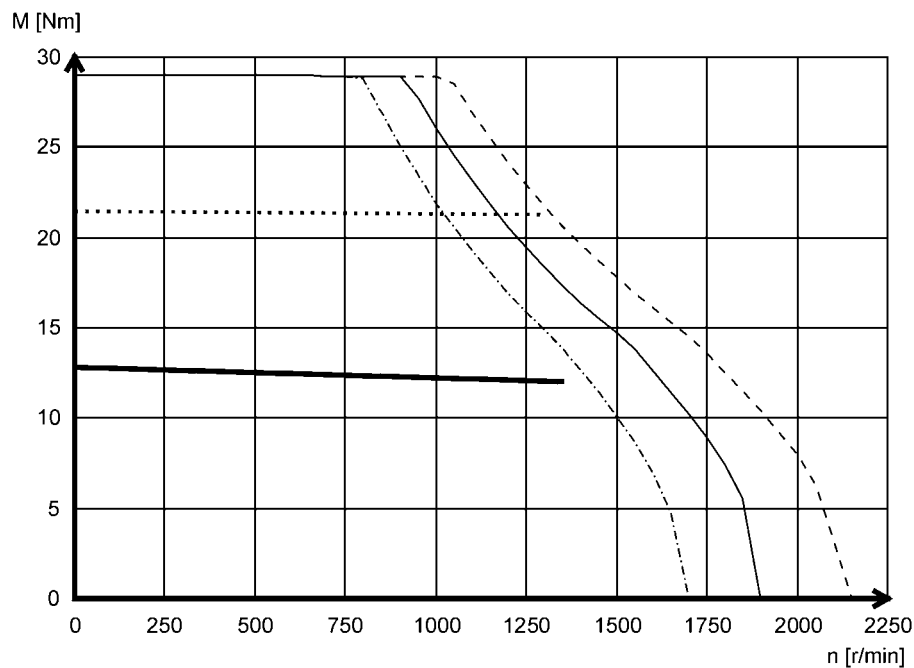


MCS12D41- (self-ventilated)



- Mmax 440 V
- Mmax 400 V
- · - · - Mmax 360 V
- Mmax @ I_{max}= 3x I₀
- · - · - Mmax @ I_{max}= 2x I₀
- S1

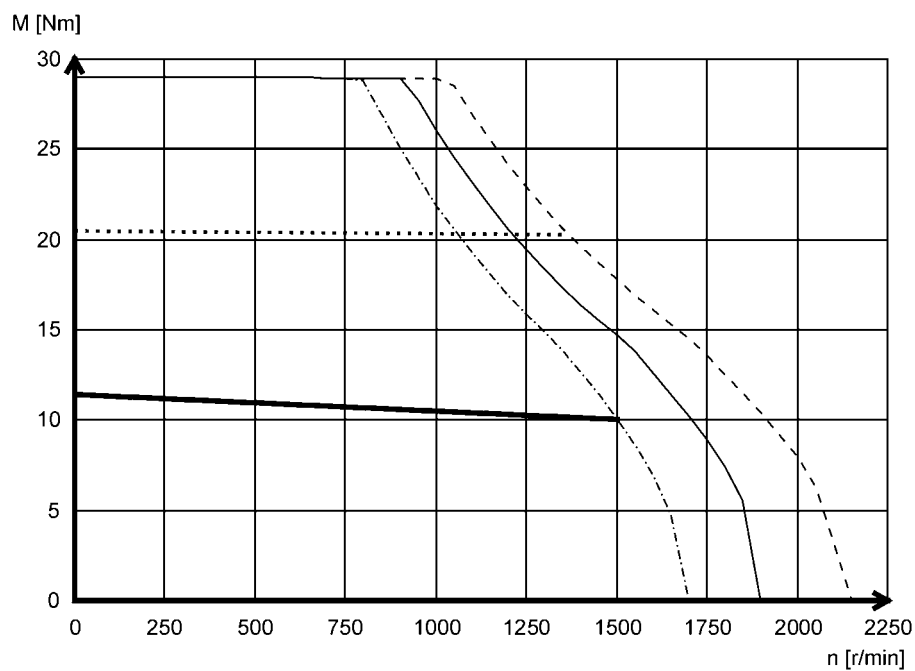
MCS12H14- (forced ventilated)



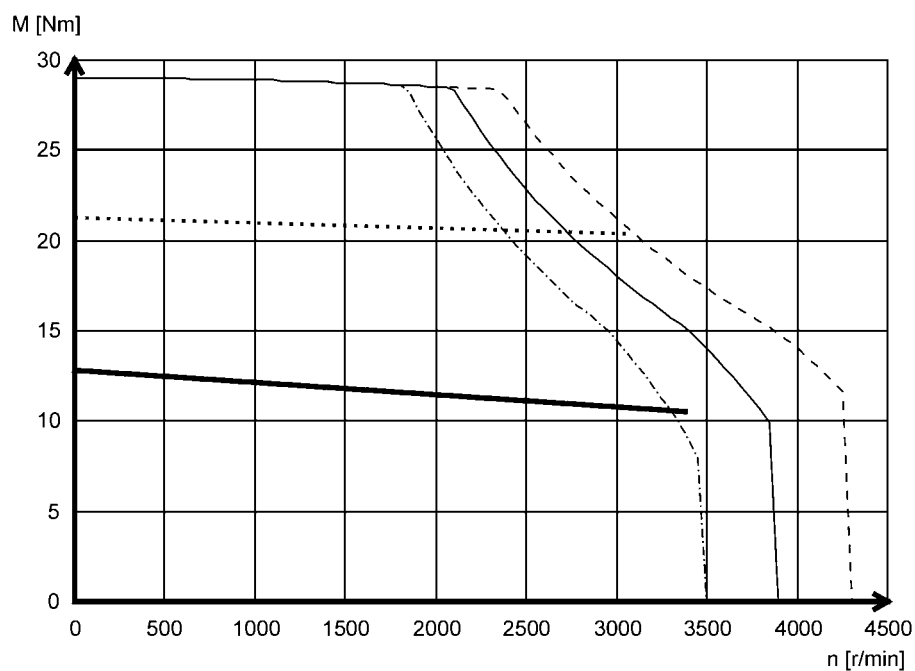
- Mmax 440 V
- Mmax 400 V
- · - · - Mmax 360 V
- Mmax @ I_{max}= 2x I₀
- S1



MCS12H15- (self-ventilated)

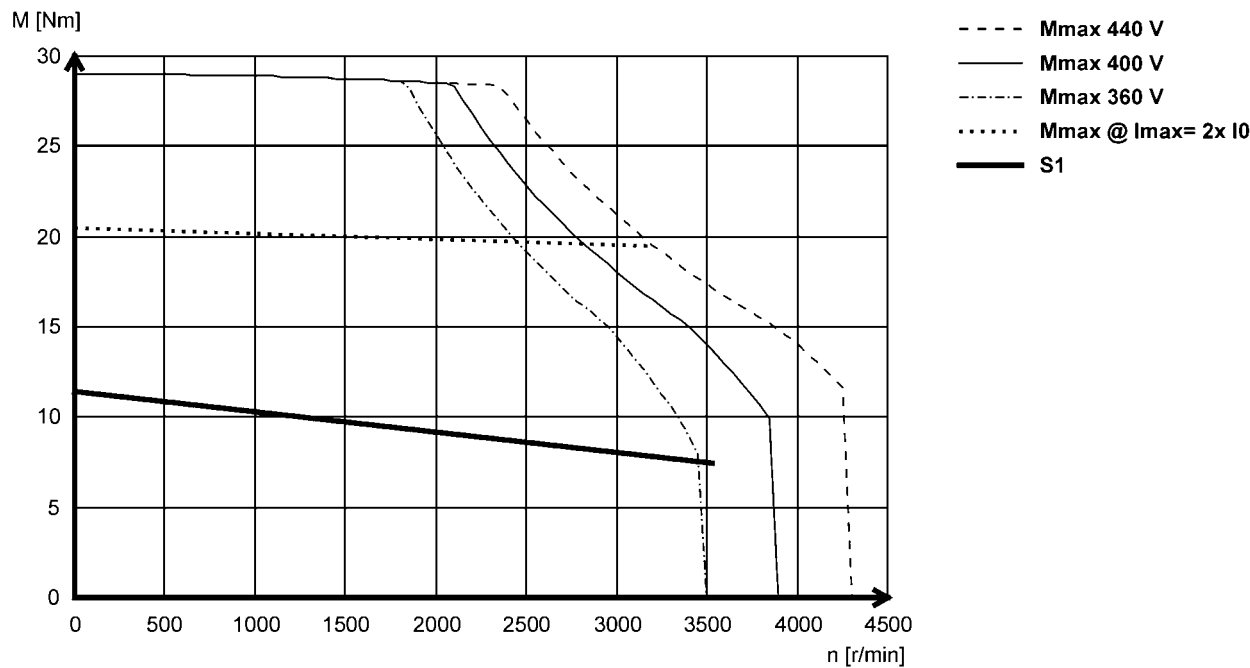


MCS12H34- (forced ventilated)

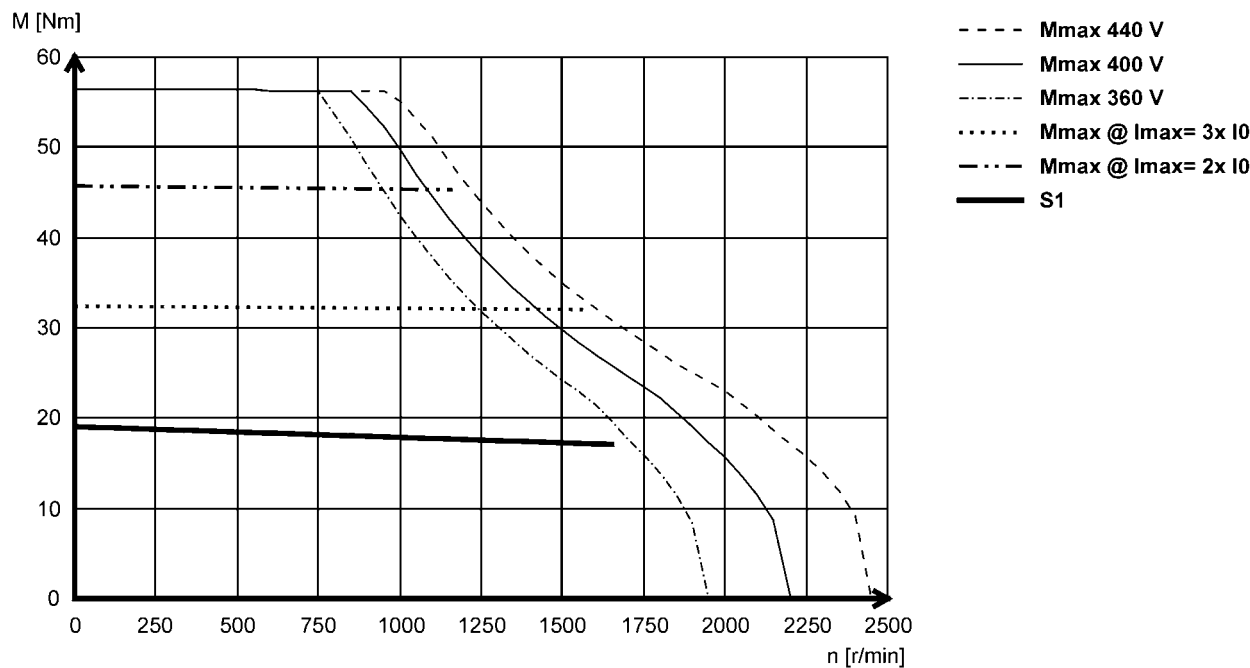




MCS12H35- (self-ventilated)

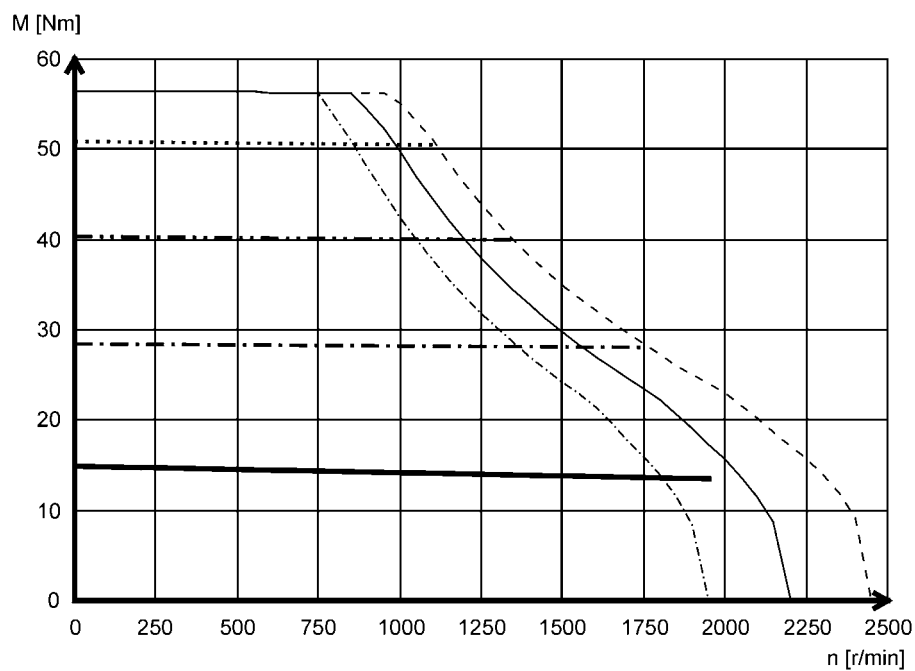


MCS12L17- (forced ventilated)

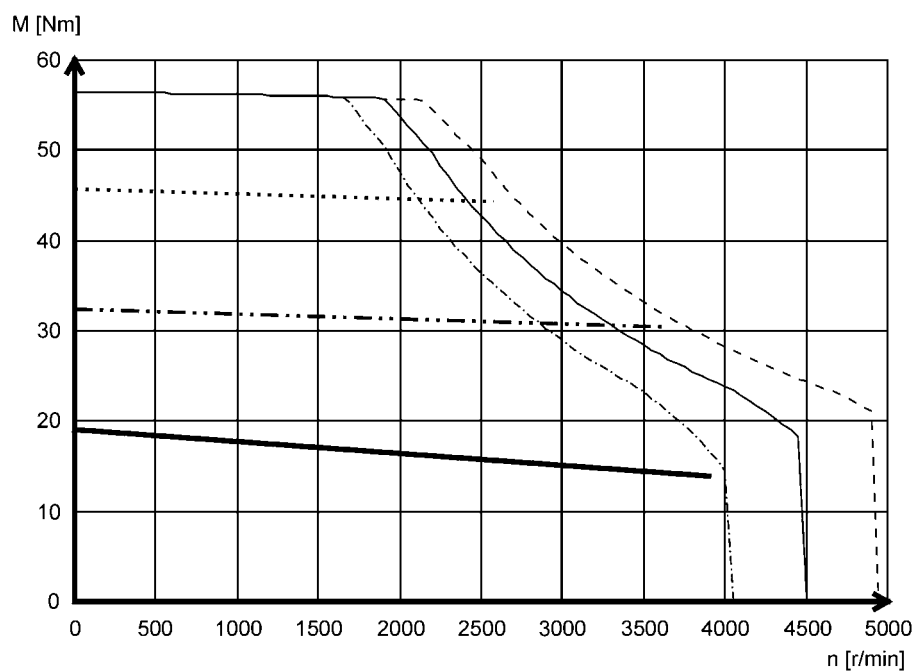




MCS12L20- (self-ventilated)

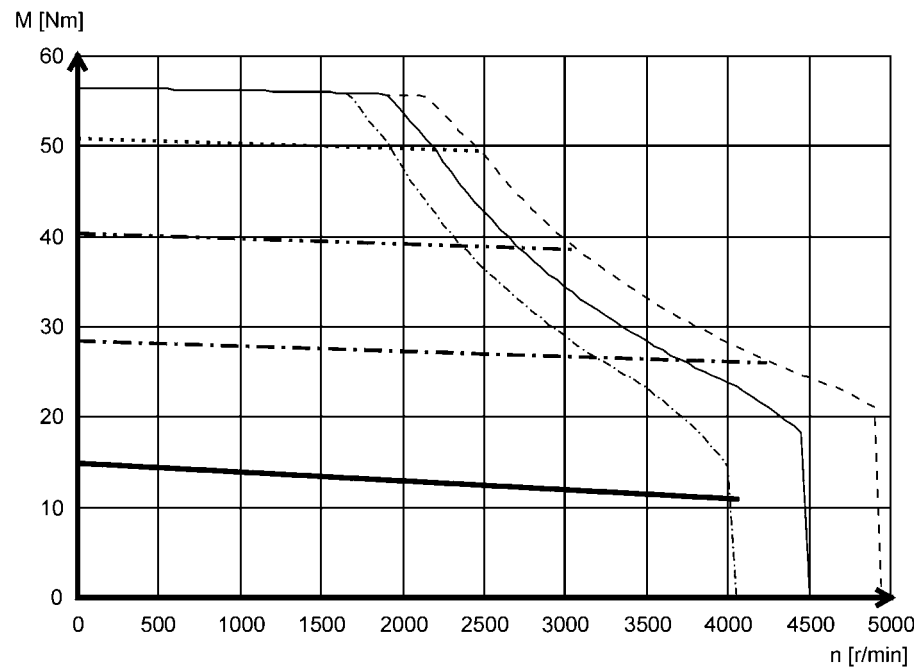


MCS12L39- (forced ventilated)

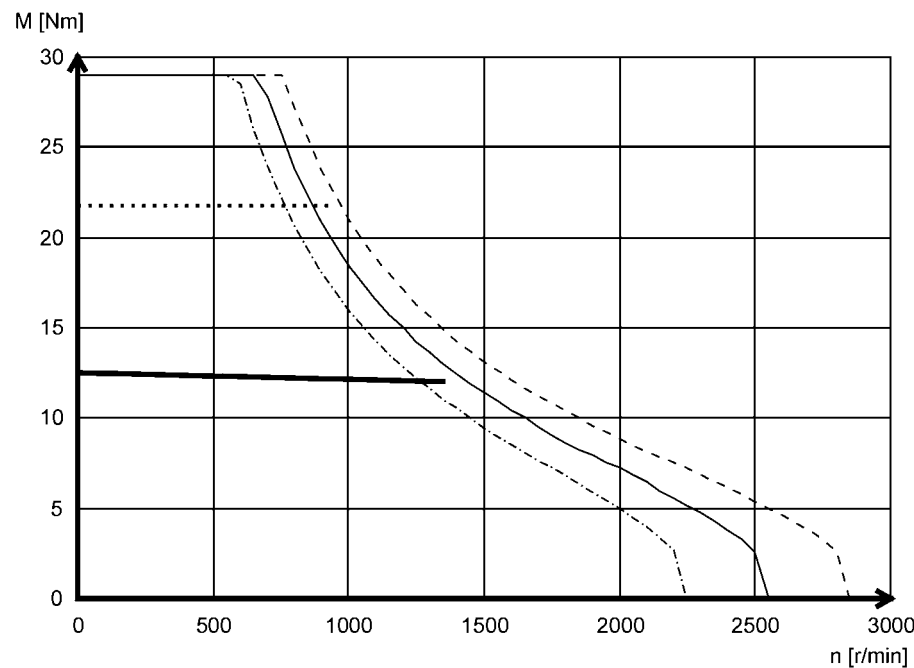




MCS12L41- (self-ventilated)

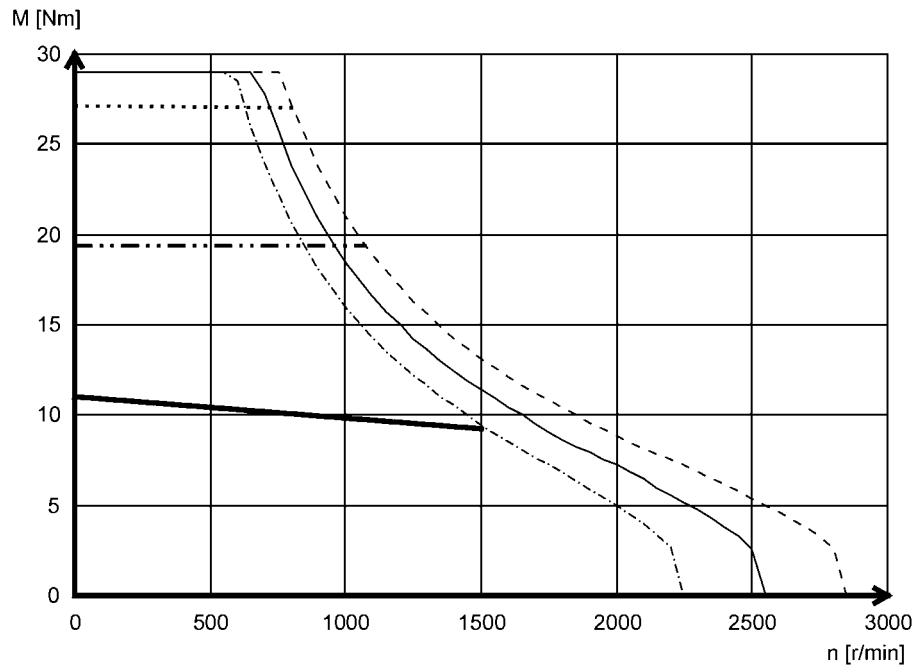


MCS14D14- (forced ventilated)



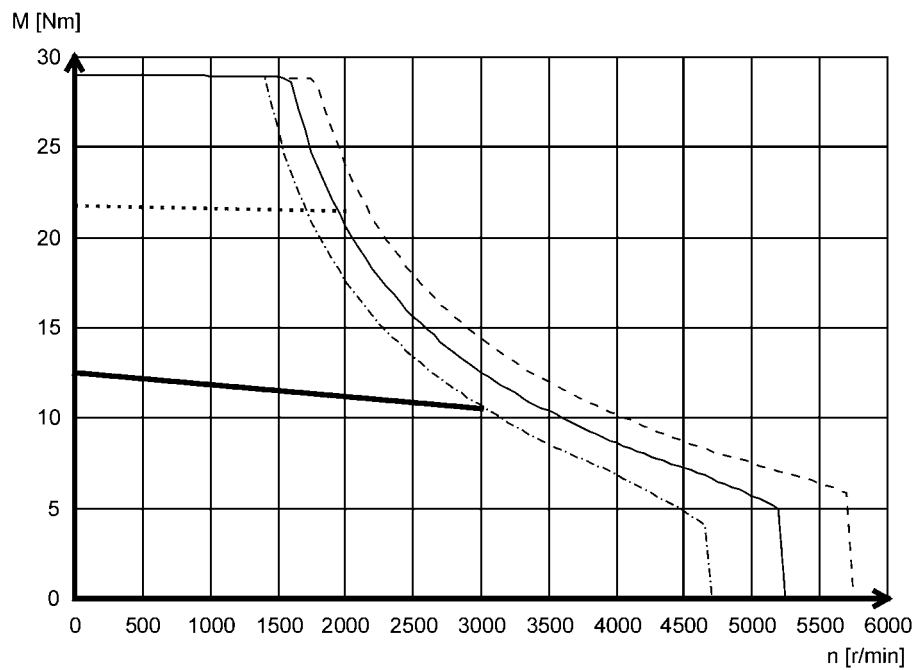


MCS14D15- (self-ventilated)



- Mmax 440 V
- Mmax 400 V
- · - · - Mmax 360 V
- Mmax @ Imax= 3x I₀
- · - · - Mmax @ Imax= 2x I₀
- S1

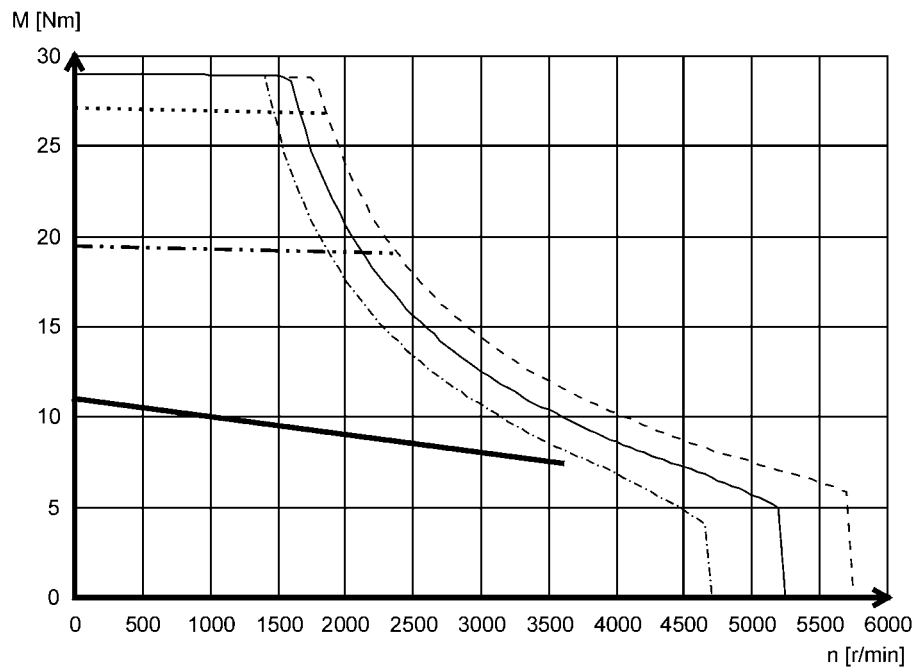
MCS14D30- (forced ventilated)



- Mmax 440 V
- Mmax 400 V
- · - · - Mmax 360 V
- Mmax @ Imax= 2x I₀
- S1

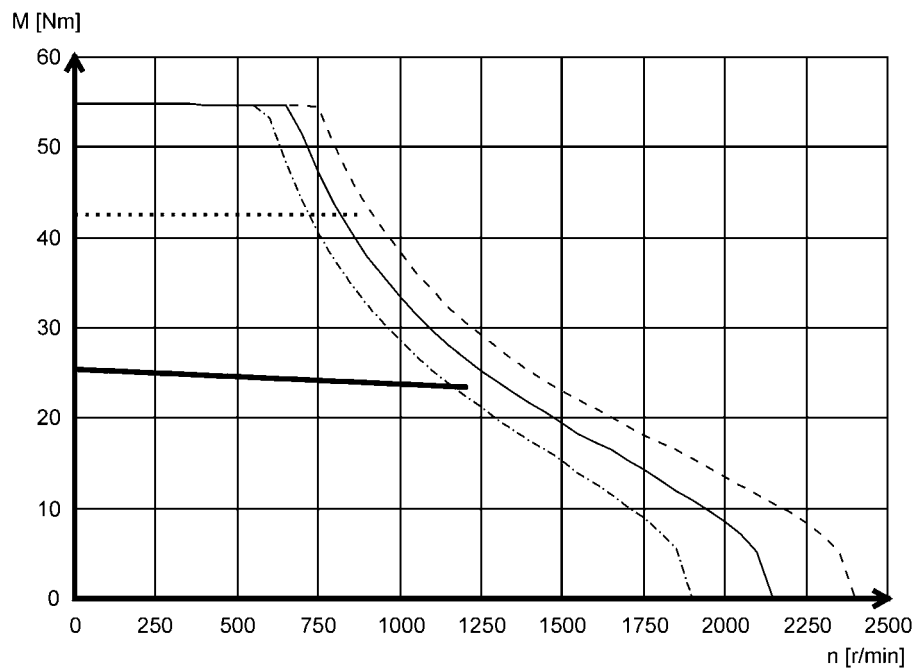


MCS14D36- (self-ventilated)



- Mmax 440 V
- Mmax 400 V
- · - · - Mmax 360 V
- Mmax @ I_{max}= 3x I₀
- · - · - Mmax @ I_{max}= 2x I₀
- S1

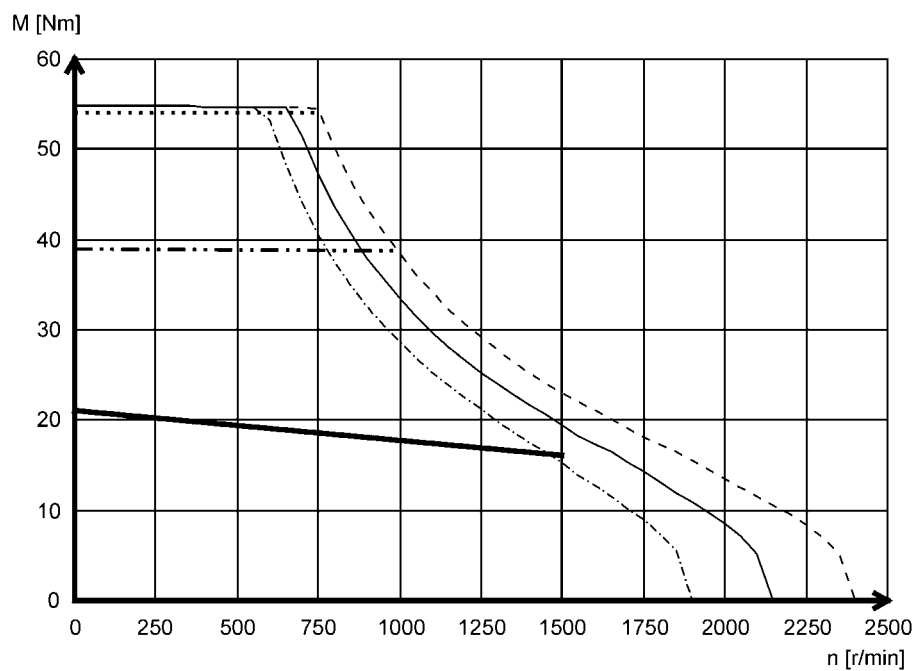
MCS14H12- (forced ventilated)



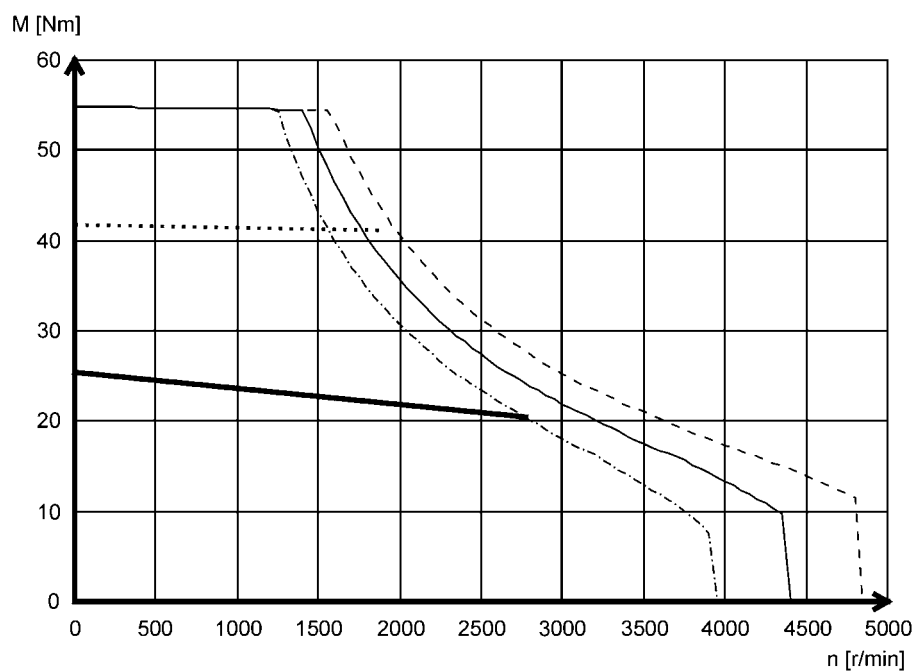
- Mmax 440 V
- Mmax 400 V
- · - · - Mmax 360 V
- Mmax @ I_{max}= 2x I₀
- · - · - Mmax @ I_{max}= 2x I₀
- S1



MCS14H15- (self-ventilated)

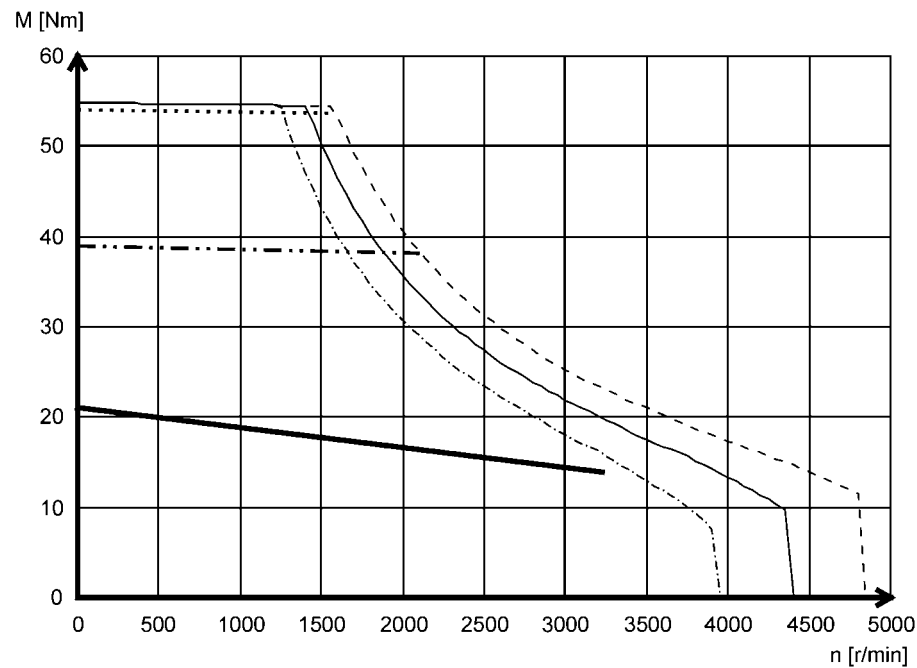


MCS14H28- (forced ventilated)

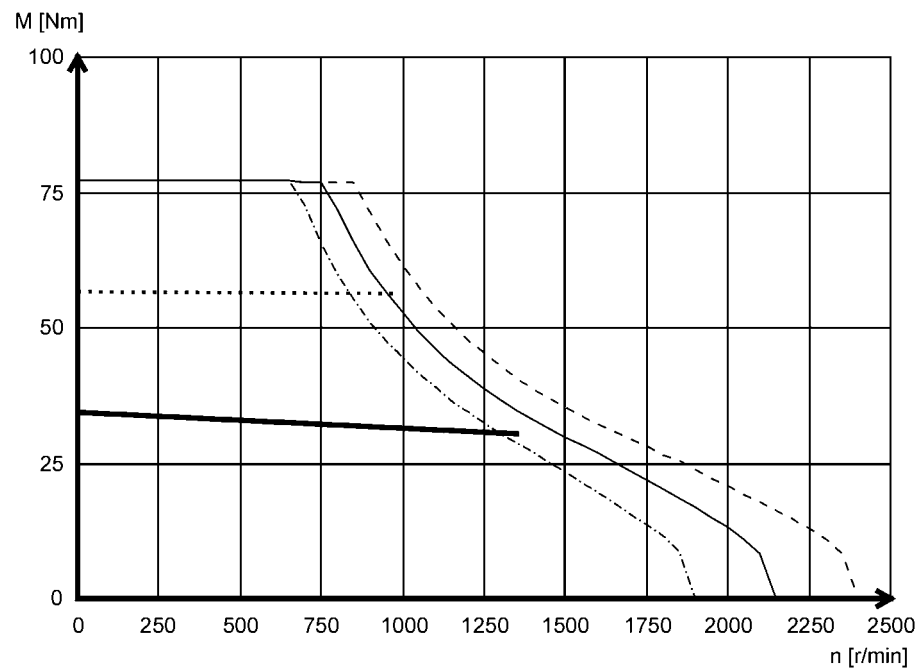




MCS14H32- (self-ventilated)

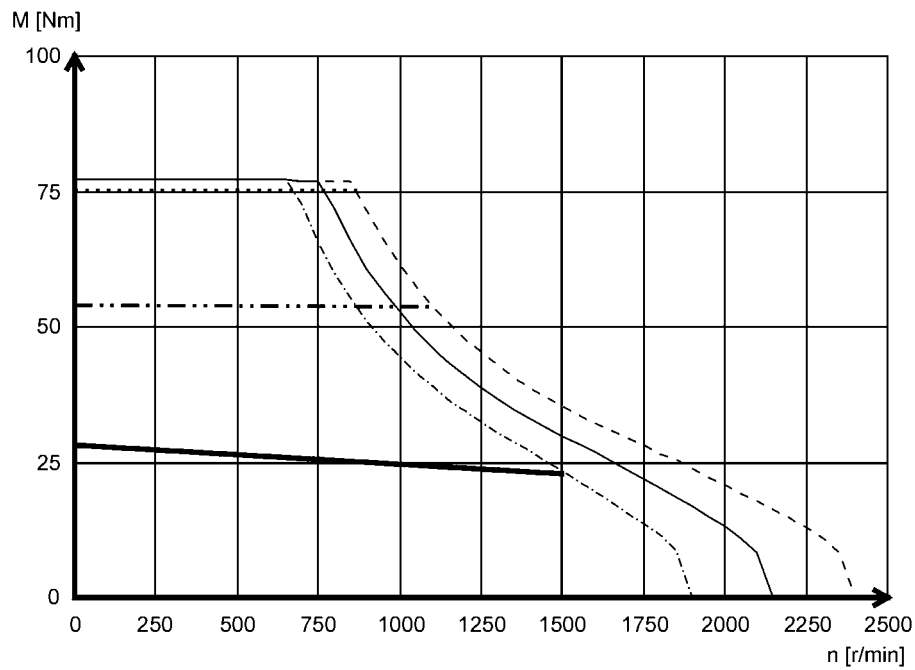


MCS14L14- (forced ventilated)

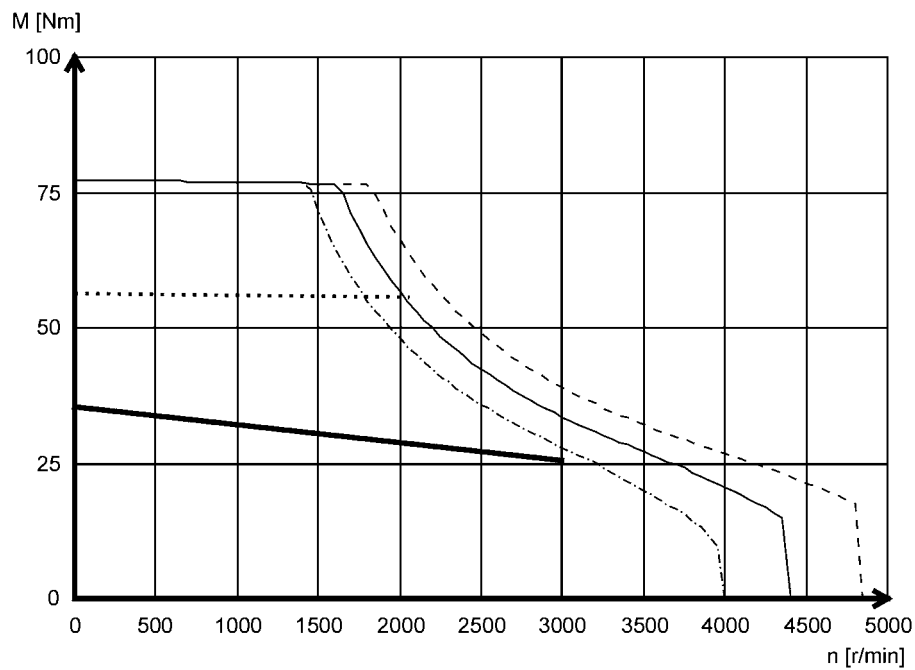




MCS14L15- (self-ventilated)

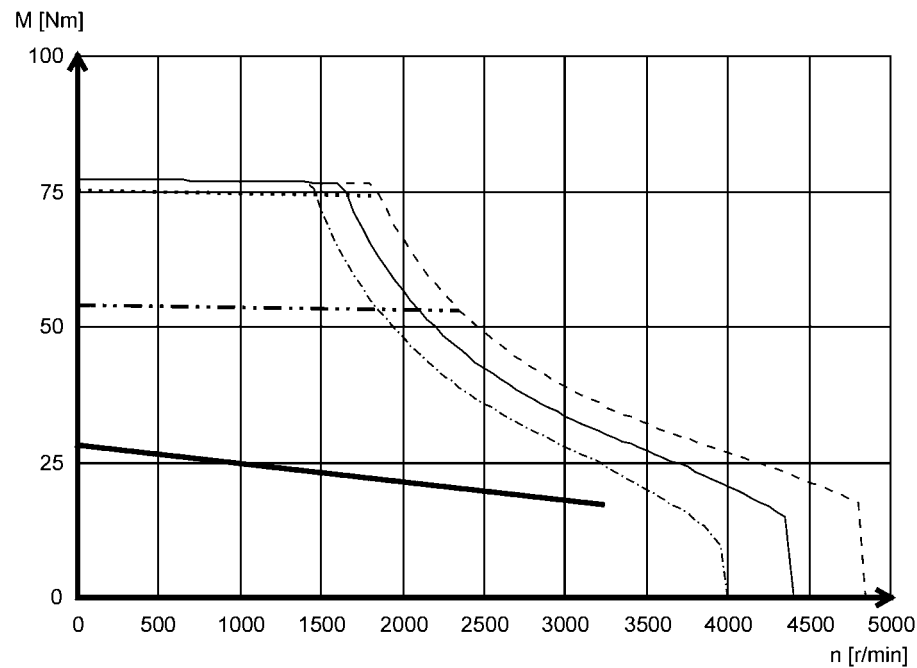


MCS14L30- (forced ventilated)

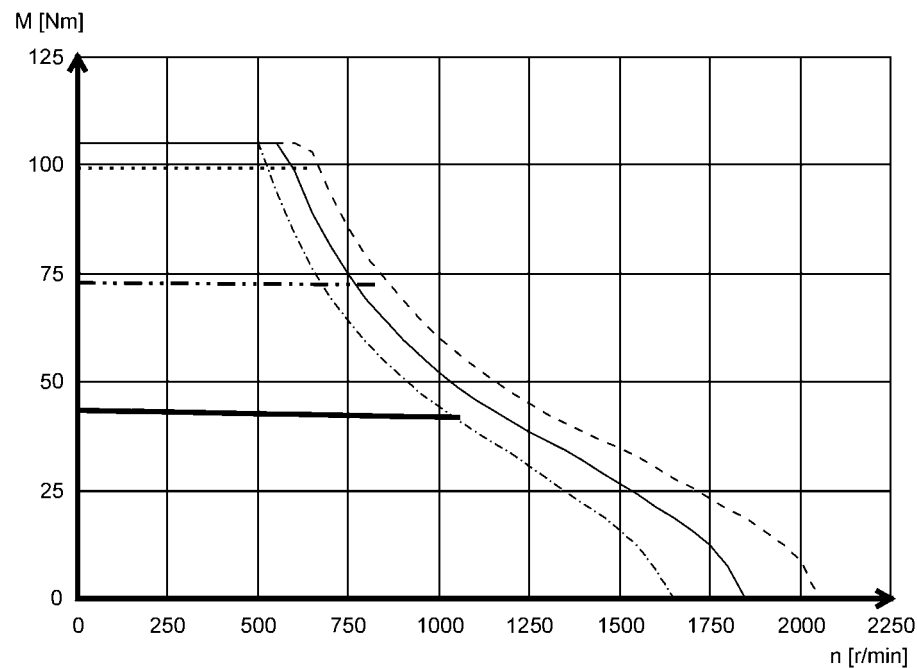




MCS14L32- (self-ventilated)

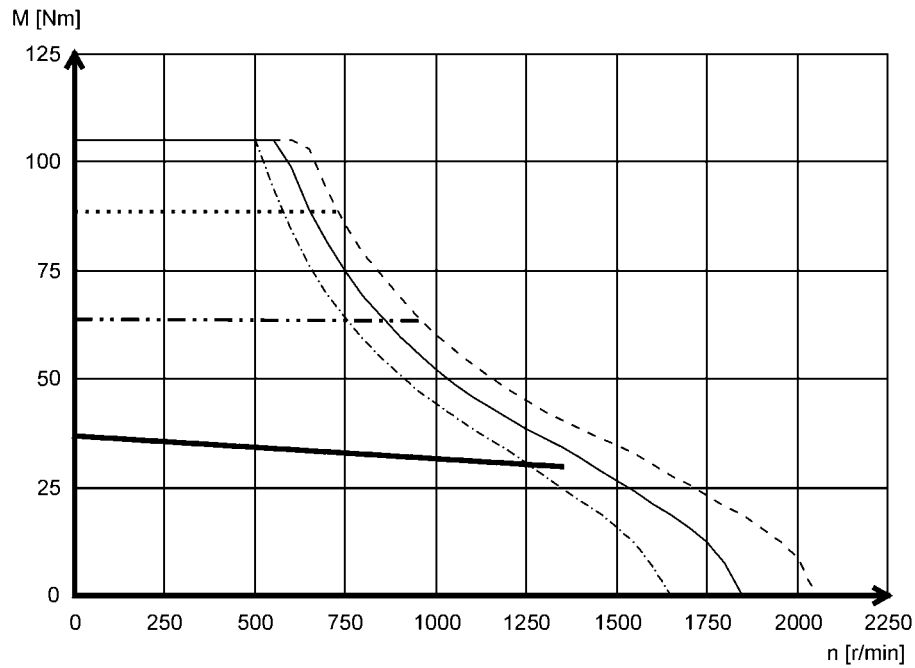


MCS14P11- (forced ventilated)



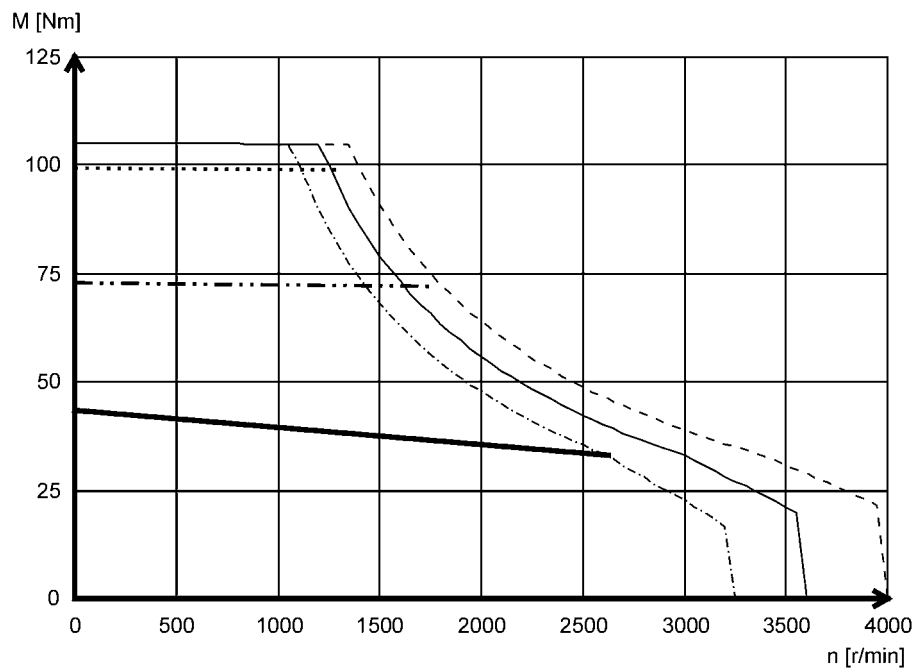


MCS14P14- (self-ventilated)



- Mmax 440 V
- Mmax 400 V
- · - · - Mmax 360 V
- Mmax @ I_{max}= 3x I₀
- · - · - Mmax @ I_{max}= 2x I₀
- S1

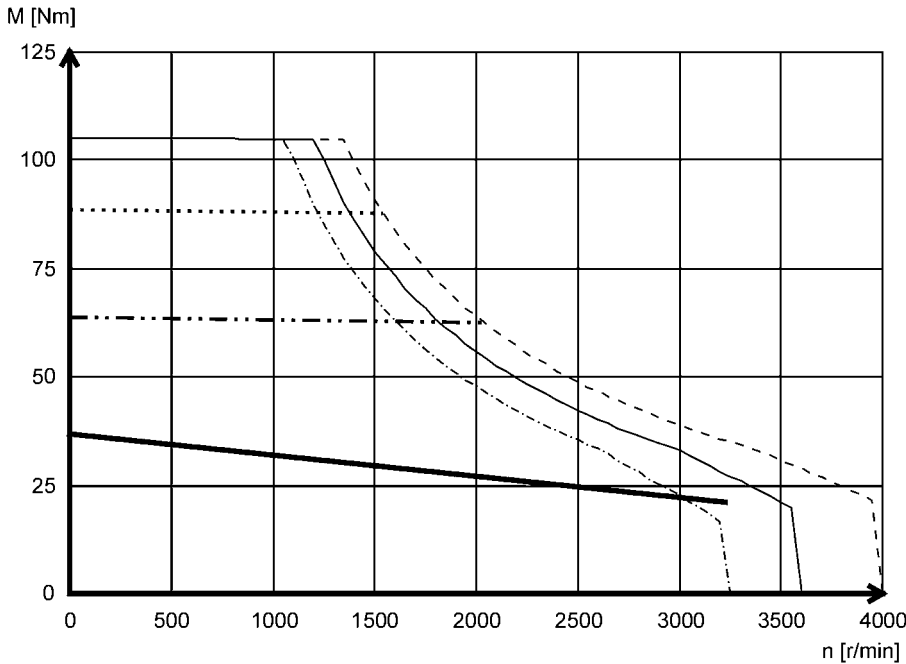
MCS14P26- (forced ventilated)



- Mmax 440 V
- Mmax 400 V
- · - · - Mmax 360 V
- Mmax @ I_{max}= 3x I₀
- · - · - Mmax @ I_{max}= 2x I₀
- S1

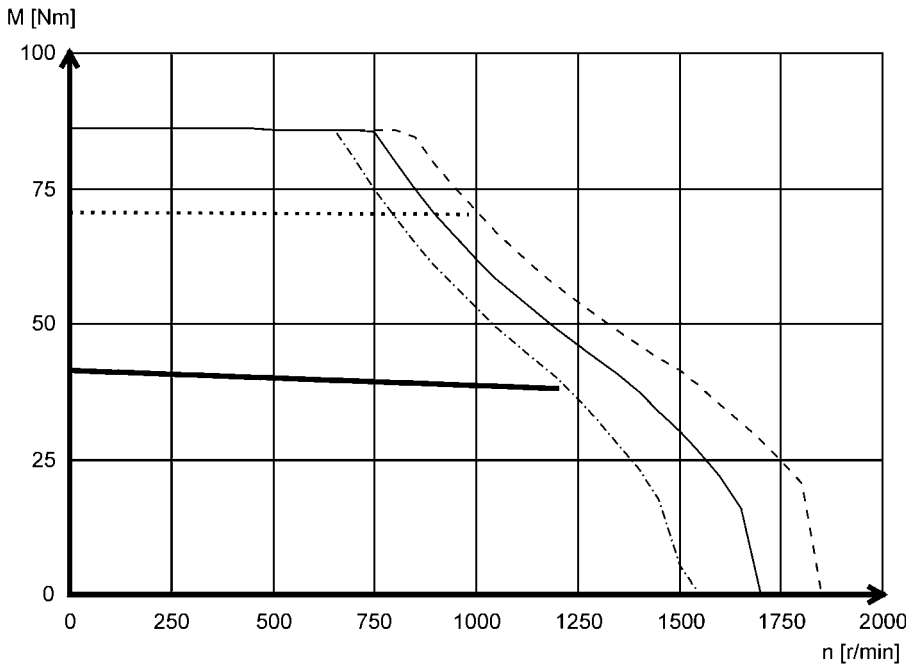


MCS14P32- (self-ventilated)



- Mmax 440 V
- Mmax 400 V
- · - Mmax 360 V
- Mmax @ Imax= 3x I0
- · - Mmax @ Imax= 2x I0
- S1

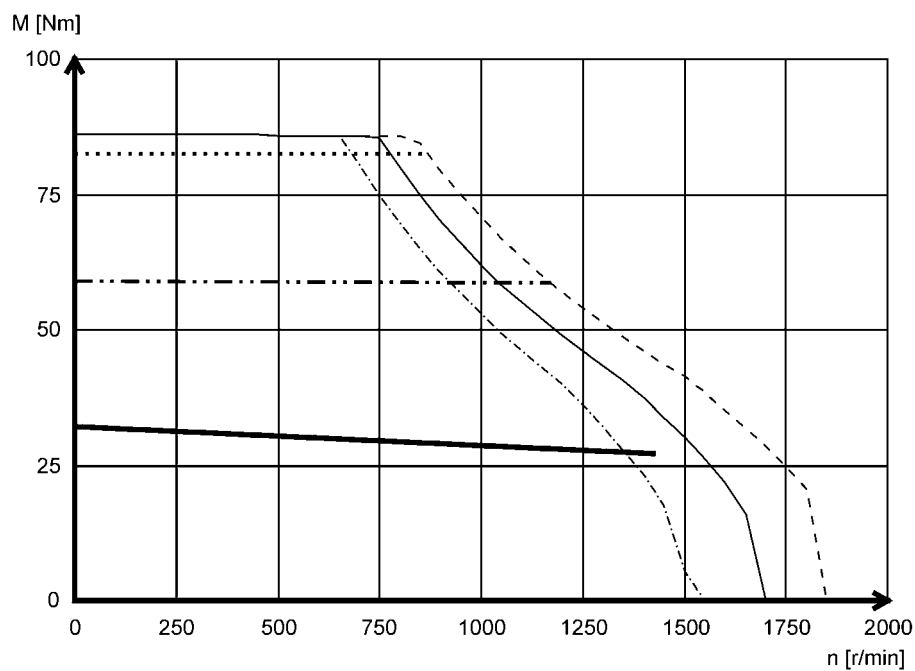
MCS19F12- (forced ventilated)



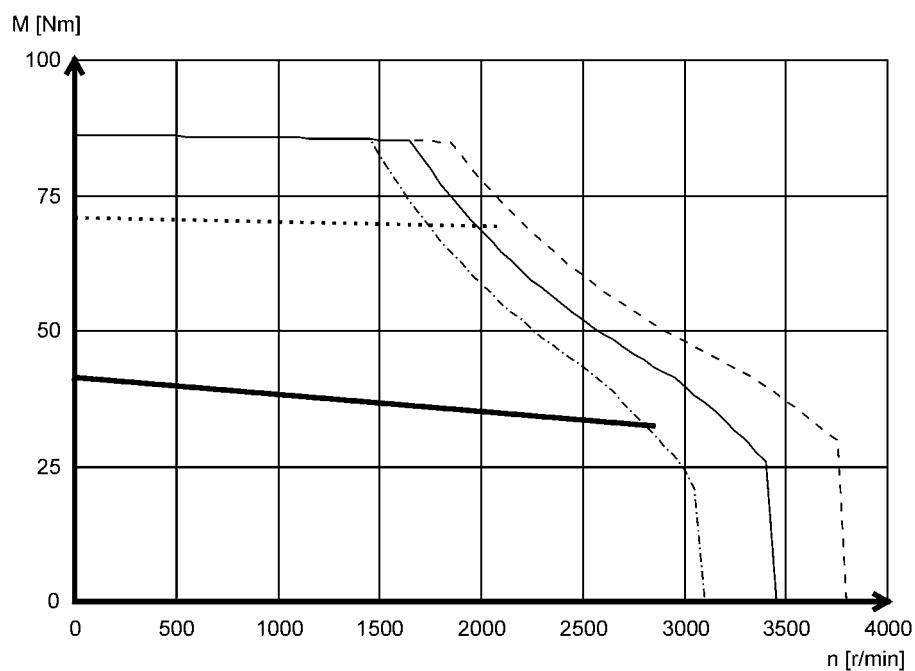
- Mmax 440 V
- Mmax 400 V
- · - Mmax 360 V
- Mmax @ Imax= 2x I0
- S1



MCS19F14- (self-ventilated)

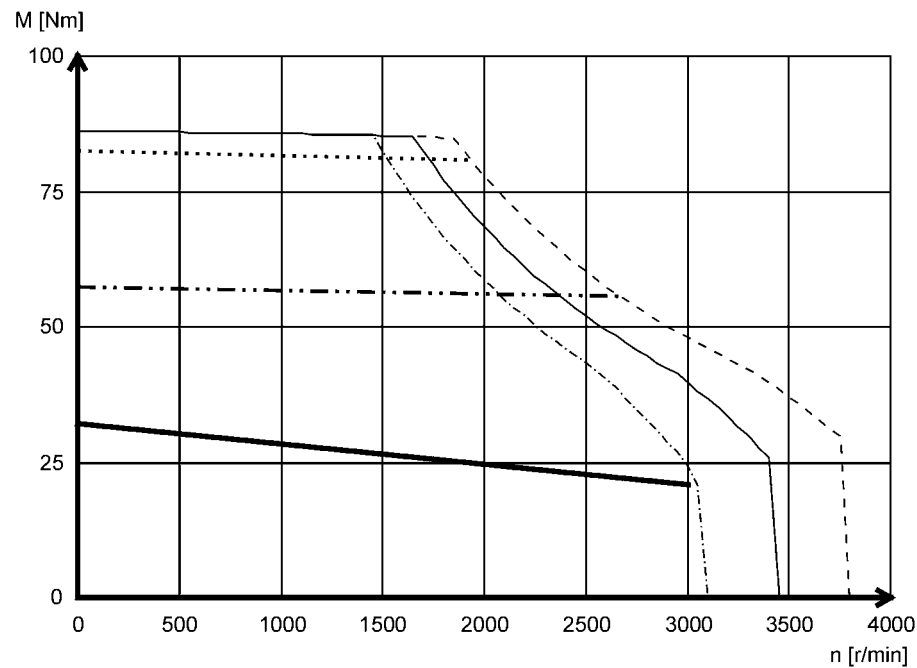


MCS19F29- (forced ventilated)



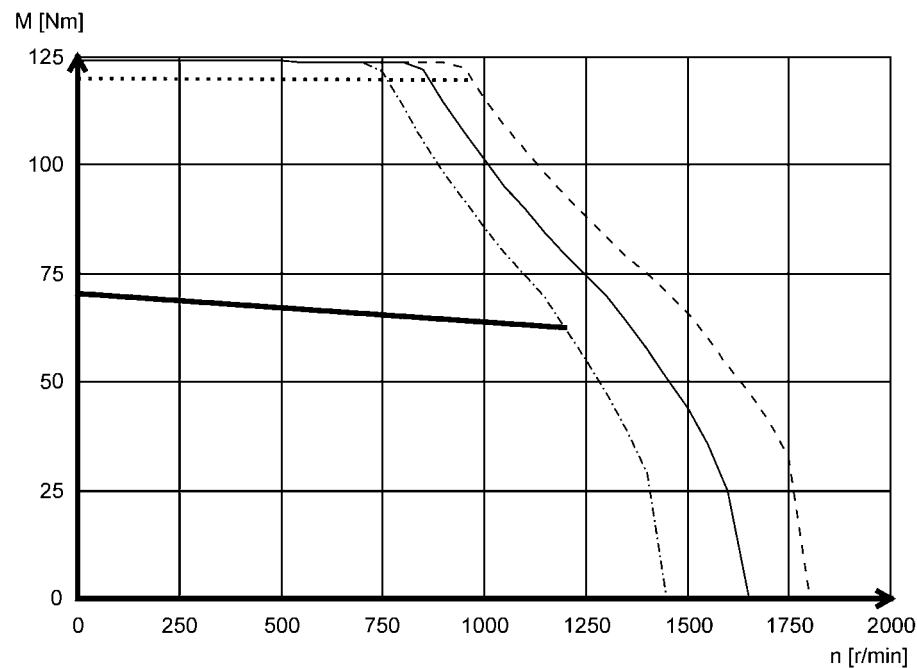


MCS19F30- (self-ventilated)



- Mmax 440 V
- Mmax 400 V
- · - Mmax 360 V
- Mmax @ Imax= 3x I0
- - - Mmax @ Imax= 2x I0
- S1

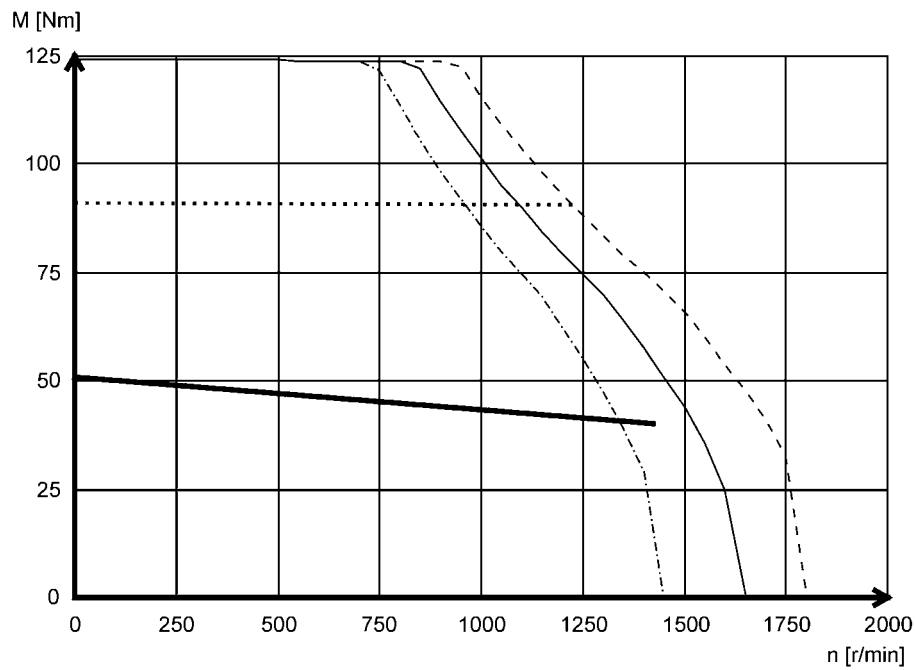
MCS19J12- (forced ventilated)



- Mmax 440 V
- Mmax 400 V
- · - Mmax 360 V
- Mmax @ Imax= 2x I0
- S1

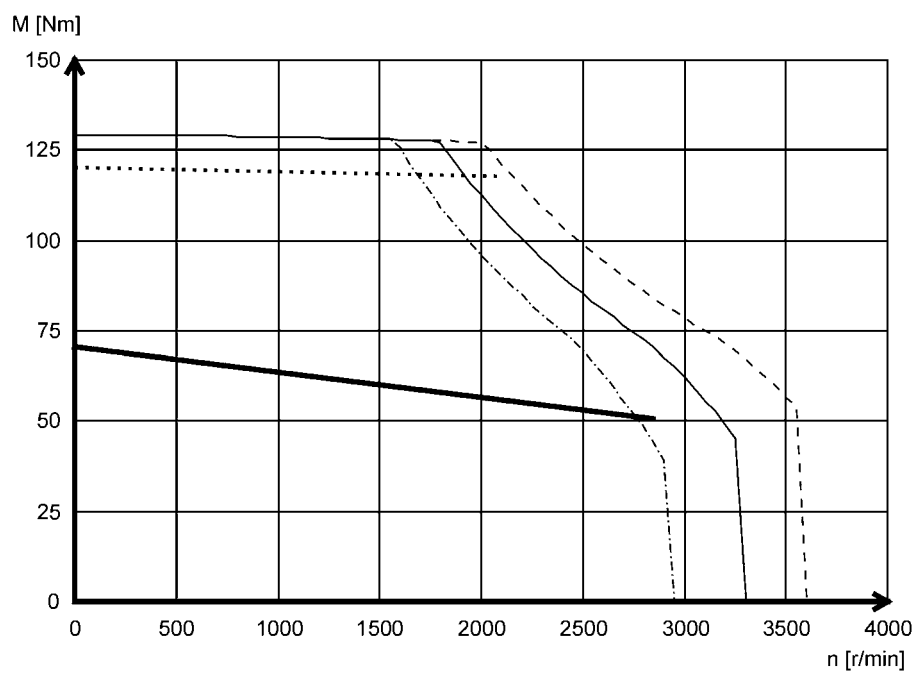


MCS19J14- (self-ventilated)



- Mmax 440 V
- Mmax 400 V
- .- Mmax 360 V
- Mmax @ $I_{max} = 2 \times I_0$
- S1

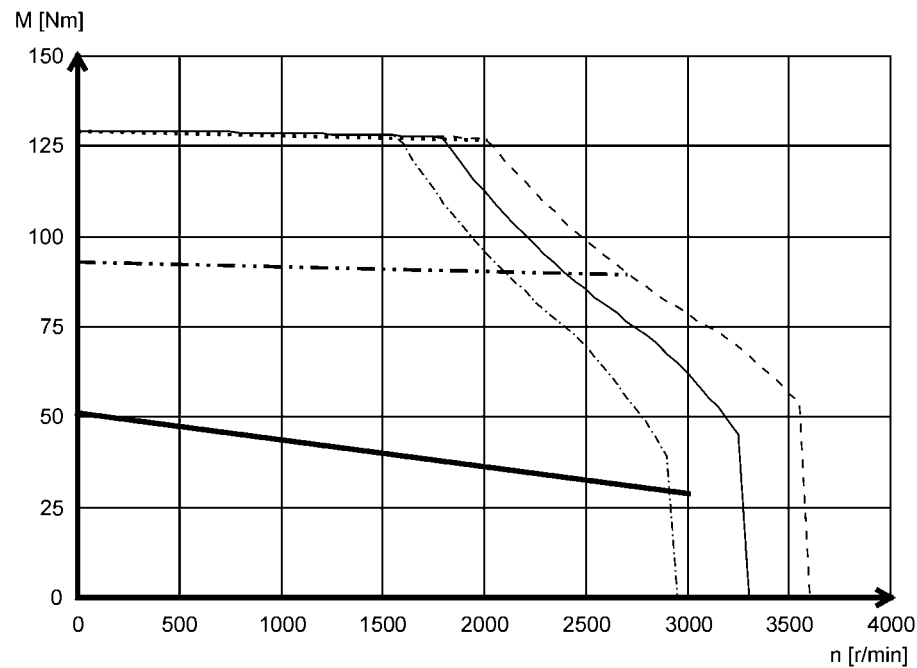
MCS19J29- (forced ventilated)



- Mmax 440 V
- Mmax 400 V
- .- Mmax 360 V
- Mmax @ $I_{max} = 2 \times I_0$
- S1

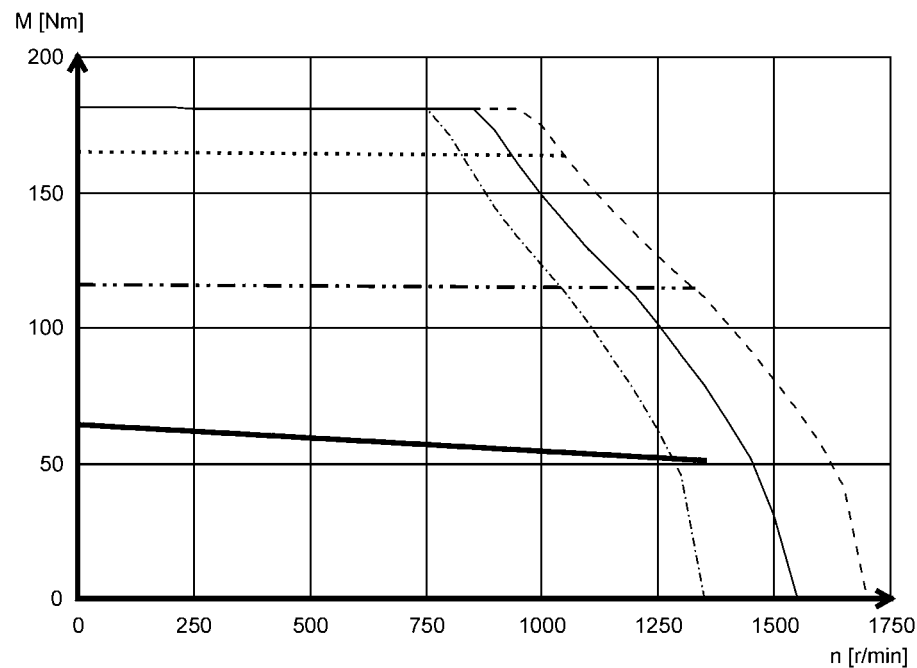


MCS19J30- (self-ventilated)



- Mmax 440 V
- Mmax 400 V
- · - · Mmax 360 V
- Mmax @ I_{max}= 3x I₀
- Mmax @ I_{max}= 2x I₀
- S1

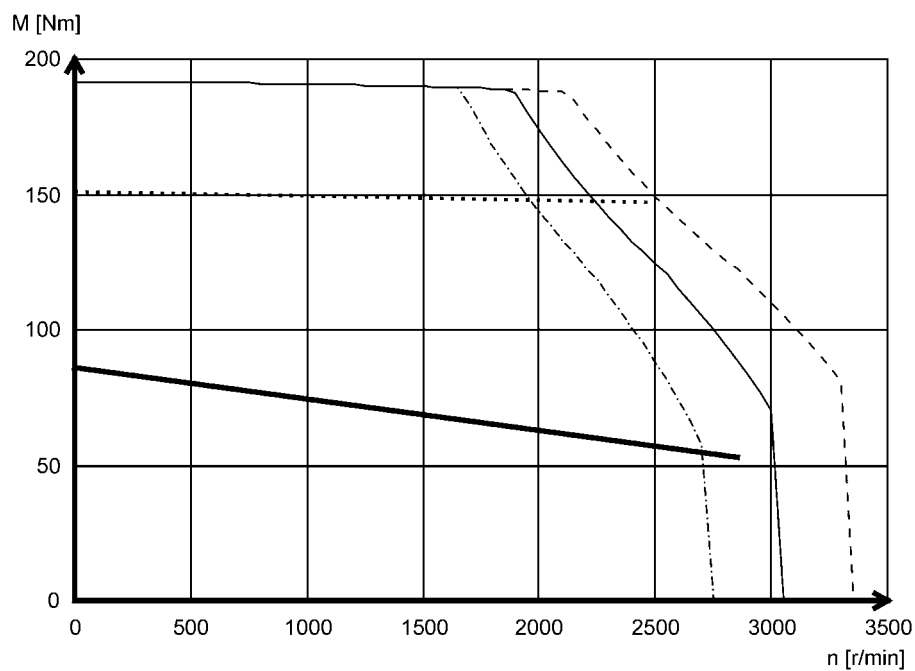
MCS19P14- (self-ventilated)



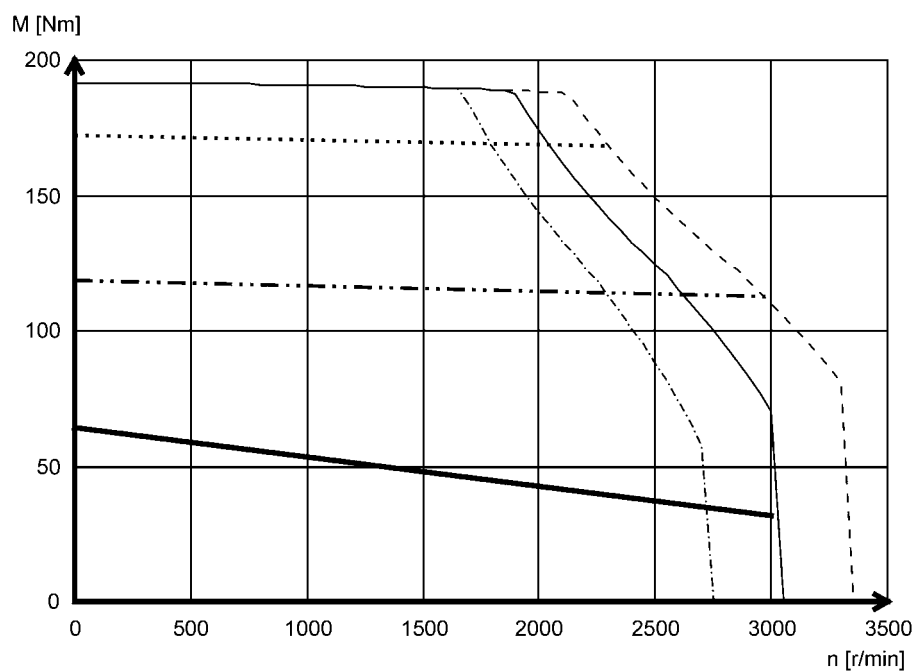
- Mmax 440 V
- Mmax 400 V
- · - · Mmax 360 V
- Mmax @ I_{max}= 3x I₀
- Mmax @ I_{max}= 2x I₀
- S1



MCS19P29- (forced ventilated)



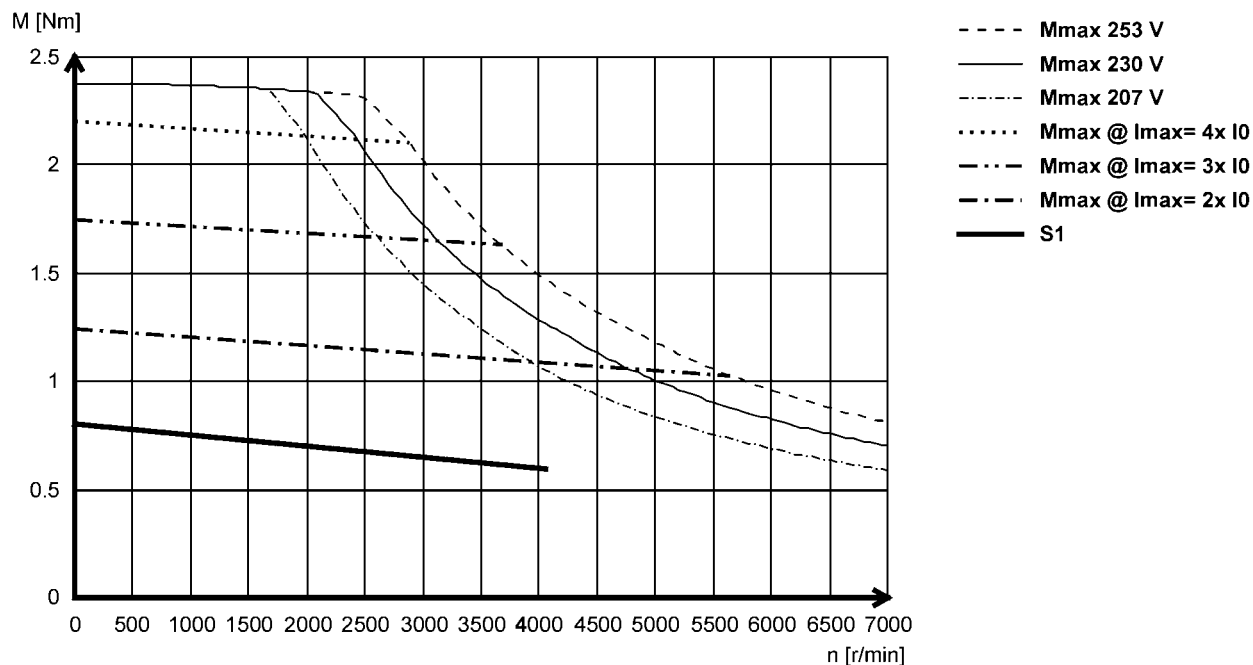
MCS19P30- (self-ventilated)



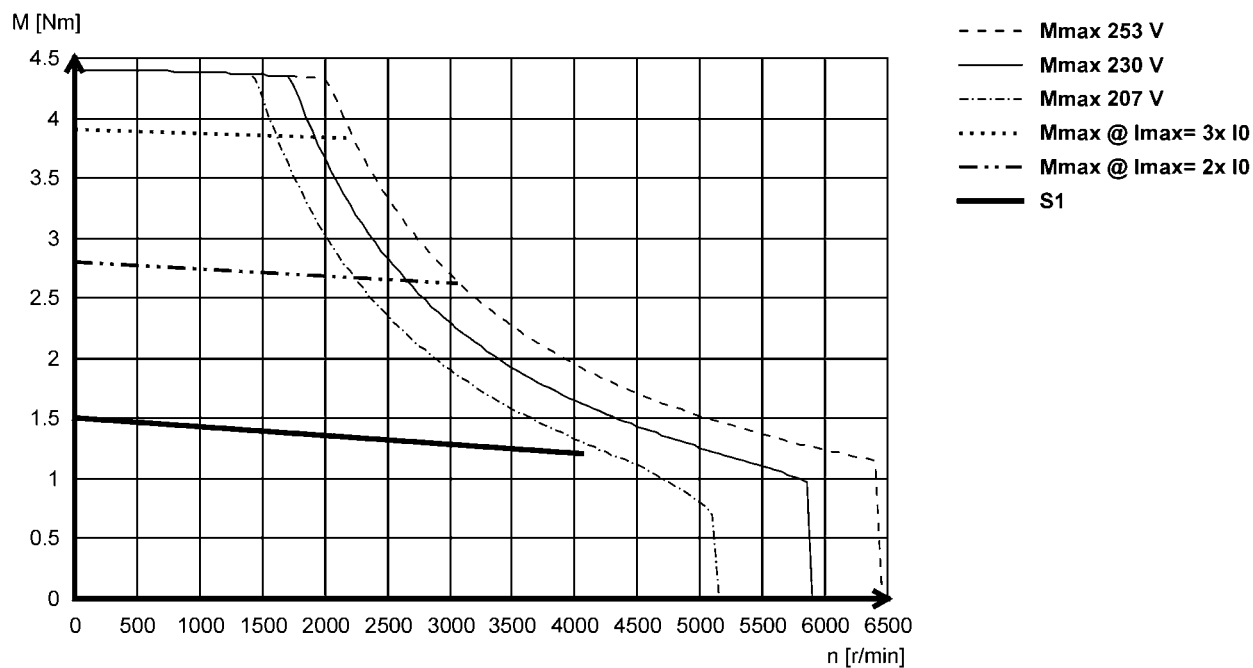


The following data apply to an inverter mains voltage 3 x 230 V.

MCS06C41L (self-ventilated)

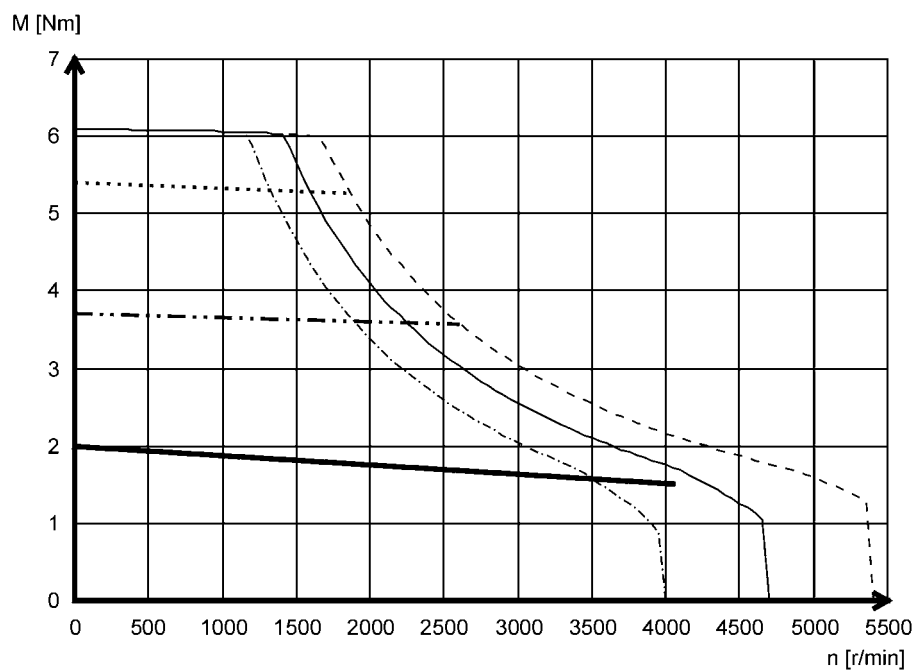


MCS06F41L (self-ventilated)

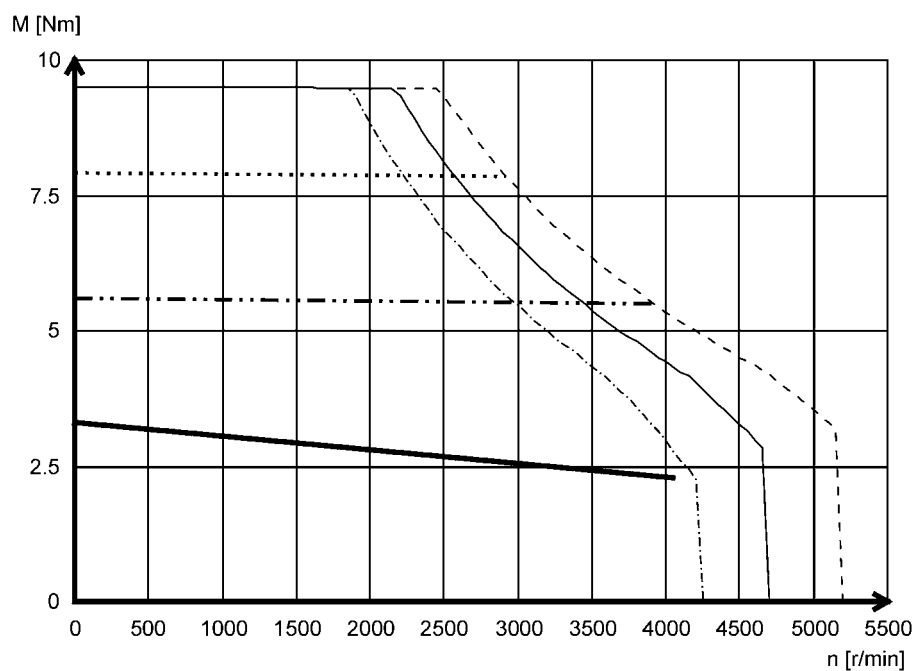




MCS06I41L (self-ventilated)

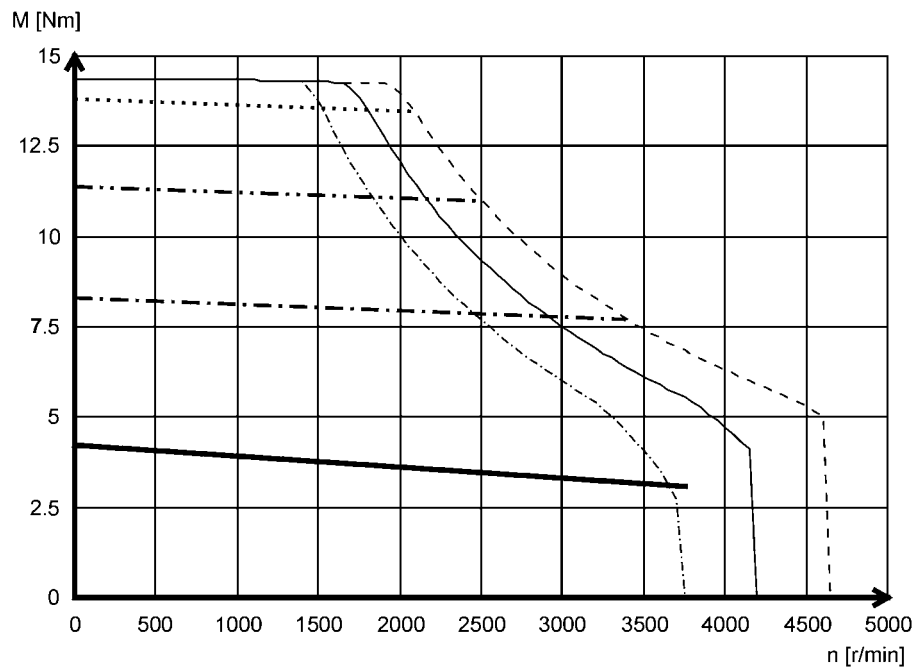


MCS09D41L (self-ventilated)



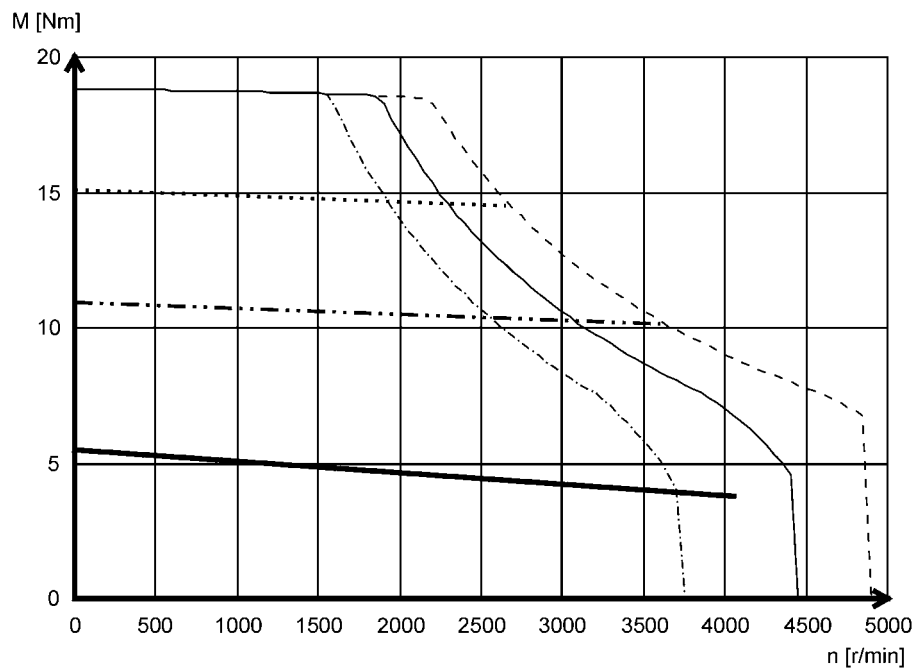


MCS09F38L (self-ventilated)



- Mmax 253 V
- Mmax 230 V
- - - - Mmax 207 V
- Mmax @ I_{max}= 4x I₀
- . . . Mmax @ I_{max}= 3x I₀
- - - Mmax @ I_{max}= 2x I₀
- S1

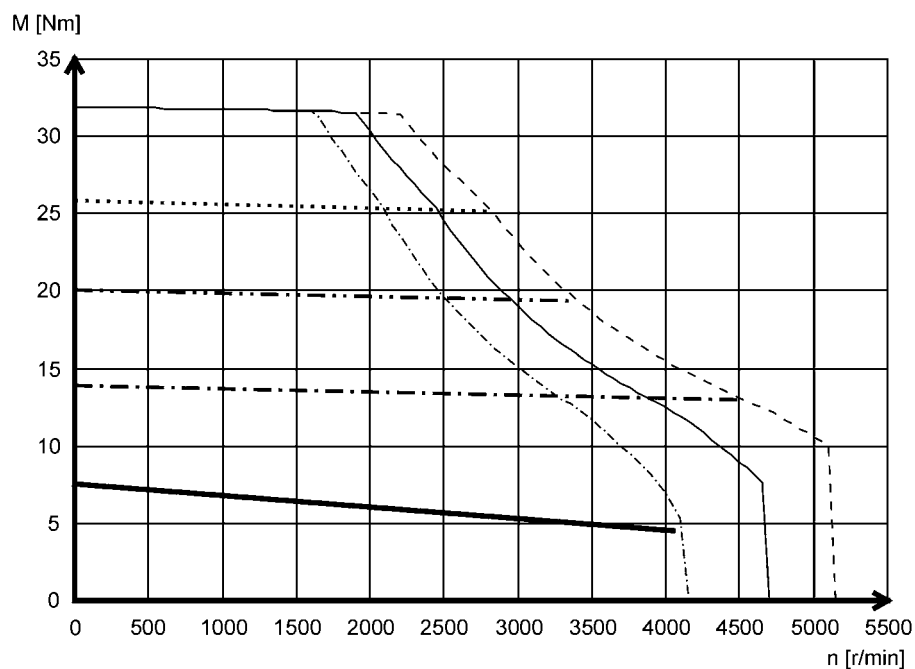
MCS09H41L (self-ventilated)



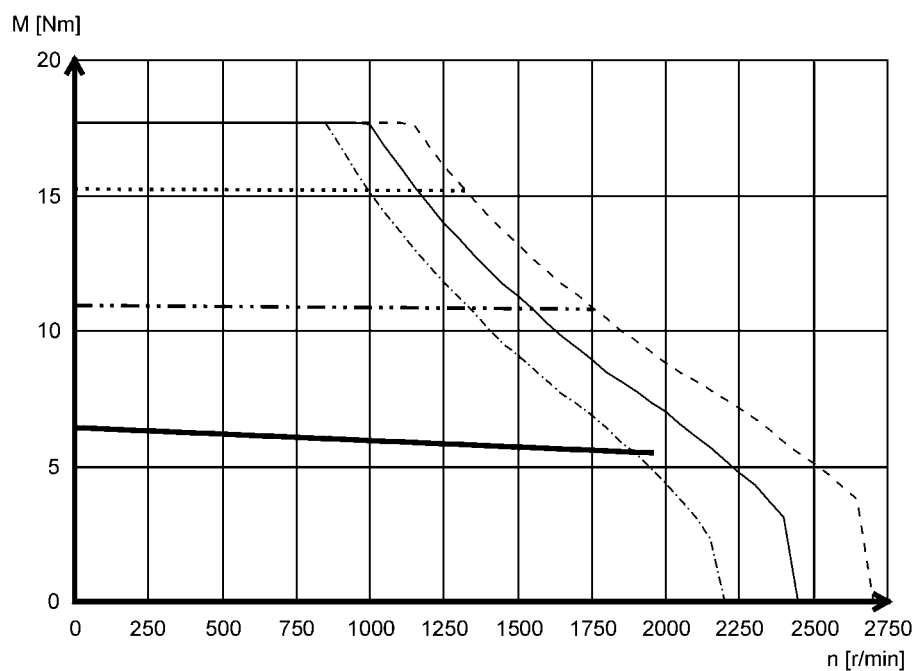
- Mmax 253 V
- Mmax 230 V
- - - - Mmax 207 V
- Mmax @ I_{max}= 3x I₀
- . . . Mmax @ I_{max}= 2x I₀
- S1



MCS09L41L (self-ventilated)

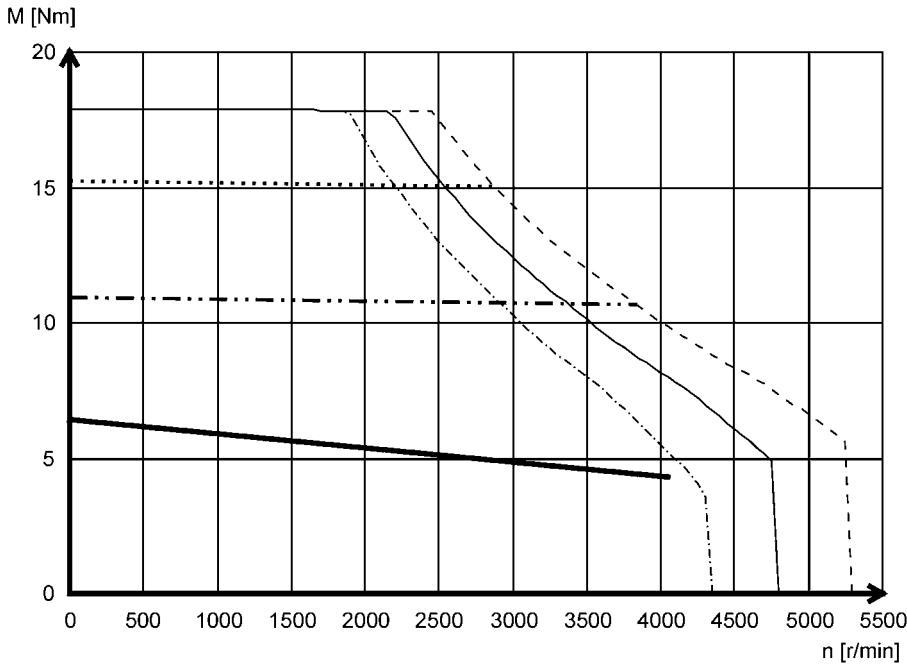


MCS12D20L (self-ventilated)



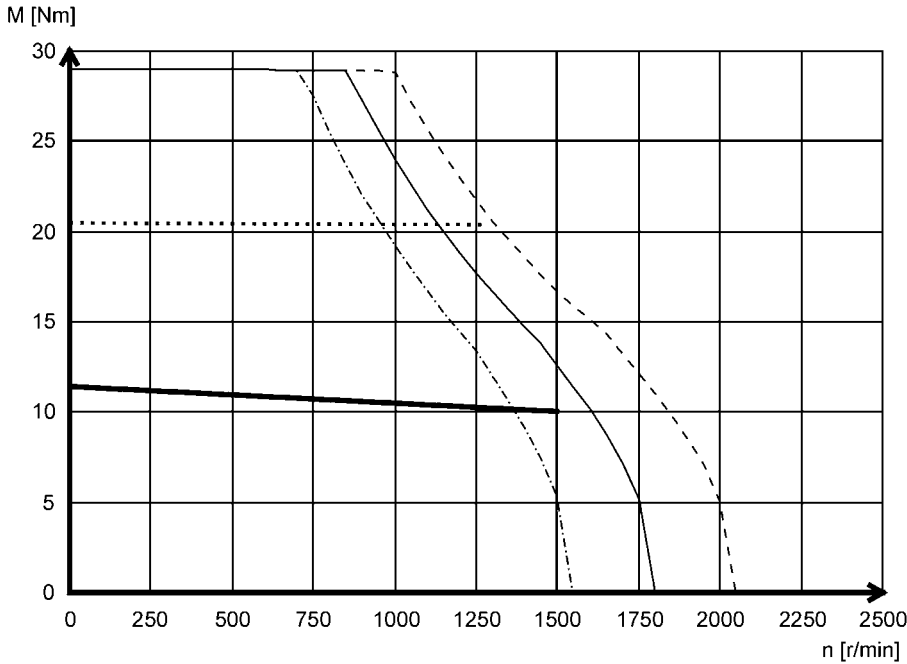


MCS12D41L (self-ventilated)



- Mmax 253 V
- Mmax 230 V
- · - Mmax 207 V
- Mmax @ I_{max}= 3x I₀
- · - · Mmax @ I_{max}= 2x I₀
- S1

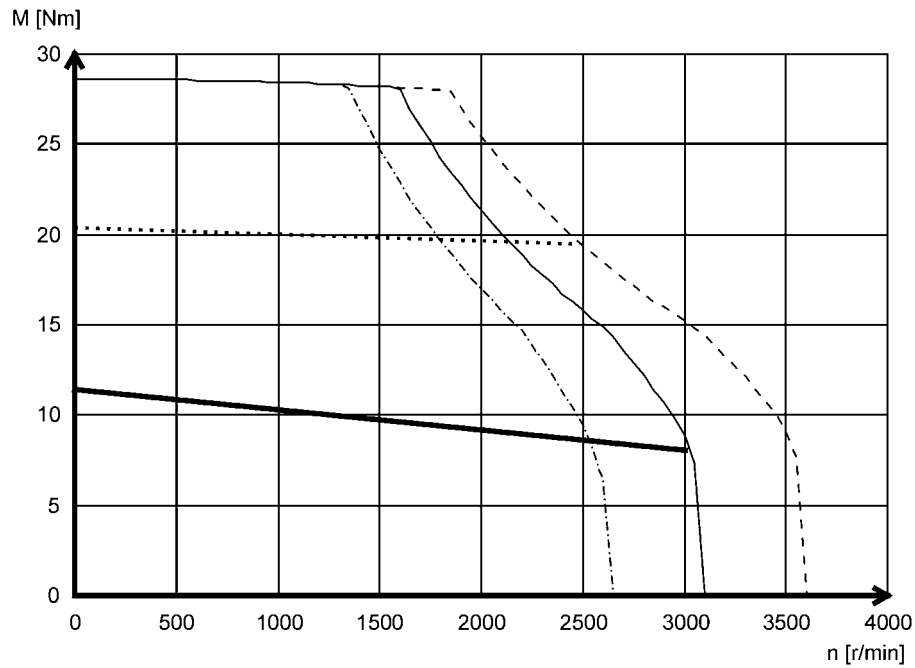
MCS12H15L (self-ventilated)



- Mmax 253 V
- Mmax 230 V
- · - Mmax 207 V
- Mmax @ I_{max}= 2x I₀
- S1

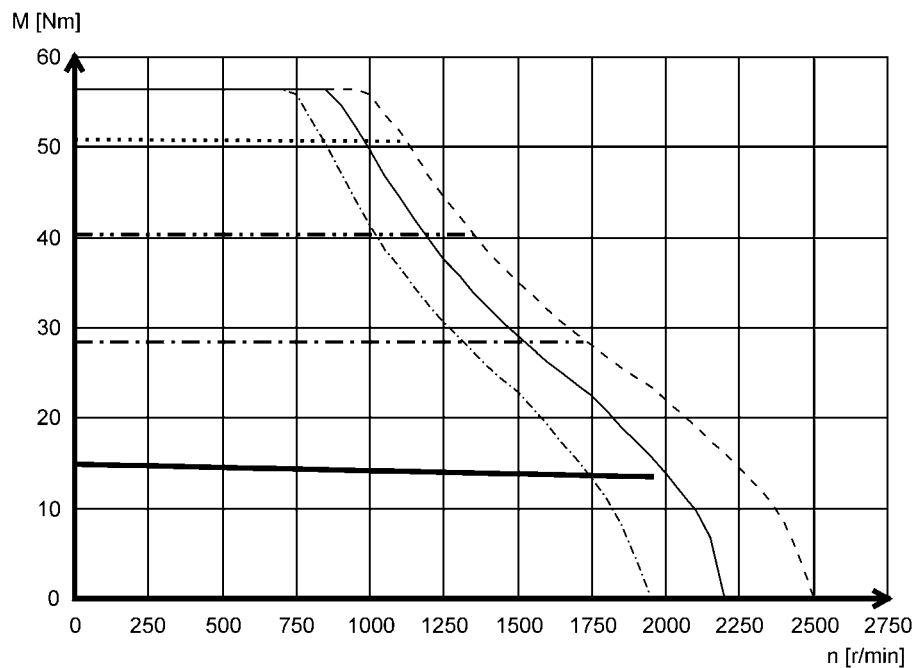


MCS12H30L- (self-ventilated)



- Mmax 253 V
- Mmax 230 V
- · - Mmax 207 V
- Mmax @ I_{max}= 2x I₀
- S1

MCS12L20L (self-ventilated)



- Mmax 253 V
- Mmax 230 V
- · - Mmax 207 V
- Mmax @ I_{max}= 4x I₀
- · · Mmax @ I_{max}= 3x I₀
- - - Mmax @ I_{max}= 2x I₀
- S1



Environmental notes and recycling

Lenze has been certified to the worldwide environmental management standard for many years (DIN EN ISO 14001). As part of our environmental policy and the associated climate responsibility, please note the following information on hazardous ingredients and the recycling of Lenze products and their packaging:



Lenze products are partly subject to the EU Directive on the restriction of certain hazardous substances in electrical and electronic equipment 2011/65/EU: RoHS Directive [UKCA: S.I. 2012/3032 - The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012] . This is documented accordingly in the EU declaration of conformity and with the CE mark.



The crossed-out wheeled bin symbol is located on the equipment. This information indicates that used electrical and electronic products must not be disposed of with normal household waste.
The EU Directive 2012/19/EU: Directive on waste electrical and electronic equipment (WEEE) [UKCA: S.I. 2013/3113 - The Waste Electrical and Electronic Equipment Regulations 2013] , which has been transposed into national law by the respective EU member states, applies to the disposal of equipment. As a customer, you have the option of disposing of the electrical and electronic equipment that you have purchased from us and that is subject to WEEE via the Lenze branch in your country.
Lenze addresses in Europe: <https://www.lenze.com/en-de/company/global-presence>

Some Lenze products contain batteries/rechargeable batteries in accordance with EU Directive 2006/66/EC: Battery Directive [UKCA: S.I. 2009/890 - The Waste Batteries and Accumulators Regulations 2009] . Any batteries/rechargeable batteries included are designed to last the life of the product and do not need to be replaced or otherwise removed by the end user.



Lenze products are usually sold with cardboard or plastic packaging. This packaging complies with EU Directive 94/62/EC: Directive on packaging and packaging waste [UKCA: S.I. 1997/648 - The Producer Responsibility Obligations (Packaging Waste) Regulations 1997] . The required disposal route is indicated by material-specific labels with the "recycling triangle". Example: "21 - other cardboard"

REACH

Lenze products are subject to REGULATION (EC) No 1907/2006: REACH Regulation [UKCA: S.I. 2008/2852 - The REACH Enforcement Regulations 2008] . When used as intended, exposure of substances to humans, animals and the environment is excluded.

Lenze products are industrial electrical and electronic products and are disposed of professionally. Both the mechanical and electrical components such as electric motors, gearboxes or inverters contain valuable raw materials that can be recycled and reused. Proper recycling and thus maintaining the highest possible level of recyclability is therefore important and sensible from an economic and ecological point of view.

- Coordinate professional disposal with your waste disposal company.
- Separate mechanical and electrical components, packaging, hazardous waste (e.g. gear oils) and batteries/rechargeable batteries wherever possible.
- Dispose of the separated waste in an environmentally sound and proper manner (no household waste or municipal bulky waste).

What?	Material	Disposal instructions
Pallets	Wood	Return to manufacturers, freight forwarders or reusable materials collection system
Packaging material	Paper, cardboard, pasteboard, plastics	Collect and dispose of separately
Products		
Electronic devices	Metal, plastics, circuit boards, heatsinks	As electronic waste give to professional disposer for recycling
Gearbox	Oil	Drain oil and dispose of separately
	Casting, steel, aluminium	Dispose as metal scrap
Motors	Casting, copper, rotors, magnets, potting compound	As engine scrap give to professional disposer for recycling
Dry-cell batteries/rechargeable batteries		As used batteries give to professional disposer for recycling



Further information on Lenze's environmental and climate responsibility and on the topic of energy efficiency can be found on the Internet:

www.Lenze.com → search word: "Sustainability"



Appendix

Good to know

Operating modes of the motor

Operating modes S1 ... S10 as specified by EN 60034-1 describe the basic stress of an electrical machine.

In continuous operation a motor reaches its permissible temperature limit if it outputs the rated power dimensioned for continuous operation. However, if the motor is only subjected to load for a short time, the power output by the motor may be greater without the motor reaching its permissible temperature limit. This behaviour is referred to as overload capacity.

Depending on the duration of the load and the resulting temperature rise, the required motor can be selected reduced by the overload capacity.

The most important operating modes

Continuous operation S1	Short-time operation S2
Operation with a constant load until the motor reaches the thermal steady state. The motor may be actuated continuously with its rated power.	Operation with constant load; however, the motor does not reach the thermal steady state. During the following standstill, the motor winding cools down to the ambient temperature again. The increase in power depends on the load duration.



Intermittent operation S3	Non-intermittent periodic operation S6
Sequence of identical duty cycles comprising operation with a constant load and subsequent standstill. Start-up and braking processes do not have an impact on the winding temperature. The steady-state is not reached. The guide values apply to a cycle duration of 10 minutes. The power increase depends on the cycle duration and on the load period/downtime ratio.	Sequence of identical duty cycles comprising operation with a constant load and subsequent no-load operation. The motor cools down during the no-load phase. Start-up and braking processes do not have an impact on the winding temperature. The steady-state is not reached. The guide values apply to a cycle duration of 10 minutes. The power increase depends on the cycle duration and on the load period/idle time ratio.
P Power t Time t_L Idle time θ Temperature	P_V Power loss t_B Load period t_S Cycle duration

Enclosures

The protection class indicates the suitability of a product for specific ambient conditions with regard to humidity as well as the protection against contact and the ingress of foreign particles. The protection classes are classified in the EN 60034-5/ EN IEC 60529.

The first code number after the code letters IP indicates the protection against the ingress of foreign particles and dust. The second code number refers to the protection against the ingress of humidity.

Code number 1	Degree of protection	Code number 2	Degree of protection
0	No protection	0	No protection
1	Protection against the ingress of foreign particles $d > 50$ mm. No protection in case of deliberate access.	1	Protection against vertically dripping water (dripping water).
2	Protection against medium-sized foreign particles, $d > 12$ mm, keeping away fingers or the like.	2	Protection against diagonally falling water (dripping water), 15° compared to normal service position.
3	Protection against small foreign particles $d > 2.5$ mm. Keeping away tools, wires or the like.	3	Protection against spraying water, up to 60° from vertical.
4	Protection against granular foreign particles, $d > 1$ mm, keeping away tools, wire or the like.	4	Protection against spraying water from all directions.
5	Protection against dust deposits (dust-protected), complete protection against contact.	5	Protection against water jets from all directions.
6	Protection against the ingress of dust (dust-proof), complete protection against contact.	6	Protection against choppy seas or heavy water jets (flood protection).

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