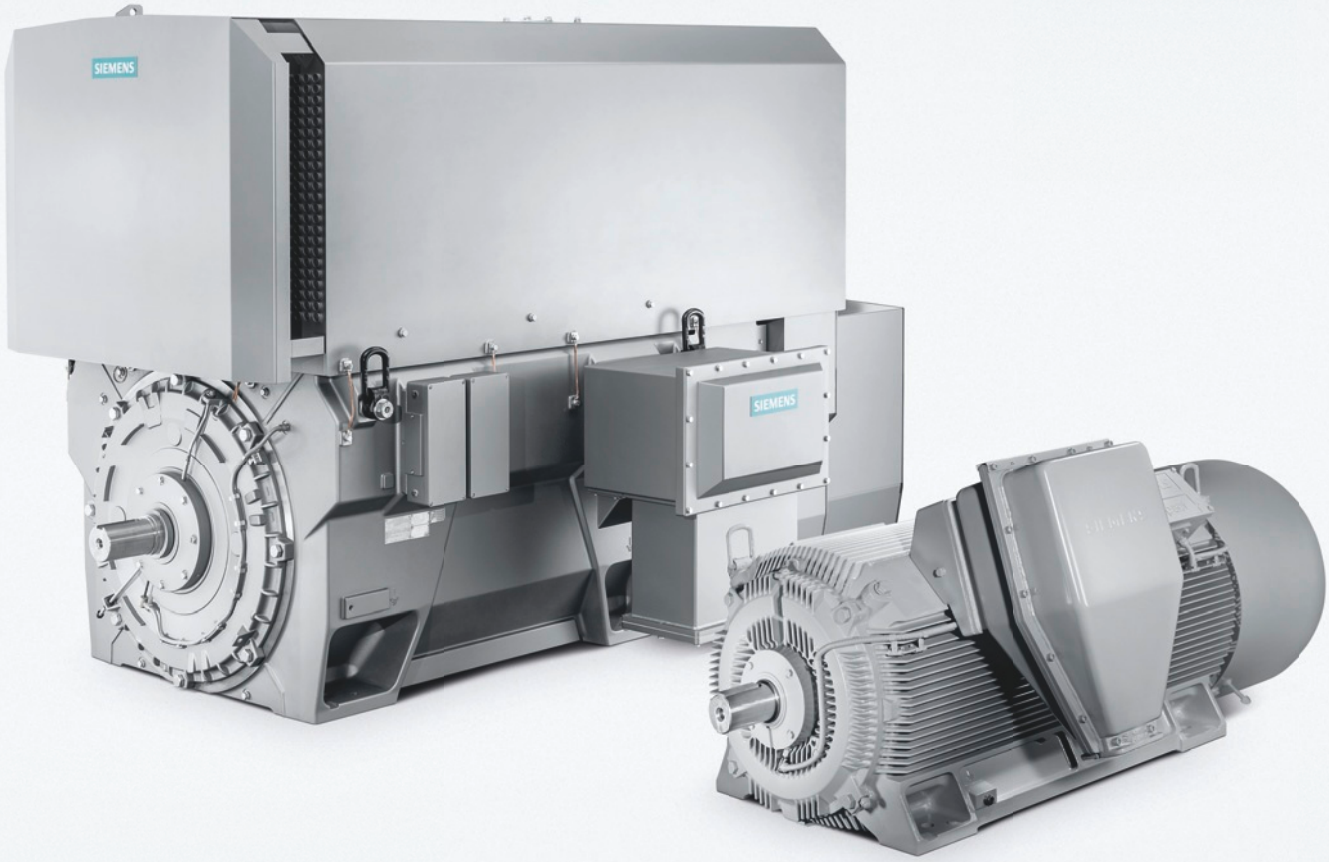
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SIEMENS



Motors

Three-Phase Induction Motors SIMOTICS HV, SIMOTICS TN

Series H-compact, Series H-compact PLUS

SIMOTICS HV M (Modular)

Catalog
D 84.1

Edition
July 2017

www.siemens.com/motors

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Related catalogs

SIMOTICS GP, SD, XP, DP D 81.1
Low-Voltage Motors
Type series 1FP1, 1LE1, 1MB1 and 1PC1
Frame sizes 71 to 315
Power range 0.09 to 200 kW
E86060-K5581-A111-A9-7600



High Voltage Three-phase Induction Motors D 84.9
SIMOTICS HV Series A-compact PLUS

E86060-K5584-A191-A1-7600



Three-Phase Induction Motors D 86.1
SIMOTICS HV Series H-compact
Standardline

E86060-K5586-A111-A3-7600



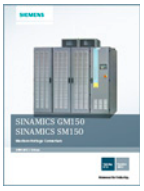
SINAMICS G130 D 11
Drive Converter Chassis Units
SINAMICS G150
Drive Converter Cabinet Units

E86060-K5511-A101-A6-7600



SINAMICS GM150/SINAMICS SM150 D 12
Medium-Voltage Converters

E86060-K5512-A101-A3-7600



SINAMICS S120 D 21.3
Chassis Format Converter Units
and Cabinet Modules
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SINAMICS D 15.1
PERFECT HARMONY GH180
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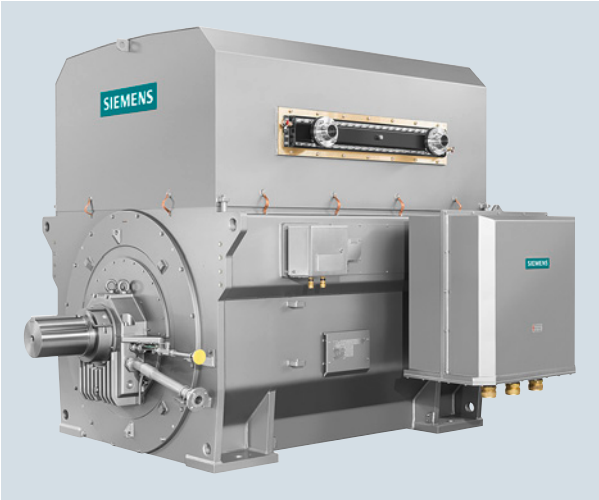
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Three-Phase Induction Motors
SIMOTICS HV, SIMOTICS TN

Motors



Catalog D 84.1 · July 2017

Supersedes:
Catalog D 84.1 · 2017

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Integrated Drive Systems

Faster on the market and in the black with Integrated Drive Systems

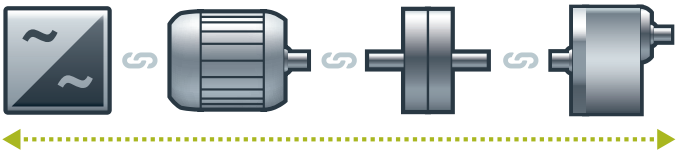
The motors in this catalog are an important element of a Siemens Integrated Drive System, contributing significantly to increased efficiency, productivity, and availability in industrial production processes.

Integrated Drive Systems are Siemens' trendsetting answer to the high degree of complexity that characterizes drive and automation technology today. The world's only true one-stop solution for entire drive systems is characterized in particular by its threefold integration: Horizontal, vertical, and lifecycle integration ensure that every drive system component fits seamlessly into the whole system, into any automation environment, and even into the entire lifecycle of a plant.

The outcome is an optimal workflow – from engineering all the way to service that entails more productivity, increased efficiency, and better availability. That's how Integrated Drive Systems reduce time to market and time to profit.

Horizontal integration

Integrated drive portfolio: The core elements of a fully integrated drive portfolio are frequency converters, motors, couplings, and gear units. At Siemens, they're all available from a single source. Perfectly integrated, perfectly interacting. For all power and performance classes. As standard solutions or fully customized. No other player in the market can offer a comparable portfolio. Moreover, all Siemens drive components are perfectly matched, so they are optimally interacting.



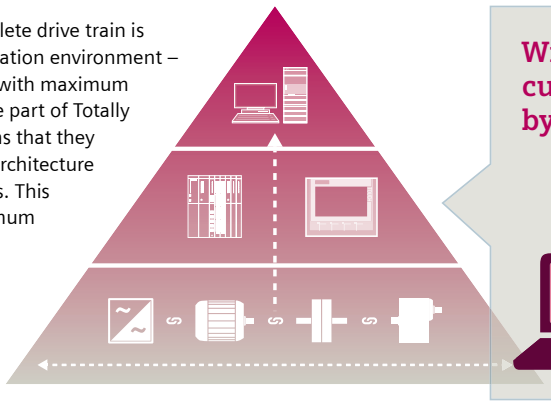
You can boost the availability of your application or plant to up to

99 %*

*e.g., conveyor application

Vertical integration

Thanks to **vertical integration**, the complete drive train is seamlessly integrated in the entire automation environment – an important prerequisite for production with maximum value added. Integrated Drive Systems are part of Totally Integrated Automation (TIA), which means that they are perfectly embedded into the system architecture of the entire industrial production process. This enables optimal processes through maximum communication and control.



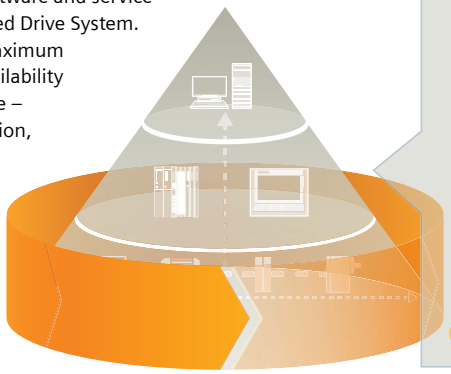
With TIA Portal you can cut your engineering time by up to

30 %

Lifecycle integration

Lifecycle integration adds the factor of time: Software and service are available for the entire lifecycle of an Integrated Drive System. That way, important optimization potential for maximum productivity, increased efficiency, and highest availability can be leveraged throughout the system's lifecycle – from planning, design, and engineering to operation, maintenance, and all the way even to modernization.

With Integrated Drive Systems, assets become important success factors. They ensure shorter time to market, maximum productivity and efficiency in operation, and shorter time to profit.



With Integrated Drive Systems you can reduce your maintenance costs by up to

15 %

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Introduction



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Overview

In this catalog, the SIMOTICS HV/TN motor series in the high-voltage and low-voltage version are described.

In addition to the general technical data, this catalog includes detailed descriptions of the standard versions and the options that can be supplied by specifying order codes. It should be noted that certain order codes and combinations of order codes are not possible for all motor types. Customized solutions can be offered on request.

Article number code

The Article No. comprises a combination of digits and letters.

For options, the Article No. is supplemented by an additional hyphen and the letter **Z**. In addition, the order codes for the corresponding options must be specified.

Example:

1LA4 354-4AN60-Z H05 + K16 + L20

Ordering data:

- Complete Article No. and order code(s).
- If a quotation is available, in addition to the Article No., the quotation number should also be specified.
- When ordering a complete motor as a spare part, please specify the factory serial No. of the previously supplied motor as well as the Article No.

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Overview

The following overview explains the meaning of the individual positions of the Article No. The selection tables in Chapters 2 to 4 include the motors available as standard from this range.

Structure of the Article No.:	Position:	1	2	3	4	5	6	7	-	8	9	10	11	12	-	Z
1st to 4th positions: Motor design	• Standard version															
	- Self-ventilated	1	L	A	4											
	- Force ventilated	1	P	Q	4											
	- Water-jacket-cooled	1	L	H	4											
	• Explosion-protected version															
	- Ex eb	1	M	A	4											
	- Ex pxb	1	M	G	4											
	- Ex ec	1	M	S	4											
5th to 6th positions: Shaft height	• 315 mm					3	1									
	• 355 mm					3	5									
	• 400 mm					4	0									
	• 450 mm					4	5									
	• 500 mm					5	0									
	• 560 mm					5	6									
	• 630 mm					6	3									
7th position: Laminated core length	• Short							0								
	• Medium							2								
	• Long							4								
	• Extra long							6								
8th position: Pole number	• 2-pole									2						
	• 4-pole									4						
	• 6-pole									6						
	• 8-pole									8						
	• 10-pole									3						
	• 12-pole									5						
9th position: Rotor version	• Standard aluminum rotor										A					
	• Special aluminum rotor										B					
	• Standard copper rotor										C					
	• Special copper rotor										D					
	• Special version (CuSi,...)										E					
10th position: Character for operation with:	• Line supply, low voltage											A				
	• Line supply, high voltage											N				
	• LV drive converter											M				
	• MV drive converter											V				
	• Converters, others (e.g. SINAMICS PERFECT HARMONY)											W				

11th position: voltage code	**Line supply, high voltage**:	**MV drive converter**:	**LV drive converter**:	
	3.3 kV, 50 Hz	2.3 kV, 50 Hz	690 V, 50 Hz	0
	6.6 kV, 60 Hz	2.3 kV, 60 Hz	–	1
	–	3.3 kV, 50 Hz	–	2
	3.0 kV, 50 Hz	3.3 kV, 60 Hz	–	3
	4.0 kV, 60 Hz	4.16 kV, 50 Hz	–	4
	5.0 kV, 50 Hz	4.16 kV, 60 Hz	–	5
	6.0 kV, 50 Hz	6.0 kV, 50 Hz	–	6
	6.6 kV, 50 Hz	6.6 kV, 50 Hz	–	7
	10 kV, 50 Hz	–	–	8
	Other voltage/frequency (additional text data)			9

12th position: Type of construction																
	• IM B3													0		
	• IM V1 with canopy													4		
	• IM V1 without canopy													8		
	• IM B35													6		
	Options: Additional order codes required.															

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Overview

Performance features of the H-compact series

The H-compact series of motors is characterized by:

- Extremely compact design
- Longest lifetime and highest reliability
- Globally proven Siemens MICALASTIC insulation system
- Proven over many years of use in the widest range of sectors
- Wide range of options, that allow the motor to be optimally adapted to customer requirements
- Various cooling concepts for every environment

Overview table of the H-compact series

Series	Version	Voltages	Powers	Degree of protection	Cooling method	Type of protection	Type of construction
1LA4	IEC	690 V	1150 ... 1650 kW[1)]	IP55	IC411	_	IM B3, IM B35, IM V1
		2.3 ... 11 kV	200 ... 3000 kW[2)]				
1LA4 Standardline		3.0; 3.3; 6.0; 6.6 kV	200 ... 800 kW[3)]			_	IM B3
1MS4		2.3 ... 11 kV	200 ... 3000 kW[2)]			Ex ec	IM B3, IM B35, IM V1
1MG4		2.3 ... 11 kV	200 ... 3000 kW[2)]			Ex pxb	
1MA4		3.4 ... 6.6 kV	170 ... 630 kW[3)]			Ex eb	
1PQ4		690 V	1150 ... 1700 kW[1)]		IC416	_	
		2.3 ... 6.6 kV	1180 ... 2950 kW[4)]				
1LH4		690 V	1380 ... 1750 kW[1)]		IC71W	_	
		2.3 ... 6.6 kV	1224 ... 1488 kW[3)]				

Cooling method	
IC411	Rib-cooled, self-ventilated
IC416	Rib-cooled, force-ventilated
IC71W	Water-jacket-cooled

Type of protection	
Ex ec	Increased safety of the motor, Zone 2
Ex pxb	Pressurized motor enclosure, increased safety of the terminal box, Zone 1
Ex eb	Increased safety of the motor, Zone 1

Degree of protection	
IP55	Enclosed, protected against dust and jet-water

Type of construction	
IM B3	Horizontal, with feet, without flange
IM B35	Horizontal, with feet, with flange
IM V1	Vertical, without feet, with flange

1LA4 Standardline version

The 1LA4 Standardline motors are self-ventilated, enclosed rib-cooled motors belonging to the H-compact series with a restricted range of options. Due to the fact that there are a restricted number of selectable options, they have significantly shorter delivery times as a result of the simplified order administration and the standardized production process. The compact and rugged design guarantees a high degree of reliability and availability for small frame sizes.

With Standardline, a defined range of motors (pole number, power rating) are available for line operation.
See Catalog D 86.1.

1) Only for converter operation. Values apply for 50 Hz, 4-pole version, insulation system, thermal class 155 (F), utilized to 155 (F).

2) Values apply for 2.3 to 6.6 kV, 50 Hz, 4-pole version, insulation system, thermal class 155 (F), utilized to 130 (B).

3) Values apply for 50 Hz, 4-pole version, insulation system, thermal class 155 (F), utilized to 130 (B).

4) Values apply for 6 to 6.6 kV, 50 Hz, 4-pole version, insulation system, thermal class 155 (F), utilized to 155 (F).

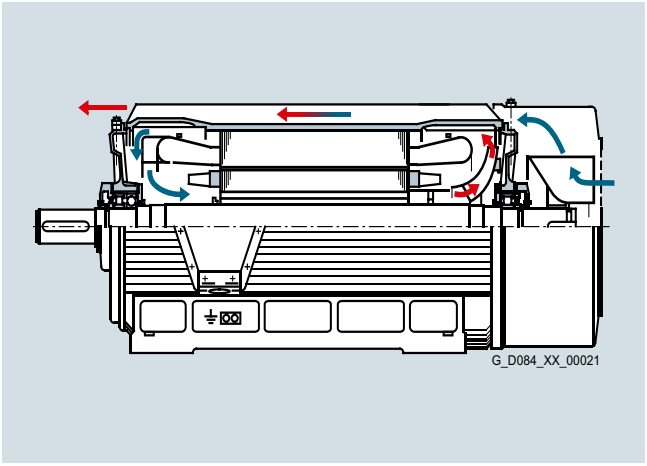
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Mode of operation

Self-ventilated, IC411 cooling type, 1LA4, 1MA4, 1MS4, 1MG4 series

Self-ventilated, rib-cooled motors have a technically sophisticated cooling concept that corresponds to cooling type IC411 according to DIN EN 60034-6/VDE 0530-6 (IEC 60034-6) with an additional, inner cooling air circuit with fan. As can be seen in the diagram, a fan is located at the non-drive end, which draws in the air from outside and blows it axially over the outer cooling ribs of the housing. Heat is exchanged with the inner cooling circuit at this location, which guarantees a uniform temperature distribution in the active motor and bearing areas.

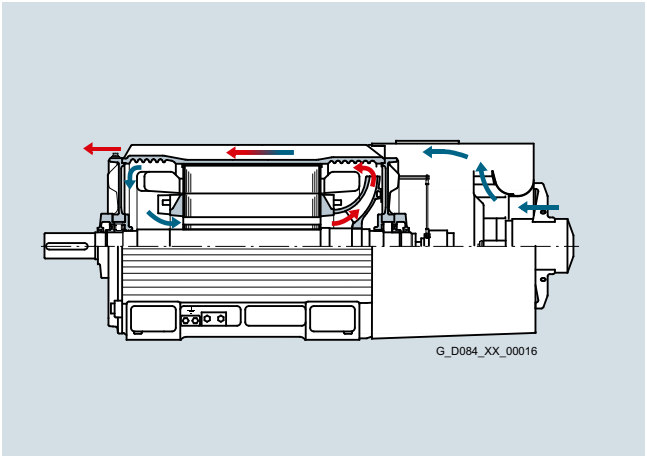
The fan impellers for the inner and outer cooling air flow are mounted on the motor shaft and play a role in achieving the significantly reduced noise level thanks to their optimized aerodynamic design.



Force-ventilated, IC416 cooling type, 1PQ4 series

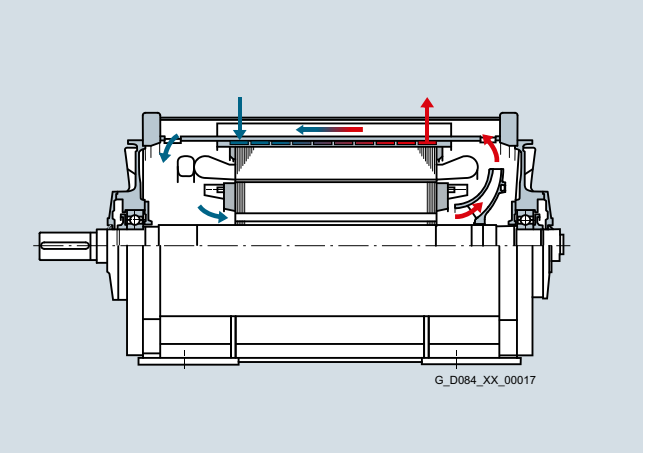
For the force-ventilated motors, a fan unit is located at the non-drive end, which draws in the air from outside and blows it axially over the outer cooling ribs of the housing. Heat is exchanged with the inner cooling circuit at this location, which guarantees a uniform temperature distribution in the active motor and bearing areas.

The fan impeller for the inner cooling circuit is mounted on the motor shaft and is bidirectional. Further, the outer cooling air flow is generated from a separately-driven fan that guarantees a constant cooling power in every operating state. This means that the motor can always be operated over its complete speed control range and in both directions of rotation.



Water-jacket-cooled, IC71W cooling type, 1LH4 series

The water-jacket-cooled motors have a double wall frame jacket with a spiral cooling water duct and, in addition, an inner cooling air circuit. The cooling water inlet is at the drive end, the outlet is at the non-drive end. Intensive heat exchange takes place through the cooling water. The inner air cooling circuit guarantees a uniform temperature distribution in the active motor and bearing areas.



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Overview

The following overview explains the meaning of the individual positions of the Article No. The selection tables in Parts 2 to 4 include the motors available as standard from this range.

Structure of the Article No., shaft heights 450 mm to 630 mm			Position:	1	2	3	4	5	6	7	-	8	9	10	11	12	-	Z
1st to 4th position: Motor version	**Standard version**																	
	Degree of protection/cooling																	
	IEC	**NEMA**																
	Open-circuit ventilated	IP23/IC01	–	**1**	**R**	**A**	**4**											
	Air/air cooling	IP55/IC611 or IC616	–	**1**	**R**	**Q**	**4**											
	Air/water cooling	IP55/IC81W or IC86W	–	**1**	**R**	**N**	**4**											
	Open-circuit ventilated	IP23/IC01	–	**1**	**R**	**A**	**6**											
	Open-circuit ventilated	IP24W/IC01	WPII	**1**	**R**	**P**	**6**											
	Air/air cooling	IP55/IC611 or IC616	TEAAC	**1**	**R**	**Q**	**6**											
	Air/water cooling	IP55/IC81W or IC86W	TEWAC	**1**	**R**	**N**	**6**											
	Ex eb version																	
	Air/air cooling	IP55/IC611 or IC616	–	**1**	**S**	**J**	**4**											
	Air/water cooling	IP55/IC81W or IC86W	–	**1**	**S**	**N**	**4**											
	Air/air cooling	IP55/IC611 or IC616	–	**1**	**S**	**J**	**6**											
	Air/water cooling	IP55/IC81W or IC86W	–	**1**	**S**	**N**	**6**											
	Ex ec version																	
	Air/air cooling	IP55/IC611 or IC616	–	**1**	**S**	**G**	**4**											
	Air/water cooling	IP55/IC81W or IC86W	–	**1**	**S**	**L**	**4**											
	Air/air cooling	IP55/IC611 or IC616	–	**1**	**S**	**G**	**6**											
	Air/water cooling	IP55/IC81W or IC86W	–	**1**	**S**	**L**	**6**											
	Ex pxb version																	
	Air/air cooling	IP55/IC611 or IC616	–	**1**	**S**	**B**	**4**											
	Air/water cooling	IP55/IC81W or IC86W	–	**1**	**S**	**Q**	**4**											
	Air/air cooling	IP55/IC611 or IC616	–	**1**	**S**	**B**	**6**											
	Air/water cooling	IP55/IC81W or IC86W	–	**1**	**S**	**Q**	**6**											
5th to 6th position: Shaft height	• 450 mm							**4**	**5**									
	• 500 mm							**5**	**0**									
	• 560 mm							**5**	**6**									
	• 630 mm							**6**	**3**									
7th position: Laminated core length	The laminated core length is coded in digits 0 to 9 (without fixed assignment)																	
8th position: Pole number	• 2-pole											**2**						
	• 4-pole											**4**						
	• 6-pole											**6**						
	• 8-pole											**8**						
	• 10-pole											**3**						
	• 12-pole											**5**						
	• 14-pole											**7**						
	• 16-pole			Additional order code H1A								**9**						

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Overview (continued)

Structure of the Article No.:	Position:	1	2	3	4	5	6	7	-	8	9	10	11	12	-	Z
9th position: Cooling method for:	**IEC version:**	**Cooling method:**														
	• With shaft-mounted fan (basic version) or shaft-mounted fan for the inner and separately-driven fan for the outer cooling circuit	IC01/IC81W									**H**					
		IC616									**H**					
	• With shaft-mounted fan for the inner and outer cooling circuits	IC611									**J**					
	• With separately-driven fan for the inner or for the inner and outer cooling circuits	IC86W/IC666									**F**					
	NEMA version (only available for 1R.6 motors with shaft height 710; other shaft heights on request)	**Cooling method:**														
	• With separately-driven fan for the inner and outer cooling circuits	TEAAC									**A**					
	• With shaft-mounted fan	WPII or TEWAC									**B**					
	• With shaft-mounted fan for the inner and separately-drive fan for the outer cooling circuit	TEAAC									**B**					
	• With shaft-mounted fan for the inner and outer cooling circuits	TEAAC									**C**					

10th position: Rotor version or drive converter type	**Line operation**	**Letter**	**Converter operation**	**Letter**
	1R.4: Standard rotor with E-Cu	**E**	1R.4: MV drive converter	**V**
	1R.4: Standard rotor with CuSi	**S**	1R.4: LV drive converter	**M**
	1R.6: Standard rotor with E-Cu	**JKL** (power-dependent)	1R.6: LV drive converter; copper rotor	**P** (SINAMICS G/ SINAMCIS S)
				Q (other converters)
	1R.6: Standard rotor with CuSi	**MN** (power-dependent)	1R.6: MV drive converter; copper rotor	**S** (SINAMICS GM/ SINAMICS SM)
				T (SINAMICS PERFECT HARMONY)
				U (other converters)
	1R.4 and 1R.6: Special rotor with E-Cu	**X**		
	1R.4 and 1R.6: Special rotor with CuSi	**Y**		

11th position: Voltage code	**1R.4: Line operation:**	**1R.4: Operation with MV drive converter:**	**1R.4: Operation with LV drive converter**	**1R.6: Line operation**	**1R.6: Converter operation**	
	3.3 kV, 50 Hz	2.3 kV, 50 Hz	690 V, 50 Hz, on request	3.3 kV, 50 Hz	690 V, 50 Hz	**0**
	6.6 kV, 60 Hz	2.3 kV, 60 Hz	–	6.6 kV, 60 Hz	690 V, 60 Hz	**1**
	–	3.3 kV, 50 Hz	–	13.2 kV, 60 Hz	2,3 kV, 50 Hz	**2**
	3.0 kV, 50 Hz	3.3 kV, 60 Hz	–	4.16 kV, 60 Hz	4,16 kV, 60 Hz	**3**
	4.0 kV, 60 Hz	4.16 kV, 50 Hz	–	4.0 kV, 60 Hz	4,16 kV, 50 Hz	**4**
	5.0 kV, 50 Hz	4.16 kV, 60 Hz	–	2.3 kV, 60 Hz	3,3 kV, 50 Hz	**5**
	6.0 kV, 50 Hz	6.0 kV, 50 Hz	–	6.0 kV, 50 Hz	6,0 kV, 50 Hz	**6**
	6.6 kV, 50 Hz	6.6 kV, 50 Hz	–	6.6 kV, 50 Hz	6,6 k V, 50 Hz	**7**
	10 kV, 50 Hz	–	–	10 kV, 50 Hz	6,6 kV, 60 Hz	**8**
	Other voltage/frequency (additional text data)					**9**

12th position: Type of construction		
	• IM B3	**0**
	• IM V1 with canopy (for shaft height 630 mm, only in type of construction IM V10)	**4**
	• IM V1 without canopy (for shaft height 630 mm, only in type of construction IM V10)	**8**

Options: Additional order code required. Refer to section Options and tests in Chapter 2, Chapter 3 and Chapter 4.

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Overview

The following overview explains the meaning of the individual positions of the Article No. The selection tables in Parts 2 to 4 include the motors available as standard from this range.

Structure of the Article No., shaft heights 710 mm to 800 mm	Position:	1	2	3	4	5	6	7	-	8	9	10	11	12	-	13	14	15	16	Z
1st to 3th position: Motor version, Ex-protection	Ex-protection																			
Air/air cooling	non Ex	1	R	Q																
Air/air cooling	Ex ec	1	S	G																
Air/air cooling	Ex pxb	1	S	B																
Air/air cooling	Ex eb	1	S	J																
Basic design, open-circuit ventilated	non Ex	1	R	A																
Weather protected design, open-circuit ventilated	non ex	1	R	P																
Air/water cooling	non Ex	1	R	N																
Air/water cooling	Ex ec	1	S	L																
Air/water cooling	Ex pxb	1	S	Q																
Air/water cooling	Ex eb	1	S	N																
4th position: Motor series	SIMOTIC HV M (modular)				7															
5th to 6th position: Shaft height	• 710 mm					7	1													
	• 800 mm					8	0													
7th position: Laminated core length	The laminated core length is coded in digits 0 to 9 (without fixed assignment)																			
8th position: Pole number	• 2-pole									2										
	• 4-pole									4										
	• 6-pole									6										
	• 8-pole									8										
	• 10-pole									3										
	• 12-pole									5										
	• 14-pole									7										
	• 16-pole									0										
	• 18-pole									1										
	• Other pole numbers	Additional order code required								9										
9th position: Cooling method for:		**Cooling method:**																		
	• Open inner cooling air circuit	IC01									F									
	• Weather-protected design, open circuit	WPII									H									
	• Air/air cooling	TEAAC – IC611									J									
	• Air/air cooling with forced ventilation for outer air circuit	TEAAC – IC616									K									
	• Air/air cooling with forced ventilation for inner air circuit	TEAAC – IC661									L									
	• Air/air cooling with forced ventilation for inner and outer air circuit	TEAAC – IC666									M									
	• Air/water cooling	TEWAC – IC81W									N									
	• Air/water cooling with forced ventilation	TEWAC – IC86W									P									

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Overview (continued)

Structure of the Article No.:	Position:	1	2	3	4	5	6	7	-	8	9	10	11	12	-	13	14	15	16	Z
10th position: Motor for line operation or for converter operation	**For line operation with**																			
	• High voltage motor											**A**								
	• Low voltage motor											**B**								
	For converter operation with																			
	• SINAMICS G150											**C**								
	• SINAMICS S120											**D**								
	• SINAMICS S150											**E**								
	• SINAMICS G180											**F**								
	• SINAMICS GM150											**R**								
	• SINAMICS SM150											**S**								
	• SINAMICS GH180											**T**								
	• SINAMICS GH150											**U**								
	• Other converters (additional text data)											**Z**								
11th position: Voltage code	**Line operation** / **Operation with MV drive converter** / **Line/converter operation**																			
	3.3 kV, 50 Hz / 7.2 kV, 50 Hz / 690 V, 60 Hz												**0**							
	6.6 kV, 60 Hz / 11 kV, 50 Hz / 690 V, 50 Hz												**1**							
	13.2 kV, 60 Hz / 2.3 kV, 50 Hz / –												**2**							
	4.16 kV, 60 Hz / 4.16 kV, 60 Hz / –												**3**							
	4 kV, 60 Hz / 4.16 kV, 50 Hz / 400 V												**4**							
	2.3 kV, 60 Hz / 3.3 kV, 50 Hz / 500V												**5**							
	6.0 kV, 50 Hz / 6 kV, 50 Hz / –												**6**							
	6.6 kV, 50 Hz / 6.6 kV, 50 Hz / 660 V												**7**							
	10 kV, 50 Hz / 6.6 kV, 60 Hz / –												**8**							
	Other voltages/frequency (additional text data)												**9**							
12th position: Type of construction	• IM B3 (IM 1001)													**0**						
	• IM V1, without protective hood (IM 3011)													**8**						
	• Other mounting types (additional text data)													**9**						
13th position: Temperature class (for explosion protection)	• Without temperature class															**0**				
	• Temperature class T2															**2**				
	• Temperature class T3															**3**				
	• Temperature class T4															**4**				
14th position: Rotor version	• Standard rotor – E-Cu																**C**			
	• Special rotor – E-Cu																**D**			
	• Standard rotor – CuSi																**E**			
	• Special rotor – CuSi																**F**			
	• Special rotor – with other material type																**G**			
15th position: Housing and bearing version	• Steel fabricated housing / anti-friction bearings																	**G**		
	• Steel fabricated housing / sleeve bearing																	**J**		
16th position: Category	• Standard series																		**0**	
Z position:	Options: Additional order code required. Refer to section Options and tests in Chapter 2, Chapter 3 and Chapter 4.																			**Z**

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Overview

Performance features of the H-compact PLUS and SIMOTICS HV M series

The H-compact PLUS and SIMOTICS HV M motors have a modular design (main motor housing with different possible cooling top enclosures).

This means that the following cooling methods can be implemented:

- Air/water cooling
- Air/air cooling
- Open-circuit cooling

The new 1R.6/1S.6 and 1R.7/1S.7 series are the second generation of the H-compact PLUS motors. They offer higher power ratings (for two-pole motors), permit a higher external moment of inertia, sport an innovative design as well as an extended range of options.

Overview table of the H-compact PLUS series

Series	Version	Voltages	Powers	Degree of protection	Cooling method	Type of protection	Type of construction
1RA4	IEC	690 V	1370 … 2800 kW[2]	IP23	IC01	No	IM B3, IM V1, (shaft height 630 only V10)
1RA6		3.3 … 11 kV[1]	1370 … 11700 kW[3]				
1RN4	IEC	690 V	1370 … 2800 kW[2]	IP55	IC81W	No	
1RN6		3.3 … 11 kV[1]	1370 … 11700 kW[3]				
1RQ4	IEC	690 V	1090 … 2400 kW[2]	IP55	IC611/IC616/IC666	No	
1RQ6		3.3 … 11 kV[1]	1090 … 8700 kW[3]				
1SG4	IEC	690 V	1090 … 2400 kW[2]	IP55	IC611/IC616/IC666	Ex ec, Ex tc	
1SG6		3.3 … 11 kV[1]	1090 … 8700 kW[3]				
1SL4	IEC	690 V	1370 … 2800 kW[2]	IP55	IC81W	Ex ec, Ex tc	
1SL6		3.3 … 11 kV[1]	1370 … 11700 kW[3]				
1SB4	IEC	690 V	1090 … 2400 kW[2]	IP55	IC611/IC616/IC666	Ex pxb	
1SB6		3.3 … 11 kV[1]	1090 … 8700 kW[3]				
1SQ4	IEC	690 V	1370 … 2800 kW[2]	IP55	IC81W	Ex pxb	
1SQ6		3.3 … 11 kV[1]	1370 … 11700 kW[3]				
1SJ4, 1SJ6	IEC	On request	On request	IP55	IC611/IC616/IC666	Ex eb	
1SN4, 1SN6					IC81W		
1RP6	IEC	690 V	1370 … 2800 kW[2]	IP24W	IC01	No	IM B3, IM V1
		3.3 … 11 kV	1370 … 11700 kW[3]				
	NEMA	3.3 … 13.8 kV	11000 … 18000 hp[4]	WPII	Open	No	
1RN6	NEMA	3.3 … 13.8 kV	11000 … 18000 hp[4]	TEWAC	Air/water	No	
1RQ6	NEMA	3.3 … 13.8 kV	11000 … 18000 hp[4]	TEAAC	Air/air	No	
1SG6	NEMA	3.3 … 13.8 kV	11000 … 18000 hp[4]	TEAAC	Air/air	Class 1, Div 2	
1SL6	NEMA	3.3 … 13.8 kV	11000 … 18000 hp[4]	TEWAC	Air/water	Class 1, Div 2	

Overview table of the SIMOTICS HV M series, shaft heights 710 and 800 mm

Series	Version	Voltages	Powers	Degree of protection	Cooling method	Type of protection	Type of construction
1RN7, 1RA7, 1RP7	IEC	3.3 … 11 kV[1]	9000 … 12500 kW[3]	IP55/IP24W	IC81W/IC86W/IC01	No	IM B3, IM V1
1RQ7	IEC	3.3 … 11 kV[1]	7000 … 9500 kW[3]	IP55	IC611/IC616/IC666	No	
1SG7	IEC	3.3 … 11 kV[1]	7000 … 9500 kW[3]	IP55	IC611/IC616/IC666	Ex ec, Ex tc	
1SL7	IEC	3.3 … 11 kV[1]	9000 … 12500 kW[3]	IP55	IC81W/IC86W	Ex ec, Ex tc	

Note: Detailed data for shaft height 800 mm on request.

[1] 13.8 kV on request.

[2] Power rating values apply for 690 V, 50 Hz, 4-pole version, insulation system thermal class 155 (F), utilized to 155 (F).

[3] Power rating values apply for 6 kV, 50 Hz, 4-pole version, insulation system thermal class 155 (F), utilized to 130 (B).

[4] Power rating values apply for 6.6 kV, 60 Hz, 4-pole version, insulation system thermal class 155 (F), utilized to 130 (B).

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Overview (continued)

Cooling method	
IC01	Air-cooled, self-ventilated
IC81W	Air/water cooler, inner cooling circuit self-ventilated
IC86W	Air/water cooler, inner cooling circuit force-ventilated
IC611	Air/air cooler, inner cooling circuit self-ventilated, outer cooling circuit self-ventilated
IC616	Air/air cooler, inner cooling circuit self-ventilated, outer cooling circuit force-ventilated
IC666	Air/air cooler, inner cooling circuit force-ventilated, outer cooling circuit force-ventilated
TEWAC	Closed motor with air/water cooler
TEAAC	Closed motor with air/air cooler
Type of protection	
Ex ec	Increased safety of the motor, Zone 2
Ex pxb	Pressurized motor, increased safety of the terminal box, Zone 1
Class1, Div 2	Non-sparking motor

Degree of protection	
IP23	Protected against the ingress of solid foreign bodies with a diameter greater than 12 mm and water spray
IP24W	Protected against the ingress of solid foreign bodies with a diameter greater than 12 mm and splashwater. Weather-protected version.
IP55	Protected against dust and jet-water
WPII	Weather-protected motor with air intake baffles
TEWAC	Closed motor with air/water cooler
TEAAC	Closed motor with air/air cooler
Type of construction	
IM B3	Horizontal, with feet, without flange
IM V1	Vertical, without feet, with flanged bearing shield
IM V10	Vertical, without feet, with flange at the enclosure

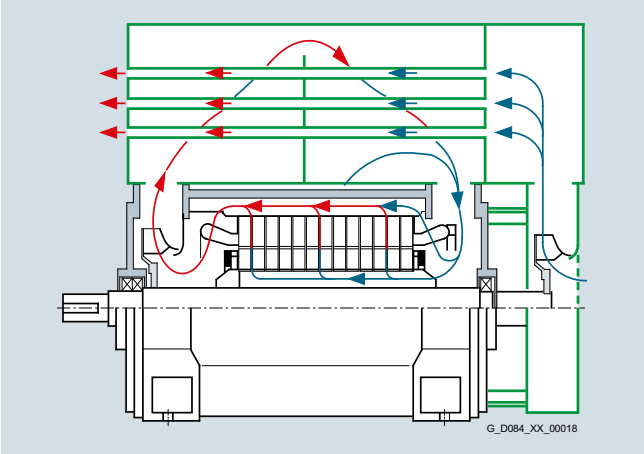
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Mode of operation

The following diagrams show the general mode of operation of the cooling. They do not include any design details.

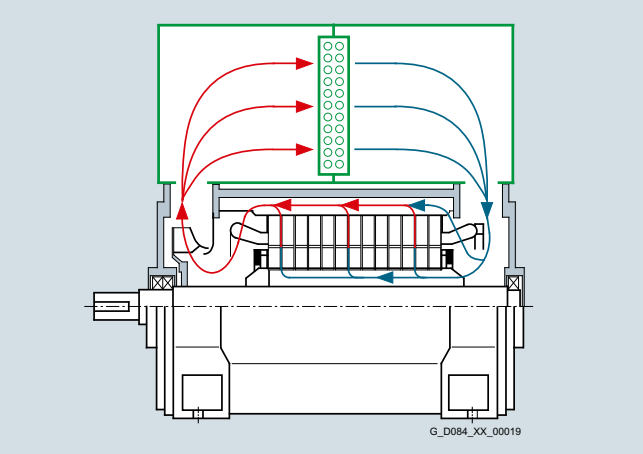
Air/air heat exchanger (IC611)

1RQ. series with one-sided ventilation

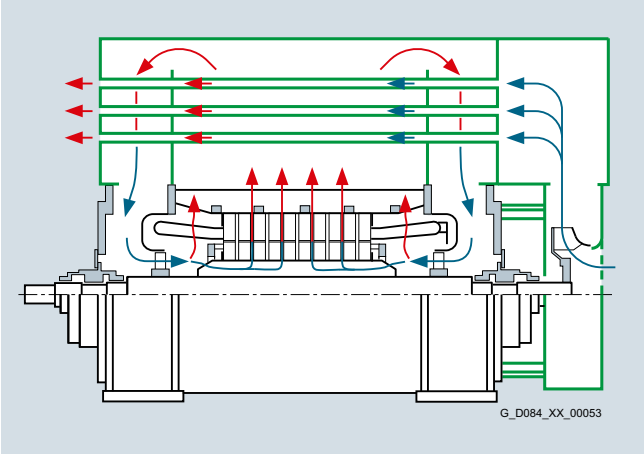


Air/water heat exchanger (IC81W)

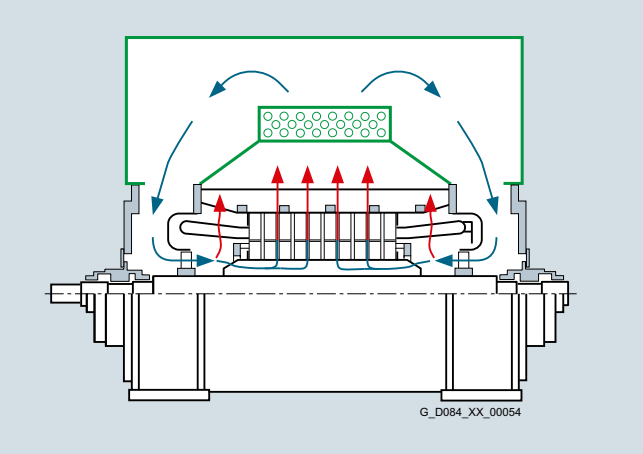
1RN. series with one-sided ventilation



1RQ. series with two-sided ventilation



1RN. series with one-sided or two-sided ventilation

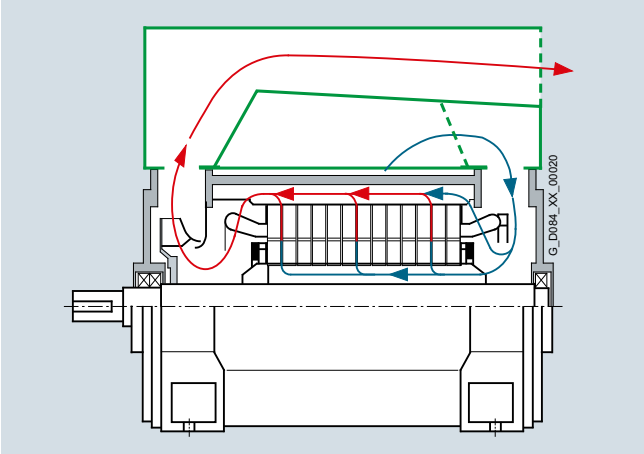


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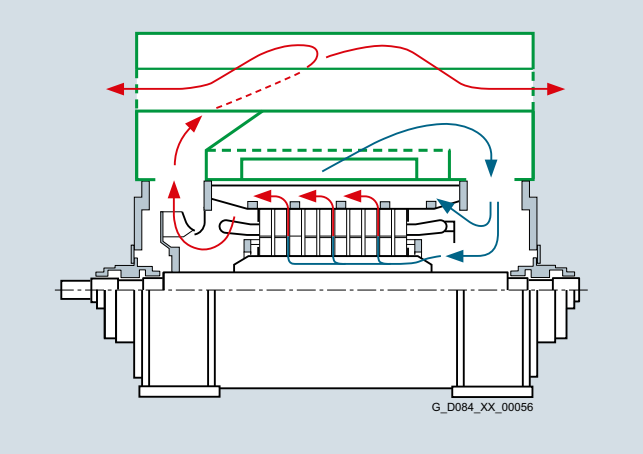
Mode of operation (continued)

Open-circuit ventilation (IC01)

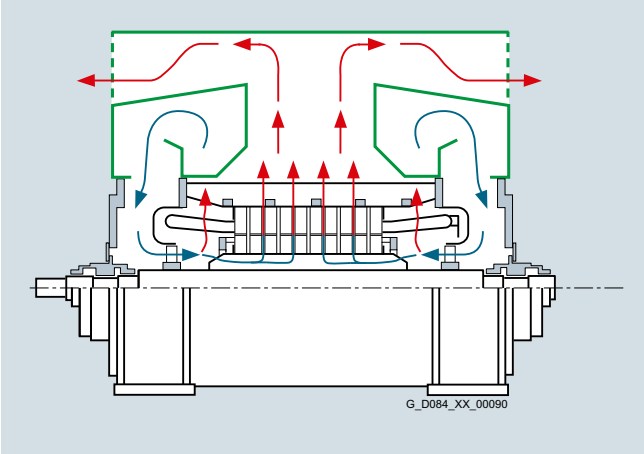
1RA. series with one-sided ventilation



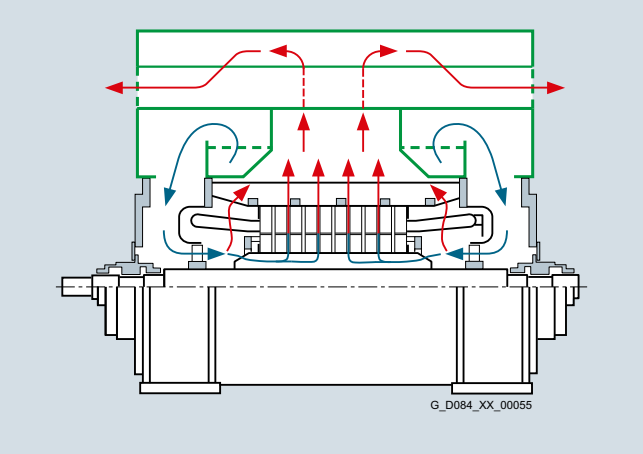
1RP. series with one-sided ventilation



1RA. series with two-sided ventilation



1RP. series with two-sided ventilation



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Overview

Motor protection

A series of standard and optional monitoring and protective devices are available for motor protection.

Protective device	Description
Stator winding monitoring	6 PT100 resistance thermometers for temperature monitoring as standard.
Anti-friction bearing monitoring	Measuring nipple for shock pulse measurement as standard. Optional PT100 resistance thermometer for temperature monitoring.
Sleeve bearing monitoring	Optional PT100 resistance thermometer for temperature monitoring. Optional for circulating oil cooling: Throttle valves, manometer and flowmeter in the oil intake line. Optional holes in the oil discharge line to mount a thermometer or a sight glass to monitor the oil flow.
Shaft vibration monitoring	Optional for motors with sleeve bearings.
Air temperature monitoring in the cooling circuit	Optional using a thermometer in the cooler assembly on the air intake and air discharge side for H-compact PLUS motors.
Leakage water monitoring	Optional using sensors in the cooler housing for water-cooled H-compact PLUS and SIMOTICS HV M motors
Starting and speed monitoring	Optional rotary pulse encoder for motors for converter operation.
Anti-condensation heating	Standard for H-compact PLUS and SIMOTICS HV M motors. Optional for H-compact motors.

Electrical design

High voltage motors have the Siemens MICALASTIC insulation system according to thermal class 155 (F).

The rotor windings of H-compact motors are manufactured out of die cast aluminum or copper:

Shaft height	Rotor design with number of poles					
mm	2	4	6	8	10	12
315	Al	Al	Al	–	–	–
355	Al	Al	Al	Al	–	–
400	Al	Al	Al	Al	–	–
450	Al	Al/Cu	Al	Al	Al	Cu
500	Cu	Al	Cu	Cu	Cu	Cu
560	Cu	Cu	Cu	Cu	Cu	Cu
630	Cu	Cu	Cu	Cu	Cu	Cu

H-compact PLUS and SIMOTICS HV M motors always have copper rotors.

Motor connection and terminal boxes for high voltage motors

The motor terminal boxes are generously dimensioned. This design allows cables, which are generally used worldwide, to be simply and quickly connected up as well as to accommodate all of the generally used cable entry fittings.

Arrangement of the motor terminal box (standard version):

When viewing the drive side, the motor terminal box is mounted at the righthand side of the stator frame with cable entry from the bottom. When requested, it can be mounted on the lefthand side. However, it must be specified when ordering. When requested, the terminal box can be mounted, rotated through 90° or through 180° if the spatial situation at the machine permits this (except for terminal boxes with cast cable entry glands).

Terminal arrangement according to DIN 42962.

Degree of protection of the motor terminal box: IP55, IP56, IP66 – depending on the terminal box type (refer to the table).

The motor terminal boxes comprise a lower section or housing, bolted to the stator frame, and a removable cover. The 1XA8711, 1XB8911 and 1XB8751 terminal boxes that are normally used have bushings manufactured out of casting resin. All of the other terminal boxes have cast-resin post insulators with bolted busbars (exception: cable connector connection).

All motor terminal boxes are short-circuit proof. If a short-circuit occurs in the motor, all of the forces generated by the short-circuit current are reliably handled by the components in the terminal box (e.g. cast-resin post insulators).

Further, all motor terminal boxes are short-circuit proof. If arcs occur in the motor terminal box, the pressure generated is immediately dissipated using a pressure relief mechanism.

Short-circuit strength and short-circuit proof of the motor terminal boxes used as standard:

- 400 MVA at 6 kV; 0.2 s
- 700 MVA at 10 kV; 0.2 s

These values correspond to a rated peak withstand current of approx. 100 kA.

Motor connecting cable and cable entry fittings are not supplied with the motor.

Protection for line-operated high voltage motors against switching overvoltages

The motor windings are dimensioned according to the requirements of IEC 60034-15. If higher overvoltages can occur, overvoltage protection is required at the supply side or can be offered as a motor option.

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Overview

Overview of the generally used motor terminal boxes

Terminal box	Rated voltage	Current	Cable entries	Cable entry diameter, max.
	kV	A	Number	mm
1XB1 631	1	1230	4	75
1XA8 711	6.6	315	1	75
1XB8 751	6.6	630 (for parallel connection)	2	75
1XB8 911	11	315	1	75
1XD1 543-3AA	11	1200	–	–
1XD1 566-3AA	11	2750	–	–
1XD1 643-3AA	13.2	800	–	–

Cable connector connection on request.

Connection options

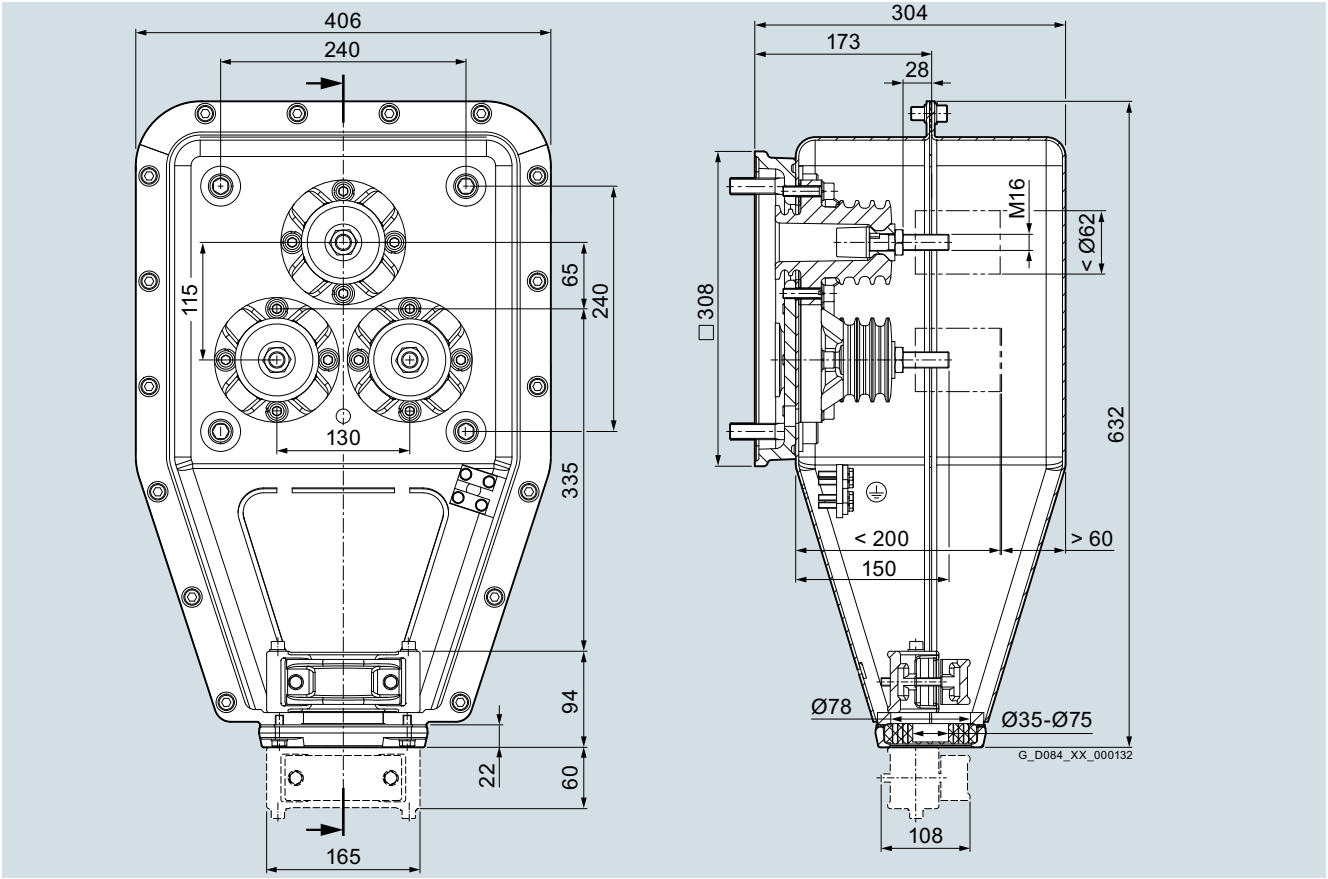
Terminal box	Terminal element	Number of cables	Cable cross-section (Cu or Al), max. that can be introduced	Weight	Degree of protection to DIN EN 60529
			mm^2	kg	
1XB1 631	Cable lug	4 cables, 3-conductor	240	83	IP55
1XA8 711	Connecting terminal on M16 studs Connection with cable lug and two hexagon nuts	1 cable, 3-conductor	1 x 3 x 240	42	IP55[1)]
1XB8 751	Connecting terminal on M16 studs Connection with cable lug and two hexagon nuts	2 cables, 3-conductor	2 x 3 x 240	131	IP56
1XB8 911	Connecting terminal on M16 studs Connection with cable lug and two hexagon nuts	1 cable, 3-conductor	1 x 3 x 240	93	IP56
1XD1 543-3AA	Cable lug on busbar	6 cables, 1-conductor	300	230	IP55
1XD1 566-3AA	Cable lug on busbar	10 cables, 1-conductor	300	170	IP55[1)]
1XD1 643-3AA	Cable lug on busbar	4 cables, 1-conductor	300	500	IP55

[1)] IP66 on request.

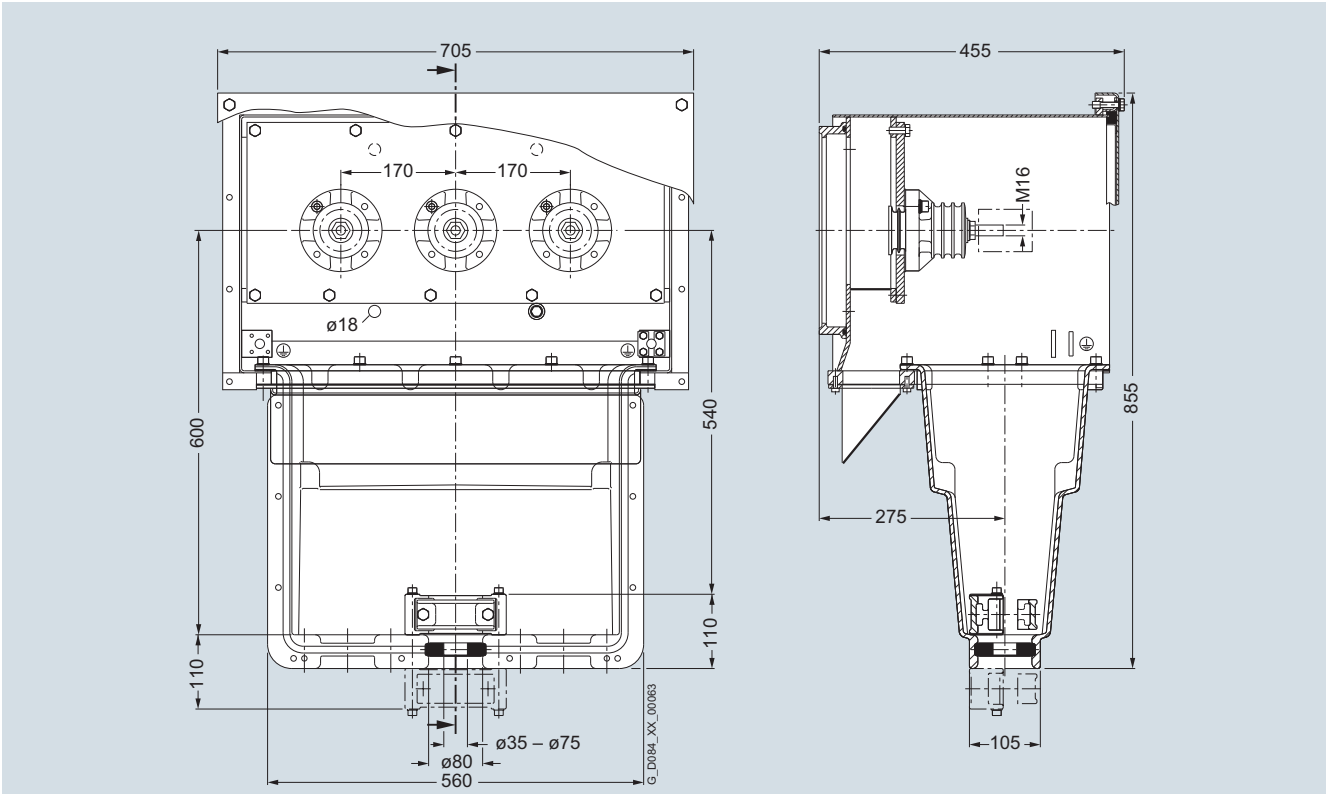
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Dimension drawings

Terminal box type 1XA8 711 (up to 6.6 kV, 3 terminals)



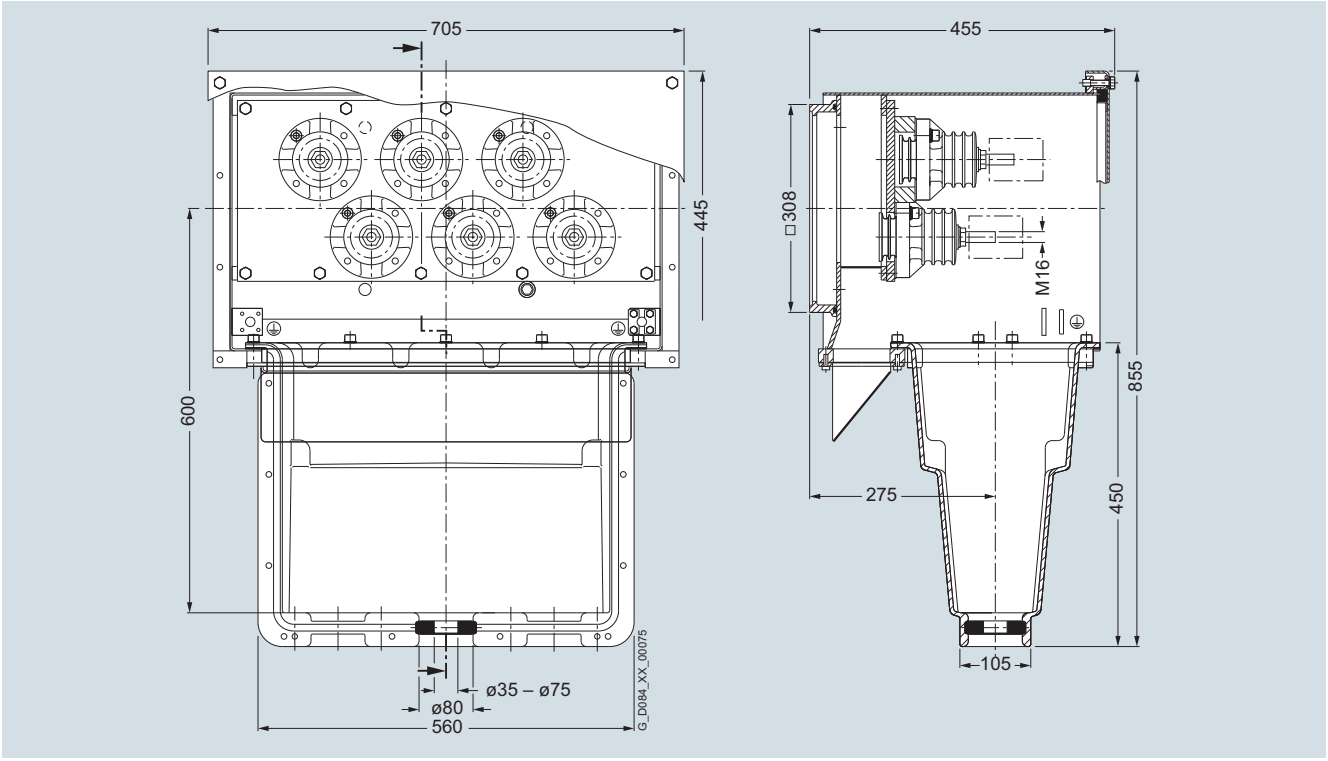
Terminal box type 1XB8 911 (up to 11 kV)



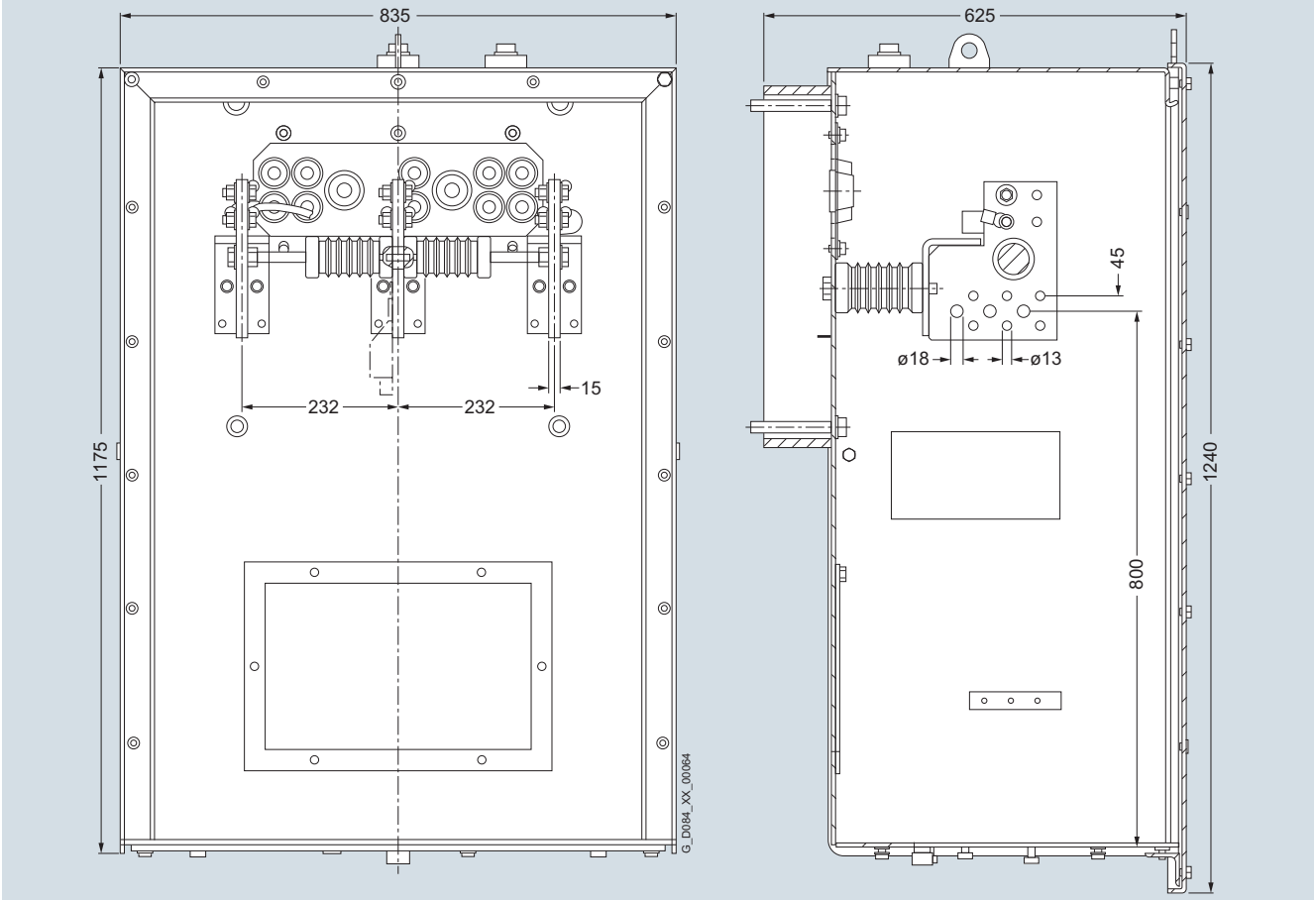
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Dimension drawings (continued)

Terminal box type 1XB8 751 (up to 6.6 kV, 6 terminals)



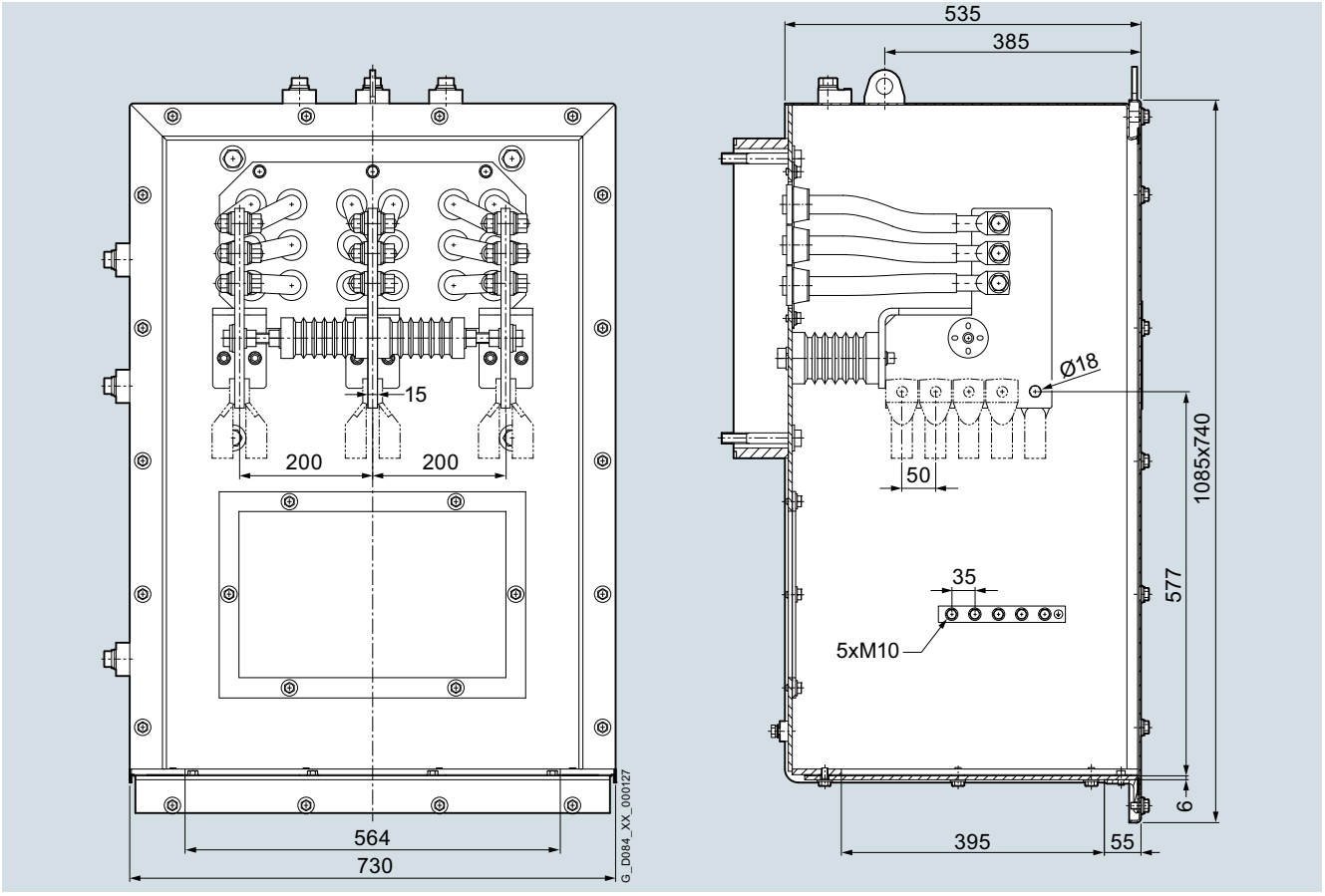
Terminal box type 1XD1 543-3AA up to 11 kV IEC and 6.6 kV NEMA



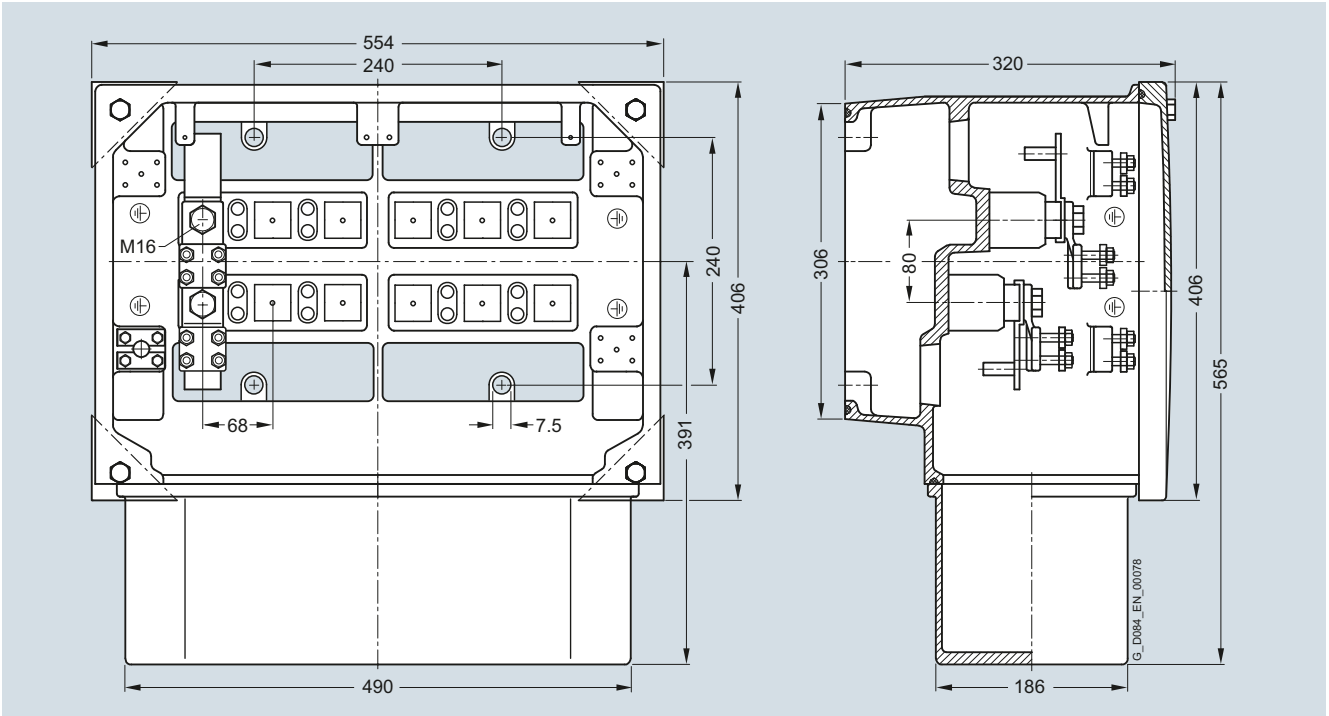
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Dimension drawings (continued)

Terminal box type* 1XD1 566-3AA *(up to 11 kV, 10 terminals)



Terminal box type 1XB1 631 (up to 1 kV, 12 terminals)



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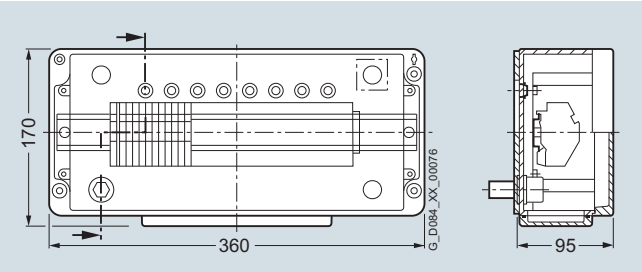
Dimension drawings (continued)

Neutral point terminal box

The motor terminal box is also used to form the neutral point of winding ends.

Auxiliary terminal box to connect monitoring elements, anti-condensation heating

The standard version 1XB9 014 comprises an aluminum enclosure. Max. cable cross-section that can be connected, 4 mm^2.



Terminal boxes manufactured out of cast iron (1XB9 016) and stainless steel (1XB9 015) can be optionally ordered.

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Overview

Bearing version

Motors for connection to the line supply have anti-friction bearings or sleeve bearings as standard according to the following overview.

The bearing concepts for motors for converter operation depend on the speed control range.

Overview, bearing versions

Motor type	Bearing version IM B3, IM B35[1] Number of poles 2 50 Hz	Number of poles 2 60 Hz	Number of poles 4 50 Hz	Number of poles 4 60 Hz	Number of poles ≥ 6 50 Hz	Number of poles ≥ 6 60 Hz	IM V1[2]
1LA4/1M.4 31.	Anti-friction bearings (sleeve bearings optional)	Anti-friction bearings (sleeve bearings optional)	Anti-friction bearings (sleeve bearings optional)	Anti-friction bearings (sleeve bearings optional)	Anti-friction bearings (sleeve bearings not available)	Anti-friction bearings (sleeve bearings not available)	Anti-friction bearings (sleeve bearings not available)
1LA4/1M.4 35.							
1LA4/1M.4 40.							
1LA4/1M.4 45.		Sleeve bearing			Anti-friction bearings (sleeve bearings optional)	Anti-friction bearings (sleeve bearings optional)	
1LA4/1M.4 50.	Sleeve bearing						
1LA4/1M.4 56.							
1LA4 63.	Not available	Not available		Sleeve bearing			
1R.6/1S.6 45.	Anti-friction bearings (sleeve bearings optional)	Sleeve bearing	Anti-friction bearings (sleeve bearings optional)	Anti-friction bearings (sleeve bearings optional)	Anti-friction bearings (sleeve bearings optional)	Anti-friction bearings (sleeve bearings optional)	Anti-friction bearings (sleeve bearings not available)
1R.6/1S.6 50.							
1R.6/1S.6 56.	Sleeve bearing						
1R.4/1S.4 63.				Sleeve bearing			
1R.6/1S.6 71.							
1R.7/1S.7 71.				Anti-friction bearings (sleeve bearings optional)			

Anti-friction bearings

Motor series	Type of construction	Shaft height mm	Drive end	Non-drive end
1LA4/1M.4	IM B3	315 ... 450	Deep-groove ball bearings (locating bearing)	Deep-groove ball bearings (floating bearing)
		500 (converter version) 560, 4-pole (converter version)	Deep-groove ball bearings (locating bearing)	Deep-groove ball bearings (floating bearing)
		500 ... 560 (line version) 560, 6-/8-pole (converter version)	Twin bearings: Deep-groove ball bearing and cylindrical-roller bearing (locating bearing)	Cylindrical-roller bearings (floating bearing)
		630	Twin bearings: Deep-groove ball bearing and cylindrical-roller bearing (locating bearing)	Cylindrical-roller bearings (floating bearing)
	IM V1	315 ... 560	Double bearings: Deep-groove ball bearings and angular-contact ball bearings (thrust bearing)	Deep-groove ball bearings (floating bearing)
		630	Deep-groove ball bearings (floating bearing)	Pair of angular-contact ball bearings (thrust bearing)
1R./1S.	IM B3	450	Deep-groove ball bearings (locating bearing)	Deep-groove ball bearings (floating bearing)
		500 ... 710	Double bearings: Deep-groove ball bearings and cylindrical-roller bearings (locating bearing)	Cylindrical-roller bearings (floating bearing)
	IM V1	450	Deep-groove ball bearings (floating bearing)	Double-row ball bearings: Deep-groove ball bearings and angular-contact ball bearings (thrust bearing)
		500 ... 560	Deep-groove ball bearings (floating bearing)	Angular-contact ball bearings (thrust bearing)
		710	Deep-groove ball bearings (floating bearing)	Pair of angular-contact ball bearings (thrust bearing)
	IM V10	630	Deep-groove ball bearings (floating bearing)	Pair of angular-contact ball bearings (thrust bearing)

[1] IM B35 only for motor types 1L. and 1M.; not available with sleeve bearings.

[2] Motor type 1R.4 / 1S.4 63. only in type of construction IM V10.

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Overview (continued)

Sleeve bearings

For motors with sleeve bearings, lateral flange or (for shaft heights 450, 500 and 710 mm), center flange sleeve bearings are used. Generally, these motors are equipped with two floating bearings. This means that the rotor must be axially guided by the bearings of the driven machine through a coupling with limited axial play. An appropriate sleeve bearing can be installed at the drive end if the motor rotor is to be axially guided.

H-compact

Assignment of oil-ring lubrication or circulating-oil lubrication to the shaft heights:

The bearing at the NDE is not insulated. EF side flange bearings are used as standard. With shaft height 45 as a mains-operated motor, side flange bearings are used in the two-pole design. Exception: With shaft height 45 (2-pole) in converter operation, mid flange bearings are also used.

SH	No. of Poles	Oil ISO VG	CT [K]	50 Hz				60 Hz			
				Core Length				Core Length			
				0	2	4	6	0	2	4	6
31.	2	22/32	40…55	Ring				Ring			
	4	46	40…55	Ring				Ring			
35.	2	22/32	40…55	Ring				Ring			
	4	46	40…55	Ring				Ring			
40.	2	22/32	40…55	Ring				Ring			
	4	46	40…55	Ring				Ring			
	6	46	40…55	Ring				Ring			
45.	2	22	40	Ring			–	Ring			–
			45					Ring		Forced	
			50					Forced			
			55	Ring		Forced					
	2	32	40	Ring			–	Ring		Forced	–
			45					Forced			
			50	Ring		Forced					
			55	Forced							
	4	46	40…45	Ring			–	Ring			–
			50…55					Forced			
	≥ 6…	46	40…55	Ring			–	Ring			–
50.	2	22	40	Ring			–	Forced			–
			45…55	Forced							
	2	32	40…55	Forced			–	Forced			–
	4	32	40…50	Ring			–	Ring			–
			55					Ring	Forced		
	4	46	40	Ring			–	Ring			–
			45					Ring	Forced		
			50…55					Forced			
	≥ 6…	46	40…55	Ring			–	Ring			–
56.	2	22/32	40…55	Forced			–	Forced			–
	4	32	40	Ring			–	Ring			–
			45					Ring		Forced	
			50					Forced			
			55	Ring		Forced					
	4	46	40	Ring			–	Ring		Forced	–
			45					Forced			
			50	Ring		Forced					
			55	Forced							
	≥ 6…	46	40…45	Ring			–	Ring			–
			50					Ring	Forced		
			55					Forced			

When electrically insulating the sleeve bearings at the NDE, SH 50. and SH 56. must be recalculated.

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Overview (continued)

H-compact PLUS, SIMOTICS HV M

Assignment of oil-ring lubrication or circulating-oil lubrication to the shaft heights:

The DE bearing is not insulated, the NDE bearing is insulated. Type EM center flange bearings and also type EF lateral flange bearings are used. 2-pole motors of the shaft heights 450, 500 and motors of the shaft heights 710, 2 and 4-pole are equipped with center flange bearings. All other motors have a lateral flange bearings. When using four lobe bore sleeve bearings (e.g. SH710, 2-pole) it is mandatory that a redundant oil supply is used.

SH	No. of Poles	Oil ISO VG	CT [K]	50 Hz				60 Hz			
				Core Length				Core Length			
				0	2	4	6	0	2	4	6
1R.6											
45.	2	22	40…55	Ring				Ring			
	4	32	40…55	Ring				Ring			
	≥ 6…	46	40…55	Ring				Ring			
50.	2	22	40…50	Ring				Ring			
			55	Ring				Ring	Forced		
	4	32	40…55	Ring				Ring			
	≥ 6…	46	40…55	Ring				Ring			
56.	2	22	40…45	Ring				Forced			
			50	Ring		Forced					
			55	Forced							
	4	32	40…45	Ring				Ring			
			50…55					Forced			
	≥ 6…	46	40…50	Ring				Ring			
			55					Ring			Forced [1]
63.	2	32	40…55	Forced				Forced			
	4	32	40…45	Ring				Ring			
			50					Ring		Forced	
			55					Forced			
	6	46	40…55	Ring				Ring			
	≥ 8…	68	40…55	Ring				Ring			
71.	2	32	40…55	Forced				Forced			
	4	32	40…55	Forced				Forced			
	6	46	40	Ring				Ring			
			45…50	Ring				Forced			
			55	Ring		Forced		Forced			
	≥ 8…	68	40 …55	Ring				Ring			
1R.7											
71.	2	22	40…55	Forced				Forced			
	4	32	40…45	Ring				Forced			
			50…55	Forced				Forced			
	6	46	40	Ring				Ring			
			40…55	Ring				Forced			
	≥ 8…	46	40…45	Ring				Ring			

[1] Only 6-pole, with higher number of poles available with oil-ring lubrication.

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Overview (continued)

Bearing insulation

NDE bearing insulation

The following motor types are equipped with insulated NDE bearing as a standard feature.

Line operation (DOL):

- **H-compact** motor types with insulated NDE bearing

Number of poles	2	4	6	≥ 8
Shaft height				
315	L27	L27	L27	L27
355	L27	L27	L27	Standard
400	L27	L27	L27	Standard
450	L27	Standard	Standard	Standard
500	L27	Standard	Standard	Standard
560	Standard	Standard	Standard	Standard
630	n/a	Standard	Standard	Standard

- **H-compact PLUS and SIMOTICS HV M**:

For all direct online motors, NDE bearing is insulated.

Converter operation (VSD):

For operation with SINAMICS LV, SINAMICS PERFECT HARMONY and SINAMICS GM150/SM150 with sine-wave filter, NDE bearing is insulated.

DE and NDE bearing insulation

For all other than the above mentioned motor types or applications (e.g. operation with GM150/SM150 without sine-wave filter), both bearings are insulated as a standard and an earthing device is necessary.

When specified by the customer, insulated bearings can be provided at the DE and NDE for any motor type.

If both bearings are insulated, an additional detachable link is provided for this bearing insulation.

Vibration response

Horizontal motors up to 3600 rpm fulfill, as standard, vibration severity level A according to IEC 60034-14. Vibration severity level B is optionally possible; but not for 2-pole H-compact PLUS motors with anti-friction bearings. Values for vertical motors on request.

Balancing quality

The motor rotors are balanced dynamically with half feather key (but without mounted coupling halves). The balancing quality according to ISO 1940 is, up to and including 1500 rpm, G 1.5 and beyond this, G1.

Direction of rotation, fan

The direction of rotation must be specified in every order.

2-pole H-compact motors have an external unidirectional fan. For higher-pole motors, for shaft heights 315 to 450 mm, external bidirectional fans are used and for shaft heights 500 to 630 mm, unidirectional external fans.

H-compact PLUS and SIMOTICS HV M motors have unidirectional inner and outer fans. In particular, this means that for motors with two-sided ventilation bidirectional fan design is not possible.

For H-compact PLUS and SIMOTICS HV M motors with single side ventilation, bidirectional fan design is available on request. (Bidirectional fan design may result in reduced power rating and efficiency as well as a higher noise level.)

Paint finish

Unless otherwise specified in the order, the motors are supplied in the standard paint finish color RAL 7030 (stone gray). Other colors are available on request at an additional cost. Motors can be optionally supplied with a special paint finish.

The standard paint finish is classified in the "Moderate" climate group according to IEC 721-2-1. It is suitable for:

- Installed indoors or outdoors under a roof, where the motors are not exposed to any direct effects of the weather.
- Temperatures, continuously up to +100 °C, briefly up to +120 °C
- Relative air humidity up to 85 % at +25 °C continuously; briefly up to +100 % at +30 °C

The **special paint finish** is classified in the "Worldwide" climate group acc. to IEC 721-2-1. It is suitable for:

- Installed outdoors, where motors are directly exposed to the effects of the weather, e.g. direct solar radiation
- Additional temperature and humidity ranges
- Temperatures, continuously up to +120 °C, briefly up to +140 °C

Typical installation locations are industrial environments and coastal areas. For outdoor applications in salt laden atmospheres, one of the options E81, E82 or E83 should be selected.

Standards and regulations

The motors comply with the appropriate standards and regulations, especially those listed in the table below.

Title	IEC	DIN/EN/ISO
General specifications for rotating electrical machinery	IEC 60034-1	DIN EN 60034-1
Degrees of protection for rotating electrical machinery (IP code)	IEC 60034-5	DIN EN 60034-5
Cooling methods for rotating electrical machinery (IC code)	IEC 60034-6	DIN EN 60034-6
Types of construction, mounting types and terminal box positions for rotating electrical machinery (IM code)	IEC 60034-7	DIN EN 60034-7
Terminal designations and direction of rotation for rotating electrical machinery	IEC 60034-8	DIN EN 60034-8
Mechanical vibration of rotating electrical machinery	IEC 60034-14	DIN EN 60034-14
Rated impulse voltages for rotating electrical machinery	IEC 60034-15	DIN EN 60034-15
Electrical insulation – thermal classification	IEC 60085	DIN EN 60085
Mechanical vibration – requirements on the balancing quality of rotors	–	DIN ISO 1940-1
Determining the losses and efficiency from tests	IEC 60034-2-1	DIN EN 60034-2-1

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Overview

The motors in this catalog are designed for operation with a flexible coupling.The maximum half coupling weights are shown in the table below.

Maximum allowable coupling weight

Shaft end diameter	Max. weight of half coupling for 2-pole motors	Max. weight of half coupling for 4-pole and motors with higher pole numbers
mm	kg	kg
50	10	10
55	10	20
60	10	20
65	10	20
70	20	30
75	20	30
80	20	40
85	30	50
90	30	50
95	30	60
100	40	70
105	40	80
110	50	90
115	50	100
120	60	110
125	70	130
130	70	140
135	80	160
140	90	170
145	100	190
150	110	210
155	120	230
160	130	250
165	140	270
170	150	300
175	160	320
180	180	350
185	190	380
190	210	410
195	220	440
200	240	470
205	250	500
210	270	540

Note:

Motor and driven machine have to be aligned according to manual.

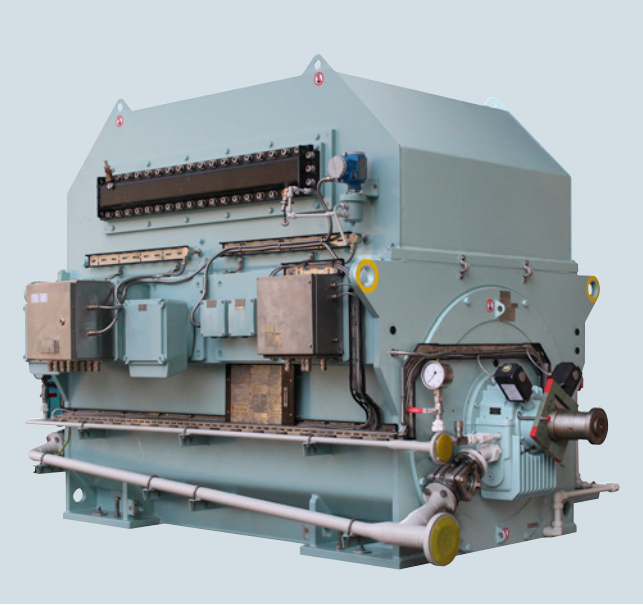
If the coupling weight exceeds the maximum value, feasibility has to be checked.

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Overview



Motor of the LOHER VARIO series



LOHER VARIO PLUS motor in a water-cooled version (cooling type IC81W)

LOHER VARIO

For applications with rib or water-jacket cooled motors and an extended range of options or special requirements on project management, the LOHER VARIO series of motors is available on request.

They have the following performance features:

- High degree of variability as a result of the welded steel enclosure (dimensions can be adapted, instrumentation, bearing concepts)
- Flexible production processes and customized documentation
- High-pole machines up to 16-pole, higher pole numbers are available on request
- Anti-corrosion protection using special paint finishes according to the manufacturers standard or customer specifications
- Water-jacket cooling IC71W in the extended power range with up to 60 % higher power density; compact and quiet, admirably suited for converter operation with constant load torque and wide field-weakening range
- Optimized starting and operating parameters, coordinated and harmonized to meet customer applications
- Complies with almost all application requirements and specifications
- High degree of sector-specific adaptation options
- For safe area applications and types of protection Ex n, Ex p and Ex d in rib and water-jacket cooled versions
- Low-voltage and high-voltage versions up to 11 kV

LOHER VARIO PLUS

For applications with modular-cooled motors and an extended range of options or special requirements on project management, the LOHER VARIO PLUS series of motors is available on request.

They have the following performance features:

- High degree of variability as a result of the platform-based enclosure (dimensions can be adapted, mounted components)
- Customized machines, also for special installation locations and applications
- Flexible production processes and customized documentation
- High-pole machines up to 16-pole, higher pole numbers are available on request
- Anti-corrosion protection using special paint finishes according to the manufacturers standard or customer specifications
- Widest range of connection systems fulfill special requirements (e.g. requirements relating to short-circuit strength, cable cross-sections, phase-segregated version)
- Optimized starting and operating parameters, coordinated and harmonized to meet customer applications
- Complies with almost all application requirements and specifications
- High degree of sector-specific adaptation options
- For safe area applications and types of protection Ex n and Ex p in special versions
- Low-voltage and high-voltage versions up to 11 kV

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Notes

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2/2 Overview

2/3 Air-cooled motors

2/3 H-compact 1LA4

Selection and ordering data

2/5 2 to 6.6 kV, 50 Hz

2/8 9 to 11 kV, 50 Hz

2/10 2 to 6.6 kV, 60 Hz

Dimension drawings

2/13 IM B3 type of construction, anti-friction bearings

2/19 IM B3 type of construction, sleeve bearings

2/24 IM V1 type of construction, anti-friction bearings

2/30 H-compact PLUS 1RQ4, 1RQ6 and SIMOTICS HV M 1RQ7

Selection and ordering data

2/32 3.3 to 6.6 kV, 50 Hz

2/36 9 to 11 kV, 50 Hz

2/40 4 to 6.6 kV, 60 Hz

2/44 4 to 6.6 kV, 60 Hz NEMA version

2/45 12.5 to 13.8 kV, 60 Hz NEMA version

Dimension drawings

2/46 IM B3 type of construction, anti-friction bearings (1RQ4, 1RQ6)

2/53 IM B3 type of construction, sleeve bearings (1RQ4, 1RQ6)

2/61 IM V1 type of construction, anti-friction bearings (1RQ4, 1RQ6)

2/69 IM B3 type of construction, anti-friction bearings (1RQ6, NEMA)

2/71 IM B3 type of construction, sleeve bearings (1RQ6, NEMA)

2/74 IM V1 type of construction, anti-friction bearings (1RQ6, NEMA)

2/76 IM B3 type of construction, anti-friction bearings (1RQ7)

2/79 IM B3 type of construction, sleeve bearings (1RQ7)

2/82 IM V1 type of construction, anti-friction bearings (1RQ7)

2/84 H-compact PLUS 1RA4, 1RA6, 1RP6 and SIMOTICS HV M 1RA7

Selection and ordering data

2/86 3.3 to 6.6 kV, 50 Hz

2/90 9 to 11 kV, 50 Hz

2/94 4 to 6.6 kV, 60 Hz

2/98 4 to 6.6 kV, 60 Hz NEMA version

2/99 12.5 to 13.8 kV, 60 Hz NEMA version

Dimension drawings

2/100 IM B3 type of construction, anti-friction bearings (1RA4, 1RA6)

2/107 IM B3 type of construction, sleeve bearings (1RA4, 1RA6)

2/115 IM V1 type of construction, anti-friction bearings (1RA4, 1RA6)

2/122 IM B3 type of construction, anti-friction bearings (1RP6, NEMA)

2/125 IM B3 type of construction, sleeve bearings (1RP6, NEMA)

2/128 IM V1 type of construction, anti-friction bearings (1RP6, NEMA)

2/130 IM B3 type of construction, anti-friction bearings (1RA7)

2/132 IM B3 type of construction, sleeve bearings (1RA7)

2/134 IM V1 type of construction, anti-friction bearings (1RA7)

2/136 Water-cooled motors

2/136 H-compact PLUS 1RN4, 1RN6 and SIMOTICS HV M 1RN7

Selection and ordering data

2/138 3.3 to 6.6 kV, 50 Hz

2/142 9 to 11 kV, 50 Hz

2/146 4 to 6.6 kV, 60 Hz

2/150 4 to 6.6 kV, 60 Hz NEMA version

2/151 12.5 to 13.8 kV, 60 Hz NEMA version

Dimension drawings

2/152 IM B3 type of construction, anti-friction bearings (1RN4, 1RN6)

2/159 IM B3 type of construction, sleeve bearings (1RN4, 1RN6)

2/166 IM V1 type of construction, anti-friction bearings (1RN4, 1RN6)

2/173 IM B3 type of construction, anti-friction bearings (1RN6, NEMA)

2/176 IM B3 type of construction, sleeve bearings (1RN6, NEMA)

2/179 IM V1 type of construction, anti-friction bearings (1RN6, NEMA)

2/181 IM B3 type of construction, anti-friction bearings (1RN7)

2/184 IM B3 type of construction, sleeve bearings (1RN7)

2/187 IM V1 type of construction, anti-friction bearings (1RN7)

2/189 Options and tests

2/189 Description of options

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Overview

Normal conditions

Selection and ordering data included in this chapter are valid for standard operating and installation conditions:

- Installation altitude of the motor ≤ 1000 m above sea level
- Ambient temperature (= coolant temperature for air-cooled motors) = 40 °C
- Coolant temperature for water-cooled motors = 25 °C
- Thermal class 155 (F) utilized to 130 (B)
- Continuous duty S1
- Permissible tolerances in compliance with IEC/EN 60034-1:
  - Rated voltage V_{rated} ± 5 %
  - Rated frequency f_{rated} ± 2 %

The SIMOTICS HV/TN series is designed to be directly switched-on when certain starting conditions are maintained.

Motor starting does not have to be separately checked if the following criteria are maintained:

- The voltage when starting does not drop below 0.9 x V_{rated}.
- The load torque increases approximately with the square of the speed ($T \sim n^2$).
- The maximum load torque does not exceed the corresponding value in the following table:

Shaft height	315		350		400		450		500		560		630		710	
Number of poles	2	4...	2	4...	2	4...	2	4...	2	4...	2	4...	2	4...	2	4...
H-compact max. load torque = T_{rated} x	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	–	–
H-compact PLUS max. load torque = T_{rated} x	–	–	–	–	–	–	0.75	0.9	0.7	0.9	0.6	0.9	0.6	0.9	0.5	0.9
SIMOTICS HV M max. load torque = T_{rated} x	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.5	0.9

Start-up with max. permissible inertia according to "selection and ordering data" is possible either for three times from cold or two times from warm motor condition (natural coast down between consecutive starts assumed).

If limits of load characteristic and/or inertia are exceeded, the motor start-up calculation has to be checked. In this case, please contact your Siemens sales representative.

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Overview



Technical data

Overview of technical data

H-compact 1LA4	
Rated voltage	2.0 … 11 kV
Rated frequency	50/60 Hz
Motor type	Induction motor with squirrel-cage rotor
Type of construction	IM B3, IM V1
Degree of protection	IP55
Cooling method	IC411
Stator winding insulation	Thermal class 155 (F), utilized to 130 (B)
Shaft height	315 … 630 mm
Bearings	Anti-friction bearings, sleeve bearings
Cage material	Die-cast aluminum or copper (dependent on the shaft height and number of poles)
Standards	IEC, EN
Frame design	Cast iron with cooling ribs

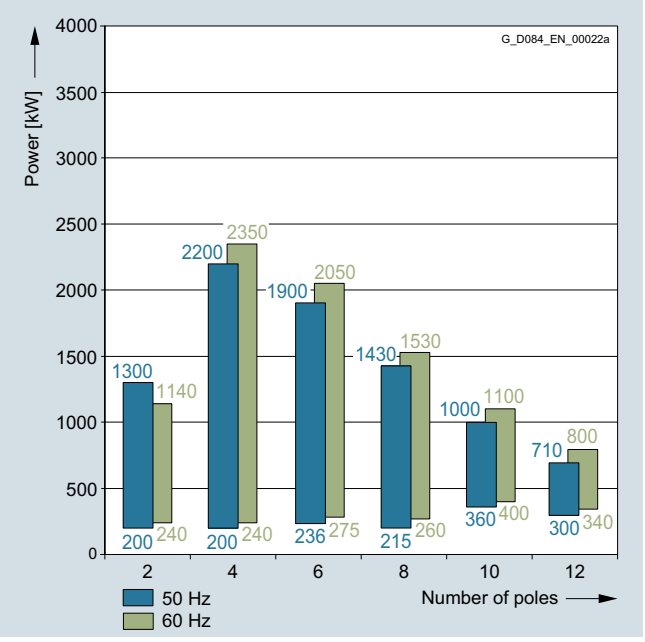
Power range for IEC motors for line operation

1LA4, 1MS4 (Ex ec), 1MG4 (Ex pxb) series

Insulation system, thermal class 155 (F), utilized to 130 (B).

Ambient temperature up to 40 °C, installation altitude up to 1000 m.

2.0 to 3.3 kV; 50 and 60 Hz



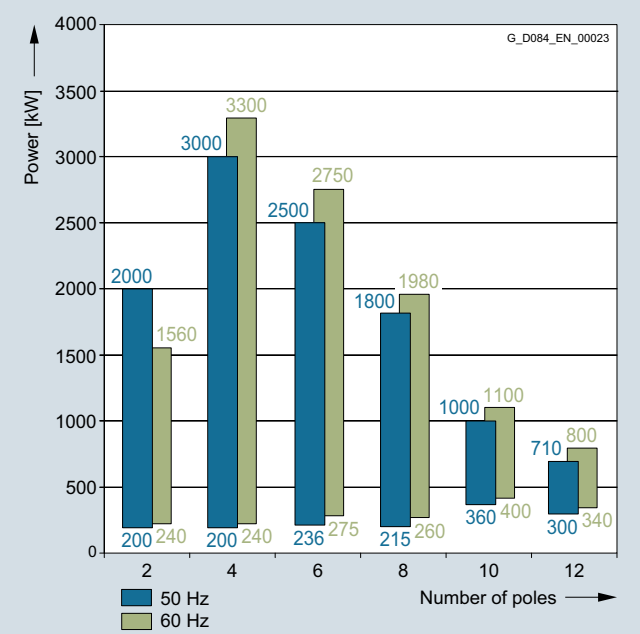
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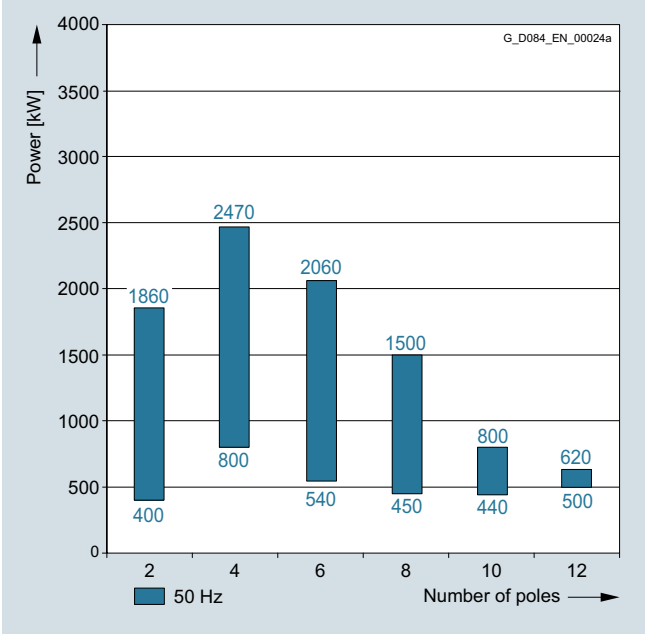
Technical data (continued)

Power range for IEC motors for line operation
(continued)

3.4 to 6.6 kV; 50 and 60 Hz



9 to 11 kV; 50 Hz



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Selection and ordering data

The 1LA4 data also apply to explosion-protected 1MG4 (Ex pxb) and 1MS4 (Ex ec) motors.

Rated power	**High voltage motor H-compact**	Speed	Rated current	Efficiency		Power factor		Torque	Break-down torque	Locked-rotor torque	Locked-rotor current	Moment of inertia	
IEC			I_{rated} at 6 kV	4/4 load	3/4 load	4/4 load	3/4 load		T_B/T_{rated}	T_{LR}/T_{rated}	I_{LR}/I_{rated}	Motor	External, max.[1]
kW	Article No.	rpm	A	%	%	cos φ	cos φ	Nm	[-]	[-]	[-]	kgm²	kgm²
2.0 ... 6.6 kV, 50 Hz													
2-pole													
200	**1LA4 310-2AN■■**	2970	23.5	94.7	94.9	0.87	0.86	643	2.30	0.90	5.0	2.2	28
236	**1LA4 312-2AN■■**	2967	27.5	94.5	94.8	0.87	0.85	760	2.30	0.90	5.0	2.2	26
300	**1LA4 314-2AN■■**	2972	34.5	95.2	95.4	0.88	0.86	964	2.40	1.05	5.2	2.7	30
355	**1LA4 316-2AN■■**	2974	40.5	95.7	95.8	0.88	0.87	1140	2.50	1.10	5.3	3.1	35
400	**1LA4 350-2AN■■**	2978	45.5	95.6	95.8	0.88	0.86	1283	2.30	1.05	5.2	4.3	38
450	**1LA4 352-2AN■■**	2978	51.0	95.9	96.0	0.88	0.87	1443	2.50	1.20	5.5	4.8	43
500	**1LA4 354-2AN■■**	2980	57.0	96.1	96.3	0.88	0.87	1602	2.50	1.20	5.5	5.2	46
560	**1LA4 400-2AN■■**	2984	64.0	96.0	96.0	0.88	0.86	1792	2.50	0.85	5.4	7.8	26
650	**1LA4 402-2AN■■**	2985	74.0	96.3	96.3	0.88	0.87	2079	2.60	0.90	5.6	8.7	27
750	**1LA4 404-2AN■■**	2985	84.0	96.5	96.5	0.89	0.88	2399	2.60	0.95	5.6	9.9	30
820	**1LA4 450-2AN■■**	2981	92	96.2	96.2	0.88	0.87	2625	2.40	0.95	6.0	13.5	68
940	**1LA4 452-2AN■■**	2982	106	96.5	96.4	0.89	0.87	3008	2.50	0.95	6.2	15.4	73
1030	**1LA4 454-2AN■■**	2982	114	96.6	96.6	0.90	0.89	3296	2.40	0.95	6.2	17.3	79
1200	**1LA4 500-2CN■0**	2985	132	96.7	96.6	0.90	0.89	3839	2.30	0.65	5.3	29.0	93
1300	**1LA4 502-2CN■0**	2986	144	96.8	96.7	0.90	0.89	4157	2.30	0.65	5.3	32.0	98
1420[2]	**1LA4 504-2CN■0**	2986	154	96.9	96.9	0.91	0.90	4541	2.40	0.70	5.5	35.0	125
1680[2]	**1LA4 560-2CN■0**	2990	184	96.9	96.7	0.91	0.90	5365	2.50	0.45	5.4	53.0	104
1900[2]	**1LA4 562-2CN■0**	2991	205	97.0	96.9	0.91	0.90	6066	2.60	0.50	5.7	58.0	131
2000[2]	**1LA4 564-2CN■0**	2990	220	97.2	97.1	0.91	0.90	6387	2.50	0.45	5	64.0	136
4-pole													
200	**1LA4 310-4AN■■**	1480	25.5	93.8	94.0	0.81	0.77	1290	2.30	1.15	5.2	2.8	159
250	**1LA4 312-4AN■■**	1480	30.5	94.5	94.8	0.84	0.81	1613	2.30	1.15	5.3	3.5	201
300	**1LA4 314-4AN■■**	1480	36.0	94.7	95.0	0.85	0.82	1936	2.40	1.25	5.5	4.0	222
365	**1LA4 316-4AN■■**	1481	43.5	95.2	95.5	0.85	0.82	2353	2.40	1.25	5.5	4.8	297
400	**1LA4 350-4AN■■**	1485	48.0	95.2	95.4	0.84	0.81	2572	2.50	1.25	5.5	6.0	224
470	**1LA4 352-4AN■■**	1484	56.0	95.4	95.6	0.85	0.82	3024	2.35	1.20	5.3	6.9	247
560	**1LA4 354-4AN■■**	1485	65.0	95.7	95.9	0.86	0.84	3601	2.40	1.30	5.5	8.1	296
600	**1LA4 400-4AN■■**	1489	71.0	95.4	95.4	0.85	0.81	3848	2.60	1.25	5.70	11.6	288
680	**1LA4 402-4AN■■**	1489	80.0	95.7	95.6	0.85	0.82	4361	2.60	1.25	5.70	12.9	330
750	**1LA4 404-4AN■■**	1489	88.0	95.8	95.7	0.86	0.83	4810	2.65	1.30	5.80	14.5	381
900	**1LA4 450-4AN■■**	1489	108	96.0	96.0	0.84	0.82	5772	2.25	0.95	5.20	22.0	438
950	**1LA4 452-4AN■■**	1489	112	96.0	96.1	0.85	0.83	6093	2.25	0.95	5.20	24.0	556

Voltage code:	
3 kV, 50 Hz	**3**
3.3 kV, 50 Hz	**0**
5 kV, 50 Hz	**5**
6 kV, 50 Hz	**6**
6.6 kV, 50 Hz	**7**
Other voltage	**9**

Type of construction:	
IM B3	**0**
IM V1 (with canopy)	**4**
IM V1 (without canopy)	**8**

Note:

Efficiencies according to IEC 60034-2-1:2007;
stray load losses determined by statistical evaluation of measurements.

[1] Max. permissible external moment of inertia for three starts from cold or two starts from warm under the conditions described on Page 2/2.

[2] Not available for ≤ 3.3 kV.

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Selection and ordering data (continued)

Rated power	High voltage motor H-compact	Speed	Rated current	Efficiency		Power factor		Torque	Break-down torque	Locked-rotor torque	Locked-rotor current	Moment of inertia	
IEC			I_{rated} at 6 kV	4/4 load	3/4 load	4/4 load	3/4 load		T_B/T_{rated}	T_{LR}/T_{rated}	I_{LR}/I_{rated}	Motor	External, max.[1]
kW	Article No.	rpm	A	%	%	cos φ	cos φ	Nm	[-]	[-]	[-]	kgm²	kgm²
2.0 ... 6.6 kV, 50 Hz													
4-pole (continued)													
1050	**1LA4 454-4AN■■**	1489	124	96.2	96.3	0.85	0.83	6734	2.30	0.95	5.25	27.0	653
1200	**1LA4 500-4AN■■**	1492	140	96.5	96.3	0.85	0.83	7680	2.4	0.90	5.5	33.0	447
1300	**1LA4 502-4AN■■**	1492	150	96.6	96.4	0.86	0.84	8320	2.4	0.90	5.5	37.0	538
1450	**1LA4 504-4AN■■**	1492	166	96.7	96.7	0.87	0.86	9280	2.4	0.90	5.5	42.0	628
1700	**1LA4 560-4CN■■**	1494	196	96.7	96.6	0.86	0.83	10866	2.5	0.60	5.5	79.0	551
1900	**1LA4 562-4CN■■**	1494	215	96.9	96.8	0.88	0.85	12144	2.5	0.60	5.5	92.0	698
2200	**1LA4 564-4CN■■**	1494	250	97.2	97.1	0.88	0.86	14061	2.5	0.60	5.5	104.0	761
2400[2]	**1LA4 632-4CN■■**	1494	265	97.3	97.2	0.89	0.87	15341	2.3	0.55	5.5	157.0	845
2700[2]	**1LA4 634-4CN■■**	1495	300	97.4	97.3	0.89	0.87	17184	2.3	0.55	5.5	171.0	940
3000[2]	**1LA4 636-4CN■■**	1495	335	97.5	97.4	0.89	0.87	19164	2.3	0.55	5.5	186.2	1020
6-pole													
236	**1LA4 314-6AN■■**	986	29.5	94.1	94.5	0.82	0.78	2286	2.50	1.25	5.3	5.3	375
270	**1LA4 316-6AN■■**	985	33.5	94.3	94.8	0.82	0.80	2617	2.40	1.25	5.5	6.4	431
315	**1LA4 350-6AN■■**	989	39.0	94.8	95.1	0.82	0.79	3041	2.30	1.10	5.3	10.8	541
365	**1LA4 352-6AN■■**	989	44.5	95.1	95.4	0.83	0.80	3524	2.20	1.10	5.3	12.7	667
425	**1LA4 354-6AN■■**	990	52.0	95.3	95.5	0.82	0.79	4099	2.40	1.25	5.5	15.0	841
490	**1LA4 400-6AN■■**	991	59.0	95.4	95.6	0.84	0.81	4722	2.30	1.05	5.5	21.2	740
570	**1LA4 402-6AN■■**	992	68.0	95.7	95.9	0.84	0.81	5487	2.30	1.10	5.5	24.2	1193
630	**1LA4 404-6AN■■**	991	77.0	95.8	95.9	0.82	0.80	6071	2.40	1.20	5.5	27.3	1233
700	**1LA4 450-6AN■■**	992	84.0	95.8	95.9	0.84	0.81	6738	2.30	1.10	5.4	33.0	1417
750	**1LA4 452-6AN■■**	993	90.0	96.4	96.4	0.84	0.81	7212	2.30	1.10	5.4	37.0	1813
800	**1LA4 454-6AN■■**	993	94.0	96.0	96.1	0.85	0.82	7693	2.30	1.10	5.4	41.0	1789
1040	**1LA4 500-6CN■■**	994	120	96.5	96.6	0.87	0.85	9992	2.10	0.75	5.30	82.0	1668
1160	**1LA4 502-6CN■■**	994	132	96.6	96.7	0.88	0.86	11145	2.10	0.75	5.30	92.0	1858
1270	**1LA4 504-6CN■■**	994	144	96.8	96.9	0.88	0.86	12202	2.15	0.75	5.40	102.0	2048
1470	**1LA4 560-6CN■■**	995	168	96.9	96.9	0.87	0.85	14109	2.25	0.65	5.25	138.0	2105
1720	**1LA4 562-6CN■■**	995	196	97.0	97.1	0.87	0.85	16509	2.25	0.65	5.30	158.0	2470
1900	**1LA4 564-6CN■■**	995	215	97.1	97.2	0.88	0.86	18236	2.30	0.65	5.35	183.0	2890
2050[2]	**1LA4 632-6CN■■**	995	230	97.0	96.8	0.89	0.87	19676	2.3	0.50	5.5	269.1	2230
2300[2]	**1LA4 634-6CN■■**	995	255	97.1	97.0	0.90	0.88	22075	2.3	0.50	5.5	297.4	2450
2500[2]	**1LA4 636-6CN■■**	995	275	97.2	97.1	0.90	0.88	23995	2.3	0.50	5.5	323.0	2680
8-pole													
215	**1LA4 350-8AN■■**	738	27.0	93.8	94.2	0.81	0.78	2782	2.30	1.00	5.1	10.6	826
250	**1LA4 352-8AN■■**	739	31.5	94.0	94.4	0.81	0.78	3230	2.40	1.00	5.3	12.5	986
300	**1LA4 354-8AN■■**	739	38.0	94.2	94.7	0.81	0.78	3876	2.40	1.10	5.3	14.8	1107
370	**1LA4 400-8AN■■**	741	45.5	95.0	95.3	0.82	0.79	4768	2.40	1.05	5.1	21.3	1110

Voltage code:	
3 kV, 50 Hz	**3**
3.3 kV, 50 Hz	**0**
5 kV, 50 Hz	**5**
6 kV, 50 Hz	**6**
6.6 kV, 50 Hz	**7**
Other voltage	**9**

Type of construction:	
IM B3	**0**
IM V1 (with canopy)	**4**
IM V1 (without canopy)	**8**

Note:

Efficiencies according to IEC 60034-2-1:2007;
stray load losses determined by statistical evaluation of measurements.

[1] Max. permissible external moment of inertia for three starts from cold or two starts from warm under the conditions described on Page 2/2.

[2] Not available for ≤ 3.3 kV.

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Selection and ordering data (continued)

Rated power	High voltage motor H-compact	Speed	Rated current	Efficiency		Power factor		Torque	Break-down torque	Locked-rotor torque	Locked-rotor current	Moment of inertia	
IEC			I_{rated} at 6 kV	4/4 load	3/4 load	4/4 load	3/4 load		T_B/T_{rated}	T_{LR}/T_{rated}	I_{LR}/I_{rated}	Motor	External, max.[1]
kW	Article No.	rpm	A	%	%	cos φ	cos φ	Nm	[-]	[-]	[-]	kgm²	kgm²
2.0 ... 6.6 kV, 50 Hz													
8-pole (continued)													
420	**1LA4 402-8AN■■**	741	52.0	95.2	95.5	0.82	0.79	5412	2.40	1.10	5.4	24.4	1402
465	**1LA4 404-8AN■■**	741	57.0	95.2	95.5	0.82	0.79	5992	2.40	1.00	5.4	27.4	1589
530	**1LA4 450-8AN■■**	742	67.0	95.4	95.6	0.80	0.77	6821	2.50	1.00	5.4	34.0	2016
600	**1LA4 452-8AN■■**	742	75.0	95.6	95.7	0.81	0.76	7722	2.50	1.00	5.4	37.0	2563
670	**1LA4 454-8AN■■**	742	83.0	95.7	95.9	0.81	0.78	8622	2.50	1.00	5.4	42.0	2778
800	**1LA4 500-8CN■■**	746	98	96.1	96.1	0.82	0.78	10241	2.15	0.75	5.10	82.0	2820
850	**1LA4 502-8CN■■**	746	106	96.1	96.1	0.81	0.78	10881	2.20	0.80	5.25	92.0	2470
980	**1LA4 504-8CN■■**	746	122	96.2	96.2	0.81	0.78	12546	2.20	0.75	5.20	102.0	3582
1100	**1LA4 560-8CN■■**	746	132	96.4	96.4	0.83	0.80	14082	2.30	0.70	5.10	138.0	3672
1260	**1LA4 562-8CN■■**	746	152	96.6	96.6	0.83	0.81	16130	2.30	0.70	5.05	158.0	4692
1430	**1LA4 564-8CN■■**	746	172	96.7	96.7	0.83	0.80	18306	2.35	0.70	5.20	183.0	4582
1630[2]	**1LA4 634-8CN■■**	746	192	96.7	96.5	0.84	0.81	20867	2.4	0.50	5.5	294.0	4100
1800[2]	**1LA4 636-8CN■■**	746	210	96.8	96.6	0.84	0.81	23043	2.4	0.50	5.5	320.1	4440
10-pole													
360	**1LA4 450-3AN■■**	591	48.5	94.3	94.6	0.76	0.71	5817	2.30	1.00	4.5	34.0	3266
400	**1LA4 452-3AN■■**	591	54.0	94.6	94.9	0.76	0.71	6463	2.30	1.00	4.5	37.0	4063
450	**1LA4 454-3AN■■**	592	60.0	94.8	95.0	0.76	0.71	7259	2.30	1.00	4.5	42.0	4458
530	**1LA4 500-3CN■■**	593	68.0	95.2	95.4	0.79	0.75	8535	2.30	0.95	4.8	82.0	5280
590	**1LA4 502-3CN■■**	593	75.0	95.4	95.6	0.79	0.74	9501	2.30	0.95	4.8	92.0	6200
650	**1LA4 504-3CN■■**	593	83.0	95.5	95.6	0.79	0.74	10467	2.30	0.95	4.8	102.0	6770
770	**1LA4 560-3CN■■**	595	98.0	95.8	95.9	0.79	0.75	12358	2.20	0.75	5.0	138.0	3902
850	**1LA4 562-3CN■■**	596	108	95.9	96.0	0.79	0.75	13619	2.20	0.75	5.0	158.0	4102
1000	**1LA4 564-3CN■■**	595	126	96.1	96.2	0.80	0.75	16049	2.20	0.75	5.0	183.0	5717
12-pole													
300	**1LA4 450-5CN■■**	492	43.0	93.6	93.7	0.72	0.66	5823	2.10	0.75	4.2	34.0	3166
325	**1LA4 452-5CN■■**	492	47.0	93.7	93.7	0.71	0.64	6308	2.10	0.75	4.2	37.0	3063
350	**1LA4 454-5CN■■**	493	45.0	93.8	93.8	0.72	0.65	6779	2.10	0.75	4.2	42.0	3158
420	**1LA4 500-5CN■■**	494	59.0	94.6	94.6	0.72	0.67	8119	2.00	0.65	4.2	82.0	4500
460	**1LA4 502-5CN■■**	494	64.0	94.7	94.7	0.73	0.68	8892	2.00	0.65	4.2	92.0	5360
500	**1LA4 504-5CN■■**	494	71.0	94.7	94.7	0.72	0.67	9665	2.00	0.65	4.2	102.0	4640
580	**1LA4 560-5CN■■**	495	81.0	95.1	95.0	0.72	0.65	11189	2.00	0.65	4.4	138.0	7284
640	**1LA4 562-5CN■■**	495	90.0	95.3	95.1	0.72	0.65	12346	2.00	0.65	4.4	158.0	8862
710	**1LA4 564-5CN■■**	495	99.0	95.4	95.2	0.72	0.65	13697	2.00	0.65	4.4	183.0	10478

Voltage code:	
3 kV, 50 Hz	**3**
3.3 kV, 50 Hz	**0**
5 kV, 50 Hz	**5**
6 kV, 50 Hz	**6**
6.6 kV, 50 Hz	**7**
Other voltage	**9**

Type of construction:	
IM B3	**0**
IM V1 (with canopy)	**4**
IM V1 (without canopy)	**8**

Note:

Efficiencies according to IEC 60034-2-1:2007;
stray load losses determined by statistical evaluation of measurements.

Higher pole numbers are available on request.

[1] Max. permissible external moment of inertia for three starts from cold or two starts from warm under the conditions described on Page 2/2.

[2] Not available for ≤ 3.3 kV.

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Selection and ordering data

Rated power	High voltage motor H-compact	Speed	Rated current	Efficiency		Power factor		Torque	Break-down torque	Locked-rotor torque	Locked-rotor current	Moment of inertia	
IEC			I_{rated} at 10 kV	4/4 load	3/4 load	4/4 load	3/4 load		T_B/T_{rated}	T_{LR}/T_{rated}	I_{LR}/I_{rated}	Motor	External, max.[1]
kW	Article No.	rpm	A	%	%	cos φ	cos φ	Nm	[-]	[-]	[-]	kgm²	kgm²
9 ... 11 kV, 50 Hz													
2-pole													
400	**1LA4 400-2AN■■**	2986	28.0	95.4	95.5	0.86	0.85	1279	2.45	0.95	5.80	7.8	13
450	**1LA4 401-2AN■■**	2985	31.5	95.6	95.7	0.86	0.86	1440	2.30	0.90	5.45	8.5	14
500	**1LA4 403-2AN■■**	2986	34.5	95.8	96.0	0.87	0.86	1599	2.45	1.00	5.90	9.3	18
720	**1LA4 450-2AN■■**	2982	48.5	95.9	95.9	0.89	0.88	2305	2.30	0.95	6.0	13.5	73
820	**1LA4 452-2AN■■**	2983	55	96.2	96.1	0.90	0.88	2624	2.40	0.95	6.2	15.4	81
900	**1LA4 454-2AN■■**	2983	60	96.3	96.3	0.90	0.89	2880	2.40	0.95	6.2	17.3	94
1120	**1LA4 500-2CN■0**	2986	75.0	96.4	96.4	0.90	0.89	3582	2.50	0.70	5.6	29.0	102
1170	**1LA4 502-2CN■0**	2987	78.0	96.5	96.5	0.90	0.89	3740	2.50	0.70	5.9	32.0	123
1290	**1LA4 504-2CN■0**	2988	85.0	96.7	96.6	0.91	0.90	4123	2.60	0.75	6.0	35.0	147
1550	**1LA4 560-2CN■0**	2991	102	96.7	96.6	0.91	0.90	4948	2.50	0.50	5.5	53.0	118
1700	**1LA4 562-2CN■0**	2991	112	96.9	96.8	0.91	0.90	5427	2.50	0.50	5.5	58.0	138
1860	**1LA4 564-2CN■0**	2991	122	97.0	96.9	0.91	0.90	5938	2.50	0.50	5.5	64.0	147
4-pole													
800	**1LA4 450-4AN■■**	1489	57	95.6	95.6	0.85	0.83	5131	2.25	0.95	5.15	22.0	528
850	**1LA4 452-4AN■■**	1489	60	95.8	95.8	0.86	0.85	5452	2.25	0.95	5.15	24.0	626
900	**1LA4 454-4AN■■**	1489	63	95.9	96.0	0.86	0.84	5772	2.25	0.95	5.20	27.0	803
1060	**1LA4 500-4AN■■**	1492	74	96.2	96.1	0.86	0.84	6784	2.4	0.90	5.5	33.0	477
1180	**1LA4 502-4AN■■**	1492	82	96.3	96.4	0.86	0.85	7552	2.4	0.90	5.5	37.0	568
1320	**1LA4 504-4AN■■**	1492	91	96.5	96.5	0.87	0.86	8448	2.4	0.90	5.5	42.0	703
1500	**1LA4 560-4CN■■**	1494	104	96.6	96.4	0.86	0.83	9587	2.6	0.60	5.5	79.0	600
1700	**1LA4 562-4CN■■**	1494	116	96.8	96.7	0.88	0.85	10866	2.5	0.60	5.4	92.0	713
2000	**1LA4 564-4CN■■**	1494	136	97.0	96.9	0.88	0.85	12783	2.6	0.60	5.5	104.0	841
2210	**1LA4 634-4CN■■**	1495	148	97.2	97.0	0.89	0.87	14117	2.3	0.5	5.5	171.0	1030
2470	**1LA4 636-4CN■■**	1495	164	97.3	97.2	0.89	0.87	15778	2.3	0.5	5.5	186.2	1120
6-pole													
540	**1LA4 450-6AN■■**	993	38.5	95.3	95.4	0.85	0.82	5193	2.30	1.10	5.4	33.0	947
590	**1LA4 452-6AN■■**	993	42.0	95.4	95.5	0.85	0.82	5674	2.40	1.20	5.5	37.0	843
630	**1LA4 454-6AN■■**	993	45.0	95.5	95.6	0.85	0.83	6058	2.40	1.20	5.5	41.0	1039
950	**1LA4 500-6CN■■**	995	66	96.3	96.5	0.86	0.85	9118	2.10	0.65	5.10	82.0	1018
1050	**1LA4 502-6CN■■**	995	72	96.4	96.7	0.87	0.85	10078	2.10	0.65	5.15	92.0	1158
1170	**1LA4 504-6CN■■**	995	80	96.6	96.8	0.87	0.85	11230	2.20	0.75	5.25	102.0	1298
1250	**1LA4 560-6CN■■**	996	86.0	96.7	96.8	0.87	0.85	11984	2.45	0.65	5.6	138.0	1680
1450	**1LA4 562-6CN■■**	996	99.0	96.8	96.9	0.87	0.85	13902	2.45	0.65	5.6	158.0	2025
1650	**1LA4 564-6CN■■**	996	112	96.9	97.0	0.87	0.85	15819	2.45	0.65	5.6	183.0	2035
1860	**1LA4 634-6CN■■**	995	124	96.5	96.4	0.90	0.88	17852	2.3	0.5	5.5	297.4	1800
2060	**1LA4 636-6CN■■**	995	136	96.7	96.6	0.90	0.88	19772	2.3	0.5	5.5	323.0	2090

Voltage code:	
10 kV, 50 Hz	**8**
Other voltage	**9**
Type of construction:	
IM B3	**0**
IM V1 (with canopy)	**4**
IM V1 (without canopy)	**8**

Note:

Efficiencies according to IEC 60034-2-1:2007;
stray load losses determined by statistical evaluation of measurements.

[1] Max. permissible external moment of inertia for three starts from cold or two starts from warm under the conditions described on Page 2/2.

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Selection and ordering data (continued)

Rated power	High voltage motor H-compact	Speed	Rated current	Efficiency		Power factor		Torque	Break-down torque	Locked-rotor torque	Locked-rotor current	Moment of inertia	
IEC			I_{rated} at 10 kV	4/4 load	3/4 load	4/4 load	3/4 load		T_B/T_{rated}	T_{LR}/T_{rated}	I_{LR}/I_{rated}	Motor	External, max.[1]
kW	Article No.	rpm	A	%	%	cos φ	cos φ	Nm	[-]	[-]	[-]	kgm²	kgm²
9 ... 11 kV, 50 Hz													
8-pole													
450	**1LA4 450-8AN■■**	743	34.0	94.8	95.0	0.80	0.76	5783	2.60	1.00	5.5	34.0	1286
480	**1LA4 452-8AN■■**	743	36.0	95.0	95.2	0.81	0.77	6169	2.60	1.00	5.5	37.0	1383
560	**1LA4 454-8AN■■**	743	42.0	95.3	95.4	0.81	0.77	7197	2.60	1.00	5.5	42.0	1788
700	**1LA4 500-8CN■■**	746	52.0	95.8	95.8	0.81	0.77	8960	2.20	0.75	5.5	82.0	1740
750	**1LA4 502-8CN■■**	746	55.0	95.9	95.9	0.82	0.78	9600	2.20	0.75	5.5	92.0	2020
800	**1LA4 504-8CN■■**	746	59.0	96.0	96.0	0.82	0.78	10240	2.20	0.75	5.5	102.0	2240
950	**1LA4 560-8CN■■**	746	70.0	96.2	96.1	0.81	0.77	12160	2.40	0.65	5.3	138.0	2562
1050	**1LA4 562-8CN■■**	746	77.0	96.2	96.2	0.82	0.78	13440	2.40	0.65	5.3	158.0	2282
1250	**1LA4 564-8CN■■**	746	92.0	96.5	96.3	0.81	0.77	16000	2.50	0.70	5.5	183.0	3217
1350	**1LA4 634-8CN■■**	746	96	96.2	96.0	0.84	0.81	17282	2.4	0.50	5.5	294.0	O. R.[2]
1500	**1LA4 636-8CN■■**	746	106	96.3	96.1	0.84	0.81	19202	2.4	0.50	5.5	320.1	O. R.[2]
10-pole													
440	**1LA4 500-3CN■■**	593	33.5	94.7	95.0	0.80	0.76	7085	2.20	0.85	4.7	82.0	3080
500	**1LA4 502-3CN■■**	593	38.0	95.0	95.2	0.80	0.75	8051	2.20	0.90	4.7	92.0	3770
530	**1LA4 504-3CN■■**	593	40.0	95.1	95.3	0.80	0.75	8535	2.20	0.90	4.7	102.0	4070
630	**1LA4 560-3CN■■**	595	47.5	95.4	95.6	0.80	0.75	10111	2.20	0.75	5.0	138.0	2382
690	**1LA4 562-3CN■■**	596	52.0	95.4	95.6	0.80	0.75	11055	2.20	0.80	5.1	158.0	2317
800	**1LA4 564-3CN■■**	596	61.0	95.6	95.7	0.79	0.75	12817	2.25	0.80	5.2	183.0	2807
12-pole													
500	**1LA4 560-5CN■■**	496	43.0	94.8	94.6	0.71	0.65	9626	2.00	0.65	4.4	138.0	4655
560	**1LA4 562-5CN■■**	496	48.0	95.0	94.8	0.71	0.64	10781	2.00	0.65	4.4	158.0	5533
620	**1LA4 564-5CN■■**	496	52.0	95.1	94.9	0.72	0.65	11936	2.00	0.65	4.4	183.0	5774

Voltage code:	
10 kV, 50 Hz	**8**
Other voltage	**9**
Type of construction:	
IM B3	**0**
IM V1 (with canopy)	**4**
IM V1 (without canopy)	**8**

Note:

Efficiencies according to IEC 60034-2-1:2007;
stray load losses determined by statistical evaluation of measurements.

Higher pole numbers are available on request.

[1] Max. permissible external moment of inertia for three starts from cold or two starts from warm under the conditions described on Page 2/2.

[2] On request.

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Selection and ordering data

The 1LA4 data also apply to explosion-protected 1MG4 (Ex pxb) and 1MS4 (Ex ec) motors.

Rated power	**High voltage motor H-compact**	Speed	Rated current	Efficiency		Power factor		Torque	Break-down torque	Locked-rotor torque	Locked-rotor current	Moment of inertia	
IEC			I_{rated} at 4.16 kV	4/4 load	3/4 load	4/4 load	3/4 load		T_B/T_{rated}	T_{LR}/T_{rated}	I_{LR}/I_{rated}	Motor	External, max.[1]
kW	Article No.	rpm	A	%	%	cos φ	cos φ	Nm	[-]	[-]	[-]	kgm²	kgm²
2.0 ... 6.6 kV, 60 Hz													
2-pole													
240	**1LA4 310-2AN■■**	3572	40.5	94.7	94.7	0.87	0.86	642	2.3	0.95	5.0	2.2	18
285	**1LA4 312-2AN■■**	3569	48.0	94.7	94.7	0.87	0.85	763	2.2	0.85	5.0	2.2	16
350	**1LA4 314-2AN■■**	3572	59.0	95.2	95.2	0.87	0.86	936	2.4	1.00	5.3	2.7	18
410	**1LA4 316-2AN■■**	3574	68.0	95.6	95.6	0.88	0.87	1095	2.5	1.10	5.4	3.1	26
460	**1LA4 350-2AN■■**	3578	76.0	95.6	95.6	0.88	0.86	1228	2.5	1.05	5.4	4.3	25
510	**1LA4 352-2AN■■**	3580	84.0	95.9	95.8	0.88	0.87	1360	2.6	1.20	5.6	4.8	29
560	**1LA4 354-2AN■■**	3579	91.0	96.0	96.0	0.89	0.88	1494	2.5	1.25	5.6	5.2	31
630	**1LA4 400-2AN■■**	3583	104	95.9	95.6	0.88	0.87	1679	2.3	0.80	5.3	7.8	14
730	**1LA4 402-2AN■■**	3585	120	96.1	95.9	0.88	0.87	1944	2.5	0.85	5.5	8.7	16
830	**1LA4 404-2AN■■**	3585	134	96.3	96.1	0.89	0.88	2211	2.6	0.90	5.5	9.9	19
920	**1LA4 450-2CN■■**	3583	150	96.1	95.8	0.89	0.88	2452	2.40	0.70	5.5	17.0	43
1000	**1LA4 452-2CN■■**	3584	160	96.2	95.8	0.90	0.88	2664	2.45	0.70	5.7	19.0	46
1140	**1LA4 454-2CN■■**	3585	182	96.6	96.4	0.90	0.88	3037	2.55	0.75	5.9	21.0	54
1330[2]	**1LA4 500-2CN■0**	3586	215	96.3	95.9	0.90	0.89	3542	2.4	0.65	5.5	29.0	52
1380[2]	**1LA4 502-2CN■0**	3586	220	96.3	96.0	0.91	0.90	3675	2.4	0.65	5.5	32.0	58
1560[2]	**1LA4 504-2CN■0**	3586	245	96.7	96.3	0.91	0.90	4154	2.5	0.70	5.6	35.0	72
4-pole													
240	**1LA4 310-4AN■■**	1780	44.5	93.8	93.7	0.80	0.76	1288	2.40	1.15	5.3	2.8	104
300	**1LA4 312-4AN■■**	1780	52.0	94.6	94.6	0.84	0.81	1609	2.30	1.20	5.2	3.5	133
360	**1LA4 314-4AN■■**	1780	62.0	94.9	95.0	0.85	0.82	1931	2.30	1.25	5.3	4.0	145
440	**1LA4 316-4AN■■**	1780	75.0	95.3	95.4	0.85	0.82	2360	2.40	1.30	5.5	4.8	200
470	**1LA4 350-4AN■■**	1783	81.0	95.2	95.2	0.85	0.83	2517	2.30	1.15	5.2	6.0	144
550	**1LA4 352-4AN■■**	1783	93.0	95.5	95.5	0.86	0.84	2946	2.20	1.15	5.2	6.9	159
640	**1LA4 354-4AN■■**	1784	106	95.6	95.6	0.87	0.85	3426	2.30	1.20	5.5	8.1	195
680	**1LA4 400-4AN■■**	1788	116	95.1	94.8	0.86	0.83	3632	2.55	1.20	5.80	11.6	174
750	**1LA4 402-4AN■■**	1788	126	95.4	95.2	0.87	0.84	4006	2.55	1.25	5.80	12.9	206
830	**1LA4 404-4AN■■**	1789	138	96.6	95.3	0.87	0.85	4431	2.55	1.20	5.90	14.5	243
1000	**1LA4 450-4AN■■**	1789	172	95.6	95.1	0.84	0.82	5338	2.40	0.95	5.25	22.0	298

Voltage code:	
4 kV, 60 Hz	**4**
6.6 kV, 60 Hz	**1**
Other voltage	**9**

Type of construction:	
IM B3	**0**
IM V1 (with canopy)	**4**
IM V1 (without canopy)	**8**

Note:

Efficiencies according to IEC 60034-2-1:2007;
stray load losses determined by statistical evaluation of measurements.

[1] Max. permissible external moment of inertia for three starts from cold or two starts from warm under the conditions described on Page 2/2.

[2] Not available for ≤ 3.3 kV.

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Selection and ordering data (continued)

Rated power	High voltage motor H-compact	Speed	Rated current	Efficiency		Power factor		Torque	Break-down torque	Locked-rotor torque	Locked-rotor current	Moment of inertia	
IEC			I_{rated} at 4.16 kV	4/4 load	3/4 load	4/4 load	3/4 load		T_B/T_{rated}	T_{LR}/T_{rated}	I_{LR}/I_{rated}	Motor	External, max.[1]
kW	Article No.	rpm	A	%	%	cos φ	cos φ	Nm	[-]	[-]	[-]	kgm²	kgm²
2.0 ... 6.6 kV, 60 Hz													
4-pole (continued)													
1050	**1LA4 452-4AN■■**	1789	178	95.7	95.4	0.86	0.84	5605	2.30	0.95	5.20	24.0	366
1150	**1LA4 454-4AN■■**	1789	194	95.9	95.6	0.86	0.84	6139	2.30	0.95	5.25	27.0	443
1350	**1LA4 500-4AN■■**	1792	230	96.1	95.8	0.85	0.83	7194	2.40	0.90	5.5	33.0	277
1450	**1LA4 502-4AN■■**	1792	245	96.2	95.9	0.86	0.84	7727	2.40	0.90	5.5	37.0	348
1600	**1LA4 504-4AN■■**	1792	260	96.3	96.2	0.88	0.86	8526	2.40	0.90	5.5	42.0	413
1870	**1LA4 560-4CN■■**	1794	315	96.4	96.0	0.86	0.84	9954	2.50	0.55	5.5	79.0	356
2090	**1LA4 562-4CN■■**	1794	345	96.6	96.3	0.87	0.84	11125	2.60	0.60	5.6	92.0	458
2350	**1LA4 564-4CN■■**	1794	385	96.8	96.6	0.88	0.85	12508	2.60	0.60	5.6	104.0	540
2640[2]	**1LA4 632-4CN■■**	1793	425	96.9	96.7	0.89	0.87	14068	2.3	0.55	5.5	157.0	O. R.[3]
2970[2]	**1LA4 634-4CN■■**	1794	475	97.1	96.9	0.89	0.87	15758	2.3	0.55	5.5	171.0	O. R.[3]
3300[2]	**1LA4 636-4CN■■**	1794	530	97.3	97.1	0.89	0.87	17573	2.3	0.55	5.5	186.2	O. R.[3]
6-pole													
275	**1LA4 314-6AN■■**	1184	49.0	94.3	94.5	0.83	0.80	2218	2.40	1.20	5.2	5.3	247
325	**1LA4 316-6AN■■**	1185	58.0	94.7	95.0	0.82	0.80	2619	2.40	1.20	5.5	6.4	360
380	**1LA4 350-6AN■■**	1190	68.0	95.1	95.1	0.82	0.79	3049	2.40	1.15	5.3	10.8	498
430	**1LA4 352-6AN■■**	1190	75.0	95.3	95.4	0.83	0.80	3450	2.20	1.10	5.5	12.7	615
510	**1LA4 354-6AN■■**	1189	90.0	95.5	95.6	0.82	0.80	4096	2.30	1.15	5.5	15.0	689
560	**1LA4 400-6AN■■**	1192	98.0	95.6	95.5	0.83	0.80	4486	2.50	1.10	5.5	21.2	740
670	**1LA4 402-6AN■■**	1192	116	95.8	95.8	0.83	0.81	5367	2.40	1.10	5.5	24.2	780
690	**1LA4 404-6AN■■**	1191	120	95.8	95.8	0.83	0.82	5532	2.30	1.10	5.5	27.3	925
800	**1LA4 450-6AN■■**	1192	138	95.8	95.7	0.84	0.81	6409	2.30	1.10	5.4	33.0	947
850	**1LA4 452-6AN■■**	1192	144	95.9	95.9	0.85	0.83	6809	2.30	1.10	5.4	37.0	1083
900	**1LA4 454-6AN■■**	1192	154	96.0	96.0	0.85	0.83	7210	2.30	1.10	5.4	41.0	1489
1160	**1LA4 500-6CN■■**	1195	192	96.5	96.6	0.87	0.86	9270	2.10	0.75	5.30	82.0	1168
1290	**1LA4 502-6CN■■**	1195	210	96.7	96.7	0.88	0.86	10309	2.15	0.75	5.35	92.0	1308
1380	**1LA4 504-6CN■■**	1195	225	96.8	96.8	0.88	0.86	11028	2.15	0.75	5.40	102.0	1598
1570	**1LA4 560-6CN■■**	1195	260	96.7	96.7	0.87	0.86	12547	2.20	0.60	5.15	138.0	1425
1870	**1LA4 562-6CN■■**	1195	310	97.0	96.9	0.87	0.85	14944	2.25	0.65	5.30	158.0	1640
2050	**1LA4 564-6CN■■**	1195	335	97.1	97.1	0.88	0.86	16383	2.25	0.60	5.25	183.0	1980
2255[2]	**1LA4 632-6CN■■**	1194	360	96.8	96.6	0.89	0.87	18043	2.3	0.50	5.5	269.1	O. R.[3]
2530[2]	**1LA4 634-6CN■■**	1194	400	96.9	96.7	0.90	0.88	20243	2.3	0.50	5.5	297.4	O. R.[3]
2750[2]	**1LA4 636-6CN■■**	1194	435	97.0	96.9	0.90	0.88	22003	2.3	0.50	5.5	323.0	O. R.[3]

Voltage code:

4 kV, 60 Hz	**4**
6.6 kV, 60 Hz	**1**
Other voltage	**9**

Type of construction:

IM B3	**0**
IM V1 (with canopy)	**4**
IM V1 (without canopy)	**8**

Note:

Efficiencies according to IEC 60034-2-1:2007;
stray load losses determined by statistical evaluation of measurements.

[1] Max. permissible external moment of inertia for three starts from cold or two starts from warm under the conditions described on Page 2/2.

[2] Not available for ≤ 3.3 kV.

[3] On request.

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Selection and ordering data (continued)

Rated power	High voltage motor H-compact	Speed	Rated current	Efficiency		Power factor		Torque	Break-down torque	Locked-rotor torque	Locked-rotor current	Moment of inertia	
IEC			I_{rated} at 4.16 kV	4/4 load	3/4 load	4/4 load	3/4 load		T_B/T_{rated}	T_{LR}/T_{rated}	I_{LR}/I_{rated}	Motor	External, max.[1]
kW	Article No.	rpm	A	%	%	cos φ	cos φ	Nm	[-]	[-]	[-]	kgm²	kgm²
2.0 ... 6.6 kV, 60 Hz													
8-pole													
260	**1LA4 350-8AN■■**	889	47.5	94.2	94.4	0.81	0.78	2793	2.30	0.95	5.1	10.6	683
300	**1LA4 352-8AN■■**	889	54.0	94.5	94.6	0.81	0.78	3222	2.40	1.00	5.2	12.5	824
360	**1LA4 354-8AN■■**	890	65.0	94.7	94.9	0.81	0.78	3863	2.50	1.05	5.4	14.8	879
445	**1LA4 400-8AN■■**	892	80.0	95.3	95.3	0.81	0.79	4764	2.40	1.05	5.3	21.3	1044
490	**1LA4 402-8AN■■**	891	86.0	95.3	95.3	0.83	0.80	5251	2.30	1.00	5.2	24.4	1069
540	**1LA4 404-8AN■■**	892	96.0	95.6	95.6	0.82	0.80	5781	2.40	1.05	5.4	27.4	1446
600	**1LA4 450-8AN■■**	891	108	95.4	95.5	0.81	0.78	6430	2.50	1.00	5.4	34.0	1466
670	**1LA4 452-8AN■■**	892	120	95.6	95.7	0.81	0.76	7172	2.60	1.00	5.5	37.0	1843
770	**1LA4 454-8AN■■**	892	138	95.8	95.9	0.81	0.78	8243	2.60	1.00	5.5	42.0	1958
900	**1LA4 500-8CN■■**	896	160	96.1	95.9	0.81	0.77	9593	2.35	0.75	5.25	82.0	2290
950	**1LA4 502-8CN■■**	896	170	96.1	96.0	0.81	0.78	10126	2.20	0.70	5.25	92.0	2050
1040	**1LA4 504-8CN■■**	896	182	96.2	96.2	0.82	0.81	11085	2.10	0.70	5.10	102.0	2290
1250	**1LA4 560-8CN■■**	896	220	96.4	96.2	0.82	0.78	13323	2.50	0.70	5.30	138.0	2487
1400	**1LA4 562-8CN■■**	896	240	96.6	96.5	0.83	0.81	14922	2.30	0.65	5.10	158.0	3012
1530	**1LA4 564-8CN■■**	896	265	96.7	96.5	0.83	0.79	16307	2.55	0.70	5.40	183.0	3687
1793[2]	**1LA4 634-8CN■■**	895	305	96.5	96.1	0.84	0.81	19135	2.4	0.50	5.5	294.0	O. R.[3]
1980[2]	**1LA4 636-8CN■■**	895	340	96.7	96.2	0.84	0.81	21130	2.4	0.50	5.5	320.1	O. R.[3]
10-pole													
400	**1LA4 450-3AN■■**	711	77.0	94.5	94.7	0.76	0.73	5372	2.20	1.00	4.8	34.0	2416
450	**1LA4 452-3AN■■**	711	87.0	94.7	94.8	0.76	0.72	6044	2.30	1.00	4.8	37.0	2513
500	**1LA4 454-3AN■■**	711	96.0	94.8	95.0	0.76	0.73	6715	2.30	1.00	4.8	42.0	2488
610	**1LA4 500-3CN■■**	713	112	95.4	95.5	0.79	0.75	8170	2.20	0.90	4.8	82.0	3700
670	**1LA4 502-3CN■■**	713	124	95.4	95.6	0.79	0.75	8973	2.20	0.90	4.8	92.0	4170
710	**1LA4 504-3CN■■**	714	132	95.6	95.5	0.78	0.74	9496	2.40	0.95	5.1	102.0	4840
870	**1LA4 560-3CN■■**	715	160	95.9	95.9	0.79	0.74	11619	2.30	0.75	5.1	138.0	2862
950	**1LA4 562-3CN■■**	716	176	96.0	95.9	0.78	0.73	12670	2.50	0.80	5.5	158.0	3377
1100	**1LA4 564-3CN■■**	716	200	96.1	96.1	0.79	0.75	14670	2.30	0.75	5.3	183.0	3517
12-pole													
340	**1LA4 450-5CN■■**	593	71.0	94.0	93.8	0.71	0.64	5475	2.00	0.70	4.3	34.0	2286
375	**1LA4 452-5CN■■**	592	78.0	94.2	94.1	0.71	0.66	6049	2.00	0.70	4.3	37.0	2723
410	**1LA4 454-5CN■■**	592	84.0	94.2	94.1	0.72	0.66	6613	2.00	0.70	4.3	42.0	2428
460	**1LA4 500-5CN■■**	595	95.0	94.6	94.4	0.71	0.65	7382	2.00	0.65	4.2	82.0	3200
500	**1LA4 502-5CN■■**	594	102	94.8	94.7	0.72	0.67	8038	2.00	0.65	4.2	92.0	3880
540	**1LA4 504-5CN■■**	594	110	94.9	94.8	0.72	0.67	8681	2.00	0.65	4.2	102.0	3850
650	**1LA4 560-5CN■■**	595	134	95.2	94.9	0.71	0.64	10432	2.00	0.65	4.4	138.0	5636
710	**1LA4 562-5CN■■**	596	144	95.3	95.0	0.72	0.65	11375	2.00	0.65	4.4	158.0	6123
800	**1LA4 564-5CN■■**	596	164	95.4	95.1	0.71	0.65	12817	2.00	0.65	4.4	183.0	7377

Voltage code:	
4 kV, 60 Hz	**4**
6.6 kV, 60 Hz	**1**
Other voltage	**9**

Type of construction:	
IM B3	**0**
IM V1 (with canopy)	**4**
IM V1 (without canopy)	**8**

Note:

Efficiencies according to IEC 60034-2-1:2007;
stray load losses determined by statistical evaluation of measurements.

Higher pole numbers are available on request.

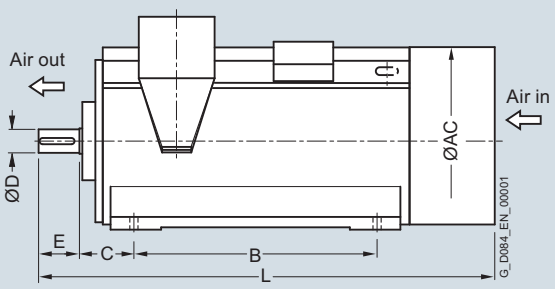
[1] Max. permissible external moment of inertia for three starts from cold or two starts from warm under the conditions described on Page 2/2.

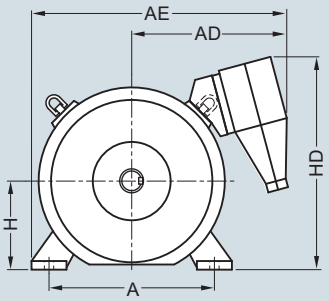
[2] Not available for ≤ 3.3 kV.

[3] On request.

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Dimension drawings





Motor type	Weight	Dimensions										
		A	AC	AD[1]	AE[1]	B	C	D	E	H	HD[2]	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, IM B3 type of construction, anti-friction bearings[3]												
2-pole												
1LA4 310-2AN.0	1550	610	700	710	1075	710	200	70	105	315	860	1590
1LA4 312-2AN.0	1550	610	700	710	1075	710	200	70	105	315	860	1590
1LA4 314-2AN.0	1850	610	700	710	1075	900	200	70	105	315	860	1790
1LA4 316-2AN.0	2000	610	700	710	1075	900	200	70	105	315	860	1790
1LA4 350-2AN.0	2300	686	780	740	1155	1000	224	75	105	355	930	1930
1LA4 352-2AN.0	2400	686	780	740	1155	1000	224	75	105	355	930	1930
1LA4 354-2AN.0	2550	686	780	740	1155	1000	224	75	105	355	930	1930
1LA4 400-2AN.0	3150	750	870	775	1225	1120	254	85	130	400	1010	2095
1LA4 402-2AN.0	3300	750	870	775	1225	1120	254	85	130	400	1010	2095
1LA4 404-2AN.0	3550	750	870	775	1225	1120	254	85	130	400	1010	2095
1LA4 450-2AN.0[4]	4600	850	960	825	1340	1250	280	95	130	450	1100	2320
1LA4 452-2AN.0[4]	4900	850	960	825	1340	1250	280	95	130	450	1100	2320
1LA4 454-2AN.0[4]	5200	850	960	825	1340	1250	280	95	130	450	1100	2320
4-pole												
1LA4 310-4AN.0	1500	610	700	710	1075	710	200	90	130	315	860	1610
1LA4 312-4AN.0	1650	610	700	710	1075	710	200	90	130	315	860	1610
1LA4 314-4AN.0	1900	610	700	710	1075	900	200	90	130	315	860	1810
1LA4 316-4AN.0	2050	610	700	710	1075	900	200	90	130	315	860	1810
1LA4 350-4AN.0	2350	686	780	740	1155	1000	224	100	165	355	930	1985
1LA4 352-4AN.0	2550	686	780	740	1155	1000	224	100	165	355	930	1985
1LA4 354-4AN.0	2750	686	780	740	1155	1000	224	100	165	355	930	1985
1LA4 400-4AN.0	3400	750	870	775	1225	1120	254	120	165	400	1010	2125
1LA4 402-4AN.0	3600	750	870	775	1225	1120	254	120	165	400	1010	2125
1LA4 404-4AN.0	3800	750	870	775	1225	1120	254	120	165	400	1010	2125
1LA4 450-4AN.0	4700	850	960	825	1340	1250	280	130	200	450	1100	2390
1LA4 452-4AN.0	5000	850	960	825	1340	1250	280	130	200	450	1100	2390
1LA4 454-4AN.0	5300	850	960	825	1340	1250	280	130	200	450	1100	2390
1LA4 500-4AN.0	5900	950	1070	875	1440	1320	315	140	200	500	1200	2525
1LA4 502-4AN.0	6300	950	1070	875	1440	1320	315	140	200	500	1200	2525

[1] For currents I_{rated} > 315 A, the dimension changes by + 140 mm (for H = 500), by + 145 mm (for H = 560) or by + 155 mm (for H = 630).

[2] For currents I_{rated} > 315 A, the dimension changes by + 70 mm.

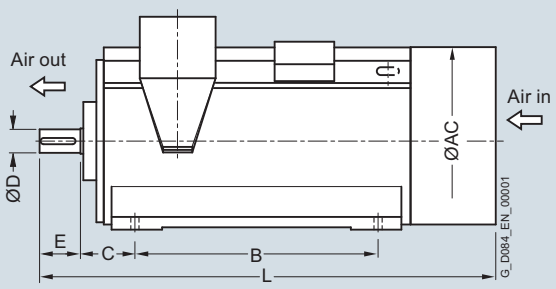
[3] The dimensions also apply for the 1MA4 and 1MS4 series.

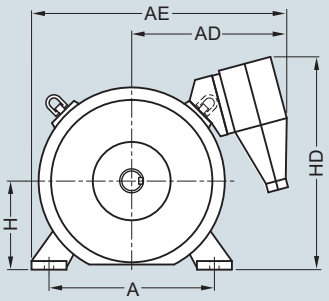
[4] Anti-friction bearings only for 50 Hz operation.

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Dimension drawings (continued)





Motor type	Weight	Dimensions										
		A	AC	AD[1]	AE[1]	B	C	D	E	H	HD[2]	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, IM B3 type of construction, anti-friction bearings[3]												
4-pole												
1LA4 504-4AN.0	6800	950	1070	875	1440	1320	315	140	200	500	1200	2525
1LA4 560-4CN.0	8200	1060	1210	925	1560	1400	335	160	240	560	1310	2775
1LA4 562-4CN.0	8900	1060	1210	925	1560	1400	335	160	240	560	1310	2775
1LA4 564-4CN.0	9700	1060	1210	925	1560	1400	335	160	240	560	1310	2775
1LA4 632-4CN.0[4]	12200	1120	1350	945	1560	1600	335	170	240	630	1410	3015
1LA4 634-4CN.0[4]	12800	1120	1350	945	1560	1600	335	170	240	630	1410	3015
1LA4 636-4CN.0[4]	13600	1120	1350	945	1560	1600	335	170	240	630	1410	3015
6-pole												
1LA4 314-6AN.0	1950	610	700	710	1075	900	200	90	130	315	860	1810
1LA4 316-6AN.0	2150	610	700	710	1075	900	200	90	130	315	860	1810
1LA4 350-6AN.0	2400	686	780	740	1155	1000	224	100	165	355	930	1985
1LA4 352-6AN.0	2600	686	780	740	1155	1000	224	100	165	355	930	1985
1LA4 354-6AN.0	2850	686	780	740	1155	1000	224	100	165	355	930	1985
1LA4 400-6AN.0	3500	750	870	775	1225	1120	254	120	165	400	1010	2125
1LA4 402-6AN.0	3750	750	870	775	1225	1120	254	120	165	400	1010	2125
1LA4 404-6AN.0	4000	750	870	775	1225	1120	254	120	165	400	1010	2125
1LA4 450-6AN.0	4600	850	960	825	1340	1250	280	130	200	450	1100	2390
1LA4 452-6AN.0	4900	850	960	825	1340	1250	280	130	200	450	1100	2390
1LA4 454-6AN.0	5200	850	960	825	1340	1250	280	130	200	450	1100	2390
1LA4 500-6CN.0	6400	950	1070	875	1440	1320	315	140	200	500	1200	2525
1LA4 502-6CN.0	6800	950	1070	875	1440	1320	315	140	200	500	1200	2525
1LA4 504-6CN.0	7300	950	1070	875	1440	1320	315	140	200	500	1200	2525
1LA4 560-6CN.0	8500	1060	1210	925	1560	1400	335	160	240	560	1310	2775
1LA4 562-6CN.0	9300	1060	1210	925	1560	1400	335	160	240	560	1310	2775
1LA4 564-6CN.0	10100	1060	1210	925	1560	1400	335	160	240	560	1310	2775
1LA4 632-6CN.0	12700	1120	1350	945	1560	1600	335	180	240	630	1410	3015
1LA4 634-6CN.0	13400	1120	1350	945	1560	1600	335	180	240	630	1410	3015
1LA4 636-6CN.0	14100	1120	1350	945	1560	1600	335	180	240	630	1410	3015

[1] For currents I_{rated} > 315 A, the dimension changes by + 140 mm (for H = 500), by + 145 mm (for H = 560) or by + 155 mm (for H = 630).

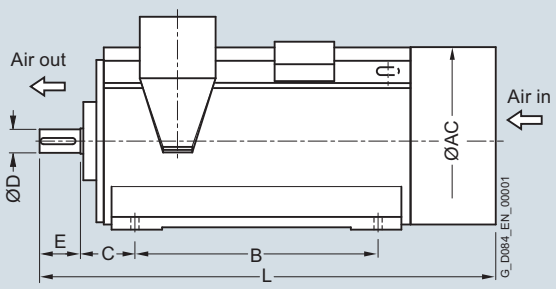
[2] For currents I_{rated} > 315 A, the dimension changes by + 70 mm.

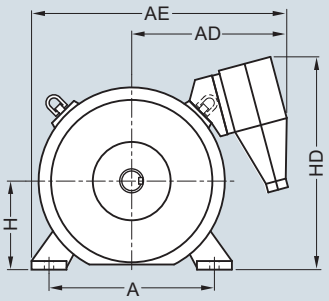
[3] The dimensions also apply for the 1MA4 and 1MS4 series.

[4] Anti-friction bearings only for 50 Hz operation.

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Dimension drawings (continued)





Motor type	Weight	Dimensions										
		A	AC	AD[1]	AE[1]	B	C	D	E	H	HD[2]	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, IM B3 type of construction, anti-friction bearings[3]												
8-pole												
1LA4 350-8AN.0	2400	686	780	740	1155	1000	224	100	165	355	930	1985
1LA4 352-8AN.0	2600	686	780	740	1155	1000	224	100	165	355	930	1985
1LA4 354-8AN.0	2800	686	780	740	1155	1000	224	100	165	355	930	1985
1LA4 400-8AN.0	3450	750	870	775	1225	1120	254	120	165	400	1010	2125
1LA4 402-8AN.0	3700	750	870	775	1225	1120	254	120	165	400	1010	2125
1LA4 404-8AN.0	3950	750	870	775	1225	1120	254	120	165	400	1010	2125
1LA4 450-8AN.0	4600	850	960	825	1340	1250	280	130	200	450	1100	2390
1LA4 452-8AN.0	4900	850	960	825	1340	1250	280	130	200	450	1100	2390
1LA4 454-8AN.0	5200	850	960	825	1340	1250	280	130	200	450	1100	2390
1LA4 500-8CN.0	6400	950	1070	875	1440	1320	315	140	200	500	1200	2525
1LA4 502-8CN.0	6700	950	1070	875	1440	1320	315	140	200	500	1200	2525
1LA4 504-8CN.0	7200	950	1070	875	1440	1320	315	140	200	500	1200	2525
1LA4 560-8CN.0	8500	1060	1210	925	1560	1400	335	160	240	560	1310	2775
1LA4 562-8CN.0	9200	1060	1210	925	1560	1400	335	160	240	560	1310	2775
1LA4 564-8CN.0	10000	1060	1210	925	1560	1400	335	160	240	560	1310	2775
1LA4 634-8CN.0	13300	1120	1350	945	1560	1600	335	180	240	630	1410	3015
1LA4 636-8CN.0	14000	1120	1350	945	1560	1600	335	180	240	630	1410	3015
10-pole												
1LA4 450-3AN.0	4600	850	960	825	1340	1250	280	130	200	450	1100	2390
1LA4 452-3AN.0	4900	850	960	825	1340	1250	280	130	200	450	1100	2390
1LA4 454-3AN.0	5200	850	960	825	1340	1250	280	130	200	450	1100	2390
1LA4 500-3CN.0	6400	950	1070	875	1440	1320	315	140	200	500	1200	2525
1LA4 502-3CN.0	6700	950	1070	875	1440	1320	315	140	200	500	1200	2525
1LA4 504-3CN.0	7200	950	1070	875	1440	1320	315	140	200	500	1200	2525
1LA4 560-3CN.0	8500	1060	1210	925	1560	1400	335	160	240	560	1310	2775
1LA4 562-3CN.0	9200	1060	1210	925	1560	1400	335	160	240	560	1310	2775
1LA4 564-3CN.0	10000	1060	1210	925	1560	1400	335	160	240	560	1310	2775

[1] For currents I_{rated} > 315 A, the dimension changes by + 140 mm (for H = 500), by + 145 mm (for H = 560) or by + 155 mm (for H = 630).

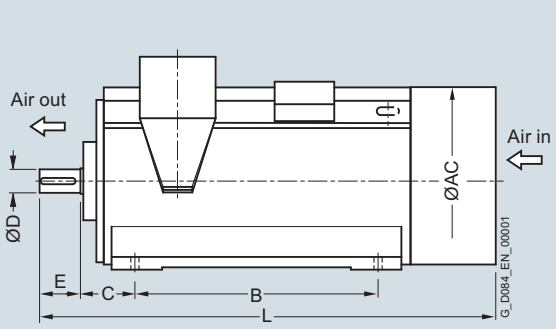
[2] For currents I_{rated} > 315 A, the dimension changes by + 70 mm.

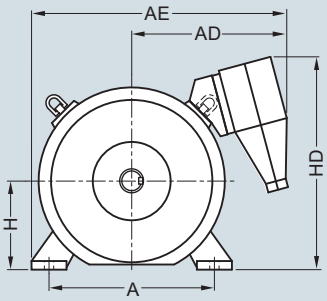
[3] The dimensions also apply for the 1MA4 and 1MS4 series.

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Dimension drawings (continued)





Motor type	Weight	Dimensions										
		A	AC	AD[1]	AE[1]	B	C	D	E	H	HD[2]	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, IM B3 type of construction, anti-friction bearings[3]												
12-pole												
1LA4 450-5CN.0	4600	850	960	825	1340	1250	280	130	200	450	1100	2390
1LA4 452-5CN.0	4900	850	960	825	1340	1250	280	130	200	450	1100	2390
1LA4 454-5CN.0	5200	850	960	825	1340	1250	280	130	200	450	1100	2390
1LA4 500-5CN.0	6400	950	1070	875	1440	1320	315	140	200	500	1200	2525
1LA4 502-5CN.0	6700	950	1070	875	1440	1320	315	140	200	500	1200	2525
1LA4 504-5CN.0	7200	950	1070	875	1440	1320	315	140	200	500	1200	2525
1LA4 560-5CN.0	8500	1060	1210	925	1560	1400	335	160	240	560	1310	2775
1LA4 562-5CN.0	9200	1060	1210	925	1560	1400	335	160	240	560	1310	2775
1LA4 564-5CN.0	10000	1060	1210	925	1560	1400	335	160	240	560	1310	2775

Note:

Higher pole numbers are available on request.

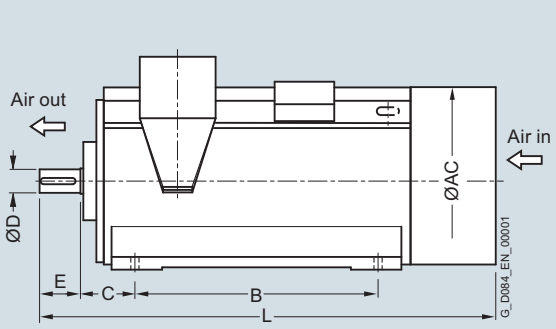
[1] For currents I_{rated} > 315 A, the dimension changes by + 140 mm (for H = 500), by + 145 mm (for H = 560) or by + 155 mm (for H = 630).

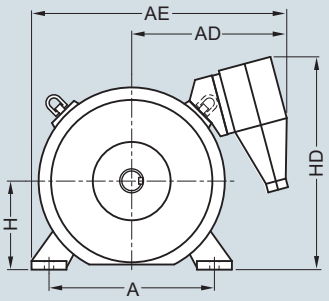
[2] For currents I_{rated} > 315 A, the dimension changes by + 70 mm.

[3] The dimensions also apply for the 1MA4 and 1MS4 series.

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Dimension drawings





Motor type	Weight	Dimensions										
		A	AC	AD	AE	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
9 ... 11 kV, IM B3 type of construction, anti-friction bearings[1)]												
2-pole												
1LA4 400-2AN.0	3150	750	870	775	1225	1120	254	85	130	400	1010	2095
1LA4 401-2AN.0	3300	750	870	775	1225	1120	254	85	130	400	1010	2095
1LA4 403-2AN.0	3550	750	870	775	1225	1120	254	85	130	400	1010	2095
1LA4 450-2AN.0[2)]	4600	850	960	970	1485	1250	280	95	130	450	1170	2320
1LA4 452-2AN.0[2)]	4900	850	960	970	1485	1250	280	95	130	450	1170	2320
1LA4 454-2AN.0[2)]	5200	850	960	970	1485	1250	280	95	130	450	1170	2320
4-pole												
1LA4 450-4AN.0	4600	850	960	970	1485	1250	280	130	200	450	1170	2390
1LA4 452-4AN.0	4900	850	960	970	1485	1250	280	130	200	450	1170	2390
1LA4 454-4AN.0	5200	850	960	970	1485	1250	280	130	200	450	1170	2390
1LA4 500-4AN.0	5900	950	1070	1015	1580	1320	315	140	200	500	1270	2525
1LA4 502-4AN.0	6200	950	1070	1015	1580	1320	315	140	200	500	1270	2525
1LA4 504-4AN.0	6700	950	1070	1015	1580	1320	315	140	200	500	1270	2525
1LA4 560-4CN.0	8100	1060	1210	1070	1705	1400	335	160	240	560	1380	2775
1LA4 562-4CN.0	8800	1060	1210	1070	1705	1400	335	160	240	560	1380	2775
1LA4 564-4CN.0	9600	1060	1210	1070	1705	1400	335	160	240	560	1380	2775
1LA4 634-4CN.0[2)]	12800	1120	1350	1100	1675	1600	335	170	240	630	1480	3015
1LA4 636-4CN.0[2)]	13600	1120	1350	1100	1675	1600	335	170	240	630	1480	3015
6-pole												
1LA4 450-6AN.0	4600	850	960	970	1485	1250	280	130	200	450	1170	2390
1LA4 452-6AN.0	4800	850	960	970	1485	1250	280	130	200	450	1170	2390
1LA4 454-6AN.0	5200	850	960	970	1485	1250	280	130	200	450	1170	2390
1LA4 500-6CN.0	6300	950	1070	1015	1580	1320	315	140	200	500	1270	2525
1LA4 502-6CN.0	6800	950	1070	1015	1580	1320	315	140	200	500	1270	2525
1LA4 504-6CN.0	7200	950	1070	1015	1580	1320	315	140	200	500	1270	2525
1LA4 560-6CN.0	8500	1060	1210	1070	1705	1400	335	160	240	560	1380	2775
1LA4 562-6CN.0	9100	1060	1210	1070	1705	1400	335	160	240	560	1380	2775
1LA4 564-6CN.0	10000	1060	1210	1070	1705	1400	335	160	240	560	1380	2775
1LA4 634-6CN.0	13400	1120	1350	1100	1675	1600	335	180	240	630	1480	3015
1LA4 636-6CN.0	14100	1120	1350	1100	1675	1600	335	180	240	630	1480	3015

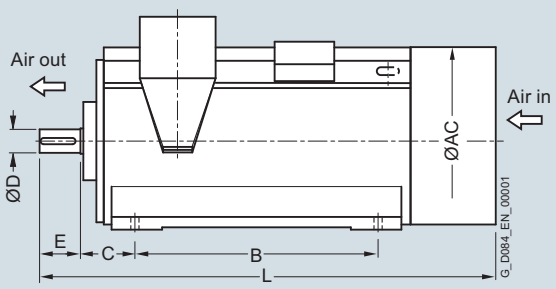
[1)] The dimensions also apply for the 1MA4 and 1MS4 series.

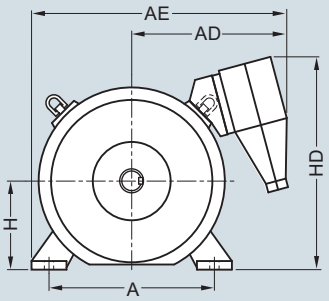
[2)] Anti-friction bearings only for 50 Hz operation.

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Dimension drawings (continued)





Motor type	Weight	Dimensions										
		A	AC	AD	AE	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
9 ... 11 kV, IM B3 type of construction, anti-friction bearings[1)]												
8-pole												
1LA4 450-8AN.0	4600	850	960	970	1485	1250	280	130	200	450	1170	2390
1LA4 452-8AN.0	4800	850	960	970	1485	1250	280	130	200	450	1170	2390
1LA4 454-8AN.0	5200	850	960	970	1485	1250	280	130	200	450	1170	2390
1LA4 500-8CN.0	6300	950	1070	1015	1580	1320	315	140	200	500	1270	2525
1LA4 502-8CN.0	6700	950	1070	1015	1580	1320	315	140	200	500	1270	2525
1LA4 504-8CN.0	7100	950	1070	1015	1580	1320	315	140	200	500	1270	2525
1LA4 560-8CN.0	8400	1060	1210	1070	1705	1400	335	160	240	560	1380	2775
1LA4 562-8CN.0	9100	1060	1210	1070	1705	1400	335	160	240	560	1380	2775
1LA4 564-8CN.0	10000	1060	1210	1070	1705	1400	335	160	240	560	1380	2775
1LA4 634-8CN.0	13300	1120	1350	1100	1675	1600	335	180	240	630	1480	3015
1LA4 636-8CN.0	14000	1120	1350	1100	1675	1600	335	180	240	630	1480	3015
10-pole												
1LA4 500-3CN.0	6300	950	1070	1015	1580	1320	315	140	200	500	1270	2525
1LA4 502-3CN.0	6700	950	1070	1015	1580	1320	315	140	200	500	1270	2525
1LA4 504-3CN.0	7100	950	1070	1015	1580	1320	315	140	200	500	1270	2525
1LA4 560-3CN.0	8400	1060	1210	1070	1705	1400	335	160	240	560	1380	2775
1LA4 562-3CN.0	9100	1060	1210	1070	1705	1400	335	160	240	560	1380	2775
1LA4 564-3CN.0	10000	1060	1210	1070	1705	1400	335	160	240	560	1380	2775
12-pole												
1LA4 560-5CN.0	8400	1060	1210	1070	1705	1400	335	160	240	560	1380	2775
1LA4 562-5CN.0	9100	1060	1210	1070	1705	1400	335	160	240	560	1380	2775
1LA4 564-5CN.0	10000	1060	1210	1070	1705	1400	335	160	240	560	1380	2775

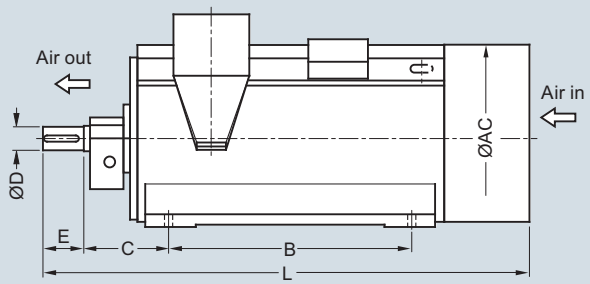
Note:

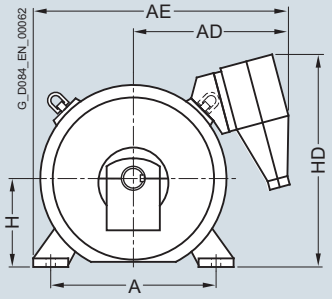
Higher pole numbers are available on request.

[1)] The dimensions also apply for the 1MA4 and 1MS4 series.

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Dimension drawings





Motor type	Weight	Dimensions										
		A	AC	AD[1]	AE[1]	B	C	D	E	H	HD[2]	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, IM B3 type of construction, sleeve bearings[3]												
2-pole												
1LA4 310-2AN.0-Z K96	1650	610	700	710	1075	710	375	70	105	315	860	1980
1LA4 312-2AN.0-Z K96	1650	610	700	710	1075	710	375	70	105	315	860	1980
1LA4 314-2AN.0-Z K96	1950	610	700	710	1075	900	375	70	105	315	860	2180
1LA4 316-2AN.0-Z K96	2100	610	700	710	1075	900	375	70	105	315	860	2180
1LA4 350-2AN.0-Z K96	2400	686	780	740	1155	1000	400	75	105	355	930	2340
1LA4 352-2AN.0-Z K96	2500	686	780	740	1155	1000	400	75	105	355	930	2340
1LA4 354-2AN.0-Z K96	2600	686	780	740	1155	1000	400	75	105	355	930	2340
1LA4 400-2AN.0-Z K96	3200	750	870	775	1225	1120	425	85	130	400	1010	2510
1LA4 402-2AN.0-Z K96	3350	750	870	775	1225	1120	425	85	130	400	1010	2510
1LA4 404-2AN.0-Z K96	3600	750	870	775	1225	1120	425	85	130	400	1010	2510
1LA4 450-2AN.0-Z K96[4]	4700	850	960	825	1340	1250	475	95	130	450	1100	2515
1LA4 452-2AN.0-Z K96[4]	5000	850	960	825	1340	1250	475	95	130	450	1100	2515
1LA4 454-2AN.0-Z K96[4]	5200	850	960	825	1340	1250	475	95	130	450	1100	2515
1LA4 500-2CN.0	6100	950	1070	875	1440	1320	500	110	165	500	1200	2675
1LA4 502-2CN.0	6300	950	1070	875	1440	1320	500	110	165	500	1200	2675
1LA4 504-2CN.0	6700	950	1070	875	1440	1320	500	110	165	500	1200	2675
1LA4 560-2CN.0	8200	1060	1210	925	1560	1400	500	120	165	560	1310	2865
1LA4 562-2CN.0	8600	1060	1210	925	1560	1400	500	120	165	560	1310	2865
1LA4 564-2CN.0	9100	1060	1210	925	1560	1400	500	120	165	560	1310	2865
4-pole												
1LA4 310-4AN.0-Z K96	1600	610	700	710	1075	710	375	90	130	315	860	2010
1LA4 312-4AN.0-Z K96	1750	610	700	710	1075	710	375	90	130	315	860	2010
1LA4 314-4AN.0-Z K96	2000	610	700	710	1075	900	375	90	130	315	860	2210
1LA4 316-4AN.0-Z K96	2150	610	700	710	1075	900	375	90	130	315	860	2210
1LA4 350-4AN.0-Z K96	2450	686	780	740	1155	1000	400	100	165	355	930	2400
1LA4 352-4AN.0-Z K96	2600	686	780	740	1155	1000	400	100	165	355	930	2400
1LA4 354-4AN.0-Z K96	2850	686	780	740	1155	1000	400	100	165	355	930	2400
1LA4 400-4AN.0-Z K96	3450	750	870	775	1225	1120	450	120	165	400	1010	2570
1LA4 402-4AN.0-Z K96	3650	750	870	775	1225	1120	450	120	165	400	1010	2570

[1] For currents I_{rated} > 315 A, the dimension changes by + 140 mm (for H = 500), by + 145 mm (for H = 560) or by + 155 mm (for H = 630).

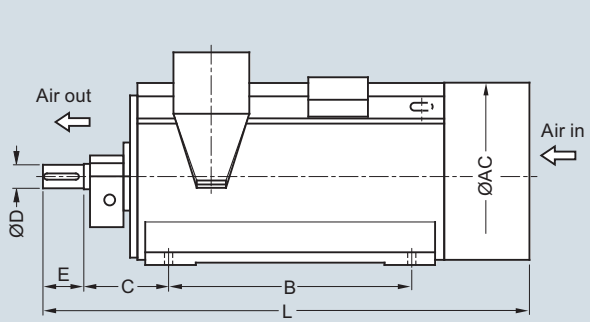
[2] For currents I_{rated} > 315 A, the dimension changes by + 70 mm.

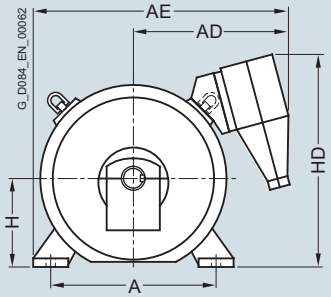
[3] The dimensions also apply for the 1MA4 and 1MS4 series.

[4] For the 60 Hz version, sleeve bearings are standard, "-Z **K96**" not necessary.

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Dimension drawings (continued)





Motor type	Weight	Dimensions										
		A	AC	AD[1]	AE[1]	B	C	D	E	H	HD[2]	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, IM B3 type of construction, sleeve bearings[3]												
4-pole												
1LA4 404-4AN.0-Z K96	3850	750	870	775	1225	1120	450	120	165	400	1010	2570
1LA4 450-4AN.0-Z K96	4800	850	960	825	1340	1250	475	130	200	450	1100	2745
1LA4 452-4AN.0-Z K96	5100	850	960	825	1340	1250	475	130	200	450	1100	2745
1LA4 454-4AN.0-Z K96	5400	850	960	825	1340	1250	475	130	200	450	1100	2745
1LA4 500-4AN.0-Z K96	6100	950	1070	875	1440	1320	500	140	200	500	1200	2870
1LA4 502-4AN.0-Z K96	6500	950	1070	875	1440	1320	500	140	200	500	1200	2870
1LA4 504-4AN.0-Z K96	7000	950	1070	875	1440	1320	500	140	200	500	1200	2870
1LA4 560-4CN.0-Z K96	8500	1060	1210	925	1560	1400	560	160	240	560	1310	3170
1LA4 562-4CN.0-Z K96	9200	1060	1210	925	1560	1400	560	160	240	560	1310	3170
1LA4 564-4CN.0-Z K96	10000	1060	1210	925	1560	1400	560	160	240	560	1310	3170
1LA4 632-4CN.0-Z K96[4]	12500	1120	1350	945	1560	1600	560	170	240	630	1410	3450
1LA4 634-4CN.0-Z K96[4]	13100	1120	1350	945	1560	1600	560	170	240	630	1410	3450
1LA4 636-4CN.0-Z K96[4]	13900	1120	1350	945	1560	1600	560	170	240	630	1410	3450
6-pole												
1LA4 450-6AN.0-Z K96	4800	850	960	825	1340	1250	475	130	200	450	1100	2745
1LA4 452-6AN.0-Z K96	5000	850	960	825	1340	1250	475	130	200	450	1100	2745
1LA4 454-6AN.0-Z K96	5300	850	960	825	1340	1250	475	130	200	450	1100	2745
1LA4 500-6CN.0-Z K96	6600	950	1070	875	1440	1320	530	140	200	500	1200	2900
1LA4 502-6CN.0-Z K96	7000	950	1070	875	1440	1320	530	140	200	500	1200	2900
1LA4 504-6CN.0-Z K96	7500	950	1070	875	1440	1320	530	140	200	500	1200	2900
1LA4 560-6CN.0-Z K96	8800	1060	1210	925	1560	1400	560	160	240	560	1310	3170
1LA4 562-6CN.0-Z K96	9500	1060	1210	925	1560	1400	560	160	240	560	1310	3170
1LA4 564-6CN.0-Z K96	10400	1060	1210	925	1560	1400	560	160	240	560	1310	3170
1LA4 632-6CN.0-Z K96	13000	1120	1350	945	1560	1600	560	180	240	630	1410	3450
1LA4 634-6CN.0-Z K96	13700	1120	1350	945	1560	1600	560	180	240	630	1410	3450
1LA4 636-6CN.0-Z K96	14500	1120	1350	945	1560	1600	560	180	240	630	1410	3450

[1] For currents I_{rated} > 315 A, the dimension changes by + 140 mm (for H = 500), by + 145 mm (for H = 560) or by + 155 mm (for H = 630).

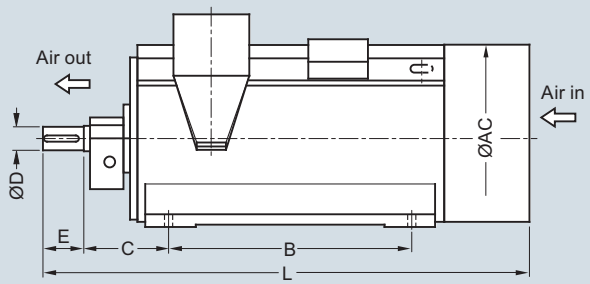
[2] For currents I_{rated} > 315 A, the dimension changes by + 70 mm.

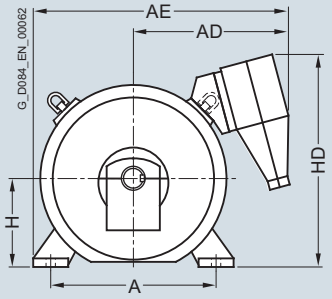
[3] The dimensions also apply for the 1MA4 and 1MS4 series.

[4] For the 60 Hz version, sleeve bearings are standard, "-Z **K96**" not necessary.

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Dimension drawings (continued)





Motor type	Weight	Dimensions										
		A	AC	AD[1]	AE[1]	B	C	D	E	H	HD[2]	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, IM B3 type of construction, sleeve bearings[3]												
8-pole												
1LA4 450-8AN.0-Z K96	4700	850	960	825	1340	1250	475	130	200	450	1100	2745
1LA4 452-8AN.0-Z K96	5000	850	960	825	1340	1250	475	130	200	450	1100	2745
1LA4 454-8AN.0-Z K96	5300	850	960	825	1340	1250	475	130	200	450	1100	2745
1LA4 500-8CN.0-Z K96	6600	950	1070	875	1440	1320	530	140	200	500	1200	2900
1LA4 502-8CN.0-Z K96	6900	950	1070	875	1440	1320	530	140	200	500	1200	2900
1LA4 504-8CN.0-Z K96	7400	950	1070	875	1440	1320	530	140	200	500	1200	2900
1LA4 560-8CN.0-Z K96	8800	1060	1210	925	1560	1400	560	160	240	560	1310	3170
1LA4 562-8CN.0-Z K96	9500	1060	1210	925	1560	1400	560	160	240	560	1310	3170
1LA4 564-8CN.0-Z K96	10300	1060	1210	925	1560	1400	560	160	240	560	1310	3170
1LA4 634-8CN.0-Z K96	13600	1120	1350	945	1560	1600	560	180	240	630	1410	3450
1LA4 636-8CN.0-Z K96	14400	1120	1350	945	1560	1600	560	180	240	630	1410	3450
10-pole												
1LA4 450-3AN.0-Z K96	4700	850	960	825	1340	1250	475	130	200	450	1100	2745
1LA4 452-3AN.0-Z K96	5000	850	960	825	1340	1250	475	130	200	450	1100	2745
1LA4 454-3AN.0-Z K96	5300	850	960	825	1340	1250	475	130	200	450	1100	2745
1LA4 500-3CN.0-Z K96	6600	950	1070	875	1440	1320	530	140	200	500	1200	2900
1LA4 502-3CN.0-Z K96	6900	950	1070	875	1440	1320	530	140	200	500	1200	2900
1LA4 504-3CN.0-Z K96	7400	950	1070	875	1440	1320	530	140	200	500	1200	2900
1LA4 560-3CN.0-Z K96	8800	1060	1210	925	1560	1400	560	160	240	560	1310	3170
1LA4 562-3CN.0-Z K96	9500	1060	1210	925	1560	1400	560	160	240	560	1310	3170
1LA4 564-3CN.0-Z K96	10300	1060	1210	925	1560	1400	560	160	240	560	1310	3170
12-pole												
1LA4 450-5CN.0-Z K96	4700	850	960	825	1340	1250	475	130	200	450	1100	2745
1LA4 452-5CN.0-Z K96	5000	850	960	825	1340	1250	475	130	200	450	1100	2745
1LA4 454-5CN.0-Z K96	5300	850	960	825	1340	1250	475	130	200	450	1100	2745
1LA4 500-5CN.0-Z K96	6600	950	1070	875	1440	1320	530	140	200	500	1200	2900
1LA4 502-5CN.0-Z K96	6900	950	1070	875	1440	1320	530	140	200	500	1200	2900
1LA4 504-5CN.0-Z K96	7400	950	1070	875	1440	1320	530	140	200	500	1200	2900
1LA4 560-5CN.0-Z K96	8800	1060	1210	925	1560	1400	560	160	240	560	1310	3170
1LA4 562-5CN.0-Z K96	9500	1060	1210	925	1560	1400	560	160	240	560	1310	3170
1LA4 564-5CN.0-Z K96	10300	1060	1210	925	1560	1400	560	160	240	560	1310	3170

Note:

Higher pole numbers are available on request.

[1] For currents I_{rated} > 315 A, the dimension changes by + 140 mm (for H = 500), by + 145 mm (for H = 560) or by + 155 mm (for H = 630).

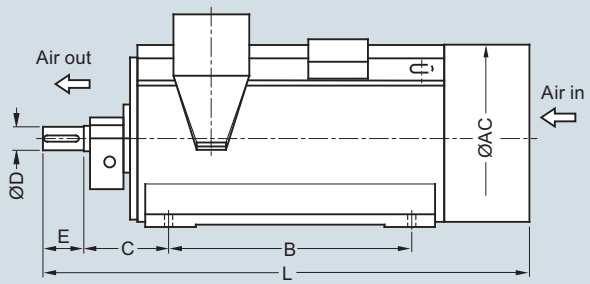
[2] For currents I_{rated} > 315 A, the dimension changes by + 70 mm.

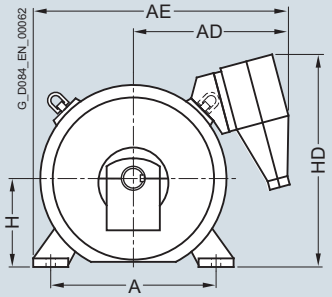
[3] The dimensions also apply for the 1MA4 and 1MS4 series.

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2

Dimension drawings





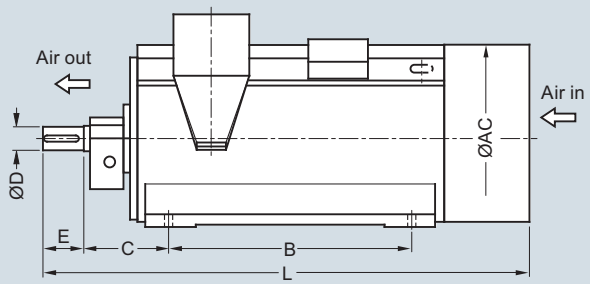
Motor type	Weight	Dimensions										
		A	AC	AD	AE	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
9 ... 11 kV, IM B3 type of construction, sleeve bearings[1)]												
2-pole												
1LA4 400-2AN.0	3150	750	870	775	1225	1120	254	85	130	400	1010	2095
1LA4 401-2AN.0	3300	750	870	775	1225	1120	254	85	130	400	1010	2095
1LA4 403-2AN.0	3550	750	870	775	1225	1120	254	85	130	400	1010	2095
1LA4 450-2AN.0-Z K96[2)]	4600	850	960	970	1485	1250	475	95	130	450	1170	2515
1LA4 452-2AN.0-Z K96[2)]	4900	850	960	970	1485	1250	475	95	130	450	1170	2515
1LA4 454-2AN.0-Z K96[2)]	5200	850	960	970	1485	1250	475	95	130	450	1170	2515
1LA4 500-2CN.0	6000	950	1070	1015	1580	1320	500	110	165	500	1270	2675
1LA4 502-2CN.0	6300	950	1070	1015	1580	1320	500	110	165	500	1270	2675
1LA4 504-2CN.0	6700	950	1070	1015	1580	1320	500	110	165	500	1270	2675
1LA4 560-2CN.0	8100	1060	1210	1070	1705	1400	500	120	165	560	1380	2865
1LA4 562-2CN.0	8600	1060	1210	1070	1705	1400	500	120	165	560	1380	2865
1LA4 564-2CN.0	9100	1060	1210	1070	1705	1400	500	120	165	560	1380	2865
4-pole												
1LA4 450-4AN.0-Z K96	4700	850	960	970	1485	1250	475	130	200	450	1170	2745
1LA4 452-4AN.0-Z K96	5000	850	960	970	1485	1250	475	130	200	450	1170	2745
1LA4 454-4AN.0-Z K96	5300	850	960	970	1485	1250	475	130	200	450	1170	2745
1LA4 500-4AN.0-Z K96	6100	950	1070	1015	1580	1320	500	140	200	500	1270	2870
1LA4 502-4AN.0-Z K96	6400	950	1070	1015	1580	1320	500	140	200	500	1270	2870
1LA4 504-4AN.0-Z K96	6900	950	1070	1015	1580	1320	500	140	200	500	1270	2870
1LA4 560-4CN.0-Z K96	8400	1060	1210	1070	1705	1400	560	160	240	560	1380	3170
1LA4 562-4CN.0-Z K96	9100	1060	1210	1070	1705	1400	560	160	240	560	1380	3170
1LA4 564-4CN.0-Z K96	9800	1060	1210	1070	1705	1400	560	160	240	560	1380	3170
1LA4 634-4CN.0-Z K96[2)]	13100	1120	1350	945	1560	1600	560	170	240	630	1410	3450
1LA4 636-4CN.0-Z K96[2)]	13900	1120	1350	945	1560	1600	560	170	240	630	1410	3450

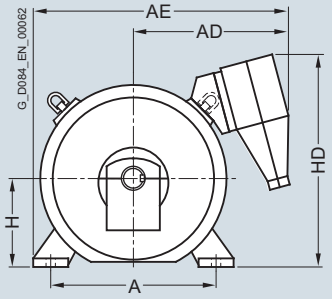
[1)] The dimensions also apply for the 1MA4 and 1MS4 series.

[2)] For the 60 Hz version, sleeve bearings are standard, "-Z **K96**" not necessary.

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Dimension drawings (continued)





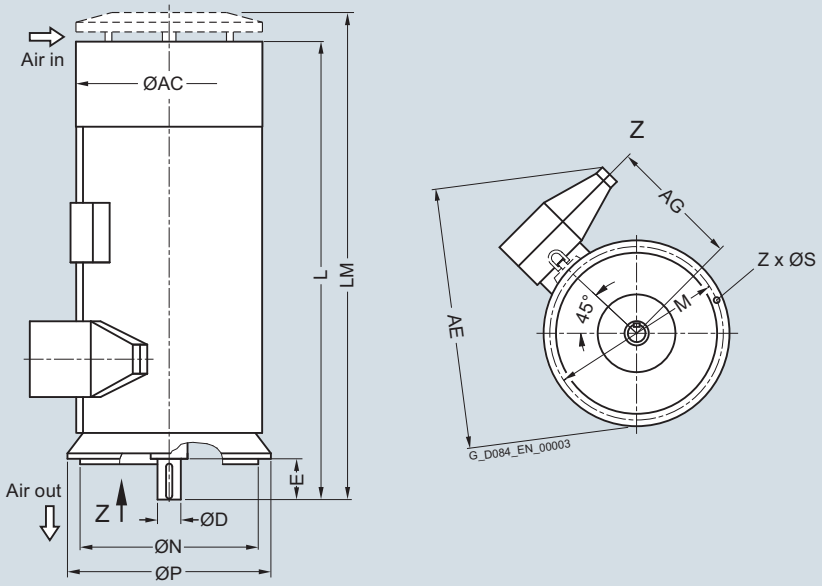
Motor type	Weight	Dimensions										
		A	AC	AD	AE	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
9 ... 11 kV, IM B3 type of construction, sleeve bearings[1)]												
6-pole												
1LA4 450-6AN.0-Z K96	4700	850	960	970	1485	1250	475	130	200	450	1170	2745
1LA4 452-6AN.0-Z K96	5000	850	960	970	1485	1250	475	130	200	450	1170	2745
1LA4 454-6AN.0-Z K96	5300	850	960	970	1485	1250	475	130	200	450	1170	2745
1LA4 500-6CN.0-Z K96	6500	950	1070	1015	1580	1320	530	140	200	500	1270	2900
1LA4 502-6CN.0-Z K96	7000	950	1070	1015	1580	1320	530	140	200	500	1270	2900
1LA4 504-6CN.0-Z K96	7400	950	1070	1015	1580	1320	530	140	200	500	1270	2900
1LA4 560-6CN.0-Z K96	8800	1060	1210	1070	1705	1400	560	160	240	560	1380	3170
1LA4 562-6CN.0-Z K96	9400	1060	1210	1070	1705	1400	560	160	240	560	1380	3170
1LA4 564-6CN.0-Z K96	10300	1060	1210	1070	1705	1400	560	160	240	560	1380	3170
1LA4 634-6CN.0-Z K96	13700	1120	1350	945	1560	1600	560	180	240	630	1410	3450
1LA4 636-6CN.0-Z K96	14500	1120	1350	945	1560	1600	560	180	240	630	1410	3450
8-pole												
1LA4 450-8AN.0-Z K96	4700	850	960	970	1485	1250	475	130	200	450	1170	2745
1LA4 452-8AN.0-Z K96	4900	850	960	970	1485	1250	475	130	200	450	1170	2745
1LA4 454-8AN.0-Z K96	5300	850	960	970	1485	1250	475	130	200	450	1170	2745
1LA4 500-8CN.0-Z K96	6500	950	1070	1015	1580	1320	530	140	200	500	1270	2900
1LA4 502-8CN.0-Z K96	6900	950	1070	1015	1580	1320	530	140	200	500	1270	2900
1LA4 504-8CN.0-Z K96	7400	950	1070	1015	1580	1320	530	140	200	500	1270	2900
1LA4 560-8CN.0-Z K96	8700	1060	1210	1070	1705	1400	560	160	240	560	1380	3170
1LA4 562-8CN.0-Z K96	9300	1060	1210	1070	1705	1400	560	160	240	560	1380	3170
1LA4 564-8CN.0-Z K96	10300	1060	1210	1070	1705	1400	560	160	240	560	1380	3170
1LA4 634-8CN.0-Z K96	13600	1120	1350	945	1560	1600	560	180	240	630	1410	3450
1LA4 636-8CN.0-Z K96	14400	1120	1350	945	1560	1600	560	180	240	630	1410	3450
10-pole												
1LA4 500-3CN.0-Z K96	6500	950	1070	1015	1580	1320	530	140	200	500	1270	2900
1LA4 502-3CN.0-Z K96	6900	950	1070	1015	1580	1320	530	140	200	500	1270	2900
1LA4 504-3CN.0-Z K96	7400	950	1070	1015	1580	1320	530	140	200	500	1270	2900
1LA4 560-3CN.0-Z K96	8700	1060	1210	1070	1705	1400	560	160	240	560	1380	3170
1LA4 562-3CN.0-Z K96	9300	1060	1210	1070	1705	1400	560	160	240	560	1380	3170
1LA4 564-3CN.0-Z K96	10300	1060	1210	1070	1705	1400	560	160	240	560	1380	3170
12-pole												
1LA4 560-5CN.0-Z K96	8700	1060	1210	1070	1705	1400	560	160	240	560	1380	3170
1LA4 562-5CN.0-Z K96	9300	1060	1210	1070	1705	1400	560	160	240	560	1380	3170
1LA4 564-5CN.0-Z K96	10300	1060	1210	1070	1705	1400	560	160	240	560	1380	3170

Note: Higher pole numbers are available on request.

[1)] The dimensions also apply for the 1MA4 and 1MS4 series.

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Dimension drawings



Motor type	Weight	Dimensions											
		AC	AG[1]	AE[2]	D	E	L	LM	P	N	M	S	Z
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Quantity
Up to 6.6 kV, IM V1 type of construction, anti-friction bearings[3]													
2-pole													
1LA4 310-2AN..	1600	700	620	1225	70	105	1590	1720	800	680	740	22	8
1LA4 312-2AN..	1600	700	620	1225	70	105	1590	1720	800	680	740	22	8
1LA4 314-2AN..	1850	700	620	1225	70	105	1790	1920	800	680	740	22	8
1LA4 316-2AN..	2000	700	620	1225	70	105	1790	1920	800	680	740	22	8
1LA4 350-2AN..[4]	2350	780	660	1310	75	105	1930	2070	900	780	840	22	8
1LA4 352-2AN..[4]	2450	780	660	1310	75	105	1930	2070	900	780	840	22	8
1LA4 354-2AN..[4]	2550	780	660	1310	75	105	1930	2070	900	780	840	22	8
1LA4 400-2AN..[4]	3100	870	710	1400	85	130	2095	2245	1000	880	940	22	8
1LA4 402-2AN..[4]	3300	870	710	1400	85	130	2095	2245	1000	880	940	22	8
1LA4 404-2AN..[4]	3550	870	710	1400	85	130	2095	2245	1000	880	940	22	8
4-pole													
1LA4 310-4AN..	1500	700	620	1225	90	130	1610	1740	800	680	740	22	8
1LA4 312-4AN..	1650	700	620	1225	90	130	1610	1740	800	680	740	22	8
1LA4 314-4AN..	1900	700	620	1225	90	130	1810	1940	800	680	740	22	8
1LA4 316-4AN..	2050	700	620	1225	90	130	1810	1940	800	680	740	22	8
1LA4 350-4AN..	2400	780	660	1310	100	165	1985	2125	900	780	840	22	8
1LA4 352-4AN..	2600	780	660	1310	100	165	1985	2125	900	780	840	22	8
1LA4 354-4AN..	2800	780	660	1310	100	165	1985	2125	900	780	840	22	8
1LA4 400-4AN..	3400	870	710	1400	120	165	2125	2275	1000	880	940	22	8
1LA4 402-4AN..	3600	870	710	1400	120	165	2125	2275	1000	880	940	22	8
1LA4 404-4AN..	3800	870	710	1400	120	165	2125	2275	1000	880	940	22	8
1LA4 450-4AN..	4700	960	770	1550	130	200	2390	2550	1150	1000	1080	26	8

[1] For currents I_{rated} > 315 A, the dimension changes by + 45 mm.

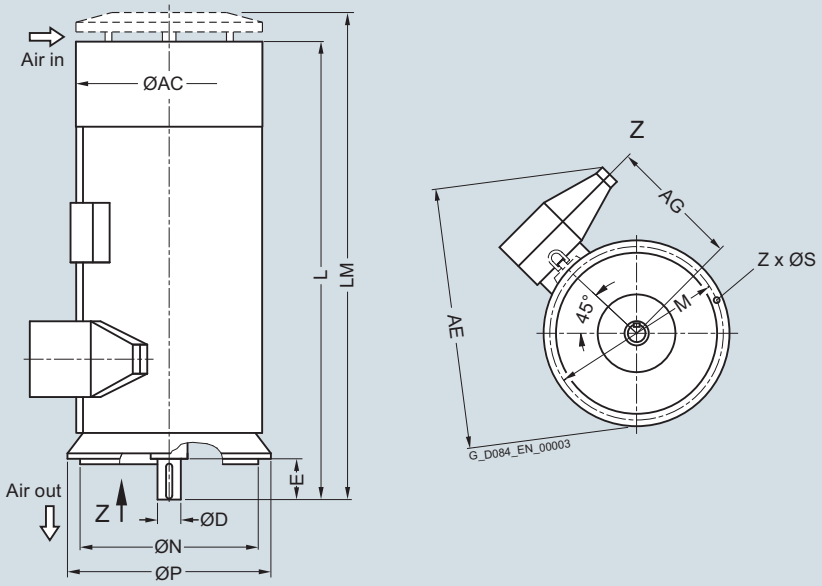
[2] For currents I_{rated} > 315 A, the dimension changes by + 185 mm (for AC = 1070), by + 180 mm (for AC = 1210) or by + 130 mm (for AC = 1350).

[3] The dimensions also apply for the 1MA4 and 1MS4 series.

[4] Only in the 50 Hz version.

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Dimension drawings (continued)



Motor type	Weight	Dimensions											
		AC	AG[1]	AE[2]	D	E	L	LM	P	N	M	S	Z
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Quantity
Up to 6.6 kV, IM V1 type of construction, anti-friction bearings[3]													
4-pole													
1LA4 452-4AN..	5000	960	770	1550	130	200	2390	2550	1150	1000	1080	26	8
1LA4 454-4AN..	5200	960	770	1550	130	200	2390	2550	1150	1000	1080	26	8
1LA4 500-4AN..	5900	1070	840	1660	140	200	2525	2695	1250	1120	1180	26	16
1LA4 502-4AN..	6300	1070	840	1660	140	200	2525	2695	1250	1120	1180	26	16
1LA4 504-4AN..	6800	1070	840	1660	140	200	2525	2695	1250	1120	1180	26	16
1LA4 560-4CN..	8300	1210	910	1800	160	240	2775	2955	1400	1250	1320	26	16
1LA4 562-4CN..	9000	1210	910	1800	160	240	2775	2955	1400	1250	1320	26	16
1LA4 564-4CN..	9700	1210	910	1800	160	240	2775	2955	1400	1250	1320	26	16
6-pole													
1LA4 314-6AN..	1950	700	620	1225	90	130	1810	1940	800	680	740	22	8
1LA4 316-6AN..	2150	700	620	1225	90	130	1810	1940	800	680	740	22	8
1LA4 350-6AN..	2450	780	660	1310	100	165	1985	2125	900	780	840	22	8
1LA4 352-6AN..	2650	780	660	1310	100	165	1985	2125	900	780	840	22	8
1LA4 354-6AN..	2900	780	660	1310	100	165	1985	2125	900	780	840	22	8
1LA4 400-6AN..	3500	870	710	1400	120	165	2125	2275	1000	880	940	22	8
1LA4 402-6AN..	3750	870	710	1400	120	165	2125	2275	1000	880	940	22	8
1LA4 404-6AN..	4000	870	710	1400	120	165	2125	2275	1000	880	940	22	8
1LA4 450-6AN..	4600	960	770	1550	130	200	2390	2550	1150	1000	1080	26	8
1LA4 452-6AN..	4900	960	770	1550	130	200	2390	2550	1150	1000	1080	26	8
1LA4 454-6AN..	5200	960	770	1550	130	200	2390	2550	1150	1000	1080	26	8
1LA4 500-6CN..	6400	1070	840	1660	140	200	2525	2695	1250	1120	1180	26	16
1LA4 502-6CN..	6800	1070	840	1660	140	200	2525	2695	1250	1120	1180	26	16
1LA4 504-6CN..	7300	1070	840	1660	140	200	2525	2695	1250	1120	1180	26	16
1LA4 560-6CN..	8500	1210	910	1800	160	240	2775	2955	1400	1250	1320	26	16
1LA4 562-6CN..	9300	1210	910	1800	160	240	2775	2955	1400	1250	1320	26	16

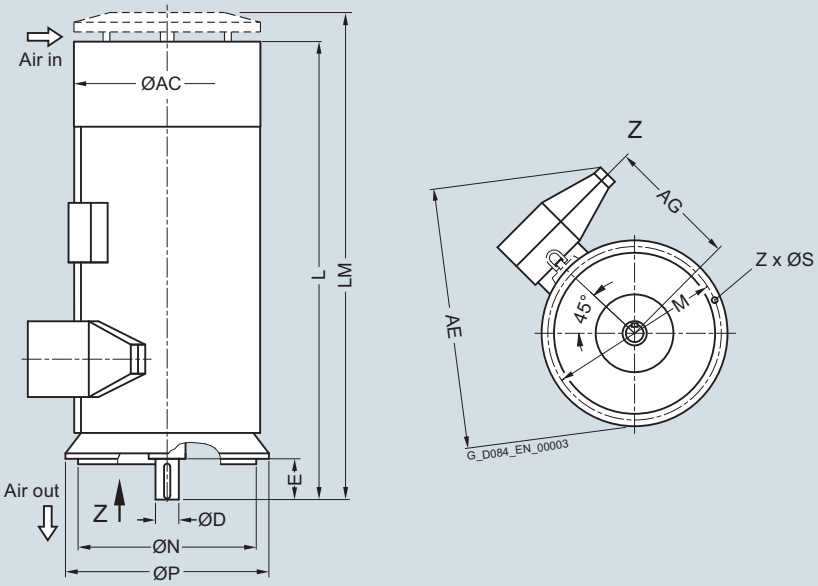
[1] For currents I_{rated} > 315 A, the dimension changes by + 45 mm.

[2] For currents I_{rated} > 315 A, the dimension changes by + 185 mm (for AC = 1070), by + 180 mm (for AC = 1210) or by + 130 mm (for AC = 1350).

[3] The dimensions also apply for the 1MA4 and 1MS4 series.

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Dimension drawings (continued)



Motor type	Weight	Dimensions											
		AC	AG[1]	AE[2]	D	E	L	LM	P	N	M	S	Z
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Quantity
Up to 6.6 kV, IM V1 type of construction, anti-friction bearings[3]													
6-pole													
1LA4 564-6CN..	10100	1210	910	1800	160	240	2775	2955	1400	1250	1320	26	16
1LA4 632-6CN..	12700	1350	O. R.[4]	1820	180	240	3115	3305	1400	1250	1320	26	16
1LA4 634-6CN..	13400	1350	O. R.[4]	1820	180	240	3115	3305	1400	1250	1320	26	16
1LA4 636-6CN..	14100	1350	O. R.[4]	1820	180	240	3115	3305	1400	1250	1320	26	16
8-pole													
1LA4 350-8AN..	2450	780	660	1310	100	165	1985	2125	900	780	840	22	8
1LA4 352-8AN..	2650	780	660	1310	100	165	1985	2125	900	780	840	22	8
1LA4 354-8AN..	2850	780	660	1310	100	165	1985	2125	900	780	840	22	8
1LA4 400-8AN..	3450	870	710	1400	120	165	2125	2275	1000	880	940	22	8
1LA4 402-8AN..	3700	870	710	1400	120	165	2125	2275	1000	880	940	22	8
1LA4 404-8AN..	3950	870	710	1400	120	165	2125	2275	1000	880	940	22	8
1LA4 450-8AN..	4600	960	770	1550	130	200	2390	2550	1150	1000	1080	26	8
1LA4 452-8AN..	4900	960	770	1550	130	200	2390	2550	1150	1000	1080	26	8
1LA4 454-8AN..	5200	960	770	1550	130	200	2390	2550	1150	1000	1080	26	8
1LA4 500-8CN..	6400	1070	840	1660	140	200	2525	2695	1250	1120	1180	26	16
1LA4 502-8CN..	6800	1070	840	1660	140	200	2525	2695	1250	1120	1180	26	16
1LA4 504-8CN..	7200	1070	840	1660	140	200	2525	2695	1250	1120	1180	26	16
1LA4 560-8CN..	8500	1210	910	1800	160	240	2775	2955	1400	1250	1320	26	16
1LA4 562-8CN..	9200	1210	910	1800	160	240	2775	2955	1400	1250	1320	26	16
1LA4 564-8CN..	10000	1210	910	1800	160	240	2775	2955	1400	1250	1320	26	16
1LA4 632-8CN..	12500	1350	O. R.[4]	1820	180	240	3115	3305	1400	1250	1320	26	16
1LA4 634-8CN..	13300	1350	O. R.[4]	1820	180	240	3115	3305	1400	1250	1320	26	16
1LA4 636-8CN..	14000	1350	O. R.[4]	1820	180	240	3115	3305	1400	1250	1320	26	16

[1] For currents I_{rated} > 315 A, the dimension changes by + 45 mm.

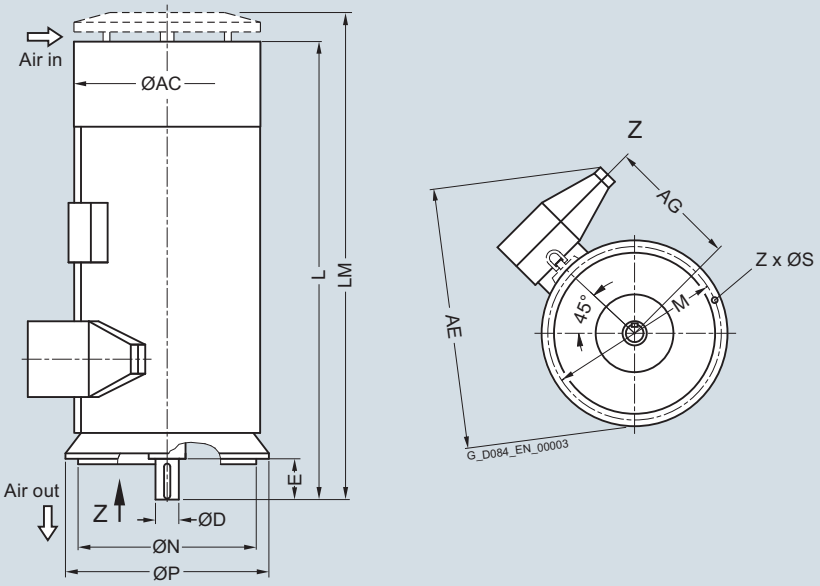
[2] For currents I_{rated} > 315 A, the dimension changes by + 185 mm (for AC = 1070), by + 180 mm (for AC = 1210) or by + 130 mm (for AC = 1350).

[3] The dimensions also apply for the 1MA4 and 1MS4 series.

[4] On request.

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Dimension drawings (continued)



Motor type	Weight	Dimensions											
		AC	AG[1]	AE[2]	D	E	L	LM	P	N	M	S	Z
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Quantity
Up to 6.6 kV, IM V1 type of construction, anti-friction bearings[3]													
10-pole													
1LA4 450-3AN..	4600	960	770	1550	130	200	2390	2550	1150	1000	1080	26	8
1LA4 452-3AN..	4900	960	770	1550	130	200	2390	2550	1150	1000	1080	26	8
1LA4 454-3AN..	5200	960	770	1550	130	200	2390	2550	1150	1000	1080	26	8
1LA4 500-3CN..	6400	1070	840	1660	140	200	2525	2695	1250	1120	1180	26	16
1LA4 502-3CN..	6800	1070	840	1660	140	200	2525	2695	1250	1120	1180	26	16
1LA4 504-3CN..	7200	1070	840	1660	140	200	2525	2695	1250	1120	1180	26	16
1LA4 560-3CN..	8500	1210	910	1800	160	240	2775	2955	1400	1250	1320	26	16
1LA4 562-3CN..	9200	1210	910	1800	160	240	2775	2955	1400	1250	1320	26	16
1LA4 564-3CN..	10000	1210	910	1800	160	240	2775	2955	1400	1250	1320	26	16
12-pole													
1LA4 450-5CN..	4600	960	770	1550	130	200	2390	2550	1150	1000	1080	26	8
1LA4 452-5CN..	4900	960	770	1550	130	200	2390	2550	1150	1000	1080	26	8
1LA4 454-5CN..	5200	960	770	1550	130	200	2390	2550	1150	1000	1080	26	8
1LA4 500-5CN..	6400	1070	840	1660	140	200	2525	2695	1250	1120	1180	26	16
1LA4 502-5CN..	6800	1070	840	1660	140	200	2525	2695	1250	1120	1180	26	16
1LA4 504-5CN..	7200	1070	840	1660	140	200	2525	2695	1250	1120	1180	26	16
1LA4 560-5CN..	8500	1210	910	1800	160	240	2775	2955	1400	1250	1320	26	16
1LA4 562-5CN..	9200	1210	910	1800	160	240	2775	2955	1400	1250	1320	26	16
1LA4 564-5CN..	10000	1210	910	1800	160	240	2775	2955	1400	1250	1320	26	16

Note:

Higher pole numbers are available on request.

[1] For currents I_{rated} > 315 A, the dimension changes by + 45 mm.

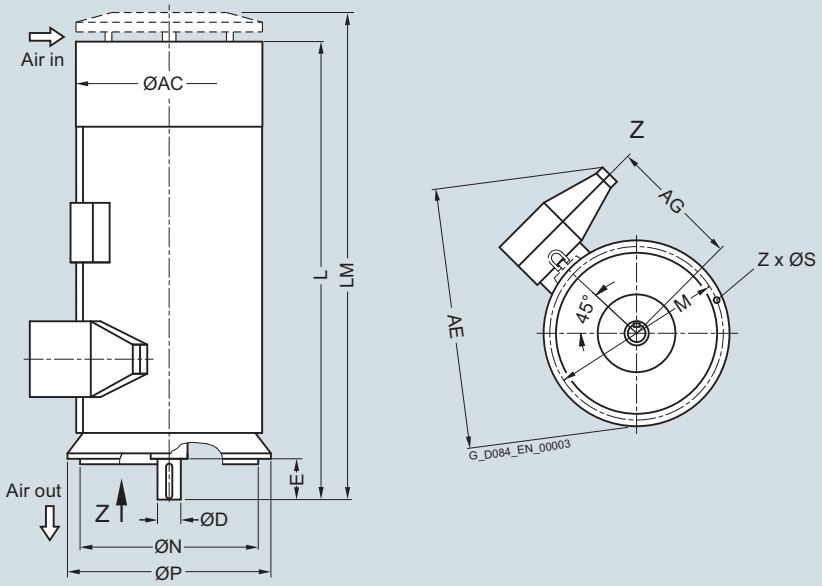
[2] For currents I_{rated} > 315 A, the dimension changes by + 185 mm (for AC = 1070), by + 180 mm (for AC = 1210) or by + 130 mm (for AC = 1350).

[3] The dimensions also apply for the 1MA4 and 1MS4 series.

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Dimension drawings



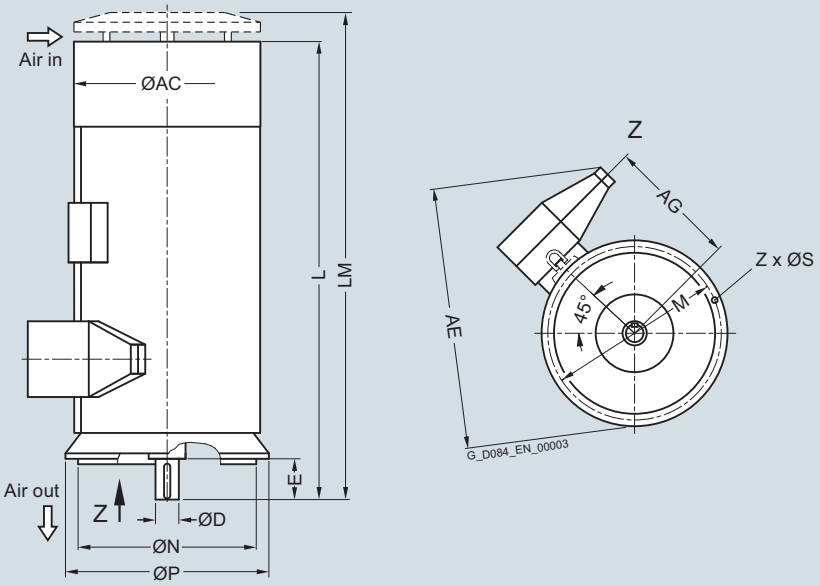
Motor type	Weight	Dimensions											
		AC	AG	AE	D	E	L	LM	P	N	M	S	Z
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Quantity
9 ... 11 kV, IM V1 type of construction, anti-friction bearings[1)]													
4-pole													
1LA4 450-4AN..	4600	960	865	1740	130	200	2390	2550	1150	1000	1080	26	8
1LA4 452-4AN..	4900	960	865	1740	130	200	2390	2550	1150	1000	1080	26	8
1LA4 454-4AN..	5200	960	865	1740	130	200	2390	2550	1150	1000	1080	26	8
1LA4 500-4AN..	5900	1070	940	1845	140	200	2525	2695	1250	1120	1180	26	16
1LA4 502-4AN..	6300	1070	940	1845	140	200	2525	2695	1250	1120	1180	26	16
1LA4 504-4AN..	6700	1070	940	1845	140	200	2525	2695	1250	1120	1180	26	16
1LA4 560-4CN..	8100	1210	1010	1980	160	240	2775	2955	1400	1250	1320	26	16
1LA4 562-4CN..	8900	1210	1010	1980	160	240	2775	2955	1400	1250	1320	26	16
1LA4 564-4CN..	9600	1210	1010	1980	160	240	2775	2955	1400	1250	1320	26	16
6-pole													
1LA4 450-6AN..	4600	960	865	1740	130	200	2390	2550	1150	1000	1080	26	8
1LA4 452-6AN..	4800	960	865	1740	130	200	2390	2550	1150	1000	1080	26	8
1LA4 454-6AN..	5100	960	865	1740	130	200	2390	2550	1150	1000	1080	26	8
1LA4 500-6CN..	6400	1070	940	1845	140	200	2525	2695	1250	1120	1180	26	16
1LA4 502-6CN..	6800	1070	940	1845	140	200	2525	2695	1250	1120	1180	26	16
1LA4 504-6CN..	7200	1070	940	1845	140	200	2525	2695	1250	1120	1180	26	16
1LA4 560-6CN..	8500	1210	1010	1980	160	240	2775	2955	1400	1250	1320	26	16
1LA4 562-6CN..	9200	1210	1010	1980	160	240	2775	2955	1400	1250	1320	26	16
1LA4 564-6CN..	10000	1210	1010	1980	160	240	2775	2955	1400	1250	1320	26	16
1LA4 634-6CN..	13400	1350	O. R.[2)]	1820	180	240	3115	3305	1400	1250	1320	26	16
1LA4 636-6CN..	14100	1350	O. R.[2)]	1820	180	240	3115	3305	1400	1250	1320	26	16
8-pole													
1LA4 450-8AN..	4600	960	865	1740	130	200	2390	2550	1150	1000	1080	26	8
1LA4 452-8AN..	4800	960	865	1740	130	200	2390	2550	1150	1000	1080	26	8
1LA4 454-8AN..	5100	960	865	1740	130	200	2390	2550	1150	1000	1080	26	8
1LA4 500-8CN..	6300	1070	940	1845	140	200	2525	2695	1250	1120	1180	26	16

[1)] The dimensions also apply for the 1MA4 and 1MS4 series.

[2)] On request.

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Dimension drawings (continued)



Motor type	Weight	Dimensions											
		AC	AG	AE	D	E	L	LM	P	N	M	S	Z
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Quantity
9 ... 11 kV, IM V1 type of construction, anti-friction bearings[1)]													
8-pole													
1LA4 502-8CN..	6800	1070	940	1845	140	200	2525	2695	1250	1120	1180	26	16
1LA4 504-8CN..	7200	1070	940	1845	140	200	2525	2695	1250	1120	1180	26	16
1LA4 560-8CN..	8400	1210	1010	1980	160	240	2775	2955	1400	1250	1320	26	16
1LA4 562-8CN..	9100	1210	1010	1980	160	240	2775	2955	1400	1250	1320	26	16
1LA4 564-8CN..	10000	1210	1010	1980	160	240	2775	2955	1400	1250	1320	26	16
1LA4 634-8CN..	13300	1350	O. R.[2)]	1820	180	240	3115	3305	1400	1250	1320	26	16
1LA4 636-8CN..	14000	1350	O. R.[2)]	1820	180	240	3115	3305	1400	1250	1320	26	16
10-pole													
1LA4 500-3CN..	6300	1070	940	1845	140	200	2525	2695	1250	1120	1180	26	16
1LA4 502-3CN..	6800	1070	940	1845	140	200	2525	2695	1250	1120	1180	26	16
1LA4 504-3CN..	7200	1070	940	1845	140	200	2525	2695	1250	1120	1180	26	16
1LA4 560-3CN..	8400	1210	1010	1980	160	240	2775	2955	1400	1250	1320	26	16
1LA4 562-3CN..	9100	1210	1010	1980	160	240	2775	2955	1400	1250	1320	26	16
1LA4 564-3CN..	10000	1210	1010	1980	160	240	2775	2955	1400	1250	1320	26	16
12-pole													
1LA4 560-5CN..	8400	1210	1010	1980	160	240	2775	2955	1400	1250	1320	26	16
1LA4 562-5CN..	9100	1210	1010	1980	160	240	2775	2955	1400	1250	1320	26	16
1LA4 564-5CN..	10000	1210	1010	1980	160	240	2775	2955	1400	1250	1320	26	16

Note:

Higher pole numbers are available on request.

[1)] The dimensions also apply for the 1MA4 and 1MS4 series.

[2)] On request.

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Overview



Technical data

Overview of technical data

H-compact PLUS 1RQ4/1RQ6, SIMOTICS HV M RQ7	
Rated voltage	3.3 … 13.8 kV
Rated frequency	50/60 Hz
Motor type	Induction motor with squirrel-cage rotor
Type of construction	IM B3, IM V1
Degree of protection	IP55
Cooling method	IC611/IC616
Stator winding insulation	Thermal class 155 (F), utilized to 130 (B)
Shaft height	450 … 710 mm
Bearings	Anti-friction bearings, sleeve bearings
Cage material	Copper
Standards	IEC, EN, NEMA
Frame design for shaft heights 450 … 560 mm	Housing: Cast iron Cooling enclosure: Steel
Frame design for shaft heights 630 … 710 mm	Housing: Steel Cooling enclosure: Steel

Technical data (continued)

Power ranges for IEC motors for line operation

1RQ4, 1SG4 (Ex ec), 1SB4 (Ex pxb) series

1RQ6, 1SG6 (Ex ec), 1SB6 (Ex pxb) series

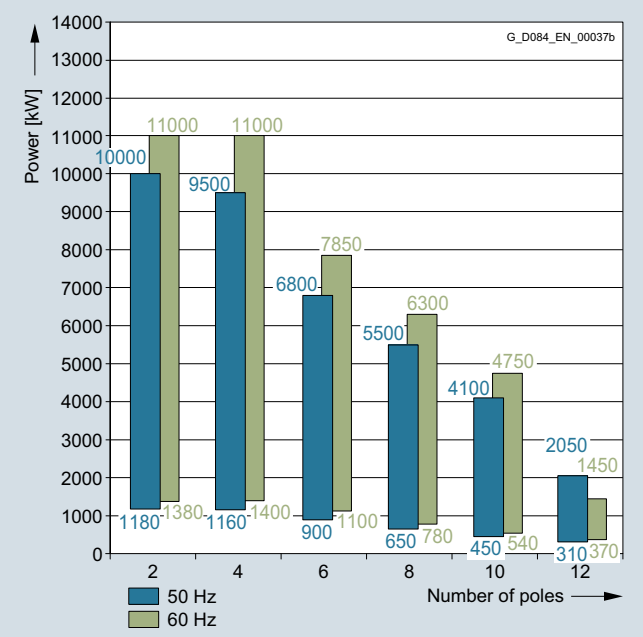
1RQ7, 1SG7 (Ex ec), 1SB7(Ex pxb) series

Insulationsystem, thermal class 155 (F), utilized to 130 (B).

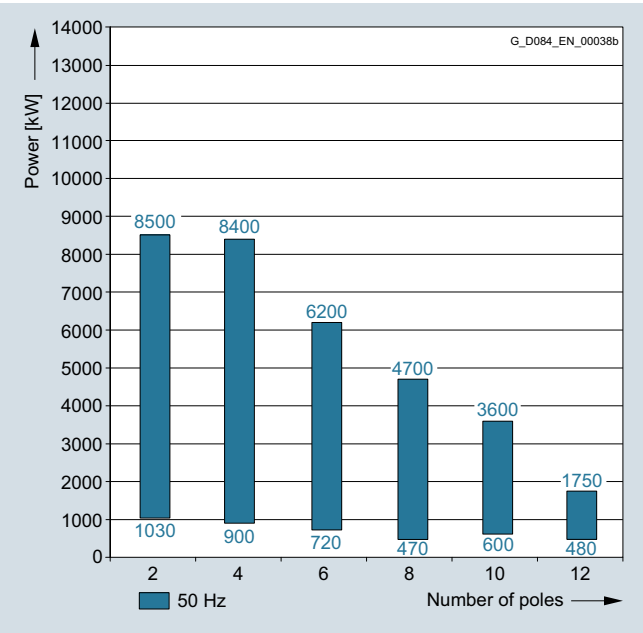
Ambient temperature up to 40 °C, installation altitude up to 1000 m.

3.3 to 6.6 kV; 50 Hz

4.0 to 6.6 kV; 60 Hz



9 to 11 kV; 50 Hz



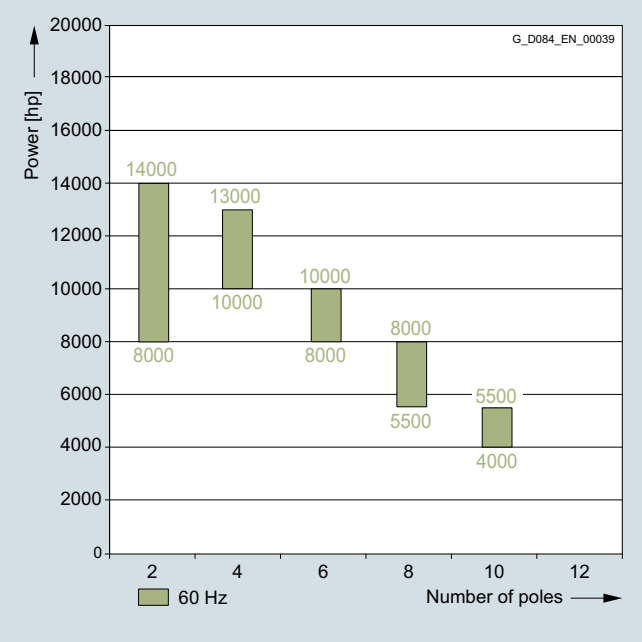
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Technical data (continued)

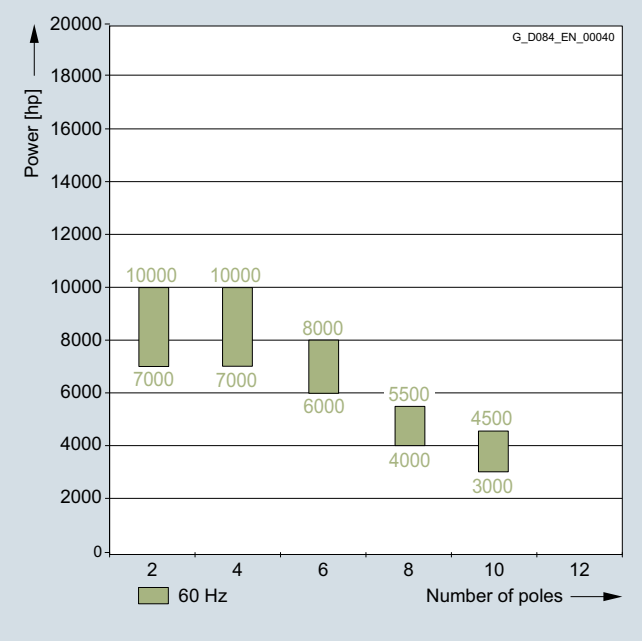
Power ranges for NEMA motors for line operation

Insulation system, thermal class 155 (F), utilized to 130 (B).

4 to 6.6 kV; 60 Hz



12.5 to 13.8 kV; 60 Hz



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Selection and ordering data

The following data also apply to explosion-protected motors 1SB4/1SB6 (Ex pxb) and 1SG4/1SG6 (Ex ec).

Rated power	**High voltage motor H-compact PLUS**	Speed	Rated current	Efficiency		Power factor		Torque	Break-down torque	Locked-rotor torque	Locked-rotor current	Moment of inertia	
IEC			I_{rated} at 6 kV	4/4 load	3/4 load	4/4 load	3/4 load		T_B/T_{rated}	T_{LR}/T_{rated}	I_{LR}/I_{rated}	Motor	External, max.[1]
kW	Article No.	rpm	A	%	%	cos φ	cos φ	Nm	[-]	[-]	[-]	kgm²	kgm²
3.3 ... 6.6 kV, 50 Hz													
2-pole													
1180	**1RQ6 450-2JJ■0**	2977	136	95.4	95.4	0.88	0.87	3785	2.45	0.75	5.40	12	74
1320	**1RQ6 452-2JJ■0**	2978	150	95.7	95.8	0.89	0.88	4232	2.45	0.70	5.50	14	76
1480	**1RQ6 454-2JJ■0**	2980	166	95.9	95.9	0.89	0.87	4742	2.50	0.65	5.50	15	78
1620	**1RQ6 456-2JJ■0**	2980	180	96.2	96.2	0.90	0.89	5191	2.45	0.60	5.50	17	81
1920	**1RQ6 500-2JJ■0**	2978	215	96.1	96.2	0.90	0.89	6156	2.25	0.65	5.25	19	71
2180	**1RQ6 502-2JJ■0**	2975	240	96.3	96.6	0.90	0.90	6997	2.15	0.65	4.80	21	79
2380	**1RQ6 504-2JJ■0**	2976	260	96.5	96.8	0.91	0.91	7636	2.20	0.60	5.20	25	88
2620	**1RQ6 506-2JJ■0**	2977	285	96.6	96.9	0.91	0.90	8404	2.25	0.60	5.00	26	98
3100	**1RQ6 560-2JJ■0**	2979	340	96.3	96.5	0.90	0.90	9937	2.10	0.55	4.60	39	170
3450	**1RQ6 562-2JJ■0**	2981	380	96.5	96.5	0.90	0.91	11051	2.25	0.55	4.85	43	190
3850	**1RQ6 564-2JJ■0**	2982	420	96.8	96.8	0.91	0.91	12328	2.35	0.60	5.15	49	210
4170	**1RQ6 566-2JJ■0**	2982	460	96.9	96.9	0.91	0.92	13353	2.35	0.55	5.25	54	230
4000	**1RQ4 630-2JE■0**	2984	450	96.6	96.5	0.89	0.89	12802	2.40	0.35	4.60	80	150
4500	**1RQ4 632-2JE■0**	2986	495	96.9	96.8	0.90	0.88	14392	2.70	0.42	5.40	85	200
5300	**1RQ4 634-2JE■0**	2986	580	97.3	97.2	0.90	0.89	16951	2.70	0.44	5.40	95	280
6000	**1RQ4 636-2JE■0**	2987	660	97.5	97.4	0.90	0.89	19183	2.70	0.45	5.50	105	320
4-pole													
1160	**1RQ6 450-4JJ■■**	1486	134	95.6	95.8	0.87	0.86	7454	2.60	0.65	5.15	21	315
1270	**1RQ6 452-4JJ■■**	1486	146	95.8	95.9	0.87	0.85	8161	2.65	0.60	5.20	23	350
1350	**1RQ6 454-4JJ■■**	1486	152	95.9	96.1	0.89	0.88	8675	2.55	0.65	5.20	26	390
1480	**1RQ6 456-4JJ■■**	1487	164	96.1	96.3	0.90	0.89	9504	2.75	0.75	5.50	30	435
1880[2]	**1RQ6 500-4JJ■0**	1485	215	95.6	96.1	0.89	0.88	12089	2.40	0.70	4.95	45	400
2100[2]	**1RQ6 502-4JJ■0**	1486	235	95.8	96.3	0.89	0.89	13494	2.45	0.70	5.00	48	450
2320[2]	**1RQ6 504-4JJ■0**	1486	260	96.0	96.5	0.89	0.89	14908	2.45	0.70	5.10	55	500
2500[2]	**1RQ6 506-4JJ■0**	1487	280	96.2	96.6	0.90	0.89	16054	2.55	0.70	5.35	59	550
3150[2]	**1RQ6 560-4JJ■0**	1490	350	96.7	96.9	0.90	0.90	20188	2.25	0.65	5.20	86	790
3440[2]	**1RQ6 562-4JJ■0**	1491	380	96.9	97.1	0.90	0.90	22031	2.15	0.55	5.20	96	870
3900[2]	**1RQ6 564-4JJ■0**	1491	430	97.0	97.2	0.91	0.91	24978	2.15	0.60	5.15	107	960
4230[2]	**1RQ6 566-4JJ■0**	1491	460	97.2	97.4	0.91	0.91	27091	2.20	0.60	5.20	117	1060
4400	**1RQ4 630-4JE■■**	1490	490	96.8	96.9	0.89	0.89	28201	2.30	0.62	5.20	150	920
4900	**1RQ4 632-4JE■■**	1491	550	97.0	97.1	0.89	0.88	31385	2.45	0.65	5.50	170	1150
5300	**1RQ4 634-4JE■■**	1492	590	97.3	97.2	0.89	0.88	33924	2.40	0.62	5.50	185	1350
5800	**1RQ4 636-4JE■■**	1492	650	97.3	97.3	0.88	0.87	37125	2.40	0.61	5.50	200	1200

Voltage code:	
3.3 kV, 50 Hz	**0**
6 kV, 50 Hz	**6**
6.6 kV, 50 Hz	**7**
Other voltage	**9**
Type of construction:	
IM B3	**0**
IM V1 (with canopy)	**4**

Note:

Efficiencies according to IEC 60034-2-1:2007;
stray load losses determined by statistical evaluation of measurements.
NEMA version on request.

Electrical data is also valid for operation with SINAMICS PERFECT HARMONY drives.
For ordering, please note the 10th and 11th position of the article number code.

[1] Max. permissible external moment of inertia for three starts from cold or two starts from warm under the conditions described on Page 2/2.

[2] Data of vertical motors (IM V1) on request.

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Selection and ordering data (continued)

Rated power	High voltage motor H-compact PLUS	Speed	Rated current	Efficiency		Power factor		Torque	Break-down torque	Locked-rotor torque	Locked-rotor current	Moment of inertia	
IEC			I_{rated} at 6 kV	4/4 load	3/4 load	4/4 load	3/4 load		T_B/T_{rated}	T_{LR}/T_{rated}	I_{LR}/I_{rated}	Motor	External, max.[1]
kW	Article No.	rpm	A	%	%	cos φ	cos φ	Nm	[-]	[-]	[-]	kgm²	kgm²
3.3 ... 6.6 kV, 50 Hz													
6-pole													
900	**1RQ6 450-6JJ■■**	988	106	95.4	95.9	0.85	0.84	8698	2.30	0.90	4.70	28	780
990	**1RQ6 452-6JJ■■**	989	118	95.7	96.1	0.85	0.84	9558	2.45	0.95	5.10	32	880
1120	**1RQ6 454-6JJ■■**	989	132	95.9	96.2	0.85	0.84	10814	2.45	0.90	5.00	35	990
1240	**1RQ6 456-6JJ■■**	991	148	96.2	96.4	0.84	0.82	11948	2.55	0.80	5.10	40	1160
1500	**1RQ6 500-6JJ■■**	989	176	95.7	96.3	0.86	0.85	14483	2.15	0.70	4.75	56	1280
1700	**1RQ6 502-6JJ■■**	990	198	95.9	96.5	0.86	0.84	16397	2.25	0.70	4.95	61	1420
1890	**1RQ6 504-6JJ■■**	990	220	96.1	96.6	0.86	0.85	18230	2.25	0.70	4.80	68	1580
2040	**1RQ6 506-6JJ■■**	990	235	96.2	96.6	0.86	0.84	19677	2.20	0.65	4.90	76	1780
2400	**1RQ6 560-6JJ■■**	991	270	96.4	96.7	0.88	0.87	23126	2.10	0.70	4.85	107	1920
2700	**1RQ6 562-6JJ■■**	992	310	96.6	96.9	0.88	0.87	25991	2.15	0.70	4.85	118	2100
3000	**1RQ6 564-6JJ■■**	992	340	96.6	97.0	0.88	0.88	28878	2.15	0.70	4.75	131	2350
3270	**1RQ6 566-6JJ■■**	992	370	96.8	97.1	0.88	0.88	31478	2.20	0.70	4.95	145	2600
3550	**1RQ4 630-6JE■■**	993	410	96.8	96.7	0.86	0.85	34141	2.15	0.63	5.00	188	2400
3850	**1RQ4 632-6JE■■**	993	440	96.9	96.8	0.87	0.85	37027	2.20	0.66	5.20	207	2800
4100	**1RQ4 634-6JE■■**	994	475	96.9	96.9	0.86	0.84	39391	2.30	0.68	5.50	228	2500
4400	**1RQ4 636-6JE■■**	994	510	97.1	97.1	0.86	0.84	42274	2.40	0.68	5.50	251	3200
8-pole													
650	**1RQ6 450-8JJ■■**	743	81	95.3	95.7	0.81	0.78	8354	2.60	0.85	5.20	35	960
710	**1RQ6 452-8JJ■■**	744	88	95.6	95.9	0.81	0.77	9112	2.65	0.85	5.35	39	1060
780	**1RQ6 454-8JJ■■**	742	94	95.4	96.0	0.84	0.82	10038	2.25	0.75	4.65	44	1160
870	**1RQ6 456-8JJ■■**	744	106	95.7	96.0	0.82	0.78	11166	2.60	0.80	5.20	51	1300
1120	**1RQ6 500-8JJ■■**	743	136	95.5	96.0	0.83	0.80	14394	2.15	0.55	4.55	68	1400
1250	**1RQ6 502-8JJ■■**	743	152	95.6	96.1	0.83	0.80	16065	2.15	0.55	4.85	75	1540
1380	**1RQ6 504-8JJ■■**	744	168	95.8	96.2	0.83	0.80	17712	2.35	0.65	4.85	83	1720
1500	**1RQ6 506-8JJ■■**	744	180	95.9	96.3	0.84	0.81	19252	2.35	0.65	4.85	93	1900
1750	**1RQ6 560-8JJ■■**	743	205	96.1	96.7	0.85	0.84	22491	2.05	0.60	4.45	127	2600
1950	**1RQ6 562-8JJ■■**	743	230	96.2	96.8	0.85	0.85	25062	2.00	0.60	4.35	140	2900
2140	**1RQ6 564-8JJ■■**	743	250	96.3	96.9	0.86	0.85	27504	2.05	0.65	4.50	155	3200
2300	**1RQ6 566-8JJ■■**	744	270	96.5	97.0	0.86	0.84	29520	2.15	0.65	4.85	171	3550
2650	**1RQ4 630-8JE■■**	744	315	96.4	96.4	0.84	0.81	34015	2.40	0.75	5.10	246	3300
2850	**1RQ4 632-8JE■■**	745	340	96.5	96.5	0.83	0.79	36534	2.50	0.81	5.50	272	3600
3000	**1RQ4 634-8JE■■**	745	355	96.5	96.6	0.84	0.81	38456	2.50	0.81	5.50	300	3800
3200	**1RQ4 636-8JE■■**	745	375	96.7	96.6	0.85	0.82	41020	2.50	0.80	5.50	331	4200

Voltage code:	
3.3 kV, 50 Hz	**0**
6 kV, 50 Hz	**6**
6.6 kV, 50 Hz	**7**
Other voltage	**9**
Type of construction:	
IM B3	**0**
IM V1 (with canopy)	**4**

Note:

Efficiencies according to IEC 60034-2-1:2007;
stray load losses determined by statistical evaluation of measurements.
NEMA version on request.

Electrical data is also valid for operation with SINAMICS PERFECT HARMONY drives.
For ordering, please note the 10th and 11th position of the article number code.

[1] Max. permissible external moment of inertia for three starts from cold or two starts from warm under the conditions described on Page 2/2.

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Selection and ordering data (continued)

Rated power	High voltage motor H-compact PLUS	Speed	Rated current	Efficiency		Power factor		Torque	Break-down torque	Locked-rotor torque	Locked-rotor current	Moment of inertia	
IEC			I_{rated} at 6 kV	4/4 load	3/4 load	4/4 load	3/4 load		T_B/T_{rated}	T_{LR}/T_{rated}	I_{LR}/I_{rated}	Motor	External, max.[1]
kW	Article No.	rpm	A	%	%	cos φ	cos φ	Nm	[-]	[-]	[-]	kgm²	kgm²
3.3 ... 6.6 kV, 50 Hz													
10-pole													
450	**1RQ6 450-3JJ■■**	592	59	93.7	93.6	0.78	0.72	7259	2.30	1.00	5.40	39	1250
500	**1RQ6 452-3JJ■■**	592	66	93.9	93.8	0.78	0.72	8066	2.40	1.00	5.50	43	1500
560	**1RQ6 454-3JJ■■**	592	74	94.1	94.0	0.77	0.71	9034	2.40	1.00	5.50	48	1650
610	**1RQ6 456-3JJ■■**	593	82	94.2	94.0	0.76	0.69	9824	2.50	1.00	5.50	54	1950
740	**1RQ6 500-3JE■■**	593	94	94.6	94.6	0.80	0.76	11917	2.20	0.83	5.20	74	1600
820	**1RQ6 502-3JE■■**	593	104	94.8	94.8	0.80	0.76	13206	2.30	0.85	5.40	84	1950
900	**1RQ6 504-3JE■■**	593	114	94.9	94.9	0.80	0.76	14494	2.30	0.90	5.40	92	2500
1020	**1RQ6 506-3JE■■**	593	128	95.1	95.1	0.80	0.74	16427	2.30	0.90	5.50	103	3100
1220	**1RQ6 560-3JE■■**	594	156	95.2	95.1	0.79	0.74	19614	2.30	0.85	5.20	128	3000
1400	**1RQ6 562-3JE■■**	594	176	95.5	95.4	0.80	0.75	22508	2.30	0.85	5.40	146	4600
1550	**1RQ6 564-3JE■■**	594	194	95.6	95.6	0.80	0.75	24920	2.40	0.85	5.50	163	5100
1660	**1RQ6 566-3JE■■**	595	215	95.7	95.7	0.78	0.72	26644	2.40	0.85	5.50	178	5700
2000	**1RQ4 630-3JE■■**	593	240	96.0	96.2	0.84	0.81	32209	2.10	0.74	4.80	246	5000
2200	**1RQ4 632-3JE■■**	594	260	96.1	96.3	0.84	0.81	35370	2.20	0.76	4.90	272	5700
2400	**1RQ4 634-3JE■■**	594	285	96.3	96.5	0.84	0.81	38586	2.20	0.77	4.90	300	6600
2600	**1RQ4 636-3JE■■**	594	315	96.4	96.6	0.83	0.79	41801	2.50	0.88	5.50	331	7300
12-pole													
310	**1RQ6 450-5JJ■■**	493	46.0	92.7	92.5	0.71	0.64	6005	2.00	0.72	4.60	39	1250
350	**1RQ6 452-5JJ■■**	493	52	93.1	92.7	0.70	0.62	6780	2.20	0.78	4.90	43	1600
400	**1RQ6 454-5JJ■■**	493	58	93.4	93.2	0.71	0.66	7748	2.00	0.72	4.60	48	1800
450	**1RQ6 456-5JJ■■**	493	64	93.6	93.4	0.72	0.66	8717	2.10	0.75	4.80	54	1950
540	**1RQ6 500-5JE■■**	492	76	94.0	93.9	0.73	0.67	10482	2.10	0.70	4.60	74	2200
610	**1RQ6 502-5JE■■**	493	85	94.3	94.2	0.73	0.67	11816	2.20	0.75	4.80	84	3000
670	**1RQ6 504-5JE■■**	493	95	94.4	94.3	0.72	0.65	12979	2.30	0.78	5.00	91	3700
740	**1RQ6 506-5JE■■**	493	104	94.6	94.4	0.72	0.65	14335	2.30	0.78	5.20	102	4400
920	**1RQ6 560-5JE■■**	494	128	94.7	94.8	0.73	0.67	17785	2.00	0.67	4.50	128	4100
1020	**1RQ6 562-5JE■■**	495	144	94.9	94.9	0.72	0.65	19679	2.10	0.72	4.60	146	4700
1120	**1RQ6 564-5JE■■**	495	158	95.0	95.0	0.72	0.65	21608	2.20	0.72	4.80	163	5300
1220	**1RQ6 566-5JE■■**	495	172	95.2	95.1	0.72	0.65	23537	2.30	0.75	4.80	178	5900
1600	**1RQ4 630-5JE■■**	494	205	95.5	95.8	0.78	0.72	30931	2.25	0.83	5.00	246	5700
1800	**1RQ4 632-5JE■■**	494	230	95.8	96.0	0.78	0.73	34798	2.30	0.85	5.10	272	7500
1950	**1RQ4 634-5JE■■**	494	250	96.0	96.1	0.78	0.73	37697	2.30	0.87	5.20	300	8800
2050	**1RQ4 636-5JE■■**	495	265	96.2	96.3	0.78	0.72	39551	2.45	0.92	5.40	331	10500

Voltage code:	
3.3 kV, 50 Hz	**0**
6 kV, 50 Hz	**6**
6.6 kV, 50 Hz	**7**
Other voltage	**9**

Type of construction:	
IM B3	**0**
IM V1 (with canopy)	**4**

Note:

Efficiencies according to IEC 60034-2-1:2007;
stray load losses determined by statistical evaluation of measurements.
NEMA version on request.

Higher pole numbers are available on request.

Electrical data is also valid for operation with SINAMICS PERFECT HARMONY drives.
For ordering, please note the 10th and 11th position of the article number code.

[1] Max. permissible external moment of inertia for three starts from cold or two starts from warm under the conditions described on Page 2/2.

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Selection and ordering data

The following data also apply to explosion-protected motors 1SB7 (Ex pxb) and 1SG7 (Ex ec).

Rated power	High voltage motor SIMOTICS HV M (modular)	Speed	Rated current	Efficiency		Power factor		Torque	Break-down torque	Locked-rotor torque	Locked-rotor current	Moment of inertia	
IEC			I_{rated} at 6 kV	4/4 load	3/4 load	4/4 load	3/4 load		T_B/T_{rated}	T_{LR}/T_{rated}	I_{LR}/I_{rated}	Motor	External, max.[1]
kW	Article No.	rpm	A	%	%	cos φ	cos φ	Nm	[-]	[-]	[-]	kgm²	kgm²
3.3 ... 6.6 kV, 50 Hz													
2-pole													
7100	**1RQ7710-2JA60-0CJ0**	2987	770	96.8	96.5	0.92	0.91	22698	2.30	0.85	5.20	149	271
8000	**1RQ7712-2JA60-0CJ0**	2986	850	97.0	96.7	0.93	0.92	25584	2.30	0.80	5.20	160	254
9000	**1RQ7714-2JA60-0CJ0**	2987	960	97.2	97.0	0.93	0.92	28772	2.35	0.85	5.30	175	269
10000	**1RQ7716-2JA60-0CJ0**	2987	1060	97.3	97.1	0.93	0.93	31969	2.35	0.80	5.30	189	264
4-pole													
7000	**1RQ7710-4JA60-0C■0**	1492	750	97.3	97.4	0.92	0.91	44802	2.45	0.70	5.20	262	882
7800	**1RQ7712-4JA60-0C■0**	1493	850	97.5	97.4	0.91	0.91	49889	2.50	0.60	5.40	286	982
8600	**1RQ7714-4JA60-0C■0**	1493	930	97.6	97.5	0.91	0.91	55005	2.55	0.60	5.40	320	1175
9500	**1RQ7716-4JA60-0C■0**	1493	1020	97.7	97.7	0.92	0.91	60762	2.55	0.60	5.50	361	1341
6-pole													
5450	**1RQ7710-6JA6■-0C■0**	995	630	97.1	97.0	0.86	0.84	52305	2.55	0.80	5.40	351	2429
5900	**1RQ7712-6JA6■-0C■0**	995	690	97.2	97.1	0.85	0.83	56623	2.60	0.70	5.40	396	3045
6350	**1RQ7714-6JA6■-0C■0**	996	740	97.2	97.1	0.85	0.83	60881	2.60	0.70	5.40	445	3889
6800	**1RQ7716-6JA6■-0C■0**	996	780	97.3	97.2	0.86	0.84	65196	2.60	0.65	5.30	493	4307
8-pole													
4000	**1RQ7710-8JA6■-0C■0**	745	465	96.9	97.0	0.85	0.84	51271	2.40	0.65	4.90	434	8159
4500	**1RQ7712-8JA6■-0C■0**	745	520	96.9	97.1	0.86	0.84	57680	2.40	0.70	4.90	493	6487
5000	**1RQ7714-8JA6■-0C■0**	746	580	97.0	97.2	0.86	0.85	64003	2.40	0.70	4.90	557	8162
5500	**1RQ7716-8JA6■-0C■0**	746	630	97.2	97.3	0.86	0.84	70403	2.40	0.60	4.90	616	9603
10-pole													
2950	**1RQ7710-3JA6■-0C■0**	595	345	96.5	96.7	0.85	0.83	47345	2.60	0.65	4.70	431	9751
3300	**1RQ7712-3JA6■-0C■0**	595	385	96.6	96.8	0.85	0.83	52962	2.65	0.65	4.70	490	11246
3700	**1RQ7714-3JA6■-0C■0**	595	430	96.7	96.9	0.86	0.84	59382	2.60	0.65	4.70	556	14728
4100	**1RQ7716-3JA6■-0C■0**	595	470	96.8	97.0	0.87	0.85	65801	2.55	0.65	4.70	618	15981

Type of construction:	
IM B3 (IM 1001)	**0**
IM V1, without protective hood (IM 3011)	**8**
Housing and bearing version	
Steel fabricated housing/ anti-friction bearings	**G**
Steel fabricated housing/ sleeve bearing	**J**

Note:

Efficiencies according to IEC 60034-2-1:2007;
stray load losses determined by statistical evaluation of measurements.
NEMA version on request.

Higher pole numbers are available on request.

[1] Max. permissible external moment of inertia for three starts from cold or two starts from warm under the conditions described on Page 2/2.

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Selection and ordering data

Rated power	High voltage motor H-compact PLUS	Speed	Rated current	Efficiency		Power factor		Torque	Break-down torque	Locked-rotor torque	Locked-rotor current	Moment of inertia	
IEC			I_{rated} at 10 kV	4/4 load	3/4 load	4/4 load	3/4 load		T_B/T_{rated}	T_{LR}/T_{rated}	I_{LR}/I_{rated}	Motor	External, max.[1]
kW	Article No.	rpm	A	%	%	cos φ	cos φ	Nm	[-]	[-]	[-]	kgm²	kgm²
9.0 ... 11 kV, 50 Hz													
2-pole													
1030	**1RQ6 450-2JJ■0**	2978	71	95.1	95.2	0.88	0.87	3302	2.20	0.60	5.00	12	32
1130	**1RQ6 452-2JJ■0**	2980	77	95.5	95.5	0.89	0.88	3621	2.40	0.65	5.50	14	34
1230	**1RQ6 454-2JJ■0**	2980	83	95.6	95.8	0.89	0.89	3941	2.40	0.60	5.50	15	35
1330	**1RQ6 456-2JJ■0**	2981	88	95.9	96.1	0.91	0.90	4260	2.45	0.60	5.50	17	38
1690	**1RQ6 500-2JJ■0**	2979	114	95.9	96.1	0.90	0.90	5417	2.30	0.60	5.15	19	53
1800	**1RQ6 502-2JJ■0**	2979	118	96.0	96.3	0.91	0.90	5769	2.35	0.70	5.20	21	59
1990	**1RQ6 504-2JJ■0**	2979	130	96.2	96.4	0.92	0.91	6379	2.35	0.70	5.15	25	66
2130	**1RQ6 506-2JJ■0**	2979	138	96.3	96.6	0.92	0.92	6827	2.35	0.75	5.20	26	73
2740	**1RQ6 560-2JJ■0**	2983	182	96.1	96.1	0.90	0.90	8771	2.45	0.55	5.25	39	105
3000	**1RQ6 562-2JJ■0**	2982	200	96.3	96.4	0.90	0.91	9606	2.20	0.55	4.65	43	115
3340	**1RQ6 564-2JJ■0**	2982	220	96.5	96.5	0.91	0.91	10695	2.30	0.55	4.90	49	130
3550	**1RQ6 566-2JJ■0**	2983	230	96.6	96.7	0.92	0.92	11364	2.35	0.55	5.20	54	145
3600	**1RQ4 630-2JE■0**	2986	240	96.5	96.2	0.89	0.88	11514	2.60	0.39	5.10	61	100
4100	**1RQ4 632-2JE■0**	2987	270	96.8	96.7	0.90	0.89	13108	2.70	0.42	5.50	68	140
4600	**1RQ4 634-2JE■0**	2987	305	97.1	96.9	0.90	0.89	14707	2.70	0.42	5.50	77	160
5200	**1RQ4 636-2JE■0**	2987	340	97.3	97.1	0.91	0.90	16625	2.60	0.43	5.50	87	200
4-pole													
900	**1RQ6 450-4JJ■■**	1484	61	95.1	95.4	0.89	0.89	5791	2.45	0.65	5.05	21	154
1000	**1RQ6 452-4JJ■■**	1485	68	95.4	95.7	0.89	0.89	6430	2.50	0.65	5.10	23	194
1120	**1RQ6 454-4JJ■■**	1486	75	95.5	95.8	0.90	0.89	7197	2.55	0.65	5.25	27	250
1250	**1RQ6 456-4JJ■■**	1485	84	95.7	96.0	0.90	0.90	8038	2.45	0.65	5.05	30	310
1570[2]	**1RQ6 500-4JJ■0**	1487	106	95.2	95.8	0.89	0.89	10082	2.50	0.75	5.20	45	200
1670[2]	**1RQ6 502-4JJ■0**	1486	114	95.3	95.8	0.89	0.88	10731	2.40	0.65	5.00	48	220
1860[2]	**1RQ6 504-4JJ■0**	1487	126	95.6	96.1	0.89	0.89	11944	2.35	0.60	4.90	55	250
2060[2]	**1RQ6 506-4JJ■0**	1488	140	95.8	96.3	0.89	0.88	13220	2.55	0.65	5.50	59	280
2650[2]	**1RQ6 560-4JJ■0**	1492	176	96.5	96.7	0.90	0.90	16960	2.25	0.60	5.35	86	460
2930[2]	**1RQ6 562-4JJ■0**	1492	192	96.7	96.9	0.91	0.90	18752	2.25	0.55	5.20	96	510
3300[2]	**1RQ6 564-4JJ■0**	1491	215	96.8	97.0	0.91	0.91	21135	2.20	0.60	5.10	107	560
3550[2]	**1RQ6 566-4JJ■0**	1492	230	96.9	97.1	0.91	0.91	22721	2.30	0.60	5.35	116	620
3800	**1RQ4 630-4JE■■**	1491	255	96.7	96.6	0.89	0.88	24339	2.40	0.62	5.40	139	600
4250	**1RQ4 632-4JE■■**	1491	280	96.8	96.9	0.90	0.90	27222	2.40	0.64	5.50	154	720
4700	**1RQ4 634-4JE■■**	1492	310	97.0	97.0	0.90	0.89	30084	2.40	0.63	5.50	174	850
5100	**1RQ4 636-4JE■■**	1492	340	97.2	97.1	0.89	0.88	32644	2.45	0.60	5.50	186	850

Voltage code:	
10 kV, 50 Hz	**8**
Other voltage	**9**
Type of construction:	
IM B3	**0**
IM V1 (with canopy)	**4**

Note:

Efficiencies according to IEC 60034-2-1:2007;
stray load losses determined by statistical evaluation of measurements.
NEMA version on request.

[1] Max. permissible external moment of inertia for three starts from cold or two starts from warm under the conditions described on Page 2/2.

[2] Data of vertical motors (IM V1) on request.

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Selection and ordering data (continued)

Rated power	High voltage motor H-compact PLUS	Speed	Rated current	Efficiency		Power factor		Torque	Break-down torque	Locked-rotor torque	Locked-rotor current	Moment of inertia	
IEC			I_{rated} at 10 kV	4/4 load	3/4 load	4/4 load	3/4 load		T_B/T_{rated}	T_{LR}/T_{rated}	I_{LR}/I_{rated}	Motor	External, max.[1]
kW	Article No.	rpm	A	%	%	cos φ	cos φ	Nm	[-]	[-]	[-]	kgm²	kgm²
9.0 ... 11 kV, 50 Hz													
6-pole													
720	**1RQ6 450-6JJ■■**	991	52	95.1	95.5	0.84	0.82	6937	2.55	0.85	5.25	28	380
800	**1RQ6 452-6JJ■■**	990	57	95.2	95.6	0.85	0.84	7716	2.50	0.90	5.25	31	435
890	**1RQ6 454-6JJ■■**	990	63	95.3	95.8	0.85	0.85	8584	2.40	0.85	5.05	35	490
1030	**1RQ6 456-6JJ■■**	992	73	95.7	96.0	0.85	0.83	9915	2.55	0.80	5.20	40	570
1180	**1RQ6 500-6JJ■■**	991	82	95.3	95.9	0.87	0.86	11370	2.30	0.75	4.90	55	740
1320	**1RQ6 502-6JJ■■**	991	93	95.7	96.2	0.86	0.85	12719	2.35	0.70	5.00	61	820
1470	**1RQ6 504-6JJ■■**	991	102	95.6	96.2	0.87	0.86	14164	2.25	0.70	4.95	68	910
1570	**1RQ6 506-6JJ■■**	991	108	95.7	96.3	0.87	0.86	15128	2.30	0.75	5.10	76	1020
2050	**1RQ6 560-6JJ■■**	992	140	96.0	96.4	0.88	0.87	19733	2.10	0.70	4.80	107	1180
2230	**1RQ6 562-6JJ■■**	992	152	96.2	96.5	0.88	0.87	21466	2.20	0.70	5.10	118	1300
2500	**1RQ6 564-6JJ■■**	992	170	96.3	96.7	0.88	0.88	24065	2.15	0.70	5.00	131	1460
2710	**1RQ6 566-6JJ■■**	993	182	96.5	96.8	0.89	0.88	26061	2.30	0.80	5.30	145	1600
3100	**1RQ4 630-6JE■■**	994	215	96.6	96.5	0.86	0.84	29784	2.30	0.66	5.40	188	1400
3400	**1RQ4 632-6JE■■**	994	235	96.7	96.7	0.87	0.85	32666	2.30	0.68	5.50	207	1700
3700	**1RQ4 634-6JE■■**	994	255	96.8	96.8	0.86	0.85	35548	2.30	0.67	5.50	228	2000
4000	**1RQ4 636-6JE■■**	994	275	97.0	96.9	0.86	0.84	38431	2.40	0.67	5.50	251	2400
8-pole													
470	**1RQ6 450-8JJ■■**	743	34	94.4	95.0	0.84	0.82	6040	2.35	0.75	4.95	35	250
500	**1RQ6 452-8JJ■■**	744	36.5	94.5	95.1	0.84	0.81	6417	2.55	0.80	5.35	39	320
530	**1RQ6 454-8JJ■■**	744	38.5	94.4	95.0	0.84	0.82	6802	2.45	0.80	5.20	44	390
590	**1RQ6 456-8JJ■■**	745	44	95.1	95.4	0.81	0.78	7562	2.55	0.70	5.10	50	495
880	**1RQ6 500-8JJ■■**	744	64	94.9	95.5	0.84	0.81	11294	2.20	0.55	4.65	68	780
1000	**1RQ6 502-8JJ■■**	744	72	95.1	95.7	0.84	0.82	12835	2.20	0.55	4.60	75	860
1120	**1RQ6 504-8JJ■■**	743	81	95.2	95.8	0.84	0.83	14394	2.15	0.55	4.45	83	960
1200	**1RQ6 506-8JJ■■**	744	85	95.4	96.0	0.85	0.83	15402	2.20	0.60	4.65	93	1060
1480	**1RQ6 560-8JJ■■**	744	104	95.9	96.4	0.85	0.83	18995	2.15	0.55	4.75	127	1600
1650	**1RQ6 562-8JJ■■**	744	116	96.0	96.6	0.85	0.83	21177	2.20	0.60	4.95	140	1760
1830	**1RQ6 564-8JJ■■**	744	130	96.1	96.6	0.85	0.83	23488	2.20	0.60	4.90	154	1960
1960	**1RQ6 566-8JJ■■**	745	138	96.2	96.7	0.85	0.83	25122	2.30	0.65	5.05	171	2150
2300	**1RQ4 630-8JE■■**	744	164	96.1	96.1	0.84	0.81	29523	2.40	0.76	5.30	246	2000
2500	**1RQ4 632-8JE■■**	745	180	96.2	96.2	0.83	0.79	32047	2.60	0.81	5.50	272	2100
2700	**1RQ4 634-8JE■■**	745	194	96.3	96.3	0.83	0.79	34611	2.60	0.80	5.50	300	2400
2900	**1RQ4 636-8JE■■**	745	205	96.5	96.5	0.84	0.80	37174	2.60	0.80	5.50	331	2900

Voltage code:	
10 kV, 50 Hz	**8**
Other voltage	**9**
Type of construction:	
IM B3	**0**
IM V1 (with canopy)	**4**

Note:

Efficiencies according to IEC 60034-2-1:2007;
stray load losses determined by statistical evaluation of measurements.
NEMA version on request.

[1] Max. permissible external moment of inertia for three starts from cold or two starts from warm under the conditions described on Page 2/2.

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Selection and ordering data (continued)

Rated power	High voltage motor H-compact PLUS	Speed	Rated current	Efficiency		Power factor		Torque	Break-down torque	Locked-rotor torque	Locked-rotor current	Moment of inertia	
IEC			I_{rated} at 10 kV	4/4 load	3/4 load	4/4 load	3/4 load		T_B/T_{rated}	T_{LR}/T_{rated}	I_{LR}/I_{rated}	Motor	External, max.[1]
kW	Article No.	rpm	A	%	%	cos φ	cos φ	Nm	[-]	[-]	[-]	kgm²	kgm²
9.0 ... 11 kV, 50 Hz													
10-pole													
600	**1RQ6 500-3JE■■**	595	48.0	93.8	93.6	0.77	0.71	9630	2.40	0.85	5.50	74	900
680	**1RQ6 502-3JE■■**	594	51	94.2	94.2	0.81	0.76	10933	2.30	0.90	5.50	84	1150
750	**1RQ6 504-3JE■■**	594	57	94.3	94.3	0.81	0.76	12058	2.30	0.90	5.50	92	1300
820	**1RQ6 506-3JE■■**	594	61	94.5	94.5	0.82	0.77	13184	2.30	0.90	5.50	103	1600
1050	**1RQ6 560-3JE■■**	594	81	94.7	94.7	0.79	0.73	16881	2.40	0.85	5.50	128	1850
1180	**1RQ6 562-3JE■■**	594	90	95.0	95.0	0.80	0.75	18971	2.30	0.85	5.50	146	2300
1300	**1RQ6 564-3JE■■**	595	100	95.2	95.1	0.79	0.74	20866	2.40	0.82	5.50	163	2600
1400	**1RQ6 566-3JE■■**	595	112	95.3	95.0	0.76	0.69	22471	2.60	0.82	5.50	178	2750
1800	**1RQ4 630-3JE■■**	594	132	95.8	95.9	0.82	0.78	28939	2.40	0.85	5.40	246	2600
1950	**1RQ4 632-3JE■■**	595	146	96.0	96.0	0.80	0.74	31298	2.60	0.88	5.50	272	3100
2100	**1RQ4 634-3JE■■**	595	156	96.1	96.1	0.81	0.76	33706	2.60	0.89	5.50	300	3200
2250	**1RQ4 636-3JE■■**	595	166	96.2	96.1	0.81	0.76	36113	2.60	0.85	5.50	331	3500
12-pole													
480	**1RQ6 502-5JE■■**	494	42.0	93.4	93.4	0.70	0.62	9279	2.40	0.85	5.40	84	1500
530	**1RQ6 504-5JE■■**	494	46.0	93.5	93.5	0.70	0.62	10246	2.40	0.85	5.40	91	1650
580	**1RQ6 506-5JE■■**	494	50	93.7	93.9	0.72	0.64	11213	2.50	0.85	5.40	102	1800
720	**1RQ6 560-5JE■■**	495	60	94.0	94.4	0.74	0.67	13891	2.10	0.70	4.80	128	1950
840	**1RQ6 562-5JE■■**	495	71	94.4	94.7	0.72	0.65	16206	2.30	0.78	5.00	146	2500
920	**1RQ6 564-5JE■■**	495	77	94.6	94.9	0.73	0.66	17749	2.30	0.75	5.00	163	2950
1000	**1RQ6 566-5JE■■**	495	83	94.8	95.1	0.73	0.67	19293	2.30	0.75	5.00	178	3400
1400	**1RQ4 630-5JE■■**	495	110	95.2	95.7	0.77	0.71	27010	2.50	0.91	5.40	246	3100
1500	**1RQ4 632-5JE■■**	495	116	95.3	95.9	0.79	0.73	28939	2.35	0.86	5.30	272	3300
1630	**1RQ4 634-5JE■■**	495	124	95.5	96.1	0.79	0.75	31447	2.30	0.84	5.20	300	4100
1750	**1RQ4 636-5JE■■**	496	138	95.7	96.0	0.76	0.69	33695	2.70	1.00	5.50	331	4300

Voltage code:	
10 kV, 50 Hz	**8**
Other voltage	**9**
Type of construction:	
IM B3	**0**
IM V1 (with canopy)	**4**

Note:

Efficiencies according to IEC 60034-2-1:2007;
stray load losses determined by statistical evaluation of measurements.
NEMA version on request.

Higher pole numbers are available on request.

[1] Max. permissible external moment of inertia for three starts from cold or two starts from warm under the conditions described on Page 2/2.

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Selection and ordering data

Rated power	High voltage motor SIMOTICS HV M (modular)	Speed	Rated current	Efficiency		Power factor		Torque	Break-down torque	Locked-rotor torque	Locked-rotor current	Moment of inertia	
IEC			I_{rated} at 10 kV	4/4 load	3/4 load	4/4 load	3/4 load		T_B/T_{rated}	T_{LR}/T_{rated}	I_{LR}/I_{rated}	Motor	External, max.[1]
kW	Article No.	rpm	A	%	%	cos φ	cos φ	Nm	[-]	[-]	[-]	kgm²	kgm²
9 ... 11 kV, 50 Hz													
2-pole													
6000	**1RQ7710-2JA80-0CJ0**	2988	385	96.4	96.1	0.93	0.92	19175	2.30	0.65	5.10	148	294
6700	**1RQ7712-2JA80-0CJ0**	2987	430	96.6	96.3	0.93	0.92	21419	2.30	0.65	5.10	160	315
7500	**1RQ7714-2JA80-0CJ0**	2988	480	96.9	96.6	0.93	0.93	23969	2.35	0.75	5.40	175	354
8500	**1RQ7716-2JA80-0CJ0**	2988	540	97.1	96.9	0.93	0.93	27165	2.35	0.80	5.40	189	347
4-pole													
6000	**1RQ7710-4JA80-0C■0**	1493	385	97.2	97.2	0.92	0.91	38376	2.50	0.65	5.30	262	1002
6700	**1RQ7712-4JA80-0C■0**	1493	430	97.3	97.3	0.92	0.92	42853	2.50	0.65	5.30	287	1124
7500	**1RQ7714-4JA80-0C■0**	1492	485	97.4	97.4	0.92	0.92	48002	2.50	0.70	5.30	322	1268
8400	**1RQ7716-4JA80-0C■0**	1492	540	97.5	97.5	0.92	0.93	53762	2.50	0.70	5.30	363	1363
6-pole													
4750	**1RQ7710-6JA8■-0C■0**	995	330	96.9	96.9	0.86	0.84	45587	2.50	0.70	5.30	348	2773
5200	**1RQ7712-6JA8■-0C■0**	996	365	97.0	96.9	0.85	0.83	49855	2.50	0.60	5.20	393	3166
5700	**1RQ7714-6JA8■-0C■0**	996	395	97.1	97.0	0.86	0.84	54649	2.50	0.65	5.20	446	3136
6200	**1RQ7716-6JA8■-0C■0**	996	430	97.2	97.1	0.86	0.84	59443	2.60	0.65	5.40	493	3899
8-pole													
3350	**1RQ7710-8JA8■-0C■0**	746	235	96.6	96.7	0.85	0.83	42882	2.65	0.70	5.50	434	6504
3750	**1RQ7712-8JA8■-0C■0**	746	260	96.8	96.8	0.86	0.83	48002	2.70	0.70	5.50	493	7480
4200	**1RQ7714-8JA8■-0C■0**	746	295	96.9	96.9	0.85	0.83	53762	2.70	0.65	5.40	556	8649
4700	**1RQ7716-8JA8■-0C■0**	746	325	96.9	97.0	0.86	0.84	60163	2.65	0.70	5.40	616	7384
10-pole													
2850	**1RQ7710-3JA8■-0C■0**	595	198	96.4	96.6	0.86	0.83	45740	2.70	0.65	4.90	433	10565
3100	**1RQ7712-3JA8■-0C■0**	596	220	96.5	96.7	0.85	0.82	49669	2.75	0.70	5.00	490	10236
3350	**1RQ7714-3JA8■-0C■0**	596	235	96.6	96.7	0.85	0.83	53674	2.80	0.70	5.00	554	12357
3600	**1RQ7716-3JA8■-0C■0**	596	255	96.6	96.7	0.85	0.82	57680	2.85	0.70	5.10	612	10717

Type of construction:	
IM B3 (IM 1001)	**0**
IM V1, without protective hood (IM 3011)	**8**

Housing and bearing version	
Steel fabricated housing/ anti-friction bearings	**G**
Steel fabricated housing/ sleeve bearing	**J**

Note:

Efficiencies according to IEC 60034-2-1:2007;
stray load losses determined by statistical evaluation of measurements.
NEMA version on request.

Higher pole numbers are available on request.

[1] Max. permissible external moment of inertia for three starts from cold or two starts from warm under the conditions described on Page 2/2.

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Selection and ordering data

The following data also apply to explosion-protected motors 1SB4/1SB6 (Ex pxb) and 1SG4/1SG6 (Ex ec).

Rated power	**High voltage motor H-compact PLUS**	Speed	Rated current	Efficiency		Power factor		Torque	Break-down torque	Locked-rotor torque	Locked-rotor current	Moment of inertia	
IEC			I_{rated} at 6.6 kV	4/4 load	3/4 load	4/4 load	3/4 load		T_B/T_{rated}	T_{LR}/T_{rated}	I_{LR}/I_{rated}	Motor	External, max.[1]
kW	Article No.	rpm	A	%	%	cos φ	cos φ	Nm	[-]	[-]	[-]	kgm²	kgm²
4.0 ... 6.6 kV, 60 Hz													
2-pole													
1380	**1RQ6 450-2JJ■0**	3575	144	95.3	95.3	0.88	0.88	3686	2.05	0.60	4.65	13	44
1500	**1RQ6 452-2JJ■0**	3578	152	95.7	95.6	0.90	0.89	4003	2.30	0.65	5.25	15	46
1700	**1RQ6 454-2JJ■0**	3579	172	95.9	95.8	0.90	0.89	4535	2.35	0.60	5.50	16	48
1850	**1RQ6 456-2JJ■0**	3582	188	96.1	96.0	0.90	0.89	4931	2.45	0.55	5.50	18	51
2240	**1RQ6 500-2JJ■0**	3580	225	96.2	96.1	0.90	0.89	5974	2.30	0.55	5.25	20	63
2500	**1RQ6 502-2JJ■0**	3579	250	96.3	96.3	0.91	0.90	6670	2.20	0.65	5.00	22	70
2800	**1RQ6 504-2JJ■0**	3578	275	96.5	96.6	0.92	0.91	7472	2.25	0.55	5.00	26	78
3150	**1RQ6 506-2JJ■0**	3576	315	96.6	96.8	0.91	0.91	8411	2.10	0.65	4.85	27	86
3550	**1RQ6 560-2JJ■0**	3581	360	96.2	96.0	0.89	0.90	9466	2.15	0.55	4.65	39	130
4000	**1RQ6 562-2JJ■0**	3582	400	96.4	96.2	0.90	0.90	10663	2.30	0.55	4.85	43	145
4500	**1RQ6 564-2JJ■0**	3581	450	96.6	96.5	0.91	0.92	11999	2.25	0.55	4.75	49	160
4900	**1RQ6 566-2JJ■0**	3581	490	96.7	96.6	0.91	0.92	13066	2.25	0.50	4.80	54	180
4300	**1RQ4 630-2JE■0**	3584	435	96.1	95.8	0.90	0.89	11458	2.30	0.33	4.70	61	80
4900	**1RQ4 632-2JE■0**	3585	495	96.5	96.2	0.90	0.89	13053	2.50	0.37	5.10	68	110
5600	**1RQ4 634-2JE■0**	3586	560	96.9	96.6	0.90	0.90	14914	2.60	0.38	5.30	77	160
6300	**1RQ4 636-2JE■0**	3587	620	97.1	96.8	0.91	0.90	16773	2.60	0.40	5.50	87	190
4-pole													
1400	**1RQ6 450-4JJ■■**	1785	146	95.6	95.7	0.88	0.87	7489	2.55	0.60	5.20	21	200
1470	**1RQ6 452-4JJ■■**	1787	152	95.7	95.7	0.88	0.86	7855	2.60	0.55	5.25	23	240
1680	**1RQ6 454-4JJ■■**	1785	172	96.0	96.1	0.89	0.88	8987	2.50	0.60	5.15	27	295
1850	**1RQ6 456-4JJ■■**	1785	186	96.2	96.3	0.90	0.89	9897	2.50	0.60	5.15	30	355
2240[2]	**1RQ6 500-4JJ■0**	1785	230	95.6	95.9	0.89	0.88	11983	2.30	0.60	4.85	45	250
2500[2]	**1RQ6 502-4JJ■0**	1786	255	95.8	96.1	0.89	0.88	13366	2.40	0.65	5.05	48	290
2800[2]	**1RQ6 504-4JJ■0**	1787	285	96.1	96.4	0.89	0.88	14962	2.45	0.65	5.15	55	320
3120[2]	**1RQ6 506-4JJ■0**	1787	320	96.2	96.5	0.89	0.88	16672	2.45	0.60	5.25	59	360
3670[2]	**1RQ6 560-4JJ■0**	1791	370	96.7	96.7	0.90	0.90	19567	2.20	0.55	5.10	86	660
4200[2]	**1RQ6 562-4JJ■0**	1792	420	96.9	96.8	0.90	0.89	22381	2.25	0.55	5.30	96	730
4750[2]	**1RQ6 564-4JJ■0**	1791	480	97.1	97.1	0.90	0.90	25326	2.15	0.50	5.05	106	800
5100[2]	**1RQ6 566-4JJ■0**	1792	510	97.1	97.1	0.90	0.90	27177	2.30	0.55	5.50	116	880
5000	**1RQ4 630-4JE■0**	1791	500	96.8	96.6	0.90	0.89	26661	2.40	0.60	5.30	139	650
5500	**1RQ4 632-4JE■0**	1791	551	96.9	96.8	0.90	0.90	29327	2.40	0.62	5.30	154	750
6100	**1RQ4 634-4JE■0**	1791	610	97.1	96.9	0.90	0.90	32527	2.40	0.65	5.50	174	800
6700	**1RQ4 636-4JE■0**	1791	670	97.2	97.1	0.90	0.90	35726	2.40	0.65	5.50	186	820

Voltage code:	
4 kV, 60 Hz	**4**
6.6 kV, 60 Hz	**1**
Other voltage	**9**
Type of construction:	
IM B3	**0**
IM V1 (with canopy)	**4**

Note:

Efficiencies according to IEC 60034-2-1:2007;
stray load losses determined by statistical evaluation of measurements.
NEMA version on request.

Electrical data is also valid for operation with SINAMICS PERFECT HARMONY drives.
For ordering, please note the 10th and 11th position of the article number code.

[1] Max. permissible external moment of inertia for three starts from cold or two starts from warm under the conditions described on Page 2/2.

[2] Data of vertical motors (IM V1) on request.

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Selection and ordering data (continued)

Rated power	High voltage motor H-compact PLUS	Speed	Rated current	Efficiency		Power factor		Torque	Break-down torque	Locked-rotor torque	Locked-rotor current	Moment of inertia	
IEC			I_{rated} at 6.6 kV	4/4 load	3/4 load	4/4 load	3/4 load		T_B/T_{rated}	T_{LR}/T_{rated}	I_{LR}/I_{rated}	Motor	External, max.[1]
kW	Article No.	rpm	A	%	%	cos φ	cos φ	Nm	[-]	[-]	[-]	kgm²	kgm²
4.0 ... 6.6 kV, 60 Hz													
6-pole													
1100	**1RQ6 450-6JJ■■**	1188	120	95.7	96.0	0.84	0.84	8841	2.30	0.80	4.80	28	530
1210	**1RQ6 452-6JJ■■**	1190	132	95.9	96.1	0.84	0.83	9709	2.40	0.80	4.95	31	600
1350	**1RQ6 454-6JJ■■**	1189	144	96.0	96.2	0.85	0.84	10842	2.40	0.80	4.95	35	660
1460	**1RQ6 456-6JJ■■**	1190	156	96.3	96.5	0.85	0.84	11715	2.45	0.85	5.15	41	770
1800	**1RQ6 500-6JJ■■**	1190	190	96.2	96.6	0.86	0.85	14444	2.30	0.70	4.80	56	1000
2000	**1RQ6 502-6JJ■■**	1190	210	96.4	96.8	0.86	0.84	16049	2.30	0.70	5.00	61	1120
2240	**1RQ6 504-6JJ■■**	1189	235	96.1	96.5	0.86	0.86	17990	2.10	0.60	4.60	68	1240
2500	**1RQ6 506-6JJ■■**	1190	265	96.6	96.9	0.86	0.85	20061	2.25	0.60	4.70	76	1380
2850	**1RQ6 560-6JJ■■**	1191	295	96.7	97.0	0.88	0.88	22850	2.00	0.65	4.60	107	1440
3200	**1RQ6 562-6JJ■■**	1190	330	96.8	97.1	0.88	0.87	25678	1.95	0.65	4.65	118	1580
3500	**1RQ6 564-6JJ■■**	1192	360	96.9	97.2	0.88	0.88	28039	2.15	0.70	4.90	131	1740
3830	**1RQ6 566-6JJ■■**	1192	390	97.0	97.3	0.89	0.88	30682	2.15	0.70	5.00	145	1940
4250	**1RQ4 630-6JE■■**	1193	445	96.8	96.7	0.86	0.84	34021	2.30	0.62	5.20	188	1850
4550	**1RQ4 632-6JE■■**	1193	480	96.8	96.8	0.86	0.85	36423	2.20	0.62	5.20	207	1700
4900	**1RQ4 634-6JE■■**	1194	510	97.0	96.9	0.87	0.85	39192	2.30	0.66	5.40	228	2300
5200	**1RQ4 636-6JE■■**	1194	540	97.2	97.0	0.87	0.85	41591	2.40	0.67	5.50	251	2600
8-pole													
780	**1RQ6 450-8JJ■■**	892	86	95.4	95.8	0.83	0.81	8350	2.20	0.65	4.50	35	660
880	**1RQ6 452-8JJ■■**	892	97	95.6	96.0	0.83	0.82	9420	2.25	0.70	4.60	39	770
980	**1RQ6 454-8JJ■■**	892	108	95.7	96.1	0.83	0.81	10491	2.40	0.75	4.95	44	890
1090	**1RQ6 456-8JJ■■**	893	120	96.0	96.2	0.83	0.81	11655	2.50	0.80	5.20	51	1080
1320	**1RQ6 500-8JJ■■**	893	146	95.9	96.3	0.83	0.81	14115	2.05	0.45	4.40	68	1060
1500	**1RQ6 502-8JJ■■**	893	164	96.1	96.5	0.83	0.81	16040	2.15	0.50	4.50	75	1180
1700	**1RQ6 504-8JJ■■**	893	184	96.1	96.5	0.84	0.82	18178	2.10	0.50	4.50	83	1320
1800	**1RQ6 506-8JJ■■**	893	194	96.2	96.6	0.84	0.82	19248	2.20	0.55	4.65	93	1460
2120	**1RQ6 560-8JJ■■**	894	230	96.6	97.0	0.84	0.82	22644	2.30	0.60	5.00	127	2100
2360	**1RQ6 562-8JJ■■**	893	250	96.7	97.1	0.85	0.83	25236	2.10	0.60	4.85	140	2350
2630	**1RQ6 564-8JJ■■**	894	280	96.6	97.0	0.85	0.83	28092	2.20	0.55	4.80	155	2550
2900	**1RQ6 566-8JJ■■**	893	310	96.7	97.0	0.85	0.84	31011	2.10	0.55	4.85	171	2850

Voltage code:	
4 kV, 60 Hz	**4**
6.6 kV, 60 Hz	**1**
Other voltage	**9**
Type of construction:	
IM B3	**0**
IM V1 (with canopy)	**4**

Note:

Efficiencies according to IEC 60034-2-1:2007;
stray load losses determined by statistical evaluation of measurements.
NEMA version on request.

Electrical data is also valid for operation with SINAMICS PERFECT HARMONY drives.
For ordering, please note the 10th and 11th position of the article number code.

[1] Max. permissible external moment of inertia for three starts from cold or two starts from warm under the conditions described on Page 2/2.

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2

Selection and ordering data (continued)

Rated power	High voltage motor H-compact PLUS	Speed	Rated current	Efficiency		Power factor		Torque	Break-down torque	Locked-rotor torque	Locked-rotor current	Moment of inertia	
IEC			I_{rated} at 6.6 kV	4/4 load	3/4 load	4/4 load	3/4 load		T_B/T_{rated}	T_{LR}/T_{rated}	I_{LR}/I_{rated}	Motor	External, max.[1]
kW	Article No.	rpm	A	%	%	cos φ	cos φ	Nm	[-]	[-]	[-]	kgm²	kgm²
4.0 ... 6.6 kV, 60 Hz													
10-pole													
540	**1RQ6 450-3JJ■■**	711	63	93.9	93.8	0.80	0.75	7253	2.20	0.88	5.30	39	700
600	**1RQ6 452-3JJ■■**	712	71	94.2	94.1	0.79	0.73	8048	2.30	0.90	5.50	43	900
670	**1RQ6 454-3JJ■■**	712	80	94.3	94.2	0.78	0.73	8987	2.40	1.00	5.50	48	950
730	**1RQ6 456-3JJ■■**	713	88	94.5	94.3	0.77	0.72	9778	2.40	0.90	5.50	54	1100
900	**1RQ6 500-3JE■■**	713	104	94.9	94.7	0.80	0.76	12055	2.10	0.78	5.20	74	1400
1000	**1RQ6 502-3JE■■**	713	114	95.1	94.9	0.80	0.75	13394	2.20	0.82	5.30	84	1700
1100	**1RQ6 504-3JE■■**	713	126	95.1	94.9	0.80	0.76	14734	2.20	0.82	5.30	92	1700
1250	**1RQ6 506-3JE■■**	713	144	95.4	95.1	0.80	0.75	16743	2.30	0.88	5.50	103	2250
1460	**1RQ6 560-3JE■■**	714	172	95.4	95.2	0.78	0.72	19528	2.40	0.85	5.40	128	2400
1680	**1RQ6 562-3JE■■**	714	196	95.7	95.5	0.78	0.72	22471	2.40	0.85	5.50	146	2800
1820	**1RQ6 564-3JE■■**	714	210	95.7	95.6	0.80	0.76	24343	2.30	0.80	5.40	163	3200
1930	**1RQ6 566-3JE■■**	715	225	95.9	95.6	0.79	0.73	25778	2.40	0.80	5.50	178	3600
12-pole													
370	**1RQ6 450-5JJ■■**	592	48.0	93.1	92.9	0.72	0.66	5969	2.00	0.68	4.60	39	700
425	**1RQ6 452-5JJ■■**	593	57	93.5	93.0	0.70	0.63	6844	2.20	0.72	4.80	43	1000
480	**1RQ6 454-5JJ■■**	593	63	94.0	93.7	0.71	0.65	7730	2.10	0.72	4.80	48	1300
540	**1RQ6 456-5JJ■■**	593	69	94.1	93.9	0.73	0.68	8696	2.00	0.68	4.70	54	1500
650	**1RQ6 500-5JE■■**	593	84	94.3	94.1	0.72	0.66	10468	2.20	0.70	4.80	74	1600
730	**1RQ6 502-5JE■■**	593	91	94.5	94.3	0.74	0.70	11756	2.10	0.65	4.70	84	1800
820	**1RQ6 504-5JE■■**	593	104	94.7	94.4	0.73	0.68	13206	2.20	0.70	4.80	91	2100
900	**1RQ6 506-5JE■■**	593	116	94.8	94.5	0.72	0.66	14494	2.30	0.75	5.20	102	2400
1100	**1RQ6 560-5JE■■**	594	138	95.0	94.9	0.73	0.67	17685	2.00	0.62	4.50	128	2400
1220	**1RQ6 562-5JE■■**	594	152	95.2	95.1	0.74	0.68	19614	2.10	0.65	4.50	146	3000
1320	**1RQ6 564-5JE■■**	595	166	95.3	95.1	0.73	0.67	21187	2.20	0.68	4.60	163	3300
1450	**1RQ6 566-5JE■■**	595	180	95.4	95.3	0.74	0.68	23273	2.20	0.68	4.60	178	3800

Voltage code:	
4 kV, 60 Hz	**4**
6.6 kV, 60 Hz	**1**
Other voltage	**9**
Type of construction:	
IM B3	**0**
IM V1 (with canopy)	**4**

Note:

Efficiencies according to IEC 60034-2-1:2007;
stray load losses determined by statistical evaluation of measurements.
NEMA version on request.

Higher pole numbers are available on request.

Electrical data is also valid for operation with SINAMICS PERFECT HARMONY drives.
For ordering, please note the 10th and 11th position of the article number code.

[1] Max. permissible external moment of inertia for three starts from cold or two starts from warm under the conditions described on Page 2/2.

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Selection and ordering data

The following data also apply to explosion-protected motors 1SB7 (Ex pxb) and 1SG7 (Ex ec).

Rated power	High voltage motor SIMOTICS HV M (modular)	Speed	Rated current	Efficiency		Power factor		Torque	Break-down torque	Locked-rotor torque	Locked-rotor current	Moment of inertia	
IEC			I_{rated} at 6.6 kV	4/4 load	3/4 load	4/4 load	3/4 load		T_B/T_{rated}	T_{LR}/T_{rated}	I_{LR}/I_{rated}	Motor	External, max.[1]
kW	Article No.	rpm	A	%	%	cos φ	cos φ	Nm	[-]	[-]	[-]	kgm²	kgm²
4.0 ... 6.6 kV, 60 Hz													
2-pole													
8000	**1RQ7710-2JA10-0CJ0**	3587	790	96.2	95.7	0.92	0.92	21297	2.30	0.75	5.30	147	147
9000	**1RQ7712-2JA10-0CJ0**	3587	880	96.5	96.0	0.93	0.92	23959	2.35	0.75	5.30	159	135
10000	**1RQ7714-2JA10-0CJ0**	3587	970	96.7	96.2	0.93	0.92	26621	2.40	0.65	5.30	175	139
11000	**1RQ7716-2JA10-0CJ0**	3587	1060	96.9	96.4	0.93	0.93	29284	2.40	0.65	5.40	189	135
4-pole													
8000	**1RQ7710-4JA10-0CJ0**	1793	790	97.3	97.1	0.91	0.91	42607	2.55	0.65	5.50	262	529
9000	**1RQ7712-4JA10-0CJ0**	1792	880	97.4	97.3	0.92	0.92	47959	2.50	0.65	5.40	288	533
10000	**1RQ7714-4JA10-0CJ0**	1792	980	97.5	97.4	0.92	0.92	53288	2.50	0.65	5.40	322	634
11000	**1RQ7716-4JA10-0CJ0**	1792	1080	97.6	97.5	0.92	0.92	58617	2.50	0.65	5.40	363	722
6-pole													
6300	**1RQ7710-6JA1■-0C■0**	1195	660	97.0	96.8	0.86	0.84	50343	2.55	0.70	5.40	350	1496
6800	**1RQ7712-6JA1■-0C■0**	1195	710	97.1	96.9	0.86	0.84	54339	2.55	0.65	5.30	396	1820
7350	**1RQ7714-6JA1■-0C■0**	1196	770	97.2	97.0	0.86	0.84	58685	2.55	0.65	5.30	446	2258
7850	**1RQ7716-6JA1■-0C■0**	1196	820	97.3	97.0	0.86	0.85	62677	2.55	0.60	5.40	493	2557
8-pole													
4500	**1RQ7710-8JA1■-0C■0**	896	475	96.8	96.8	0.86	0.84	47959	2.50	0.70	5.20	434	5215
5000	**1RQ7712-8JA1■-0C■0**	896	520	97.0	97.0	0.86	0.85	53288	2.55	0.70	5.30	494	6184
5600	**1RQ7714-8JA1■-0C■0**	895	590	97.1	97.1	0.86	0.85	59749	2.45	0.65	5.10	560	7199
6300	**1RQ7716-8JA1■-0C■0**	895	650	97.2	97.3	0.87	0.86	67218	2.45	0.75	5.10	619	7528
10-pole													
3550	**1RQ7710-3JA1■-0C■0**	716	380	96.6	96.6	0.85	0.81	47346	2.95	0.75	5.30	433	8630
3900	**1RQ7712-3JA1■-0C■0**	716	415	96.8	96.8	0.85	0.83	52014	2.90	0.65	5.20	493	9897
4300	**1RQ7714-3JA1■-0C■0**	716	455	96.9	96.8	0.85	0.82	57349	2.95	0.70	5.30	557	11857
4750	**1RQ7716-3JA1■-0C■0**	716	510	97.0	96.9	0.84	0.80	63350	3.00	0.65	5.30	612	13189

Type of construction:	
IM B3 (IM 1001)	**0**
IM V1, without protective hood (IM 3011)	**8**
Housing and bearing version	
Steel fabricated housing/ anti-friction bearings	**G**
Steel fabricated housing/ sleeve bearing	**J**

Note:

Efficiencies according to IEC 60034-2-1:2007;
stray load losses determined by statistical evaluation of measurements.
NEMA version on request.

Higher pole numbers are available on request.

[1] Max. permissible external moment of inertia for three starts from cold or two starts from warm under the conditions described on Page 2/2.

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2

Selection and ordering data

NEMA version

Rated power	High voltage motor H-compact PLUS	Speed	Rated current	Efficiency		Power factor		Torque	Break-down torque	Locked-rotor torque	Locked-rotor current	Moment of inertia	
NEMA			I_{rated} at 6.6 kV	4/4 load	3/4 load	4/4 load	3/4 load		T_B/T_{rated}	T_{LR}/T_{rated}	I_{LR}/I_{rated}	Motor	External, max.[1]
hp	Article No.	rpm	A	%	%	cos φ	cos φ	Nm	[-]	[-]	[-]	kgm²	kgm²
4.0 ... 6.6 kV, 60 Hz													
2-pole													
8000	**1RQ6 710-2BM■0**	3588	603	96.1	95.7	0.90	0.88	15881	2.50	0.60	5.70	134	41
9000	**1RQ6 712-2BM■0**	3587	664	96.1	95.8	0.92	0.91	17868	2.40	0.60	5.60	148	43
10000	**1RQ6 712-2BN■0**	3588	742	96.3	96.0	0.91	0.90	19852	2.60	0.62	6.10	148	44
11000	**1RQ6 714-2BM■0**	3587	807	96.4	96.0	0.92	0.91	21841	2.50	0.60	5.80	163	46
12000	**1RQ6 714-2BN■0**	3587	883	96.5	96.2	0.92	0.91	23827	2.40	0.60	5.70	163	47
13000	**1RQ6 716-2BM■0**	3587	948	96.5	96.3	0.92	0.92	25815	2.40	0.60	5.80	180	48
14000	**1RQ6 716-2BN■0**	3587	1021	96.6	96.4	0.92	0.92	27801	2.50	0.65	6.00	180	49
4-pole													
10000	**1RQ6 710-4CJ■0**	1794	745	97.0	96.9	0.90	0.88	39707	2.40	0.60	6.30	278	555
11000	**1RQ6 712-4CJ■0**	1793	805	97.1	97.0	0.91	0.90	43690	2.40	0.61	6.20	305	661
12000	**1RQ6 714-4CJ■0**	1793	873	97.1	97.0	0.92	0.91	47659	2.40	0.63	6.30	341	679
13000	**1RQ6 716-4CJ■0**	1794	948	97.2	97.1	0.91	0.91	51626	2.30	0.60	6.10	374	695
6-pole													
8000	**1RQ6 710-6CJ■■**	1194	626	96.9	96.9	0.86	0.83	47715	2.20	0.71	5.70	338	1847
9000	**1RQ6 714-6CJ■■**	1195	703	97.0	97.0	0.86	0.83	53642	2.30	0.73	6.00	427	1954
10000	**1RQ6 716-6CJ■■**	1195	770	97.1	97.1	0.87	0.85	59613	2.30	0.76	6.00	476	2043
8-pole													
5500	**1RQ6 710-8CJ■■**	896	440	96.7	96.8	0.84	0.81	43733	2.30	0.86	6.00	426	3235
6000	**1RQ6 712-8CJ■■**	896	481	96.7	96.8	0.84	0.81	47703	2.20	0.83	6.00	476	3437
7000	**1RQ6 714-8CJ■■**	896	561	96.9	96.9	0.84	0.81	55649	2.20	0.83	6.00	542	3817
8000	**1RQ6 716-8CJ■■**	896	645	96.9	97.0	0.83	0.80	63590	2.20	0.80	6.00	608	4154
10-pole													
4000	**1RQ6 710-3CJ■■**	716	339	96.5	96.5	0.80	0.75	39780	2.40	0.77	5.80	426	4563
4500	**1RQ6 712-3CJ■■**	716	375	96.6	96.7	0.81	0.77	44763	2.30	0.73	5.60	476	5006
5000	**1RQ6 714-3CJ■■**	716	418	96.7	96.7	0.80	0.76	49717	2.40	0.80	6.00	542	5428
5500	**1RQ6 716-3CJ■■**	717	464	96.7	96.7	0.80	0.75	54660	2.50	0.79	6.00	609	5833

Voltage code:	
4 kV, 60 Hz	**4**
4.16 kV, 60 Hz	**3**
6.6 kV, 60 Hz	**1**
Other voltage	**9**

Type of construction:	
IM B3	**0**
IM V1 (with canopy)	**4**

Note:

Higher pole numbers are available on request.

[1] Max. permissible external moment of inertia for three starts from cold or two starts from warm under the conditions described on Page 2/2.

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Selection and ordering data

NEMA version

Rated power	High voltage motor H-compact PLUS	Speed	Rated current	Efficiency		Power factor		Torque	Break-down torque	Locked-rotor torque	Locked-rotor current	Moment of inertia	
NEMA			I_{rated} at 13.2 kV	4/4 load	3/4 load	4/4 load	3/4 load		T_B/T_{rated}	T_{LR}/T_{rated}	I_{LR}/I_{rated}	Motor	External, max.[1]
hp	Article No.	rpm	A	%	%	cos φ	cos φ	Nm	[-]	[-]	[-]	kgm²	kgm²
12.5 ... 13.8 kV, 60 Hz													
2-pole													
7000	**1RQ6 710-2BM■0**	3589	263	95.7	95.2	0.91	0.89	13894	2.50	0.60	5.70	134	40
8000	**1RQ6 712-2BM■0**	3589	298	95.8	95.3	0.91	0.90	15879	2.60	0.60	6.00	148	41
9000	**1RQ6 714-2BM■0**	3588	332	95.9	95.4	0.92	0.91	17865	2.50	0.60	5.80	163	43
10000	**1RQ6 716-2BM■0**	3588	365	95.9	95.6	0.93	0.93	19854	2.50	0.60	5.90	180	44
4-pole													
7000	**1RQ6 710-4CJ■0**	1794	258	96.4	96.2	0.91	0.90	27791	2.40	0.60	6.30	278	520
8000	**1RQ6 714-4CJ■0**	1794	291	96.5	96.4	0.92	0.92	31772	2.30	0.60	6.10	341	541
9000	**1RQ6 714-4CK■0**	1794	328	96.6	96.5	0.92	0.91	35738	2.40	0.60	6.20	341	552
10000	**1RQ6 716-4CJ■0**	1794	364	96.7	96.6	0.92	0.91	39707	2.40	0.60	6.30	374	555
6-pole													
6000	**1RQ6 710-6CJ■■**	1195	237	96.5	96.4	0.85	0.83	35757	2.40	0.69	6.00	338	1571
7000	**1RQ6 714-6CJ■■**	1195	274	96.7	96.6	0.86	0.83	41709	2.40	0.67	6.00	427	1720
8000	**1RQ6 716-6CJ■■**	1195	310	96.7	96.7	0.87	0.84	47674	2.40	0.68	6.00	476	1846
8-pole													
4000	**1RQ6 710-8CJ■■**	896	160	96.2	96.2	0.85	0.82	31800	2.30	0.79	6.00	426	2560
4500	**1RQ6 712-8CJ■■**	896	179	96.3	96.3	0.85	0.83	35780	2.20	0.79	5.90	476	2796
5000	**1RQ6 714-8CJ■■**	896	197	96.4	96.5	0.86	0.84	39760	2.20	0.79	5.90	542	3024
5500	**1RQ6 716-8CJ■■**	896	216	96.4	96.5	0.86	0.84	43719	2.20	0.81	6.00	608	3235
10-pole													
3000	**1RQ6 710-3CJ■■**	716	125	96.0	96.1	0.81	0.78	29829	2.30	0.70	5.70	426	3619
3500	**1RQ6 712-3CJ■■**	717	147	96.2	96.2	0.81	0.77	34792	2.50	0.77	6.00	476	4104
4000	**1RQ6 714-3CJ■■**	717	167	96.2	96.2	0.81	0.77	39763	2.40	0.76	6.00	542	4563
4500	**1RQ6 716-3CJ■■**	717	190	96.4	96.4	0.80	0.76	44718	2.50	0.74	6.00	609	5006

Voltage code:	
13.2 kV, 60 Hz	**2**
Other voltage	**9**
Type of construction:	
IM B3	**0**
IM V1 (with canopy)	**4**

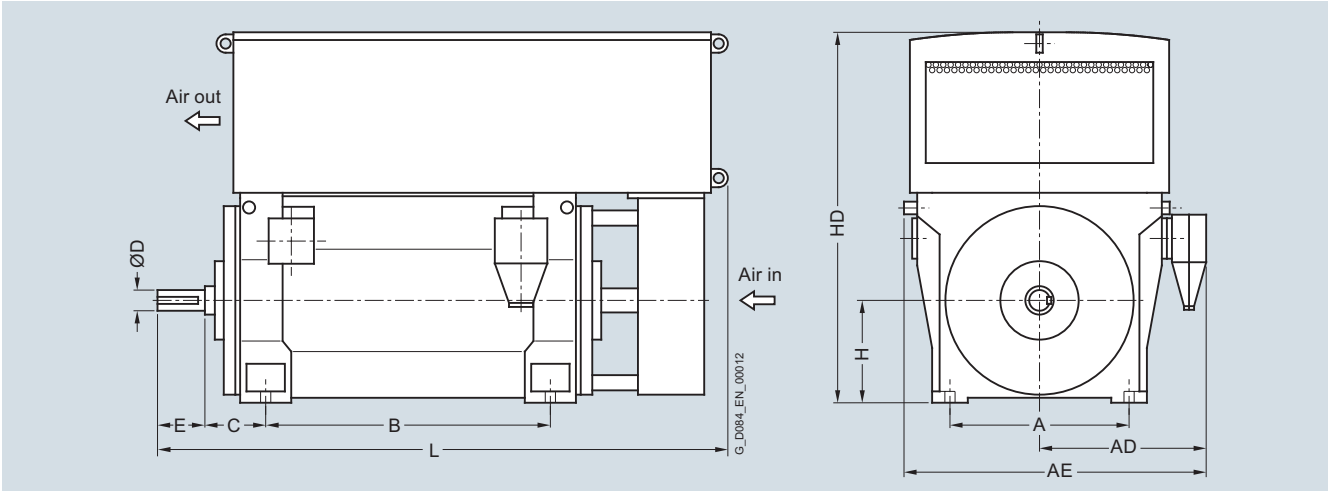
Note:

Higher pole numbers are available on request.

[1] Max. permissible external moment of inertia for three starts from cold or two starts from warm under the conditions described on Page 2/2.

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Dimension drawings



Motor type	Weight	Dimensions									
		A	AD[1)]	AE[1)]	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, IM B3 type of construction, anti-friction bearings – series 1RQ4, 1RQ6[2)]											
2-pole											
1RQ6 450-2JJ.0[3)]	4250	850	930	1620	1180	280	95	130	450	1842	2425[4)]
1RQ6 452-2JJ.0[3)]	4450	850	930	1620	1180	280	95	130	450	1842	2425[4)]
1RQ6 454-2JJ.0[3)]	4800	850	930	1620	1400	280	95	130	450	1842	2635[4)]
1RQ6 456-2JJ.0[3)]	5050	850	930	1620	1400	280	95	130	450	1842	2635[4)]
1RQ6 500-2JJ.0[3)]	6100	950	1135	1835	1320	315	110	165	500	2040	3450[4)]
1RQ6 502-2JJ.0[3)]	6250	950	1135	1835	1320	315	110	165	500	2040	3450[4)]
4-pole											
1RQ6 450-4JJ.0	4550	850	930	1620	1180	250	130	200	450	1842	2455
1RQ6 452-4JJ.0	4750	850	930	1620	1180	250	130	200	450	1842	2455
1RQ6 454-4JJ.0	5200	850	930	1620	1400	250	130	200	450	1842	2665
1RQ6 456-4JJ.0	5450	850	930	1620	1400	250	130	200	450	1842	2665
1RQ6 500-4JJ.0	6600	950	1135	1835	1320	280	150	200	500	2040	2900
1RQ6 502-4JJ.0	6800	950	1135	1835	1320	280	150	200	500	2040	2900
1RQ6 504-4JJ.0	7550	950	1135	1835	1500	280	150	200	500	2040	3050
1RQ6 506-4JJ.0	7850	950	1135	1835	1500	280	150	200	500	2040	3050
1RQ6 560-4JJ.0	8250	1060	1205	1975	1400	315	170	240	560	2300	3000
1RQ6 562-4JJ.0	8600	1060	1205	1975	1400	315	170	240	560	2300	3000
1RQ6 564-4JJ.0	9550	1060	1205	1975	1600	315	170	240	560	2300	3250
1RQ6 566-4JJ.0	10100	1060	1205	1975	1600	315	170	240	560	2300	3250
1RQ4 630-4JE.0[3)]	11100	1320	1330	2210	1600	335	190	280	630	2340	3140
1RQ4 632-4JE.0[3)]	11800	1320	1330	2210	1600	335	190	280	630	2340	3140
1RQ4 634-4JE.0[3)]	12900	1320	1330	2210	1800	335	200	280	630	2340	3380
1RQ4 636-4JE.0[3)]	13450	1320	1330	2210	1800	335	200	280	630	2340	3380

[1)] The value applies for 6 kV. When a lower voltage is selected, the rated current increases. For rated currents above 315 A, the dimension increases by 140 mm.

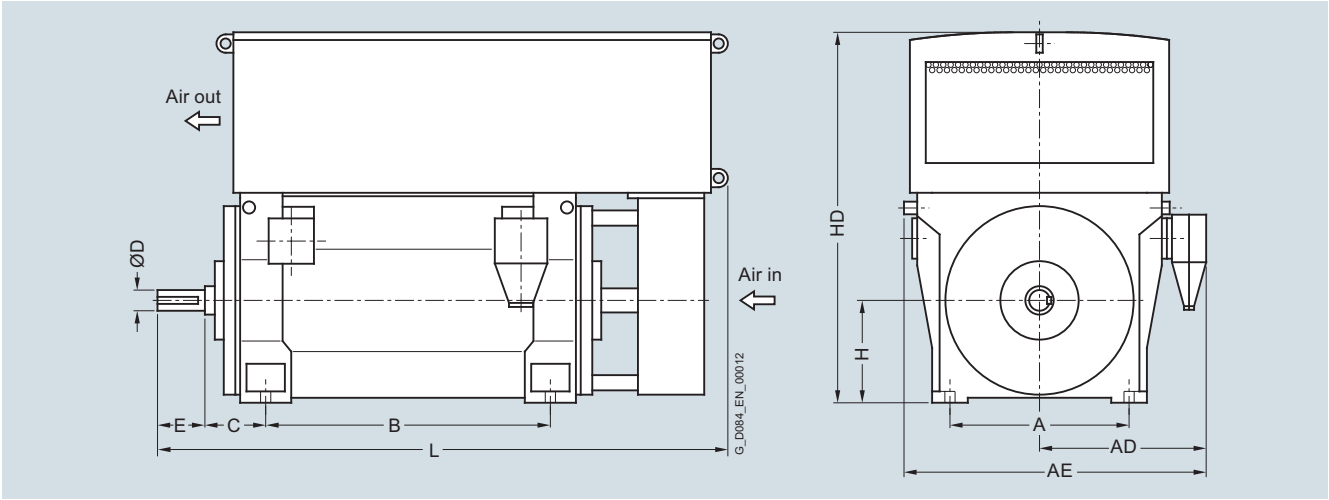
[2)] The dimensions are also valid for the 1SB4/1SB6 and 1SG4/1SG6 series.

[3)] Anti-friction bearings only for 50 Hz operation.

[4)] Including air inlet silencer.

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Dimension drawings (continued)



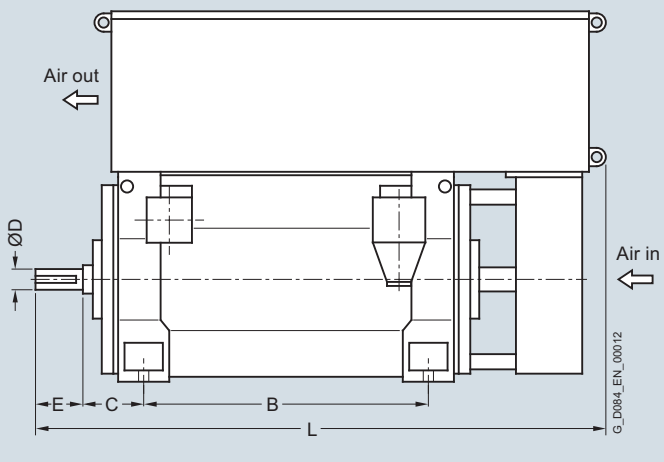
Motor type	Weight	Dimensions									
		A	AD[1]	AE[1]	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, IM B3 type of construction, anti-friction bearings – series 1RQ4, 1RQ6[2]											
6-pole											
1RQ6 450-6JJ.0	4650	850	930	1620	1180	250	140	200	450	1842	2455
1RQ6 452-6JJ.0	4900	850	930	1620	1180	250	140	200	450	1842	2455
1RQ6 454-6JJ.0	5300	850	930	1620	1400	280	140	200	450	1842	2665
1RQ6 456-6JJ.0	5650	850	930	1620	1400	280	140	200	450	1842	2665
1RQ6 500-6JJ.0	6750	950	1135	1835	1320	315	160	240	500	1990	2850
1RQ6 502-6JJ.0	7050	950	1135	1835	1320	315	160	240	500	1990	2850
1RQ6 504-6JJ.0	7700	950	1135	1835	1500	315	160	240	500	1990	3300
1RQ6 506-6JJ.0	8050	950	1135	1835	1500	315	160	240	500	1990	3300
1RQ6 560-6JJ.0	9100	1060	1205	1975	1400	315	180	240	560	2240	3000
1RQ6 562-6JJ.0	9550	1060	1205	1975	1400	315	180	240	560	2240	3000
1RQ6 564-6JJ.0	10450	1060	1205	1975	1600	315	180	240	560	2240	3250
1RQ6 566-6JJ.0	11000	1060	1205	1975	1600	315	180	240	560	2240	3250
1RQ4 630-6JE.0	11400	1320	1330	2210	1600	335	200	280	630	2340	3140
1RQ4 632-6JE.0	12000	1320	1330	2210	1600	335	200	280	630	2340	3140
1RQ4 634-6JE.0	12900	1320	1330	2210	1800	335	200	280	630	2340	3380
1RQ4 636-6JE.0	13750	1320	1330	2210	1800	335	200	280	630	2340	3380
8-pole											
1RQ6 450-8JJ.0	4650	850	930	1620	1180	250	140	200	450	1842	2455
1RQ6 452-8JJ.0	4950	850	930	1620	1180	250	140	200	450	1842	2455
1RQ6 454-8JJ.0	5350	850	930	1620	1400	280	140	200	450	1842	2665
1RQ6 456-8JJ.0	5700	850	930	1620	1400	280	140	200	450	1842	2665
1RQ6 500-8JJ.0	6750	950	1135	1835	1320	315	160	240	500	1990	2850
1RQ6 502-8JJ.0	7000	950	1135	1835	1320	315	160	240	500	1990	2850
1RQ6 504-8JJ.0	7650	950	1135	1835	1500	315	160	240	500	1990	3300
1RQ6 506-8JJ.0	8000	950	1135	1835	1500	315	160	240	500	1990	3300
1RQ6 560-8JJ.0	9050	1060	1205	1975	1400	315	180	240	560	2240	3000
1RQ6 562-8JJ.0	9450	1060	1205	1975	1400	315	180	240	560	2240	3000
1RQ6 564-8JJ.0	10400	1060	1205	1975	1600	315	180	240	560	2240	3250
1RQ6 566-8JJ.0	10900	1060	1205	1975	1600	315	180	240	560	2240	3250

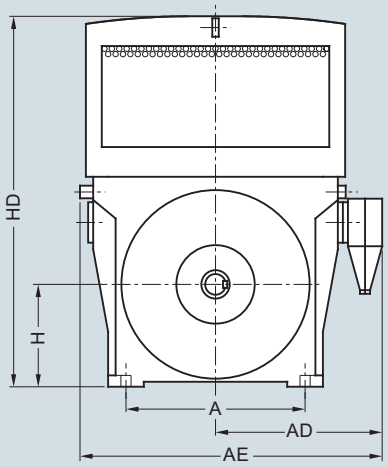
[1] The value applies for 6 kV. When a lower voltage is selected, the rated current increases. For rated currents above 315 A, the dimension increases by 140 mm.

[2] The dimensions are also valid for the 1SB4/1SB6 and 1SG4/1SG6 series.

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Dimension drawings (continued)





Motor type	Weight	Dimensions									
		A	AD[1]	AE[1]	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, IM B3 type of construction, anti-friction bearings – series 1RQ4, 1RQ6[2]											
8-pole											
1RQ4 630-8JE.0[3]	11200	1320	1180	2060	1600	335	200	280	630	2340	3140
1RQ4 632-8JE.0[3]	11950	1320	1330	2210	1600	335	200	280	630	2340	3140
1RQ4 634-8JE.0[3]	12900	1320	1330	2210	1800	335	200	280	630	2340	3380
1RQ4 636-8JE.0[3]	13650	1320	1330	2210	1800	335	200	280	630	2340	3380
10-pole											
1RQ6 450-3JJ.0	4650	850	930	1620	1180	250	140	200	450	1842	2455
1RQ6 452-3JJ.0	4950	850	930	1620	1180	250	140	200	450	1842	2455
1RQ6 454-3JJ.0	5350	850	930	1620	1400	280	140	200	450	1842	2665
1RQ6 456-3JJ.0	5700	850	930	1620	1400	280	140	200	450	1842	2665
1RQ6 500-3JE.0	6000	950	1000	1760	1320	280	150	200	500	2000	2660
1RQ6 502-3JE.0	6300	950	1000	1760	1320	280	150	200	500	2000	2660
1RQ6 504-3JE.0	6900	950	1000	1760	1500	280	160	240	500	2000	2910
1RQ6 506-3JE.0	7300	950	1000	1760	1500	280	160	240	500	2000	2910
1RQ6 560-3JE.0	8000	1060	1070	1900	1400	315	170	240	560	2260	2950
1RQ6 562-3JE.0	8600	1060	1070	1900	1400	315	170	240	560	2260	2950
1RQ6 564-3JE.0	9450	1060	1070	1900	1600	315	180	240	560	2260	3180
1RQ6 566-3JE.0	9900	1060	1070	1900	1600	315	180	240	560	2260	3180
1RQ4 630-3JE.0[3]	11200	1320	1180	2060	1600	335	200	280	630	2340	3140
1RQ4 632-3JE.0[3]	11800	1320	1180	2060	1600	335	200	280	630	2340	3140
1RQ4 634-3JE.0[3]	12900	1320	1180	2060	1800	335	200	280	630	2340	3380
1RQ4 636-3JE.0[3]	13550	1320	1180	2060	1800	335	200	280	630	2340	3380

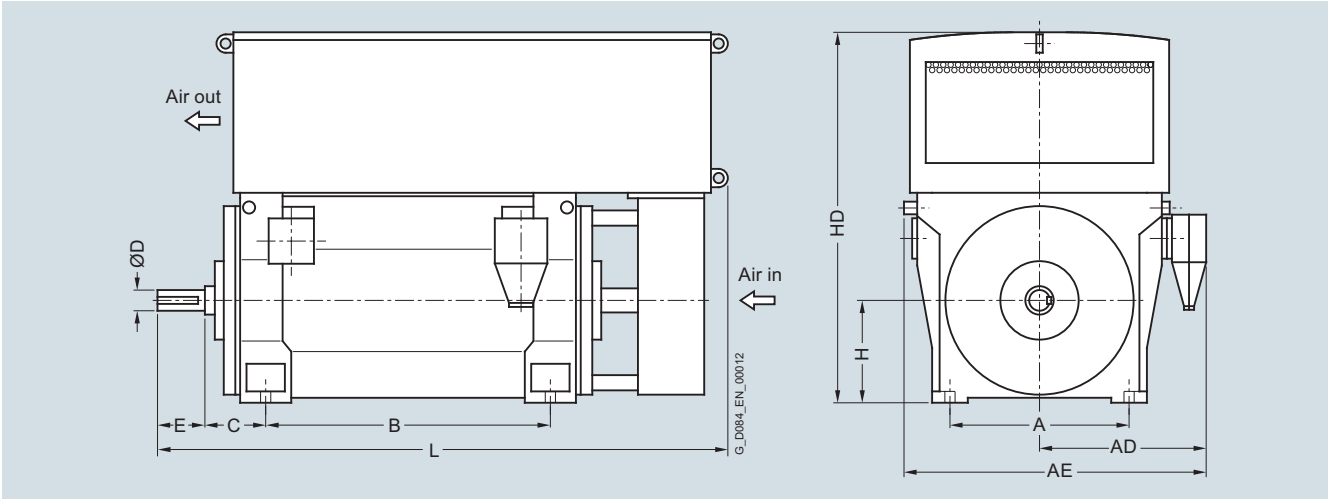
[1] The value applies for 6 kV. When a lower voltage is selected, the rated current increases. For rated currents above 315 A, the dimension increases by 140 mm.

[2] The dimensions are also valid for the 1SB4/1SB6 and 1SG4/1SG6 series.

[3] Anti-friction bearings only for 50 Hz operation.

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Dimension drawings (continued)



Motor type	Weight	Dimensions									
		A	AD[1]	AE[1]	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, IM B3 type of construction, anti-friction bearings – series 1RQ4, 1RQ6[2]											
12-pole											
1RQ6 450-5JJ.0	4650	850	930	1620	1180	250	140	200	450	1842	2455
1RQ6 452-5JJ.0	4950	850	930	1620	1180	250	140	200	450	1842	2455
1RQ6 454-5JJ.0	5350	850	930	1620	1400	280	140	200	450	1842	2665
1RQ6 456-5JJ.0	5700	850	930	1620	1400	280	140	200	450	1842	2665
1RQ6 500-5JE.0	6000	950	1000	1760	1320	280	150	200	500	2000	2660
1RQ6 502-5JE.0	6300	950	1000	1760	1320	280	150	200	500	2000	2660
1RQ6 504-5JE.0	6900	950	1000	1760	1500	280	160	240	500	2000	2910
1RQ6 506-5JE.0	7300	950	1000	1760	1500	280	160	240	500	2000	2910
1RQ6 560-5JE.0	8050	1060	1070	1900	1400	315	170	240	560	2260	2950
1RQ6 562-5JE.0	8600	1060	1070	1900	1400	315	170	240	560	2260	2950
1RQ6 564-5JE.0	9400	1060	1070	1900	1600	315	180	240	560	2260	3180
1RQ6 566-5JE.0	9900	1060	1070	1900	1600	315	180	240	560	2260	3180
1RQ4 630-5JE.0[3]	11100	1320	1180	2060	1600	335	200	280	630	2340	3140
1RQ4 632-5JE.0[3]	11750	1320	1180	2060	1600	335	200	280	630	2340	3140
1RQ4 634-5JE.0[3]	12800	1320	1180	2060	1800	335	200	280	630	2340	3380
1RQ4 636-5JE.0[3]	13500	1320	1180	2060	1800	335	200	280	630	2340	3380

Note: Higher pole numbers are available on request.

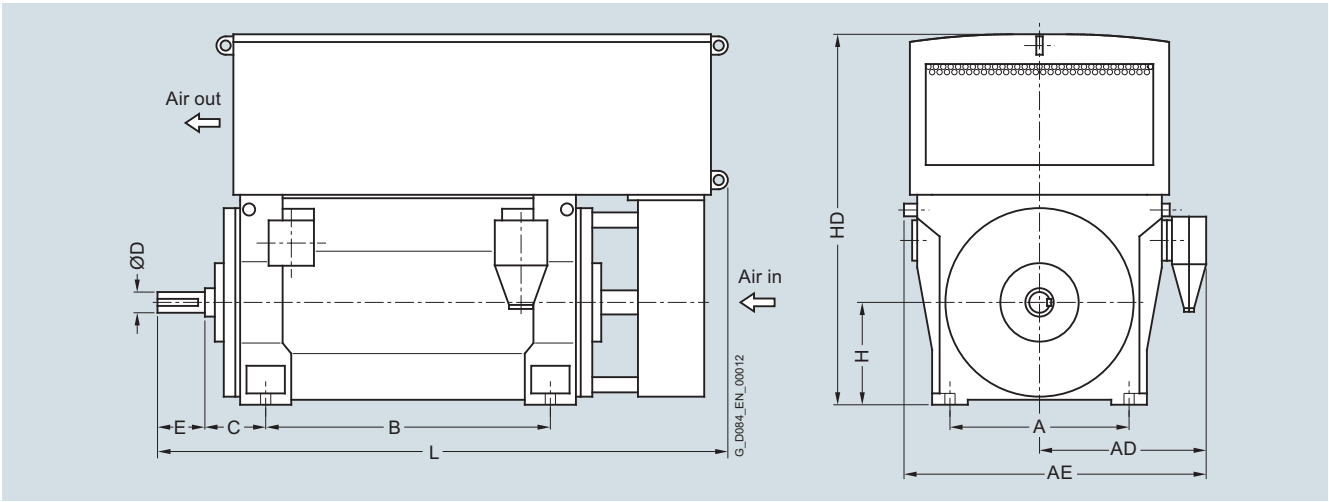
[1] The value applies for 6 kV. When a lower voltage is selected, the rated current increases. For rated currents above 315 A, the dimension increases by 140 mm.

[2] The dimensions are also valid for the 1SB4/1SB6 and 1SG4/1SG6 series.

[3] Anti-friction bearings only for 50 Hz operation.

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Dimension drawings

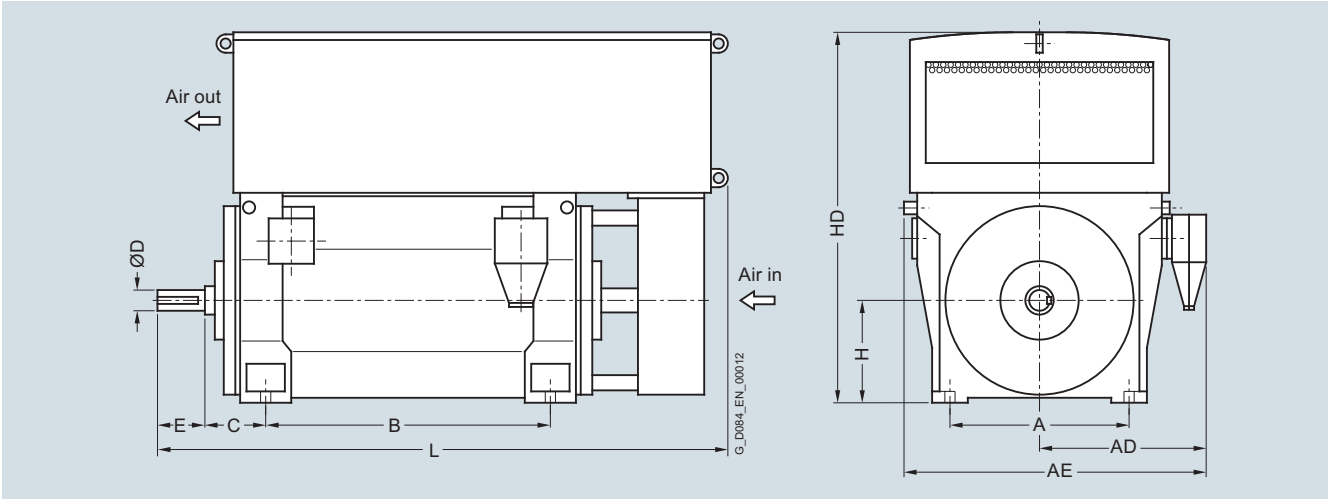


Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
9 ... 11 kV, IM B3 type of construction, anti-friction bearings – series 1RQ4, 1RQ6[1)]											
2-pole											
1RQ6 450-2JJ.0[2)]	4250	850	1070	1840	1180	280	95	130	450	1842	2425[3)]
1RQ6 452-2JJ.0[2)]	4450	850	1070	1840	1180	280	95	130	450	1842	2425[3)]
1RQ6 454-2JJ.0[2)]	4800	850	1070	1840	1400	280	95	130	450	1842	2635[3)]
1RQ6 456-2JJ.0[2)]	5050	850	1070	1840	1400	280	95	130	450	1842	2635[3)]
1RQ6 500-2JJ.0[2)]	6100	950	1270	1970	1320	315	110	165	500	2040	3450[3)]
1RQ6 502-2JJ.0[2)]	6250	950	1270	1970	1320	315	110	165	500	2040	3450[3)]
4-pole											
1RQ6 450-4JJ.0	4550	850	1070	1840	1180	250	130	200	450	1842	2455
1RQ6 452-4JJ.0	4750	850	1070	1840	1180	250	130	200	450	1842	2455
1RQ6 454-4JJ.0	5200	850	1070	1840	1400	250	130	200	450	1842	2665
1RQ6 456-4JJ.0	5450	850	1070	1840	1400	250	130	200	450	1842	2665
1RQ6 500-4JJ.0	6600	950	1270	1970	1320	280	150	200	500	2040	2900
1RQ6 502-4JJ.0	6800	950	1270	1970	1320	280	150	200	500	2040	2900
1RQ6 504-4JJ.0	7550	950	1270	1970	1500	280	150	200	500	2040	3050
1RQ6 506-4JJ.0	7850	950	1270	1970	1500	280	150	200	500	2040	3050
1RQ6 560-4JJ.0	8250	1060	1340	2110	1400	315	170	240	560	2300	3000
1RQ6 562-4JJ.0	8600	1060	1340	2110	1400	315	170	240	560	2300	3000
1RQ6 564-4JJ.0	9550	1060	1340	2110	1600	315	170	240	560	2300	3250
1RQ6 566-4JJ.0	10100	1060	1340	2110	1600	315	170	240	560	2300	3250
1RQ4 630-4JE.0[2)]	11100	1320	1320	2200	1600	335	190	280	630	2340	3140
1RQ4 632-4JE.0[2)]	11800	1320	1320	2200	1600	335	190	280	630	2340	3140
1RQ4 634-4JE.0[2)]	12900	1320	1320	2200	1800	335	200	280	630	2340	3380
1RQ4 636-4JE.0[2)]	13450	1320	1330	2210	1800	335	200	280	630	2340	3380
6-pole											
1RQ6 450-6JJ.0	4650	850	1070	1840	1180	250	140	200	450	1842	2455
1RQ6 452-6JJ.0	4900	850	1070	1840	1180	250	140	200	450	1842	2455
1RQ6 454-6JJ.0	5300	850	1070	1840	1400	280	140	200	450	1842	2665
1RQ6 456-6JJ.0	5650	850	1070	1840	1400	280	140	200	450	1842	2665

[1)] The dimensions are also valid for the 1SB4/1SB6 and 1SG4/1SG6 series.
[2)] Anti-friction bearings only for 50 Hz operation.
[3)] Including air inlet silencer.

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Dimension drawings (continued)

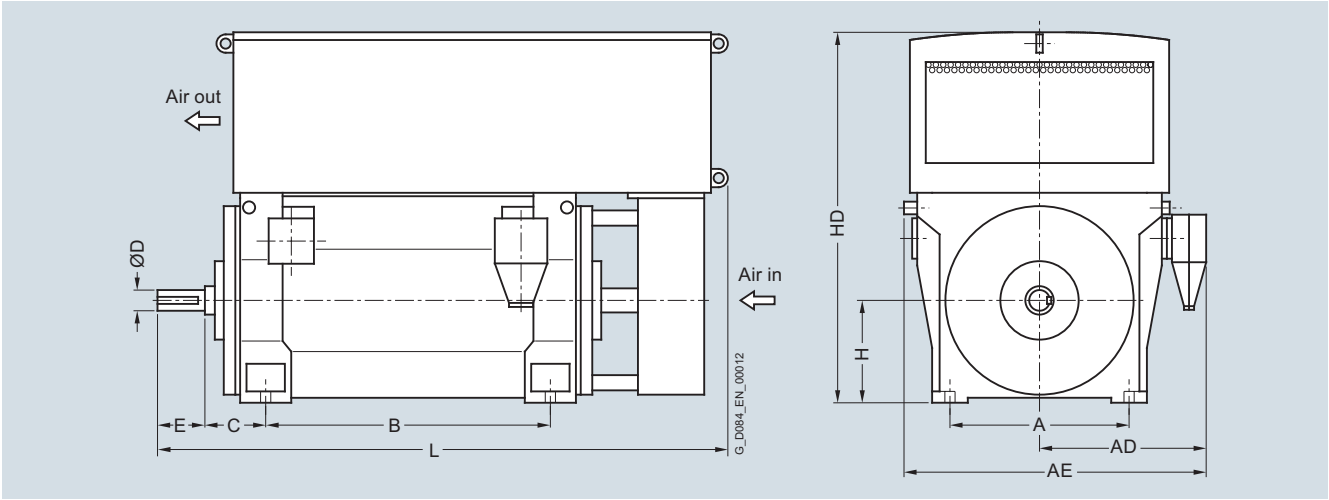


Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
9 ... 11 kV, IM B3 type of construction, anti-friction bearings – series 1RQ4, 1RQ6[1)]											
6-pole											
1RQ6 500-6JJ.0	6750	950	1270	1970	1320	315	160	240	500	1990	2850
1RQ6 502-6JJ.0	7050	950	1270	1970	1320	315	160	240	500	1990	2850
1RQ6 504-6JJ.0	7700	950	1270	1970	1500	315	160	240	500	1990	3300
1RQ6 506-6JJ.0	8050	950	1270	1970	1500	315	160	240	500	1990	3300
1RQ6 560-6JJ.0	9100	1060	1340	2110	1400	315	180	240	560	2240	3000
1RQ6 562-6JJ.0	9550	1060	1340	2110	1400	315	180	240	560	2240	3000
1RQ6 564-6JJ.0	10450	1060	1340	2110	1600	315	180	240	560	2240	3250
1RQ6 566-6JJ.0	11000	1060	1340	2110	1600	315	180	240	560	2240	3250
1RQ4 630-6JE.0	11400	1320	1320	2200	1600	335	200	280	630	2340	3140
1RQ4 632-6JE.0	12000	1320	1320	2200	1600	335	200	280	630	2340	3140
1RQ4 634-6JE.0	12900	1320	1320	2200	1800	335	200	280	630	2340	3380
1RQ4 636-6JE.0	13750	1320	1320	2200	1800	335	200	280	630	2340	3380
8-pole											
1RQ6 450-8JJ.0	4650	850	1070	1840	1180	250	140	200	450	1842	2455
1RQ6 452-8JJ.0	4950	850	1070	1840	1180	250	140	200	450	1842	2455
1RQ6 454-8JJ.0	5350	850	1070	1840	1400	280	140	200	450	1842	2665
1RQ6 456-8JJ.0	5700	850	1070	1840	1400	280	140	200	450	1842	2665
1RQ6 500-8JJ.0	6750	950	1270	1970	1320	315	160	240	500	1990	2850
1RQ6 502-8JJ.0	7000	950	1270	1970	1320	315	160	240	500	1990	2850
1RQ6 504-8JJ.0	7650	950	1270	1970	1500	315	160	240	500	1990	3300
1RQ6-506-8JJ.0	8000	950	1270	1970	1500	315	160	240	500	1990	3300
1RQ6 560-8JJ.0	9050	1060	1340	2110	1400	315	180	240	560	2240	3000
1RQ6 562-8JJ.0	9450	1060	1340	2110	1400	315	180	240	560	2240	3000
1RQ6 564-8JJ.0	10400	1060	1340	2110	1600	315	180	240	560	2240	3250
1RQ6-566-8JJ.0	10900	1060	1340	2110	1600	315	180	240	560	2240	3250
1RQ4 630-8JE.0	11200	1320	1320	2200	1600	335	200	280	630	2340	3140
1RQ4 632-8JE.0	11950	1320	1320	2200	1600	335	200	280	630	2340	3140
1RQ4 634-8JE.0	12900	1320	1320	2200	1800	335	200	280	630	2340	3380
1RQ4 636-8JE.0	13650	1320	1320	2200	1800	335	200	280	630	2340	3380

[1)] The dimensions are also valid for the 1SB4/1SB6 and 1SG4/1SG6 series.

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Dimension drawings (continued)



Motor type	Weight	Dimensions A	AD	AE	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
9 ... 11 kV, IM B3 type of construction, anti-friction bearings – 1RQ4 series[1)]											
10-pole											
1RQ6 500-3JE.0	6000	950	1220	1980	1320	280	150	200	500	2000	2660
1RQ6 502-3JE.0	6300	950	1220	1980	1320	280	150	200	500	2000	2660
1RQ6 504-3JE.0	6850	950	1220	1980	1500	280	160	240	500	2000	2910
1RQ6 506-3JE.0	7250	950	1220	1980	1500	280	160	240	500	2000	2910
1RQ6 560-3JE.0	8200	1060	1210	2040	1400	315	170	240	560	2260	2950
1RQ6 562-3JE.0	8900	1060	1210	2040	1400	315	170	240	560	2260	2950
1RQ6 564-3JE.0	9700	1060	1210	2040	1600	315	180	240	560	2260	3180
1RQ6 566-3JE.0	10100	1060	1210	2040	1600	315	180	240	560	2260	3180
1RQ4 630-3JE.0	11200	1320	1320	2200	1600	335	200	280	630	2340	3140
1RQ4 632-3JE.0	11800	1320	1320	2200	1600	335	200	280	630	2340	3140
1RQ4 634-3JE.0	12900	1320	1320	2200	1800	335	200	280	630	2340	3380
1RQ4 636-3JE.0	13550	1320	1320	2200	1800	335	200	280	630	2340	3380
12-pole											
1RQ6 502-5JE.0	6350	950	1220	1980	1320	280	150	200	500	2000	2660
1RQ6 504-5JE.0	6850	950	1220	1980	1500	280	160	240	500	2000	2910
1RQ6 506-5JE.0	7250	950	1220	1980	1500	280	160	240	500	2000	2910
1RQ6 560-5JE.0	8000	1060	1210	2040	1400	315	170	240	560	2260	2950
1RQ6 562-5JE.0	8550	1060	1210	2040	1400	315	170	240	560	2260	2950
1RQ6 564-5JE.0	9400	1060	1210	2040	1600	315	180	240	560	2260	3180
1RQ6 566-5JE.0	9850	1060	1210	2040	1600	315	180	240	560	2260	3180
1RQ4 630-5JE.0	11100	1320	1320	2200	1600	335	200	280	630	2340	3140
1RQ4 632-5JE.0	11750	1320	1320	2200	1600	335	200	280	630	2340	3140
1RQ4 634-5JE.0	12800	1320	1320	2200	1800	335	200	280	630	2340	3380
1RQ4 636-5JE.0	13500	1320	1320	2200	1800	335	200	280	630	2340	3380

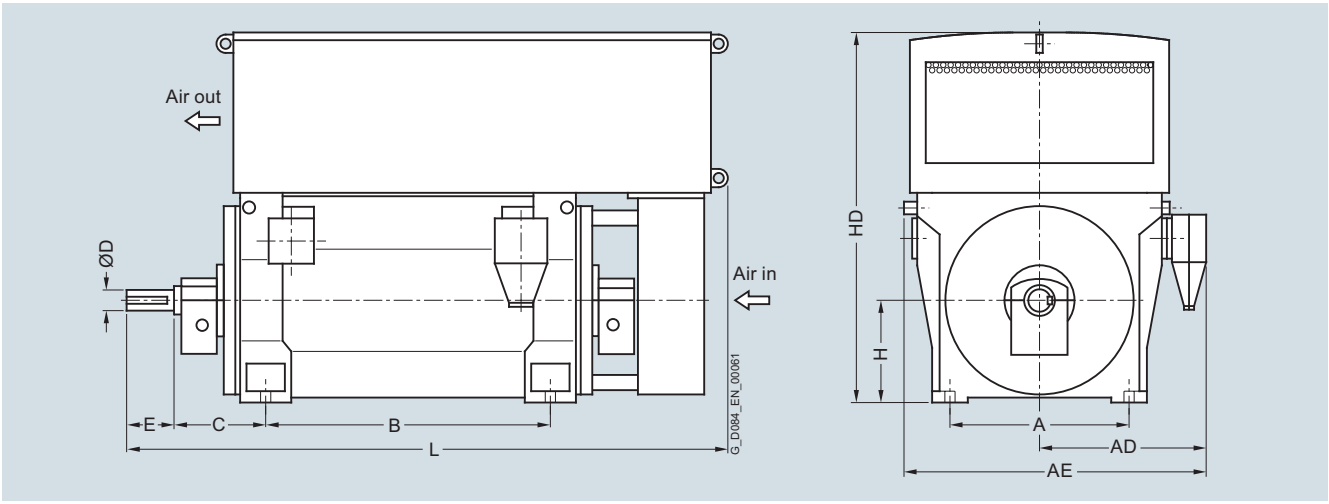
Note:

Higher pole numbers are available on request.

[1)] The dimensions are also valid for the 1SB4/1SB6 and 1SG4/1SG6 series.

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Dimension drawings



Motor type	Weight	Dimensions									
		A	AD[1]	AE[1]	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, IM B3 type of construction, sleeve bearings – series 1RQ4, 1RQ6[2]											
2-pole											
1RQ6 450-2JJ.0-Z K96[3]	4250	850	930	1620	1180	425	95	130	450	1842	2575[4]
1RQ6 452-2JJ.0-Z K96[3]	4500	850	930	1620	1180	425	95	130	450	1842	2575[4]
1RQ6 454-2JJ.0-Z K96[3]	4850	850	930	1620	1400	425	95	130	450	1842	2790[4]
1RQ6 456-2JJ.0-Z K96[3]	5100	850	930	1620	1400	425	95	130	450	1842	2790[4]
1RQ6 500-2JJ.0-Z K96[3]	6100	950	1135	1835	1320	450	110	165	500	2040	3550[4]
1RQ6 502-2JJ.0-Z K96[3]	6250	950	1135	1835	1320	450	110	165	500	2040	3550[4]
1RQ6 504-2JJ.0	7100	950	1135	1835	1500	450	110	165	500	2040	3750[4]
1RQ6 506-2JJ.0	7350	950	1135	1835	1500	450	110	165	500	2040	3750[4]
1RQ6 560-2JJ.0	8150	1060	1205	1975	1400	600	130	200	560	2300	3900[4]
1RQ6 562-2JJ.0	8550	1060	1205	1975	1400	600	130	200	560	2300	3900[4]
1RQ6 564-2JJ.0	9500	1060	1205	1975	1600	600	130	200	560	2300	4130[4]
1RQ6 566-2JJ.0	9950	1060	1205	1975	1600	600	130	200	560	2300	4130[4]
1RQ4 630-2JE.0	10900	1320	1330	2210	1600	560	140	200	630	2340	3840[4]
1RQ4 632-2JE.0	11550	1320	1330	2210	1600	560	140	200	630	2340	3840[4]
1RQ4 634-2JE.0	12750	1320	1330	2210	1800	560	150	200	630	2340	4080[4]
1RQ4 636-2JE.0	13600	1320	1330	2210	1800	560	150	200	630	2340	4080[4]
4-pole											
1RQ6 450-4JJ.0-Z K96	4650	850	930	1620	1180	500	130	200	450	1842	2705
1RQ6 452-4JJ.0-Z K96	4900	850	930	1620	1180	500	130	200	450	1842	2705
1RQ6 454-4JJ.0-Z K96	5300	850	930	1620	1400	500	130	200	450	1842	2915
1RQ6 456-4JJ.0-Z K96	5550	850	930	1620	1400	500	130	200	450	1842	2915
1RQ6 500-4JJ.0-Z K96	6900	950	1135	1835	1320	560	150	200	500	2040	3150
1RQ6 502-4JJ.0-Z K96	7100	950	1135	1835	1320	560	150	200	500	2040	3150
1RQ6 504-4JJ.0-Z K96	7800	950	1135	1835	1500	560	150	200	500	2040	3350
1RQ6 506-4JJ.0-Z K96	8100	950	1135	1835	1500	560	150	200	500	2040	3350

[1] The value applies for 6 kV. When a lower voltage is selected, the rated current increases. For rated currents above 315 A, the dimension increases by 140 mm.

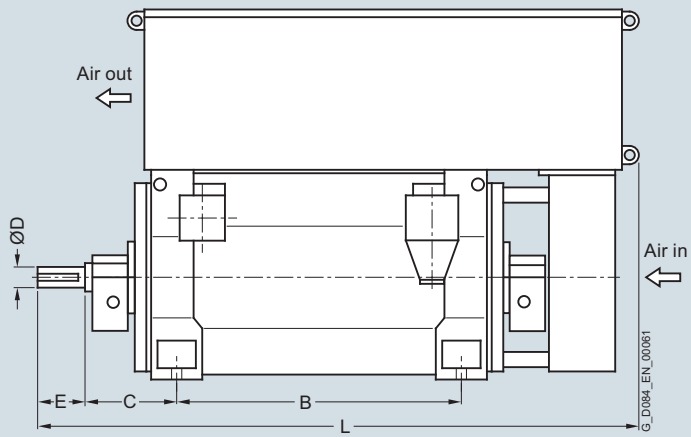
[2] The dimensions are also valid for the 1SB4/1SB6 and 1SG4/1SG6 series.

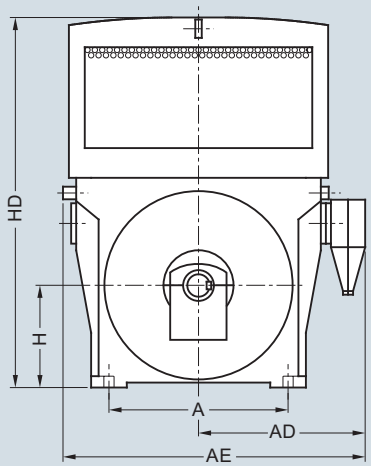
[3] For the 60 Hz version, sleeve bearings are standard, "-Z **K96**" not necessary.

[4] Including air inlet silencer.

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Dimension drawings (continued)





Motor type	Weight	Dimensions									
		A	AD[1]	AE[1]	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, IM B3 type of construction, sleeve bearings – series 1RQ4, 1RQ6[2]											
4-pole											
1RQ6 560-4JJ.0-Z K96	8350	1060	1205	1975	1400	600	170	240	560	2300	3270
1RQ6 562-4JJ.0-Z K96	8750	1060	1205	1975	1400	600	170	240	560	2300	3270
1RQ6 564-4JJ.0-Z K96	9700	1060	1205	1975	1600	600	170	240	560	2300	3500
1RQ6 566-4JJ.0-Z K96	10200	1060	1205	1975	1600	600	170	240	560	2300	3500
1RQ4 630-4JE.0-Z K96[3]	11350	1320	1330	2210	1600	600	190	280	630	2340	3400
1RQ4 632-4JE.0-Z K96[3]	12050	1320	1330	2210	1600	600	190	280	630	2340	3400
1RQ4 634-4JE.0-Z K96[3]	13150	1320	1330	2210	1800	600	200	280	630	2340	3640
1RQ4 636-4JE.0-Z K96[3]	13700	1320	1330	2210	1800	600	200	280	630	2340	3640
6-pole											
1RQ6 450-6JJ.0-Z K96	4800	850	930	1620	1180	500	140	200	450	1842	2705
1RQ6 452-6JJ.0-Z K96	5050	850	930	1620	1180	500	140	200	450	1842	2705
1RQ6 454-6JJ.0-Z K96	5450	850	930	1620	1400	500	140	200	450	1842	2915
1RQ6 456-6JJ.0-Z K96	5800	850	930	1620	1400	500	140	200	450	1842	2915
1RQ6 500-6JJ.0-Z K96	6900	950	1135	1835	1320	560	170	240	500	1990	2850
1RQ6 502-6JJ.0-Z K96	7200	950	1135	1835	1320	560	170	240	500	1990	2850
1RQ6 504-6JJ.0-Z K96	7850	950	1135	1835	1500	560	170	240	500	1990	3300
1RQ6 506-6JJ.0-Z K96	8200	950	1135	1835	1500	560	170	240	500	1990	3300
1RQ6 560-6JJ.0-Z K96	9300	1060	1205	1975	1400	600	170	240	560	2240	3300
1RQ6 562-6JJ.0-Z K96	9750	1060	1205	1975	1400	600	170	240	560	2240	3300
1RQ6 564-6JJ.0-Z K96	10650	1060	1205	1975	1600	600	170	240	560	2240	3500
1RQ6 566-6JJ.0-Z K96	11150	1060	1205	1975	1600	600	170	240	560	2240	3500
1RQ4 630-6JE.0-Z K96	11650	1320	1330	2210	1600	600	200	280	630	2340	3400
1RQ4 632-6JE.0-Z K96	12250	1320	1330	2210	1600	600	200	280	630	2340	3400
1RQ4 634-6JE.0-Z K96	13150	1320	1330	2210	1800	600	200	280	630	2340	3640
1RQ4 636-6JE.0-Z K96	14000	1320	1330	2210	1800	600	200	280	630	2340	3640

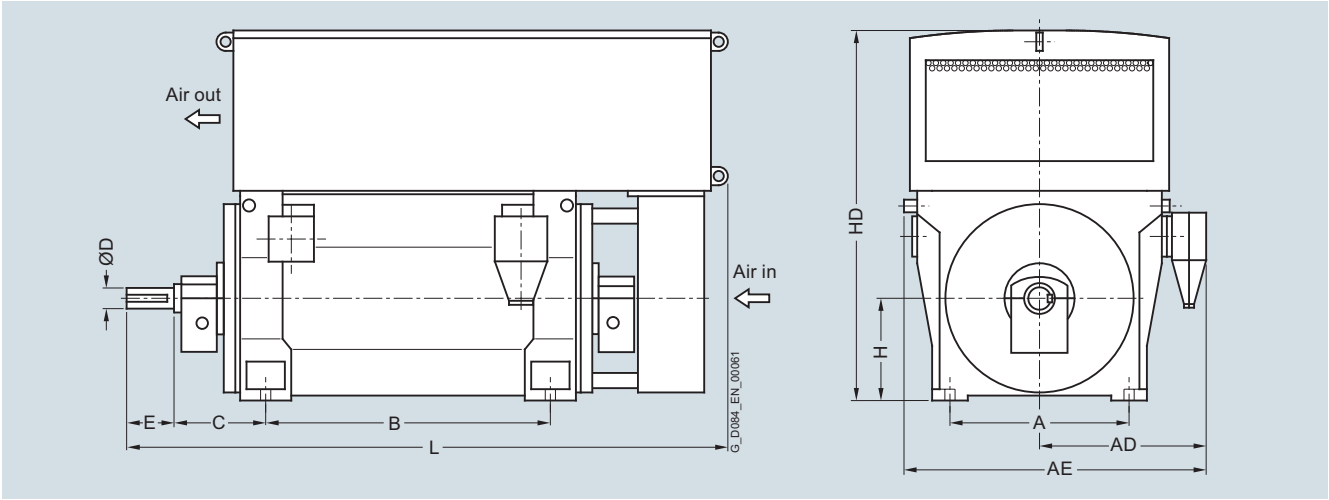
[1] The value applies for 6 kV. When a lower voltage is selected, the rated current increases. For rated currents above 315 A, the dimension increases by 140 mm.

[2] The dimensions are also valid for the 1SB4/1SB6 and 1SG4/1SG6 series.

[3] For the 60 Hz version, sleeve bearings are standard, "-Z **K96**" not necessary.

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Dimension drawings (continued)



Motor type	Weight	Dimensions									
		A	AD[1]	AE[1]	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, IM B3 type of construction, sleeve bearings – series 1RQ4, 1RQ6[2]											
8-pole											
1RQ6 450-8JJ.0-Z K96	4800	850	930	1620	1180	500	140	200	450	1842	2705
1RQ6 452-8JJ.0-Z K96	5100	850	930	1620	1180	500	140	200	450	1842	2705
1RQ6 454-8JJ.0-Z K96	5500	850	930	1620	1400	500	140	200	450	1842	2915
1RQ6 456-8JJ.0-Z K96	5850	850	930	1620	1400	500	140	200	450	1842	2915
1RQ6 500-8JJ.0-Z K96	6900	950	1135	1835	1320	560	170	240	500	1990	2850
1RQ6 502-8JJ.0-Z K96	7150	950	1135	1835	1320	560	170	240	500	1990	2850
1RQ6 504-8JJ.0-Z K96	7800	950	1135	1835	1500	560	170	240	500	1990	3300
1RQ6 506-8JJ.0-Z K96	8150	950	1135	1835	1500	560	170	240	500	1990	3300
1RQ6 560-8JJ.0-Z K96	9250	1060	1205	1975	1400	600	170	240	560	2240	3300
1RQ6 562-8JJ.0-Z K96	9650	1060	1205	1975	1400	600	170	240	560	2240	3300
1RQ6 564-8JJ.0-Z K96	10550	1060	1205	1975	1600	600	170	240	560	2240	3500
1RQ6 566-8JJ.0-Z K96	11100	1060	1205	1975	1600	600	170	240	560	2240	3500
1RQ4 630-8JE.0-Z K96[3]	11450	1320	1180	2060	1600	600	200	280	630	2340	3400
1RQ4 632-8JE.0-Z K96[3]	12200	1320	1330	2210	1600	600	200	280	630	2340	3400
1RQ4 634-8JE.0-Z K96[3]	13150	1320	1330	2210	1800	600	200	280	630	2340	3640
1RQ4 636-8JE.0-Z K96[3]	13900	1320	1330	2210	1800	600	200	280	630	2340	3640
10-pole											
1RQ6 450-3JJ.0-Z K96	4800	850	930	1620	1180	500	140	200	450	1842	2705
1RQ6 452-3JJ.0-Z K96	5100	850	930	1620	1180	500	140	200	450	1842	2705
1RQ6 454-3JJ.0-Z K96	5500	850	930	1620	1400	500	140	200	450	1842	2915
1RQ6 456-3JJ.0-Z K96	5850	850	930	1620	1400	500	140	200	450	1842	2915
1RQ6 500-3JE.0-Z K96	6100	950	1000	1760	1320	500	150	200	500	2000	2880
1RQ6 502-3JE.0-Z K96	6500	950	1000	1760	1320	500	150	200	500	2000	2880
1RQ6 504-3JE.0-Z K96	7050	950	1000	1760	1500	500	160	240	500	2000	3130
1RQ6 506-3JE.0-Z K96	7400	950	1000	1760	1500	500	160	240	500	2000	3130
1RQ6 560-3JE.0-Z K96	8150	1060	1070	1900	1400	530	170	240	560	2260	3170
1RQ6 562-3JE.0-Z K96	8750	1060	1070	1900	1400	530	170	240	560	2260	3170

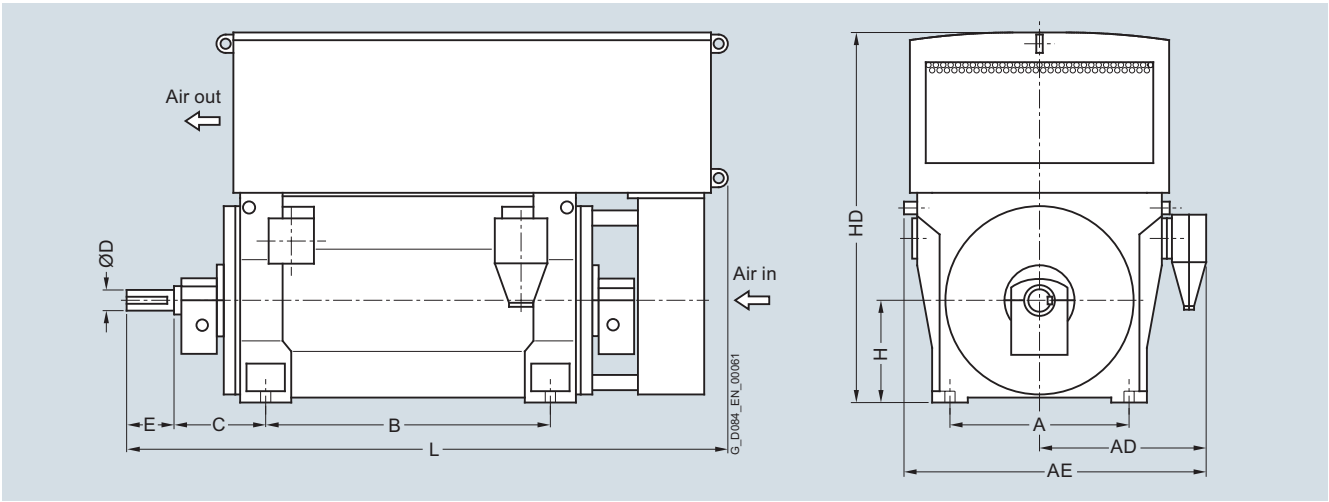
[1] The value applies for 6 kV. When a lower voltage is selected, the rated current increases. For rated currents above 315 A, the dimension increases by 140 mm.

[2] The dimensions are also valid for the 1SB4/1SB6 and 1SG4/1SG6 series.

[3] For the 60 Hz version, sleeve bearings are standard, "-Z **K96**" not necessary.

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Dimension drawings (continued)



Motor type	Weight	Dimensions									
		A	AD[1]	AE[1]	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, IM B3 type of construction, sleeve bearings – series 1RQ4, 1RQ6[2]											
10-pole											
1RQ6 564-3JE.0-Z K96	9600	1060	1070	1900	1600	530	180	240	560	2260	3400
1RQ6 566-3JE.0-Z K96	10050	1060	1070	1900	1600	530	180	240	560	2260	3400
1RQ4 630-3JE.0-Z K96[3]	11450	1320	1180	2060	1600	600	200	280	630	2340	3400
1RQ4 632-3JE.0-Z K96[3]	12050	1320	1180	2060	1600	600	200	280	630	2340	3400
1RQ4 634-3JE.0-Z K96[3]	13150	1320	1180	2060	1800	600	200	280	630	2340	3640
1RQ4 636-3JE.0-Z K96[3]	13800	1320	1180	2060	1800	600	200	280	630	2340	3640
12-pole											
1RQ6 450-5JJ.0-Z K96	4800	850	930	1620	1180	500	140	200	450	1842	2705
1RQ6 452-5JJ.0-Z K96	5100	850	930	1620	1180	500	140	200	450	1842	2705
1RQ6 454-5JJ.0-Z K96	5500	850	930	1620	1400	500	140	200	450	1842	2915
1RQ6 456-5JJ.0-Z K96	5850	850	930	1620	1400	500	140	200	450	1842	2915
1RQ6 500-5JE.0-Z K96	6100	950	1000	1760	1320	500	150	200	500	2000	2880
1RQ6 502-5JE.0-Z K96	6500	950	1000	1760	1320	500	150	200	500	2000	2880
1RQ6 504-5JE.0-Z K96	7050	950	1000	1760	1500	500	160	240	500	2000	3130
1RQ6 506-5JE.0-Z K96	7450	950	1000	1760	1500	500	160	240	500	2000	3130
1RQ6 560-5JE.0-Z K96	8200	1060	1070	1900	1400	530	170	240	560	2260	3170
1RQ6 562-5JE.0-Z K96	8750	1060	1070	1900	1400	530	170	240	560	2260	3170
1RQ6 564-5JE.0-Z K96	9550	1060	1070	1900	1600	530	180	240	560	2260	3400
1RQ6 566-5JE.0-Z K96	10050	1060	1070	1900	1600	530	180	240	560	2260	3400
1RQ4 630-5JE.0-Z K96[3]	11350	1320	1180	2060	1600	600	200	280	630	2340	3400
1RQ4 632-5JE.0-Z K96[3]	12000	1320	1180	2060	1600	600	200	280	630	2340	3400
1RQ4 634-5JE.0-Z K96[3]	13050	1320	1180	2060	1800	600	200	280	630	2340	3640
1RQ4 636-5JE.0-Z K96[3]	13750	1320	1180	2060	1800	600	200	280	630	2340	3640

Note:

Higher pole numbers are available on request.

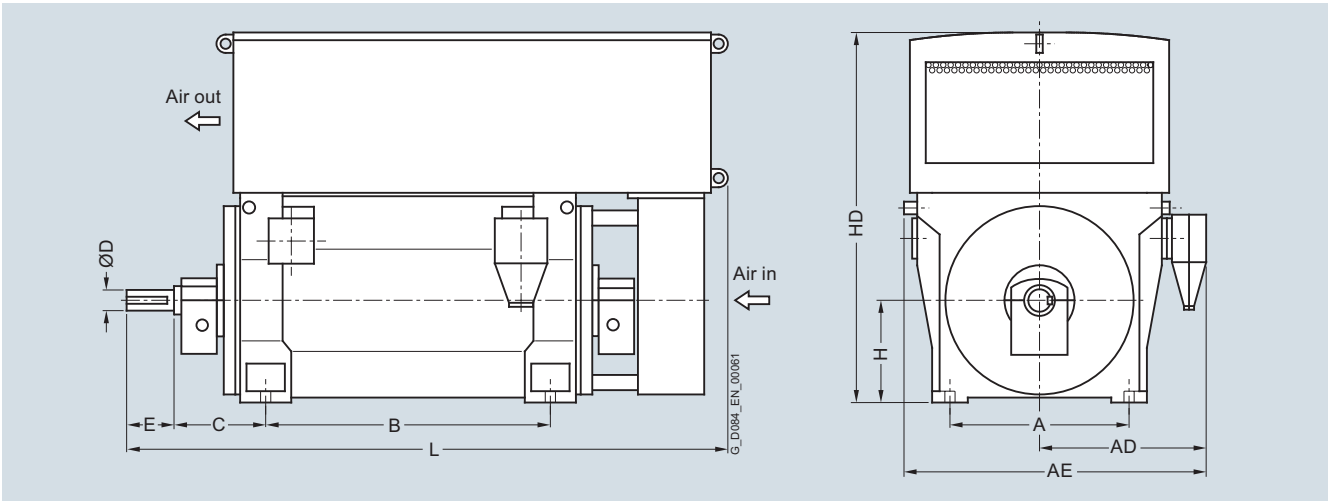
[1] The value applies for 6 kV. When a lower voltage is selected, the rated current increases. For rated currents above 315 A, the dimension increases by 140 mm.

[2] The dimensions are also valid for the 1SB4/1SB6 and 1SG4/1SG6 series.

[3] For the 60 Hz version, sleeve bearings are standard, "-Z **K96**" not necessary.

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Dimension drawings



Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
9 ... 11 kV, IM B3 type of construction, sleeve bearings – series 1RQ4, 1RQ6[1)]											
2-pole											
1RQ6 450-2JJ.0-Z K96[2)]	4250	850	1070	1840	1180	425	95	130	450	1842	2575[3)]
1RQ6 452-2JJ.0-Z K96[2)]	4500	850	1070	1840	1180	425	95	130	450	1842	2575[3)]
1RQ6 454-2JJ.0-Z K96[2)]	4850	850	1070	1840	1400	425	95	130	450	1842	2790[3)]
1RQ6 456-2JJ.0-Z K96[2)]	5100	850	1070	1840	1400	425	95	130	450	1842	2790[3)]
1RQ6 500-2JJ.0-Z K96[2)]	6100	950	1270	1970	1320	450	110	165	500	2040	3550[3)]
1RQ6 502-2JJ.0-Z K96[2)]	6250	950	1270	1970	1320	450	110	165	500	2040	3550[3)]
1RQ6 504-2JJ.0	7100	950	1270	1970	1500	450	110	165	500	2040	3750[3)]
1RQ6 506-2JJ.0	7350	950	1270	1970	1500	450	110	165	500	2040	3750[3)]
1RQ6 560-2JJ.0	8150	1060	1340	2110	1400	600	130	200	560	2300	3900[3)]
1RQ6 562-2JJ.0	8550	1060	1340	2110	1400	600	130	200	560	2300	3900[3)]
1RQ6 564-2JJ.0	9500	1060	1340	2110	1600	600	130	200	560	2300	4130[3)]
1RQ6 566-2JJ.0	9950	1060	1340	2110	1600	600	130	200	560	2300	4130[3)]
1RQ4 630-2JE.0	10800	1320	1320	2200	1600	560	140	200	630	2340	3840[3)]
1RQ4 632-2JE.0	11450	1320	1320	2200	1600	560	140	200	630	2340	3840[3)]
1RQ4 634-2JE.0	12600	1320	1320	2200	1800	560	150	200	630	2340	4080[3)]
1RQ4 636-2JE.0	13400	1320	1330	2210	1800	560	150	200	630	2340	4080[3)]
4-pole											
1RQ6 450-4JJ.0-Z K96	4650	850	1070	1840	1180	500	130	200	450	1842	2705
1RQ6 452-4JJ.0-Z K96	4850	850	1070	1840	1180	500	130	200	450	1842	2705
1RQ6 454-4JJ.0-Z K96	5300	850	1070	1840	1400	500	130	200	450	1842	2915
1RQ6 456-4JJ.0-Z K96	5550	850	1070	1840	1400	500	130	200	450	1842	2915
1RQ6 500-4JJ.0-Z K96	6900	950	1270	1970	1320	560	150	200	500	2040	3150
1RQ6 502-4JJ.0-Z K96	7100	950	1270	1970	1320	560	150	200	500	2040	3150
1RQ6 504-4JJ.0-Z K96	7800	950	1270	1970	1500	560	150	200	500	2040	3350
1RQ6 506-4JJ.0-Z K96	8100	950	1270	1970	1500	560	150	200	500	2040	3350
1RQ6 560-4JJ.0-Z K96	8350	1060	1340	2110	1400	600	170	240	560	2300	3270
1RQ6 562-4JJ.0-Z K96	8750	1060	1340	2110	1400	600	170	240	560	2300	3270
1RQ6 564-4JJ.0-Z K96	9700	1060	1340	2110	1600	600	170	240	560	2300	3500
1RQ6 566-4JJ.0-Z K96	10200	1060	1340	2110	1600	600	170	240	560	2300	3500

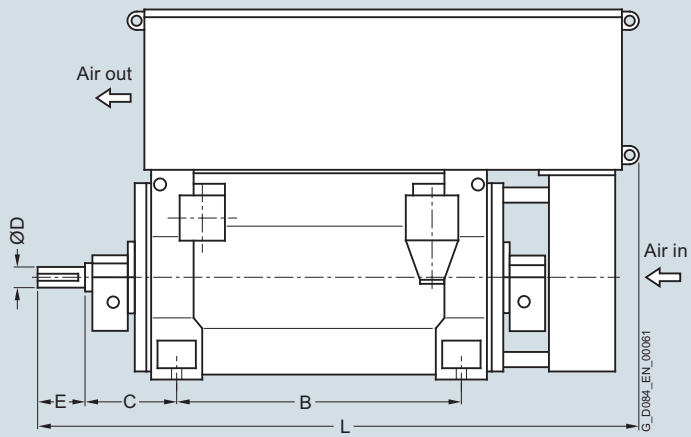
[1)] The dimensions are also valid for the 1SB4/1SB6 and 1SG4/1SG6 series.

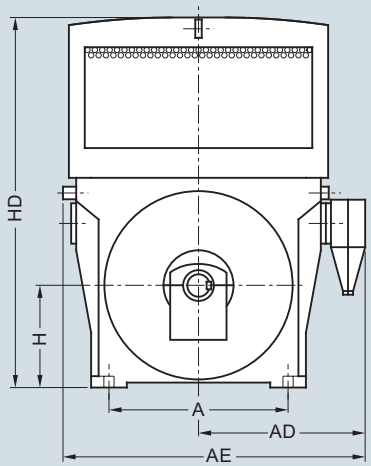
[2)] For the 60 Hz version, sleeve bearings are standard, "-Z **K96**" not necessary.

[3)] Including air inlet silencer.

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Dimension drawings (continued)





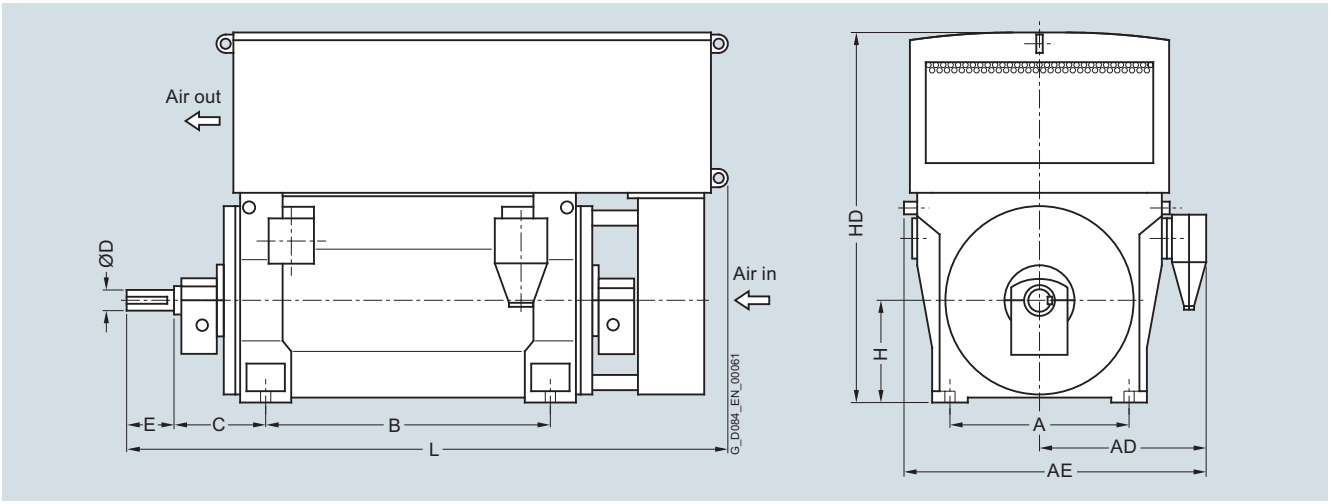
Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
9 ... 11 kV, IM B3 type of construction, sleeve bearings – series 1RQ4, 1RQ6[1)]											
4-pole											
1RQ4 630-4JE.0-Z K96[2)]	11250	1320	1320	2200	1600	600	190	280	630	2340	3400
1RQ4 632-4JE.0-Z K96[2)]	11950	1320	1320	2200	1600	600	190	280	630	2340	3400
1RQ4 634-4JE.0-Z K96[2)]	13000	1320	1320	2200	1800	600	200	280	630	2340	3640
1RQ4 636-4JE.0-Z K96[2)]	13600	1320	1330	2210	1800	600	200	280	630	2340	3640
6-pole											
1RQ6 450-6JJ.0-Z K96	4800	850	1070	1840	1180	500	140	200	450	1842	2705
1RQ6 452-6JJ.0-Z K96	5050	850	1070	1840	1180	500	140	200	450	1842	2705
1RQ6 454-6JJ.0-Z K96	5450	850	1070	1840	1400	500	140	200	450	1842	2915
1RQ6 456-6JJ.0-Z K96	5800	850	1070	1840	1400	500	140	200	450	1842	2915
1RQ6 500-6JJ.0-Z K96	6900	950	1270	1970	1320	560	170	240	500	1990	2850
1RQ6 502-6JJ.0-Z K96	7200	950	1270	1970	1320	560	170	240	500	1990	2850
1RQ6 504-6JJ.0-Z K96	7850	950	1270	1970	1500	560	170	240	500	1990	3300
1RQ6 506-6JJ.0-Z K96	8200	950	1270	1970	1500	560	170	240	500	1990	3300
1RQ6 560-6JJ.0-Z K96	9300	1060	1340	2110	1400	600	170	240	560	2240	3300
1RQ6 562-6JJ.0-Z K96	9750	1060	1340	2110	1400	600	170	240	560	2240	3300
1RQ6 564-6JJ.0-Z K96	10650	1060	1340	2110	1600	600	170	240	560	2240	3500
1RQ6 566-6JJ.0-Z K96	11150	1060	1340	2110	1600	600	170	240	560	2240	3500
1RQ4 630-6JE.0-Z K96	11450	1320	1320	2200	1600	600	200	280	630	2340	3400
1RQ4 632-6JE.0-Z K96	12100	1320	1320	2200	1600	600	200	280	630	2340	3400
1RQ4 634-6JE.0-Z K96	13150	1320	1320	2200	1800	600	200	280	630	2340	3640
1RQ4 636-6JE.0-Z K96	13850	1320	1320	2200	1800	600	200	280	630	2340	3640
8-pole											
1RQ6 450-8JJ.0-Z K96	4800	850	1070	1840	1180	500	140	200	450	1842	2705
1RQ6 452-8JJ.0-Z K96	5100	850	1070	1840	1180	500	140	200	450	1842	2705
1RQ6 454-8JJ.0-Z K96	5500	850	1070	1840	1400	500	140	200	450	1842	2915
1RQ6 456-8JJ.0-Z K96	5850	850	1070	1840	1400	500	140	200	450	1842	2915
1RQ6 500-8JJ.0-Z K96	6900	950	1270	1970	1320	560	170	240	500	1990	2850
1RQ6 502-8JJ.0-Z K96	7150	950	1270	1970	1320	560	170	240	500	1990	2850
1RQ6 504-8JJ.0-Z K96	7800	950	1270	1970	1500	560	170	240	500	1990	3300
1RQ6 506-8JJ.0-Z K96	8150	950	1270	1970	1500	560	170	240	500	1990	3300

[1)] The dimensions are also valid for the 1SB4/1SB6 and 1SG4/1SG6 series.

[2)] For the 60 Hz version, sleeve bearings are standard, "-Z **K96**" not necessary.

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Dimension drawings (continued)



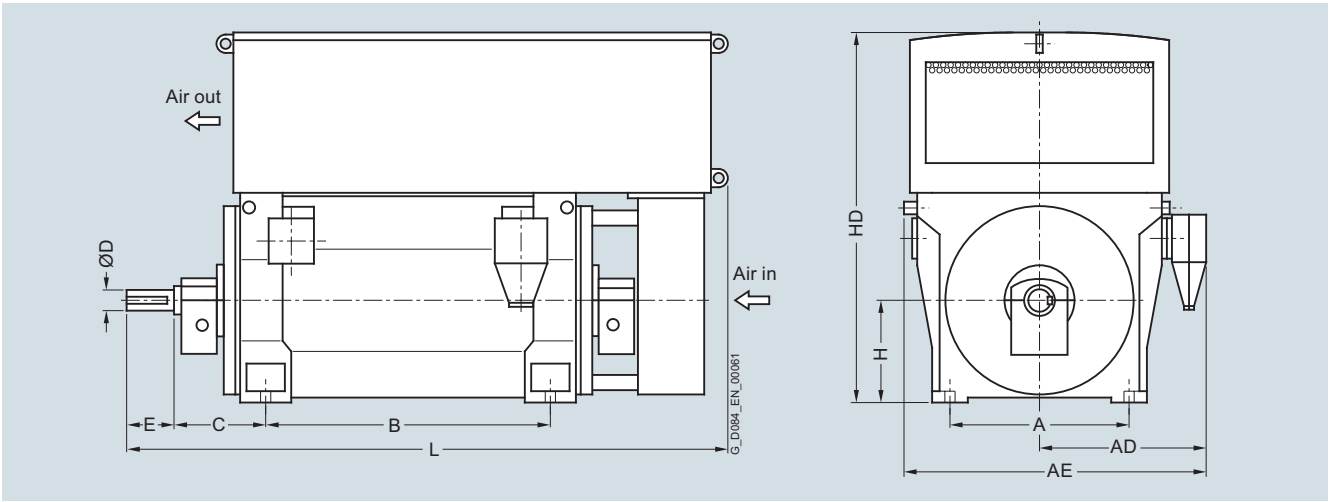
Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
9 ... 11 kV, IM B3 type of construction, sleeve bearings – 1RQ4 series[1)]											
8-pole											
1RQ6 560-8JJ.0-Z K96	9250	1060	1340	2110	1400	600	170	240	560	2240	3300
1RQ6 562-8JJ.0-Z K96	9650	1060	1340	2110	1400	600	170	240	560	2240	3300
1RQ6 564-8JJ.0-Z K96	10550	1060	1340	2110	1600	600	170	240	560	2240	3500
1RQ6 566-8JJ.0-Z K96	11100	1060	1340	2110	1600	600	170	240	560	2240	3500
1RQ4 630-8JE.0-Z K96	11450	1320	1320	2200	1600	600	200	280	630	2340	3400
1RQ4 632-8JE.0-Z K96	12000	1320	1320	2200	1600	600	200	280	630	2340	3400
1RQ4 634-8JE.0-Z K96	13050	1320	1320	2200	1800	600	200	280	630	2340	3640
1RQ4 636-8JE.0-Z K96	13800	1320	1320	2200	1800	600	200	280	630	2340	3640
10-pole											
1RQ6 500-3JE.0-Z K96	6100	950	1140	1980	1320	500	150	200	500	2000	2880
1RQ6 502-3JE.0-Z K96	6450	950	1140	1980	1320	500	150	200	500	2000	2880
1RQ6 504-3JE.0-Z K96	7050	950	1140	1980	1500	500	160	240	500	2000	3130
1RQ6 506-3JE.0-Z K96	7400	950	1140	1980	1500	500	160	240	500	2000	3130
1RQ6 560-3JE.0-Z K96	8400	1060	1210	2040	1400	530	170	240	560	2260	3170
1RQ6 562-3JE.0-Z K96	9400	1060	1210	2040	1400	530	170	240	560	2260	3170
1RQ6 564-3JE.0-Z K96	9900	1060	1210	2040	1600	530	180	240	560	2260	3400
1RQ6 566-3JE.0-Z K96	13000	1060	1210	2040	1600	530	180	240	560	2260	3400
1RQ4 630-3JE.0-Z K96	11400	1320	1320	2200	1600	600	200	280	630	2340	3400
1RQ4 632-3JE.0-Z K96	12000	1320	1320	2200	1600	600	200	280	630	2340	3400
1RQ4 634-3JE.0-Z K96	13000	1320	1320	2200	1800	600	200	280	630	2340	3640
1RQ4 636-3JE.0-Z K96	13750	1320	1320	2200	1800	600	200	280	630	2340	3640

[1)] The dimensions are also valid for the 1SB4/1SB6 and 1SG4/1SG6 series.

[2)] For the 60 Hz version, sleeve bearings are standard, "-Z **K96**" not necessary.

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Dimension drawings (continued)



Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
9 ... 11 kV, IM B3 type of construction, sleeve bearings – 1RQ4 series[1)]											
12-pole											
1RQ6 502-5JE.0-Z K96	6500	950	1140	1980	1320	500	150	200	500	2000	2880
1RQ6 504-5JE.0-Z K96	7050	950	1140	1980	1500	500	160	240	500	2000	3130
1RQ6 506-5JE.0-Z K96	7400	950	1140	1980	1500	500	160	240	500	2000	3130
1RQ6 560-5JE.0-Z K96	8150	1060	1210	2040	1400	530	170	240	560	2260	3170
1RQ6 562-5JE.0-Z K96	8700	1060	1210	2040	1400	530	170	240	560	2260	3170
1RQ6 564-5JE.0-Z K96	9550	1060	1210	2040	1600	530	180	240	560	2260	3400
1RQ6 566-5JE.0-Z K96	10000	1060	1210	2040	1600	530	180	240	560	2260	3400
1RQ4 630-5JE.0-Z K96	11350	1320	1320	2200	1600	600	200	280	630	2340	3400
1RQ4 632-5JE.0-Z K96	11900	1320	1320	2200	1600	600	200	280	630	2340	3400
1RQ4 634-5JE.0-Z K96	12950	1320	1320	2200	1800	600	200	280	630	2340	3640
1RQ4 636-5JE.0-Z K96	13650	1320	1320	2200	1800	600	200	280	630	2340	3640

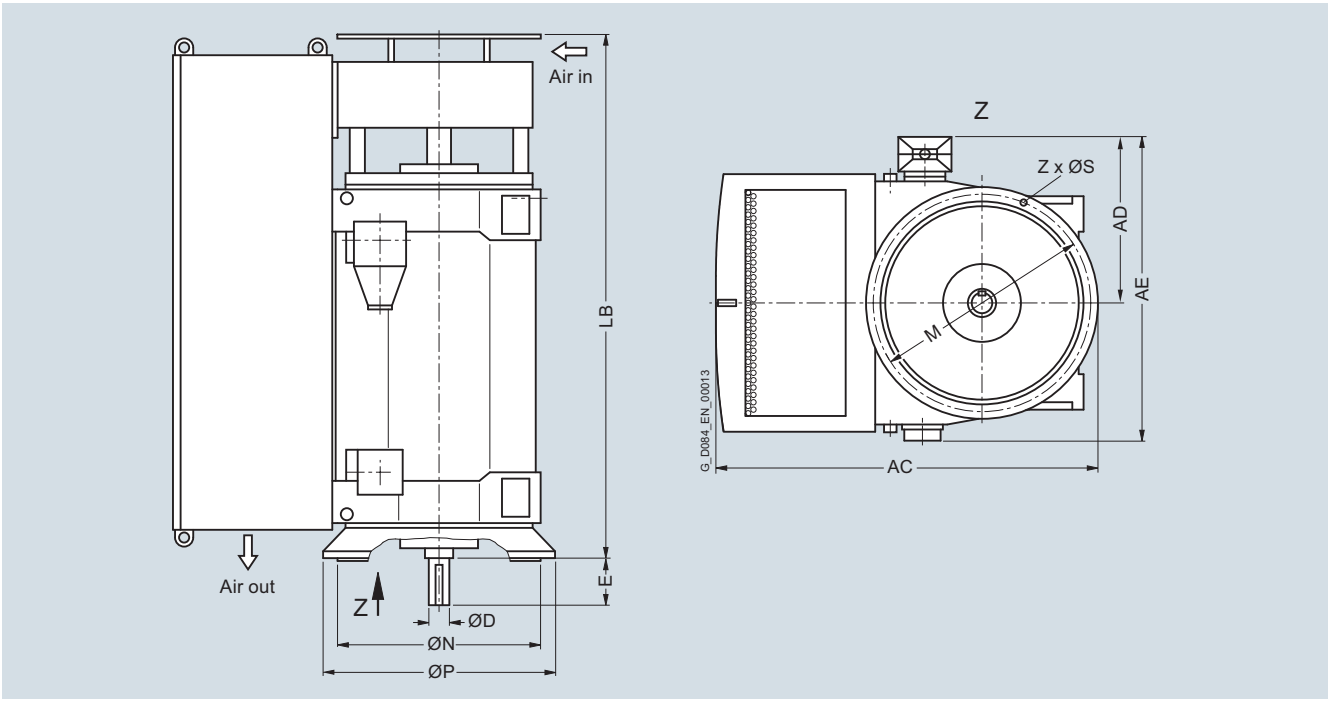
Note:

Higher pole numbers are available on request.

[1)] The dimensions are also valid for the 1SB4/1SB6 and 1SG4/1SG6 series.

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Dimension drawings



Motor type	Weight	Dimensions										
		AC	AD[1]	AE[1]	D	E	LB	P	N	M	S	Z
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Quantity
Up to 6.6 kV, IM V1 type of construction, anti-friction bearings – series 1RQ4, 1RQ6[2]												
4-pole												
1RQ6 450-4JJ.4	4750	1967	930	1620	130	200	2730	1150	1000	1080	26	8
1RQ6 452-4JJ.4	5000	1967	930	1620	130	200	2730	1150	1000	1080	26	8
1RQ6 454-4JJ.4	5400	1967	930	1620	140	200	2940	1150	1000	1080	26	8
1RQ6 456-4JJ.4	5700	1967	930	1620	140	200	2940	1150	1000	1080	26	8
1RQ6 500-4JE.4	6050	2130	1000	1810	140	200	2560	1250	1120	1180	26	8
1RQ6 502-4JE.4	6250	2130	1000	1810	140	200	2560	1250	1120	1180	26	8
1RQ6 504-4JE.4	6950	2130	1000	1810	150	200	2770	1250	1120	1180	26	8
1RQ6 506-4JE.4	7300	2130	1000	1810	150	200	2770	1250	1120	1180	26	8
1RQ6 560-4JE.4	8200	2400	1210	2100	170	240	2800	1400	1250	1320	26	8
1RQ6 562-4JE.4	8600	2400	1210	2100	170	240	2800	1400	1250	1320	26	8
1RQ6 564-4JE.4[3]	9500	2400	1210	2100	180	240	3030	1400	1250	1320	26	8
1RQ6 566-4JE.4[3]	9950	2400	1210	2100	180	240	3030	1400	1250	1320	26	8
1RQ4 630-4JE.4[3]	12750	2840	1330	2300	200	280	3170	2000	1800	1900	33	8
1RQ4 632-4JE.4[3]	13450	2840	1330	2300	200	280	3170	2000	1800	1900	33	8
1RQ4 634-4JE.4[3]	14550	2840	1330	2300	200	280	3410	2000	1800	1900	33	8
1RQ4 636-4JE.4[3]	15100	2840	1330	2300	200	280	3410	2000	1800	1900	33	8

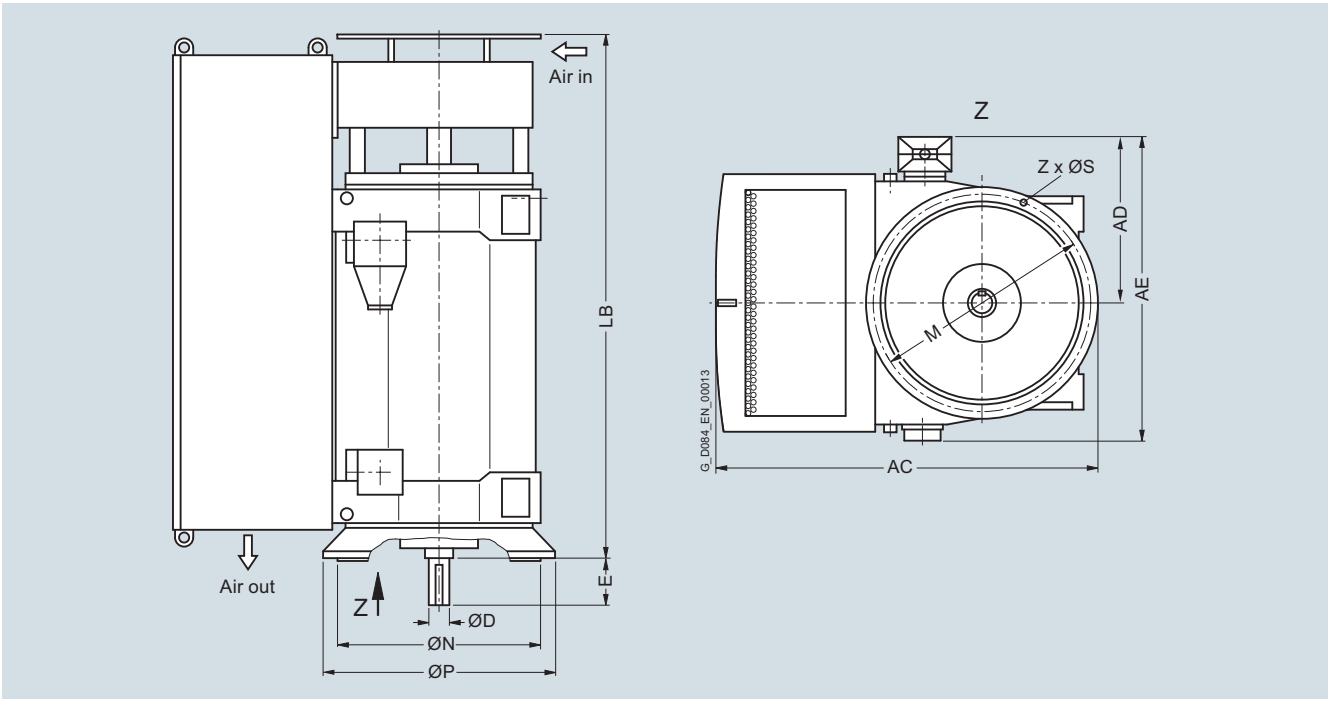
[1] The value applies for 6 kV. When a lower voltage is selected, the rated current increases. For rated currents above 315 A, the dimension increases by 140 mm.

[2] The dimensions are also valid for the 1SB4/1SB6 and 1SG4/1SG6 series.

[3] Vertical type of construction, only in the 50 Hz version.

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Dimension drawings (continued)



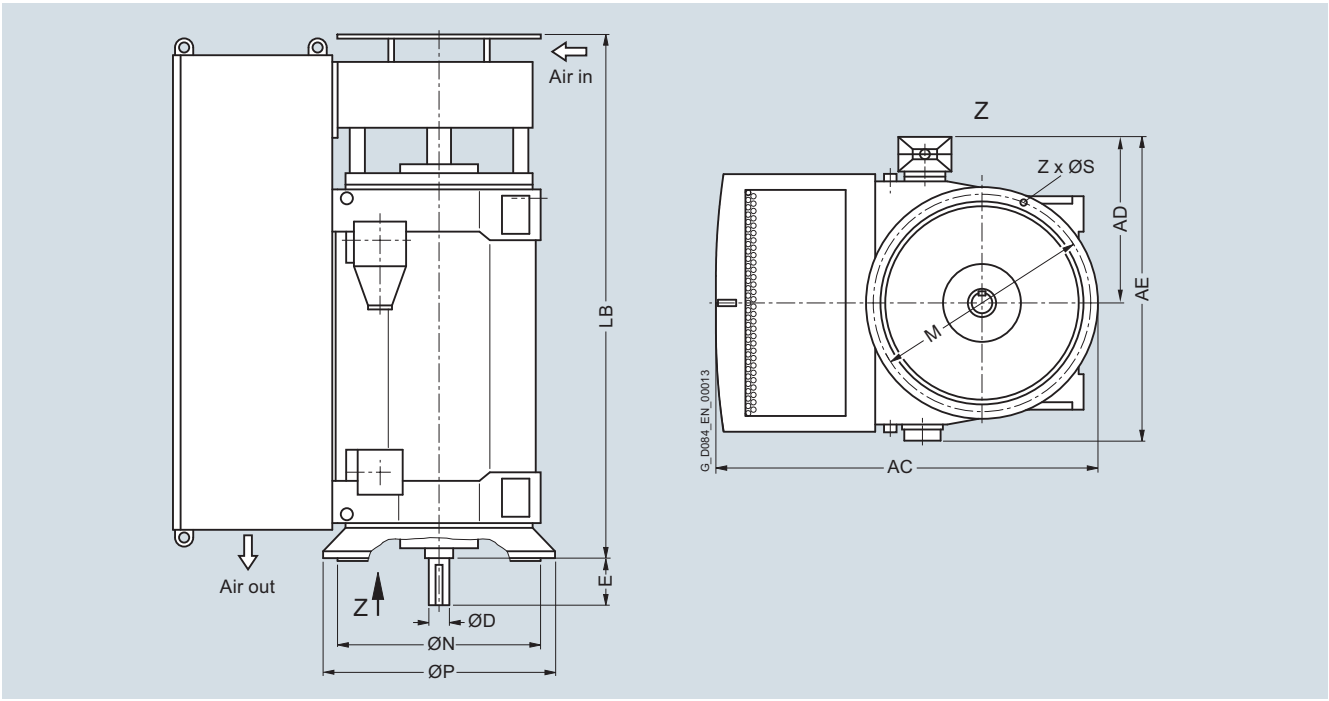
Motor type	Weight	Dimensions										
		AC	AD[1]	AE[1]	D	E	LB	P	N	M	S	Z
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Quantity
Up to 6.6 kV, IM V1 type of construction, anti-friction bearings – series 1RQ4, 1RQ6[2]												
6-pole												
1RQ6 450-6JJ.4	4850	1967	930	1620	130	200	2730	1150	1000	1080	26	8
1RQ6 452-6JJ.4	5150	1967	930	1620	130	200	2730	1150	1000	1080	26	8
1RQ6 454-6JJ.4	5500	1967	930	1620	140	200	2940	1150	1000	1080	26	8
1RQ6 456-6JJ.4	5850	1967	930	1620	140	200	2940	1150	1000	1080	26	8
1RQ6 500-6JE.4	6200	2130	1000	1810	150	200	2560	1250	1120	1180	26	8
1RQ6 502-6JE.4	6550	2130	1000	1810	150	200	2560	1250	1120	1180	26	8
1RQ6 504-6JE.4	7100	2130	1000	1810	160	240	2770	1250	1120	1180	26	8
1RQ6 506-6JE.4	7500	2130	1000	1810	160	240	2770	1250	1120	1180	26	8
1RQ6 560-6JE.4	8300	2400	1070	1960	170	240	2800	1400	1250	1320	26	8
1RQ6 562-6JE.4	8800	2400	1070	1960	170	240	2800	1400	1250	1320	26	8
1RQ6 564-6JE.4	9750	2400	1210	2100	180	240	3030	1400	1250	1320	26	8
1RQ6 566-6JE.4	10200	2400	1210	2100	180	240	3030	1400	1250	1320	26	8
1RQ4 630-6JE.4	13050	2840	1330	2300	200	280	3170	2000	1800	1900	33	8
1RQ4 632-6JE.4	13650	2840	1330	2300	200	280	3170	2000	1800	1900	33	8
1RQ4 634-6JE.4	14550	2840	1330	2300	200	280	3410	2000	1800	1900	33	8
1RQ4 636-6JE.4	15400	2840	1330	2300	200	280	3410	2000	1800	1900	33	8
8-pole												
1RQ6 450-8JJ.4	4850	1967	930	1620	140	200	2730	1150	1000	1080	26	8
1RQ6 452-8JJ.4	5150	1967	930	1620	140	200	2730	1150	1000	1080	26	8
1RQ6 454-8JJ.4	5550	1967	930	1620	140	200	2940	1150	1000	1080	26	8
1RQ6 456-8JJ.4	5900	1967	930	1620	140	200	2940	1150	1000	1080	26	8
1RQ6 500-8JE.4	6200	2130	1000	1810	150	200	2560	1250	1120	1180	26	8
1RQ6 502-8JE.4	6600	2130	1000	1810	150	200	2560	1250	1120	1180	26	8
1RQ6 504-8JE.4	7100	2130	1000	1810	160	240	2770	1250	1120	1180	26	8

[1] The value applies for 6 kV. When a lower voltage is selected, the rated current increases. For rated currents above 315 A, the dimension increases by 140 mm.

[2] The dimensions are also valid for the 1SB4/1SB6 and 1SG4/1SG6 series.

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Dimension drawings (continued)



Motor type	Weight	Dimensions										
		AC	AD[1]	AE[1]	D	E	LB	P	N	M	S	Z
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Quantity
Up to 6.6 kV, IM V1 type of construction, anti-friction bearings – series 1RQ4, 1RQ6[2]												
8-pole												
1RQ6 506-8JE.4	7500	2130	1000	1810	160	240	2770	1250	1120	1180	26	8
1RQ6 560-8JE.4	8250	2400	1070	1960	170	240	2800	1400	1250	1320	26	8
1RQ6 562-8JE.4	8800	2400	1070	1960	170	240	2800	1400	1250	1320	26	8
1RQ6 564-8JE.4	9650	2400	1070	1960	180	240	3030	1400	1250	1320	26	8
1RQ6 566-8JE.4	10100	2400	1070	1960	180	240	3030	1400	1250	1320	26	8
1RQ4 630-8JE.4[3]	12850	2840	1180	2150	200	280	3170	2000	1800	1900	33	8
1RQ4 632-8JE.4[3]	13600	2840	1330	2300	200	280	3170	2000	1800	1900	33	8
1RQ4 634-8JE.4[3]	14550	2840	1330	2300	200	280	3410	2000	1800	1900	33	8
1RQ4 636-8JE.4[3]	15300	2840	1330	2300	200	280	3410	2000	1800	1900	33	8
10-pole												
1RQ6 450-3JJ.4	4850	1967	930	1620	140	200	2730	1150	1000	1080	26	8
1RQ6 452-3JJ.4	5150	1967	930	1620	140	200	2730	1150	1000	1080	26	8
1RQ6 454-3JJ.4	5550	1967	930	1620	140	200	2940	1150	1000	1080	26	8
1RQ6 456-3JJ.4	5900	1967	930	1620	140	200	2940	1150	1000	1080	26	8
1RQ6 500-3JE.4	6150	2130	1000	1810	150	200	2560	1250	1120	1180	26	8
1RQ6 502-3JE.4	6450	2130	1000	1810	150	200	2560	1250	1120	1180	26	8
1RQ6 504-3JE.4	7050	2130	1000	1810	160	240	2770	1250	1120	1180	26	8
1RQ6 506-3JE.4	7450	2130	1000	1810	160	240	2770	1250	1120	1180	26	8
1RQ6 560-3JE.4	8200	2400	1070	1960	170	240	2800	1400	1250	1320	26	8
1RQ6 562-3JE.4	8750	2400	1070	1960	170	240	2800	1400	1250	1320	26	8
1RQ6 564-3JE.4	9600	2400	1070	1960	180	240	3030	1400	1250	1320	26	8
1RQ6 566-3JE.4	10050	2400	1070	1960	180	240	3030	1400	1250	1320	26	8

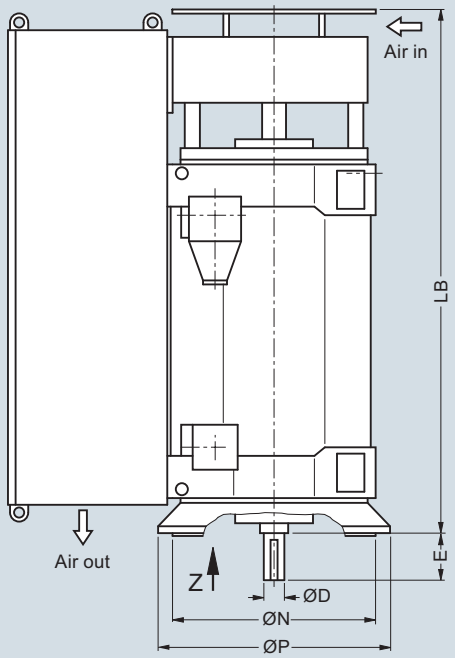
[1] The value applies for 6 kV. When a lower voltage is selected, the rated current increases. For rated currents above 315 A, the dimension increases by 140 mm.

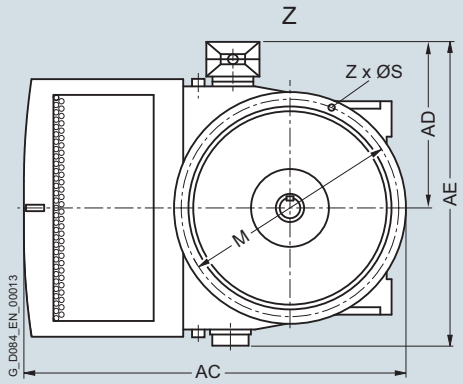
[2] The dimensions are also valid for the 1SB4/1SB6 and 1SG4/1SG6 series.

[3] Vertical type of construction, only in the 50 Hz version.

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Dimension drawings (continued)





Motor type	Weight	Dimensions										
		AC	AD[1]	AE[1]	D	E	LB	P	N	M	S	Z
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Quantity
Up to 6.6 kV, IM V1 type of construction, anti-friction bearings – series 1RQ4, 1RQ6[2]												
10-pole												
1RQ4 630-3JE.4[3]	12850	2840	1180	2150	200	280	3170	2000	1800	1900	33	8
1RQ4 632-3JE.4[3]	13450	2840	1180	2150	200	280	3170	2000	1800	1900	33	8
1RQ4 634-3JE.4[3]	14550	2840	1180	2150	200	280	3410	2000	1800	1900	33	8
1RQ4 636-3JE.4[3]	15200	2840	1180	2150	200	280	3410	2000	1800	1900	33	8
12-pole												
1RQ6 450-5JJ.4	4850	1967	930	1620	140	200	2730	1150	1000	1080	26	8
1RQ6 452-5JJ.4	5150	1967	930	1620	140	200	2730	1150	1000	1080	26	8
1RQ6 454-5JJ.4	5550	1967	930	1620	140	200	2940	1150	1000	1080	26	8
1RQ6 456-5JJ.4	5900	1967	930	1620	140	200	2940	1150	1000	1080	26	8
1RQ6 500-5JE.4	6150	2130	1000	1810	150	200	2560	1250	1120	1180	26	8
1RQ6 502-5JE.4	6500	2130	1000	1810	150	200	2560	1250	1120	1180	26	8
1RQ6 504-5JE.4	7050	2130	1000	1810	160	240	2770	1250	1120	1180	26	8
1RQ6 506-5JE.4	7500	2130	1000	1810	160	240	2770	1250	1120	1180	26	8
1RQ6 560-5JE.4	8200	2400	1070	1960	170	240	2800	1400	1250	1320	26	8
1RQ6 562-5JE.4	8750	2400	1070	1960	170	240	2800	1400	1250	1320	26	8
1RQ6 564-5JE.4	9550	2400	1070	1960	180	240	3030	1400	1250	1320	26	8
1RQ6 566-5JE.4	10050	2400	1070	1960	180	240	3030	1400	1250	1320	26	8
1RQ4 630-5JE.4[3]	12750	2840	1180	2150	200	280	3170	2000	1800	1900	33	8
1RQ4 632-5JE.4[3]	13400	2840	1180	2150	200	280	3170	2000	1800	1900	33	8
1RQ4 634-5JE.4[3]	14450	2840	1180	2150	200	280	3410	2000	1800	1900	33	8
1RQ4 636-5JE.4[3]	15150	2840	1180	2150	200	280	3410	2000	1800	1900	33	8

Note:

Higher pole numbers are available on request.

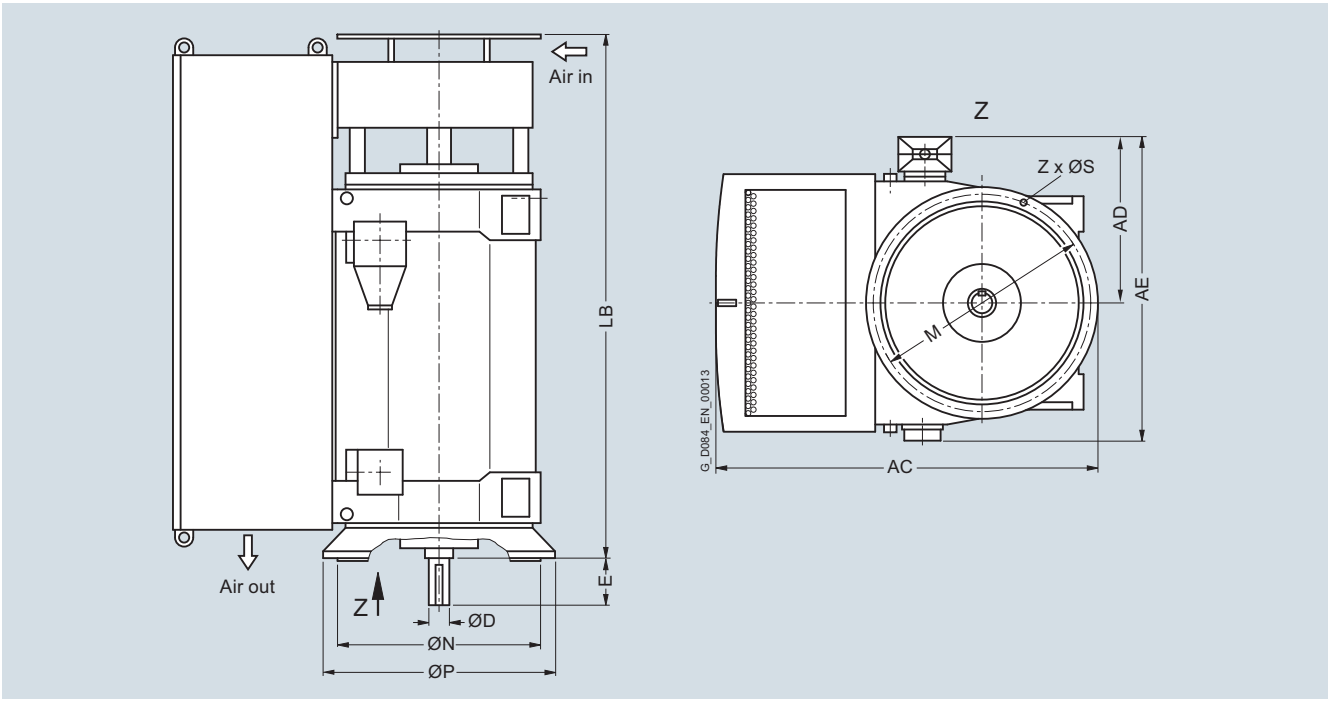
[1] The value applies for 6 kV. When a lower voltage is selected, the rated current increases. For rated currents above 315 A, the dimension increases by 140 mm.

[2] The dimensions are also valid for the 1SB4/1SB6 and 1SG4/1SG6 series.

[3] Vertical type of construction, only in the 50 Hz version.

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Dimension drawings

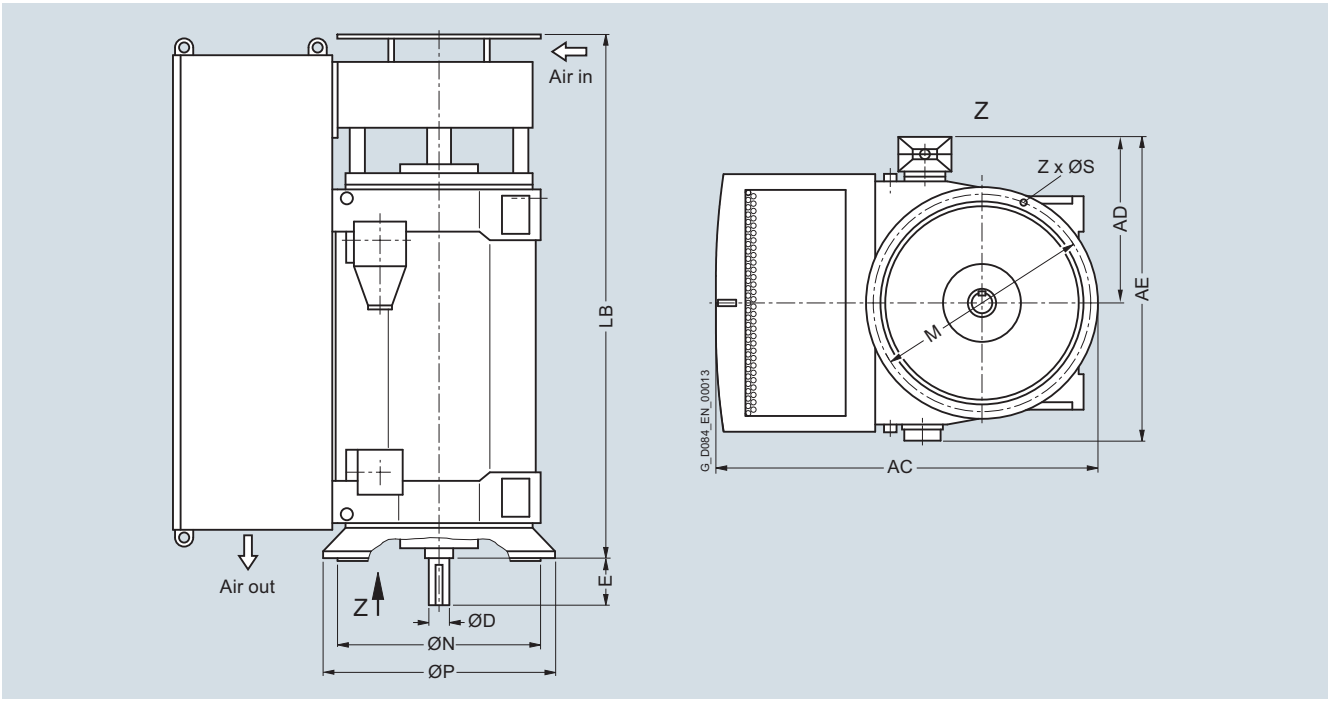


Motor type	Weight	Dimensions										
		AC	AD	AE	D	E	LB	P	N	M	S	Z
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Quantity
9 ... 11 kV, IM V1 type of construction, anti-friction bearings – series 1RQ4, 1RQ6[1)]												
4-pole												
1RQ6 450-4JJ.4	4750	1967	1070	1840	130	200	2730	1150	1000	1080	26	8
1RQ6 452-4JJ.4	5000	1967	1070	1840	130	200	2730	1150	1000	1080	26	8
1RQ6 454-4JJ.4	5400	1967	1070	1840	130	200	2940	1150	1000	1080	26	8
1RQ6 456-4JJ.4	5700	1967	1070	1840	130	200	2940	1150	1000	1080	26	8
1RQ6 500-4JE.4	6050	2130	1140	1950	140	200	2560	1250	1120	1180	26	8
1RQ6 502-4JE.4	6250	2130	1140	1950	140	200	2560	1250	1120	1180	26	8
1RQ6 504-4JE.4	6950	2130	1140	1950	150	200	2770	1250	1120	1180	26	8
1RQ6 506-4JE.4	7300	2130	1140	1950	150	200	2770	1250	1120	1180	26	8
1RQ6 560-4JE.4	8050	2400	1210	2100	170	240	2800	1400	1250	1320	26	8
1RQ6 562-4JE.4	8500	2400	1210	2100	170	240	2800	1400	1250	1320	26	8
1RQ6 564-4JE.4	9400	2400	1210	2100	180	240	3030	1400	1250	1320	26	8
1RQ6 566-4JE.4	9800	2400	1210	2100	180	240	3030	1400	1250	1320	26	8
1RQ4 630-4JE.4	12750	2840	1320	2290	200	280	3170	2000	1800	1900	33	8
1RQ4 632-4JE.4	13450	2840	1320	2290	200	280	3170	2000	1800	1900	33	8
1RQ4 634-4JE.4	14550	2840	1320	2290	200	280	3410	2000	1800	1900	33	8
1RQ4 636-4JE.4	15100	2840	1330	2300	200	280	3410	2000	1800	1900	33	8
6-pole												
1RQ6 450-6JJ.4	4850	1967	1070	1840	140	200	2730	1150	1000	1080	26	8
1RQ6 452-6JJ.4	5150	1967	1070	1840	140	200	2730	1150	1000	1080	26	8
1RQ6 454-6JJ.4	5500	1967	1070	1840	140	200	2940	1150	1000	1080	26	8
1RQ6 456-6JJ.4	5850	1967	1070	1840	140	200	2940	1150	1000	1080	26	8
1RQ6 500-6JE.4	6150	2130	1140	1950	150	200	2560	1250	1120	1180	26	8

[1)] The dimensions are also valid for the 1SB4/1SB6 and 1SG4/1SG6 series.

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Dimension drawings (continued)

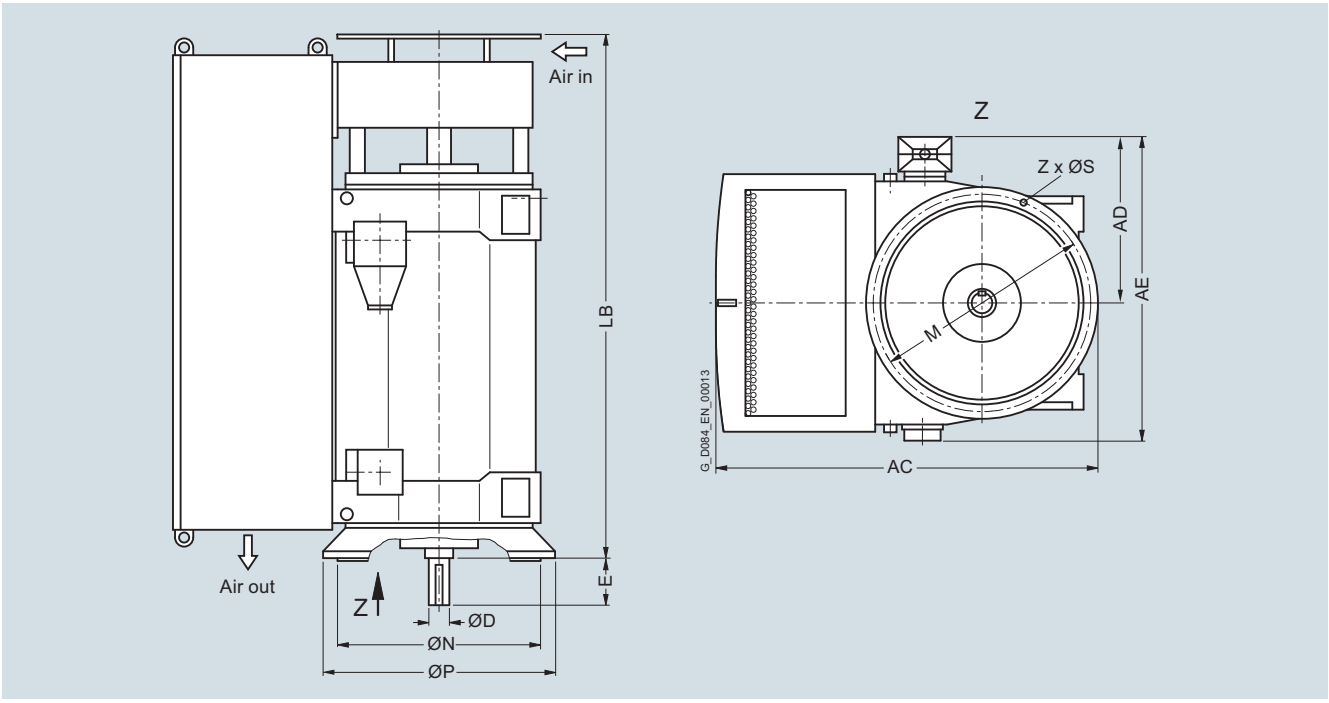


Motor type	Weight	Dimensions										
		AC	AD	AE	D	E	LB	P	N	M	S	Z
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Quantity
9 ... 11 kV, IM V1 type of construction, anti-friction bearings – series 1RQ4, 1RQ6[1)]												
6-pole												
1RQ6 502-6JE.4	6550	2130	1140	1950	150	200	2560	1250	1120	1180	26	8
1RQ6 504-6JE.4	7100	2130	1140	1950	160	240	2770	1250	1120	1180	26	8
1RQ6 506-6JE.4	7500	2130	1140	1950	160	240	2770	1250	1120	1180	26	8
1RQ6 560-6JE.4	8250	2400	1210	2100	170	240	2800	1400	1250	1320	26	8
1RQ6 562-6JE.4	8750	2400	1210	2100	170	240	2800	1400	1250	1320	26	8
1RQ6 564-6JE.4	9600	2400	1210	2100	180	240	3030	1400	1250	1320	26	8
1RQ6 566-6JE.4	10050	2400	1210	2100	180	240	3030	1400	1250	1320	26	8
1RQ4 630-6JE.4	13050	2840	1320	2290	200	280	3170	2000	1800	1900	33	8
1RQ4 632-6JE.4	13650	2840	1320	2290	200	280	3170	2000	1800	1900	33	8
1RQ4 634-6JE.4	14550	2840	1320	2290	200	280	3410	2000	1800	1900	33	8
1RQ4 636-6JE.4	15400	2840	1320	2290	200	280	3410	2000	1800	1900	33	8
8-pole												
1RQ6 450-8JJ.4	4850	1967	1070	1840	140	200	2730	1150	1000	1080	26	8
1RQ6 452-8JJ.4	5150	1967	1070	1840	140	200	2730	1150	1000	1080	26	8
1RQ6 454-8JJ.4	5550	1967	1070	1840	140	200	2940	1150	1000	1080	26	8
1RQ6 456-8JJ.4	5900	1967	1070	1840	140	200	2940	1150	1000	1080	26	8
1RQ6 500-8JE.4	6200	2130	1140	1950	150	200	2560	1250	1120	1180	26	8
1RQ6 502-8JE.4	6550	2130	1140	1950	150	200	2560	1250	1120	1180	26	8
1RQ6 504-8JE.4	7100	2130	1140	1950	160	240	2770	1250	1120	1180	26	8
1RQ6 506-8JE.4	7500	2130	1140	1950	160	240	2770	1250	1120	1180	26	8
1RQ6 560-8JE.4	8200	2400	1210	2100	170	240	2800	1400	1250	1320	26	8
1RQ6 562-8JE.4	8750	2400	1210	2100	170	240	2800	1400	1250	1320	26	8
1RQ6 564-8JE.4	9600	2400	1210	2100	180	240	3030	1400	1250	1320	26	8

[1)] The dimensions are also valid for the 1SB4/1SB6 and 1SG4/1SG6 series.

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Dimension drawings (continued)

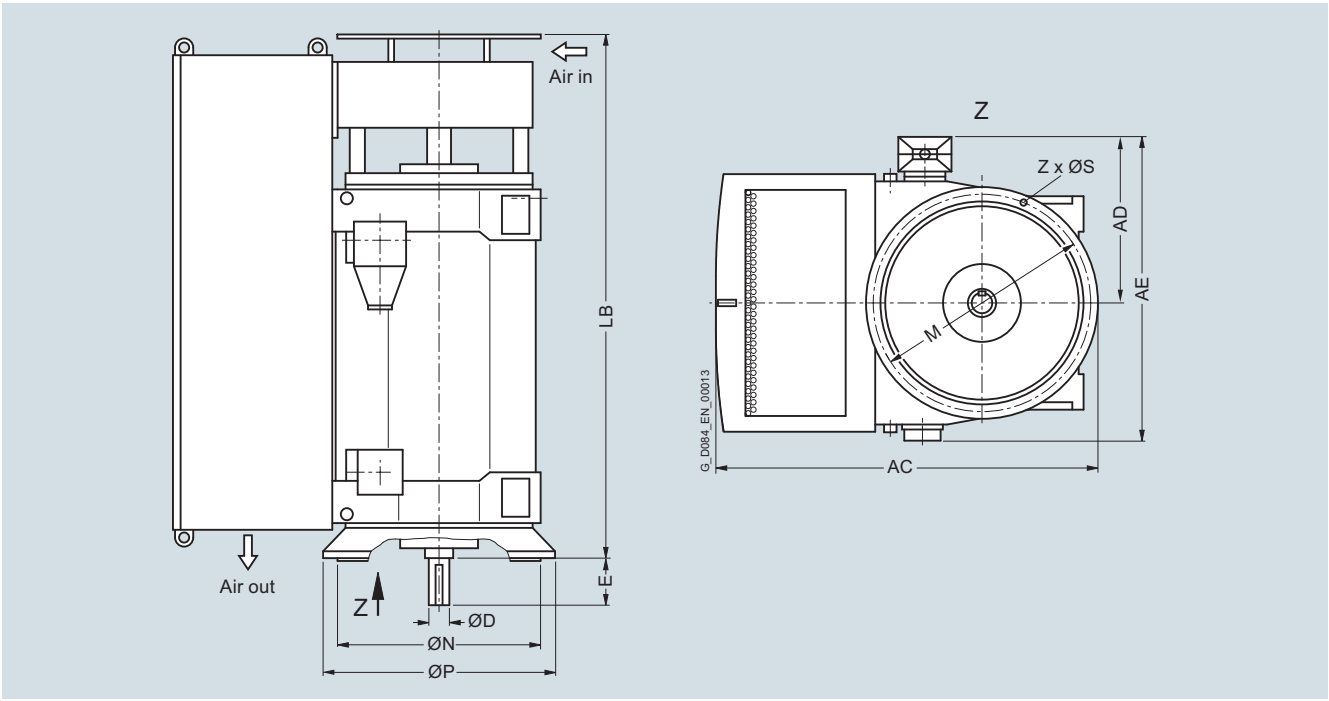


Motor type	Weight	Dimensions										
		AC	AD	AE	D	E	LB	P	N	M	S	Z
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Quantity
9 ... 11 kV, IM V1 type of construction, anti-friction bearings – 1RQ4 series[1)]												
8-pole												
1RQ6 566-8JE.4	10000	2400	1210	2100	180	240	3030	1400	1250	1320	26	8
1RQ4 630-8JE.4	12850	2840	1320	2290	200	280	3170	2000	1800	1900	33	8
1RQ4 632-8JE.4	13600	2840	1320	2290	200	280	3170	2000	1800	1900	33	8
1RQ4 634-8JE.4	14550	2840	1320	2290	200	280	3410	2000	1800	1900	33	8
1RQ4 636-8JE.4	15300	2840	1320	2290	200	280	3410	2000	1800	1900	33	8
10-pole												
1RQ6 500-3JE.4	6150	2130	1140	1950	150	200	2560	1250	1120	1180	26	8
1RQ6 502-3JE.4	6450	2130	1140	1950	150	200	2560	1250	1120	1180	26	8
1RQ6 504-3JE.4	7000	2130	1140	1950	160	240	2770	1250	1120	1180	26	8
1RQ6 506-3JE.4	7450	2130	1140	1950	160	240	2770	1250	1120	1180	26	8
1RQ6 560-3JE.4	8700	2400	1210	2100	170	240	2800	1400	1250	1320	26	8
1RQ6 562-3JE.4	9350	2400	1210	2100	170	240	2800	1400	1250	1320	26	8
1RQ6 564-3JE.4	10150	2400	1210	2100	180	240	3030	1400	1250	1320	26	8
1RQ6 566-3JE.4	10600	2400	1210	2100	180	240	3030	1400	1250	1320	26	8
1RQ4 630-3JE.4	12850	2840	1320	2290	200	280	3170	2000	1800	1900	33	8
1RQ4 632-3JE.4	13450	2840	1320	2290	200	280	3170	2000	1800	1900	33	8
1RQ4 634-3JE.4	14550	2840	1320	2290	200	280	3410	2000	1800	1900	33	8
1RQ4 636-3JE.4	15200	2840	1320	2290	200	280	3410	2000	1800	1900	33	8

[1)] The dimensions are also valid for the 1SB4/1SB6 and 1SG4/1SG6 series.

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Dimension drawings (continued)



Motor type	Weight	Dimensions										
		AC	AD	AE	D	E	LB	P	N	M	S	Z
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Quantity
9 ... 11 kV, IM V1 type of construction, anti-friction bearings – 1RQ4 series[1)]												
12-pole												
1RQ6 502-5JE.4	6500	2130	1140	1950	150	200	2560	1250	1120	1180	26	8
1RQ6 504-5JE.4	7000	2130	1140	1950	160	240	2770	1250	1120	1180	26	8
1RQ6 506-5JE.4	7450	2130	1140	1950	160	240	2770	1250	1120	1180	26	8
1RQ6 560-5JE.4	8200	2400	1210	2100	170	240	2800	1400	1250	1320	26	8
1RQ6 562-5JE.4	8700	2400	1210	2100	170	240	2800	1400	1250	1320	26	8
1RQ6 564-5JE.4	9550	2400	1210	2100	180	240	3030	1400	1250	1320	26	8
1RQ6 566-5JE.4	10000	2400	1210	2100	180	240	3030	1400	1250	1320	26	8
1RQ4 630-5JE.4	12750	2840	1320	2290	200	280	3170	2000	1800	1900	33	8
1RQ4 632-5JE.4	13400	2840	1320	2290	200	280	3170	2000	1800	1900	33	8
1RQ4 634-5JE.4	14450	2840	1320	2290	200	280	3410	2000	1800	1900	33	8
1RQ4 636-5JE.4	15150	2840	1320	2290	200	280	3410	2000	1800	1900	33	8

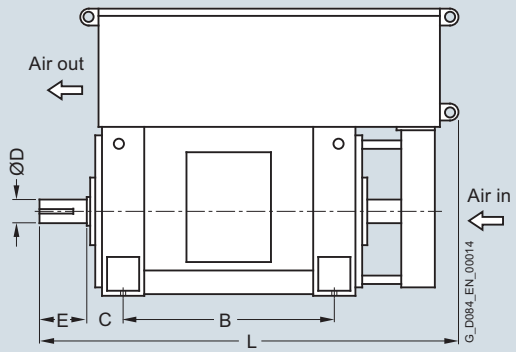
Note:

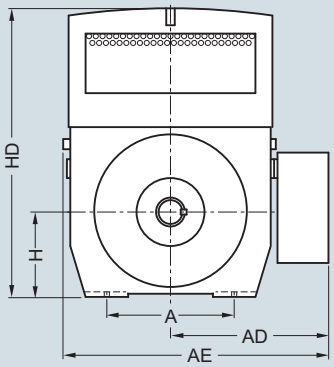
Higher pole numbers are available on request.

[1)] The dimensions are also valid for the 1SB4/1SB6 and 1SG4/1SG6 series.

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Dimension drawings





Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, NEMA version, IM B3 type of construction, anti-friction bearings – 1RQ6 series											
4-pole											
1RQ6 710-4JJ.0[1)]	21100	1500	1500	2530	2000	355	220	280	710	2820	4720
1RQ6 712-4JJ.0[1)]	21900	1500	1500	2530	2000	355	220	280	710	2820	4720
1RQ6 714-4JJ.0[1)]	23400	1500	1500	2530	2240	355	220	280	710	2820	4960
1RQ6 716-4JJ.0[1)]	24400	1500	1500	2530	2240	355	220	280	710	2820	4960
6-pole											
1RQ6 710-6JJ.0	20400	1500	1500	2530	2000	355	240	330	710	2810	3890
1RQ6 712-6JJ.0	21100	1500	1500	2530	2000	355	240	330	710	2810	3890
1RQ6 714-6JJ.0	22800	1500	1500	2530	2240	355	240	330	710	2810	4130
1RQ6 716-6JJ.0	24000	1500	1500	2530	2240	355	240	330	710	2810	4130
8-pole											
1RQ6 710-8JJ.0	20200	1500	1500	2530	2000	355	240	330	710	2810	3890
1RQ6 712-8JJ.0	21000	1500	1500	2530	2000	355	240	330	710	2810	3890
1RQ6 714-8JJ.0	22600	1500	1500	2530	2240	355	240	330	710	2810	4130
1RQ6 716-8JJ.0	23700	1500	1500	2530	2240	355	240	330	710	2810	4130
10-pole											
1RQ6 710-3JJ.0	20000	1500	1500	2530	2000	355	240	330	710	2810	3890
1RQ6 712-3JJ.0	20900	1500	1500	2530	2000	355	240	330	710	2810	3890
1RQ6 714-3JJ.0	22500	1500	1500	2530	2240	355	240	330	710	2810	4130
1RQ6 716-3JJ.0	23600	1500	1500	2530	2240	355	240	330	710	2810	4130

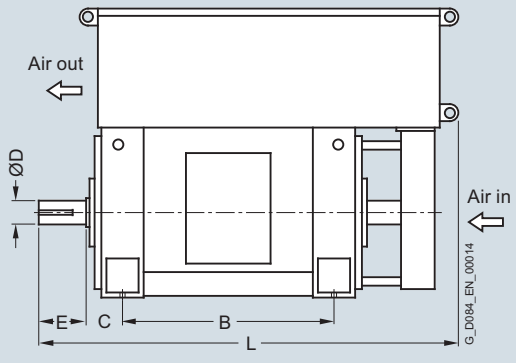
Note:

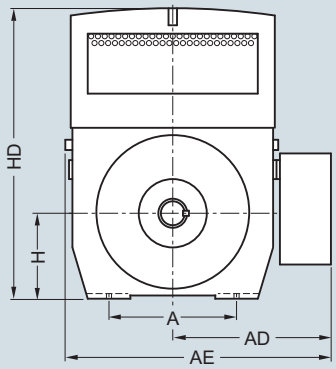
Higher pole numbers are available on request.

[1)] Anti-friction bearings only for 50 Hz operation.

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Dimension drawings





Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
9 ... 11 kV, NEMA version, IM B3 type of construction, anti-friction bearings – 1RQ6 series											
4-pole											
1RQ6 710-4JJ.0[1)]	20800	1500	1500	2530	2000	355	220	280	710	2820	4720
1RQ6 712-4JJ.0[1)]	21600	1500	1500	2530	2000	355	220	280	710	2820	4720
1RQ6 714-4JJ.0[1)]	23100	1500	1500	2530	2240	355	220	280	710	2820	4960
1RQ6 716-4JJ.0[1)]	24000	1500	1500	2530	2240	355	220	280	710	2820	4960
6-pole											
1RQ6 710-6JJ.0	20200	1500	1500	2530	2000	355	240	330	710	2810	3890
1RQ6 712-6JJ.0	21000	1500	1500	2530	2000	355	240	330	710	2810	3890
1RQ6 714-6JJ.0	22600	1500	1500	2530	2240	355	240	330	710	2810	4130
1RQ6 716-6JJ.0	23700	1500	1500	2530	2240	355	240	330	710	2810	4130
8-pole											
1RQ6 710-8JJ.0	20100	1500	1500	2530	2000	355	240	330	710	2810	3890
1RQ6 712-8JJ.0	20800	1500	1500	2530	2000	355	240	330	710	2810	3890
1RQ6 714-8JJ.0	22400	1500	1500	2530	2240	355	240	330	710	2810	4130
1RQ6 716-8JJ.0	23600	1500	1500	2530	2240	355	240	330	710	2810	4130
10-pole											
1RQ6 710-3JJ.0	19900	1500	1500	2530	2000	355	240	330	710	2810	3890
1RQ6 712-3JJ.0	20700	1500	1500	2530	2000	355	240	330	710	2810	3890
1RQ6 714-3JJ.0	22400	1500	1500	2530	2240	355	240	330	710	2810	4130
1RQ6 716-3JJ.0	23500	1500	1500	2530	2240	355	240	330	710	2810	4130

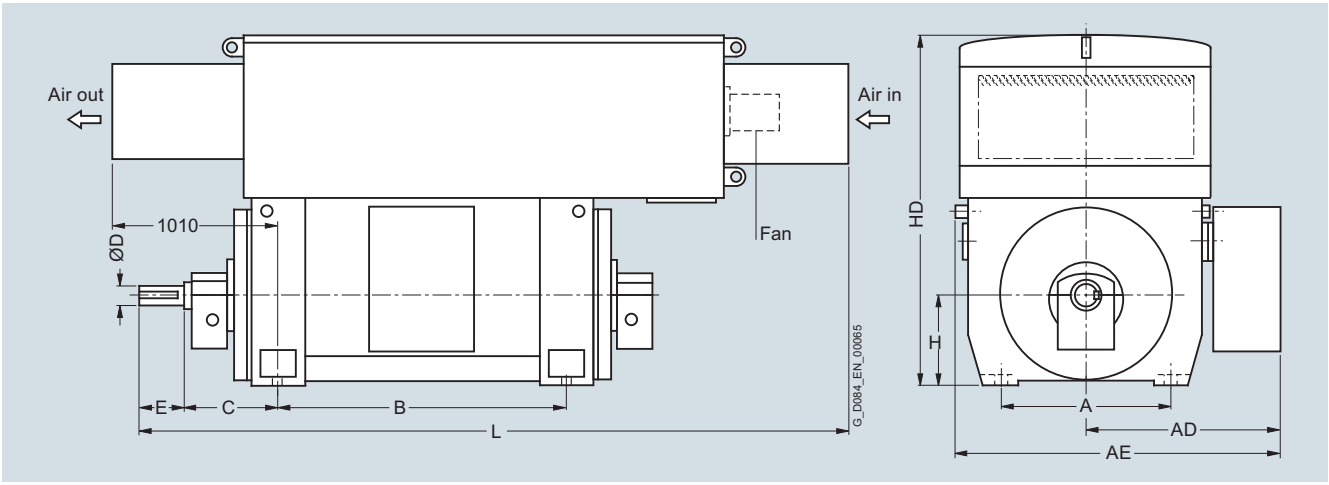
Note:

Higher pole numbers are available on request.

[1)] Anti-friction bearings only for 50 Hz operation.

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Dimension drawings

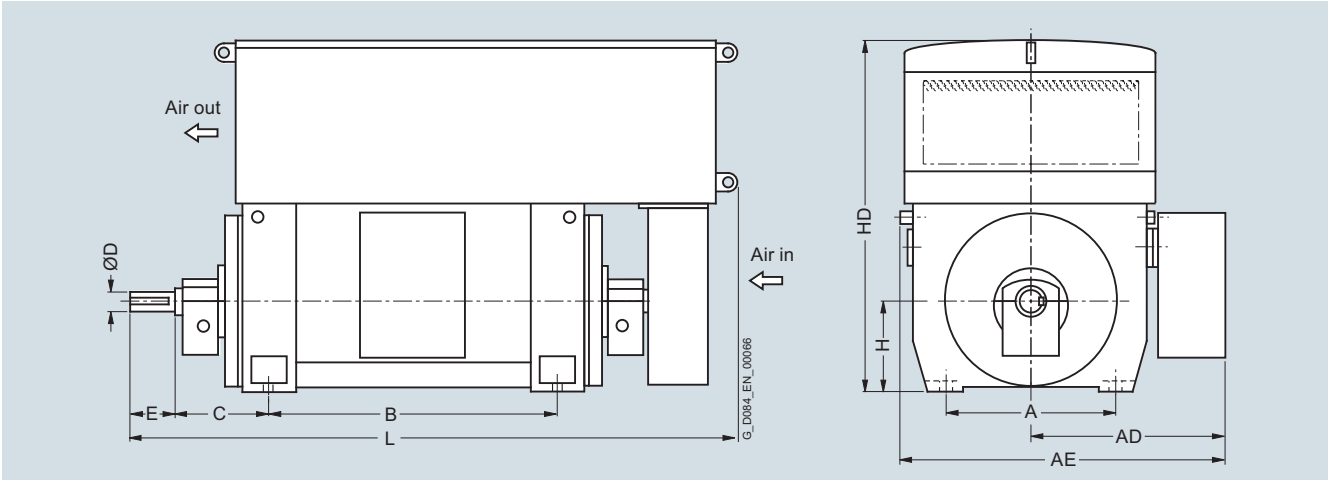


Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, NEMA version, IM B3 type of construction, sleeve bearings – 1RQ6 series											
2-pole											
1RQ6 710-2HJ.0	19300	1500	1500	2530	2000	600	180	240	710	2820	4940
1RQ6 712-2HJ.0	20100	1500	1500	2530	2000	600	180	240	710	2820	4940
1RQ6 714-2HJ.0	21400	1500	1500	2530	2240	600	180	240	710	2820	5180
1RQ6 716-2HJ.0	22400	1500	1500	2530	2240	600	180	240	710	2820	5180

Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
9 ... 11 kV, NEMA version, IM B3 type of construction, sleeve bearings – 1RQ6 series											
2-pole											
1RQ6 710-2HJ.0	19100	1500	1500	2530	2000	600	180	240	710	2820	4940
1RQ6 712-2HJ.0	19900	1500	1500	2530	2000	600	180	240	710	2820	4940
1RQ6 714-2HJ.0	21200	1500	1500	2530	2240	600	180	240	710	2820	5180
1RQ6 716-2HJ.0	22200	1500	1500	2530	2240	600	180	240	710	2820	5180

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Dimension drawings



Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, NEMA version, IM B3 type of construction, sleeve bearings – 1RQ6 series											
4-pole											
1RQ6 710-4JJ.0-Z K96[1)]	21100	1500	1500	2530	2000	530	220	280	710	2820	4890
1RQ6 712-4JJ.0-Z K96[1)]	21900	1500	1500	2530	2000	530	220	280	710	2820	4890
1RQ6 714-4JJ.0-Z K96[1)]	23400	1500	1500	2530	2240	530	220	280	710	2820	5130
1RQ6 716-4JJ.0-Z K96[1)]	24400	1500	1500	2530	2240	530	220	280	710	2820	5130
6-pole											
1RQ6 710-6JJ.0-Z K96	21300	1500	1500	2530	2000	670	240	330	710	2810	4200
1RQ6 712-6JJ.0-Z K96	22000	1500	1500	2530	2000	670	240	330	710	2810	4200
1RQ6 714-6JJ.0-Z K96	23700	1500	1500	2530	2240	670	240	330	710	2810	4440
1RQ6 716-6JJ.0-Z K96	24900	1500	1500	2530	2240	670	240	330	710	2810	4440
8-pole											
1RQ6 710-8JJ.0-Z K96	21100	1500	1500	2530	2000	670	240	330	710	2810	4200
1RQ6 712-8JJ.0-Z K96	21900	1500	1500	2530	2000	670	240	330	710	2810	4200
1RQ6 714-8JJ.0-Z K96	23500	1500	1500	2530	2240	670	240	330	710	2810	4440
1RQ6 716-8JJ.0-Z K96	24600	1500	1500	2530	2240	670	240	330	710	2810	4440
10-pole											
1RQ6 710-3JJ.0-Z K96	20900	1500	1500	2530	2000	670	240	330	710	2810	4200
1RQ6 712-3JJ.0-Z K96	21800	1500	1500	2530	2000	670	240	330	710	2810	4200
1RQ6 714-3JJ.0-Z K96	23400	1500	1500	2530	2240	670	240	330	710	2810	4440
1RQ6 716-3JJ.0-Z K96	24500	1500	1500	2530	2240	670	240	330	710	2810	4440

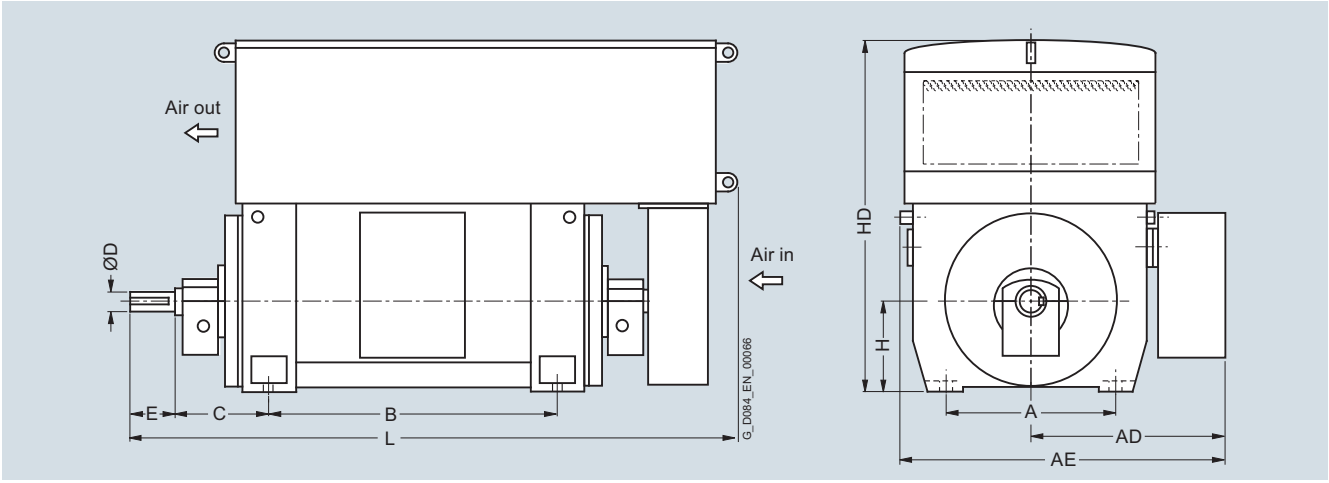
Note:

Higher pole numbers are available on request.

[1)] For the 60 Hz version, sleeve bearings are standard, "-Z **K96**" not necessary.

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Dimension drawings



Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
9 ... 11 kV, NEMA version, IM B3 type of construction, sleeve bearings – 1RQ6 series											
4-pole											
1RQ6 710-4JJ.0-Z K96[1)]	20800	1500	1500	2530	2000	530	220	280	710	2820	4890
1RQ6 712-4JJ.0-Z K96[1)]	21600	1500	1500	2530	2000	530	220	280	710	2820	4890
1RQ6 714-4JJ.0-Z K96[1)]	23100	1500	1500	2530	2240	530	220	280	710	2820	5130
1RQ6 716-4JJ.0-Z K96[1)]	24000	1500	1500	2530	2240	530	220	280	710	2820	5130
6-pole											
1RQ6 710-6JJ.0-Z K96	21100	1500	1500	2530	2000	670	240	330	710	2810	4200
1RQ6 712-6JJ.0-Z K96	21900	1500	1500	2530	2000	670	240	330	710	2810	4200
1RQ6 714-6JJ.0-Z K96	23500	1500	1500	2530	2240	670	240	330	710	2810	4440
1RQ6 716-6JJ.0-Z K96	24600	1500	1500	2530	2240	670	240	330	710	2810	4440
8-pole											
1RQ6 710-8JJ.0-Z K96	21000	1500	1500	2530	2000	670	240	330	710	2810	4200
1RQ6 712-8JJ.0-Z K96	21700	1500	1500	2530	2000	670	240	330	710	2810	4200
1RQ6 714-8JJ.0-Z K96	23300	1500	1500	2530	2240	670	240	330	710	2810	4440
1RQ6 716-8JJ.0-Z K96	24500	1500	1500	2530	2240	670	240	330	710	2810	4440
10-pole											
1RQ6 710-3JJ.0-Z K96	20800	1500	1500	2530	2000	670	240	330	710	2810	4200
1RQ6 712-3JJ.0-Z K96	21600	1500	1500	2530	2000	670	240	330	710	2810	4200
1RQ6 714-3JJ.0-Z K96	23300	1500	1500	2530	2240	670	240	330	710	2810	4440
1RQ6 716-3JJ.0-Z K96	24400	1500	1500	2530	2240	670	240	330	710	2810	4440

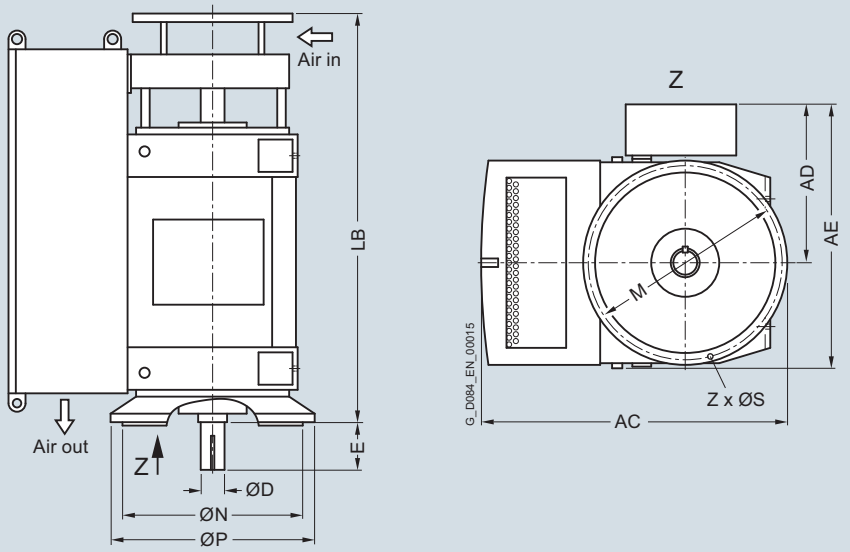
Note:

Higher pole numbers are available on request.

[2)] For the 60 Hz version, sleeve bearings are standard, "-Z **K96**" not necessary.

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Dimension drawings



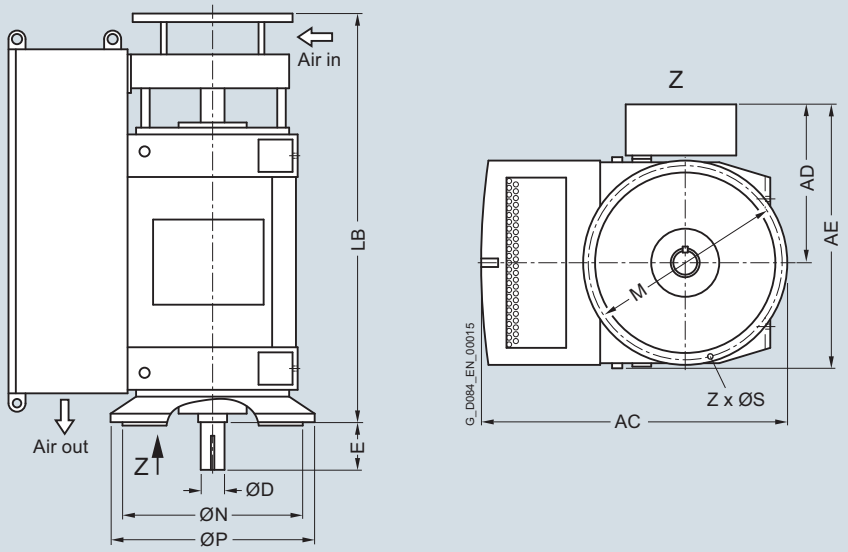
Motor type	Weight	Dimensions										
		AC	AD	AE	D	E	LB	P	N	M	S	Z
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Quantity
Up to 6.6 kV, NEMA version, IM V1 type of construction, anti-friction bearings – 1RQ6 series												
6-pole												
1RQ6 710-6JJ.4	22500	3100	1500	2530	240	330	3920	2000	1800	1900	33	24
1RQ6 712-6JJ.4	23200	3100	1500	2530	240	330	3920	2000	1800	1900	33	24
1RQ6 714-6JJ.4	24900	3100	1500	2530	240	330	4160	2000	1800	1900	33	24
1RQ6 716-6JJ.4	26100	3100	1500	2530	240	330	4160	2000	1800	1900	33	24
8-pole												
1RQ6 710-8JJ.4	22300	3100	1500	2530	240	330	3920	2000	1800	1900	33	24
1RQ6 712-8JJ.4	23100	3100	1500	2530	240	330	3920	2000	1800	1900	33	24
1RQ6 714-8JJ.4	24700	3100	1500	2530	240	330	4160	2000	1800	1900	33	24
1RQ6 716-8JJ.4	25800	3100	1500	2530	240	330	4160	2000	1800	1900	33	24
10-pole												
1RQ6 710-3JJ.4	22100	3100	1500	2530	240	330	3920	2000	1800	1900	33	24
1RQ6 712-3JJ.4	23000	3100	1500	2530	240	330	3920	2000	1800	1900	33	24
1RQ6 714-3JJ.4	24600	3100	1500	2530	240	330	4160	2000	1800	1900	33	24
1RQ6 716-3JJ.4	25700	3100	1500	2530	240	330	4160	2000	1800	1900	33	24

Note:

Higher pole numbers are available on request.

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Dimension drawings



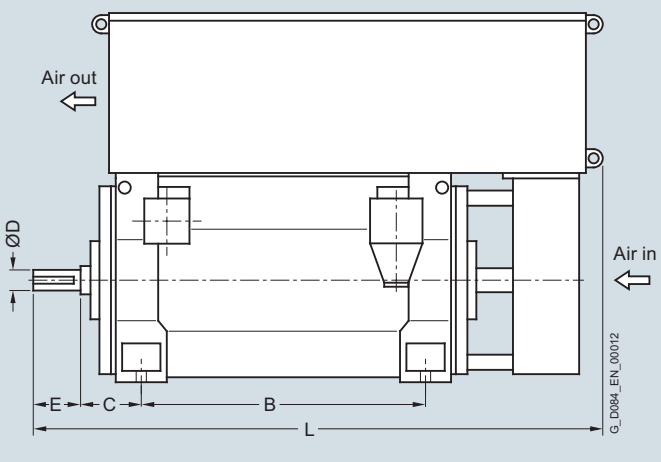
Motor type	Weight	Dimensions										
		AC	AD	AE	D	E	LB	P	N	M	S	Z
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Quantity
9 ... 11 kV, NEMA version, IM V1 type of construction, anti-friction bearings – 1RQ6 series												
6-pole												
1RQ6 710-6JJ.4	22300	3100	1500	2530	240	330	3920	2000	1800	1900	33	24
1RQ6 712-6JJ.4	23100	3100	1500	2530	240	330	3920	2000	1800	1900	33	24
1RQ6 714-6JJ.4	24700	3100	1500	2530	240	330	4160	2000	1800	1900	33	24
1RQ6 716-6JJ.4	25800	3100	1500	2530	240	330	4160	2000	1800	1900	33	24
8-pole												
1RQ6 710-8JJ.4	22200	3100	1500	2530	240	330	3920	2000	1800	1900	33	24
1RQ6 712-8JJ.4	23000	3100	1500	2530	240	330	3920	2000	1800	1900	33	24
1RQ6 714-8JJ.4	24500	3100	1500	2530	240	330	4160	2000	1800	1900	33	24
1RQ6 716-8JJ.4	25700	3100	1500	2530	240	330	4160	2000	1800	1900	33	24
10-pole												
1RQ6 710-3JJ.4	22000	3100	1500	2530	240	330	3920	2000	1800	1900	33	24
1RQ6 712-3JJ.4	22800	3100	1500	2530	240	330	3920	2000	1800	1900	33	24
1RQ6 714-3JJ.4	24500	3100	1500	2530	240	330	4160	2000	1800	1900	33	24
1RQ6 716-3JJ.4	25600	3100	1500	2530	240	330	4160	2000	1800	1900	33	24

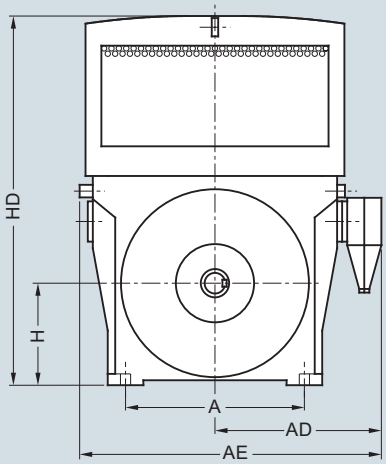
Note:

Higher pole numbers are available on request.

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Dimension drawings





Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, IM B3 type of construction, anti-friction bearings – 1RQ7 series[1] – IC611											
4-pole											
1RQ7 710-4	17100	1500	1800	2900	2000	375	220	350	710	3080	4500
1RQ7 712-4	17800	1500	1800	2900	2000	375	220	350	710	3080	4500
1RQ7 714-4	19200	1500	1800	2900	2240	375	220	350	710	3080	4740
1RQ7 716-4	20500	1500	1800	2900	2240	375	220	350	710	3080	4740
6-pole											
1RQ7 710-6	17200	1500	1800	2900	2000	375	220	350	710	3080	3960
1RQ7 712-6	18300	1500	1800	2900	2000	375	220	350	710	3080	3960
1RQ7 714-6	19800	1500	1800	2900	2240	375	220	350	710	3080	4200
1RQ7 716-6	20800	1500	1800	2900	2240	375	220	350	710	3080	4200
8-pole											
1RQ7 710-8	16500	1500	1800	2900	2000	375	220	350	710	2710	3960
1RQ7 712-8	17400	1500	1800	2900	2000	375	220	350	710	2710	3960
1RQ7 714-8	18900	1500	1800	2900	2240	375	220	350	710	2710	4200
1RQ7 716-8	19900	1500	1800	2900	2240	375	220	350	710	2710	4200
10-pole											
1RQ7 710-3	16400	1500	1800	2900	2000	375	220	350	710	2710	3960
1RQ7 712-3	17400	1500	1800	2900	2000	375	220	350	710	2710	3960
1RQ7 714-3	18900	1500	1800	2900	2240	375	220	350	710	2710	4200
1RQ7 716-3	20000	1500	1800	2900	2240	375	220	350	710	2710	4200

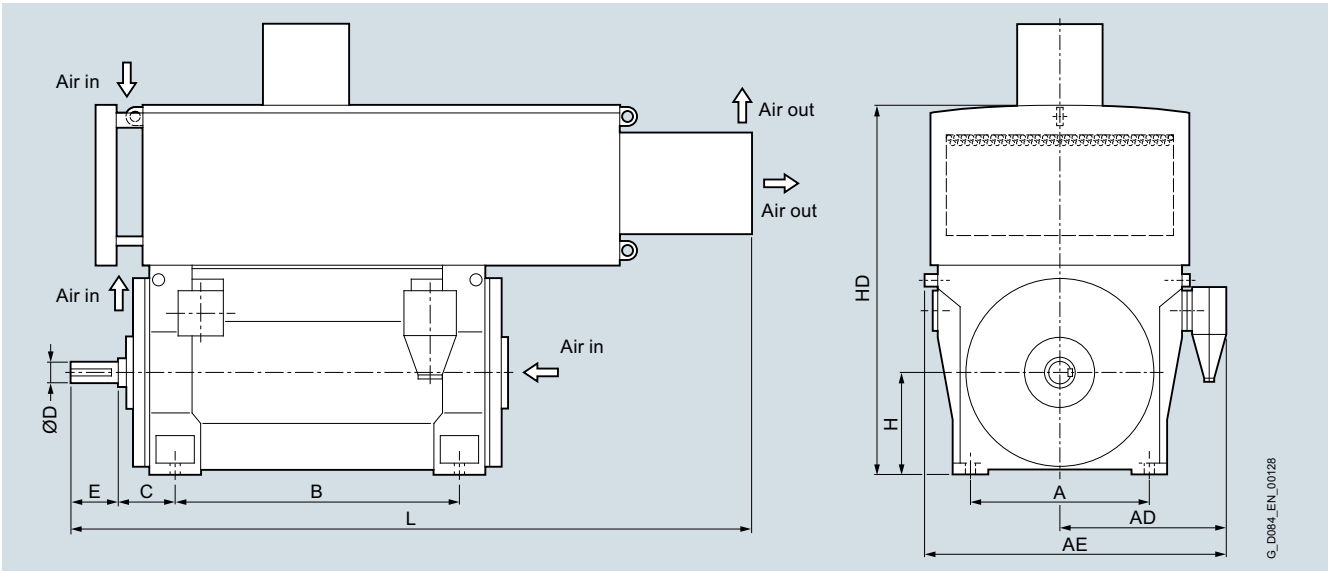
Note:

Higher pole numbers are available on request.

[1] The dimensions are also valid for the 1SB7 and 1SG7 series.

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Dimension drawings



Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD[1]	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, IM B3 type of construction, anti-friction bearings – 1RQ7 series[2] – IC666											
4-pole											
1RQ7 710-4	16900	1500	1800	2900	2000	375	220	350	710	3550	4330
1RQ7 712-4	17600	1500	1800	2900	2000	375	220	350	710	3550	4330
1RQ7 714-4	19000	1500	1800	2900	2240	375	220	350	710	3550	4570
1RQ7 716-4	20300	1500	1800	2900	2240	375	220	350	710	3550	4570
6-pole											
1RQ7 710-6	17300	1500	1800	2900	2000	375	220	350	710	3550	4330
1RQ7 712-6	18400	1500	1800	2900	2000	375	220	350	710	3550	4330
1RQ7 714-6	19800	1500	1800	2900	2240	375	220	350	710	3550	4570
1RQ7 716-6	20900	1500	1800	2900	2240	375	220	350	710	3550	4570
8-pole											
1RQ7 710-8	16800	1500	1800	2900	2000	375	220	350	710	3550	4330
1RQ7 712-8	17600	1500	1800	2900	2000	375	220	350	710	3550	4330
1RQ7 714-8	19200	1500	1800	2900	2240	375	220	350	710	3550	4570
1RQ7 716-8	20200	1500	1800	2900	2240	375	220	350	710	3550	4570
10-pole											
1RQ7 710-3	16600	1500	1800	2900	2000	375	220	350	710	3550	4330
1RQ7 712-3	17600	1500	1800	2900	2000	375	220	350	710	3550	4330
1RQ7 714-3	19200	1500	1800	2900	2240	375	220	350	710	3550	4570
1RQ7 716-3	20200	1500	1800	2900	2240	375	220	350	710	3550	4570

Note:

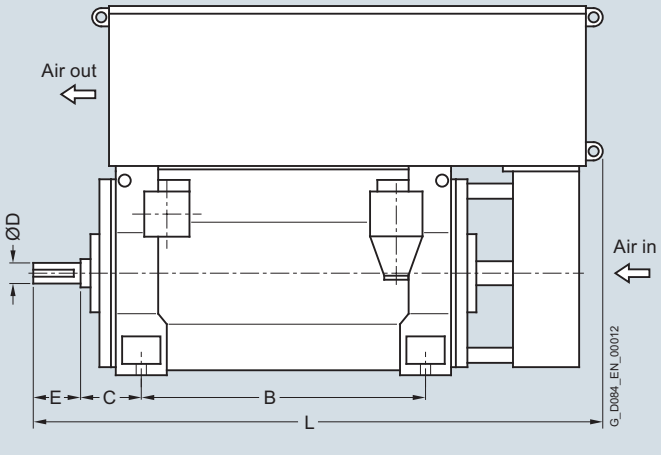
Higher pole numbers are available on request.

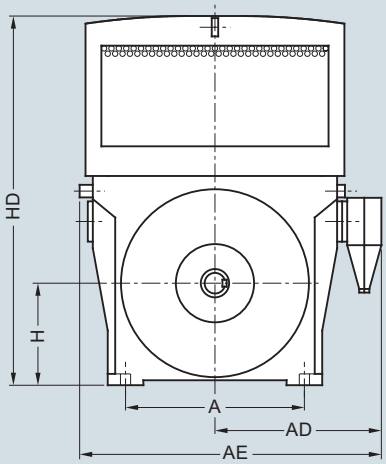
[1] Dimension HD without external blower
(2 ... 6-pole = 600mm / ≥ 8-pole = 500 mm)

[2] The dimensions are also valid for the 1SB7 and 1SG7 series.

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Dimension drawings





Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
9 ... 11 kV, IM B3 type of construction, anti-friction bearings – 1RQ7 series[1] – IC611											
4-pole											
1RQ7 710-4	17600	1500	1800	2900	2000	375	220	350	710	3080	4500
1RQ7 712-4	18400	1500	1800	2900	2000	375	220	350	710	3080	4500
1RQ7 714-4	19800	1500	1800	2900	2240	375	220	350	710	3080	4740
1RQ7 716-4	21000	1500	1800	2900	2240	375	220	350	710	3080	4740
6-pole											
1RQ7 710-6	17800	1500	1800	2900	2000	375	220	350	710	3080	3960
1RQ7 712-6	18800	1500	1800	2900	2000	375	220	350	710	3080	3960
1RQ7 714-6	20300	1500	1800	2900	2240	375	220	350	710	3080	4200
1RQ7 716-6	21400	1500	1800	2900	2240	375	220	350	710	3080	4200
8-pole											
1RQ7 710-8	16200	1500	1800	2900	2000	375	220	350	710	2710	3960
1RQ7 712-8	17200	1500	1800	2900	2000	375	220	350	710	2710	3960
1RQ7 714-8	19400	1500	1800	2900	2240	375	220	350	710	2710	4200
1RQ7 716-8	20400	1500	1800	2900	2240	375	220	350	710	2710	4200
10-pole											
1RQ7 710-3	16400	1500	1800	2900	2000	375	220	350	710	2710	3960
1RQ7 712-3	17300	1500	1800	2900	2000	375	220	350	710	2710	3960
1RQ7 714-3	19500	1500	1800	2900	2240	375	220	350	710	2710	4200
1RQ7 716-3	20400	1500	1800	2900	2240	375	220	350	710	2710	4200

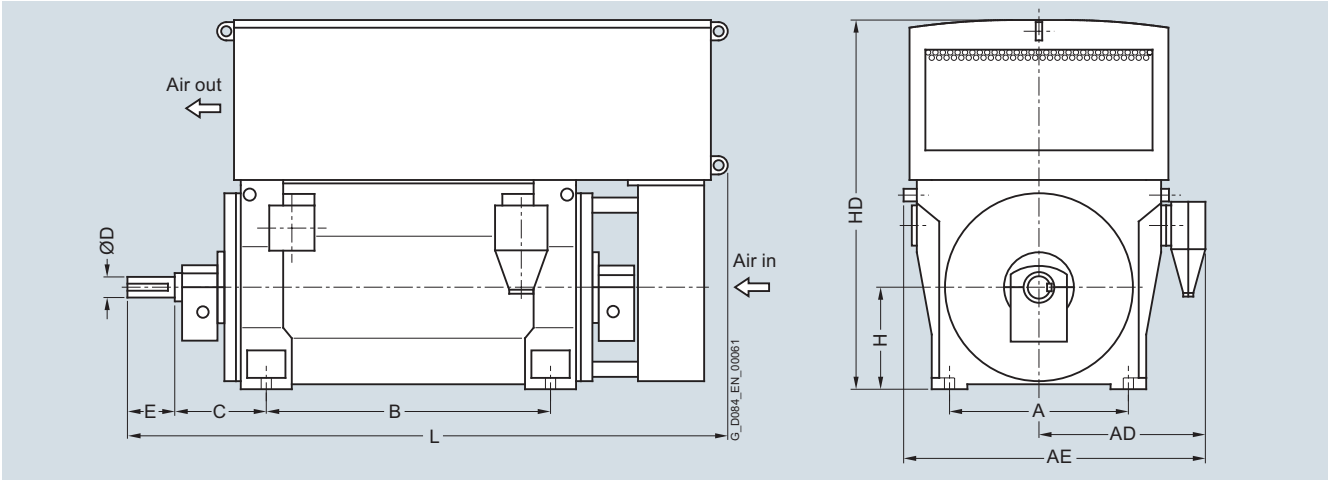
Note:

Higher pole numbers are available on request.

[1] The dimensions are also valid for the 1SB7 and 1SG7 series.

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Dimension drawings



Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, IM B3 type of construction, sleeve bearings – 1RQ7 series[1] – IC611											
2-pole											
1RQ7 710-2	16500	1500	1800	2900	2000	560	200	280	710	3080	4630
1RQ7 712-2	17000	1500	1800	2900	2000	560	200	280	710	3080	4630
1RQ7 714-2	18400	1500	1800	2900	2240	560	200	280	710	3080	4870
1RQ7 716-2	19100	1500	1800	2900	2240	560	200	280	710	3080	4870
4-pole											
1RQ7 710-4	17500	1500	1800	2900	2000	710	220	350	710	3080	4840
1RQ7 712-4	18200	1500	1800	2900	2000	710	220	350	710	3080	4840
1RQ7 714-4	19500	1500	1800	2900	2240	710	220	350	710	3080	5080
1RQ7 716-4	20800	1500	1800	2900	2240	710	220	350	710	3080	5080
6-pole											
1RQ7 710-6	17300	1500	1800	2900	2000	670	220	350	710	3080	4250
1RQ7 712-6	18400	1500	1800	2900	2000	670	220	350	710	3080	4250
1RQ7 714-6	19900	1500	1800	2900	2240	670	220	350	710	3080	4490
1RQ7 716-6	20900	1500	1800	2900	2240	670	220	350	710	3080	4490
8-pole											
1RQ7 710-8	16500	1500	1800	2900	2000	670	220	350	710	2710	4250
1RQ7 712-8	17400	1500	1800	2900	2000	670	220	350	710	2710	4250
1RQ7 714-8	18900	1500	1800	2900	2240	670	220	350	710	2710	4490
1RQ7 716-8	20000	1500	1800	2900	2240	670	220	350	710	2710	4490
10-pole											
1RQ7 710-3	16400	1500	1800	2900	2000	670	220	350	710	2710	4250
1RQ7 712-3	17400	1500	1800	2900	2000	670	220	350	710	2710	4250
1RQ7 714-3	19000	1500	1800	2900	2240	670	220	350	710	2710	4490
1RQ7 716-3	20000	1500	1800	2900	2240	670	220	350	710	2710	4490

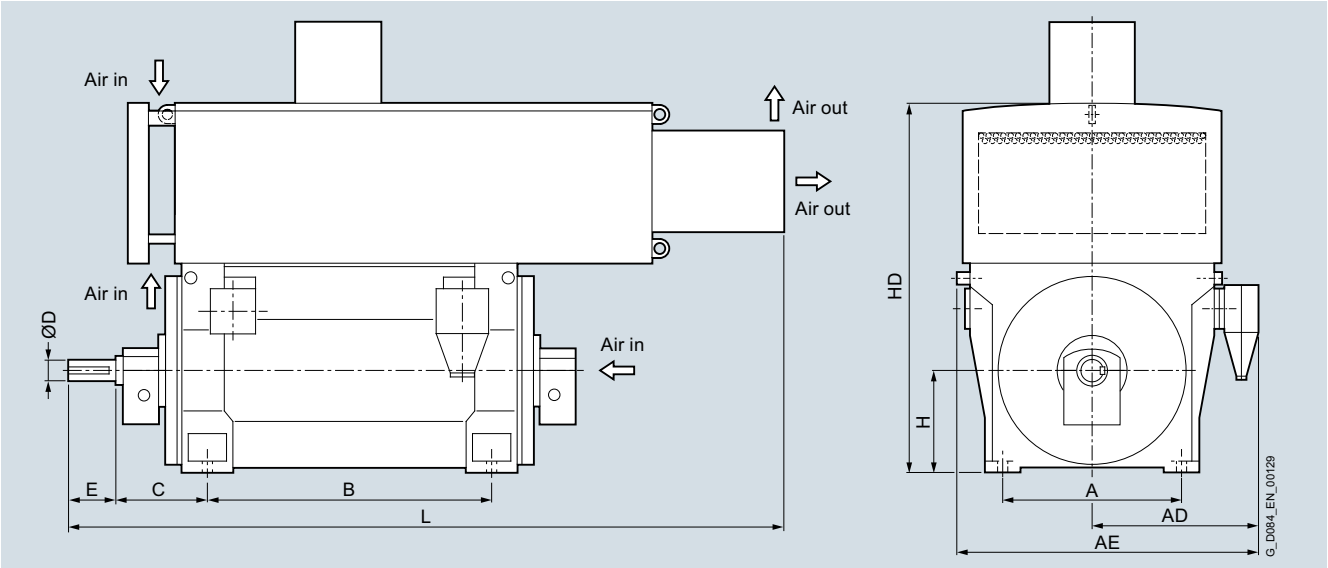
Note:

Higher pole numbers are available on request.

[1] The dimensions are also valid for the 1SB7 and 1SG7 series.

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Dimension drawings



Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD[1]	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, IM B3 type of construction, sleeve bearings – 1RQ7 series[2] – IC666											
2-pole											
1RQ7 710-2	16200	1500	1800	2900	2000	560	200	710	280	3550	4450
1RQ7 712-2	16700	1500	1800	2900	2000	560	200	710	280	3550	4450
1RQ7 714-2	18000	1500	1800	2900	2240	560	200	710	280	3550	4690
1RQ7 716-2	18700	1500	1800	2900	2240	560	200	710	280	3550	4690
4-pole											
1RQ7 710-4	17200	1500	1800	2900	2000	710	220	710	350	3550	4670
1RQ7 712-4	17900	1500	1800	2900	2000	710	220	710	350	3550	4670
1RQ7 714-4	19300	1500	1800	2900	2240	710	220	710	350	3550	4910
1RQ7 716-4	20600	1500	1800	2900	2240	710	220	710	350	3550	4910
6-pole											
1RQ7 710-6	17300	1500	1800	2900	2000	670	220	710	350	3550	4630
1RQ7 712-6	18500	1500	1800	2900	2000	670	220	710	350	3550	4630
1RQ7 714-6	19900	1500	1800	2900	2240	670	220	710	350	3550	4870
1RQ7 716-6	20900	1500	1800	2900	2240	670	220	710	350	3550	4870
8-pole											
1RQ7 710-8	17000	1500	1800	2900	2000	670	220	710	350	3550	4630
1RQ7 712-8	17900	1500	1800	2900	2000	670	220	710	350	3550	4630
1RQ7 714-8	19200	1500	1800	2900	2240	670	220	710	350	3550	4870
1RQ7 716-8	20200	1500	1800	2900	2240	670	220	710	350	3550	4870
10-pole											
1RQ7 710-3	16900	1500	1800	2900	2000	670	220	710	350	3550	4630
1RQ7 712-3	17900	1500	1800	2900	2000	670	220	710	350	3550	4630
1RQ7 714-3	19200	1500	1800	2900	2240	670	220	710	350	3550	4870
1RQ7 716-3	20200	1500	1800	2900	2240	670	220	710	350	3550	4870

Note:

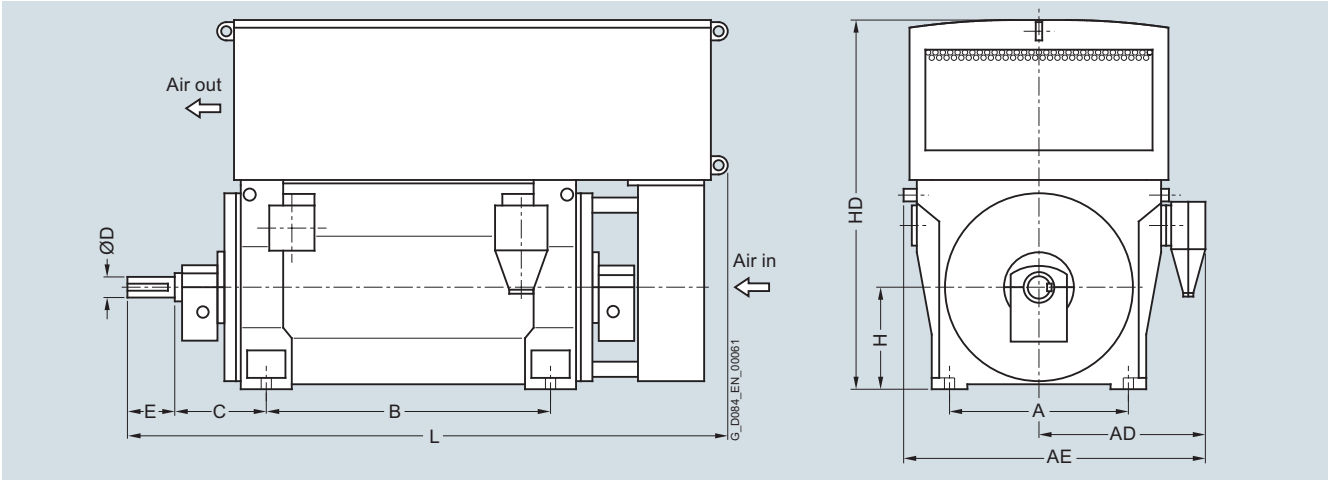
Higher pole numbers are available on request.

[1] Dimension HD without external blower
(2 ... 6-pole = 600mm / ≥ 8-pole = 500 mm)

[2] The dimensions are also valid for the 1SB7 and 1SG7 series.

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Dimension drawings



Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
9 ... 11 kV, IM B3 type of construction, sleeve bearings – 1RQ7 series[1] – IC611											
2-pole											
1RQ7 710-2	16900	1500	1800	2900	2000	560	200	280	710	3080	4630
1RQ7 712-2	17500	1500	1800	2900	2000	560	200	280	710	3080	4630
1RQ7 714-2	18700	1500	1800	2900	2240	560	200	280	710	3080	4870
1RQ7 716-2	19600	1500	1800	2900	2240	560	200	280	710	3080	4870
4-pole											
1RQ7 710-4	17900	1500	1800	2900	2000	710	220	350	710	3080	4840
1RQ7 712-4	18700	1500	1800	2900	2000	710	220	350	710	3080	4840
1RQ7 714-4	20100	1500	1800	2900	2240	710	220	350	710	3080	5080
1RQ7 716-4	21300	1500	1800	2900	2240	710	220	350	710	3080	5080
6-pole											
1RQ7 710-6	17800	1500	1800	2900	2000	670	220	350	710	3080	4250
1RQ7 712-6	18900	1500	1800	2900	2000	670	220	350	710	3080	4250
1RQ7 714-6	20400	1500	1800	2900	2240	670	220	350	710	3080	4490
1RQ7 716-6	21500	1500	1800	2900	2240	670	220	350	710	3080	4490
8-pole											
1RQ7 710-8	16300	1500	1800	2900	2000	670	220	350	710	2710	4250
1RQ7 712-8	17300	1500	1800	2900	2000	670	220	350	710	2710	4250
1RQ7 714-8	19500	1500	1800	2900	2240	670	220	350	710	2710	4490
1RQ7 716-8	20400	1500	1800	2900	2240	670	220	350	710	2710	4490
10-pole											
1RQ7 710-3	16400	1500	1800	2900	2000	670	220	350	710	2710	4250
1RQ7 712-3	17400	1500	1800	2900	2000	670	220	350	710	2710	4250
1RQ7 714-3	19600	1500	1800	2900	2240	670	220	350	710	2710	4490
1RQ7 716-3	20500	1500	1800	2900	2240	670	220	350	710	2710	4490

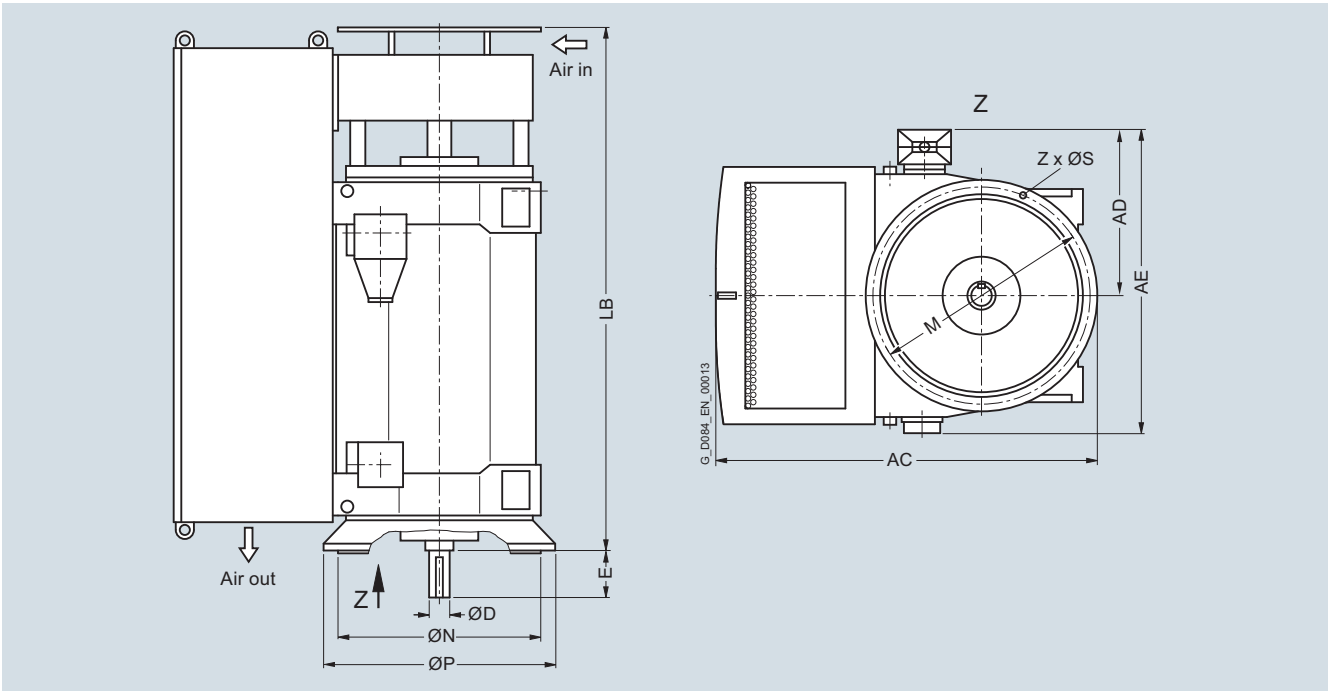
Note:

Higher pole numbers are available on request.

[1] The dimensions are also valid for the 1SB7 and 1SG7 series.

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Dimension drawings



Motor type	Weight	Dimensions										
		AC	AD	AE	D	E	LB	P	N	M	S	Z
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Quantity
Up to 6.6 kV, IM V1 type of construction, anti-friction bearings, Z ventilation – 1RQ7 series[1] – IC611												
6-pole												
1RQ7 710-6	18100	3420	1800	2900	220	350	4020	2000	1800	1900	35	24
1RQ7 712-6	19200	3420	1800	2900	220	350	4020	2000	1800	1900	35	24
1RQ7 714-6	20700	3420	1800	2900	220	350	4260	2000	1800	1900	35	24
1RQ7 716-6	21700	3420	1800	2900	220	350	4260	2000	1800	1900	35	24
8-pole												
1RQ7 710-8	16900	3050	1800	2900	220	350	4020	2000	1800	1900	35	24
1RQ7 712-8	17800	3050	1800	2900	220	350	4020	2000	1800	1900	35	24
1RQ7 714-8	19400	3050	1800	2900	220	350	4260	2000	1800	1900	35	24
1RQ7 716-8	20400	3050	1800	2900	220	350	4260	2000	1800	1900	35	24
10-pole												
1RQ7 710-3	16700	3050	1800	2900	220	350	4020	2000	1800	1900	35	24
1RQ7 712-3	17700	3050	1800	2900	220	350	4020	2000	1800	1900	35	24
1RQ7 714-3	19300	3050	1800	2900	220	350	4260	2000	1800	1900	35	24
1RQ7 716-3	20400	3050	1800	2900	220	350	4260	2000	1800	1900	35	24

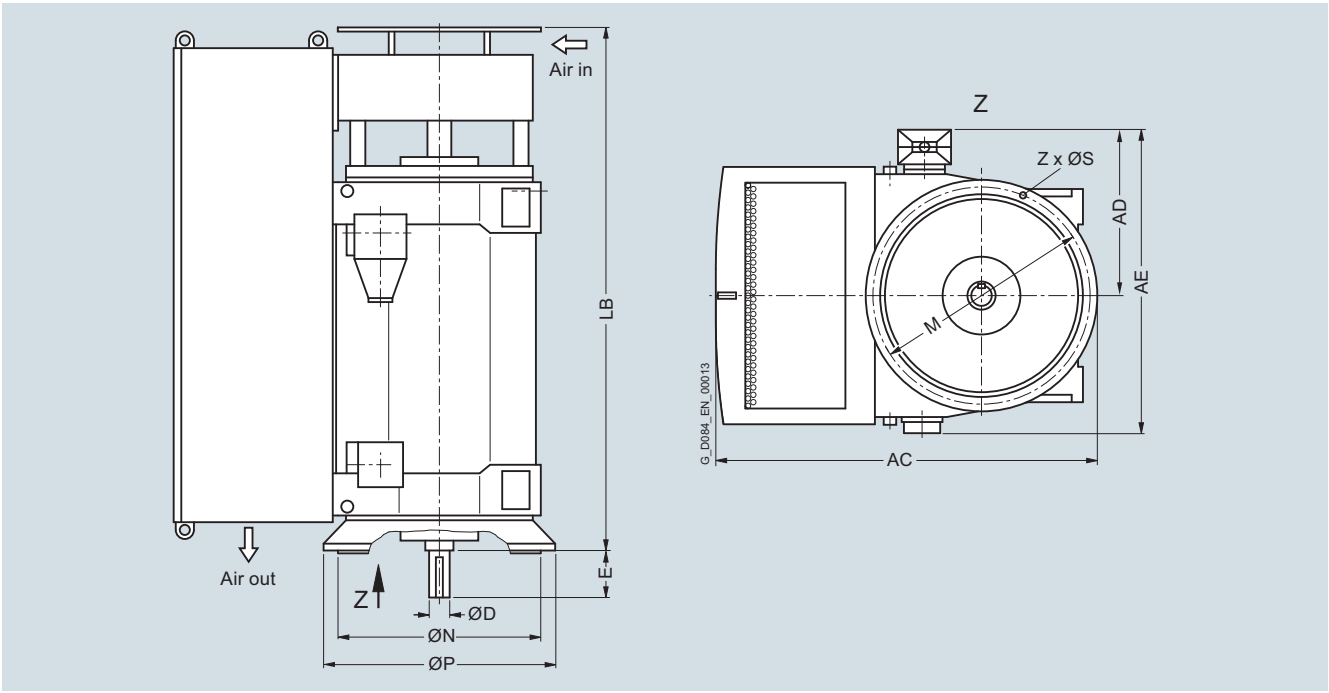
Note:

Higher pole numbers are available on request.

[1] The dimensions are also valid for the 1SB7 and 1SG7 series.

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Dimension drawings



Motor type	Weight	Dimensions										
		AC	AD	AE	D	E	LB	P	N	M	S	Z
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Quantity
9 ... 11 kV, IM V1 type of construction, anti-friction bearings, Z ventilation – 1RQ7 series[1] – IC611												
6-pole												
1RQ7 710-6	17900	3420	1800	2900	220	350	4020	2000	1800	1900	35	24
1RQ7 712-6	19000	3420	1800	2900	220	350	4020	2000	1800	1900	35	24
1RQ7 714-6	20500	3420	1800	2900	220	350	4260	2000	1800	1900	35	24
1RQ7 716-6	21600	3420	1800	2900	220	350	4260	2000	1800	1900	35	24
8-pole												
1RQ7 710-8	16600	3050	1800	2900	220	350	4020	2000	1800	1900	35	24
1RQ7 712-8	17600	3050	1800	2900	220	350	4020	2000	1800	1900	35	24
1RQ7 714-8	19100	3050	1800	2900	220	350	4260	2000	1800	1900	35	24
1RQ7 716-8	20000	3050	1800	2900	220	350	4260	2000	1800	1900	35	24
10-pole												
1RQ7 710-3	16800	3050	1800	2900	220	350	4020	2000	1800	1900	35	24
1RQ7 712-3	17700	3050	1800	2900	220	350	4020	2000	1800	1900	35	24
1RQ7 714-3	19200	3050	1800	2900	220	350	4260	2000	1800	1900	35	24
1RQ7 716-3	20100	3050	1800	2900	220	350	4260	2000	1800	1900	35	24

Note:

Higher pole numbers are available on request.

[1] The dimensions are also valid for the 1SB7 and 1SG7 series.

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Overview



Technical data

Overview of technical data

H-compact PLUS 1RA4/1RA6/1RP6, SIMOTICS HV M 1RA7	
Rated voltage	3.3 … 13.8 kV
Rated frequency	50/60 Hz
Motor type	Induction motor with squirrel-cage rotor
Type of construction	IM B3, IM V1
Degree of protection	IP23/IP24W
Cooling method	IC01
Stator winding insulation	Thermal class 155 (F), utilized to 130 (B)
Shaft height	450 … 710 mm
Bearings	Anti-friction bearings, sleeve bearings
Cage material	Copper
Standards	IEC, EN, NEMA
Frame design for shaft heights 450 … 560 mm	Housing: Cast iron Cooling enclosure: Steel
Frame design for shaft heights 630 … 710 mm	Housing: Steel Cooling enclosure: Steel

Technical data (continued)

Power ranges for IEC motors for line operation

1RA4, 1RA6, 1RP6 series

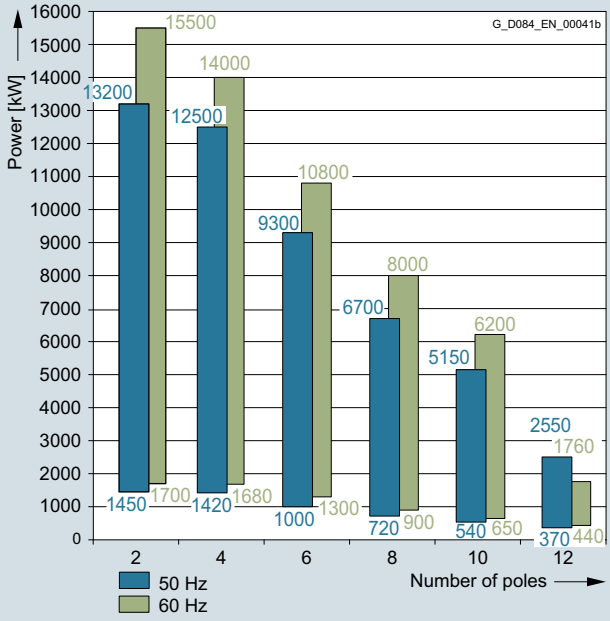
1RA7 series

Insulation system, thermal class 155 (F), utilized to 130 (B).

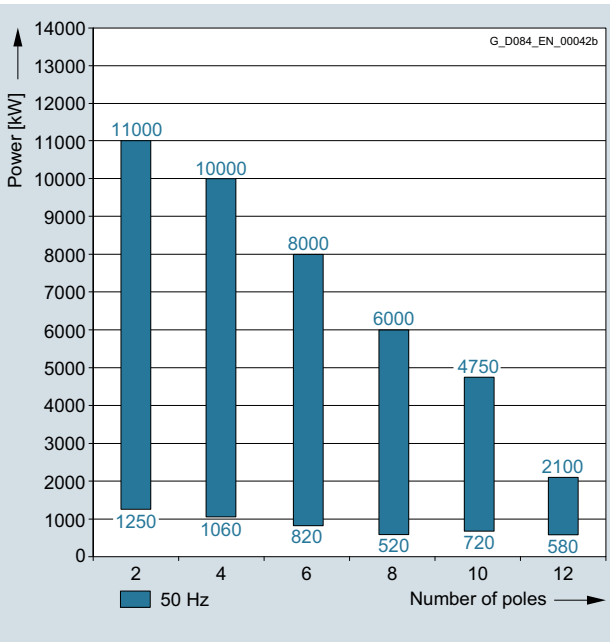
Ambient temperature up to 40 °C, installation altitude up to 1000 m.

3.3 to 6.6 kV; 50 Hz

4.0 to 6.6 kV; 60 Hz



9 to 11 kV; 50 Hz



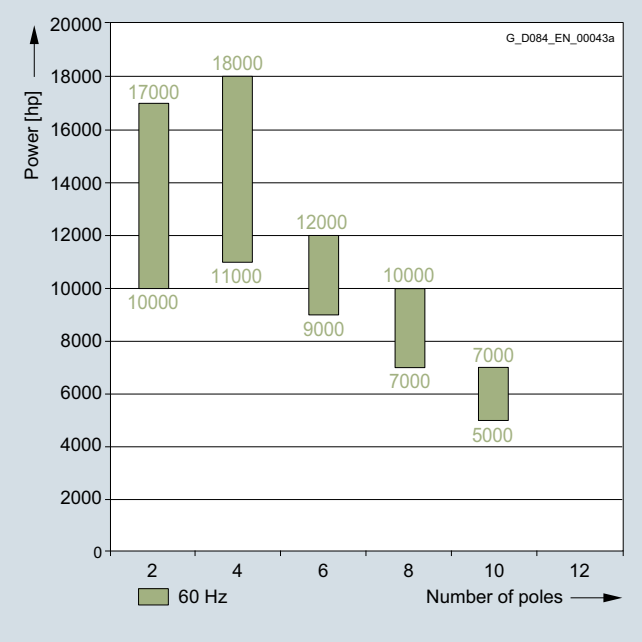
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Technical data (continued)

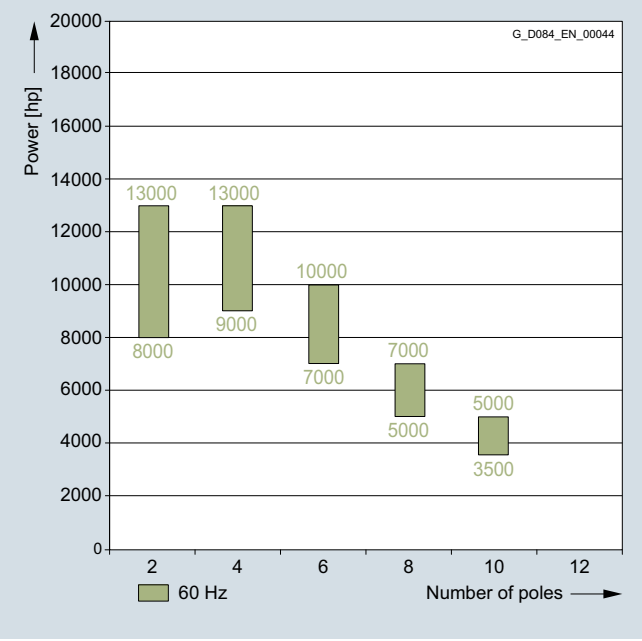
Power ranges for NEMA motors for line operation

Insulation system, thermal class 155 (F), utilized to 130 (B)

4 to 6.6 kV; 60 Hz



12.5 to 13.8 kV; 60 Hz



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Selection and ordering data

Rated power	High voltage motor H-compact PLUS	Speed	Rated current	Efficiency		Power factor		Torque	Break-down torque	Locked-rotor torque	Locked-rotor current	Moment of inertia	
IEC			I_{rated} at 6 kV	4/4 load	3/4 load	4/4 load	3/4 load		T_B/T_{rated}	T_{LR}/T_{rated}	I_{LR}/I_{rated}	Motor	External, max.[1]
kW	Article No.	rpm	A	%	%	cos φ	cos φ	Nm	[-]	[-]	[-]	kgm²	kgm²
3.3 ... 6.6 kV, 50 Hz													
2-pole													
1450	**1RA6 450-2HJ■0**	2970	166	95.6	96.0	0.88	0.87	4662	2.00	0.60	4.35	12	64
1700	**1RA6 452-2HJ■0**	2971	192	95.9	96.3	0.89	0.89	5464	2.05	0.60	4.50	14	70
1900	**1RA6 454-2HJ■0**	2974	210	96.2	96.5	0.90	0.89	6100	2.30	0.70	5.15	15	74
2120	**1RA6 456-2HJ■0**	2978	235	96.5	96.6	0.90	0.89	6798	2.45	0.70	5.50	17	81
2500	**1RA6 500-2HJ■0**	2972	280	96.4	96.8	0.89	0.88	8032	1.95	0.55	4.30	19	83
2680	**1RA6 502-2HJ■0**	2974	300	96.3	96.7	0.90	0.89	8605	2.05	0.50	4.45	21	93
3150	**1RA6 504-2HJ■0**	2978	345	96.8	97.1	0.91	0.90	10100	2.30	0.55	5.20	25	103
3400	**1RA6 506-2HJ■0**	2975	370	96.8	97.2	0.91	0.91	10913	2.15	0.55	4.85	26	115
4000	**1RA6 560-2HJ■0**	2974	450	96.5	96.8	0.89	0.90	12843	1.95	0.50	4.05	39	160
4600	**1RA6 562-2HJ■0**	2977	520	96.7	97.0	0.89	0.90	14755	2.00	0.50	4.30	44	180
5140	**1RA6 564-2HJ■0**	2978	560	97.0	97.2	0.91	0.91	16481	2.25	0.60	4.75	49	200
5660	**1RA6 566-2HJ■0**	2980	620	97.1	97.3	0.91	0.91	18137	2.40	0.60	5.25	55	220
4900	**1RA4 630-2HE■0**	2982	550	96.9	97.1	0.88	0.88	15692	2.10	0.31	4.00	60	110
5700	**1RA4 632-2HE■0**	2983	630	97.3	97.3	0.89	0.89	18248	2.20	0.34	4.30	67	150
6500	**1RA4 634-2HE■0**	2985	710	97.5	97.6	0.90	0.89	20796	2.50	0.41	5.00	77	190
7500	**1RA4 636-2HE■0**	2986	820	97.7	97.8	0.90	0.89	23987	2.60	0.46	5.40	86	240
4-pole													
1420	**1RA6 450-4HJ■■**	1482	160	95.6	96.1	0.89	0.88	9149	2.35	0.65	4.65	21	340
1560	**1RA6 452-4HJ■■**	1483	176	95.9	96.3	0.89	0.88	10045	2.45	0.65	4.95	24	385
1730	**1RA6 454-4HJ■■**	1484	194	96.0	96.4	0.89	0.88	11132	2.50	0.65	5.05	27	440
1950	**1RA6 456-4HJ■■**	1486	220	96.2	96.5	0.89	0.87	12531	2.60	0.65	5.25	30	500
2240[2]	**1RA6 500-4HJ■0**	1485	250	96.2	96.9	0.89	0.88	14404	2.30	0.65	4.70	45	410
2500[2]	**1RA6 502-4HJ■0**	1485	280	96.3	96.9	0.89	0.88	16076	2.35	0.65	4.90	48	460
2800[2]	**1RA6 504-4HJ■0**	1486	315	96.4	97.0	0.89	0.88	17993	2.30	0.60	4.80	55	510
3080[2]	**1RA6 506-4HJ■0**	1485	345	96.4	97.1	0.89	0.87	19805	2.45	0.65	5.15	60	560
3800[2]	**1RA6 560-4HJ■0**	1489	420	96.9	97.3	0.90	0.90	24370	2.10	0.65	4.95	86	730
4300[2]	**1RA6 562-4HJ■0**	1489	470	97.1	97.5	0.91	0.91	27576	2.05	0.65	4.85	97	800
4800[2]	**1RA6 564-4HJ■0**	1490	520	97.2	97.6	0.91	0.91	30762	2.10	0.60	5.00	107	880
5260[2]	**1RA6 566-4HJ■0**	1490	580	97.3	97.6	0.90	0.90	33710	2.10	0.60	5.15	117	970
5300	**1RA4 630-4HE■■**	1489	590	97.1	97.3	0.89	0.89	33993	2.00	0.54	4.60	134	780
6000	**1RA4 632-4HE■■**	1490	670	97.3	97.4	0.89	0.89	38456	2.15	0.60	4.90	150	1050
6600	**1RA4 634-4HE■■**	1490	720	97.4	97.6	0.90	0.90	42302	2.20	0.63	5.10	168	1200
7100	**1RA4 636-4HE■■**	1491	780	97.6	97.6	0.90	0.89	45476	2.40	0.70	5.50	197	1100

Voltage code:	
3.3 kV, 50 Hz	**0**
6 kV, 50 Hz	**6**
6.6 kV, 50 Hz	**7**
Other voltage	**9**

Type of construction:	
IM B3	**0**
IM V1 (without canopy)	**8**

Note:

Efficiencies according to IEC 60034-2-1:2007;
stray load losses determined by statistical evaluation of measurements.
NEMA version on request.

Electrical data is also valid for operation with SINAMICS PERFECT HARMONY drives.
For ordering, please note the 10th and 11th position of the article number code.

[1] Max. permissible external moment of inertia for three starts from cold or two starts from warm under the conditions described on Page 2/2.

[2] Data of vertical motors (IM V1) on request.

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Selection and ordering data (continued)

Rated power	High voltage motor H-compact PLUS	Speed	Rated current	Efficiency		Power factor		Torque	Break-down torque	Locked-rotor torque	Locked-rotor current	Moment of inertia	
IEC			I_{rated} at 6 kV	4/4 load	3/4 load	4/4 load	3/4 load		T_B/T_{rated}	T_{LR}/T_{rated}	I_{LR}/I_{rated}	Motor	External, max.[1]
kW	Article No.	rpm	A	%	%	cos φ	cos φ	Nm	[-]	[-]	[-]	kgm²	kgm²
3.3 ... 6.6 kV, 50 Hz													
6-pole													
1000	**1RA6 450-6HJ■■**	988	118	95.5	96.1	0.85	0.84	9665	2.25	0.95	4.65	28	660
1120	**1RA6 452-6HJ■■**	989	132	95.7	96.2	0.85	0.84	10814	2.35	0.85	4.80	32	770
1250	**1RA6 454-6HJ■■**	989	148	95.8	96.3	0.85	0.84	12069	2.40	0.95	4.95	35	870
1400	**1RA6 456-6HJ■■**	990	164	96.1	96.5	0.85	0.84	13504	2.45	0.90	5.05	41	1040
1850	**1RA6 500-6HJ■■**	988	215	95.8	96.5	0.86	0.85	17880	2.05	0.65	4.35	56	1280
2090	**1RA6 502-6HJ■■**	988	245	95.9	96.6	0.86	0.85	20200	2.00	0.65	4.15	61	1420
2300	**1RA6 504-6HJ■■**	989	270	96.0	96.7	0.86	0.85	22207	2.20	0.70	4.60	68	1560
2500	**1RA6 506-6HJ■■**	989	285	96.2	96.8	0.87	0.86	24138	2.20	0.75	4.65	76	1760
2900	**1RA6 560-6HJ■■**	990	330	96.4	96.9	0.87	0.87	27972	1.95	0.70	4.40	107	1640
3250	**1RA6 562-6HJ■■**	990	370	96.6	97.1	0.88	0.88	31348	1.95	0.70	4.40	118	1820
3640	**1RA6 564-6HJ■■**	990	410	96.6	97.1	0.88	0.88	35110	1.90	0.70	4.25	131	2000
3930	**1RA6 566-6HJ■■**	990	440	96.8	97.2	0.88	0.88	37907	1.95	0.70	4.45	145	2250
4200	**1RA4 630-6HE■■**	992	490	96.8	97.2	0.85	0.84	40433	2.00	0.57	4.50	183	2000
4700	**1RA4 632-6HE■■**	993	540	97.0	97.3	0.86	0.85	45201	2.10	0.62	4.80	202	2100
5100	**1RA4 634-6HE■■**	993	590	97.2	97.4	0.86	0.84	49048	2.25	0.69	5.20	223	2800
5600	**1RA4 636-6HE■■**	994	640	97.3	97.4	0.86	0.84	53803	2.30	0.70	5.30	246	3300
8-pole													
720	**1RA6 450-8HJ■■**	741	88	95.0	95.7	0.83	0.82	9278	2.10	0.75	4.30	35	730
780	**1RA6 452-8HJ■■**	742	95	95.2	95.9	0.83	0.82	10038	2.15	0.75	4.40	39	890
900	**1RA6 454-8HJ■■**	743	110	95.6	96.0	0.82	0.79	11567	2.55	0.85	5.20	44	1040
1030	**1RA6 456-8HJ■■**	743	124	95.6	96.2	0.83	0.81	13237	2.40	0.80	4.90	51	1300
1320	**1RA6 500-8HJ■■**	742	160	95.6	96.2	0.83	0.81	16987	2.15	0.55	4.55	68	1420
1480	**1RA6 502-8HJ■■**	743	178	95.6	96.3	0.84	0.81	19021	2.15	0.60	4.50	75	1560
1680	**1RA6 504-8HJ■■**	743	200	95.9	96.4	0.84	0.81	21591	2.25	0.60	4.60	84	1740
1850	**1RA6 506-8HJ■■**	743	220	96.0	96.5	0.84	0.82	23776	2.25	0.65	4.75	93	1920
2120	**1RA6 560-8HJ■■**	743	250	96.3	96.9	0.85	0.83	27246	2.10	0.65	4.50	127	2700
2400	**1RA6 562-8HJ■■**	743	280	96.4	97.0	0.85	0.84	30845	2.05	0.65	4.50	140	2950
2640	**1RA6 564-8HJ■■**	743	310	96.5	97.1	0.85	0.83	33930	2.10	0.65	4.75	155	3300
2850	**1RA6 566-8HJ■■**	744	330	96.6	97.2	0.85	0.83	36579	2.15	0.60	4.75	171	3650
3200	**1RA4 630-8HE■■**	743	375	96.5	96.7	0.85	0.83	41131	1.90	0.60	4.30	239	3100
3500	**1RA4 632-8HE■■**	743	410	96.7	96.8	0.85	0.82	44987	2.10	0.67	4.60	265	3400
3750	**1RA4 634-8HE■■**	743	440	96.7	96.9	0.85	0.84	48200	2.00	0.65	4.60	293	3600
4100	**1RA4 636-8HE■■**	744	485	96.9	96.9	0.84	0.81	52628	2.30	0.76	5.30	324	3800

Voltage code:	
3.3 kV, 50 Hz	**0**
6 kV, 50 Hz	**6**
6.6 kV, 50 Hz	**7**
Other voltage	**9**

Type of construction:	
IM B3	**0**
IM V1 (without canopy)	**8**

Note:

Efficiencies according to IEC 60034-2-1:2007;
stray load losses determined by statistical evaluation of measurements.
NEMA version on request.

Electrical data is also valid for operation with SINAMICS PERFECT HARMONY drives.
For ordering, please note the 10th and 11th position of the article number code.

[1] Max. permissible external moment of inertia for three starts from cold or two starts from warm under the conditions described on Page 2/2.

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Selection and ordering data (continued)

Rated power	High voltage motor H-compact PLUS	Speed	Rated current	Efficiency		Power factor		Torque	Break-down torque	Locked-rotor torque	Locked-rotor current	Moment of inertia	
IEC			I_{rated} at 6 kV	4/4 load	3/4 load	4/4 load	3/4 load		T_B/T_{rated}	T_{LR}/T_{rated}	I_{LR}/I_{rated}	Motor	External, max.[1]
kW	Article No.	rpm	A	%	%	cos φ	cos φ	Nm	[-]	[-]	[-]	kgm²	kgm²
3.3 ... 6.6 kV, 50 Hz													
10-pole													
540	**1RA6 450-3HJ■■**	590	70	93.4	93.7	0.80	0.76	8741	2.00	0.80	4.60	37	1150
600	**1RA6 452-3HJ■■**	590	76	93.7	93.9	0.81	0.76	9712	2.00	0.80	4.70	41	1350
670	**1RA6 454-3HJ■■**	591	86	93.9	94.1	0.80	0.75	10827	2.10	0.82	4.90	46	1450
760	**1RA6 456-3HJ■■**	591	97	94.1	94.2	0.80	0.75	12281	2.20	0.90	5.20	52	1800
900	**1RA6 500-3HE■■**	591	112	94.4	94.7	0.82	0.80	14543	1.90	0.68	4.30	70	1400
1000	**1RA6 502-3HE■■**	592	122	95.7	94.9	0.83	0.80	16132	1.90	0.70	4.50	80	1700
1100	**1RA6 504-3HE■■**	592	134	94.8	95.0	0.83	0.80	17745	1.90	0.72	4.60	88	2200
1250	**1RA6 506-3HE■■**	592	152	95.0	95.1	0.83	0.80	20165	1.90	0.75	4.70	99	2600
1480	**1RA6 560-3HE■■**	593	184	95.1	95.4	0.81	0.77	23835	2.00	0.70	4.50	123	2700
1700	**1RA6 562-3HE■■**	593	210	95.4	95.7	0.82	0.78	27378	2.00	0.70	4.50	141	4100
1880	**1RA6 564-3HE■■**	593	230	95.6	95.7	0.82	0.78	30277	2.00	0.72	4.70	158	4400
2050	**1RA6 566-3HE■■**	593	255	95.7	95.8	0.81	0.76	33014	2.10	0.78	5.00	173	5200
2400	**1RA4 630-3HE■■**	592	285	95.8	96.4	0.84	0.83	38716	1.80	0.62	4.00	239	4700
2650	**1RA4 632-3HE■■**	592	315	96.0	96.5	0.84	0.83	42749	1.80	0.65	4.20	265	5300
2900	**1RA4 634-3HE■■**	593	345	96.2	96.6	0.84	0.82	46703	2.00	0.70	4.50	293	6300
3150	**1RA4 636-3HE■■**	593	375	96.4	96.7	0.84	0.82	50729	2.00	0.73	4.60	324	7500
12-pole													
370	**1RA6 450-5HJ■■**	491	53	92.4	92.7	0.73	0.68	7197	1.80	0.60	4.00	37	1100
425	**1RA6 452-5HJ■■**	492	60	92.8	93.0	0.73	0.67	8249	1.80	0.63	4.20	41	1400
475	**1RA6 454-5HJ■■**	491	66	93.1	93.3	0.74	0.69	9239	1.80	0.60	4.00	46	1600
540	**1RA6 456-5HJ■■**	492	77	93.5	93.5	0.72	0.65	10482	2.00	0.68	4.40	52	2000
680	**1RA6 500-5HE■■**	491	94	93.9	94.0	0.74	0.69	13226	1.90	0.62	4.10	70	2350
760	**1RA6 502-5HE■■**	491	102	94.1	94.2	0.76	0.71	14782	1.80	0.60	4.00	79	2600
840	**1RA6 504-5HE■■**	491	112	94.3	94.4	0.76	0.71	16338	1.90	0.62	4.10	87	3100
930	**1RA6 506-5HE■■**	492	128	94.5	94.6	0.74	0.69	18052	1.90	0.62	4.30	98	3700
1100	**1RA6 560-5HE■■**	493	150	94.5	94.8	0.75	0.71	21308	1.80	0.57	3.90	123	3600
1230	**1RA6 562-5HE■■**	493	168	94.9	95.0	0.74	0.68	23827	1.80	0.60	4.00	141	4100
1350	**1RA6 564-5HE■■**	494	184	95.0	95.1	0.74	0.68	26098	2.00	0.63	4.30	158	4700
1470	**1RA6 566-5HE■■**	494	198	95.1	95.2	0.75	0.69	28418	2.00	0.65	4.30	173	5200
1900	**1RA4 630-5HE■■**	493	245	95.4	95.8	0.79	0.76	36805	1.90	0.70	4.30	239	5500
2150	**1RA4 632-5HE■■**	493	270	95.6	96.0	0.80	0.76	41648	1.90	0.71	4.30	265	7000
2350	**1RA4 634-5HE■■**	493	295	95.8	96.3	0.80	0.77	45522	1.90	0.72	4.40	293	8300
2550	**1RA4 636-5HE■■**	493	320	95.9	96.4	0.80	0.77	49397	2.00	0.74	4.50	324	9800

Voltage code:	
3.3 kV, 50 Hz	**0**
6 kV, 50 Hz	**6**
6.6 kV, 50 Hz	**7**
Other voltage	**9**

Type of construction:	
IM B3	**0**
IM V1 (without canopy)	**8**

Note:

Efficiencies according to IEC 60034-2-1:2007;
stray load losses determined by statistical evaluation of measurements.
NEMA version on request.

Higher pole numbers are available on request.

Electrical data is also valid for operation with SINAMICS PERFECT HARMONY drives.
For ordering, please note the 10th and 11th position of the article number code.

[1] Max. permissible external moment of inertia for three starts from cold or two starts from warm under the conditions described on Page 2/2.

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Selection and ordering data

Rated power	High voltage motor SIMOTICS HV M (modular)	Speed	Rated current	Efficiency		Power factor		Torque	Break-down torque	Locked-rotor torque	Locked-rotor current	Moment of inertia	
IEC			I_{rated} at 6 kV	4/4 load	3/4 load	4/4 load	3/4 load		T_B/T_{rated}	T_{LR}/T_{rated}	I_{LR}/I_{rated}	Motor	External, max.[1]
kW	Article No.	rpm	A	%	%	cos φ	cos φ	Nm	[-]	[-]	[-]	kgm²	kgm²
3.3 ... 6.6 kV, 50 Hz													
2-pole													
9500	**1RA7710-2FA60-0CJ0**	2985	1040	97.4	97.4	0.91	0.91	30391	2.00	0.60	4.50	149	216
10600	**1RA7712-2FA60-0CJ0**	2985	1140	97.5	97.5	0.91	0.91	33910	2.10	0.60	4.70	160	207
11800	**1RA7714-2FA60-0CJ0**	2986	1260	97.6	97.6	0.92	0.92	37736	2.25	0.65	5.00	176	207
13200	**1RA7716-2FA60-0CJ0**	2986	1400	97.8	97.7	0.93	0.92	42213	2.30	0.75	5.30	189	197
4-pole													
9000	**1RA7710-4FA60-0C■0**	1492	980	97.6	97.7	0.91	0.91	57602	2.35	0.65	4.90	262	753
10000	**1RA7712-4FA60-0C■0**	1492	1080	97.6	97.7	0.91	0.91	64003	2.35	0.70	5.00	288	804
11200	**1RA7714-4FA60-0C■0**	1492	1200	97.7	97.8	0.92	0.92	71683	2.40	0.70	5.10	323	917
12500	**1RA7716-4FA60-0C■0**	1492	1340	97.8	97.9	0.92	0.91	80004	2.45	0.65	5.20	362	1063
6-pole													
6700	**1RA7710-6FA6■-0C■0**	993	770	97.2	97.4	0.86	0.86	64431	2.15	0.65	4.50	352	2121
7500	**1RA7712-6FA6■-0C■0**	994	860	97.3	97.4	0.86	0.85	72052	2.20	0.65	4.60	398	2500
8300	**1RA7714-6FA6■-0C■0**	994	950	97.4	97.5	0.86	0.85	79737	2.25	0.65	4.70	450	3024
9300	**1RA7716-6FA6■-0C■0**	994	1060	97.5	97.6	0.86	0.86	89344	2.25	0.65	4.70	498	3260
8-pole													
5000	**1RA7710-8FA6■-0C■0**	744	580	96.8	97.1	0.85	0.84	64175	2.10	0.55	4.30	434	5604
5600	**1RA7712-8FA6■-0C■0**	745	650	97.0	97.2	0.86	0.84	71779	2.25	0.70	4.60	494	7372
6100	**1RA7714-8FA6■-0C■0**	745	700	97.1	97.3	0.86	0.84	78188	2.30	0.70	4.70	558	7899
6700	**1RA7716-8FA6■-0C■0**	745	780	97.2	97.4	0.85	0.84	85879	2.35	0.65	4.80	617	9308
10-pole													
3750	**1RA7710-3FA6■-0C■0**	595	440	96.6	96.8	0.85	0.82	60184	2.50	0.60	4.40	432	11689
4200	**1RA7712-3FA6■-0C■0**	595	490	96.7	96.9	0.85	0.82	67406	2.55	0.60	4.60	491	13437
4700	**1RA7714-3FA6■-0C■0**	595	540	96.8	97.1	0.86	0.84	75431	2.50	0.65	4.50	558	15129
5150	**1RA7716-3FA6■-0C■0**	594	590	96.9	97.2	0.86	0.85	82792	2.45	0.65	4.50	618	15557

Type of construction:	
IM B3 (IM 1001)	**0**
IM V1, without protective hood (IM 3011)	**8**
Housing and bearing version	
Steel fabricated housing/ anti-friction bearings	**G**
Steel fabricated housing/ sleeve bearing	**J**

Note:

Efficiencies according to IEC 60034-2-1:2007;
stray load losses determined by statistical evaluation of measurements.
NEMA version on request.

Higher pole numbers are available on request.

[1] Max. permissible external moment of inertia for three starts from cold or two starts from warm under the conditions described on Page 2/2.

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Selection and ordering data

Rated power	High voltage motor H-compact PLUS	Speed	Rated current	Efficiency		Power factor		Torque	Break-down torque	Locked-rotor torque	Locked-rotor current	Moment of inertia	
IEC			I_{rated} at 10 kV	4/4 load	3/4 load	4/4 load	3/4 load		T_B/T_{rated}	T_{LR}/T_{rated}	I_{LR}/I_{rated}	Motor	External, max.[1]
kW	Article No.	rpm	A	%	%	cos φ	cos φ	Nm	[-]	[-]	[-]	kgm²	kgm²
9 ... 11 kV, 50 Hz													
2-pole													
1250	**1RA6 450-2HJ■0**	2974	86	95.5	95.8	0.88	0.88	4013	2.15	0.70	4.80	12	31
1400	**1RA6 452-2HJ■0**	2977	94	95.8	96.1	0.90	0.89	4490	2.40	0.75	5.40	14	33
1550	**1RA6 454-2HJ■0**	2979	104	95.9	96.2	0.89	0.89	4968	2.40	0.70	5.50	15	36
1750	**1RA6 456-2HJ■0**	2980	116	96.2	96.5	0.90	0.90	5607	2.45	0.70	5.50	17	39
2180	**1RA6 500-2HJ■0**	2977	146	96.1	96.6	0.90	0.89	6992	2.15	0.55	4.80	19	37
2420	**1RA6 502-2HJ■0**	2976	162	96.3	96.7	0.90	0.90	7765	2.10	0.65	4.60	21	41
2660	**1RA6 504-2HJ■0**	2978	174	96.5	97.0	0.91	0.91	8529	2.25	0.55	4.90	25	45
2900	**1RA6 506-2HJ■0**	2976	190	96.6	97.1	0.91	0.91	9305	2.10	0.70	4.90	26	51
3550	**1RA6 560-2HJ■0**	2978	240	96.5	96.8	0.89	0.90	11383	2.00	0.50	4.05	39	115
4050	**1RA6 562-2HJ■0**	2982	270	96.7	96.8	0.90	0.90	12969	2.30	0.60	4.95	44	130
4630	**1RA6 564-2HJ■0**	2981	305	96.9	97.1	0.91	0.91	14831	2.25	0.60	4.80	49	145
5290	**1RA6 566-2HJ■0**	2984	345	97.1	97.1	0.91	0.91	16928	2.50	0.60	5.40	54	160
4300	**1RA4 630-2HE■0**	2984	290	96.8	96.9	0.89	0.88	13762	2.30	0.34	4.50	60	75
5000	**1RA4 632-2HE■0**	2985	330	97.3	97.3	0.9	0.89	15997	2.50	0.39	4.90	67	100
5700	**1RA4 634-2HE■0**	2986	375	97.4	97.4	0.90	0.89	18230	2.60	0.42	5.20	77	110
6700	**1RA4 636-2HE■0**	2987	440	97.6	97.7	0.90	0.89	21421	2.60	0.45	5.50	86	160
4-pole													
1060	**1RA6 450-4HJ■■**	1485	72	95.4	95.9	0.89	0.89	6816	2.50	0.70	5.15	21	170
1210	**1RA6 452-4HJ■■**	1484	82	95.5	96.1	0.89	0.89	7786	2.45	0.65	5.00	24	194
1360	**1RA6 454-4HJ■■**	1486	91	95.8	96.2	0.90	0.89	8739	2.55	0.65	5.30	27	225
1560	**1RA6 456-4HJ■■**	1487	104	96.0	96.4	0.90	0.88	10018	2.60	0.65	5.35	30	260
1980[2]	**1RA6 500-4HJ■0**	1486	134	95.9	96.7	0.89	0.88	12723	2.45	0.75	5.15	45	200
2180[2]	**1RA6 502-4HJ■0**	1486	148	96.0	96.8	0.89	0.88	14009	2.40	0.70	5.20	48	220
2420[2]	**1RA6 504-4HJ■0**	1488	164	96.2	96.9	0.89	0.88	15530	2.50	0.65	5.20	55	250
2610[2]	**1RA6 506-4HJ■0**	1488	176	96.3	97.0	0.89	0.88	16749	2.55	0.70	5.40	60	280
3250[2]	**1RA6 560-4HJ■0**	1490	215	96.8	97.2	0.91	0.91	20829	2.15	0.60	5.00	86	420
3600[2]	**1RA6 562-4HJ■0**	1491	235	96.9	97.3	0.91	0.91	23056	2.15	0.65	5.05	97	460
4100[2]	**1RA6 564-4HJ■0**	1491	270	97.1	97.4	0.91	0.90	26258	2.15	0.55	5.10	107	510
4450[2]	**1RA6 566-4HJ■0**	1492	290	97.2	97.5	0.91	0.90	28481	2.25	0.55	5.20	116	560
4500	**1RA4 630-4HE■■**	1490	300	96.9	97.1	0.89	0.89	28842	2.10	0.57	4.90	134	550
5000	**1RA4 632-4HE■■**	1490	330	97.1	97.2	0.90	0.90	32047	2.15	0.59	5.00	150	650
5600	**1RA4 634-4HE■■**	1490	370	97.3	97.4	0.90	0.90	35893	2.20	0.63	5.30	168	750
6200	**1RA4 636-4HE■■**	1491	410	97.4	97.5	0.90	0.90	39712	2.40	0.68	5.50	197	780

Voltage code:	
10 kV, 50 Hz	**8**
Other voltage	**9**
Type of construction:	
IM B3	**0**
IM V1 (without canopy)	**8**

Note:

Efficiencies according to IEC 60034-2-1:2007;
stray load losses determined by statistical evaluation of measurements.
NEMA version on request.

[1] Max. permissible external moment of inertia for three starts from cold or two starts from warm under the conditions described on Page 2/2.

[2] Data of vertical motors (IM V1) on request.

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Selection and ordering data (continued)

Rated power	High voltage motor H-compact PLUS	Speed	Rated current	Efficiency		Power factor		Torque	Break-down torque	Locked-rotor torque	Locked-rotor current	Moment of inertia	
IEC			I_{rated} at 10 kV	4/4 load	3/4 load	4/4 load	3/4 load		T_B/T_{rated}	T_{LR}/T_{rated}	I_{LR}/I_{rated}	Motor	External, max.[1]
kW	Article No.	rpm	A	%	%	cos φ	cos φ	Nm	[-]	[-]	[-]	kgm²	kgm²
9 ... 11 kV, 50 Hz													
6-pole													
820	**1RA6 450-6HJ■■**	990	59	95.2	95.7	0.85	0.83	7909	2.45	0.90	5.15	28	340
920	**1RA6 452-6HJ■■**	990	65	95.2	95.8	0.86	0.85	8874	2.40	0.95	5.10	32	400
1000	**1RA6 454-6HJ■■**	990	70	95.4	96.0	0.86	0.85	9645	2.40	0.95	5.10	35	460
1150	**1RA6 456-6HJ■■**	991	81	95.8	96.3	0.86	0.84	11081	2.45	0.85	5.15	41	560
1450	**1RA6 500-6HJ■■**	990	102	95.5	96.3	0.86	0.86	13986	2.15	0.70	4.55	56	830
1650	**1RA6 502-6HJ■■**	989	114	95.6	96.4	0.87	0.86	15931	2.10	0.70	4.50	61	910
1850	**1RA6 504-6HJ■■**	989	128	95.7	96.5	0.87	0.87	17862	2.10	0.70	4.65	68	1020
2020	**1RA6 506-6HJ■■**	990	140	95.9	96.6	0.87	0.86	19484	2.20	0.70	4.65	76	1140
2500	**1RA6 560-6HJ■■**	991	170	96.2	96.7	0.88	0.87	24090	2.05	0.70	4.85	107	1060
2800	**1RA6 562-6HJ■■**	992	190	96.5	96.9	0.88	0.87	26953	2.15	0.70	5.00	118	1160
3150	**1RA6 564-6HJ■■**	992	215	96.6	97.0	0.88	0.88	30322	2.10	0.70	4.75	131	1280
3430	**1RA6 566-6HJ■■**	992	230	96.7	97.1	0.89	0.88	33018	2.25	0.80	5.10	145	1420
3600	**1RA4 630-6HE■■**	993	250	96.7	96.9	0.86	0.84	34622	2.20	0.63	5.00	183	1200
4000	**1RA4 632-6HE■■**	993	275	96.8	97.0	0.87	0.85	38469	2.10	0.64	5.00	202	1500
4400	**1RA4 634-6HE■■**	993	300	97.0	97.1	0.87	0.86	42316	2.20	0.66	5.20	223	1750
4800	**1RA4 636-6HE■■**	994	330	97.1	97.2	0.87	0.86	46117	2.30	0.71	5.50	246	2000
8-pole													
520	**1RA6 450-8HJ■■**	743	38.5	94.4	95.0	0.83	0.81	6683	2.35	0.80	4.95	35	215
560	**1RA6 452-8HJ■■**	743	41	94.4	95.2	0.84	0.83	7197	2.25	0.75	4.80	39	290
590	**1RA6 454-8HJ■■**	743	43	94.3	95.1	0.84	0.83	7582	2.20	0.70	4.70	44	365
750	**1RA6 456-8HJ■■**	744	54	95.0	95.6	0.84	0.82	9626	2.45	0.80	5.15	51	485
1060	**1RA6 500-8HJ■■**	743	77	95.1	95.8	0.84	0.82	13623	2.20	0.60	4.75	68	830
1180	**1RA6 502-8HJ■■**	744	85	95.5	96.1	0.84	0.81	15145	2.35	0.65	4.95	75	910
1320	**1RA6 504-8HJ■■**	744	95	95.6	96.2	0.84	0.82	16942	2.35	0.65	5.00	84	1020
1490	**1RA6 506-8HJ■■**	744	108	95.7	96.3	0.84	0.82	19124	2.25	0.60	4.90	93	1120
1800	**1RA6 560-8HJ■■**	743	128	95.9	96.6	0.85	0.84	23134	2.00	0.60	4.50	127	1540
1980	**1RA6 562-8HJ■■**	744	140	96.0	96.7	0.85	0.84	25413	2.10	0.65	4.75	140	1700
2200	**1RA6 564-8HJ■■**	744	154	96.2	96.8	0.86	0.84	28237	2.10	0.60	4.75	155	1880
2380	**1RA6 566-8HJ■■**	744	166	96.3	96.9	0.86	0.84	30547	2.15	0.65	5.00	172	2100
2600	**1RA4 630-8HE■■**	744	186	96.3	96.4	0.84	0.81	33374	2.40	0.75	5.20	239	1800
2900	**1RA4 632-8HE■■**	744	205	96.4	96.5	0.84	0.81	37224	2.30	0.75	5.20	265	2000
3200	**1RA4 634-8HE■■**	744	225	96.6	96.7	0.85	0.82	41075	2.30	0.74	5.10	293	2200
3500	**1RA4 636-8HE■■**	744	245	96.7	96.8	0.86	0.83	44926	2.30	0.75	5.20	324	2600

Voltage code:	
10 kV, 50 Hz	**8**
Other voltage	**9**
Type of construction:	
IM B3	**0**
IM V1 (without canopy)	**8**

Note:

Efficiencies according to IEC 60034-2-1:2007;
stray load losses determined by statistical evaluation of measurements.
NEMA version on request.

[1] Max. permissible external moment of inertia for three starts from cold or two starts from warm under the conditions described on Page 2/2.

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Selection and ordering data (continued)

Rated power	High voltage motor H-compact PLUS	Speed	Rated current	Efficiency		Power factor		Torque	Break-down torque	Locked-rotor torque	Locked-rotor current	Moment of inertia	
IEC			I_{rated} at 10 kV	4/4 load	3/4 load	4/4 load	3/4 load		T_B/T_{rated}	T_{LR}/T_{rated}	I_{LR}/I_{rated}	Motor	External, max.[1]
kW	Article No.	rpm	A	%	%	cos φ	cos φ	Nm	[-]	[-]	[-]	kgm²	kgm²
9 ... 11 kV, 50 Hz													
10-pole													
720	**1RA6 500-3HE■■**	593	55	93.8	93.9	0.80	0.76	11595	2.20	0.82	5.20	70	900
830	**1RA6 502-3HE■■**	594	64	94.2	94.2	0.79	0.74	13344	2.20	0.82	5.30	80	1100
920	**1RA6 504-3HE■■**	594	71	94.3	94.3	0.79	0.74	14791	2.20	0.82	5.30	88	1200
1020	**1RA6 506-3HE■■**	594	79	94.5	94.5	0.79	0.75	16399	2.20	0.80	5.30	99	1400
1250	**1RA6 560-3HE■■**	593	94	94.8	94.9	0.81	0.77	20131	2.10	0.72	4.70	123	1650
1420	**1RA6 562-3HE■■**	593	106	94.9	95.2	0.82	0.78	22868	2.00	0.70	4.70	141	2050
1570	**1RA6 564-3HE■■**	593	116	95.1	95.4	0.82	0.78	25284	2.00	0.72	5.00	158	2500
1700	**1RA6 566-3HE■■**	595	128	95.3	95.4	0.80	0.75	27286	2.40	0.85	5.50	173	2700
2100	**1RA4 630-3HE■■**	593	152	95.8	96.1	0.83	0.80	33820	2.10	0.73	4.70	239	2500
2350	**1RA4 632-3HE■■**	594	172	96.0	96.2	0.82	0.78	37782	2.30	0.82	5.10	265	2900
2550	**1RA4 634-3HE■■**	594	184	96.0	96.3	0.83	0.79	40997	2.30	0.80	5.10	293	3000
2750	**1RA4 636-3HE■■**	594	196	96.2	96.5	0.84	0.80	44213	2.30	0.83	5.20	324	3500
12-pole													
580	**1RA6 502-5HE■■**	493	48.0	93.3	93.3	0.74	0.68	11235	2.00	0.70	4.70	79	1350
640	**1RA6 504-5HE■■**	493	53	93.5	93.6	0.74	0.68	12398	2.00	0.70	4.80	87	1500
700	**1RA6 506-5HE■■**	493	58	93.6	93.7	0.75	0.69	13560	2.10	0.70	4.80	98	1600
850	**1RA6 560-5HE■■**	494	69	93.8	94.1	0.76	0.71	16432	1.85	0.60	4.20	123	1750
1000	**1RA6 562-5HE■■**	494	82	94.4	94.6	0.75	0.69	19332	1.95	0.65	4.50	141	2200
1100	**1RA6 564-5HE■■**	494	88	94.5	94.7	0.76	0.71	21265	1.95	0.63	4.40	158	2500
1200	**1RA6 566-5HE■■**	494	96	94.8	94.8	0.76	0.71	23198	1.95	0.63	4.40	173	2900
1650	**1RA4 630-5HE■■**	494	126	95.1	95.5	0.79	0.74	31898	2.10	0.75	4.60	239	3000
1800	**1RA4 632-5HE■■**	494	142	95.4	95.7	0.77	0.71	34798	2.40	0.88	5.20	265	3500
1950	**1RA4 634-5HE■■**	494	152	95.5	95.7	0.78	0.73	37697	2.30	0.85	5.10	293	3400
2100	**1RA4 636-5HE■■**	495	162	95.7	95.9	0.78	0.73	40515	2.35	0.88	5.30	324	4000

Voltage code:	
10 kV, 50 Hz	**8**
Other voltage	**9**
Type of construction:	
IM B3	**0**
IM V1 (without canopy)	**8**

Note:

Efficiencies according to IEC 60034-2-1:2007;
stray load losses determined by statistical evaluation of measurements.
NEMA version on request.

Higher pole numbers are available on request.

[1] Max. permissible external moment of inertia for three starts from cold or two starts from warm under the conditions described on Page 2/2.

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Selection and ordering data

Rated power	High voltage motor SIMOTICS HV M (modular)	Speed	Rated current	Efficiency		Power factor		Torque	Break-down torque	Locked-rotor torque	Locked-rotor current	Moment of inertia	
IEC			I_{rated} at 10 kV	4/4 load	3/4 load	4/4 load	3/4 load		T_B/T_{rated}	T_{LR}/T_{rated}	I_{LR}/I_{rated}	Motor	External, max.[1]
kW	Article No.	rpm	A	%	%	cos φ	cos φ	Nm	[-]	[-]	[-]	kgm²	kgm²
9 ... 11 kV, 50 Hz													
2-pole													
8300	**1RA7710-2FA80-0CJ0**	2986	540	97.3	97.2	0.91	0.91	26543	2.15	0.60	4.80	149	272
9200	**1RA7712-2FA80-0CJ0**	2986	590	97.4	97.4	0.92	0.91	29421	2.20	0.65	5.00	160	273
10000	**1RA7714-2FA80-0CJ0**	2988	640	97.6	97.5	0.92	0.92	31958	2.30	0.70	5.50	174	309
11000	**1RA7716-2FA80-0CJ0**	2988	700	97.6	97.6	0.93	0.92	35154	2.40	0.65	5.40	190	303
4-pole													
7100	**1RA7710-4FA80-0C■0**	1493	460	97.4	97.5	0.91	0.91	45411	2.45	0.60	5.30	262	1077
8000	**1RA7712-4FA80-0C■0**	1493	520	97.5	97.6	0.91	0.91	51168	2.45	0.65	5.30	288	1140
9000	**1RA7714-4FA80-0C■0**	1493	580	97.6	97.7	0.92	0.92	57564	2.45	0.65	5.30	322	1317
10000	**1RA7716-4FA80-0C■0**	1493	640	97.7	97.8	0.92	0.92	63960	2.50	0.65	5.30	362	1506
6-pole													
5600	**1RA7710-6FA8■-0C■0**	995	385	97.1	97.2	0.86	0.84	53744	2.45	0.75	5.20	350	2627
6300	**1RA7712-6FA8■-0C■0**	995	435	97.3	97.3	0.86	0.85	60462	2.45	0.75	5.20	397	3212
7100	**1RA7714-6FA8■-0C■0**	995	490	97.3	97.3	0.86	0.84	68140	2.50	0.70	5.20	448	3232
8000	**1RA7716-6FA8■-0C■0**	995	550	97.4	97.4	0.87	0.85	76778	2.45	0.70	5.20	497	3931
8-pole													
4250	**1RA7710-8FA8■-0C■0**	745	300	96.6	96.9	0.85	0.83	54475	2.35	0.60	4.90	434	4820
4750	**1RA7712-8FA8■-0C■0**	746	335	96.8	97.0	0.85	0.83	60803	2.35	0.60	4.80	492	5704
5300	**1RA7714-8FA8■-0C■0**	746	365	96.9	97.1	0.86	0.84	67843	2.45	0.70	5.00	559	6953
6000	**1RA7716-8FA8■-0C■0**	746	420	97.0	97.2	0.85	0.83	76803	2.50	0.65	5.10	616	6922
10-pole													
3500	**1RA7710-3FA8■-0C■0**	595	245	96.5	96.7	0.85	0.82	56172	2.65	0.65	4.70	433	11504
3900	**1RA7712-3FA8■-0C■0**	595	275	96.7	96.9	0.85	0.83	62592	2.60	0.65	4.70	493	12639
4300	**1RA7714-3FA8■-0C■0**	595	300	96.8	97.0	0.85	0.83	69011	2.60	0.65	4.70	557	13791
4750	**1RA7716-3FA8■-0C■0**	595	335	96.7	97.0	0.85	0.83	76233	2.65	0.65	4.70	615	10027

Type of construction:	
IM B3 (IM 1001)	**0**
IM V1, without protective hood (IM 3011)	**8**

Housing and bearing version	
Steel fabricated housing/ anti-friction bearings	**G**
Steel fabricated housing/ sleeve bearing	**J**

Note:

Efficiencies according to IEC 60034-2-1:2007;
stray load losses determined by statistical evaluation of measurements.
NEMA version on request.

Higher pole numbers are available on request.

[1] Max. permissible external moment of inertia for three starts from cold or two starts from warm under the conditions described on Page 2/2.

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Selection and ordering data

Rated power	High voltage motor H-compact PLUS	Speed	Rated current	Efficiency		Power factor		Torque	Break-down torque	Locked-rotor torque	Locked-rotor current	Moment of inertia	
IEC			I_{rated} at 6.6 kV	4/4 load	3/4 load	4/4 load	3/4 load		T_B/T_{rated}	T_{LR}/T_{rated}	I_{LR}/I_{rated}	Motor	External, max.[1]
kW	Article No.	rpm	A	%	%	cos φ	cos φ	Nm	[-]	[-]	[-]	kgm²	kgm²
4 ... 6.6 kV, 60 Hz													
2-pole													
1700	**1RA6 450-2HJ■0**	3573	174	95.9	96.1	0.89	0.89	4543	2.05	0.60	4.60	13	34
2000	**1RA6 452-2HJ■0**	3573	200	96.1	96.4	0.90	0.90	5345	2.10	0.65	4.75	15	40
2240	**1RA6 454-2HJ■0**	3576	225	96.3	96.4	0.90	0.89	5981	2.25	0.65	5.10	16	45
2500	**1RA6 456-2HJ■0**	3580	250	96.5	96.6	0.90	0.89	6668	2.40	0.60	5.50	18	52
3000	**1RA6 500-2HJ■0**	3574	305	96.5	96.8	0.89	0.89	8015	1.95	0.45	4.15	20	64
3300	**1RA6 502-2HJ■0**	3575	330	96.6	96.9	0.90	0.89	8814	1.95	0.45	4.35	22	72
3880	**1RA6 504-2HJ■0**	3579	385	96.9	97.1	0.91	0.90	10352	2.30	0.55	5.05	26	80
4250	**1RA6 506-2HJ■0**	3578	420	97.1	97.3	0.91	0.91	11342	2.20	0.65	4.95	27	88
4750	**1RA6 560-2HJ■0**	3576	480	96.6	96.8	0.89	0.90	12684	1.90	0.50	4.15	39	145
5400	**1RA6 562-2HJ■0**	3578	540	96.8	96.9	0.90	0.91	14412	2.15	0.55	4.45	44	160
6100	**1RA6 564-2HJ■0**	3578	600	97.0	97.1	0.91	0.91	16280	2.15	0.55	4.70	49	180
6900	**1RA6 566-2HJ■0**	3581	680	97.2	97.2	0.91	0.91	18399	2.35	0.60	5.15	55	200
5700	**1RA4 630-2HE■0**	3583	580	97.0	96.9	0.88	0.87	15193	2.10	0.30	4.20	60	95
6500	**1RA4 632-2HE■0**	3584	660	97.2	97.2	0.89	0.89	17320	2.30	0.34	4.60	67	140
7500	**1RA4 634-2HE■0**	3585	750	97.5	97.5	0.90	0.89	19979	2.60	0.41	5.30	77	150
8200	**1RA4 636-2HE■0**	3585	820	97.6	97.6	0.90	0.90	21844	2.60	0.42	5.40	86	110
4-pole													
1680	**1RA6 450-4HJ■■**	1782	172	95.9	96.1	0.89	0.88	9002	2.40	0.65	4.90	21	178
1820	**1RA6 452-4HJ■■**	1784	186	96.0	96.2	0.89	0.88	9741	2.55	0.65	5.15	23	225
2120	**1RA6 454-4HJ■■**	1784	215	96.2	96.5	0.89	0.89	11347	2.55	0.65	5.20	27	285
2400	**1RA6 456-4HJ■■**	1785	245	96.4	96.6	0.89	0.87	12839	2.60	0.65	5.30	30	355
2700[2]	**1RA6 500-4HJ■0**	1785	275	96.4	97.0	0.89	0.88	14444	2.40	0.70	5.00	45	250
3000[2]	**1RA6 502-4HJ■0**	1786	305	96.5	97.0	0.89	0.88	16040	2.45	0.70	5.15	48	280
3400[2]	**1RA6 504-4HJ■0**	1786	345	96.5	97.1	0.89	0.88	18178	2.35	0.65	4.95	55	310
3820[2]	**1RA6 506-4HJ■0**	1786	390	96.7	97.2	0.89	0.88	20424	2.35	0.65	5.00	60	350
4500[2]	**1RA6 560-4HJ■0**	1790	450	97.2	97.4	0.91	0.90	24006	2.20	0.65	5.10	86	550
5000[2]	**1RA6 562-4HJ■0**	1790	490	97.3	97.5	0.91	0.91	26674	2.20	0.60	5.10	97	610
5600[2]	**1RA6 564-4HJ■0**	1791	550	97.4	97.6	0.91	0.90	29858	2.20	0.55	5.15	107	670
6150[2]	**1RA6 566-4HJ■0**	1790	610	97.4	97.6	0.91	0.91	32809	2.10	0.55	4.95	117	740
6500	**1RA4 630-4HE■0**	1789	660	97.2	97.3	0.88	0.88	34698	2.10	0.52	4.80	134	600
7300	**1RA4 632-4HE■0**	1789	740	97.3	97.5	0.89	0.89	38969	2.10	0.54	4.80	150	650
8000	**1RA4 634-4HE■0**	1790	810	97.5	97.6	0.89	0.89	42682	2.20	0.59	5.20	168	680
8600	**1RA4 636-4HE■0**	1791	870	97.7	97.7	0.89	0.88	45857	2.40	0.61	5.50	197	800

Voltage code:	
4 kV, 60 Hz	**4**
6.6 kV, 60 Hz	**1**
Other voltage	**9**
Type of construction:	
IM B3	**0**
IM V1 (without canopy)	**8**

Note:

Efficiencies according to IEC 60034-2-1:2007;
stray load losses determined by statistical evaluation of measurements.
NEMA version on request.

Electrical data is also valid for operation with SINAMICS PERFECT HARMONY drives.
For ordering, please note the 10th and 11th position of the article number code.

[1] Max. permissible external moment of inertia for three starts from cold or two starts from warm under the conditions described on Page 2/2.

[2] Data of vertical motors (IM V1) on request.

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Selection and ordering data (continued)

Rated power	High voltage motor H-compact PLUS	Speed	Rated current	Efficiency		Power factor		Torque	Break-down torque	Locked-rotor torque	Locked-rotor current	Moment of inertia	
IEC			I_{rated} at 6.6 kV	4/4 load	3/4 load	4/4 load	3/4 load		T_B/T_{rated}	T_{LR}/T_{rated}	I_{LR}/I_{rated}	Motor	External, max. [1]
kW	Article No.	rpm	A	%	%	cos φ	cos φ	Nm	[-]	[-]	[-]	kgm²	kgm²
4 ... 6.6 kV, 60 Hz													
6-pole													
1300	**1RA6 450-6HJ■■**	1186	140	95.8	96.3	0.85	0.84	10467	2.10	0.80	4.35	28	550
1450	**1RA6 452-6HJ■■**	1187	156	96.0	96.4	0.85	0.84	11665	2.15	0.75	4.50	32	610
1600	**1RA6 454-6HJ■■**	1188	172	96.1	96.5	0.85	0.85	12861	2.30	0.85	4.75	35	660
1730	**1RA6 456-6HJ■■**	1189	182	96.4	96.7	0.86	0.85	13894	2.45	0.95	5.10	41	730
2240	**1RA6 500-6HJ■■**	1188	240	96.2	96.8	0.85	0.85	18005	2.05	0.65	4.35	56	970
2500	**1RA6 502-6HJ■■**	1188	265	96.3	96.9	0.86	0.85	20095	2.05	0.65	4.45	61	1060
2800	**1RA6 504-6HJ■■**	1188	295	96.4	97.0	0.86	0.85	22506	2.05	0.60	4.55	68	1200
3100	**1RA6 506-6HJ■■**	1189	325	96.5	97.1	0.87	0.86	24897	2.10	0.70	4.45	76	1320
3500	**1RA6 560-6HJ■■**	1190	360	96.9	97.2	0.88	0.87	28086	1.95	0.65	4.50	107	1380
4000	**1RA6 562-6HJ■■**	1190	420	96.9	97.3	0.87	0.87	32098	1.95	0.65	4.40	118	1520
4500	**1RA6 564-6HJ■■**	1191	470	97.0	97.4	0.87	0.87	36080	2.00	0.65	4.65	131	1680
4950	**1RA6 566-6HJ■■**	1191	510	97.2	97.5	0.88	0.88	39688	2.05	0.70	4.65	145	1860
5100	**1RA4 630-6HE■■**	1192	530	97.1	97.2	0.86	0.85	40860	1.90	0.51	4.30	183	1700
5700	**1RA4 632-6HE■■**	1193	600	97.2	97.2	0.85	0.84	45629	2.00	0.56	4.70	202	2100
6200	**1RA4 634-6HE■■**	1193	650	97.3	97.3	0.86	0.85	49631	2.10	0.61	4.90	223	2000
6700	**1RA4 636-6HE■■**	1193	700	97.4	97.4	0.86	0.84	53634	2.30	0.64	5.20	246	2600
8-pole													
900	**1RA6 450-8HJ■■**	890	100	95.3	95.9	0.83	0.82	9656	1.90	0.55	3.90	35	475
1000	**1RA6 452-8HJ■■**	892	110	95.5	96.0	0.83	0.81	10705	2.20	0.65	4.50	39	570
1120	**1RA6 454-8HJ■■**	891	124	95.7	96.2	0.83	0.82	12003	2.10	0.65	4.35	44	670
1220	**1RA6 456-8HJ■■**	892	132	95.9	96.3	0.84	0.82	13060	2.30	0.70	4.80	51	820
1600	**1RA6 500-8HJ■■**	893	178	96.0	96.4	0.82	0.79	17109	2.20	0.55	4.80	68	1080
1800	**1RA6 502-8HJ■■**	892	196	96.1	96.6	0.84	0.82	19269	2.10	0.55	4.40	75	1200
2000	**1RA6 504-8HJ■■**	892	215	96.2	96.7	0.84	0.82	21410	2.10	0.55	4.40	84	1340
2200	**1RA6 506-8HJ■■**	893	240	96.3	96.7	0.84	0.82	23525	2.15	0.60	4.75	93	1480
2500	**1RA6 560-8HJ■■**	893	270	96.7	97.2	0.84	0.83	26733	2.00	0.50	4.60	127	1960
2800	**1RA6 562-8HJ■■**	893	300	96.8	97.3	0.85	0.83	29941	2.10	0.55	4.60	140	2150
3150	**1RA6 564-8HJ■■**	893	330	96.8	97.3	0.85	0.84	33684	2.10	0.55	4.65	155	2400
3400	**1RA6 566-8HJ■■**	893	360	96.8	97.3	0.85	0.84	36357	1.95	0.55	4.65	171	2650

Voltage code:	
4 kV, 60 Hz	**4**
6.6 kV, 60 Hz	**1**
Other voltage	**9**
Type of construction:	
IM B3	**0**
IM V1 (without canopy)	**8**

Note:

Efficiencies according to IEC 60034-2-1:2007;
stray load losses determined by statistical evaluation of measurements.
NEMA version on request.

Electrical data is also valid for operation with SINAMICS PERFECT HARMONY drives.
For ordering, please note the 10th and 11th position of the article number code.

[1] Max. permissible external moment of inertia for three starts from cold or two starts from warm under the conditions described on Page 2/2.

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Selection and ordering data (continued)

Rated power	High voltage motor H-compact PLUS	Speed	Rated current	Efficiency		Power factor		Torque	Break-down torque	Locked-rotor torque	Locked-rotor current	Moment of inertia	
IEC			I_{rated} at 6.6 kV	4/4 load	3/4 load	4/4 load	3/4 load		T_B/T_{rated}	T_{LR}/T_{rated}	I_{LR}/I_{rated}	Motor	External, max.[1]
kW	Article No.	rpm	A	%	%	cos φ	cos φ	Nm	[-]	[-]	[-]	kgm²	kgm²
4 ... 6.6 kV, 60 Hz													
10-pole													
650	**1RA6 450-3HJ■■**	710	74	93.7	94.0	0.82	0.78	8743	1.90	0.72	4.50	37	650
720	**1RA6 452-3HJ■■**	710	83	94.1	94.3	0.81	0.77	9685	2.00	0.75	4.70	41	850
800	**1RA6 454-3HJ■■**	711	92	94.3	94.4	0.81	0.76	10745	2.10	0.80	4.90	46	900
910	**1RA6 456-3HJ■■**	711	104	94.5	94.6	0.81	0.77	12223	2.10	0.80	5.00	52	1100
1080	**1RA6 500-3HE■■**	711	122	94.8	95.0	0.82	0.80	14506	1.80	0.65	4.40	70	1200
1200	**1RA6 502-3HE■■**	712	134	95.2	95.2	0.82	0.80	16096	1.90	0.68	4.70	80	1500
1320	**1RA6 504-3HE■■**	712	146	95.1	95.2	0.83	0.80	17705	1.90	0.70	4.70	88	1450
1500	**1RA6 506-3HE■■**	712	166	95.4	95.5	0.83	0.79	20119	2.00	0.72	4.90	99	1900
1780	**1RA6 560-3HE■■**	713	205	95.5	95.6	0.80	0.76	23842	2.00	0.70	4.60	123	2100
2040	**1RA6 562-3HE■■**	713	235	95.8	95.8	0.80	0.76	27324	2.00	0.70	4.80	141	2600
2200	**1RA6 564-3HE■■**	713	245	95.9	95.8	0.82	0.79	29467	2.00	0.68	4.60	158	2800
2400	**1RA6 566-3HE■■**	713	270	96.0	96.0	0.81	0.77	32146	2.10	0.75	5.00	173	3300
12-pole													
440	**1RA6 450-5HJ■■**	591	56	92.9	93.1	0.74	0.71	7110	1.80	0.56	4.00	37	630
510	**1RA6 452-5HJ■■**	591	65	93.3	93.3	0.73	0.68	8241	1.80	0.60	4.20	41	850
570	**1RA6 454-5HJ■■**	592	73	93.9	93.9	0.73	0.68	9195	1.80	0.60	4.20	46	1150
650	**1RA6 456-5HJ■■**	592	82	94.0	93.9	0.74	0.68	10486	1.90	0.60	4.30	52	1300
820	**1RA6 500-5HE■■**	592	102	94.4	94.3	0.74	0.68	13228	2.00	0.62	4.50	70	1650
920	**1RA6 502-5HE■■**	592	114	94.6	94.6	0.75	0.70	14841	1.90	0.62	4.40	79	2000
1020	**1RA6 504-5HE■■**	592	128	94.8	94.7	0.74	0.68	16454	2.00	0.65	4.70	87	2400
1120	**1RA6 506-5HE■■**	592	136	94.8	94.8	0.76	0.71	18068	1.90	0.60	4.40	98	2200
1300	**1RA6 560-5HE■■**	593	160	95.0	95.1	0.75	0.70	20936	1.80	0.53	3.90	123	2050
1470	**1RA6 562-5HE■■**	593	182	95.2	95.3	0.74	0.69	23674	1.80	0.55	4.00	141	2500
1620	**1RA6 564-5HE■■**	594	205	95.4	95.4	0.73	0.67	26045	2.00	0.63	4.30	158	3500
1760	**1RA6 566-5HE■■**	594	220	95.5	95.5	0.73	0.68	28296	2.00	0.63	4.40	173	3900

Voltage code:	
4 kV, 60 Hz	**4**
6.6 kV, 60 Hz	**1**
Other voltage	**9**
Type of construction:	
IM B3	**0**
IM V1 (without canopy)	**8**

Note:

Efficiencies according to IEC 60034-2-1:2007;
stray load losses determined by statistical evaluation of measurements.
NEMA version on request.

Higher pole numbers are available on request.

Electrical data is also valid for operation with SINAMICS PERFECT HARMONY drives.
For ordering, please note the 10th and 11th position of the article number code.

[1] Max. permissible external moment of inertia for three starts from cold or two starts from warm under the conditions described on Page 2/2.

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Selection and ordering data

Rated power	High voltage motor SIMOTICS HV M (modular)	Speed	Rated current	Efficiency		Power factor		Torque	Break-down torque	Locked-rotor torque	Locked-rotor current	Moment of inertia	
IEC			I_{rated} at 6.6 kV	4/4 load	3/4 load	4/4 load	3/4 load		T_B/T_{rated}	T_{LR}/T_{rated}	I_{LR}/I_{rated}	Motor	External, max.[1]
kW	Article No.	rpm	A	%	%	cos φ	cos φ	Nm	[-]	[-]	[-]	kgm^2	kgm^2
4 ... 6.6 kV, 60 Hz													
2-pole													
11200	**1RA7710-2FA10-0CJ0**	3585	1100	97.3	97.1	0.91	0.91	29833	2.05	0.60	4.70	148	102
12500	**1RA7712-2FA10-0CJ0**	3585	1220	97.4	97.3	0.92	0.91	33296	2.05	0.60	4.70	159	91
14000	**1RA7714-2FA10-0CJ0**	3586	1340	97.6	97.4	0.93	0.92	37281	2.30	0.75	5.30	174	84
15500	**1RA7716-2FA10-0CJ0**	3586	1500	97.6	97.5	0.93	0.92	41275	2.30	0.70	5.40	188	72
4-pole													
10000	**1RA7710-4FA10-0CJ0**	1793	980	97.6	97.5	0.91	0.90	53258	2.55	0.65	5.50	262	462
11200	**1RA7712-4FA10-0CJ0**	1792	1100	97.7	97.6	0.91	0.91	59683	2.50	0.65	5.40	288	491
12500	**1RA7714-4FA10-0CJ0**	1793	1220	97.7	97.7	0.91	0.91	66573	2.50	0.65	5.40	321	585
14000	**1RA7716-4FA10-0CJ0**	1793	1360	97.8	97.8	0.92	0.92	74562	2.50	0.60	5.40	363	649
6-pole													
7800	**1RA7710-6FA1■-0C■0**	1194	820	97.3	97.2	0.86	0.84	62382	2.30	0.70	4.90	351	1276
8700	**1RA7712-6FA1■-0C■0**	1194	900	97.5	97.4	0.87	0.86	69580	2.30	0.65	4.90	399	1491
9700	**1RA7714-6FA1■-0C■0**	1194	1000	97.5	97.5	0.87	0.86	77578	2.35	0.70	5.00	451	1813
10800	**1RA7716-6FA1■-0C■0**	1194	1120	97.6	97.5	0.87	0.86	86375	2.30	0.65	4.90	498	1886
8-pole													
5600	**1RA7710-8FA1■-0C■0**	895	590	97.0	97.1	0.85	0.84	59749	2.25	0.65	4.70	434	4686
6300	**1RA7712-8FA1■-0C■0**	895	670	97.1	97.2	0.85	0.84	67218	2.20	0.60	4.60	493	5419
7100	**1RA7714-8FA1■-0C■0**	895	740	97.2	97.3	0.86	0.85	75754	2.35	0.70	4.90	559	6194
8000	**1RA7716-8FA1■-0C■0**	895	850	97.3	97.4	0.85	0.84	85356	2.30	0.55	4.70	616	6874
10-pole													
4500	**1RA7710-3FA1■-0C■0**	715	485	96.7	96.8	0.84	0.81	60100	2.70	0.65	4.80	433	7417
5000	**1RA7712-3FA1■-0C■0**	715	530	96.9	97.0	0.85	0.82	66778	2.65	0.60	4.80	493	8467
5600	**1RA7714-3FA1■-0C■0**	715	590	96.9	97.0	0.85	0.82	74791	2.75	0.70	4.90	557	9936
6200	**1RA7716-3FA1■-0C■0**	715	660	97.0	97.1	0.85	0.83	82805	2.75	0.70	5.00	618	10760

Type of construction:	
IM B3 (IM 1001)	**0**
IM V1, without protective hood (IM 3011)	**8**

Housing and bearing version	
Steel fabricated housing/ anti-friction bearings	**G**
Steel fabricated housing/ sleeve bearing	**J**

Note:

Efficiencies according to IEC 60034-2-1:2007;
stray load losses determined by statistical evaluation of measurements.
NEMA version on request.

Higher pole numbers are available on request.

[1] Max. permissible external moment of inertia for three starts from cold or two starts from warm under the conditions described on Page 2/2.

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Selection and ordering data

NEMA version

Rated power	**High voltage motor H-compact PLUS**	Speed	Rated current	Efficiency		Power factor		Torque	Break-down torque	Locked-rotor torque	Locked-rotor current	Moment of inertia	
NEMA			I_{rated} at 6.6 kV	4/4 load	3/4 load	4/4 load	3/4 load		T_B/T_{rated}	T_{LR}/T_{rated}	I_{LR}/I_{rated}	Motor	External, max.[1]
hp	Article No.	rpm	A	%	%	cos φ	cos φ	Nm	[-]	[-]	[-]	kgm²	kgm²
4 ... 6.6 kV, 60 Hz													
2-pole													
10000[2]	**1RP6 710-2BM■0**	3586	747	96.4	96.2	0.90	0.89	19861	2.20	0.60	5.20	132	56
11000[2]	**1RP6 712-2BM■0**	3588	828	96.5	96.2	0.89	0.88	21837	2.50	0.60	5.80	147	55
12000[2]	**1RP6 712-2BN■0**	3587	898	96.6	96.4	0.90	0.89	23827	2.30	0.60	5.40	147	54
13000[2]	**1RP6 714-2BM■0**	3587	956	96.6	96.4	0.92	0.91	25814	2.50	0.64	6.00	162	54
14000[2]	**1RP6 714-2BN■0**	3587	1036	96.7	96.5	0.91	0.90	27801	2.40	0.60	5.70	162	53
16000[2]	**1RP6 716-2BM■0**	3586	1166	96.8	96.7	0.92	0.92	31777	2.40	0.62	5.80	179	51
17000[2]	**1RP6 716-2BN■0**	3587	1251	96.9	96.8	0.91	0.90	33759	2.40	0.60	5.80	179	49
4-pole													
11000[2]	**1RP6 710-4BJ■0**	1793	815	97.4	97.6	0.90	0.89	43695	2.30	0.60	5.90	273	603
12000[2]	**1RP6 712-4BJ■0**	1793	880	97.5	97.6	0.91	0.90	47668	2.20	0.60	5.90	300	637
13000[2]	**1RP6 712-4BK■0**	1793	962	97.5	97.6	0.90	0.89	51635	2.30	0.60	5.90	300	620
14000[2]	**1RP6 714-4BJ■0**	1793	1021	97.4	97.6	0.91	0.91	55625	2.20	0.60	5.80	337	651
15000[2]	**1RP6 714-4BK■0**	1793	1104	97.5	97.7	0.91	0.89	59583	2.30	0.60	6.00	337	665
16000[2]	**1RP6 716-4BJ■0**	1793	1161	97.5	97.7	0.92	0.91	63575	2.20	0.61	5.80	369	678
17000[2]	**1RP6 716-4BK■0**	1792	1238	97.5	97.7	0.92	0.91	67557	2.10	0.60	5.60	369	691
18000[2]	**1RP6 716-4BL■0**	1793	1324	97.6	97.7	0.91	0.90	71504	2.20	0.61	5.90	369	702
6-pole													
9000	**1RP6 710-6BJ■■**	1194	702	97.1	97.3	0.86	0.84	53690	2.10	0.71	5.50	330	1954
10000	**1RP6 712-6BJ■■**	1194	781	97.2	97.4	0.86	0.83	59647	2.20	0.71	5.60	367	2043
11000	**1RP6 714-6BJ■■**	1194	846	97.3	97.4	0.87	0.85	65612	2.20	0.75	5.70	419	2113
12000	**1RP6 716-6BJ■■**	1194	915	97.2	97.3	0.88	0.86	71577	2.20	0.77	5.70	468	2168
8-pole													
7000	**1RP6 710-8BJ■■**	895	566	96.9	97.1	0.83	0.80	55695	2.10	0.79	5.50	415	3817
8000	**1RP6 712-8BJ■■**	895	646	97.0	97.1	0.83	0.81	63651	2.00	0.80	5.50	465	4154
9000	**1RP6 714-8BJ■■**	895	721	97.1	97.2	0.84	0.81	71587	2.10	0.83	5.70	531	4458
10000	**1RP6 716-8BJ■■**	896	810	97.1	97.2	0.83	0.80	79506	2.20	0.87	6.00	597	4732
10-pole													
5000	**1RP6 710-3BJ■■**	716	427	96.6	96.7	0.79	0.75	49758	2.20	0.73	5.30	415	5006
5500	**1RP6 712-3BJ■■**	716	464	96.7	96.9	0.80	0.76	54720	2.20	0.72	5.30	465	5428
6000	**1RP6 714-3BJ■■**	716	502	96.8	96.9	0.80	0.77	59682	2.20	0.74	5.50	531	6221
7000	**1RP6 716-3BJ■■**	716	584	96.9	97.0	0.80	0.77	69631	2.20	0.77	5.60	598	6955

Voltage code:	
4 kV, 60 Hz	**4**
4.16 kV, 60 Hz	**3**
6.6 kV, 60 Hz	**1**
Other voltage	**9**
Type of construction:	
IM B3	**0**
IM V1 (with canopy)	**4**

Note:

Higher pole numbers are available on request.

[1] Max. permissible external moment of inertia for three starts from cold or two starts from warm under the conditions described on Page 2/2.

[2] V_{rated} < 6 kV on request.

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Selection and ordering data

NEMA version

Rated power	High voltage motor H-compact PLUS	Speed	Rated current	Efficiency		Power factor		Torque	Break-down torque	Locked-rotor torque	Locked-rotor current	Moment of inertia	
NEMA			I_{rated} at 13.2 kV	4/4 load	3/4 load	4/4 load	3/4 load		T_B/T_{rated}	T_{LR}/T_{rated}	I_{LR}/I_{rated}	Motor	External, max.[1]
hp	Article No.	rpm	A	%	%	cos φ	cos φ	Nm	[-]	[-]	[-]	kgm²	kgm²
12.5 ... 13.8 kV, 60 Hz													
2-pole													
8000	**1RP6 710-2BM■0**	3588	301	96.0	95.6	0.90	0.89	15881	2.50	0.60	5.60	132	52
9000	**1RP6 712-2BM■0**	3588	334	96.0	95.6	0.91	0.90	17864	2.60	0.60	6.00	147	51
10000	**1RP6 712-2BN■0**	3588	375	96.2	95.9	0.90	0.89	19849	2.60	0.60	6.00	147	49
11000	**1RP6 714-2BM■0**	3588	407	96.2	95.9	0.91	0.90	21837	2.50	0.60	6.00	162	48
12000	**1RP6 716-2BM■0**	3587	437	96.3	96.0	0.93	0.92	23827	2.40	0.60	5.80	179	47
13000	**1RP6 716-2BN■0**	3588	478	96.4	96.2	0.92	0.91	25806	2.50	0.60	6.00	179	45
4-pole													
9000	**1RP6 710-4BJ■0**	1794	337	97.1	97.2	0.89	0.88	35727	2.40	0.60	6.20	273	553
10000	**1RP6 712-4BJ■0**	1794	368	97.1	97.3	0.91	0.90	39708	2.30	0.60	6.20	300	555
11000	**1RP6 714-4BJ■0**	1794	403	97.2	97.3	0.91	0.90	43682	2.30	0.60	6.20	337	603
12000	**1RP6 716-4BJ■0**	1793	436	97.2	97.3	0.92	0.92	47662	2.30	0.63	6.20	369	620
13000	**1RP6 716-4BK■0**	1794	475	97.2	97.4	0.91	0.91	51625	2.30	0.60	6.10	369	637
6-pole													
7000	**1RP6 710-6BJ■■**	1195	278	96.9	97.0	0.85	0.82	41723	2.40	0.72	6.00	330	1722
8000	**1RP6 712-6BJ■■**	1195	315	97.0	97.1	0.85	0.82	47688	2.40	0.73	6.00	367	1849
9000	**1RP6 714-6BJ■■**	1195	350	97.0	97.1	0.86	0.84	53642	2.30	0.73	6.00	419	1954
10000	**1RP6 716-6BJ■■**	1195	388	97.1	97.2	0.86	0.84	59600	2.30	0.72	6.00	468	2042
8-pole													
5000	**1RP6 710-8BJ■■**	896	201	96.5	96.6	0.84	0.81	39760	2.20	0.79	5.90	415	3024
5500	**1RP6 712-8BJ■■**	896	220	96.6	96.7	0.84	0.81	43721	2.20	0.80	6.00	465	3235
6000	**1RP6 714-8BJ■■**	896	239	96.6	96.7	0.84	0.82	47691	2.30	0.80	6.00	531	3438
7000	**1RP6 716-8BJ■■**	896	279	96.7	96.8	0.85	0.82	55642	2.20	0.79	6.00	597	3817
10-pole													
3500	**1RP6 710-3BJ■■**	717	151	96.2	96.2	0.79	0.74	34788	2.50	0.78	6.00	415	4104
4000	**1RP6 712-3BJ■■**	717	172	96.3	96.3	0.79	0.74	39757	2.50	0.78	6.00	465	4564
4500	**1RP6 714-3BJ■■**	717	188	96.4	96.5	0.81	0.77	44739	2.40	0.79	6.00	531	5006
5000	**1RP6 716-3BJ■■**	717	207	96.5	96.6	0.82	0.78	49713	2.40	0.78	6.00	598	5428

Voltage code:	
13.2 kV, 60 Hz	**2**
Other voltage	**9**
Type of construction:	
IM B3	**0**
IM V1 (with canopy)	**4**

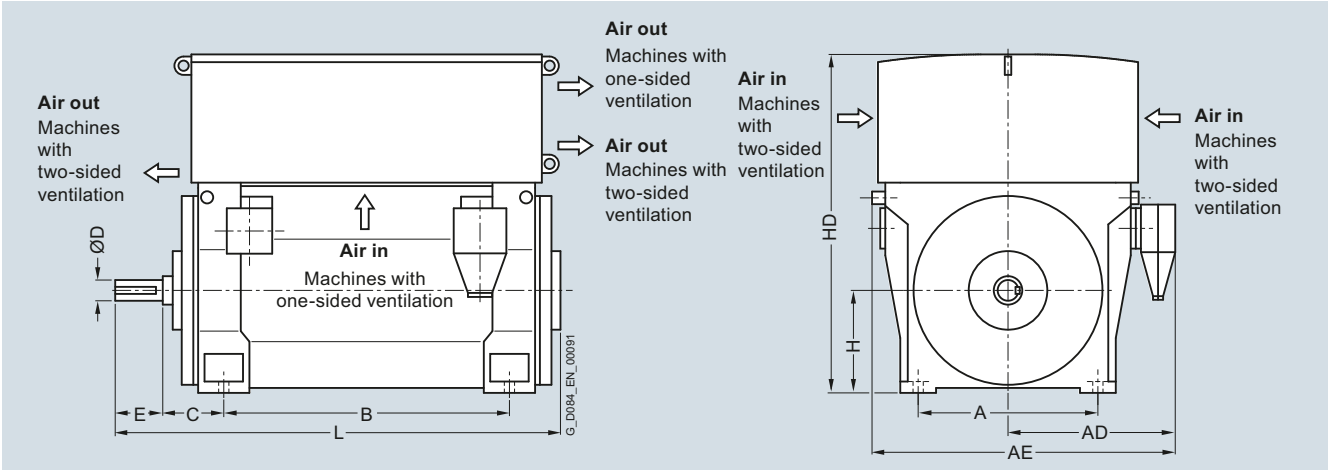
Note:

Higher pole numbers are available on request.

[1] Max. permissible external moment of inertia for three starts from cold or two starts from warm under the conditions described on Page 2/2.

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Dimension drawings



Motor type	Weight	Dimensions									
		A	AD[1]	AE[1]	B	C	D	E	H	HD[3]	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, IM B3 type of construction, anti-friction bearings – 1RA4, 1RA6 series											
2-pole											
1RA6 450-2HJ.0[2]	3700	850	930	1620	1180	280	95	130	450	1628	1843
1RA6 452-2HJ.0[2]	3900	850	930	1620	1180	280	95	130	450	1628	1843
1RA6 454-2HJ.0[2]	4300	850	930	1620	1400	280	95	130	450	1628	2053
1RA6 456-2HJ.0[2]	4550	850	930	1620	1400	280	95	130	450	1628	2053
1RA6 500-2HJ.0[2]	5450	950	1135	1835	1320	315	110	165	500	1850	2150
1RA6 502-2HJ.0[2]	5600	950	1135	1835	1320	315	110	165	500	1850	2150
4-pole											
1RA6 450-4HJ.0	4050	850	930	1620	1180	250	130	200	450	1408	1896
1RA6 452-4HJ.0	4250	850	930	1620	1180	250	130	200	450	1408	1896
1RA6 454-4HJ.0	4650	850	930	1620	1400	250	130	200	450	1408	2106
1RA6 456-4HJ.0	4950	850	930	1620	1400	250	130	200	450	1408	2106
1RA6 500-4HJ.0	5950	950	1135	1835	1320	280	150	200	500	1850	2150
1RA6 502-4HJ.0	6150	950	1135	1835	1320	280	150	200	500	1850	2150
1RA6 504-4HJ.0	6800	950	1135	1835	1500	280	150	200	500	1850	2300
1RA6 506-4HJ.0	7150	950	1135	1835	1500	280	150	200	500	1850	2300
1RA6 560-4HJ.0	7450	1060	1205	1975	1400	315	170	240	560	2100	2300
1RA6 562-4HJ.0	7850	1060	1205	1975	1400	315	170	240	560	2100	2300
1RA6 564-4HJ.0	8700	1060	1205	1975	1600	315	170	240	560	2100	2550
1RA6 566-4HJ.0	9250	1060	1205	1975	1600	315	170	240	560	2100	2550
1RA4 630-4HE.0[2]	9950	1320	1330	2210	1600	335	200	280	630	2400	2500
1RA4 632-4HE.0[2]	10650	1320	1330	2210	1600	335	200	280	630	2400	2500
1RA4 634-4HE.0[2]	11700	1320	1330	2210	1800	335	220	280	630	2400	2740
1RA4 636-4HE.0[2]	12250	1320	1330	2210	1800	335	220	280	630	2400	2740

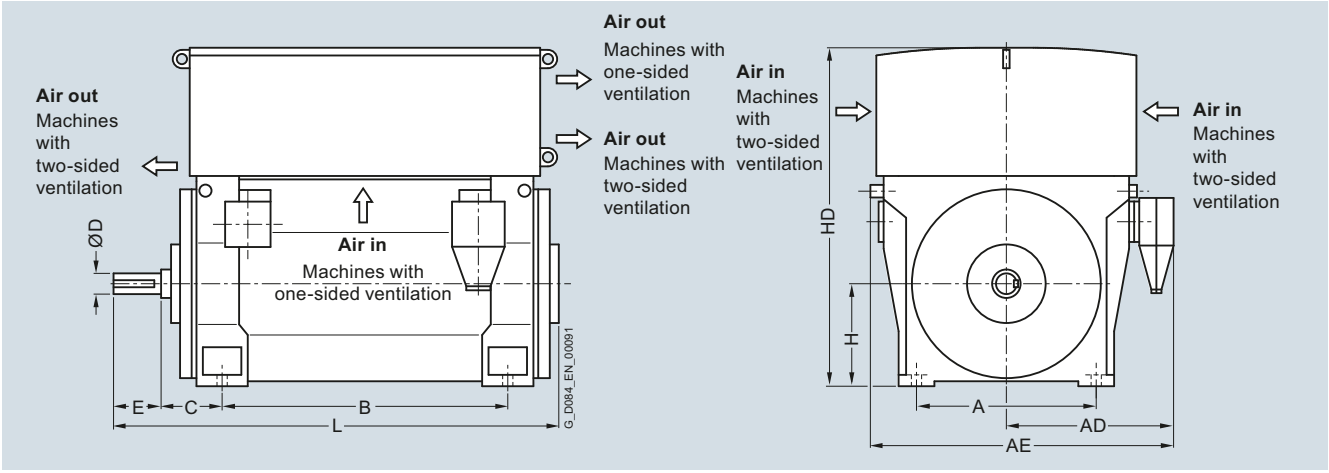
[1] The value applies for 6 kV. When a lower voltage is selected, the rated current increases. For rated currents above 315 A, the dimension increases by 140 mm.

[2] Anti-friction bearings only for 50 Hz operation.

[3] Dimension HD for 1RP6 on request.

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Dimension drawings (continued)



Motor type	Weight	Dimensions									
		A	AD[1]	AE[1]	B	C	D	E	H	HD[3]	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, IM B3 type of construction, anti-friction bearings – 1RA4, 1RA6 series											
6-pole											
1RA6 450-6HJ.0	4150	850	930	1620	1180	250	140	200	450	1408	1896
1RA6 452-6HJ.0	4400	850	930	1620	1180	250	140	200	450	1408	1896
1RA6 454-6HJ.0	4750	850	930	1620	1400	280	140	200	450	1408	2136
1RA6 456-6HJ.0	5100	850	930	1620	1400	280	140	200	450	1408	2136
1RA6 500-6HJ.0	6050	950	1135	1835	1320	315	160	240	500	1610	2150
1RA6 502-6HJ.0	6350	950	1135	1835	1320	315	160	240	500	1610	2150
1RA6 504-6HJ.0	6900	950	1135	1835	1500	315	160	240	500	1610	2360
1RA6 506-6HJ.0	7300	950	1135	1835	1500	315	160	240	500	1610	2360
1RA6 560-6HJ.0	8200	1060	1205	1975	1400	315	180	240	560	1760	2300
1RA6 562-6HJ.0	8600	1060	1205	1975	1400	315	180	240	560	1760	2300
1RA6 564-6HJ.0	9450	1060	1205	1975	1600	315	180	240	560	1760	2550
1RA6 566-6HJ.0	10000	1060	1205	1975	1600	315	180	240	560	1760	2550
1RA4 630-6HE.0	10250	1320	1330	2210	1600	335	220	280	630	2400	2500
1RA4 632-6HE.0	10800	1320	1330	2210	1600	335	220	280	630	2400	2500
1RA4 634-6HE.0	11800	1320	1330	2210	1800	335	220	280	630	2400	2740
1RA4 636-6HE.0	12550	1320	1330	2210	1800	335	220	280	630	2400	2740
8-pole											
1RA6 450-8HJ.0	4150	850	930	1620	1180	250	140	200	450	1408	1896
1RA6 452-8HJ.0	4450	850	930	1620	1180	250	140	200	450	1408	1896
1RA6 454-8HJ.0	4800	850	930	1620	1400	280	140	200	450	1408	2136
1RA6 456-8HJ.0	5150	850	930	1620	1400	280	140	200	450	1408	2136
1RA6 500-8HJ.0	6000	950	1135	1835	1320	315	160	240	500	1610	2150
1RA6 502-8HJ.0	6300	950	1135	1835	1320	315	160	240	500	1610	2150
1RA6 504-8HJ.0	6900	950	1135	1835	1500	315	160	240	500	1610	2360
1RA6 506-8HJ.0	7250	950	1135	1835	1500	315	160	240	500	1610	2360
1RA6 560-8HJ.0	8150	1060	1205	1975	1400	315	180	240	560	1760	2300
1RA6 562-8HJ.0	8600	1060	1205	1975	1400	315	180	240	560	1760	2300
1RA6 564-8HJ.0	9400	1060	1205	1975	1600	315	180	240	560	1760	2550
1RA6 566-8HJ.0	9950	1060	1205	1975	1600	315	180	240	560	1760	2550

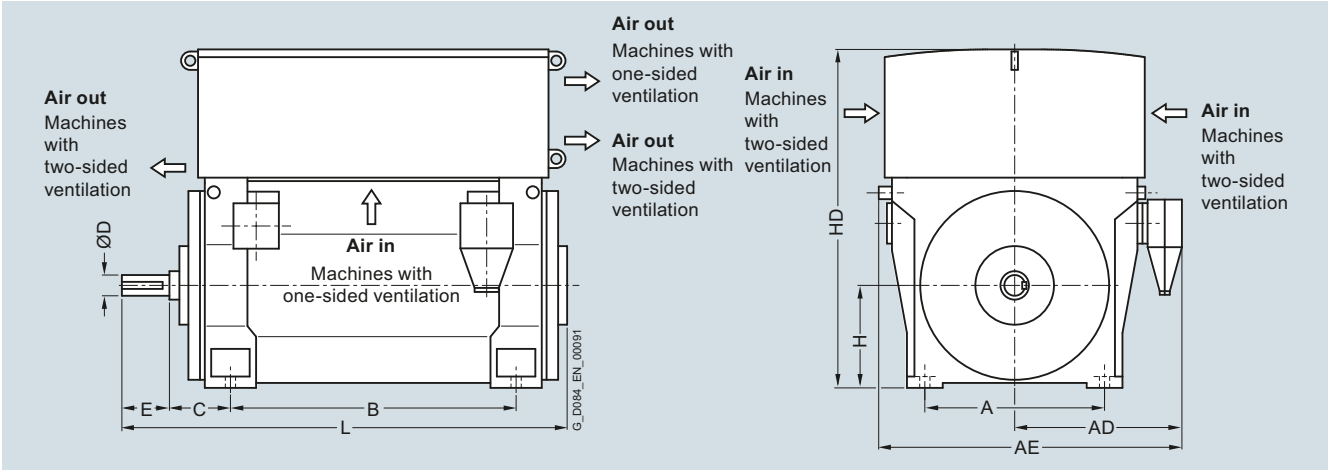
[1] The value applies for 6 kV. When a lower voltage is selected, the rated current increases. For rated currents above 315 A, the dimension increases by 140 mm.

[2] Anti-friction bearings only for 50 Hz operation.

[3] Dimension HD for 1RP6 on request.

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Dimension drawings (continued)



Motor type	Weight	Dimensions									
		A	AD[1]	AE[1]	B	C	D	E	H	HD[3]	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, IM B3 type of construction, anti-friction bearings – 1RA4, 1RA6 series											
8-pole											
1RA4 630-8HE.0[2]	10150	1320	1330	2210	1600	335	220	280	630	2400	2500
1RA4 632-8HE.0[2]	10800	1320	1330	2210	1600	335	220	280	630	2400	2500
1RA4 634-8HE.0[2]	11700	1320	1330	2210	1800	335	220	280	630	2400	2740
1RA4 636-8HE.0[2]	12450	1320	1330	2210	1800	335	220	280	630	2400	2740
10-pole											
1RA6 450-3HJ.0	4150	850	930	1620	1180	250	140	200	450	1408	1896
1RA6 452-3HJ.0	4450	850	930	1620	1180	250	140	200	450	1408	1896
1RA6 454-3HJ.0	4800	850	930	1620	1400	280	140	200	450	1408	2136
1RA6 456-3HJ.0	5150	850	930	1620	1400	280	140	200	450	1408	2136
1RA6 500-3HE.0	5250	950	1000	1760	1320	280	160	240	500	1520	2270
1RA6 502-3HE.0	5600	950	1000	1760	1320	280	160	240	500	1520	2270
1RA6 504-3HE.0	6150	950	1000	1760	1500	280	170	240	500	1520	2480
1RA6 506-3HE.0	6550	950	1000	1760	1500	280	170	240	500	1520	2480
1RA6 560-3HE.0	7100	1060	1070	1900	1400	315	180	240	560	1750	2300
1RA6 562-3HE.0	7700	1060	1070	1900	1400	315	180	240	560	1750	2300
1RA6 564-3HE.0	8500	1060	1070	1900	1600	315	190	280	560	1750	2570
1RA6 566-3HE.0	8950	1060	1070	1900	1600	315	190	280	560	1750	2570
1RA4 630-3HE.0[2]	10050	1320	1180	2060	1600	335	220	280	630	2400	2500
1RA4 632-3HE.0[2]	10750	1320	1330	2210	1600	335	220	280	630	2400	2500
1RA4 634-3HE.0[2]	11750	1320	1330	2210	1800	335	220	280	630	2400	2740
1RA4 636-3HE.0[2]	12450	1320	1330	2210	1800	335	220	280	630	2400	2740

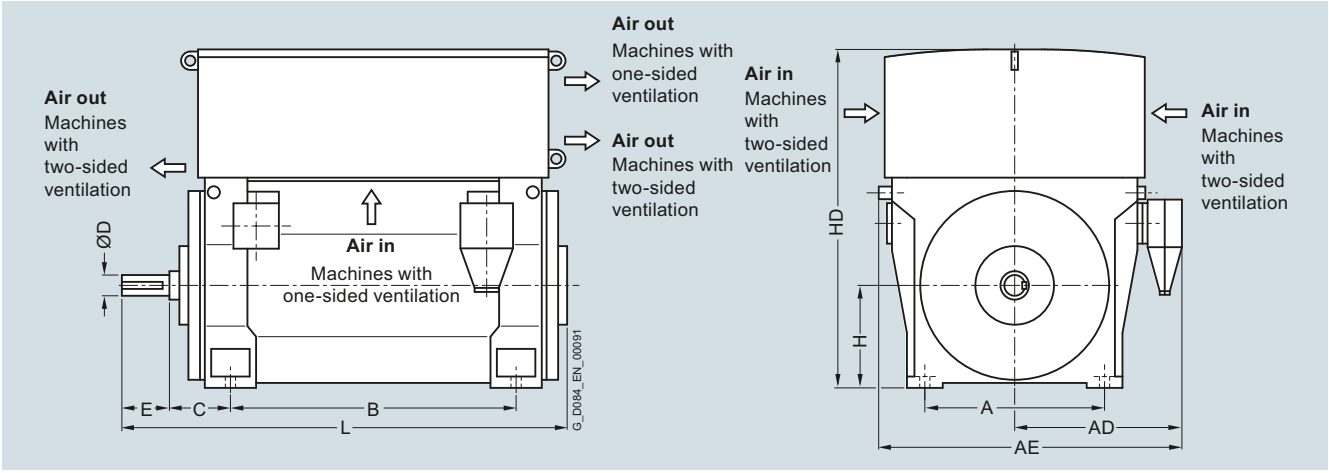
[1] The value applies for 6 kV. When a lower voltage is selected, the rated current increases. For rated currents above 315 A, the dimension increases by 140 mm.

[2] Anti-friction bearings only for 50 Hz operation.

[3] Dimension HD for 1RP6 on request.

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Dimension drawings (continued)



Motor type	Weight	Dimensions									
		A	AD[1]	AE[1]	B	C	D	E	H	HD[3]	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, IM B3 type of construction, anti-friction bearings – 1RA4, 1RA6 series											
12-pole											
1RA6 450-5HJ.0	4150	850	930	1620	1180	250	140	200	450	1408	1896
1RA6 452-5HJ.0	4450	850	930	1620	1180	250	140	200	450	1408	1896
1RA6 454-5HJ.0	4800	850	930	1620	1400	280	140	200	450	1408	2136
1RA6 456-5HJ.0	5150	850	930	1620	1400	280	140	200	450	1408	2136
1RA6 500-5HE.0	5250	950	1000	1760	1320	280	160	240	500	1520	2270
1RA6 502-5HE.0	5650	950	1000	1760	1320	280	160	240	500	1520	2270
1RA6 504-5HE.0	6100	950	1000	1760	1500	280	170	240	500	1520	2480
1RA6 506-5HE.0	6550	950	1000	1760	1500	280	170	240	500	1520	2480
1RA6 560-5HE.0	7150	1060	1070	1900	1400	315	180	240	560	1750	2300
1RA6 562-5HE.0	7700	1060	1070	1900	1400	315	180	240	560	1750	2300
1RA6 564-5HE.0	8500	1060	1070	1900	1600	315	190	280	560	1750	2570
1RA6 566-5HE.0	8950	1060	1070	1900	1600	315	190	280	560	1750	2570
1RA4 630-5HE.0[2]	9950	1320	1180	2060	1600	335	220	280	630	2400	2500
1RA4 632-5HE.0[2]	10600	1320	1180	2060	1600	335	220	280	630	2400	2500
1RA4 634-5HE.0[2]	11600	1320	1180	2060	1800	335	220	280	630	2400	2740
1RA4 636-5HE.0[2]	12400	1320	1330	2210	1800	335	220	280	630	2400	2740

Note: Higher pole numbers are available on request.

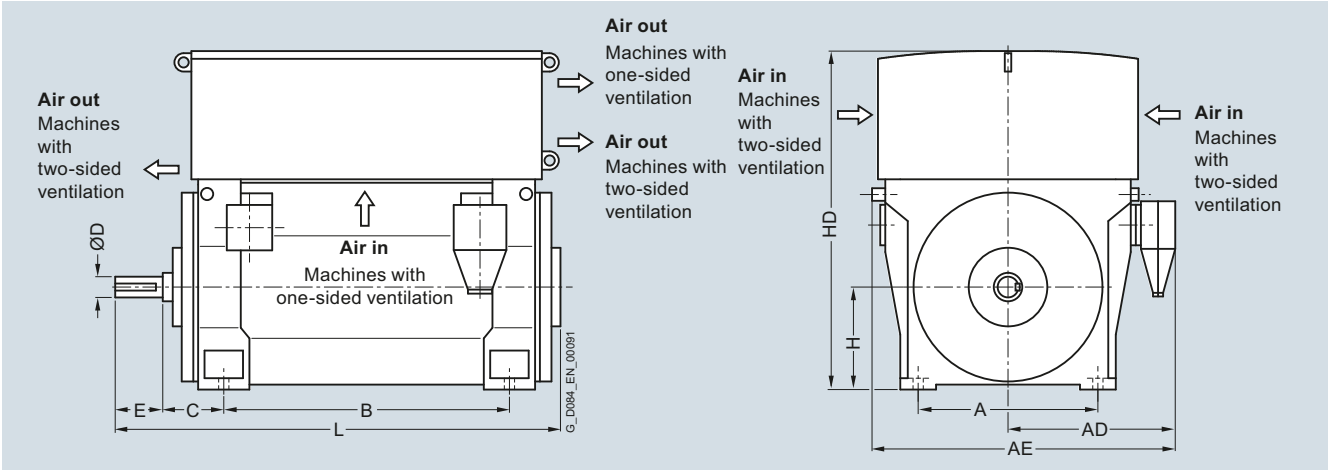
[1] The value applies for 6 kV. When a lower voltage is selected, the rated current increases. For rated currents above 315 A, the dimension increases by 140 mm.

[2] Anti-friction bearings only for 50 Hz operation.

[3] Dimension HD for 1RP6 on request.

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Dimension drawings

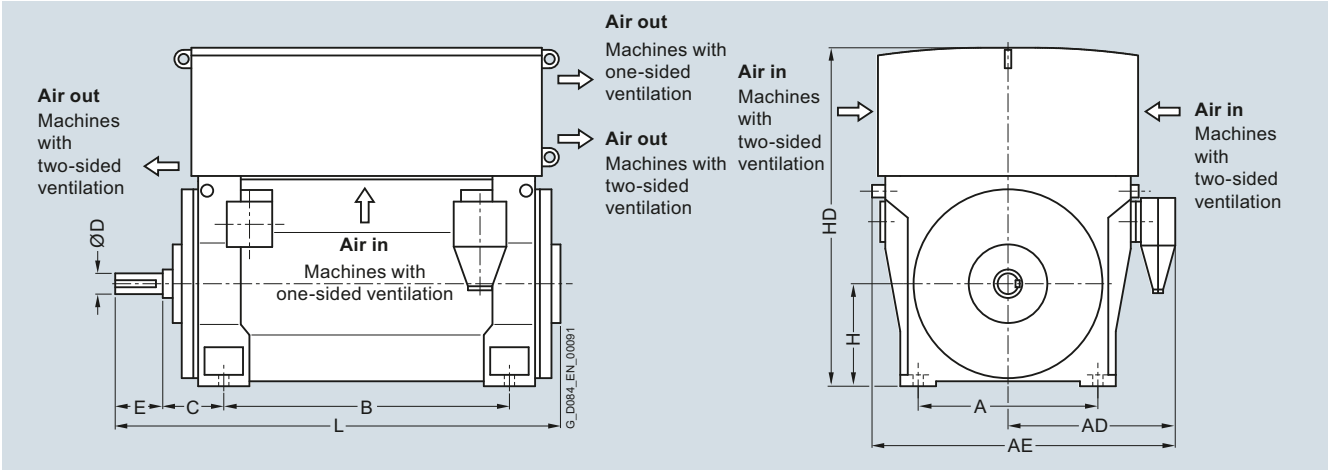


Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD[2]	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
9 ... 11 kV, IM B3 type of construction, anti-friction bearings – 1RA4, 1RA6 series											
2-pole											
1RA6 450-2HJ.0[1]	3700	850	1070	1840	1180	280	95	130	450	1628	1875
1RA6 452-2HJ.0[1]	3900	850	1070	1840	1180	280	95	130	450	1628	1875
1RA6 454-2HJ.0[1]	4300	850	1070	1840	1400	280	95	130	450	1628	2085
1RA6 456-2HJ.0[1]	4550	850	1070	1840	1400	280	95	130	450	1628	2085
1RA6 500-2HJ.0[1]	5450	950	1270	1970	1320	315	110	165	500	1850	2150
1RA6 502-2HJ.0[1]	5600	950	1270	1970	1320	315	110	165	500	1850	2150
4-pole											
1RA6 450-4HJ.0	4050	850	1070	1840	1180	250	130	200	450	1408	1896
1RA6 452-4HJ.0	4250	850	1070	1840	1180	250	130	200	450	1408	1896
1RA6 454-4HJ.0	4650	850	1070	1840	1400	250	130	200	450	1408	2106
1RA6 456-4HJ.0	4950	850	1070	1840	1400	250	130	200	450	1408	2106
1RA6 500-4HJ.0	5950	950	1270	1970	1320	280	150	200	500	1850	2150
1RA6 502-4HJ.0	6150	950	1270	1970	1320	280	150	200	500	1850	2150
1RA6 504-4HJ.0	6800	950	1270	1970	1500	280	150	200	500	1850	2300
1RA6 506-4HJ.0	7150	950	1270	1970	1500	280	150	200	500	1850	2300
1RA6 560-4HJ.0	7450	1060	1340	2110	1400	315	170	240	560	2100	2300
1RA6 562-4HJ.0	7850	1060	1340	2110	1400	315	170	240	560	2100	2300
1RA6 564-4HJ.0	8700	1060	1340	2110	1600	315	170	240	560	2100	2550
1RA6 566-4HJ.0	9250	1060	1340	2110	1600	315	170	240	560	2100	2550
1RA4 630-4HE.0[1]	9850	1320	1320	2200	1600	335	200	280	630	2400	2500
1RA4 632-4HE.0[1]	10500	1320	1330	2210	1600	335	200	280	630	2400	2500
1RA4 634-4HE.0[1]	11550	1320	1330	2210	1800	335	220	280	630	2400	2740
1RA4 636-4HE.0[1]	12150	1320	1330	2210	1800	335	220	280	630	2400	2740

[1] Anti-friction bearings only for 50 Hz operation.
[2] Dimension HD for 1RP6 on request.

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Dimension drawings (continued)

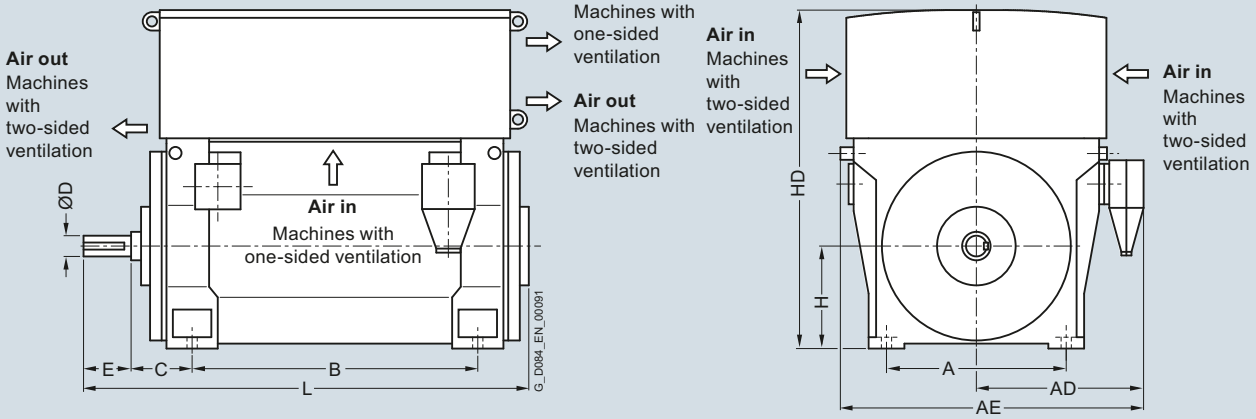


Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD[1]	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
9 ... 11 kV, IM B3 type of construction, anti-friction bearings – 1RA4, 1RA6 series											
6-pole											
1RA6 450-6HJ.0	4150	850	1070	1840	1180	250	140	200	450	1408	1896
1RA6 452-6HJ.0	4400	850	1070	1840	1180	250	140	200	450	1408	1896
1RA6 454-6HJ.0	4750	850	1070	1840	1400	280	140	200	450	1408	2136
1RA6 456-6HJ.0	5100	850	1070	1840	1400	280	140	200	450	1408	2136
1RA6 500-6HJ.0	6050	950	1270	1970	1320	315	160	240	500	1610	2150
1RA6 502-6HJ.0	6350	950	1270	1970	1320	315	160	240	500	1610	2150
1RA6 504-6HJ.0	6900	950	1270	1970	1500	315	160	240	500	1610	2360
1RA6 506-6HJ.0	7300	950	1270	1970	1500	315	160	240	500	1610	2360
1RA6 560-6HJ.0	8200	1060	1340	2110	1400	315	180	240	560	1760	2300
1RA6 562-6HJ.0	8600	1060	1340	2110	1400	315	180	240	560	1760	2300
1RA6 564-6HJ.0	9450	1060	1340	2110	1600	315	180	240	560	1760	2550
1RA6 566-6HJ.0	10000	1060	1340	2110	1600	315	180	240	560	1760	2550
1RA4 630-6HE.0	10200	1320	1320	2200	1600	335	220	280	630	2400	2500
1RA4 632-6HE.0	10750	1320	1320	2200	1600	335	220	280	630	2400	2500
1RA4 634-6HE.0	11800	1320	1320	2200	1800	335	220	280	630	2400	2740
1RA4 636-6HE.0	12550	1320	1330	2210	1800	335	220	280	630	2400	2740
8-pole											
1RA6 450-8HJ.0	4150	850	1070	1840	1180	250	140	200	450	1408	1896
1RA6 452-8HJ.0	4450	850	1070	1840	1180	250	140	200	450	1408	1896
1RA6 454-8HJ.0	4800	850	1070	1840	1400	280	140	200	450	1408	2136
1RA6 456-8HJ.0	5150	850	1070	1840	1400	280	140	200	450	1408	2136
1RA6 500-8HJ.0	6000	950	1270	1970	1320	315	160	240	500	1610	2150
1RA6 502-8HJ.0	6300	950	1270	1970	1320	315	160	240	500	1610	2150
1RA6 504-8HJ.0	6900	950	1270	1970	1500	315	160	240	500	1610	2360
1RA6 506-8HJ.0	7250	950	1270	1970	1500	315	160	240	500	1610	2360
1RA6 560-8HJ.0	8150	1060	1340	2110	1400	315	180	240	560	1760	2300
1RA6 562-8HJ.0	8600	1060	1340	2110	1400	315	180	240	560	1760	2300
1RA6 564-8HJ.0	9400	1060	1340	2110	1600	315	180	240	560	1760	2550
1RA6 566-8HJ.0	9950	1060	1340	2110	1600	315	180	240	560	1760	2550
1RA4 630-8HE.0	10050	1320	1320	2200	1600	335	220	280	630	2400	2500
1RA4 632-8HE.0	10600	1320	1320	2200	1600	335	220	280	630	2400	2500
1RA4 634-8HE.0	11600	1320	1320	2200	1800	335	220	280	630	2400	2740
1RA4 636-8HE.0	12350	1320	1320	2200	1800	335	220	280	630	2400	2740

[1] Dimension HD for 1RP6 on request.

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Dimension drawings (continued)



Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD[1]	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
9 ... 11 kV, IM B3 type of construction, anti-friction bearings – 1RA4 series											
10-pole											
1RA6 500-3HE.0	5250	950	1220	1980	1320	280	160	240	500	1520	2270
1RA6 502-3HE.0	5600	950	1220	1980	1320	280	160	240	500	1520	2270
1RA6 504-3HE.0	6150	950	1220	1980	1500	280	170	240	500	1520	2480
1RA6 506-3HE.0	6500	950	1220	1980	1500	280	170	240	500	1520	2480
1RA6 560-3HE.0	7350	1060	1210	2040	1400	315	180	240	560	1750	2300
1RA6 562-3HE.0	7950	1060	1210	2040	1400	315	180	240	560	1750	2300
1RA6 564-3HE.0	8750	1060	1210	2040	1600	315	190	280	560	1750	2570
1RA6 566-3HE.0	9200	1060	1210	2040	1600	315	190	280	560	1750	2570
1RA4 630-3HE.0	10000	1320	1320	2200	1600	335	220	280	630	2400	2500
1RA4 632-3HE.0	10600	1320	1320	2200	1600	335	220	280	630	2400	2500
1RA4 634-3HE.0	11550	1320	1320	2200	1800	335	220	280	630	2400	2740
1RA4 636-3HE.0	12300	1320	1320	2200	1800	335	220	280	630	2400	2740
12-pole											
1RA6 502-5HE.0	5650	950	1220	1980	1320	280	160	240	500	1520	2270
1RA6 504-5HE.0	6100	950	1220	1980	1500	280	170	240	500	1520	2480
1RA6 506-5HE.0	6500	950	1220	1980	1500	280	170	240	500	1520	2480
1RA6 560-5HE.0	7100	1060	1210	2040	1400	315	180	240	560	1750	2300
1RA6 562-5HE.0	7650	1060	1210	2040	1400	315	180	240	560	1750	2300
1RA6 564-5HE.0	8450	1060	1210	2040	1600	315	190	280	560	1750	2570
1RA6 566-5HE.0	8900	1060	1210	2040	1600	315	190	280	560	1750	2570
1RA4 630-5HE.0	10050	1320	1320	2200	1600	335	220	280	630	2400	2500
1RA4 632-5HE.0	10650	1320	1320	2200	1600	335	220	280	630	2400	2500
1RA4 634-5HE.0	11650	1320	1320	2200	1800	335	220	280	630	2400	2740
1RA4 636-5HE.0	12400	1320	1320	2200	1800	335	220	280	630	2400	2740

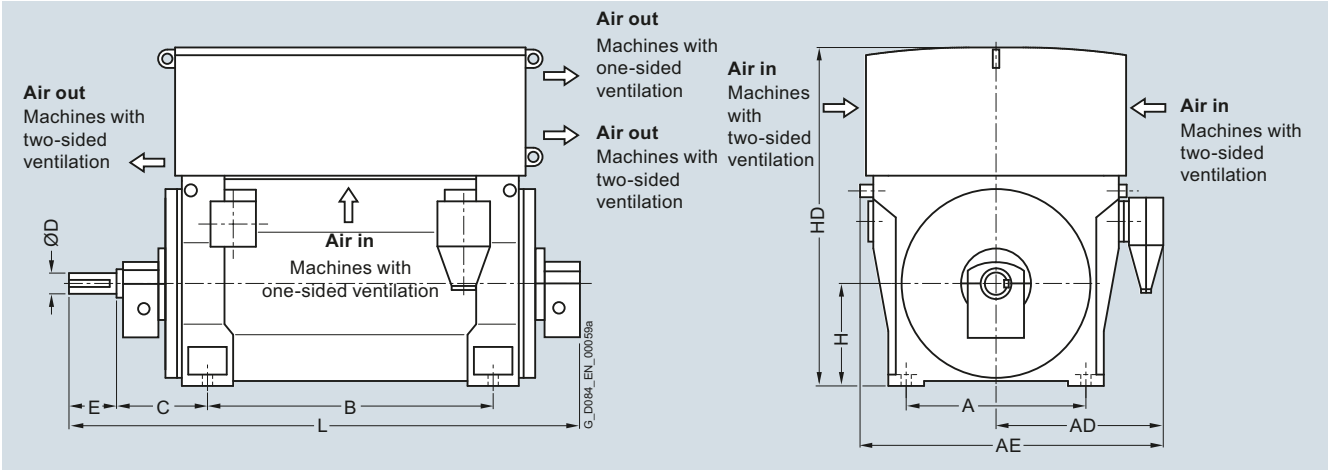
Note:

Higher pole numbers are available on request.

[1] Dimension HD for 1RP6 on request.

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Dimension drawings



Motor type	Weight	Dimensions									
		A	AD[1]	AE[1]	B	C	D	E	H	HD[2]	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, IM B3 type of construction, sleeve bearings – 1RA4, 1RA6 series											
2-pole											
1RA6 450-2HJ.0-Z K96[3]	3750	850	930	1620	1180	425	95	130	450	1628	2218
1RA6 452-2HJ.0-Z K96[3]	3950	850	930	1620	1180	425	95	130	450	1628	2218
1RA6 454-2HJ.0-Z K96[3]	4300	850	930	1620	1400	425	95	130	450	1628	2428
1RA6 456-2HJ.0-Z K96[3]	4550	850	930	1620	1400	425	95	130	450	1628	2428
1RA6 500-2HJ.0-Z K96[3]	5500	950	1135	1835	1320	450	110	165	500	1850	2500
1RA6 502-2HJ.0-Z K96[3]	5650	950	1135	1835	1320	450	110	165	500	1850	2500
1RA6 504-2HJ.0	6450	950	1135	1835	1500	450	110	165	500	1850	2650
1RA6 506-2HJ.0	6700	950	1135	1835	1500	450	110	165	500	1850	2650
1RA6 560-2HJ.0	7450	1060	1205	1975	1400	600	130	200	560	2100	2850
1RA6 562-2HJ.0	7850	1060	1205	1975	1400	600	130	200	560	2100	2850
1RA6 564-2HJ.0	8750	1060	1205	1975	1600	600	130	200	560	2100	3100
1RA6 566-2HJ.0	9200	1060	1205	1975	1600	600	130	200	560	2100	3100
1RA4 630-2HE.0	9700	1320	1330	2210	1600	560	150	200	630	2400	2820
1RA4 632-2HE.0	10350	1320	1330	2210	1600	560	150	200	630	2400	2820
1RA4 634-2HE.0	11450	1320	1330	2210	1800	560	160	240	630	2400	3100
1RA4 636-2HE.0	12250	1320	1330	2210	1800	560	160	240	630	2400	3100
4-pole											
1RA6 450-4HJ.0-Z K96	4100	850	930	1620	1180	500	130	200	450	1408	2438
1RA6 452-4HJ.0-Z K96	4350	850	930	1620	1180	500	130	200	450	1408	2438
1RA6 454-4HJ.0-Z K96	4750	850	930	1620	1400	500	130	200	450	1408	2648
1RA6 456-4HJ.0-Z K96	5000	850	930	1620	1400	500	130	200	450	1408	2648
1RA6 500-4HJ.0-Z K96	6250	950	1135	1835	1320	560	150	200	500	1850	2700
1RA6 502-4HJ.0-Z K96	6500	950	1135	1835	1320	560	150	200	500	1850	2700
1RA6 504-4HJ.0-Z K96	7150	950	1135	1835	1500	560	150	200	500	1850	2880
1RA6 506-4HJ.0-Z K96	7450	950	1135	1835	1500	560	150	200	500	1850	2880
1RA6 560-4HJ.0-Z K96	7650	1060	1205	1975	1400	600	170	240	560	2100	2900
1RA6 562-4HJ.0-Z K96	8000	1060	1205	1975	1400	600	170	240	560	2100	2900
1RA6 564-4HJ.0-Z K96	8900	1060	1205	1975	1600	600	170	240	560	2100	3100
1RA6 566-4HJ.0-Z K96	9400	1060	1205	1975	1600	600	170	240	560	2100	3100

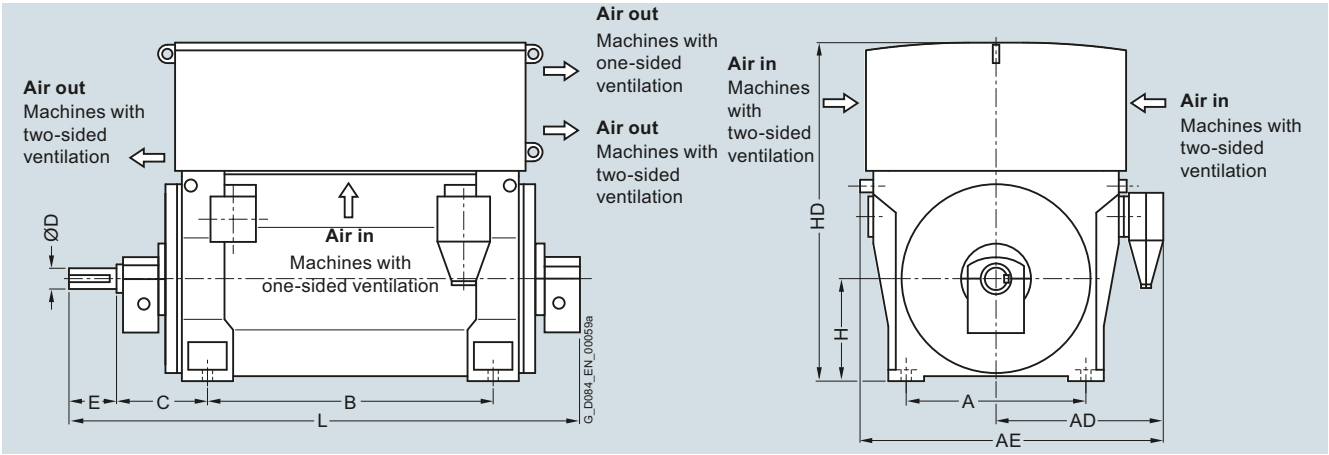
[1] The value applies for 6 kV. When a lower voltage is selected, the rated current increases. For rated currents above 315 A, the dimension increases by 140 mm.

[2] Dimension HD for 1RP6 on request.

[3] For the 60 Hz version, sleeve bearings are standard, "-Z **K96**" not necessary.

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Dimension drawings (continued)



Motor type	Weight	Dimensions									
		A	AD[1]	AE[1]	B	C	D	E	H	HD[3]	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, IM B3 type of construction, sleeve bearings – 1RA4, 1RA6 series											
4-pole											
1RA4 630-4HE.0-Z K96[2]	10250	1320	1330	2210	1600	600	200	280	630	2400	2970
1RA4 632-4HE.0-Z K96[2]	10950	1320	1330	2210	1600	600	200	280	630	2400	2970
1RA4 634-4HE.0-Z K96[2]	11950	1320	1330	2210	1800	600	220	280	630	2400	3210
1RA4 636-4HE.0-Z K96[2]	12500	1320	1330	2210	1800	600	220	280	630	2400	3210
6-pole											
1RA6 450-6HJ.0-Z K96	4200	850	930	1620	1180	500	140	200	450	1408	2438
1RA6 452-6HJ.0-Z K96	4500	850	930	1620	1180	500	140	200	450	1408	2438
1RA6 454-6HJ.0-Z K96	4850	850	930	1620	1400	500	140	200	450	1408	2648
1RA6 456-6HJ.0-Z K96	5200	850	930	1620	1400	500	140	200	450	1408	2648
1RA6 500-6HJ.0-Z K96	6250	950	1135	1835	1320	560	170	240	500	1610	2700
1RA6 502-6HJ.0-Z K96	6500	950	1135	1835	1320	560	170	240	500	1610	2700
1RA6 504-6HJ.0-Z K96	7100	950	1135	1835	1500	560	170	240	500	1610	2900
1RA6 506-6HJ.0-Z K96	7500	950	1135	1835	1500	560	170	240	500	1610	2900
1RA6 560-6HJ.0-Z K96	8450	1060	1205	1975	1400	600	170	240	560	1760	2950
1RA6 562-6HJ.0-Z K96	8850	1060	1205	1975	1400	600	170	240	560	1760	2950
1RA6 564-6HJ.0-Z K96	9700	1060	1205	1975	1600	600	170	240	560	1760	3150
1RA6 566-6HJ.0-Z K96	10250	1060	1205	1975	1600	600	170	240	560	1760	3150
1RA4 630-6HE.0-Z K96	10500	1320	1330	2210	1600	600	220	280	630	2400	2970
1RA4 632-6HE.0-Z K96	11050	1320	1330	2210	1600	600	220	280	630	2400	2970
1RA4 634-6HE.0-Z K96	12100	1320	1330	2210	1800	600	220	280	630	2400	3210
1RA4 636-6HE.0-Z K96	12850	1320	1330	2210	1800	600	220	280	630	2400	3210
8-pole											
1RA6 450-8HJ.0-Z K96	4250	850	930	1620	1180	500	140	200	450	1408	2438
1RA6 452-8HJ.0-Z K96	4550	850	930	1620	1180	500	140	200	450	1408	2438
1RA6 454-8HJ.0-Z K96	4900	850	930	1620	1400	500	140	200	450	1408	2648
1RA6 456-8HJ.0-Z K96	5250	850	930	1620	1400	500	140	200	450	1408	2648

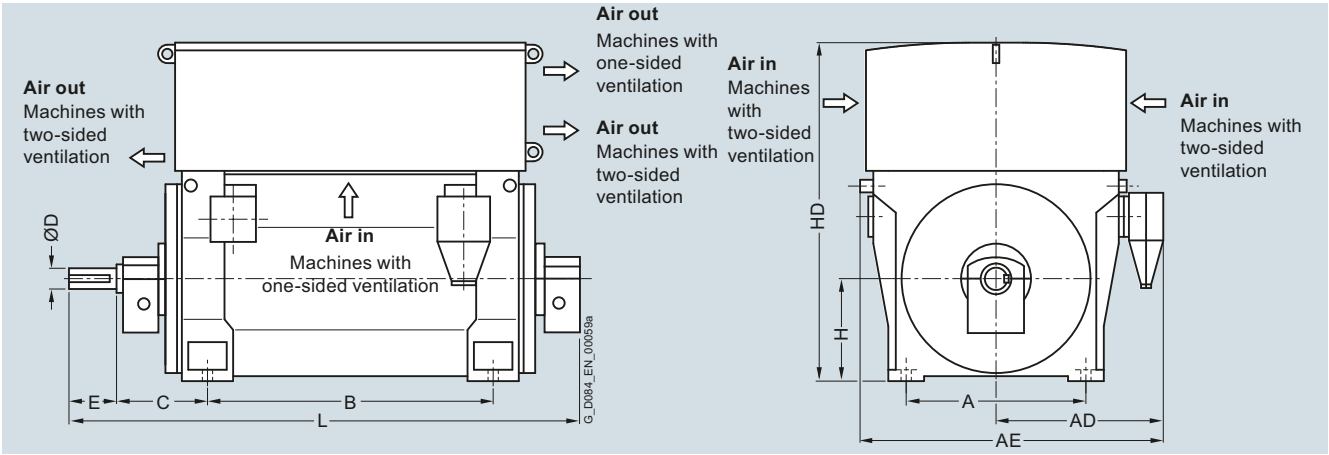
[1] The value applies for 6 kV. When a lower voltage is selected, the rated current increases. For rated currents above 315 A, the dimension increases by 140 mm.

[2] For the 60 Hz version, sleeve bearings are standard, "-Z **K96**" not necessary.

[3] Dimension HD for 1RP6 on request.

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Dimension drawings (continued)



Motor type	Weight	Dimensions									
		A	AD[1]	AE[1]	B	C	D	E	H	HD[3]	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, IM B3 type of construction, sleeve bearings – 1RA4, 1RA6 series											
8-pole											
1RA6 500-8HJ.0-Z K96	6200	950	1135	1835	1320	560	170	240	500	1610	2700
1RA6 502-8HJ.0-Z K96	6450	950	1135	1835	1320	560	170	240	500	1610	2700
1RA6 504-8HJ.0-Z K96	7100	950	1135	1835	1500	560	170	240	500	1610	2900
1RA6 506-8HJ.0-Z K96	7450	950	1135	1835	1500	560	170	240	500	1610	2900
1RA6 560-8HJ.0-Z K96	8400	1060	1205	1975	1400	600	170	240	560	1760	2950
1RA6 562-8HJ.0-Z K96	8800	1060	1205	1975	1400	600	170	240	560	1760	2950
1RA6 564-8HJ.0-Z K96	9650	1060	1205	1975	1600	600	170	240	560	1760	3150
1RA6 566-8HJ.0-Z K96	10150	1060	1205	1975	1600	600	170	240	560	1760	3150
1RA4 630-8HE.0-Z K96[2]	10400	1320	1330	2210	1600	600	220	280	630	2400	2970
1RA4 632-8HE.0-Z K96[2]	11050	1320	1330	2210	1600	600	220	280	630	2400	2970
1RA4 634-8HE.0-Z K96[2]	12000	1320	1330	2210	1800	600	220	280	630	2400	3210
1RA4 636-8HE.0-Z K96[2]	12700	1320	1330	2210	1800	600	220	280	630	2400	3210
10-pole											
1RA6 450-3HJ.0-Z K96	4250	850	930	1620	1180	500	140	200	450	1408	2438
1RA6 452-3HJ.0-Z K96	4550	850	930	1620	1180	500	140	200	450	1408	2438
1RA6 454-3HJ.0-Z K96	4900	850	930	1620	1400	500	140	200	450	1408	2648
1RA6 456-3HJ.0-Z K96	5250	850	930	1620	1400	500	140	200	450	1408	2648
1RA6 500-3HE.0-Z K96	5400	950	1000	1760	1320	500	160	240	500	1520	2620
1RA6 502-3HE.0-Z K96	5800	950	1000	1760	1320	500	160	240	500	1520	2620
1RA6 504-3HE.0-Z K96	6350	950	1000	1760	1500	500	170	240	500	1520	2830
1RA6 506-3HE.0-Z K96	6700	950	1000	1760	1500	500	170	240	500	1520	2830
1RA6 560-3HE.0-Z K96	7350	1060	1070	1900	1400	530	180	240	560	1750	2670
1RA6 562-3HE.0-Z K96	7900	1060	1070	1900	1400	530	180	240	560	1750	2670
1RA6 564-3HE.0-Z K96	8700	1060	1070	1900	1600	530	190	280	560	1750	2940
1RA6 566-3HE.0-Z K96	9200	1060	1070	1900	1600	530	190	280	560	1750	2940
1RA4 630-3HE.0-Z K96[2]	10350	1320	1330	2210	1600	600	220	280	630	2400	2970
1RA4 632-3HE.0-Z K96[2]	11000	1320	1330	2210	1600	600	220	280	630	2400	2970
1RA4 634-3HE.0-Z K96[2]	12050	1320	1330	2210	1800	600	220	280	630	2400	3210
1RA4 636-3HE.0-Z K96[2]	12750	1320	1330	2210	1800	600	220	280	630	2400	3210

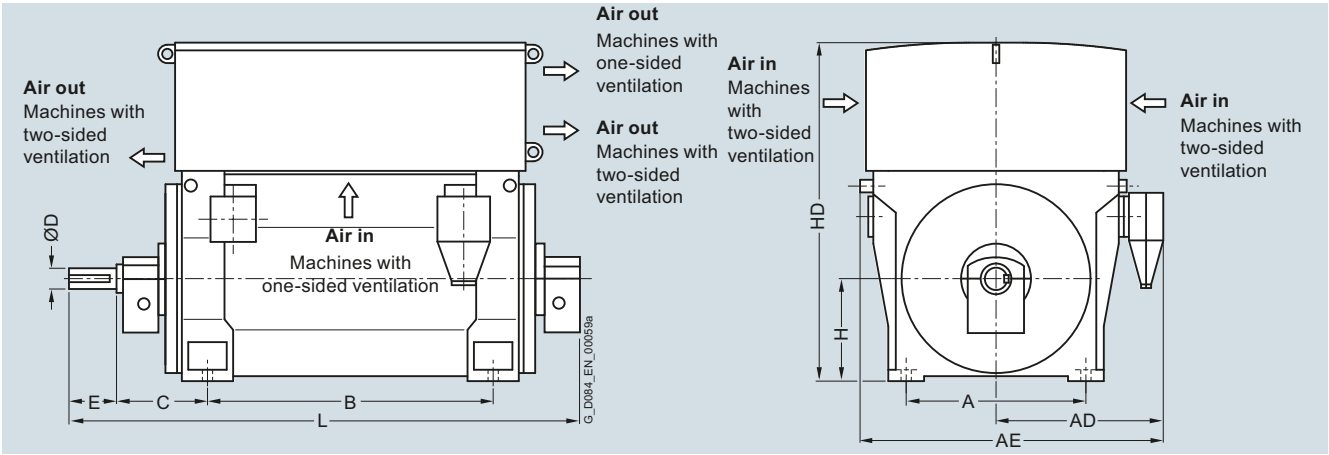
[1] The value applies for 6 kV. When a lower voltage is selected, the rated current increases. For rated currents above 315 A, the dimension increases by 140 mm.

[2] For the 60 Hz version, sleeve bearings are standard, "-Z **K96**" not necessary.

[3] Dimension HD for 1RP6 on request.

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Dimension drawings (continued)



Motor type	Weight	Dimensions									
		A	AD[1]	AE[1]	B	C	D	E	H	HD[3]	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, IM B3 type of construction, sleeve bearings – 1RA4, 1RA6 series											
12-pole											
1RA6 450-5HJ.0-Z K96	4250	850	930	1620	1180	500	140	200	450	1408	2438
1RA6 452-5HJ.0-Z K96	4550	850	930	1620	1180	500	140	200	450	1408	2438
1RA6 454-5HJ.0-Z K96	4900	850	930	1620	1400	500	140	200	450	1408	2648
1RA6 456-5HJ.0-Z K96	5250	850	930	1620	1400	500	140	200	450	1408	2648
1RA6 500-5HE.0-Z K96	5450	950	1000	1760	1320	500	160	240	500	1520	2620
1RA6 502-5HE.0-Z K96	5800	950	1000	1760	1320	500	160	240	500	1520	2620
1RA6 504-5HE.0-Z K96	6250	950	1000	1760	1500	500	170	240	500	1520	2830
1RA6 506-5HE.0-Z K96	6700	950	1000	1760	1500	500	170	240	500	1520	2830
1RA6 560-5HE.0-Z K96	7350	1060	1070	1900	1400	530	180	240	560	1750	2670
1RA6 562-5HE.0-Z K96	7950	1060	1070	1900	1400	530	180	240	560	1750	2670
1RA6 564-5HE.0-Z K96	8700	1060	1070	1900	1600	530	190	280	560	1750	2940
1RA6 566-5HE.0-Z K96	9150	1060	1070	1900	1600	530	190	280	560	1750	2940
1RA4 630-5HE.0-Z K96[2]	10250	1320	1330	2210	1600	600	220	280	630	2400	2970
1RA4 632-5HE.0-Z K96[2]	10850	1320	1330	2210	1600	600	220	280	630	2400	2970
1RA4 634-5HE.0-Z K96[2]	11850	1320	1330	2210	1800	600	220	280	630	2400	3210
1RA4 636-5HE.0-Z K96[2]	12700	1320	1330	2210	1800	600	220	280	630	2400	3210

Note:

Higher pole numbers are available on request.

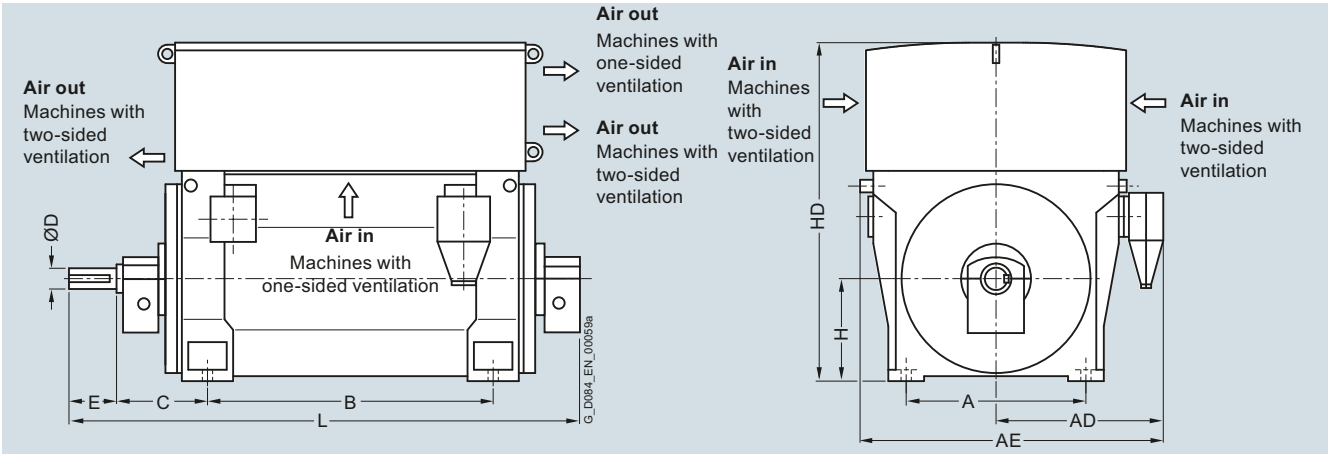
[1] The value applies for 6 kV. When a lower voltage is selected, the rated current increases. For rated currents above 315 A, the dimension increases by 140 mm.

[2] For the 60 Hz version, sleeve bearings are standard, "-Z **K96**" not necessary.

[3] Dimension HD for 1RP6 on request.

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Dimension drawings



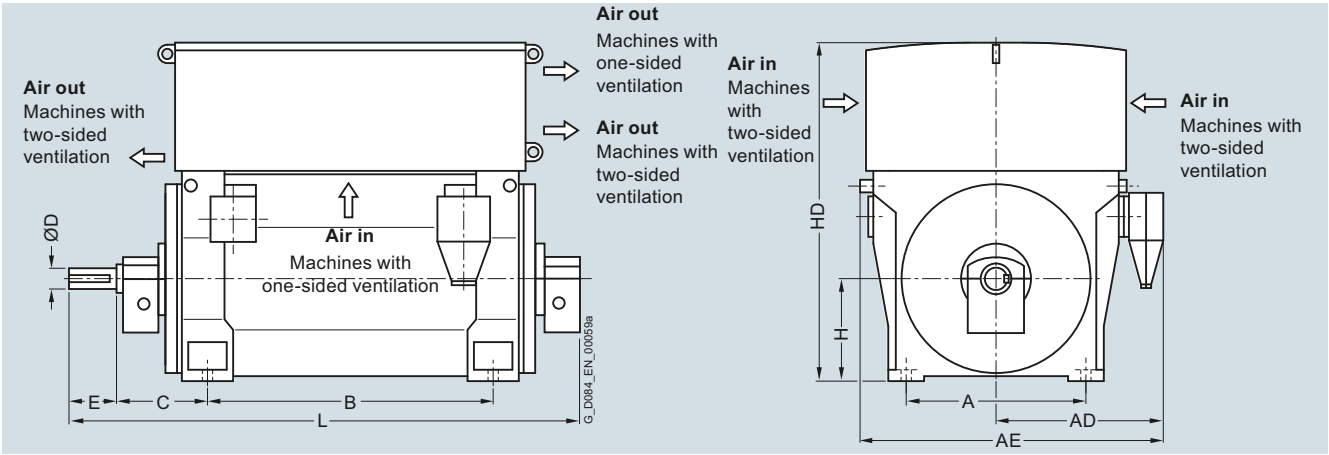
Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD[1]	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
9 ... 11 kV, IM B3 type of construction, sleeve bearings – 1RA4, 1RA6 series											
2-pole											
1RA6 450-2HJ.0-Z K96[2]	3750	850	1070	1840	1180	425	95	130	450	1628	2218
1RA6 452-2HJ.0-Z K96[2]	3950	850	1070	1840	1180	425	95	130	450	1628	2218
1RA6 454-2HJ.0-Z K96[2]	4300	850	1070	1840	1400	425	95	130	450	1628	2428
1RA6 456-2HJ.0-Z K96[2]	4550	850	1070	1840	1400	425	95	130	450	1628	2428
1RA6 500-2HJ.0-Z K96[2]	5500	950	1270	1970	1320	450	110	165	500	1850	2500
1RA6 502-2HJ.0-Z K96[2]	5650	950	1270	1970	1320	450	110	165	500	1850	2500
1RA6 504-2HJ.0	6450	950	1270	1970	1500	450	110	165	500	1850	2650
1RA6 506-2HJ.0	6700	950	1270	1970	1500	450	110	165	500	1850	2650
1RA6 560-2HJ.0	7450	1060	1340	2110	1400	600	130	200	560	2100	2850
1RA6 562-2HJ.0	7850	1060	1340	2110	1400	600	130	200	560	2100	2850
1RA6 564-2HJ.0	8750	1060	1340	2110	1600	600	130	200	560	2100	3100
1RA6 566-2HJ.0	9200	1060	1340	2110	1600	600	130	200	560	2100	3100
1RA4 630-2HE.0	9600	1320	1330	2200	1600	560	150	200	630	2400	2820
1RA4 632-2HE.0	10250	1320	1330	2210	1600	560	150	200	630	2400	2820
1RA4 634-2HE.0	11300	1320	1330	2210	1800	560	160	240	630	2400	3100
1RA4 636-2HE.0	12150	1320	1330	2210	1800	560	160	240	630	2400	3100
4-pole											
1RA6 450-4HJ.0-Z K96	4100	850	1070	1840	1180	500	130	200	450	1408	2438
1RA6 452-4HJ.0-Z K96	4350	850	1070	1840	1180	500	130	200	450	1408	2438
1RA6 454-4HJ.0-Z K96	4750	850	1070	1840	1400	500	130	200	450	1408	2645
1RA6 456-4HJ.0-Z K96	5000	850	1070	1840	1400	500	130	200	450	1408	2645
1RA6 500-4HJ.0-Z K96	6250	950	1270	1970	1320	560	150	200	500	1850	2700
1RA6 502-4HJ.0-Z K96	6500	950	1270	1970	1320	560	150	200	500	1850	2700
1RA6 504-4HJ.0-Z K96	7150	950	1270	1970	1500	560	150	200	500	1850	2880
1RA6 506-4HJ.0-Z K96	7450	950	1270	1970	1500	560	150	200	500	1850	2880
1RA6 560-4HJ.0-Z K96	7650	1060	1340	2110	1400	600	170	240	560	2100	2900
1RA6 562-4HJ.0-Z K96	8000	1060	1340	2110	1400	600	170	240	560	2100	2900
1RA6 564-4HJ.0-Z K96	8900	1060	1340	2110	1600	600	170	240	560	2100	3100
1RA6 566-4HJ.0-Z K96	9400	1060	1340	2110	1600	600	170	240	560	2100	3100

[1] Dimension HD for 1RP6 on request.

[2] For the 60 Hz version, sleeve bearings are standard, "-Z **K96**" not necessary.

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Dimension drawings (continued)



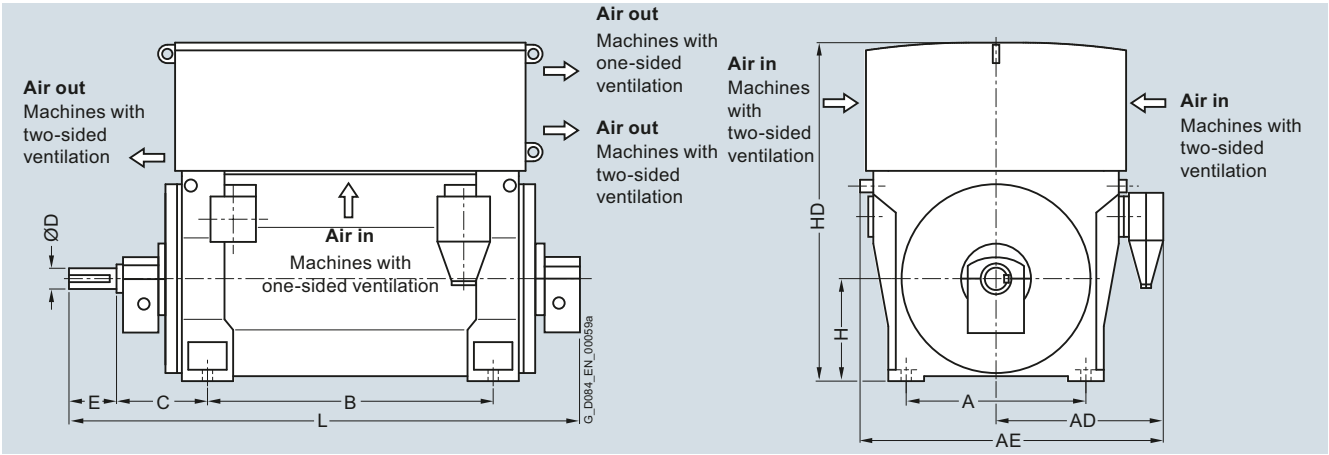
Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD[2]	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
9 ... 11 kV, IM B3 type of construction, sleeve bearings – 1RA4, 1RA6 series											
4-pole											
1RA4 630-4HE.0-Z K96[1]	10150	1320	1320	2200	1600	600	200	280	630	2400	2970
1RA4 632-4HE.0-Z K96[1]	10800	1320	1330	2210	1600	600	200	280	630	2400	2970
1RA4 634-4HE.0-Z K96[1]	11800	1320	1330	2210	1800	600	220	280	630	2400	3210
1RA4 636-4HE.0-Z K96[1]	12400	1320	1330	2210	1800	600	220	280	630	2400	3210
6-pole											
1RA6 450-6HJ.0-Z K96	4200	850	1070	1840	1180	500	140	200	450	1408	2438
1RA6 452-6HJ.0-Z K96	4500	850	1070	1840	1180	500	140	200	450	1408	2438
1RA6 454-6HJ.0-Z K96	4850	850	1070	1840	1400	500	140	200	450	1408	2648
1RA6 456-6HJ.0-Z K96	5200	850	1070	1840	1400	500	140	200	450	1408	2648
1RA6 500-6HJ.0-Z K96	6250	950	1270	1970	1320	560	170	240	500	1610	2700
1RA6 502-6HJ.0-Z K96	6500	950	1270	1970	1320	560	170	240	500	1610	2700
1RA6 504-6HJ.0-Z K96	7100	950	1270	1970	1500	560	170	240	500	1610	2900
1RA6 506-6HJ.0-Z K96	7500	950	1270	1970	1500	560	170	240	500	1610	2900
1RA6 560-6HJ.0-Z K96	8450	1060	1340	2110	1400	600	170	240	560	1760	2950
1RA6 562-6HJ.0-Z K96	8850	1060	1340	2110	1400	600	170	240	560	1760	2950
1RA6 564-6HJ.0-Z K96	9700	1060	1340	2110	1600	600	170	240	560	1760	3150
1RA6 566-6HJ.0-Z K96	10250	1060	1340	2110	1600	600	170	240	560	1760	3150
1RA4 630-6HE.0-Z K96	10500	1320	1320	2200	1600	600	220	280	630	2400	2970
1RA4 632-6HE.0-Z K96	11050	1320	1320	2200	1600	600	220	280	630	2400	2970
1RA4 634-6HE.0-Z K96	12100	1320	1320	2200	1800	600	220	280	630	2400	3210
1RA4 636-6HE.0-Z K96	12850	1320	1330	2210	1800	600	220	280	630	2400	3210

[1] For the 60 Hz version, sleeve bearings are standard, "-Z **K96**" not necessary.

[2] Dimension HD for 1RP6 on request.

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Dimension drawings (continued)

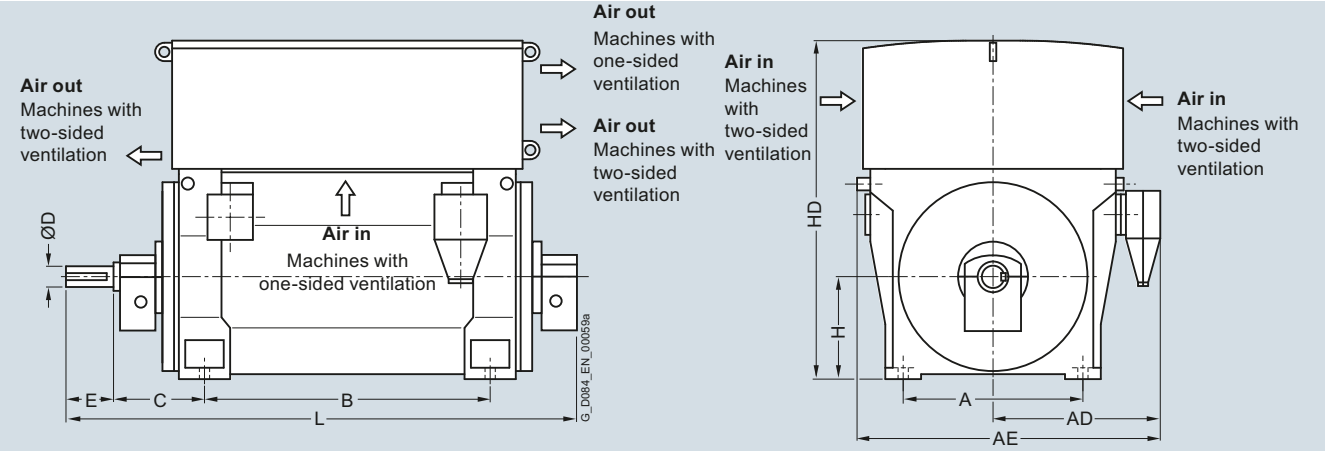


Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD[1]	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
9 ... 11 kV, IM B3 type of construction, sleeve bearings – 1RA4, 1RA6 series											
8-pole											
1RA6 450-8HJ.0-Z K96	4250	850	1070	1840	1180	500	140	200	450	1408	2438
1RA6 452-8HJ.0-Z K96	4550	850	1070	1840	1180	500	140	200	450	1408	2438
1RA6 454-8HJ.0-Z K96	4900	850	1070	1840	1400	500	140	200	450	1408	2648
1RA6 456-8HJ.0-Z K96	5250	850	1070	1840	1400	500	140	200	450	1408	2648
1RA6 500-8HJ.0-Z K96	6200	950	1270	1970	1320	560	170	240	500	1610	2700
1RA6 502-8HJ.0-Z K96	6450	950	1270	1970	1320	560	170	240	500	1610	2700
1RA6 504-8HJ.0-Z K96	7100	950	1270	1970	1500	560	170	240	500	1610	2900
1RA6 506-8HJ.0-Z K96	7450	950	1270	1970	1500	560	170	240	500	1610	2900
1RA6 560-8HJ.0-Z K96	8400	1060	1340	2110	1400	600	170	240	560	1760	2950
1RA6 562-8HJ.0-Z K96	8800	1060	1340	2110	1400	600	170	240	560	1760	2950
1RA6 564-8HJ.0-Z K96	9650	1060	1340	2110	1600	600	170	240	560	1760	3150
1RA6 566-8HJ.0-Z K96	10150	1060	1340	2110	1600	600	170	240	560	1760	3150
1RA4 630-8HE.0-Z K96	10300	1320	1320	2200	1600	600	220	280	630	2400	2970
1RA4 632-8HE.0-Z K96	10900	1320	1320	2200	1600	600	220	280	630	2400	2970
1RA4 634-8HE.0-Z K96	11900	1320	1320	2200	1800	600	220	280	630	2400	3210
1RA4 636-8HE.0-Z K96	12600	1320	1320	2200	1800	600	220	280	630	2400	3210
10-pole											
1RA6 500-3HE.0-Z K96	5400	950	1150	1980	1320	500	160	240	500	1520	2430
1RA6 502-3HE.0-Z K96	5800	950	1150	1980	1320	500	160	240	500	1520	2430
1RA6 504-3HE.0-Z K96	6300	950	1150	1980	1500	500	170	240	500	1520	2680
1RA6 506-3HE.0-Z K96	6650	950	1150	1980	1500	500	170	240	500	1520	2680
1RA6 560-3HE.0-Z K96	7550	1060	1220	2040	1400	530	180	240	560	1750	2670
1RA6 562-3HE.0-Z K96	8150	1060	1220	2040	1400	530	180	240	560	1750	2670
1RA6 564-3HE.0-Z K96	8950	1060	1220	2040	1600	530	190	280	560	1750	2960
1RA6 566-3HE.0-Z K96	9400	1060	1220	2040	1600	530	190	280	560	1750	2960
1RA4 630-3HE.0-Z K96	10300	1320	1320	2200	1600	600	220	280	630	2400	2970
1RA4 632-3HE.0-Z K96	10900	1320	1320	2200	1600	600	220	280	630	2400	2970
1RA4 634-3HE.0-Z K96	11850	1320	1320	2200	1800	600	220	280	630	2400	3210
1RA4 636-3HE.0-Z K96	12550	1320	1320	2200	1800	600	220	280	630	2400	3210

[1] Dimension HD for 1RP6 on request.

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Dimension drawings (continued)



Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD[1]	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
9 ... 11 kV, IM B3 type of construction, sleeve bearings – 1RA4 series											
12-pole											
1RA6 502-5HE.0-Z K96	5800	950	1150	1980	1320	500	160	240	500	1520	2430
1RA6 504-5HE.0-Z K96	6250	950	1150	1980	1500	500	170	240	500	1520	2680
1RA6 506-5HE.0-Z K96	6650	950	1150	1980	1500	500	170	240	500	1520	2680
1RA6 560-5HE.0-Z K96	7350	1060	1220	2040	1400	530	180	240	560	1750	2670
1RA6 562-5HE.0-Z K96	7850	1060	1220	2040	1400	530	180	240	560	1750	2670
1RA6 564-5HE.0-Z K96	8650	1060	1220	2040	1600	530	190	280	560	1750	2960
1RA6 566-5HE.0-Z K96	9150	1060	1220	2040	1600	530	190	280	560	1750	2960
1RA4 630-5HE.0-Z K96	10300	1320	1320	2200	1600	600	220	280	630	2400	2970
1RA4 632-5HE.0-Z K96	10950	1320	1320	2200	1600	600	220	280	630	2400	2970
1RA4 634-5HE.0-Z K96	11950	1320	1320	2200	1800	600	220	280	630	2400	3210
1RA4 636-5HE.0-Z K96	12650	1320	1320	2200	1800	600	220	280	630	2400	3210

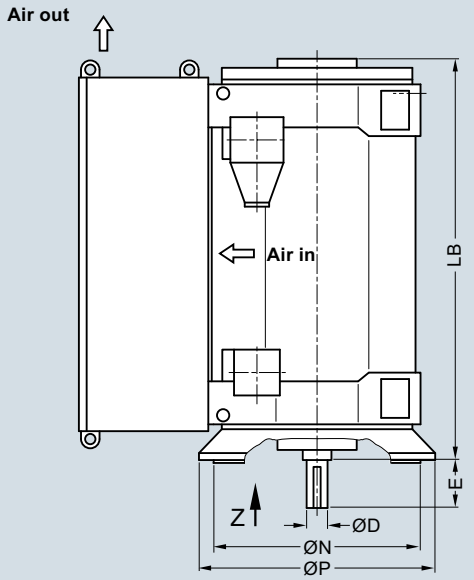
Note:

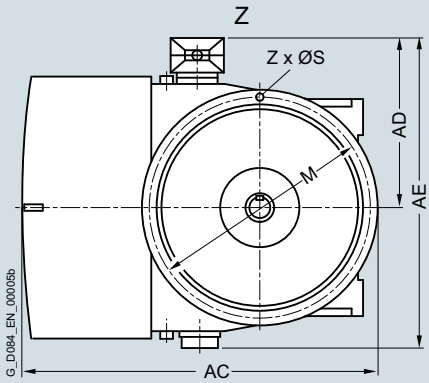
Higher pole numbers are available on request.

[1] Dimension HD for 1RP6 on request.

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Dimension drawings





Motor type	Weight	Dimensions										
		AC[3]	AD[1]	AE[1]	D	E	LB	P	N	M	S	Z
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Quantity
Up to 6.6 kV, IM V1 type of construction, anti-friction bearings – 1RA4, 1RA6 series												
4-pole												
1RA6 450-4HJ.8	4250	1533	930	1620	130	200	1720	1150	1000	1080	26	8
1RA6 452-4HJ.8	4450	1533	930	1620	130	200	1720	1150	1000	1080	26	8
1RA6 454-4HJ.8	4850	1533	930	1620	140	200	1930	1150	1000	1080	26	8
1RA6 456-4HJ.8	5150	1533	930	1620	140	200	1930	1150	1000	1080	26	8
1RA6 500-4HE.8	5250	1640	1000	1810	150	200	1910	1250	1120	1180	26	16
1RA6 502-4HE.8	5450	1640	1000	1810	150	200	1910	1250	1120	1180	26	16
1RA6 504-4HE.8	6150	1640	1000	1810	160	240	2120	1250	1120	1180	26	16
1RA6 506-4HE.8	6550	1640	1000	1810	160	240	2120	1250	1120	1180	26	16
1RA6 560-4HE.8	7250	1890	1210	2100	180	240	2090	1400	1250	1320	26	16
1RA6 562-4HE.8[2]	7700	1890	1210	2100	180	240	2090	1400	1250	1320	26	16
1RA6 564-4HE.8[2]	8600	1890	1210	2100	190	280	2320	1400	1250	1320	26	16
1RA6 566-4HE.8[2]	9050	1890	1210	2100	190	280	2320	1400	1250	1320	26	16
1RA4 630-4HE.8[2]	11600	2430	1330	2300	200	280	2470	2000	1800	1900	33	16
1RA4 632-4HE.8[2]	12300	2430	1330	2300	200	280	2470	2000	1800	1900	33	16
1RA4 634-4HE.8[2]	13350	2430	1330	2300	220	280	2710	2000	1800	1900	33	16
1RA4 636-4HE.8[2]	13900	2430	1330	2300	220	280	2710	2000	1800	1900	33	16
6-pole												
1RA6 450-6HJ.8	4350	1533	930	1620	130	200	1720	1150	1000	1080	26	8
1RA6 452-6HJ.8	4600	1533	930	1620	130	200	1720	1150	1000	1080	26	8
1RA6 454-6HJ.8	4950	1533	930	1620	140	200	1930	1150	1000	1080	26	8
1RA6 456-6HJ.8	5300	1533	930	1620	140	200	1930	1150	1000	1080	26	8
1RA6 500-6HE.8	5400	1640	1000	1810	160	240	1910	1250	1120	1180	26	16
1RA6 502-6HE.8	5750	1640	1000	1810	160	240	1910	1250	1120	1180	26	16

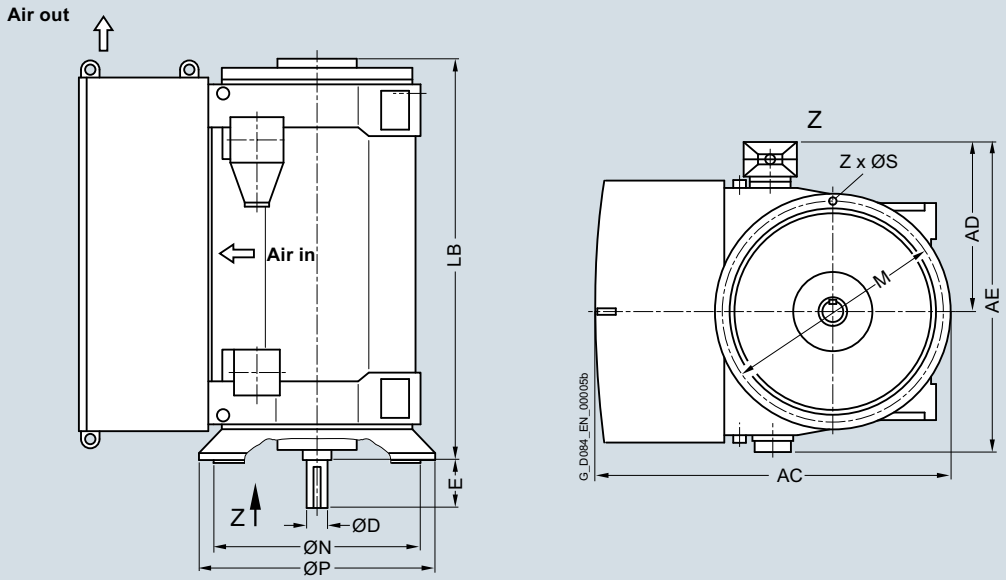
[1] The value applies for 6 kV. When a lower voltage is selected, the rated current increases. For rated currents above 315 A, the dimension increases by 140 mm.

[2] Vertical type of construction, only in the 50 Hz version.

[3] Dimension AC for 1RP6 on request.

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Dimension drawings (continued)



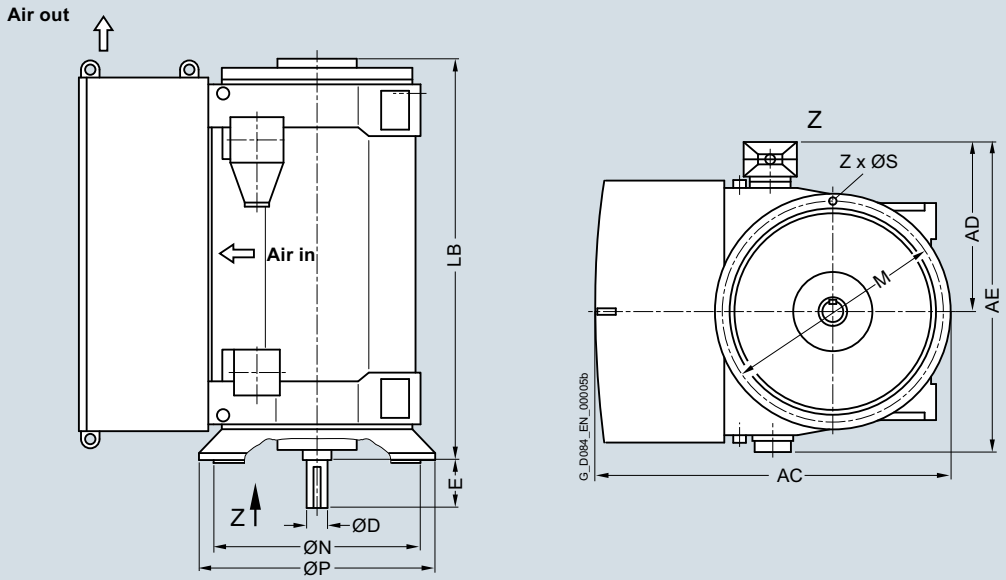
Motor type	Weight	Dimensions										
		AC[2]	AD[1]	AE[1]	D	E	LB	P	N	M	S	Z
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Quantity
Up to 6.6 kV, IM V1 type of construction, anti-friction bearings – 1RA4, 1RA6 series												
6-pole												
1RA6 504-6HE.8	6300	1640	1000	1810	170	240	2120	1250	1120	1180	26	16
1RA6 506-6HE.8	6700	1640	1000	1810	170	240	2120	1250	1120	1180	26	16
1RA6 560-6HE.8	7400	1890	1210	2100	180	240	2090	1400	1250	1320	26	16
1RA6 562-6HE.8	8000	1890	1210	2100	180	240	2090	1400	1250	1320	26	16
1RA6 564-6HE.8	8800	1890	1210	2100	190	280	2320	1400	1250	1320	26	16
1RA6 566-6HE.8	9300	1890	1210	2100	190	280	2320	1400	1250	1320	26	16
1RA4 630-6HE.8	11900	2430	1330	2300	220	280	2470	2000	1800	1900	33	16
1RA4 632-6HE.8	12450	2430	1330	2300	220	280	2470	2000	1800	1900	33	16
1RA4 634-6HE.8	13450	2430	1330	2300	220	280	2710	2000	1800	1900	33	16
1RA4 636-6HE.8	14200	2430	1330	2300	220	280	2710	2000	1800	1900	33	16
8-pole												
1RA6 450-8HJ.8	4350	1533	930	1620	140	200	1720	1150	1000	1080	26	8
1RA6 452-8HJ.8	4650	1533	930	1620	140	200	1720	1150	1000	1080	26	8
1RA6 454-8HJ.8	5000	1533	930	1620	140	200	1930	1150	1000	1080	26	8
1RA6 456-8HJ.8	5350	1533	930	1620	140	200	1930	1150	1000	1080	26	8
1RA6 500-8HE.8	5450	1640	1000	1810	160	240	1910	1250	1120	1180	26	16
1RA6 502-8HE.8	5800	1640	1000	1810	160	240	1910	1250	1120	1180	26	16
1RA6 504-8HE.8	6300	1640	1000	1810	170	240	2120	1250	1120	1180	26	16
1RA6 506-8HE.8	6700	1640	1000	1810	170	240	2120	1250	1120	1180	26	16
1RA6 560-8HE.8	7350	1890	1070	1960	180	240	2090	1400	1250	1320	26	16
1RA6 562-8HE.8	7900	1890	1070	1960	180	240	2090	1400	1250	1320	26	16
1RA6 564-8HE.8	8700	1890	1070	1960	190	280	2320	1400	1250	1320	26	16
1RA6 566-8HE.8	9200	1890	1070	1960	190	280	2320	1400	1250	1320	26	16

[1] The value applies for 6 kV. When a lower voltage is selected, the rated current increases. For rated currents above 315 A, the dimension increases by 140 mm.

[2] Dimension AC for 1RP6 on request.

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Dimension drawings (continued)



Motor type	Weight	Dimensions										
		AC[3]	AD[1]	AE[1]	D	E	LB	P	N	M	S	Z
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Quantity
Up to 6.6 kV, IM V1 type of construction, anti-friction bearings – 1RA4, 1RA6 series												
8-pole												
1RA4 630-8HE.8[2]	11800	2430	1330	2300	220	280	2470	2000	1800	1900	33	16
1RA4 632-8HE.8[2]	12450	2430	1330	2300	220	280	2470	2000	1800	1900	33	16
1RA4 634-8HE.8[2]	13350	2430	1330	2300	220	280	2710	2000	1800	1900	33	16
1RA4 636-8HE.8[2]	14100	2430	1330	2300	220	280	2710	2000	1800	1900	33	16
10-pole												
1RA6 450-3HJ.8	4350	1533	930	1620	140	200	1720	1150	1000	1080	26	8
1RA6 452-3HJ.8	4650	1533	930	1620	140	200	1720	1150	1000	1080	26	8
1RA6 454-3HJ.8	5000	1533	930	1620	140	200	1930	1150	1000	1080	26	8
1RA6 456-3HJ.8	5350	1533	930	1620	140	200	1930	1150	1000	1080	26	8
1RA6 500-3HE.8	5350	1640	1000	1810	160	240	1910	1250	1120	1180	26	16
1RA6 502-3HE.8	5750	1640	1000	1810	160	240	1910	1250	1120	1180	26	16
1RA6 504-3HE.8	6300	1640	1000	1810	170	240	2120	1250	1120	1180	26	16
1RA6 506-3HE.8	6650	1640	1000	1810	170	240	2120	1250	1120	1180	26	16
1RA6 560-3HE.8	7300	1890	1070	1960	180	240	2090	1400	1250	1320	26	16
1RA6 562-3HE.8	7900	1890	1070	1960	180	240	2090	1400	1250	1320	26	16
1RA6 564-3HE.8	8700	1890	1070	1960	190	280	2320	1400	1250	1320	26	16
1RA6 566-3HE.8	9150	1890	1070	1960	190	280	2320	1400	1250	1320	26	16
1RA4 630-3HE.8[2]	11700	2430	1330	2300	220	280	2470	2000	1800	1900	33	16
1RA4 632-3HE.8[2]	12400	2430	1330	2300	220	280	2470	2000	1800	1900	33	16
1RA4 634-3HE.8[2]	13400	2430	1330	2300	220	280	2710	2000	1800	1900	33	16
1RA4 636-3HE.8[2]	14100	2430	1330	2300	220	280	2710	2000	1800	1900	33	16

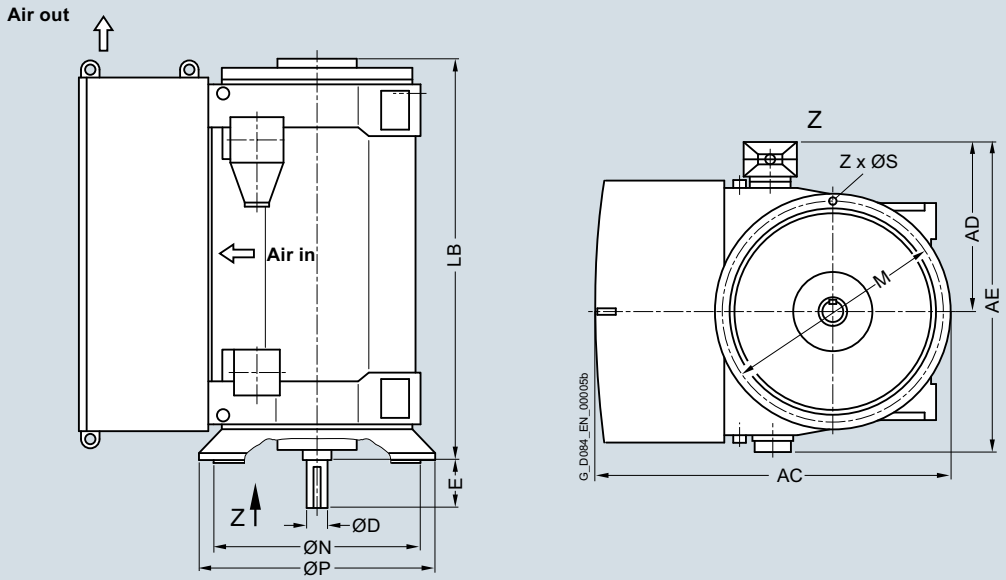
[1] The value applies for 6 kV. When a lower voltage is selected, the rated current increases. For rated currents above 315 A, the dimension increases by 140 mm.

[2] Vertical type of construction, only in the 50 Hz version.

[3] Dimension AC for 1RP6 on request.

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Dimension drawings (continued)



Motor type	Weight	Dimensions										
		AC[3]	AD[1]	AE[1]	D	E	LB	P	N	M	S	Z
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Quantity
Up to 6.6 kV, IM V1 type of construction, anti-friction bearings – 1RA4, 1RA6 series												
12-pole												
1RA6 450-5HJ.8	4350	1533	930	1620	140	200	1720	1150	1000	1080	26	8
1RA6 452-5HJ.8	4650	1533	930	1620	140	200	1720	1150	1000	1080	26	8
1RA6 454-5HJ.8	5000	1533	930	1620	140	200	1930	1150	1000	1080	26	8
1RA6 456-5HJ.8	5350	1533	930	1620	140	200	1930	1150	1000	1080	26	8
1RA6 500-5HE.8	5400	1640	1000	1810	160	240	1910	1250	1120	1180	26	16
1RA6 502-5HE.8	5750	1640	1000	1810	160	240	1910	1250	1120	1180	26	16
1RA6 504-5HE.8	6250	1640	1000	1810	170	240	2120	1250	1120	1180	26	16
1RA6 506-5HE.8	6650	1640	1000	1810	170	240	2120	1250	1120	1180	26	16
1RA6 560-5HE.8	7350	1890	1070	1960	180	240	2090	1400	1250	1320	26	16
1RA6 562-5HE.8	7900	1890	1070	1960	180	240	2090	1400	1250	1320	26	16
1RA6 564-5HE.8	8650	1890	1070	1960	190	280	2320	1400	1250	1320	26	16
1RA6 566-5HE.8	9150	1890	1070	1960	190	280	2320	1400	1250	1320	26	16
1RA4 630-5HE.8[2]	11600	2430	1180	2150	220	280	2470	2000	1800	1900	33	16
1RA4 632-5HE.8[2]	12250	2430	1180	2150	220	280	2470	2000	1800	1900	33	16
1RA4 634-5HE.8[2]	13250	2430	1180	2150	220	280	2710	2000	1800	1900	33	16
1RA4 636-5HE.8[2]	14050	2430	1180	2150	220	280	2710	2000	1800	1900	33	16

Note:

Higher pole numbers are available on request.

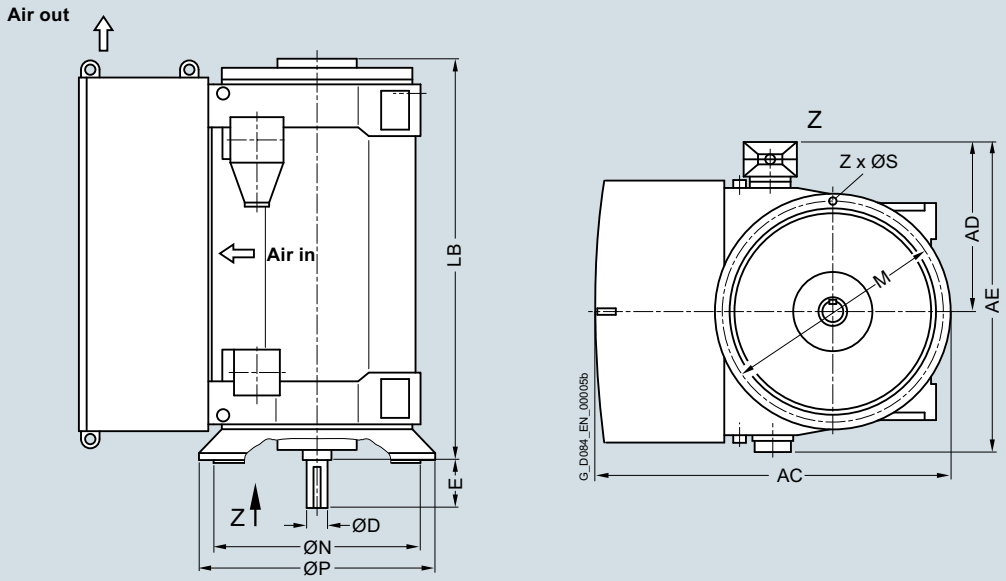
[1] The value applies for 6 kV. When a lower voltage is selected, the rated current increases. For rated currents above 315 A, the dimension increases by 140 mm.

[2] Vertical type of construction, only in the 50 Hz version.

[3] Dimension AC for 1RP6 on request.

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Dimension drawings

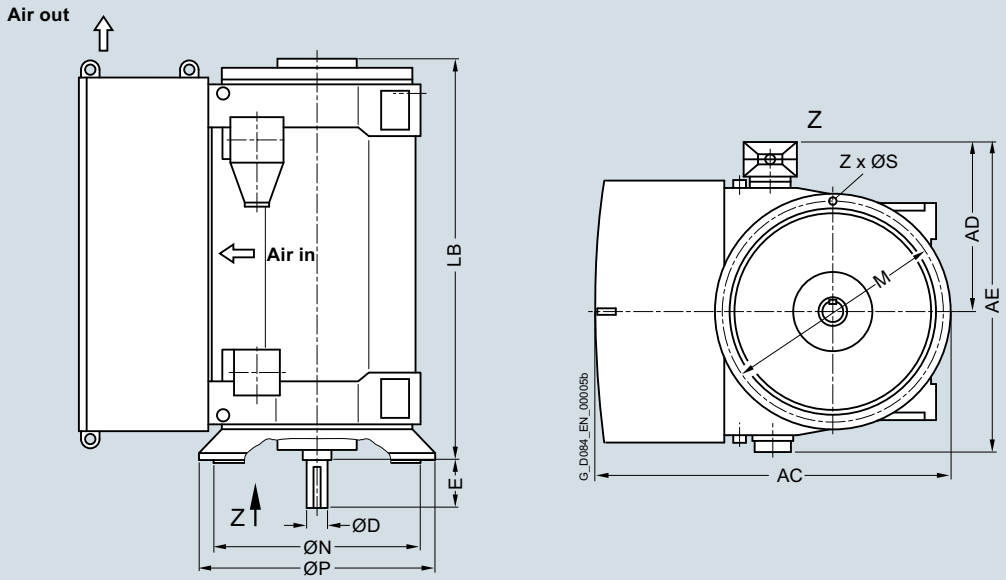


Motor type	Weight	Dimensions										
		AC[1]	AD	AE	D	E	LB	P	N	M	S	Z
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Quantity
9 ... 11 kV, IM V1 type of construction, anti-friction bearings – 1RA4, 1RA6 series												
4-pole												
1RA6 450-4HJ.8	4250	1533	1070	1840	130	200	1720	1150	1000	1080	26	8
1RA6 452-4HJ.8	4450	1533	1070	1840	130	200	1720	1150	1000	1080	26	8
1RA6 454-4HJ.8	4850	1533	1070	1840	130	200	1930	1150	1000	1080	26	8
1RA6 456-4HJ.8	5150	1533	1070	1840	130	200	1930	1150	1000	1080	26	8
1RA6 500-4HE.8	5250	1640	1140	1950	150	200	1910	1250	1120	1180	26	16
1RA6 502-4HE.8	5450	1640	1140	1950	150	200	1910	1250	1120	1180	26	16
1RA6 504-4HE.8	6100	1640	1140	1950	160	240	2120	1250	1120	1180	26	16
1RA6 506-4HE.8	6450	1640	1140	1950	160	240	2120	1250	1120	1180	26	16
1RA6 560-4HE.8	7150	1890	1210	2100	180	240	2090	1400	1250	1320	26	16
1RA6 562-4HE.8	7600	1890	1210	2100	180	240	2090	1400	1250	1320	26	16
1RA6 564-4HE.8	8450	1890	1210	2100	190	280	2320	1400	1250	1320	26	16
1RA6 566-4HE.8	8900	1890	1210	2100	190	280	2320	1400	1250	1320	26	16
1RA4 630-4HE.8	11500	2430	1320	2290	200	280	2470	2000	1800	1900	33	16
1RA4 632-4HE.8	12150	2430	1330	2300	200	280	2470	2000	1800	1900	33	16
1RA4 634-4HE.8	13200	2430	1330	2300	220	280	2710	2000	1800	1900	33	16
1RA4 636-4HE.8	13800	2430	1330	2300	220	280	2710	2000	1800	1900	33	16
6-pole												
1RA6 450-6HJ.8	4350	1533	1070	1840	140	200	1720	1150	1000	1080	26	8
1RA6 452-6HJ.8	4600	1533	1070	1840	140	200	1720	1150	1000	1080	26	8
1RA6 454-6HJ.8	4950	1533	1070	1840	140	200	1930	1150	1000	1080	26	8
1RA6 456-6HJ.8	5300	1533	1070	1840	140	200	1930	1150	1000	1080	26	8
1RA6 500-6HE.8	5400	1640	1140	1950	160	240	1910	1250	1120	1180	26	16
1RA6 502-6HE.8	5800	1640	1140	1950	160	240	1910	1250	1120	1180	26	16
1RA6 504-6HE.8	6250	1640	1140	1950	170	240	2120	1250	1120	1180	26	16
1RA6 506-6HE.8	6650	1640	1140	1950	170	240	2120	1250	1120	1180	26	16

[1] Dimension AC for 1RP6 on request.

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Dimension drawings (continued)

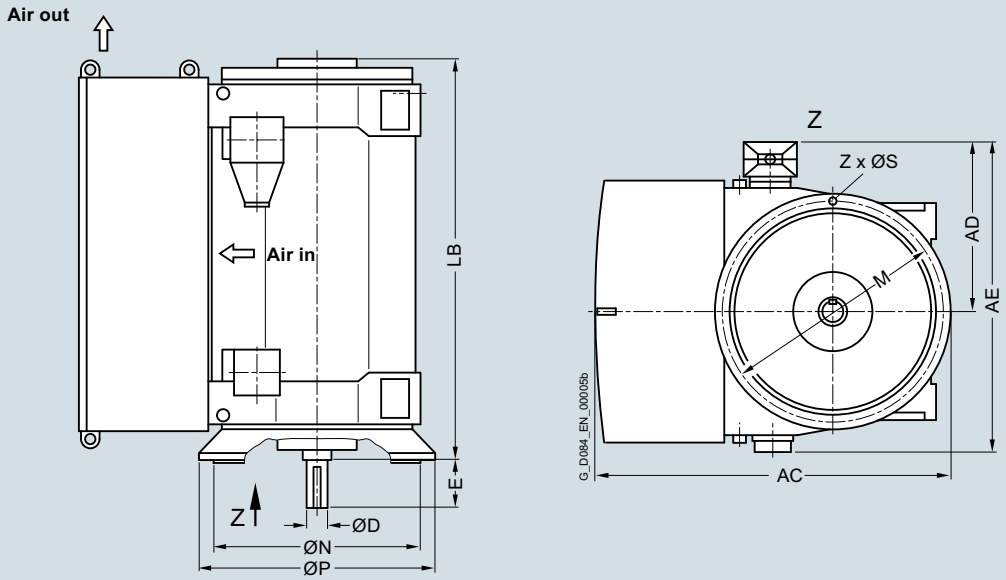


Motor type	Weight	Dimensions										
		AC[1]	AD	AE	D	E	LB	P	N	M	S	Z
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Quantity
9 ... 11 kV, IM V1 type of construction, anti-friction bearings – 1RA4, 1RA6 series												
6-pole												
1RA6 560-6HE.8	7400	1890	1210	2100	180	240	2090	1400	1250	1320	26	16
1RA6 562-6HE.8	7850	1890	1210	2100	180	240	2090	1400	1250	1320	26	16
1RA6 564-6HE.8	8700	1890	1210	2100	190	280	2320	1400	1250	1320	26	16
1RA6 566-6HE.8	9150	1890	1210	2100	190	280	2320	1400	1250	1320	26	16
1RA4 630-6HE.8	11850	2430	1320	2290	220	280	2470	2000	1800	1900	33	16
1RA4 632-6HE.8	12400	2430	1320	2290	220	280	2470	2000	1800	1900	33	16
1RA4 634-6HE.8	13450	2430	1320	2290	220	280	2710	2000	1800	1900	33	16
1RA4 636-6HE.8	14200	2430	1330	2300	220	280	2710	2000	1800	1900	33	16
8-pole												
1RA6 450-8HJ.8	4350	1533	1070	1840	140	200	1720	1150	1000	1080	26	8
1RA6 452-8HJ.8	4650	1533	1070	1840	140	200	1720	1150	1000	1080	26	8
1RA6 454-8HJ.8	5000	1533	1070	1840	140	200	1930	1150	1000	1080	26	8
1RA6 456-8HJ.8	5350	1533	1070	1840	140	200	1930	1150	1000	1080	26	8
1RA6 500-8HE.8	5400	1640	1140	1950	160	240	1910	1250	1120	1180	26	16
1RA6 502-8HE.8	5800	1640	1140	1950	160	240	1910	1250	1120	1180	26	16
1RA6 504-8HE.8	6300	1640	1140	1950	170	240	2120	1250	1120	1180	26	16
1RA6 506-8HE.8	6650	1640	1140	1950	170	240	2120	1250	1120	1180	26	16
1RA6 560-8HE.8	7350	1890	1210	2100	180	240	2090	1400	1250	1320	26	16
1RA6 562-8HE.8	7900	1890	1210	2100	180	240	2090	1400	1250	1320	26	16
1RA6 564-8HE.8	8700	1890	1210	2100	190	280	2320	1400	1250	1320	26	16
1RA6 566-8HE.8	9100	1890	1210	2100	190	280	2320	1400	1250	1320	26	16
1RA4 630-8HE.8	11700	2430	1320	2290	220	280	2470	2000	1800	1900	33	16
1RA4 632-8HE.8	12250	2430	1320	2290	220	280	2470	2000	1800	1900	33	16
1RA4 634-8HE.8	13250	2430	1320	2290	220	280	2710	2000	1800	1900	33	16
1RA4 636-8HE.8	14000	2430	1320	2290	220	280	2710	2000	1800	1900	33	16

[1] Dimension AC for 1RP6 on request.

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Dimension drawings (continued)



Motor type	Weight	Dimensions										
		AC[1]	AD	AE	D	E	LB	P	N	M	S	Z
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Quantity
9 ... 11 kV, IM V1 type of construction, anti-friction bearings – 1RA4 series												
10-pole												
1RA6 500-3HE.8	5350	1640	1140	1950	160	240	1910	1250	1120	1180	26	16
1RA6 502-3HE.8	5750	1640	1140	1950	160	240	1910	1250	1120	1180	26	16
1RA6 504-3HE.8	6250	1640	1140	1950	170	240	2120	1250	1120	1180	26	16
1RA6 506-3HE.8	6600	1640	1140	1950	170	240	2120	1250	1120	1180	26	16
1RA6 560-3HE.8	7450	1890	1210	2100	180	240	2090	1400	1250	1320	26	16
1RA6 562-3HE.8	8000	1890	1210	2100	180	240	2090	1400	1250	1320	26	16
1RA6 564-3HE.8	8750	1890	1210	2100	190	280	2320	1400	1250	1320	26	16
1RA6 566-3HE.8	9250	1890	1210	2100	190	280	2320	1400	1250	1320	26	16
1RA4 630-3HE.8	11650	2430	1320	2290	220	280	2470	2000	1800	1900	33	16
1RA4 632-3HE.8	12250	2430	1320	2290	220	280	2470	2000	1800	1900	33	16
1RA4 634-3HE.8	13200	2430	1320	2290	220	280	2710	2000	1800	1900	33	16
1RA4 636-3HE.8	13950	2430	1320	2290	220	280	2710	2000	1800	1900	33	16
12-pole												
1RA6 502-5HE.8	5750	1640	1140	1950	160	240	1910	1250	1120	1180	26	16
1RA6 504-5HE.8	6200	1640	1140	1950	170	240	2120	1250	1120	1180	26	16
1RA6 506-5HE.8	6600	1640	1140	1950	170	240	2120	1250	1120	1180	26	16
1RA6 560-5HE.8	7300	1890	1210	2100	180	240	2090	1400	1250	1320	26	16
1RA6 562-5HE.8	7850	1890	1210	2100	180	240	2090	1400	1250	1320	26	16
1RA6 564-5HE.8	8650	1890	1210	2100	190	280	2320	1400	1250	1320	26	16
1RA6 566-5HE.8	9100	1890	1210	2100	190	280	2320	1400	1250	1320	26	16
1RA4 630-5HE.8	11700	2430	1320	2290	220	280	2470	2000	1800	1900	33	16
1RA4 632-5HE.8	12300	2430	1320	2290	220	280	2470	2000	1800	1900	33	16
1RA4 634-5HE.8	13300	2430	1320	2290	220	280	2710	2000	1800	1900	33	16
1RA4 636-5HE.8	14050	2430	1320	2290	220	280	2710	2000	1800	1900	33	16

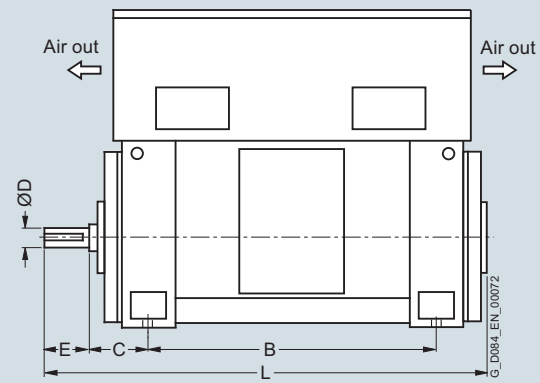
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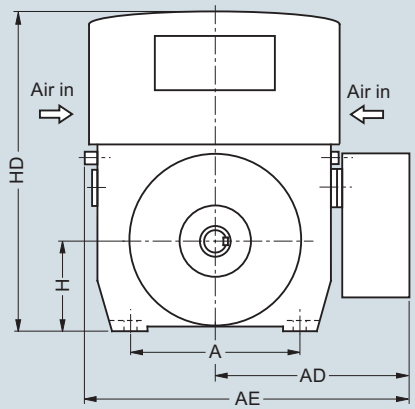
Higher pole numbers are available on request.

[1] Dimension AC for 1RP6 on request.

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Dimension drawings





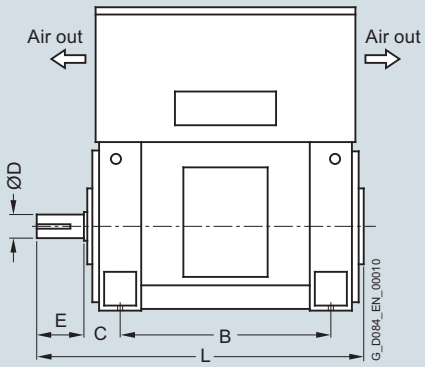
Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, NEMA version, IM B3 type of construction, anti-friction bearings, X ventilation – 1RP6 series											
4-pole											
1RP6 710-4HJ.0[1)]	18100	1500	1500	2530	2000	355	220	280	710	3030	2980
1RP6 712-4HJ.0[1)]	18900	1500	1500	2530	2000	355	220	280	710	3030	2980
1RP6 714-4HJ.0[1)]	20300	1500	1500	2530	2240	355	220	280	710	3030	3220
1RP6 716-4HJ.0[1)]	21300	1500	1500	2530	2240	355	220	280	710	3030	3220

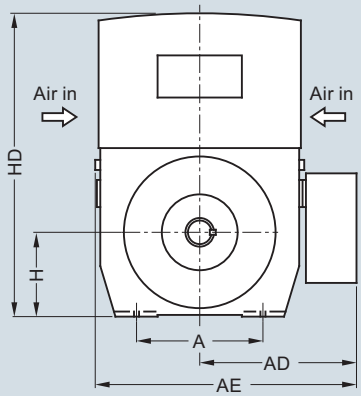
Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
9 ... 11 kV, NEMA version, IM B3 type of construction, anti-friction bearings, X ventilation – 1RP6 series											
4-pole											
1RP6 710-4HJ.0[1)]	17800	1500	1500	2530	2000	355	220	280	710	3030	2980
1RP6 712-4HJ.0[1)]	18600	1500	1500	2530	2000	355	220	280	710	3030	2980
1RP6 714-4HJ.0[1)]	20100	1500	1500	2530	2240	355	220	280	710	3030	3220
1RP6 716-4HJ.0[1)]	21000	1500	1500	2530	2240	355	220	280	710	3030	3220

[1)] Anti-friction bearings only for 50 Hz operation.

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Dimension drawings





Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, NEMA version, IM B3 type of construction, anti-friction bearings, Z ventilation – 1RP6 series											
6-pole											
1RP6 710-6HJ.0	17200	1500	1500	2530	2000	355	240	330	710	3040	3030
1RP6 712-6HJ.0	17900	1500	1500	2530	2000	355	240	330	710	3040	3030
1RP6 714-6HJ.0	19600	1500	1500	2530	2240	355	240	330	710	3040	3270
1RP6 716-6HJ.0	20800	1500	1500	2530	2240	355	240	330	710	3040	3270
8-pole											
1RP6 710-8HJ.0	17000	1500	1500	2530	2000	355	240	330	710	3040	3030
1RP6 712-8HJ.0	17800	1500	1500	2530	2000	355	240	330	710	3040	3030
1RP6 714-8HJ.0	19400	1500	1500	2530	2240	355	240	330	710	3040	3270
1RP6 716-8HJ.0	20500	1500	1500	2530	2240	355	240	330	710	3040	3270
10-pole											
1RP6 710-3HJ.0	16800	1500	1500	2530	2000	355	240	330	710	3040	3030
1RP6 712-3HJ.0	17600	1500	1500	2530	2000	355	240	330	710	3040	3030
1RP6 714-3HJ.0	19300	1500	1500	2530	2240	355	240	330	710	3040	3270
1RP6 716-3HJ.0	20400	1500	1500	2530	2240	355	240	330	710	3040	3270

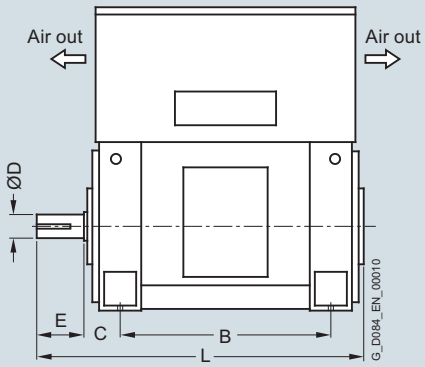
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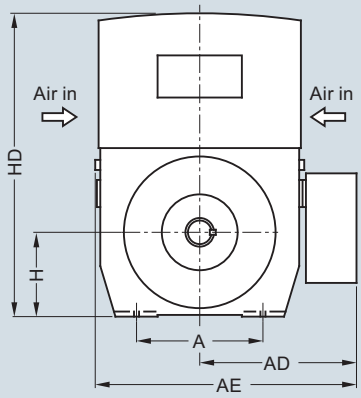
Higher pole numbers are available on request.

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2

Dimension drawings





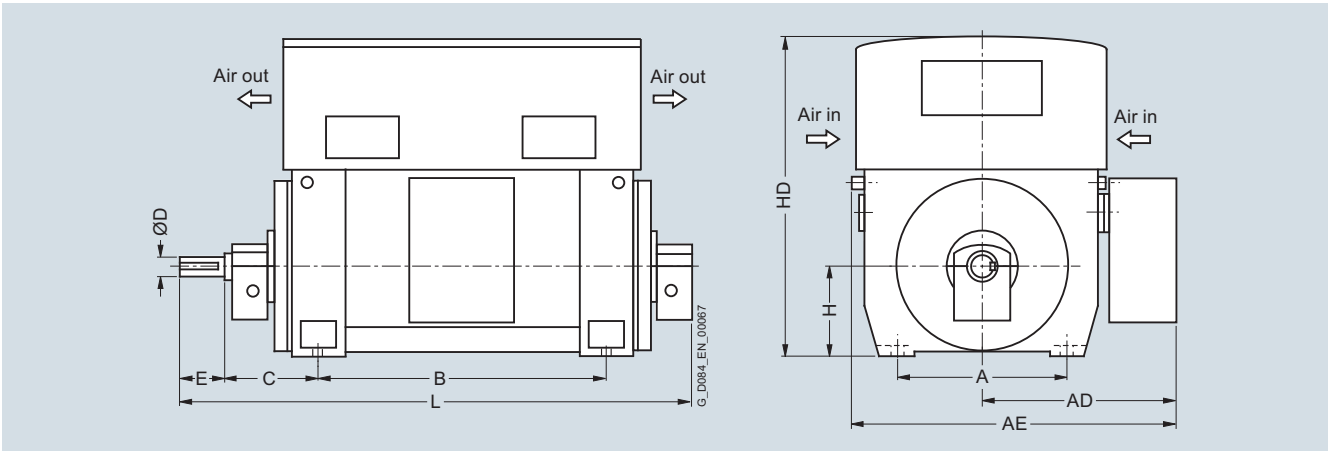
Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
9 ... 11 kV, NEMA version, IM B3 type of construction, anti-friction bearings, Z ventilation – 1RP6 series											
6-pole											
1RP6 710-6HJ.0	17000	1500	1500	2530	2000	355	240	330	710	3040	3030
1RP6 712-6HJ.0	17700	1500	1500	2530	2000	355	240	330	710	3040	3030
1RP6 714-6HJ.0	19500	1500	1500	2530	2240	355	240	330	710	3040	3270
1RP6 716-6HJ.0	20500	1500	1500	2530	2240	355	240	330	710	3040	3270
8-pole											
1RP6 710-8HJ.0	16900	1500	1500	2530	2000	355	240	330	710	3040	3030
1RP6 712-8HJ.0	17600	1500	1500	2530	2000	355	240	330	710	3040	3030
1RP6 714-8HJ.0	19300	1500	1500	2530	2240	355	240	330	710	3040	3270
1RP6 716-8HJ.0	20300	1500	1500	2530	2240	355	240	330	710	3040	3270
10-pole											
1RP6 710-3HJ.0	16800	1500	1500	2530	2000	355	240	330	710	3040	3030
1RP6 712-3HJ.0	17500	1500	1500	2530	2000	355	240	330	710	3040	3030
1RP6 714-3HJ.0	19200	1500	1500	2530	2240	355	240	330	710	3040	3270
1RP6 716-3HJ.0	20300	1500	1500	2530	2240	355	240	330	710	3040	3270

Note:

Higher pole numbers are available on request.

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Dimension drawings



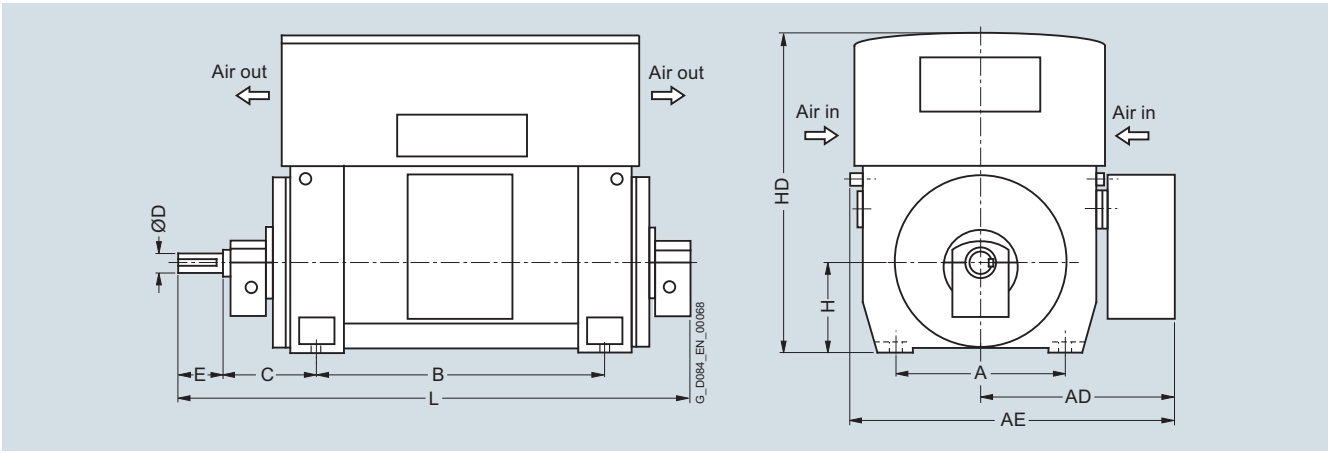
Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, NEMA version, IM B3 type of construction, sleeve bearings, X ventilation – 1RP6 series											
2-pole											
1RP6 710-2HJ.0	16300	1500	1500	2530	2000	600	180	240	710	3030	3370
1RP6 712-2HJ.0	17100	1500	1500	2530	2000	600	180	240	710	3030	3370
1RP6 714-2HJ.0	18400	1500	1500	2530	2240	600	180	240	710	3030	3610
1RP6 716-2HJ.0	19400	1500	1500	2530	2240	600	180	240	710	3030	3610
4-pole											
1RP6 710-4HJ.0-Z K96[1)]	18100	1500	1500	2530	2000	530	220	280	710	3030	3260
1RP6 712-4HJ.0-Z K96[1)]	18900	1500	1500	2530	2000	530	220	280	710	3030	3260
1RP6 714-4HJ.0-Z K96[1)]	20300	1500	1500	2530	2240	530	220	280	710	3030	3500
1RP6 716-4HJ.0-Z K96[1)]	21300	1500	1500	2530	2240	530	220	280	710	3030	3500

Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
9 ... 11 kV, NEMA version, IM B3 type of construction, sleeve bearings, X ventilation – 1RP6 series											
2-pole											
1RP6 710-2HJ.0	16200	1500	1500	2530	2000	600	180	240	710	3030	3370
1RP6 712-2HJ.0	17000	1500	1500	2530	2000	600	180	240	710	3030	3370
1RP6 714-2HJ.0	18200	1500	1500	2530	2240	600	180	240	710	3030	3610
1RP6 716-2HJ.0	19200	1500	1500	2530	2240	600	180	240	710	3030	3610
4-pole											
1RP6 710-4HJ.0-Z K96[1)]	17800	1500	1500	2530	2000	530	220	280	710	3030	3260
1RP6 712-4HJ.0-Z K96[1)]	18600	1500	1500	2530	2000	530	220	280	710	3030	3260
1RP6 714-4HJ.0-Z K96[1)]	20100	1500	1500	2530	2240	530	220	280	710	3030	3500
1RP6 716-4HJ.0-Z K96[1)]	21000	1500	1500	2530	2240	530	220	280	710	3030	3500

[1)] For the 60 Hz version, sleeve bearings are standard, "-Z **K96**" not necessary.

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Dimension drawings



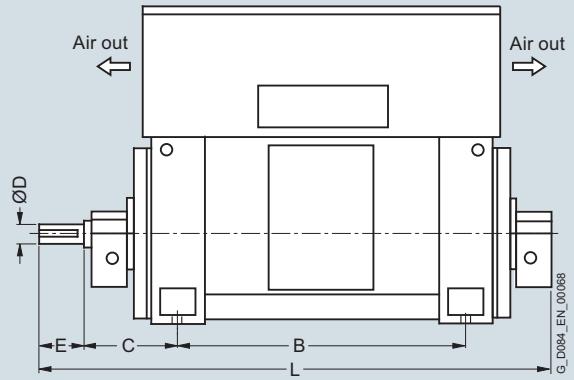
Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, NEMA version, IM B3 type of construction, sleeve bearings, Z ventilation – 1RP6 series											
6-pole											
1RP6 710-6HJ.0-Z K96	18200	1500	1500	2530	2000	670	240	330	710	3040	3600
1RP6 712-6HJ.0-Z K96	18900	1500	1500	2530	2000	670	240	330	710	3040	3600
1RP6 714-6HJ.0-Z K96	20700	1500	1500	2530	2240	670	240	330	710	3040	3840
1RP6 716-6HJ.0-Z K96	21800	1500	1500	2530	2240	670	240	330	710	3040	3840
8-pole											
1RP6 710-8HJ.0-Z K96	18000	1500	1500	2530	2000	670	240	330	710	3040	3600
1RP6 712-8HJ.0-Z K96	18800	1500	1500	2530	2000	670	240	330	710	3040	3600
1RP6 714-8HJ.0-Z K96	20500	1500	1500	2530	2240	670	240	330	710	3040	3840
1RP6 716-8HJ.0-Z K96	21600	1500	1500	2530	2240	670	240	330	710	3040	3840
10-pole											
1RP6 710-3HJ.0-Z K96	17800	1500	1500	2530	2000	670	240	330	710	3040	3600
1RP6 712-3HJ.0-Z K96	18700	1500	1500	2530	2000	670	240	330	710	3040	3600
1RP6 714-3HJ.0-Z K96	20300	1500	1500	2530	2240	670	240	330	710	3040	3840
1RP6 716-3HJ.0-Z K96	21500	1500	1500	2530	2240	670	240	330	710	3040	3840

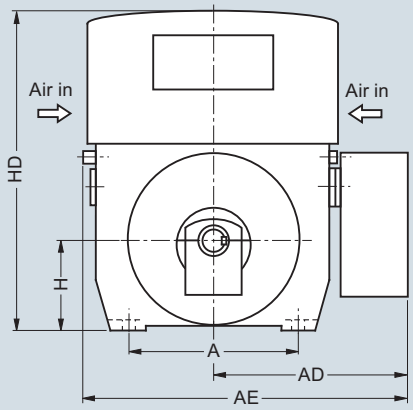
Note:

Higher pole numbers are available on request.

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Dimension drawings





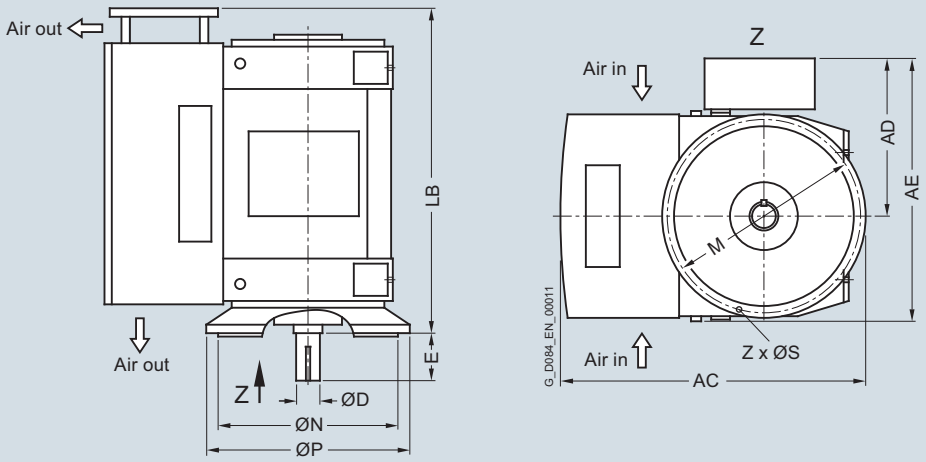
Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
9 ... 11 kV, NEMA version, IM B3 type of construction, sleeve bearings, Z ventilation – 1RP6 series											
6-pole											
1RP6 710-6HJ.0-Z K96	18000	1500	1500	2530	2000	670	240	330	710	3040	3600
1RP6 712-6HJ.0-Z K96	18800	1500	1500	2530	2000	670	240	330	710	3040	3600
1RP6 714-6HJ.0-Z K96	20500	1500	1500	2530	2240	670	240	330	710	3040	3840
1RP6 716-6HJ.0-Z K96	21600	1500	1500	2530	2240	670	240	330	710	3040	3840
8-pole											
1RP6 710-8HJ.0-Z K96	17900	1500	1500	2530	2000	670	240	330	710	3040	3600
1RP6 712-8HJ.0-Z K96	18700	1500	1500	2530	2000	670	240	330	710	3040	3600
1RP6 714-8HJ.0-Z K96	20300	1500	1500	2530	2240	670	240	330	710	3040	3840
1RP6 716-8HJ.0-Z K96	21400	1500	1500	2530	2240	670	240	330	710	3040	3840
10-pole											
1RP6 710-3HJ.0-Z K96	17800	1500	1500	2530	2000	670	240	330	710	3040	3600
1RP6 712-3HJ.0-Z K96	18600	1500	1500	2530	2000	670	240	330	710	3040	3600
1RP6 714-3HJ.0-Z K96	20200	1500	1500	2530	2240	670	240	330	710	3040	3840
1RP6 716-3HJ.0-Z K96	21300	1500	1500	2530	2240	670	240	330	710	3040	3840

Note:

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Dimension drawings



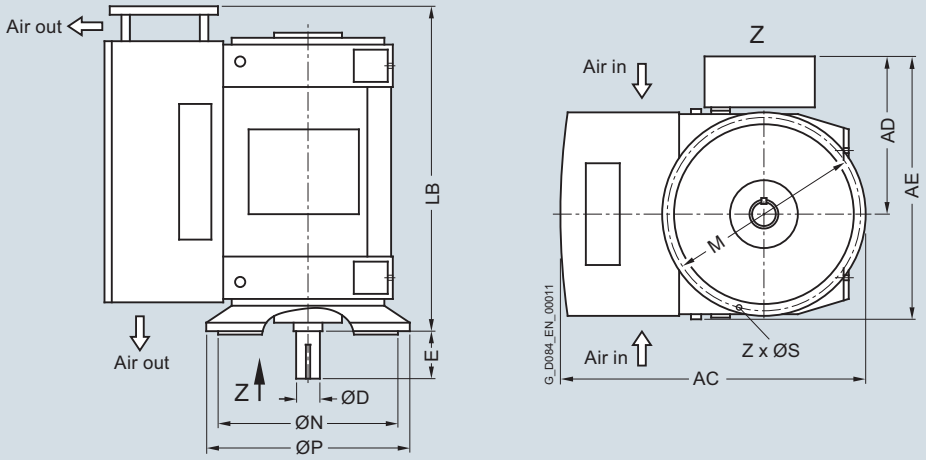
Motor type	Weight	Dimensions										
		AC	AD	AE	D	E	LB	P	N	M	S	Z
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Quantity
Up to 6.6 kV, NEMA version, IM V1 type of construction, anti-friction bearings, Z ventilation – 1RP6 series												
6-pole												
1RP6 710-6HE.4	18400	3330	1500	2530	240	330	3065	2000	1800	1900	33	24
1RP6 712-6HE.4	19100	3330	1500	2530	240	330	3065	2000	1800	1900	33	24
1RP6 714-6HE.4	20800	3330	1500	2530	240	330	3305	2000	1800	1900	33	24
1RP6 716-6HE.4	22000	3330	1500	2530	240	330	3305	2000	1800	1900	33	24
8-pole												
1RP6 710-8HE.4	18200	3330	1500	2530	240	330	3065	2000	1800	1900	33	24
1RP6 712-8HE.4	19000	3330	1500	2530	240	330	3065	2000	1800	1900	33	24
1RP6 714-8HE.4	20600	3330	1500	2530	240	330	3305	2000	1800	1900	33	24
1RP6 716-8HE.4	21800	3330	1500	2530	240	330	3305	2000	1800	1900	33	24
10-pole												
1RP6 710-3HE.4	18000	3330	1500	2530	240	330	3065	2000	1800	1900	33	24
1RP6 712-3HE.4	18900	3330	1500	2530	240	330	3065	2000	1800	1900	33	24
1RP6 714-3HE.4	20500	3330	1500	2530	240	330	3305	2000	1800	1900	33	24
1RP6 716-3HE.4	21600	3330	1500	2530	240	330	3305	2000	1800	1900	33	24

Note:

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Dimension drawings



Motor type	Weight	Dimensions										
		AC	AD	AE	D	E	LB	P	N	M	S	Z
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Quantity
9 ... 11 kV, NEMA version, IM V1 type of construction, anti-friction bearings, Z ventilation – 1RP6 series												
6-pole												
1RP6 710-6HE.4	18200	3330	1500	2530	240	330	3065	2000	1800	1900	33	24
1RP6 712-6HE.4	19000	3330	1500	2530	240	330	3065	2000	1800	1900	33	24
1RP6 714-6HE.4	20700	3330	1500	2530	240	330	3305	2000	1800	1900	33	24
1RP6 716-6HE.4	21800	3330	1500	2530	240	330	3305	2000	1800	1900	33	24
8-pole												
1RP6 710-8HE.4	18100	3330	1500	2530	240	330	3065	2000	1800	1900	33	24
1RP6 712-8HE.4	18900	3330	1500	2530	240	330	3065	2000	1800	1900	33	24
1RP6 714-8HE.4	20500	3330	1500	2530	240	330	3305	2000	1800	1900	33	24
1RP6 716-8HE.4	21600	3330	1500	2530	240	330	3305	2000	1800	1900	33	24
10-pole												
1RP6 710-3HE.4	18000	3330	1500	2530	240	330	3065	2000	1800	1900	33	24
1RP6 712-3HE.4	18800	3330	1500	2530	240	330	3065	2000	1800	1900	33	24
1RP6 714-3HE.4	20400	3330	1500	2530	240	330	3305	2000	1800	1900	33	24
1RP6 716-3HE.4	21500	3330	1500	2530	240	330	3305	2000	1800	1900	33	24

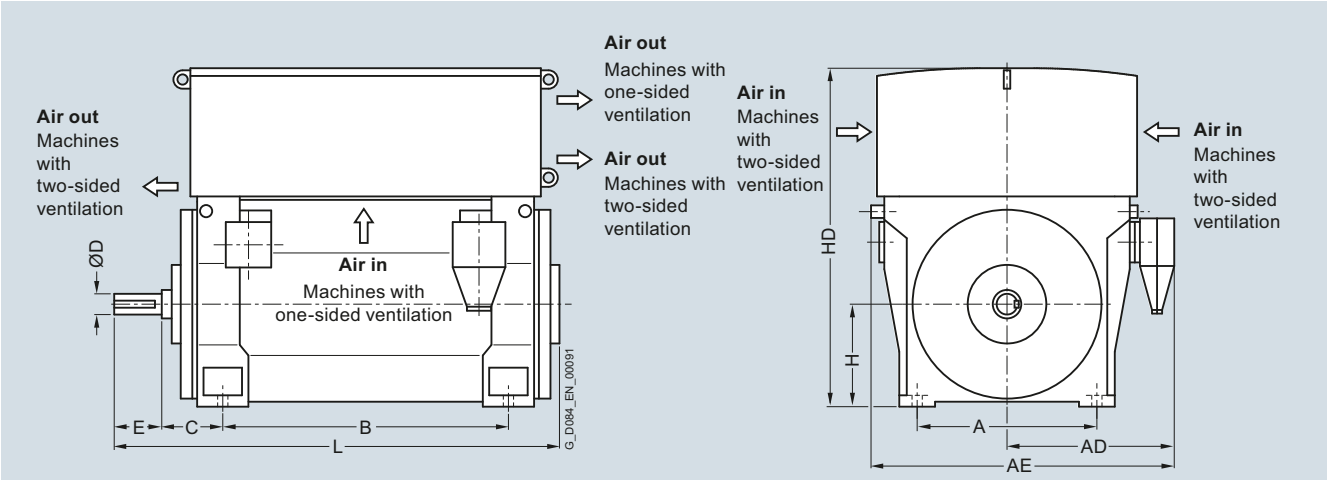
Note:

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2

Dimension drawings



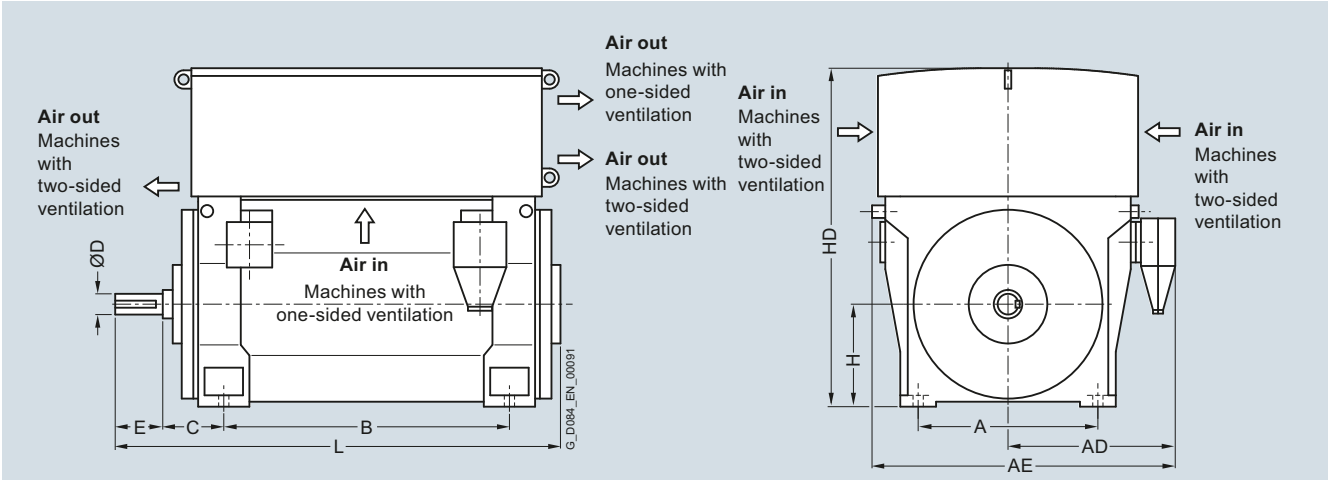
Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, IM B3 type of construction, anti-friction bearings – 1RA7 series											
4-pole											
1RA7 710-4	15700	1500	1800	2900	2000	375	220	350	710	O. R.	3070
1RA7 712-4	16300	1500	1800	2900	2000	375	220	350	710	O. R.	3070
1RA7 714-4	17700	1500	1800	2900	2240	375	220	350	710	O. R.	3310
1RA7 716-4	18900	1500	1800	2900	2240	375	220	350	710	O. R.	3310
6-pole											
1RA7 710-6	16000	1500	1800	2900	2000	375	220	350	710	O. R.	3070
1RA7 712-6	17000	1500	1800	2900	2000	375	220	350	710	O. R.	3070
1RA7 714-6	18500	1500	1800	2900	2240	375	220	350	710	O. R.	3310
1RA7 716-6	19600	1500	1800	2900	2240	375	220	350	710	O. R.	3310
8-pole											
1RA7 710-8	15600	1500	1800	2900	2000	375	220	350	710	O. R.	3070
1RA7 712-8	16500	1500	1800	2900	2000	375	220	350	710	O. R.	3070
1RA7 714-8	18000	1500	1800	2900	2240	375	220	350	710	O. R.	3310
1RA7 716-8	19000	1500	1800	2900	2240	375	220	350	710	O. R.	3310
10-pole											
1RA7 710-3	15600	1500	1800	2900	2000	375	220	350	710	O. R.	3070
1RA7 712-3	16500	1500	1800	2900	2000	375	220	350	710	O. R.	3070
1RA7 714-3	18000	1500	1800	2900	2240	375	220	350	710	O. R.	3310
1RA7 716-3	19000	1500	1800	2900	2240	375	220	350	710	O. R.	3310

Note:

Higher pole numbers are available on request.

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Dimension drawings



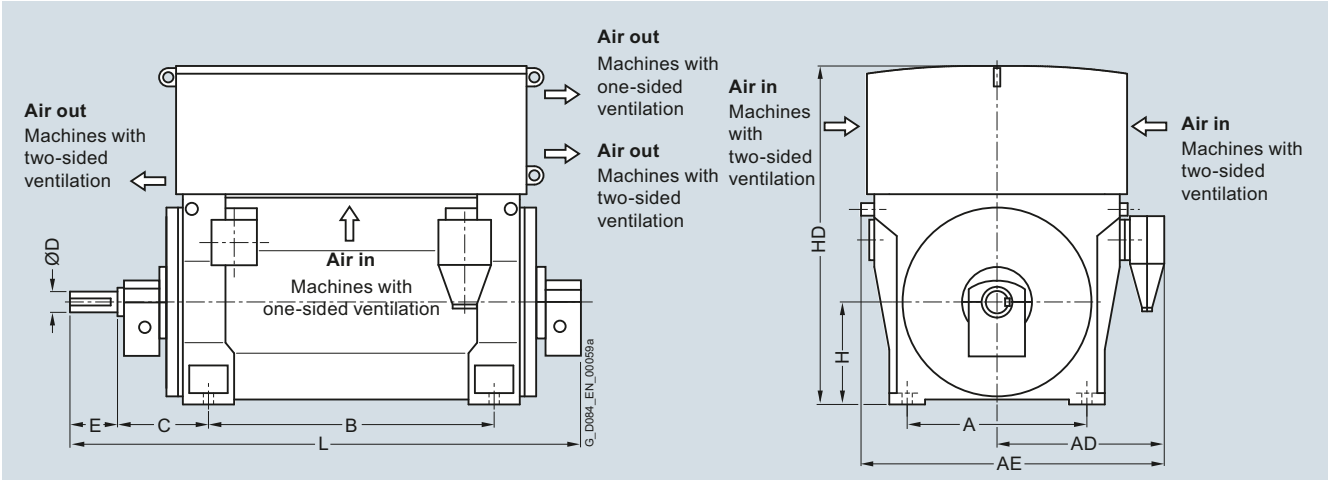
Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
9 ... 11 kV, IM B3 type of construction, anti-friction bearings – 1RA7 series											
4-pole											
1RA7 710-4	16200	1500	1800	2900	2000	375	220	350	710	O. R.	3070
1RA7 712-4	16900	1500	1800	2900	2000	375	220	350	710	O. R.	3070
1RA7 714-4	18200	1500	1800	2900	2240	375	220	350	710	O. R.	3310
1RA7 716-4	19400	1500	1800	2900	2240	375	220	350	710	O. R.	3310
6-pole											
1RA7 710-6	16600	1500	1800	2900	2000	375	220	350	710	O. R.	3070
1RA7 712-6	17600	1500	1800	2900	2000	375	220	350	710	O. R.	3070
1RA7 714-6	19100	1500	1800	2900	2240	375	220	350	710	O. R.	3310
1RA7 716-6	20200	1500	1800	2900	2240	375	220	350	710	O. R.	3310
8-pole											
1RA7 710-8	16200	1500	1800	2900	2000	375	220	350	710	O. R.	3070
1RA7 712-8	17100	1500	1800	2900	2000	375	220	350	710	O. R.	3070
1RA7 714-8	18600	1500	1800	2900	2240	375	220	350	710	O. R.	3310
1RA7 716-8	19600	1500	1800	2900	2240	375	220	350	710	O. R.	3310
10-pole											
1RA7 710-3	16300	1500	1800	2900	2000	375	220	350	710	O. R.	3070
1RA7 712-3	17200	1500	1800	2900	2000	375	220	350	710	O. R.	3070
1RA7 714-3	18700	1500	1800	2900	2240	375	220	350	710	O. R.	3310
1RA7 716-3	19600	1500	1800	2900	2240	375	220	350	710	O. R.	3310

Note:

Higher pole numbers are available on request.

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Dimension drawings



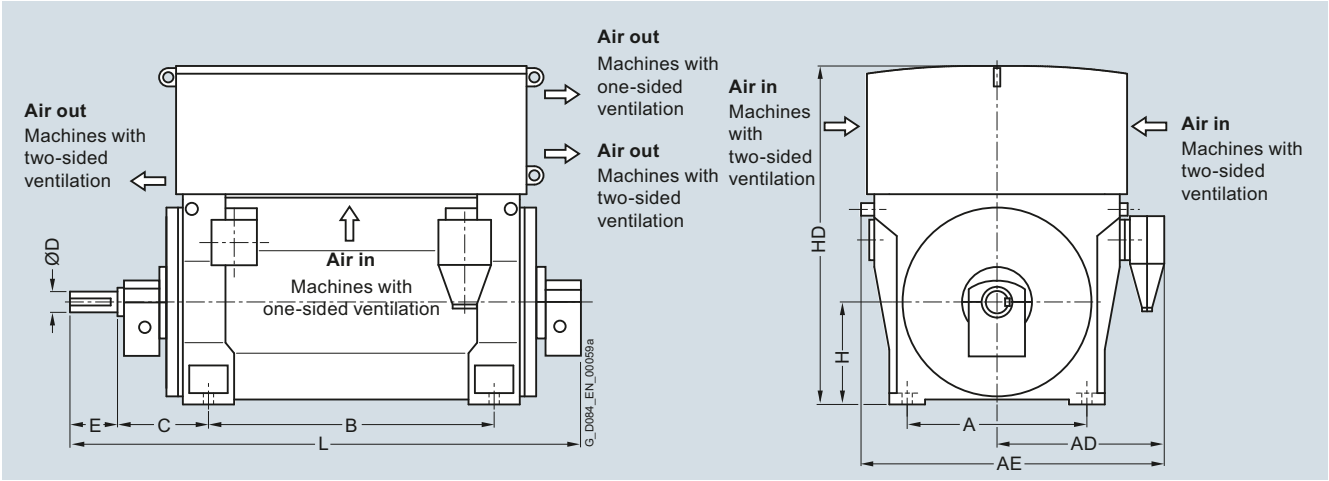
Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, IM B3 type of construction, sleeve bearings – 1RA7 series											
2-pole											
1RA7 710-2	14900	1500	1800	2900	2000	560	200	280	710	O. R.	3320
1RA7 712-2	15500	1500	1800	2900	2000	560	200	280	710	O. R.	3320
1RA7 714-2	16700	1500	1800	2900	2240	560	200	280	710	O. R.	3560
1RA7 716-2	17500	1500	1800	2900	2240	560	200	280	710	O. R.	3560
4-pole											
1RA7 710-4	16100	1500	1800	2900	2000	710	220	350	710	O. R.	3650
1RA7 712-4	16700	1500	1800	2900	2000	710	220	350	710	O. R.	3650
1RA7 714-4	18000	1500	1800	2900	2240	710	220	350	710	O. R.	3890
1RA7 716-4	19300	1500	1800	2900	2240	710	220	350	710	O. R.	3890
6-pole											
1RA7 710-6	16100	1500	1800	2900	2000	670	220	350	710	O. R.	3570
1RA7 712-6	17100	1500	1800	2900	2000	670	220	350	710	O. R.	3570
1RA7 714-6	18600	1500	1800	2900	2240	670	220	350	710	O. R.	3810
1RA7 716-6	19700	1500	1800	2900	2240	670	220	350	710	O. R.	3810
8-pole											
1RA7 710-8	15700	1500	1800	2900	2000	670	220	350	710	O. R.	3570
1RA7 712-8	16600	1500	1800	2900	2000	670	220	350	710	O. R.	3570
1RA7 714-8	18000	1500	1800	2900	2240	670	220	350	710	O. R.	3810
1RA7 716-8	19000	1500	1800	2900	2240	670	220	350	710	O. R.	3810
10-pole											
1RA7 710-3	15600	1500	1800	2900	2000	670	220	350	710	O. R.	3570
1RA7 712-3	16600	1500	1800	2900	2000	670	220	350	710	O. R.	3570
1RA7 714-3	18100	1500	1800	2900	2240	670	220	350	710	O. R.	3810
1RA7 716-3	19000	1500	1800	2900	2240	670	220	350	710	O. R.	3810

Note:

Higher pole numbers are available on request.

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Dimension drawings



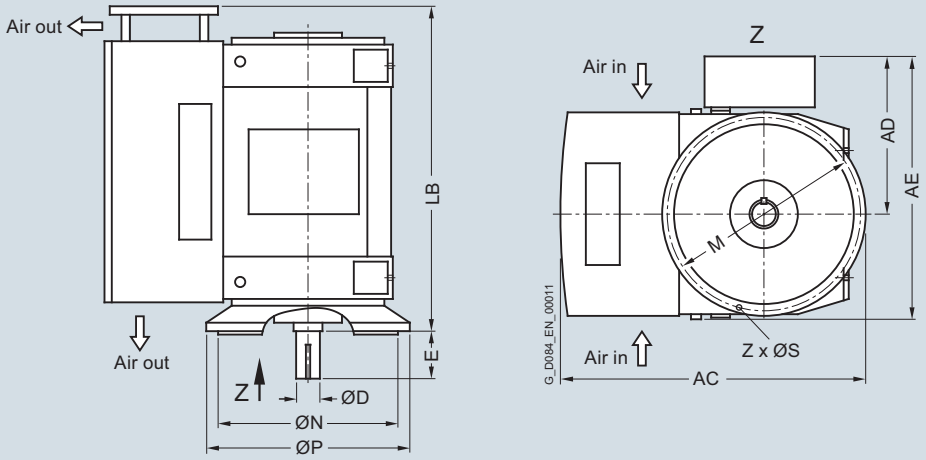
Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
9 ... 11 kV, IM B3 type of construction, sleeve bearings – 1RA7 series											
2-pole											
1RA7 710-2	15300	1500	1800	2900	2000	560	200	280	710	O. R.	3320
1RA7 712-2	16000	1500	1800	2900	2000	560	200	280	710	O. R.	3320
1RA7 714-2	17200	1500	1800	2900	2240	560	200	280	710	O. R.	3560
1RA7 716-2	17900	1500	1800	2900	2240	560	200	280	710	O. R.	3560
4-pole											
1RA7 710-4	16600	1500	1800	2900	2000	710	220	350	710	O. R.	3650
1RA7 712-4	17300	1500	1800	2900	2000	710	220	350	710	O. R.	3650
1RA7 714-4	18600	1500	1800	2900	2240	710	220	350	710	O. R.	3890
1RA7 716-4	19800	1500	1800	2900	2240	710	220	350	710	O. R.	3890
6-pole											
1RA7 710-6	16500	1500	1800	2900	2000	670	220	350	710	O. R.	3570
1RA7 712-6	17600	1500	1800	2900	2000	670	220	350	710	O. R.	3570
1RA7 714-6	19100	1500	1800	2900	2240	670	220	350	710	O. R.	3810
1RA7 716-6	20200	1500	1800	2900	2240	670	220	350	710	O. R.	3810
8-pole											
1RA7 710-8	16200	1500	1800	2900	2000	670	220	350	710	O. R.	3570
1RA7 712-8	17100	1500	1800	2900	2000	670	220	350	710	O. R.	3570
1RA7 714-8	18600	1500	1800	2900	2240	670	220	350	710	O. R.	3810
1RA7 716-8	19600	1500	1800	2900	2240	670	220	350	710	O. R.	3810
10-pole											
1RA7 710-3	16300	1500	1800	2900	2000	670	220	350	710	O. R.	3570
1RA7 712-3	17300	1500	1800	2900	2000	670	220	350	710	O. R.	3570
1RA7 714-3	18700	1500	1800	2900	2240	670	220	350	710	O. R.	3810
1RA7 716-3	19600	1500	1800	2900	2240	670	220	350	710	O. R.	3810

Note:

Higher pole numbers are available on request.

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Dimension drawings



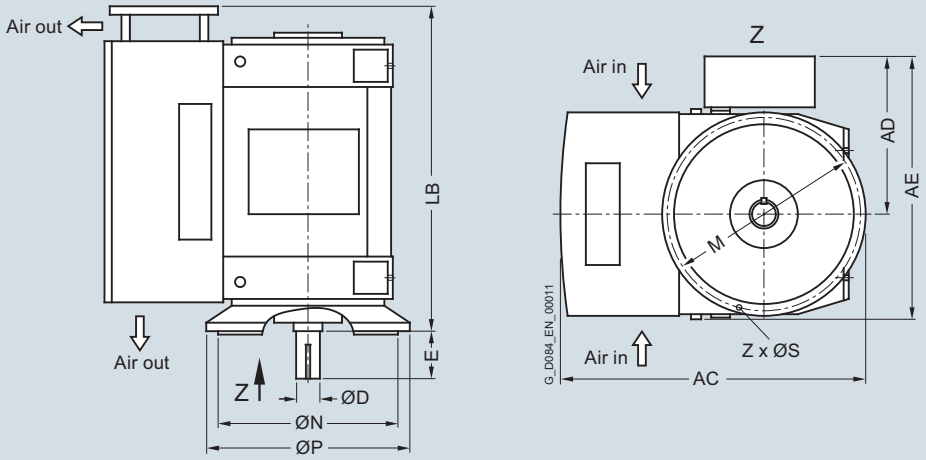
Motor type	Weight	Dimensions										
		AC	AD	AE	D	E	LB	P	N	M	S	Z
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Quantity
Up to 6.6 kV, IM V1 type of construction, anti-friction bearings, Z ventilation – 1RA7 series												
6-pole												
1RA7 710-6	16700	O. R.	1800	2900	220	350	3140	2000	1800	1900	35	24
1RA7 712-6	17700	O. R.	1800	2900	220	350	3140	2000	1800	1900	35	24
1RA7 714-6	19200	O. R.	1800	2900	220	350	3380	2000	1800	1900	35	24
1RA7 716-6	20300	O. R.	1800	2900	220	350	3380	2000	1800	1900	35	24
8-pole												
1RA7 710-8	16600	O. R.	1800	2900	220	350	3140	2000	1800	1900	35	24
1RA7 712-8	17600	O. R.	1800	2900	220	350	3140	2000	1800	1900	35	24
1RA7 714-8	19100	O. R.	1800	2900	220	350	3380	2000	1800	1900	35	24
1RA7 716-8	20100	O. R.	1800	2900	220	350	3380	2000	1800	1900	35	24
10-pole												
1RA7 710-3	16400	O. R.	1800	2900	220	350	3140	2000	1800	1900	35	24
1RA7 712-3	17300	O. R.	1800	2900	220	350	3140	2000	1800	1900	35	24
1RA7 714-3	18900	O. R.	1800	2900	220	350	3380	2000	1800	1900	35	24
1RA7 716-3	19800	O. R.	1800	2900	220	350	3380	2000	1800	1900	35	24

Note:

Higher pole numbers are available on request.

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Dimension drawings



Motor type	Weight	Dimensions										
		AC	AD	AE	D	E	LB	P	N	M	S	Z
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Quantity
9 ... 11 kV, IM V1 type of construction, anti-friction bearings, Z ventilation – 1RA7 series												
6-pole												
1RA7 710-6	17000	O. R.	1800	2900	220	350	3140	2000	1800	1900	35	24
1RA7 712-6	18100	O. R.	1800	2900	220	350	3140	2000	1800	1900	35	24
1RA7 714-6	19600	O. R.	1800	2900	220	350	3380	2000	1800	1900	35	24
1RA7 716-6	20700	O. R.	1800	2900	220	350	3380	2000	1800	1900	35	24
8-pole												
1RA7 710-8	16200	O. R.	1800	2900	220	350	3140	2000	1800	1900	35	24
1RA7 712-8	17200	O. R.	1800	2900	220	350	3140	2000	1800	1900	35	24
1RA7 714-8	18600	O. R.	1800	2900	220	350	3380	2000	1800	1900	35	24
1RA7 716-8	19600	O. R.	1800	2900	220	350	3380	2000	1800	1900	35	24
10-pole												
1RA7 710-3	16400	O. R.	1800	2900	220	350	3140	2000	1800	1900	35	24
1RA7 712-3	17400	O. R.	1800	2900	220	350	3140	2000	1800	1900	35	24
1RA7 714-3	18800	O. R.	1800	2900	220	350	3380	2000	1800	1900	35	24
1RA7 716-3	19700	O. R.	1800	2900	220	350	3380	2000	1800	1900	35	24

Note:

Higher pole numbers are available on request.

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Overview



Technical data

Overview of technical data

H-compact PLUS 1RN4/1RN6, SIMOTICS HV M 1RN7	
Rated voltage	3.3 … 13.8 kV
Rated frequency	50/60 Hz
Motor type	Induction motor with squirrel-cage rotor
Type of construction	IM B3, IM V1
Degree of protection	IP55
Cooling method	IC81W
Stator winding insulation	Thermal class 155 (F), utilized to 130 (B)
Shaft height	450 … 710 mm
Bearings	Anti-friction bearings, sleeve bearings
Cage material	Copper
Standards	IEC, EN, NEMA
Frame design for shaft heights 450 … 560 mm	Housing: Cast iron Cooling enclosure: Steel
Frame design for shaft heights 630 … 710 mm	Housing: Steel Cooling enclosure: Steel

Technical data (continued)

Power ranges for IEC motors for line operation

1RN4, 1SL4 (Ex ec), 1SQ4 (Ex pxb) series

1RN6, 1SL6 (Ex ec), 1SQ6 (Ex pxb) series

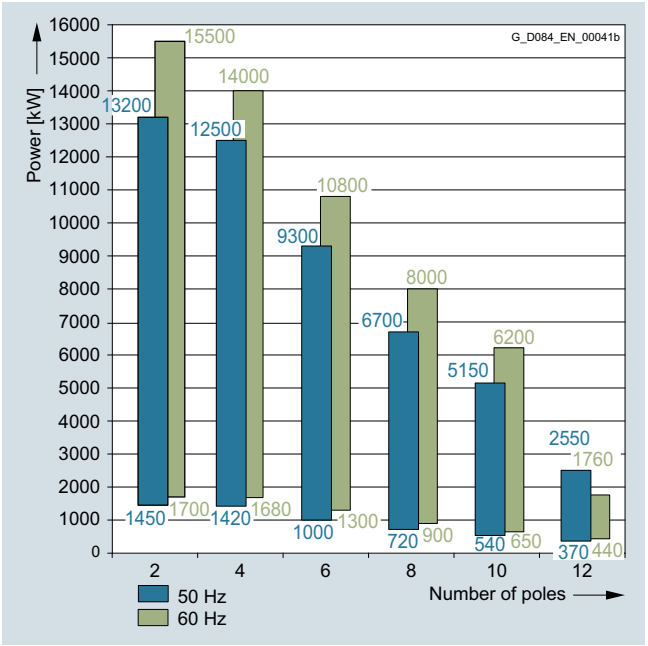
1RN7 series

Insulation system, thermal class 155 (F), utilized to 130 (B).

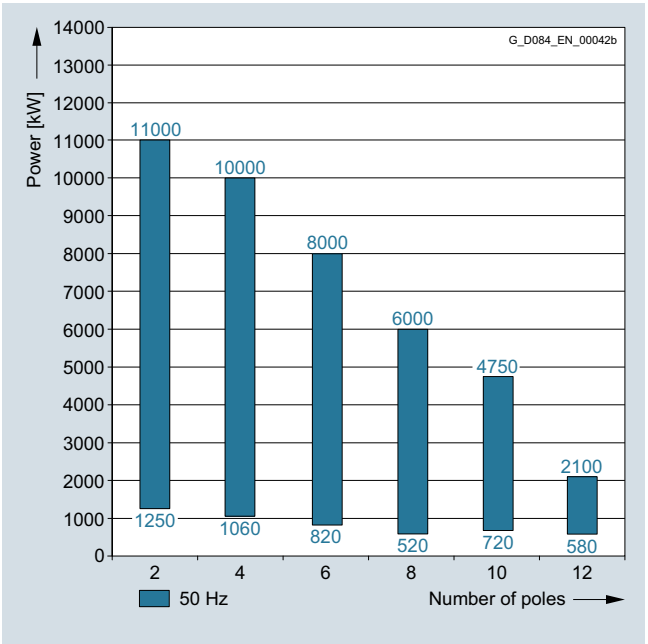
Coolant temperature up to 25 °C, installation altitude up to 1000 m.

3.3 to 6.6 kV; 50 Hz

4.0 to 6.6 kV; 60 Hz



9 to 11 kV; 50 Hz



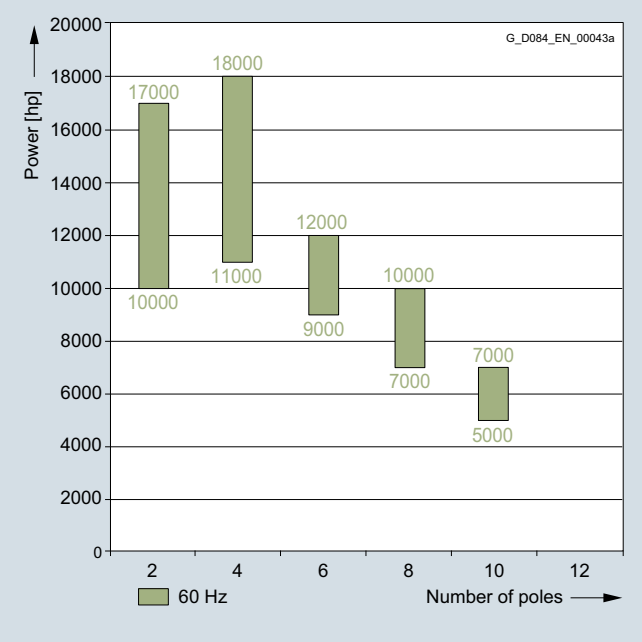
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Technical data (continued)

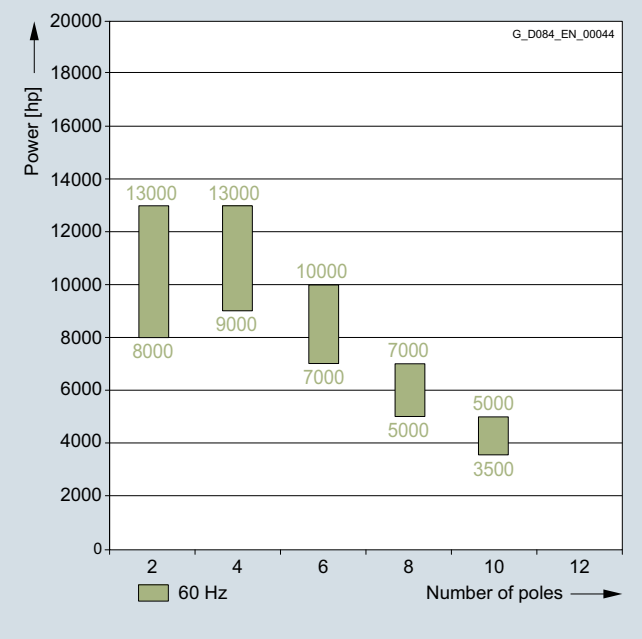
Power ranges for NEMA motors for line operation

Insulation system, thermal class 155 (F), utilized to 130 (B)

4 to 6.6 kV; 60 Hz



12.5 to 13.8 kV; 60 Hz



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Selection and ordering data

IEC version

The following data also apply to explosion-protected motors 1SL4/1SL6 (Ex ec) and 1SQ4/1SQ6 (Ex pxb).

Rated power	**High voltage motor H-compact PLUS**	Speed	Rated current	Efficiency		Power factor		Torque	Break-down torque	Locked-rotor torque	Locked-rotor current	Moment of inertia	
IEC			I_{rated} at 6 kV	4/4 load	3/4 load	4/4 load	3/4 load		T_B/T_{rated}	T_{LR}/T_{rated}	I_{LR}/I_{rated}	Motor	External, max.[1]
kW	Article No.	rpm	A	%	%	cos φ	cos φ	Nm	[-]	[-]	[-]	kgm²	kgm²
3.3 ... 6.6 kV, 50 Hz													
2-pole													
1450	**1RN6 450-2HJ■0**	2970	166	95.6	96.0	0.88	0.87	4662	2.00	0.60	4.35	12	64
1700	**1RN6 452-2HJ■0**	2971	192	95.9	96.3	0.89	0.89	5464	2.05	0.60	4.50	14	70
1900	**1RN6 454-2HJ■0**	2974	210	96.2	96.5	0.90	0.89	6100	2.30	0.70	5.15	15	74
2120	**1RN6 456-2HJ■0**	2978	235	96.5	96.6	0.90	0.89	6798	2.45	0.70	5.50	17	81
2500	**1RN6 500-2HJ■0**	2972	280	96.4	96.8	0.89	0.88	8032	1.95	0.55	4.30	19	83
2680	**1RN6 502-2HJ■0**	2974	300	96.3	96.7	0.90	0.89	8605	2.05	0.50	4.45	21	93
3150	**1RN6 504-2HJ■0**	2978	345	96.8	97.1	0.91	0.90	10100	2.30	0.55	5.20	25	103
3400	**1RN6 506-2HJ■0**	2975	370	96.8	97.2	0.91	0.91	10913	2.15	0.55	4.85	26	115
4000	**1RN6 560-2HJ■0**	2974	450	96.5	96.8	0.89	0.90	12843	1.95	0.50	4.05	39	160
4600	**1RN6 562-2HJ■0**	2977	520	96.7	97.0	0.89	0.90	14755	2.00	0.50	4.30	44	180
5140	**1RN6 564-2HJ■0**	2978	560	97.0	97.2	0.91	0.91	16481	2.25	0.60	4.75	49	200
5660	**1RN6 566-2HJ■0**	2980	620	97.1	97.3	0.91	0.91	18137	2.40	0.60	5.25	55	220
4900	**1RN4 630-2HE■0**	2982	550	96.9	97.1	0.88	0.88	15692	2.10	0.31	4.00	75	110
5700	**1RN4 632-2HE■0**	2983	630	97.3	97.3	0.89	0.89	18248	2.20	0.34	4.30	85	150
6500	**1RN4 634-2HE■0**	2985	710	97.5	97.6	0.90	0.89	20796	2.50	0.41	5.00	90	190
7500	**1RN4 636-2HE■0**	2986	820	97.7	97.8	0.90	0.89	23987	2.60	0.46	5.40	100	240
4-pole													
1420	**1RN6 450-4HJ■■**	1482	160	95.6	96.1	0.89	0.88	9149	2.35	0.65	4.65	21	340
1560	**1RN6 452-4HJ■■**	1483	176	95.9	96.3	0.89	0.88	10045	2.45	0.65	4.95	24	385
1730	**1RN6 454-4HJ■■**	1484	194	96.0	96.4	0.89	0.88	11132	2.50	0.65	5.05	27	440
1950	**1RN6 456-4HJ■■**	1486	220	96.2	96.5	0.89	0.87	12531	2.60	0.65	5.25	30	500
2240[2]	**1RN6 500-4HJ■0**	1485	250	96.2	96.9	0.89	0.88	14404	2.30	0.65	4.70	45	410
2500[2]	**1RN6 502-4HJ■0**	1485	280	96.3	96.9	0.89	0.88	16076	2.35	0.65	4.90	48	460
2800[2]	**1RN6 504-4HJ■0**	1486	315	96.4	97.0	0.89	0.88	17993	2.30	0.60	4.80	55	510
3080[2]	**1RN6 506-4HJ■0**	1485	345	96.4	97.1	0.89	0.87	19805	2.45	0.65	5.15	60	560
3800[2]	**1RN6 560-4HJ■0**	1489	420	96.9	97.3	0.90	0.90	24370	2.10	0.65	4.95	86	730
4300[2]	**1RN6 562-4HJ■0**	1489	470	97.1	97.5	0.91	0.91	27576	2.05	0.65	4.85	97	800
4800[2]	**1RN6 564-4HJ■0**	1490	520	97.2	97.6	0.91	0.91	30762	2.10	0.60	5.00	107	880
5260[2]	**1RN6 566-4HJ■0**	1490	580	97.3	97.6	0.90	0.90	33710	2.10	0.60	5.15	117	970
5300	**1RN4 630-4HE■■**	1489	590	97.1	97.3	0.89	0.89	33993	2.00	0.54	4.60	150	780
6000	**1RN4 632-4HE■■**	1490	670	97.3	97.4	0.89	0.89	38456	2.15	0.60	4.90	165	1050
6600	**1RN4 634-4HE■■**	1490	720	97.4	97.6	0.90	0.90	42302	2.20	0.63	5.10	180	1200
7100	**1RN4 636-4HE■■**	1491	780	97.6	97.6	0.90	0.89	45476	2.40	0.70	5.50	195	1100

Voltage code:	
3.3 kV, 50 Hz	**0**
6 kV, 50 Hz	**6**
6.6 kV, 50 Hz	**7**
Other voltage	**9**

Type of construction:	
IM B3	**0**
IM V1 (without canopy)	**8**

Note:

Efficiencies according to IEC 60034-2-1:2007;
stray load losses determined by statistical evaluation of measurements.
NEMA version on request.

Electrical data is also valid for operation with SINAMICS PERFECT HARMONY drives.
For ordering, please note the 10th and 11th position of the article number code.

[1] Max. permissible external moment of inertia for three starts from cold or two starts from warm under the conditions described on Page 2/2.

[2] Data of vertical motors (IM V1) on request.

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Selection and ordering data (continued)

Rated power	High voltage motor H-compact PLUS	Speed	Rated current	Efficiency		Power factor		Torque	Break-down torque	Locked-rotor torque	Locked-rotor current	Moment of inertia	
IEC			I_{rated} at 6 kV	4/4 load	3/4 load	4/4 load	3/4 load		T_B/T_{rated}	T_{LR}/T_{rated}	I_{LR}/I_{rated}	Motor	External, max.[1]
kW	Article No.	rpm	A	%	%	cos φ	cos φ	Nm	[-]	[-]	[-]	kgm²	kgm²
3.3 ... 6.6 kV, 50 Hz													
6-pole													
1000	**1RN6 450-6HJ■■**	988	118	95.5	96.1	0.85	0.84	9665	2.25	0.95	4.65	28	660
1120	**1RN6 452-6HJ■■**	989	132	95.7	96.2	0.85	0.84	10814	2.35	0.85	4.80	32	770
1250	**1RN6 454-6HJ■■**	989	148	95.8	96.3	0.85	0.84	12069	2.40	0.95	4.95	35	870
1400	**1RN6 456-6HJ■■**	990	164	96.1	96.5	0.85	0.84	13504	2.45	0.90	5.05	41	1040
1850	**1RN6 500-6HJ■■**	988	215	95.8	96.5	0.86	0.85	17880	2.05	0.65	4.35	56	1280
2090	**1RN6 502-6HJ■■**	988	245	95.9	96.6	0.86	0.85	20200	2.00	0.65	4.15	61	1420
2300	**1RN6 504-6HJ■■**	989	270	96.0	96.7	0.86	0.85	22207	2.20	0.70	4.60	68	1560
2500	**1RN6 506-6HJ■■**	989	285	96.2	96.8	0.87	0.86	24138	2.20	0.75	4.65	76	1760
2900	**1RN6 560-6HJ■■**	990	330	96.4	96.9	0.87	0.87	27972	1.95	0.70	4.40	107	1640
3250	**1RN6 562-6HJ■■**	990	370	96.6	97.1	0.88	0.88	31348	1.95	0.70	4.40	118	1820
3640	**1RN6 564-6HJ■■**	990	410	96.6	97.1	0.88	0.88	35110	1.90	0.70	4.25	131	2000
3930	**1RN6 566-6HJ■■**	990	440	96.8	97.2	0.88	0.88	37907	1.95	0.70	4.45	145	2250
4200	**1RN4 630-6HE■■**	992	490	96.8	97.2	0.85	0.84	40433	2.00	0.57	4.50	190	2000
4700	**1RN4 632-6HE■■**	993	540	97.0	97.3	0.86	0.85	45201	2.10	0.62	4.80	210	2100
5100	**1RN4 634-6HE■■**	993	590	97.2	97.4	0.86	0.84	49048	2.25	0.69	5.20	230	2800
5600	**1RN4 636-6HE■■**	994	640	97.3	97.4	0.86	0.84	53803	2.30	0.70	5.30	255	3300
8-pole													
720	**1RN6 450-8HJ■■**	741	88	95.0	95.7	0.83	0.82	9278	2.10	0.75	4.30	35	730
780	**1RN6 452-8HJ■■**	742	95	95.2	95.9	0.83	0.82	10038	2.15	0.75	4.40	39	890
900	**1RN6 454-8HJ■■**	743	110	95.6	96.0	0.82	0.79	11567	2.55	0.85	5.20	44	1040
1030	**1RN6 456-8HJ■■**	743	124	95.6	96.2	0.83	0.81	13237	2.40	0.80	4.90	51	1300
1320	**1RN6 500-8HJ■■**	742	160	95.6	96.2	0.83	0.81	16987	2.15	0.55	4.55	68	1420
1480	**1RN6 502-8HJ■■**	743	178	95.6	96.3	0.84	0.81	19021	2.15	0.60	4.50	75	1560
1680	**1RN6 504-8HJ■■**	743	200	95.9	96.4	0.84	0.81	21591	2.25	0.60	4.60	84	1740
1850	**1RN6 506-8HJ■■**	743	220	96.0	96.5	0.84	0.82	23776	2.25	0.65	4.75	93	1920
2120	**1RN6 560-8HJ■■**	743	250	96.3	96.9	0.85	0.83	27246	2.10	0.65	4.50	127	2700
2400	**1RN6 562-8HJ■■**	743	280	96.4	97.0	0.85	0.84	30845	2.05	0.65	4.50	140	2950
2640	**1RN6 564-8HJ■■**	743	310	96.5	97.1	0.85	0.83	33930	2.10	0.65	4.75	155	3300
2850	**1RN6 566-8HJ■■**	744	330	96.6	97.2	0.85	0.83	36579	2.15	0.60	4.75	171	3650
3200	**1RN4 630-8HE■■**	743	375	96.5	96.7	0.85	0.83	41131	1.90	0.60	4.30	255	3100
3500	**1RN4 632-8HE■■**	743	410	96.7	96.8	0.85	0.82	44987	2.10	0.67	4.60	280	3400
3750	**1RN4 634-8HE■■**	743	440	96.7	96.9	0.85	0.84	48200	2.00	0.65	4.60	310	3600
4100	**1RN4 636-8HE■■**	744	485	96.9	96.9	0.84	0.81	52628	2.30	0.76	5.30	340	3800

Voltage code:

3.3 kV, 50 Hz	**0**
6 kV, 50 Hz	**6**
6.6 kV, 50 Hz	**7**
Other voltage	**9**

Type of construction:

IM B3	**0**
IM V1 (without canopy)	**8**

Note:

Efficiencies according to IEC 60034-2-1:2007;
stray load losses determined by statistical evaluation of measurements.
NEMA version on request.

Electrical data is also valid for operation with SINAMICS PERFECT HARMONY drives.
For ordering, please note the 10th and 11th position of the article number code.

[1] Max. permissible external moment of inertia for three starts from cold or two starts from warm under the conditions described on Page 2/2.

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2

Selection and ordering data (continued)

Rated power	High voltage motor H-compact PLUS	Speed	Rated current	Efficiency		Power factor		Torque	Break-down torque	Locked-rotor torque	Locked-rotor current	Moment of inertia	
IEC			I_{rated} at 6 kV	4/4 load	3/4 load	4/4 load	3/4 load		T_B/T_{rated}	T_{LR}/T_{rated}	I_{LR}/I_{rated}	Motor	External, max.[1]
kW	Article No.	rpm	A	%	%	cos φ	cos φ	Nm	[-]	[-]	[-]	kgm²	kgm²
3.3 ... 6.6 kV, 50 Hz													
10-pole													
540	**1RN6 450-3HJ■■**	590	70	93.4	93.7	0.80	0.76	8741	2.00	0.80	4.60	37	1150
600	**1RN6 452-3HJ■■**	590	76	93.7	93.9	0.81	0.76	9712	2.00	0.80	4.70	41	1350
670	**1RN6 454-3HJ■■**	591	86	93.9	94.1	0.80	0.75	10827	2.10	0.82	4.90	46	1450
760	**1RN6 456-3HJ■■**	591	97	94.1	94.2	0.80	0.75	12281	2.20	0.90	5.20	52	1800
900	**1RN6 500-3HE■■**	591	112	94.4	94.7	0.82	0.80	14543	1.90	0.68	4.30	70	1400
1000	**1RN6 502-3HE■■**	592	122	95.7	94.9	0.83	0.80	16132	1.90	0.70	4.50	80	1700
1100	**1RN6 504-3HE■■**	592	134	94.8	95.0	0.83	0.80	17745	1.90	0.72	4.60	88	2200
1250	**1RN6 506-3HE■■**	592	152	95.0	95.1	0.83	0.80	20165	1.90	0.75	4.70	99	2600
1480	**1RN6 560-3HE■■**	593	184	95.1	95.4	0.81	0.77	23835	2.00	0.70	4.50	123	2700
1700	**1RN6 562-3HE■■**	593	210	95.4	95.7	0.82	0.78	27378	2.00	0.70	4.50	141	4100
1880	**1RN6 564-3HE■■**	593	230	95.6	95.7	0.82	0.78	30277	2.00	0.72	4.70	158	4400
2050	**1RN6 566-3HE■■**	593	255	95.7	95.8	0.81	0.76	33014	2.10	0.78	5.00	173	5200
2400	**1RN4 630-3HE■■**	592	285	95.8	96.4	0.84	0.83	38716	1.80	0.62	4.00	250	4700
2650	**1RN4 632-3HE■■**	592	315	96.0	96.5	0.84	0.83	42749	1.80	0.65	4.20	280	5300
2900	**1RN4 634-3HE■■**	593	345	96.2	96.6	0.84	0.82	46703	2.00	0.70	4.50	305	6300
3150	**1RN4 636-3HE■■**	593	375	96.4	96.7	0.84	0.82	50729	2.00	0.73	4.60	335	7500
12-pole													
370	**1RN6 450-5HJ■■**	491	53	92.4	92.7	0.73	0.68	7197	1.80	0.60	4.00	37	1100
425	**1RN6 452-5HJ■■**	492	60	92.8	93.0	0.73	0.67	8249	1.80	0.63	4.20	41	1400
475	**1RN6 454-5HJ■■**	491	66	93.1	93.3	0.74	0.69	9239	1.80	0.60	4.00	46	1600
540	**1RN6 456-5HJ■■**	492	77	93.5	93.5	0.72	0.65	10482	2.00	0.68	4.40	52	2000
680	**1RN6 500-5HE■■**	491	94	93.9	94.0	0.74	0.69	13226	1.90	0.62	4.10	70	2350
760	**1RN6 502-5HE■■**	491	102	94.1	94.2	0.76	0.71	14782	1.80	0.60	4.00	79	2600
840	**1RN6 504-5HE■■**	491	112	94.3	94.4	0.76	0.71	16338	1.90	0.62	4.10	87	3100
930	**1RN6 506-5HE■■**	492	128	94.5	94.6	0.74	0.69	18052	1.90	0.62	4.30	98	3700
1100	**1RN6 560-5HE■■**	493	150	94.5	94.8	0.75	0.71	21308	1.80	0.57	3.90	123	3600
1230	**1RN6 562-5HE■■**	493	168	94.9	95.0	0.74	0.68	23827	1.80	0.60	4.00	141	4100
1350	**1RN6 564-5HE■■**	494	184	95.0	95.1	0.74	0.68	26098	2.00	0.63	4.30	158	4700
1470	**1RN6 566-5HE■■**	494	198	95.1	95.2	0.75	0.69	28418	2.00	0.65	4.30	173	5200
1900	**1RN4 630-5HE■■**	493	245	95.4	95.8	0.79	0.76	36805	1.90	0.70	4.30	250	5500
2150	**1RN4 632-5HE■■**	493	270	95.6	96.0	0.80	0.76	41648	1.90	0.71	4.30	275	7000
2350	**1RN4 634-5HE■■**	493	295	95.8	96.3	0.80	0.77	45522	1.90	0.72	4.40	305	8300
2550	**1RN4 636-5HE■■**	493	320	95.9	96.4	0.80	0.77	49397	2.00	0.74	4.50	335	9800

Voltage code:	
3.3 kV, 50 Hz	**0**
6 kV, 50 Hz	**6**
6.6 kV, 50 Hz	**7**
Other voltage	**9**

Type of construction:	
IM B3	**0**
IM V1 (without canopy)	**8**

Note:

Efficiencies according to IEC 60034-2-1:2007;
stray load losses determined by statistical evaluation of measurements.
NEMA version on request.

Higher pole numbers are available on request.

Electrical data is also valid for operation with SINAMICS PERFECT HARMONY drives.
For ordering, please note the 10th and 11th position of the article number code.

[1] Max. permissible external moment of inertia for three starts from cold or two starts from warm under the conditions described on Page 2/2.

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Selection and ordering data

The following data also apply to explosion-protected motors 1SL7 (Ex ec) and 1SQ7 (Ex pxb).

Rated power	High voltage motor SIMOTICS HV M (modular)	Speed	Rated current	Efficiency		Power factor		Torque	Break-down torque	Locked-rotor torque	Locked-rotor current	Moment of inertia	
IEC			I_{rated} at 6 kV	4/4 load	3/4 load	4/4 load	3/4 load		T_B/T_{rated}	T_{LR}/T_{rated}	I_{LR}/I_{rated}	Motor	External, max.[1]
kW	Article No.	rpm	A	%	%	cos φ	cos φ	Nm	[-]	[-]	[-]	kgm²	kgm²
3.3 ... 6.6 kV, 50 Hz													
2-pole													
9500	**1RN7710-2NA60-0CJ0**	2985	1040	97.4	97.4	0.91	0.91	30391	2.00	0.60	4.50	149	216
10600	**1RN7712-2NA60-0CJ0**	2985	1140	97.5	97.5	0.91	0.91	33910	2.10	0.60	4.70	160	207
11800	**1RN7714-2NA60-0CJ0**	2986	1260	97.6	97.6	0.92	0.92	37736	2.25	0.65	5.00	176	207
13200	**1RN7716-2NA60-0CJ0**	2986	1400	97.8	97.7	0.93	0.92	42213	2.30	0.75	5.30	189	197
4-pole													
9000	**1RN7710-4NA60-0C■0**	1492	980	97.6	97.7	0.91	0.91	57602	2.35	0.65	4.90	262	753
10000	**1RN7712-4NA60-0C■0**	1492	1080	97.6	97.7	0.91	0.91	64003	2.35	0.70	5.00	288	804
11200	**1RN7714-4NA60-0C■0**	1492	1200	97.7	97.8	0.92	0.92	71683	2.40	0.70	5.10	323	917
12500	**1RN7716-4NA60-0C■0**	1492	1340	97.8	97.9	0.92	0.91	80004	2.45	0.65	5.20	362	1063
6-pole													
6700	**1RN7710-6NA6■-0C■0**	993	770	97.2	97.4	0.86	0.86	64431	2.15	0.65	4.50	352	2121
7500	**1RN7712-6NA6■-0C■0**	994	860	97.3	97.4	0.86	0.85	72052	2.20	0.65	4.60	398	2500
8300	**1RN7714-6NA6■-0C■0**	994	950	97.4	97.5	0.86	0.85	79737	2.25	0.65	4.70	450	3024
9300	**1RN7716-6NA6■-0C■0**	994	1060	97.5	97.6	0.86	0.86	89344	2.25	0.65	4.70	498	3260
8-pole													
5000	**1RN7710-8NA6■-0C■0**	744	580	96.8	97.1	0.85	0.84	64175	2.10	0.55	4.30	434	5604
5600	**1RN7712-8NA6■-0C■0**	745	650	97.0	97.2	0.86	0.84	71779	2.25	0.70	4.60	494	7372
6100	**1RN7714-8NA6■-0C■0**	745	700	97.1	97.3	0.86	0.84	78188	2.30	0.70	4.70	558	7899
6700	**1RN7716-8NA6■-0C■0**	745	780	97.2	97.4	0.85	0.84	85879	2.35	0.65	4.80	617	9308
10-pole													
3750	**1RN7710-3NA6■-0C■0**	595	440	96.6	96.8	0.85	0.82	60184	2.50	0.60	4.40	432	11689
4200	**1RN7712-3NA6■-0C■0**	595	490	96.7	96.9	0.85	0.82	67406	2.55	0.60	4.60	491	13437
4700	**1RN7714-3NA6■-0C■0**	595	540	96.8	97.1	0.86	0.84	75431	2.50	0.65	4.50	558	15129
5150	**1RN7716-3NA6■-0C■0**	594	590	96.9	97.2	0.86	0.85	82792	2.45	0.65	4.50	618	15557

Type of construction:	
IM B3 (IM 1001)	**0**
IM V1, without protective hood (IM 3011)	**8**
Housing and bearing version	
Steel fabricated housing/ anti-friction bearings	**G**
Steel fabricated housing/ sleeve bearing	**J**

Note:

Efficiencies according to IEC 60034-2-1:2007;
stray load losses determined by statistical evaluation of measurements.
NEMA version on request.

Higher pole numbers are available on request.

[1] Max. permissible external moment of inertia for three starts from cold or two starts from warm under the conditions described on Page 2/2.

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Selection and ordering data

Rated power	High voltage motor H-compact PLUS	Speed	Rated current	Efficiency		Power factor		Torque	Break-down torque	Locked-rotor torque	Locked-rotor current	Moment of inertia	
IEC			I_{rated} at 10 kV	4/4 load	3/4 load	4/4 load	3/4 load		T_B/T_{rated}	T_{LR}/T_{rated}	I_{LR}/I_{rated}	Motor	External, max.[1]
kW	Article No.	rpm	A	%	%	cos φ	cos φ	Nm	[-]	[-]	[-]	kgm²	kgm²
9 ... 11 kV, 50 Hz													
2-pole													
1250	**1RN6 450-2HJ■0**	2974	86	95.5	95.8	0.88	0.88	4013	2.15	0.70	4.80	12	31
1400	**1RN6 452-2HJ■0**	2977	94	95.8	96.1	0.90	0.89	4490	2.40	0.75	5.40	14	33
1550	**1RN6 454-2HJ■0**	2979	104	95.9	96.2	0.89	0.89	4968	2.40	0.70	5.50	15	36
1750	**1RN6 456-2HJ■0**	2980	116	96.2	96.5	0.90	0.90	5607	2.45	0.70	5.50	17	39
2180	**1RN6 500-2HJ■0**	2977	146	96.1	96.6	0.90	0.89	6992	2.15	0.55	4.80	19	37
2420	**1RN6 502-2HJ■0**	2976	162	96.3	96.7	0.90	0.90	7765	2.10	0.65	4.60	21	41
2660	**1RN6 504-2HJ■0**	2978	174	96.5	97.0	0.91	0.91	8529	2.25	0.55	4.90	25	45
2900	**1RN6 506-2HJ■0**	2976	190	96.6	97.1	0.91	0.91	9305	2.10	0.70	4.90	26	51
3550	**1RN6 560-2HJ■0**	2978	240	96.5	96.8	0.89	0.90	11383	2.00	0.50	4.05	39	115
4050	**1RN6 562-2HJ■0**	2982	270	96.7	96.8	0.90	0.90	12969	2.30	0.60	4.95	44	130
4630	**1RN6 564-2HJ■0**	2981	305	96.9	97.1	0.91	0.91	14831	2.25	0.60	4.80	49	145
5290	**1RN6 566-2HJ■0**	2984	345	97.1	97.1	0.91	0.91	16928	2.50	0.60	5.40	54	160
4300	**1RN4 630-2HE■0**	2984	290	96.8	96.9	0.89	0.88	13762	2.30	0.34	4.50	75	75
5000	**1RN4 632-2HE■0**	2985	330	97.3	97.3	0.90	0.89	15997	2.50	0.39	4.90	85	100
5700	**1RN4 634-2HE■0**	2986	375	97.4	97.4	0.90	0.89	18230	2.60	0.42	5.20	90	110
6700	**1RN4 636-2HE■0**	2987	440	97.6	97.7	0.90	0.89	21421	2.60	0.45	5.50	100	160
4-pole													
1060	**1RN6 450-4HJ■■**	1485	72	95.4	95.9	0.89	0.89	6816	2.50	0.70	5.15	21	170
1210	**1RN6 452-4HJ■■**	1484	82	95.5	96.1	0.89	0.89	7786	2.45	0.65	5.00	24	194
1360	**1RN6 454-4HJ■■**	1486	91	95.8	96.2	0.90	0.89	8739	2.55	0.65	5.30	27	225
1560	**1RN6 456-4HJ■■**	1487	104	96.0	96.4	0.90	0.88	10018	2.60	0.65	5.35	30	260
1980[2]	**1RN6 500-4HJ■0**	1486	134	95.9	96.7	0.89	0.88	12723	2.45	0.75	5.15	45	200
2180[2]	**1RN6 502-4HJ■0**	1486	148	96.0	96.8	0.89	0.88	14009	2.40	0.70	5.20	48	220
2420[2]	**1RN6 504-4HJ■0**	1488	164	96.2	96.9	0.89	0.88	15530	2.50	0.65	5.20	55	250
2610[2]	**1RN6 506-4HJ■0**	1488	176	96.3	97.0	0.89	0.88	16749	2.55	0.70	5.40	60	280
3250[2]	**1RA6 560-4HJ■0**	1490	215	96.8	97.2	0.91	0.91	20829	2.15	0.60	5.00	86	420
3600[2]	**1RA6 562-4HJ■0**	1491	235	96.9	97.3	0.91	0.91	23056	2.15	0.65	5.05	97	460
4100[2]	**1RA6 564-4HJ■0**	1491	270	97.1	97.4	0.91	0.90	26258	2.15	0.55	5.10	107	510
4450[2]	**1RA6 566-4HJ■0**	1492	290	97.2	97.5	0.91	0.90	28481	2.25	0.55	5.20	116	560
4500	**1RN4 630-4HE■■**	1490	300	96.9	97.1	0.89	0.89	28842	2.10	0.57	4.90	150	550
5000	**1RN4 632-4HE■■**	1490	330	97.1	97.2	0.90	0.90	32047	2.15	0.59	5.00	165	650
5600	**1RN4 634-4HE■■**	1490	370	97.3	97.4	0.90	0.90	35893	2.20	0.63	5.30	180	750
6200	**1RN4 636-4HE■■**	1491	410	97.4	97.5	0.90	0.90	39712	2.40	0.68	5.50	195	780

Voltage code:	
10 kV, 50 Hz	**8**
Other voltage	**9**
Type of construction:	
IM B3	**0**
IM V1 (without canopy)	**8**

Note:

Efficiencies according to IEC 60034-2-1:2007;
stray load losses determined by statistical evaluation of measurements.
NEMA version on request.

[1] Max. permissible external moment of inertia for three starts from cold or two starts from warm under the conditions described on Page 2/2.

[2] Data of vertical motors (IM V1) on request.

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Selection and ordering data (continued)

Rated power	High voltage motor H-compact PLUS	Speed	Rated current	Efficiency		Power factor		Torque	Break-down torque	Locked-rotor torque	Locked-rotor current	Moment of inertia	
IEC			I_{rated} at 10 kV	4/4 load	3/4 load	4/4 load	3/4 load		T_B/T_{rated}	T_{LR}/T_{rated}	I_{LR}/I_{rated}	Motor	External, max.[1]
kW	Article No.	rpm	A	%	%	cos φ	cos φ	Nm	[-]	[-]	[-]	kgm²	kgm²
9 ... 11 kV, 50 Hz													
6-pole													
820	**1RN6 450-6HJ■■**	990	59	95.2	95.7	0.85	0.83	7909	2.45	0.90	5.15	28	340
920	**1RN6 452-6HJ■■**	990	65	95.2	95.8	0.86	0.85	8874	2.40	0.95	5.10	32	400
1000	**1RN6 454-6HJ■■**	990	70	95.4	96.0	0.86	0.85	9645	2.40	0.95	5.10	35	460
1150	**1RN6 456-6HJ■■**	991	81	95.8	96.3	0.86	0.84	11081	2.45	0.85	5.15	41	560
1450	**1RN6 500-6HJ■■**	990	102	95.5	96.3	0.86	0.86	13986	2.15	0.70	4.55	56	830
1650	**1RN6 502-6HJ■■**	989	114	95.6	96.4	0.87	0.86	15931	2.10	0.70	4.50	61	910
1850	**1RN6 504-6HJ■■**	989	128	95.7	96.5	0.87	0.87	17862	2.10	0.70	4.65	68	1020
2020	**1RN6 506-6HJ■■**	990	140	95.9	96.6	0.87	0.86	19484	2.20	0.70	4.65	76	1140
2500	**1RN6 560-6HJ■■**	991	170	96.2	96.7	0.88	0.87	24090	2.05	0.70	4.85	107	1060
2800	**1RN6 562-6HJ■■**	992	190	96.5	96.9	0.88	0.87	26953	2.15	0.70	5.00	118	1160
3150	**1RN6 564-6HJ■■**	992	215	96.6	97.0	0.88	0.88	30322	2.10	0.70	4.75	131	1280
3430	**1RN6 566-6HJ■■**	992	230	96.7	97.1	0.89	0.88	33018	2.25	0.80	5.10	145	1420
3600	**1RN4 630-6HE■■**	993	250	96.7	96.9	0.86	0.84	34622	2.20	0.63	5.00	190	1200
4000	**1RN4 632-6HE■■**	993	275	96.8	97.0	0.87	0.09	38469	2.10	0.64	5.00	210	1500
4400	**1RN4 634-6HE■■**	993	300	97.0	97.1	0.87	0.86	42316	2.20	0.66	5.20	230	1750
4800	**1RN4 636-6HE■■**	994	330	97.1	97.2	0.87	0.86	46117	2.30	0.71	5.50	255	2000
8-pole													
520	**1RN6 450-8HJ■■**	743	38.5	94.4	95.0	0.83	0.81	6683	2.35	0.80	4.95	35	215
560	**1RN6 452-8HJ■■**	743	41	94.4	95.2	0.84	0.83	7197	2.25	0.75	4.80	39	290
590	**1RN6 454-8HJ■■**	743	43	94.3	95.1	0.84	0.83	7582	2.20	0.70	4.70	44	365
750	**1RN6 456-8HJ■■**	744	54	95.0	95.6	0.84	0.82	9626	2.45	0.80	5.15	51	485
1060	**1RN6 500-8HJ■■**	743	77	95.1	95.8	0.84	0.82	13623	2.20	0.60	4.75	68	830
1180	**1RN6 502-8HJ■■**	744	85	95.5	96.1	0.84	0.81	15145	2.35	0.65	4.95	75	910
1320	**1RN6 504-8HJ■■**	744	95	95.6	96.2	0.84	0.82	16942	2.35	0.65	5.00	84	1020
1490	**1RN6 506-8HJ■■**	744	108	95.7	96.3	0.84	0.82	19124	2.25	0.60	4.90	93	1120
1800	**1RN6 560-8HJ■■**	743	128	95.9	96.6	0.85	0.84	23134	2.00	0.60	4.50	127	1540
1980	**1RN6 562-8HJ■■**	744	140	96.0	96.7	0.85	0.84	25413	2.10	0.65	4.75	140	1700
2200	**1RN6 564-8HJ■■**	744	154	96.2	96.8	0.86	0.84	28237	2.10	0.60	4.75	155	1880
2380	**1RN6 566-8HJ■■**	744	166	96.3	96.9	0.86	0.84	30547	2.15	0.65	5.00	172	2100
2600	**1RN4 630-8HE■■**	744	186	96.3	96.4	0.84	0.81	33374	2.40	0.75	5.20	255	1800
2900	**1RN4 632-8HE■■**	744	205	96.4	96.5	0.84	0.81	37224	2.30	0.75	5.20	280	2000
3200	**1RN4 634-8HE■■**	744	225	96.6	96.7	0.85	0.82	41075	2.30	0.74	5.10	310	2200
3500	**1RN4 636-8HE■■**	744	245	96.7	96.8	0.86	0.83	44926	2.30	0.75	5.20	340	2600

Voltage code:	
10 kV, 50 Hz	**8**
Other voltage	**9**
Type of construction:	
IM B3	**0**
IM V1 (without canopy)	**8**

Note:

Efficiencies according to IEC 60034-2-1:2007;
stray load losses determined by statistical evaluation of measurements.
NEMA version on request.

[1] Max. permissible external moment of inertia for three starts from cold or two starts from warm under the conditions described on Page 2/2.

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Selection and ordering data (continued)

Rated power	High voltage motor H-compact PLUS	Speed	Rated current	Efficiency		Power factor		Torque	Break-down torque	Locked-rotor torque	Locked-rotor current	Moment of inertia	
IEC			I_{rated} at 10 kV	4/4 load	3/4 load	4/4 load	3/4 load		T_B/T_{rated}	T_{LR}/T_{rated}	I_{LR}/I_{rated}	Motor	External, max.[1]
kW	Article No.	rpm	A	%	%	cos φ	cos φ	Nm	[-]	[-]	[-]	kgm²	kgm²
9 ... 11 kV, 50 Hz													
10-pole													
720	**1RN6 500-3HE■■**	593	55	93.8	93.9	0.80	0.76	11595	2.20	0.82	5.20	70	900
830	**1RN6 502-3HE■■**	594	64	94.2	94.2	0.79	0.74	13344	2.20	0.82	5.30	80	1100
920	**1RN6 504-3HE■■**	594	71	94.3	94.3	0.79	0.74	14791	2.20	0.82	5.30	88	1200
1020	**1RN6 506-3HE■■**	594	79	94.5	94.5	0.79	0.75	16399	2.20	0.80	5.30	99	1400
1250	**1RN6 560-3HE■■**	593	94	94.8	94.9	0.81	0.77	20131	2.10	0.72	4.70	123	1650
1420	**1RN6 562-3HE■■**	593	106	94.9	95.2	0.82	0.78	22868	2.00	0.70	4.70	141	2050
1570	**1RN6 564-3HE■■**	593	116	95.1	95.4	0.82	0.78	25284	2.00	0.72	5.00	158	2500
1700	**1RN6 566-3HE■■**	595	128	95.3	95.4	0.80	0.75	27286	2.40	0.85	5.50	173	2700
2100	**1RN4 630-3HE■■**	593	152	95.8	96.1	0.83	0.80	33820	2.10	0.73	4.70	250	2500
2350	**1RN4 632-3HE■■**	594	172	96.0	96.2	0.82	0.78	37782	2.30	0.82	5.10	280	2900
2550	**1RN4 634-3HE■■**	594	184	96.0	96.3	0.83	0.79	40997	2.30	0.80	5.10	305	3000
2750	**1RN4 636-3HE■■**	594	196	96.2	96.5	0.84	0.80	44213	2.30	0.83	5.20	335	3500
12-pole													
580	**1RN6 502-5HE■■**	493	48.0	93.3	93.3	0.74	0.68	11235	2.00	0.70	4.70	79	1350
640	**1RN6 504-5HE■■**	493	53	93.5	93.6	0.74	0.68	12398	2.00	0.70	4.80	87	1500
700	**1RN6 506-5HE■■**	493	58	93.6	93.7	0.75	0.69	13560	2.10	0.70	4.80	98	1600
850	**1RN6 560-5HE■■**	494	69	93.8	94.1	0.76	0.71	16432	1.85	0.60	4.20	123	1750
1000	**1RN6 562-5HE■■**	494	82	94.4	94.6	0.75	0.69	19332	1.95	0.65	4.50	141	2200
1100	**1RN6 564-5HE■■**	494	88	94.5	94.7	0.76	0.71	21265	1.95	0.63	4.40	158	2500
1200	**1RN6 566-5HE■■**	494	96	94.8	94.8	0.76	0.71	23198	1.95	0.63	4.40	173	2900
1650	**1RN4 630-5HE■■**	494	126	95.1	95.5	0.79	0.74	31898	2.10	0.75	4.60	250	3000
1800	**1RN4 632-5HE■■**	494	142	95.4	95.7	0.77	0.71	34798	2.40	0.88	5.20	275	3500
1950	**1RN4 634-5HE■■**	494	152	95.5	95.7	0.78	0.73	37697	2.30	0.85	5.10	305	3400
2100	**1RN4 636-5HE■■**	495	162	95.7	95.9	0.78	0.73	40515	2.35	0.88	5.30	335	4000

Voltage code:	
10 kV, 50 Hz	**8**
Other voltage	**9**
Type of construction:	
IM B3	**0**
IM V1 (without canopy)	**8**

Note:

Efficiencies according to IEC 60034-2-1:2007;
stray load losses determined by statistical evaluation of measurements.
NEMA version on request.

Higher pole numbers are available on request.

[1] Max. permissible external moment of inertia for three starts from cold or two starts from warm under the conditions described on Page 2/2.

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Selection and ordering data

Rated power	High voltage motor SIMOTICS HV M (modular)	Speed	Rated current	Efficiency		Power factor		Torque	Break-down torque	Locked-rotor torque	Locked-rotor current	Moment of inertia	
IEC			I_{rated} at 10 kV	4/4 load	3/4 load	4/4 load	3/4 load		T_B/T_{rated}	T_{LR}/T_{rated}	I_{LR}/I_{rated}	Motor	External, max.[1]
kW	Article No.	rpm	A	%	%	cos φ	cos φ	Nm	[-]	[-]	[-]	kgm²	kgm²
9 ... 11 kV, 50 Hz													
2-pole													
8300	**1RN7710-2NA80-0CJ0**	2986	540	97.3	97.2	0.91	0.91	26543	2.15	0.60	4.80	149	272
9200	**1RN7712-2NA80-0CJ0**	2986	590	97.4	97.4	0.92	0.91	29421	2.20	0.65	5.00	160	273
10000	**1RN7714-2NA80-0CJ0**	2988	640	97.6	97.5	0.92	0.92	31958	2.30	0.70	5.50	174	309
11000	**1RN7716-2NA80-0CJ0**	2988	700	97.6	97.6	0.93	0.92	35154	2.40	0.65	5.40	190	303
4-pole													
7100	**1RN7710-4NA80-0C■0**	1493	460	97.4	97.5	0.91	0.91	45411	2.45	0.60	5.30	262	1077
8000	**1RN7712-4NA80-0C■0**	1493	520	97.5	97.6	0.91	0.91	51168	2.45	0.65	5.30	288	1140
9000	**1RN7714-4NA80-0C■0**	1493	580	97.6	97.7	0.92	0.92	57564	2.45	0.65	5.30	322	1317
10000	**1RN7716-4NA80-0C■0**	1493	640	97.7	97.8	0.92	0.92	63960	2.50	0.65	5.30	362	1506
6-pole													
5600	**1RN7710-6NA8■-0C■0**	995	385	97.1	97.2	0.86	0.84	53744	2.45	0.75	5.20	350	2627
6300	**1RN7712-6NA8■-0C■0**	995	435	97.3	97.3	0.86	0.85	60462	2.45	0.75	5.20	397	3212
7100	**1RN7714-6NA8■-0C■0**	995	490	97.3	97.3	0.86	0.84	68140	2.50	0.70	5.20	448	3232
8000	**1RN7716-6NA8■-0C■0**	995	550	97.4	97.4	0.87	0.85	76778	2.45	0.70	5.20	497	3931
8-pole													
4250	**1RN7710-8NA8■-0C■0**	745	300	96.6	96.9	0.85	0.83	54475	2.35	0.60	4.90	434	4820
4750	**1RN7712-8NA8■-0C■0**	746	335	96.8	97.0	0.85	0.83	60803	2.35	0.60	4.80	492	5704
5300	**1RN7714-8NA8■-0C■0**	746	365	96.9	97.1	0.86	0.84	67843	2.45	0.70	5.00	559	6953
6000	**1RN7716-8NA8■-0C■0**	746	420	97.0	97.2	0.85	0.83	76803	2.50	0.65	5.10	616	6922
10-pole													
3500	**1RN7710-3NA8■-0C■0**	595	245	96.5	96.7	0.85	0.82	56172	2.65	0.65	4.70	433	11504
3900	**1RN7712-3NA8■-0C■0**	595	275	96.7	96.9	0.85	0.83	62592	2.60	0.65	4.70	493	12639
4300	**1RN7714-3NA8■-0C■0**	595	300	96.8	97.0	0.85	0.83	69011	2.60	0.65	4.70	557	13791
4750	**1RN7716-3NA8■-0C■0**	595	335	96.7	97.0	0.85	0.83	76233	2.65	0.65	4.70	615	10027

Type of construction:	
IM B3 (IM 1001)	**0**
IM V1, without protective hood (IM 3011)	**8**

Housing and bearing version	
Steel fabricated housing/ anti-friction bearings	**G**
Steel fabricated housing/ sleeve bearing	**J**

Note:

Efficiencies according to IEC 60034-2-1:2007;
stray load losses determined by statistical evaluation of measurements.
NEMA version on request.

Higher pole numbers are available on request.

[1] Max. permissible external moment of inertia for three starts from cold or two starts from warm under the conditions described on Page 2/2.

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Selection and ordering data

The following data also apply to explosion-protected motors 1SL4/1SL6 (Ex ec) and 1SQ4/1SQ6 (Ex pxb).

Rated power	**High voltage motor H-compact PLUS**	Speed	Rated current	Efficiency		Power factor		Torque	Break-down torque	Locked-rotor torque	Locked-rotor current	Moment of inertia	
IEC			I_{rated} at 6.6 kV	4/4 load	3/4 load	4/4 load	3/4 load		T_B/T_{rated}	T_{LR}/T_{rated}	I_{LR}/I_{rated}	Motor	External, max.[1]
kW	Article No.	rpm	A	%	%	cos φ	cos φ	Nm	[-]	[-]	[-]	kgm²	kgm²
4 ... 6.6 kV, 60 Hz													
2-pole													
1700	**1RN6 450-2HJ■0**	3573	174	95.9	96.1	0.89	0.89	4543	2.05	0.60	4.60	13	34
2000	**1RN6 452-2HJ■0**	3573	200	96.1	96.4	0.90	0.90	5345	2.10	0.65	4.75	15	40
2240	**1RN6 454-2HJ■0**	3576	225	96.3	96.4	0.90	0.89	5981	2.25	0.65	5.10	16	45
2500	**1RN6 456-2HJ■0**	3580	250	96.5	96.6	0.90	0.89	6668	2.40	0.60	5.50	18	52
3000	**1RN6 500-2HJ■0**	3574	305	96.5	96.8	0.89	0.89	8015	1.95	0.45	4.15	20	64
3300	**1RN6 502-2HJ■0**	3575	330	96.6	96.9	0.90	0.89	8814	1.95	0.45	4.35	22	72
3880	**1RN6 504-2HJ■0**	3579	385	96.9	97.1	0.91	0.90	10352	2.30	0.55	5.05	26	80
4250	**1RN6 506-2HJ■0**	3578	420	97.1	97.3	0.91	0.91	11342	2.20	0.65	4.95	27	88
4750	**1RN6 560-2HJ■0**	3576	480	96.6	96.8	0.89	0.90	12684	1.90	0.50	4.15	39	145
5400	**1RN6 562-2HJ■0**	3578	540	96.8	96.9	0.90	0.91	14412	2.15	0.55	4.45	44	160
6100	**1RN6 564-2HJ■0**	3578	600	97.0	97.1	0.91	0.91	16280	2.15	0.55	4.70	49	180
6900	**1RN6 566-2HJ■0**	3581	680	97.2	97.2	0.91	0.91	18399	2.35	0.60	5.15	55	200
5700	**1RN4 630-2HE■0**	3583	580	97.0	96.9	0.88	0.87	15193	2.10	0.30	4.20	75	95
6500	**1RN4 632-2HE■0**	3584	660	97.2	97.2	0.89	0.89	17320	2.30	0.34	4.60	85	140
7500	**1RN4 634-2HE■0**	3585	750	97.5	97.5	0.90	0.89	19979	2.60	0.41	5.30	90	150
8200	**1RN4 636-2HE■0**	3585	820	97.6	97.6	0.90	0.90	21844	2.60	0.42	5.40	100	110
4-pole													
1680	**1RN6 450-4HJ■■**	1782	172	95.9	96.1	0.89	0.88	9002	2.40	0.65	4.90	21	178
1820	**1RN6 452-4HJ■■**	1784	186	96.0	96.2	0.89	0.88	9741	2.55	0.65	5.15	23	225
2120	**1RN6 454-4HJ■■**	1784	215	96.2	96.5	0.89	0.89	11347	2.55	0.65	5.20	27	285
2400	**1RN6 456-4HJ■■**	1785	245	96.4	96.6	0.89	0.87	12839	2.60	0.65	5.30	30	355
2700[2]	**1RN6 500-4HJ■0**	1785	275	96.4	97.0	0.89	0.88	14444	2.40	0.70	5.00	45	250
3000[2]	**1RN6 502-4HJ■0**	1786	305	96.5	97.0	0.89	0.88	16040	2.45	0.70	5.15	48	280
3400[2]	**1RN6 504-4HJ■0**	1786	345	96.5	97.1	0.89	0.88	18178	2.35	0.65	4.95	55	310
3820[2]	**1RN6 506-4HJ■0**	1786	390	96.7	97.2	0.89	0.88	20424	2.35	0.65	5.00	60	350
4500[2]	**1RN6 560-4HJ■0**	1790	450	97.2	97.4	0.91	0.90	24006	2.20	0.65	5.10	86	550
5000[2]	**1RN6 562-4HJ■0**	1790	490	97.3	97.5	0.91	0.91	26674	2.20	0.60	5.10	97	610
5600[2]	**1RN6 564-4HJ■0**	1791	550	97.4	97.6	0.91	0.90	29858	2.20	0.55	5.15	107	670
6150[2]	**1RN6 566-4HJ■0**	1790	610	97.4	97.6	0.91	0.91	32809	2.10	0.55	4.95	117	740
6500	**1RN4 630-4HE■0**	1789	660	97.2	97.3	0.88	0.88	34698	2.10	0.52	4.80	150	600
7300	**1RN4 632-4HE■0**	1789	740	97.3	97.5	0.89	0.89	38969	2.10	0.54	4.80	165	650
8000	**1RN4 634-4HE■0**	1790	810	97.5	97.6	0.89	0.89	42682	2.20	0.59	5.20	180	680
8600	**1RN4 636-4HE■0**	1791	870	97.7	97.7	0.89	0.88	45857	2.40	0.61	5.50	195	800

Voltage code:	
4 kV, 60 Hz	**4**
6.6 kV, 60 Hz	**1**
Other voltage	**9**
Type of construction:	
IM B3	**0**
IM V1 (without canopy)	**8**

Note:

Efficiencies according to IEC 60034-2-1:2007;
stray load losses determined by statistical evaluation of measurements.
NEMA version on request.

Electrical data is also valid for operation with SINAMICS PERFECT HARMONY drives.
For ordering, please note the 10th and 11th position of the article number code.

[1] Max. permissible external moment of inertia for three starts from cold or two starts from warm under the conditions described on Page 2/2.

[2] Data of vertical motors (IM V1) on request.

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Selection and ordering data (continued)

Rated power	High voltage motor H-compact PLUS	Speed	Rated current	Efficiency		Power factor		Torque	Break-down torque	Locked-rotor torque	Locked-rotor current	Moment of inertia	
IEC			I_{rated} at 6.6 kV	4/4 load	3/4 load	4/4 load	3/4 load		T_B/T_{rated}	T_{LR}/T_{rated}	I_{LR}/I_{rated}	Motor	External, max.[1]
kW	Article No.	rpm	A	%	%	cos φ	cos φ	Nm	[-]	[-]	[-]	kgm²	kgm²
4 ... 6.6 kV, 60 Hz													
6-pole													
1300	**1RN6 450-6HJ■■**	1186	140	95.8	96.3	0.85	0.84	10467	2.10	0.80	4.35	28	550
1450	**1RN6 452-6HJ■■**	1187	156	96.0	96.4	0.85	0.84	11665	2.15	0.75	4.50	32	610
1600	**1RN6 454-6HJ■■**	1188	172	96.1	96.5	0.85	0.85	12861	2.30	0.85	4.75	35	660
1730	**1RN6 456-6HJ■■**	1189	182	96.4	96.7	0.86	0.85	13894	2.45	0.95	5.10	41	730
2240	**1RN6 500-6HJ■■**	1188	240	96.2	96.8	0.85	0.85	18005	2.05	0.65	4.35	56	970
2500	**1RN6 502-6HJ■■**	1188	265	96.3	96.9	0.86	0.85	20095	2.05	0.65	4.45	61	1060
2800	**1RN6 504-6HJ■■**	1188	295	96.4	97.0	0.86	0.85	22506	2.05	0.60	4.55	68	1200
3100	**1RN6 506-6HJ■■**	1189	325	96.5	97.1	0.87	0.86	24897	2.10	0.70	4.45	76	1320
3500	**1RN6 560-6HJ■■**	1190	360	96.9	97.2	0.88	0.87	28086	1.95	0.65	4.50	107	1380
4000	**1RN6 562-6HJ■■**	1190	420	96.9	97.3	0.87	0.87	32098	1.95	0.65	4.40	118	1520
4500	**1RN6 564-6HJ■■**	1191	470	97.0	97.4	0.87	0.87	36080	2.00	0.65	4.65	131	1680
4950	**1RN6 566-6HJ■■**	1191	510	97.2	97.5	0.88	0.88	39688	2.05	0.70	4.65	145	1860
5100	**1RN4 630-6HE■■**	1192	530	97.1	97.2	0.86	0.85	40860	1.90	0.51	4.30	190	1700
5700	**1RN4 632-6HE■■**	1193	600	97.2	97.2	0.85	0.84	45629	2.00	0.56	4.70	210	2100
6200	**1RN4 634-6HE■■**	1193	650	97.3	97.3	0.86	0.85	49631	2.10	0.61	4.90	230	2000
6700	**1RN4 636-6HE■■**	1193	700	97.4	97.4	0.86	0.84	53634	2.30	0.64	5.20	255	2600
8-pole													
900	**1RN6 450-8HJ■■**	890	100	95.3	95.9	0.83	0.82	9656	1.90	0.55	3.90	35	475
1000	**1RN6 452-8HJ■■**	892	110	95.5	96.0	0.83	0.81	10705	2.20	0.65	4.50	39	570
1120	**1RN6 454-8HJ■■**	891	124	95.7	96.2	0.83	0.82	12003	2.10	0.65	4.35	44	670
1220	**1RN6 456-8HJ■■**	892	132	95.9	96.3	0.84	0.82	13060	2.30	0.70	4.80	51	820
1600	**1RN6 500-8HJ■■**	893	178	96.0	96.4	0.82	0.79	17109	2.20	0.55	4.80	68	1080
1800	**1RN6 502-8HJ■■**	892	196	96.1	96.6	0.84	0.82	19269	2.10	0.55	4.40	75	1200
2000	**1RN6 504-8HJ■■**	892	215	96.2	96.7	0.84	0.82	21410	2.10	0.55	4.40	84	1340
2200	**1RN6 506-8HJ■■**	893	240	96.3	96.7	0.84	0.82	23525	2.15	0.60	4.75	93	1480
2500	**1RN6 560-8HJ■■**	893	270	96.7	97.2	0.84	0.83	26733	2.00	0.50	4.60	127	1960
2800	**1RN6 562-8HJ■■**	893	300	96.8	97.3	0.85	0.83	29941	2.10	0.55	4.60	140	2150
3150	**1RN6 564-8HJ■■**	893	330	96.8	97.3	0.85	0.84	33684	2.10	0.55	4.65	155	2400
3400	**1RN6 566-8HJ■■**	893	360	96.8	97.3	0.85	0.84	36357	1.95	0.55	4.65	171	2650

Voltage code:	
4 kV, 60 Hz	**4**
6.6 kV, 60 Hz	**1**
Other voltage	**9**

Type of construction:	
IM B3	**0**
IM V1 (without canopy)	**8**

Note:

Efficiencies according to IEC 60034-2-1:2007;
stray load losses determined by statistical evaluation of measurements.
NEMA version on request.

Electrical data is also valid for operation with SINAMICS PERFECT HARMONY drives.
For ordering, please note the 10th and 11th position of the article number code.

[1] Max. permissible external moment of inertia for three starts from cold or two starts from warm under the conditions described on Page 2/2.

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Selection and ordering data (continued)

Rated power	High voltage motor H-compact PLUS	Speed	Rated current	Efficiency		Power factor		Torque	Break-down torque	Locked-rotor torque	Locked-rotor current	Moment of inertia	
IEC			I_{rated} at 6.6 kV	4/4 load	3/4 load	4/4 load	3/4 load		T_B/T_{rated}	T_{LR}/T_{rated}	I_{LR}/I_{rated}	Motor	External, max.[1]
kW	Article No.	rpm	A	%	%	cos φ	cos φ	Nm	[-]	[-]	[-]	kgm²	kgm²
4 ... 6.6 kV, 60 Hz													
10-pole													
650	**1RN6 450-3HJ■■**	710	74	93.7	94.0	0.82	0.78	8743	1.90	0.72	4.50	37	650
720	**1RN6 452-3HJ■■**	710	83	94.1	94.3	0.81	0.77	9685	2.00	0.75	4.70	41	850
800	**1RN6 454-3HJ■■**	711	92	94.3	94.4	0.81	0.76	10745	2.10	0.80	4.90	46	900
910	**1RN6 456-3HJ■■**	711	104	94.5	94.6	0.81	0.77	12223	2.10	0.80	5.00	52	1100
1080	**1RN6 500-3HE■■**	711	122	94.8	95.0	0.82	0.80	14506	1.80	0.65	4.40	70	1200
1200	**1RN6 502-3HE■■**	712	134	95.2	95.2	0.82	0.80	16096	1.90	0.68	4.70	80	1500
1320	**1RN6 504-3HE■■**	712	146	95.1	95.2	0.83	0.80	17705	1.90	0.70	4.70	88	1450
1500	**1RN6 506-3HE■■**	712	166	95.4	95.5	0.83	0.79	20119	2.00	0.72	4.90	99	1900
1780	**1RN6 560-3HE■■**	713	205	95.5	95.6	0.80	0.76	23842	2.00	0.70	4.60	123	2100
2040	**1RN6 562-3HE■■**	713	235	95.8	95.8	0.80	0.76	27324	2.00	0.70	4.80	141	2600
2200	**1RN6 564-3HE■■**	713	245	95.9	95.8	0.82	0.79	29467	2.00	0.68	4.60	158	2800
2400	**1RN6 566-3HE■■**	713	270	96.0	96.0	0.81	0.77	32146	2.10	0.75	5.00	173	3300
12-pole													
440	**1RN6 450-5HJ■■**	591	56	92.9	93.1	0.74	0.71	7110	1.80	0.56	4.00	37	630
510	**1RN6 452-5HJ■■**	591	65	93.3	93.3	0.73	0.68	8241	1.80	0.60	4.20	41	850
570	**1RN6 454-5HJ■■**	592	73	93.9	93.9	0.73	0.68	9195	1.80	0.60	4.20	46	1150
650	**1RN6 456-5HJ■■**	592	82	94.0	93.9	0.74	0.68	10486	1.90	0.60	4.30	52	1300
820	**1RN6 500-5HE■■**	592	102	94.4	94.3	0.74	0.68	13228	2.00	0.62	4.50	70	1650
920	**1RN6 502-5HE■■**	592	114	94.6	94.6	0.75	0.70	14841	1.90	0.62	4.40	79	2000
1020	**1RN6 504-5HE■■**	592	128	94.8	94.7	0.74	0.68	16454	2.00	0.65	4.70	87	2400
1120	**1RN6 506-5HE■■**	592	136	94.8	94.8	0.76	0.71	18068	1.90	0.60	4.40	98	2200
1300	**1RN6 560-5HE■■**	593	160	95.0	95.1	0.75	0.70	20936	1.80	0.53	3.90	123	2050
1470	**1RN6 562-5HE■■**	593	182	95.2	95.3	0.74	0.69	23674	1.80	0.55	4.00	141	2500
1620	**1RN6 564-5HE■■**	594	205	95.4	95.4	0.73	0.67	26045	2.00	0.63	4.30	158	3500
1760	**1RN6 566-5HE■■**	594	220	95.5	95.5	0.73	0.68	28296	2.00	0.63	4.40	173	3900

Voltage code:	
4 kV, 60 Hz	**4**
6.6 kV, 60 Hz	**1**
Other voltage	**9**
Type of construction:	
IM B3	**0**
IM V1 (without canopy)	**8**

Note:

Efficiencies according to IEC 60034-2-1:2007;
stray load losses determined by statistical evaluation of measurements.
NEMA version on request.

Higher pole numbers are available on request.

Electrical data is also valid for operation with SINAMICS PERFECT HARMONY drives.
For ordering, please note the 10th and 11th position of the article number code.

[1] Max. permissible external moment of inertia for three starts from cold or two starts from warm under the conditions described on Page 2/2.

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Selection and ordering data

The following data also apply to explosion-protected motors 1SL7 (Ex ec) and 1SQ7 (Ex pxb).

Rated power	High voltage motor SIMOTICS HV M (modular)	Speed	Rated current	Efficiency		Power factor		Torque	Break-down torque	Locked-rotor torque	Locked-rotor current	Moment of inertia	
IEC			I_{rated} at 6.6 kV	4/4 load	3/4 load	4/4 load	3/4 load		T_B/T_{rated}	T_{LR}/T_{rated}	I_{LR}/I_{rated}	Motor	External, max.[1]
kW	Article No.	rpm	A	%	%	cos φ	cos φ	Nm	[-]	[-]	[-]	kgm²	kgm²
4 ... 6.6 kV, 60 Hz													
2-pole													
11200	**1RN7710-2NA10-0CJ0**	3585	1100	97.3	97.1	0.91	0.91	29833	2.05	0.60	4.70	148	102
12500	**1RN7712-2NA10-0CJ0**	3585	1220	97.4	97.3	0.92	0.91	33296	2.05	0.60	4.70	159	91
14000	**1RN7714-2NA10-0CJ0**	3586	1340	97.6	97.4	0.93	0.92	37281	2.30	0.75	5.30	174	84
15500	**1RN7716-2NA10-0CJ0**	3586	1500	97.6	97.5	0.93	0.92	41275	2.30	0.70	5.40	188	72
4-pole													
10000	**1RN7710-4NA10-0CJ0**	1793	980	97.6	97.5	0.91	0.90	53258	2.55	0.65	5.50	262	462
11200	**1RN7712-4NA10-0CJ0**	1792	1100	97.7	97.6	0.91	0.91	59683	2.50	0.65	5.40	288	491
12500	**1RN7714-4NA10-0CJ0**	1793	1220	97.7	97.7	0.91	0.91	66573	2.50	0.65	5.40	321	585
14000	**1RN7716-4NA10-0CJ0**	1793	1360	97.8	97.8	0.92	0.92	74562	2.50	0.60	5.40	363	649
6-pole													
7800	**1RN7710-6NA1■-0C■0**	1194	820	97.3	97.2	0.86	0.84	62382	2.30	0.70	4.90	351	1276
8700	**1RN7712-6NA1■-0C■0**	1194	900	97.5	97.4	0.87	0.86	69580	2.30	0.65	4.90	399	1491
9700	**1RN7714-6NA1■-0C■0**	1194	1000	97.5	97.5	0.87	0.86	77578	2.35	0.70	5.00	451	1813
10800	**1RN7716-6NA1■-0C■0**	1194	1120	97.6	97.5	0.87	0.86	86375	2.30	0.65	4.90	498	1886
8-pole													
5600	**1RN7710-8NA1■-0C■0**	895	590	97.0	97.1	0.85	0.84	59749	2.25	0.65	4.70	434	4686
6300	**1RN7712-8NA1■-0C■0**	895	670	97.1	97.2	0.85	0.84	67218	2.20	0.60	4.60	493	5419
7100	**1RN7714-8NA1■-0C■0**	895	740	97.2	97.3	0.86	0.85	75754	2.35	0.70	4.90	559	6194
8000	**1RN7716-8NA1■-0C■0**	895	850	97.3	97.4	0.85	0.84	85356	2.30	0.55	4.70	616	6874
10-pole													
4500	**1RN7710-3NA1■-0C■0**	715	485	96.7	96.8	0.84	0.81	60100	2.70	0.65	4.80	433	7417
5000	**1RN7712-3NA1■-0C■0**	715	530	96.9	97.0	0.85	0.82	66778	2.65	0.60	4.80	493	8467
5600	**1RN7714-3NA1■-0C■0**	715	590	96.9	97.0	0.85	0.82	74791	2.75	0.70	4.90	557	9936
6200	**1RN7716-3NA1■-0C■0**	715	660	97.0	97.1	0.85	0.83	82805	2.75	0.70	5.00	618	10760

Type of construction:	
IM B3 (IM 1001)	**0**
IM V1, without protective hood (IM 3011)	**8**

Housing and bearing version	
Steel fabricated housing/ anti-friction bearings	**G**
Steel fabricated housing/ sleeve bearing	**J**

Note:

Efficiencies according to IEC 60034-2-1:2007;
stray load losses determined by statistical evaluation of measurements.
NEMA version on request.

Higher pole numbers are available on request.

[1] Max. permissible external moment of inertia for three starts from cold or two starts from warm under the conditions described on Page 2/2.

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2

Selection and ordering data

NEMA version

Rated power	**High voltage motor H-compact PLUS**	Speed	Rated current	Efficiency		Power factor		Torque	Break-down torque	Locked-rotor torque	Locked-rotor current	Moment of inertia	
NEMA			I_{rated} at 6.6 kV	4/4 load	3/4 load	4/4 load	3/4 load		T_B/T_{rated}	T_{LR}/T_{rated}	I_{LR}/I_{rated}	Motor	External, max.[1]
hp	Article No.	rpm	A	%	%	cos φ	cos φ	Nm	[-]	[-]	[-]	kgm²	kgm²
4 ... 6.6 kV, 60 Hz													
2-pole													
10000	**1RN6 710-2BM■0**	3586	747	96.4	96.2	0.90	0.89	19861	2.20	0.60	5.20	132	56
11000	**1RN6 712-2BM■0**	3588	828	96.5	96.2	0.89	0.88	21837	2.50	0.60	5.80	147	55
12000	**1RN6 712-2BN■0**	3587	898	96.6	96.4	0.90	0.89	23827	2.30	0.60	5.40	147	54
13000	**1RN6 714-2BM■0**	3587	956	96.6	96.4	0.92	0.91	25814	2.50	0.64	6.00	162	54
14000	**1RN6 714-2BN■0**	3587	1036	96.7	96.5	0.91	0.90	27801	2.40	0.60	5.70	162	53
16000	**1RN6 716-2BM■0**	3586	1166	96.8	96.7	0.92	0.92	31777	2.40	0.62	5.80	179	51
17000	**1RN6 716-2BN■0**	3587	1251	96.9	96.8	0.91	0.90	33759	2.40	0.60	5.80	179	49
4-pole													
11000	**1RN6 710-4BJ■0**	1793	815	97.4	97.6	0.90	0.89	43695	2.30	0.60	5.90	273	603
12000	**1RN6 712-4BJ■0**	1793	880	97.5	97.6	0.91	0.90	47668	2.20	0.60	5.90	300	637
13000	**1RN6 712-4BK■0**	1793	962	97.5	97.6	0.90	0.89	51635	2.30	0.60	5.90	300	620
14000	**1RN6 714-4BJ■0**	1793	1021	97.4	97.6	0.91	0.91	55625	2.20	0.60	5.80	337	651
15000	**1RN6 714-4BK■0**	1793	1104	97.5	97.7	0.91	0.89	59583	2.30	0.60	6.00	337	665
16000	**1RN6 716-4BJ■0**	1793	1161	97.5	97.7	0.92	0.91	63575	2.20	0.61	5.80	369	678
17000	**1RN6 716-4BK■0**	1792	1238	97.5	97.7	0.92	0.91	67557	2.10	0.60	5.60	369	691
18000	**1RN6 716-4BL■0**	1793	1324	97.6	97.7	0.91	0.90	71504	2.20	0.61	5.90	369	702
6-pole													
9000	**1RN6 710-6BJ■■**	1194	702	97.1	97.3	0.86	0.84	53690	2.10	0.71	5.50	330	1954
10000	**1RN6 712-6BJ■■**	1194	781	97.2	97.4	0.86	0.83	59647	2.20	0.71	5.60	367	2043
11000	**1RN6 714-6BJ■■**	1194	846	97.3	97.4	0.87	0.85	65612	2.20	0.75	5.70	419	2113
12000	**1RN6 716-6BJ■■**	1194	915	97.2	97.3	0.88	0.86	71577	2.20	0.77	5.70	468	2168
8-pole													
7000	**1RN6 710-8BJ■■**	895	566	96.9	97.1	0.83	0.80	55695	2.10	0.79	5.50	415	3817
8000	**1RN6 712-8BJ■■**	895	646	97.0	97.1	0.83	0.81	63651	2.00	0.80	5.50	465	4154
9000	**1RN6 714-8BJ■■**	895	721	97.1	97.2	0.84	0.81	71587	2.10	0.83	5.70	531	4458
10000	**1RN6 716-8BJ■■**	896	810	97.1	97.2	0.83	0.80	79506	2.20	0.87	6.00	597	4732
10-pole													
5000	**1RN6 710-3BJ■■**	716	427	96.6	96.7	0.79	0.75	49758	2.20	0.73	5.30	415	5006
5500	**1RN6 712-3BJ■■**	716	464	96.7	96.9	0.80	0.76	54720	2.20	0.72	5.30	465	5428
6000	**1RN6 714-3BJ■■**	716	502	96.8	96.9	0.80	0.77	59682	2.20	0.74	5.50	531	6221
7000	**1RN6 716-3BJ■■**	716	584	96.9	97.0	0.80	0.77	69631	2.20	0.77	5.60	598	6955

Voltage code:	
4 kV, 60 Hz	**4**
4.16 kV, 60 Hz	**3**
6.6 kV, 60 Hz	**1**
Other voltage	**9**
Type of construction:	
IM B3	**0**
IM V1 (without canopy)	**8**

Note:

Higher pole numbers are available on request.

[1] Max. permissible external moment of inertia for three starts from cold or two starts from warm under the conditions described on Page 2/2.

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Selection and ordering data

NEMA version

Rated power	High voltage motor H-compact PLUS	Speed	Rated current	Efficiency		Power factor		Torque	Break-down torque	Locked-rotor torque	Locked-rotor current	Moment of inertia	
NEMA			I_{rated} at 13.2 kV	4/4 load	3/4 load	4/4 load	3/4 load		T_B/T_{rated}	T_{LR}/T_{rated}	I_{LR}/I_{rated}	Motor	External, max.[1]
hp	Article No.	rpm	A	%	%	cos φ	cos φ	Nm	[-]	[-]	[-]	kgm²	kgm²
12.5 ... 13.8 kV, 60 Hz													
2-pole													
8000	**1RN6 710-2BM■0**	3588	301	96.0	95.6	0.90	0.89	15881	2.50	0.60	5.60	132	52
9000	**1RN6 712-2BM■0**	3588	334	96.0	95.6	0.91	0.90	17864	2.60	0.60	6.00	147	51
10000	**1RN6 712-2BN■0**	3588	375	96.2	95.9	0.90	0.89	19849	2.60	0.60	6.00	147	49
11000	**1RN6 714-2BM■0**	3588	407	96.2	95.9	0.91	0.90	21837	2.50	0.60	6.00	162	48
12000	**1RN6 716-2BM■0**	3587	437	96.3	96.0	0.93	0.92	23827	2.40	0.60	5.80	179	47
13000	**1RN6 716-2BN■0**	3588	478	96.4	96.2	0.92	0.91	25806	2.50	0.60	6.00	179	45
4-pole													
9000	**1RN6 710-4BJ■0**	1794	337	97.1	97.2	0.89	0.88	35727	2.40	0.60	6.20	273	553
10000	**1RN6 712-4BJ■0**	1794	368	97.1	97.3	0.91	0.90	39708	2.30	0.60	6.20	300	555
11000	**1RN6 714-4BJ■0**	1794	403	97.2	97.3	0.91	0.90	43682	2.30	0.60	6.20	337	603
12000	**1RN6 716-4BJ■0**	1793	436	97.2	97.3	0.92	0.92	47662	2.30	0.63	6.20	369	620
13000	**1RN6 716-4BK■0**	1794	475	97.2	97.4	0.91	0.91	51625	2.30	0.60	6.10	369	637
6-pole													
7000	**1RN6 710-6BJ■■**	1195	278	96.9	97.0	0.85	0.82	41723	2.40	0.72	6.00	330	1722
8000	**1RN6 712-6BJ■■**	1195	315	97.0	97.1	0.85	0.82	47688	2.40	0.73	6.00	367	1849
9000	**1RN6 714-6BJ■■**	1195	350	97.0	97.1	0.86	0.84	53642	2.30	0.73	6.00	419	1954
10000	**1RN6 716-6BJ■■**	1195	388	97.1	97.2	0.86	0.84	59600	2.30	0.72	6.00	468	2042
8-pole													
5000	**1RN6 710-8BJ■■**	896	201	96.5	96.6	0.84	0.81	39760	2.20	0.79	5.90	415	3024
5500	**1RN6 712-8BJ■■**	896	220	96.6	96.7	0.84	0.81	43721	2.20	0.80	6.00	465	3235
6000	**1RN6 714-8BJ■■**	896	239	96.6	96.7	0.84	0.82	47691	2.30	0.80	6.00	531	3438
7000	**1RN6 716-8BJ■■**	896	279	96.7	96.8	0.85	0.82	55642	2.20	0.79	6.00	597	3817
10-pole													
3500	**1RN6 710-3BJ■■**	717	151	96.2	96.2	0.79	0.74	34788	2.50	0.78	6.00	415	4104
4000	**1RN6 712-3BJ■■**	717	172	96.3	96.3	0.79	0.74	39757	2.50	0.78	6.00	465	4564
4500	**1RN6 714-3BJ■■**	717	188	96.4	96.5	0.81	0.77	44739	2.40	0.79	6.00	531	5006
5000	**1RN6 716-3BJ■■**	717	207	96.5	96.6	0.82	0.78	49713	2.40	0.78	6.00	598	5428

Voltage code:	
13.2 kV, 60 Hz	**2**
Other voltage	**9**
Type of construction:	
IM B3	**0**
IM V1 (without canopy)	**8**

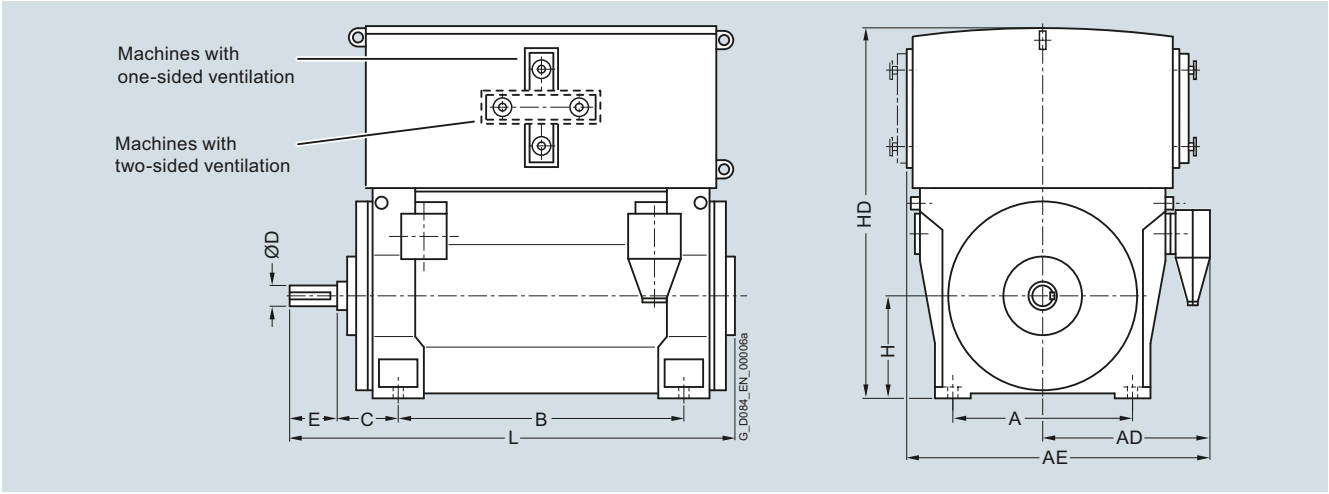
Note:

Higher pole numbers are available on request.

[1] Max. permissible external moment of inertia for three starts from cold or two starts from warm under the conditions described on Page 2/2.

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Dimension drawings



Motor type	Weight	Dimensions									
		A	AD[1]	AE[1]	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, IM B3 type of construction, anti-friction bearings – series 1RN4, 1RN6[2]											
2-pole											
1RN6 450-2HJ.0[3]	4050	850	930	1620	1180	280	95	130	450	1725	1843
1RN6 452-2HJ.0[3]	4250	850	930	1620	1180	280	95	130	450	1725	1843
1RN6 454-2HJ.0[3]	4550	850	930	1620	1400	280	95	130	450	1725	2053
1RN6 456-2HJ.0[3]	4850	850	930	1620	1400	280	95	130	450	1725	2053
1RN6 500-2HJ.0[3]	5850	950	1135	1835	1320	315	110	165	500	1980	2150
1RN6 502-2HJ.0[3]	6000	950	1135	1835	1320	315	110	165	500	1980	2150
4-pole											
1RN6 450-4HJ.0	4350	850	930	1620	1180	250	130	200	450	1715	1896
1RN6 452-4HJ.0	4250	850	930	1620	1180	250	130	200	450	1715	1896
1RN6 454-4HJ.0	4950	850	930	1620	1400	250	130	200	450	1715	2106
1RN6 456-4HJ.0	5250	850	930	1620	1400	250	130	200	450	1715	2106
1RN6 500-4HJ.0	6350	950	1135	1835	1320	280	150	200	500	1980	2150
1RN6 502-4HJ.0	6550	950	1135	1835	1320	280	150	200	500	1980	2150
1RN6 504-4HJ.0	7200	950	1135	1835	1500	280	150	200	500	1980	2300
1RN6 506-4HJ.0	7500	950	1135	1835	1500	280	150	200	500	1980	2300
1RN6 560-4HJ.0	7600	1060	1205	1975	1400	315	170	240	560	2150	2300
1RN6 562-4HJ.0	8000	1060	1205	1975	1400	315	170	240	560	2150	2300
1RN6 564-4HJ.0	8900	1060	1205	1975	1600	315	170	240	560	2150	2550
1RN6 566-4HJ.0	9400	1060	1205	1975	1600	315	170	240	560	2150	2550
1RN4 630-4HE.0[3]	10400	1320	1330	2290	1600	335	200	280	630	2400	2500
1RN4 632-4HE.0[3]	11100	1320	1330	2290	1600	335	200	280	630	2400	2500
1RN4 634-4HE.0[3]	12150	1320	1330	2290	1800	335	220	280	630	2400	2740
1RN4 636-4HE.0[3]	12700	1320	1330	2290	1800	335	220	280	630	2400	2740

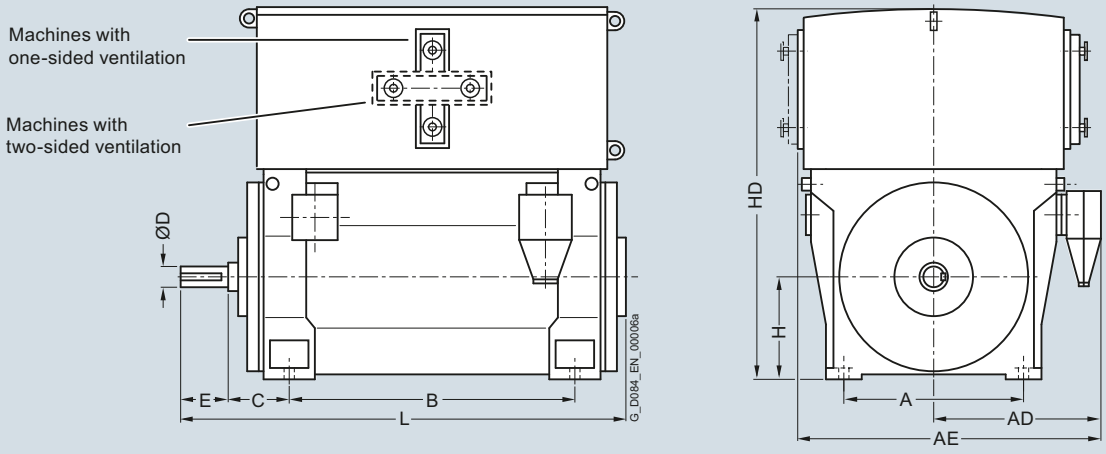
[1] The value applies for 6 kV. When a lower voltage is selected, the rated current increases. For rated currents above 315 A, the dimension increases by 140 mm.

[2] The dimensions are also valid for the 1SN4/1SN6 and 1SL4/1SL6 series.

[3] Anti-friction bearings only for 50 Hz version.

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Dimension drawings (continued)



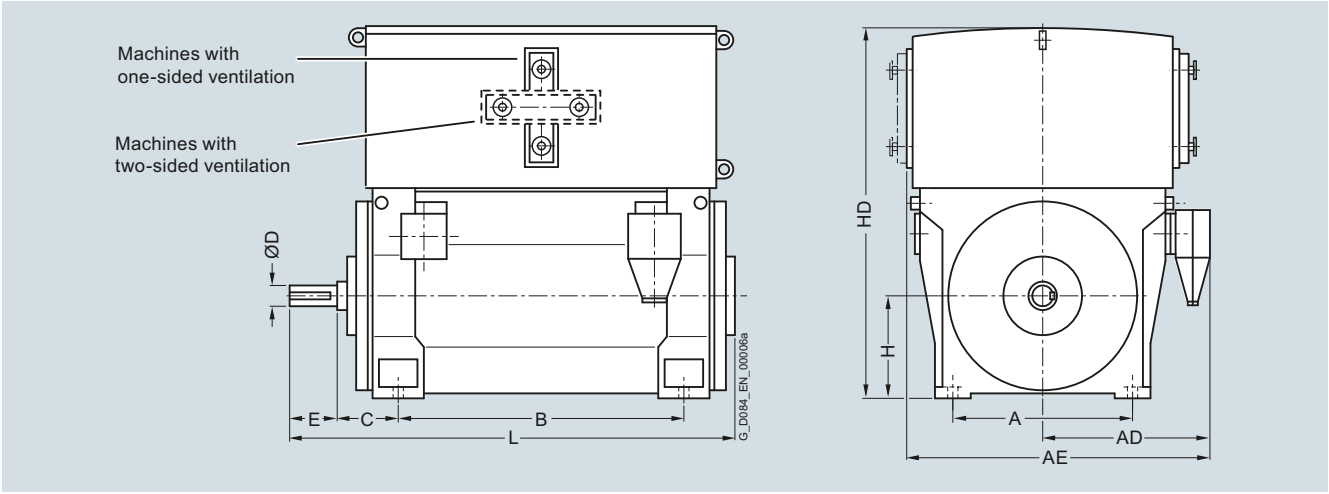
Motor type	Weight	Dimensions									
		A	AD[1]	AE[1]	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, IM B3 type of construction, anti-friction bearings – series 1RN4, 1RN6[2]											
6-pole											
1RN6 450-6HJ.0	4450	850	930	1620	1180	250	140	200	450	1715	1896
1RN6 452-6HJ.0	4750	850	930	1620	1180	250	140	200	450	1715	1896
1RN6 454-6HJ.0	5100	850	930	1620	1400	280	140	200	450	1715	2136
1RN6 456-6HJ.0	5450	850	930	1620	1400	280	140	200	450	1715	2136
1RN6 500-6HJ.0	6400	950	1135	1835	1320	315	160	240	500	1960	2150
1RN6 502-6HJ.0	6650	950	1135	1835	1320	315	160	240	500	1960	2150
1RN6 504-6HJ.0	7250	950	1135	1835	1500	315	160	240	500	1960	2360
1RN6 506-6HJ.0	7650	950	1135	1835	1500	315	160	240	500	1960	2360
1RN6 560-6HJ.0	8600	1060	1205	1975	1400	315	180	240	560	2180	2300
1RN6 562-6HJ.0	9000	1060	1205	1975	1400	315	180	240	560	2180	2300
1RN6 564-6HJ.0	9850	1060	1205	1975	1600	315	180	240	560	2180	2550
1RN6 566-6HJ.0	10400	1060	1205	1975	1600	315	180	240	560	2180	2550
1RN4 630-6HE.0	10650	1320	1330	2290	1600	335	220	280	630	2400	2500
1RN4 632-6HE.0	11200	1320	1330	2290	1600	335	220	280	630	2400	2500
1RN4 634-6HE.0	12300	1320	1330	2290	1800	335	220	280	630	2400	2740
1RN4 636-6HE.0	13000	1320	1330	2290	1800	335	220	280	630	2400	2740
8-pole											
1RN6 450-8HJ.0	4450	850	930	1620	1180	250	140	200	450	1715	1896
1RN6 452-8HJ.0	4750	850	930	1620	1180	250	140	200	450	1715	1896
1RN6 454-8HJ.0	5150	850	930	1620	1400	280	140	200	450	1715	2136
1RN6 456-8HJ.0	5450	850	930	1620	1400	280	140	200	450	1715	2136
1RN6 500-8HJ.0	6350	950	1135	1835	1320	315	160	240	500	1960	2150
1RN6 502-8HJ.0	6600	950	1135	1835	1320	315	160	240	500	1960	2150
1RN6 504-8HJ.0	7250	950	1135	1835	1500	315	160	240	500	1960	2360
1RN6 506-8HJ.0	7600	950	1135	1835	1500	315	160	240	500	1960	2360
1RN6 560-8HJ.0	8550	1060	1205	1975	1400	315	180	240	560	2180	2300
1RN6 562-8HJ.0	9000	1060	1205	1975	1400	315	180	240	560	2180	2300
1RN6 564-8HJ.0	9800	1060	1205	1975	1600	315	180	240	560	2180	2550
1RN6 566-8HJ.0	10350	1060	1205	1975	1600	315	180	240	560	2180	2550

[1] The value applies for 6 kV. When a lower voltage is selected, the rated current increases. For rated currents above 315 A, the dimension increases by 140 mm.

[2] The dimensions are also valid for the 1SN4/1SN6 and 1SL4/1SL6 series.

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Dimension drawings (continued)



Motor type	Weight	Dimensions									
		A	AD[1]	AE[1]	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, IM B3 type of construction, anti-friction bearings – series 1RN4, 1RN6[2]											
8-pole											
1RN4 630-8HE.0[3]	10600	1320	1330	2290	1600	335	220	280	630	2400	2500
1RN4 632-8HE.0[3]	11200	1320	1330	2290	1600	335	220	280	630	2400	2500
1RN4 634-8HE.0[3]	12150	1320	1330	2290	1800	335	220	280	630	2400	2740
1RN4 636-8HE.0[3]	12900	1320	1330	2290	1800	335	220	280	630	2400	2740
10-pole											
1RN6 450-3HJ.0	4450	850	930	1620	1180	250	140	200	450	1715	1896
1RN6 452-3HJ.0	4750	850	930	1620	1180	250	140	200	450	1715	1896
1RN6 454-3HJ.0	5150	850	930	1620	1400	280	140	200	450	1715	2136
1RN6 456-3HJ.0	5450	850	930	1620	1400	280	140	200	450	1715	2136
1RN6 500-3HE.0	5500	950	1000	1790	1320	280	160	240	500	1830	2270
1RN6 502-3HE.0	5850	950	1000	1790	1320	280	160	240	500	1830	2270
1RN6 504-3HE.0	6450	950	1000	1790	1500	280	170	240	500	1830	2480
1RN6 506-3HE.0	6800	950	1000	1790	1500	280	170	240	500	1830	2480
1RN6 560-3HE.0	7450	1060	1070	1920	1400	315	180	240	560	2040	2300
1RN6 562-3HE.0	8000	1060	1070	1920	1400	315	180	240	560	2040	2300
1RN6 564-3HE.0	8800	1060	1070	1920	1600	315	190	280	560	2040	2570
1RN6 566-3HE.0	9300	1060	1070	1920	1600	315	190	280	560	2040	2570
1RN4 630-3HE.0[3]	10500	1320	1180	2290	1600	335	220	280	630	2400	2500
1RN4 632-3HE.0[3]	11200	1320	1330	2290	1600	335	220	280	630	2400	2500
1RN4 634-3HE.0[3]	12200	1320	1330	2290	1800	335	220	280	630	2400	2740
1RN4 636-3HE.0[3]	12900	1320	1330	2290	1800	335	220	280	630	2400	2740

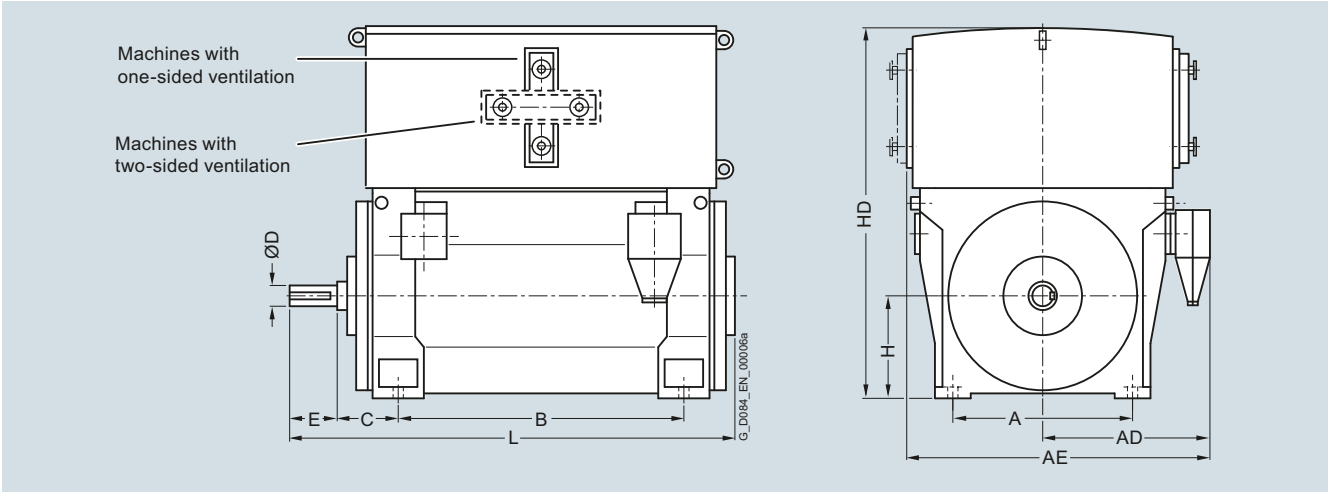
[1] The value applies for 6 kV. When a lower voltage is selected, the rated current increases. For rated currents above 315 A, the dimension increases by 140 mm.

[2] The dimensions are also valid for the 1SN4/1SN6 and 1SL4/1SL6 series.

[3] Anti-friction bearings only for 50 Hz version.

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Dimension drawings (continued)



Motor type	Weight	Dimensions									
		A	AD[1]	AE[1]	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, IM B3 type of construction, anti-friction bearings – series 1RN4, 1RN6[2]											
12-pole											
1RN6 450-5HJ.0	4450	850	930	1620	1180	250	140	200	450	1715	1896
1RN6 452-5HJ.0	4750	850	930	1620	1180	250	140	200	450	1715	1896
1RN6 454-5HJ.0	5150	850	930	1620	1400	280	140	200	450	1715	2136
1RN6 456-5HJ.0	5450	850	930	1620	1400	280	140	200	450	1715	2136
1RN6 500-5HE.0	5550	950	1000	1790	1320	280	160	240	500	1830	2270
1RN6 502-5HE.0	5900	950	1000	1790	1320	280	160	240	500	1830	2270
1RN6 504-5HE.0	6350	950	1000	1790	1500	280	170	240	500	1830	2480
1RN6 506-5HE.0	6800	950	1000	1790	1500	280	170	240	500	1830	2480
1RN6 560-5HE.0	7450	1060	1070	1920	1400	315	180	240	560	2040	2300
1RN6 562-5HE.0	8000	1060	1070	1920	1400	315	180	240	560	2040	2300
1RN6 564-5HE.0	8800	1060	1070	1920	1600	315	190	280	560	2040	2570
1RN6 566-5HE.0	9250	1060	1070	1920	1600	315	190	280	560	2040	2570
1RN4 630-5HE.0[3]	10400	1320	1180	2140	1600	335	220	280	630	2400	2500
1RN4 632-5HE.0[3]	11000	1320	1180	2140	1600	335	220	280	630	2400	2500
1RN4 634-5HE.0[3]	12050	1320	1180	2140	1800	335	220	280	630	2400	2740
1RN4 636-5HE.0[3]	12850	1320	1180	2140	1800	335	220	280	630	2400	2740

Note: Higher pole numbers are available on request.

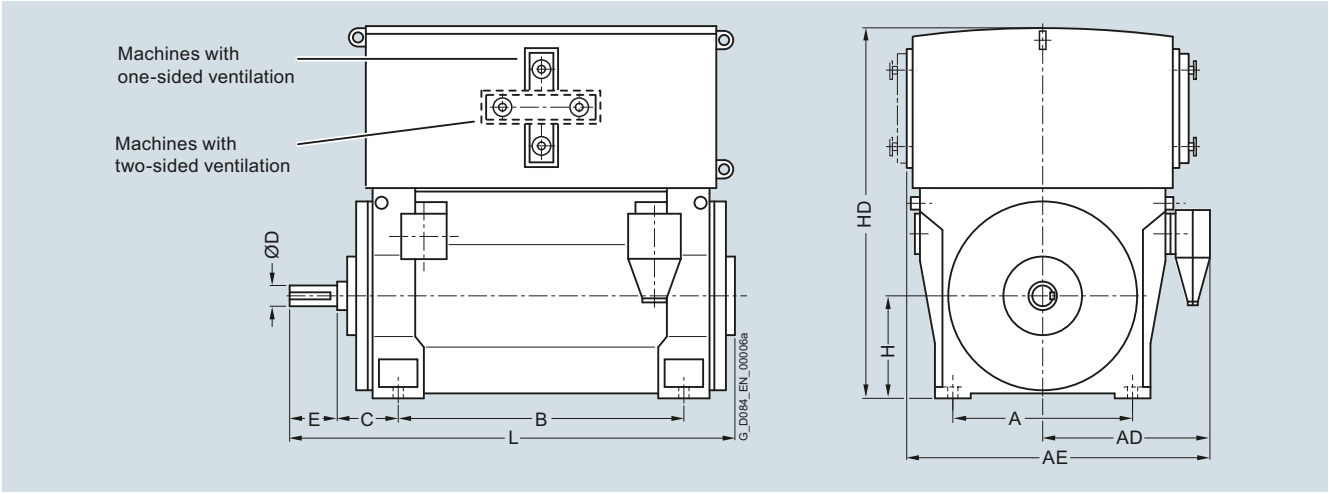
[1] The value applies for 6 kV. When a lower voltage is selected, the rated current increases. For rated currents above 315 A, the dimension increases by 140 mm.

[2] The dimensions are also valid for the 1SN4/1SN6 and 1SL4/1SL6 series.

[3] Anti-friction bearings only for 50 Hz version.

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Dimension drawings



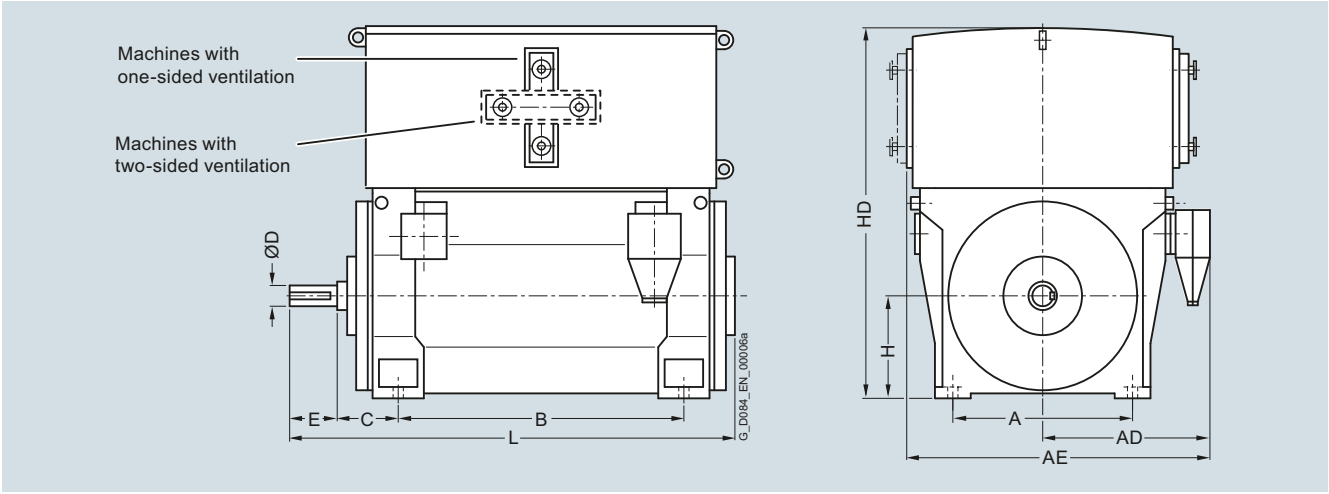
Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
9 ... 11 kV, IM B3 type of construction, anti-friction bearings – series 1RN4, 1RN6[1)]											
2-pole											
1RN6 450-2HJ.0[2)]	4050	850	1070	1840	1180	280	95	130	450	1725	1875
1RN6 452-2HJ.0[2)]	4250	850	1070	1840	1180	280	95	130	450	1725	1875
1RN6 454-2HJ.0[2)]	4550	850	1070	1840	1400	280	95	130	450	1725	2085
1RN6 456-2HJ.0[2)]	4850	850	1070	1840	1400	280	95	130	450	1725	2085
1RN6 500-2HJ.0[2)]	5850	950	1270	1970	1320	315	110	165	500	1980	2150
1RN6 502-2HJ.0[2)]	6000	950	1270	1970	1320	315	110	165	500	1980	2150
4-pole											
1RN6 450-4HJ.0	4350	850	1070	1840	1180	250	130	200	450	1715	1896
1RN6 452-4HJ.0	4250	850	1070	1840	1180	250	130	200	450	1715	1896
1RN6 454-4HJ.0	4950	850	1070	1840	1400	250	130	200	450	1715	2106
1RN6 456-4HJ.0	5250	850	1070	1840	1400	250	130	200	450	1715	2106
1RN6 500-4HJ.0	6350	950	1270	1970	1320	280	150	200	500	1980	2150
1RN6 502-4HJ.0	6550	950	1270	1970	1320	280	150	200	500	1980	2150
1RN6 504-4HJ.0	7200	950	1270	1970	1500	280	150	200	500	1980	2300
1RN6 506-4HJ.0	7500	950	1270	1970	1500	280	150	200	500	1980	2300
1RN6 560-4HJ.0	7600	1060	1340	2110	1400	315	170	240	560	2150	2300
1RN6 562-4HJ.0	8000	1060	1340	2110	1400	315	170	240	560	2150	2300
1RN6 564-4HJ.0	8900	1060	1340	2110	1600	315	170	240	560	2150	2550
1RN6 566-4HJ.0	9400	1060	1340	2110	1600	315	170	240	560	2150	2550
1RN4 630-4HE.0	10300	1320	1320	2280	1600	335	200	280	630	2400	2500
1RN4 632-4HE.0	10950	1320	1330	2290	1600	335	200	280	630	2400	2500
1RN4 634-4HE.0	12000	1320	1330	2290	1800	335	220	280	630	2400	2740
1RN4 636-4HE.0	12600	1320	1330	2290	1800	335	220	280	630	2400	2740
6-pole											
1RN6 450-6HJ.0	4450	850	1070	1840	1180	250	140	200	450	1715	1896
1RN6 452-6HJ.0	4750	850	1070	1840	1180	250	140	200	450	1715	1896
1RN6 454-6HJ.0	5100	850	1070	1840	1400	280	140	200	450	1715	2136
1RN6 456-6HJ.0	5450	850	1070	1840	1400	280	140	200	450	1715	2136

[1)] The dimensions are also valid for the 1SN4/1SN6 and 1SL4/1SL6 series.

[2)] Anti-friction bearings only for 50 Hz version.

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Dimension drawings (continued)

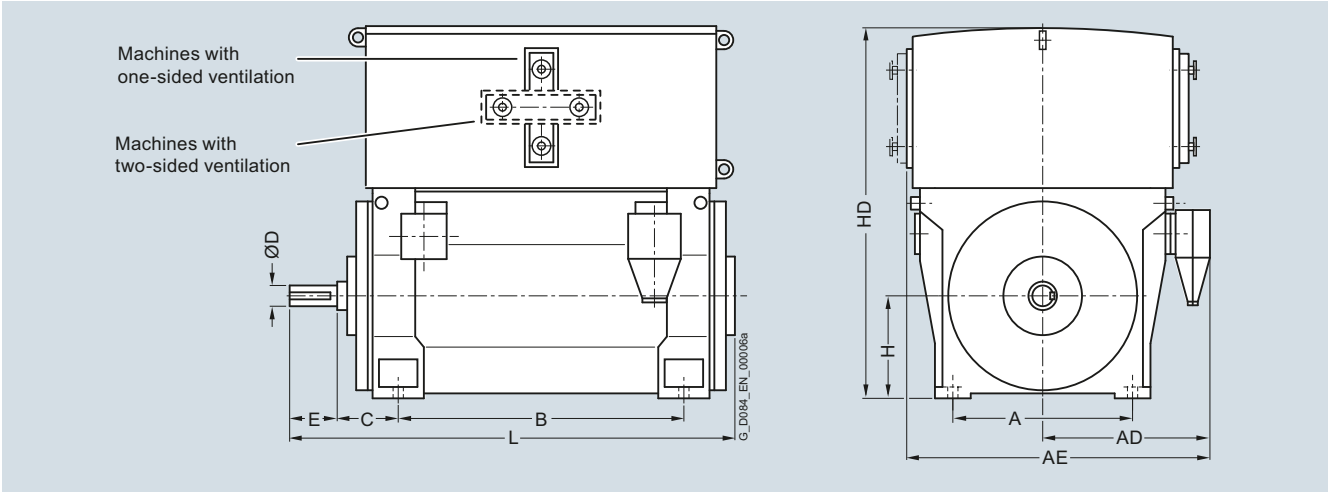


Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
9 ... 11 kV, IM B3 type of construction, anti-friction bearings – series 1RN4, 1RN6[1)]											
6-pole											
1RN6 500-6HJ.0	6400	950	1270	1970	1320	315	160	240	500	1960	2150
1RN6 502-6HJ.0	6650	950	1270	1970	1320	315	160	240	500	1960	2150
1RN6 504-6HJ.0	7250	950	1270	1970	1500	315	160	240	500	1960	2360
1RN6 506-6HJ.0	7650	950	1270	1970	1500	315	160	240	500	1960	2360
1RN6 560-6HJ.0	8600	1060	1340	2110	1400	315	180	240	560	2200	2300
1RN6 562-6HJ.0	9000	1060	1340	2110	1400	315	180	240	560	2200	2300
1RN6 564-6HJ.0	9850	1060	1340	2110	1600	315	180	240	560	2200	2550
1RN6 566-6HJ.0	10400	1060	1340	2110	1600	315	180	240	560	2200	2550
1RN4 630-6HE.0	10650	1320	1320	2280	1600	335	220	280	630	2400	2500
1RN4 632-6HE.0	11200	1320	1320	2280	1600	335	220	280	630	2400	2500
1RN4 634-6HE.0	12250	1320	1320	2280	1800	335	220	280	630	2400	2740
1RN4 636-6HE.0	13000	1320	1330	2290	1800	335	220	280	630	2400	2740
8-pole											
1RN6 450-8HJ.0	4450	850	1070	1840	1180	250	140	200	450	1715	1896
1RN6 452-8HJ.0	4750	850	1070	1840	1180	250	140	200	450	1715	1896
1RN6 454-8HJ.0	5150	850	1070	1840	1400	280	140	200	450	1715	2136
1RN6 456-8HJ.0	5450	850	1070	1840	1400	280	140	200	450	1715	2136
1RN6 500-8HJ.0	6350	950	1270	1970	1320	315	160	240	500	1960	2150
1RN6 502-8HJ.0	6600	950	1270	1970	1320	315	160	240	500	1960	2150
1RN6 504-8HJ.0	7250	950	1270	1970	1500	315	160	240	500	1960	2360
1RN6-506-8HJ.0	7600	950	1270	1970	1500	315	160	240	500	1960	2360
1RN6 560-8HJ.0	8550	1060	1340	2110	1400	315	180	240	560	2200	2300
1RN6 562-8HJ.0	9000	1060	1340	2110	1400	315	180	240	560	2200	2300
1RN6 564-8HJ.0	9800	1060	1340	2110	1600	315	180	240	560	2200	2550
1RN6-566-8HJ.0	10350	1060	1340	2110	1600	315	180	240	560	2200	2550
1RN4 630-8HE.0	10450	1320	1320	2280	1600	335	220	280	630	2400	2500
1RN4 632-8HE.0	11050	1320	1320	2280	1600	335	220	280	630	2400	2500
1RN4 634-8HE.0	12050	1320	1320	2280	1800	335	220	280	630	2400	2740
1RN4 636-8HE.0	12800	1320	1320	2280	1800	335	220	280	630	2400	2740

[1)] The dimensions are also valid for the 1SN4/1SN6 and 1SL4/1SL6 series.

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Dimension drawings (continued)



Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
9 ... 11 kV, IM B3 type of construction, anti-friction bearings – 1RN4 series[1)]											
10-pole											
1RN6 500-3HE.0	5500	950	1220	2010	1320	280	160	240	500	1830	2270
1RN6 502-3HE.0	5850	950	1220	2010	1320	280	160	240	500	1830	2270
1RN6 504-3HE.0	6400	950	1220	2010	1500	280	170	240	500	1830	2480
1RN6 506-3HE.0	6750	950	1220	2010	1500	280	170	240	500	1830	2480
1RN6 560-3HE.0	7850	1060	1210	2060	1400	315	180	240	560	2040	2300
1RN6 562-3HE.0	8350	1060	1210	2060	1400	315	180	240	560	2040	2300
1RN6 564-3HE.0	8950	1060	1210	2060	1600	315	190	280	560	2040	2570
1RN6 566-3HE.0	9350	1060	1210	2060	1600	315	190	280	560	2040	2570
1RN4 630-3HE.0	10450	1320	1320	2280	1600	335	220	280	630	2400	2500
1RN4 632-3HE.0	11050	1320	1320	2280	1600	335	220	280	630	2400	2500
1RN4 634-3HE.0	12000	1320	1320	2280	1800	335	220	280	630	2400	2740
1RN4 636-3HE.0	12750	1320	1320	2280	1800	335	220	280	630	2400	2740
12-pole											
1RN6 502-5HE.0	5900	950	1220	2010	1320	280	160	240	500	1830	2270
1RN6 504-5HE.0	6350	950	1220	2010	1500	280	170	240	500	1830	2480
1RN6 506-5HE.0	6750	950	1220	2010	1500	280	170	240	500	1830	2480
1RN6 560-5HE.0	7450	1060	1210	2060	1400	315	180	240	560	2040	2300
1RN6 562-5HE.0	7950	1060	1210	2060	1400	315	180	240	560	2040	2300
1RN6 564-5HE.0	8800	1060	1210	2060	1600	315	190	280	560	2040	2570
1RN6 566-5HE.0	9250	1060	1210	2060	1600	315	190	280	560	2040	2570
1RN4 630-5HE.0	10450	1320	1320	2280	1600	335	220	280	630	2400	2500
1RN4 632-5HE.0	11100	1320	1320	2280	1600	335	220	280	630	2400	2500
1RN4 634-5HE.0	12100	1320	1320	2280	1800	335	220	280	630	2400	2740
1RN4 636-5HE.0	12850	1320	1320	2280	1800	335	220	280	630	2400	2740

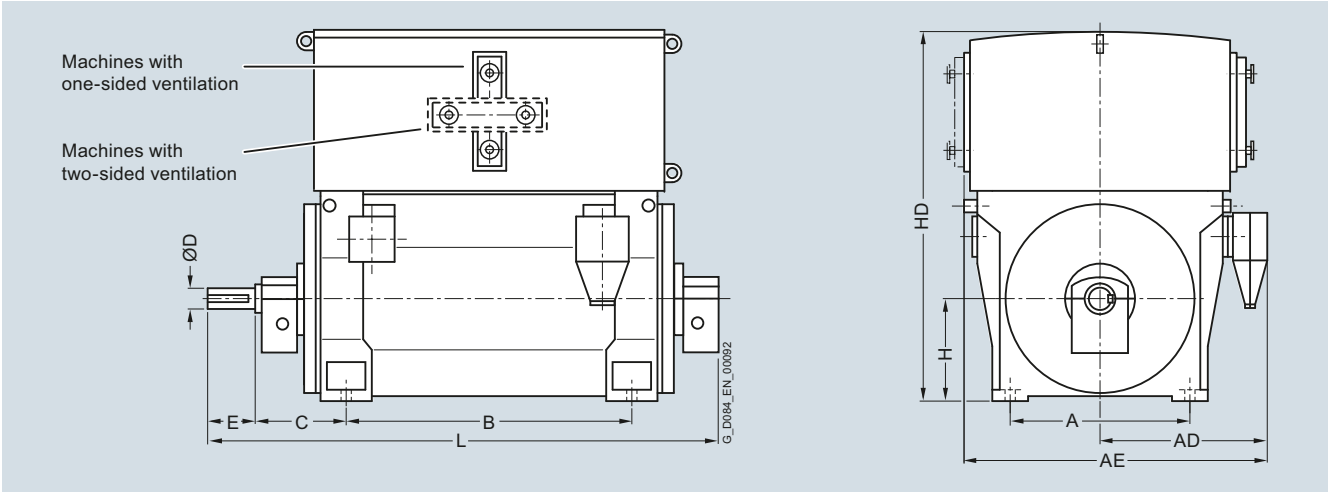
Note:

Higher pole numbers are available on request.

[1)] The dimensions are also valid for the 1SN4/1SN6 and 1SL4/1SL6 series.

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Dimension drawings



Motor type	Weight	Dimensions									
		A	AD[1]	AE[1]	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, IM B3 type of construction, sleeve bearings – series 1RN4, 1RN6[2]											
2-pole											
1RN6 450-2HJ.0-Z K96[3]	4050	850	930	1620	1180	425	95	130	450	1725	2218
1RN6 452-2HJ.0-Z K96[3]	4300	850	930	1620	1180	425	95	130	450	1725	2218
1RN6 454-2HJ.0-Z K96[3]	4600	850	930	1620	1400	425	95	130	450	1725	2428
1RN6 456-2HJ.0-Z K96[3]	4900	850	930	1620	1400	425	95	130	450	1725	2428
1RN6 500-2HJ.0-Z K96[3]	5900	950	1135	1835	1320	450	110	165	500	1980	2500
1RN6 502-2HJ.0-Z K96[3]	6050	950	1135	1835	1320	450	110	165	500	1980	2500
1RN6 504-2HJ.0	6850	950	1135	1835	1500	450	110	165	500	1980	2650
1RN6 506-2HJ.0	7100	950	1135	1835	1500	450	110	165	500	1980	2650
1RN6 560-2HJ.0	7600	1060	1205	1975	1400	600	130	200	560	2150	2850
1RN6 562-2HJ.0	8000	1060	1205	1975	1400	600	130	200	560	2150	2850
1RN6 564-2HJ.0	8900	1060	1205	1975	1600	600	130	200	560	2150	3100
1RN6 566-2HJ.0	9350	1060	1205	1975	1600	600	130	200	560	2150	3100
1RN4 630-2HE.0	10150	1320	1330	2290	1600	560	150	200	630	2400	2820
1RN4 632-2HE.0	10800	1320	1330	2290	1600	560	150	200	630	2400	2820
1RN4 634-2HE.0	11900	1320	1330	2290	1800	560	160	240	630	2400	3100
1RN4 636-2HE.0	12750	1320	1330	2290	1800	560	160	240	630	2400	3100
4-pole											
1RN6 450-4HJ.0-Z K96	4400	850	930	1620	1180	500	130	200	450	1715	2438
1RN6 452-4HJ.0-Z K96	4650	850	930	1620	1180	500	130	200	450	1715	2438
1RN6 454-4HJ.0-Z K96	5050	850	930	1620	1400	500	130	200	450	1715	2648
1RN6 456-4HJ.0-Z K96	5350	850	930	1620	1400	500	130	200	450	1715	2648
1RN6 500-4HJ.0-Z K96	6650	950	1135	1835	1320	560	150	200	500	1980	2700
1RN6 502-4HJ.0-Z K96	6850	950	1135	1835	1320	560	150	200	500	1980	2700
1RN6 504-4HJ.0-Z K96	7550	950	1135	1835	1500	560	150	200	500	1980	2880
1RN6 506-4HJ.0-Z K96	7850	950	1135	1835	1500	560	150	200	500	1980	2880
1RN6 560-4HJ.0-Z K96	7800	1060	1205	1975	1400	600	170	240	560	2150	2900
1RN6 562-4HJ.0-Z K96	8200	1060	1205	1975	1400	600	170	240	560	2150	2900
1RN6 564-4HJ.0-Z K96	9050	1060	1205	1975	1600	600	170	240	560	2150	3100
1RN6 566-4HJ.0-Z K96	9600	1060	1205	1975	1600	600	170	240	560	2150	3100

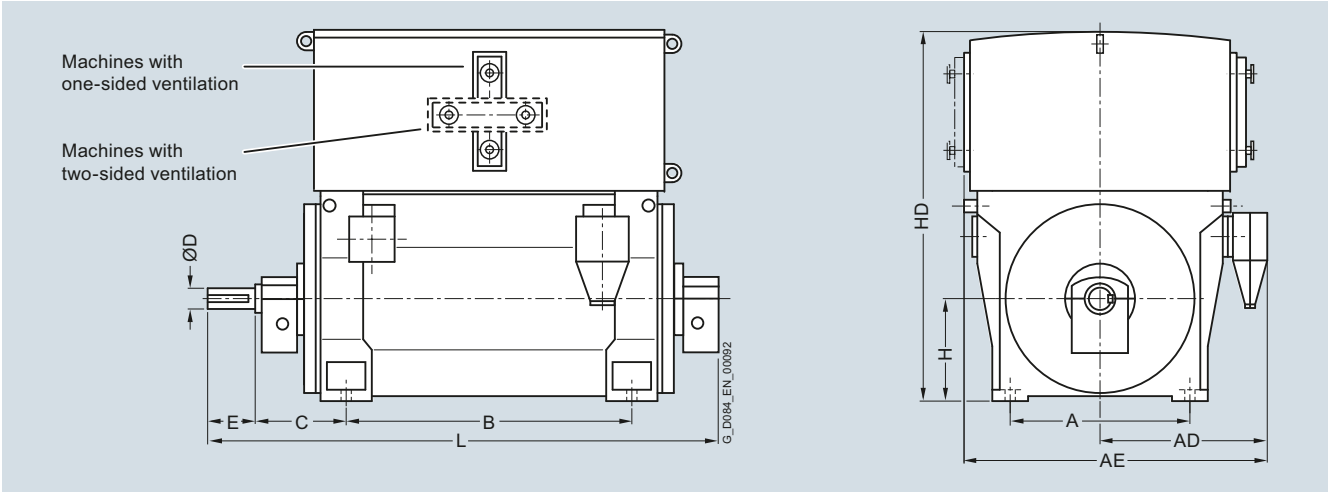
[1] The value applies for 6 kV. When a lower voltage is selected, the rated current increases. For rated currents above 315 A, the dimension increases by 140 mm.

[2] The dimensions are also valid for the 1SN4/1SN6 and 1SL4/1SL6 series.

[3] For the 60 Hz version, sleeve bearings are standard, "-Z **K96**" not necessary.

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Dimension drawings (continued)



Motor type	Weight	Dimensions									
		A	AD[1]	AE[1]	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, IM B3 type of construction, sleeve bearings – series 1RN4, 1RN6[2]											
4-pole											
1RN4 630-4HE.0-Z K96[3]	10650	1320	1330	2290	1600	600	200	280	630	2400	2970
1RN4 632-4HE.0-Z K96[3]	11350	1320	1330	2290	1600	600	200	280	630	2400	2970
1RN4 634-4HE.0-Z K96[3]	12400	1320	1330	2290	1800	600	220	280	630	2400	3210
1RN4 636-4HE.0-Z K96[3]	13000	1320	1330	2290	1800	600	220	280	630	2400	3210
6-pole											
1RN6 450-6HJ.0-Z K96	4550	850	930	1620	1180	500	140	200	450	1715	2438
1RN6 452-6HJ.0-Z K96	4800	850	930	1620	1180	500	140	200	450	1715	2438
1RN6 454-6HJ.0-Z K96	5150	850	930	1620	1400	500	140	200	450	1715	2648
1RN6 456-6HJ.0-Z K96	5500	850	930	1620	1400	500	140	200	450	1715	2648
1RN6 500-6HJ.0-Z K96	6550	950	1135	1835	1320	560	170	240	500	1960	2700
1RN6 502-6HJ.0-Z K96	6850	950	1135	1835	1320	560	170	240	500	1960	2700
1RN6 504-6HJ.0-Z K96	7450	950	1135	1835	1500	560	170	240	500	1960	2900
1RN6 506-6HJ.0-Z K96	7850	950	1135	1835	1500	560	170	240	500	1960	2900
1RN6 560-6HJ.0-Z K96	8850	1060	1205	1975	1400	600	170	240	560	2200	2950
1RN6 562-6HJ.0-Z K96	9250	1060	1205	1975	1400	600	170	240	560	2200	2950
1RN6 564-6HJ.0-Z K96	10100	1060	1205	1975	1600	600	170	240	560	2200	3150
1RN6 566-6HJ.0-Z K96	10650	1060	1205	1975	1600	600	170	240	560	2200	3150
1RN4 630-6HE.0-Z K96	10950	1320	1330	2290	1600	600	220	280	630	2400	2970
1RN4 632-6HE.0-Z K96	11500	1320	1330	2290	1600	600	220	280	630	2400	2970
1RN4 634-6HE.0-Z K96	12550	1320	1330	2290	1800	600	220	280	630	2400	3210
1RN4 636-6HE.0-Z K96	13300	1320	1330	2290	1800	600	220	280	630	2400	3210
8-pole											
1RN6 450-8HJ.0-Z K96	4550	850	930	1620	1180	500	140	200	450	1715	2438
1RN6 452-8HJ.0-Z K96	4850	850	930	1620	1180	500	140	200	450	1715	2438
1RN6 454-8HJ.0-Z K96	5200	850	930	1620	1400	500	140	200	450	1715	2648
1RN6 456-8HJ.0-Z K96	5550	850	930	1620	1400	500	140	200	450	1715	2648

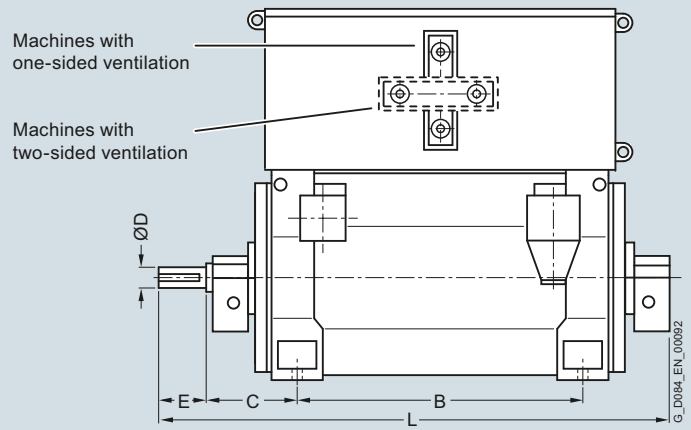
[1] The value applies for 6 kV. When a lower voltage is selected, the rated current increases. For rated currents above 315 A, the dimension increases by 140 mm.

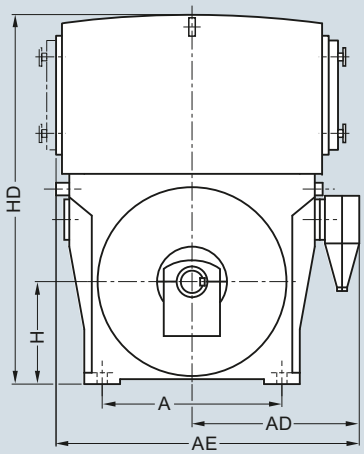
[2] The dimensions are also valid for the 1SN4/1SN6 and 1SL4/1SL6 series.

[3] For the 60 Hz version, sleeve bearings are standard, "-Z **K96**" not necessary.

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Dimension drawings (continued)





Motor type	Weight	Dimensions									
		A	AD[1]	AE[1]	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, IM B3 type of construction, sleeve bearings – series 1RN4, 1RN6[2]											
8-pole											
1RN6 500-8HJ.0-Z K96	6500	950	1135	1835	1320	560	170	240	500	1960	2700
1RN6 502-8HJ.0-Z K96	6800	950	1135	1835	1320	560	170	240	500	1960	2700
1RN6 504-8HJ.0-Z K96	7400	950	1135	1835	1500	560	170	240	500	1960	2900
1RN6 506-8HJ.0-Z K96	7800	950	1135	1835	1500	560	170	240	500	1960	2900
1RN6 560-8HJ.0-Z K96	8800	1060	1205	1975	1400	600	170	240	560	2200	2950
1RN6 562-8HJ.0-Z K96	9250	1060	1205	1975	1400	600	170	240	560	2200	2950
1RN6 564-8HJ.0-Z K96	10050	1060	1205	1975	1600	600	170	240	560	2200	3150
1RN6 566-8HJ.0-Z K96	10600	1060	1205	1975	1600	600	170	240	560	2200	3150
1RN4 630-8HE.0-Z K96[3]	10850	1320	1330	2290	1600	600	220	280	630	2400	2970
1RN4 632-8HE.0-Z K96[3]	11500	1320	1330	2290	1600	600	220	280	630	2400	2970
1RN4 634-8HE.0-Z K96[3]	12450	1320	1330	2290	1800	600	220	280	630	2400	3210
1RN4 636-8HE.0-Z K96[3]	13150	1320	1330	2290	1800	600	220	280	630	2400	3210
10-pole											
1RN6 450-3HJ.0-Z K96	4550	850	930	1620	1180	500	140	200	450	1715	2438
1RN6 452-3HJ.0-Z K96	4850	850	930	1620	1180	500	140	200	450	1715	2438
1RN6 454-3HJ.0-Z K96	5200	850	930	1620	1400	500	140	200	450	1715	2648
1RN6 456-3HJ.0-Z K96	5550	850	930	1620	1400	500	140	200	450	1715	2648
1RN6 500-3HE.0-Z K96	5700	950	1000	1790	1320	500	160	240	500	1830	2620
1RN6 502-3HE.0-Z K96	6050	950	1000	1790	1320	500	160	240	500	1830	2620
1RN6 504-3HE.0-Z K96	6600	950	1000	1790	1500	500	170	240	500	1830	2830
1RN6 506-3HE.0-Z K96	6950	950	1000	1790	1500	500	170	240	500	1830	2830
1RN6 560-3HE.0-Z K96	7650	1060	1070	1920	1400	530	180	240	560	2040	2670
1RN6 562-3HE.0-Z K96	8200	1060	1070	1920	1400	530	180	240	560	2040	2670
1RN6 564-3HE.0-Z K96	9050	1060	1070	1920	1600	530	190	280	560	2040	2940
1RN6 566-3HE.0-Z K96	9500	1060	1070	1920	1600	530	190	280	560	2040	2940
1RN4 630-3HE.0-Z K96[3]	10750	1320	1180	2140	1600	600	220	280	630	2400	2970
1RN4 632-3HE.0-Z K96[3]	11450	1320	1330	2290	1600	600	220	280	630	2400	2970
1RN4 634-3HE.0-Z K96[3]	12500	1320	1330	2290	1800	600	220	280	630	2400	3210
1RN4 636-3HE.0-Z K96[3]	13200	1320	1330	2290	1800	600	220	280	630	2400	3210

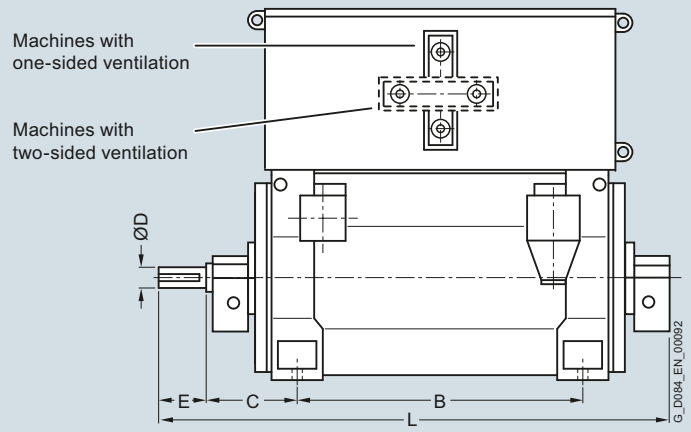
[1] The value applies for 6 kV. When a lower voltage is selected, the rated current increases. For rated currents above 315 A, the dimension increases by 140 mm.

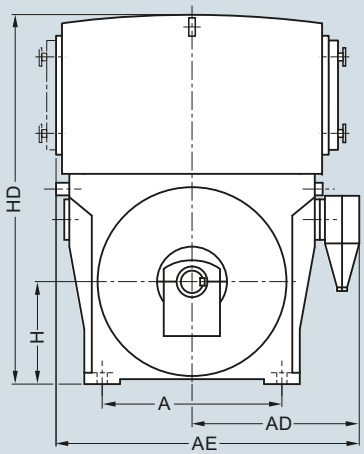
[2] The dimensions are also valid for the 1SN4/1SN6 and 1SL4/1SL6 series.

[3] For the 60 Hz version, sleeve bearings are standard, "-Z **K96**" not necessary.

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Dimension drawings (continued)





Motor type	Weight	Dimensions									
		A	AD[1]	AE[1]	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, IM B3 type of construction, sleeve bearings – series 1RN4, 1RN6[2]											
12-pole											
1RN6 450-5HJ.0-Z K96	4550	850	930	1620	1180	500	140	200	450	1715	2438
1RN6 452-5HJ.0-Z K96	4850	850	930	1620	1180	500	140	200	450	1715	2438
1RN6 454-5HJ.0-Z K96	5200	850	930	1620	1400	500	140	200	450	1715	2648
1RN6 456-5HJ.0-Z K96	5550	850	930	1620	1400	500	140	200	450	1715	2648
1RN6 500-5HE.0-Z K96	5700	950	1000	1790	1320	500	160	240	500	1830	2620
1RN6 502-5HE.0-Z K96	6050	950	1000	1790	1320	500	160	240	500	1830	2620
1RN6 504-5HE.0-Z K96	6550	950	1000	1790	1500	500	170	240	500	1830	2830
1RN6 506-5HE.0-Z K96	6950	950	1000	1790	1500	500	170	240	500	1830	2830
1RN6 560-5HE.0-Z K96	7650	1060	1070	1920	1400	530	180	240	560	2040	2670
1RN6 562-5HE.0-Z K96	8250	1060	1070	1920	1400	530	180	240	560	2040	2670
1RN6 564-5HE.0-Z K96	9000	1060	1070	1920	1600	530	190	280	560	2040	2940
1RN6 566-5HE.0-Z K96	9500	1060	1070	1920	1600	530	190	280	560	2040	2940
1RN4 630-5HE.0-Z K96[3]	10650	1320	1180	2140	1600	600	220	280	630	2400	2970
1RN4 632-5HE.0-Z K96[3]	11300	1320	1180	2140	1600	600	220	280	630	2400	2970
1RN4 634-5HE.0-Z K96[3]	12300	1320	1180	2140	1800	600	220	280	630	2400	3210
1RN4 636-5HE.0-Z K96[3]	13150	1320	1330	2290	1800	600	220	280	630	2400	3210

Note:

Higher pole numbers are available on request.

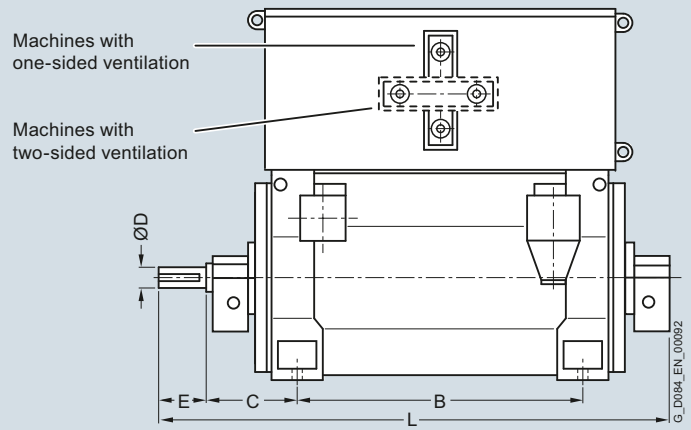
[1] The value applies for 6 kV. When a lower voltage is selected, the rated current increases. For rated currents above 315 A, the dimension increases by 140 mm.

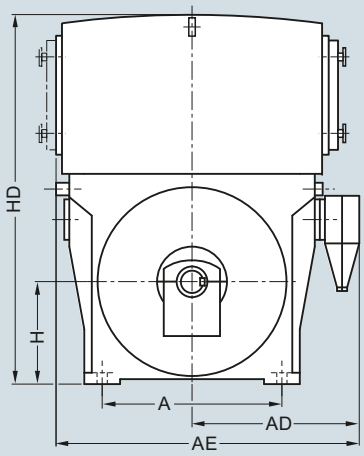
[2] The dimensions are also valid for the 1SN4/1SN6 and 1SL4/1SL6 series.

[3] For the 60 Hz version, sleeve bearings are standard, "-Z **K96**" not necessary.

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Dimension drawings





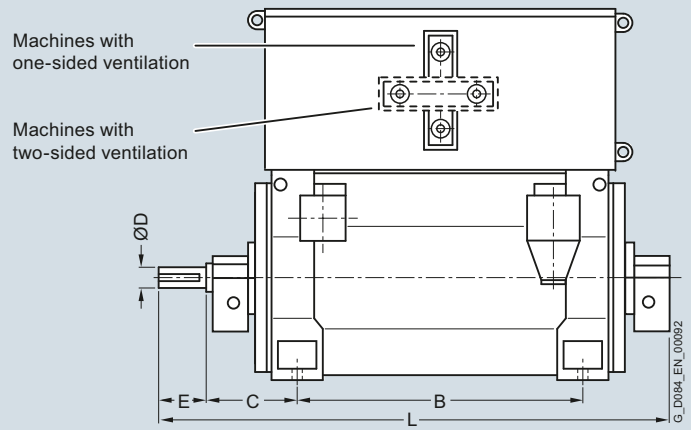
Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
9 ... 11 kV, IM B3 type of construction, sleeve bearings – series 1RN4, 1RN6[1)]											
2-pole											
1RN6 450-2HJ.0-Z K96[2)]	4050	850	1070	1840	1180	425	95	130	450	1725	2218
1RN6 452-2HJ.0-Z K96[2)]	4300	850	1070	1840	1180	425	95	130	450	1725	2218
1RN6 454-2HJ.0-Z K96[2)]	4600	850	1070	1840	1400	425	95	130	450	1725	2428
1RN6 456-2HJ.0-Z K96[2)]	4900	850	1070	1840	1400	425	95	130	450	1725	2428
1RN6 500-2HJ.0-Z K96[2)]	5900	950	1270	1970	1320	450	110	165	500	1980	2500
1RN6 502-2HJ.0-Z K96[2)]	6050	950	1270	1970	1320	450	110	165	500	1980	2500
1RN6 504-2HJ.0	6850	950	1270	1970	1500	450	110	165	500	1980	2650
1RN6 506-2HJ.0	7100	950	1270	1970	1500	450	110	165	500	1980	2650
1RN6 560-2HJ.0	7600	1060	1340	2110	1400	600	130	200	560	2150	2850
1RN6 562-2HJ.0	8000	1060	1340	2110	1400	600	130	200	560	2150	2850
1RN6 564-2HJ.0	8900	1060	1340	2110	1600	600	130	200	560	2150	3100
1RN6 566-2HJ.0	9350	1060	1340	2110	1600	600	130	200	560	2150	3100
1RN4 630-2HE.0	10050	1320	1320	2280	1600	560	150	200	630	2400	2820
1RN4 632-2HE.0	10700	1320	1330	2290	1600	560	150	200	630	2400	2820
1RN4 634-2HE.0	11750	1320	1330	2290	1800	560	160	240	630	2400	3100
1RN4 636-2HE.0	12600	1320	1330	2290	1800	560	160	240	630	2400	3100
4-pole											
1RN6 450-4HJ.0-Z K96	4400	850	1070	1840	1180	500	130	200	450	1715	2438
1RN6 452-4HJ.0-Z K96	4650	850	1070	1840	1180	500	130	200	450	1715	2438
1RN6 454-4HJ.0-Z K96	5050	850	1070	1840	1400	500	130	200	450	1715	2645
1RN6 456-4HJ.0-Z K96	5350	850	1070	1840	1400	500	130	200	450	1715	2645
1RN6 500-4HJ.0-Z K96	6650	950	1270	1970	1320	560	150	200	500	1980	2700
1RN6 502-4HJ.0-Z K96	6850	950	1270	1970	1320	560	150	200	500	1980	2700
1RN6 504-4HJ.0-Z K96	7550	950	1270	1970	1500	560	150	200	500	1980	2880
1RN6 506-4HJ.0-Z K96	7850	950	1270	1970	1500	560	150	200	500	1980	2880
1RN6 560-4HJ.0-Z K96	7800	1060	1340	2110	1400	600	170	240	560	2150	2900
1RN6 562-4HJ.0-Z K96	8200	1060	1340	2110	1400	600	170	240	560	2150	2900
1RN6 564-4HJ.0-Z K96	9050	1060	1340	2110	1600	600	170	240	560	2150	3100
1RN6 566-4HJ.0-Z K96	9600	1060	1340	2110	1600	600	170	240	560	2150	3100

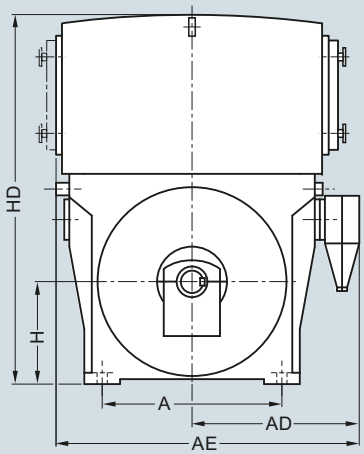
[1)] The dimensions are also valid for the 1SN4/1SN6 and 1SL4/1SL6 series.

[2)] For the 60 Hz version, sleeve bearings are standard, "-Z **K96**" not necessary.

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Dimension drawings (continued)



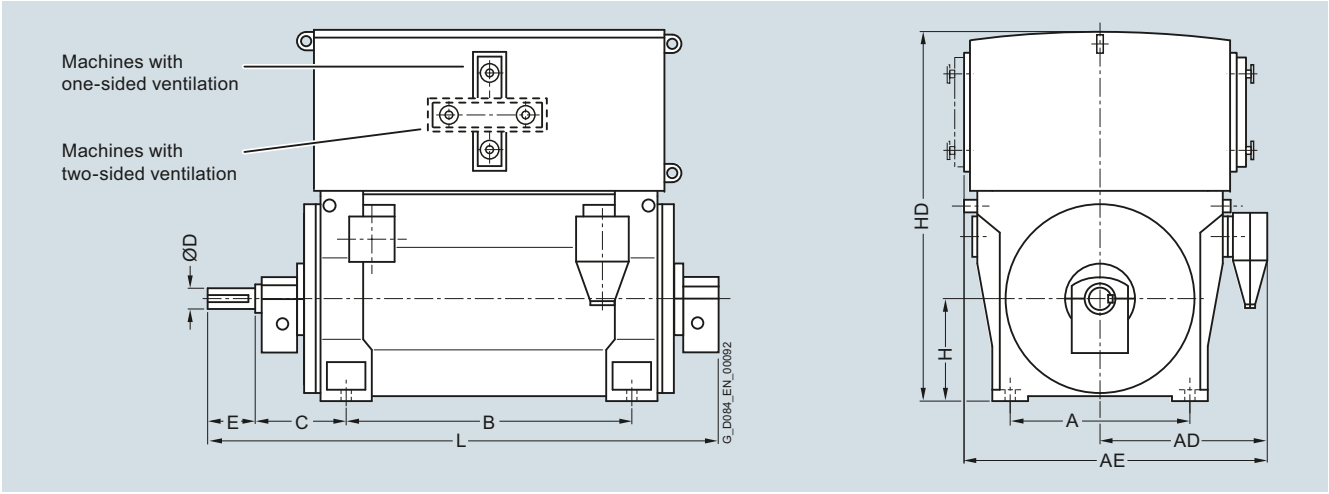


Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
9 ... 11 kV, IM B3 type of construction, sleeve bearings – series 1RN4, 1RN6[1)]											
4-pole											
1RN4 630-4HE.0-Z K96	10550	1320	1320	2280	1600	600	200	280	630	2400	2970
1RN4 632-4HE.0-Z K96	11250	1320	1330	2290	1600	600	200	280	630	2400	2970
1RN4 634-4HE.0-Z K96	12250	1320	1330	2290	1800	600	220	280	630	2400	3210
1RN4 636-4HE.0-Z K96	12900	1320	1330	2290	1800	600	220	280	630	2400	3210
6-pole											
1RN6 450-6HJ.0-Z K96	4550	850	1070	1840	1180	500	140	200	450	1715	2438
1RN6 452-6HJ.0-Z K96	4800	850	1070	1840	1180	500	140	200	450	1715	2438
1RN6 454-6HJ.0-Z K96	5150	850	1070	1840	1400	500	140	200	450	1715	2648
1RN6 456-6HJ.0-Z K96	5500	850	1070	1840	1400	500	140	200	450	1715	2648
1RN6 500-6HJ.0-Z K96	6550	950	1270	1970	1320	560	170	240	500	1960	2700
1RN6 502-6HJ.0-Z K96	6850	950	1270	1970	1320	560	170	240	500	1960	2700
1RN6 504-6HJ.0-Z K96	7450	950	1270	1970	1500	560	170	240	500	1960	2900
1RN6 506-6HJ.0-Z K96	7850	950	1270	1970	1500	560	170	240	500	1960	2900
1RN6 560-6HJ.0-Z K96	8850	1060	1340	2110	1400	600	170	240	560	2200	2950
1RN6 562-6HJ.0-Z K96	9250	1060	1340	2110	1400	600	170	240	560	2200	2950
1RN6 564-6HJ.0-Z K96	10100	1060	1340	2110	1600	600	170	240	560	2200	3150
1RN6 566-6HJ.0-Z K96	10650	1060	1340	2110	1600	600	170	240	560	2200	3150
1RN4 630-6HE.0-Z K96	10900	1320	1320	2280	1600	600	220	280	630	2400	2970
1RN4 632-6HE.0-Z K96	11500	1320	1320	2280	1600	600	220	280	630	2400	2970
1RN4 634-6HE.0-Z K96	12550	1320	1320	2280	1800	600	220	280	630	2400	3210
1RN4 636-6HE.0-Z K96	13300	1320	1330	2290	1800	600	220	280	630	2400	3210
8-pole											
1RN6 450-8HJ.0-Z K96	4550	850	1070	1840	1180	500	140	200	450	1715	2438
1RN6 452-8HJ.0-Z K96	4850	850	1070	1840	1180	500	140	200	450	1715	2438
1RN6 454-8JH.0-Z K96	5200	850	1070	1840	1400	500	140	200	450	1715	2648
1RN6 456-8HJ.0-Z K96	5550	850	1070	1840	1400	500	140	200	450	1715	2648
1RN6 500-8HJ.0-Z K96	6500	950	1270	1970	1320	560	170	240	500	1960	2700
1RN6 502-8HJ.0-Z K96	6800	950	1270	1970	1320	560	170	240	500	1960	2700
1RN6 504-8HJ.0-Z K96	7400	950	1270	1970	1500	560	170	240	500	1960	2900
1RN6 506-8HJ.0-Z K96	7800	950	1270	1970	1500	560	170	240	500	1960	2900

[1)] The dimensions are also valid for the 1SN4/1SN6 and 1SL4/1SL6 series.

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Dimension drawings (continued)



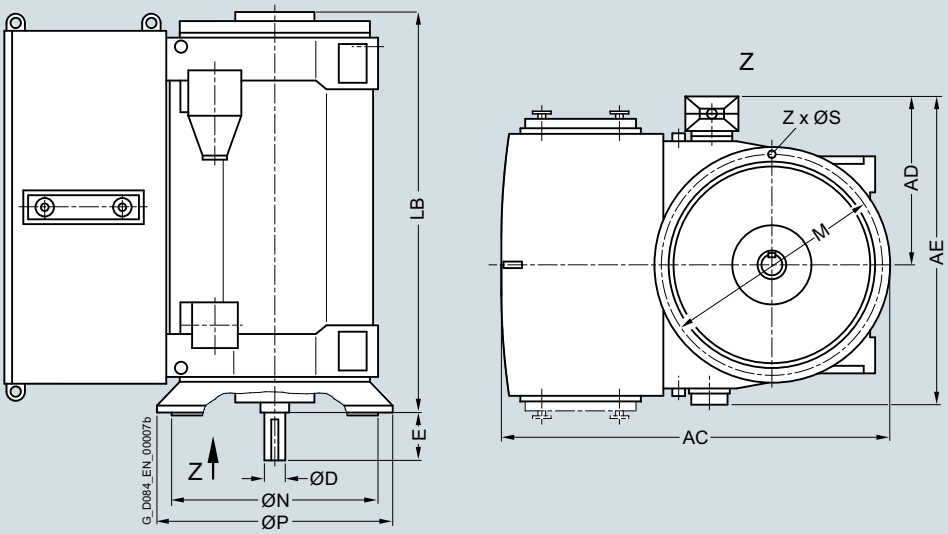
Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
9 ... 11 kV, IM B3 type of construction, sleeve bearings – 1RN4 series[1)]											
8-pole											
1RN6 560-8HJ.0-Z K96	8800	1060	1340	2110	1400	600	170	240	560	2200	2950
1RN6 562-8HJ.0-Z K96	9250	1060	1340	2110	1400	600	170	240	560	2200	2950
1RN6 564-8HJ.0-Z K96	10050	1060	1340	2110	1600	600	170	240	560	2200	3150
1RN6 566-8HJ.0-Z K96	10600	1060	1340	2110	1600	600	170	240	560	2200	3150
1RN4 630-8HE.0-Z K96	10750	1320	1320	2280	1600	600	220	280	630	2400	2970
1RN4 632-8HE.0-Z K96	11350	1320	1320	2280	1600	600	220	280	630	2400	2970
1RN4 634-8HE.0-Z K96	12350	1320	1320	2280	1800	600	220	280	630	2400	3210
1RN4 636-8HE.0-Z K96	13050	1320	1320	2280	1800	600	220	280	630	2400	3210
10-pole											
1RN6 500-3HE.0-Z K96	5700	950	1220	2010	1320	500	160	240	500	1830	2620
1RN6 502-3HE.0-Z K96	6050	950	1220	2010	1320	500	160	240	500	1830	2620
1RN6 504-3HE.0-Z K96	6550	950	1220	2010	1500	500	170	240	500	1830	2830
1RN6 506-3HE.0-Z K96	6900	950	1220	2010	1500	500	170	240	500	1830	2830
1RN6 560-3HE.0-Z K96	8050	1060	1210	2060	1400	530	180	240	560	2040	2670
1RN6 562-3HE.0-Z K96	8550	1060	1210	2060	1400	530	180	240	560	2040	2670
1RN6 564-3HE.0-Z K96	9150	1060	1210	2060	1600	530	190	280	560	2040	2940
1RN6 566-3HE.0-Z K96	9550	1060	1210	2060	1600	530	190	280	560	2040	2940
1RN4 630-3HE.0-Z K96	10700	1320	1320	2280	1600	600	220	280	630	2400	2970
1RN4 632-3HE.0-Z K96	11350	1320	1320	2280	1600	600	220	280	630	2400	2970
1RN4 634-3HE.0-Z K96	12300	1320	1320	2280	1800	600	220	280	630	2400	3210
1RN4 636-3HE.0-Z K96	13000	1320	1320	2280	1800	600	220	280	630	2400	3210
12-pole											
1RN6 502-5HE.0-Z K96	6050	950	1220	2010	1320	500	160	240	500	1830	2620
1RN6 504-5HE.0-Z K96	6500	950	1220	2010	1500	500	170	240	500	1830	2830
1RN6 506-5HE.0-Z K96	6900	950	1220	2010	1500	500	170	240	500	1830	2830
1RN6 560-5HE.0-Z K96	7650	1060	1210	2060	1400	530	180	240	560	2040	2670
1RN6 562-5HE.0-Z K96	8200	1060	1210	2060	1400	530	180	240	560	2040	2670
1RN6 564-5HE.0-Z K96	9000	1060	1210	2060	1600	530	190	280	560	2040	2940
1RN6 566-5HE.0-Z K96	9450	1060	1210	2060	1600	530	190	280	560	2040	2940
1RN4 630-5HE.0-Z K96	10750	1320	1320	2280	1600	600	220	280	630	2400	2970
1RN4 632-5HE.0-Z K96	11350	1320	1320	2280	1600	600	220	280	630	2400	2970
1RN4 634-5HE.0-Z K96	12400	1320	1320	2280	1800	600	220	280	630	2400	3210
1RN4 636-5HE.0-Z K96	13100	1320	1320	2280	1800	600	220	280	630	2400	3210

Note: Higher pole numbers are available on request.

[1)] The dimensions are also valid for the 1SN4/1SN6, 1SL4/1SL6 and 1SQ4/1SQ6 series.

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Dimension drawings



Motor type	Weight	Dimensions										
		AC	AD[1]	AE[1]	D	E	LB	P	N	M	S	Z
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Quantity
Up to 6.6 kV, IM V1 type of construction, anti-friction bearings – series 1RN4, 1RN6[2]												
4-pole												
1RN6 450-4HJ.8	4550	1840	930	1620	130	200	1720	1150	1000	1080	26	8
1RN6 452-4HJ.8	4750	1840	930	1620	130	200	1720	1150	1000	1080	26	8
1RN6 454-4HJ.8	5150	1840	930	1620	130	200	1930	1150	1000	1080	26	8
1RN6 456-4HJ.8	5450	1840	930	1620	130	200	1930	1150	1000	1080	26	8
1RN6 500-4HE.8	5500	1960	1000	1810	150	200	1910	1250	1120	1180	26	8
1RN6 502-4HE.8	5700	1960	1000	1810	150	200	1910	1250	1120	1180	26	8
1RN6 504-4HE.8	6400	1960	1000	1810	160	240	2120	1250	1120	1180	26	8
1RN6 506-4HE.8	6800	1960	1000	1810	160	240	2120	1250	1120	1180	26	8
1RN6 560-4HE.8	7550	2180	1210	2100	180	240	2090	1400	1250	1320	26	8
1RN6 562-4HE.8	8000	2180	1210	2100	180	240	2090	1400	1250	1320	26	8
1RN6 564-4HE.8[3]	8900	2180	1210	2100	190	280	2320	1400	1250	1320	26	8
1RN6 566-4HE.8[3]	9350	2180	1210	2100	190	280	2320	1400	1250	1320	26	8
1RN4 630-4HE.8[3]	12050	2875	1330	2300	200	280	2400	2000	1800	1900	33	8
1RN4 632-4HE.8[3]	12750	2875	1330	2300	200	280	2400	2000	1800	1900	33	8
1RN4 634-4HE.8[3]	13800	2875	1330	2300	220	280	2640	2000	1800	1900	33	8
1RN4 636-4HE.8[3]	14350	2875	1330	2300	220	280	2640	2000	1800	1900	33	8
6-pole												
1RN6 450-6HJ.8	4650	1840	930	1620	140	200	1720	1150	1000	1080	26	8
1RN6 452-6HJ.8	4950	1840	930	1620	140	200	1720	1150	1000	1080	26	8
1RN6 454-6HJ.8	5300	1840	930	1620	140	200	1930	1150	1000	1080	26	8
1RN6 456-6HJ.8	5650	1840	930	1620	140	200	1930	1150	1000	1080	26	8
1RN6 500-6HE.8	5650	1960	1000	1810	160	240	1910	1250	1120	1180	26	8
1RN6 502-6HE.8	6050	1960	1000	1810	160	240	1910	1250	1120	1180	26	8

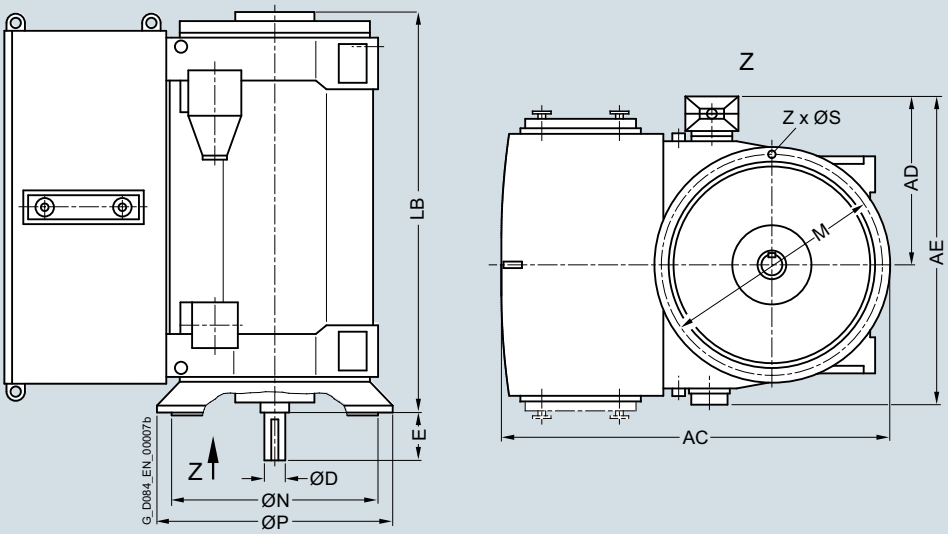
[1] The value applies for 6 kV. When a lower voltage is selected, the rated current increases. For rated currents above 315 A, the dimension increases by 140 mm.

[2] The dimensions are also valid for the 1SN4/1SN6 and 1SL4/1SL6 series.

[3] Vertical type of construction, only in the 50 Hz version.

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Dimension drawings (continued)



Motor type	Weight	Dimensions										
		AC	AD[1]	AE[1]	D	E	LB	P	N	M	S	Z
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Quantity
Up to 6.6 kV, IM V1 type of construction, anti-friction bearings – series 1RN4, 1RN6[2]												
6-pole												
1RN6 504-6HE.8	6550	1960	1000	1810	170	240	2120	1250	1120	1180	26	8
1RN6 506-6HE.8	6950	1960	1000	1810	170	240	2120	1250	1120	1180	26	8
1RN6 560-6HE.8	7650	2180	1210	2100	180	240	2090	1400	1250	1320	26	8
1RN6 562-6HE.8	8250	2180	1210	2100	180	240	2090	1400	1250	1320	26	8
1RN6 564-6HE.8	9100	2180	1210	2100	190	280	2320	1400	1250	1320	26	8
1RN6 566-6HE.8	9550	2180	1210	2100	190	280	2320	1400	1250	1320	26	8
1RN4 630-6HE.8	12300	2875	1330	2300	220	280	2400	2000	1800	1900	33	8
1RN4 632-6HE.8	12850	2875	1330	2300	220	280	2400	2000	1800	1900	33	8
1RN4 634-6HE.8	13950	2875	1330	2300	220	280	2640	2000	1800	1900	33	8
1RN4 636-6HE.8	14650	2875	1330	2300	220	280	2640	2000	1800	1900	33	8
8-pole												
1RN6 450-8HJ.8	4650	1840	930	1620	140	200	1720	1150	1000	1080	26	8
1RN6 452-8HJ.8	4950	1840	930	1620	140	200	1720	1150	1000	1080	26	8
1RN6 454-8HJ.8	5350	1840	930	1620	140	200	1930	1150	1000	1080	26	8
1RN6 456-8HJ.8	5650	1840	930	1620	140	200	1930	1150	1000	1080	26	8
1RN6 500-8HE.8	5700	1960	1000	1810	160	240	1910	1250	1120	1180	26	8
1RN6 502-8HE.8	6050	1960	1000	1810	160	240	1910	1250	1120	1180	26	8
1RN6 504-8HE.8	6550	1960	1000	1810	170	240	2120	1250	1120	1180	26	8
1RN6 506-8HE.8	6950	1960	1000	1810	170	240	2120	1250	1120	1180	26	8
1RN6 560-8HE.8	7650	2180	1070	1960	180	240	2090	1400	1250	1320	26	8
1RN6 562-8HE.8	8150	2180	1070	1960	180	240	2090	1400	1250	1320	26	8
1RN6 564-8HE.8	9000	2180	1070	1960	190	280	2320	1400	1250	1320	26	8
1RN6 566-8HE.8	9450	2180	1070	1960	190	280	2320	1400	1250	1320	26	8
1RN4 630-8HE.8[3]	12250	2875	1330	2300	220	280	2400	2000	1800	1900	33	8
1RN4 632-8HE.8[3]	12850	2875	1330	2300	220	280	2400	2000	1800	1900	33	8
1RN4 634-8HE.8[3]	13800	2875	1330	2300	220	280	2640	2000	1800	1900	33	8
1RN4 636-8HE.8[3]	14550	2875	1330	2300	220	280	2640	2000	1800	1900	33	8

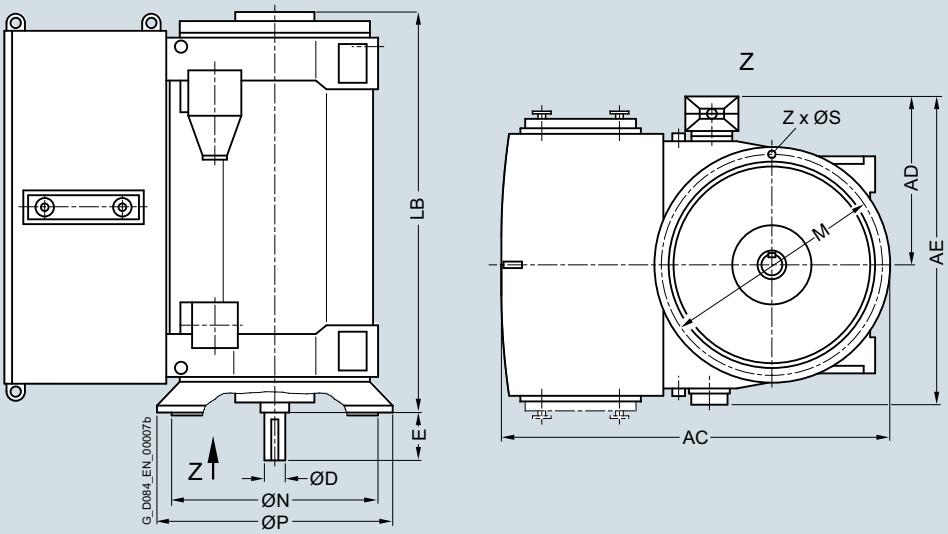
[1] The value applies for 6 kV. When a lower voltage is selected, the rated current increases. For rated currents above 315 A, the dimension increases by 140 mm.

[2] The dimensions are also valid for the 1SN4/1SN6 and 1SL4/1SL6 series.

[3] Vertical type of construction, only in the 50 Hz version.

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Dimension drawings (continued)



Motor type	Weight	Dimensions										
		AC	AD[1]	AE[1]	D	E	LB	P	N	M	S	Z
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Quantity
Up to 6.6 kV, IM V1 type of construction, anti-friction bearings – series 1RN4, 1RN6[2]												
10-pole												
1RN6 450-3HJ.8	4650	1840	930	1620	140	200	1720	1150	1000	1080	26	8
1RN6 452-3HJ.8	4950	1840	930	1620	140	200	1720	1150	1000	1080	26	8
1RN6 454-3HJ.8	5350	1840	930	1620	140	200	1930	1150	1000	1080	26	8
1RN6 456-3HJ.8	5650	1840	930	1620	140	200	1930	1150	1000	1080	26	8
1RN6 500-3HE.8	5650	1960	1000	1810	160	240	1910	1250	1120	1180	26	8
1RN6 502-3HE.8	6000	1960	1000	1810	160	240	1910	1250	1120	1180	26	8
1RN6 504-3HE.8	6550	1960	1000	1810	170	240	2120	1250	1120	1180	26	8
1RN6 506-3HE.8	6900	1960	1000	1810	170	240	2120	1250	1120	1180	26	8
1RN6 560-3HE.8	7550	2180	1070	1960	180	240	2090	1400	1250	1320	26	8
1RN6 562-3HE.8	8150	2180	1070	1960	180	240	2090	1400	1250	1320	26	8
1RN6 564-3HE.8	8950	2180	1070	1960	190	280	2320	1400	1250	1320	26	8
1RN6 566-3HE.8	9400	2180	1070	1960	190	280	2320	1400	1250	1320	26	8
1RN4 630-3HE.8[3]	12150	2875	1180	2150	220	280	2400	2000	1800	1900	33	8
1RN4 632-3HE.8[3]	12850	2875	1330	2300	220	280	2400	2000	1800	1900	33	8
1RN4 634-3HE.8[3]	13850	2875	1330	2300	220	280	2640	2000	1800	1900	33	8
1RN4 636-3HE.8[3]	14550	2875	1330	2300	220	280	2640	2000	1800	1900	33	8

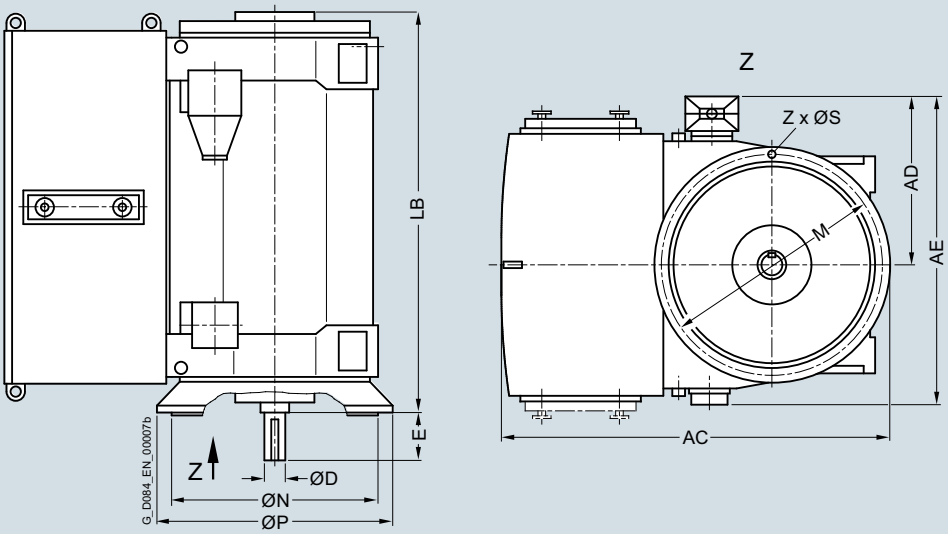
[1] The value applies for 6 kV. When a lower voltage is selected, the rated current increases. For rated currents above 315 A, the dimension increases by 140 mm.

[2] The dimensions are also valid for the 1SN4/1SN6 and 1SL4/1SL6 series.

[3] Vertical type of construction, only in the 50 Hz version.

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Dimension drawings (continued)



Motor type	Weight	Dimensions										
		AC	AD[1]	AE[1]	D	E	LB	P	N	M	S	Z
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Quantity
Up to 6.6 kV, IM V1 type of construction, anti-friction bearings – series 1RN4, 1RN6[2]												
12-pole												
1RN6 450-5HJ.8	4650	1840	930	1620	140	200	1720	1150	1000	1080	26	8
1RN6 452-5HJ.8	4950	1840	930	1620	140	200	1720	1150	1000	1080	26	8
1RN6 454-5HJ.8	5350	1840	930	1620	140	200	1930	1150	1000	1080	26	8
1RN6 456-5HJ.8	5650	1840	930	1620	140	200	1930	1150	1000	1080	26	8
1RN6 500-5HE.8	5650	1960	1000	1810	160	240	1910	1250	1120	1180	26	8
1RN6 502-5HE.8	6000	1960	1000	1810	160	240	1910	1250	1120	1180	26	8
1RN6 504-5HE.8	6500	1960	1000	1810	170	240	2120	1250	1120	1180	26	8
1RN6 506-5HE.8	6950	1960	1000	1810	170	240	2120	1250	1120	1180	26	8
1RN6 560-5HE.8	7600	2180	1070	1960	180	240	2090	1400	1250	1320	26	8
1RN6 562-5HE.8	8150	2180	1070	1960	180	240	2090	1400	1250	1320	26	8
1RN6 564-5HE.8	8950	2180	1070	1960	190	280	2320	1400	1250	1320	26	8
1RN6 566-5HE.8	9400	2180	1070	1960	190	280	2320	1400	1250	1320	26	8
1RN4 630-5HE.8[3]	12050	2875	1180	2150	220	280	2400	2000	1800	1900	33	8
1RN4 632-5HE.8[3]	12650	2875	1180	2150	220	280	2400	2000	1800	1900	33	8
1RN4 634-5HE.8[3]	13700	2875	1180	2150	220	280	2640	2000	1800	1900	33	8
1RN4 636-5HE.8[3]	14500	2875	1330	2300	220	280	2640	2000	1800	1900	33	8

Note:

Higher pole numbers are available on request.

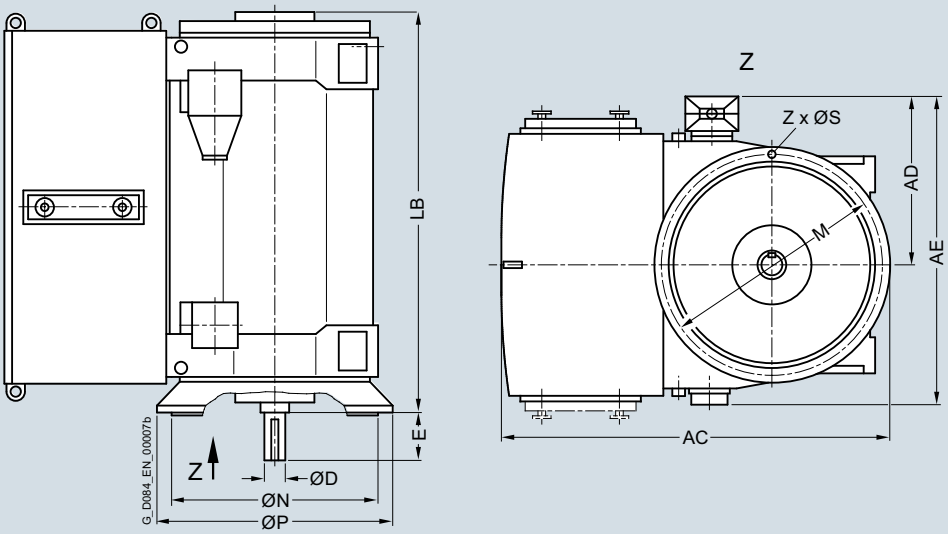
[1] The value applies for 6 kV. When a lower voltage is selected, the rated current increases. For rated currents above 315 A, the dimension increases by 140 mm.

[2] The dimensions are also valid for the 1SN4/1SN6 and 1SL4/1SL6 series.

[3] Vertical type of construction, only in the 50 Hz version.

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Dimension drawings



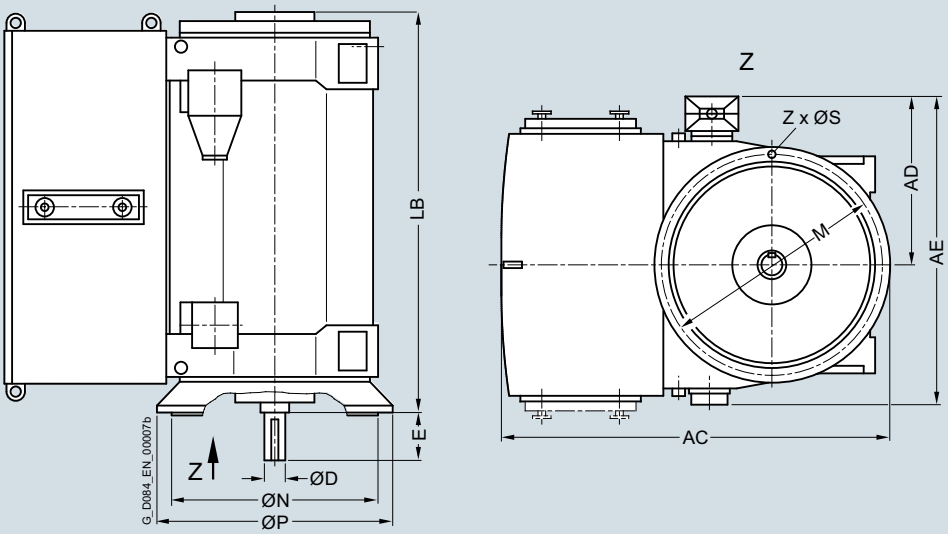
Motor type	Weight	Dimensions										
		AC	AD	AE	D	E	LB	P	N	M	S	Z
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Quantity
9 ... 11 kV, IM V1 type of construction, anti-friction bearings – series 1RN4, 1RN6[1)]												
4-pole												
1RN6 450-4HJ.8	4550	1840	1070	1840	130	200	1720	1150	1000	1080	26	8
1RN6 452-4HJ.8	4750	1840	1070	1840	130	200	1720	1150	1000	1080	26	8
1RN6 454-4HJ.8	5150	1840	1070	1840	130	200	1930	1150	1000	1080	26	8
1RN6 456-4HJ.8	5450	1840	1070	1840	130	200	1930	1150	1000	1080	26	8
1RN6 500-4HE.8	5550	1960	1140	1950	150	200	1910	1250	1120	1180	26	8
1RN6 502-4HE.8	5700	1960	1140	1950	150	200	1910	1250	1120	1180	26	8
1RN6 504-4HE.8	6350	1960	1140	1950	160	240	2120	1250	1120	1180	26	8
1RN6 506-4HE.8	6700	1960	1140	1950	160	240	2120	1250	1120	1180	26	8
1RN6 560-4HE.8	7400	2180	1210	2100	180	240	2090	1400	1250	1320	26	8
1RN6 562-4HE.8	7900	2180	1210	2100	180	240	2090	1400	1250	1320	26	8
1RN6 564-4HE.8	8750	2180	1210	2100	190	280	2320	1400	1250	1320	26	8
1RN6 566-4HE.8	9200	2180	1210	2100	190	280	2320	1400	1250	1320	26	8
1RN4 630-4HE.8[2)]	11950	2875	1320	2290	200	280	2400	2000	1800	1900	33	8
1RN4 632-4HE.8[2)]	12600	2875	1330	2300	200	280	2400	2000	1800	1900	33	8
1RN4 634-4HE.8[2)]	13650	2875	1330	2300	220	280	2640	2000	1800	1900	33	8
1RN4 636-4HE.8[2)]	14250	2875	1330	2300	220	280	2640	2000	1800	1900	33	8
6-pole												
1RN6 450-6HJ.8	4650	1840	1070	1840	140	200	1720	1150	1000	1080	26	8
1RN6 452-6HJ.8	4950	1840	1070	1840	140	200	1720	1150	1000	1080	26	8
1RN6 454-6HJ.8	5300	1840	1070	1840	140	200	1930	1150	1000	1080	26	8
1RN6 456-6HJ.8	5650	1840	1070	1840	140	200	1930	1150	1000	1080	26	8
1RN6 500-6HE.8	5650	1960	1140	1950	160	240	1910	1250	1120	1180	26	8
1RN6 502-6HE.8	6050	1960	1140	1950	160	240	1910	1250	1120	1180	26	8
1RN6 504-6HE.8	6550	1960	1140	1950	170	240	2120	1250	1120	1180	26	8
1RN6 506-6HE.8	6950	1960	1140	1950	170	240	2120	1250	1120	1180	26	8
1RN6 560-6HE.8	7650	2180	1210	2100	180	240	2090	1400	1250	1320	26	8
1RN6 562-6HE.8	8150	2180	1210	2100	180	240	2090	1400	1250	1320	26	8
1RN6 564-6HE.8	8950	2180	1210	2100	190	280	2320	1400	1250	1320	26	8
1RN6 566-6HE.8	9400	2180	1210	2100	190	280	2320	1400	1250	1320	26	8

[1)] The dimensions are also valid for the 1SN4/1SN6 and 1SL4/1SL6 series.

[2)] Vertical type of construction, only in the 50 Hz version.

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Dimension drawings (continued)

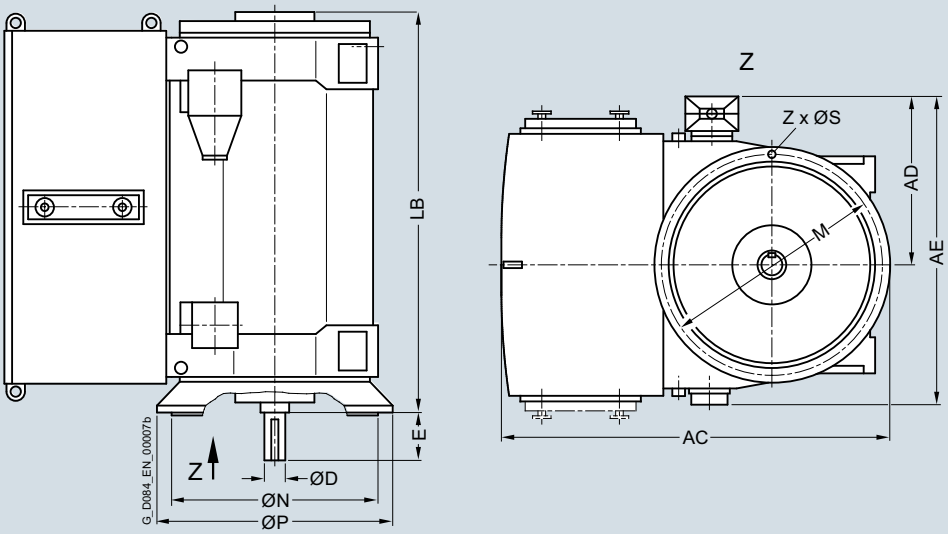


Motor type	Weight	Dimensions										
		AC	AD	AE	D	E	LB	P	N	M	S	Z
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Quantity
9 ... 11 kV, IM V1 type of construction, anti-friction bearings – series 1RN4, 1RN6[1)]												
6-pole												
1RN4 630-6HE.8	12300	2875	1320	2290	220	280	2400	2000	1800	1900	33	8
1RN4 632-6HE.8	12850	2875	1320	2290	220	280	2400	2000	1800	1900	33	8
1RN4 634-6HE.8	13900	2875	1320	2290	220	280	2640	2000	1800	1900	33	8
1RN4 636-6HE.8	14650	2875	1330	2300	220	280	2640	2000	1800	1900	33	8
8-pole												
1RN6 450-8HJ.8	4650	1840	1070	1840	140	200	1720	1150	1000	1080	26	8
1RN6 452-8HJ.8	4950	1840	1070	1840	140	200	1720	1150	1000	1080	26	8
1RN6 454-8HJ.8	5350	1840	1070	1840	140	200	1930	1150	1000	1080	26	8
1RN6 456-8HJ.8	5650	1840	1070	1840	140	200	1930	1150	1000	1080	26	8
1RN6 500-8HE.8	5700	1960	1140	1950	160	240	1910	1250	1120	1180	26	8
1RN6 502-8HE.8	6050	1960	1140	1950	160	240	1910	1250	1120	1180	26	8
1RN6 504-8HE.8	6550	1960	1140	1950	170	240	2120	1250	1120	1180	26	8
1RN6 506-8HE.8	6950	1960	1140	1950	170	240	2120	1250	1120	1180	26	8
1RN6 560-8HE.8	7600	2180	1210	2100	180	240	2090	1400	1250	1320	26	8
1RN6 562-8HE.8	8150	2180	1210	2100	180	240	2090	1400	1250	1320	26	8
1RN6 564-8HE.8	9000	2180	1210	2100	190	280	2320	1400	1250	1320	26	8
1RN6 566-8HE.8	9400	2180	1210	2100	190	280	2320	1400	1250	1320	26	8
1RN4 630-8HE.8	12100	2875	1320	2290	220	280	2400	2000	1800	1900	33	8
1RN4 632-8HE.8	12700	2875	1320	2290	220	280	2400	2000	1800	1900	33	8
1RN4 634-8HE.8	13700	2875	1320	2290	220	280	2640	2000	1800	1900	33	8
1RN4 636-8HE.8	14450	2875	1320	2290	220	280	2640	2000	1800	1900	33	8

[1)] The dimensions are also valid for the 1SN4/1SN6 and 1SL4/1SL6 series.

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Dimension drawings (continued)



Motor type	Weight	Dimensions										
		AC	AD	AE	D	E	LB	P	N	M	S	Z
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Quantity
9 ... 11 kV, IM V1 type of construction, anti-friction bearings – 1RN4 series[1)]												
10-pole												
1RN6 500-3HE.8	5650	1960	1140	1950	160	240	1910	1250	1120	1180	26	8
1RN6 502-3HE.8	6000	1960	1140	1950	160	240	1910	1250	1120	1180	26	8
1RN6 504-3HE.8	6500	1960	1140	1950	170	240	2120	1250	1120	1180	26	8
1RN6 506-3HE.8	6900	1960	1140	1950	170	240	2120	1250	1120	1180	26	8
1RN6 560-3HE.8	7900	2180	1210	2100	180	240	2090	1400	1250	1320	26	8
1RN6 562-3HE.8	8550	2180	1210	2100	180	240	2090	1400	1250	1320	26	8
1RN6 564-3HE.8	9400	2180	1210	2100	190	280	2320	1400	1250	1320	26	8
1RN6 566-3HE.8	10000	2180	1210	2100	190	280	2320	1400	1250	1320	26	8
1RN4 630-3HE.8	12100	2875	1320	2290	220	280	2400	2000	1800	1900	33	8
1RN4 632-3HE.8	12700	2875	1320	2290	220	280	2400	2000	1800	1900	33	8
1RN4 634-3HE.8	13650	2875	1320	2290	220	280	2640	2000	1800	1900	33	8
1RN4 636-3HE.8	14400	2875	1320	2290	220	280	2640	2000	1800	1900	33	8
12-pole												
1RN6 502-5HE.8	6050	1960	1140	1950	160	240	1910	1250	1120	1180	26	8
1RN6 504-5HE.8	6450	1960	1140	1950	170	240	2120	1250	1120	1180	26	8
1RN6 506-5HE.8	6900	1960	1140	1950	170	240	2120	1250	1120	1180	26	8
1RN6 560-5HE.8	7550	2180	1210	2100	180	240	2090	1400	1250	1320	26	8
1RN6 562-5HE.8	8100	2180	1210	2100	180	240	2090	1400	1250	1320	26	8
1RN6 564-5HE.8	8900	2180	1210	2100	190	280	2320	1400	1250	1320	26	8
1RN6 566-5HE.8	9350	2180	1210	2100	190	280	2320	1400	1250	1320	26	8
1RN4 630-5HE.8	12100	2875	1320	2290	220	280	2400	2000	1800	1900	33	8
1RN4 632-5HE.8	12750	2875	1320	2290	220	280	2400	2000	1800	1900	33	8
1RN4 634-5HE.8	13750	2875	1320	2290	220	280	2640	2000	1800	1900	33	8
1RN4 636-5HE.8	14500	2875	1320	2290	220	280	2640	2000	1800	1900	33	8

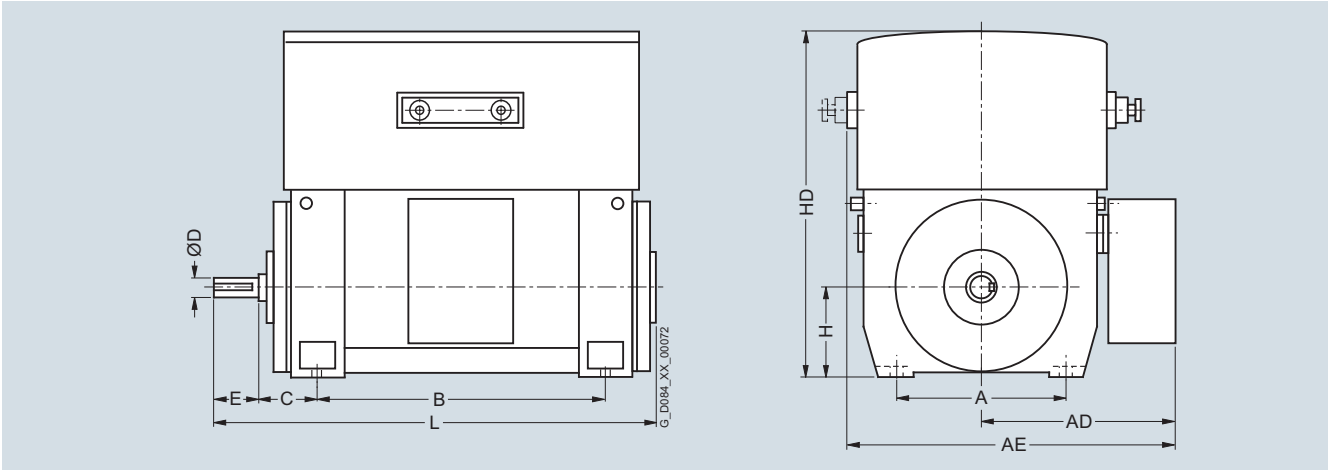
Note:

Higher pole numbers are available on request.

[1)] The dimensions are also valid for the 1SN4/1SN6 and 1SL4/1SL6 series.

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Dimension drawings



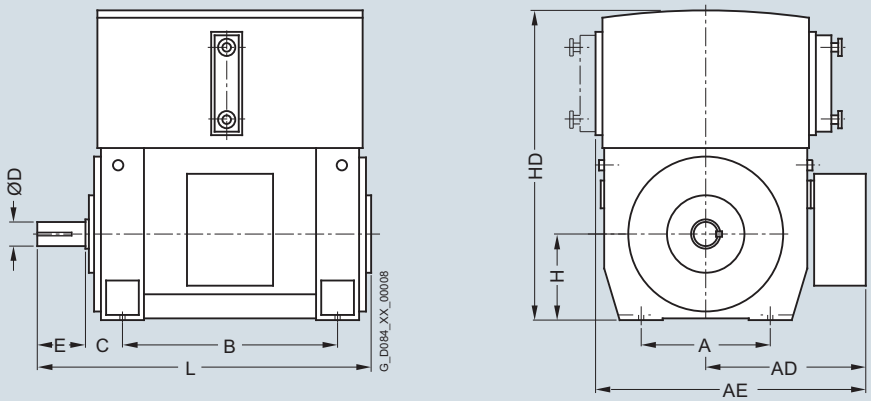
Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, NEMA version, IM B3 type of construction, anti-friction bearings, X ventilation – 1RN6 series											
4-pole											
1RN6 710-4HJ.0[2)]	17700	1500	1500	2560	2000	355	220	280	710	2510	2980
1RN6 712-4HJ.0[2)]	18500	1500	1500	2560	2000	355	220	280	710	2510	2980
1RN6 714-4HJ.0[2)]	19900	1500	1500	2560	2240	355	220	280	710	2510	3220
1RN6 716-4HJ.0[2)]	20900	1500	1500	2560	2240	355	220	280	710	2510	3220

Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
9 ... 11 kV, NEMA version, IM B3 type of construction, anti-friction bearings, X ventilation – 1RN6 series											
4-pole											
1RN6 710-4HJ.0[2)]	17400	1500	1500	2560	2000	355	220	280	710	2510	2980
1RN6 712-4HJ.0[2)]	18200	1500	1500	2560	2000	355	220	280	710	2510	2980
1RN6 714-4HJ.0[2)]	19700	1500	1500	2560	2240	355	220	280	710	2510	3220
1RN6 716-4HJ.0[2)]	20600	1500	1500	2560	2240	355	220	280	710	2510	3220

[1)] Anti-friction bearings only for 50 Hz version.

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Dimension drawings



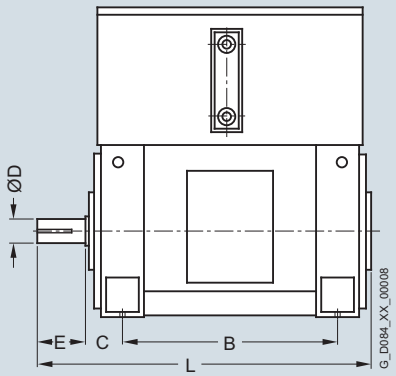
Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, NEMA version, IM B3 type of construction, anti-friction bearings, Z ventilation – 1RN6 series											
6-pole											
1RN6 710-6HJ.0	16700	1500	1500	2560	2000	355	240	330	710	2600	3030
1RN6 712-6HJ.0	17400	1500	1500	2560	2000	355	240	330	710	2600	3030
1RN6 714-6HJ.0	19100	1500	1500	2560	2240	355	240	330	710	2600	3270
1RN6 716-6HJ.0	20200	1500	1500	2560	2240	355	240	330	710	2600	3270
8-pole											
1RN6 710-8HJ.0	16500	1500	1500	2560	2000	355	240	330	710	2600	3030
1RN6 712-8HJ.0	17300	1500	1500	2560	2000	355	240	330	710	2600	3030
1RN6 714-8HJ.0	18900	1500	1500	2560	2240	355	240	330	710	2600	3270
1RN6 716-8HJ.0	20000	1500	1500	2560	2240	355	240	330	710	2600	3270
10-pole											
1RN6 710-3HJ.0	16300	1500	1500	2560	2000	355	240	330	710	2600	3030
1RN6 712-3HJ.0	17100	1500	1500	2560	2000	355	240	330	710	2600	3030
1RN6 714-3HJ.0	18700	1500	1500	2560	2240	355	240	330	710	2600	3270
1RN6 716-3HJ.0	19900	1500	1500	2560	2240	355	240	330	710	2600	3270

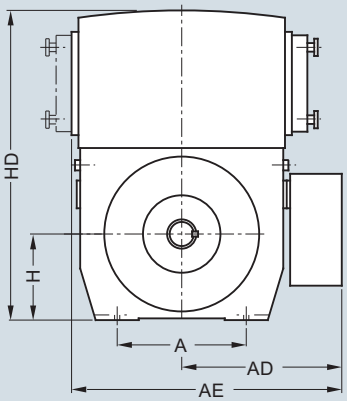
Note:

Higher pole numbers are available on request.

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Dimension drawings





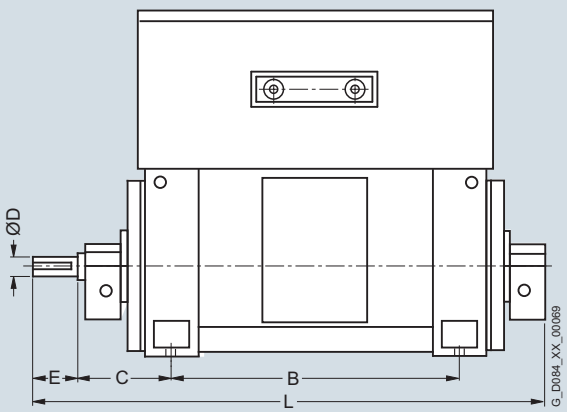
Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
9 ... 11 kV, NEMA version, IM B3 type of construction, anti-friction bearings, Z ventilation – 1RN6 series											
6-pole											
1RN6 710-6HJ.0	16500	1500	1500	2560	2000	355	240	330	710	2600	3030
1RN6 712-6HJ.0	17200	1500	1500	2560	2000	355	240	330	710	2600	3030
1RN6 714-6HJ.0	18900	1500	1500	2560	2240	355	240	330	710	2600	3270
1RN6 716-6HJ.0	20000	1500	1500	2560	2240	355	240	330	710	2600	3270
8-pole											
1RN6 710-8HJ.0	16400	1500	1500	2560	2000	355	240	330	710	2600	3030
1RN6 712-8HJ.0	17100	1500	1500	2560	2000	355	240	330	710	2600	3030
1RN6 714-8HJ.0	18800	1500	1500	2560	2240	355	240	330	710	2600	3270
1RN6 716-8HJ.0	19800	1500	1500	2560	2240	355	240	330	710	2600	3270
10-pole											
1RN6 710-3HJ.0	16200	1500	1500	2560	2000	355	240	330	710	2600	3030
1RN6 712-3HJ.0	17000	1500	1500	2560	2000	355	240	330	710	2600	3030
1RN6 714-3HJ.0	18700	1500	1500	2560	2240	355	240	330	710	2600	3270
1RN6 716-3HJ.0	19800	1500	1500	2560	2240	355	240	330	710	2600	3270

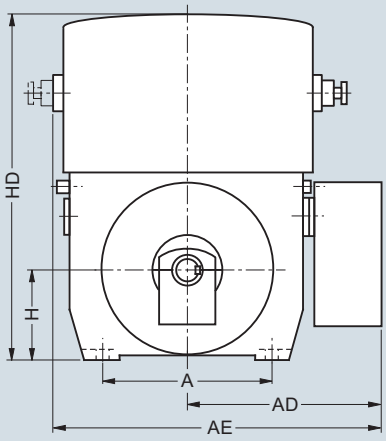
Note:

Higher pole numbers are available on request.

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Dimension drawings





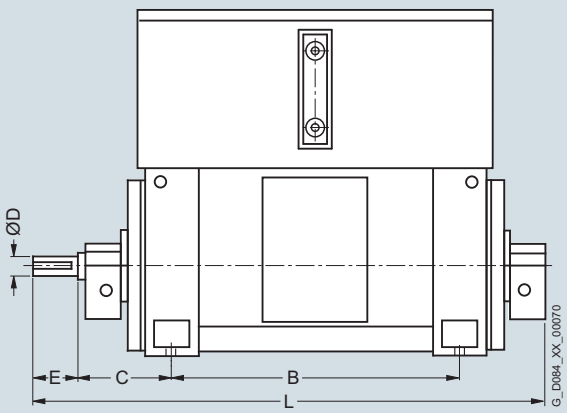
Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, NEMA version, IM B3 type of construction, sleeve bearings, X ventilation – 1RN6 series											
2-pole											
1RN6 710-2HJ.0	15900	1500	1500	2560	2000	600	180	240	710	2510	3370
1RN6 712-2HJ.0	16800	1500	1500	2560	2000	600	180	240	710	2510	3370
1RN6 714-2HJ.0	18000	1500	1500	2560	2240	600	180	240	710	2510	3610
1RN6 716-2HJ.0	19000	1500	1500	2560	2240	600	180	240	710	2510	3610
4-pole											
1RN6 710-4HJ.0-Z K96[1)]	17700	1500	1500	2560	2000	530	220	280	710	2510	3260
1RN6 712-4HJ.0-Z K96[1)]	18500	1500	1500	2560	2000	530	220	280	710	2510	3260
1RN6 714-4HJ.0-Z K96[1)]	19900	1500	1500	2560	2240	530	220	280	710	2510	3500
1RN6 716-4HJ.0-Z K96[1)]	20900	1500	1500	2560	2240	530	220	280	710	2510	3500

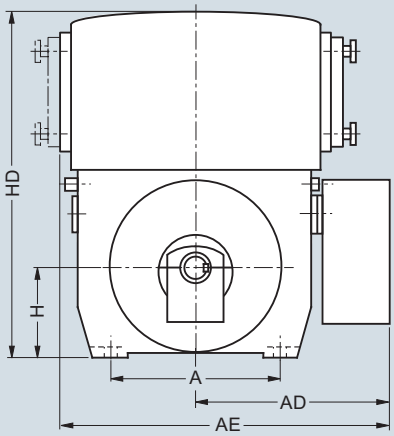
Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
9 ... 11 kV, NEMA version, IM B3 type of construction, sleeve bearings, X ventilation – 1RN6 series											
2-pole											
1RN6 710-2HJ.0	15800	1500	1500	2560	2000	600	180	240	710	2510	3370
1RN6 712-2HJ.0	16600	1500	1500	2560	2000	600	180	240	710	2510	3370
1RN6 714-2HJ.0	17800	1500	1500	2560	2240	600	180	240	710	2510	3610
1RN6 716-2HJ.0	18800	1500	1500	2560	2240	600	180	240	710	2510	3610
4-pole											
1RN6 710-4HJ.0-Z K96[1)]	17400	1500	1500	2560	2000	530	220	280	710	2510	3260
1RN6 712-4HJ.0-Z K96[1)]	18200	1500	1500	2560	2000	530	220	280	710	2510	3260
1RN6 714-4HJ.0-Z K96[1)]	19700	1500	1500	2560	2240	530	220	280	710	2510	3500
1RN6 716-4HJ.0-Z K96[1)]	20600	1500	1500	2560	2240	530	220	280	710	2510	3500

[1)] For the 60 Hz version, sleeve bearings are standard, "-Z **K96**" not necessary.

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Dimension drawings





Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, NEMA version, IM B3 type of construction, sleeve bearings, Z ventilation – 1RN6 series											
6-pole											
1RN6 710-6HJ.0-Z K96	17700	1500	1500	2560	2000	670	240	330	710	2600	3600
1RN6 712-6HJ.0-Z K96	18400	1500	1500	2560	2000	670	240	330	710	2600	3600
1RN6 714-6HJ.0-Z K96	20200	1500	1500	2560	2240	670	240	330	710	2600	3840
1RN6 716-6HJ.0-Z K96	21300	1500	1500	2560	2240	670	240	330	710	2600	3840
8-pole											
1RN6 710-8HJ.0-Z K96	17500	1500	1500	2560	2000	670	240	330	710	2600	3600
1RN6 712-8HJ.0-Z K96	18300	1500	1500	2560	2000	670	240	330	710	2600	3600
1RN6 714-8HJ.0-Z K96	20000	1500	1500	2560	2240	670	240	330	710	2600	3840
1RN6 716-8HJ.0-Z K96	21100	1500	1500	2560	2240	670	240	330	710	2600	3840
10-pole											
1RN6 710-3HJ.0-Z K96	17300	1500	1500	2560	2000	670	240	330	710	2600	3600
1RN6 712-3HJ.0-Z K96	18200	1500	1500	2560	2000	670	240	330	710	2600	3600
1RN6 714-3HJ.0-Z K96	19800	1500	1500	2560	2240	670	240	330	710	2600	3840
1RN6 716-3HJ.0-Z K96	21000	1500	1500	2560	2240	670	240	330	710	2600	3840

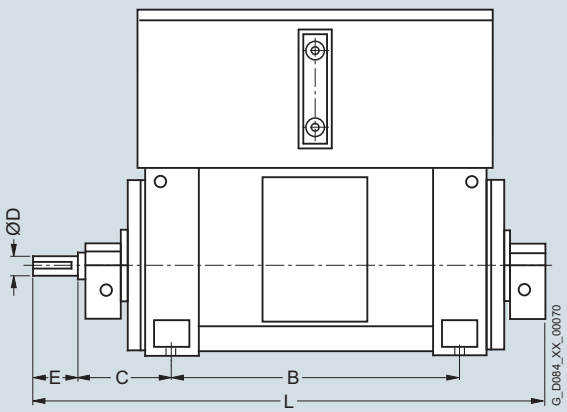
Note:

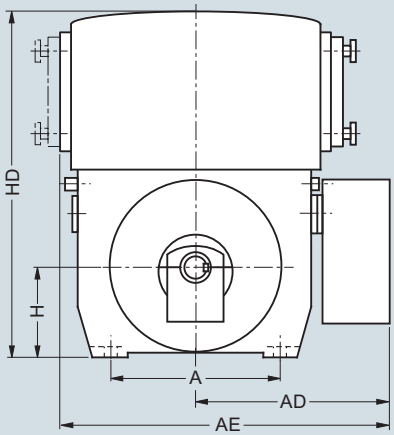
Higher pole numbers are available on request.

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Dimension drawings





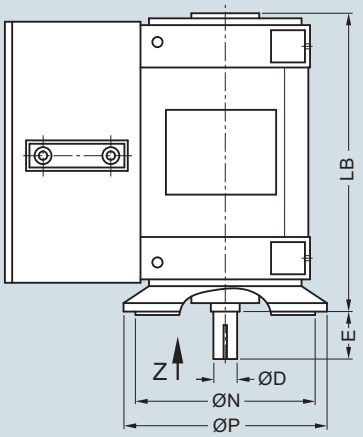
Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
9 ... 11 kV, NEMA version, IM B3 type of construction, sleeve bearings, Z ventilation – 1RN6 series											
6-pole											
1RN6 710-6HJ.0-Z K96	17500	1500	1500	2560	2000	670	240	330	710	2600	3600
1RN6 712-6HJ.0-Z K96	18300	1500	1500	2560	2000	670	240	330	710	2600	3600
1RN6 714-6HJ.0-Z K96	20000	1500	1500	2560	2240	670	240	330	710	2600	3840
1RN6 716-6HJ.0-Z K96	21100	1500	1500	2560	2240	670	240	330	710	2600	3840
8-pole											
1RN6 710-8HJ.0-Z K96	17400	1500	1500	2560	2000	670	240	330	710	2600	3600
1RN6 712-8HJ.0-Z K96	18200	1500	1500	2560	2000	670	240	330	710	2600	3600
1RN6 714-8HJ.0-Z K96	19800	1500	1500	2560	2240	670	240	330	710	2600	3840
1RN6 716-8HJ.0-Z K96	20900	1500	1500	2560	2240	670	240	330	710	2600	3840
10-pole											
1RN6 710-3HJ.0-Z K96	17300	1500	1500	2560	2000	670	240	330	710	2600	3600
1RN6 712-3HJ.0-Z K96	18100	1500	1500	2560	2000	670	240	330	710	2600	3600
1RN6 714-3HJ.0-Z K96	19700	1500	1500	2560	2240	670	240	330	710	2600	3840
1RN6 716-3HJ.0-Z K96	20800	1500	1500	2560	2240	670	240	330	710	2600	3840

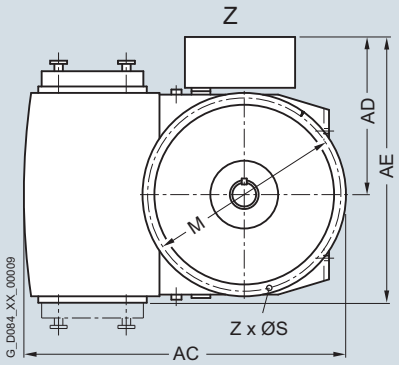
Note:

Higher pole numbers are available on request.

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Dimension drawings





Motor type	Weight	Dimensions										
		AC	AD	AE	D	E	LB	P	N	M	S	Z
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Quantity
Up to 6.6 kV, NEMA version, IM V1 type of construction, anti-friction bearings – 1RN6 series												
6-pole												
1RN6 710-6HJ.8	17800	2890	1500	2560	240	330	2870	2000	1800	1900	33	24
1RN6 712-6HJ.8	18700	2890	1500	2560	240	330	2870	2000	1800	1900	33	24
1RN6 714-6HJ.8	20400	2890	1500	2560	240	330	3110	2000	1800	1900	33	24
1RN6 716-6HJ.8	21400	2890	1500	2560	240	330	3110	2000	1800	1900	33	24
8-pole												
1RN6 710-8HJ.8	17700	2890	1500	2560	240	330	2870	2000	1800	1900	33	24
1RN6 712-8HJ.8	18500	2890	1500	2560	240	330	2870	2000	1800	1900	33	24
1RN6 714-8HJ.8	20100	2890	1500	2560	240	330	3110	2000	1800	1900	33	24
1RN6 716-8HJ.8	21200	2890	1500	2560	240	330	3110	2000	1800	1900	33	24
10-pole												
1RN6 710-3HJ.8	17500	2890	1500	2560	240	330	2870	2000	1800	1900	33	24
1RN6 712-3HJ.8	18300	2890	1500	2560	240	330	2870	2000	1800	1900	33	24
1RN6 714-3HJ.8	20000	2890	1500	2560	240	330	3110	2000	1800	1900	33	24
1RN6 716-3HJ.8	21100	2890	1500	2560	240	330	3110	2000	1800	1900	33	24

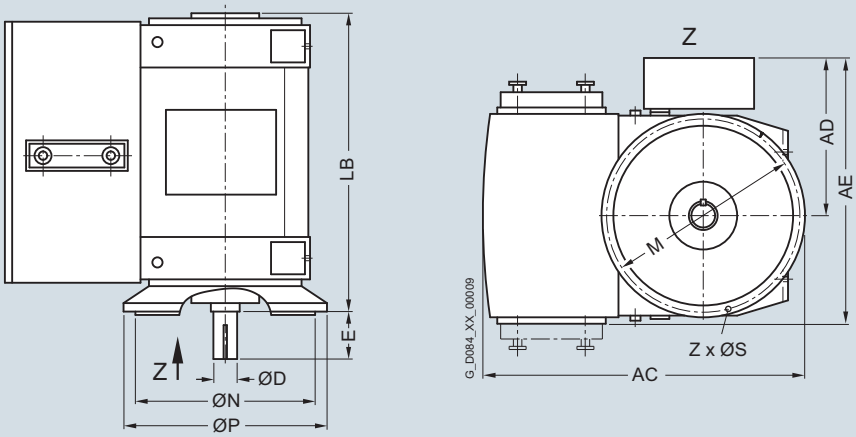
Note:

Higher pole numbers are available on request.

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2

Dimension drawings



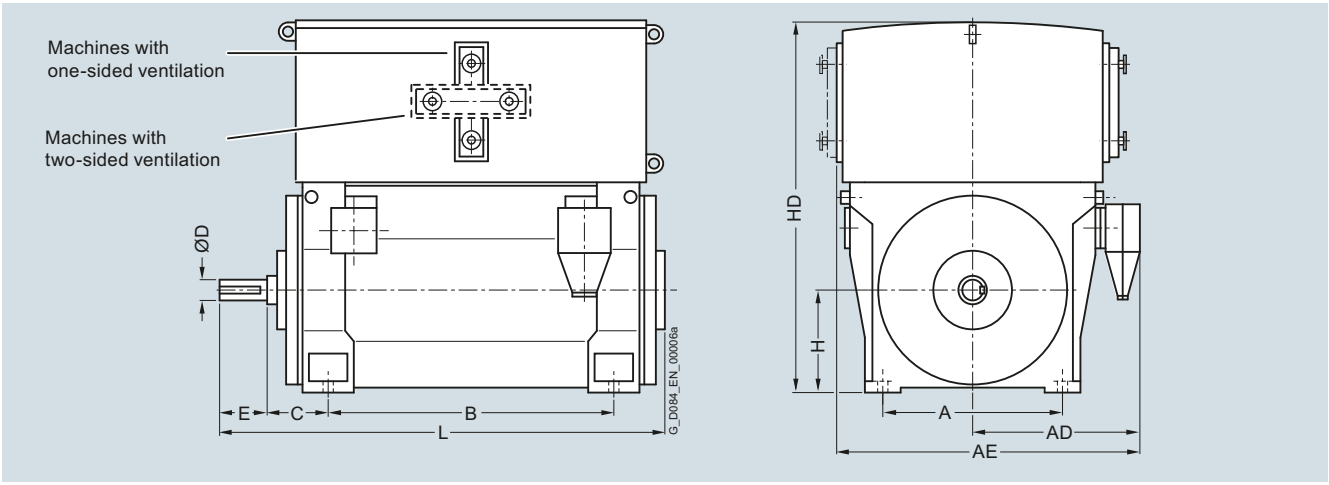
Motor type	Weight	Dimensions										
		AC	AD	AE	D	E	LB	P	N	M	S	Z
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Quantity
9 ... 11 kV, NEMA version, IM V1 type of construction, anti-friction bearings – 1RN6 series												
6-pole												
1RN6 710-6HJ.8	17800	2890	1500	2560	240	330	2870	2000	1800	1900	33	24
1RN6 712-6HJ.8	18700	2890	1500	2560	240	330	2870	2000	1800	1900	33	24
1RN6 714-6HJ.8	20400	2890	1500	2560	240	330	3110	2000	1800	1900	33	24
1RN6 716-6HJ.8	21400	2890	1500	2560	240	330	3110	2000	1800	1900	33	24
8-pole												
1RN6 710-8HJ.8	17700	2890	1500	2560	240	330	2870	2000	1800	1900	33	24
1RN6 712-8HJ.8	18400	2890	1500	2560	240	330	2870	2000	1800	1900	33	24
1RN6 714-8HJ.8	20100	2890	1500	2560	240	330	3110	2000	1800	1900	33	24
1RN6 716-8HJ.8	21200	2890	1500	2560	240	330	3110	2000	1800	1900	33	24
10-pole												
1RN6 710-3HJ.8	17500	2890	1500	2560	240	330	2870	2000	1800	1900	33	24
1RN6 712-3HJ.8	18300	2890	1500	2560	240	330	2870	2000	1800	1900	33	24
1RN6 714-3HJ.8	20000	2890	1500	2560	240	330	3110	2000	1800	1900	33	24
1RN6 716-3HJ.8	21100	2890	1500	2560	240	330	3110	2000	1800	1900	33	24

Note:

Higher pole numbers are available on request.

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Dimension drawings



Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, IM B3 type of construction, anti-friction bearings – 1RN7 series[1] – IC81W											
4-pole											
1RN7 710-4	15700	1500	1800	2900	2000	375	220	350	710	2570	3070
1RN7 712-4	16300	1500	1800	2900	2000	375	220	350	710	2570	3070
1RN7 714-4	17700	1500	1800	2900	2240	375	220	350	710	2570	3310
1RN7 716-4	18900	1500	1800	2900	2240	375	220	350	710	2570	3310
6-pole											
1RN7 710-6	16000	1500	1800	2900	2000	375	220	350	710	2570	3070
1RN7 712-6	17000	1500	1800	2900	2000	375	220	350	710	2570	3070
1RN7 714-6	18500	1500	1800	2900	2240	375	220	350	710	2570	3310
1RN7 716-6	19600	1500	1800	2900	2240	375	220	350	710	2570	3310
8-pole											
1RN7 710-8	15600	1500	1800	2900	2000	375	220	350	710	2570	3070
1RN7 712-8	16500	1500	1800	2900	2000	375	220	350	710	2570	3070
1RN7 714-8	18000	1500	1800	2900	2240	375	220	350	710	2570	3310
1RN7 716-8	19000	1500	1800	2900	2240	375	220	350	710	2570	3310
10-pole											
1RN7 710-3	15600	1500	1800	2900	2000	375	220	350	710	2570	3070
1RN7 712-3	16500	1500	1800	2900	2000	375	220	350	710	2570	3070
1RN7 714-3	18000	1500	1800	2900	2240	375	220	350	710	2570	3310
1RN7 716-3	19000	1500	1800	2900	2240	375	220	350	710	2570	3310

Note:

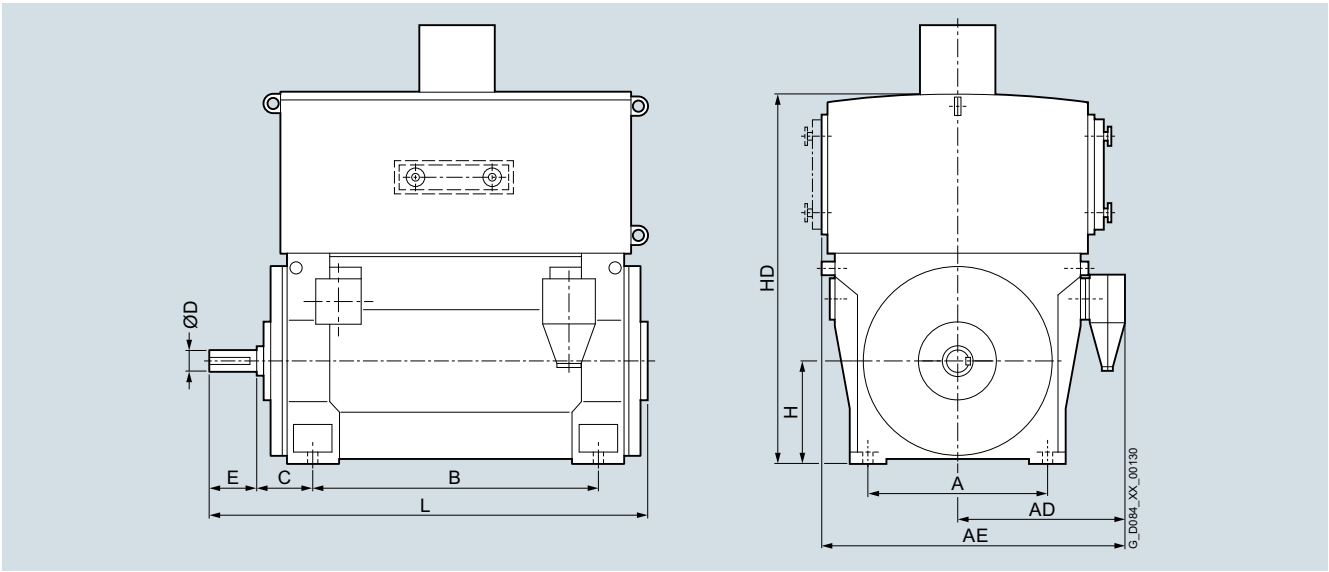
Higher pole numbers are available on request.

[1] The dimensions are also valid for the 1SN7 and 1SL7 series.

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2

Dimension drawings



Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD[1]	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, IM B3 type of construction, anti-friction bearings – 1RN7 series[2] – IC86W											
4-pole											
1RN7 710-4	15400	1500	1800	2900	2000	375	220	350	710	2900	3070
1RN7 712-4	16000	1500	1800	2900	2000	375	220	350	710	2900	3070
1RN7 714-4	17400	1500	1800	2900	2240	375	220	350	710	2900	3310
1RN7 716-4	18600	1500	1800	2900	2240	375	220	350	710	2900	3310
6-pole											
1RN7 710-6	15700	1500	1800	2900	2000	375	220	350	710	2900	3070
1RN7 712-6	16800	1500	1800	2900	2000	375	220	350	710	2900	3070
1RN7 714-6	18300	1500	1800	2900	2240	375	220	350	710	2900	3310
1RN7 716-6	19400	1500	1800	2900	2240	375	220	350	710	2900	3310
8-pole											
1RN7 710-8	15200	1500	1800	2900	2000	375	220	350	710	2900	3070
1RN7 712-8	16100	1500	1800	2900	2000	375	220	350	710	2900	3070
1RN7 714-8	17600	1500	1800	2900	2240	375	220	350	710	2900	3310
1RN7 716-8	18600	1500	1800	2900	2240	375	220	350	710	2900	3310
10-pole											
1RN7 710-3	15200	1500	1800	2900	2000	375	220	350	710	2900	3070
1RN7 712-3	16100	1500	1800	2900	2000	375	220	350	710	2900	3070
1RN7 714-3	17600	1500	1800	2900	2240	375	220	350	710	2900	3310
1RN7 716-3	18600	1500	1800	2900	2240	375	220	350	710	2900	3310

Note:

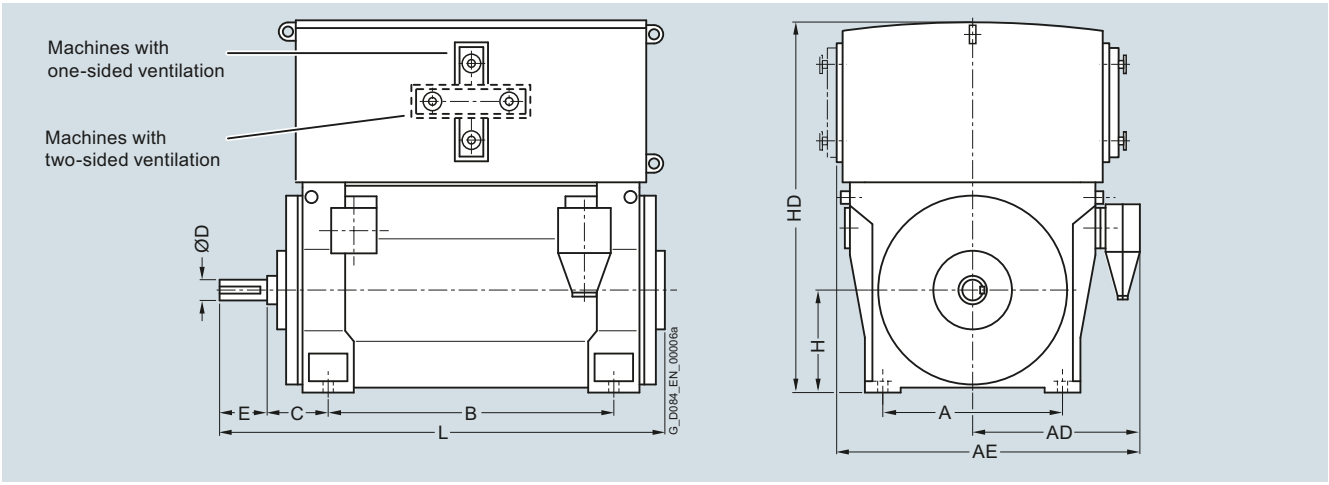
Higher pole numbers are available on request.

[1] Dimension HD without external blower
(2 ... 6-pole = 600mm / ≥ 8-pole = 500 mm)

[2] The dimensions are also valid for the 1SN7 and 1SL7 series.

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Dimension drawings



Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
9 ... 11 kV, IM B3 type of construction, anti-friction bearings – 1RN7 series[1] – IC81W											
4-pole											
1RN7 710-4	16200	1500	1800	2900	2000	375	220	350	710	2570	3070
1RN7 712-4	16900	1500	1800	2900	2000	375	220	350	710	2570	3070
1RN7 714-4	18200	1500	1800	2900	2240	375	220	350	710	2570	3310
1RN7 716-4	19400	1500	1800	2900	2240	375	220	350	710	2570	3310
6-pole											
1RN7 710-6	16600	1500	1800	2900	2000	375	220	350	710	2570	3070
1RN7 712-6	17600	1500	1800	2900	2000	375	220	350	710	2570	3070
1RN7 714-6	19100	1500	1800	2900	2240	375	220	350	710	2570	3310
1RN7 716-6	20200	1500	1800	2900	2240	375	220	350	710	2570	3310
8-pole											
1RN7 710-8	16200	1500	1800	2900	2000	375	220	350	710	2570	3070
1RN7 712-8	17100	1500	1800	2900	2000	375	220	350	710	2570	3070
1RN7 714-8	18600	1500	1800	2900	2240	375	220	350	710	2570	3310
1RN7 716-8	19600	1500	1800	2900	2240	375	220	350	710	2570	3310
10-pole											
1RN7 710-3	16300	1500	1800	2900	2000	375	220	350	710	2570	3070
1RN7 712-3	17200	1500	1800	2900	2000	375	220	350	710	2570	3070
1RN7 714-3	18700	1500	1800	2900	2240	375	220	350	710	2570	3310
1RN7 716-3	19600	1500	1800	2900	2240	375	220	350	710	2570	3310

Note:

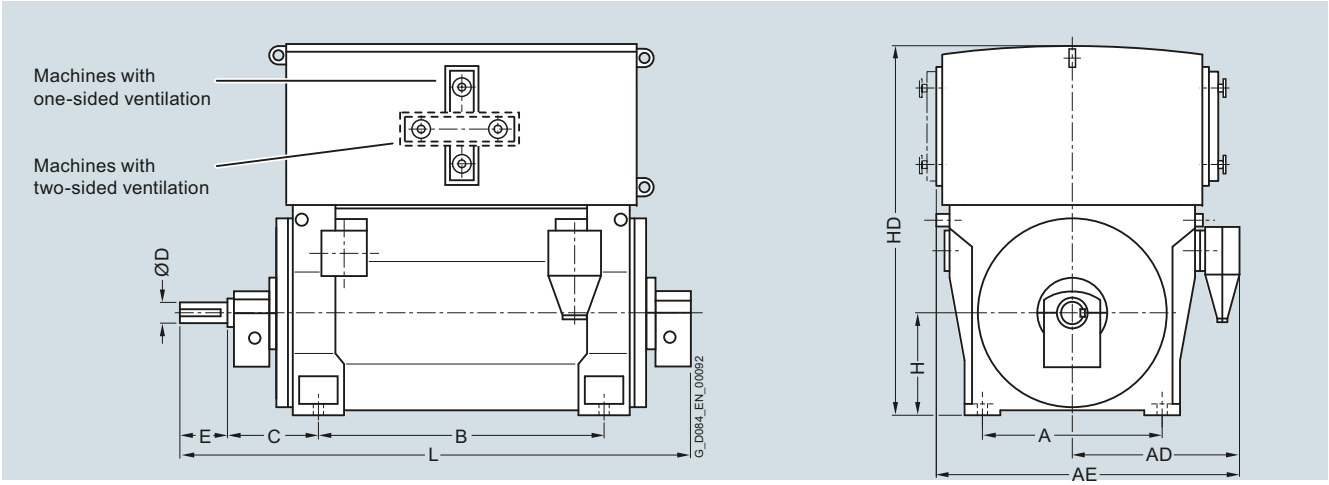
Higher pole numbers are available on request.

[1] The dimensions are also valid for the 1SN7 and 1SL7 series.

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2

Dimension drawings



Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, IM B3 type of construction, sleeve bearings – 1RN7 series[1] – IC81W											
2-pole											
1RN7 710-2	14900	1500	1800	2900	2000	560	200	280	710	2570	3320
1RN7 712-2	15500	1500	1800	2900	2000	560	200	280	710	2570	3320
1RN7 714-2	16700	1500	1800	2900	2240	560	200	280	710	2570	3560
1RN7 716-2	17500	1500	1800	2900	2240	560	200	280	710	2570	3560
4-pole											
1RN7 710-4	16100	1500	1800	2900	2000	710	220	350	710	2570	3650
1RN7 712-4	16700	1500	1800	2900	2000	710	220	350	710	2570	3650
1RN7 714-4	18000	1500	1800	2900	2240	710	220	350	710	2570	3890
1RN7 716-4	19300	1500	1800	2900	2240	710	220	350	710	2570	3890
6-pole											
1RN7 710-6	16100	1500	1800	2900	2000	670	220	350	710	2570	3570
1RN7 712-6	17100	1500	1800	2900	2000	670	220	350	710	2570	3570
1RN7 714-6	18600	1500	1800	2900	2240	670	220	350	710	2570	3810
1RN7 716-6	19700	1500	1800	2900	2240	670	220	350	710	2570	3810
8-pole											
1RN7 710-8	15700	1500	1800	2900	2000	670	220	350	710	2570	3570
1RN7 712-8	16600	1500	1800	2900	2000	670	220	350	710	2570	3570
1RN7 714-8	18000	1500	1800	2900	2240	670	220	350	710	2570	3810
1RN7 716-8	19000	1500	1800	2900	2240	670	220	350	710	2570	3810
10-pole											
1RN7 710-3	15600	1500	1800	2900	2000	670	220	350	710	2570	3570
1RN7 712-3	16600	1500	1800	2900	2000	670	220	350	710	2570	3570
1RN7 714-3	18100	1500	1800	2900	2240	670	220	350	710	2570	3810
1RN7 716-3	19000	1500	1800	2900	2240	670	220	350	710	2570	3810

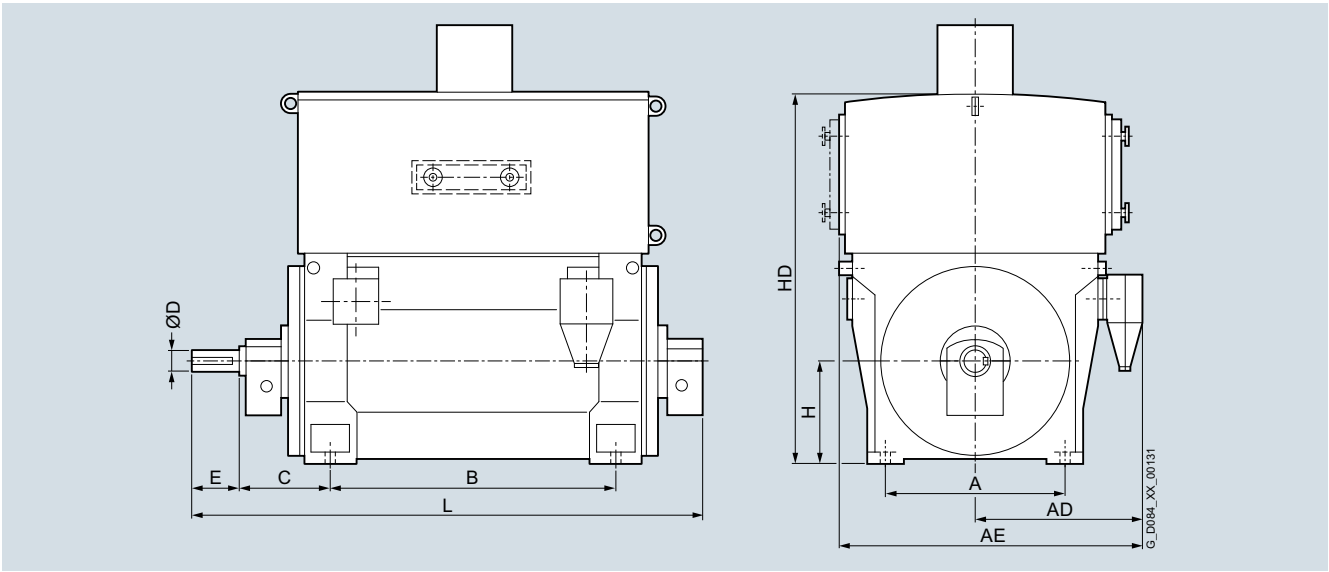
Note:

Higher pole numbers are available on request.

[1] The dimensions are also valid for the 1SN7 and 1SL7 series.

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Dimension drawings



Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD[1]	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, IM B3 type of construction, sleeve bearings – 1RN7 series[2] – IC86W											
2-pole											
1RN7 710-2	14600	1500	1800	2900	2000	560	200	280	710	2900	3320
1RN7 712-2	15200	1500	1800	2900	2000	560	200	280	710	2900	3320
1RN7 714-2	16400	1500	1800	2900	2240	560	200	280	710	2900	3560
1RN7 716-2	17200	1500	1800	2900	2240	560	200	280	710	2900	3560
4-pole											
1RN7 710-4	15800	1500	1800	2900	2000	710	220	350	710	2900	3650
1RN7 712-4	16400	1500	1800	2900	2000	710	220	350	710	2900	3650
1RN7 714-4	17700	1500	1800	2900	2240	710	220	350	710	2900	3890
1RN7 716-4	19000	1500	1800	2900	2240	710	220	350	710	2900	3890
6-pole											
1RN7 710-6	15800	1500	1800	2900	2000	670	220	350	710	2900	3570
1RN7 712-6	16800	1500	1800	2900	2000	670	220	350	710	2900	3570
1RN7 714-6	18300	1500	1800	2900	2240	670	220	350	710	2900	3810
1RN7 716-6	19400	1500	1800	2900	2240	670	220	350	710	2900	3810
8-pole											
1RN7 710-8	15200	1500	1800	2900	2000	670	220	350	710	2900	3570
1RN7 712-8	16200	1500	1800	2900	2000	670	220	350	710	2900	3570
1RN7 714-8	17600	1500	1800	2900	2240	670	220	350	710	2900	3810
1RN7 716-8	18600	1500	1800	2900	2240	670	220	350	710	2900	3810
10-pole											
1RN7 710-3	15200	1500	1800	2900	2000	670	220	350	710	2900	3570
1RN7 712-3	16200	1500	1800	2900	2000	670	220	350	710	2900	3570
1RN7 714-3	17700	1500	1800	2900	2240	670	220	350	710	2900	3810
1RN7 716-3	18600	1500	1800	2900	2240	670	220	350	710	2900	3810

Note:

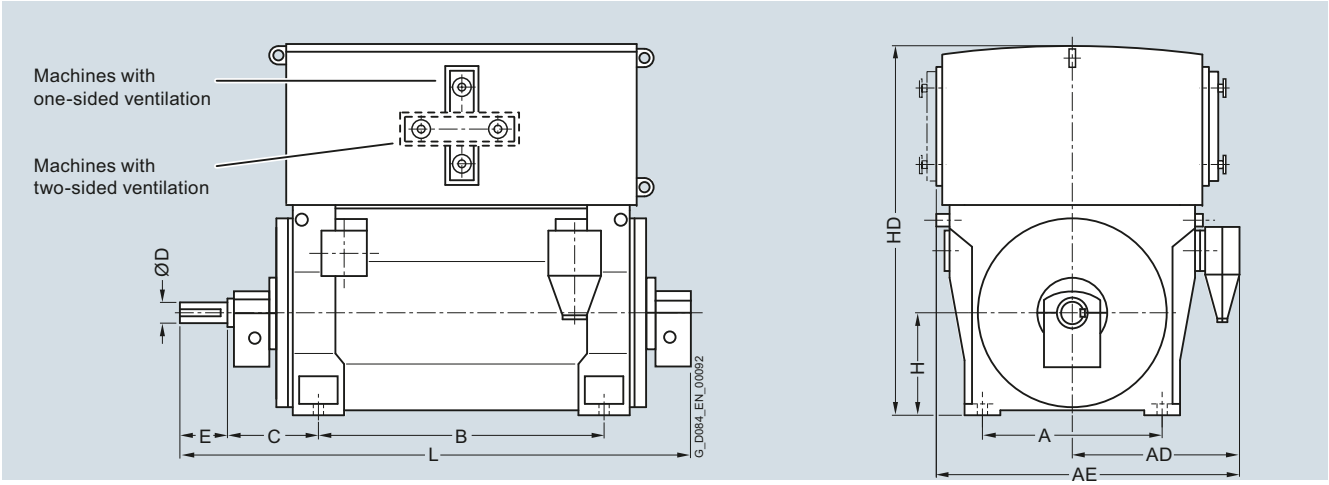
Higher pole numbers are available on request.

[1] Dimension HD without external blower
(2 ... 6-pole = 600mm / ≥ 8-pole = 500 mm)

[2] The dimensions are also valid for the 1SN7 and 1SL7 series.

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Dimension drawings



Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
9 ... 11 kV, IM B3 type of construction, sleeve bearings – 1RN7 series[1] – IC81W											
2-pole											
1RN7 710-2	15300	1500	1800	2900	2000	560	200	280	710	2570	3320
1RN7 712-2	16000	1500	1800	2900	2000	560	200	280	710	2570	3320
1RN7 714-2	17200	1500	1800	2900	2240	560	200	280	710	2570	3560
1RN7 716-2	17900	1500	1800	2900	2240	560	200	280	710	2570	3560
4-pole											
1RN7 710-4	16600	1500	1800	2900	2000	710	220	350	710	2570	3650
1RN7 712-4	17300	1500	1800	2900	2000	710	220	350	710	2570	3650
1RN7 714-4	18600	1500	1800	2900	2240	710	220	350	710	2570	3890
1RN7 716-4	19800	1500	1800	2900	2240	710	220	350	710	2570	3890
6-pole											
1RN7 710-6	16500	1500	1800	2900	2000	670	220	350	710	2570	3570
1RN7 712-6	17600	1500	1800	2900	2000	670	220	350	710	2570	3570
1RN7 714-6	19100	1500	1800	2900	2240	670	220	350	710	2570	3810
1RN7 716-6	20200	1500	1800	2900	2240	670	220	350	710	2570	3810
8-pole											
1RN7 710-8	16200	1500	1800	2900	2000	670	220	350	710	2570	3570
1RN7 712-8	17100	1500	1800	2900	2000	670	220	350	710	2570	3570
1RN7 714-8	18600	1500	1800	2900	2240	670	220	350	710	2570	3810
1RN7 716-8	19600	1500	1800	2900	2240	670	220	350	710	2570	3810
10-pole											
1RN7 710-3	16300	1500	1800	2900	2000	670	220	350	710	2570	3570
1RN7 712-3	17300	1500	1800	2900	2000	670	220	350	710	2570	3570
1RN7 714-3	18700	1500	1800	2900	2240	670	220	350	710	2570	3810
1RN7 716-3	19600	1500	1800	2900	2240	670	220	350	710	2570	3810

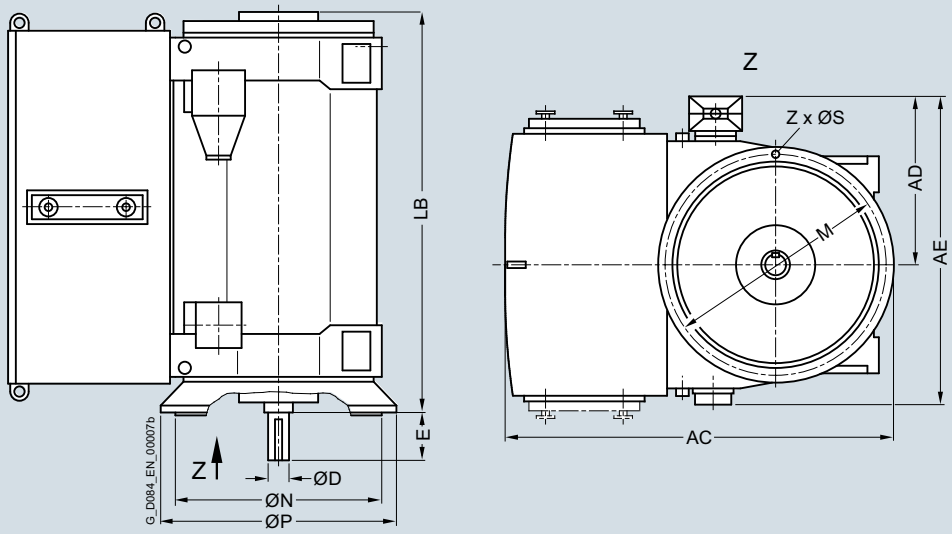
Note:

Higher pole numbers are available on request.

[1] The dimensions are also valid for the 1SN7 and 1SL7 series.

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Dimension drawings



Motor type	Weight	Dimensions										
		AC	AD	AE	D	E	LB	P	N	M	S	Z
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Quantity
Up to 6.6 kV, IM V1 type of construction, anti-friction bearings, Z ventilation – 1RN7 series[1] – IC81W												
6-pole												
1RN7 710-6	16700	2900	1800	2900	220	350	3140	2000	1800	1900	35	24
1RN7 712-6	17700	2900	1800	2900	220	350	3140	2000	1800	1900	35	24
1RN7 714-6	19200	2900	1800	2900	220	350	3380	2000	1800	1900	35	24
1RN7 716-6	20300	2900	1800	2900	220	350	3380	2000	1800	1900	35	24
8-pole												
1RN7 710-8	16600	2900	1800	2900	220	350	3140	2000	1800	1900	35	24
1RN7 712-8	17600	2900	1800	2900	220	350	3140	2000	1800	1900	35	24
1RN7 714-8	19100	2900	1800	2900	220	350	3380	2000	1800	1900	35	24
1RN7 716-8	20100	2900	1800	2900	220	350	3380	2000	1800	1900	35	24
10-pole												
1RN7 710-3	16400	2900	1800	2900	220	350	3140	2000	1800	1900	35	24
1RN7 712-3	17300	2900	1800	2900	220	350	3140	2000	1800	1900	35	24
1RN7 714-3	18900	2900	1800	2900	220	350	3380	2000	1800	1900	35	24
1RN7 716-3	19800	2900	1800	2900	220	350	3380	2000	1800	1900	35	24

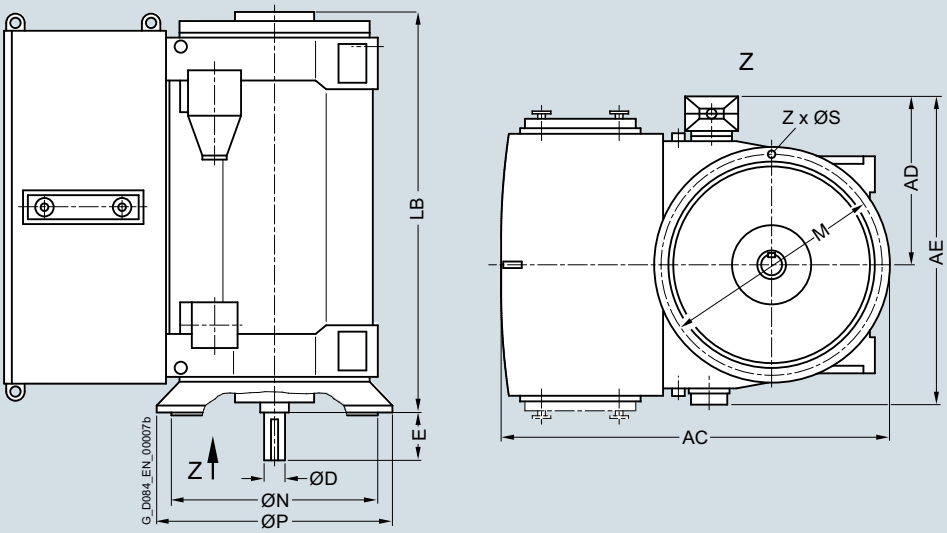
Note:

Higher pole numbers are available on request.

[1] The dimensions are also valid for the 1SN7 and 1SL7 series.

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Dimension drawings



Motor type	Weight	Dimensions										
		AC	AD	AE	D	E	LB	P	N	M	S	Z
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Quantity
9 ... 11 kV, IM V1 type of construction, anti-friction bearings, Z ventilation – 1RN7 series[1] – IC81W												
6-pole												
1RN7 710-6	17000	2900	1800	2900	220	350	3140	2000	1800	1900	35	24
1RN7 712-6	18100	2900	1800	2900	220	350	3140	2000	1800	1900	35	24
1RN7 714-6	19600	2900	1800	2900	220	350	3380	2000	1800	1900	35	24
1RN7 716-6	20700	2900	1800	2900	220	350	3380	2000	1800	1900	35	24
8-pole												
1RN7 710-8	16200	2900	1800	2900	220	350	3140	2000	1800	1900	35	24
1RN7 712-8	17200	2900	1800	2900	220	350	3140	2000	1800	1900	35	24
1RN7 714-8	18600	2900	1800	2900	220	350	3380	2000	1800	1900	35	24
1RN7 716-8	19600	2900	1800	2900	220	350	3380	2000	1800	1900	35	24
10-pole												
1RN7 710-3	16400	2900	1800	2900	220	350	3140	2000	1800	1900	35	24
1RN7 712-3	17400	2900	1800	2900	220	350	3140	2000	1800	1900	35	24
1RN7 714-3	18800	2900	1800	2900	220	350	3380	2000	1800	1900	35	24
1RN7 716-3	19700	2900	1800	2900	220	350	3380	2000	1800	1900	35	24

Note:

Higher pole numbers are available on request.

[1] The dimensions are also valid for the 1SN7 and 1SL7 series.

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Overview

Using the following options, SIMOTICS HV/TN can be adapted to order-specific requirements. The Article No. is supplemented with a "-Z" and with either one or several order codes.

Other options can be addressed on request with the LOHER VARIO (rib-cooled) or LOHER VARIO PLUS (modular design) motor series.

Example:

1LA4354-4AN60-Z H05 + K16 + L20

As standard, 6x Pt100 slot resistance thermometers without surge arrester for 3-wire or 4-wire circuit from the terminal box are integrated in the stator winding.
The motors are prepared as standard with SPM nipples to monitor the anti-friction bearings.

Order code	Option description	Remark
	Paint finish	
K26	Special paint finish in RAL 7030	
Y53	Standard paint finish in a color different from RAL 7030	Plain text required
Y54	Special paint finish in a color different from RAL 7030	Plain text required
	Documentation	
B00	No motor manual	
B21	Documentation on CD-ROM instead of paper printout	
B22	Documentation as e-mail instead of paper	
B23	Motor manual printed on paper, 3x	
B27	Run out protocol	
B28	Protocol air gap calculation	
B34	Document standard inspection and test plan	
B35	Document balancing report	
B36	Document test and inspection description	
B37	Document load characteristics	
B38	Document recommended spare parts	
B41	Document instrumentation list	
B43	Document production schedule: Generated once	
B44	Document production schedule: Updated biweekly	
B45	Document production schedule: Updated monthly	
B48	Document order-specific inspection and test plan	
	Document language	
D00	Documentation in German	
D54	Documentation in Czech	
D55	Documentation in Polish	
D56	Documentation in Russian	
D72	Documentation in Italian	
D73	Documentation in Finnish	
D74	Documentation in Dutch	
D75	Documentation in Turkish	
D76	Documentation in English	Standard
D77	Documentation in French	
D78	Documentation in Spanish	
D79	Documentation in Portuguese	
D80	Documentation in Bulgarian	
D81	Documentation in Norwegian	
D82	Documentation in Hungarian	
D83	Documentation in Swedish	
D84	Documentation in Chinese	

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Overview (continued)

Order code	Option description	Remark
	Speed monitoring	
A03	Speed monitoring using an inductive proximity switch, Pepperl + Fuchs, incl. terminal box, without evaluation unit	
H70	Rotary pulse encoder LL 861 900 220 (Leine+Linde)	
H73	Rotary pulse encoder HOG 10 D1024 I (16 mm)	
H88	Rotary pulse encoder HOG 11 DN 1024 I (16 mm) with special anti-corrosion protection	For marine applications
H89	Rotary pulse encoder HOG 11 DN 1024 I (16 mm) with integrated shaft grounding and special anti-corrosion protection	For marine applications
	Direction of rotation	
K97	Rotation clockwise (CW)	
K98	Rotation counter-clockwise (CCW)	Standard
	Noise reduction	
L20	Silencer for air inlet	
L21	Noise reduction: Silencer for air outlet	Only for H-compact PLUS and SIMOTICS HV M
L22	Noise reduction: Lining of interior space	Only for H-compact PLUS and SIMOTICS HV M
L23	External metal fan, unidirectional	Only for H-compact
L25	Rustless grid at inlet silencer	Only for H-compact
	Terminal box mounting position	
K09	Terminal box on right-hand side, view from DE	Standard
K10	Terminal box on left-hand side, view from DE	
K83	Terminal box rotated through 90°, cable entry from DE	
K84	Terminal box rotated through 90°, cable entry from NDE	
K85	Terminal box rotated through 180°	
N81	Bracket rotated through 180°, terminal box rotated through 90°, cable entry from NDE	Only for H-compact
N82	Bracket rotated through 180°, terminal box rotated through 90°, cable entry from DE	Only for H-compact
N83	Bracket rotated through 180°, terminal box rotated through 180°, cable entry from above	
N84	Bracket rotated through 180°, rotated through 90°, cable entry from below	
N85	Terminal box on NDE	Only for H-compact
	Terminal box, main and auxiliary terminal box	
L54	Terminal box, 6 terminals with 2 cable entries for connection to power supply, rated current > 315 A	
L55	Star-point terminal box, up to 6.6 kV, 3 terminals	
L56	Star-point terminal box, up to 11 kV, 3 terminals	
L57	Star-point terminal box, up to 6.6 kV, 6 terminals	
L58	Star-point terminal box, for installing current transformer (without current transformer)	
L59	Terminal box with sealing chamber for 1 cable entry	
M50	Auxiliary terminal box in cast iron	
M51	Auxiliary terminal box material: Stainless steel	
M52	Separate auxiliary terminal box for anti-condensation heater	Standard for H-compact PLUS and SIMOTICS HV M
	Terminal box – accessories/equipping	
K59	Cable plug connection, rated voltage 2 to 6.6 kV	
L79	Gland plate for 3 winding ends to connect to the line supply via separately mounted terminal box, 3 m free cable length from the frame	
L80	Gland plate for 6 winding ends to connect to the line supply via separately mounted terminal box, 3 m free cable length from the frame	
L83	Cable plug connection, rated voltage 9 to 11 kV	

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Overview (continued)

Order code	Option description	Remark
	Cooling air monitoring	
A44	1 resistance thermometer Pt100 for 2-, 3- or 4-wire connection from terminal box for cold air temperature	
A45	1 resistance thermometer Pt100 for 2-, 3- or 4-wire connection from terminal box for hot air temperature	
A46	1 double resistance thermometer Pt100 for 2-, 3- or 4-wire connection from terminal box, for cold air temperature	
A47	1 double resistance thermometer Pt100 for 2-, 3- or 4-wire connection from terminal box, for hot air temperature	
A86	1 dial-type thermometer with 2 NO-Contacts for cold air temperature incl. terminal box	
A87	1 dial-type thermometer with 2 NO-Contacts for hot air temperature incl. terminal box	
	Bearing version/instrumentation	
H09 + H11	DIN flange type for forced oil lubrication for oil inlet with flowmeter, manometer and throttle valve (incl. counter flange) + DIN flange type forced oil lubrication for oil outlet with sight glass (incl. counter flange)	
H10 + H12	ANSI flange type for forced oil lubrication for oil inlet with flowmeter, manometer and throttle valve (incl. counter flange) + ANSI flange type for forced oil lubrication for oil outlet with sight glass (incl. counter flange)	
H43	DIN flange type for forced oil lubrication for in- and outlet without instruments (with counter flanges)	
H44	ANSI flange type for forced oil lubrication for in- and outlet without instruments (with counter flanges)	
K20	Bearing design on DE for increased forces (reinforced)	H-compact SH 315 and SH 355 only
K96	Sleeve bearing instead of anti-friction bearing	
L18	DE insulation	
L27	Insulated bearing on NDE	Standard for H-compact PLUS and SIMOTICS HV M
L60	Forced-circulation oil lubrication (with oil cooling) instead of oil-ring lubrication	
L66	Air cooling, but prepared for future conversion to forced-circulation oil lubrication	
P44	Oil manifold; connections with counter flange; flange flush with the axial shaft face	
	Bearing monitoring – sleeve bearings	
A02	Shaft vibration monitoring for sleeve bearings, Bently Nevada system	
A39	Prepared for shaft vibration monitoring for sleeve bearings (without monitoring system)	
A41	2 resistance thermometers Pt100 for 2-, 3- or 4-wire connection from terminals for sleeve bearing	
A43	2 double resistance thermometers Pt100 for 2-, 3- or 4-wire connection from terminals for sleeve bearing	
A70	2 dial-type thermometers without contacts	
A71	2 dial-type thermometers with contacts	

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Overview (continued)

Order code	Option description	Remark
	Bearing monitoring – anti-friction bearings	
A40	2 resistance thermometers Pt100 for 2-, 3- or 4-wire connection from terminal box for anti-friction bearings	
A42	2 double resistance thermometers Pt100 for 2-, 3- or 4-wire connection from terminals for anti-friction bearings	
G50	Shock pulse measuring nipple (SPM) at DE and NDE	Standard
H05	Shock pulse measurement (SPM), fixed sensors and distributor box	
H07	Shock pulse measurement (SPM), complete alarm box	
	Mechanical versions	
K16	Second shaft extension up to 50 % rated torque	
L81	Vibration severity grade B according to IEC/ EN 60034-14	Not available for 2-pole motors with roller bearings.
Y55	Non-standard cylindrical shaft extension (an inquiry must be sent to the factory)	
Y85	Oil shrink fit for cylindrical, single-stage shaft extension instead of a key connection	
	Certified for pump drives	
E88	Construction supervision for motors for seawater desalination plants where Siemens AG commissions the acceptance authority	
E89	Construction supervision for motors for seawater desalination plants where a third party commissions the acceptance authority	
E90	Pump drive for seawater desalination plants certified according to Lloyds Register	
	Marine applications	Options and tests for marine and offshore applications: see Chapter 5.
	Others/additional options	
H08	Leakage water detection	
K52	Degree of protection IP56 non-heavy-sea	
L15	Supporting ring for coupling guard	
L17	Mounting a coupling provided (finish machined and balanced)	
L31	Motor mounting materials for mounting on a steel foundation: Bolts, shims and taper dowels	
L32	Motor mounting materials for mounting on a concrete foundation or concrete base: Threaded bolts, armature plates, sole plates, shims and taper dowels	
L33	Motor mounting materials to mount on a concrete foundation or concrete base: T-head bolts, foundation bolt sleeves, sole plates, shims and taper dowels	
L91	Higher number of starts, > 1000 ... 10000 starts per year, for Cu rotors	
L92	Higher number of starts, > 5000 ... 10000 starts per year, for Al rotors	
P45	External screws made of stainless steel	

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Overview (continued)

Order code	Option description	Remark
	Anti-condensation heating	
L08	Anti-condensation heater, rated voltage 400 V	
L09	Anti-condensation heater, rated voltage 500 V	
M12	Anti-condensation heater for 110 to 120 V	
M13	Anti-condensation heater for 220 to 240 V	Standard for H-compact PLUS and SIMOTICS HV M
Y83	Anti-condensation heater with other rated voltages, V = additional text required)	
	Ambient conditions	
D02	Operation at ambient temperatures up to –50 °C, transport up to –50 °C	
D03	Operation at ambient temperatures up to –40 °C, transport up to –40 °C	
D04	Operation at ambient temperatures up to –30 °C, transport up to –40 °C	
E81	Outdoor use with high salinity or offshore applications (corrosivity grade C5-M/ C5-I)	
E82	Outdoor use with moderate salinity (corrosivity grade C4)	
E83	Outdoor use with low salinity (corrosivity grade C3)	
M06	For use in sulfurous or hydrogenous atmosphere	
	Winding and motor protection	
A12	6 PTC thermistors without lightning arresters	
A65	6 embedded resistance thermometers Pt100 for 2-, 3- or 4-wire connection from terminal box without lightning arresters	Standard
A66	6 embedded resistance thermometers Pt100 for 2-, 3- or 4-wire connection from terminal box with lightning arresters	
	Tests with acceptance	
F01	All standard tests (routine test), with acceptance	
F15	Recording of no-load characteristic and determination of core and friction losses, with acceptance	
F17	Recording of short-circuit characteristic and determination of short-circuit losses, with acceptance	
F19	Recording of load characteristic, with acceptance	
F23	Dissipation factor test (tan delta) on 2 (test) coils, with acceptance	
F29	No-load noise measurement, without noise analysis, with acceptance	
F31	Cooling air flow and pressure drop measurement, with acceptance	
F35	Recording of current and torque characteristics during acceleration, with acceptance	
F37	Determination of moment of inertia by retardation method, with acceptance	
F39	Overspeed test, with acceptance	
F41	Recording of residual voltage curve, with acceptance	
F53	Locked-rotor torque and current measurement, with acceptance	
F55	Polarization index measurement, with acceptance	
F61	Impulse or AC voltage test on 2 (test) coils, with acceptance	In addition, specify order code F90
F63	Noise analysis, with acceptance	
F83	Type test for horizontal motors with temperature rise test, with acceptance	
F90	2 test coils	
F93	Type test for vertical motors with temperature rise test, with acceptance	

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Overview (continued)

Order code	Option description	Remark
	Tests without acceptance	
F14	Recording of no-load characteristic and determination of core and friction losses, without acceptance	
F16	Recording of short-circuit characteristic and determination of short-circuit losses, without acceptance	
F18	Recording of load characteristic, without acceptance	
F22	Dissipation factor test (tan delta) on 2 (test) coils, without acceptance	In addition, specify order code F90
F28	No-load noise measurement, without noise analysis, without acceptance	
F30	Cooling air flow and pressure drop measurement, without acceptance	
F34	Recording of current and torque characteristics during acceleration, without acceptance	
F36	Determination of moment of inertia by retardation method, without acceptance	
F38	Overspeed test, without acceptance	
F42	"Conformance Test (Wet Test)" to NEMA Standard, without acceptance	
F52	Locked-rotor torque and current measurement, without acceptance	
F54	Polarization index measurement, without acceptance	
F60	Impulse or AC voltage test on 2 (test) coils, without acceptance	In addition, specify order code F90
F62	Noise analysis, without acceptance	
F82	Type test for horizontal motors with temperature rise test, without acceptance	
F90	2 test coils	
F92	Type test for vertical motors with temperature rise test, without acceptance	
	Extension of liability for defects	**Article number for reorder**
Q80	Extension of liability for defects, by 12 months to a total of 24 months (2 years) from delivery	**9LD1720-0AA24**
Q81	Extension of liability for defects, by 18 months to a total of 30 months (2.5 years) from delivery	**9LD1720-0AA30**
Q82	Extension of liability for defects, by 24 months to a total of 36 months (3 years) from delivery	**9LD1720-0AA36**
Q83	Extension of liability for defects, by 30 months to a total of 42 months (3.5 years) from delivery	**9LD1720-0AA42**
Q84	Extension of liability for defects, by 36 months to a total of 48 months (4 years) from delivery	**9LD1720-0AA48**
Q85	Extension of liability for defects, by 48 months to a total of 60 months (5 years) from delivery	**9LD1720-0AA60**

Conditions for an extension of liability for defects

You will find the currently valid conditions for an extension of liability for defects under:

http://support.automation.siemens.com/WW/view/en/56715113

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3/2 **General**
3/2 Sinusoidal and non-sinusoidal converter output

3/3 **Converter with non-sinusoidal output**
3/3 Air-cooled motors H-compact 1LA4
Selection and ordering data
3/6 690 V, 50 Hz (square-law torque drive)
3/8 690 V, 50 Hz (constant-torque drive)
3/10 2.3 kV, 50 Hz (square-law torque drive)
3/12 3.4 to 4.16 kV, 50 Hz (square-law torque drive)
3/14 2.3 kV, 60 Hz (square-law torque drive)
3/16 3.4 to 4.16 kV, 60 Hz (square-law torque drive)
3/18 2.3 kV, 50 Hz (constant-torque drive)
3/20 3.4 to 4.16 kV, 50 Hz (constant-torque drive)
3/22 2.3 kV, 60 Hz (constant-torque drive)
3/24 3.4 to 4.16 kV, 60 Hz (constant-torque drive)
Dimension drawings
3/26 IM B3 type of construction, anti-friction bearings, sleeve bearings
3/29 IM V1 type of construction, anti-friction bearings
3/31 Air-cooled motors H-compact 1PQ4
Selection and ordering data
3/34 690 V, 50 Hz (constant-torque drive)
3/36 2.3 kV, 50 Hz (constant-torque drive)
3/38 3.4 to 4.16 kV, 50 Hz (constant-torque drive)
3/40 6 to 6.6 kV, 50 Hz (constant-torque drive)
3/42 2.3 kV, 60 Hz (constant-torque drive)
3/44 3.4 to 4.16 kV, 60 Hz (constant-torque drive)
Dimension drawings
3/46 IM B3 type of construction, anti-friction bearings, sleeve bearings
3/48 IM V1 type of construction, anti-friction bearings
3/49 Air-cooled motors H-compact PLUS 1RA4, 1RA6, 1RP6 and SIMOTICS HV M 1RA7
Selection and ordering data
3/50 690 V, 50 Hz (square-law torque drive)
3/54 3.4 to 4.16 kV, 50 Hz (square-law torque drive)
3/60 690 V, 60 Hz (square-law torque drive)
3/64 3.4 to 4.16 kV, 60 Hz (square-law torque drive)
Dimension drawings
3/70 IM B3 type of construction, anti-friction bearings, sleeve bearings (1RA4, 1RA6, 1RP6)
3/75 IM V1 type of construction, anti-friction bearings (1RA4, 1RA6, 1RP6)
3/78 IM B3 type of construction, anti-friction bearings, sleeve bearings (1RA7)
3/80 IM V1 type of construction, anti-friction bearings (1RA7)
3/81 Air-cooled motors H-compact PLUS 1RQ4, 1RQ6 and SIMOTICS HV M 1RQ7
Selection and ordering data
3/82 690 V, 50 Hz (square-law torque drive)
3/86 3.4 to 4.16 kV, 50 Hz (square-law torque drive)
3/92 690 V, 60 Hz (square-law torque drive)
3/96 3.4 to 4.16 kV, 60 Hz (square-law torque drive)
Dimension drawings
3/102 IM B3 type of construction, anti-friction bearings, sleeve bearings (1RQ4, 1RQ6)
3/109 IM V1 type of construction, anti-friction bearings (1RQ4, 1RQ6)
3/112 IM B3 type of construction, anti-friction bearings, sleeve bearings (1RQ7)
3/116 IM V1 type of construction, anti-friction bearings (1RQ7)
3/117 Water-cooled motors H-compact 1LH4
Selection and ordering data
3/118 690 V, 50 Hz
3/118 2.3 to 4.16 kV, 50 Hz
Dimension drawings
3/119 IM B3 type of construction, anti-friction bearings
3/120 IM V1 type of construction, anti-friction bearings
3/121 Water-cooled motors H-compact PLUS 1RN4, 1RN6 and SIMOTICS HV M 1RN7
Selection and ordering data
3/122 690 V, 50 Hz (square-law torque drive)
3/126 3.4 to 4.16 kV, 50 Hz (square-law torque drive)
3/132 690 V, 60 Hz (square-law torque drive)
3/136 3.4 to 4.16 kV, 60 Hz (square-law torque drive)
Dimension drawings
3/142 IM B3 type of construction, anti-friction bearings, sleeve bearings (1RN4, 1RN6)
3/148 IM V1 type of construction, anti-friction bearings (1RN4, 1RN6)
3/150 IM B3 type of construction, anti-friction bearings, sleeve bearings (1RN7)
3/154 IM V1 type of construction, anti-friction bearings (1RN7)

3/155 **Options and tests**
Description of options

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Sinusoidal and non-sinusoidal converter output

Overview

By using variable speed drives, cost savings can be achieved in many applications compared to fixed-speed operation.

H-compact and H-compact PLUS motors have proven themselves many times in variable-speed applications.

They are designed for an optimized drive system with the appropriate SINAMICS converters, couplings and gear units to achieve a reliable drive train with high availability and long lifetime, which results in low lifecycle costs. The integrated drive system also features engineering tools that allow the configuration of the entire drive train and the automation environment with optimized parameters. A tailor-made service concept secures the effective operation of the whole drive train application over a long time.

Sinusoidal output

For operation with medium-voltage converters SINAMICS PERFECT HARMONY or SINAMICS GM150 and SINAMICS SM150 with sine-wave filter, as a result of the sinusoidal output, line motors for applications with square-law load characteristic are suitable. For converter operation, these motors must be equipped with electrically-isolated bearings at the NDE. The technical data can be taken from the tables in Chapter 2.

The insulation system of these motors corresponds to thermal class 155 (F) – and they are generally utilized to thermal class 130 (B).

Non-sinusoidal output

For the SIMOTICS HV/TN motor series, special versions have been designed for operation with medium-voltage SINAMICS GM150 and SINAMICS SM150 drive converters or low-voltage SINAMICS G and SINAMICS S drive converters.

These motors have, as standard, a reinforced stator winding insulation so that they can be fed from the specified drive converters without requiring a sine-wave filter. Further, for the medium-voltage version of the motors, both bearings are electrically insulated and the shaft is equipped with a grounding system.

The technical data can be taken from the tables in Chapter 3. The insulation system of these motors corresponds to thermal class 155 (F) – and they are generally utilized to thermal class 155 (F).

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Overview



Technical data

Overview of technical data

H-compact 1LA4	
Rated voltage	690 V … 6.6 kV
Rated frequency	50/60 Hz
Motor type	Induction motor with squirrel-cage rotor
Type of construction	IM B3, IM V1
Degree of protection	IP55
Cooling method	IC411
Stator winding insulation	Insulation system, thermal class 155 (F), utilized to 155 (F)
Shaft height	450 … 630 mm
Bearings	Anti-friction bearings, sleeve bearings
Cage material	Die-cast aluminum or copper (dependent on the shaft height and number of poles)
Standards	IEC, EN
Frame design	Cast iron with cooling ribs

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Technical data (continued)

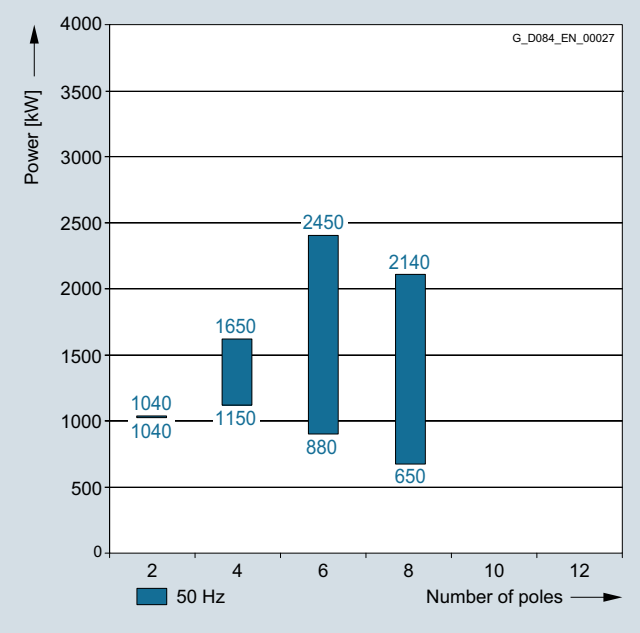
Power ranges for IEC motors with reinforced insulation for SINAMICS converters without sine-wave filter

1LA4, 1MS4 (Ex ec), 1MG4 (Ex pxb) series

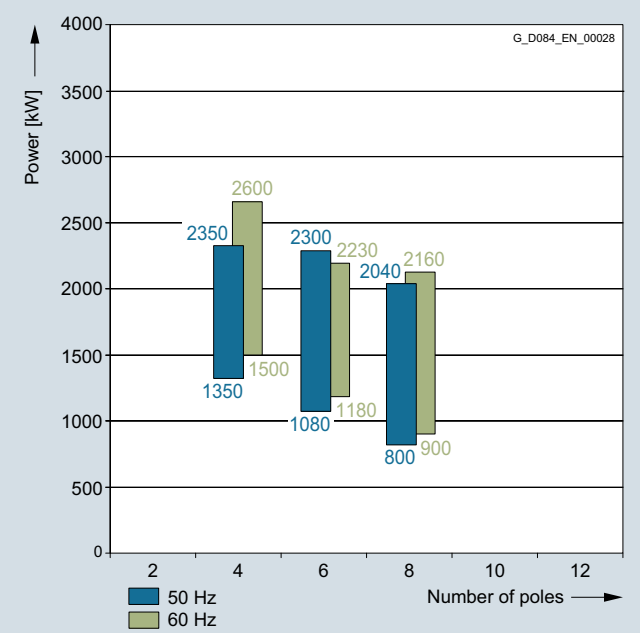
Insulation system, thermal class 155 (F), utilized to 155 (F)

The power data listed here apply for an ambient temperature of 40 °C and an installation altitude ≤ 1000 m.

690 V; 50 Hz



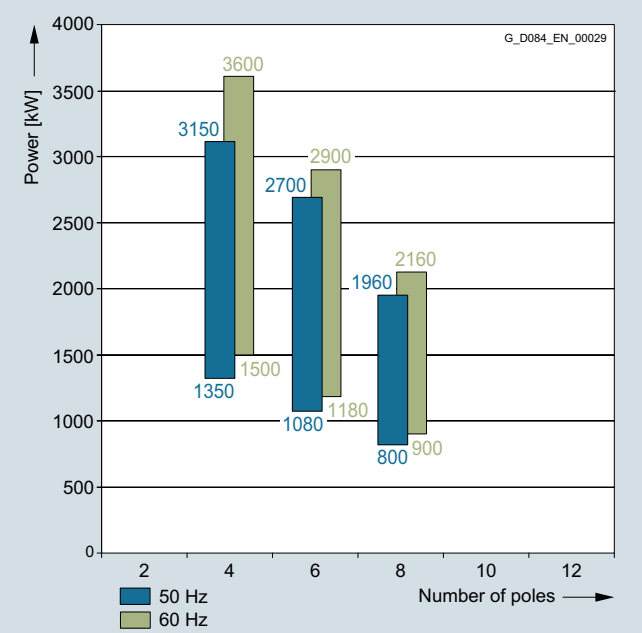
2.3 kV; 50 and 60 Hz



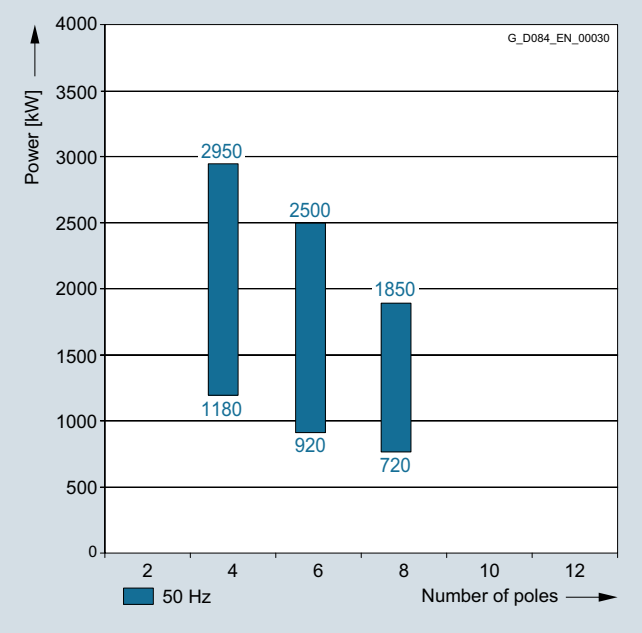
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Technical data (continued)

3.4 to 4.16 kV; 50 and 60 Hz



6 to 6.6 kV; 50 Hz



3

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Selection and ordering data

Rated power	**Low-voltage motor H-compact**	Operating values at rated output for utilization 155 (F)							
IEC		Rated speed	Efficiency	Power factor	Rated current at 690 V	Rated torque	Break-down torque	Moment of inertia	Mechanical speed limit[1]
P_{rated} 155 (F)		n_{rated}	η	cos φ	I_{rated}	T_{rated}	T_B/T_{rated}	J	n_{max}
kW	Article No.	rpm	%	[-]	A	Nm	[-]	kgm^2	rpm
690 V, 50 Hz									
2-pole									
1040	**1LA4 454-2CM00**	2981	97.2	0.92	970	3331	2.70	22.2	3000
4-pole									
1150	**1LA4 454-4AM0■**	1491	97.2	0.89	1120	7365	2.50	33.9	2400
1300	**1LA4 500-4CM0■**	1491	96.9	0.88	1280	8326	2.10	44.3	2200
1500	**1LA4 502-4CM0■**	1492	97.2	0.87	1480	9600	2.30	49.0	2200
1650	**1LA4 504-4CM0■**	1491	97.2	0.89	1600	10567	2.10	56.2	2200
6-pole									
880	**1LA4 454-6AM0■**	993	97.1	0.86	880	8462	2.50	53.5	2200
1250	**1LA4 500-6CM0■**	995	97.1	0.85	1260	11996	2.35	82.1	2100
1350	**1LA4 502-6CM0■**	995	97.1	0.86	1360	12956	2.35	92.4	2100
1500	**1LA4 504-6CM0■**	995	97.2	0.86	1500	14395	2.35	102.6	2100
1750	**1LA4 560-6CM0■**	995	97.4	0.86	1740	16795	2.60	141.5	2000
1950	**1LA4 562-6CM0■**	995	97.5	0.86	1940	18714	2.60	162.1	2000
2150	**1LA4 564-6CM0■**	995	97.6	0.86	2150	20634	2.60	188.5	2000
2300	**1LA4 634-6CM0■**	997	97.3	0.88	2250	22030	2.70	297.0	O. R.[2]
2450	**1LA4 636-6CM0■**	997	97.3	0.89	2350	23495	2.70	323.0	O. R.[2]
8-pole									
650	**1LA4 454-8AM0■**	745	96.6	0.80	700	8331	2.40	52.8	2200
900	**1LA4 500-8CM0■**	746	96.6	0.80	970	11520	2.20	81.7	2100
970	**1LA4 502-8CM0■**	746	96.7	0.80	1040	12416	2.30	91.9	2100
1080	**1LA4 504-8CM0■**	746	96.8	0.80	1160	13824	2.30	102.2	2100
1250	**1LA4 560-8CM0■**	746	96.9	0.80	1340	16000	2.60	141.6	2000
1400	**1LA4 562-8CM0■**	746	97.0	0.80	1500	17920	2.60	162.3	2000
1630	**1LA4 564-8CM0■**	746	97.1	0.81	1740	20864	2.60	188.8	2000
1900	**1LA4 634-8CM0■**	746	96.8	0.86	1900	24321	2.65	294.0	O. R.[2]
2140	**1LA4 636-8CM0■**	746	97.0	0.85	2150	27357	2.60	320.0	O. R.[2]

Type of construction:	
IM B3	**0**
IM V1 (with canopy)	**4**
IM V1 (without canopy)	**8**

Note:

The motors for converter operation with non-sinusoidal output have, among other things, a reinforced winding insulation.
Additional details see Page 3/2.
Ratings are defined for sinusoidal supply, based on IEC 60034-2-1:2007.
The ratings for converter operation depend on the converter and its settings and cannot be predetermined.

Higher pole numbers are available on request.

[1] For IM B3, anti-friction bearings.
[2] On request.

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Motor type (repeated)	Partial load values for square-law torque drive											
	P/P_{rated} 155 (F) = 75 %				P/P_{rated} 155 (F) = 50 %				P/P_{rated} 155 (F) = 25 %			
	P	n	η	cos φ	P	n	η	cos φ	P	n	η	cos φ
	kW	rpm	%	[-]	kW	rpm	%	[-]	kW	rpm	%	[-]
												Square-law torque drive
2-pole												
1LA4 454-2...	780	2709	97.2	0.92	520	2366	97.1	0.90	260	1878	96.6	0.83
4-pole												
1LA4 454-4...	863	1355	97.2	0.89	575	1183	97.2	0.86	288	939	96.7	0.76
1LA4 500-4...	975	1355	97.0	0.88	650	1183	96.9	0.86	325	939	96.3	0.77
1LA4 502-4...	1125	1356	97.2	0.86	750	1184	97.0	0.84	375	940	96.4	0.73
1LA4 504-4...	1238	1355	97.3	0.89	825	1183	97.2	0.87	413	939	96.7	0.79
6-pole												
1LA4 454-6...	660	902	96.9	0.85	440	788	96.8	0.81	220	626	96.0	0.69
1LA4 500-6...	938	904	97.1	0.85	625	790	96.9	0.81	313	627	96.0	0.69
1LA4 502-6...	1013	904	97.1	0.86	675	790	97.0	0.82	338	627	96.1	0.70
1LA4 504-6...	1125	904	97.2	0.86	750	790	97.0	0.83	375	627	96.2	0.72
1LA4 560-6...	1313	904	97.4	0.86	875	790	97.1	0.81	438	627	96.3	0.70
1LA4 562-6...	1463	904	97.5	0.86	975	790	97.1	0.81	488	627	96.2	0.69
1LA4 564-6...	1613	904	97.6	0.86	1075	790	97.2	0.82	538	627	96.3	0.70
1LA4 634-6...	O. R.[2)]	O. R.[2)]	O. R.[2)]	O. R.[2)]	O. R.[2)]	O. R.[2)]	O. R.[2)]	O. R.[2)]	O. R.[2)]	O. R.[2)]	O. R.[2)]	O. R.[2)]
1LA4 636-6...	O. R.[2)]	O. R.[2)]	O. R.[2)]	O. R.[2)]	O. R.[2)]	O. R.[2)]	O. R.[2)]	O. R.[2)]	O. R.[2)]	O. R.[2)]	O. R.[2)]	O. R.[2)]
8-pole												
1LA4 454-8...	488	677	96.5	0.77	325	591	96.2	0.72	163	469	95.1	0.58
1LA4 500-8...	675	678	96.6	0.78	450	592	96.2	0.73	225	470	95.0	0.60
1LA4 502-8...	728	678	96.7	0.79	485	592	96.3	0.74	243	470	95.1	0.61
1LA4 504-8...	810	678	96.8	0.79	540	592	96.3	0.74	270	470	95.2	0.60
1LA4 560-8...	938	678	96.8	0.78	625	592	96.4	0.73	313	470	95.1	0.58
1LA4 562-8...	1050	678	96.9	0.78	700	592	96.4	0.73	350	470	95.1	0.58
1LA4 564-8...	1223	678	97.0	0.79	815	592	96.4	0.73	408	470	95.2	0.59
1LA4 634-8...	O. R.[2)]	O. R.[2)]	O. R.[2)]	O. R.[2)]	O. R.[2)]	O. R.[2)]	O. R.[2)]	O. R.[2)]	O. R.[2)]	O. R.[2)]	O. R.[2)]	O. R.[2)]
1LA4 636-8...	O. R.[2)]	O. R.[2)]	O. R.[2)]	O. R.[2)]	O. R.[2)]	O. R.[2)]	O. R.[2)]	O. R.[2)]	O. R.[2)]	O. R.[2)]	O. R.[2)]	O. R.[2)]

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Selection and ordering data

Rated power	**Low-voltage motor H-compact**	Operating values at rated output for utilization 155 (F)							
IEC		Rated speed	Efficiency	Power factor	Rated current at 690 V	Rated torque	Break-down torque	Moment of inertia	Mechanical speed limit[1]
P_{rated} 155 (F)		n_{rated}	η	cos φ	I_{rated}	T_{rated}	T_B/T_{rated}	J	n_{max}
kW	Article No.	rpm	%	[-]	A	Nm	[-]	kgm^2	rpm
690 V, 50 Hz									
2-pole									
1040	**1LA4 454-2CM00**	2981	97.2	0.92	970	3331	2.70	22.2	3000
4-pole									
1150	**1LA4 454-4AM0■**	1491	97.2	0.89	1120	7365	2.50	33.9	2400
1300	**1LA4 500-4CM0■**	1491	96.9	0.88	1280	8326	2.10	44.3	2200
1500	**1LA4 502-4CM0■**	1492	97.2	0.87	1480	9600	2.30	49.0	2200
1650	**1LA4 504-4CM0■**	1491	97.2	0.89	1600	10567	2.10	56.2	2200
6-pole									
880	**1LA4 454-6AM0■**	993	96.9	0.86	880	8462	2.50	53.5	2200
1250	**1LA4 500-6CM0■**	995	97.1	0.85	1260	11996	2.35	82.1	2100
1350	**1LA4 502-6CM0■**	995	97.1	0.86	1360	12956	2.35	92.4	2100
1500	**1LA4 504-6CM0■**	995	97.2	0.86	1500	14395	2.35	102.6	2100
1750	**1LA4 560-6CM0■**	995	97.4	0.86	1740	16795	2.60	141.5	2000
1950	**1LA4 562-6CM0■**	995	97.5	0.86	1940	18714	2.60	162.1	2000
2150	**1LA4 564-6CM0■**	995	97.6	0.86	2150	20634	2.60	188.5	2000
2300	**1LA4 634-6CM0■**	997	97.3	0.88	2250	22030	2.70	297.0	1200
2450	**1LA4 636-6CM0■**	997	97.3	0.89	2350	23495	2.70	323.0	1200
8-pole									
650	**1LA4 454-8AM0■**	745	96.6	0.80	700	8331	2.40	52.8	2200
900	**1LA4 500-8CM0■**	746	96.6	0.80	970	11520	2.20	81.7	2100
970	**1LA4 502-8CM0■**	746	96.7	0.80	1040	12416	2.30	91.9	2100
1080	**1LA4 504-8CM0■**	760	96.8	0.80	1160	13570	2.30	102.2	2100
1250	**1LA4 560-8CM0■**	746	96.9	0.80	1340	16000	2.60	141.6	2000
1400	**1LA4 562-8CM0■**	746	97.0	0.80	1500	17920	2.60	162.3	2000
1630	**1LA4 564-8CM0■**	746	97.1	0.81	1740	20864	2.60	188.8	2000
1900	**1LA4 634-8CM0■**	746	96.8	0.86	1900	24321	2.65	294.0	1200
2140	**1LA4 636-8CM0■**	746	97.0	0.85	2150	27357	2.60	320.0	1200

Type of construction:	
IM B3	**0**
IM V1 (with canopy)	**4**
IM V1 (without canopy)	**8**

Note:

The motors for converter operation with non-sinusoidal output have, among other things, a reinforced winding insulation.
Additional details see Page 3/2.
Ratings are defined for sinusoidal supply, based on IEC 60034-2-1:2007.
The ratings for converter operation depend on the converter and its settings and cannot be predetermined.

Higher pole numbers are available on request.

[1] For IM B3, anti-friction bearings.

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Motor type (repeated)	Constant-torque drive, speed range											
	1:2				1:5				1:10			
	P_{max} kW	T_{max} Nm	η %	cos φ [-]	P_{max} kW	T_{max} Nm	η %	cos φ [-]	P_{max} kW	T_{max} Nm	η %	cos φ [-]
												Constant-torque drive
2-pole												
1LA4 454-2...	970	3107	96.9	0.91	800	2563	97.1	0.91	750	2402	97.1	0.91
4-pole												
1LA4 454-4...	1060	6789	97.1	0.88	940	6020	97.3	0.88	900	5764	97.3	0.88
1LA4 500-4...	1200	7685	96.7	0.87	1000	6404	96.9	0.87	940	6020	96.9	0.87
1LA4 502-4...	1400	8960	96.9	0.85	1170	7488	97.1	0.85	1100	7040	97.1	0.85
1LA4 504-4...	1500	9607	97.0	0.88	1250	8006	97.2	0.88	1200	7685	97.2	0.88
6-pole												
1LA4 454-6...	820	7885	97.0	0.85	700	6731	97.2	0.84	660	6347	97.2	0.84
1LA4 500-6...	1180	11324	96.8	0.84	1020	9789	97.0	0.83	960	9213	97.1	0.83
1LA4 502-6...	1280	12284	97.0	0.84	1120	10749	97.1	0.84	1040	9981	97.2	0.84
1LA4 504-6...	1430	13724	97.1	0.84	1260	12092	97.2	0.84	1180	11324	97.3	0.84
1LA4 560-6...	1650	15835	97.1	0.82	1450	13916	97.3	0.83	1350	12956	97.4	0.83
1LA4 562-6...	1850	17754	97.2	0.83	1650	15835	97.3	0.83	1550	14875	97.4	0.83
1LA4 564-6...	2100	20154	97.1	0.83	1850	17754	97.4	0.84	1800	17275	97.4	0.84
1LA4 634-6...	2180	20880	97.2	0.88	1960	18773	97.2	0.87	1875	17959	97.1	0.87
1LA4 636-6...	2325	22269	97.3	0.89	2080	19922	97.2	0.89	1985	19012	97.2	0.89
8-pole												
1LA4 454-8...	580	7434	96.4	0.79	490	6281	96.6	0.76	450	5768	96.6	0.74
1LA4 500-8...	900	11520	96.5	0.81	770	9856	96.5	0.79	710	9088	96.5	0.78
1LA4 502-8...	970	12416	96.6	0.81	850	10880	96.6	0.79	780	9984	96.6	0.78
1LA4 504-8...	1080	13570	96.7	0.81	940	11811	96.7	0.79	880	11057	96.7	0.78
1LA4 560-8...	1150	14720	96.8	0.79	980	12544	96.8	0.77	930	11904	96.8	0.76
1LA4 562-8...	1290	16512	96.9	0.79	1100	14080	96.9	0.78	1050	13440	96.9	0.77
1LA4 564-8...	1500	19200	96.9	0.80	1280	16384	97.0	0.79	1250	16000	97.0	0.78
1LA4 634-8...	1725	22081	96.8	0.85	1560	19969	96.7	0.84	1460	18689	96.7	0.83
1LA4 636-8...	1950	24961	97.0	0.85	1760	22529	96.9	0.84	1670	21377	96.9	0.83

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Selection and ordering data

Rated power		High voltage motor H-compact	Operating values at rated output for utilization 155 (F)							
IEC			Rated speed	Efficiency	Power factor	Rated current 2.3 kV	Rated torque	Break-down torque	Moment of inertia	Mechanical speed limit[1]
P_{rated} 155 (F)	P_{rated} 130 (B)		n_{rated}	η	cos φ	I_{rated}	T_{rated}	T_B/T_{rated}	J	n_{max}
kW	kW	Article No.	rpm	%	[-]	A	Nm	[-]	kgm^2	rpm
2.3 kV, 50 Hz										
4-pole										
1350	1180	**1LA4 500-4CV0■**	1493	97.0	0.87	400	8634	2.50	42	2200
1500	1280	**1LA4 502-4CV0■**	1493	97.2	0.87	445	9594	2.60	47	2200
1650	1420	**1LA4 504-4CV0■**	1493	97.3	0.88	485	10553	2.60	54	2200
1850	1550	**1LA4 560-4CV0■**	1494	97.5	0.87	550	11824	2.40	79	2000
2100	1750	**1LA4 562-4CV0■**	1494	97.5	0.87	620	13422	2.40	92	2000
2350	1900	**1LA4 564-4CV0■**	1494	97.5	0.87	700	15020	2.40	104	2000
6-pole										
1080	940	**1LA4 500-6CV0■**	995	97.0	0.86	325	10365	2.40	82	2100
1180	1030	**1LA4 502-6CV0■**	995	97.0	0.87	350	11324	2.40	92	2100
1280	1130	**1LA4 504-6CV0■**	995	97.1	0.87	380	12284	2.40	103	2100
1500	1320	**1LA4 560-6CV0■**	995	97.3	0.86	450	14395	2.60	142	2000
1750	1500	**1LA4 562-6CV0■**	995	97.4	0.86	520	16795	2.70	162	2000
1950	1700	**1LA4 564-6CV0■**	995	97.5	0.87	580	18714	2.50	189	2000
2300	–[2]	**1LA4 632-6CV0■**	995	97.1	0.89	670	22075	2.40	269	1500
8-pole										
800	690	**1LA4 500-8CV0■**	745	96.5	0.81	255	10254	2.10	82	2100
850	750	**1LA4 502-8CV0■**	745	96.5	0.81	275	10895	2.10	92	2100
950	800	**1LA4 504-8CV0■**	745	96.5	0.81	305	12177	2.10	102	2100
1120	980	**1LA4 560-8CV0■**	745	96.8	0.83	350	14356	2.20	142	2000
1250	1090	**1LA4 562-8CV0■**	745	96.9	0.83	390	16022	2.20	162	2000
1450	1270	**1LA4 564-8CV0■**	745	97.0	0.83	450	18585	2.20	189	2000
1650	–[2]	**1LA4 632-8CV0■**	745	96.7	0.84	510	21151	2.20	265	1500
1850	–[2]	**1LA4 634-8CV0■**	746	96.8	0.84	570	23683	2.40	294	1500
2040	–[2]	**1LA4 636-8CV0■**	745	96.9	0.85	620	26150	2.10	320	1500

Type of construction:	
IM B3	**0**
IM V1 (with canopy)	**4**
IM V1 (without canopy)	**8**

Note:

The motors for converter operation with non-sinusoidal output have, among other things, a reinforced winding insulation.
Additional details see Page 3/2.
Ratings are defined for sinusoidal supply, based on IEC 60034-2-1:2007.
The ratings for converter operation depend on the converter and its settings and cannot be predetermined.

Higher pole numbers are available on request.

[1] For IM B3, anti-friction bearings.

[2] Utilization 130 (B) on request.

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Motor type (repeated)	Partial load values for square-law torque drive											
	P/P_{rated} 155 (F) = 75 %				P/P_{rated} 155 (F) = 50 %				P/P_{rated} 155 (F) = 25 %			
	P	n	η	cos φ	P	n	η	cos φ	P	n	η	cos φ
	kW	rpm	%	[-]	kW	rpm	%	[-]	kW	rpm	%	[-]
												Square-law torque drive
4-pole												
1LA4 500-4...	1013	1357	97.0	0.87	675	1185	96.9	0.84	338	941	96.5	0.73
1LA4 502-4...	1125	1357	97.1	0.87	750	1185	97.0	0.84	375	941	96.5	0.73
1LA4 504-4...	1238	1357	97.2	0.88	825	1185	97.1	0.86	413	941	96.8	0.77
1LA4 560-4...	1388	1357	97.4	0.85	925	1186	97.2	0.81	463	941	96.8	0.68
1LA4 562-4...	1575	1357	97.5	0.86	1050	1186	97.4	0.83	525	941	97.0	0.71
1LA4 564-4...	1763	1357	97.5	0.86	1175	1186	97.4	0.83	588	941	97.0	0.72
6-pole												
1LA4 500-6...	810	904	96.9	0.86	540	790	96.7	0.83	270	627	96.2	0.72
1LA4 502-6...	885	904	97.0	0.86	590	790	97.0	0.84	295	627	96.4	0.73
1LA4 504-6...	960	904	97.1	0.87	640	790	97.0	0.84	320	627	96.5	0.74
1LA4 560-6...	1125	904	97.3	0.85	750	790	97.2	0.81	375	627	96.7	0.70
1LA4 562-6...	1313	904	97.4	0.85	875	790	97.2	0.82	438	627	96.7	0.70
1LA4 564-6...	1463	904	97.5	0.86	975	790	97.3	0.84	488	627	96.9	0.73
1LA4 632-6...	1725	904	97.2	0.89	1150	789	97.0	0.86	575	626	96.7	0.77
8-pole												
1LA4 500-8...	600	677	96.3	0.80	400	591	96.1	0.75	200	469	95.2	0.62
1LA4 502-8...	638	677	96.4	0.80	425	591	96.1	0.75	213	469	95.2	0.62
1LA4 504-8...	713	677	96.4	0.80	475	591	96.2	0.75	238	469	95.2	0.62
1LA4 560-8...	840	677	96.8	0.82	560	591	96.6	0.78	280	469	96.1	0.66
1LA4 562-8...	938	677	96.9	0.82	625	591	96.7	0.78	313	469	96.1	0.66
1LA4 564-8...	1088	677	97.0	0.82	725	591	96.8	0.78	363	469	96.1	0.66
1LA4 632-8...	1240	677	96.6	0.83	825	592	96.4	0.79	415	470	95.8	0.68
1LA4 634-8...	1390	678	96.7	0.82	925	592	96.4	0.78	465	470	95.7	0.66
1LA4 636-8...	1530	677	96.8	0.84	1020	592	96.7	0.80	510	470	96.1	0.70

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Selection and ordering data

Rated power		High voltage motor H-compact	Operating values at rated output for utilization 155 (F)							
IEC			Rated speed	Efficiency	Power factor	Rated current at 3.4 kV	Rated torque	Break-down torque	Moment of inertia	Mechanical speed limit[1]
P_{rated} 155 (F)	P_{rated} 130 (B)		n_{rated}	η	cos φ	I_{rated}	T_{rated}	T_B/T_{rated}	J	n_{max}
kW	kW	Article No.	rpm	%	[-]	A	Nm	[-]	kgm^2	rpm
3.4 ... 4.16 kV, 50 Hz										
4-pole										
1350	1180	**1LA4 500-4CV■■**	1493	97.0	0.87	280	8634	2.50	42	2200
1500	1280	**1LA4 502-4CV■■**	1493	97.2	0.87	310	9594	2.60	47	2200
1650	1420	**1LA4 504-4CV■■**	1493	97.3	0.88	335	10553	2.60	54	2200
1850	1550	**1LA4 560-4CV■■**	1494	97.5	0.87	380	11824	2.40	79	2000
2100	1750	**1LA4 562-4CV■■**	1494	97.5	0.87	435	13422	2.40	92	2000
2350	1900	**1LA4 564-4CV■■**	1494	97.5	0.87	485	15020	2.40	104	2000
2600	–[2]	**1LA4 632-4CV■■**	1494	97.5	0.88	530	16620	2.20	157	1500
2900	–[2]	**1LA4 634-4CV■■**	1494	97.6	0.88	590	18537	2.20	171	1500
3150	–[2]	**1LA4 636-4CV■■**	1494	97.7	0.88	640	20136	2.20	186	1500
6-pole										
1080	940	**1LA4 500-6CV■■**	995	97.0	0.86	225	10365	2.40	82	2100
1180	1030	**1LA4 502-6CV■■**	995	97.0	0.87	245	11324	2.40	92	2100
1280	1130	**1LA4 504-6CV■■**	995	97.1	0.87	265	12284	2.40	103	2100
1500	1320	**1LA4 560-6CV■■**	995	97.3	0.86	315	14395	2.60	142	2000
1750	1500	**1LA4 562-6CV■■**	995	97.4	0.86	365	16795	2.70	162	2000
1950	1700	**1LA4 564-6CV■■**	995	97.5	0.87	400	18714	2.50	189	2000
2220	–[2]	**1LA4 632-6CV■■**	995	97.1	0.89	450	21308	2.30	269	1500
2480	–[2]	**1LA4 634-6CV■■**	995	97.2	0.89	500	23803	2.20	297	1500
2700	–[2]	**1LA4 636-6CV■■**	995	97.3	0.89	550	25915	2.20	323	1500
8-pole										
800	690	**1LA4 500-8CV■■**	745	96.5	0.81	180	10254	2.10	82	2100
850	750	**1LA4 502-8CV■■**	745	96.5	0.81	190	10895	2.10	92	2100
950	800	**1LA4 504-8CV■■**	745	96.5	0.81	215	12177	2.10	102	2100
1120	980	**1LA4 560-8CV■■**	745	96.8	0.83	245	14356	2.20	142	2000
1250	1090	**1LA4 562-8CV■■**	745	96.9	0.83	270	16022	2.20	162	2000
1450	1270	**1LA4 564-8CV■■**	745	97.0	0.83	315	18585	2.20	189	2000
1570	–[2]	**1LA4 632-8CV■0**	745	96.6	0.84	340	20126	2.30	265	1500
1780	–[2]	**1LA4 634-8CV■0**	745	96.7	0.84	385	22817	2.30	294	1500
1960	–[2]	**1LA4 636-8CV■0**	745	96.8	0.85	415	25125	2.20	320	1500

Voltage code:	
4.16 kV, 50 Hz	**4**
Other voltage	**9**
Type of construction:	
IM B3	**0**
IM V1 (with canopy)	**4**
IM V1 (without canopy)	**8**

Note:

The motors for converter operation with non-sinusoidal output have, among other things, a reinforced winding insulation.
Additional details see Page 3/2.
Ratings are defined for sinusoidal supply, based on IEC 60034-2-1:2007.
The ratings for converter operation depend on the converter and its settings and cannot be predetermined.

Higher pole numbers are available on request.

[1] For IM B3, anti-friction bearings.

[2] Utilization 130 (B) on request.

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Motor type (repeated)	Partial load values for square-law torque drive											
	P/P_{rated} 155 (F) = 75 %				P/P_{rated} 155 (F) = 50 %				P/P_{rated} 155 (F) = 25 %			
	P	n	η	cos φ	P	n	η	cos φ	P	n	η	cos φ
	kW	rpm	%	[-]	kW	rpm	%	[-]	kW	rpm	%	[-]
												Square-law torque drive
4-pole												
1LA4 500-4...	1013	1357	97.0	0.87	675	1185	96.9	0.84	338	941	96.5	0.73
1LA4 502-4...	1125	1357	97.1	0.87	750	1185	97.0	0.84	375	941	96.5	0.73
1LA4 504-4...	1238	1357	97.2	0.88	825	1185	97.1	0.86	413	941	96.8	0.77
1LA4 560-4...	1388	1357	97.4	0.85	925	1186	97.2	0.81	463	941	96.8	0.68
1LA4 562-4...	1575	1357	97.5	0.86	1050	1186	97.4	0.83	525	941	97.0	0.71
1LA4 564-4...	1763	1357	97.5	0.86	1175	1186	97.4	0.83	588	941	97.0	0.72
1LA4 632-4...	1950	1357	97.5	0.87	1300	1185	97.5	0.85	650	940	97.2	0.76
1LA4 634-4...	2175	1357	97.6	0.87	1450	1185	97.6	0.85	725	940	97.3	0.76
1LA4 636-4...	2363	1357	97.6	0.87	1575	1185	97.6	0.85	788	940	97.4	0.77
6-pole												
1LA4 500-6...	810	904	96.9	0.86	540	790	96.7	0.83	270	627	96.2	0.72
1LA4 502-6...	885	904	97.0	0.86	590	790	97.0	0.84	295	627	96.4	0.73
1LA4 504-6...	960	904	97.1	0.87	640	790	97.0	0.84	320	627	96.5	0.74
1LA4 560-6...	1125	904	97.3	0.85	750	790	97.2	0.81	375	627	96.7	0.70
1LA4 562-6...	1313	904	97.4	0.85	875	790	97.2	0.82	438	627	96.7	0.70
1LA4 564-6...	1463	904	97.5	0.86	975	790	97.3	0.84	488	627	96.9	0.73
1LA4 632-6...	1665	904	97.1	0.89	1110	789	97.1	0.87	555	626	96.7	0.79
1LA4 634-6...	1860	904	97.2	0.89	1240	789	97.2	0.87	620	626	96.9	0.80
1LA4 636-6...	2025	905	97.3	0.89	1350	789	97.3	0.87	675	627	96.9	0.80
8-pole												
1LA4 500-8...	600	677	96.3	0.80	400	591	96.1	0.75	200	469	95.2	0.62
1LA4 502-8...	638	677	96.4	0.80	425	591	96.1	0.75	213	469	95.2	0.62
1LA4 504-8...	713	677	96.4	0.80	475	591	96.2	0.75	238	469	95.2	0.62
1LA4 560-8...	840	677	96.8	0.82	560	591	96.6	0.78	280	469	96.1	0.66
1LA4 562-8...	938	677	96.9	0.82	625	591	96.7	0.78	313	469	96.1	0.66
1LA4 564-8...	1088	677	97.0	0.82	725	591	96.8	0.78	363	469	96.1	0.66
1LA4 632-8...	1180	678	96.6	0.82	785	592	96.5	0.78	395	470	95.9	0.66
1LA4 634-8...	1335	678	96.7	0.83	890	592	96.5	0.79	445	470	95.9	0.68
1LA4 636-8...	1470	677	96.8	0.84	980	592	96.7	0.80	490	470	96.1	0.70

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Selection and ordering data

Rated power		High voltage motor H-compact	Operating values at rated output for utilization 155 (F)							
IEC			Rated speed	Efficiency	Power factor	Rated current 2.3 kV	Rated torque	Break-down torque	Moment of inertia	Mechanical speed limit[1]
P_{rated} 155 (F)	P_{rated} 130 (B)		n_{rated}	η	cos φ	I_{rated}	T_{rated}	T_B/T_{rated}	J	n_{max}
kW	kW	Article No.	rpm	%	[-]	A	Nm	[-]	kgm^2	rpm
2.3 kV, 60 Hz										
4-pole										
1500	1260	**1LA4 500-4CV1■**	1793	96.8	0.87	445	7989	2.50	42	2200
1650	1350	**1LA4 502-4CV1■**	1793	96.8	0.87	490	8787	2.50	47	2200
1800	1450	**1LA4 504-4CV1■**	1793	96.8	0.87	540	9586	2.50	54	2200
2000	1600	**1LA4 560-4CV1■**	1794	97.3	0.87	590	10645	2.40	79	2000
2300	1850	**1LA4 562-4CV1■**	1794	97.3	0.87	680	12242	2.40	92	2000
2600	2100	**1LA4 564-4CV1■**	1794	97.3	0.87	770	13839	2.40	104	2000
6-pole										
1180	1020	**1LA4 500-6CV1■**	1195	96.8	0.87	350	9429	2.40	82	2100
1320	1150	**1LA4 502-6CV1■**	1195	97.0	0.87	395	10548	2.40	92	2100
1450	1250	**1LA4 504-6CV1■**	1195	97.1	0.87	430	11587	2.50	103	2100
1650	1400	**1LA4 560-6CV1■**	1195	97.2	0.86	495	13185	2.60	142	2000
1900	1550	**1LA4 562-6CV1■**	1195	97.4	0.86	570	15183	2.60	162	2000
2150	1750	**1LA4 564-6CV1■**	1195	97.5	0.87	640	17180	2.60	189	2000
2230	–[2]	**1LA4 632-6CV1■**	1195	96.7	0.89	650	17825	2.40	234	1500
8-pole										
900	750	**1LA4 500-8CV1■**	896	96.4	0.79	295	9592	2.30	82	2100
950	780	**1LA4 502-8CV1■**	896	96.4	0.79	315	10124	2.30	92	2100
1050	850	**1LA4 504-8CV1■**	896	96.4	0.79	345	11190	2.30	102	2100
1200	1030	**1LA4 560-8CV1■**	895	96.8	0.83	375	12803	2.20	142	2000
1380	1190	**1LA4 562-8CV1■**	895	96.8	0.83	430	14724	2.30	162	2000
1580	1280	**1LA4 564-8CV1■**	895	96.9	0.83	495	16857	2.40	189	2000
1800	–[2]	**1LA4 632-8CV1■**	895	96.6	0.85	550	19205	2.10	265	1500
2000	–[2]	**1LA4 634-8CV1■**	895	96.7	0.86	600	21339	2.00	294	1500
2160	–[2]	**1LA4 636-8CV1■**	895	96.8	0.86	650	23046	2.10	320	1500

Type of construction:	
IM B3	**0**
IM V1 (with canopy)	**4**
IM V1 (without canopy)	**8**

Note:

The motors for converter operation with non-sinusoidal output have, among other things, a reinforced winding insulation.
Additional details see Page 3/2.
Ratings are defined for sinusoidal supply, based on IEC 60034-2-1:2007.
The ratings for converter operation depend on the converter and its settings and cannot be predetermined.

Higher pole numbers are available on request.

[1] For IM B3, anti-friction bearings.

[2] Utilization 130 (B) on request.

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Motor type (repeated)	Partial load values for square-law torque drive											
	P/P_{rated} 155 (F) = 75 %				P/P_{rated} 155 (F) = 50 %				P/P_{rated} 155 (F) = 25 %			
	P	n	η	cos φ	P	n	η	cos φ	P	n	η	cos φ
	kW	rpm	%	[-]	kW	rpm	%	[-]	kW	rpm	%	[-]
												Square-law torque drive
4-pole												
1LA4 500-4...	1125	1629	96.5	0.86	750	1423	96.2	0.82	375	1130	95.5	0.71
1LA4 502-4...	1238	1629	96.7	0.86	825	1423	96.4	0.83	413	1130	95.7	0.73
1LA4 504-4...	1350	1629	96.8	0.87	900	1423	96.5	0.84	450	1130	95.9	0.75
1LA4 560-4...	1500	1630	97.1	0.86	1000	1424	96.9	0.82	500	1130	96.4	0.72
1LA4 562-4...	1725	1630	97.2	0.86	1150	1424	97.2	0.83	575	1130	96.8	0.74
1LA4 564-4...	1950	1630	97.3	0.87	1300	1424	97.3	0.84	650	1130	96.9	0.74
6-pole												
1LA4 500-6...	885	1086	96.8	0.86	590	949	96.6	0.83	295	753	96.0	0.74
1LA4 502-6...	990	1086	96.9	0.86	660	949	96.7	0.83	330	753	96.0	0.74
1LA4 504-6...	1088	1086	97.0	0.86	725	949	96.7	0.83	363	753	96.0	0.73
1LA4 560-6...	1238	1086	97.2	0.85	825	949	97.0	0.82	413	753	96.3	0.72
1LA4 562-6...	1425	1086	97.3	0.85	950	949	97.0	0.82	475	753	96.4	0.72
1LA4 564-6...	1613	1086	97.4	0.86	1075	949	97.1	0.83	538	753	96.5	0.73
1LA4 632-6...	1675	1086	96.6	0.88	1115	945	96.4	0.85	560	755	95.8	0.77
8-pole												
1LA4 500-8...	675	814	96.3	0.79	450	711	95.8	0.74	225	564	94.8	0.62
1LA4 502-8...	713	814	96.3	0.78	475	711	95.8	0.73	238	564	94.8	0.60
1LA4 504-8...	788	814	96.3	0.78	525	711	95.9	0.73	263	564	94.9	0.61
1LA4 560-8...	900	813	96.7	0.82	600	710	96.4	0.78	300	564	95.7	0.66
1LA4 562-8...	1035	813	96.8	0.82	690	710	96.4	0.77	345	564	95.7	0.66
1LA4 564-8...	1185	813	96.8	0.81	790	710	96.4	0.76	395	564	95.7	0.65
1LA4 632-8...	1350	814	96.4	0.84	900	708	96.1	0.81	450	566	95.5	0.71
1LA4 634-8...	1500	814	96.6	0.85	1000	708	96.4	0.82	500	565	95.8	0.73
1LA4 636-8...	1620	814	96.7	0.84	1080	708	96.5	0.82	540	565	95.9	0.72

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Selection and ordering data

Rated power		**High voltage motor H-compact**	Operating values at rated output for utilization 155 (F)							
IEC			Rated speed	Efficiency	Power factor	Rated current at 4.16 kV	Rated torque	Break-down torque	Moment of inertia	Mechanical speed limit[1]
P_{rated} 155 (F)	P_{rated} 130 (B)		n_{rated}	η	cos φ	I_{rated}	T_{rated}	T_B/T_{rated}	J	n_{max}
kW	kW	Article No.	rpm	%	[-]	A	Nm	[-]	kgm^2	rpm
3.4 ... 4.16 kV, 60 Hz										
4-pole										
1500	1260	**1LA4 500-4CV5■**	1793	96.8	0.87	245	7989	2.50	42	2200
1650	1350	**1LA4 502-4CV5■**	1793	96.8	0.87	270	8787	2.50	47	2200
1800	1450	**1LA4 504-4CV5■**	1793	96.8	0.87	295	9586	2.50	54	2200
2000	1600	**1LA4 560-4CV5■**	1794	97.3	0.87	330	10645	2.40	79	2000
2300	1850	**1LA4 562-4CV5■**	1794	97.3	0.87	375	12242	2.40	92	2000
2600	2100	**1LA4 564-4CV5■**	1794	97.3	0.87	425	13839	2.40	104	2000
2950	–[2]	**1LA4 632-4CV5 0**	1794	97.2	0.87	485	15702	2.40	157	1500
3320	–[2]	**1LA4 634-4CV5 0**	1794	97.3	0.87	540	17672	2.20	171	1500
3600	–[2]	**1LA4 636-4CV5 0**	1795	97.5	0.87	590	19161	2.40	186	1500
6-pole										
1180	1020	**1LA4 500-6CV5■**	1195	96.8	0.87	194	9429	2.40	82	2100
1320	1150	**1LA4 502-6CV5■**	1195	97.0	0.87	215	10548	2.40	92	2100
1450	1250	**1LA4 504-6CV5■**	1195	97.1	0.87	240	11587	2.50	103	2100
1650	1400	**1LA4 560-6CV5■**	1195	97.2	0.86	275	13185	2.60	142	2000
1900	1550	**1LA4 562-6CV5■**	1195	97.4	0.86	315	15183	2.60	162	2000
2150	1750	**1LA4 564-6CV5■**	1195	97.5	0.87	350	17180	2.60	189	2000
2400	–[2]	**1LA4 632-6CV5■**	1195	96.8	0.89	385	19183	2.40	269	1500
2700	–[2]	**1LA4 634-6CV5■**	1195	96.9	0.89	435	21587	2.20	297	1500
2900	–[2]	**1LA4 636-6CV5■**	1195	97.0	0.89	465	23181	2.20	323	1500
8-pole										
900	750	**1LA4 500-8CV5■**	896	96.4	0.79	164	9592	2.30	82	2100
950	780	**1LA4 502-8CV5■**	896	96.4	0.79	174	10124	2.30	92	2100
1050	850	**1LA4 504-8CV5■**	896	96.4	0.79	192	11190	2.30	102	2100
1200	1030	**1LA4 560-8CV5■**	895	96.8	0.83	205	12803	2.20	142	2000
1380	1190	**1LA4 562-8CV5■**	895	96.8	0.83	240	14724	2.30	162	2000
1580	1280	**1LA4 564-8CV5■**	895	96.9	0.83	275	16857	2.40	189	2000
1800	–[2]	**1LA4 632-8CV5■**	895	96.6	0.85	305	19205	2.20	265	1500
1960	–[2]	**1LA4 634-8CV5■**	895	96.7	0.86	325	20912	2.00	294	1500
2160	–[2]	**1LA4 636-8CV5■**	895	96.8	0.86	360	23046	2.10	320	1500

Type of construction:	
IM B3	**0**
IM V1 (with canopy)	**4**
IM V1 (without canopy)	**8**

Note:

The motors for converter operation with non-sinusoidal output have, among other things, a reinforced winding insulation.
Additional details see Page 3/2.
Ratings are defined for sinusoidal supply, based on IEC 60034-2-1:2007.
The ratings for converter operation depend on the converter and its settings and cannot be predetermined.

Higher pole numbers are available on request.

[1] For IM B3, anti-friction bearings.

[2] Utilization 130 (B) on request.

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Motor type (repeated)	Partial load values for square-law torque drive											
	P/P_{rated} 155 (F) = 75 %				P/P_{rated} 155 (F) = 50 %				P/P_{rated} 155 (F) = 25 %			
	P	n	η	cos φ	P	n	η	cos φ	P	n	η	cos φ
	kW	rpm	%	[-]	kW	rpm	%	[-]	kW	rpm	%	[-]
												Square-law torque drive
4-pole												
1LA4 500-4...	1125	1629	96.5	0.86	750	1423	96.2	0.82	375	1130	95.5	0.71
1LA4 502-4...	1238	1629	96.7	0.86	825	1423	96.4	0.83	413	1130	95.7	0.73
1LA4 504-4...	1350	1629	96.8	0.87	900	1423	96.5	0.84	450	1130	95.9	0.75
1LA4 560-4...	1500	1630	97.1	0.86	1000	1424	96.9	0.82	500	1130	96.4	0.72
1LA4 562-4...	1725	1630	97.2	0.86	1150	1424	97.2	0.83	575	1130	96.8	0.74
1LA4 564-4...	1950	1630	97.3	0.87	1300	1424	97.3	0.84	650	1130	96.9	0.74
1LA4 632-4...	2215	1630	97.2	0.86	1475	1419	97.0	0.83	740	1132	96.6	0.73
1LA4 634-4...	2490	1631	97.3	0.86	1660	1419	97.2	0.83	830	1132	96.8	0.74
1LA4 636-4...	2700	1631	97.4	0.87	1800	1419	97.2	0.83	900	1132	96.8	0.74
6-pole												
1LA4 500-6...	885	1086	96.8	0.86	590	949	96.6	0.83	295	753	96.0	0.74
1LA4 502-6...	990	1086	96.9	0.86	660	949	96.7	0.83	330	753	96.0	0.74
1LA4 504-6...	1088	1086	97.0	0.86	725	949	96.7	0.83	363	753	96.0	0.73
1LA4 560-6...	1238	1086	97.2	0.85	825	949	97.0	0.82	413	753	96.3	0.72
1LA4 562-6...	1425	1086	97.3	0.85	950	949	97.0	0.82	475	753	96.4	0.72
1LA4 564-6...	1613	1086	97.4	0.86	1075	949	97.1	0.83	538	753	96.5	0.73
1LA4 632-6...	1800	1086	96.7	0.88	1200	945	96.5	0.86	600	755	95.9	0.78
1LA4 634-6...	2025	1086	97.0	0.89	1350	945	96.8	0.87	675	755	96.4	0.80
1LA4 636-6...	2175	1086	97.0	0.89	1450	945	96.9	0.87	725	755	96.4	0.80
8-pole												
1LA4 500-8...	675	814	96.3	0.79	450	711	95.8	0.74	225	564	94.8	0.62
1LA4 502-8...	713	814	96.3	0.78	475	711	95.8	0.73	238	564	94.8	0.60
1LA4 504-8...	788	814	96.3	0.78	525	711	95.9	0.73	263	564	94.9	0.61
1LA4 560-8...	900	813	96.7	0.82	600	710	96.4	0.78	300	564	95.7	0.66
1LA4 562-8...	1035	813	96.8	0.82	690	710	96.4	0.77	345	564	95.7	0.66
1LA4 564-8...	1185	813	96.8	0.81	790	710	96.4	0.76	395	564	95.7	0.65
1LA4 632-8...	1350	814	96.3	0.83	900	709	95.9	0.79	450	566	95.1	0.67
1LA4 634-8...	1470	814	96.5	0.84	980	708	96.3	0.82	490	566	95.8	0.72
1LA4 636-8...	1620	814	96.6	0.84	1080	708	96.4	0.81	540	566	95.8	0.72

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Selection and ordering data

Rated power		High voltage motor H-compact	Operating values at rated output for utilization 155 (F)							
IEC			Rated speed	Efficiency	Power factor	Rated current 2.3 kV	Rated torque	Break-down torque	Moment of inertia	Mechanical speed limit[1]
P_{rated} 155 (F)	P_{rated} 130 (B)		n_{rated}	η	cos φ	I_{rated}	T_{rated}	T_B/T_{rated}	J	n_{max}
kW	kW	Article No.	rpm	%	[-]	A	Nm	[-]	kgm^2	rpm
2.3 kV, 50 Hz										
4-pole										
1350	1180	**1LA4 500-4CV0■**	1493	97.0	0.87	400	8634	2.50	42	2200
1500	1280	**1LA4 502-4CV0■**	1493	97.2	0.87	445	9594	2.60	47	2200
1650	1420	**1LA4 504-4CV0■**	1493	97.3	0.88	485	10553	2.60	54	2200
1850	1550	**1LA4 560-4CV0■**	1494	97.5	0.87	550	11824	2.40	79	2000
2100	1750	**1LA4 562-4CV0■**	1494	97.5	0.87	620	13422	2.40	92	2000
2350	1900	**1LA4 564-4CV0■**	1494	97.5	0.87	700	15020	2.40	104	2000
6-pole										
1080	940	**1LA4 500-6CV0■**	995	97.0	0.86	325	10365	2.40	82	2100
1180	1030	**1LA4 502-6CV0■**	995	97.0	0.87	350	11324	2.40	92	2100
1280	1130	**1LA4 504-6CV0■**	995	97.1	0.87	380	12284	2.40	103	2100
1500	1320	**1LA4 560-6CV0■**	995	97.3	0.86	450	14395	2.60	142	2000
1750	1500	**1LA4 562-6CV0■**	995	97.4	0.86	520	16795	2.70	162	2000
1950	1700	**1LA4 564-6CV0■**	995	97.5	0.87	580	18714	2.50	189	2000
2300	–[2]	**1LA4 632-6CV0■**	995	97.1	0.89	670	22075	2.40	269	1500
8-pole										
800	690	**1LA4 500-8CV0■**	745	96.5	0.81	255	10254	2.10	82	2100
850	750	**1LA4 502-8CV0■**	745	96.5	0.81	275	10895	2.10	92	2100
950	800	**1LA4 504-8CV0■**	745	96.5	0.81	305	12177	2.10	102	2100
1120	980	**1LA4 560-8CV0■**	745	96.8	0.83	350	14356	2.20	142	2000
1250	1090	**1LA4 562-8CV0■**	745	96.9	0.83	390	16022	2.20	162	2000
1450	1270	**1LA4 564-8CV0■**	745	97.0	0.83	450	18585	2.20	189	2000
1650	–[2]	**1LA4 632-8CV0■**	745	96.7	0.84	510	21151	2.20	265	1500
1850	–[2]	**1LA4 634-8CV0■**	746	96.8	0.84	570	23683	2.40	294	1500
2040	–[2]	**1LA4 636-8CV0■**	745	96.9	0.85	620	26150	2.10	320	1500

Type of construction:	
IM B3	**0**
IM V1 (with canopy)	**4**
IM V1 (without canopy)	**8**

Note:

The motors for converter operation with non-sinusoidal output have, among other things, a reinforced winding insulation.
Additional details see Page 3/2.
Ratings are defined for sinusoidal supply, based on IEC 60034-2-1:2007.
The ratings for converter operation depend on the converter and its settings and cannot be predetermined.

Higher pole numbers are available on request.

[1] For IM B3, anti-friction bearings.

[2] Utilization 130 (B) on request.

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Motor type (repeated)	Constant-torque drive, speed range											
	1:2				1:5				1:10			
	P_{max}	T_{max}	η	cos φ	P_{max}	T_{max}	η	cos φ	P_{max}	T_{max}	η	cos φ
	kW	Nm	%	[-]	kW	Nm	%	[-]	kW	Nm	%	[-]
												Constant-torque drive
4-pole												
1LA4 500-4...	1300	8315	96.8	0.85	1050	6716	96.9	0.85	940	6012	96.9	0.84
1LA4 502-4...	1450	9274	97.0	0.85	1180	7547	97.1	0.85	1060	6780	97.1	0.85
1LA4 504-4...	1600	10233	97.1	0.86	1320	8443	97.2	0.86	1180	7547	97.2	0.86
1LA4 560-4...	1760	11249	97.3	0.85	1450	9268	97.4	0.84	1320	8437	97.4	0.83
1LA4 562-4...	2040	13039	97.3	0.85	1680	10738	97.4	0.85	1550	9907	97.4	0.84
1LA4 564-4...	2300	14701	97.3	0.85	1900	12144	97.4	0.85	1750	11185	97.4	0.84
6-pole												
1LA4 500-6...	1060	10173	96.6	0.85	880	8445	96.8	0.84	800	7678	96.9	0.84
1LA4 502-6...	1160	11133	96.8	0.86	970	9309	97.0	0.86	880	8445	97.0	0.85
1LA4 504-6...	1260	12092	96.8	0.86	1060	10173	97.0	0.86	960	9213	97.1	0.86
1LA4 560-6...	1480	14204	97.0	0.84	1250	11996	97.2	0.84	1120	10749	97.2	0.83
1LA4 562-6...	1720	16507	97.1	0.84	1450	13916	97.3	0.83	1250	11996	97.3	0.83
1LA4 564-6...	1930	18522	97.3	0.85	1650	15835	97.4	0.85	1400	13436	97.5	0.85
1LA4 632-6...	2210	21190	97.1	0.89	1795	17720	97.0	0.88	1680	16115	97.0	0.87
8-pole												
1LA4 500-8...	790	10126	96.1	0.79	650	8331	96.3	0.78	580	7434	96.3	0.76
1LA4 502-8...	850	10895	96.1	0.80	730	9357	96.2	0.79	650	8331	96.3	0.77
1LA4 504-8...	950	12177	96.1	0.80	800	10254	96.2	0.78	710	9100	96.3	0.77
1LA4 560-8...	1090	13971	96.6	0.82	890	11408	96.8	0.81	800	10254	96.8	0.79
1LA4 562-8...	1240	15894	96.7	0.82	1020	13074	96.9	0.81	920	11792	96.9	0.80
1LA4 564-8...	1440	18457	96.8	0.82	1200	15381	97.0	0.81	1100	14099	97.0	0.80
1LA4 632-8...	1585	20305	96.6	0.84	1285	16495	96.5	0.82	1205	15440	96.4	0.81
1LA4 634-8...	1775	22735	96.7	0.83	1445	18470	96.6	0.81	1350	17285	96.5	0.80
1LA4 636-8...	1960	25100	96.8	0.85	1590	20395	96.8	0.83	1490	19090	96.7	0.82

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Selection and ordering data

Rated power		High voltage motor H-compact	Operating values at rated output for utilization 155 (F)							
IEC			Rated speed	Efficiency	Power factor	Rated current at 3.4 kV	Rated torque	Break-down torque	Moment of inertia	Mechanical speed limit[1]
P_{rated} 155 (F)	P_{rated} 130 (B)		n_{rated}	η	cos φ	I_{rated}	T_{rated}	T_B/T_{rated}	J	n_{max}
kW	kW	Article No.	rpm	%	[-]	A	Nm	[-]	kgm^2	rpm
3.4 ... 4.16 kV, 50 Hz										
4-pole										
1350	1180	**1LA4 500-4CV■■**	1493	97.0	0.87	280	8634	2.50	42	2200
1500	1280	**1LA4 502-4CV■■**	1493	97.2	0.87	310	9594	2.60	47	2200
1650	1420	**1LA4 504-4CV■■**	1493	97.3	0.88	335	10553	2.60	54	2200
1850	1550	**1LA4 560-4CV■■**	1494	97.5	0.87	380	11824	2.40	79	2000
2100	1750	**1LA4 562-4CV■■**	1494	97.5	0.87	435	13422	2.40	92	2000
2350	1900	**1LA4 564-4CV■■**	1494	97.5	0.87	485	15020	2.40	104	2000
2600	–[2]	**1LA4 632-4CV■ 0**	1494	97.5	0.88	530	16620	2.20	157	1500
2900	–[2]	**1LA4 634-4CV■ 0**	1494	97.6	0.88	590	18537	2.20	171	1500
3150	–[2]	**1LA4 636-4CV■ 0**	1494	97.7	0.88	640	20136	2.20	186	1500
6-pole										
1080	940	**1LA4 500-6CV■■**	995	97.0	0.86	225	10365	2.40	82	2100
1180	1030	**1LA4 502-6CV■■**	995	97.0	0.87	245	11324	2.40	92	2100
1280	1130	**1LA4 504-6CV■■**	995	97.1	0.87	265	12284	2.40	103	2100
1500	1320	**1LA4 560-6CV■■**	995	97.3	0.86	315	14395	2.60	142	2000
1750	1500	**1LA4 562-6CV■■**	995	97.4	0.86	365	16795	2.70	162	2000
1950	1700	**1LA4 564-6CV■■**	995	97.5	0.87	400	18714	2.50	189	2000
2220	–[2]	**1LA4 632-6CV■■**	995	97.1	0.89	450	21308	2.30	269	1500
2480	–[2]	**1LA4 634-6CV■■**	995	97.2	0.89	500	23803	2.20	297	1500
2700	–[2]	**1LA4 636-6CV■■**	995	97.3	0.89	550	25915	2.20	323	1500
8-pole										
800	690	**1LA4 500-8CV■■**	745	96.5	0.81	180	10254	2.10	82	2100
850	750	**1LA4 502-8CV■■**	745	96.5	0.81	190	10895	2.10	92	2100
950	800	**1LA4 504-8CV■■**	745	96.5	0.81	215	12177	2.10	102	2100
1120	980	**1LA4 560-8CV■■**	745	96.8	0.83	245	14356	2.20	142	2000
1250	1090	**1LA4 562-8CV■■**	745	96.9	0.83	270	16022	2.20	162	2000
1450	1270	**1LA4 564-8CV■■**	745	97.0	0.83	315	18585	2.20	189	2000
1570	–[2]	**1LA4 632-8CV■■**	745	96.6	0.84	340	20126	2.30	265	1500
1780	–[2]	**1LA4 634-8CV■■**	745	96.7	0.84	385	22817	2.30	294	1500
1960	–[2]	**1LA4 636-8CV■■**	745	96.8	0.85	415	25125	2.20	320	1500

Voltage code:	
4.16 kV, 50 Hz	**4**
Other voltage	**9**
Type of construction:	
IM B3	**0**
IM V1 (with canopy)	**4**
IM V1 (without canopy)	**8**

Note:

The motors for converter operation with non-sinusoidal output have, among other things, a reinforced winding insulation.
Additional details see Page 3/2.
Ratings are defined for sinusoidal supply, based on IEC 60034-2-1:2007.
The ratings for converter operation depend on the converter and its settings and cannot be predetermined.

Higher pole numbers are available on request.

[1] For IM B3, anti-friction bearings.

[2] Utilization 130 (B) on request.

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Motor type (repeated)	Constant-torque drive, speed range											
	1:2				1:5				1:10			
	P_{max}	T_{max}	η	cos φ	P_{max}	T_{max}	η	cos φ	P_{max}	T_{max}	η	cos φ
	kW	Nm	%	[-]	kW	Nm	%	[-]	kW	Nm	%	[-]
												Constant-torque drive
4-pole												
1LA4 500-4...	1300	8315	96.8	0.85	1050	6716	96.9	0.85	940	6012	96.9	0.84
1LA4 502-4...	1450	9274	97.0	0.85	1180	7547	97.1	0.85	1060	6780	97.1	0.85
1LA4 504-4...	1600	10233	97.1	0.86	1320	8443	97.2	0.86	1180	7547	97.2	0.86
1LA4 560-4...	1760	11249	97.3	0.85	1450	9268	97.4	0.84	1320	8437	97.4	0.83
1LA4 562-4...	2040	13039	97.3	0.85	1680	10738	97.4	0.85	1550	9907	97.4	0.84
1LA4 564-4...	2300	14701	97.3	0.85	1900	12144	97.4	0.85	1750	11185	97.4	0.84
1LA4 632-4...	2495	15950	97.4	0.88	2030	12960	97.4	0.87	1900	12130	97.4	0.87
1LA4 634-4...	2780	17790	97.5	0.88	2260	14460	97.5	0.87	2110	13530	97.4	0.87
1LA4 636-4...	3020	19330	97.6	0.88	2460	15700	97.6	0.87	2300	14700	97.5	0.87
6-pole												
1LA4 500-6...	1060	10173	96.6	0.85	880	8445	96.8	0.84	800	7678	96.9	0.84
1LA4 502-6...	1160	11133	96.8	0.86	970	9309	97.0	0.86	880	8445	97.0	0.85
1LA4 504-6...	1260	12092	96.8	0.86	1060	10173	97.0	0.86	960	9213	97.1	0.86
1LA4 560-6...	1480	14204	97.0	0.84	1250	11996	97.2	0.84	1120	10749	97.2	0.83
1LA4 562-6...	1720	16507	97.1	0.84	1450	13916	97.3	0.83	1250	11996	97.3	0.83
1LA4 564-6...	1930	18522	97.3	0.85	1650	15835	97.4	0.85	1400	13436	97.5	0.85
1LA4 632-6...	2130	20456	97.0	0.89	1730	16620	97.0	0.88	1620	15555	97.0	0.88
1LA4 634-6...	2380	22839	97.1	0.89	1935	18545	97.2	0.89	1810	17342	97.1	0.88
1LA4 636-6...	2590	24880	97.3	0.89	2100	20215	97.3	0.89	1970	18920	97.2	0.88
8-pole												
1LA4 500-8...	790	10126	96.1	0.79	650	8331	96.3	0.78	580	7434	96.3	0.76
1LA4 502-8...	850	10895	96.1	0.80	730	9357	96.2	0.79	650	8331	96.3	0.77
1LA4 504-8...	950	12177	96.1	0.80	800	10254	96.2	0.78	710	9100	96.3	0.77
1LA4 560-8...	1090	13971	96.6	0.82	890	11408	96.8	0.81	800	10254	96.8	0.79
1LA4 562-8...	1240	15894	96.7	0.82	1020	13074	96.9	0.81	920	11792	96.9	0.80
1LA4 564-8...	1440	18457	96.8	0.82	1200	15381	97.0	0.81	1100	14099	97.0	0.80
1LA4 632-8...	1510	19310	96.5	0.84	1225	15697	96.4	0.82	1145	14690	96.3	0.81
1LA4 634-8...	1710	21903	96.7	0.84	1390	17796	96.6	0.82	1300	16666	96.5	0.81
1LA4 636-8...	1880	24118	96.8	0.85	1530	19596	96.7	0.83	1430	18340	96.7	0.82

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Selection and ordering data

Rated power		High voltage motor H-compact	Operating values at rated output for utilization 155 (F)							
IEC			Rated speed	Efficiency	Power factor	Rated current 2.3 kV	Rated torque	Break-down torque	Moment of inertia	Mechanical speed limit[1]
P_{rated} 155 (F)	P_{rated} 130 (B)		n_{rated}	η	cos φ	I_{rated}	T_{rated}	T_B/T_{rated}	J	n_{max}
kW	kW	Article No.	rpm	%	[-]	A	Nm	[-]	kgm^2	rpm
2.3 kV, 60 Hz										
4-pole										
1500	1260	**1LA4 500-4CV1■**	1793	96.8	0.87	445	7989	2.50	42	2200
1650	1350	**1LA4 502-4CV1■**	1793	96.8	0.87	490	8787	2.50	47	2200
1800	1450	**1LA4 504-4CV1■**	1793	96.8	0.87	540	9586	2.50	54	2200
2000	1600	**1LA4 560-4CV1■**	1794	97.3	0.87	590	10645	2.40	79	2000
2300	1850	**1LA4 562-4CV1■**	1794	97.3	0.87	680	12242	2.40	92	2000
2600	2100	**1LA4 564-4CV1■**	1794	97.3	0.87	770	13839	2.40	104	2000
6-pole										
1180	1020	**1LA4 500-6CV1■**	1195	96.8	0.87	350	9429	2.40	82	2100
1320	1150	**1LA4 502-6CV1■**	1195	97.0	0.87	395	10548	2.40	92	2100
1450	1250	**1LA4 504-6CV1■**	1195	97.1	0.87	430	11587	2.50	103	2100
1650	1400	**1LA4 560-6CV1■**	1195	97.2	0.86	495	13185	2.60	142	2000
1900	1550	**1LA4 562-6CV1■**	1195	97.4	0.86	570	15183	2.60	162	2000
2150	1750	**1LA4 564-6CV1■**	1195	97.5	0.87	640	17180	2.60	189	2000
2230	–[2]	**1LA4 632-6CV1■**	1195	96.7	0.89	650	17825	2.40	234	1500
8-pole										
900	750	**1LA4 500-8CV1■**	896	96.4	0.79	295	9592	2.30	82	2100
950	780	**1LA4 502-8CV1■**	896	96.4	0.79	315	10124	2.30	92	2100
1050	850	**1LA4 504-8CV1■**	896	96.4	0.79	345	11190	2.30	102	2100
1200	1030	**1LA4 560-8CV1■**	895	96.8	0.83	375	12803	2.20	142	2000
1380	1190	**1LA4 562-8CV1■**	895	96.8	0.83	430	14724	2.30	162	2000
1580	1280	**1LA4 564-8CV1■**	895	96.9	0.83	495	16857	2.40	189	2000
1800	–[2]	**1LA4 632-8CV1■**	895	96.6	0.85	550	19205	2.10	265	1500
2000	–[2]	**1LA4 634-8CV1■**	895	96.7	0.86	600	21339	2.00	294	1500
2160	–[2]	**1LA4 636-8CV1■**	895	96.8	0.86	650	23046	2.10	320	1500

Type of construction:	
IM B3	**0**
IM V1 (with canopy)	**4**
IM V1 (without canopy)	**8**

Note:

The motors for converter operation with non-sinusoidal output have, among other things, a reinforced winding insulation.
Additional details see Page 3/2.
Ratings are defined for sinusoidal supply, based on IEC 60034-2-1:2007.
The ratings for converter operation depend on the converter and its settings and cannot be predetermined.

Higher pole numbers are available on request.

[1] For IM B3, anti-friction bearings.

[2] Utilization 130 (B) on request.

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Motor type (repeated)	Constant-torque drive, speed range											
	1:2				1:5				1:10			
	P_{max}	T_{max}	η	cos φ	P_{max}	T_{max}	η	cos φ	P_{max}	T_{max}	η	cos φ
	kW	Nm	%	[-]	kW	Nm	%	[-]	kW	Nm	%	[-]
												Constant-torque drive
4-pole												
1LA4 500-4...	1470	7829	96.5	0.86	1270	6764	96.5	0.86	1150	6125	96.5	0.85
1LA4 502-4...	1600	8521	96.5	0.86	1320	7030	96.5	0.85	1200	6391	96.5	0.85
1LA4 504-4...	1750	9320	96.5	0.86	1500	7989	96.5	0.86	1350	7190	96.5	0.85
1LA4 560-4...	1920	10220	97.1	0.87	1610	8570	97.2	0.86	1500	7984	97.2	0.85
1LA4 562-4...	2250	11976	97.1	0.87	1880	10007	97.2	0.86	1750	9315	97.2	0.85
1LA4 564-4...	2580	13733	97.1	0.87	2250	11976	97.2	0.86	2100	11178	97.2	0.86
6-pole												
1LA4 500-6...	1160	9269	96.6	0.86	980	7831	96.7	0.86	880	7032	96.7	0.85
1LA4 502-6...	1300	10388	96.7	0.85	1120	8950	96.8	0.85	1020	8151	96.8	0.85
1LA4 504-6...	1430	11427	96.9	0.86	1250	9988	97.0	0.86	1150	9189	97.0	0.85
1LA4 560-6...	1630	13025	97.0	0.84	1450	11587	97.1	0.84	1350	10788	97.1	0.84
1LA4 562-6...	1880	15023	97.1	0.85	1650	13185	97.1	0.85	1520	12146	97.2	0.84
1LA4 564-6...	2130	17020	97.3	0.86	1930	15422	97.3	0.86	1800	14383	97.4	0.86
1LA4 632-6...	2165	17297	96.6	0.89	1760	14048	96.4	0.88	1650	13166	96.3	0.87
8-pole												
1LA4 500-8...	880	9378	96.0	0.79	780	8313	96.0	0.77	710	7567	96.0	0.76
1LA4 502-8...	950	10124	96.0	0.79	870	9272	96.0	0.78	780	8313	96.0	0.77
1LA4 504-8...	1050	11190	96.0	0.79	970	10338	96.0	0.78	880	9378	96.0	0.77
1LA4 560-8...	1200	12803	96.6	0.83	1010	10776	96.7	0.82	930	9922	96.7	0.81
1LA4 562-8...	1380	14724	96.6	0.82	1190	12696	96.7	0.81	1100	11736	96.8	0.81
1LA4 564-8...	1580	16857	96.8	0.82	1420	15150	96.9	0.81	1320	14083	96.9	0.81
1LA4 632-8...	1746	18629	96.4	0.85	1422	15172	96.2	0.84	1332	14212	96.3	0.83
1LA4 634-8...	1940	20699	96.6	0.85	1580	16858	96.4	0.84	1480	15791	96.4	0.84
1LA4 636-8...	2095	22355	96.6	0.85	1705	18206	96.5	0.84	1598	17054	96.4	0.84

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Selection and ordering data

Rated power		**High voltage motor H-compact**	Operating values at rated output for utilization 155 (F)							
IEC			Rated speed	Efficiency	Power factor	Rated current at 4.16 kV	Rated torque	Break-down torque	Moment of inertia	Mechanical speed limit[1]
P_{rated} 155 (F)	P_{rated} 130 (B)		n_{rated}	η	cos φ	I_{rated}	T_{rated}	T_B/T_{rated}	J	n_{max}
kW	kW	Article No.	rpm	%	[-]	A	Nm	[-]	kgm^2	rpm
3.4 ... 4.16 kV, 60 Hz										
4-pole										
1500	1260	**1LA4 500-4CV5■**	1793	96.8	0.87	245	7989	2.50	42	2200
1650	1350	**1LA4 502-4CV5■**	1793	96.8	0.87	270	8787	2.50	47	2200
1800	1450	**1LA4 504-4CV5■**	1793	96.8	0.87	295	9586	2.50	54	2200
2000	1600	**1LA4 560-4CV5■**	1794	97.3	0.87	330	10645	2.40	79	2000
2300	1850	**1LA4 562-4CV5■**	1794	97.3	0.87	375	12242	2.40	92	2000
2600	2100	**1LA4 564-4CV5■**	1794	97.3	0.87	425	13839	2.40	104	2000
2950	–[2]	**1LA4 632-4CV5 0**	1794	97.2	0.87	485	15702	2.40	157	1500
3320	–[2]	**1LA4 634-4CV5 0**	1794	97.3	0.87	540	17672	2.20	171	1500
3600	–[2]	**1LA4 636-4CV5 0**	1795	97.5	0.87	590	19161	2.40	186	1500
6-pole										
1180	1020	**1LA4 500-6CV5■**	1195	96.8	0.87	194	9429	2.40	82	2100
1320	1150	**1LA4 502-6CV5■**	1195	97.0	0.87	215	10548	2.40	92	2100
1450	1250	**1LA4 504-6CV5■**	1195	97.1	0.87	240	11587	2.50	103	2100
1650	1400	**1LA4 560-6CV5■**	1195	97.2	0.86	275	13185	2.60	142	2000
1900	1550	**1LA4 562-6CV5■**	1195	97.4	0.86	315	15183	2.60	162	2000
2150	1750	**1LA4 564-6CV5■**	1195	97.5	0.87	350	17180	2.60	189	2000
2400	–[2]	**1LA4 632-6CV5■**	1195	96.8	0.89	385	19183	2.40	269	1500
2700	–[2]	**1LA4 634-6CV5■**	1195	96.9	0.89	435	21587	2.20	297	1500
2900	–[2]	**1LA4 636-6CV5■**	1195	97.0	0.89	465	23181	2.20	323	1500
8-pole										
900	750	**1LA4 500-8CV5■**	896	96.4	0.79	164	9592	2.30	82	2100
950	780	**1LA4 502-8CV5■**	896	96.4	0.79	174	10124	2.30	92	2100
1050	850	**1LA4 504-8CV5■**	896	96.4	0.79	192	11190	2.30	102	2100
1200	1030	**1LA4 560-8CV5■**	895	96.8	0.83	205	12803	2.20	142	2000
1380	1190	**1LA4 562-8CV5■**	895	96.8	0.83	240	14724	2.30	162	2000
1580	1280	**1LA4 564-8CV5■**	895	96.9	0.83	275	16857	2.40	189	2000
1800	–[2]	**1LA4 632-8CV5■**	895	96.6	0.85	305	19205	2.20	265	1500
1960	–[2]	**1LA4 634-8CV5■**	895	96.7	0.86	325	20912	2.00	294	1500
2160	–[2]	**1LA4 636-8CV5■**	895	96.8	0.86	360	23046	2.10	320	1500

Type of construction:	
IM B3	**0**
IM V1 (with canopy)	**4**
IM V1 (without canopy)	**8**

Note:

The motors for converter operation with non-sinusoidal output have, among other things, a reinforced winding insulation.
Additional details see Page 3/2.
Ratings are defined for sinusoidal supply, based on IEC 60034-2-1:2007.
The ratings for converter operation depend on the converter and its settings and cannot be predetermined.

Higher pole numbers are available on request.

[1] For IM B3, anti-friction bearings.

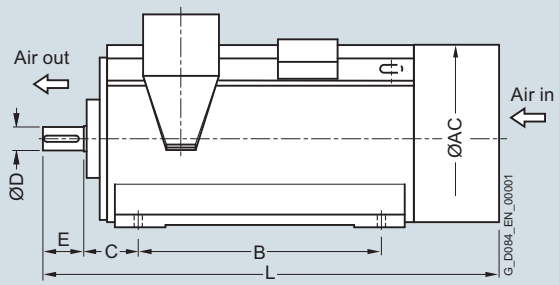
[2] Utilization 130 (B) on request.

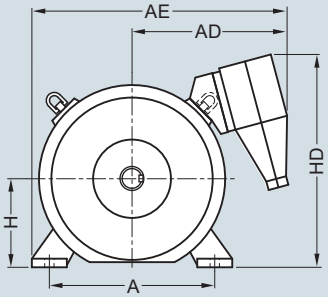
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Motor type (repeated)	Constant-torque drive, speed range											
	1:2				1:5				1:10			
	P_{max}	T_{max}	η	cos φ	P_{max}	T_{max}	η	cos φ	P_{max}	T_{max}	η	cos φ
	kW	Nm	%	[-]	kW	Nm	%	[-]	kW	Nm	%	[-]
												Constant-torque drive
4-pole												
1LA4 500-4...	1470	7829	96.5	0.86	1270	6764	96.5	0.86	1150	6125	96.5	0.85
1LA4 502-4...	1600	8521	96.5	0.86	1320	7030	96.5	0.85	1200	6391	96.5	0.85
1LA4 504-4...	1750	9320	96.5	0.86	1500	7989	96.5	0.86	1350	7190	96.5	0.85
1LA4 560-4...	1920	10220	97.1	0.87	1610	8570	97.2	0.86	1500	7984	97.2	0.85
1LA4 562-4...	2250	11976	97.1	0.87	1880	10007	97.2	0.86	1750	9315	97.2	0.85
1LA4 564-4...	2580	13733	97.1	0.87	2250	11976	97.2	0.86	2100	11178	97.2	0.86
1LA4 632-4...	2860	15219	97.2	0.87	2330	12389	97.0	0.86	2185	11616	96.9	0.85
1LA4 634-4...	3220	17135	97.3	0.87	2625	13957	97.1	0.86	2455	13052	97.1	0.85
1LA4 636-4...	3490	18567	97.4	0.87	2845	15125	97.2	0.86	2665	14166	97.2	0.85
6-pole												
1LA4 500-6...	1160	9269	96.6	0.86	980	7831	96.7	0.86	880	7032	96.7	0.85
1LA4 502-6...	1300	10388	96.7	0.85	1120	8950	96.8	0.85	1020	8151	96.8	0.85
1LA4 504-6...	1430	11427	96.9	0.86	1250	9988	97.0	0.86	1150	9189	97.0	0.85
1LA4 560-6...	1630	13025	97.0	0.84	1450	11587	97.1	0.84	1350	10788	97.1	0.84
1LA4 562-6...	1880	15023	97.1	0.85	1650	13185	97.1	0.85	1520	12146	97.2	0.84
1LA4 564-6...	2130	17020	97.3	0.86	1930	15422	97.3	0.86	1800	14383	97.4	0.86
1LA4 632-6...	2330	18613	96.7	0.89	1895	15124	96.5	0.88	1775	14163	96.4	0.88
1LA4 634-6...	2620	20937	96.9	0.89	2135	17042	96.8	0.89	2000	15960	96.7	0.88
1LA4 636-6...	2815	22489	97.0	0.89	2290	18276	96.9	0.89	2145	17115	96.8	0.88
8-pole												
1LA4 500-8...	880	9378	96.0	0.79	780	8313	96.0	0.77	710	7567	96.0	0.76
1LA4 502-8...	950	10124	96.0	0.79	870	9272	96.0	0.78	780	8313	96.0	0.77
1LA4 504-8...	1050	11190	96.0	0.79	970	10338	96.0	0.78	880	9378	96.0	0.77
1LA4 560-8...	1200	12803	96.6	0.83	1010	10776	96.7	0.82	930	9922	96.7	0.81
1LA4 562-8...	1380	14724	96.6	0.82	1190	12696	96.7	0.81	1100	11736	96.8	0.81
1LA4 564-8...	1580	16857	96.8	0.82	1420	15150	96.9	0.81	1320	14083	96.9	0.81
1LA4 632-8...	1746	18629	96.3	0.84	1422	15172	96.1	0.82	1332	14212	95.9	0.81
1LA4 634-8...	1901	20285	96.5	0.85	1548	16520	96.4	0.84	1450	15475	96.3	0.83
1LA4 636-8...	2095	22355	96.6	0.85	1706	18206	96.5	0.84	1598	17054	96.4	0.83

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Dimension drawings





Motor type	Weight	Dimensions										
		A	AC	AD[1)3)]	AE[1)2)3)]	B	C	D	E	H	HD[4)]	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, anti-friction bearings, IM B3 type of construction												
2-pole												
1LA4454-2CM00	5200	850	960	825	1340	1250	280	95	130	450	1100	2320
4-pole												
1LA4454-4A..0	5300	850	960	825	1340	1250	280	130	200	450	1100	2390
1LA4500-4C..0	6200	950	1070	875	1440	1320	315	140	200	500	1200	2525
1LA4502-4C..0	6500	950	1070	875	1440	1320	315	140	200	500	1200	2525
1LA4504-4C..0	7000	950	1070	875	1440	1320	315	140	200	500	1200	2525
1LA4560-4C..0	8200	1060	1210	925	1560	1400	335	160	240	560	1310	2775
1LA4562-4C..0	8900	1060	1210	925	1560	1400	335	160	240	560	1310	2775
1LA4564-4C..0	9700	1060	1210	925	1560	1400	335	160	240	560	1310	2775
1LA4632-4C..0	12200	1120	1350	945	1560	1600	335	170	240	630	1410	3015
1LA4634-4C..0	12800	1120	1350	945	1560	1600	335	170	240	630	1410	3015
1LA4636-4C..0	13600	1120	1350	945	1560	1600	335	170	240	630	1410	3015
6-pole												
1LA4454-6AM00	5200	850	960	825	1340	1250	280	130	200	450	1100	2390
1LA4500-6C..0	6400	950	1070	875	1440	1320	315	140	200	500	1200	2525
1LA4502-6C..0	6800	950	1070	875	1440	1320	315	140	200	500	1200	2525
1LA4504-6C..0	7300	950	1070	875	1440	1320	315	140	200	500	1200	2525
1LA4560-6C..0	8500	1060	1210	925	1560	1400	335	160	240	560	1310	2775
1LA4562-6C..0	9300	1060	1210	925	1560	1400	335	160	240	560	1310	2775
1LA4564-6C..0	10100	1060	1210	925	1560	1400	335	160	240	560	1310	2775
1LA4632-6C..0	12700	1120	1350	945	1560	1600	335	180	240	630	1410	3015
1LA4634-6C..0	13400	1120	1350	945	1560	1600	335	180	240	630	1410	3015
1LA4636-6C..0	14100	1120	1350	945	1560	1600	335	180	240	630	1410	3015
8-pole												
1LA4454-8AM00	5200	850	960	825	1340	1250	280	130	200	450	1100	2390
1LA4500-8C..0	6400	950	1070	875	1440	1320	315	140	200	500	1200	2525
1LA4502-8C..0	6700	950	1070	875	1440	1320	315	140	200	500	1200	2525
1LA4504-8C..0	7200	950	1070	875	1440	1320	315	140	200	500	1200	2525
1LA4560-8C..0	8500	1060	1210	925	1560	1400	335	160	240	560	1310	2775
1LA4562-8C..0	9200	1060	1210	925	1560	1400	335	160	240	560	1310	2775
1LA4564-8C..0	10000	1060	1210	925	1560	1400	335	160	240	560	1310	2775
1LA4632-8C..0	12500	1120	1350	945	1560	1600	335	180	240	630	1410	3015
1LA4634-8C..0	13300	1120	1350	945	1560	1600	335	180	240	630	1410	3015
1LA4636-8C..0	14000	1120	1350	945	1560	1600	335	180	240	630	1410	3015

Note: Higher pole numbers are available on request.

1) For V_{rated} = 690 V, the dimension changes by + 100 mm.

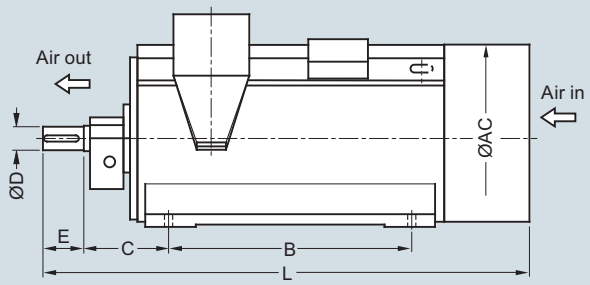
2) For V_{rated} = 690 V and I_{rated} > 1230 A, the dimension changes by + 475 mm (a second main terminal box is required).

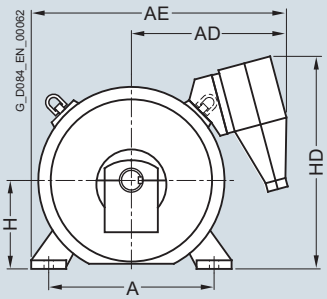
3) For $V_{rated} \geq$ 2.0 kV and current I_{rated} > 315 A, the dimension changes by + 140 mm.

4) For $V_{rated} \geq$ 2.0 kV and current I_{rated} > 315 A, the dimension changes by + 70 mm.

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Dimension drawings





Motor type	Weight	Dimensions										
		A	AC	AD[1)3)]	AE[1)2)3)]	B	C	D	E	H	HD[4)]	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, sleeve bearings, IM B3 type of construction												
2-pole												
1LA4454-2CM00-Z K96	5200	850	960	825	1340	1250	475	95	130	450	1100	2515
4-pole												
1LA4454-4A..0-Z K96	5400	850	960	825	1340	1250	475	130	200	450	1100	2745
1LA4500-4C..0-Z K96	6300	950	1070	875	1440	1320	500	140	200	500	1200	2870
1LA4502-4C..0-Z K96	6700	950	1070	875	1440	1320	500	140	200	500	1200	2870
1LA4504-4C..0-Z K96	7200	950	1070	875	1440	1320	500	140	200	500	1200	2870
1LA4560-4C..0-Z K96	8500	1060	1210	925	1560	1400	560	160	240	560	1310	3170
1LA4562-4C..0-Z K96	9200	1060	1210	925	1560	1400	560	160	240	560	1310	3170
1LA4564-4C..0-Z K96	10000	1060	1210	925	1560	1400	560	160	240	560	1310	3170
1LA4632-4C..0-Z K96	12500	1120	1350	945	1560	1600	560	170	240	630	1410	3450
1LA4634-4C..0-Z K96	13100	1120	1350	945	1560	1600	560	170	240	630	1410	3450
1LA4636-4C..0-Z K96	13900	1120	1350	945	1560	1600	560	170	240	630	1410	3450
6-pole												
1LA4454-6AM00-Z K96	5300	850	960	825	1340	1250	475	130	200	450	1100	2745
1LA4500-6C..0-Z K96	6600	950	1070	875	1440	1320	530	140	200	500	1200	2900
1LA4502-6C..0-Z K96	7000	950	1070	875	1440	1320	530	140	200	500	1200	2900
1LA4504-6C..0-Z K96	7500	950	1070	875	1440	1320	530	140	200	500	1200	2900
1LA4560-6C..0-Z K96	8800	1060	1210	925	1560	1400	560	160	240	560	1310	3170
1LA4562-6C..0-Z K96	9500	1060	1210	925	1560	1400	560	160	240	560	1310	3170
1LA4564-6C..0-Z K96	10400	1060	1210	925	1560	1400	560	160	240	560	1310	3170
1LA4632-6C..0-Z K96	13000	1120	1350	945	1560	1600	560	180	240	630	1410	3450
1LA4634-6C..0-Z K96	13700	1120	1350	945	1560	1600	560	180	240	630	1410	3450
1LA4636-6C..0-Z K96	14500	1120	1350	945	1560	1600	560	180	240	630	1410	3450

[1)] For V_{rated} = 690 V, the dimension changes by + 100 mm.

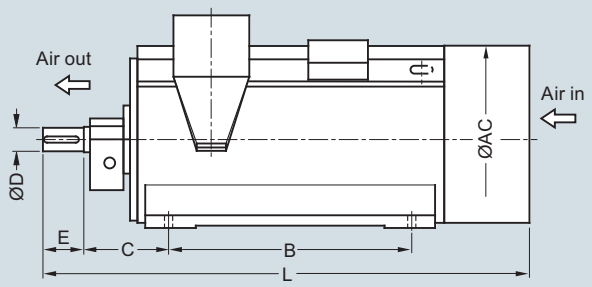
[2)] For V_{rated} = 690 V and I_{rated} > 1230 A, the dimension changes by + 475 mm (a second main terminal box is required).

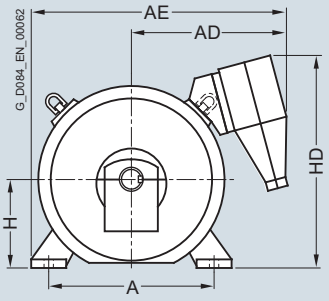
[3)] For $V_{rated} \geq$ 2.0 kV and current I_{rated} > 315 A, the dimension changes by + 140 mm.

[4)] For $V_{rated} \geq$ 2.0 kV and current I_{rated} > 315 A, the dimension changes by + 70 mm.

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Dimension drawings (continued)





Motor type	Weight	Dimensions										
		A	AC	AD[1)3)]	AE[1)2)3)]	B	C	D	E	H	HD[4)]	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, sleeve bearings, IM B3 type of construction												
8-pole												
1LA4454-8AM00-Z K96	5300	850	960	825	1340	1250	475	130	200	450	1100	2745
1LA4500-8C..0-Z K96	6600	950	1070	875	1440	1320	530	140	200	500	1200	2900
1LA4502-8C..0-Z K96	6900	950	1070	875	1440	1320	530	140	200	500	1200	2900
1LA4504-8C..0-Z K96	7400	950	1070	875	1440	1320	530	140	200	500	1200	2900
1LA4560-8C..0-Z K96	8800	1060	1210	925	1560	1400	560	160	240	560	1310	3170
1LA4562-8C..0-Z K96	9500	1060	1210	925	1560	1400	560	160	240	560	1310	3170
1LA4564-8C..0-Z K96	10300	1060	1210	925	1560	1400	560	160	240	560	1310	3170
1LA4632-8C..0-Z K96	12800	1120	1350	945	1560	1600	560	180	240	630	1410	3450
1LA4634-8C..0-Z K96	13600	1120	1350	945	1560	1600	560	180	240	630	1410	3450
1LA4636-8C..0-Z K96	14400	1120	1350	945	1560	1600	560	180	240	630	1410	3450

Note:

Higher pole numbers are available on request.

[1)] For V_{rated} = 690 V, the dimension changes by + 100 mm.

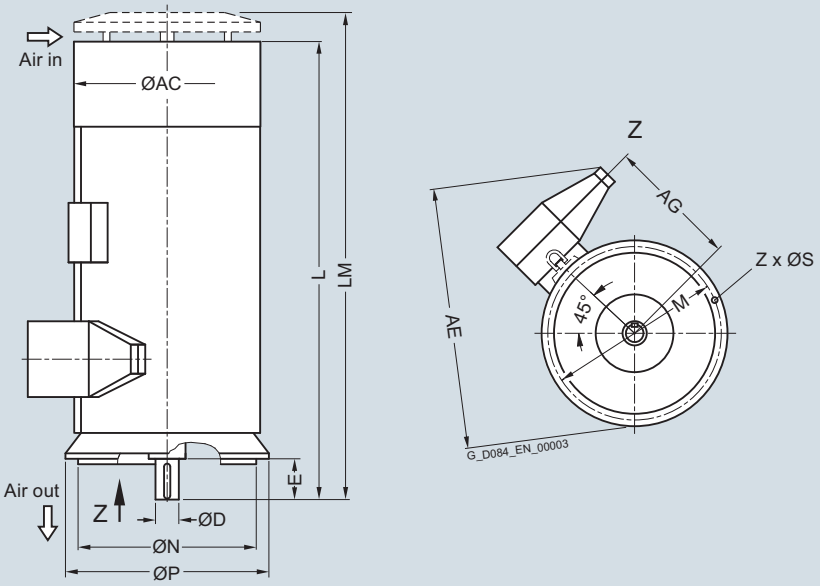
[2)] For V_{rated} = 690 V and I_{rated} > 1230 A, the dimension changes by + 475 mm (a second main terminal box is required).

[3)] For $V_{rated} \geq$ 2.0 kV and current I_{rated} > 315 A, the dimension changes by + 140 mm.

[4)] For $V_{rated} \geq$ 2.0 kV and current I_{rated} > 315 A, the dimension changes by + 70 mm.

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Dimension drawings



Motor type	Weight	Dimensions											
		AC	AG[1)2)]	AE[3)]	D	E	L	LM	P	N	M	S	Z
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Quantity
Up to 6.6 kV, anti-friction bearings, IM V1 type of construction													
4-pole													
1LA4454-4AM0.	5200	960	770	1550	130	200	2390	2550	1150	1000	1080	26	8
1LA4500-4C...	6100	1070	840	1660	140	200	2525	2695	1250	1120	1180	26	16
1LA4502-4C...	6500	1070	840	1660	140	200	2525	2695	1250	1120	1180	26	16
1LA4504-4C...	7000	1070	840	1660	140	200	2525	2695	1250	1120	1180	26	16
1LA4560-4C...	8300	1210	910	1800	160	240	2775	2955	1400	1250	1320	26	16
1LA4562-4C...	9000	1210	910	1800	160	240	2775	2955	1400	1250	1320	26	16
1LA4564-4C...	9700	1210	910	1800	160	240	2775	2955	1400	1250	1320	26	16
6-pole													
1LA4454-6AM0.	5200	960	770	1550	130	200	2390	2550	1150	1000	1080	26	8
1LA4500-6C...	6400	1070	840	1660	140	200	2525	2695	1250	1120	1180	26	16
1LA4502-6C...	6800	1070	840	1660	140	200	2525	2695	1250	1120	1180	26	16
1LA4504-6C...	7300	1070	840	1660	140	200	2525	2695	1250	1120	1180	26	16
1LA4560-6C...	8500	1210	910	1800	160	240	2775	2955	1400	1250	1320	26	16
1LA4562-6C...	9300	1210	910	1800	160	240	2775	2955	1400	1250	1320	26	16
1LA4564-6C...	10100	1210	910	1800	160	240	2775	2955	1400	1250	1320	26	16
1LA4632-6C...	12700	1350	980	1820	180	240	3115	3305	1400	1250	1320	26	16
1LA4634-6C...	13400	1350	980	1820	180	240	3115	3305	1400	1250	1320	26	16
1LA4636-6C...	14100	1350	980	1820	180	240	3115	3305	1400	1250	1320	26	16

[1)] For V_{rated} = 690 V, the dimension changes by – 50 mm.

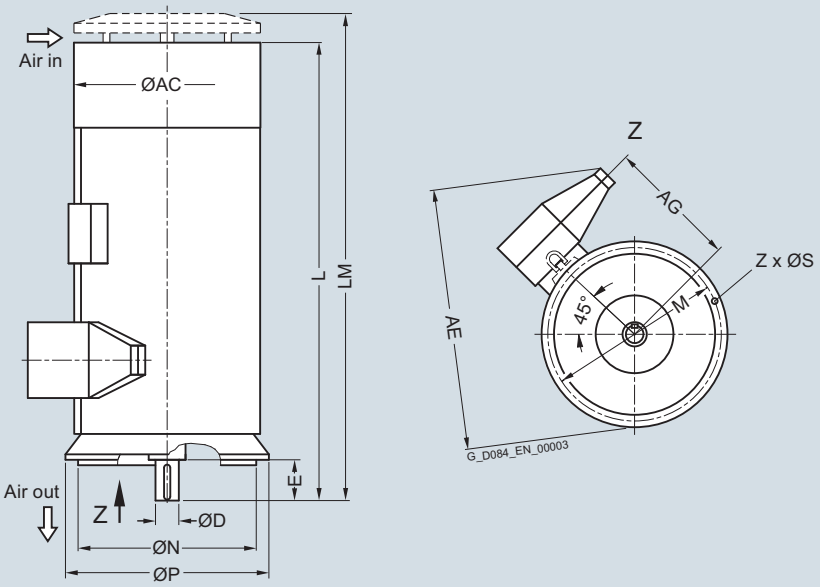
[2)] For currents I_{rated} > 315 A, the dimension changes by + 45 mm.

[3)] For currents I_{rated} > 315 A, the dimension changes by + 180 mm.

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Dimension drawings (continued)



Motor type	Weight	Dimensions											
		AC	AG[1)2)]	AE[3)]	D	E	L	LM	P	N	M	S	Z
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Quantity
Up to 6.6 kV, anti-friction bearings, IM V1 type of construction													
8-pole													
1LA4454-8AM0.	5200	960	770	1550	130	200	2390	2550	1000	1150	1080	26	8
1LA4500-8C...	6400	1070	840	1660	140	200	2525	2695	1250	1120	1180	26	16
1LA4502-8C...	6800	1070	840	1660	140	200	2525	2695	1250	1120	1180	26	16
1LA4504-8C...	7200	1070	840	1660	140	200	2525	2695	1250	1120	1180	26	16
1LA4560-8C...	8500	1210	910	1800	160	240	2775	2955	1400	1250	1320	26	16
1LA4562-8C...	9200	1210	910	1800	160	240	2775	2955	1400	1250	1320	26	16
1LA4564-8C...	10000	1210	910	1800	160	240	2775	2955	1400	1250	1320	26	16
1LA4632-8C...	12500	1350	980	1820	180	240	3115	3305	1400	1250	1320	26	16
1LA4634-8C...	13300	1350	980	1820	180	240	3115	3305	1400	1250	1320	26	16
1LA4636-8C...	14000	1350	980	1820	180	240	3115	3305	1400	1250	1320	26	16

Note:

Higher pole numbers are available on request.

1) For V_{rated} = 690 V, the dimension changes by – 50 mm.

2) For currents I_{rated} > 315 A, the dimension changes by + 45 mm.

3) For currents I_{rated} > 315 A, the dimension changes by + 180 mm.

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Overview



Technical data

Overview of technical data

H-compact 1PQ4	
Rated voltage	690 V … 6.6 kV
Rated frequency	50/60 Hz
Motor type	Induction motor with squirrel-cage rotor
Type of construction	IM B3, IM V1
Degree of protection	IP55
Cooling method	IC416
Stator winding insulation	Insulation system, thermal class 155 (F), utilized to 155 (F)
Shaft height	450 … 630 mm
Bearings	Anti-friction bearings, sleeve bearings
Cage material	Die-cast aluminum or copper (dependent on the shaft height and number of poles)
Standards	IEC, EN
Frame design	Cast iron with cooling ribs

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Technical data (continued)

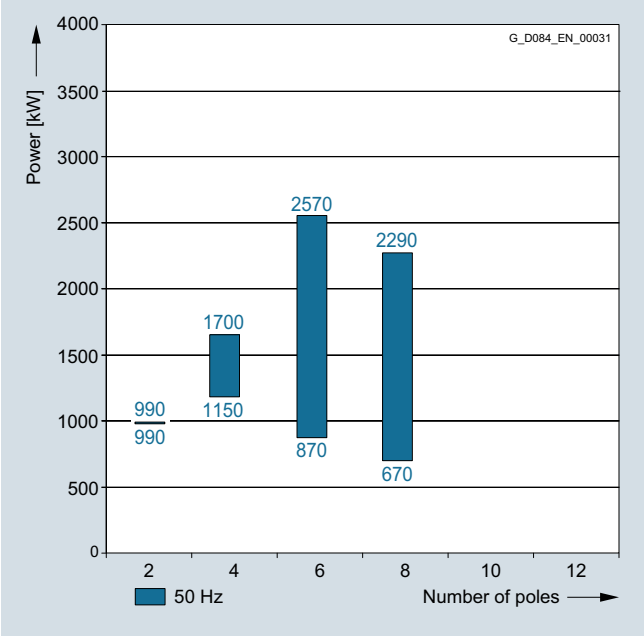
Power ranges for IEC motors with reinforced insulation for SINAMICS drive converters without sine-wave filter

1PQ4 series

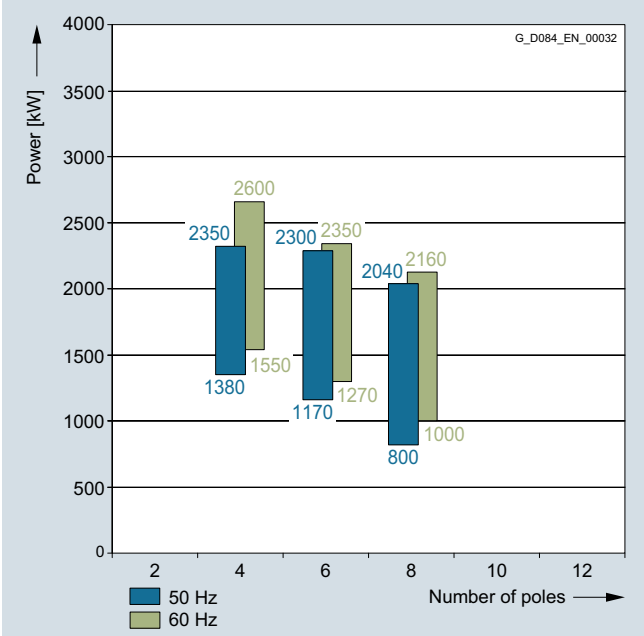
Insulation system, thermal class 155 (F), utilized to 155 (F)

The power data listed here apply for an ambient temperature of 40 °C and an installation altitude ≤ 1000 m.

690 V; 50 Hz



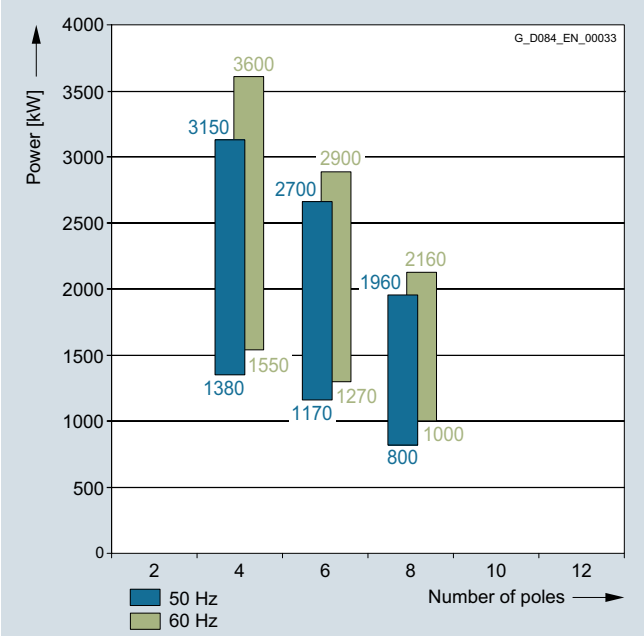
2.3 kV; 50 and 60 Hz



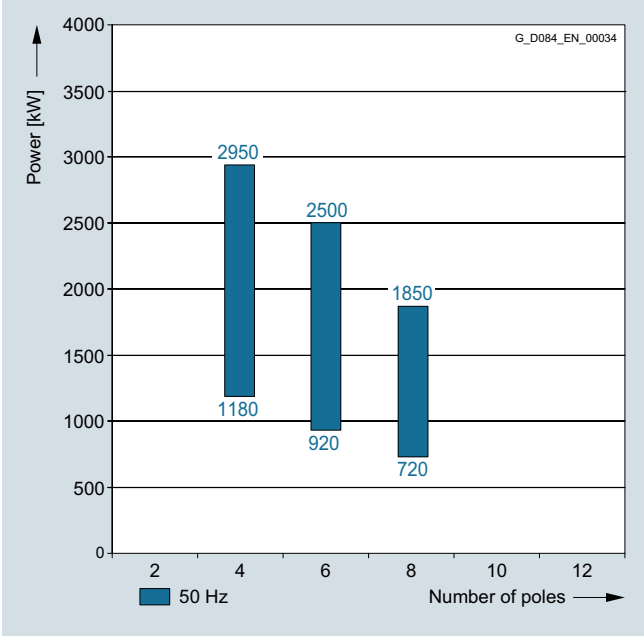
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Technical data (continued)

3.4 to 4.16 kV; 50 and 60 Hz



6 to 6.6 kV; 50 Hz



3

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Selection and ordering data

Rated power	**Low-voltage motor H-compact**	Operating values at rated output for utilization 155 (F)							
IEC		Rated speed	Efficiency	Power factor	Rated current at 690 V	Rated torque	Break-down torque	Moment of inertia	Mechanical speed limit[1]
P_{rated} 155 (F)		n_{rated}	η	cos φ	I_{rated}	T_{rated}	T_B/T_{rated}	J	n_{max}
kW	Article No.	rpm	%	[-]	A	Nm	[-]	kgm^2	rpm
690 V, 50 Hz									
2-pole									
990	**1PQ4 454-2CM0 0**	2983	97.3	0.92	930	3169	2.80	22.2	3000
4-pole									
1150	**1PQ4 454-4AM0■**	1491	97.5	0.89	1100	7365	2.50	33.9	2400
1340	**1PQ4 500-4CM0■**	1490	97.3	0.88	1300	8588	2.00	44.3	2400
1550	**1PQ4 502-4CM0■**	1492	97.5	0.87	1520	9920	2.20	49.0	2400
1700	**1PQ4 504-4CM0■**	1490	97.4	0.89	1640	10895	2.00	56.2	2400
6-pole									
870	**1PQ4 454-6AM0■**	993	97.3	0.86	870	8366	2.50	53.5	2200
1350	**1PQ4 500-6CM0■**	995	97.2	0.86	1360	12956	2.20	82.1	2200
1480	**1PQ4 502-6CM0■**	995	97.2	0.86	1480	14204	2.15	92.4	2200
1630	**1PQ4 504-6CM0■**	995	97.3	0.87	1620	15643	2.15	102.6	2200
1900	**1PQ4 560-6CM0■**	995	97.5	0.86	1900	18234	2.30	141.5	2000
2100	**1PQ4 562-6CM0■**	995	97.5	0.86	2100	20154	2.40	162.1	2000
2300	**1PQ4 564-6CM0■**	995	97.6	0.87	2250	22073	2.40	188.5	2000
2455	**1PQ4 634-6CM0■**	996	97.4	0.88	2400	23538	3.00	331.5	1200
2570	**1PQ4 636-6CM0■**	996	97.4	0.89	2500	24640	3.00	361.5	1200
8-pole									
670	**1PQ4 454-8AM0■**	745	96.7	0.80	720	8588	2.40	52.8	2200
950	**1PQ4 500-8CM0■**	746	96.7	0.80	1020	12160	2.10	81.7	2200
1050	**1PQ4 502-8CM0■**	746	96.8	0.81	1120	13440	2.10	91.9	2200
1150	**1PQ4 504-8CM0■**	746	96.9	0.81	1220	14720	2.10	102.2	2200
1400	**1PQ4 560-8CM0■**	745	97.0	0.81	1500	17944	2.30	141.6	2000
1600	**1PQ4 562-8CM0■**	746	97.1	0.82	1680	20480	2.30	162.3	2000
1850	**1PQ4 564-8CM0■**	746	97.1	0.82	1940	23680	2.30	188.8	2000
2030	**1PQ4 634-8CM0■**	746	97.0	0.86	2050	25985	2.40	330.0	1200
2290	**1PQ4 636-8CM0■**	746	97.1	0.86	2300	29314	2.40	360.0	1200

Type of construction:	
IM B3	**0**
IM V1 (with canopy)	**4**
IM V1 (without canopy)	**8**

Note:

The motors for converter operation with non-sinusoidal output have, among other things, a reinforced winding insulation.
Additional details see Page 3/2.
Ratings are defined for sinusoidal supply, based on IEC 60034-2-1:2007.
The ratings for converter operation depend on the converter and its settings and cannot be predetermined.

Higher pole numbers are available on request.

[1] For IM B3, anti-friction bearings.

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Motor type (repeated)	Constant-torque drive, speed range											
	1:2				1:5				1:10			
	P_{max}	T_{max}	η	cos φ	P_{max}	T_{max}	η	cos φ	P_{max}	T_{max}	η	cos φ
	kW	rpm	%	[-]	kW	rpm	%	[-]	kW	rpm	%	[-]
												Constant-torque drive
2-pole												
1PQ4 454-2...	990	3169	97.3	0.92	880	2817	97.3	0.92	850	2721	97.3	0.92
4-pole												
1PQ4 454-4...	1130	7237	97.5	0.89	1060	6789	97.6	0.89	1020	6533	97.6	0.88
1PQ4 500-4...	1320	8460	97.2	0.88	1230	7883	97.3	0.88	1200	7690	97.3	0.88
1PQ4 502-4...	1530	9792	97.5	0.87	1420	9088	97.6	0.87	1390	8896	97.6	0.87
1PQ4 504-4...	1680	10767	97.4	0.89	1540	9869	97.5	0.89	1510	9677	97.5	0.89
6-pole												
1PQ4 454-6...	870	8366	97.3	0.86	770	7405	97.4	0.85	740	7116	97.4	0.85
1PQ4 500-6...	1350	12956	97.2	0.85	1320	12668	97.2	0.85	1300	12476	97.2	0.85
1PQ4 502-6...	1480	14204	97.2	0.86	1430	13724	97.2	0.86	1420	13628	97.2	0.86
1PQ4 504-6...	1630	15643	97.3	0.87	1580	15163	97.3	0.87	1570	15067	97.3	0.87
1PQ4 560-6...	1900	18234	97.5	0.86	1750	16795	97.5	0.86	1700	16315	97.5	0.85
1PQ4 562-6...	2100	20154	97.5	0.86	2000	19194	97.5	0.86	1950	18714	97.6	0.86
1PQ4 564-6...	2300	22073	97.6	0.87	2250	21593	97.6	0.87	2200	21113	97.6	0.87
1PQ4 634-6...	2455	23538	97.4	0.88	2455	23538	97.4	0.88	2455	23538	97.4	0.88
1PQ4 636-6...	2570	24640	97.4	0.89	2570	24640	97.4	0.89	2570	24640	97.4	0.89
8-pole												
1PQ4 454-8...	670	8588	96.7	0.80	640	8203	96.7	0.80	610	7819	96.8	0.79
1PQ4 500-8...	950	12160	96.7	0.80	950	12160	96.7	0.80	950	12160	96.7	0.80
1PQ4 502-8...	1050	13440	96.8	0.81	1050	13440	96.8	0.81	1050	13440	96.8	0.81
1PQ4 504-8...	1150	14720	96.9	0.81	1150	14720	96.9	0.81	1150	14720	96.9	0.81
1PQ4 560-8...	1400	17944	97.0	0.81	1300	16663	97.0	0.80	1300	16663	97.0	0.80
1PQ4 562-8...	1600	20480	97.1	0.82	1500	19200	97.1	0.82	1500	19200	97.1	0.82
1PQ4 564-8...	1850	23680	97.1	0.82	1700	21760	97.1	0.81	1700	21760	97.1	0.81
1PQ4 634-8...	2030	25985	97.0	0.86	2030	25985	97.0	0.86	2030	25985	97.0	0.86
1PQ4 636-8...	2290	29314	97.1	0.86	2290	29314	97.1	0.86	2290	29314	97.1	0.86

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Selection and ordering data

Rated power		High voltage motor H-compact	Operating values at rated output for utilization 155 (F)							
IEC			Rated speed	Efficiency	Power factor	Rated current 2.3 kV	Rated torque	Break-down torque	Moment of inertia	Mechanical speed limit[1]
P_{rated} 155 (F)	P_{rated} 130 (B)		n_{rated}	η	cos φ	I_{rated}	T_{rated}	T_B/T_{rated}	J	n_{max}
kW	kW	Article No.	rpm	%	[-]	A	Nm	[-]	kgm^2	rpm
2.3 kV, 50 Hz										
4-pole										
1380	1200	**1PQ4 500-4CV0■**	1492	97.4	0.87	410	8833	2.35	42.3	2400
1530	1320	**1PQ4 502-4CV0■**	1492	97.5	0.87	455	9793	2.35	47.0	2400
1680	1470	**1PQ4 504-4CV0■**	1492	97.6	0.88	490	10753	2.35	54.2	2400
1850	1550	**1PQ4 560-4CV0■**	1494	97.8	0.87	550	11826	2.45	79.0	2200
2100	1750	**1PQ4 562-4CV0■**	1494	97.8	0.87	620	13424	2.45	92.0	2200
2350	1900	**1PQ4 564-4CV0■**	1494	97.8	0.87	690	15022	2.45	104.0	2200
6-pole										
1170	1050	**1PQ4 500-6CV0■**	994	97.2	0.87	345	11241	2.20	82.1	2200
1280	1150	**1PQ4 502-6CV0■**	994	97.2	0.87	380	12298	2.20	92.4	2200
1380	1250	**1PQ4 504-6CV0■**	994	97.2	0.87	410	13259	2.20	102.6	2200
1700	1480	**1PQ4 560-6CV0■**	995	97.4	0.86	510	16317	2.25	141.5	2000
1900	1680	**1PQ4 562-6CV0■**	995	97.5	0.87	560	18236	2.40	162.1	2000
2150	1900	**1PQ4 564-6CV0■**	995	97.6	0.87	640	20636	2.25	188.5	2000
2300	–[3]	**1PQ4 632-6CV0■**	995	97.1	0.89	670	22075	2.40	269.0	O. R.[2]
8-pole										
800	800	**1PQ4 500-8CV0■**	746	96.6	0.81	255	10241	2.20	81.7	2200
850	850	**1PQ4 502-8CV0■**	746	96.6	0.81	275	10881	2.20	91.9	2200
950	950	**1PQ4 504-8CV0■**	746	96.6	0.81	305	12162	2.20	102.2	2200
1300	1140	**1PQ4 560-8CV0■**	744	96.8	0.84	400	16687	1.90	141.6	2000
1450	1270	**1PQ4 562-8CV0■**	744	96.9	0.84	445	18612	1.90	162.3	2000
1700	1500	**1PQ4 564-8CV0■**	744	97.0	0.84	520	21821	1.90	188.8	2000
1850	–[3]	**1PQ4 634-8CV0■**	746	96.8	0.84	570	23683	2.40	294.0	O. R.[2]
2040	–[3]	**1PQ4 636-8CV0■**	745	96.9	0.85	620	26150	2.10	320.0	O. R.[2]

Type of construction:	
IM B3	**0**
IM V1 (with canopy)	**4**
IM V1 (without canopy)	**8**

Note:

The motors for converter operation with non-sinusoidal output have, among other things, a reinforced winding insulation.
Additional details see Page 3/2.
Ratings are defined for sinusoidal supply, based on IEC 60034-2-1:2007.
The ratings for converter operation depend on the converter and its settings and cannot be predetermined.

Higher pole numbers are available on request.

[1] For IM B3, anti-friction bearings.
[2] On request.
[3] Utilization 130 (B) on request.

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Motor type (repeated)	Constant-torque drive, speed range											
	1:2				1:5				1:10			
	P_{max}	T_{max}	η	cos φ	P_{max}	T_{max}	η	cos φ	P_{max}	T_{max}	η	cos φ
	kW	Nm	%	[-]	kW	Nm	%	[-]	kW	Nm	%	[-]
												Constant-torque drive
4-pole												
1PQ4 500-4...	1350	8641	97.4	0.87	1280	8193	97.4	0.87	1230	7873	97.4	0.86
1PQ4 502-4...	1500	9601	97.5	0.87	1430	9153	97.5	0.87	1380	8833	97.5	0.87
1PQ4 504-4...	1650	10561	97.6	0.88	1560	9985	97.6	0.88	1500	9601	97.6	0.88
1PQ4 560-4...	1850	11826	97.8	0.87	1780	11378	97.8	0.87	1730	11059	97.8	0.87
1PQ4 562-4...	2100	13424	97.8	0.87	2030	12976	97.8	0.87	1980	12657	97.8	0.87
1PQ4 564-4...	2350	15022	97.8	0.87	2300	14702	97.8	0.87	2250	14383	97.8	0.87
6-pole												
1PQ4 500-6...	1170	11241	97.2	0.87	1170	11241	97.2	0.87	1120	10761	97.2	0.87
1PQ4 502-6...	1280	12298	97.2	0.87	1280	12298	97.2	0.87	1220	11721	97.2	0.87
1PQ4 504-6...	1380	13259	97.2	0.87	1380	13259	97.2	0.87	1320	12682	97.3	0.87
1PQ4 560-6...	1700	16317	97.4	0.86	1700	16317	97.4	0.86	1600	15357	97.4	0.86
1PQ4 562-6...	1900	18236	97.5	0.87	1900	18236	97.5	0.87	1800	17276	97.5	0.87
1PQ4 564-6...	2150	20636	97.6	0.87	2150	20636	97.6	0.87	2050	19676	97.6	0.87
1PQ4 632-6...	2210	21212	97.1	0.89	1795	17228	97.0	0.88	1680	16125	97.0	0.87
8-pole												
1PQ4 500-8...	800	10241	96.6	0.81	800	10241	96.6	0.81	760	9729	96.6	0.81
1PQ4 502-8...	850	10881	96.6	0.81	850	10881	96.6	0.81	810	10369	96.6	0.81
1PQ4 504-8...	980	12546	96.6	0.81	980	12546	96.6	0.81	930	11905	96.6	0.81
1PQ4 560-8...	1300	16687	96.8	0.84	1260	16173	96.8	0.84	1230	15788	96.8	0.84
1PQ4 562-8...	1450	18612	96.9	0.84	1440	18484	96.9	0.84	1400	17970	96.9	0.84
1PQ4 564-8...	1700	21821	97.0	0.84	1690	21693	97.0	0.84	1650	21179	97.0	0.84
1PQ4 634-8...	1775	22723	96.7	0.83	1445	18498	96.6	0.81	1350	17282	96.5	0.80
1PQ4 636-8...	1960	25125	96.8	0.85	1590	20382	96.8	0.83	1490	19100	96.7	0.82

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Selection and ordering data

Rated power		High voltage motor H-compact	Operating values at rated output for utilization 155 (F)							
IEC			Rated speed	Efficiency	Power factor	Rated current at 3.4 kV	Rated torque	Break-down torque	Moment of inertia	Mechanical speed limit[1]
P_{rated} 155 (F)	P_{rated} 130 (B)		n_{rated}	η	cos φ	I_{rated}	T_{rated}	T_B/T_{rated}	J	n_{max}
kW	kW	Article No.	rpm	%	[-]	A	Nm	[-]	kgm^2	rpm
3.4 ... 4.16 kV, 50 Hz										
4-pole										
1380	1200	**1PQ4 500-4CV■■**	1492	97.4	0.87	285	8833	2.35	42.3	2400
1530	1320	**1PQ4 502-4CV■■**	1492	97.5	0.87	315	9793	2.35	47.0	2400
1680	1470	**1PQ4 504-4CV■■**	1492	97.6	0.88	340	10753	2.35	54.2	2400
1850	1550	**1PQ4 560-4CV■■**	1494	97.8	0.87	380	11826	2.45	79.0	2200
2100	1750	**1PQ4 562-4CV■■**	1494	97.8	0.87	430	13424	2.45	92.0	2200
2350	1900	**1PQ4 564-4CV■■**	1494	97.8	0.87	485	15022	2.45	104.0	2200
2600	–[3]	**1PQ4 632-4CV■ 0**	1494	97.5	0.88	530	16620	2.20	157.0	O. R.[2]
2900	–[3]	**1PQ4 634-4CV■ 0**	1494	97.6	0.88	590	18537	2.20	171.0	O. R.[2]
3150	–[3]	**1PQ4 636-4CV■ 0**	1494	97.7	0.88	640	20136	2.20	186.0	O. R.[2]
6-pole										
1170	1050	**1PQ4 500-6CV■■**	994	97.2	0.87	240	11241	2.20	82.1	2200
1280	1150	**1PQ4 502-6CV■■**	994	97.2	0.87	265	12298	2.20	92.4	2200
1380	1250	**1PQ4 504-6CV■■**	994	97.2	0.87	285	13259	2.20	102.6	2200
1700	1480	**1PQ4 560-6CV■■**	995	97.4	0.86	355	16317	2.25	141.5	2000
1900	1680	**1PQ4 562-6CV■■**	995	97.5	0.87	390	18236	2.40	162.1	2000
2150	1900	**1PQ4 564-6CV■■**	995	97.6	0.87	445	20636	2.25	188.5	2000
2220	–[3]	**1PQ4 632-6CV■■**	995	97.1	0.89	450	21308	2.30	269.0	O. R.[2]
2480	–[3]	**1PQ4 634-6CV■■**	995	97.2	0.89	500	23803	2.20	297.0	O. R.[2]
2700	–[3]	**1PQ4 636-6CV■■**	995	97.3	0.89	550	25915	2.20	323.0	O. R.[2]
8-pole										
800	800	**1PQ4 500-8CV■■**	746	96.6	0.81	178	10241	2.20	81.7	2200
850	850	**1PQ4 502-8CV■■**	746	96.6	0.81	190	10881	2.20	91.9	2200
950	950	**1PQ4 504-8CV■■**	746	96.6	0.81	210	12162	2.20	102.2	2200
1300	1140	**1PQ4 560-8CV■■**	744	96.8	0.84	280	16687	1.90	141.6	2000
1450	1270	**1PQ4 562-8CV■■**	744	96.9	0.84	310	18612	1.90	162.3	2000
1700	1500	**1PQ4 564-8CV■■**	744	97.0	0.84	365	21821	1.90	188.8	2000
1780	–[3]	**1PQ4 634-8CV■■**	745	96.7	0.84	385	22817	2.30	294.0	O. R.[2]
1960	–[3]	**1PQ4 636-8CV■■**	745	96.8	0.85	415	25125	2.20	320.0	O. R.[2]

Voltage code:	
4.16 kV, 50 Hz	**4**
Other voltage	**9**

Type of construction:	
IM B3	**0**
IM V1 (with canopy)	**4**
IM V1 (without canopy)	**8**

Note:

The motors for converter operation with non-sinusoidal output have, among other things, a reinforced winding insulation.
Additional details see Page 3/2.
Ratings are defined for sinusoidal supply, based on IEC 60034-2-1:2007.
The ratings for converter operation depend on the converter and its settings and cannot be predetermined.

Higher pole numbers are available on request.

[1] For IM B3, anti-friction bearings.

[2] On request.

[3] Utilization 130 (B) on request.

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Motor type (repeated)	Constant-torque drive, speed range											
	1:2				1:5				1:10			
	P_{max}	T_{max}	η	cos φ	P_{max}	T_{max}	η	cos φ	P_{max}	T_{max}	η	cos φ
	kW	Nm	%	[-]	kW	Nm	%	[-]	kW	Nm	%	[-]
												Constant-torque drive
4-pole												
1PQ4 500-4...	1350	8641	97.4	0.87	1280	8193	97.4	0.87	1230	7873	97.4	0.86
1PQ4 502-4...	1500	9601	97.5	0.87	1430	9153	97.5	0.87	1380	8833	97.5	0.87
1PQ4 504-4...	1650	10561	97.6	0.88	1560	9985	97.6	0.88	1500	9601	97.6	0.88
1PQ4 560-4...	1850	11826	97.8	0.87	1780	11378	97.8	0.87	1730	11059	97.8	0.87
1PQ4 562-4...	2100	13424	97.8	0.87	2030	12976	97.8	0.87	1980	12657	97.8	0.87
1PQ4 564-4...	2350	15022	97.3	0.85	1900	12145	97.8	0.87	2250	14383	97.8	0.87
1PQ4 632-4...	2495	15949	97.4	0.88	2030	12976	97.4	0.87	1900	12145	97.4	0.87
1PQ4 634-4...	2780	17770	97.5	0.88	2260	14446	97.5	0.87	2110	13488	97.4	0.87
1PQ4 636-4...	3020	19305	97.6	0.88	2460	15725	97.6	0.87	2300	14702	97.5	0.87
6-pole												
1PQ4 500-6...	1170	11241	97.2	0.87	1170	11241	97.1	0.87	1120	11529	97.2	0.87
1PQ4 502-6...	1280	12298	97.2	0.87	1280	12298	96.9	0.87	1220	12970	97.2	0.87
1PQ4 504-6...	1380	13259	97.2	0.87	1380	13259	97.4	0.87	1320	14700	97.3	0.87
1PQ4 560-6...	1700	16317	97.4	0.86	1700	16317	97.5	0.87	1600	16796	97.4	0.86
1PQ4 562-6...	1900	18236	97.5	0.87	1900	18236	97.5	0.87	1800	18716	97.5	0.87
1PQ4 564-6...	2150	20636	97.6	0.87	2150	20636	97.6	0.87	2050	21595	97.6	0.87
1PQ4 632-6...	2130	20444	97.0	0.89	1730	16605	97.0	0.88	1620	15549	97.0	0.88
1PQ4 634-6...	2380	22843	97.1	0.89	1935	18572	97.2	0.89	1810	17372	97.1	0.88
1PQ4 636-6...	2590	24859	97.3	0.89	2100	20156	97.3	0.89	1970	18908	97.2	0.88
8-pole												
1PQ4 500-8...	800	10241	96.6	0.81	800	10241	96.6	0.81	760	9729	96.6	0.81
1PQ4 502-8...	850	10881	96.6	0.81	850	10881	96.6	0.81	810	10369	96.6	0.81
1PQ4 504-8...	980	12546	96.6	0.81	980	12546	96.6	0.81	930	11905	96.6	0.81
1PQ4 560-8...	1300	16687	96.8	0.84	1260	16173	96.8	0.84	1230	15788	96.8	0.84
1PQ4 562-8...	1450	18612	96.9	0.84	1440	18484	96.9	0.84	1400	17970	96.9	0.84
1PQ4 564-8...	1700	21821	97.0	0.84	1690	21693	97.0	0.84	1650	21179	97.0	0.84
1PQ4 634-8...	1710	21920	96.7	0.84	1390	17818	96.6	0.82	1300	16664	96.5	0.81
1PQ4 636-8...	1880	24099	96.8	0.85	1530	19613	96.7	0.83	1430	18331	96.7	0.82

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Selection and ordering data

Rated power	**High voltage motor H-compact**	Operating values at rated output for utilization 155 (F)							
IEC		Rated speed	Efficiency	Power factor	Rated current at 6.6 kV	Rated torque	Break-down torque	Moment of inertia	Mechanical speed limit[1]
P_{rated} 155 (F)		n_{rated}	η	cos φ	I_{rated}	T_{rated}	T_B/T_{rated}	J	n_{max}
kW	Article No.	rpm	%	[-]	A	Nm	[-]	kgm^2	rpm
6 ... 6.6 kV, 50 Hz									
4-pole									
1180	**1PQ4 500-4CV■■**	1493	96.8	0.87	122	7548	2.60	42.0	2400
1300	**1PQ4 502-4CV■■**	1493	96.9	0.87	134	8315	2.60	47.0	2400
1450	**1PQ4 504-4CV■■**	1493	97.1	0.88	148	9275	2.50	54.0	2400
1600	**1PQ4 560-4CV■■**	1494	97.2	0.86	168	10228	2.60	79.0	2200
1850	**1PQ4 562-4CV■■**	1494	97.4	0.87	190	11826	2.60	92.0	2200
2100	**1PQ4 564-4CV■■**	1494	97.5	0.87	215	13424	2.60	104.0	2200
2400	**1PQ4 632-4CV■ 0**	1494	97.3	0.88	245	15341	2.40	157.0	O. R.[2]
2700	**1PQ4 634-4CV■ 0**	1494	97.4	0.87	280	17259	2.40	171.0	O. R.[2]
2950	**1PQ4 636-4CV■ 0**	1494	97.5	0.87	305	18857	2.40	186.0	O. R.[2]
6-pole									
920	**1PQ4 500-6CV■■**	995	96.6	0.86	97	8830	2.50	82.0	2200
1030	**1PQ4 502-6CV■■**	995	96.7	0.87	108	9886	2.40	92.0	2200
1120	**1PQ4 504-6CV■■**	995	96.8	0.87	116	10750	2.40	103.0	2200
1400	**1PQ4 560-6CV■■**	996	97.1	0.86	146	13424	2.70	142.0	2000
1550	**1PQ4 562-6CV■■**	996	97.2	0.86	162	14862	2.70	162.0	2000
1700	**1PQ4 564-6CV■■**	996	97.3	0.87	176	16300	2.50	189.0	2000
2050	**1PQ4 632-6CV■■**	995	97.0	0.88	210	19676	2.40	269.0	O. R.[2]
2300	**1PQ4 634-6CV■■**	995	97.1	0.89	235	22075	2.40	297.0	O. R.[2]
2500	**1PQ4 636-6CV■■**	995	97.1	0.88	255	23995	2.40	323.0	O. R.[2]
8-pole									
720	**1PQ4 500-8CV■■**	746	96.0	0.80	82	9217	2.30	82.0	2200
760	**1PQ4 502-8CV■■**	746	96.2	0.81	85	9729	2.30	92.0	2200
820	**1PQ4 504-8CV■■**	746	96.3	0.81	92	10497	2.30	102.0	2200
1050	**1PQ4 560-8CV■■**	745	96.6	0.82	116	13460	2.40	142.0	2000
1180	**1PQ4 562-8CV■■**	745	96.7	0.82	130	15126	2.40	162.0	2000
1350	**1PQ4 564-8CV■■**	745	96.8	0.83	146	17305	2.40	189.0	2000
1500	**1PQ4 632-8CV■■**	746	96.5	0.83	164	19202	2.50	265.0	O. R.[2]
1700	**1PQ4 634-8CV■■**	746	96.6	0.83	186	21763	2.50	294.0	O. R.[2]
1850	**1PQ4 636-8CV■■**	746	96.7	0.83	200	23683	2.50	320.0	O. R.[2]

Voltage code:	
6 kV, 50 Hz	**6**
6.6 kV, 50 Hz	**7**
Other voltage	**9**
Type of construction:	
IM B3	**0**
IM V1 (with canopy)	**4**
IM V1 (without canopy)	**8**

Note:

The motors for converter operation with non-sinusoidal output have, among other things, a reinforced winding insulation.
Additional details see Page 3/2.
Ratings are defined for sinusoidal supply, based on IEC 60034-2-1:2007.
The ratings for converter operation depend on the converter and its settings and cannot be predetermined.

Higher pole numbers are available on request.

[1] For IM B3, anti-friction bearings.

[2] On request.

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Motor type (repeated)	Constant-torque drive, speed range											
	1:2				1:5				1:10			
	P_{max} kW	T_{max} Nm	η %	cos φ [-]	P_{max} kW	T_{max} Nm	η %	cos φ [-]	P_{max} kW	T_{max} Nm	η %	cos φ [-]
												Constant-torque drive
4-pole												
1PQ4 500-4...	1180	7548	96.8	0.87	1180	7548	96.8	0.87	1070	6844	96.7	0.86
1PQ4 502-4...	1300	8315	96.9	0.87	1300	8315	96.9	0.87	1200	7676	96.8	0.87
1PQ4 504-4...	1450	9275	97.1	0.88	1450	9275	97.1	0.88	1370	8763	97.0	0.88
1PQ4 560-4...	1600	10228	97.2	0.86	1600	10228	97.2	0.86	1450	9269	97.1	0.84
1PQ4 562-4...	1850	11826	97.4	0.87	1850	11826	97.4	0.87	1700	10867	97.3	0.86
1PQ4 564-4...	2100	13424	97.5	0.87	2100	13424	97.5	0.87	1950	12465	97.4	0.87
1PQ4 632-4...	2400	15341	97.3	0.88	2400	15341	97.3	0.88	2100	13424	97.3	0.87
1PQ4 634-4...	2700	17259	97.4	0.87	2700	17259	97.4	0.87	2450	15661	97.4	0.86
1PQ4 636-4...	2950	18857	97.5	0.87	2950	18857	97.5	0.87	2750	17579	97.5	0.86
6-pole												
1PQ4 500-6...	920	8830	96.6	0.86	920	8830	96.6	0.86	920	8830	96.6	0.86
1PQ4 502-6...	1030	9886	96.7	0.87	1030	9886	96.7	0.87	1030	9886	96.7	0.87
1PQ4 504-6...	1120	10750	96.8	0.87	1120	10750	96.8	0.87	1120	10750	96.8	0.87
1PQ4 560-6...	1400	13424	97.1	0.86	1400	13424	97.1	0.86	1400	13424	97.2	0.86
1PQ4 562-6...	1550	14862	97.2	0.86	1550	14862	97.2	0.86	1550	14862	97.3	0.86
1PQ4 564-6...	1700	16300	97.3	0.87	1700	16300	97.3	0.87	1700	16300	97.4	0.87
1PQ4 632-6...	2050	19676	97.0	0.88	2050	19676	97.0	0.88	2050	19676	97.0	0.88
1PQ4 634-6...	2300	22075	97.1	0.89	2300	22075	97.1	0.89	2300	22075	97.0	0.89
1PQ4 636-6...	2500	23995	97.1	0.88	2500	23995	97.1	0.88	2500	23995	97.1	0.88
8-pole												
1PQ4 500-8...	720	9217	96.0	0.80	720	9217	96.0	0.80	720	9217	96.1	0.81
1PQ4 502-8...	760	9729	96.2	0.81	760	9729	96.2	0.81	760	9729	96.2	0.81
1PQ4 504-8...	820	10497	96.3	0.81	820	10497	96.3	0.81	820	10497	96.3	0.81
1PQ4 560-8...	1050	13460	96.6	0.82	1050	13460	96.6	0.82	1050	13460	96.6	0.82
1PQ4 562-8...	1180	15126	96.7	0.82	1180	15126	96.7	0.82	1180	15126	96.8	0.82
1PQ4 564-8...	1350	17305	96.8	0.83	1350	17305	96.8	0.83	1350	17305	96.8	0.82
1PQ4 632-8...	1500	19202	96.5	0.83	1500	19202	96.5	0.83	1500	19202	96.5	0.83
1PQ4 634-8...	1700	21763	96.6	0.83	1700	21763	96.6	0.83	1700	21763	96.6	0.83
1PQ4 636-8...	1850	23683	96.7	0.83	1850	23683	96.7	0.83	1850	23683	96.7	0.83

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Selection and ordering data

Rated power		High voltage motor H-compact	Operating values at rated output for utilization 155 (F)							
IEC			Rated speed	Efficiency	Power factor	Rated current 2.3 kV	Rated torque	Break-down torque	Moment of inertia	Mechanical speed limit[1]
P_{rated} 155 (F)	P_{rated} 130 (B)		n_{rated}	η	cos φ	I_{rated}	T_{rated}	T_B/T_{rated}	J	n_{max}
kW	kW	Article No.	rpm	%	[-]	A	Nm	[-]	kgm^2	rpm
2.3 kV, 60 Hz										
4-pole										
1550	1320	**1PQ4 500-4CV1■**	1793	97.5	0.88	455	8256	2.50	42.3	2400
1700	1400	**1PQ4 502-4CV1■**	1793	97.5	0.88	495	9055	2.50	47.0	2400
1850	1550	**1PQ4 504-4CV1■**	1793	97.5	0.88	540	9854	2.50	54.2	2400
2000	1600	**1PQ4 560-4CV1■**	1794	97.7	0.87	590	10647	2.40	79.0	2200
2300	1850	**1PQ4 562-4CV1■**	1794	97.7	0.87	680	12244	2.40	92.0	2200
2600	2100	**1PQ4 564-4CV1■**	1794	97.7	0.87	770	13841	2.40	104.0	2200
6-pole										
1270	1120	**1PQ4 500-6CV1■**	1195	97.1	0.87	375	10149	2.25	82.1	2200
1420	1250	**1PQ4 502-6CV1■**	1196	97.3	0.87	420	11339	2.25	92.4	2200
1600	1400	**1PQ4 504-6CV1■**	1195	97.4	0.87	475	12787	2.25	102.6	2200
1850	1600	**1PQ4 560-6CV1■**	1195	97.5	0.87	550	14785	2.40	141.5	2000
2050	1780	**1PQ4 562-6CV1■**	1195	97.5	0.87	610	16383	2.40	162.1	2000
2350	2000	**1PQ4 564-6CV1■**	1195	97.6	0.87	690	18780	2.40	188.5	2000
8-pole										
1000	900	**1PQ4 500-8CV1■**	895	96.7	0.81	320	10670	2.10	81.7	2200
1100	1000	**1PQ4 502-8CV1■**	895	96.7	0.81	355	11737	2.10	91.9	2200
1200	1100	**1PQ4 504-8CV1■**	895	96.7	0.81	385	12804	2.10	102.2	2200
1400	1220	**1PQ4 560-8CV1■**	894	96.9	0.84	430	14955	1.90	141.6	2000
1630	1420	**1PQ4 562-8CV1■**	894	97.0	0.84	500	17412	1.90	162.3	2000
1860	1600	**1PQ4 564-8CV1■**	894	97.1	0.84	570	19869	2.10	188.8	2000
2000	–[3]	**1PQ4 634-8CV1■**	895	96.7	0.86	600	21341	2.00	294.0	O. R.[2]
2160	–[3]	**1PQ4 636-8CV1■**	895	96.8	0.86	650	23048	2.10	320.0	O. R.[2]

Type of construction:	
IM B3	**0**
IM V1 (with canopy)	**4**
IM V1 (without canopy)	**8**

Note:

The motors for converter operation with non-sinusoidal output have, among other things, a reinforced winding insulation.
Additional details see Page 3/2.
Ratings are defined for sinusoidal supply, based on IEC 60034-2-1:2007.
The ratings for converter operation depend on the converter and its settings and cannot be predetermined.

Higher pole numbers are available on request.

[1] For IM B3, anti-friction bearings.
[2] On request.
[3] Utilization 130 (B) on request.

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Motor type (repeated)	Constant-torque drive, speed range											
	1:2				1:5				1:10			
	P_{max}	T_{max}	η	cos φ	P_{max}	T_{max}	η	cos φ	P_{max}	T_{max}	η	cos φ
	kW	Nm	%	[-]	kW	Nm	%	[-]	kW	Nm	%	[-]
												Constant-torque drive
4-pole												
1PQ4 500-4...	1550	8256	97.5	0.88	1550	8256	97.5	0.88	1480	7883	97.5	0.88
1PQ4 502-4...	1700	9055	97.5	0.88	1700	9055	97.5	0.88	1620	8629	97.5	0.88
1PQ4.504-4...	1850	9854	97.5	0.88	1850	9854	97.5	0.88	1780	9481	97.5	0.88
1PQ4 560-4...	2000	10647	97.7	0.87	1940	10327	97.7	0.87	1900	10114	97.7	0.87
1PQ4 562-4...	2300	12244	97.7	0.87	2300	12244	97.7	0.87	2250	11977	97.7	0.87
1PQ4 564-4...	2600	13841	97.7	0.87	2600	13841	97.7	0.87	2550	13574	97.7	0.87
6-pole												
1PQ4 500-6...	1270	10149	97.1	0.87	1270	10149	97.1	0.87	1200	9590	97.1	0.87
1PQ4 502-6...	1420	11339	96.9	0.87	1420	11339	96.9	0.87	1350	10780	96.9	0.87
1PQ4 504-6...	1600	12787	97.4	0.87	1600	12787	97.4	0.87	1530	12227	97.4	0.87
1PQ4 560-6...	1850	14785	97.5	0.87	1850	14785	97.5	0.87	1750	13985	97.5	0.87
1PQ4 562-6...	2050	16383	97.5	0.87	2050	16383	97.5	0.87	1950	15584	97.5	0.87
1PQ4 564-6...	2350	18780	97.6	0.87	2350	18780	97.6	0.87	2250	17981	97.6	0.87
8-pole												
1PQ4 500-8...	1000	10670	96.7	0.81	1000	10670	96.7	0.81	950	10137	96.7	0.81
1PQ4 502-8...	1100	11737	96.7	0.81	1100	11737	96.7	0.81	1050	11204	96.7	0.81
1PQ4 504-8...	1200	12804	96.7	0.81	1200	12804	96.7	0.81	1150	12271	96.7	0.81
1PQ4 560-8...	1400	14955	96.9	0.84	1400	14955	96.9	0.84	1350	14421	96.9	0.84
1PQ4 562-8...	1630	17412	97.0	0.84	1630	17412	97.0	0.84	1580	16878	97.0	0.84
1PQ4 564-8...	1860	19869	97.1	0.84	1860	19869	97.1	0.84	1800	19228	97.1	0.84
1PQ4 634-8...	1940	20701	96.6	0.85	1580	16859	96.4	0.84	1480	15792	96.4	0.84
1PQ4 636-8...	2095	22354	96.6	0.85	1705	18193	96.5	0.84	1598	17051	96.4	0.84

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Selection and ordering data

Rated power		High voltage motor H-compact	Operating values at rated output for utilization 155 (F)							
IEC			Rated speed	Efficiency	Power factor	Rated current at 4.16 kV	Rated torque	Break-down torque	Moment of inertia	Mechanical speed limit[1]
P_{rated} 155 (F)	P_{rated} 130 (B)		n_{rated}	η	cos φ	I_{rated}	T_{rated}	T_B/T_{rated}	J	n_{max}
kW	kW	Article No.	rpm	%	[-]	A	Nm	[-]	kgm^2	rpm
3.4 ... 4.16 kV, 60 Hz										
4-pole										
1550	1320	**1PQ4 500-4CV5■**	1793	97.5	0.88	250	8256	2.50	42.3	2400
1700	1400	**1PQ4 502-4CV5■**	1793	97.5	0.88	275	9055	2.50	47.0	2400
1850	1550	**1PQ4 504-4CV5■**	1793	97.5	0.88	300	9854	2.50	54.2	2400
2000	1600	**1PQ4 560-4CV5■**	1794	97.7	0.87	325	10647	2.40	79.0	2200
2300	1850	**1PQ4 562-4CV5■**	1794	97.7	0.87	375	12244	2.40	92.0	2200
2600	2100	**1PQ4 564-4CV5■**	1794	97.7	0.87	425	13841	2.40	104.0	2200
2950	–[3]	**1PQ4 632-4CV5 0**	1794	97.2	0.87	485	15704	2.40	157.0	O. R.[2]
3320	–[3]	**1PQ4 634-4CV5 0**	1794	97.3	0.87	540	17673	2.20	171.0	O. R.[2]
3600	–[3]	**1PQ4 636-4CV5 0**	1795	97.5	0.87	590	19153	2.40	186.0	O. R.[2]
6-pole										
1270	1120	**1PQ4 500-6CV5■**	1195	97.1	0.87	210	10149	2.25	82.1	2200
1420	1250	**1PQ4 502-6CV5■**	1196	97.3	0.87	235	11339	2.25	92.4	2200
1600	1400	**1PQ4 504-6CV5■**	1195	97.4	0.87	260	12787	2.25	102.6	2200
1850	1600	**1PQ4 560-6CV5■**	1195	97.5	0.87	305	14785	2.40	141.5	2000
2050	1780	**1PQ4 562-6CV5■**	1195	97.5	0.87	335	16383	2.40	162.1	2000
2350	2000	**1PQ4 564-6CV5■**	1195	97.6	0.87	385	18780	2.40	188.5	2000
2400	–[3]	**1PQ4 632-6CV5■**	1195	96.8	0.89	385	19180	2.40	269.0	O. R.[2]
2700	–[3]	**1PQ4 634-6CV5■**	1195	96.9	0.89	435	21577	2.20	297.0	O. R.[2]
2900	–[3]	**1PQ4 636-6CV5■**	1195	97.0	0.89	465	23176	2.20	323.0	O. R.[2]
8-pole										
1000	900	**1PQ4 500-8CV5■**	895	96.7	0.81	178	10670	2.10	81.7	2200
1100	1000	**1PQ4 502-8CV5■**	895	96.7	0.81	194	11737	2.10	91.9	2200
1200	1100	**1PQ4 504-8CV5■**	895	96.7	0.81	215	12804	2.10	102.2	2200
1400	1220	**1PQ4 560-8CV5■**	894	96.9	0.84	240	14955	1.90	141.6	2000
1630	1420	**1PQ4 562-8CV5■**	894	97.0	0.84	280	17412	1.90	162.3	2000
1860	1600	**1PQ4 564-8CV5■**	894	97.1	0.84	315	19869	2.10	188.8	2000
1960	–[3]	**1PQ4 634-8CV5■**	895	96.7	0.86	325	20914	2.00	294.0	O. R.[2]
2160	–[3]	**1PQ4 636-8CV5■**	895	96.8	0.86	360	23048	2.10	320.0	O. R.[2]

Type of construction:	
IM B3	**0**
IM V1 (with canopy)	**4**
IM V1 (without canopy)	**8**

Note:

The motors for converter operation with non-sinusoidal output have, among other things, a reinforced winding insulation.
Additional details see Page 3/2.
Ratings are defined for sinusoidal supply, based on IEC 60034-2-1:2007.
The ratings for converter operation depend on the converter and its settings and cannot be predetermined.

Higher pole numbers are available on request.

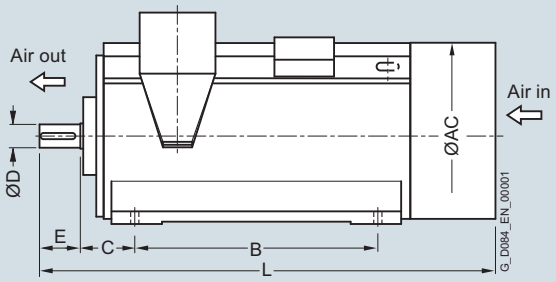
[1] For IM B3, anti-friction bearings.
[2] On request.
[3] Utilization 130 (B) on request.

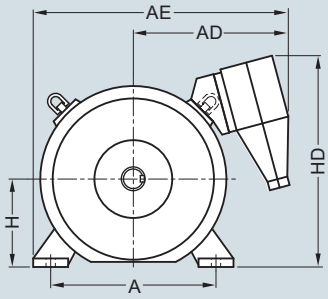
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Motor type (repeated)	Constant-torque drive, speed range											
	1:2				1:5				1:10			
	P_{max}	T_{max}	η	cos φ	P_{max}	T_{max}	η	cos φ	P_{max}	T_{max}	η	cos φ
	kW	Nm	%	[-]	kW	Nm	%	[-]	kW	Nm	%	[-]
												Constant-torque drive
4-pole												
1PQ4 500-4...	1550	8256	97.5	0.88	1550	8256	97.5	0.88	1480	7883	97.5	0.88
1PQ4 502-4...	1700	9055	97.5	0.88	1700	9055	97.5	0.88	1620	8629	97.5	0.88
1PQ4 504-4...	1850	9854	97.5	0.88	1850	9854	97.5	0.88	1780	9481	97.5	0.88
1PQ4 560-4...	2000	10647	97.7	0.87	1940	10327	97.7	0.87	1900	10114	97.7	0.87
1PQ4 562-4...	2300	12244	97.7	0.87	2300	12244	97.7	0.87	2250	11977	97.7	0.87
1PQ4 564-4...	2600	13841	97.7	0.87	2600	13841	97.7	0.87	2550	13574	97.7	0.87
1PQ4 632-4...	2860	15225	97.2	0.87	2330	12403	97.0	0.86	2185	11631	96.9	0.85
1PQ4 634-4...	3220	17141	97.3	0.87	2625	13974	97.1	0.86	2455	13069	97.1	0.85
1PQ4 636-4...	3490	18568	97.4	0.87	2845	15136	97.2	0.86	2665	14179	97.2	0.85
6-pole												
1PQ4 500-6...	1270	10149	97.1	0.87	1270	10149	97.1	0.87	1200	9590	97.1	0.87
1PQ4 502-6...	1420	11339	96.9	0.87	1420	11339	96.9	0.87	1350	10780	96.9	0.87
1PQ4 504-6...	1600	12787	97.4	0.87	1600	12787	97.4	0.87	1530	12227	97.4	0.87
1PQ4 560-6...	1850	14785	97.5	0.87	1850	14785	97.5	0.87	1750	13985	97.5	0.87
1PQ4 562-6...	2050	16383	97.5	0.87	2050	16383	97.5	0.87	1950	15584	97.5	0.87
1PQ4 564-6...	2350	18780	97.6	0.87	2350	18780	97.6	0.87	2250	17981	97.6	0.87
1PQ4 632-6...	2330	18621	96.7	0.89	1895	15144	96.5	0.88	1775	14185	96.4	0.88
1PQ4 634-6...	2620	20938	96.9	0.89	2135	17062	96.8	0.89	2000	15983	96.7	0.88
1PQ4 636-6...	2815	22496	97.0	0.89	2290	18301	96.9	0.89	2145	17142	96.8	0.88
8-pole												
1PQ4 500-8...	1000	10670	96.7	0.81	1000	10670	96.7	0.81	950	10137	96.7	0.81
1PQ4 502-8...	1100	11737	96.7	0.81	1100	11737	96.7	0.81	1050	11204	96.7	0.81
1PQ4 504-8...	1200	12804	96.7	0.81	1200	12804	96.7	0.81	1150	12271	96.7	0.81
1PQ4 560-8...	1400	14955	96.9	0.84	1400	14955	96.9	0.84	1350	14421	96.9	0.84
1PQ4 562-8...	1630	17412	97.0	0.84	1630	17412	97.0	0.84	1580	16878	97.0	0.84
1PQ4 564-8...	1860	19869	97.1	0.84	1860	19869	97.1	0.84	1800	19228	97.1	0.84
1PQ4 634-8...	1901	20284	96.5	0.85	1548	16518	96.4	0.84	1450	15472	96.3	0.83
1PQ4 636-8...	2095	22354	96.6	0.85	1706	18204	96.5	0.84	1598	17051	96.4	0.83

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Dimension drawings





Motor type	Weight	Dimensions										
		A	AC	AD[1)3)]	AE[1)2)3)]	B	C	D	E	H	HD[4)]	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, anti-friction bearings, IM B3 type of construction												
2-pole												
1PQ4454-2CM00	5350	850	960	920	1440	1250	280	95	130	450	1100	2766
4-pole												
1PQ4454-4AM00	5300	850	960	920	1440	1250	280	130	200	450	1100	2836
1PQ4500-4C..0	6400	950	1070	875	1440	1320	315	140	200	500	1200	3005
1PQ4502-4C..0	6800	950	1070	875	1440	1320	315	140	200	500	1200	3005
1PQ4504-4C..0	7300	950	1070	875	1440	1320	315	140	200	500	1200	3005
1PQ4560-4C..0	8600	1060	1210	925	1560	1400	335	160	240	560	1310	3291
1PQ4562-4C..0	9300	1060	1210	925	1560	1400	335	160	240	560	1310	3291
1PQ4564-4C..0	10100	1060	1210	925	1560	1400	335	160	240	560	1310	3291
1PQ4632-4C..0	12700	1120	1350	945	1560	1600	335	170	240	630	1410	3359
1PQ4634-4C..0	13300	1120	1350	945	1560	1600	335	170	240	630	1410	3359
1PQ4636-4C..0	14200	1120	1350	945	1560	1600	335	170	240	630	1410	3359
6-pole												
1PQ4454-6AM00	5400	850	960	920	1440	1250	280	130	200	450	1100	2836
1PQ4500-6C..0	6700	950	1070	875	1440	1320	315	140	200	500	1200	3005
1PQ4502-6C..0	7100	950	1070	875	1440	1320	315	140	200	500	1200	3005
1PQ4504-6C..0	7600	950	1070	875	1440	1320	315	140	200	500	1200	3005
1PQ4560-6C..0	8900	1060	1210	925	1560	1400	335	160	240	560	1310	3291
1PQ4562-6C..0	9600	1060	1210	925	1560	1400	335	160	240	560	1310	3291
1PQ4564-6C..0	10500	1060	1210	925	1560	1400	335	160	240	560	1310	3291
1PQ4632-6C..0	12800	1120	1350	960	1630	1600	335	180	240	630	1410	3359
1PQ4634-6C..0	13800	1120	1350	960	1630	1600	335	180	240	630	1410	3359
1PQ4636-6C..0	14600	1120	1350	960	1630	1600	335	180	240	630	1410	3359
8-pole												
1PQ4454-8AM00	5400	850	960	920	1630	1250	280	130	200	450	1100	2836
1PQ4500-8C..0	6700	950	1070	875	1440	1320	315	140	200	500	1200	3005
1PQ4502-8C..0	7000	950	1070	875	1440	1320	315	140	200	500	1200	3005
1PQ4504-8C..0	7500	950	1070	875	1440	1320	315	140	200	500	1200	3005
1PQ4560-8C..0	8900	1060	1210	925	1560	1400	335	160	240	560	1310	3291
1PQ4562-8C..0	9600	1060	1210	925	1560	1400	335	160	240	560	1310	3291
1PQ4564-8C..0	10400	1060	1210	925	1560	1400	335	160	240	560	1310	3291
1PQ4632-8C..0	12800	1120	1350	960	1630	1600	335	180	240	630	1410	3359
1PQ4634-8C..0	13400	1120	1350	960	1630	1600	335	180	240	630	1410	3359
1PQ4636-8C..0	14300	1120	1350	960	1630	1600	335	180	240	630	1410	3359

Note: Higher pole numbers are available on request.

1) For V_{rated} = 690 V, the dimension changes by + 100 mm.

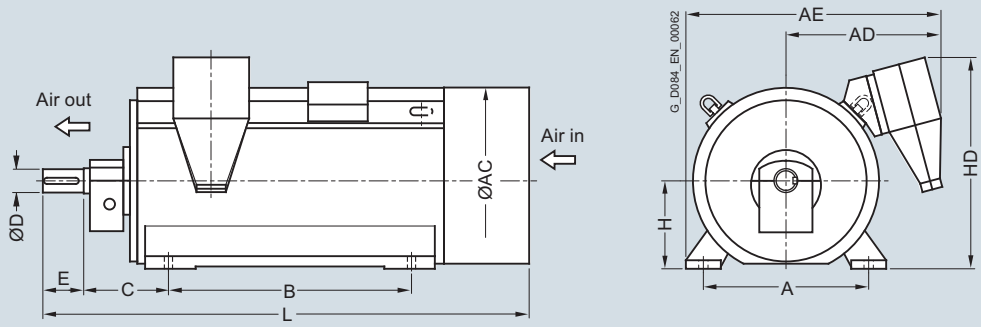
2) For V_{rated} = 690 V and I_{rated} > 1230 A, the dimension changes by + 475 mm (a second main terminal box is required).

3) For $V_{rated} \geq$ 2.0 kV and current I_{rated} > 315 A, the dimension changes by + 140 mm.

4) For $V_{rated} \geq$ 2.0 kV and current I_{rated} > 315 A, the dimension changes by + 70 mm.

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Dimension drawings



Motor type	Weight	Dimensions										
		A	AC	AD[1)3)]	AE[1)2)3)]	B	C	D	E	H	HD[4)]	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, sleeve bearings, IM B3 type of construction												
2-pole												
1PQ4454-2AM00-Z K96	5400	850	960	920	1440	1250	475	95	130	450	1100	2961
4-pole												
1PQ4454-4AM00-Z K96	5300	850	960	920	1440	1250	475	130	200	450	1100	3031
1PQ4500-4C..0-Z K96	6400	950	1070	875	1440	1320	500	140	200	500	1200	3190
1PQ4502-4C..0-Z K96	6800	950	1070	875	1440	1320	500	140	200	500	1200	3190
1PQ4504-4C..0-Z K96	7300	950	1070	875	1440	1320	500	140	200	500	1200	3190
1PQ4560-4C..0-Z K96	8600	1060	1210	925	1560	1400	560	160	240	560	1310	3710
1PQ4562-4C..0-Z K96	9300	1060	1210	925	1560	1400	560	160	240	560	1310	3710
1PQ4564-4C..0-Z K96	10100	1060	1210	925	1560	1400	560	160	240	560	1310	3710
1PQ4632-4C..0-Z K96	12700	1120	1350	945	1560	1600	560	170	240	630	1410	3814
1PQ4634-4C..0-Z K96	13300	1120	1350	945	1560	1600	560	170	240	630	1410	3814
1PQ4636-4C..0-Z K96	14200	1120	1350	945	1560	1600	560	170	240	630	1410	3814
6-pole												
1PQ4454-6AM00-Z K96	5400	850	960	920	1440	1250	475	130	200	450	1100	3031
1PQ4500-6C..0-Z K96	6700	950	1070	875	1440	1320	530	140	200	500	1200	3190
1PQ4502-6C..0-Z K96	7100	950	1070	875	1440	1320	530	140	200	500	1200	3190
1PQ4504-6C..0-Z K96	7600	950	1070	875	1440	1320	530	140	200	500	1200	3190
1PQ4560-6C..0-Z K96	8900	1060	1210	925	1560	1400	560	160	240	560	1310	3710
1PQ4562-6C..0-Z K96	9600	1060	1210	925	1560	1400	560	160	240	560	1310	3710
1PQ4564-6C..0-Z K96	10500	1060	1210	925	1560	1400	560	160	240	560	1310	3710
1PQ4632-6C..0-Z K96	12800	1120	1350	960	1630	1600	560	180	240	630	1410	3814
1PQ4634-6C..0-Z K96	13800	1120	1350	960	1630	1600	560	180	240	630	1410	3814
1PQ4636-6C..0-Z K96	14600	1120	1350	960	1630	1600	560	180	240	630	1410	3814
8-pole												
1PQ4454-8AM00-Z K96	5400	850	960	920	1630	1250	475	130	200	450	1100	3031
1PQ4500-8C..0-Z K96	6700	950	1070	875	1440	1320	530	140	200	500	1200	3190
1PQ4502-8C..0-Z K96	7000	950	1070	875	1440	1320	530	140	200	500	1200	3190
1PQ4504-8C..0-Z K96	7500	950	1070	875	1440	1320	530	140	200	500	1200	3190
1PQ4560-8C..0-Z K96	8900	1060	1210	925	1560	1400	560	160	240	560	1310	3710
1PQ4562-8C..0-Z K96	9600	1060	1210	925	1560	1400	560	160	240	560	1310	3710
1PQ4564-8C..0-Z K96	10400	1060	1210	925	1560	1400	560	160	240	560	1310	3710
1PQ4632-8C..0-Z K96	12800	1120	1350	960	1630	1600	560	180	240	630	1410	3814
1PQ4634-8C..0-Z K96	13400	1120	1350	960	1630	1600	560	180	240	630	1410	3814
1PQ4636-8C..0-Z K96	14300	1120	1350	960	1630	1600	560	180	240	630	1410	3814

Note: Higher pole numbers are available on request.

1) For V_{rated} = 690 V, the dimension changes by + 100 mm.

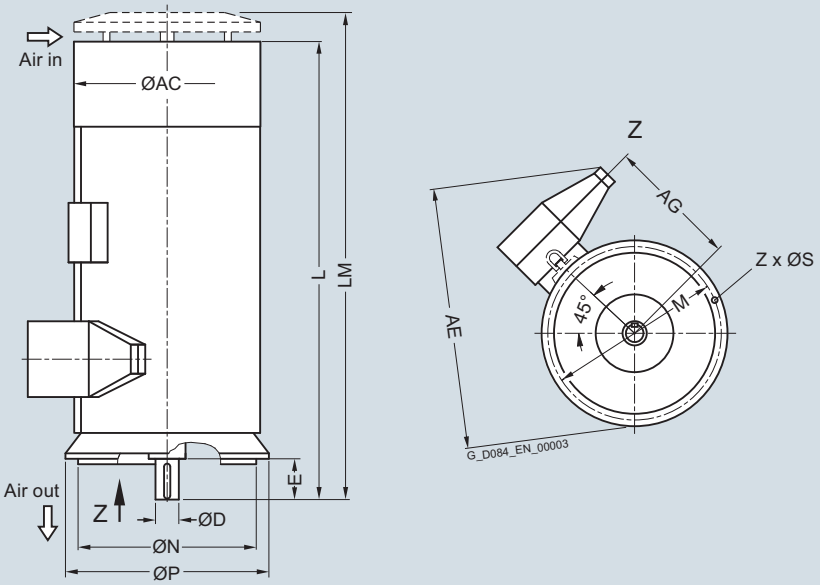
2) For V_{rated} = 690 V and I_{rated} > 1230 A, the dimension changes by + 475 mm (a second main terminal box is required).

3) For $V_{rated} \geq$ 2.0 kV and current I_{rated} > 315 A, the dimension changes by + 140 mm.

4) For $V_{rated} \geq$ 2.0 kV and current I_{rated} > 315 A, the dimension changes by + 70 mm.

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Dimension drawings



Motor type	Weight	Dimensions											
		AC	AG[1)2)]	AE[3)]	D	E	L	LM	P	N	M	S	Z
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Quantity
Up to 6.6 kV, anti-friction bearings, IM V1 type of construction													
4-pole													
1PQ4454-4AM04	5200	960	770	1550	130	200	3062	3212	1150	1000	1080	26	8
1PQ4500-4C..4	6200	1070	840	1660	140	200	3205	3255	1250	1120	1180	26	16
1PQ4502-4C..4	6600	1070	840	1660	140	200	3205	3255	1250	1120	1180	26	16
1PQ4504-4C..4	7100	1070	840	1660	140	200	3205	3255	1250	1120	1180	26	16
1PQ4560-4C..4	8400	1210	910	1800	160	240	3496	3546	1400	1250	1320	26	16
1PQ4562-4C..4	9100	1210	910	1800	160	240	3496	3546	1400	1250	1320	26	16
1PQ4564-4C..4	9800	1210	910	1800	160	240	3496	3546	1400	1250	1320	26	16
6-pole													
1PQ4454-6AM04	5500	960	770	1550	130	200	3062	3212	1150	1000	1080	26	8
1PQ4500-6C..4	6500	1070	840	1660	140	200	3205	3255	1250	1120	1180	26	16
1PQ4502-6C..4	6900	1070	840	1660	140	200	3205	3255	1250	1120	1180	26	16
1PQ4504-6C..4	7400	1070	840	1660	140	200	3205	3255	1250	1120	1180	26	16
1PQ4560-6C..4	8600	1210	910	1800	160	240	3496	3546	1400	1250	1320	26	16
1PQ4562-6C..4	9400	1210	910	1800	160	240	3496	3546	1400	1250	1320	26	16
1PQ4564-6C..4	10200	1210	910	1800	160	240	3496	3546	1400	1250	1320	26	16
1PQ4632-6C..4	13100	1350	980	1820	180	240	3564	3614	1400	1250	1320	26	16
1PQ4634-6C..4	13800	1350	980	1820	180	240	3564	3614	1400	1250	1320	26	16
1PQ4636-6C..4	14600	1350	980	1820	180	240	3564	3614	1400	1250	1320	26	16
8-pole													
1PQ4454-8AM04	5500	960	770	1550	130	200	3062	3212	1000	1150	1080	26	8
1PQ4500-8C..4	6500	1070	840	1660	140	200	3205	3255	1250	1120	1180	26	16
1PQ4502-8C..4	6900	1070	840	1660	140	200	3205	3255	1250	1120	1180	26	16
1PQ4504-8C..4	7300	1070	840	1660	140	200	3205	3255	1250	1120	1180	26	16
1PQ4560-8C..4	8600	1210	910	1800	160	240	3496	3546	1400	1250	1320	26	16
1PQ4562-8C..4	9300	1210	910	1800	160	240	3496	3546	1400	1250	1320	26	16
1PQ4564-8C..4	10100	1210	910	1800	160	240	3496	3546	1400	1250	1320	26	16
1PQ4632-8C..4	13100	1350	980	1820	180	240	3564	3614	1400	1250	1320	26	16
1PQ4634-8C..4	13800	1350	980	1820	180	240	3564	3614	1400	1250	1320	26	16
1PQ4636-8C..4	14600	1350	980	1820	180	240	3564	3614	1400	1250	1320	26	16

Note: Higher pole numbers are available on request.

1) For V_{rated} = 690 V, the dimension changes by – 50 mm.
2) For currents I_{rated} > 315 A, the dimension changes by + 45 mm.
3) For currents I_{rated} > 315 A, the dimension changes by + 180 mm.

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Overview



Technical data

Overview of technical data

H-compact PLUS 1RA4, 1RA6, 1RP6, SIMOTICS HV M 1RA7	
Rated voltage	690 V … 4.16 kV
Rated frequency	50/60 Hz
Motor type	Induction motor with squirrel-cage rotor
Type of construction	IM B3, IM V1
Degree of protection	IP23
Cooling method	IC01
Stator winding insulation	Insulation system, thermal class 155 (F)
Shaft height	450 … 710 mm
Bearings	Anti-friction bearings, sleeve bearings
Cage material	Copper
Standards	IEC, EN
Frame design for shaft heights 450 … 560 mm	Housing: Cast iron Cooling enclosure: Steel
Frame design for shaft heights 630 … 710 mm	Housing: Steel Cooling enclosure: Steel

The following versions can be offered on request:

- 2-pole up to 75 Hz
- 4-pole up to 100 Hz
- 6-pole up to 90 Hz

For individual motor types, it must be ensured that the motor does not run-through any critical speed in the required speed control range and that the maximum speed does not exceed the mechanical speed limit of the motor! Please contact your Siemens sales person regarding this check. The motor types are marked with footnotes in the following data tables.

Technical data (continued)

Power ranges for IEC motors with reinforced insulation for SINAMICS drive converters without sine-wave filter

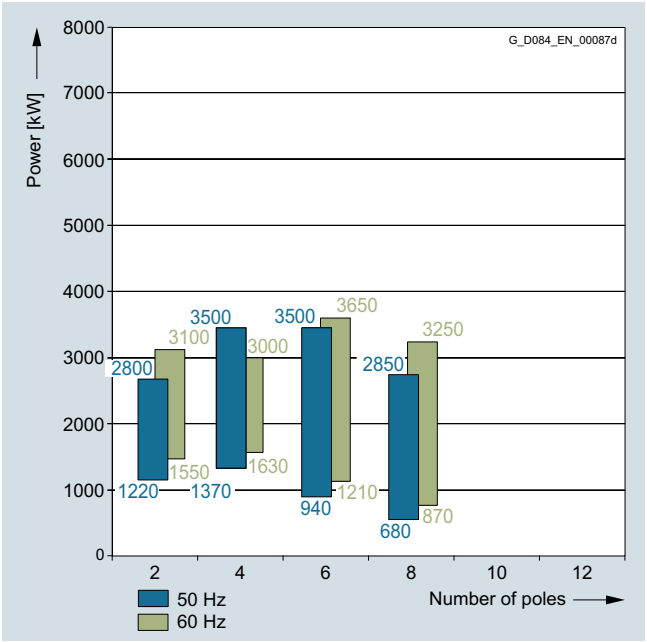
1RA4/1RA6 and 1RP6 series

1RA7 series

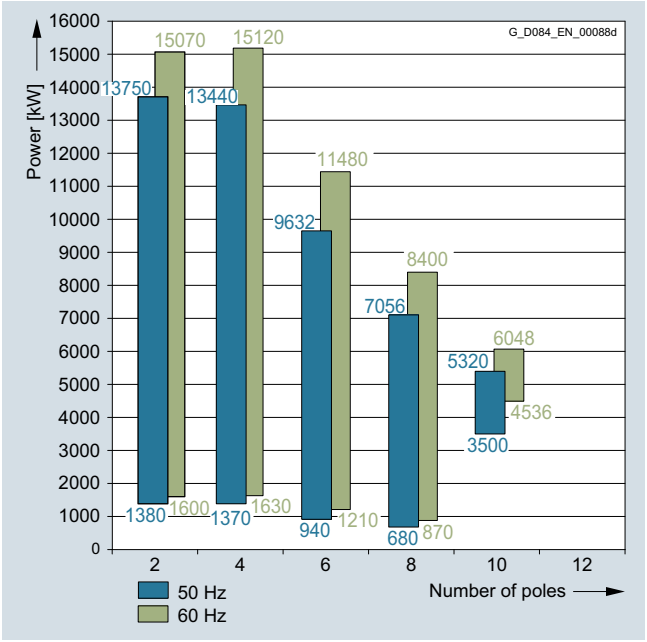
Insulation system, thermal class 155 (F)

The power data listed here apply for an ambient temperature of 40 °C and an installation altitude ≤ 1000 m.

690 V; 50 Hz and 60 Hz



3.4 kV to 4.16 kV; 50 Hz and 60 Hz[1)]



[1)] Maximum and minimum power ratings can be diffent for specific voltage levels.

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Selection and ordering data

Rated power	**Low voltage motor H-compact PLUS**	Operating values at rated output for utilization 155 (F)							
IEC		Rated speed	Efficiency	Power factor	Rated current 690 V	Rated torque	Break-down torque	Moment of inertia	Mechanical speed limit[1]
P_{rated} 155 (F)		n_{rated}	η	cos φ	I_{rated}	T_{rated}	T_B/T_{rated}	J	n_{max}
kW	Article No.	rpm	%	[-]	A	Nm	[-]	kgm^2	rpm
690 V, 50 Hz									
2-pole									
1220	**1RA6 450-2HP00**	2980	95.5	0.90	1180	3913	2.20	13	3000
1520	**1RA6 452-2HP00**	2980	96.0	0.90	2x740	4875	2.10	14	3000
1600	**1RA6 454-2HP00**	2983	96.2	0.92	2x760	5129	2.30	16	3000
1700	**1RA6 456-2HP00**	2983	96.2	0.92	2x800	5445	2.30	18	3000
2250	**1RA6 500-2HP00**	2975	96.4	0.90	2x1080	7222	2.30	19	3000
2550	**1RA6 502-2HP00**	2974	96.6	0.90	2x1220	8188	2.10	20	3000
2800	**1RA6 504-2HP00**	2977	96.7	0.92	4x660	8982	2.50	24	3000[3]
4-pole									
1370	**1RA6 450-4HP0■**	1484	95.6	0.89	2x670	8833	2.40	20	1800
1500	**1RA6 452-4HP0■**	1484	95.6	0.90	2x730	9671	2.40	22	1800
1640	**1RA6 454-4HP0■**	1484	96.0	0.90	2x790	10568	2.40	25	1800
1860	**1RA6 456-4HP0■**	1485	96.2	0.90	2x900	11977	2.30	29	1800
2300[2]	**1RA6 500-4HP00**	1486	96.6	0.90	2x1100	14780	2.35	42	1800
2350[2]	**1RA6 502-4HP00**	1486	96.6	0.92	2x1100	15102	2.50	46	1800
2800[2]	**1RA6 504-4HP00**	1488	96.9	0.90	4x670	17969	2.60	52	1800
3200[2]	**1RA6 560-4HP00**	1486	96.8	0.92	4x750	20564	2.15	82	1800
3500[2]	**1RA6 562-4HP00**	1487	96.9	0.92	4x820	22476	2.15	93	1800

Type of construction:	
IM B3	**0**
IM V1 (without canopy)	**8**

Note:

The motors for converter operation with non-sinusoidal output have, among other things, a reinforced winding insulation.
Additional details see Page 3/2.
Ratings are defined for sinusoidal supply, based on IEC 60034-2-1:2007.
The ratings for converter operation depend on the converter and its settings and cannot be predetermined.

Higher pole numbers are available on request.

[1] For IM B3, anti-friction bearings.

[2] Data of vertical motors (IM V1) on request.

[3] There are speed exclusion ranges for this type. It must be ensured that the motors are not continuously operated in these speed ranges. The exclusion ranges must be clarified in advance in the factory.

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Motor type (repeated)	Partial load values for square-law torque drive											
	P/P_{rated} 155 (F) = 75 %				P/P_{rated} 155 (F) = 50 %				P/P_{rated} 155 (F) = 25 %			
	P	n	η	cos φ	P	n	η	cos φ	P	n	η	cos φ
	kW	rpm	%	[-]	kW	rpm	%	[-]	kW	rpm	%	[-]
												Square-law torque drive
2-pole												
1RA6 450-2HP0.	916	2709	95.8	0.91	610	2371	96.0	0.90	305	1883	96.0	0.85
1RA6 452-2HP0.	1141	2708	96.4	0.91	760	2371	96.6	0.91	380	1883	96.5	0.87
1RA6 454-2HP0.	1201	2710	96.5	0.92	800	2372	96.6	0.91	400	1884	96.6	0.87
1RA6 456-2HP0.	1276	2711	96.5	0.92	850	2373	96.7	0.92	425	1884	96.6	0.88
1RA6 500-2HP0.	1688	2708	96.6	0.89	1125	2369	96.7	0.87	563	1883	96.7	0.79
1RA6 502-2HP0.	1913	2707	96.8	0.89	1275	2368	96.9	0.87	638	1882	96.9	0.81
1RA6 504-2HP0.	2101	2710	96.9	0.91	1400	2370	97.0	0.90	701	1883	97.0	0.84
4-pole												
1RA6 450-4HP0.	1028	1350	95.9	0.88	685	1182	96.1	0.86	343	940	95.9	0.79
1RA6 452-4HP0.	1125	1350	96.0	0.90	750	1182	96.2	0.88	375	940	96.2	0.83
1RA6 454-4HP0.	1230	1350	96.3	0.90	820	1183	96.5	0.89	410	940	96.4	0.84
1RA6 456-4HP0.	1395	1351	96.5	0.89	930	1183	96.6	0.88	465	941	96.5	0.82
1RA6 500-4HP0.	1726	1353	96.7	0.89	1150	1183	96.9	0.86	575	941	96.8	0.77
1RA6 502-4HP0.	1763	1353	96.8	0.91	1175	1184	96.9	0.88	588	941	96.9	0.80
1RA6 504-4HP0.	2100	1354	97.0	0.89	1400	1184	97.1	0.86	700	941	96.9	0.74
1RA6 560-4HP0.	2401	1353	97.0	0.91	1600	1184	97.2	0.90	801	941	97.3	0.85
1RA6 562-4HP0.	2626	1354	97.1	0.91	1750	1184	97.3	0.90	876	941	97.3	0.85

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Selection and ordering data

Rated power	**Low voltage motor H-compact PLUS**	Operating values at rated output for utilization 155 (F)							
IEC		Rated speed	Efficiency	Power factor	Rated current 690 V	Rated torque	Break-down torque	Moment of inertia	Mechanical speed limit[1]
P_{rated} 155 (F)		n_{rated}	η	cos φ	I_{rated}	T_{rated}	T_B/T_{rated}	J	n_{max}
kW	Article No.	rpm	%	[-]	A	Nm	[-]	kgm^2	rpm
690 V, 50 Hz									
6-pole									
940	**1RA6 450-6HP0■**	990	95.8	0.86	950	9079	2.30	26	1200
1040	**1RA6 452-6HP0■**	991	95.9	0.86	1060	10039	2.30	29	1200
1180	**1RA6 454-6HP0■**	991	96.0	0.86	1200	11394	2.30	32	1200
1330	**1RA6 456-6HP0■**	992	96.2	0.86	2x670	12823	2.30	37	1200
1800	**1RA6 500-6HP0■**	988	96.0	0.85	2x920	17399	1.75	56	1500
2000	**1RA6 502-6HP0■**	988	96.2	0.86	2x1020	19332	1.80	62	1500
2300	**1RA6 504-6HP0■**	989	96.4	0.85	2x1180	22209	1.95	69	1500
2400	**1RA6 506-6HP0■**	990	96.4	0.86	2x1220	23152	1.95	77	1500
2850	**1RA6 560-6HP0■**	990	96.6	0.87	3x950	27492	2.25	108	1500
3200	**1RA6 562-6HP0■**	991	96.9	0.86	3x1080	30838	2.45	119	1500
3500	**1RA6 564-6HP0■**	990	96.8	0.88	3x1140	33763	2.20	132	1500
8-pole									
680	**1RA6 450-8HP0■**	743	94.9	0.83	720	8750	2.30	32	1200
750	**1RA6 452-8HP0■**	743	95.2	0.84	780	9651	2.40	36	1200
880	**1RA6 454-8HP0■**	743	95.2	0.84	920	11324	2.40	40	1200
970	**1RA6 456-8HP0■**	744	95.4	0.84	1020	12476	2.40	46	1200
1400	**1RA6 500-8HP0■**	741	95.8	0.83	2x740	18043	1.85	69	1125
1560	**1RA6 502-8HP0■**	742	95.9	0.83	2x820	20078	1.85	76	1125
1720	**1RA6 504-8HP0■**	742	96.0	0.83	2x900	22137	1.95	85	1125
1900	**1RA6 506-8HP0■**	743	96.2	0.83	2x1000	24421	2.10	94	1125
1960	**1RA6 560-8HP0■**	743	96.6	0.84	2x1020	25192	2.15	128	1125
2300	**1RA6 562-8HP0■**	743	96.6	0.84	2x1180	29563	2.20	141	1125
2600	**1RA6 564-8HP0■**	743	96.7	0.84	4x670	33419	2.45	156	1125
2850	**1RA6 566-8HP0■**	743	96.7	0.85	4x730	36632	2.25	173	1125

Type of construction:	
IM B3	**0**
IM V1 (without canopy)	**8**

Note:

The motors for converter operation with non-sinusoidal output have, among other things, a reinforced winding insulation.
Additional details see Page 3/2.
Ratings are defined for sinusoidal supply, based on IEC 60034-2-1:2007.
The ratings for converter operation depend on the converter and its settings and cannot be predetermined.

Higher pole numbers are available on request.

[1] For IM B3, anti-friction bearings.

[2] Data of vertical motors (IM V1) on request.

[3] There are speed exclusion ranges for this type. It must be ensured that the motors are not continuously operated in these speed ranges. The exclusion ranges must be clarified in advance in the factory.

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Motor type (repeated)	Partial load values for square-law torque drive											
	P/P_{rated} 155 (F) = 75 %				P/P_{rated} 155 (F) = 50 %				P/P_{rated} 155 (F) = 25 %			
	P	n	η	cos φ	P	n	η	cos φ	P	n	η	cos φ
	kW	rpm	%	[-]	kW	rpm	%	[-]	kW	rpm	%	[-]
												Square-law torque drive
6-pole												
1RA6 450-6HP0.	705	900	96.1	0.85	470	789	96.3	0.82	235	627	96.2	0.73
1RA6 452-6HP0.	780	901	96.3	0.85	520	789	96.4	0.82	260	627	96.3	0.73
1RA6 454-6HP0.	885	901	96.3	0.85	590	789	96.4	0.83	295	627	96.4	0.74
1RA6 456-6HP0.	998	902	96.5	0.84	665	789	96.6	0.81	333	627	96.3	0.71
1RA6 500-6HP0.	1350	898	96.3	0.85	900	787	96.4	0.84	450	626	96.3	0.78
1RA6 502-6HP0.	1500	898	96.4	0.86	1000	787	96.6	0.84	500	626	96.4	0.78
1RA6 504-6HP0.	1725	899	96.5	0.85	1150	787	96.6	0.83	575	626	96.4	0.75
1RA6 506-6HP0.	1800	900	96.6	0.86	1200	788	96.7	0.84	600	626	96.5	0.77
1RA6 560-6HP0.	2138	900	96.7	0.87	1425	788	96.8	0.86	713	627	96.7	0.80
1RA6 562-6HP0.	2400	901	97.0	0.86	1600	789	97.0	0.84	800	627	96.7	0.76
1RA6 564-6HP0.	2625	900	97.0	0.88	1750	788	97.1	0.87	875	626	97.0	0.82
8-pole												
1RA6 450-8HP0.	510	676	95.1	0.80	340	592	95.0	0.75	170	470	94.4	0.63
1RA6 452-8HP0.	563	676	95.4	0.81	375	592	95.4	0.77	188	470	94.9	0.65
1RA6 454-8HP0.	660	676	95.4	0.82	440	592	95.4	0.77	220	470	94.8	0.65
1RA6 456-8HP0.	728	676	95.6	0.82	485	592	95.6	0.77	243	470	95.1	0.65
1RA6 500-8HP0.	1050	674	95.9	0.82	700	590	95.9	0.80	350	469	95.5	0.70
1RA6 502-8HP0.	1170	674	96.0	0.82	780	591	96.1	0.80	390	469	95.6	0.70
1RA6 504-8HP0.	1290	675	96.1	0.82	860	591	96.1	0.79	430	470	95.7	0.70
1RA6 506-8HP0.	1425	675	96.3	0.82	950	591	96.2	0.78	475	470	95.6	0.67
1RA6 560-8HP0.	1470	675	96.7	0.84	980	591	96.8	0.82	490	470	96.6	0.73
1RA6 562-8HP0.	1725	675	96.7	0.84	1150	591	96.8	0.81	575	470	96.5	0.72
1RA6 564-8HP0.	1950	676	96.8	0.83	1300	592	96.8	0.79	650	470	96.4	0.69
1RA6 566-8HP0.	2138	675	96.8	0.84	1425	591	96.9	0.82	713	470	96.6	0.74

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Selection and ordering data

Rated power IEC		High voltage motor H-compact PLUS	Operating values at rated output for utilization 155 (F)							
			Rated speed	Efficiency	Power factor	Rated current at 4.16 kV	Rated torque	Break-down torque	Moment of inertia	Mechanical speed limit[2]
P_{rated} 155 (F)	P_{rated} 130 (B)		n_{rated}	η	cos φ	I_{rated}	T_{rated}	T_B/T_{rated}	J	n_{max}
kW	kW	Article No.	rpm	%	[-]	A	Nm	[-]	kgm^2	rpm
3.4 ... 4.16 kV, 50 Hz										
2-pole										
1380	–[6]	**1RA6 450-2HS40**	2973	95.9	0.90	220	4433	2.00	13	3000
1570	–[6]	**1RA6 452-2HS40**	2977	96.2	0.90	250	5040	2.20	14	3000
1750	–[6]	**1RA6 454-2HS40**	2978	96.4	0.91	275	5616	2.30	16	3000
1950	–[6]	**1RA6 456-2HS40**	2981	96.6	0.92	305	6252	2.30	18	3000
2550	2244	**1RA6 500-2HS40**	2967	96.2	0.88	420	8207	1.85	19	3000
2700	2376	**1RA6 502-2HS40**	2969	96.3	0.90	430	8684	2.05	20	3000
3200	2816	**1RA6 504-2HS40**	2974	96.6	0.91	510	10275	2.35	24	3000[5]
3550	3124	**1RA6 506-2HS40**	2975	96.9	0.92	550	11395	2.40	26	3000[5]
3700	3367	**1RA6 560-2HS40**	2977	96.7	0.90	590	11868	1.90	39	3000[5]
4300	3913	**1RA6 562-2HS40**	2979	97.0	0.91	680	13784	2.05	43	3000[5]
5000	4550	**1RA6 564-2HS40**	2981	97.1	0.92	780	16017	2.25	49	3000[5]
5700	5187	**1RA6 566-2HS40**	2982	97.3	0.93	2x435	18253	2.45	54	3000[5]
4-pole										
1370	–[6]	**1RA6 450-4HS4■**	1484	95.6	0.88	225	8824	2.60	20	1800
1500	–[6]	**1RA6 452-4HS4■**	1485	95.8	0.88	245	9649	2.50	22	1800
1640	–[6]	**1RA6 454-4HS4■**	1485	96.0	0.89	265	10549	2.50	25	1800
1860	–[6]	**1RA6 456-4HS4■**	1485	96.1	0.90	300	11966	2.50	29	1800
2500[4]	2200	**1RA6 500-4HS40**	1485	96.4	0.90	400	16076	2.25	42	1800
2800[4]	2464	**1RA6 502-4HS40**	1485	96.5	0.90	445	18005	2.25	46	1800
3150[4]	2772	**1RA6 504-4HS40**	1485	96.6	0.91	495	20256	2.25	52	1800
3450[1][4]	3036	**1RA6 506-4HS40**	1486	96.8	0.91	540	22170	2.35	56	1800
3900[4]	3549	**1RA6 560-4HS40**	1489	97.0	0.89	630	25012	1.95	84	1800
4500[4]	4095	**1RA6 562-4HS40**	1489	97.1	0.90	710	28860	2.00	94	1800
5000[4]	4550	**1RA6 564-4HS40**	1490	97.2	0.91	780	32045	2.10	105	1800
5500[4]	5005	**1RA6 566-4HS40**	1490	97.4	0.91	2x430	35249	2.20	115	1800
5880[1]	–[6]	**1RA4 632-4HV■■**	1490	97.2	0.89	940	37687	2.20	150	1800
6470[1]	–[6]	**1RA4 634-4HV■■**	1490	97.3	0.90	1020	41469	2.20	168	1800
6960[1]	–[6]	**1RA4 636-4HV■■**	1491	97.4	0.90	1100	44579	2.40	197	1800

Voltage code:	
4.16 kV, 50 Hz	**4**
Other voltage	**9**
Type of construction:	
IM B3	**0**
IM V1 (without canopy)	**8**

Note:

The motors for converter operation with non-sinusoidal output have, among other things, a reinforced winding insulation.
Additional details see Page 3/2.
Ratings are defined for sinusoidal supply, based on IEC 60034-2-1:2007.
The ratings for converter operation depend on the converter and its settings and cannot be predetermined.

1) Rated voltage less than 4.16 kV on request.
2) For IM B3, anti-friction bearings.
3) On request.
4) Data of vertical motors (IM V1) on request.
5) There are speed exclusion ranges for this type. It must be ensured that the motors are not continuously operated in these speed ranges. The exclusion ranges must be clarified in advance in the factory.
6) Utilization 130 (B) on request.

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Motor type (repeated)	Partial load values for square-law torque drive											
	P/P_{rated} 155 (F) = 75 %				P/P_{rated} 155 (F) = 50 %				P/P_{rated} 155 (F) = 25 %			
	P	n	η	cos φ	P	n	η	cos φ	P	n	η	cos φ
	kW	rpm	%	[-]	kW	rpm	%	[-]	kW	rpm	%	[-]
												Square-law torque drive
2-pole												
1RA6 450-2...	1035	2704	96.1	0.91	690	2368	96.3	0.91	345	1882	96.4	0.87
1RA6 452-2...	1178	2707	96.4	0.91	785	2370	96.5	0.90	393	1883	96.4	0.87
1RA6 454-2...	1313	2707	96.6	0.92	875	2370	96.7	0.91	438	1883	96.6	0.88
1RA6 456-2...	1464	2709	96.8	0.92	975	2371	96.9	0.91	488	1884	96.8	0.88
1RA6 500-2...	1914	2704	96.5	0.88	1276	2366	96.6	0.87	638	1881	96.7	0.81
1RA6 502-2...	2026	2705	96.5	0.90	1350	2367	96.7	0.88	675	1882	96.7	0.83
1RA6 504-2...	2401	2708	96.8	0.90	1600	2369	96.9	0.89	801	1883	96.8	0.81
1RA6 506-2...	2663	2708	97.0	0.91	1775	2369	97.1	0.90	888	1883	97.1	0.83
1RA6 560-2...	2777	2709	96.9	0.90	1851	2370	97.0	0.89	925	1883	97.0	0.84
1RA6 562-2...	3226	2711	97.1	0.90	2151	2371	97.2	0.89	1076	1884	97.2	0.84
1RA6 564-2...	3751	2712	97.3	0.91	2500	2371	97.3	0.90	1251	1884	97.3	0.85
1RA6 566-2...	4276	2713	97.4	0.92	2850	2372	97.5	0.91	1426	1885	97.4	0.85
4-pole												
1RA6 450-4...	1028	1350	95.8	0.87	685	1183	96.0	0.85	343	940	95.8	0.78
1RA6 452-4...	1125	1351	96.0	0.87	750	1183	96.1	0.85	375	941	95.9	0.77
1RA6 454-4...	1230	1351	96.2	0.89	820	1183	96.3	0.87	410	941	96.2	0.80
1RA6 456-4...	1395	1351	96.3	0.90	930	1183	96.5	0.88	465	941	96.4	0.83
1RA6 500-4...	1876	1352	96.6	0.89	1250	1183	96.7	0.86	625	941	96.5	0.77
1RA6 502-4...	2101	1352	96.7	0.89	1400	1183	96.8	0.86	700	941	96.6	0.77
1RA6 504-4...	2363	1353	96.8	0.90	1575	1183	96.9	0.88	788	941	96.8	0.79
1RA6 506-4...	2588	1353	96.9	0.90	1725	1184	97.0	0.88	863	941	96.9	0.79
1RA6 560-4...	2927	1355	97.1	0.89	1950	1185	97.2	0.87	976	942	97.1	0.80
1RA6 562-4...	3377	1355	97.2	0.90	2250	1185	97.4	0.88	1126	942	97.3	0.82
1RA6 564-4...	3752	1356	97.4	0.90	2500	1185	97.5	0.89	1251	942	97.4	0.82
1RA6 566-4...	4126	1356	97.5	0.90	2750	1186	97.6	0.88	1376	942	97.4	0.81
1RA4 632-4...	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]
1RA4 634-4...	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]
1RA4 636-4...	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]

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Selection and ordering data

Rated power IEC		High voltage motor H-compact PLUS	Operating values at rated output for utilization 155 (F)							
			Rated speed	Efficiency	Power factor	Rated current at 4.16 kV	Rated torque	Break-down torque	Moment of inertia	Mechanical speed limit[2]
P_{rated} 155 (F)	P_{rated} 130 (B)		n_{rated}	η	cos φ	I_{rated}	T_{rated}	T_B/T_{rated}	J	n_{max}
kW	kW	Article No.	rpm	%	[-]	A	Nm	[-]	kgm^2	rpm
3.4 ... 4.16 kV, 50 Hz										
6-pole										
940	–[4]	**1RA6 450-6HS4■**	990	95.7	0.85	160	9071	2.40	26	1200
1040	–[4]	**1RA6 452-6HS4■**	991	95.9	0.85	178	10026	2.50	29	1200
1180	–[4]	**1RA6 454-6HS4■**	991	96.1	0.86	198	11381	2.50	32	1200
1330	–[4]	**1RA6 456-6HS4■**	992	96.2	0.85	225	12811	2.50	37	1200
2000	1800	**1RA6 500-6HS4■**	987	95.8	0.84	345	19352	1.75	56	1500
2200	2000	**1RA6 502-6HS4■**	986	95.8	0.85	375	21308	1.65	62	1500
2450	2200	**1RA6 504-6HS4■**	987	96.0	0.85	415	23706	1.70	69	1500
2650	2400	**1RA6 506-6HS4■**	988	96.2	0.86	445	25615	1.80	77	1500
3150	2750	**1RA6 560-6HS4■**	989	96.5	0.86	530	30417	2.05	108	1500
3500	3100	**1RA6 562-6HS4■**	989	96.5	0.87	580	33797	2.05	119	1500
3900	3450	**1RA6 564-6HS4■**	989	96.6	0.87	640	37659	2.10	132	1500
4250	3750	**1RA6 566-6HS4■**	989	96.7	0.87	700	41039	2.05	146	1500
4610[1]	–[4]	**1RA4 632-6HV■■**	993	97.0	0.86	770	44336	2.10	202	1200
5000[1]	–[4]	**1RA4 634-6HV■■**	993	97.1	0.86	830	48087	2.30	223	1200
5490[1]	–[4]	**1RA4 636-6HV■■**	994	97.2	0.86	910	52746	2.30	246	1200
8-pole										
680	–[4]	**1RA6 450-8HS4■**	743	94.7	0.82	122	8743	2.50	32	1200
750	–[4]	**1RA6 452-8HS4■**	744	95.0	0.82	134	9638	2.50	36	1200
880	–[4]	**1RA6 454-8HS4■**	743	95.1	0.83	154	11318	2.50	40	1200
970	–[4]	**1RA6 456-8HS4■**	743	95.3	0.85	166	12477	2.40	46	1200
1360	1220	**1RA6 500-8HS4■**	741	95.4	0.83	240	17528	1.75	69	1125
1540	1380	**1RA6 502-8HS4■**	741	95.6	0.83	270	19848	1.80	76	1125
1740	1560	**1RA6 504-8HS4■**	742	95.8	0.83	305	22395	1.90	85	1125
1880	1700	**1RA6 506-8HS4■**	743	95.8	0.84	325	24164	2.00	94	1125
2200	1940	**1RA6 560-8HS4■**	741	96.1	0.84	380	28354	1.90	128	1125
2500	2200	**1RA6 562-8HS4■**	741	96.2	0.84	430	32220	1.95	141	1125
2750	2400	**1RA6 564-8HS4■**	742	96.4	0.84	470	35394	2.05	156	1125
3000	2640	**1RA6 566-8HS4■**	742	96.5	0.85	510	38612	2.10	173	1125
3140[1]	–[4]	**1RA4 630-8HV■■**	743	96.5	0.85	530	40359	1.90	239	1200
3430[1]	–[4]	**1RA4 632-8HV■■**	743	96.7	0.85	580	44087	2.10	265	1200
3680[1]	–[4]	**1RA4 634-8HV■■**	743	96.7	0.85	620	47300	2.00	293	1200
4020[1]	–[4]	**1RA4 636-8HV■■**	744	96.9	0.84	690	51601	2.30	324	1200

Voltage code:	
4.16 kV, 50 Hz	**4**
Other voltage	**9**
Type of construction:	
IM B3	**0**
IM V1 (without canopy)	**8**

Note:

The motors for converter operation with non-sinusoidal output have, among other things, a reinforced winding insulation.
Additional details see Page 3/2.
Ratings are defined for sinusoidal supply, based on IEC 60034-2-1:2007.
The ratings for converter operation depend on the converter and its settings and cannot be predetermined.

Higher pole numbers are available on request.

[1] Rated voltage less than 4.16 kV on request.
[2] For IM B3, anti-friction bearings.
[3] On request.
[4] Utilization 130 (B) on request.

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Motor type (repeated)	Partial load values for square-law torque drive											
	P/P_{rated} 155 (F) = 75 %				P/P_{rated} 155 (F) = 50 %				P/P_{rated} 155 (F) = 25 %			
	P	n	η	cos φ	P	n	η	cos φ	P	n	η	cos φ
	kW	rpm	%	[-]	kW	rpm	%	[-]	kW	rpm	%	[-]
												Square-law torque drive
6-pole												
1RA6 450-6...	705	901	96.0	0.84	470	789	96.1	0.81	235	627	96.0	0.71
1RA6 452-6...	780	901	96.1	0.84	520	789	96.2	0.80	260	627	96.0	0.70
1RA6 454-6...	885	901	96.3	0.85	590	789	96.4	0.82	295	627	96.3	0.73
1RA6 456-6...	998	902	96.4	0.83	665	790	96.5	0.80	333	627	96.2	0.69
1RA6 500-6...	1500	898	96.1	0.84	1000	786	96.2	0.83	500	625	96.1	0.75
1RA6 502-6...	1650	897	96.1	0.85	1100	786	96.3	0.84	550	625	96.3	0.78
1RA6 504-6...	1838	897	96.3	0.85	1225	786	96.5	0.85	613	625	96.4	0.79
1RA6 506-6...	1988	898	96.4	0.86	1325	787	96.6	0.85	663	626	96.5	0.78
1RA6 560-6...	2363	899	96.7	0.87	1575	788	96.8	0.86	788	626	96.8	0.81
1RA6 562-6...	2625	899	96.7	0.87	1750	788	96.9	0.87	875	626	96.8	0.82
1RA6 564-6...	2925	900	96.8	0.87	1950	788	97.0	0.86	975	626	96.9	0.81
1RA6 566-6...	3188	899	96.9	0.88	2125	788	97.1	0.87	1063	626	97.0	0.82
1RA4 632-6...	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]
1RA4 634-6...	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]
1RA4 636-6...	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]
8-pole												
1RA6 450-8...	510	676	94.8	0.80	340	592	94.7	0.75	170	470	94.0	0.63
1RA6 452-8...	563	676	95.1	0.80	375	592	95.1	0.75	188	470	94.4	0.62
1RA6 454-8...	660	676	95.3	0.82	440	592	95.3	0.78	220	470	94.8	0.66
1RA6 456-8...	728	676	95.5	0.83	485	592	95.5	0.80	243	470	95.1	0.69
1RA6 500-8...	1020	674	95.7	0.83	680	590	95.8	0.81	340	469	95.4	0.72
1RA6 502-8...	1155	674	95.8	0.83	770	590	95.9	0.81	385	469	95.5	0.72
1RA6 504-8...	1305	674	96.0	0.83	870	591	96.0	0.80	435	470	95.6	0.71
1RA6 506-8...	1410	675	95.9	0.82	940	591	95.9	0.79	470	470	95.4	0.69
1RA6 560-8...	1650	674	96.3	0.84	1100	590	96.5	0.83	550	469	96.5	0.76
1RA6 562-8...	1875	674	96.4	0.84	1250	590	96.6	0.83	625	469	96.5	0.76
1RA6 564-8...	2063	674	96.6	0.84	1375	591	96.7	0.82	688	470	96.6	0.75
1RA6 566-8...	2250	675	96.7	0.85	1500	591	96.8	0.83	750	470	96.7	0.75
1RA4 630-8...	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]
1RA4 632-8...	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]
1RA4 634-8...	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]
1RA4 636-8...	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]

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Selection and ordering data

Rated power IEC		High voltage motor SIMOTICS HV M (modular)	Operating values at rated output for utilization 130 (B)							
			Rated speed	Efficiency	Power factor	Rated current at 4.16 kV	Rated torque	Break-down torque	Moment of inertia	Mechanical speed limit[1]
P_{rated} 155 (F)	P_{rated} 130 (B)		n_{rated}	η	cos φ	I_{rated}	T_{rated}	T_B/T_{rated}	J	n_{max}
kW	kW	Article No.	rpm	%	[-]	A	Nm	[-]	kgm^2	rpm
3.4 ... 4.16 kV, 50 Hz										
2-pole										
9900	9000	**1RA7 710-2■■40-0CJ0**	2986	97.4	0.91	1400	28782	2.00	148	3600
11000	10000	**1RA7 712-2■■40-0CJ0**	2985	97.5	0.91	1560	31991	2.00	160	3600
12320	11200	**1RA7 714-2■■40-0CJ0**	2987	97.6	0.92	1740	35806	2.25	175	3600
13750	12500	**1RA7 716-2■■40-0CJ0**	2986	97.7	0.92	1940	39975	2.25	190	3600
4-pole										
9744	8700	**1RA7 710-4■■40-0C■0**	1491	97.5	0.90	1380	55720	2.15	262	1800
10864	9700	**1RA7 712-4■■40-0C■0**	1491	97.6	0.90	1540	62125	2.15	286	1800
12096	10800	**1RA7 714-4■■40-0C■0**	1492	97.7	0.91	1680	69124	2.35	321	1800
13440	12000	**1RA7 716-4■■40-0C■0**	1492	97.8	0.91	1880	76804	2.35	361	1800
6-pole										
7056	6300	**1RA7 710-6■■4■-0C■0**	994	97.2	0.86	1040	60524	2.10	350	1800
7840	7000	**1RA7 712-6■■4■-0C■0**	994	97.3	0.86	1160	67249	2.15	398	1800
8624	7700	**1RA7 714-6■■4■-0C■0**	995	97.5	0.87	1260	73899	2.30	450	1800
9632	8600	**1RA7 716-6■■4■-0C■0**	995	97.5	0.86	1420	82537	2.30	496	1800
8-pole										
5040	4500	**1RA7 710-8■■4■-0C■0**	745	96.9	0.85	760	57680	1.90	433	1000
5600	5000	**1RA7 712-8■■4■-0C■0**	745	97.0	0.85	840	64089	1.95	493	1000
6272	5600	**1RA7 714-8■■4■-0C■0**	745	97.1	0.86	930	71780	2.00	558	1000
7056	6300	**1RA7 716-8■■4■-0C■0**	745	97.2	0.86	1040	80752	2.15	617	1000
10-pole										
3920	3500	**1RA7 710-3■■4■-0C■0**	595	96.6	0.84	600	56172	2.20	429	900
4312	3850	**1RA7 712-3■■4■-0C■0**	595	96.7	0.85	650	61790	2.20	489	900
4816	4300	**1RA7 714-3■■4■-0C■0**	595	96.8	0.84	730	69012	2.20	551	900
5320	4750	**1RA7 716-3■■4■-0C■0**	595	96.9	0.85	800	76234	2.20	613	900

Cooling method
See page 1/8

Motor for line operation or for converter operation
See page 1/9

Type of construction
See page 1/9

Housing and bearing version
See page 1/9

Note:

The motors for converter operation with non-sinusoidal output have, among other things, a reinforced winding insulation.
Additional details see Page 3/2.
Ratings are defined for sinusoidal supply, based on IEC 60034-2-1:2007.
The ratings for converter operation depend on the converter and its settings and cannot be predetermined.

Higher pole numbers are available on request.

[1] For IM B3, anti-friction bearings.

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Motor type (repeated)	Partial load values for square-law torque drive											
	P/P_{rated} 130 (B) = 75 %				P/P_{rated} 130 (B) = 50 %				P/P_{rated} 130 (B) = 25 %			
	P	n	η	cos φ	P	n	η	cos φ	P	n	η	cos φ
	kW	rpm	%	[-]	kW	rpm	%	[-]	kW	rpm	%	[-]
												Square-law torque drive
2-pole												
1RA7 710-2...	6749	2713	97.4	0.92	4499	2374	97.3	0.92	2249	1885	97.0	0.89
1RA7 712-2...	7500	2712	97.5	0.92	5000	2373	97.4	0.93	2499	1885	97.2	0.91
1RA7 714-2...	8404	2713	97.6	0.93	5603	2374	97.5	0.93	2802	1885	97.2	0.90
1RA7 716-2...	9375	2713	97.7	0.93	6250	2374	97.6	0.93	3124	1885	97.3	0.91
4-pole												
1RA7 710-4...	6527	1355	97.5	0.91	4359	1186	97.5	0.91	2181	942	97.2	0.89
1RA7 712-4...	7277	1355	97.6	0.91	4860	1186	97.6	0.91	2431	942	97.3	0.88
1RA7 714-4...	8105	1356	97.7	0.91	5412	1186	97.6	0.91	2708	942	97.3	0.88
1RA7 716-4...	9006	1356	97.8	0.92	6014	1186	97.7	0.92	3009	942	97.5	0.89
6-pole												
1RA7 710-6...	4728	903	97.2	0.85	3157	790	97.0	0.84	1580	628	96.5	0.77
1RA7 712-6...	5254	903	97.3	0.86	3508	791	97.1	0.85	1756	628	96.7	0.78
1RA7 714-6...	5778	904	97.4	0.86	3859	791	97.2	0.84	1930	628	96.7	0.77
1RA7 716-6...	6453	904	97.4	0.86	4309	791	97.2	0.83	2155	628	96.7	0.75
8-pole												
1RA7 710-8...	3379	677	96.8	0.85	2257	592	96.7	0.84	1130	471	96.2	0.77
1RA7 712-8...	3754	677	97.0	0.85	2507	593	96.8	0.84	1255	471	96.3	0.77
1RA7 714-8...	4204	677	97.1	0.86	2808	593	96.9	0.84	1405	471	96.4	0.78
1RA7 716-8...	4729	677	97.1	0.85	3158	593	96.9	0.83	1580	471	96.4	0.76
10-pole												
1RA7 710-3...	2627	541	96.5	0.83	1755	473	96.3	0.79	878	376	95.7	0.68
1RA7 712-3...	2890	541	96.7	0.84	1930	473	96.5	0.81	966	376	95.9	0.71
1RA7 714-3...	3227	541	96.7	0.83	2156	474	96.5	0.80	1079	376	95.8	0.69
1RA7 716-3...	3565	541	96.8	0.84	2381	473	96.6	0.81	1192	376	96.0	0.71

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Selection and ordering data

Rated power	**Low voltage motor H-compact PLUS**	Operating values at rated output for utilization 155 (F)							
IEC		Rated speed	Efficiency	Power factor	Rated current 690 V	Rated torque	Break-down torque	Moment of inertia	Mechanical speed limit[1]
P_{rated} 155 (F)		n_{rated}	η	cos φ	I_{rated}	T_{rated}	T_B/T_{rated}	J	n_{max}
kW	Article No.	rpm	%	[-]	A	Nm	[-]	kgm^2	rpm
690 V, 60 Hz									
2-pole									
1550	**1RA6 450-2HP10**	3578	95.9	0.90	2x750	4140	1.90	13	3600[2]
1650	**1RA6 452-2HP10**	3581	96.0	0.91	2x790	4403	2.20	14	3600[2]
1720	**1RA6 454-2HP10**	3584	96.1	0.91	2x820	4586	2.40	16	3600[2]
2180	**1RA6 456-2HP10**	3584	96.7	0.92	2x1020	5814	2.40	18	3600[2]
2500	**1RA6 500-2HP10**	3579	96.7	0.90	2x1200	6670	2.55	20	3600[2]
2750	**1RA6 502-2HP10**	3577	96.6	0.91	4x650	7342	2.35	22	3600[2]
3100	**1RA6 504-2HP10**	3581	97.0	0.92	4x730	8267	2.55	25	3600[2]
4-pole									
1630	**1RA6 450-4HP1■**	1784	95.9	0.88	2x810	8740	2.30	20	1800
1750	**1RA6 452-4HP1■**	1783	96.0	0.90	2x850	9385	2.30	22	1800
2070	**1RA6 454-4HP1■**	1783	96.2	0.90	2x1000	11104	2.30	25	1800
2310	**1RA6 456-4HP1■**	1786	96.4	0.89	2x1120	12364	2.50	29	1800
2700[4]	**1RA6 500-4HP10**	1788	96.9	0.90	4x650	14420	2.80	42	1800[3]
2850[4]	**1RA6 502-4HP10**	1786	96.9	0.91	4x680	15238	2.50	46	1800[3]
3000[4]	**1RA6 504-4HP10**	1786	97.0	0.92	4x700	16040	2.40	52	1800[3]

Type of construction:	
IM B3	**0**
IM V1 (without canopy)	**8**

Note:

The motors for converter operation with non-sinusoidal output have, among other things, a reinforced winding insulation.
Additional details see Page 3/2.
Ratings are defined for sinusoidal supply, based on IEC 60034-2-1:2007.
The ratings for converter operation depend on the converter and its settings and cannot be predetermined.

Higher pole numbers are available on request.

[1] For IM B3, anti-friction bearings.

[2] There are speed exclusion ranges for this type. It must be ensured that the motors are not continuously operated in these speed ranges. The exclusion ranges must be clarified in advance in the factory.

[3] Higher speed limit on request.

[4] Data of vertical motors (IM V1) on request.

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Motor type (repeated)	Partial load values for square-law torque drive											
	P/P_{rated} 155 (F) = 75 %				P/P_{rated} 155 (F) = 50 %				P/P_{rated} 155 (F) = 25 %			
	P	n	η	cos φ	P	n	η	cos φ	P	n	η	cos φ
	kW	rpm	%	[-]	kW	rpm	%	[-]	kW	rpm	%	[-]
												Square-law torque drive
2-pole												
1RA6 450-2HP1.	1164	3253	96.2	0.90	775	2844	96.3	0.90	388	2261	96.2	0.86
1RA6 452-2HP1.	1239	3255	96.3	0.92	825	2845	96.4	0.91	413	2262	96.3	0.87
1RA6 454-2HP1.	1291	3257	96.3	0.92	860	2847	96.4	0.91	430	2262	96.2	0.86
1RA6 456-2HP1.	1636	3258	96.9	0.92	1090	2847	96.9	0.91	545	2263	96.7	0.87
1RA6 500-2HP1.	1876	3256	96.8	0.89	1250	2846	96.8	0.87	626	2261	96.6	0.77
1RA6 502-2HP1.	2064	3254	96.8	0.90	1375	2846	96.9	0.89	688	2261	96.8	0.82
1RA6 504-2HP1.	2325	3257	97.1	0.91	1550	2847	97.1	0.89	776	2262	97.0	0.82
4-pole												
1RA6 450-4HP1.	1223	1623	96.1	0.88	815	1420	96.2	0.86	408	1129	95.9	0.78
1RA6 452-4HP1.	1313	1623	96.3	0.90	875	1419	96.4	0.89	438	1129	96.3	0.84
1RA6 454-4HP1.	1553	1623	96.5	0.90	1035	1419	96.6	0.89	518	1129	96.5	0.85
1RA6 456-4HP1.	1733	1625	96.6	0.89	1155	1421	96.6	0.87	578	1130	96.3	0.79
1RA6 500-4HP1.	2025	1627	97.0	0.88	1351	1422	97.0	0.83	675	1130	96.6	0.70
1RA6 502-4HP1.	2138	1626	97.0	0.90	1425	1422	97.1	0.87	713	1130	96.9	0.78
1RA6 504-4HP1.	2251	1625	97.1	0.91	1500	1421	97.2	0.90	750	1130	97.2	0.83

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Selection and ordering data

Rated power	**Low voltage motor H-compact PLUS**	Operating values at rated output for utilization 155 (F)							
IEC		Rated speed	Efficiency	Power factor	Rated current 690 V	Rated torque	Break-down torque	Moment of inertia	Mechanical speed limit[1]
P_{rated} 155 (F)		n_{rated}	η	cos φ	I_{rated}	T_{rated}	T_B/T_{rated}	J	n_{max}
kW	Article No.	rpm	%	[-]	A	Nm	[-]	kgm^2	rpm
690 V, 60 Hz									
6-pole									
1210	**1RA6 450-6HP1■**	1191	96.1	0.85	2x620	9718	2.40	26	1200
1350	**1RA6 452-6HP1■**	1191	96.3	0.84	2x700	10837	2.40	29	1200
1480	**1RA6 454-6HP1■**	1191	96.3	0.86	2x750	11883	2.30	32	1200
1620	**1RA6 456-6HP1■**	1192	96.6	0.86	2x820	12995	2.40	37	1200
2150	**1RA6 500-6HP1■**	1190	96.5	0.84	2x1100	17254	2.10	56	1500
2400	**1RA6 502-6HP1■**	1188	96.5	0.85	2x1220	19293	1.85	62	1500
2700	**1RA6 504-6HP1■**	1190	96.7	0.84	3x930	21668	2.15	69	1500
2950	**1RA6 506-6HP1■**	1189	96.7	0.86	3x990	23694	1.90	77	1500
3300	**1RA6 560-6HP1■**	1191	96.9	0.87	3x1100	26461	2.30	108	1500
3650	**1RA6 562-6HP1■**	1190	96.8	0.87	3x1200	29292	2.10	119	1500
8-pole									
870	**1RA6 450-8HP1■**	893	95.3	0.84	910	9323	2.30	32	1200
960	**1RA6 452-8HP1■**	892	95.4	0.84	1000	10290	2.20	36	1200
1050	**1RA6 454-8HP1■**	893	95.5	0.84	1100	11239	2.40	40	1200
1180	**1RA6 456-8HP1■**	893	95.7	0.85	1220	12636	2.30	46	1200
1600	**1RA6 500-8HP1■**	892	96.0	0.83	2x840	17130	1.85	69	1125
1800	**1RA6 502-8HP1■**	892	96.1	0.83	2x940	19271	1.90	76	1125
2000	**1RA6 504-8HP1■**	893	96.3	0.83	2x1040	21389	2.05	85	1125
2200	**1RA6 506-8HP1■**	893	96.4	0.83	2x1160	23527	2.05	94	1125
2250	**1RA6 560-8HP1■**	893	96.7	0.84	2x1160	24062	2.30	128	1125
2600	**1RA6 562-8HP1■**	893	96.8	0.84	4x670	27805	2.25	141	1125
2900	**1RA6 564-8HP1■**	894	96.9	0.83	4x750	30979	2.65	156	1125
3250	**1RA6 566-8HP1■**	893	97.0	0.85	4x820	34756	2.35	173	1125

Type of construction:	
IM B3	**0**
IM V1 (without canopy)	**8**

Note:

The motors for converter operation with non-sinusoidal output have, among other things, a reinforced winding insulation.
Additional details see Page 3/2.
Ratings are defined for sinusoidal supply, based on IEC 60034-2-1:2007.
The ratings for converter operation depend on the converter and its settings and cannot be predetermined.

Higher pole numbers are available on request.

[1] For IM B3, anti-friction bearings.

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Motor type (repeated)	Partial load values for square-law torque drive											
	P/P_{rated} 155 (F) = 75 %				P/P_{rated} 155 (F) = 50 %				P/P_{rated} 155 (F) = 25 %			
	P	n	η	cos φ	P	n	η	cos φ	P	n	η	cos φ
	kW	rpm	%	[-]	kW	rpm	%	[-]	kW	rpm	%	[-]
												Square-law torque drive
6-pole												
1RA6 450-6HP1.	908	1083	96.3	0.82	605	947	96.4	0.79	303	753	96.0	0.67
1RA6 452-6HP1.	1013	1083	96.5	0.82	675	947	96.5	0.78	338	753	96.2	0.67
1RA6 454-6HP1.	1110	1083	96.5	0.84	740	947	96.6	0.81	370	753	96.3	0.71
1RA6 456-6HP1.	1215	1084	96.8	0.84	810	947	96.8	0.81	405	753	96.5	0.71
1RA6 500-6HP1.	1613	1082	96.5	0.83	1075	946	96.5	0.79	538	752	96.0	0.69
1RA6 502-6HP1.	1800	1081	96.6	0.86	1200	945	96.7	0.84	600	752	96.5	0.78
1RA6 504-6HP1.	2025	1082	96.7	0.83	1350	946	96.7	0.80	675	752	96.2	0.69
1RA6 506-6HP1.	2213	1081	96.8	0.86	1475	946	96.9	0.85	738	752	96.7	0.78
1RA6 560-6HP1.	2475	1083	97.0	0.87	1650	947	97.0	0.86	825	753	96.7	0.79
1RA6 562-6HP1.	2738	1082	97.0	0.88	1825	946	97.1	0.87	913	752	97.0	0.83
8-pole												
1RA6 450-8HP1.	653	812	95.5	0.81	435	710	95.4	0.77	218	565	94.9	0.66
1RA6 452-8HP1.	720	812	95.7	0.83	480	710	95.6	0.79	240	565	95.2	0.68
1RA6 454-8HP1.	788	812	95.6	0.81	525	710	95.6	0.77	263	565	95.0	0.65
1RA6 456-8HP1.	885	812	95.9	0.83	590	710	95.8	0.79	295	565	95.3	0.69
1RA6 500-8HP1.	1200	811	96.1	0.83	800	709	96.1	0.80	400	564	95.7	0.71
1RA6 502-8HP1.	1350	811	96.2	0.83	900	709	96.2	0.80	450	564	95.7	0.71
1RA6 504-8HP1.	1500	812	96.3	0.82	1000	710	96.3	0.79	500	564	95.7	0.69
1RA6 506-8HP1.	1650	812	96.4	0.82	1100	710	96.3	0.79	550	564	95.7	0.69
1RA6 560-8HP1.	1688	812	96.8	0.84	1125	710	96.8	0.81	563	564	96.5	0.72
1RA6 562-8HP1.	1950	812	96.9	0.84	1300	710	96.9	0.82	650	564	96.6	0.73
1RA6 564-8HP1.	2175	813	96.9	0.82	1450	710	96.8	0.78	725	565	96.3	0.67
1RA6 566-8HP1.	2438	812	97.1	0.84	1625	710	97.0	0.81	813	565	96.7	0.72

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Selection and ordering data

Rated power		High voltage motor H-compact PLUS	Operating values at rated output for utilization 155 (F)							
IEC			Rated speed	Efficiency	Power factor	Rated current at 4.16 kV	Rated torque	Break-down torque	Moment of inertia	Mechanical speed limit[1]
P_{rated} 155 (F)	P_{rated} 130 (B)		n_{rated}	η	cos φ	I_{rated}	T_{rated}	T_B/T_{rated}	J	n_{max}
kW	kW	Article No.	rpm	%	[-]	A	Nm	[-]	kgm²	rpm
3.4 ... 4.16 kV, 60 Hz										
2-pole										
1600	–[5]	**1RA6 450-2HS30**	3576	96.0	0.89	260	4274	2.10	13	3600[3]
1850	–[5]	**1RA6 452-2HS30**	3578	96.3	0.91	295	4941	2.30	14	3600[3]
2060	–[5]	**1RA6 454-2HS30**	3579	96.6	0.91	325	5500	2.30	16	3600[3]
2300	–[5]	**1RA6 456-2HS30**	3581	96.8	0.92	360	6137	2.40	18	3600[3]
3000	2640	**1RA6 500-2HS30**	3572	96.5	0.89	485	8020	2.05	20	3600[3]
3250	2860	**1RA6 502-2HS30**	3570	96.5	0.89	530	8693	1.95	22	3600[3]
3700	3256	**1RA6 504-2HS30**	3576	96.8	0.91	580	9880	2.30	25	3600[3]
4200	3696	**1RA6 506-2HS30**	3577	97.1	0.92	650	11212	2.45	27	3600[3]
4600	4186	**1RA6 560-2HS30**	3577	96.8	0.90	730	12280	1.90	39	3600[3]
5100	4641	**1RA6 562-2HS30**	3579	96.9	0.91	2x400	13608	2.05	43	3600[3]
5900	5369	**1RA6 564-2HS30**	3580	97.1	0.92	2x460	15738	2.15	49	3600[3]
6700	6097	**1RA6 566-2HS30**	3582	97.3	0.92	2x520	17862	2.45	54	3600[3]
4-pole										
1630	–[5]	**1RA6 450-4HS3■**	1782	95.7	0.89	265	8742	2.30	20	1800
1750	–[5]	**1RA6 452-4HS3■**	1783	95.9	0.89	285	9375	2.40	22	1800
2070	–[5]	**1RA6 454-4HS3■**	1784	96.1	0.90	330	11088	2.50	25	1800
2310	–[5]	**1RA6 456-4HS3■**	1786	96.3	0.89	375	12358	2.50	29	1800
3100[4]	2728	**1RA6 500-4HS30**	1785	96.7	0.90	495	16584	2.30	42	1800
3450[4]	3036	**1RA6 502-4HS30**	1785	96.8	0.90	550	18457	2.20	46	1800
3800[4]	3344	**1RA6 504-4HS30**	1786	97.0	0.91	600	20318	2.35	52	1800
4100[4]	3608	**1RA6 506-4HS30**	1787	97.0	0.91	640	21909	2.40	56	1800
4700[4]	4277	**1RA6 560-4HS30**	1789	97.2	0.90	750	25088	1.95	84	1800
5400[4]	4914	**1RA6 562-4HS30**	1789	97.3	0.90	2x430	28824	1.95	94	1800
6000[4]	5460	**1RA6 564-4HS30**	1789	97.4	0.91	2x470	32027	2.05	105	1800
6600[4]	6006	**1RA6 566-4HS30**	1790	97.5	0.91	2x520	35210	2.10	115	1800
7400[2]	–[5]	**1RA4 632-4HV5■**	1790	97.3	0.89	1180	39480	1.90	150	1800

Type of construction:	
IM B3	**0**
IM V1 (without canopy)	**8**

Note:

The motors for converter operation with non-sinusoidal output have, among other things, a reinforced winding insulation.
Additional details see Page 3/2.
Ratings are defined for sinusoidal supply, based on IEC 60034-2-1:2007.
The ratings for converter operation depend on the converter and its settings and cannot be predetermined.

1) For IM B3, anti-friction bearings.
2) Rated voltage less than 4.16 kV on request.
3) There are speed exclusion ranges for this type. It must be ensured that the motors are not continuously operated in these speed ranges. The exclusion ranges must be clarified in advance in the factory.
4) Data of vertical motors (IM V1) on request.
5) Utilization 130 (B) on request.

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Motor type (repeated)	Partial load values for square-law torque drive											
	P/P_{rated} 155 (F) = 75 %				P/P_{rated} 155 (F) = 50 %				P/P_{rated} 155 (F) = 25 %			
	P	n	η	cos φ	P	n	η	cos φ	P	n	η	cos φ
	kW	rpm	%	[-]	kW	rpm	%	[-]	kW	rpm	%	[-]
												Square-law torque drive
2-pole												
1RA6 450-2...	1201	3251	96.1	0.90	800	2843	96.2	0.90	400	2260	96.1	0.85
1RA6 452-2...	1389	3253	96.4	0.91	925	2844	96.5	0.91	463	2261	96.3	0.87
1RA6 454-2...	1545	3254	96.7	0.91	1030	2845	96.7	0.90	515	2261	96.5	0.86
1RA6 456-2...	1725	3256	96.9	0.92	1150	2846	96.9	0.91	575	2262	96.7	0.87
1RA6 500-2...	2251	3251	96.7	0.89	1500	2844	96.8	0.87	750	2260	96.6	0.79
1RA6 502-2...	2439	3250	96.7	0.89	1626	2843	96.8	0.88	813	2259	96.8	0.83
1RA6 504-2...	2776	3254	97.0	0.91	1850	2845	97.0	0.89	926	2261	96.9	0.83
1RA6 506-2...	3151	3254	97.2	0.91	2100	2846	97.2	0.89	1051	2261	97.1	0.83
1RA6 560-2...	3452	3255	96.9	0.90	2301	2846	97.0	0.88	1150	2262	96.9	0.83
1RA6 562-2...	3827	3256	97.0	0.90	2551	2847	97.1	0.89	1275	2262	97.0	0.84
1RA6 564-2...	4427	3257	97.3	0.91	2951	2848	97.3	0.90	1476	2262	97.2	0.85
1RA6 566-2...	5026	3258	97.4	0.92	3350	2849	97.4	0.90	1676	2263	97.2	0.83
4-pole												
1RA6 450-4...	1224	1622	96.0	0.89	815	1419	96.1	0.88	408	1129	96.0	0.83
1RA6 452-4...	1313	1623	96.1	0.89	875	1420	96.2	0.88	438	1129	96.1	0.82
1RA6 454-4...	1553	1623	96.3	0.90	1035	1420	96.4	0.89	518	1129	96.3	0.83
1RA6 456-4...	1733	1624	96.5	0.89	1155	1421	96.5	0.87	578	1130	96.2	0.80
1RA6 500-4...	2326	1625	96.8	0.89	1550	1421	96.8	0.86	775	1130	96.6	0.75
1RA6 502-4...	2589	1625	96.9	0.89	1725	1421	96.9	0.86	863	1130	96.8	0.77
1RA6 504-4...	2851	1626	97.1	0.90	1900	1422	97.1	0.87	950	1130	96.8	0.78
1RA6 506-4...	3076	1626	97.1	0.90	2050	1422	97.1	0.87	1025	1130	96.8	0.77
1RA6 560-4...	3527	1628	97.3	0.89	2350	1423	97.3	0.87	1176	1131	97.2	0.80
1RA6 562-4...	4052	1628	97.4	0.90	2701	1423	97.5	0.89	1351	1131	97.4	0.83
1RA6 564-4...	4502	1628	97.5	0.90	3000	1423	97.5	0.89	1501	1131	97.4	0.82
1RA6 566-4...	4952	1628	97.6	0.91	3300	1423	97.7	0.90	1651	1131	97.5	0.84
1RA4 632-4...	5550	1626	97.5	0.90	3700	1421	97.1	0.87	1850	1128	96.5	0.75

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Selection and ordering data

Rated power		High voltage motor H-compact PLUS	Operating values at rated output for utilization 155 (F)							
IEC			Rated speed	Efficiency	Power factor	Rated current at 4.16 kV	Rated torque	Break-down torque	Moment of inertia	Mechanical speed limit[1]
P_{rated} 155 (F)	P_{rated} 130 (B)		n_{rated}	η	cos φ	I_{rated}	T_{rated}	T_B/T_{rated}	J	n_{max}
kW	kW	Article No.	rpm	%	[-]	A	Nm	[-]	kgm^2	rpm
3.4 ... 4.16 kV, 60 Hz										
6-pole										
1210	–[2]	**1RA6 450-6HS3■**	1190	96.0	0.84	210	9715	2.40	26	1200
1350	–[2]	**1RA6 452-6HS3■**	1191	96.2	0.85	230	10833	2.40	29	1200
1480	–[2]	**1RA6 454-6HS3■**	1191	96.3	0.85	250	11875	2.50	32	1200
1620	–[2]	**1RA6 456-6HS3■**	1191	96.4	0.87	270	12995	2.50	37	1200
2350	2100	**1RA6 500-6HS3■**	1187	96.0	0.85	400	18907	1.65	56	1500
2600	2350	**1RA6 502-6HS3■**	1188	96.4	0.84	445	20901	1.85	62	1500
2900	2600	**1RA6 504-6HS3■**	1187	96.3	0.85	490	23332	1.70	69	1500
3100	2800	**1RA6 506-6HS3■**	1188	96.4	0.86	520	24920	1.75	77	1500
3750	3300	**1RA6 560-6HS3■**	1189	96.6	0.86	630	30120	2.00	108	1500
4250	3750	**1RA6 562-6HS3■**	1189	96.8	0.86	710	34136	2.05	119	1500
4700	4150	**1RA6 564-6HS3■**	1190	96.9	0.87	770	37718	2.15	132	1500
5100	4500	**1RA6 566-6HS3■**	1190	97.0	0.87	840	40929	2.20	146	1500
8-pole										
870	–[2]	**1RA6 450-8HS3■**	893	95.2	0.81	156	9308	2.50	32	1200
960	–[2]	**1RA6 452-8HS3■**	893	95.3	0.82	170	10269	2.50	36	1200
1050	–[2]	**1RA6 454-8HS3■**	893	95.4	0.84	182	11239	2.40	40	1200
1180	–[2]	**1RA6 456-8HS3■**	894	95.6	0.82	210	12613	2.50	46	1200
1640	1480	**1RA6 500-8HS3■**	891	95.7	0.83	285	17578	1.75	69	1125
1840	1660	**1RA6 502-8HS3■**	892	96.0	0.83	320	19700	1.90	76	1125
2050	1860	**1RA6 504-8HS3■**	892	96.0	0.84	355	21948	1.80	85	1125
2300	2050	**1RA6 506-8HS3■**	892	96.1	0.84	395	24624	1.95	94	1125
2650	2350	**1RA6 560-8HS3■**	892	96.4	0.84	455	28372	1.95	128	1125
3000	2650	**1RA6 562-8HS3■**	891	96.5	0.84	510	32155	1.90	141	1125
3300	2900	**1RA6 564-8HS3■**	891	96.6	0.84	560	35370	1.90	156	1125
3500	3100	**1RA6 566-8HS3■**	892	96.8	0.85	590	37472	2.05	173	1125

Type of construction:	
IM B3	**0**
IM V1 (without canopy)	**8**

Note:

The motors for converter operation with non-sinusoidal output have, among other things, a reinforced winding insulation.
Additional details see Page 3/2.
Ratings are defined for sinusoidal supply, based on IEC 60034-2-1:2007.
The ratings for converter operation depend on the converter and its settings and cannot be predetermined.

Higher pole numbers are available on request.

[1] For IM B3, anti-friction bearings.

[2] Utilization 130 (B) on request.

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Motor type (repeated)	Partial load values for square-law torque drive											
	P/P_{rated} 155 (F) = 75 %				P/P_{rated} 155 (F) = 50 %				P/P_{rated} 155 (F) = 25 %			
	P	n	η	cos φ	P	n	η	cos φ	P	n	η	cos φ
	kW	rpm	%	[-]	kW	rpm	%	[-]	kW	rpm	%	[-]
												Square-law torque drive
6-pole												
1RA6 450-6...	908	1083	96.2	0.83	605	947	96.2	0.80	303	753	96.0	0.69
1RA6 452-6...	1013	1083	96.3	0.84	675	947	96.4	0.80	338	753	96.1	0.70
1RA6 454-6...	1110	1083	96.5	0.84	740	947	96.5	0.81	370	753	96.3	0.71
1RA6 456-6...	1215	1083	96.6	0.86	810	947	96.7	0.83	405	753	96.5	0.74
1RA6 500-6...	1763	1079	96.3	0.85	1175	944	96.4	0.84	588	751	96.3	0.78
1RA6 502-6...	1950	1081	96.5	0.84	1300	945	96.6	0.82	650	752	96.3	0.74
1RA6 504-6...	2175	1080	96.5	0.85	1450	945	96.6	0.85	725	751	96.5	0.79
1RA6 506-6...	2325	1081	96.6	0.86	1550	945	96.7	0.85	775	752	96.6	0.79
1RA6 560-6...	2813	1081	96.8	0.87	1875	946	96.9	0.87	938	752	96.8	0.82
1RA6 562-6...	3188	1082	97.0	0.87	2125	946	97.0	0.86	1063	752	96.9	0.81
1RA6 564-6...	3525	1082	97.0	0.87	2350	946	97.1	0.86	1175	752	96.9	0.80
1RA6 566-6...	3825	1082	97.1	0.88	2550	946	97.2	0.87	1275	753	97.0	0.81
8-pole												
1RA6 450-8...	653	812	95.2	0.79	435	710	95.1	0.74	218	565	94.3	0.61
1RA6 452-8...	720	812	95.4	0.80	480	710	95.3	0.75	240	565	94.5	0.62
1RA6 454-8...	788	812	95.5	0.83	525	710	95.5	0.79	263	565	95.0	0.69
1RA6 456-8...	885	813	95.6	0.79	590	711	95.5	0.75	295	565	94.8	0.62
1RA6 500-8...	1230	810	95.9	0.83	820	709	95.9	0.81	410	564	95.5	0.72
1RA6 502-8...	1380	811	96.0	0.82	920	709	96.0	0.79	460	564	95.5	0.70
1RA6 504-8...	1538	811	96.1	0.83	1025	709	96.1	0.81	513	564	95.7	0.72
1RA6 506-8...	1725	811	96.2	0.83	1150	709	96.1	0.80	575	564	95.6	0.71
1RA6 560-8...	1988	811	96.6	0.84	1325	709	96.7	0.83	663	564	96.5	0.75
1RA6 562-8...	2250	810	96.7	0.85	1500	709	96.8	0.83	750	564	96.7	0.77
1RA6 564-8...	2475	811	96.8	0.85	1650	709	96.9	0.84	825	564	96.8	0.77
1RA6 566-8...	2625	811	96.9	0.85	1750	709	97.0	0.83	875	564	96.8	0.76

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Selection and ordering data

Rated power IEC		High voltage motor SIMOTICS HV M (modular)	Operating values at rated output for utilization 130 (B)							
			Rated speed	Efficiency	Power factor	Rated current at 4.16 kV	Rated torque	Break-down torque	Moment of inertia	Mechanical speed limit[1]
P_{rated} 155 (F)	P_{rated} 130 (B)		n_{rated}	η	cos φ	I_{rated}	T_{rated}	T_B/T_{rated}	J	n_{max}
kW	kW	Article No.	rpm	%	[-]	A	Nm	[-]	kgm^2	rpm
3.4 ... 4.16 kV, 60 Hz										
2-pole										
11660	10600	**1RA7 710-2■■30-0CJ0**	3585	97.3	0.91	1660	28235	2.05	148	3600
12980	11800	**1RA7 712-2■■30-0CJ0**	3586	97.4	0.91	1840	31423	2.05	158	3600
14300	13000	**1RA7 714-2■■30-0CJ0**	3586	97.5	0.93	1980	34618	2.25	175	3600
15070	13700	**1RA7 716-2■■30-0CJ0**	3586	97.5	0.93	2100	36482	2.25	189	3600
4-pole										
10976	9800	**1RA7 710-4■■30-0CJ0**	1791	97.6	0.90	1540	52252	2.15	262	1800
12208	10900	**1RA7 712-4■■30-0CJ0**	1792	97.6	0.90	1720	58084	2.15	286	1800
13552	12100	**1RA7 714-4■■30-0CJ0**	1792	97.7	0.91	1880	64479	2.35	321	1800
15120	13500	**1RA7 716-4■■30-0CJ0**	1792	97.8	0.91	2100	71939	2.35	362	1800
6-pole										
8400	7500	**1RA7 710-6■■3■-0C■0**	1194	97.4	0.86	1240	59983	2.15	350	1800
9296	8300	**1RA7 712-6■■3■-0C■0**	1195	97.4	0.86	1380	66326	2.20	396	1800
10304	9200	**1RA7 714-6■■3■-0C■0**	1195	97.5	0.85	1540	73518	2.35	448	1800
11480	10250	**1RA7 716-6■■3■-0C■0**	1195	97.6	0.86	1700	81908	2.35	496	1800
8-pole										
5936	5300	**1RA7 710-8■■3■-0C■0**	895	97.0	0.84	900	56549	2.05	433	1000
6720	6000	**1RA7 712-8■■3■-0C■0**	895	97.1	0.85	1000	64018	2.10	493	1000
7504	6700	**1RA7 714-8■■3■-0C■0**	895	97.3	0.86	1120	71486	2.10	558	1000
8400	7500	**1RA7 716-8■■3■-0C■0**	896	97.3	0.86	1240	79933	2.10	616	1000
10-pole										
4536	4050	**1RA7 710-3■■3■-0C■0**	715	96.8	0.85	680	54090	2.20	430	900
4984	4450	**1RA7 712-3■■3■-0C■0**	715	96.9	0.85	750	59433	2.20	488	900
5488	4900	**1RA7 714-3■■3■-0C■0**	715	96.9	0.85	830	65443	2.20	552	900
6048	5400	**1RA7 716-3■■3■-0C■0**	715	97.0	0.86	900	72121	2.20	613	900

Cooling method
See page 1/8

Motor for line operation or for converter operation
See page 1/9

Type of construction
See page 1/9

Housing and bearing version
See page 1/9

Note:

The motors for converter operation with non-sinusoidal output have, among other things, a reinforced winding insulation.
Additional details see Page 3/2.
Ratings are defined for sinusoidal supply, based on IEC 60034-2-1:2007.
The ratings for converter operation depend on the converter and its settings and cannot be predetermined.

Higher pole numbers are available on request.

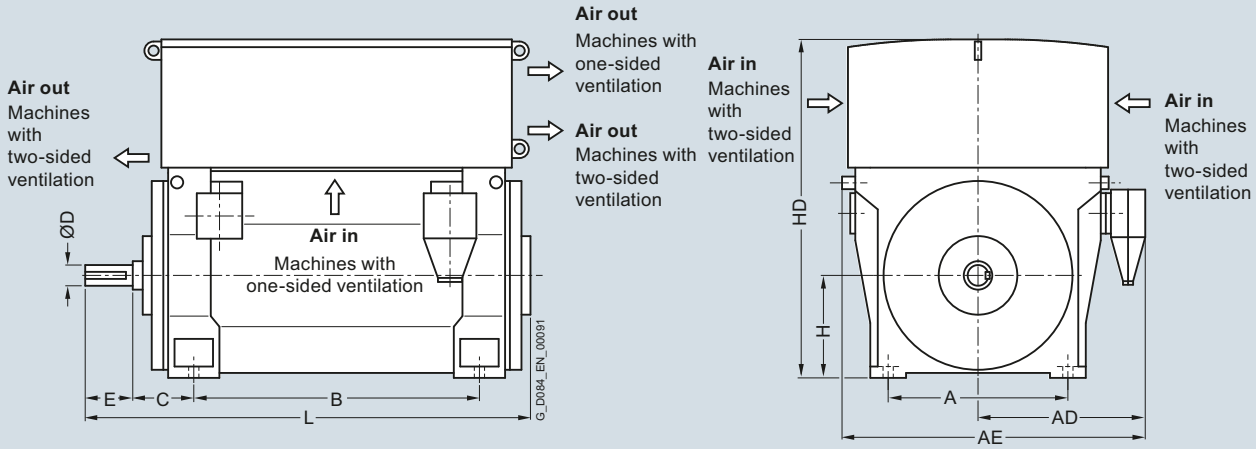
[1] For IM B3, anti-friction bearings.

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Motor type (repeated)	Partial load values for square-law torque drive											
	P/P_{rated} 130 (B) = 75 %				P/P_{rated} 130 (B) = 50 %				P/P_{rated} 130 (B) = 25 %			
	P	n	η	cos φ	P	n	η	cos φ	P	n	η	cos φ
	kW	rpm	%	[-]	kW	rpm	%	[-]	kW	rpm	%	[-]
												Square-law torque drive
2-pole												
1RA7 710-2...	7947	3258	97.2	0.92	5298	2847	97.1	0.92	2649	2263	96.8	0.90
1RA7 712-2...	8850	3258	97.4	0.92	5900	2847	97.3	0.92	2949	2263	96.9	0.90
1RA7 714-2...	9755	3259	97.5	0.93	6503	2848	97.3	0.93	3251	2263	97.0	0.91
1RA7 716-2...	10275	3259	97.5	0.94	6850	2848	97.4	0.94	3425	2263	97.1	0.92
4-pole												
1RA7 710-4...	7353	1628	97.6	0.91	4904	1423	97.5	0.91	2455	1131	97.2	0.88
1RA7 712-4...	8179	1628	97.6	0.91	5454	1423	97.5	0.91	2731	1131	97.2	0.89
1RA7 714-4...	9083	1629	97.7	0.91	6058	1423	97.6	0.91	3033	1131	97.2	0.88
1RA7 716-4...	10135	1629	97.8	0.92	6758	1423	97.7	0.92	3384	1131	97.3	0.89
6-pole												
1RA7 710-6...	5631	1085	97.3	0.85	3756	948	97.1	0.84	1880	754	96.6	0.77
1RA7 712-6...	6229	1086	97.3	0.85	4154	949	97.1	0.83	2080	754	96.5	0.75
1RA7 714-6...	6904	1086	97.4	0.85	4604	949	97.1	0.82	2305	754	96.5	0.74
1RA7 716-6...	7693	1086	97.5	0.85	5130	949	97.2	0.83	2568	754	96.7	0.75
8-pole												
1RA7 710-8...	3980	814	96.9	0.84	2654	711	96.7	0.82	1329	565	96.0	0.74
1RA7 712-8...	4505	814	97.0	0.85	3005	711	96.8	0.83	1504	565	96.2	0.75
1RA7 714-8...	5031	814	97.1	0.85	3356	711	97.0	0.84	1680	565	96.4	0.76
1RA7 716-8...	5631	814	97.2	0.85	3756	711	97.0	0.83	1880	565	96.4	0.76
10-pole												
1RA7 710-3...	3040	650	96.6	0.83	2028	568	96.4	0.80	1016	452	95.7	0.69
1RA7 712-3...	3341	650	96.8	0.84	2228	568	96.5	0.80	1116	452	95.9	0.70
1RA7 714-3...	3678	650	96.8	0.84	2454	568	96.6	0.81	1229	452	95.9	0.71
1RA7 716-3...	4054	650	96.9	0.85	2704	568	96.7	0.82	1355	452	96.1	0.73

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Dimension drawings



Motor type	Weight	Dimensions									
		A	AD[1]	AE[1]	B	C	D	E	H	HD[3]	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, anti-friction bearings, IM B3 type of construction											
2-pole											
1RA6450-2H..0[2]	3700	850	930	1620	1180	280	95	130	450	1628	1843
1RA6452-2H..0[2]	3900	850	930	1620	1180	280	95	130	450	1628	1843
1RA6454-2H..0[2]	4300	850	930	1620	1400	280	95	130	450	1628	2053
1RA6456-2H..0[2]	4550	850	930	1620	1400	280	95	130	450	1628	2053
1RA6500-2H..0[2]	5450	950	1135	1835	1320	315	110	165	500	1850	2150
1RA6502-2H..0[2]	5600	950	1135	1835	1320	315	110	165	500	1850	2150
4-pole											
1RA6450-4H..0	4050	850	930	1620	1180	250	130	200	450	1408	1896
1RA6452-4H..0	4250	850	930	1620	1180	250	130	200	450	1408	1896
1RA6454-4H..0	4650	850	930	1620	1400	250	130	200	450	1408	2106
1RA6456-4H..0	4950	850	930	1620	1400	250	130	200	450	1408	2106
1RA6500-4H..0	5950	950	1135	1835	1320	280	150	200	500	1850	2150
1RA6502-4H..0	6150	950	1135	1835	1320	280	150	200	500	1850	2150
1RA6504-4H..0	6800	950	1135	1835	1500	280	150	200	500	1850	2300
1RA6506-4H..0	7150	950	1135	1835	1500	280	150	200	500	1850	2300
1RA6560-4H..0	7450	1060	1205	1975	1400	315	170	240	560	2100	2300
1RA6562-4H..0	7850	1060	1205	1975	1400	315	170	240	560	2100	2300
1RA6564-4H..0	8700	1060	1205	1975	1600	315	170	240	560	2100	2550
1RA6566-4H..0	9250	1060	1205	1975	1600	315	170	240	560	2100	2550
1RA4630-4H..0[2]	9950	1320	1330	2210	1600	335	200	280	630	2400	2500
1RA4632-4H..0[2]	10650	1320	1330	2210	1600	335	200	280	630	2400	2500
1RA4634-4H..0[2]	11700	1320	1330	2210	1800	335	220	280	630	2400	2740
1RA4636-4H..0[2]	12250	1320	1330	2210	1800	335	220	280	630	2400	2740
6-pole											
1RA6450-6H..0	4150	850	930	1620	1180	250	140	200	450	1408	1896
1RA6452-6H..0	4400	850	930	1620	1180	250	140	200	450	1408	1896
1RA6454-6H..0	4750	850	930	1620	1400	280	140	200	450	1408	2136
1RA6456-6H..0	5100	850	930	1620	1400	280	140	200	450	1408	2136

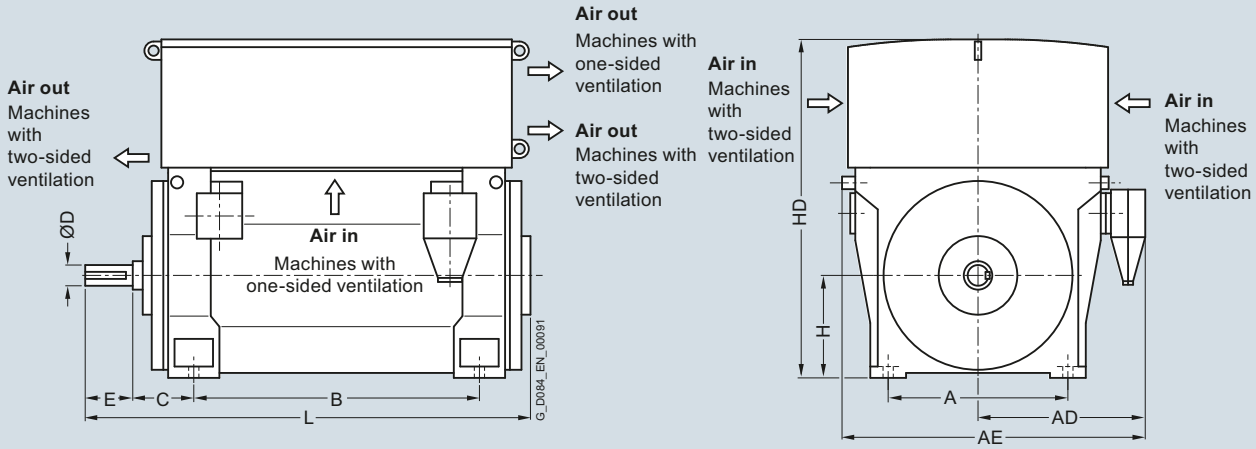
[1] For $V_{rated} \geq 2.0$ kV and current $I_{rated} > 315$ A, the dimension changes by + 140 mm.

[2] Anti-friction bearings only for 50 Hz version.

[3] Dimension HD for 1RP6 on request.

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Dimension drawings (continued)



Motor type	Weight	Dimensions									
		A	AD[1]	AE[1]	B	C	D	E	H	HD[3]	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, anti-friction bearings, IM B3 type of construction											
6-pole											
1RA6500-6H..0	6050	950	1135	1835	1320	315	160	240	500	1610	2150
1RA6502-6H..0	6350	950	1135	1835	1320	315	160	240	500	1610	2150
1RA6504-6H..0	6900	950	1135	1835	1500	315	160	240	500	1610	2360
1RA6506-6H..0	7300	950	1135	1835	1500	315	160	240	500	1610	2360
1RA6560-6H..0	8200	1060	1205	1975	1400	315	180	240	560	1760	2300
1RA6562-6H..0	8600	1060	1205	1975	1400	315	180	240	560	1760	2300
1RA6564-6H..0	9450	1060	1205	1975	1600	315	180	240	560	1760	2550
1RA6566-6H..0	10000	1060	1205	1975	1600	315	180	240	560	1760	2550
1RA4630-6H..0	10250	1320	1330	2210	1600	335	220	280	630	2400	2500
1RA4632-6H..0	10800	1320	1330	2210	1600	335	220	280	630	2400	2500
1RA4634-6H..0	11800	1320	1330	2210	1800	335	220	280	630	2400	2740
1RA4636-6H..0	12550	1320	1330	2210	1800	335	220	280	630	2400	2740
8-pole											
1RA6450-8H..0	4150	850	930	1620	1180	250	140	200	450	1408	1896
1RA6452-8H..0	4450	850	930	1620	1180	250	140	200	450	1408	1896
1RA6454-8H..0	4800	850	930	1620	1400	280	140	200	450	1408	2136
1RA6456-8H..0	5150	850	930	1620	1400	280	140	200	450	1408	2136
1RA6500-8HJ.0	6000	950	1135	1835	1320	315	160	240	500	1610	2150
1RA6502-8HJ.0	6300	950	1135	1835	1320	315	160	240	500	1610	2150
1RA6504-8HJ.0	6900	950	1135	1835	1500	315	160	240	500	1610	2360
1RA6506-8HJ.0	7250	950	1135	1835	1500	315	160	240	500	1610	2360
1RA6560-8HJ.0	8150	1060	1205	1975	1400	315	180	240	560	1760	2300
1RA6562-8HJ.0	8600	1060	1205	1975	1400	315	180	240	560	1760	2300
1RA6564-8HJ.0	9400	1060	1205	1975	1600	315	180	240	560	1760	2550
1RA6566-8HJ.0	9950	1060	1205	1975	1600	315	180	240	560	1760	2550
1RA4630-8H..0[2]	10150	1320	1330	2210	1600	335	220	280	630	2400	2500
1RA4632-8H..0[2]	10800	1320	1330	2210	1600	335	220	280	630	2400	2500
1RA4634-8H..0[2]	11700	1320	1330	2210	1800	335	220	280	630	2400	2740
1RA4636-8H..0[2]	12450	1320	1330	2210	1800	335	220	280	630	2400	2740

Note:
Higher pole numbers are available on request.

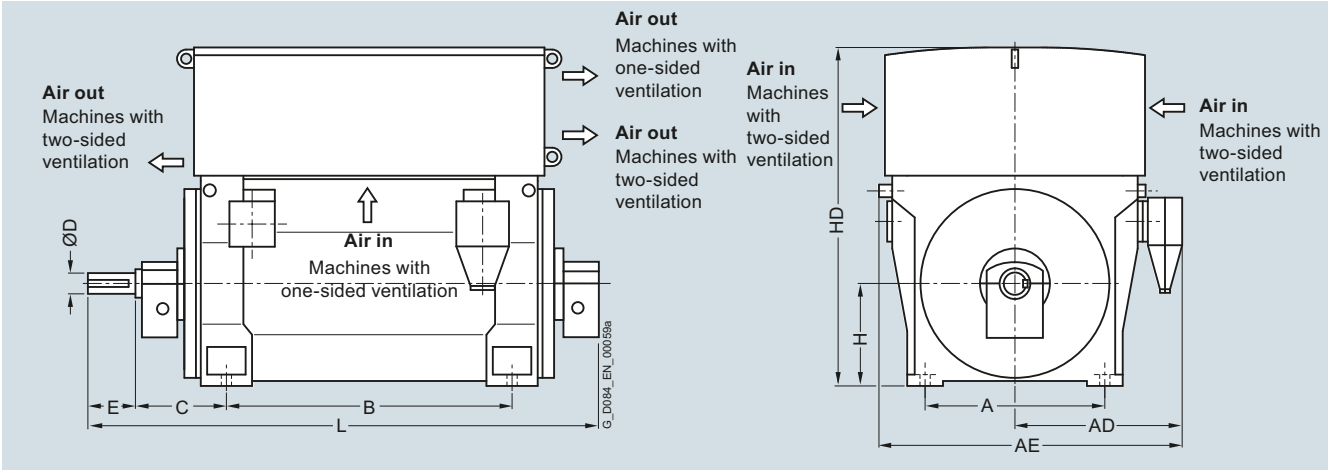
[1] For $V_{rated} \geq 2.0$ kV and current $I_{rated} > 315$ A, the dimension changes by + 140 mm.

[2] Anti-friction bearings only for 50 Hz version.

[3] Dimension HD for 1RP6 on request.

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Dimension drawings



Motor type	Weight	Dimensions									
		A	AD[1]	AE[1]	B	C	D	E	H	HD[3]	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, sleeve bearings, IM B3 type of construction											
2-pole											
1RA6450-2H..0-Z K96	3750	850	930	1620	1180	425	95	130	450	1628	2218
1RA6452-2H..0-Z K96	3950	850	930	1620	1180	425	95	130	450	1628	2218
1RA6454-2H..0-Z K96	4300	850	930	1620	1400	425	95	130	450	1628	2428
1RA6456-2H..0-Z K96	4550	850	930	1620	1400	425	95	130	450	1628	2428
1RA6500-2H..0-Z K96[2]	5500	950	1135	1835	1320	450	110	165	500	1850	2500
1RA6502-2H..0-Z K96[2]	5650	950	1135	1835	1320	450	110	165	500	1850	2500
1RA6504-2H..0	6450	950	1135	1835	1500	450	110	165	500	1850	2650
1RA6506-2H..0	6700	950	1135	1835	1500	450	110	165	500	1850	2650
1RA6560-2H..0	7450	1060	1205	1975	1400	600	130	200	560	2100	2850
1RA6562-2H..0	7850	1060	1205	1975	1400	600	130	200	560	2100	2850
1RA6564-2H..0	8750	1060	1205	1975	1600	600	130	200	560	2100	3100
1RA6566-2H..0	9200	1060	1205	1975	1600	600	130	200	560	2100	3100
4-pole											
1RA6450-4H..0-Z K96	4100	850	930	1620	1180	500	130	200	450	1408	2438
1RA6452-4H..0-Z K96	4350	850	930	1620	1180	500	130	200	450	1408	2438
1RA6454-4H..0-Z K96	4750	850	930	1620	1400	500	130	200	450	1408	2648
1RA6456-4H..0-Z K96	5000	850	930	1620	1400	500	130	200	450	1408	2648
1RA6500-4H..0-Z K96	6250	950	1135	1835	1320	560	150	200	500	1850	2700
1RA6502-4H..0-Z K96	6500	950	1135	1835	1320	560	150	200	500	1850	2700
1RA6504-4H..0-Z K96	7150	950	1135	1835	1500	560	150	200	500	1850	2880
1RA6506-4H..0-Z K96	7450	950	1135	1835	1500	560	150	200	500	1850	2880
1RA6560-4H..0-Z K96	7650	1060	1205	1975	1400	600	170	240	560	2100	2900
1RA6562-4H..0-Z K96	8000	1060	1205	1975	1400	600	170	240	560	2100	2900
1RA6564-4H..0-Z K96	8900	1060	1205	1975	1600	600	170	240	560	2100	3100
1RA6566-4H..0-Z K96	9400	1060	1205	1975	1600	600	170	240	560	2100	3100
1RA4630-4H..0-Z K96[2]	10250	1320	1330	2210	1600	600	200	280	630	2400	2970
1RA4632-4H..0-Z K96[2]	10950	1320	1330	2210	1600	600	200	280	630	2400	2970
1RA4634-4H..0-Z K96[2]	11950	1320	1330	2210	1800	600	220	280	630	2400	3210
1RA4636-4H..0-Z K96[2]	12500	1320	1330	2210	1800	600	220	280	630	2400	3210

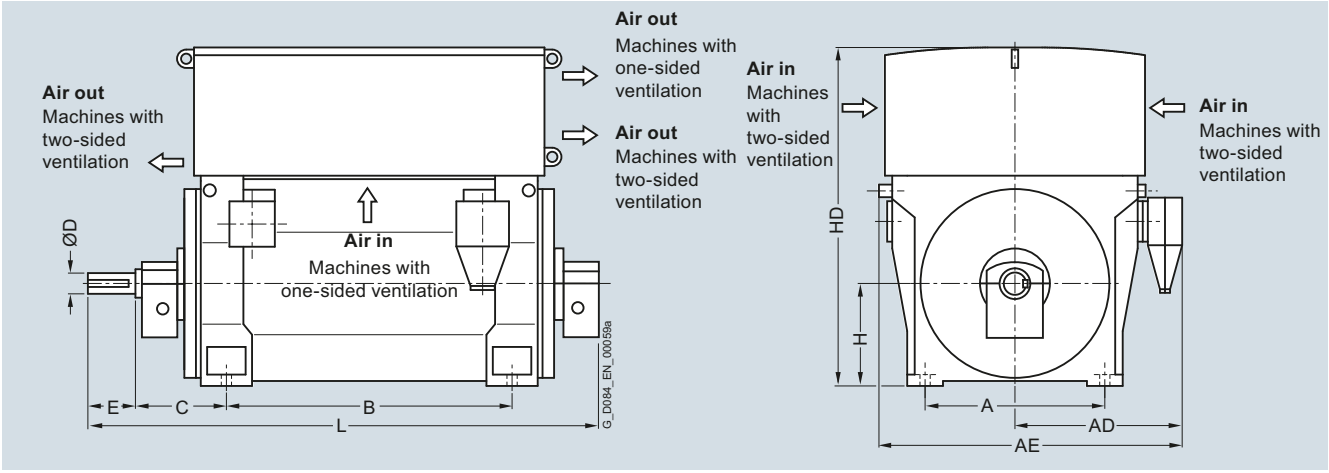
[1] For $V_{rated} \geq 2.0$ kV and current $I_{rated} > 315$ A, the dimension changes by + 140 mm.

[2] For the 60 Hz version, sleeve bearings are standard, "-Z **K96**" not necessary.

[3] Dimension HD for 1RP6 on request.

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Dimension drawings (continued)



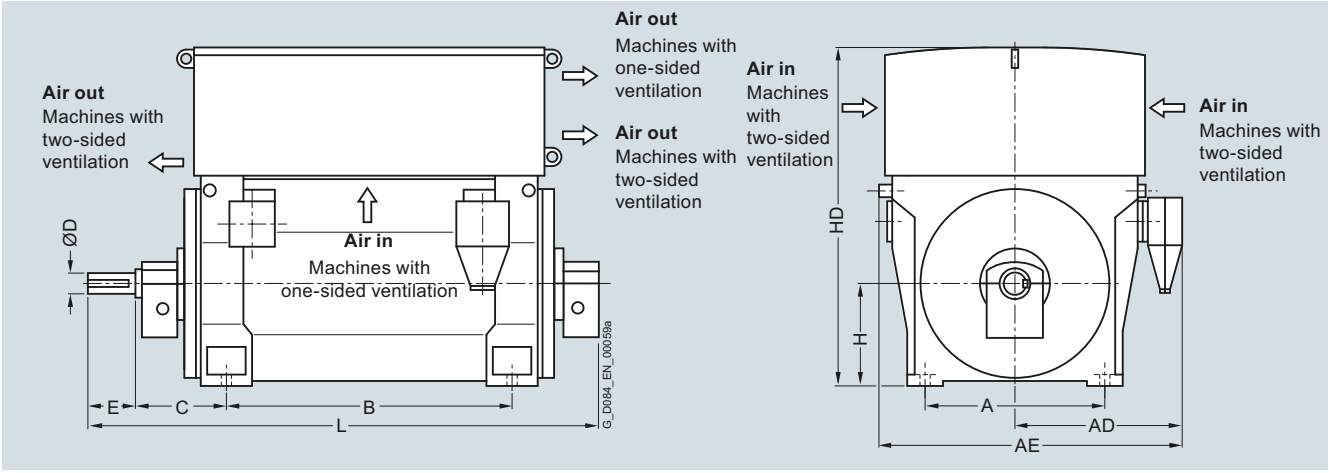
Motor type	Weight	Dimensions									
		A	AD[1]	AE[1]	B	C	D	E	H	HD[2]	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, sleeve bearings, IM B3 type of construction											
6-pole											
1RA6450-6H..0-Z K96	4200	850	930	1620	1180	500	140	200	450	1408	2438
1RA6452-6H..0-Z K96	4500	850	930	1620	1180	500	140	200	450	1408	2438
1RA6454-6H..0-Z K96	4850	850	930	1620	1400	500	140	200	450	1408	2648
1RA6456-6H..0-Z K96	5200	850	930	1620	1400	500	140	200	450	1408	2648
1RA6500-6H..0-Z K96	6250	950	1135	1835	1320	560	170	240	500	1610	2700
1RA6502-6H..0-Z K96	6500	950	1135	1835	1320	560	170	240	500	1610	2700
1RA6504-6H..0-Z K96	7100	950	1135	1835	1500	560	170	240	500	1610	2900
1RA6506-6H..0-Z K96	7500	950	1135	1835	1500	560	170	240	500	1610	2900
1RA6560-6H..0-Z K96	8450	1060	1205	1975	1400	600	170	240	560	1760	2950
1RA6562-6H..0-Z K96	8850	1060	1205	1975	1400	600	170	240	560	1760	2950
1RA6564-6H..0-Z K96	9700	1060	1205	1975	1600	600	170	240	560	1760	3150
1RA6566-6H..0-Z K96	10250	1060	1205	1975	1600	600	170	240	560	1760	3150
1RA4630-6H..0-Z K96	10500	1320	1330	2210	1600	600	220	280	630	2400	2970
1RA4632-6H..0-Z K96	11050	1320	1330	2210	1600	600	220	280	630	2400	2970
1RA4634-6H..0-Z K96	12100	1320	1330	2210	1800	600	220	280	630	2400	3210
1RA4636-6H..0-Z K96	12850	1320	1330	2210	1800	600	220	280	630	2400	3210

[1] For $V_{rated} \geq 2.0$ kV and current $I_{rated} > 315$ A, the dimension changes by + 140 mm.

[2] Dimension HD for 1RP6 on request.

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Dimension drawings (continued)



Motor type	Weight	Dimensions									
		A	AD[1]	AE[1]	B	C	D	E	H	HD[2]	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, sleeve bearings, IM B3 type of construction											
8-pole											
1RA6450-8H..0-Z K96	4250	850	930	1620	1180	500	140	200	450	1408	2438
1RA6452-8H..0-Z K96	4550	850	930	1620	1180	500	140	200	450	1408	2438
1RA6454-8H..0-Z K96	4900	850	930	1620	1400	500	140	200	450	1408	2648
1RA6456-8H..0-Z K96	5250	850	930	1620	1400	500	140	200	450	1408	2648
1RA6500-8H..0-Z K96	6200	950	1135	1835	1320	560	170	240	500	1610	2700
1RA6502-8H..0-Z K96	6450	950	1135	1835	1320	560	170	240	500	1610	2700
1RA6504-8H..0-Z K96	7100	950	1135	1835	1500	560	170	240	500	1610	2900
1RA6506-8H..0-Z K96	7450	950	1135	1835	1500	560	170	240	500	1610	2900
1RA6560-8H..0-Z K96	8400	1060	1205	1975	1400	600	170	240	560	1760	2950
1RA6562-8H..0-Z K96	8800	1060	1205	1975	1400	600	170	240	560	1760	2950
1RA6564-8H..0-Z K96	9650	1060	1205	1975	1600	600	170	240	560	1760	3150
1RA6566-8H..0-Z K96	10150	1060	1205	1975	1600	600	170	240	560	1760	3150
1RA4630-8H..0-Z K96	10400	1320	1330	2210	1600	600	220	280	630	2400	2970
1RA4632-8H..0-Z K96	11050	1320	1330	2210	1600	600	220	280	630	2400	2970
1RA4634-8H..0-Z K96	12000	1320	1330	2210	1800	600	220	280	630	2400	3210
1RA4636-8H..0-Z K96	12700	1320	1330	2210	1800	600	220	280	630	2400	3210

Note:

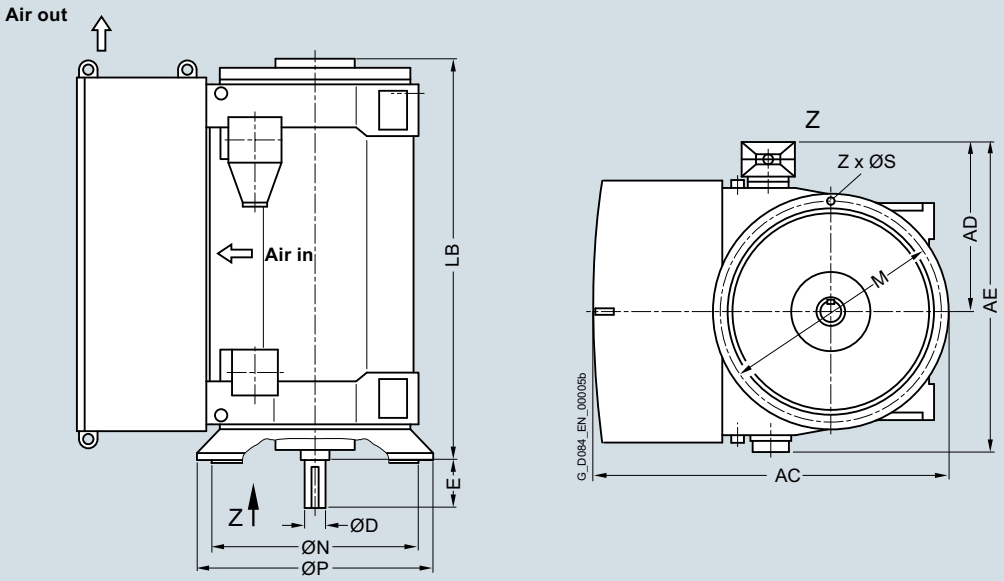
Higher pole numbers are available on request.

[1] For $V_{rated} \geq 2.0$ kV and current $I_{rated} > 315$ A, the dimension changes by + 140 mm.

[2] Dimension HD for 1RP6 on request.

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Dimension drawings



Motor type	Weight	Dimensions										
		AC[3]	AD[1]	AE[1]	D	E	LB	P	N	M	S	Z
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Quantity
Up to 6.6 kV, anti-friction bearings, IM V1 type of construction												
4-pole												
1RA6450-4H..8	4250	1533	930	1620	130	200	1720	1150	1000	1080	26	8
1RA6452-4H..8	4450	1533	930	1620	130	200	1720	1150	1000	1080	26	8
1RA6454-4H..8	4850	1533	930	1620	140	200	1930	1150	1000	1080	26	8
1RA6456-4H..8	5150	1533	930	1620	140	200	1930	1150	1000	1080	26	8
1RA6500-4H..8	5250	1640	1000	1810	150	200	1910	1250	1120	1180	26	8
1RA6502-4H..8	5450	1640	1000	1810	150	200	1910	1250	1120	1180	26	8
1RA6504-4H..8	6150	1640	1000	1810	160	240	2120	1250	1120	1180	26	8
1RA6506-4H..8	6550	1640	1000	1810	160	240	2120	1250	1120	1180	26	8
1RA6560-4H..8	7250	1890	1210	2100	180	240	2090	1400	1250	1320	26	16
1RA6562-4H..8[2]	7700	1890	1210	2100	180	240	2090	1400	1250	1320	26	16
1RA6564-4H..8[2]	8600	1890	1210	2100	190	280	2320	1400	1250	1320	26	16
1RA6566-4H..8[2]	9050	1890	1210	2100	190	280	2320	1400	1250	1320	26	16
1RA4630-4H..8[2]	11600	2430	1330	2300	200	280	2470	2000	1800	1900	33	16
1RA4632-4H..8[2]	12300	2430	1330	2300	200	280	2470	2000	1800	1900	33	16
1RA4634-4H..8[2]	13350	2430	1330	2300	220	280	2710	2000	1800	1900	33	16
1RA4636-4H..8[2]	13900	2430	1330	2300	220	280	2710	2000	1800	1900	33	16

[1] For $V_{rated} \geq 2.0$ kV and current $I_{rated} > 315$ A, the dimension changes by + 140 mm.

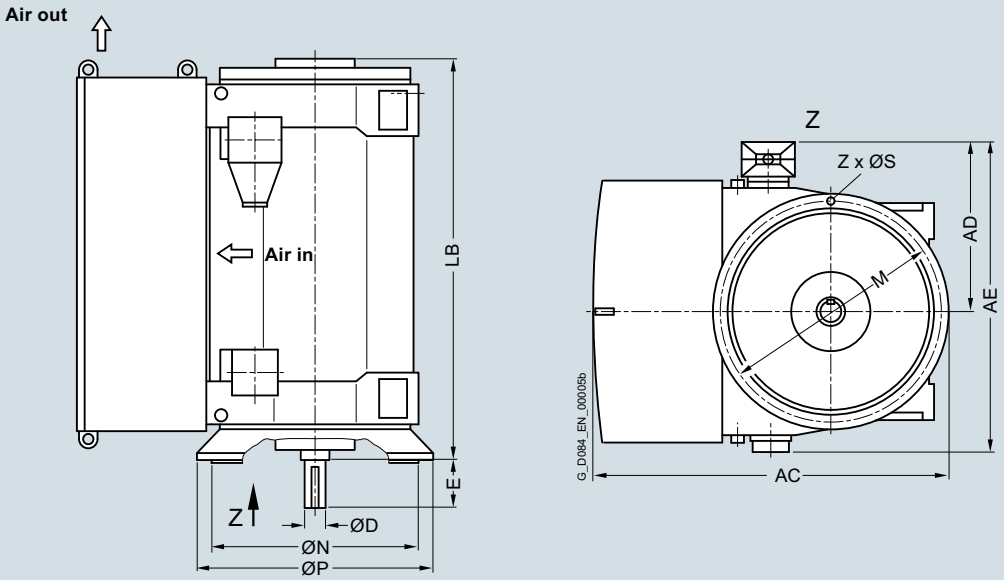
[2] Only in the 50 Hz version.

[3] Dimension AC for 1RP6 on request.

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3

Dimension drawings (continued)



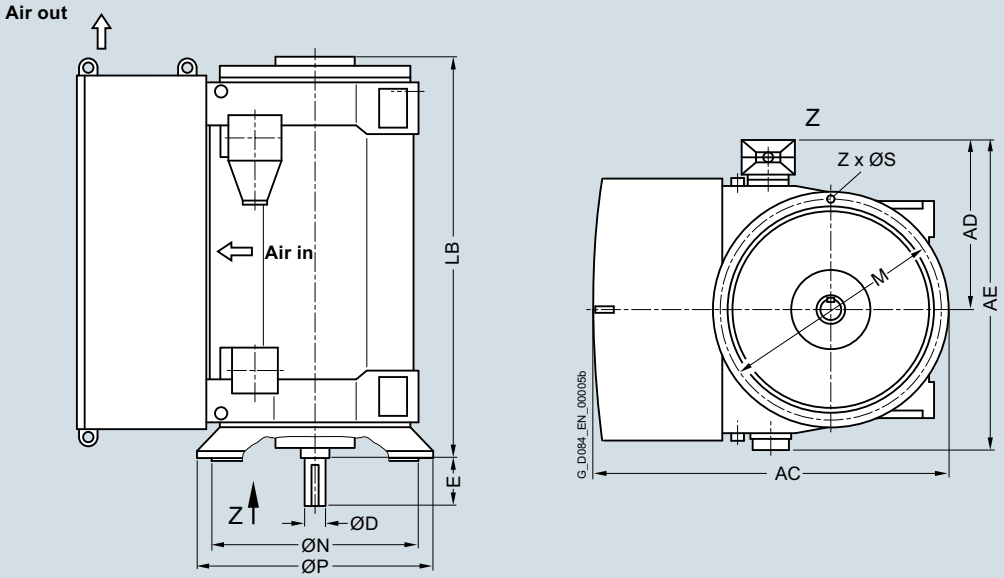
Motor type	Weight	Dimensions										
		AC[2]	AD[1]	AE[1]	D	E	LB	P	N	M	S	Z
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Quantity
Up to 6.6 kV, anti-friction bearings, IM V1 type of construction												
6-pole												
1RA6450-6H..8	4350	1533	930	1620	130	200	1720	1150	1000	1080	26	8
1RA6452-6H..8	4600	1533	930	1620	130	200	1720	1150	1000	1080	26	8
1RA6454-6H..8	4950	1533	930	1620	140	200	1930	1150	1000	1080	26	8
1RA6456-6H..8	5300	1533	930	1620	140	200	1930	1150	1000	1080	26	8
1RA6500-6H..8	5400	1640	1000	1810	160	240	1910	1250	1120	1180	26	8
1RA6502-6H..8	5750	1640	1000	1810	160	240	1910	1250	1120	1180	26	8
1RA6504-6H..8	6300	1640	1000	1810	170	240	2120	1250	1120	1180	26	8
1RA6506-6H..8	6700	1640	1000	1810	170	240	2120	1250	1120	1180	26	8
1RA6560-6H..8	7400	1890	1210	2100	180	240	2090	1400	1250	1320	26	16
1RA6562-6H..8	8000	1890	1210	2100	180	240	2090	1400	1250	1320	26	16
1RA6564-6H..8	8800	1890	1210	2100	190	280	2320	1400	1250	1320	26	16
1RA6566-6H..8	9300	1890	1210	2100	190	280	2320	1400	1250	1320	26	16
1RA4630-6H..8	11900	2430	1330	2300	220	280	2470	2000	1800	1900	33	16
1RA4632-6H..8	12450	2430	1330	2300	220	280	2470	2000	1800	1900	33	16
1RA4634-6H..8	13450	2430	1330	2300	220	280	2710	2000	1800	1900	33	16
1RA4636-6H..8	14200	2430	1330	2300	220	280	2710	2000	1800	1900	33	16

[1] For $V_{rated} \geq 2.0$ kV and current $I_{rated} > 315$ A, the dimension changes by + 140 mm.

[2] Dimension AC for 1RP6 on request.

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Dimension drawings (continued)



Motor type	Weight	Dimensions										
		AC[2]	AD[1]	AE[1]	D	E	LB	P	N	M	S	Z
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Quantity
Up to 6.6 kV, anti-friction bearings, IM V1 type of construction												
8-pole												
1RA6450-8H..8	4350	1533	930	1620	140	200	1720	1150	1000	1080	26	8
1RA6452-8H..8	4650	1533	930	1620	140	200	1720	1150	1000	1080	26	8
1RA6454-8H..8	5000	1533	930	1620	140	200	1930	1150	1000	1080	26	8
1RA6456-8H..8	5350	1533	930	1620	140	200	1930	1150	1000	1080	26	8
1RA6500-8H..8	5450	1640	1000	1810	160	240	1910	1250	1120	1180	26	8
1RA6502-8H..8	5800	1640	1000	1810	160	240	1910	1250	1120	1180	26	8
1RA6504-8H..8	6300	1640	1000	1810	170	240	2120	1250	1120	1180	26	8
1RA6506-8H..8	6700	1640	1000	1810	170	240	2120	1250	1120	1180	26	8
1RA6560-8H..8	7350	1890	1070	1960	180	240	2090	1400	1250	1320	26	16
1RA6562-8H..8	7900	1890	1070	1960	180	240	2090	1400	1250	1320	26	16
1RA6564-8H..8	8700	1890	1070	1960	190	280	2320	1400	1250	1320	26	16
1RA6566-8H..8	9200	1890	1070	1960	190	280	2320	1400	1250	1320	26	16
1RA4630-8H..8	11800	2430	1330	2300	220	280	2470	2000	1800	1900	33	16
1RA4632-8H..8	12450	2430	1330	2300	220	280	2470	2000	1800	1900	33	16
1RA4634-8H..8	13350	2430	1330	2300	220	280	2710	2000	1800	1900	33	16
1RA4636-8H..8	14100	2430	1330	2300	220	280	2710	2000	1800	1900	33	16

Note:

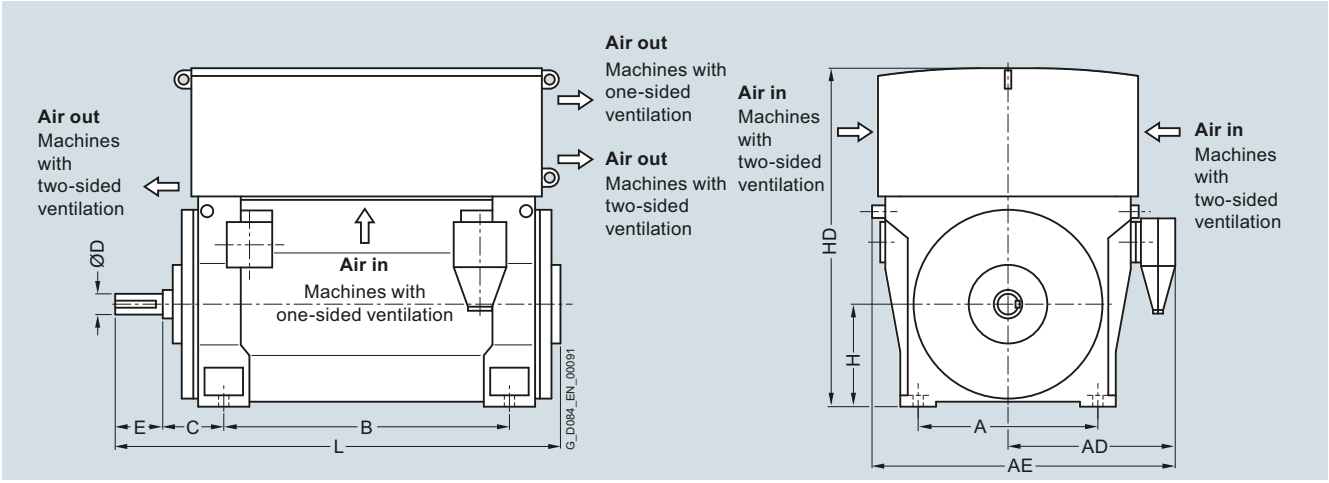
Higher pole numbers are available on request.

[1] For $V_{rated} \geq 2.0$ kV and current $I_{rated} > 315$ A, the dimension changes by + 140 mm.

[2] Dimension AC for 1RP6 on request.

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Dimension drawings



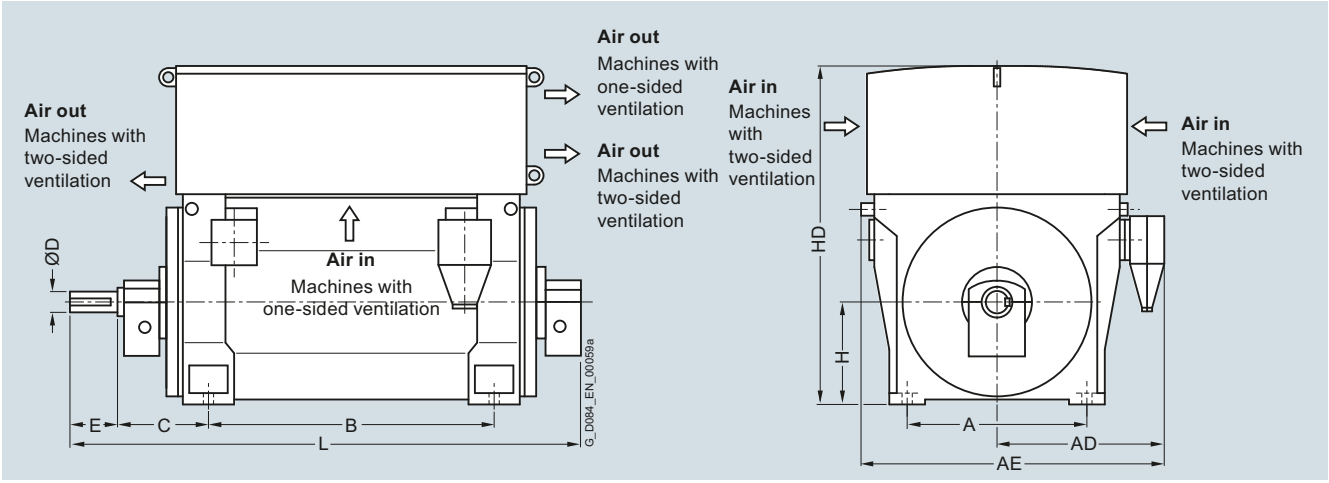
Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, IM B3 type of construction, anti-friction bearings – 1RA7 series											
4-pole											
1RA7 710-4	15700	1500	1800	2900	2000	375	220	350	710	O. R.	3070
1RA7 712-4	16300	1500	1800	2900	2000	375	220	350	710	O. R.	3070
1RA7 714-4	17700	1500	1800	2900	2240	375	220	350	710	O. R.	3310
1RA7 716-4	18900	1500	1800	2900	2240	375	220	350	710	O. R.	3310
6-pole											
1RA7 710-6	16000	1500	1800	2900	2000	375	220	350	710	O. R.	3070
1RA7 712-6	17000	1500	1800	2900	2000	375	220	350	710	O. R.	3070
1RA7 714-6	18500	1500	1800	2900	2240	375	220	350	710	O. R.	3310
1RA7 716-6	19600	1500	1800	2900	2240	375	220	350	710	O. R.	3310
8-pole											
1RA7 710-8	15600	1500	1800	2900	2000	375	220	350	710	O. R.	3070
1RA7 712-8	16500	1500	1800	2900	2000	375	220	350	710	O. R.	3070
1RA7 714-8	18000	1500	1800	2900	2240	375	220	350	710	O. R.	3310
1RA7 716-8	19000	1500	1800	2900	2240	375	220	350	710	O. R.	3310
10-pole											
1RA7 710-3	15600	1500	1800	2900	2000	375	220	350	710	O. R.	3070
1RA7 712-3	16500	1500	1800	2900	2000	375	220	350	710	O. R.	3070
1RA7 714-3	18000	1500	1800	2900	2240	375	220	350	710	O. R.	3310
1RA7 716-3	19000	1500	1800	2900	2240	375	220	350	710	O. R.	3310

Note:

Higher pole numbers are available on request.

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Dimension drawings



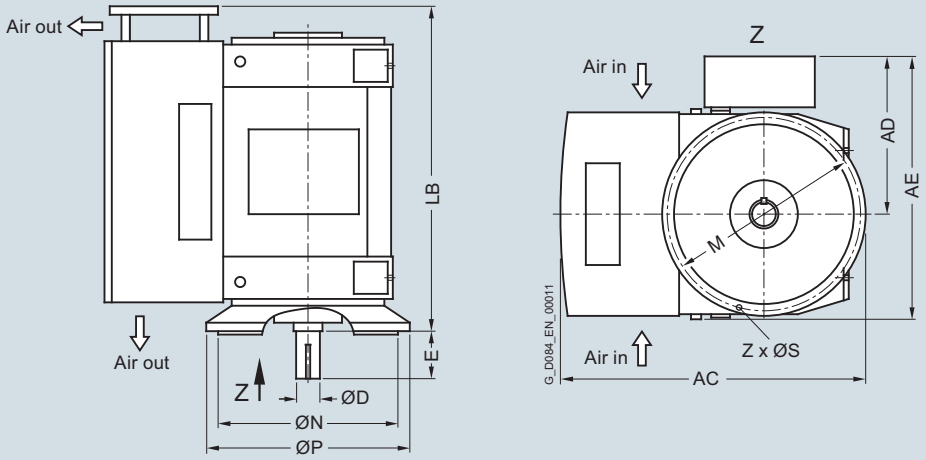
Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, IM B3 type of construction, sleeve bearings – 1RA7 series											
2-pole											
1RA7 710-2	14900	1500	1800	2900	2000	560	200	280	710	O. R.	3320
1RA7 712-2	15500	1500	1800	2900	2000	560	200	280	710	O. R.	3320
1RA7 714-2	16700	1500	1800	2900	2240	560	200	280	710	O. R.	3560
1RA7 716-2	17500	1500	1800	2900	2240	560	200	280	710	O. R.	3560
4-pole											
1RA7 710-4	16100	1500	1800	2900	2000	710	220	350	710	O. R.	3650
1RA7 712-4	16700	1500	1800	2900	2000	710	220	350	710	O. R.	3650
1RA7 714-4	18000	1500	1800	2900	2240	710	220	350	710	O. R.	3890
1RA7 716-4	19300	1500	1800	2900	2240	710	220	350	710	O. R.	3890
6-pole											
1RA7 710-6	16100	1500	1800	2900	2000	670	220	350	710	O. R.	3570
1RA7 712-6	17100	1500	1800	2900	2000	670	220	350	710	O. R.	3570
1RA7 714-6	18600	1500	1800	2900	2240	670	220	350	710	O. R.	3810
1RA7 716-6	19700	1500	1800	2900	2240	670	220	350	710	O. R.	3810
8-pole											
1RA7 710-8	15700	1500	1800	2900	2000	670	220	350	710	O. R.	3570
1RA7 712-8	16600	1500	1800	2900	2000	670	220	350	710	O. R.	3570
1RA7 714-8	18000	1500	1800	2900	2240	670	220	350	710	O. R.	3810
1RA7 716-8	19000	1500	1800	2900	2240	670	220	350	710	O. R.	3810
10-pole											
1RA7 710-3	15600	1500	1800	2900	2000	670	220	350	710	O. R.	3570
1RA7 712-3	16600	1500	1800	2900	2000	670	220	350	710	O. R.	3570
1RA7 714-3	18100	1500	1800	2900	2240	670	220	350	710	O. R.	3810
1RA7 716-3	19000	1500	1800	2900	2240	670	220	350	710	O. R.	3810

Note:

Higher pole numbers are available on request.

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Dimension drawings



Motor type	Weight	Dimensions										
		AC	AD	AE	D	E	LB	P	N	M	S	Z
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Quantity
Up to 6.6 kV, IM V1 type of construction, anti-friction bearings, Z ventilation – 1RP7 series												
6-pole												
1RA7 710-6	16700	O. R.	1800	2900	220	350	3140	2000	1800	1900	35	24
1RA7 712-6	17700	O. R.	1800	2900	220	350	3140	2000	1800	1900	35	24
1RA7 714-6	19200	O. R.	1800	2900	220	350	3380	2000	1800	1900	35	24
1RA7 716-6	20300	O. R.	1800	2900	220	350	3380	2000	1800	1900	35	24
8-pole												
1RA7 710-8	16600	O. R.	1800	2900	220	350	3140	2000	1800	1900	35	24
1RA7 712-8	17600	O. R.	1800	2900	220	350	3140	2000	1800	1900	35	24
1RA7 714-8	19100	O. R.	1800	2900	220	350	3380	2000	1800	1900	35	24
1RA7 716-8	20100	O. R.	1800	2900	220	350	3380	2000	1800	1900	35	24
10-pole												
1RA7 710-3	16400	O. R.	1800	2900	220	350	3140	2000	1800	1900	35	24
1RA7 712-3	17300	O. R.	1800	2900	220	350	3140	2000	1800	1900	35	24
1RA7 714-3	18900	O. R.	1800	2900	220	350	3380	2000	1800	1900	35	24
1RA7 716-3	19800	O. R.	1800	2900	220	350	3380	2000	1800	1900	35	24

Note:

Higher pole numbers are available on request.

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Overview



Technical data

Overview of technical data

H-compact PLUS 1RQ4, 1RQ6, SIMOTICS HV M 1RQ7	
Rated voltage	690 V … 4.16 kV
Rated frequency	50/60 Hz
Motor type	Induction motor with squirrel-cage rotor
Type of construction	IM B3, IM V1
Degree of protection	IP55
Cooling method	IC611/IC616
Stator winding insulation	Insulation system, thermal class 155 (F)
Shaft height	450 … 710 mm
Bearings	Anti-friction bearings, sleeve bearings
Cage material	Copper
Standards	IEC, EN
Frame design for shaft heights 450 … 560 mm	Housing: Cast iron Cooling enclosure: Steel
Frame design for shaft heights 630 … 710 mm	Housing: Steel Cooling enclosure: Steel

The following versions can be offered on request:

- 2-pole up to 75 Hz
- 4-pole up to 100 Hz
- 6-pole up to 90 Hz

For individual motor types, it must be ensured that the motor does not run-through any critical speed in the required speed control range and that the maximum speed does not exceed the mechanical speed limit of the motor! Please contact your Siemens sales person regarding this check. The motor types are marked with footnotes in the following data tables.

Technical data (continued)

Power ranges for IEC motors with reinforced insulation for SINAMICS drive converters without sine-wave filter

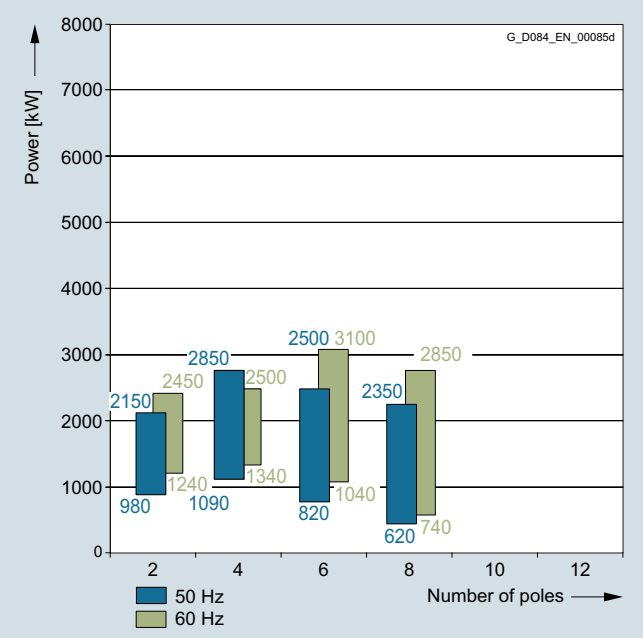
1RQ4/1RQ6, 1SG4/1SG6 (Ex ec) and 1SB4/1SB6 (Ex pxb) series

1RQ7 series

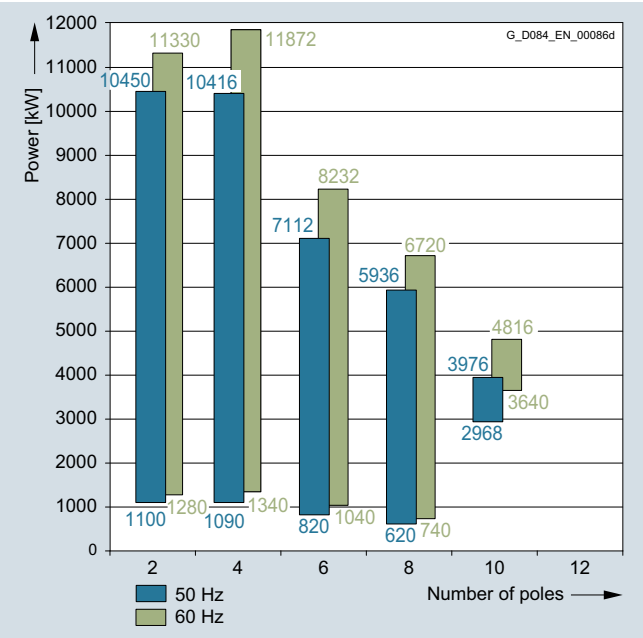
Insulation system, thermal class 155 (F)

The power data listed here apply for an ambient temperature of 40 °C and an installation altitude ≤ 1000 m.

690 V; 50 and 60 Hz



3.4 kV to 4.16 kV; 50 and 60 Hz[1)]



[1)] Maximum and minimum power ratings can be diffent for specific voltage levels.

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Selection and ordering data

Rated power	**Low voltage motor H-compact PLUS**	Operating values at rated output for utilization 155 (F)							
IEC		Rated speed	Efficiency	Power factor	Rated current 690 V	Rated torque	Break-down torque	Moment of inertia	Mechanical speed limit[1]
P_{rated} 155 (F)		n_{rated}	η	cos φ	I_{rated}	T_{rated}	T_B/T_{rated}	J	n_{max}
kW	Article No.	rpm	%	[-]	A	Nm	[-]	kgm^2	rpm
690 V, 50 Hz									
2-pole									
980	**1RQ6 450-2JP00**	2983	95.1	0.91	950	3141	2.40	13	3000
1040	**1RQ6 452-2JP00**	2984	95.2	0.91	1000	3331	2.40	14	3000
1320	**1RQ6 454-2JP00**	2983	95.9	0.92	2x630	4232	2.30	16	3000
1370	**1RQ6 456-2JP00**	2982	95.9	0.93	2x640	4394	2.40	18	3000
1740	**1RQ6 500-2JP00**	2980	96.1	0.91	2x830	5576	2.70	19	3000
1880	**1RQ6 502-2JP00**	2978	96.2	0.91	2x900	6028	2.60	20	3000
2150	**1RQ6 504-2JP00**	2980	96.6	0.92	2x1020	6890	2.60	24	3000[3]
4-pole									
1090	**1RQ6 450-4JP0■**	1487	95.4	0.87	1100	7008	2.60	20	1800
1200	**1RQ6 452-4JP0■**	1486	95.5	0.90	1160	7724	2.50	22	1800
1290	**1RQ6 454-4JP0■**	1488	95.9	0.89	2x630	8289	2.60	25	1800
1420	**1RQ6 456-4JP0■**	1490	96.1	0.89	2x690	9113	2.90	29	1800
1950[2]	**1RQ6 500-4JP00**	1487	96.1	0.91	2x930	12523	2.55	42	1800
2000[2]	**1RQ6 502-4JP00**	1487	96.2	0.91	2x960	12844	2.55	46	1800
2100[2]	**1RQ6 504-4JP00**	1486	96.2	0.92	2x990	13495	2.45	52	1800
2400[2]	**1RQ6 506-4JP00**	1489	96.6	0.91	2x1140	15392	2.70	56	1800
2700[2]	**1RQ6 560-4JP00**	1486	96.5	0.91	4x640	17351	2.10	82	1800
2850[2]	**1RQ6 562-4JP00**	1490	96.7	0.92	4x670	18265	2.65	93	1800

Type of construction:	
IM B3	**0**
IM V1 (with canopy)	**4**

Note:

The motors for converter operation with non-sinusoidal output have, among other things, a reinforced winding insulation.
Additional details see Page 3/2.
Ratings are defined for sinusoidal supply, based on IEC 60034-2-1:2007.
The ratings for converter operation depend on the converter and its settings and cannot be predetermined.

Higher pole numbers are available on request.

[1] For IM B3, anti-friction bearings.

[2] Data of vertical motors (IM V1) on request.

[3] There are speed exclusion ranges for this type. It must be ensured that the motors are not continuously operated in these speed ranges. The exclusion ranges must be clarified in advance in the factory.

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Motor type (repeated)	Partial load values for square-law torque drive											
	P/P_{rated} 155 (F) = 75 %				P/P_{rated} 155 (F) = 50 %				P/P_{rated} 155 (F) = 25 %			
	P	*n*	η	cos φ	*P*	*n*	η	cos φ	*P*	*n*	η	cos φ
	kW	rpm	%	[-]	kW	rpm	%	[-]	kW	rpm	%	[-]
												Square-law torque drive
2-pole												
1RQ6 450-2JP0.	735	2711	95.4	0.91	490	2372	95.5	0.90	245	1884	95.3	0.84
1RQ6 452-2JP0	780	2712	95.5	0.91	520	2373	95.6	0.90	260	1885	95.4	0.85
1RQ6 454-2JP0.	991	2711	96.1	0.92	660	2372	96.2	0.91	330	1884	96.1	0.87
1RQ6 456-2JP0.	1028	2710	96.2	0.94	685	2372	96.3	0.93	343	1884	96.4	0.90
1RQ6 500-2JP0.	1305	2711	96.2	0.89	870	2371	96.3	0.86	435	1884	96.1	0.76
1RQ6 502-2JP0.	1411	2710	96.4	0.90	940	2370	96.4	0.88	470	1884	96.3	0.81
1RQ6 504-2JP0.	1613	2712	96.7	0.91	1075	2371	96.8	0.90	538	1884	96.7	0.83
4-pole												
1RQ6 450-4JP0.	818	1352	95.6	0.85	545	1184	95.6	0.82	273	941	95.1	0.72
1RQ6 452-4JP0.	900	1351	95.8	0.89	600	1184	95.9	0.87	300	941	95.7	0.81
1RQ6 454-4JP0.	968	1353	96.1	0.88	645	1185	96.1	0.86	323	941	95.8	0.78
1RQ6 456-4JP0.	1065	1354	96.2	0.88	711	1185	96.2	0.85	355	941	95.8	0.76
1RQ6 500-4JP0.	1463	1353	96.3	0.90	975	1184	96.3	0.87	488	941	96.2	0.77
1RQ6 502-4JP0.	1500	1354	96.3	0.90	1000	1184	96.4	0.88	500	941	96.3	0.79
1RQ6 504-4JP0.	1575	1353	96.4	0.92	1050	1184	96.5	0.90	526	941	96.5	0.84
1RQ6 506-4JP0.	1800	1355	96.7	0.90	1200	1185	96.7	0.87	600	942	96.5	0.76
1RQ6 560-4JP0.	2026	1353	96.7	0.91	1350	1184	96.8	0.90	675	941	96.9	0.85
1RQ6 562-4JP0.	2138	1355	96.8	0.91	1425	1185	96.9	0.89	713	942	96.8	0.81

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Selection and ordering data

Rated power	**Low voltage motor H-compact PLUS**	Operating values at rated output for utilization 155 (F)							
IEC		Rated speed	Efficiency	Power factor	Rated current 690 V	Rated torque	Break-down torque	Moment of inertia	Mechanical speed limit[1]
P_{rated} 155 (F)		n_{rated}	η	cos φ	I_{rated}	T_{rated}	T_B/T_{rated}	J	n_{max}
kW	Article No.	rpm	%	[-]	A	Nm	[-]	kgm^2	rpm
690 V, 50 Hz									
6-pole									
820	**1RQ6 450-6JP0■**	991	95.6	0.85	840	7915	2.30	26	1200
910	**1RQ6 452-6JP0■**	992	95.9	0.85	930	8775	2.40	29	1200
1020	**1RQ6 454-6JP0■**	992	95.9	0.85	1040	9835	2.40	32	1200
1130	**1RQ6 456-6JP0■**	991	95.8	0.87	1140	10906	2.30	37	1200
1560	**1RQ6 500-6JP0■**	988	96.0	0.86	2x790	15079	1.85	56	1500
1700	**1RQ6 502-6JP0■**	989	96.2	0.86	2x860	16416	2.00	62	1500
1820	**1RQ6 504-6JP0■**	989	96.2	0.87	2x910	17574	1.95	69	1500
1960	**1RQ6 506-6JP0■**	991	96.5	0.87	2x980	18888	2.20	77	1500
2250	**1RQ6 560-6JP0■**	991	96.5	0.87	2x1120	21683	2.40	108	1500
2500	**1RQ6 562-6JP0■**	991	96.5	0.88	3x820	24092	2.30	119	1500
8-pole									
620	**1RQ6 450-8JP0■**	744	94.9	0.82	670	7967	2.70	32	1200
675	**1RQ6 452-8JP0■**	744	95.1	0.82	720	8679	2.40	36	1200
750	**1RQ6 454-8JP0■**	744	95.1	0.82	800	9635	2.50	40	1200
810	**1RQ6 456-8JP0■**	745	95.4	0.82	870	10398	2.70	46	1200
1160	**1RQ6 500-8JP0■**	741	95.6	0.84	1200	14950	1.80	69	1125
1280	**1RQ6 502-8JP0■**	741	95.7	0.84	2x670	16497	1.85	76	1125
1440	**1RQ6 504-8JP0■**	741	95.8	0.84	2x750	18559	1.85	85	1125
1600	**1RQ6 506-8JP0■**	742	96.0	0.84	2x830	20593	1.90	94	1125
1700	**1RQ6 560-8JP0■**	742	96.3	0.85	2x870	21880	2.20	128	1125
1960	**1RQ6 562-8JP0■**	742	96.5	0.85	2x1000	25226	2.20	141	1125
2150	**1RQ6 564-8JP0■**	743	96.6	0.85	2x1100	27635	2.35	156	1125
2350	**1RQ6 566-8JP0■**	743	96.7	0.85	2x1200	30205	2.45	173	1125

Type of construction:	
IM B3	**0**
IM V1 (with canopy)	**4**

Note:

The motors for converter operation with non-sinusoidal output have, among other things, a reinforced winding insulation.
Additional details see Page 3/2.
Ratings are defined for sinusoidal supply, based on IEC 60034-2-1:2007.
The ratings for converter operation depend on the converter and its settings and cannot be predetermined.

Higher pole numbers are available on request.

[1] For IM B3, anti-friction bearings.

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Motor type (repeated)	Partial load values for square-law torque drive											
	P/P_{rated} 155 (F) = 75 %				P/P_{rated} 155 (F) = 50 %				P/P_{rated} 155 (F) = 25 %			
	P	*n*	η	cos φ	*P*	*n*	η	cos φ	*P*	*n*	η	cos φ
	kW	rpm	%	[-]	kW	rpm	%	[-]	kW	rpm	%	[-]
												Square-law torque drive
6-pole												
1RQ6 450-6JP0.	615	901	96.0	0.84	410	789	96.0	0.81	205	627	95.8	0.71
1RQ6 452-6JP0.	683	902	96.1	0.83	455	789	96.1	0.80	228	627	95.8	0.69
1RQ6 454-6JP0.	765	902	96.2	0.84	510	789	96.2	0.80	255	627	95.9	0.70
1RQ6 456-6JP0.	848	901	96.2	0.87	565	789	96.3	0.84	283	627	96.2	0.76
1RQ6 500-6JP0.	1170	898	96.2	0.86	780	787	96.3	0.85	390	626	96.2	0.78
1RQ6 502-6JP0.	1275	899	96.3	0.85	850	788	96.4	0.84	425	626	96.2	0.76
1RQ6 504-6JP0.	1365	899	96.4	0.87	910	788	96.5	0.85	455	626	96.3	0.79
1RQ6 506-6JP0.	1470	901	96.6	0.86	980	788	96.6	0.84	490	627	96.3	0.76
1RQ6 560-6JP0.	1688	901	96.6	0.87	1125	789	96.7	0.86	563	627	96.4	0.79
1RQ6 562-6JP0.	1875	901	96.7	0.88	1250	789	96.7	0.87	625	627	96.6	0.82
8-pole												
1RQ6 450-8JP0.	465	676	95.0	0.77	310	592	94.8	0.71	155	471	93.8	0.57
1RQ6 452-8JP0.	506	676	95.2	0.79	338	592	95.1	0.74	169	470	94.4	0.61
1RQ6 454-8JP0.	563	677	95.2	0.79	375	592	95.0	0.73	188	471	94.2	0.60
1RQ6 456-8JP0.	608	677	95.5	0.79	405	592	95.3	0.73	203	471	94.5	0.59
1RQ6 500-8JP0.	870	674	95.8	0.83	580	590	95.8	0.81	290	469	95.5	0.73
1RQ6 502-8JP0.	960	674	95.9	0.84	640	590	95.9	0.82	320	469	95.6	0.74
1RQ6 504-8JP0.	1080	674	96.0	0.84	720	590	96.1	0.82	360	469	95.8	0.74
1RQ6 506-8JP0.	1200	674	96.1	0.84	800	591	96.2	0.82	400	470	95.8	0.74
1RQ6 560-8JP0.	1275	675	96.5	0.84	850	591	96.6	0.82	425	470	96.4	0.75
1RQ6 562-8JP0.	1470	675	96.6	0.85	980	591	96.7	0.83	490	470	96.5	0.75
1RQ6 564-8JP0.	1613	676	96.7	0.84	1075	591	96.7	0.82	538	470	96.4	0.73
1RQ6 566-8JP0.	1763	676	96.8	0.84	1175	592	96.8	0.81	588	470	96.5	0.72

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Selection and ordering data

Rated power		High voltage motor H-compact PLUS	Operating values at rated output for utilization 155 (F)							
IEC			Rated speed	Efficiency	Power factor	Rated current at 4.16 kV	Rated torque	Break-down torque	Moment of inertia	Mechanical speed limit[2]
P_{rated} 155 (F)	P_{rated} 130 (B)		n_{rated}	η	cos φ	I_{rated}	T_{rated}	T_B/T_{rated}	J	n_{max}
kW	kW	Article No.	rpm	%	[-]	A	Nm	[-]	kgm^2	rpm
3.4 ... 4.16 kV, 50 Hz										
2-pole										
1100	–[6]	**1RQ6 450-2JS40**	2979	95.4	0.90	178	3529	2.30	13	3000
1220	–[6]	**1RQ6 452-2JS40**	2981	95.8	0.91	194	3910	2.60	14	3000
1350	–[6]	**1RQ6 454-2JS40**	2982	96.0	0.91	215	4325	2.60	16	3000
1490	–[6]	**1RQ6 456-2JS40**	2984	96.3	0.92	235	4771	2.70	18	3000
2000	1760	**1RQ6 500-2JS40**	2973	96.2	0.91	315	6424	2.30	19	3000
2100	1848	**1RQ6 502-2JS40**	2972	96.2	0.91	335	6747	2.20	20	3000
2450	2156	**1RQ6 504-2JS40**	2976	96.5	0.92	385	7861	2.45	24	3000[5]
2550	2244	**1RQ6 506-2JS40**	2977	96.6	0.92	400	8180	2.55	26	3000[5]
3100	2790	**1RQ6 560-2JS40**	2978	96.5	0.90	495	9941	1.95	39	3000[5]
3500	3150	**1RQ6 562-2JS40**	2982	96.8	0.91	550	11208	2.30	43	3000[5]
4000	3600	**1RQ6 564-2JS40**	2983	97.0	0.92	620	12805	2.40	49	3000[5]
4500	4050	**1RQ6 566-2JS40**	2984	97.1	0.93	690	14401	2.65	54	3000[5]
4-pole										
1090	–[6]	**1RQ6 450-4JS4■**	1486	95.3	0.88	180	7007	2.70	20	1800
1200	–[6]	**1RQ6 452-4JS4■**	1486	95.5	0.89	196	7716	2.60	22	1800
1290	–[6]	**1RQ6 454-4JS4■**	1488	95.8	0.89	210	8281	2.80	25	1800
1420	–[6]	**1RQ6 456-4JS4■**	1489	96.0	0.89	230	9114	2.90	29	1800
2100[4]	1848	**1RQ6 500-4JS40**	1486	96.0	0.91	335	13495	2.50	42	1800
2300[4]	2024	**1RQ6 502-4JS40**	1487	96.2	0.90	370	14770	2.55	46	1800
2600[4]	2288	**1RQ6 504-4JS40**	1487	96.4	0.91	410	16697	2.45	52	1800
2800[4]	2464	**1RQ6 506-4JS40**	1487	96.5	0.91	445	17981	2.55	56	1800
3200[4]	2880	**1RQ6 560-4JS40**	1491	96.8	0.90	510	20495	2.40	84	1800
3500[4]	3150	**1RQ6 562-4JS40**	1492	96.9	0.91	550	22401	2.55	94	1800
4000[4]	3600	**1RQ6 564-4JS40**	1491	97.1	0.91	630	25619	2.45	105	1800
4400[4]	3960	**1RQ6 566-4JS40**	1492	97.2	0.91	690	28161	2.75	115	1800
4800[1]	–[6]	**1RQ4 632-4JV■■**	1491	97.0	0.89	770	30744	2.50	154	1800
5190[1]	–[6]	**1RQ4 634-4JV■■**	1492	97.2	0.89	830	33220	2.40	174	1800
5680[1]	–[6]	**1RQ4 636-4JV■■**	1492	97.2	0.88	920	36357	2.40	186	1800

Voltage code:	
4.16 kV, 50 Hz	**4**
Other voltage	**9**
Type of construction:	
IM B3	**0**
IM V1 (with canopy)	**4**

Note:

The motors for converter operation with non-sinusoidal output have, among other things, a reinforced winding insulation.
Additional details see Page 3/2.
Ratings are defined for sinusoidal supply, based on IEC 60034-2-1:2007.
The ratings for converter operation depend on the converter and its settings and cannot be predetermined.

1) Rated voltage less than 4.16 kV on request.
2) For IM B3, anti-friction bearings.
3) On request.
4) Data of vertical motors (IM V1) on request.
5) There are speed exclusion ranges for this type. It must be ensured that the motors are not continuously operated in these speed ranges. The exclusion ranges must be clarified in advance in the factory.
6) Utilization 130 (B) on request.

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Motor type (repeated)	Partial load values for square-law torque drive											
	P/P_{rated} 155 (F) = 75 %				P/P_{rated} 155 (F) = 50 %				P/P_{rated} 155 (F) = 25 %			
	P	n	η	cos φ	P	n	η	cos φ	P	n	η	cos φ
	kW	rpm	%	[-]	kW	rpm	%	[-]	kW	rpm	%	[-]
												Square-law torque drive
2-pole												
1RQ6 450-2...	825	2708	95.6	0.90	550	2371	95.6	0.89	275	1883	95.4	0.84
1RQ6 452-2...	915	2709	95.9	0.92	610	2372	96.0	0.91	305	1884	95.7	0.86
1RQ6 454-2...	1013	2710	96.1	0.91	675	2372	96.2	0.90	338	1884	95.9	0.85
1RQ6 456-2...	1118	2711	96.4	0.92	745	2373	96.4	0.91	373	1885	96.2	0.87
1RQ6 500-2...	1500	2707	96.3	0.90	1000	2368	96.4	0.88	500	1883	96.3	0.81
1RQ6 502-2...	1576	2707	96.3	0.90	1050	2368	96.4	0.89	525	1882	96.4	0.84
1RQ6 504-2...	1838	2709	96.7	0.92	1225	2369	96.8	0.90	613	1883	96.7	0.85
1RQ6 506-2...	1913	2710	96.7	0.92	1275	2370	96.8	0.90	638	1883	96.7	0.85
1RQ6 560-2...	2326	2710	96.6	0.90	1550	2370	96.7	0.89	775	1884	96.7	0.85
1RQ6 562-2...	2626	2713	96.8	0.90	1750	2372	96.9	0.89	875	1885	96.7	0.82
1RQ6 564-2...	3001	2713	97.1	0.91	2000	2372	97.1	0.90	1001	1885	97.0	0.84
1RQ6 566-2...	3375	2714	97.2	0.92	2250	2373	97.2	0.91	1126	1885	97.1	0.84
4-pole												
1RQ6 450-4...	818	1352	95.5	0.87	545	1184	95.6	0.85	273	941	95.3	0.76
1RQ6 452-4...	900	1352	95.7	0.89	600	1184	95.8	0.87	300	941	95.6	0.80
1RQ6 454-4...	968	1353	95.9	0.88	645	1185	96.0	0.85	323	941	95.6	0.77
1RQ6 456-4...	1065	1353	96.1	0.89	711	1185	96.2	0.87	355	941	95.8	0.79
1RQ6 500-4...	1575	1353	96.1	0.89	1050	1184	96.2	0.86	525	941	95.9	0.76
1RQ6 502-4...	1725	1354	96.3	0.88	1150	1184	96.3	0.85	575	941	95.9	0.73
1RQ6 504-4...	1951	1353	96.5	0.90	1300	1184	96.5	0.88	650	941	96.3	0.79
1RQ6 506-4...	2100	1354	96.6	0.90	1400	1184	96.6	0.87	700	941	96.4	0.78
1RQ6 560-4...	2401	1357	96.9	0.89	1600	1186	96.8	0.86	801	942	96.6	0.76
1RQ6 562-4...	2626	1357	97.0	0.89	1750	1186	97.0	0.86	875	943	96.7	0.76
1RQ6 564-4...	3001	1357	97.2	0.90	2000	1186	97.2	0.88	1001	942	96.9	0.80
1RQ6 566-4...	3300	1357	97.3	0.90	2202	1187	97.2	0.86	1100	943	96.9	0.75
1RQ4 632-4...	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]
1RQ4 634-4...	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]
1RQ4 636-4...	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]

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Selection and ordering data (continued)

Rated power IEC		High voltage motor H-compact PLUS	Operating values at rated output for utilization 155 (F)							
			Rated speed	Efficiency	Power factor	Rated current at 4.16 kV	Rated torque	Break-down torque	Moment of inertia	Mechanical speed limit[2]
P_{rated} 155 (F)	P_{rated} 130 (B)		n_{rated}	η	cos φ	I_{rated}	T_{rated}	T_B/T_{rated}	J	n_{max}
kW	kW	Article No.	rpm	%	[-]	A	Nm	[-]	kgm²	rpm
3.4 ... 4.16 kV, 50 Hz										
6-pole										
820	–[3]	**1RQ6 450-6JS4■**	991	95.5	0.85	140	7905	2.50	26	1200
910	–[3]	**1RQ6 452-6JS4■**	990	95.6	0.87	152	8783	2.40	29	1200
1020	–[3]	**1RQ6 454-6JS4■**	990	95.7	0.87	170	9845	2.40	32	1200
1130	–[3]	**1RQ6 456-6JS4■**	992	96.0	0.86	190	10890	2.50	37	1200
1560	1400	**1RQ6 500-6JS4■**	989	95.8	0.86	265	15064	1.90	56	1500
1780	1600	**1RQ6 502-6JS4■**	990	96.1	0.85	300	17171	2.05	62	1500
1980	1780	**1RQ6 504-6JS4■**	990	96.2	0.85	335	19100	2.10	69	1500
2150	1940	**1RQ6 506-6JS4■**	991	96.4	0.86	360	20719	2.20	77	1500
2550	2250	**1RQ6 560-6JS4■**	988	96.2	0.87	425	24648	2.00	108	1500
2900	2550	**1RQ6 562-6JS4■**	990	96.4	0.87	480	27975	2.20	119	1500
3200	2800	**1RQ6 564-6JS4■**	991	96.6	0.88	520	30838	2.35	132	1500
3500	3100	**1RQ6 566-6JS4■**	992	96.8	0.88	570	33695	2.50	146	1500
3480[1]	–[3]	**1RQ4 630-6JV■■**	993	96.8	0.86	580	33468	2.20	188	1200
3770[1]	–[3]	**1RQ4 632-6JV■■**	993	96.9	0.87	620	36257	2.20	207	1200
4020[1]	–[3]	**1RQ4 634-6JV■■**	994	96.9	0.86	670	38623	2.30	228	1200
4310[1]	–[3]	**1RQ4 636-6JV■■**	994	97.1	0.86	720	41409	2.40	251	1200
8-pole										
620	–[3]	**1RQ6 450-8JS4■**	743	94.6	0.83	110	7976	2.40	32	1200
675	–[3]	**1RQ6 452-8JS4■**	744	94.8	0.82	120	8674	2.50	36	1200
750	–[3]	**1RQ6 454-8JS4■**	743	95.0	0.83	132	9640	2.50	40	1200
810	–[3]	**1RQ6 456-8JS4■**	744	95.2	0.83	142	10399	2.70	46	1200
1160	1040	**1RQ6 500-8JS4■**	741	95.3	0.84	200	14950	1.80	69	1125
1280	1160	**1RQ6 502-8JS4■**	743	95.7	0.83	225	16452	2.15	76	1125
1400	1260	**1RQ6 504-8JS4■**	742	95.6	0.84	240	18019	1.95	85	1125
1540	1380	**1RQ6 506-8JS4■**	742	95.8	0.85	260	19821	1.90	94	1125
1880	1660	**1RQ6 560-8JS4■**	743	96.3	0.84	325	24164	2.20	128	1125
2100	1860	**1RQ6 562-8JS4■**	742	96.3	0.85	355	27028	2.10	141	1125
2250	2000	**1RQ6 564-8JS4■**	742	96.3	0.85	380	28959	2.10	156	1125
2500	2200	**1RQ6 566-8JS4■**	742	96.4	0.85	425	32177	2.05	173	1125
2600[1]	–[3]	**1RQ4 630-8JV■■**	744	96.5	0.84	445	33374	2.40	246	1200
2790[1]	–[3]	**1RQ4 632-8JV■■**	745	96.6	0.83	485	35764	2.50	272	1200
2940[1]	–[3]	**1RQ4 634-8JV■■**	745	96.6	0.84	500	37687	2.50	300	1200
3140[1]	–[3]	**1RQ4 636-8JV■■**	745	96.7	0.85	530	40251	2.50	331	1200

Voltage code:	
4.16 kV, 50 Hz	**4**
Other voltage	**9**
Type of construction:	
IM B3	**0**
IM V1 (with canopy)	**4**

Note:

The motors for converter operation with non-sinusoidal output have, among other things, a reinforced winding insulation.
Additional details see Page 3/2.
Ratings are defined for sinusoidal supply, based on IEC 60034-2-1:2007. The ratings for converter operation depend on the converter and its settings and cannot be predetermined. Higher pole numbers are available on request.

[1] Rated voltage less than 4.16 kV on request.
[2] For IM B3, anti-friction bearings.
[3] Utilization 130 (B) on request.
[4] On request.

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Motor type (repeated)	Partial load values for square-law torque drive											
	P/P_{rated} 155 (F) = 75 %				P/P_{rated} 155 (F) = 50 %				P/P_{rated} 155 (F) = 25 %			
	P	n	η	cos φ	P	n	η	cos φ	P	n	η	cos φ
	kW	rpm	%	[-]	kW	rpm	%	[-]	kW	rpm	%	[-]
												Square-law torque drive
6-pole												
1RQ6 450-6...	615	901	95.7	0.84	410	789	95.8	0.80	205	627	95.5	0.70
1RQ6 452-6...	683	900	95.8	0.86	455	789	96.0	0.84	228	627	95.9	0.76
1RQ6 454-6...	765	901	95.9	0.87	510	789	96.1	0.84	255	627	96.1	0.76
1RQ6 456-6...	848	902	96.2	0.85	565	789	96.3	0.83	283	627	96.1	0.73
1RQ6 500-6...	1170	899	96.0	0.86	780	787	96.1	0.84	390	626	95.9	0.77
1RQ6 502-6...	1335	900	96.2	0.85	890	788	96.2	0.82	445	626	95.9	0.74
1RQ6 504-6...	1485	900	96.3	0.85	990	788	96.4	0.83	495	626	96.1	0.74
1RQ6 506-6...	1613	901	96.5	0.85	1075	788	96.5	0.82	538	627	96.1	0.73
1RQ6 560-6...	1913	899	96.4	0.87	1275	787	96.6	0.87	638	626	96.6	0.83
1RQ6 562-6...	2175	900	96.6	0.88	1450	788	96.7	0.87	725	626	96.7	0.82
1RQ6 564-6...	2400	901	96.7	0.88	1600	789	96.8	0.87	800	627	96.6	0.81
1RQ6 566-6...	2625	901	96.9	0.87	1750	789	96.9	0.86	875	627	96.7	0.79
1RQ4 630-6...	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]
1RQ4 632-6...	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]
1RQ4 634-6...	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]
1RQ4 636-6...	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]
8-pole												
1RQ6 450-8...	465	676	94.8	0.81	310	592	94.7	0.77	155	470	94.1	0.65
1RQ6 452-8...	506	676	94.9	0.80	338	592	94.8	0.76	169	470	94.1	0.63
1RQ6 454-8...	563	676	95.1	0.82	375	592	95.1	0.77	188	470	94.5	0.66
1RQ6 456-8...	608	677	95.3	0.81	405	592	95.2	0.76	203	471	94.5	0.63
1RQ6 500-8...	870	674	95.5	0.84	580	590	95.6	0.81	290	469	95.2	0.73
1RQ6 502-8...	960	675	95.7	0.82	640	591	95.6	0.78	320	470	95.0	0.67
1RQ6 504-8...	1050	675	95.8	0.84	700	591	95.8	0.81	350	470	95.4	0.72
1RQ6 506-8...	1155	675	96.0	0.84	770	591	96.0	0.82	385	470	95.7	0.73
1RQ6 560-8...	1410	675	96.4	0.84	940	591	96.5	0.81	470	470	96.2	0.73
1RQ6 562-8...	1575	675	96.4	0.84	1050	591	96.6	0.83	525	470	96.4	0.75
1RQ6 564-8...	1688	675	96.5	0.85	1125	591	96.6	0.83	563	470	96.5	0.76
1RQ6 566-8...	1875	674	96.6	0.85	1250	591	96.7	0.84	625	470	96.6	0.77
1RQ4 630-8...	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]
1RQ4 632-8...	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]
1RQ4 634-8...	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]
1RQ4 636-8...	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]	O. R.[4]

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Selection and ordering data

Rated power IEC		High voltage motor SIMOTICS HV M (modular)	Operating values at rated output for utilization 130 (B)							
			Rated speed	Efficiency	Power factor	Rated current at 4.16 kV	Rated torque	Break-down torque	Moment of inertia	Mechanical speed limit[1]
P_{rated} 155 (F)	P_{rated} 130 (B)		n_{rated}	η	cos φ	I_{rated}	T_{rated}	T_B/T_{rated}	J	n_{max}
kW	kW	Article No.	rpm	%	[-]	A	Nm	[-]	kgm^2	rpm
3.4 ... 4.16 kV, 50 Hz										
2-pole										
7370	6700	**1RQ7 710-2J■40-0CJ0**	2988	96.7	0.92	1040	21412	2.30	148	3600
8250	7500	**1RQ7 712-2J■40-0CJ0**	2988	96.8	0.92	1160	23969	2.30	159	3600
9350	8500	**1RQ7 714-2J■40-0CJ0**	2988	97.1	0.93	1300	27165	2.45	176	3600
10450	9500	**1RQ7 716-2J■40-0CJ0**	2988	97.3	0.93	1460	30361	2.45	189	3600
4-pole										
7616	6800	**1RQ7 710-4J■40-0C■0**	1493	97.4	0.91	1060	43493	2.45	260	1800
8456	7550	**1RQ7 712-4J■40-0C■0**	1493	97.5	0.91	1180	48290	2.45	285	1800
9352	8350	**1RQ7 714-4J■40-0C■0**	1493	97.6	0.92	1300	53407	2.70	320	1800
10416	9300	**1RQ7 716-4J■40-0C■0**	1493	97.7	0.92	1440	59483	2.70	361	1800
6-pole										
5656	5050	**1RQ7 710-6J■4■-0C■0**	995	97.0	0.85	850	48466	2.65	350	1800
6104	5450	**1RQ7 712-6J■4■-0C■0**	996	97.1	0.86	910	52253	2.65	396	1800
6608	5900	**1RQ7 714-6J■4■-0C■0**	996	97.2	0.86	980	56567	2.85	448	1800
7112	6350	**1RQ7 716-6J■4■-0C■0**	996	97.3	0.86	1060	60882	2.85	496	1800
8-pole										
4200	3750	**1RQ7 710-8J■4■-0C■0**	746	96.8	0.85	630	48002	2.30	433	1000
4760	4250	**1RQ7 712-8J■4■-0C■0**	746	97.0	0.85	720	54403	2.50	493	1000
5320	4750	**1RQ7 714-8J■4■-0C■0**	746	97.0	0.85	800	60803	2.60	558	1000
5936	5300	**1RQ7 716-8J■4■-0C■0**	746	97.1	0.84	900	67844	2.60	602	1000
10-pole										
2968	2650	**1RQ7 710-3J■4■-0C■0**	595	96.5	0.85	450	42530	2.20	429	900
3304	2950	**1RQ7 712-3J■4■-0C■0**	595	96.6	0.85	500	47345	2.20	486	900
3640	3250	**1RQ7 714-3J■4■-0C■0**	595	96.6	0.86	540	52160	2.20	553	900
3976	3550	**1RQ7 716-3J■4■-0C■0**	595	96.7	0.86	590	56975	2.20	610	900

Cooling method
See page 1/8

Type of construction
See page 1/9

Housing and bearing version
See page 1/9

Note:

The motors for converter operation with non-sinusoidal output have, among other things, a reinforced winding insulation.
Additional details see Page 3/2.
Ratings are defined for sinusoidal supply, based on IEC 60034-2-1:2007.
The ratings for converter operation depend on the converter and its settings and cannot be predetermined.

Higher pole numbers are available on request.

[1] For IM B3, anti-friction bearings.

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Motor type (repeated)	Partial load values for square-law torque drive											
	P/P_{rated} 130 (B) = 75 %				P/P_{rated} 130 (B) = 50 %				P/P_{rated} 130 (B) = 25 %			
	P	n	η	cos φ	P	n	η	cos φ	P	n	η	cos φ
	kW	rpm	%	[-]	kW	rpm	%	[-]	kW	rpm	%	[-]
												Square-law torque drive
2-pole												
1RQ7 710-2...	5027	2714	96.6	0.93	3351	2375	96.5	0.93	1675	1886	96.1	0.90
1RQ7 712-2...	5624	2714	96.8	0.93	3750	2375	96.6	0.93	1874	1885	96.3	0.91
1RQ7 714-2...	6375	2714	97.0	0.94	4251	2375	96.9	0.94	2125	1885	96.6	0.92
1RQ7 716-2...	7125	2714	97.2	0.94	4750	2375	97.1	0.94	2375	1886	96.8	0.92
4-pole												
1RQ7 710-4...	5102	1356	97.3	0.91	3407	1187	97.2	0.90	1704	942	96.8	0.86
1RQ7 712-4...	5664	1356	97.4	0.91	3783	1187	97.3	0.90	1892	942	96.9	0.86
1RQ7 714-4...	6263	1356	97.5	0.92	4183	1187	97.4	0.91	2092	942	97.1	0.87
1RQ7 716-4...	6977	1357	97.7	0.92	4658	1187	97.5	0.91	2330	943	97.2	0.87
6-pole												
1RQ7 710-6...	3788	904	96.9	0.84	2529	791	96.7	0.81	1265	628	96.0	0.71
1RQ7 712-6...	4088	904	97.0	0.85	2729	791	96.7	0.81	1365	628	96.0	0.72
1RQ7 714-6...	4425	905	97.0	0.84	2954	792	96.7	0.81	1478	629	96.0	0.70
1RQ7 716-6...	4762	905	97.2	0.85	3180	792	96.9	0.82	1590	628	96.2	0.72
8-pole												
1RQ7 710-8...	2814	678	96.7	0.84	1879	593	96.5	0.81	940	471	95.8	0.72
1RQ7 712-8...	3189	678	96.8	0.84	2129	593	96.5	0.81	1065	471	95.8	0.70
1RQ7 714-8...	3563	678	96.8	0.84	2379	593	96.6	0.80	1190	471	95.8	0.70
1RQ7 716-8...	3976	678	96.9	0.82	2655	593	96.7	0.78	1328	471	95.9	0.67
10-pole												
1RQ7 710-3...	1989	541	96.4	0.84	1328	474	96.2	0.81	665	376	95.5	0.71
1RQ7 712-3...	2214	541	96.4	0.84	1479	474	96.2	0.81	740	376	95.5	0.71
1RQ7 714-3...	2439	541	96.5	0.85	1629	474	96.3	0.82	816	376	95.6	0.73
1RQ7 716-3...	2664	541	96.6	0.85	1780	474	96.3	0.82	891	376	95.7	0.73

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Selection and ordering data

Rated power	**Low voltage motor H-compact PLUS**	Operating values at rated output for utilization 155 (F)							
IEC		Rated speed	Efficiency	Power factor	Rated current 690 V	Rated torque	Break-down torque	Moment of inertia	Mechanical speed limit[1]
P_{rated} 155 (F)		n_{rated}	η	cos φ	I_{rated}	T_{rated}	T_B/T_{rated}	J	n_{max}
kW	Article No.	rpm	%	[-]	A	Nm	[-]	kgm^2	rpm
690 V, 60 Hz									
2-pole									
1240	**1RQ6 450-2JP10**	3583	95.2	0.90	1220	3309	2.40	13	3600[2]
1300	**1RQ6 452-2JP10**	3582	95.4	0.92	2x620	3470	2.40	14	3600[2]
1400	**1RQ6 454-2JP10**	3582	95.4	0.92	2x670	3734	2.40	16	3600[2]
1700	**1RQ6 456-2JP10**	3587	96.1	0.92	2x800	4530	2.60	18	3600[2]
1940	**1RQ6 500-2JP10**	3581	96.1	0.91	2x930	5173	2.65	20	3600[2]
2050	**1RQ6 502-2JP10**	3581	96.2	0.92	2x970	5467	2.65	22	3600[2]
2450	**1RQ6 504-2JP10**	3583	96.5	0.92	2x1160	6530	2.75	25	3600[2]
4-pole									
1340	**1RQ6 450-4JP1■**	1786	95.5	0.88	2x670	7174	2.40	20	1800
1410	**1RQ6 452-4JP1■**	1785	95.6	0.89	2x690	7553	2.30	22	1800
1590	**1RQ6 454-4JP1■**	1787	95.9	0.89	2x780	8509	2.40	25	1800
1740	**1RQ6 456-4JP1■**	1784	95.9	0.90	2x840	9329	2.10	29	1800
2000[3]	**1RQ6 500-4JP10**	1787	95.9	0.92	2x950	10688	2.60	42	1800
2100[3]	**1RQ6 502-4JP10**	1785	95.9	0.92	2x1000	11234	2.30	46	1800
2500[3]	**1RQ6 504-4JP10**	1787	96.3	0.92	2x1180	13359	2.55	52	1800

Type of construction:	
IM B3	**0**
IM V1 (with canopy)	**4**

Note:

The motors for converter operation with non-sinusoidal output have, among other things, a reinforced winding insulation.
Additional details see Page 3/2.
Ratings are defined for sinusoidal supply, based on IEC 60034-2-1:2007.
The ratings for converter operation depend on the converter and its settings and cannot be predetermined.

Higher pole numbers are available on request.

[1] For IM B3, anti-friction bearings.

[2] There are speed exclusion ranges for this type. It must be ensured that the motors are not continuously operated in these speed ranges. The exclusion ranges must be clarified in advance in the factory.

[3] Data of vertical motors (IM V1) on request.

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Motor type (repeated)	Partial load values for square-law torque drive											
	P/P_{rated} 155 (F) = 75 %				P/P_{rated} 155 (F) = 50 %				P/P_{rated} 155 (F) = 25 %			
	P	n	η	cos φ	P	n	η	cos φ	P	n	η	cos φ
	kW	rpm	%	[-]	kW	rpm	%	[-]	kW	rpm	%	[-]
												Square-law torque drive
2-pole												
1RQ6 450-2JP1.	930	3257	95.4	0.90	620	2846	95.3	0.89	310	2262	95.0	0.83
1RQ6 452-2JP1.	975	3256	95.6	0.92	650	2846	95.6	0.92	325	2262	95.4	0.88
1RQ6 454-2JP1.	1050	3257	95.7	0.92	700	2846	95.7	0.92	350	2262	95.5	0.88
1RQ6 456-2JP1.	1275	3260	96.2	0.91	850	2848	96.1	0.90	425	2263	95.8	0.83
1RQ6 500-2JP1.	1455	3257	96.1	0.89	970	2847	96.1	0.87	485	2262	95.8	0.77
1RQ6 502-2JP1.	1538	3257	96.2	0.91	1025	2847	96.2	0.89	513	2262	96.0	0.81
1RQ6 504-2JP1.	1838	3258	96.6	0.91	1225	2848	96.5	0.88	613	2262	96.3	0.80
4-pole												
1RQ6 450-4JP1.	1005	1624	95.6	0.86	670	1421	95.6	0.84	335	1130	95.2	0.75
1RQ6 452-4JP1.	1058	1624	95.9	0.89	705	1420	95.9	0.88	353	1129	95.6	0.82
1RQ6 454-4JP1.	1193	1625	96.1	0.89	795	1421	96.0	0.87	398	1130	95.7	0.81
1RQ6 456-4JP1.	1306	1624	96.2	0.90	870	1420	96.3	0.90	435	1129	96.2	0.86
1RQ6 500-4JP1.	1500	1626	96.0	0.91	1000	1422	96.1	0.89	500	1130	95.9	0.81
1RQ6 502-4JP1.	1576	1625	96.0	0.91	1050	1421	96.1	0.90	525	1129	96.1	0.84
1RQ6 504-4JP1.	1876	1626	96.4	0.91	1250	1422	96.5	0.89	625	1130	96.3	0.82

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Selection and ordering data

Rated power	**Low voltage motor H-compact PLUS**	Operating values at rated output for utilization 155 (F)							
IEC		Rated speed	Efficiency	Power factor	Rated current 690 V	Rated torque	Break-down torque	Moment of inertia	Mechanical speed limit[1]
P_{rated} 155 (F)		n_{rated}	η	cos φ	I_{rated}	T_{rated}	T_B/T_{rated}	J	n_{max}
kW	Article No.	rpm	%	[-]	A	Nm	[-]	kgm^2	rpm
690 V, 60 Hz									
6-pole									
1040	**1RQ6 450-6JP1■**	1190	95.7	0.86	1060	8350	2.30	26	1200
1130	**1RQ6 452-6JP1■**	1191	95.9	0.85	1160	9070	2.20	29	1200
1270	**1RQ6 454-6JP1■**	1191	96.1	0.86	2x640	10192	2.30	32	1200
1360	**1RQ6 456-6JP1■**	1193	96.3	0.84	2x700	10905	2.30	37	1200
1800	**1RQ6 500-6JP1■**	1188	96.1	0.86	2x910	14470	1.85	56	1500
2000	**1RQ6 502-6JP1■**	1190	96.3	0.86	2x1020	16050	2.05	62	1500
2100	**1RQ6 504-6JP1■**	1190	96.4	0.87	2x1040	16853	2.05	69	1500
2350	**1RQ6 506-6JP1■**	1191	96.6	0.86	2x1180	18843	2.25	77	1500
2850	**1RQ6 560-6JP1■**	1192	96.6	0.87	3x950	22833	2.50	108	1500
3100	**1RQ6 562-6JP1■**	1190	96.6	0.88	3x1020	24878	2.25	119	1500
8-pole									
740	**1RQ6 450-8JP1■**	893	95.1	0.83	780	7922	2.30	32	1200
820	**1RQ6 452-8JP1■**	893	95.2	0.84	860	8783	2.30	36	1200
910	**1RQ6 454-8JP1■**	893	95.5	0.84	950	9739	2.40	40	1200
1000	**1RQ6 456-8JP1■**	893	95.6	0.85	1020	10704	2.30	46	1200
1300	**1RQ6 500-8JP1■**	892	95.7	0.84	2x680	13918	1.80	69	1125
1440	**1RQ6 502-8JP1■**	892	95.9	0.84	2x750	15417	1.85	76	1125
1600	**1RQ6 504-8JP1■**	892	96.0	0.84	2x830	17130	1.90	85	1125
1800	**1RQ6 506-8JP1■**	893	96.2	0.85	2x920	19250	2.05	94	1125
2000	**1RQ6 560-8JP1■**	893	96.6	0.84	2x1040	21389	2.30	128	1125
2350	**1RQ6 562-8JP1■**	893	96.7	0.84	2x1220	25132	2.45	141	1125
2600	**1RQ6 564-8JP1■**	893	96.7	0.85	4x660	27805	2.25	156	1125
2850	**1RQ6 566-8JP1■**	893	96.8	0.85	4x720	30479	2.45	173	1125

Type of construction:	
IM B3	**0**
IM V1 (with canopy)	**4**

Note:

The motors for converter operation with non-sinusoidal output have, among other things, a reinforced winding insulation.
Additional details see Page 3/2.
Ratings are defined for sinusoidal supply, based on IEC 60034-2-1:2007.
The ratings for converter operation depend on the converter and its settings and cannot be predetermined.

Higher pole numbers are available on request.

[1] For IM B3, anti-friction bearings.

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Motor type (repeated)	Partial load values for square-law torque drive											
	P/P_{rated} 155 (F) = 75 %				P/P_{rated} 155 (F) = 50 %				P/P_{rated} 155 (F) = 25 %			
	P	*n*	η	cos φ	*P*	*n*	η	cos φ	*P*	*n*	η	cos φ
	kW	rpm	%	[-]	kW	rpm	%	[-]	kW	rpm	%	[-]
												Square-law torque drive
6-pole												
1RQ6 450-6JP1.	780	1083	96.0	0.85	520	947	96.1	0.82	260	753	95.8	0.72
1RQ6 452-6JP1.	848	1083	96.1	0.84	565	947	96.1	0.80	283	753	95.8	0.70
1RQ6 454-6JP1.	953	1083	96.3	0.85	635	947	96.4	0.83	318	753	96.1	0.73
1RQ6 456-6JP1.	1020	1084	96.5	0.82	680	948	96.4	0.79	340	754	96.1	0.68
1RQ6 500-6JP1.	1350	1080	96.3	0.86	900	945	96.3	0.85	450	752	96.1	0.79
1RQ6 502-6JP1.	1500	1082	96.4	0.85	1000	946	96.4	0.83	500	752	96.1	0.76
1RQ6 504-6JP1.	1575	1082	96.5	0.86	1050	946	96.5	0.85	525	752	96.2	0.78
1RQ6 506-6JP1.	1763	1083	96.6	0.86	1175	947	96.6	0.83	588	753	96.2	0.75
1RQ6 560-6JP1.	2138	1083	96.7	0.87	1425	947	96.6	0.85	713	753	96.3	0.78
1RQ6 562-6JP1.	2325	1082	96.7	0.88	1550	946	96.8	0.87	775	753	96.6	0.82
8-pole												
1RQ6 450-8JP1.	555	812	95.2	0.80	370	710	95.1	0.76	185	565	94.4	0.63
1RQ6 452-8JP1.	615	812	95.4	0.82	410	710	95.4	0.79	205	565	94.8	0.67
1RQ6 454-8JP1.	683	813	95.5	0.81	455	710	95.5	0.77	228	565	94.8	0.65
1RQ6 456-8JP1.	750	813	95.8	0.83	500	710	95.7	0.79	250	565	95.1	0.68
1RQ6 500-8JP1.	975	811	95.9	0.84	650	709	95.9	0.82	325	564	95.5	0.74
1RQ6 502-8JP1.	1080	811	96.0	0.84	720	709	96.0	0.82	360	564	95.6	0.74
1RQ6 504-8JP1.	1200	811	96.1	0.84	800	709	96.1	0.82	400	564	95.7	0.74
1RQ6 506-8JP1.	1350	812	96.3	0.84	900	710	96.2	0.81	450	564	95.7	0.72
1RQ6 560-8JP1.	1500	812	96.6	0.84	1000	710	96.6	0.81	500	564	96.3	0.72
1RQ6 562-8JP1.	1763	812	96.8	0.83	1175	710	96.7	0.80	588	565	96.3	0.70
1RQ6 564-8JP1.	1950	812	96.8	0.85	1300	710	96.8	0.83	650	564	96.5	0.75
1RQ6 566-8JP1.	2138	812	96.9	0.84	1425	710	96.9	0.81	713	565	96.5	0.72

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Selection and ordering data

Rated power		High voltage motor H-compact PLUS	Operating values at rated output for utilization 155 (F)							
IEC			Rated speed	Efficiency	Power factor	Rated current at 4.16 kV	Rated torque	Break-down torque	Moment of inertia	Mechanical speed limit[1]
P_{rated} 155 (F)	P_{rated} 130 (B)		n_{rated}	η	cos φ	I_{rated}	T_{rated}	T_B/T_{rated}	J	n_{max}
kW	kW	Article No.	rpm	%	[-]	A	Nm	[-]	kgm²	rpm
3.4 ... 4.16 kV, 60 Hz										
2-pole										
1280	–[4]	**1RQ6 450-2JS30**	3579	95.1	0.90	210	3418	2.50	13	3600[2]
1420	–[4]	**1RQ6 452-2JS30**	3581	95.6	0.91	225	3788	2.60	14	3600[2]
1580	–[4]	**1RQ6 454-2JS30**	3580	95.8	0.93	245	4217	2.60	16	3600[2]
1740	–[4]	**1RQ6 456-2JS30**	3586	96.0	0.92	275	4634	3.50	18	3600[2]
2250	1980	**1RQ6 500-2JS30**	3578	96.1	0.90	360	6005	2.50	20	3600[2]
2400	2112	**1RQ6 502-2JS30**	3578	96.2	0.91	380	6405	2.45	22	3600[2]
2800	2464	**1RQ6 504-2JS30**	3577	96.5	0.92	440	7475	2.40	25	3600[2]
2950	2596	**1RQ6 506-2JS30**	3578	96.6	0.92	460	7873	2.50	27	3600[2]
3500	3150	**1RQ6 560-2JS30**	3579	96.3	0.90	560	9339	1.95	39	3600[2]
3900	3510	**1RQ6 562-2JS30**	3581	96.5	0.91	620	10400	2.15	43	3600[2]
4400	3960	**1RQ6 564-2JS30**	3583	96.7	0.92	690	11727	2.35	49	3600[2]
4900	4410	**1RQ6 566-2JS30**	3585	96.9	0.93	750	13052	2.75	54	3600[2]
4-pole										
1340	–[4]	**1RQ6 450-4JS3■**	1784	95.4	0.88	220	7177	2.40	20	1800
1410	–[4]	**1RQ6 452-4JS3■**	1785	95.6	0.89	230	7546	2.40	22	1800
1590	–[4]	**1RQ6 454-4JS3■**	1785	95.8	0.90	255	8509	2.50	25	1800
1740	–[4]	**1RQ6 456-4JS3■**	1785	95.9	0.91	275	9313	2.70	29	1800
2600[3]	2288	**1RQ6 500-4JS30**	1786	96.1	0.90	415	13902	2.40	42	1800
2700[3]	2376	**1RQ6 502-4JS30**	1786	96.2	0.91	430	14436	2.45	46	1800
3000[3]	2640	**1RQ6 504-4JS30**	1788	96.4	0.91	475	16022	2.60	52	1800
3200[3]	2816	**1RQ6 506-4JS30**	1787	96.4	0.92	500	17100	2.40	56	1800
3700[3]	3330	**1RQ6 560-4JS30**	1791	96.7	0.91	580	19728	2.50	84	1800
4100[3]	3690	**1RQ6 562-4JS30**	1792	96.9	0.91	650	21848	2.50	94	1800
4600[3]	4140	**1RQ6 564-4JS30**	1791	97.0	0.91	720	24526	2.35	105	1800
5100[3]	4590	**1RQ6 566-4JS30**	1791	97.2	0.92	790	27192	2.40	115	1800

Type of construction:	
IM B3	**0**
IM V1 (with canopy)	**4**

Note:

The motors for converter operation with non-sinusoidal output have, among other things, a reinforced winding insulation.
Additional details see Page 3/2.
Ratings are defined for sinusoidal supply, based on IEC 60034-2-1:2007.
The ratings for converter operation depend on the converter and its settings and cannot be predetermined.

[1] For IM B3, anti-friction bearings.

[2] There are speed exclusion ranges for this type. It must be ensured that the motors are not continuously operated in these speed ranges. The exclusion ranges must be clarified in advance in the factory.

[3] Data of vertical motors (IM V1) on request.

[4] Utilization 130 (B) on request.

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Motor type (repeated)	Partial load values for square-law torque drive											
	P/P_{rated} 155 (F) = 75 %				P/P_{rated} 155 (F) = 50 %				P/P_{rated} 155 (F) = 25 %			
	P	n	η	cos φ	P	n	η	cos φ	P	n	η	cos φ
	kW	rpm	%	[-]	kW	rpm	%	[-]	kW	rpm	%	[-]
												Square-law torque drive
2-pole												
1RQ6 450-2...	960	3254	95.2	0.90	640	2845	95.1	0.89	320	2261	94.8	0.83
1RQ6 452-2...	1065	3256	95.6	0.91	710	2846	95.6	0.90	355	2262	95.2	0.85
1RQ6 454-2...	1185	3255	95.9	0.93	790	2845	95.9	0.92	395	2261	95.7	0.89
1RQ6 456-2...	1305	3259	96.0	0.91	871	2848	95.8	0.89	435	2263	95.3	0.81
1RQ6 500-2...	1688	3255	96.1	0.89	1125	2846	96.1	0.87	563	2261	95.8	0.78
1RQ6 502-2...	1801	3255	96.3	0.90	1200	2846	96.3	0.88	600	2261	96.0	0.81
1RQ6 504-2...	2101	3254	96.6	0.91	1400	2846	96.6	0.91	700	2261	96.5	0.86
1RQ6 506-2...	2213	3255	96.7	0.92	1475	2846	96.7	0.91	738	2261	96.5	0.85
1RQ6 560-2...	2627	3256	96.4	0.90	1751	2847	96.4	0.89	875	2262	96.2	0.84
1RQ6 562-2...	2926	3258	96.6	0.91	1951	2848	96.6	0.90	975	2263	96.4	0.85
1RQ6 564-2...	3301	3259	96.8	0.92	2200	2849	96.8	0.91	1100	2263	96.6	0.86
1RQ6 566-2...	3676	3260	97.0	0.92	2450	2850	96.9	0.91	1226	2263	96.7	0.84
4-pole												
1RQ6 450-4...	1005	1623	95.6	0.88	670	1420	95.6	0.87	335	1129	95.4	0.80
1RQ6 452-4...	1058	1624	95.7	0.88	705	1420	95.8	0.87	353	1130	95.5	0.81
1RQ6 454-4...	1193	1624	96.0	0.90	795	1420	96.0	0.89	398	1130	95.8	0.83
1RQ6 456-4...	1305	1624	96.1	0.91	870	1420	96.2	0.91	435	1130	96.1	0.86
1RQ6 500-4...	1951	1626	96.1	0.89	1300	1422	96.1	0.86	650	1130	95.8	0.75
1RQ6 502-4...	2025	1626	96.2	0.90	1350	1422	96.2	0.87	676	1130	95.9	0.78
1RQ6 504-4...	2250	1627	96.4	0.90	1500	1423	96.4	0.86	751	1130	96.0	0.76
1RQ6 506-4...	2401	1626	96.5	0.91	1600	1422	96.5	0.89	801	1130	96.3	0.82
1RQ6 560-4...	2776	1629	96.7	0.89	1850	1424	96.7	0.87	926	1131	96.3	0.77
1RQ6 562-4...	3076	1629	96.9	0.90	2050	1424	96.9	0.87	1026	1131	96.5	0.78
1RQ6 564-4...	3451	1629	97.1	0.91	2300	1424	97.1	0.89	1151	1131	96.8	0.81
1RQ6 566-4...	3826	1629	97.2	0.91	2550	1424	97.2	0.89	1276	1131	97.0	0.82

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Selection and ordering data (continued)

Rated power IEC		High voltage motor H-compact PLUS	Operating values at rated output for utilization 155 (F)							
			Rated speed	Efficiency	Power factor	Rated current at 4.16 kV	Rated torque	Break-down torque	Moment of inertia	Mechanical speed limit[1]
P_{rated} 155 (F)	P_{rated} 130 (B)		n_{rated}	η	cos φ	I_{rated}	T_{rated}	T_B/T_{rated}	J	n_{max}
kW	kW	Article No.	rpm	%	[-]	A	Nm	[-]	kgm^2	rpm
3.4 ... 4.16 kV, 60 Hz										
6-pole										
1040	–[2]	**1RQ6 450-6JS3■**	1190	95.7	0.86	176	8354	2.40	26	1200
1130	–[2]	**1RQ6 452-6JS3■**	1191	95.9	0.86	190	9071	2.40	29	1200
1270	–[2]	**1RQ6 454-6JS3■**	1191	96.1	0.86	215	10187	2.50	32	1200
1360	–[2]	**1RQ6 456-6JS3■**	1192	96.2	0.85	230	10902	2.50	37	1200
1780	1600	**1RQ6 500-6JS3■**	1190	96.1	0.86	300	14285	2.00	56.0	1500
2000	1800	**1RQ6 502-6JS3■**	1190	96.2	0.86	335	16050	2.05	62.0	1500
2200	2000	**1RQ6 504-6JS3■**	1190	96.4	0.86	370	17655	2.10	69.0	1500
2450	2200	**1RQ6 506-6JS3■**	1191	96.4	0.86	410	19645	2.25	77.0	1500
3050	2700	**1RQ6 560-6JS3■**	1189	96.3	0.87	510	24497	2.00	108.0	1500
3450	3050	**1RQ6 562-6JS3■**	1190	96.6	0.87	570	27687	2.15	119.0	1500
3800	3350	**1RQ6 564-6JS3■**	1190	96.7	0.88	620	30496	2.25	132.0	1500
4100	3600	**1RQ6 566-6JS3■**	1192	96.9	0.88	670	32848	2.55	146.0	1500
8-pole										
740	–[2]	**1RQ6 450-8JS3■**	892	94.9	0.84	128	7927	2.30	32	1200
820	–[2]	**1RQ6 452-8JS3■**	893	95.2	0.84	142	8778	2.40	36	1200
910	–[2]	**1RQ6 454-8JS3■**	893	95.3	0.84	158	9739	2.40	40	1200
1000	–[2]	**1RQ6 456-8JS3■**	893	95.5	0.84	174	10702	2.30	46	1200
1380	1240	**1RQ6 500-8JS3■**	892	95.6	0.84	240	14775	1.80	69	1125
1540	1380	**1RQ6 502-8JS3■**	892	95.6	0.84	265	16488	1.85	76	1125
1720	1540	**1RQ6 504-8JS3■**	892	95.8	0.84	295	18415	1.85	85	1125
1820	1640	**1RQ6 506-8JS3■**	893	95.9	0.84	315	19464	2.05	94	1125
2250	2000	**1RQ6 560-8JS3■**	891	96.3	0.84	385	24116	1.95	128	1125
2500	2200	**1RQ6 562-8JS3■**	892	96.5	0.84	430	26766	2.05	141	1125
2750	2400	**1RQ6 564-8JS3■**	893	96.6	0.85	465	29409	2.30	156	1125
3000	2650	**1RQ6 566-8JS3■**	892	96.7	0.85	510	32119	2.15	173	1125

Type of construction:	
IM B3	**0**
IM V1 (with canopy)	**4**

Note:

The motors for converter operation with non-sinusoidal output have, among other things, a reinforced winding insulation.
Additional details see Page 3/2.
Ratings are defined for sinusoidal supply, based on IEC 60034-2-1:2007.
The ratings for converter operation depend on the converter and its settings and cannot be predetermined.

Higher pole numbers are available on request.

[1] For IM B3, anti-friction bearings.

[2] Utilization 130 (B) on request.

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Motor type (repeated)	Partial load values for square-law torque drive											
	P/P_{rated} 155 (F) = 75 %				P/P_{rated} 155 (F) = 50 %				P/P_{rated} 155 (F) = 25 %			
	P	n	η	cos φ	P	n	η	cos φ	P	n	η	cos φ
	kW	rpm	%	[-]	kW	rpm	%	[-]	kW	rpm	%	[-]
												Square-law torque drive
6-pole												
1RQ6 450-6...	780	1082	95.9	0.85	520	947	96.0	0.83	260	753	95.8	0.74
1RQ6 452-6...	848	1083	96.1	0.85	565	947	96.2	0.82	283	753	96.0	0.73
1RQ6 454-6...	953	1083	96.2	0.85	635	947	96.3	0.82	318	753	96.0	0.72
1RQ6 456-6...	1020	1084	96.4	0.84	680	948	96.4	0.81	340	753	96.1	0.71
1RQ6 500-6...	1335	1082	96.2	0.85	890	946	96.2	0.84	445	752	95.9	0.76
1RQ6 502-6...	1500	1082	96.3	0.86	1000	946	96.3	0.84	500	752	96.0	0.77
1RQ6 504-6...	1650	1082	96.4	0.86	1100	946	96.4	0.84	550	752	96.1	0.76
1RQ6 506-6...	1838	1083	96.5	0.85	1225	947	96.4	0.83	613	753	96.0	0.74
1RQ6 560-6...	2288	1081	96.5	0.87	1525	945	96.6	0.87	763	752	96.5	0.83
1RQ6 562-6...	2588	1082	96.7	0.87	1725	946	96.8	0.87	863	752	96.6	0.82
1RQ6 564-6...	2850	1082	96.8	0.88	1900	946	96.9	0.87	950	753	96.7	0.82
1RQ6 566-6...	3075	1084	97.0	0.87	2050	947	96.9	0.86	1025	753	96.6	0.78
8-pole												
1RQ6 450-8...	555	812	95.0	0.83	370	710	95.1	0.80	185	565	94.6	0.69
1RQ6 452-8...	615	812	95.3	0.82	410	710	95.3	0.79	205	565	94.7	0.68
1RQ6 454-8...	683	812	95.4	0.83	455	710	95.4	0.79	228	565	94.9	0.68
1RQ6 456-8...	750	812	95.6	0.83	500	710	95.6	0.80	250	565	95.2	0.70
1RQ6 500-8...	1035	811	95.7	0.83	690	709	95.8	0.81	345	564	95.3	0.73
1RQ6 502-8...	1155	811	95.7	0.84	770	709	95.7	0.81	385	564	95.3	0.73
1RQ6 504-8...	1290	811	96.0	0.84	860	709	96.0	0.82	430	564	95.6	0.74
1RQ6 506-8...	1365	812	96.0	0.84	910	710	96.0	0.81	455	564	95.4	0.72
1RQ6 560-8...	1688	811	96.5	0.85	1125	709	96.6	0.83	563	564	96.4	0.77
1RQ6 562-8...	1875	811	96.6	0.85	1250	709	96.7	0.83	625	564	96.5	0.76
1RQ6 564-8...	2063	812	96.7	0.84	1375	710	96.7	0.82	688	564	96.4	0.73
1RQ6 566-8...	2250	811	96.8	0.85	1500	709	96.9	0.83	750	564	96.7	0.76

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Selection and ordering data

Rated power IEC		High voltage motor SIMOTICS HV M (modular)	Operating values at rated output for utilization 130 (B)							
			Rated speed	Efficiency	Power factor	Rated current at 4.16 kV	Rated torque	Break-down torque	Moment of inertia	Mechanical speed limit[1]
P_{rated} 155 (F)	P_{rated} 130 (B)		n_{rated}	η	cos φ	I_{rated}	T_{rated}	T_B/T_{rated}	J	n_{max}
kW	kW	Article No.	rpm	%	[-]	A	Nm	[-]	kgm^2	rpm
3.4 ... 4.16 kV, 60 Hz										
2-pole										
8360	7600	**1RQ7 710-2J■30-0CJ0**	3589	96.1	0.92	1200	20221	2.35	147	3600
9350	8500	**1RQ7 712-2J■30-0CJ0**	3588	96.3	0.92	1340	22622	2.35	158	3600
10340	9400	**1RQ7 714-2J■30-0CJ0**	3588	96.6	0.93	1460	25018	2.45	174	3600
11330	10300	**1RQ7 716-2J■30-0CJ0**	3588	96.8	0.94	1580	27413	2.45	189	3600
4-pole										
8680	7750	**1RQ7 710-4J■30-0CJ0**	1793	97.3	0.90	1220	41276	2.45	261	1800
9632	8600	**1RQ7 712-4J■30-0CJ0**	1793	97.4	0.91	1340	45803	2.45	286	1800
10696	9550	**1RQ7 714-4J■30-0CJ0**	1793	97.5	0.92	1480	50862	2.70	321	1800
11872	10600	**1RQ7 716-4J■30-0CJ0**	1793	97.6	0.92	1640	56454	2.70	362	1800
6-pole										
6496	5800	**1RQ7 710-6J■3■-0C■0**	1196	96.9	0.85	980	46309	2.65	348	1800
7056	6300	**1RQ7 712-6J■3■-0C■0**	1196	97.0	0.85	1060	50301	2.65	395	1800
7616	6800	**1RQ7 714-6J■3■-0C■0**	1196	97.1	0.86	1140	54294	2.85	449	1800
8232	7350	**1RQ7 716-6J■3■-0C■0**	1196	97.2	0.87	1200	58685	2.85	496	1800
8-pole										
4760	4250	**1RQ7 710-8J■3■-0C■0**	896	96.8	0.85	720	45295	2.15	433	1000
5320	4750	**1RQ7 712-8J■3■-0C■0**	896	97.0	0.86	790	50624	2.20	493	1000
5936	5300	**1RQ7 714-8J■3■-0C■0**	896	97.1	0.86	880	56486	2.35	558	1000
6720	6000	**1RQ7 716-8J■3■-0C■0**	896	97.1	0.85	1000	63946	2.65	616	1000
10-pole										
3640	3250	**1RQ7 710-3J■3■-0C■0**	715	96.6	0.86	540	43406	2.20	430	900
4032	3600	**1RQ7 712-3J■3■-0C■0**	715	96.6	0.86	600	48080	2.20	489	900
4424	3950	**1RQ7 714-3J■3■-0C■0**	715	96.8	0.86	660	52755	2.20	553	900
4816	4300	**1RQ7 716-3J■3■-0C■0**	715	96.8	0.86	720	57429	2.20	610	900

Cooling method
See page 1/8

Type of construction
See page 1/9

Housing and bearing version
See page 1/9

Note:

The motors for converter operation with non-sinusoidal output have, among other things, a reinforced winding insulation.
Additional details see Page 3/2.
Ratings are defined for sinusoidal supply, based on IEC 60034-2-1:2007.
The ratings for converter operation depend on the converter and its settings and cannot be predetermined.

Higher pole numbers are available on request.

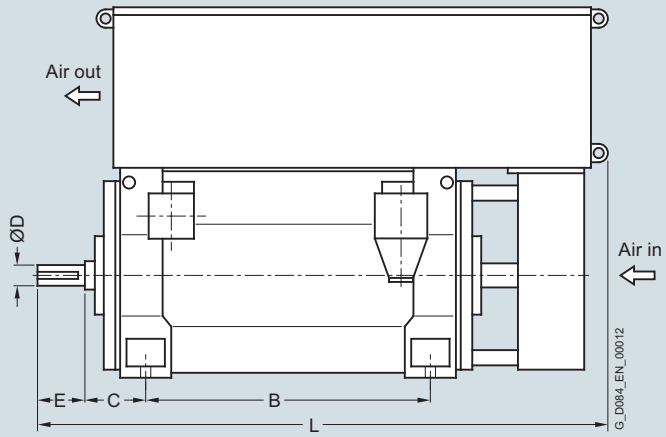
[1] For IM B3, anti-friction bearings.

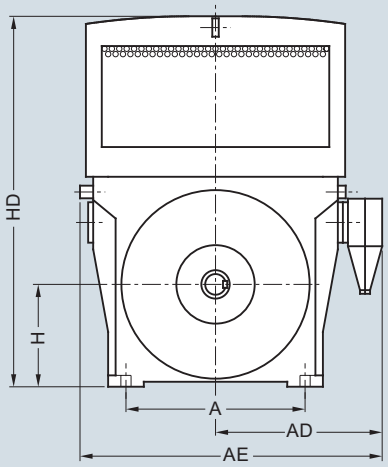
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Motor type (repeated)	Partial load values for square-law torque drive											
	P/P_{rated} 130 (B) = 75 %				P/P_{rated} 130 (B) = 50 %				P/P_{rated} 130 (B) = 25 %			
	P	n	η	cos φ	P	n	η	cos φ	P	n	η	cos φ
	kW	rpm	%	[-]	kW	rpm	%	[-]	kW	rpm	%	[-]
												Square-law torque drive
2-pole												
1RQ7 710-2...	5702	3261	96.0	0.92	3801	2849	95.8	0.92	1900	2264	95.2	0.89
1RQ7 712-2...	6375	3260	96.2	0.93	4250	2849	96.0	0.93	2125	2263	95.6	0.91
1RQ7 714-2...	7052	3260	96.5	0.94	4701	2849	96.4	0.94	2351	2264	95.9	0.92
1RQ7 716-2...	7728	3260	96.7	0.94	5152	2849	96.5	0.94	2576	2264	96.1	0.92
4-pole												
1RQ7 710-4...	5818	1629	97.2	0.91	3880	1424	97.0	0.90	1942	1131	96.6	0.86
1RQ7 712-4...	6455	1629	97.3	0.92	4305	1424	97.2	0.92	2155	1131	96.8	0.88
1RQ7 714-4...	7167	1629	97.4	0.92	4779	1424	97.3	0.92	2393	1131	96.9	0.88
1RQ7 716-4...	7955	1629	97.6	0.92	5305	1424	97.4	0.92	2656	1131	97.1	0.89
6-pole												
1RQ7 710-6...	4352	1086	96.8	0.84	2902	949	96.5	0.80	1453	754	95.7	0.70
1RQ7 712-6...	4726	1087	96.9	0.84	3152	949	96.6	0.81	1577	754	95.8	0.71
1RQ7 714-6...	5102	1087	96.9	0.85	3402	950	96.6	0.82	1703	754	95.9	0.72
1RQ7 716-6...	5513	1087	96.9	0.85	3676	950	96.6	0.82	1840	755	95.9	0.73
8-pole												
1RQ7 710-8...	3191	814	96.7	0.85	2128	711	96.5	0.83	1066	565	95.8	0.75
1RQ7 712-8...	3566	814	96.8	0.86	2378	711	96.6	0.84	1191	565	96.0	0.76
1RQ7 714-8...	3978	814	96.9	0.86	2653	712	96.7	0.83	1328	566	96.1	0.75
1RQ7 716-8...	4505	814	97.0	0.86	3005	711	96.8	0.85	1504	565	96.2	0.78
10-pole												
1RQ7 710-3...	2440	650	96.4	0.85	1628	568	96.2	0.82	815	452	95.4	0.72
1RQ7 712-3...	2703	650	96.5	0.85	1803	568	96.3	0.83	903	452	95.6	0.74
1RQ7 714-3...	2966	650	96.6	0.85	1978	568	96.4	0.83	991	452	95.7	0.74
1RQ7 716-3...	3228	650	96.7	0.85	2153	568	96.4	0.82	1078	452	95.7	0.73

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Dimension drawings





Motor type	Weight	Dimensions									
		A	AD[1]	AE[1]	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, anti-friction bearings, IM B3 type of construction											
2-pole											
1RQ6450-2J..0[2]	4250	850	930	1620	1180	280	95	130	450	1842	2425[3]
1RQ6452-2J..0[2]	4450	850	930	1620	1180	280	95	130	450	1842	2425[3]
1RQ6454-2J..0[2]	4800	850	930	1620	1400	280	95	130	450	1842	2635[3]
1RQ6456-2J..0[2]	5050	850	930	1620	1400	280	95	130	450	1842	2635[3]
1RQ6500-2J..0[2]	6100	950	1135	1835	1320	315	110	165	500	2040	3450[3]
1RQ6502-2J..0[2]	6250	950	1135	1835	1320	315	110	165	500	2040	3450[3]
4-pole											
1RQ6450-4J..0	4550	850	930	1620	1180	250	130	200	450	1842	2455
1RQ6452-4J..0	4750	850	930	1620	1180	250	130	200	450	1842	2455
1RQ6454-4J..0	5200	850	930	1620	1400	250	130	200	450	1842	2665
1RQ6456-4J..0	5450	850	930	1620	1400	250	130	200	450	1842	2665
1RQ6500-4J..0	6600	950	1135	1835	1320	280	150	200	500	2040	2900
1RQ6502-4J..0	6800	950	1135	1835	1320	280	150	200	500	2040	2900
1RQ6504-4J..0	7550	950	1135	1835	1500	280	150	200	500	2040	3050
1RQ6506-4J..0	7850	950	1135	1835	1500	280	150	200	500	2040	3050
1RQ6560-4J..0	8250	1060	1205	1975	1400	315	170	240	560	2300	3000
1RQ6562-4J..0	8600	1060	1205	1975	1400	315	170	240	560	2300	3000
1RQ6564-4J..0	9550	1060	1205	1975	1600	315	170	240	560	2300	3250
1RQ6566-4J..0	10100	1060	1205	1975	1600	315	170	240	560	2300	3250
1RQ4630-4J..0[2]	11100	1320	1330	2210	1600	335	190	280	630	2340	3140
1RQ4632-4J..0[2]	11800	1320	1330	2210	1600	335	190	280	630	2340	3140
1RQ4634-4J..0[2]	12900	1320	1330	2210	1800	335	200	280	630	2340	3380
1RQ4636-4J..0[2]	13450	1320	1330	2210	1800	335	200	280	630	2340	3380

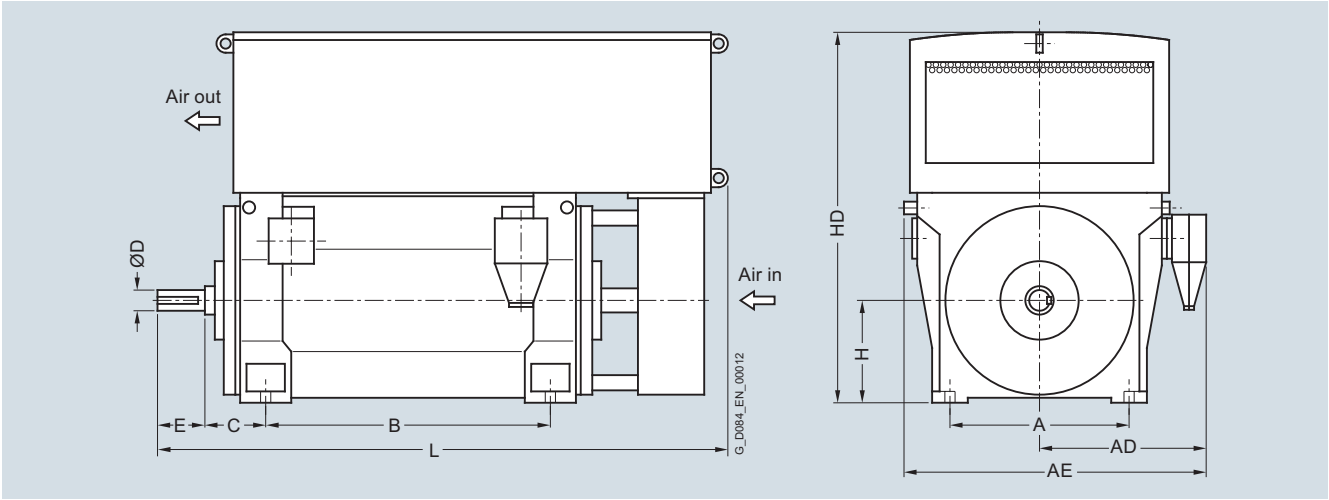
[1] For $V_{rated} \geq 2.0$ kV and current $I_{rated} > 315$ A, the dimension changes by + 140 mm.

[2] Anti-friction bearings only for 50 Hz version.

[3] Including air inlet silencer.

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Dimension drawings (continued)



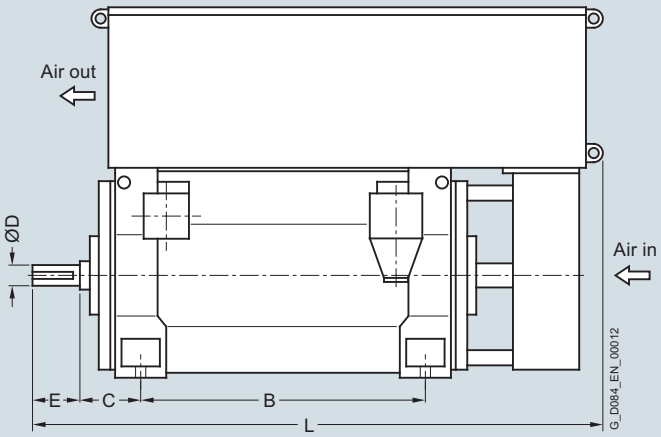
Motor type	Weight	Dimensions									
		A	AD[1]	AE[1]	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, anti-friction bearings, IM B3 type of construction											
6-pole											
1RQ6450-6J..0	4650	850	930	1620	1180	250	140	200	450	1842	2455
1RQ6452-6J..0	4900	850	930	1620	1180	250	140	200	450	1842	2455
1RQ6454-6J..0	5300	850	930	1620	1400	280	140	200	450	1842	2665
1RQ6456-6J..0	5650	850	930	1620	1400	280	140	200	450	1842	2665
1RQ6500-6J..0	6750	950	1135	1835	1320	315	160	240	500	1990	2850
1RQ6502-6J..0	7050	950	1135	1835	1320	315	160	240	500	1990	2850
1RQ6504-6J..0	7700	950	1135	1835	1500	315	160	240	500	1990	3300
1RQ6506-6J..0	8050	950	1135	1835	1500	315	160	240	500	1990	3300
1RQ6560-6J..0	9100	1060	1205	1975	1400	315	180	240	560	2240	3000
1RQ6562-6J..0	9550	1060	1205	1975	1400	315	180	240	560	2240	3000
1RQ6564-6J..0	10450	1060	1205	1975	1600	315	180	240	560	2240	3250
1RQ6566-6J..0	11000	1060	1205	1975	1600	315	180	240	560	2240	3250
1RQ4630-6J..0	11400	1320	1330	2210	1600	335	200	280	630	2340	3140
1RQ4632-6J..0	12000	1320	1330	2210	1600	335	200	280	630	2340	3140
1RQ4634-6J..0	12900	1320	1330	2210	1800	335	200	280	630	2340	3380
1RQ4636-6J..0	13750	1320	1330	2210	1800	335	200	280	630	2340	3380

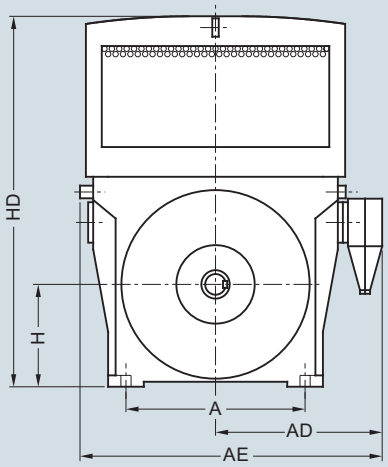
Note:
Higher pole numbers are available on request.

[1] For $V_{rated} \geq 2.0$ kV and current $I_{rated} > 315$ A, the dimension changes by + 140 mm.

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Dimension drawings (continued)





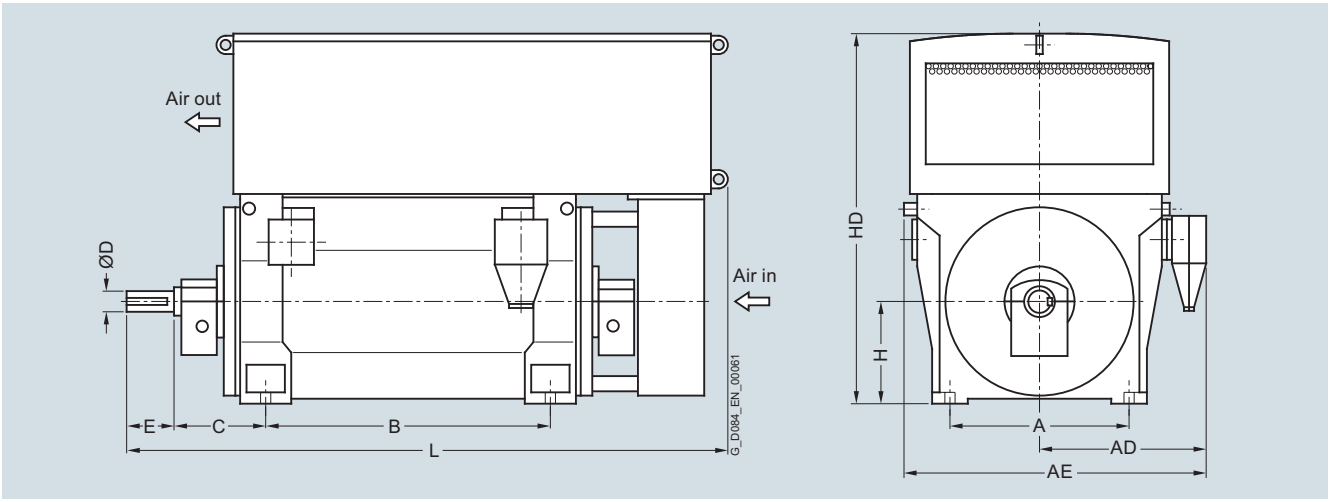
Motor type	Weight	Dimensions									
		A	AD[1)]	AE[1)]	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, anti-friction bearings, IM B3 type of construction											
8-pole											
1RQ6450-8J..0	4650	850	930	1620	1180	250	140	200	450	1842	2455
1RQ6452-8J..0	4950	850	930	1620	1180	250	140	200	450	1842	2455
1RQ6454-8J..0	5350	850	930	1620	1400	280	140	200	450	1842	2665
1RQ6456-8J..0	5700	850	930	1620	1400	280	140	200	450	1842	2665
1RQ6500-8J..0	6750	950	1135	1835	1320	315	160	240	500	1990	2850
1RQ6502-8J..0	7000	950	1135	1835	1320	315	160	240	500	1990	2850
1RQ6504-8J..0	7650	950	1135	1835	1500	315	160	240	500	1990	3300
1RQ6506-8J..0	8000	950	1135	1835	1500	315	160	240	500	1990	3300
1RQ6560-8J..0	9050	1060	1205	1975	1400	315	180	240	560	2240	3000
1RQ6562-8J..0	9450	1060	1205	1975	1400	315	180	240	560	2240	3000
1RQ6564-8J..0	10400	1060	1205	1975	1600	315	180	240	560	2240	3250
1RQ6566-8J..0	10900	1060	1205	1975	1600	315	180	240	560	2240	3250
1RQ4630-8J..0	11200	1320	1180	2060	1600	335	200	280	630	2340	3140
1RQ4632-8J..0	11950	1320	1330	2210	1600	335	200	280	630	2340	3140
1RQ4634-8J..0	12900	1320	1330	2210	1800	335	200	280	630	2340	3380
1RQ4636-8J..0	13650	1320	1330	2210	1800	335	200	280	630	2340	3380

Note:
Higher pole numbers are available on request.

[1)] For $V_{rated} \geq 2.0$ kV and current $I_{rated} > 315$ A, the dimension changes by + 140 mm.

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Dimension drawings



Motor type	Weight	Dimensions									
		A	AD[1]	AE[1]	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, sleeve bearings, IM B3 type of construction											
2-pole											
1RQ6450-2J..0-Z K96	4250	850	930	1620	1180	425	95	130	450	1842	2575[3]
1RQ6452-2J..0-Z K96	4500	850	930	1620	1180	425	95	130	450	1842	2575[3]
1RQ6454-2J..0-Z K96	4850	850	930	1620	1400	425	95	130	450	1842	2790[3]
1RQ6456-2J..0-Z K96	5100	850	930	1620	1400	425	95	130	450	1842	2790[3]
1RQ6500-2J..0-Z K96[2]	6100	950	1135	1835	1320	450	110	165	500	2040	3550[3]
1RQ6502-2J..0-Z K96[2]	6250	950	1135	1835	1320	450	110	165	500	2040	3550[3]
1RQ6504-2J..0	7100	950	1135	1835	1500	450	110	165	500	2040	3750[3]
1RQ6506-2J..0	7350	950	1135	1835	1500	450	110	165	500	2040	3750[3]
1RQ6560-2J..0	8150	1060	1205	1975	1400	600	130	200	560	2300	3900[3]
1RQ6562-2J..0	8550	1060	1205	1975	1400	600	130	200	560	2300	3900[3]
1RQ6564-2J..0	9500	1060	1205	1975	1600	600	130	200	560	2300	4130[3]
1RQ6566-2J..0	9950	1060	1205	1975	1600	600	130	200	560	2300	4130[3]

[1] For $V_{rated} \geq 2.0$ kV and current $I_{rated} > 315$ A, the dimension changes by + 140 mm.

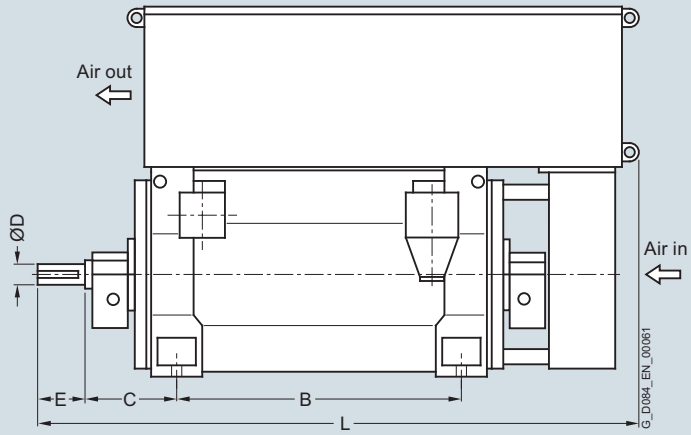
[2] For the 60 Hz version, sleeve bearings are standard, "-Z **K96**" not necessary.

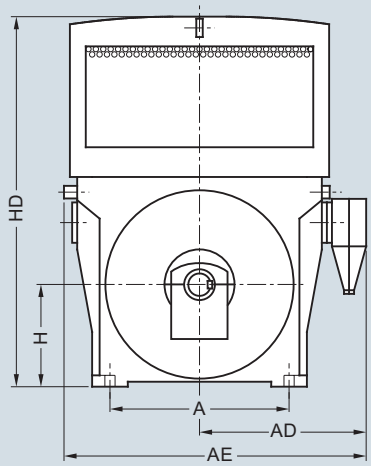
[3] Including air inlet silencer.

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Dimension drawings (continued)





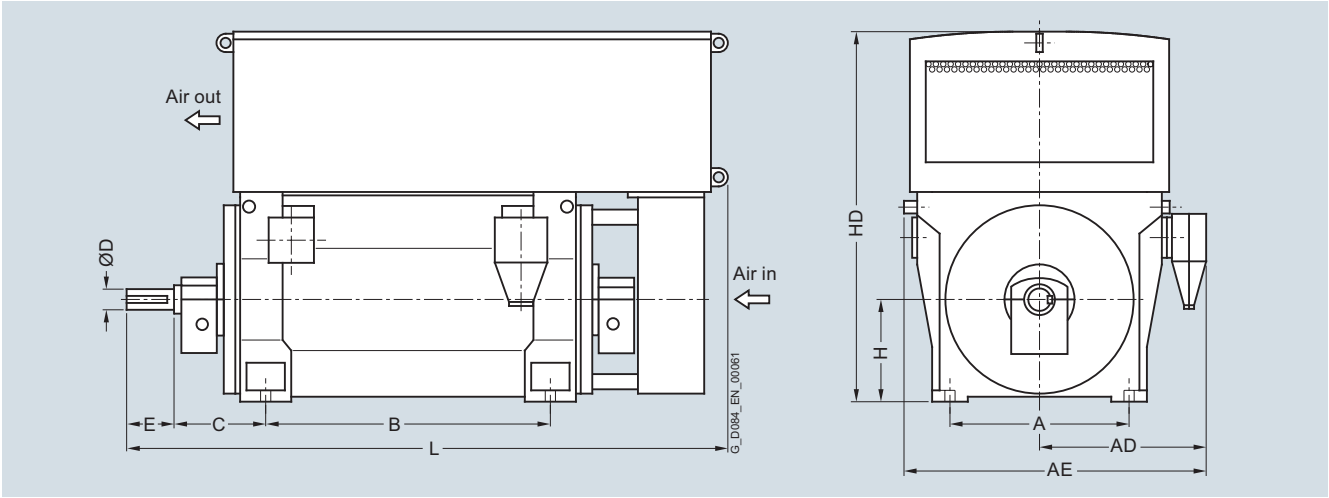
Motor type	Weight	Dimensions									
		A	AD[1]	AE[1]	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, sleeve bearings, IM B3 type of construction											
4-pole											
1RQ6450-4J..0-Z K96	4650	850	930	1620	1180	500	130	200	450	1842	2705
1RQ6452-4J..0-Z K96	4850	850	930	1620	1180	500	130	200	450	1842	2705
1RQ6454-4J..0-Z K96	5300	850	930	1620	1400	500	130	200	450	1842	2915
1RQ6456-4J..0-Z K96	5550	850	930	1620	1400	500	130	200	450	1842	2915
1RQ6500-4J..0-Z K96	6900	950	1135	1835	1320	560	150	200	500	2040	3150
1RQ6502-4J..0-Z K96	7100	950	1135	1835	1320	560	150	200	500	2040	3150
1RQ6504-4J..0-Z K96	7800	950	1135	1835	1500	560	150	200	500	2040	3350
1RQ6506-4J..0-Z K96	8100	950	1135	1835	1500	560	150	200	500	2040	3350
1RQ6560-4J..0-Z K96	8350	1060	1205	1975	1400	600	170	240	560	2300	3270
1RQ6562-4J..0-Z K96	8750	1060	1205	1975	1400	600	170	240	560	2300	3270
1RQ6564-4J..0-Z K96	9700	1060	1205	1975	1600	600	170	240	560	2300	3500
1RQ6566-4J..0-Z K96	10200	1060	1205	1975	1600	600	170	240	560	2300	3500
1RQ4630-4J..0-Z K96[2]	11350	1320	1330	2210	1600	600	190	280	630	2340	3400
1RQ4632-4J..0-Z K96[2]	12050	1320	1330	2210	1600	600	190	280	630	2340	3400
1RQ4634-4J..0-Z K96[2]	13150	1320	1330	2210	1800	600	200	280	630	2340	3640
1RQ4636-4J..0-Z K96[2]	13700	1320	1330	2210	1800	600	200	280	630	2340	3640

[1] For $V_{rated} \geq 2.0$ kV and current $I_{rated} > 315$ A, the dimension changes by + 140 mm.

[2] For the 60 Hz version, sleeve bearings are standard, "-Z **K96**" not necessary.

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Dimension drawings (continued)

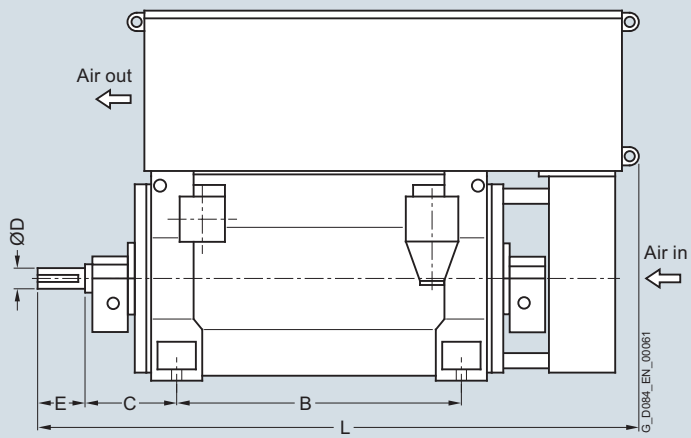


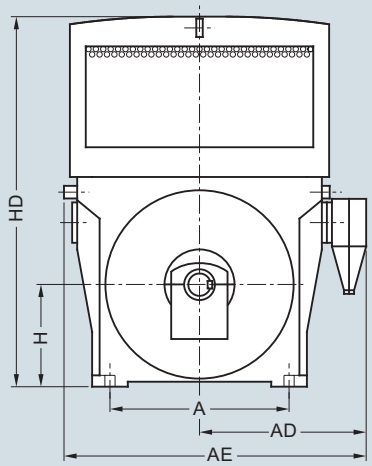
Motor type	Weight	Dimensions									
		A	AD[1]	AE[1]	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, sleeve bearings, IM B3 type of construction											
6-pole											
1RQ6450-6J..0-Z K96	4800	850	930	1620	1180	500	140	200	450	1842	2705
1RQ6452-6J..0-Z K96	5050	850	930	1620	1180	500	140	200	450	1842	2705
1RQ6454-6J..0-Z K96	5450	850	930	1620	1400	500	140	200	450	1842	2915
1RQ6456-6J..0-Z K96	5800	850	930	1620	1400	500	140	200	450	1842	2915
1RQ6500-6J..0-Z K96	6900	950	1135	1835	1320	560	170	240	500	1990	2850
1RQ6502-6J..0-Z K96	7200	950	1135	1835	1320	560	170	240	500	1990	2850
1RQ6504-6J..0-Z K96	7850	950	1135	1835	1500	560	170	240	500	1990	3300
1RQ6506-6J..0-Z K96	8200	950	1135	1835	1500	560	170	240	500	1990	3300
1RQ6560-6J..0-Z K96	9300	1060	1205	1975	1400	600	170	240	560	2240	3300
1RQ6562-6J..0-Z K96	9750	1060	1205	1975	1400	600	170	240	560	2240	3300
1RQ6564-6J..0-Z K96	10650	1060	1205	1975	1600	600	170	240	560	2240	3500
1RQ6566-6J..0-Z K96	11150	1060	1205	1975	1600	600	170	240	560	2240	3500
1RQ4630-6J..0-Z K96	11650	1320	1330	2210	1600	600	200	280	630	2340	3400
1RQ4632-6J..0-Z K96	12250	1320	1330	2210	1600	600	200	280	630	2340	3400
1RQ4634-6J..0-Z K96	13150	1320	1330	2210	1800	600	200	280	630	2340	3640
1RQ4636-6J..0-Z K96	14000	1320	1330	2210	1800	600	200	280	630	2340	3640

[1] For $V_{rated} \geq 2.0$ kV and current $I_{rated} > 315$ A, the dimension changes by + 140 mm.

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Dimension drawings (continued)





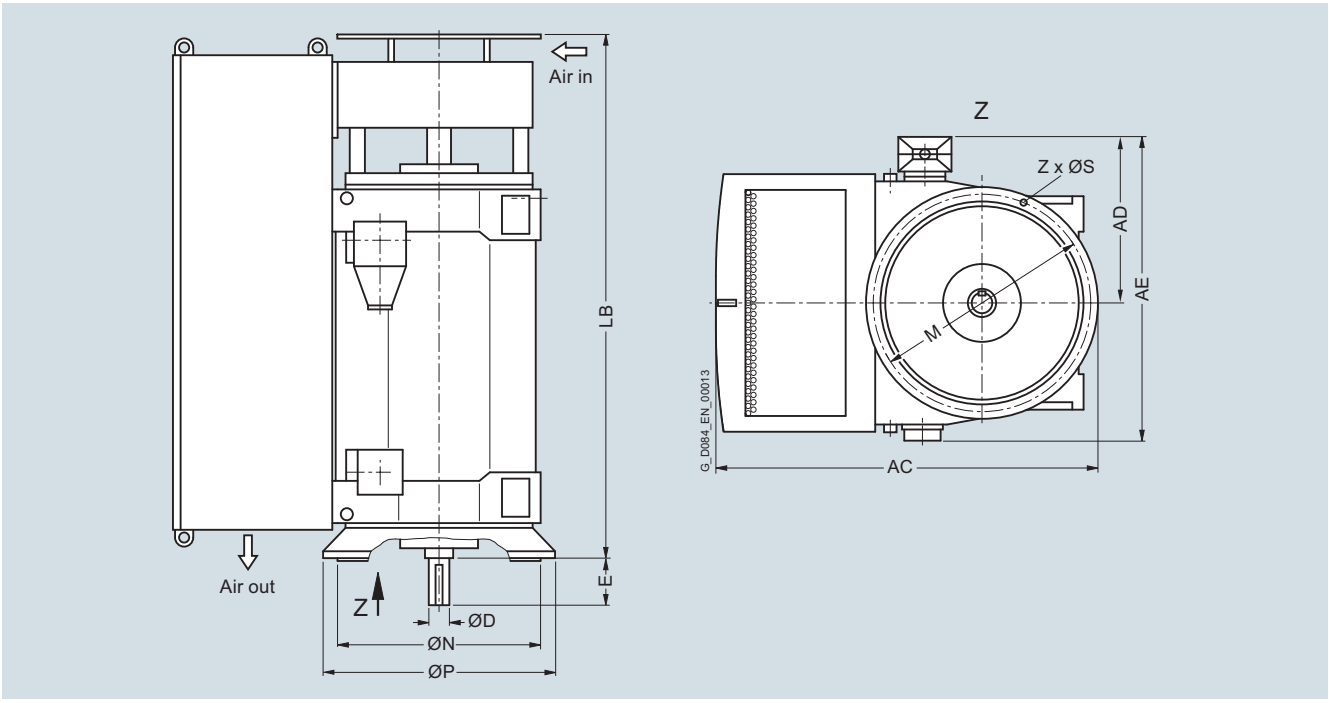
Motor type	Weight	Dimensions									
		A	AD[1]	AE[1]	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, sleeve bearings, IM B3 type of construction											
8-pole											
1RQ6450-8J..0-Z K96	4800	850	930	1620	1180	500	140	200	450	1842	2705
1RQ6452-8J..0-Z K96	5100	850	930	1620	1180	500	140	200	450	1842	2705
1RQ6454-8J..0-Z K96	5500	850	930	1620	1400	500	140	200	450	1842	2915
1RQ6456-8J..0-Z K96	5850	850	930	1620	1400	500	140	200	450	1842	2915
1RQ6500-8J..0-Z K96	6900	950	1135	1835	1320	560	170	240	500	1990	2850
1RQ6502-8J..0-Z K96	7150	950	1135	1835	1320	560	170	240	500	1990	2850
1RQ6504-8J..0-Z K96	7800	950	1135	1835	1500	560	170	240	500	1990	3300
1RQ6506-8J..0-Z K96	8150	950	1135	1835	1500	560	170	240	500	1990	3300
1RQ6560-8J..0-Z K96	9250	1060	1205	1975	1400	600	170	240	560	2240	3300
1RQ6562-8J..0-Z K96	9650	1060	1205	1975	1400	600	170	240	560	2240	3300
1RQ6564-8J..0-Z K96	10550	1060	1205	1975	1600	600	170	240	560	2240	3500
1RQ6566-8J..0-Z K96	11100	1060	1205	1975	1600	600	170	240	560	2240	3500
1RQ4630-8J..0-Z K96	11450	1320	1180	2060	1600	600	200	280	630	2340	3400
1RQ4632-8J..0-Z K96	12200	1320	1330	2210	1600	600	200	280	630	2340	3400
1RQ4634-8J..0-Z K96	13150	1320	1330	2210	1800	600	200	280	630	2340	3640
1RQ4636-8J..0-Z K96	13900	1320	1330	2210	1800	600	200	280	630	2340	3640

Note:
Higher pole numbers are available on request.

[1] For $V_{rated} \geq 2.0$ kV and current $I_{rated} > 315$ A, the dimension changes by + 140 mm.

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Dimension drawings



Motor type	Weight	Dimensions										
		AC	AD[1]	AE[1]	D	E	LB	P	N	M	S	Z
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Quantity
Up to 6.6 kV, anti-friction bearings, IM V1 type of construction												
4-pole												
1RQ6450-4J..4	4750	1967	930	1620	130	200	2730	1150	1000	1080	26	8
1RQ6452-4J..4	5000	1967	930	1620	130	200	2730	1150	1000	1080	26	8
1RQ6454-4J..4	5400	1967	930	1620	140	200	2940	1150	1000	1080	26	8
1RQ6456-4J..4	5700	1967	930	1620	140	200	2940	1150	1000	1080	26	8
1RQ6500-4J..4	6050	2130	1000	1810	140	200	2560	1250	1120	1180	26	8
1RQ6502-4J..4	6250	2130	1000	1810	140	200	2560	1250	1120	1180	26	8
1RQ6504-4J..4	6950	2130	1000	1810	150	200	2770	1250	1120	1180	26	8
1RQ6506-4J..4	7300	2130	1000	1810	150	200	2770	1250	1120	1180	26	8
1RQ6560-4J..4	8200	2400	1210	2100	170	240	2800	1400	1250	1320	26	16
1RQ6562-4J..4	8600	2400	1210	2100	170	240	2800	1400	1250	1320	26	16
1RQ6564-4J..4	9500	2400	1210	2100	180	240	3030	1400	1250	1320	26	16
1RQ6566-4J..4[2]	9950	2400	1210	2100	180	240	3030	1400	1250	1320	26	16
1RQ4630-4J..4[2]	12750	2840	1330	2300	200	280	3170	2000	1800	1900	33	16
1RQ4632-4J..4[2]	13450	2840	1330	2300	200	280	3170	2000	1800	1900	33	16
1RQ4634-4J..4[2]	14550	2840	1330	2300	200	280	3410	2000	1800	1900	33	16
1RQ4636-4J..4[2]	15100	2840	1330	2300	200	280	3410	2000	1800	1900	33	16

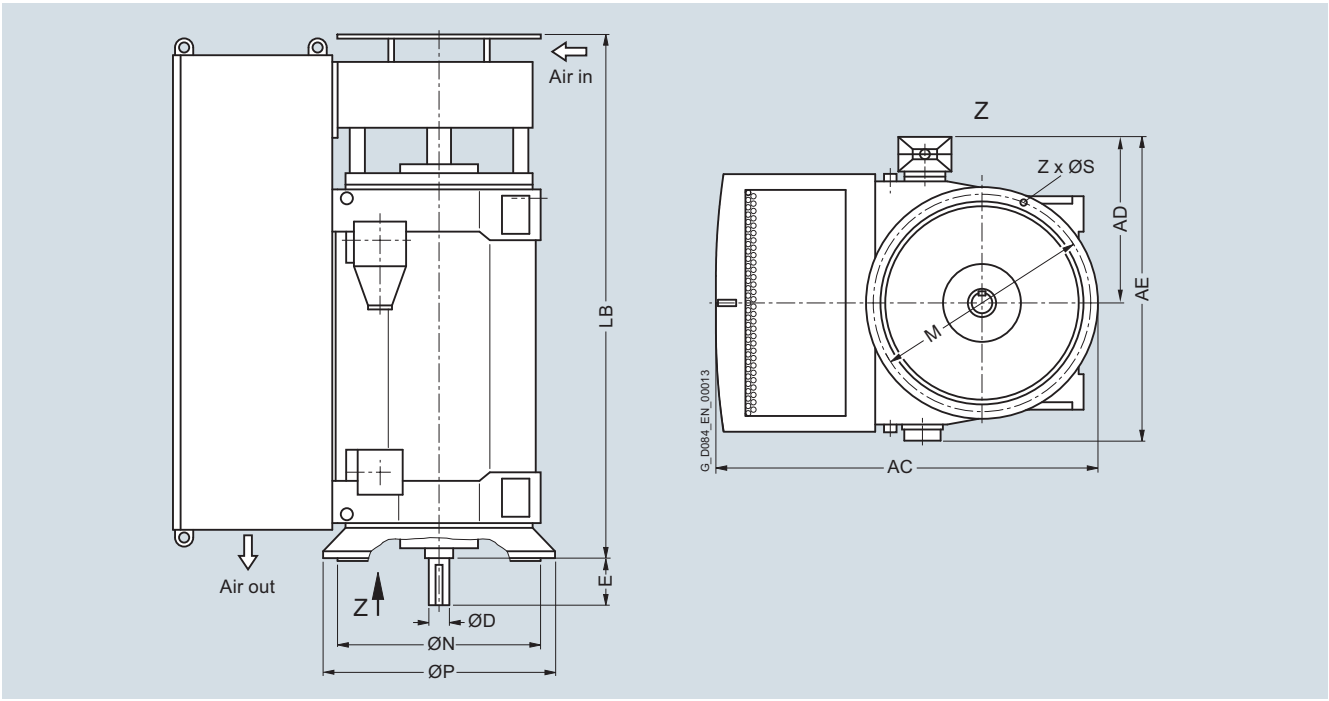
[1] For $V_{rated} \geq 2.0$ kV and current $I_{rated} > 315$ A, the dimension changes by + 140 mm.

[2] Only in the 50 Hz version.

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Dimension drawings (continued)

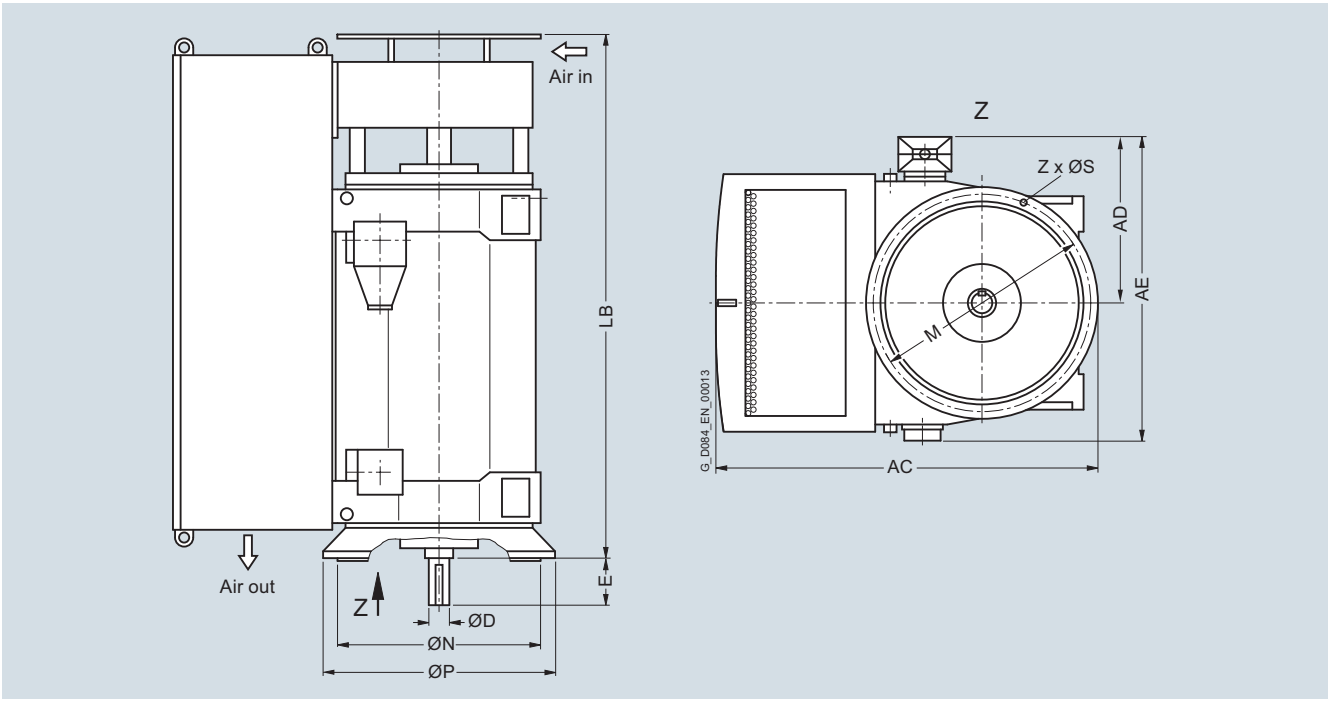


Motor type	Weight	Dimensions										
		AC	AD[1)]	AE[1)]	D	E	LB	P	N	M	S	Z
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Quantity
Up to 6.6 kV, anti-friction bearings, IM V1 type of construction												
6-pole												
1RQ6450-6J..4	4850	1967	930	1620	130	200	2730	1150	1000	1080	26	8
1RQ6452-6J..4	5150	1967	930	1620	130	200	2730	1150	1000	1080	26	8
1RQ6454-6J..4	5500	1967	930	1620	140	200	2940	1150	1000	1080	26	8
1RQ6456-6J..4	5850	1967	930	1620	140	200	2940	1150	1000	1080	26	8
1RQ6500-6J..4	6200	2130	1000	1810	150	200	2560	1250	1120	1180	26	8
1RQ6502-6J..4	6550	2130	1000	1810	150	200	2560	1250	1120	1180	26	8
1RQ6504-6J..4	7100	2130	1000	1810	160	240	2770	1250	1120	1180	26	8
1RQ6506-6J..4	7500	2130	1000	1810	160	240	2770	1250	1120	1180	26	8
1RQ6560-6J..4	8300	2400	1070	1960	170	240	2800	1400	1250	1320	26	16
1RQ6562-6J..4	8800	2400	1070	1960	170	240	2800	1400	1250	1320	26	16
1RQ6564-6J..4	9750	2400	1210	2100	180	240	3030	1400	1250	1320	26	16
1RQ6566-6J..4	10200	2400	1210	2100	180	240	3030	1400	1250	1320	26	16
1RQ4630-6J..4	13050	2840	1330	2300	200	280	3170	2000	1800	1900	33	16
1RQ4632-6J..4	13650	2840	1330	2300	200	280	3170	2000	1800	1900	33	16
1RQ4634-6J..4	14550	2840	1330	2300	200	280	3410	2000	1800	1900	33	16
1RQ4636-6J..4	15400	2840	1330	2300	200	280	3410	2000	1800	1900	33	16

[1)] For $V_{rated} \geq 2.0$ kV and current $I_{rated} > 315$ A, the dimension changes by + 140 mm.

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Dimension drawings (continued)



Motor type	Weight	Dimensions										
		AC	AD[1]	AE[1]	D	E	LB	P	N	M	S	Z
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Quantity
Up to 6.6 kV, anti-friction bearings, IM V1 type of construction												
8-pole												
1RQ6450-8J..4	4850	1967	930	1620	140	200	2730	1150	1000	1080	26	8
1RQ6452-8J..4	5150	1967	930	1620	140	200	2730	1150	1000	1080	26	8
1RQ6454-8J..4	5550	1967	930	1620	140	200	2940	1150	1000	1080	26	8
1RQ6456-8J..4	5900	1967	930	1620	140	200	2940	1150	1000	1080	26	8
1RQ6500-8J..4	6200	2130	1000	1810	150	200	2560	1250	1120	1180	26	8
1RQ6502-8J..4	6600	2130	1000	1810	150	200	2560	1250	1120	1180	26	8
1RQ6504-8J..4	7100	2130	1000	1810	160	240	2770	1250	1120	1180	26	8
1RQ6506-8J..4	7500	2130	1000	1810	160	240	2770	1250	1120	1180	26	8
1RQ6560-8J..4	8250	2400	1070	1960	170	240	2800	1400	1250	1320	26	16
1RQ6562-8J..4	8800	2400	1070	1960	170	240	2800	1400	1250	1320	26	16
1RQ6564-8J..4	9650	2400	1070	1960	180	240	3030	1400	1250	1320	26	16
1RQ6566-8J..4	10100	2400	1070	1960	180	240	3030	1400	1250	1320	26	16
1RQ4630-8J..4[2]	12850	2840	1180	2150	200	280	3170	2000	1800	1900	33	16
1RQ4632-8J..4[2]	13600	2840	1330	2300	200	280	3170	2000	1800	1900	33	16
1RQ4634-8J..4[2]	14550	2840	1330	2300	200	280	3410	2000	1800	1900	33	16
1RQ4636-8J..4[2]	15300	2840	1330	2300	200	280	3410	2000	1800	1900	33	16

Note:

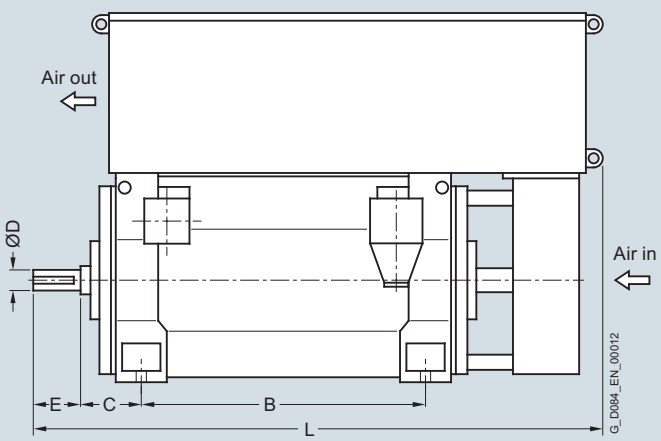
Higher pole numbers are available on request.

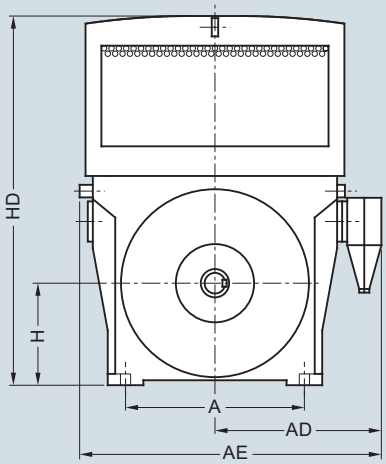
[1] For $V_{rated} \geq 2.0$ kV and current $I_{rated} > 315$ A, the dimension changes by + 140 mm.

[2] Only in the 50 Hz version.

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Dimension drawings





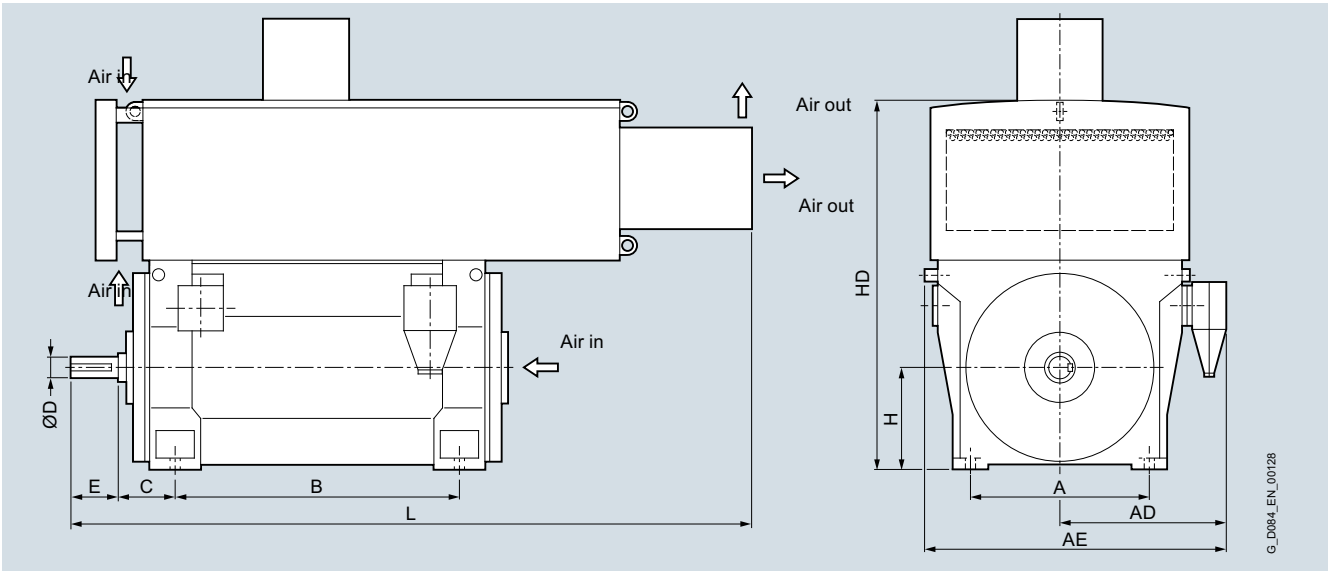
Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, IM B3 type of construction, anti-friction bearings – 1RQ7 series – IC611											
4-pole											
1RQ7 710-4	17100	1500	1800	2900	2000	375	220	350	710	3080	4500
1RQ7 712-4	17800	1500	1800	2900	2000	375	220	350	710	3080	4500
1RQ7 714-4	19200	1500	1800	2900	2240	375	220	350	710	3080	4740
1RQ7 716-4	20500	1500	1800	2900	2240	375	220	350	710	3080	4740
6-pole											
1RQ7 710-6	17200	1500	1800	2900	2000	375	220	350	710	3080	3960
1RQ7 712-6	18300	1500	1800	2900	2000	375	220	350	710	3080	3960
1RQ7 714-6	19800	1500	1800	2900	2240	375	220	350	710	3080	4200
1RQ7 716-6	20800	1500	1800	2900	2240	375	220	350	710	3080	4200
8-pole											
1RQ7 710-8	16500	1500	1800	2900	2000	375	220	350	710	2710	3960
1RQ7 712-8	17400	1500	1800	2900	2000	375	220	350	710	2710	3960
1RQ7 714-8	18900	1500	1800	2900	2240	375	220	350	710	2710	4200
1RQ7 716-8	19900	1500	1800	2900	2240	375	220	350	710	2710	4200
10-pole											
1RQ7 710-3	16400	1500	1800	2900	2000	375	220	350	710	2710	3960
1RQ7 712-3	17400	1500	1800	2900	2000	375	220	350	710	2710	3960
1RQ7 714-3	18900	1500	1800	2900	2240	375	220	350	710	2710	4200
1RQ7 716-3	20000	1500	1800	2900	2240	375	220	350	710	2710	4200

Note:

Higher pole numbers are available on request.

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Dimension drawings



Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD[1)]	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, IM B3 type of construction, anti-friction bearings – 1RQ7 series – IC666											
4-pole											
1RQ7 710-4	16900	1500	1800	2900	2000	375	220	350	710	3550	4330
1RQ7 712-4	17600	1500	1800	2900	2000	375	220	350	710	3550	4330
1RQ7 714-4	19000	1500	1800	2900	2240	375	220	350	710	3550	4570
1RQ7 716-4	20300	1500	1800	2900	2240	375	220	350	710	3550	4570
6-pole											
1RQ7 710-6	17300	1500	1800	2900	2000	375	220	350	710	3550	4330
1RQ7 712-6	18400	1500	1800	2900	2000	375	220	350	710	3550	4330
1RQ7 714-6	19800	1500	1800	2900	2240	375	220	350	710	3550	4570
1RQ7 716-6	20900	1500	1800	2900	2240	375	220	350	710	3550	4570
8-pole											
1RQ7 710-8	16800	1500	1800	2900	2000	375	220	350	710	3550	4330
1RQ7 712-8	17600	1500	1800	2900	2000	375	220	350	710	3550	4330
1RQ7 714-8	19200	1500	1800	2900	2240	375	220	350	710	3550	4570
1RQ7 716-8	20200	1500	1800	2900	2240	375	220	350	710	3550	4570
10-pole											
1RQ7 710-3	16600	1500	1800	2900	2000	375	220	350	710	3550	4330
1RQ7 712-3	17600	1500	1800	2900	2000	375	220	350	710	3550	4330
1RQ7 714-3	19200	1500	1800	2900	2240	375	220	350	710	3550	4570
1RQ7 716-3	20200	1500	1800	2900	2240	375	220	350	710	3550	4570

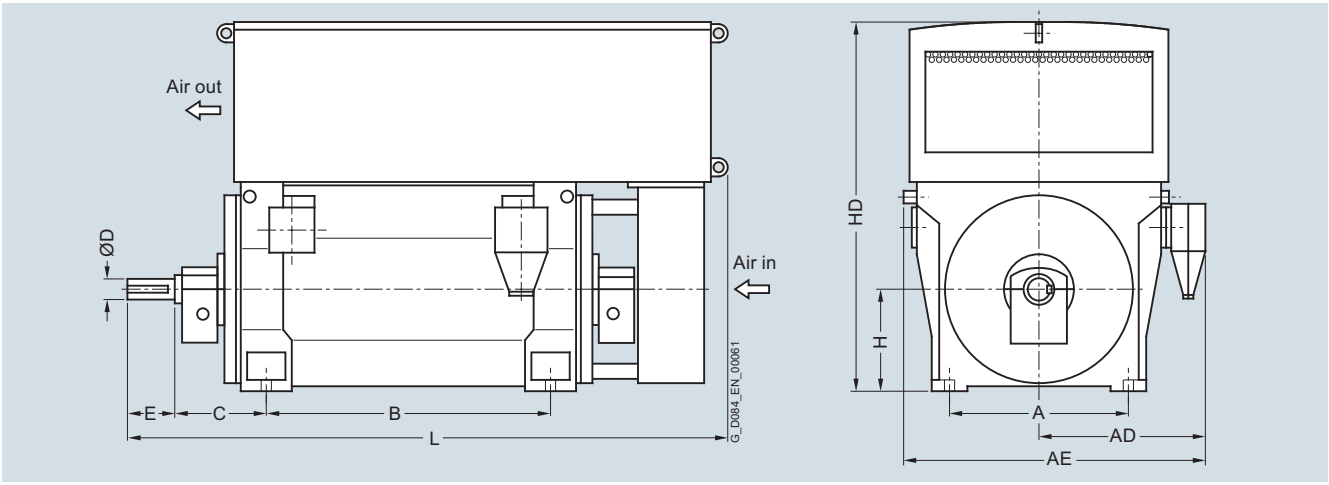
Note:

Higher pole numbers are available on request.

[1)] Dimension HD without external blower
(2 ... 6-pole = 600mm / ≥ 8-pole = 500 mm)

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Dimension drawings



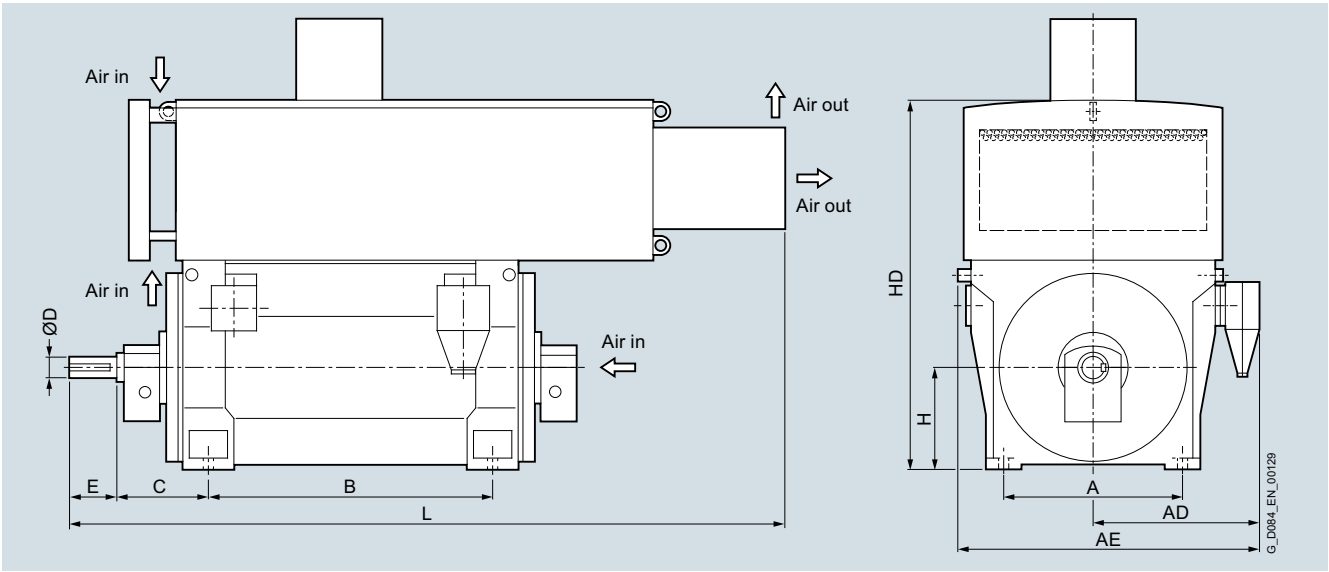
Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, IM B3 type of construction, sleeve bearings – 1RQ7 series – IC611											
2-pole											
1RQ7 710-2	16500	1500	1800	2900	2000	560	200	280	710	3080	4630
1RQ7 712-2	17000	1500	1800	2900	2000	560	200	280	710	3080	4630
1RQ7 714-2	18400	1500	1800	2900	2240	560	200	280	710	3080	4870
1RQ7 716-2	19100	1500	1800	2900	2240	560	200	280	710	3080	4870
4-pole											
1RQ7 710-4	17500	1500	1800	2900	2000	710	220	350	710	3080	4840
1RQ7 712-4	18200	1500	1800	2900	2000	710	220	350	710	3080	4840
1RQ7 714-4	19500	1500	1800	2900	2240	710	220	350	710	3080	5080
1RQ7 716-4	20800	1500	1800	2900	2240	710	220	350	710	3080	5080
6-pole											
1RQ7 710-6	17300	1500	1800	2900	2000	670	220	350	710	3080	4250
1RQ7 712-6	18400	1500	1800	2900	2000	670	220	350	710	3080	4250
1RQ7 714-6	19900	1500	1800	2900	2240	670	220	350	710	3080	4490
1RQ7 716-6	20900	1500	1800	2900	2240	670	220	350	710	3080	4490
8-pole											
1RQ7 710-8	16500	1500	1800	2900	2000	670	220	350	710	2710	4250
1RQ7 712-8	17400	1500	1800	2900	2000	670	220	350	710	2710	4250
1RQ7 714-8	18900	1500	1800	2900	2240	670	220	350	710	2710	4490
1RQ7 716-8	20000	1500	1800	2900	2240	670	220	350	710	2710	4490
10-pole											
1RQ7 710-3	16400	1500	1800	2900	2000	670	220	350	710	2710	4250
1RQ7 712-3	17400	1500	1800	2900	2000	670	220	350	710	2710	4250
1RQ7 714-3	19000	1500	1800	2900	2240	670	220	350	710	2710	4490
1RQ7 716-3	20000	1500	1800	2900	2240	670	220	350	710	2710	4490

Note:

Higher pole numbers are available on request.

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Dimension drawings



Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD[1]	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, IM B3 type of construction, sleeve bearings – 1RQ7 series – IC666											
2-pole											
1RQ7 710-2	16200	1500	1800	2900	2000	560	200	710	280	3550	4450
1RQ7 712-2	16700	1500	1800	2900	2000	560	200	710	280	3550	4450
1RQ7 714-2	18000	1500	1800	2900	2240	560	200	710	280	3550	4690
1RQ7 716-2	18700	1500	1800	2900	2240	560	200	710	280	3550	4690
4-pole											
1RQ7 710-4	17200	1500	1800	2900	2000	710	220	710	350	3550	4670
1RQ7 712-4	17900	1500	1800	2900	2000	710	220	710	350	3550	4670
1RQ7 714-4	19300	1500	1800	2900	2240	710	220	710	350	3550	4910
1RQ7 716-4	20600	1500	1800	2900	2240	710	220	710	350	3550	4910
6-pole											
1RQ7 710-6	17300	1500	1800	2900	2000	670	220	710	350	3550	4630
1RQ7 712-6	18500	1500	1800	2900	2000	670	220	710	350	3550	4630
1RQ7 714-6	19900	1500	1800	2900	2240	670	220	710	350	3550	4870
1RQ7 716-6	20900	1500	1800	2900	2240	670	220	710	350	3550	4870
8-pole											
1RQ7 710-8	17000	1500	1800	2900	2000	670	220	710	350	3550	4630
1RQ7 712-8	17900	1500	1800	2900	2000	670	220	710	350	3550	4630
1RQ7 714-8	19200	1500	1800	2900	2240	670	220	710	350	3550	4870
1RQ7 716-8	20200	1500	1800	2900	2240	670	220	710	350	3550	4870
10-pole											
1RQ7 710-3	16900	1500	1800	2900	2000	670	220	710	350	3550	4630
1RQ7 712-3	17900	1500	1800	2900	2000	670	220	710	350	3550	4630
1RQ7 714-3	19200	1500	1800	2900	2240	670	220	710	350	3550	4870
1RQ7 716-3	20200	1500	1800	2900	2240	670	220	710	350	3550	4870

Note:

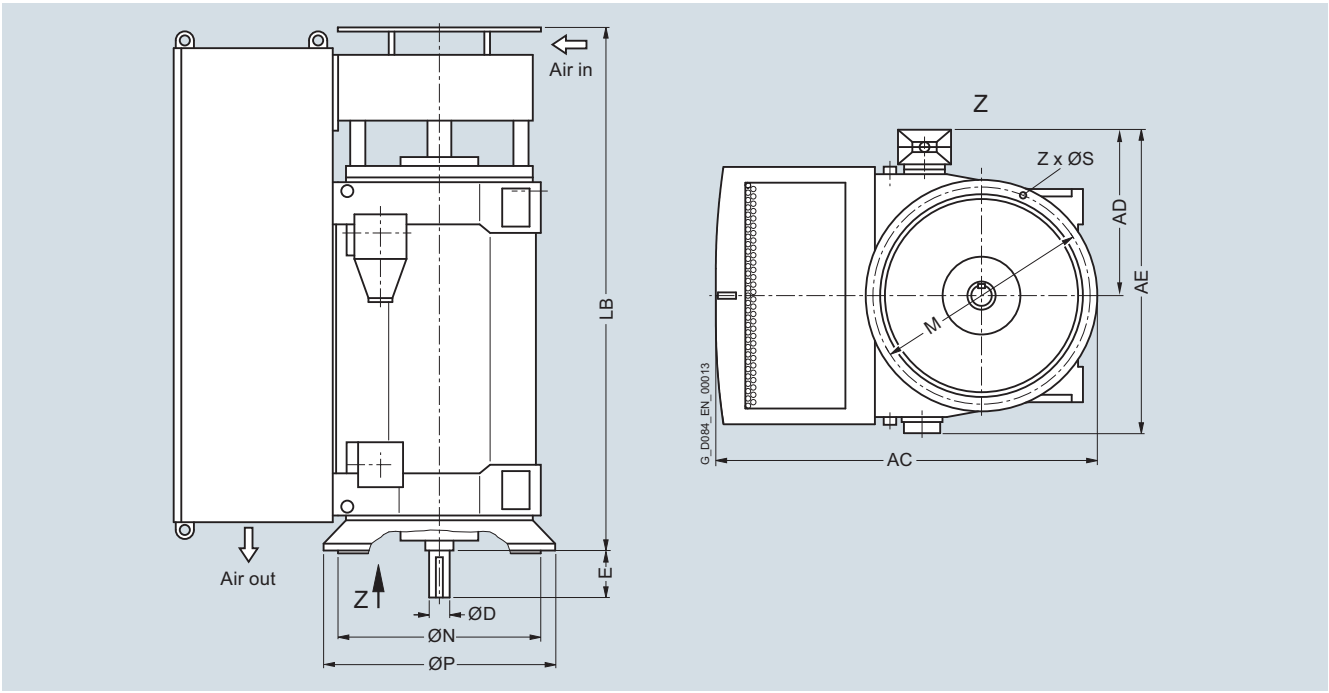
Higher pole numbers are available on request.

[1] Dimension "HD" without external blower
(2 ... 6-pole = 600mm / 8-pole + = 500 mm)

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3

Dimension drawings



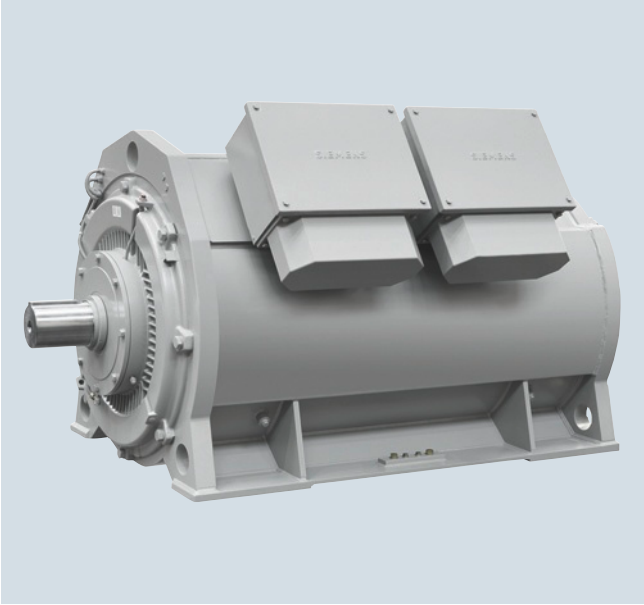
Motor type	Weight	Dimensions										
		AC	AD	AE	D	E	LB	P	N	M	S	Z
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Quantity
Up to 6.6 kV, IM V1 type of construction, anti-friction bearings, Z ventilation – 1RQ7 series – IC611												
6-pole												
1RQ7 710-6	18100	3420	1800	2900	220	350	4020	2000	1800	1900	35	24
1RQ7 712-6	19200	3420	1800	2900	220	350	4020	2000	1800	1900	35	24
1RQ7 714-6	20700	3420	1800	2900	220	350	4260	2000	1800	1900	35	24
1RQ7 716-6	21700	3420	1800	2900	220	350	4260	2000	1800	1900	35	24
8-pole												
1RQ7 710-8	16900	3050	1800	2900	220	350	4020	2000	1800	1900	35	24
1RQ7 712-8	17800	3050	1800	2900	220	350	4020	2000	1800	1900	35	24
1RQ7 714-8	19400	3050	1800	2900	220	350	4260	2000	1800	1900	35	24
1RQ7 716-8	20400	3050	1800	2900	220	350	4260	2000	1800	1900	35	24
10-pole												
1RQ7 710-3	16700	3050	1800	2900	220	350	4020	2000	1800	1900	35	24
1RQ7 712-3	17700	3050	1800	2900	220	350	4020	2000	1800	1900	35	24
1RQ7 714-3	19300	3050	1800	2900	220	350	4260	2000	1800	1900	35	24
1RQ7 716-3	20400	3050	1800	2900	220	350	4260	2000	1800	1900	35	24

Note:

Higher pole numbers are available on request.

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Overview



Technical data

Overview of technical data

H-compact 1LH4	
Rated voltage	690 V … 4.16 kV
Rated frequency	50/60 Hz
Motor type	Induction motor with squirrel-cage rotor
Type of construction	IM B3, IM B35 and IM V1
Degree of protection	IP55
Cooling method	IC71W
Stator winding insulation	Insulation system, thermal class 155 (F), utilized to 155 (F)
Shaft height	500 mm
Bearings	Anti-friction bearings
Cage material	Copper
Standards	IEC, EN
Frame design	Steel frame with water jacket

Technical data (continued)

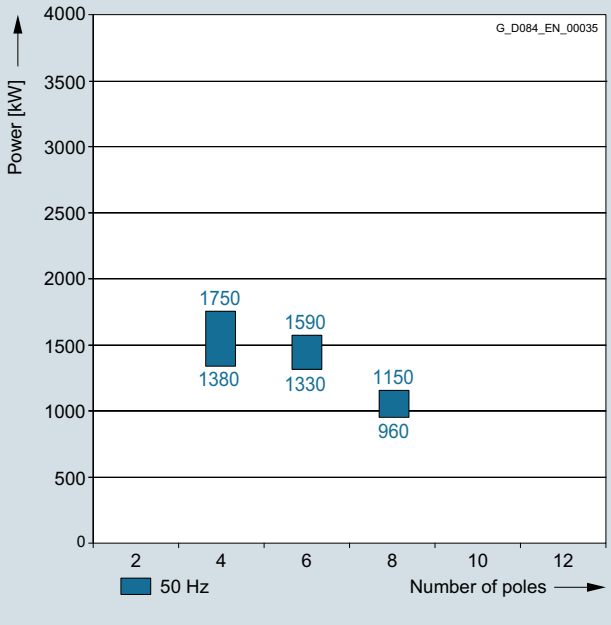
Power ranges for IEC motors with reinforced insulation for SINAMICS drive converters without sine-wave filter

1LH4 series (water-jacket-cooled)

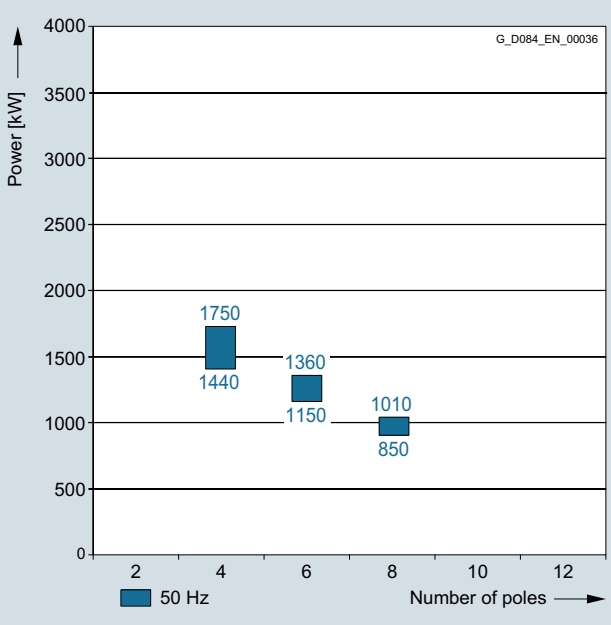
Insulation system, thermal class 155 (F), utilized to 155 (F)

The power data listed here apply for a water inlet temperature of 38 °C and an installation altitude ≤ 1000 m.

690 V; 50 Hz



2.3 to 4.16 kV; 50 Hz



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Selection and ordering data

Rated power	Low-voltage motor H-compact	Operating values at rated output for utilization 155 (F)							
IEC		Rated speed	Efficiency	Power factor	Rated current at 690 V	Rated torque	Break-down torque	Moment of inertia	Mechanical speed limit[1]
P_{rated} 155 (F)		n_{rated}	η	cos φ	I_{rated}	T_{rated}	T_B/T_{rated}	J	n_{max}
kW	Article No.	rpm	%	[-]	A	Nm	[-]	kgm²	rpm
690 V, 50 Hz									
4-pole									
1380	**1LH4 500-4CM0■**	1490	96.8	0.88	1360	8844	2.0	44	1800
1590	**1LH4 502-4CM0■**	1491	97.1	0.87	1580	10183	2.2	49	1800
1750	**1LH4 504-4CM0■**	1490	97.1	0.88	1720	11216	2.0	56	1800
6-pole									
1330	**1LH4 500-6CM0■**	994	97.0	0.85	1350	12777	2.2	82	1800
1440	**1LH4 502-6CM0■**	994	97.0	0.86	1450	13834	2.2	92	1800
1590	**1LH4 504-6CM0■**	994	97.1	0.86	1600	15275	2.2	102	1800
8-pole									
960	**1LH4 500-8CM0■**	745	96.5	0.80	1040	12305	2.0	82	1800
1030	**1LH4 502-8CM0■**	745	96.6	0.80	1120	13202	2.1	92	1800
1150	**1LH4 504-8CM0■**	745	96.7	0.80	1250	14741	2.1	102	1800

Type of construction:

IM B3	**0**
IM V1 (without canopy)	**8**

Note:

The motors for converter operation with non-sinusoidal output have, among other things, a reinforced winding insulation. Additional details see Page 3/2.
Ratings are defined for sinusoidal supply, based on IEC 60034-2-1:2007. The ratings for converter operation depend on the converter and its settings and cannot be predetermined.

Higher pole numbers are available on request.

Rated power	High voltage motor H-compact	Operating values at rated output for utilization 155 (F)							
IEC		Rated speed	Efficiency	Power factor	Rated current at 4.16 kV	Rated torque	Break-down torque	Moment of inertia	Mechanical speed limit[1]
P_{rated} 155 (F)		n_{rated}	η	cos φ	I_{rated}	T_{rated}	T_B/T_{rated}	J	n_{max}
kW	Article No.	rpm	%	[-]	A	Nm	[-]	kgm²	rpm
2.3 ... 4.16 kV, 50 Hz									
4-pole									
1440	**1LH4 500-4CV■■**	1492	97.0	0.87	235	9216	2.3	42	1800
1590	**1LH4 502-4CV■■**	1492	97.1	0.87	260	10177	2.4	47	1800
1750	**1LH4 504-4CV■■**	1492	97.2	0.88	285	11201	2.4	54	1800
6-pole									
1150	**1LH4 500-6CV■■**	994	96.9	0.86	192	11048	2.2	82	1800
1250	**1LH4 502-6CV■■**	994	97.0	0.87	205	12009	2.2	92	1800
1360	**1LH4 504-6CV■■**	994	97.0	0.87	225	13065	2.2	102	1800
8-pole									
850	**1LH4 500-8CV■■**	745	96.3	0.80	154	10895	2.0	82	1800
910	**1LH4 502-8CV■■**	745	96.4	0.80	164	11664	2.1	92	1800
1010	**1LH4 504-8CV■■**	745	96.5	0.81	180	12946	2.1	102	1800

Voltage code:

3.3 kV, 50 Hz	**2**
4.16 kV, 50 Hz	**4**
Other voltage	**9**

Type of construction:

IM B3	**0**
IM V1 (without canopy)	**8**

Note:

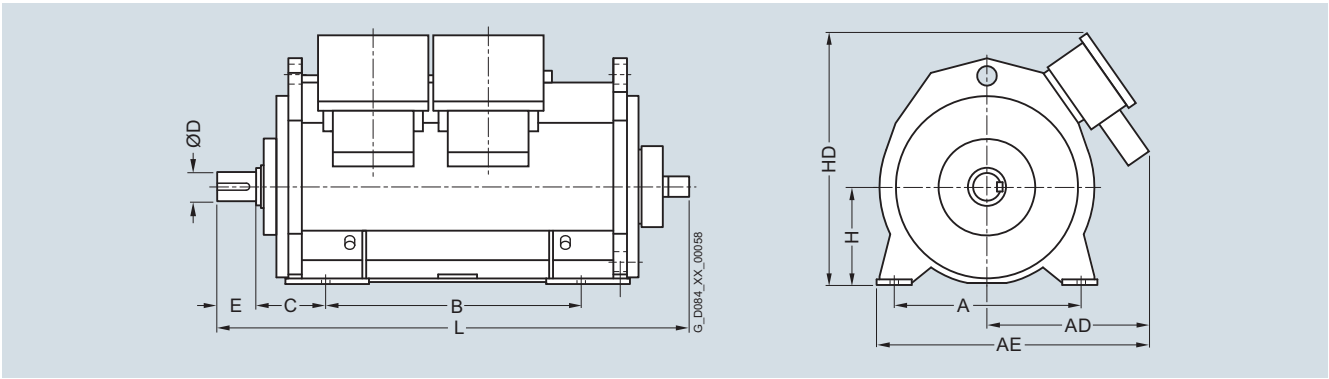
Partial load values for H-compact 1LH4 are available on request.

Higher pole numbers are available on request.

[1] For IM B3, anti-friction bearings.

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Dimension drawings



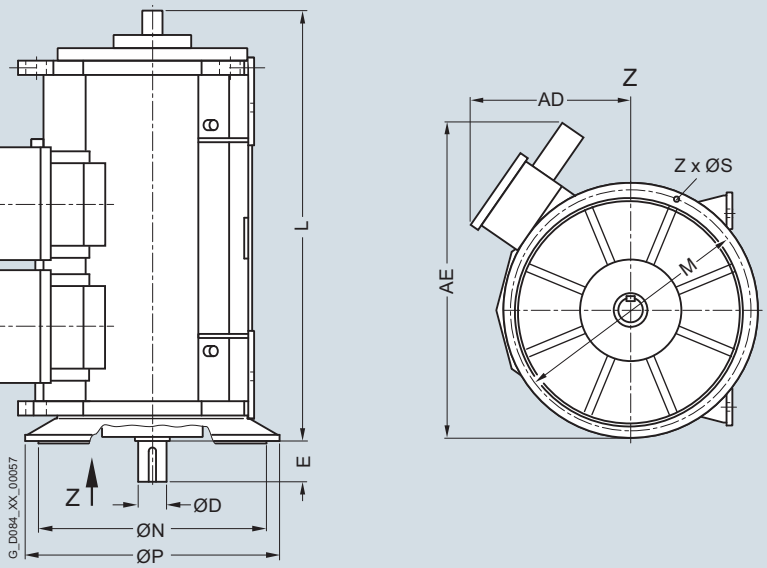
Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, anti-friction bearings, IM B3 type of construction											
4-pole											
1LH4500-4C..0	5910	950	820	1390	1320	355	150	200	500	1280	2250
1LH4502-4C..0	6310	950	820	1390	1320	355	150	200	500	1280	2250
1LH4504-4C..0	6810	950	820	1390	1320	355	150	200	500	1280	2250
6-pole											
1LH4500-6C..0	6210	950	820	1390	1320	355	150	200	500	1280	2250
1LH4502-6C..0	6610	950	820	1390	1320	355	150	200	500	1280	2250
1LH4504-6C..0	7110	950	820	1390	1320	355	150	200	500	1280	2250
8-pole											
1LH4500-8C..0	6210	950	820	1390	1320	355	150	200	500	1280	2250
1LH4502-8C..0	6510	950	820	1390	1320	355	150	200	500	1280	2250
1LH4504-8C..0	7010	950	820	1390	1320	355	150	200	500	1280	2250

Note:

Higher pole numbers are available on request.

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Dimension drawings



Motor type	Weight	Dimensions									
		AD	AE	D	E	L	P	N	M	S	Z
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, anti-friction bearings, IM V1 type of construction											
4-pole											
1LH4500-4C..8	5910	780	1450	150	200	2100	1250	1120	1180	26	16
1LH4502-4C..8	6310	780	1450	150	200	2100	1250	1120	1180	26	16
1LH4504-4C..8	6810	780	1450	150	200	2100	1250	1120	1180	26	16
6-pole											
1LH4500-6C..8	6210	780	1450	150	200	2100	1250	1120	1180	26	16
1LH4502-6C..8	6610	780	1450	150	200	2100	1250	1120	1180	26	16
1LH4504-6C..8	7110	780	1450	150	200	2100	1250	1120	1180	26	16
8-pole											
1LH4500-8C..8	6210	780	1450	150	200	2100	1250	1120	1180	26	16
1LH4502-8C..8	6510	780	1450	150	200	2100	1250	1120	1180	26	16
1LH4504-8C..8	7010	780	1450	150	200	2100	1250	1120	1180	26	16

Note:

Higher pole numbers are available on request.

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Overview



Technical data

Overview of technical data

H-compact PLUS 1RN4, 1RN6, SIMOTICS HV M 1RN7	
Rated voltage	690 V … 4.16 kV
Rated frequency	50/60 Hz
Motor type	Induction motor with squirrel-cage rotor
Type of construction	IM B3, IM V1
Degree of protection	IP55
Cooling method	IC81W
Stator winding insulation	Insulation system, thermal class 155 (F)
Shaft height	450 … 710 mm
Bearings	Anti-friction bearings, sleeve bearings
Cage material	Copper
Standards	IEC, EN
Frame design for shaft heights 450 … 560 mm	Housing: Cast iron Cooling enclosure: Steel
Frame design for shaft heights 630 … 710 mm	Housing: Steel Cooling enclosure: Steel

The following versions can be offered on request:

- 2-pole up to 75 Hz
- 4-pole up to 100 Hz
- 6-pole up to 90 Hz

For individual motor types, it must be ensured that the motor does not run-through any critical speed in the required speed control range and that the maximum speed does not exceed the mechanical speed limit of the motor! Please contact your Siemens sales person regarding this check. The motor types are marked with footnotes in the following data tables.

[1] Maximum and minimum power ratings can be diffent for specific voltage levels.

Technical data (continued)

Power ranges for IEC motors with reinforced insulation for SINAMICS converters without sine-wave filter

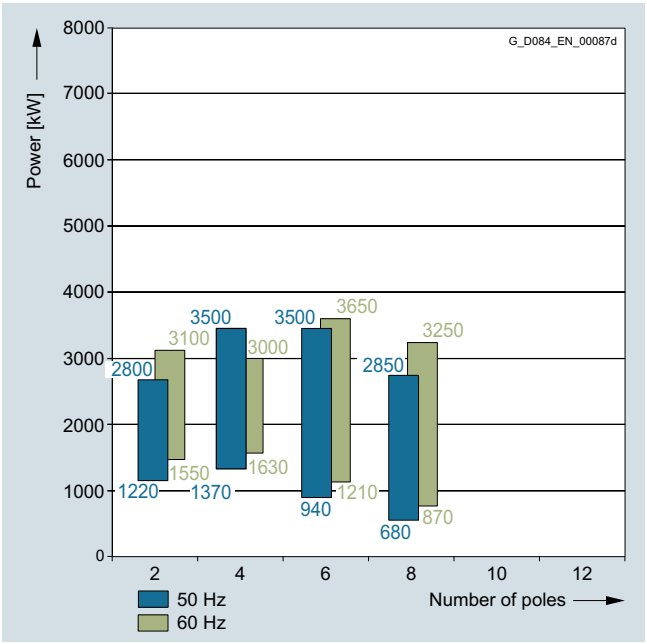
1RN4/1RN6, 1SL4/1SL6 (Ex ec) and 1SQ4/1SQ6 (Ex pxb) series

1RN7 series

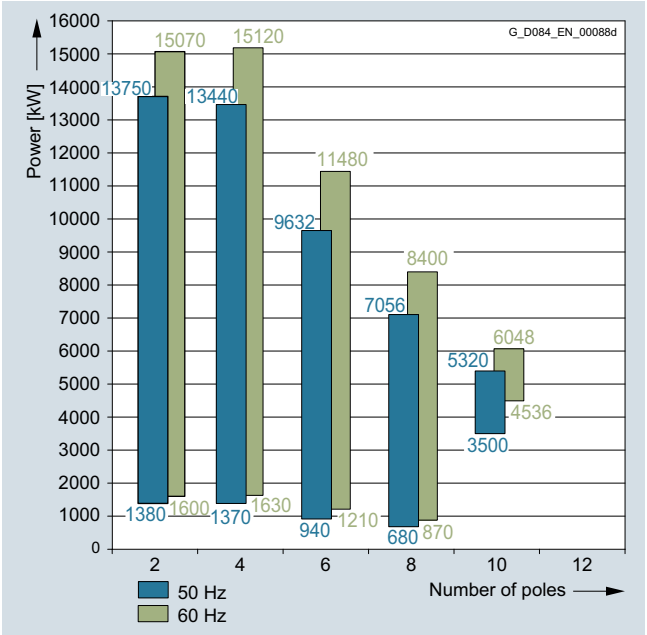
Insulation system, thermal class 155 (F)

The power data listed here apply for a water inlet temperature of 25 °C and an installation altitude ≤ 1000 m.

690 V; 50 Hz and 60 Hz



3.4 kV to 4.16 kV; 50 Hz and 60 Hz[1)]



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Selection and ordering data

Rated power	**Low voltage motor H-compact PLUS**	Operating values at rated output for utilization 155 (F)							
IEC		Rated speed	Efficiency	Power factor	Rated current 690 V	Rated torque	Break-down torque	Moment of inertia	Mechanical speed limit[1]
P_{rated} 155 (F)		n_{rated}	η	cos φ	I_{rated}	T_{rated}	T_B/T_{rated}	J	n_{max}
kW	Article No.	rpm	%	[-]	A	Nm	[-]	kgm^2	rpm
690 V, 50 Hz									
2-pole									
1220	**1RN6 450-2HP00**	2980	95.5	0.90	1180	3913	2.20	13	3000
1520	**1RN6 452-2HP00**	2980	96.0	0.90	2x740	4875	2.10	14	3000
1600	**1RN6 454-2HP00**	2983	96.2	0.92	2x760	5129	2.30	16	3000
1700	**1RN6 456-2HP00**	2983	96.2	0.92	2x800	5445	2.30	18	3000
2250	**1RN6 500-2HP00**	2975	96.4	0.90	2x1080	7222	2.30	19	3000
2550	**1RN6 502-2HP00**	2974	96.6	0.90	2x1220	8188	2.10	20	3000
2800	**1RN6 504-2HP00**	2977	96.7	0.92	4x660	8982	2.50	24	3000[3]
4-pole									
1370	**1RN6 450-4HP0■**	1484	95.6	0.89	2x670	8833	2.40	20	1800
1500	**1RN6 452-4HP0■**	1484	95.6	0.90	2x730	9671	2.40	22	1800
1640	**1RN6 454-4HP0■**	1484	96.0	0.90	2x790	10568	2.40	25	1800
1860	**1RN6 456-4HP0■**	1485	96.2	0.90	2x900	11977	2.30	29	1800
2300[2]	**1RN6 500-4HP00**	1486	96.6	0.90	2x1100	14780	2.35	42	1800
2350[2]	**1RN6 502-4HP00**	1486	96.6	0.92	2x1100	15102	2.50	46	1800
2800[2]	**1RN6 504-4HP00**	1488	96.9	0.90	4x670	17969	2.60	52	1800
3200[2]	**1RN6 560-4HP00**	1486	96.8	0.92	4x750	20564	2.15	82	1800
3500[2]	**1RN6 562-4HP00**	1487	96.9	0.92	4x820	22476	2.15	93	1800

Type of construction:	
IM B3	**0**
IM V1 (without canopy)	**8**

Note:

The motors for converter operation with non-sinusoidal output have, among other things, a reinforced winding insulation.
Additional details see Page 3/2.
Ratings are defined for sinusoidal supply, based on IEC 60034-2-1:2007.
The ratings for converter operation depend on the converter and its settings and cannot be predetermined.

Higher pole numbers are available on request.

[1] For IM B3, anti-friction bearings.

[2] Data of vertical motors (IM V1) on request.

[3] There are speed exclusion ranges for this type. It must be ensured that the motors are not continuously operated in these speed ranges. The exclusion ranges must be clarified in advance in the factory.

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Motor type (repeated)	Partial load values for square-law torque drive											
	P/P_{rated} 155 (F) = 75 %				P/P_{rated} 155 (F) = 50 %				P/P_{rated} 155 (F) = 25 %			
	P	n	η	cos φ	P	n	η	cos φ	P	n	η	cos φ
	kW	rpm	%	[-]	kW	rpm	%	[-]	kW	rpm	%	[-]
												Square-law torque drive
2-pole												
1RN6 450-2...	916	2709	95.8	0.91	610	2371	96.0	0.90	305	1883	96.0	0.85
1RN6 452-2...	1141	2708	96.4	0.91	760	2371	96.6	0.91	380	1883	96.5	0.87
1RN6 454-2...	1201	2710	96.5	0.92	800	2372	96.6	0.91	400	1884	96.6	0.87
1RN6 456-2...	1276	2711	96.5	0.92	850	2373	96.7	0.92	425	1884	96.6	0.88
1RN6 500-2...	1688	2708	96.6	0.89	1125	2369	96.7	0.87	563	1883	96.7	0.79
1RN6 502-2...	1913	2707	96.8	0.89	1275	2368	96.9	0.87	638	1882	96.9	0.81
1RN6 504-2...	2101	2710	96.9	0.91	1400	2370	97.0	0.90	701	1883	97.0	0.84
4-pole												
1RN6 450-4...	1028	1350	95.9	0.88	685	1182	96.1	0.86	343	940	95.9	0.79
1RN6 452-4...	1125	1350	96.0	0.90	750	1182	96.2	0.88	375	940	96.2	0.83
1RN6 454-4...	1230	1350	96.3	0.90	820	1183	96.5	0.89	410	940	96.4	0.84
1RN6 456-4...	1395	1351	96.5	0.89	930	1183	96.6	0.88	465	941	96.5	0.82
1RN6 500-4..	1726	1353	96.7	0.89	1150	1183	96.9	0.86	575	941	96.8	0.77
1RN6 502-4..	1763	1353	96.8	0.91	1175	1184	96.9	0.88	588	941	96.9	0.80
1RN6 504-4..	2100	1354	97.0	0.89	1400	1184	97.1	0.86	700	941	96.9	0.74
1RN6 560-4..	2401	1353	97.0	0.91	1600	1184	97.2	0.90	801	941	97.3	0.85
1RN6 562-4..	2626	1354	97.1	0.91	1750	1184	97.3	0.90	876	941	97.3	0.85

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Selection and ordering data

Rated power	**Low voltage motor H-compact PLUS**	Operating values at rated output for utilization 155 (F)							
IEC		Rated speed	Efficiency	Power factor	Rated current 690 V	Rated torque	Break-down torque	Moment of inertia	Mechanical speed limit[1]
P_{rated} 155 (F)		n_{rated}	η	cos φ	I_{rated}	T_{rated}	T_B/T_{rated}	J	n_{max}
kW	Article No.	rpm	%	[-]	A	Nm	[-]	kgm^2	rpm
690 V, 50 Hz									
6-pole									
940	**1RN6 450-6HP0■**	990	95.8	0.86	950	9079	2.30	26	1200
1040	**1RN6 452-6HP0■**	991	95.9	0.86	1060	10039	2.30	29	1200
1180	**1RN6 454-6HP0■**	991	96.0	0.86	1200	11394	2.30	32	1200
1330	**1RN6 456-6HP0■**	992	96.2	0.86	2x670	12823	2.30	37	1200
1800	**1RN6 500-6HP0■**	988	96.0	0.85	2x920	17399	1.75	56	1500
2000	**1RN6 502-6HP0■**	988	96.2	0.86	2x1020	19332	1.80	62	1500
2300	**1RN6 504-6HP0■**	989	96.4	0.85	2x1180	22209	1.95	69	1500
2400	**1RN6 506-6HP0■**	990	96.4	0.86	2x1220	23152	1.95	77	1500
2850	**1RN6 560-6HP0■**	990	96.6	0.87	3x950	27492	2.25	108	1500
3200	**1RN6 562-6HP0■**	991	96.9	0.86	3x1080	30838	2.45	119	1500
3500	**1RN6 564-6HP0■**	990	96.8	0.88	3x1140	33763	2.20	132	1500
8-pole									
680	**1RN6 450-8HP0■**	743	94.9	0.83	720	8750	2.30	32	1200
750	**1RN6 452-8HP0■**	743	95.2	0.84	780	9651	2.40	36	1200
880	**1RN6 454-8HP0■**	743	95.2	0.84	920	11324	2.40	40	1200
970	**1RN6 456-8HP0■**	744	95.4	0.84	1020	12476	2.40	46	1200
1400	**1RN6 500-8HP0■**	741	95.8	0.83	2x740	18043	1.85	69	1125
1560	**1RN6 502-8HP0■**	742	95.9	0.83	2x820	20078	1.85	76	1125
1720	**1RN6 504-8HP0■**	742	96.0	0.83	2x900	22137	1.95	85	1125
1900	**1RN6 506-8HP0■**	743	96.2	0.83	2x1000	24421	2.10	94	1125
1960	**1RN6 560-8HP0■**	743	96.6	0.84	2x1020	25192	2.15	128	1125
2300	**1RN6 562-8HP0■**	743	96.6	0.84	2x1180	29563	2.20	141	1125
2600	**1RN6 564-8HP0■**	743	96.7	0.84	4x670	33419	2.45	156	1125
2850	**1RN6 566-8HP0■**	743	96.7	0.85	4x730	36632	2.25	173	1125

Type of construction:	
IM B3	**0**
IM V1 (without canopy)	**8**

Note:

The motors for converter operation with non-sinusoidal output have, among other things, a reinforced winding insulation.
Additional details see Page 3/2.
Ratings are defined for sinusoidal supply, based on IEC 60034-2-1:2007.
The ratings for converter operation depend on the converter and its settings and cannot be predetermined.

Higher pole numbers are available on request.

[1] For IM B3, anti-friction bearings.

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Motor type (repeated)	Partial load values for square-law torque drive											
	P/P_{rated} 155 (F) = 75 %				P/P_{rated} 155 (F) = 50 %				P/P_{rated} 155 (F) = 25 %			
	P	n	η	cos φ	P	n	η	cos φ	P	n	η	cos φ
	kW	rpm	%	[-]	kW	rpm	%	[-]	kW	rpm	%	[-]
												Square-law torque drive
6-pole												
1RN6 450-6...	705	900	96.1	0.85	470	789	96.3	0.82	235	627	96.2	0.73
1RN6 452-6...	780	901	96.3	0.85	520	789	96.4	0.82	260	627	96.3	0.73
1RN6 454-6...	885	901	96.3	0.85	590	789	96.4	0.83	295	627	96.4	0.74
1RN6 456-6...	998	902	96.5	0.84	665	789	96.6	0.81	333	627	96.3	0.71
1RN6 500-6...	1350	898	96.3	0.85	900	787	96.4	0.84	450	626	96.3	0.78
1RN6 502-6...	1500	898	96.4	0.86	1000	787	96.6	0.84	500	626	96.4	0.78
1RN6 504-6...	1725	899	96.5	0.85	1150	787	96.6	0.83	575	626	96.4	0.75
1RN6 506-6...	1800	900	96.6	0.86	1200	788	96.7	0.84	600	626	96.5	0.77
1RN6 560-6...	2138	900	96.7	0.87	1425	788	96.8	0.86	713	627	96.7	0.80
1RN6 562-6...	2400	901	97.0	0.86	1600	789	97.0	0.84	800	627	96.7	0.76
1RN6 564-6...	2625	900	97.0	0.88	1750	788	97.1	0.87	875	626	97.0	0.82
8-pole												
1RN6 450-8...	510	676	95.1	0.80	340	592	95.0	0.75	170	470	94.4	0.63
1RN6 452-8...	563	676	95.4	0.81	375	592	95.4	0.77	188	470	94.9	0.65
1RN6 454-8...	660	676	95.4	0.82	440	592	95.4	0.77	220	470	94.8	0.65
1RN6 456-8...	728	676	95.6	0.82	485	592	95.6	0.77	243	470	95.1	0.65
1RN6 500-8...	1050	674	95.9	0.82	700	590	95.9	0.80	350	469	95.5	0.70
1RN6 502-8...	1170	674	96.0	0.82	780	591	96.1	0.80	390	469	95.6	0.70
1RN6 504-8...	1290	675	96.1	0.82	860	591	96.1	0.79	430	470	95.7	0.70
1RN6 506-8...	1425	675	96.3	0.82	950	591	96.2	0.78	475	470	95.6	0.67
1RN6 560-8...	1470	675	96.7	0.84	980	591	96.8	0.82	490	470	96.6	0.73
1RN6 562-8...	1725	675	96.7	0.84	1150	591	96.8	0.81	575	470	96.5	0.72
1RN6 564-8...	1950	676	96.8	0.83	1300	592	96.8	0.79	650	470	96.4	0.69
1RN6 566-8...	2138	675	96.8	0.84	1425	591	96.9	0.82	713	470	96.6	0.74

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Selection and ordering data

Rated power		High voltage motor H-compact PLUS	Operating values at rated output for utilization 155 (F)							
IEC			Rated speed	Efficiency	Power factor	Rated current at 4.16 kV	Rated torque	Break-down torque	Moment of inertia	Mechanical speed limit[2]
P_{rated} 155 (F)	P_{rated} 130 (B)		n_{rated}	η	cos φ	I_{rated}	T_{rated}	T_B/T_{rated}	J	n_{max}
kW	kW	Article No.	rpm	%	[-]	A	Nm	[-]	kgm^2	rpm
3.4 ... 4.16 kV, 50 Hz										
2-pole										
1380	–[6]	**1RN6 450-2HS40**	2973	95.9	0.90	220	4433	2.00	13	3000
1570	–[6]	**1RN6 452-2HS40**	2977	96.2	0.90	250	5040	2.20	14	3000
1750	–[6]	**1RN6 454-2HS40**	2978	96.4	0.91	275	5616	2.30	16	3000
1950	–[6]	**1RN6 456-2HS40**	2981	96.6	0.92	305	6252	2.30	18	3000
2550	2244	**1RN6 500-2HS40**	2967	96.2	0.89	415	8207	1.90	19	3000
2700	2376	**1RN6 502-2HS40**	2969	96.3	0.90	430	8684	2.00	20	3000
3200	2816	**1RN6 504-2HS40**	2974	96.6	0.91	510	10275	2.40	24	3000[5]
3550	3124	**1RN6 506-2HS40**	2975	96.9	0.92	550	11395	2.40	26	3000[5]
3700	3367	**1RN6 560-2HS40**	2977	96.7	0.90	590	11868	1.90	39	3000[5]
4300	3913	**1RN6 562-2HS40**	2979	97.0	0.90	680	13784	2.05	43	3000[5]
5000	4550	**1RN6 564-2HS40**	2981	97.1	0.90	790	16017	2.25	49	3000[5]
5700	5187	**1RN6 566-2HS40**	2982	97.3	0.90	2x450	18253	2.45	54	3000[5]
4-pole										
1370	–[6]	**1RN6 450-4HS4■**	1484	95.6	0.88	225	8824	2.60	20	1800
1500	–[6]	**1RN6 452-4HS4■**	1485	95.8	0.88	245	9649	2.50	22	1800
1640	–[6]	**1RN6 454-4HS4■**	1485	96.0	0.89	265	10549	2.50	25	1800
1860	–[6]	**1RN6 456-4HS4■**	1485	96.1	0.90	300	11966	2.50	29	1800
2500[4]	2200	**1RN6 500-4HS40**	1485	96.4	0.90	400	16076	2.25	42	1800
2800[4]	2464	**1RN6 502-4HS40**	1485	96.5	0.90	445	18005	2.25	46	1800
3150[4]	2772	**1RN6 504-4HS40**	1485	96.6	0.91	495	20256	2.25	52	1800
3450[1][4]	3036	**1RN6 506-4HS40**	1486	96.8	0.91	540	22170	2.35	56	1800
3900[4]	3549	**1RN6 560-4HS40**	1489	97.0	0.89	630	25012	1.95	84	1800
4500[4]	4095	**1RN6 562-4HS40**	1489	97.1	0.90	710	28860	2.00	94	1800
5000[4]	4550	**1RN6 564-4HS40**	1490	97.2	0.91	780	32045	2.10	105	1800
5500[4]	5005	**1RN6 566-4HS40**	1490	97.4	0.91	2x430	35249	2.20	115	1800
5880[1]	–[6]	**1RN4 632-4HV■■**	1490	97.2	0.89	940	37687	2.20	150	1800
6470[1]	–[6]	**1RN4 634-4HV■■**	1490	97.3	0.90	1020	41469	2.20	168	1800
6960[1]	–[6]	**1RN4 636-4HV■■**	1491	97.4	0.90	1100	44579	2.40	197	1800

Voltage code:	
4.16 kV, 50 Hz	**4**
Other voltage	**9**
Type of construction:	
IM B3	**0**
IM V1 (without canopy)	**8**

Note:

The motors for converter operation with non-sinusoidal output have, among other things, a reinforced winding insulation.
Additional details see Page 3/2.
Ratings are defined for sinusoidal supply, based on IEC 60034-2-1:2007.
The ratings for converter operation depend on the converter and its settings and cannot be predetermined.

1) Rated voltage < 4.16 kV on request.
2) For IM B3, anti-friction bearings.
3) On request.
4) Data of vertical motors (IM V1) on request.
5) There are speed exclusion ranges for this type. It must be ensured that the motors are not continuously operated in these speed ranges. The exclusion ranges must be clarified in advance in the factory.
6) Utilization 130 (B) on request.

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Motor type (repeated)	Partial load values for square-law torque drive											
	P/P_{rated} 155 (F) = 75 %				P/P_{rated} 155 (F) = 50 %				P/P_{rated} 155 (F) = 25 %			
	P	n	η	cos φ	P	n	η	cos φ	P	n	η	cos φ
	kW	rpm	%	[-]	kW	rpm	%	[-]	kW	rpm	%	[-]
												Square-law torque drive
2-pole												
1RN6 450-2...	1035	2704	96.1	0.91	690	2368	96.3	0.91	345	1882	96.4	0.87
1RN6 452-2...	1178	2707	96.4	0.91	785	2370	96.5	0.90	393	1883	96.4	0.87
1RN6 454-2...	1313	2707	96.6	0.92	875	2370	96.7	0.91	438	1883	96.6	0.88
1RN6 456-2...	1464	2709	96.8	0.92	975	2371	96.9	0.91	488	1884	96.8	0.88
1RN6 500-2...	1914	2704	96.5	0.88	1276	2366	96.6	0.87	638	1881	96.7	0.81
1RN6 502-2...	2026	2705	96.5	0.90	1350	2367	96.7	0.88	675	1882	96.7	0.83
1RN6 504-2...	2401	2708	96.8	0.90	1600	2369	96.9	0.89	801	1883	96.8	0.81
1RN6 506-2...	2663	2708	97.0	0.91	1775	2369	97.1	0.90	888	1883	97.1	0.83
1RN6 560-2...	2777	2709	96.9	0.90	1851	2370	97.0	0.89	925	1883	97.0	0.84
1RN6 562-2...	3226	2711	97.1	0.90	2151	2371	97.2	0.89	1076	1884	97.2	0.84
1RN6 564-2...	3751	2712	97.3	0.91	2500	2371	97.3	0.90	1251	1884	97.3	0.85
1RN6 566-2...	4276	2713	97.4	0.92	2850	2372	97.5	0.91	1426	1885	97.4	0.85
4-pole												
1RN6 450-4...	1028	1350	95.8	0.87	685	1183	96.0	0.85	343	940	95.8	0.78
1RN6 452-4...	1125	1351	96.0	0.87	750	1183	96.1	0.85	375	941	95.9	0.77
1RN6 454-4...	1230	1351	96.2	0.89	820	1183	96.3	0.87	410	941	96.2	0.80
1RN6 456-4...	1395	1351	96.3	0.90	930	1183	96.5	0.88	465	941	96.4	0.83
1RN6 500-4...	1876	1352	96.6	0.89	1250	1183	96.7	0.86	625	941	96.5	0.77
1RN6 502-4...	2101	1352	96.7	0.89	1400	1183	96.8	0.86	700	941	96.6	0.77
1RN6 504-4...	2363	1353	96.8	0.90	1575	1183	96.9	0.88	788	941	96.8	0.79
1RN6 506-4...	2588	1353	96.9	0.90	1725	1184	97.0	0.88	863	941	96.9	0.79
1RN6 560-4...	2927	1355	97.1	0.89	1950	1185	97.2	0.87	976	942	97.1	0.80
1RN6 562-4...	3377	1355	97.2	0.90	2250	1185	97.4	0.88	1126	942	97.3	0.82
1RN6 564-4...	3752	1356	97.4	0.90	2500	1185	97.5	0.89	1251	942	97.4	0.82
1RN6 566-4...	4126	1356	97.5	0.90	2750	1186	97.6	0.88	1376	942	97.4	0.81
1RN4 632-4...	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]
1RN4 634-4...	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]
1RN4 636-4...	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]

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Selection and ordering data (continued)

Rated power		High voltage motor H-compact PLUS	Operating values at rated output for utilization 155 (F)							
IEC			Rated speed	Efficiency	Power factor	Rated current at 4.16 kV	Rated torque	Break-down torque	Moment of inertia	Mechanical speed limit[2]
P_{rated} 155 (F)	P_{rated} 130 (B)		n_{rated}	η	cos φ	I_{rated}	T_{rated}	T_B/T_{rated}	J	n_{max}
kW	kW	Article No.	rpm	%	[-]	A	Nm	[-]	kgm^2	rpm
3.4 ... 4.16 kV, 50 Hz										
6-pole										
940	–[4]	**1RN6 450-6HS4■**	990	95.7	0.85	160	9071	2.40	26	1200
1040	–[4]	**1RN6 452-6HS4■**	991	95.9	0.85	178	10026	2.50	29	1200
1180	–[4]	**1RN6 454-6HS4■**	991	96.1	0.86	198	11381	2.50	32	1200
1330	–[4]	**1RN6 456-6HS4■**	992	96.2	0.85	225	12811	2.50	37	1200
2000	1800	**1RN6 500-6HS4■**	987	95.8	0.84	345	19352	1.75	56	1500
2200	2000	**1RN6 502-6HS4■**	986	95.8	0.85	375	21308	1.65	62	1500
2450	2200	**1RN6 504-6HS4■**	987	96.0	0.85	415	23706	1.70	69	1500
2650	2400	**1RN6 506-6HS4■**	988	96.2	0.86	445	25615	1.80	77	1500
3150	2750	**1RN6 560-6HS4■**	989	96.5	0.86	530	30417	2.05	108	1500
3500	3100	**1RN6 562-6HS4■**	989	96.5	0.87	580	33797	2.05	119	1500
3900	3450	**1RN6 564-6HS4■**	989	96.6	0.87	640	37659	2.10	132	1500
4250	3750	**1RN6 566-6HS4■**	989	96.7	0.87	700	41039	2.05	146	1500
4610[1]	–[4]	**1RN4 632-6HV■■**	993	97.0	0.86	770	44336	2.10	202	1200
5000[1]	–[4]	**1RN4 634-6HV■■**	993	97.1	0.86	830	48087	2.30	223	1200
5490[1]	–[4]	**1RN4 636-6HV■■**	994	97.2	0.86	910	52746	2.30	246	1200
8-pole										
680	–[4]	**1RN6 450-8HS4■**	743	94.7	0.82	122	8743	2.50	32	1200
750	–[4]	**1RN6 452-8HS4■**	744	95.0	0.82	134	9638	2.50	36	1200
880	–[4]	**1RN6 454-8HS4■**	743	95.1	0.83	154	11318	2.50	40	1200
970	–[4]	**1RN6 456-8HS4■**	743	95.3	0.85	166	12477	2.40	46	1200
1360	1220	**1RN6 500-8HS4■**	741	95.4	0.83	240	17528	1.75	69	1125
1540	1380	**1RN6 502-8HS4■**	741	95.6	0.83	270	19848	1.80	76	1125
1740	1560	**1RN6 504-8HS4■**	742	95.8	0.83	305	22395	1.90	85	1125
1880	1700	**1RN6 506-8HS4■**	743	95.8	0.84	325	24164	2.00	94	1125
2200	1940	**1RN6 560-8HS4■**	741	96.1	0.84	380	28354	1.90	128	1125
2500	2200	**1RN6 562-8HS4■**	741	96.2	0.84	430	32220	1.95	141	1125
2750	2400	**1RN6 564-8HS4■**	742	96.4	0.84	470	35394	2.05	156	1125
3000	2640	**1RN6 566-8HS4■**	742	96.5	0.85	510	38612	2.10	173	1125
3140[1]	–[4]	**1RN4 630-8HV■■**	743	96.5	0.85	530	40359	1.90	239	1200
3430[1]	–[4]	**1RN4 632-8HV■■**	743	96.7	0.85	580	44087	2.10	265	1200
3680[1]	–[4]	**1RN4 634-8HV■■**	743	96.7	0.85	620	47300	2.00	293	1200
4020[1]	–[4]	**1RN4 636-8HV■■**	744	96.9	0.84	690	51601	2.30	324	1200

Voltage code:	
4.16 kV, 50 Hz	**4**
Other voltage	**9**
Type of construction:	
IM B3	**0**
IM V1 (without canopy)	**8**

Note:

The motors for converter operation with non-sinusoidal output have, among other things, a reinforced winding insulation.
Additional details see Page 3/2.
Ratings are defined for sinusoidal supply, based on IEC 60034-2-1:2007.
The ratings for converter operation depend on the converter and its settings and cannot be predetermined.
Higher pole numbers are available on request.

[1] Rated voltage < 4.16 kV on request.
[2] For IM B3, anti-friction bearings.
[3] On request.
[4] Utilization 130 (B) on request.

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Motor type (repeated)	Partial load values for square-law torque drive											
	P/P_{rated} 155 (F) = 75 %				P/P_{rated} 155 (F) = 50 %				P/P_{rated} 155 (F) = 25 %			
	P	n	η	cos φ	P	n	η	cos φ	P	n	η	cos φ
	kW	rpm	%	[-]	kW	rpm	%	[-]	kW	rpm	%	[-]
												Square-law torque drive
6-pole												
1RN6 450-6...	705	901	96.0	0.84	470	789	96.1	0.81	235	627	96.0	0.71
1RN6 452-6...	780	901	96.1	0.84	520	789	96.2	0.80	260	627	96.0	0.70
1RN6 454-6...	885	901	96.3	0.85	590	789	96.4	0.82	295	627	96.3	0.73
1RN6 456-6...	998	902	96.4	0.83	665	790	96.5	0.80	333	627	96.2	0.69
1RN6 500-6...	1500	898	96.1	0.84	1000	786	96.2	0.83	500	625	96.1	0.75
1RN6 502-6...	1650	897	96.1	0.85	1100	786	96.3	0.84	550	625	96.3	0.78
1RN6 504-6...	1838	897	96.3	0.85	1225	786	96.5	0.85	613	625	96.4	0.79
1RN6 506-6...	1988	898	96.4	0.86	1325	787	96.6	0.85	663	626	96.5	0.78
1RN6 560-6...	2363	899	96.7	0.87	1575	788	96.8	0.86	788	626	96.8	0.81
1RN6 562-6...	2625	899	96.7	0.87	1750	788	96.9	0.87	875	626	96.8	0.82
1RN6 564-6...	2925	900	96.8	0.87	1950	788	97.0	0.86	975	626	96.9	0.81
1RN6 566-6...	3188	899	96.9	0.88	2125	788	97.1	0.87	1063	626	97.0	0.82
1RN4 632-6...	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]
1RN4 634-6...	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]
1RN4 636-6...	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]
8-pole												
1RN6 450-8...	510	676	94.8	0.80	340	592	94.7	0.75	170	470	94.0	0.63
1RN6 452-8...	563	676	95.1	0.80	375	592	95.1	0.75	188	470	94.4	0.62
1RN6 454-8...	660	676	95.3	0.82	440	592	95.3	0.78	220	470	94.8	0.66
1RN6 456-8...	728	676	95.5	0.83	485	592	95.5	0.80	243	470	95.1	0.69
1RN6 500-8...	1020	674	95.7	0.83	680	590	95.8	0.81	340	469	95.4	0.72
1RN6 502-8...	1155	674	95.8	0.83	770	590	95.9	0.81	385	469	95.5	0.72
1RN6 504-8...	1305	674	96.0	0.83	870	591	96.0	0.80	435	470	95.6	0.71
1RN6 506-8...	1410	675	95.9	0.82	940	591	95.9	0.79	470	470	95.4	0.69
1RN6 560-8...	1650	674	96.3	0.84	1100	590	96.5	0.83	550	469	96.5	0.76
1RN6 562-8...	1875	674	96.4	0.84	1250	590	96.6	0.83	625	469	96.5	0.76
1RN6 564-8...	2063	674	96.6	0.84	1375	591	96.7	0.82	688	470	96.6	0.75
1RN6 566-8...	2250	675	96.7	0.85	1500	591	96.8	0.83	750	470	96.7	0.75
1RN4 630-8...	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]
1RN4 632-8...	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]
1RN4 634-8...	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]
1RN4 636-8...	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]	O. R.[3]

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Selection and ordering data

Rated power IEC		High voltage motor SIMOTICS HV M (modular)	Operating values at rated output for utilization 130 (B)							
			Rated speed	Efficiency	Power factor	Rated current at 4.16 kV	Rated torque	Break-down torque	Moment of inertia	Mechanical speed limit[1]
P_{rated} 155 (F)	P_{rated} 130 (B)		n_{rated}	η	cos φ	I_{rated}	T_{rated}	T_B/T_{rated}	J	n_{max}
kW	kW	Article No.	rpm	%	[-]	A	Nm	[-]	kgm^2	rpm
3.4 ... 4.16 kV, 50 Hz										
2-pole										
9900	9000	**1RN7 710-2■■40-0CJ0**	2986	97.4	0.91	1400	28782	2.00	148	3600
11000	10000	**1RN7 712-2■■40-0CJ0**	2985	97.5	0.91	1560	31991	2.00	160	3600
12320	11200	**1RN7 714-2■■40-0CJ0**	2987	97.6	0.92	1740	35806	2.25	175	3600
13750	12500	**1RN7 716-2■■40-0CJ0**	2986	97.7	0.92	1940	39975	2.25	190	3600
4-pole										
9744	8700	**1RN7 710-4■■40-0C■0**	1491	97.5	0.90	1380	55720	2.15	262	1800
10864	9700	**1RN7 712-4■■40-0C■0**	1491	97.6	0.90	1540	62125	2.15	286	1800
12096	10800	**1RN7 714-4■■40-0C■0**	1492	97.7	0.91	1680	69124	2.35	321	1800
13440	12000	**1RN7 716-4■■40-0C■0**	1492	97.8	0.91	1880	76804	2.35	361	1800
6-pole										
7056	6300	**1RN7 710-6■■4■-0C■0**	994	97.2	0.86	1040	60524	2.10	350	1800
7840	7000	**1RN7 712-6■■4■-0C■0**	994	97.3	0.86	1160	67249	2.15	398	1800
8624	7700	**1RN7 714-6■■4■-0C■0**	995	97.5	0.87	1260	73899	2.30	450	1800
9632	8600	**1RN7 716-6■■4■-0C■0**	995	97.5	0.86	1420	82537	2.30	496	1800
8-pole										
5040	4500	**1RN7 710-8■■4■-0C■0**	745	96.9	0.85	760	57680	1.90	433	1000
5600	5000	**1RN7 712-8■■4■-0C■0**	745	97.0	0.85	840	64089	1.95	493	1000
6272	5600	**1RN7 714-8■■4■-0C■0**	745	97.1	0.86	930	71780	2.00	558	1000
7056	6300	**1RN7 716-8■■4■-0C■0**	745	97.2	0.86	1040	80752	2.15	617	1000
10-pole										
3920	3500	**1RN7 710-3■■4■-0C■0**	595	96.6	0.84	600	56172	2.20	429	900
4312	3850	**1RN7 712-3■■4■-0C■0**	595	96.7	0.85	650	61790	2.20	489	900
4816	4300	**1RN7 714-3■■4■-0C■0**	595	96.8	0.84	730	69012	2.20	551	900
5320	4750	**1RN7 716-3■■4■-0C■0**	595	96.9	0.85	800	76234	2.20	613	900

Cooling method
See page 1/8

Motor for line operation or for converter operation
See page 1/9

Type of construction
See page 1/9

Housing and bearing version
See page 1/9

Note:

The motors for converter operation with non-sinusoidal output have, among other things, a reinforced winding insulation.
Additional details see Page 3/2.
Ratings are defined for sinusoidal supply, based on IEC 60034-2-1:2007.
The ratings for converter operation depend on the converter and its settings and cannot be predetermined.

Higher pole numbers are available on request.

[1] For IM B3, anti-friction bearings.

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Motor type (repeated)	Partial load values for square-law torque drive											
	P/P_{rated} 130 (B) = 75 %				P/P_{rated} 130 (B) = 50 %				P/P_{rated} 130 (B) = 25 %			
	P	n	η	cos φ	P	n	η	cos φ	P	n	η	cos φ
	kW	rpm	%	[-]	kW	rpm	%	[-]	kW	rpm	%	[-]
												Square-law torque drive
2-pole												
1RN7 710-2...	6749	2713	97.4	0.92	4499	2374	97.3	0.92	2249	1885	97.0	0.89
1RN7 712-2...	7500	2712	97.5	0.92	5000	2373	97.4	0.93	2499	1885	97.2	0.91
1RN7 714-2...	8404	2713	97.6	0.93	5603	2374	97.5	0.93	2802	1885	97.2	0.90
1RN7 716-2...	9375	2713	97.7	0.93	6250	2374	97.6	0.93	3124	1885	97.3	0.91
4-pole												
1RN7 710-4...	6527	1355	97.5	0.91	4359	1186	97.5	0.91	2181	942	97.2	0.89
1RN7 712-4...	7277	1355	97.6	0.91	4860	1186	97.6	0.91	2431	942	97.3	0.88
1RN7 714-4...	8105	1356	97.7	0.91	5412	1186	97.6	0.91	2708	942	97.3	0.88
1RN7 716-4...	9006	1356	97.8	0.92	6014	1186	97.7	0.92	3009	942	97.5	0.89
6-pole												
1RN7 710-6...	4728	903	97.2	0.85	3157	790	97.0	0.84	1580	628	96.5	0.77
1RN7 712-6...	5254	903	97.3	0.86	3508	791	97.1	0.85	1756	628	96.7	0.78
1RN7 714-6...	5778	904	97.4	0.86	3859	791	97.2	0.84	1930	628	96.7	0.77
1RN7 716-6...	6453	904	97.4	0.86	4309	791	97.2	0.83	2155	628	96.7	0.75
8-pole												
1RN7 710-8...	3379	677	96.8	0.85	2257	592	96.7	0.84	1130	471	96.2	0.77
1RN7 712-8...	3754	677	97.0	0.85	2507	593	96.8	0.84	1255	471	96.3	0.77
1RN7 714-8...	4204	677	97.1	0.86	2808	593	96.9	0.84	1405	471	96.4	0.78
1RN7 716-8...	4729	677	97.1	0.85	3158	593	96.9	0.83	1580	471	96.4	0.76
10-pole												
1RN7 710-3...	2627	541	96.5	0.83	1755	473	96.3	0.79	878	376	95.7	0.68
1RN7 712-3...	2890	541	96.7	0.84	1930	473	96.5	0.81	966	376	95.9	0.71
1RN7 714-3...	3227	541	96.7	0.83	2156	474	96.5	0.80	1079	376	95.8	0.69
1RA7 716-3...	3565	541	96.8	0.84	2381	473	96.6	0.81	1192	376	96.0	0.71

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Selection and ordering data

Rated power	**Low voltage motor H-compact PLUS**	Operating values at rated output for utilization 155 (F)							
IEC		Rated speed	Efficiency	Power factor	Rated current 690 V	Rated torque	Break-down torque	Moment of inertia	Mechanical speed limit[1]
P_{rated} 155 (F)		n_{rated}	η	cos φ	I_{rated}	T_{rated}	T_B/T_{rated}	J	n_{max}
kW	Article No.	rpm	%	[-]	A	Nm	[-]	kgm^2	rpm
690 V, 60 Hz									
2-pole									
1550	**1RN6 450-2HP10**	3578	95.9	0.90	2x750	4140	1.90	13	3600[2]
1650	**1RN6 452-2HP10**	3581	96.0	0.91	2x790	4403	2.20	14	3600[2]
1720	**1RN6 454-2HP10**	3584	96.1	0.91	2x820	4586	2.40	16	3600[2]
2180	**1RN6 456-2HP10**	3584	96.7	0.92	2x1020	5814	2.40	18	3600[2]
2500	**1RN6 500-2HP10**	3579	96.7	0.90	2x1200	6670	2.55	20	3600[2]
2750	**1RN6 502-2HP10**	3577	96.6	0.91	4x650	7342	2.35	22	3600[2]
3100	**1RN6 504-2HP10**	3581	97.0	0.92	4x730	8267	2.55	25	3600[2]
4-pole									
1630	**1RN6 450-4HP1■**	1784	95.9	0.88	2x810	8740	2.30	20	1800
1750	**1RN6 452-4HP1■**	1783	96.0	0.90	2x850	9385	2.30	22	1800
2070	**1RN6 454-4HP1■**	1783	96.2	0.90	2x1000	11104	2.30	25	1800
2310	**1RN6 456-4HP1■**	1786	96.4	0.89	2x1120	12364	2.50	29	1800
2700[4]	**1RN6 500-4HP10**	1788	96.9	0.90	4x650	14420	2.80	42	1800[3]
2850[4]	**1RN6 502-4HP10**	1786	96.9	0.91	4x680	15238	2.50	46	1800[3]
3000[4]	**1RN6 504-4HP10**	1786	97.0	0.92	4x700	16040	2.40	52	1800[3]

Type of construction:	
IM B3	**0**
IM V1 (without canopy)	**8**

Note:

The motors for converter operation with non-sinusoidal output have, among other things, a reinforced winding insulation.
Additional details, see Page 3/2.
Ratings are defined for sinusoidal supply, based on IEC 60034-2-1:2007.
The ratings for converter operation depend on the converter and its settings and cannot be predetermined.

Higher pole numbers are available on request.

[1] For IM B3, anti-friction bearings.

[2] There are speed exclusion ranges for this type. It must be ensured that the motors are not continuously operated in these speed ranges. The exclusion ranges must be clarified in advance in the factory.

[3] Higher speed limit on request.

[4] Data of vertical motors (IM V1) on request.

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Motor type (repeated)	Partial load values for square-law torque drive											
	P/P_{rated} 155 (F) = 75 %				P/P_{rated} 155 (F) = 50 %				P/P_{rated} 155 (F) = 25 %			
	P	n	η	cos φ	P	n	η	cos φ	P	n	η	cos φ
	kW	rpm	%	[-]	kW	rpm	%	[-]	kW	rpm	%	[-]
												Square-law torque drive
2-pole												
1RN6 450-2...	1164	3253	96.2	0.90	775	2844	96.3	0.90	388	2261	96.2	0.86
1RN6 452-2...	1239	3255	96.3	0.92	825	2845	96.4	0.91	413	2262	96.3	0.87
1RN6 454-2...	1291	3257	96.3	0.92	860	2847	96.4	0.91	430	2262	96.2	0.86
1RN6 456-2...	1636	3258	96.9	0.92	1090	2847	96.9	0.91	545	2263	96.7	0.87
1RN6 500-2...	1876	3256	96.8	0.89	1250	2846	96.8	0.87	626	2261	96.6	0.77
1RN6 502-2...	2064	3254	96.8	0.90	1375	2846	96.9	0.89	688	2261	96.8	0.82
1RN6 504-2...	2325	3257	97.1	0.91	1550	2847	97.1	0.89	776	2262	97.0	0.82
4-pole												
1RN6 450-4...	1223	1623	96.1	0.88	815	1420	96.2	0.86	408	1129	95.9	0.78
1RN6 452-4...	1313	1623	96.3	0.90	875	1419	96.4	0.89	438	1129	96.3	0.84
1RN6 454-4...	1553	1623	96.5	0.90	1035	1419	96.6	0.89	518	1129	96.5	0.85
1RN6 456-4...	1733	1625	96.6	0.89	1155	1421	96.6	0.87	578	1130	96.3	0.79
1RN6 500-4...	2025	1627	97.0	0.88	1351	1422	97.0	0.83	675	1130	96.6	0.70
1RN6 502-4...	2138	1626	97.0	0.90	1425	1422	97.1	0.87	713	1130	96.9	0.78
1RN6 504-4...	2251	1625	97.1	0.91	1500	1421	97.2	0.90	750	1130	97.2	0.83

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Selection and ordering data

Rated power	**Low voltage motor H-compact PLUS**	Operating values at rated output for utilization 155 (F)							
IEC		Rated speed	Efficiency	Power factor	Rated current 690 V	Rated torque	Break-down torque	Moment of inertia	Mechanical speed limit[1]
P_{rated} 155 (F)		n_{rated}	η	cos φ	I_{rated}	T_{rated}	T_B/T_{rated}	J	n_{max}
kW	Article No.	rpm	%	[-]	A	Nm	[-]	kgm^2	rpm
690 V, 60 Hz									
6-pole									
1210	**1RN6 450-6HP1■**	1191	96.1	0.85	2x620	9718	2.40	26	1200
1350	**1RN6 452-6HP1■**	1191	96.3	0.84	2x700	10837	2.40	29	1200
1480	**1RN6 454-6HP1■**	1191	96.3	0.86	2x750	11883	2.30	32	1200
1620	**1RN6 456-6HP1■**	1192	96.6	0.86	2x820	12995	2.40	37	1200
2150	**1RN6 500-6HP1■**	1190	96.5	0.84	2x1100	17254	2.10	56	1500
2400	**1RN6 502-6HP1■**	1188	96.5	0.85	2x1220	19293	1.85	62	1500
2700	**1RN6 504-6HP1■**	1190	96.7	0.84	3x930	21668	2.15	69	1500
2950	**1RN6 506-6HP1■**	1189	96.7	0.86	3x990	23694	1.90	77	1500
3300	**1RN6 560-6HP1■**	1191	96.9	0.87	3x1100	26461	2.30	108	1500
3650	**1RN6 562-6HP1■**	1190	96.8	0.87	3x1200	29292	2.10	119	1500
8-pole									
870	**1RN6 450-8HP1■**	893	95.3	0.84	910	9323	2.30	32	1200
960	**1RN6 452-8HP1■**	892	95.4	0.84	1000	10290	2.20	36	1200
1050	**1RN6 454-8HP1■**	893	95.5	0.84	1100	11239	2.40	40	1200
1180	**1RN6 456-8HP1■**	893	95.7	0.85	1220	12636	2.30	46	1200
1600	**1RN6 500-8HP1■**	892	96.0	0.83	2x840	17130	1.85	69	1125
1800	**1RN6 502-8HP1■**	892	96.1	0.83	2x940	19271	1.90	76	1125
2000	**1RN6 504-8HP1■**	893	96.3	0.83	2x1040	21389	2.05	85	1125
2200	**1RN6 506-8HP1■**	893	96.4	0.83	2x1160	23527	2.05	94	1125
2250	**1RN6 560-8HP1■**	893	96.7	0.84	2x1160	24062	2.30	128	1125
2600	**1RN6 562-8HP1■**	893	96.8	0.84	4x670	27805	2.25	141	1125
2900	**1RN6 564-8HP1■**	894	96.9	0.83	4x750	30979	2.65	156	1125
3250	**1RN6 566-8HP1■**	893	97.0	0.85	4x820	34756	2.35	173	1125

Type of construction:	
IM B3	**0**
IM V1 (without canopy)	**8**

Note:

The motors for converter operation with non-sinusoidal output have, among other things, a reinforced winding insulation.
Additional details, see Page 3/2.
Ratings are defined for sinusoidal supply, based on IEC 60034-2-1:2007.
The ratings for converter operation depend on the converter and its settings and cannot be predetermined.

Higher pole numbers are available on request.

[1] For IM B3, anti-friction bearings.

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Motor type (repeated)	Partial load values for square-law torque drive											
	P/P_{rated} 155 (F) = 75 %				P/P_{rated} 155 (F) = 50 %				P/P_{rated} 155 (F) = 25 %			
	P	n	η	cos φ	P	n	η	cos φ	P	n	η	cos φ
	kW	rpm	%	[-]	kW	rpm	%	[-]	kW	rpm	%	[-]
												Square-law torque drive
6-pole												
1RN6 450-6...	908	1083	96.3	0.82	605	947	96.4	0.79	303	753	96.0	0.67
1RN6 452-6...	1013	1083	96.5	0.82	675	947	96.5	0.78	338	753	96.2	0.67
1RN6 454-6...	1110	1083	96.5	0.84	740	947	96.6	0.81	370	753	96.3	0.71
1RN6 456-6...	1215	1084	96.8	0.84	810	947	96.8	0.81	405	753	96.5	0.71
1RN6 500-6...	1613	1082	96.5	0.83	1075	946	96.5	0.79	538	752	96.0	0.69
1RN6 502-6...	1800	1081	96.6	0.86	1200	945	96.7	0.84	600	752	96.5	0.78
1RN6 504-6...	2025	1082	96.7	0.83	1350	946	96.7	0.80	675	752	96.2	0.69
1RN6 506-6...	2213	1081	96.8	0.86	1475	946	96.9	0.85	738	752	96.7	0.78
1RN6 560-6...	2475	1083	97.0	0.87	1650	947	97.0	0.86	825	753	96.7	0.79
1RN6 562-6...	2738	1082	97.0	0.88	1825	946	97.1	0.87	913	752	97.0	0.83
8-pole												
1RN6 450-8...	653	812	95.5	0.81	435	710	95.4	0.77	218	565	94.9	0.66
1RN6 452-8...	720	812	95.7	0.83	480	710	95.6	0.79	240	565	95.2	0.68
1RN6 454-8...	788	812	95.6	0.81	525	710	95.6	0.77	263	565	95.0	0.65
1RN6 456-8...	885	812	95.9	0.83	590	710	95.8	0.79	295	565	95.3	0.69
1RN6 500-8...	1200	811	96.1	0.83	800	709	96.1	0.80	400	564	95.7	0.71
1RN6 502-8...	1350	811	96.2	0.83	900	709	96.2	0.80	450	564	95.7	0.71
1RN6 504-8...	1500	812	96.3	0.82	1000	710	96.3	0.79	500	564	95.7	0.69
1RN6 506-8...	1650	812	96.4	0.82	1100	710	96.3	0.79	550	564	95.7	0.69
1RN6 560-8...	1688	812	96.8	0.84	1125	710	96.8	0.81	563	564	96.5	0.72
1RN6 562-8...	1950	812	96.9	0.84	1300	710	96.9	0.82	650	564	96.6	0.73
1RN6 564-8...	2175	813	96.9	0.82	1450	710	96.8	0.78	725	565	96.3	0.67
1RN6 566-8...	2438	812	97.1	0.84	1625	710	97.0	0.81	813	565	96.7	0.72

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Selection and ordering data

Rated power		High voltage motor H-compact PLUS	Operating values at rated output for utilization 155 (F)							
IEC			Rated speed	Efficiency	Power factor	Rated current at 4.16 kV	Rated torque	Break-down torque	Moment of inertia	Mechanical speed limit[2]
P_{rated} 155 (F)	P_{rated} 130 (B)		n_{rated}	η	cos φ	I_{rated}	T_{rated}	T_B/T_{rated}	J	n_{max}
kW	kW	Article No.	rpm	%	[-]	A	Nm	[-]	kgm²	rpm
3.4 ... 4.16 kV, 60 Hz										
2-pole										
1600	–[5]	**1RN6 450-2HS30**	3576	96.0	0.89	260	4274	2.10	13	3600[3]
1850	–[5]	**1RN6 452-2HS30**	3578	96.3	0.91	295	4941	2.30	14	3600[3]
2060	–[5]	**1RN6 454-2HS30**	3579	96.6	0.91	325	5500	2.30	16	3600[3]
2300	–[5]	**1RN6 456-2HS30**	3581	96.8	0.92	360	6137	2.40	18	3600[3]
3000	2640	**1RN6 500-2HS30**	3572	96.5	0.89	485	8020	2.05	20	3600[3]
3250	2860	**1RN6 502-2HS30**	3570	96.5	0.89	530	8693	1.95	22	3600[3]
3700	3256	**1RN6 504-2HS30**	3576	96.8	0.91	580	9880	2.30	25	3600[3]
4200	3696	**1RN6 506-2HS30**	3577	97.1	0.92	650	11212	2.45	27	3600[3]
4600	4186	**1RN6 560-2HS30**	3577	96.8	0.90	730	12280	1.90	39	3600[3]
5100	4641	**1RN6 562-2HS30**	3579	96.9	0.91	2x400	13608	2.05	43	3600[3]
5900	5369	**1RN6 564-2HS30**	3580	97.1	0.92	2x460	15738	2.15	49	3600[3]
6700	6097	**1RN6 566-2HS30**	3582	97.3	0.92	2x520	17862	2.45	54	3600[3]
4-pole										
1630	–[5]	**1RN6 450-4HS3■**	1782	95.7	0.89	265	8742	2.30	20	1800
1750	–[5]	**1RN6 452-4HS3■**	1783	95.9	0.89	285	9375	2.40	22	1800
2070	–[5]	**1RN6 454-4HS3■**	1784	96.1	0.90	330	11088	2.50	25	1800
2310	–[5]	**1RN6 456-4HS3■**	1786	96.3	0.89	375	12358	2.50	29	1800
3100[4]	2728	**1RN6 500-4HS30**	1785	96.7	0.90	495	16584	2.30	42	1800
3450[4]	3036	**1RN6 502-4HS30**	1785	96.8	0.90	550	18457	2.20	46	1800
3800[4]	3344	**1RN6 504-4HS30**	1786	97.0	0.91	600	20318	2.35	52	1800
4100[4]	3608	**1RN6 506-4HS30**	1787	97.0	0.91	640	21909	2.40	56	1800
4700[4]	4277	**1RN6 560-4HS30**	1789	97.2	0.90	750	25088	1.95	84	1800
5400[4]	4914	**1RN6 562-4HS30**	1789	97.3	0.90	2x430	28824	1.95	94	1800
6000[4]	5460	**1RN6 564-4HS30**	1789	97.4	0.91	2x470	32027	2.05	105	1800
6600[4]	6006	**1RN6 566-4HS30**	1790	97.5	0.91	2x520	35210	2.10	115	1800
7400[1]	–[5]	**1RN4 632-4HV5■**	1790	97.3	0.89	1180	39480	1.90	150	1800

Type of construction:	
IM B3	**0**
IM V1 (without canopy)	**8**

Note:

The motors for converter operation with non-sinusoidal output have, among other things, a reinforced winding insulation.
Additional details see Page 3/2.
Ratings are defined for sinusoidal supply, based on IEC 60034-2-1:2007.
The ratings for converter operation depend on the converter and its settings and cannot be predetermined.

[1] Rated voltage < 4.16 kV on request

[2] For IM B3, anti-friction bearings.

[3] There are speed exclusion ranges for this type. It must be ensured that the motors are not continuously operated in these speed ranges. The exclusion ranges must be clarified in advance in the factory.

[4] Data of vertical motors (IM V1) on request.

[5] Utilization 130 (B) on request.

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Motor type (repeated)	Partial load values for square-law torque drive											
	P/P_{rated} 155 (F) = 75 %				P/P_{rated} 155 (F) = 50 %				P/P_{rated} 155 (F) = 25 %			
	P	n	η	cos φ	P	n	η	cos φ	P	n	η	cos φ
	kW	rpm	%	[-]	kW	rpm	%	[-]	kW	rpm	%	[-]
												Square-law torque drive
2-pole												
1RN6 450-2...	1201	3251	96.1	0.90	800	2843	96.2	0.90	400	2260	96.1	0.85
1RN6 452-2...	1389	3253	96.4	0.91	925	2844	96.5	0.91	463	2261	96.3	0.87
1RN6 454-2...	1545	3254	96.7	0.91	1030	2845	96.7	0.90	515	2261	96.5	0.86
1RN6 456-2...	1725	3256	96.9	0.92	1150	2846	96.9	0.91	575	2262	96.7	0.87
1RN6 500-2...	2251	3251	96.7	0.89	1500	2844	96.8	0.87	750	2260	96.6	0.79
1RN6 502-2...	2439	3250	96.7	0.89	1626	2843	96.8	0.88	813	2259	96.8	0.83
1RN6 504-2...	2776	3254	97.0	0.91	1850	2845	97.0	0.89	926	2261	96.9	0.83
1RN6 506-2...	3151	3254	97.2	0.91	2100	2846	97.2	0.89	1051	2261	97.1	0.83
1RN6 560-2...	3452	3255	96.9	0.90	2301	2846	97.0	0.88	1150	2262	96.9	0.83
1RN6 562-2...	3827	3256	97.0	0.90	2551	2847	97.1	0.89	1275	2262	97.0	0.84
1RN6 564-2...	4427	3257	97.3	0.91	2951	2848	97.3	0.90	1476	2262	97.2	0.85
1RN6 566-2...	5026	3258	97.4	0.92	3350	2849	97.4	0.90	1676	2263	97.2	0.83
4-pole												
1RN6 450-4...	1224	1622	96.0	0.89	815	1419	96.1	0.88	408	1129	96.0	0.83
1RN6 452-4...	1313	1623	96.1	0.89	875	1420	96.2	0.88	438	1129	96.1	0.82
1RN6 454-4...	1553	1623	96.3	0.90	1035	1420	96.4	0.89	518	1129	96.3	0.83
1RN6 456-4...	1733	1624	96.5	0.89	1155	1421	96.5	0.87	578	1130	96.2	0.80
1RN6 500-4...	2326	1625	96.8	0.89	1550	1421	96.8	0.86	775	1130	96.6	0.75
1RN6 502-4...	2589	1625	96.9	0.89	1725	1421	96.9	0.86	863	1130	96.8	0.77
1RN6 504-4...	2851	1626	97.1	0.90	1900	1422	97.1	0.87	950	1130	96.8	0.78
1RN6 506-4...	3076	1626	97.1	0.90	2050	1422	97.1	0.87	1025	1130	96.8	0.77
1RN6 560-4...	3527	1628	97.3	0.89	2350	1423	97.3	0.87	1176	1131	97.2	0.80
1RN6 562-4...	4052	1628	97.4	0.90	2701	1423	97.5	0.89	1351	1131	97.4	0.83
1RN6 564-4...	4502	1628	97.5	0.90	3000	1423	97.5	0.89	1501	1131	97.4	0.82
1RN6 566-4...	4952	1628	97.6	0.91	3300	1423	97.7	0.90	1651	1131	97.5	0.84
1RN4 632-4...	5550	1626	97.5	0.90	3700	1421	97.1	0.87	1850	1128	96.5	0.75

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Selection and ordering data

Rated power		High voltage motor H-compact PLUS	Operating values at rated output for utilization 155 (F)							
IEC			Rated speed	Efficiency	Power factor	Rated current at 4.16 kV	Rated torque	Break-down torque	Moment of inertia	Mechanical speed limit[2]
P_{rated} 155 (F)	P_{rated} 130 (B)		n_{rated}	η	cos φ	I_{rated}	T_{rated}	T_B/T_{rated}	J	n_{max}
kW	kW	Article No.	rpm	%	[-]	A	Nm	[-]	kgm^2	rpm
3.4 ... 4.16 kV, 60 Hz										
6-pole										
1210	–[3]	**1RN6 450-6HS3■**	1190	96.0	0.84	210	9715	2.40	26	1200
1350	–[3]	**1RN6 452-6HS3■**	1191	96.2	0.85	230	10833	2.40	29	1200
1480	–[3]	**1RN6 454-6HS3■**	1191	96.3	0.85	250	11875	2.50	32	1200
1620	–[3]	**1RN6 456-6HS3■**	1191	96.4	0.87	270	12995	2.50	37	1200
2350	2100	**1RN6 500-6HS3■**	1187	96.0	0.85	400	18907	1.65	56	1500
2600	2350	**1RN6 502-6HS3■**	1188	96.4	0.84	445	20901	1.85	62	1500
2900	2600	**1RN6 504-6HS3■**	1187	96.3	0.85	490	23332	1.70	69	1500
3100	2800	**1RN6 506-6HS3■**	1188	96.4	0.86	520	24920	1.75	77	1500
3750	3300	**1RN6 560-6HS3■**	1189	96.6	0.86	630	30120	2.00	108	1500
4250	3750	**1RN6 562-6HS3■**	1189	96.8	0.86	710	34136	2.05	119	1500
4700	4150	**1RN6 564-6HS3■**	1190	96.9	0.87	770	37718	2.15	132	1500
5100	4500	**1RN6 566-6HS3■**	1190	97.0	0.87	840	40929	2.20	146	1500
8-pole										
870	–[3]	**1RN6 450-8HS3■**	893	95.2	0.81	156	9308	2.50	32	1200
960	–[3]	**1RN6 452-8HS3■**	893	95.3	0.82	170	10269	2.50	36	1200
1050	–[3]	**1RN6 454-8HS3■**	893	95.4	0.84	182	11239	2.40	40	1200
1180	–[3]	**1RN6 456-8HS3■**	894	95.6	0.82	210	12613	2.50	46	1200
1640	1480	**1RN6 500-8HS3■**	891	95.7	0.83	285	17578	1.75	69	1125
1840	1660	**1RN6 502-8HS3■**	892	96.0	0.83	320	19700	1.90	76	1125
2050	1860	**1RN6 504-8HS3■**	892	96.0	0.84	355	21948	1.80	85	1125
2300	2050	**1RN6 506-8HS3■**	892	96.1	0.84	395	24624	1.95	94	1125
2650	2350	**1RN6 560-8HS3■**	892	96.4	0.84	455	28372	1.95	128	1125
3000	2650	**1RN6 562-8HS3■**	891	96.5	0.84	510	32155	1.90	141	1125
3300	2900	**1RN6 564-8HS3■**	891	96.6	0.84	560	35370	1.90	156	1125
3500	3100	**1RN6 566-8HS3■**	892	96.8	0.85	590	37472	2.05	173	1125

Type of construction:	
IM B3	**0**
IM V1 (without canopy)	**8**

Note:

The motors for converter operation with non-sinusoidal output have, among other things, a reinforced winding insulation.
Additional details see Page 3/2.
Ratings are defined for sinusoidal supply, based on IEC 60034-2-1:2007.
The ratings for converter operation depend on the converter and its settings and cannot be predetermined.

Higher pole numbers are available on request.

[1] Rated voltage < 4.16 kV on request.
[2] For IM B3, anti-friction bearings.
[3] Utilization 130 (B) on request.

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Motor type (repeated)	Partial load values for square-law torque drive											
	P/P_{rated} 155 (F) = 75 %				P/P_{rated} 155 (F) = 50 %				P/P_{rated} 155 (F) = 25 %			
	P	n	η	cos φ	P	n	η	cos φ	P	n	η	cos φ
	kW	rpm	%	[-]	kW	rpm	%	[-]	kW	rpm	%	[-]
												Square-law torque drive
6-pole												
1RN6 450-6...	908	1083	96.2	0.83	605	947	96.2	0.80	303	753	96.0	0.69
1RN6 452-6...	1013	1083	96.3	0.84	675	947	96.4	0.80	338	753	96.1	0.70
1RN6 454-6...	1110	1083	96.5	0.84	740	947	96.5	0.81	370	753	96.3	0.71
1RN6 456-6...	1215	1083	96.6	0.86	810	947	96.7	0.83	405	753	96.5	0.74
1RN6 500-6...	1763	1079	96.3	0.85	1175	944	96.4	0.84	588	751	96.3	0.78
1RN6 502-6...	1950	1081	96.5	0.84	1300	945	96.6	0.82	650	752	96.3	0.74
1RN6 504-6...	2175	1080	96.5	0.85	1450	945	96.6	0.85	725	751	96.5	0.79
1RN6 506-6...	2325	1081	96.6	0.86	1550	945	96.7	0.85	775	752	96.6	0.79
1RN6 560-6...	2813	1081	96.8	0.87	1875	946	96.9	0.87	938	752	96.8	0.82
1RN6 562-6...	3188	1082	97.0	0.87	2125	946	97.0	0.86	1063	752	96.9	0.81
1RN6 564-6...	3525	1082	97.0	0.87	2350	946	97.1	0.86	1175	752	96.9	0.80
1RN6 566-6...	3825	1082	97.1	0.88	2550	946	97.2	0.87	1275	753	97.0	0.81
8-pole												
1RN6 450-8...	653	812	95.2	0.79	435	710	95.1	0.74	218	565	94.3	0.61
1RN6 452-8...	720	812	95.4	0.80	480	710	95.3	0.75	240	565	94.5	0.62
1RN6 454-8...	788	812	95.5	0.83	525	710	95.5	0.79	263	565	95.0	0.69
1RN6 456-8...	885	813	95.6	0.79	590	711	95.5	0.75	295	565	94.8	0.62
1RN6 500-8...	1230	810	95.9	0.83	820	709	95.9	0.81	410	564	95.5	0.72
1RN6 502-8...	1380	811	96.0	0.82	920	709	96.0	0.79	460	564	95.5	0.70
1RN6 504-8...	1538	811	96.1	0.83	1025	709	96.1	0.81	513	564	95.7	0.72
1RN6 506-8...	1725	811	96.2	0.83	1150	709	96.1	0.80	575	564	95.6	0.71
1RN6 560-8...	1988	811	96.6	0.84	1325	709	96.7	0.83	663	564	96.5	0.75
1RN6 562-8...	2250	810	96.7	0.85	1500	709	96.8	0.83	750	564	96.7	0.77
1RN6 564-8...	2475	811	96.8	0.85	1650	709	96.9	0.84	825	564	96.8	0.77
1RN6 566-8...	2625	811	96.9	0.85	1750	709	97.0	0.83	875	564	96.8	0.76

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Selection and ordering data

Rated power IEC		High voltage motor SIMOTICS HV M (modular)	Operating values at rated output for utilization 130 (B)							
			Rated speed	Efficiency	Power factor	Rated current at 4.16 kV	Rated torque	Break-down torque	Moment of inertia	Mechanical speed limit[1]
P_{rated} 155 (F)	P_{rated} 130 (B)		n_{rated}	η	cos φ	I_{rated}	T_{rated}	T_B/T_{rated}	J	n_{max}
kW	kW	Article No.	rpm	%	[-]	A	Nm	[-]	kgm^2	rpm
3.4 ... 4.16 kV, 60 Hz										
2-pole										
11660	10600	**1RN7 710-2■■30-0CJ0**	3585	97.3	0.91	1660	28235	2.05	148	3600
12980	11800	**1RN7 712-2■■30-0CJ0**	3586	97.4	0.91	1840	31423	2.05	158	3600
14300	13000	**1RN7 714-2■■30-0CJ0**	3586	97.5	0.93	1980	34618	2.25	175	3600
15070	13700	**1RN7 716-2■■30-0CJ0**	3586	97.5	0.93	2100	36482	2.25	189	3600
4-pole										
10976	9800	**1RN7 710-4■■30-0CJ0**	1791	97.6	0.90	1540	52252	2.15	262	1800
12208	10900	**1RN7 712-4■■30-0CJ0**	1792	97.6	0.90	1720	58084	2.15	286	1800
13552	12100	**1RN7 714-4■■30-0CJ0**	1792	97.7	0.91	1880	64479	2.35	321	1800
15120	13500	**1RN7 716-4■■30-0CJ0**	1792	97.8	0.91	2100	71939	2.35	362	1800
6-pole										
8400	7500	**1RN7 710-6■■3■-0C■0**	1194	97.4	0.86	1240	59983	2.15	350	1800
9296	8300	**1RN7 712-6■■3■-0C■0**	1195	97.4	0.86	1380	66326	2.20	396	1800
10304	9200	**1RN7 714-6■■3■-0C■0**	1195	97.5	0.85	1540	73518	2.35	448	1800
11480	10250	**1RN7 716-6■■3■-0C■0**	1195	97.6	0.86	1700	81908	2.35	496	1800
8-pole										
5936	5300	**1RN7 710-8■■3■-0C■0**	895	97.0	0.84	900	56549	2.05	433	1000
6720	6000	**1RN7 712-8■■3■-0C■0**	895	97.1	0.85	1000	64018	2.10	493	1000
7504	6700	**1RN7 714-8■■3■-0C■0**	895	97.3	0.86	1120	71486	2.10	558	1000
8400	7500	**1RN7 716-8■■3■-0C■0**	896	97.3	0.86	1240	79933	2.10	616	1000
10-pole										
4536	4050	**1RN7 710-3■■3■-0C■0**	715	96.8	0.85	680	54090	2.20	430	900
4984	4450	**1RN7 712-3■■3■-0C■0**	715	96.9	0.85	750	59433	2.20	488	900
5488	4900	**1RN7 714-3■■3■-0C■0**	715	96.9	0.85	830	65443	2.20	552	900
6048	5400	**1RN7 716-3■■3■-0C■0**	715	97.0	0.86	900	72121	2.20	613	900

Cooling method
See page 1/8

Motor for line operation or for converter operation
See page 1/9

Type of construction
See page 1/9

Housing and bearing version
See page 1/9

Note:

The motors for converter operation with non-sinusoidal output have, among other things, a reinforced winding insulation.
Additional details see Page 3/2.
Ratings are defined for sinusoidal supply, based on IEC 60034-2-1:2007.
The ratings for converter operation depend on the converter and its settings and cannot be predetermined.

Higher pole numbers are available on request.

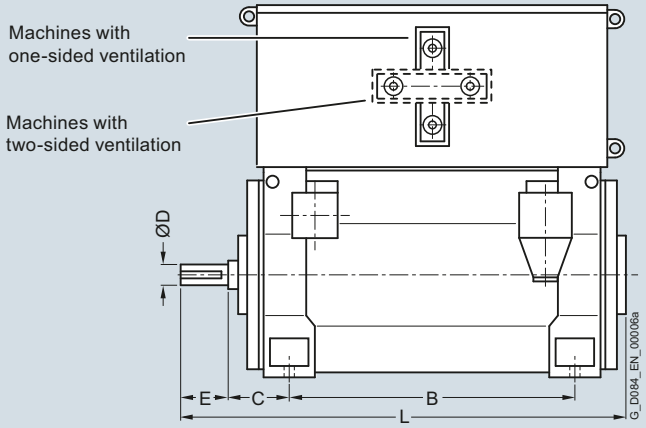
[1] For IM B3, anti-friction bearings.

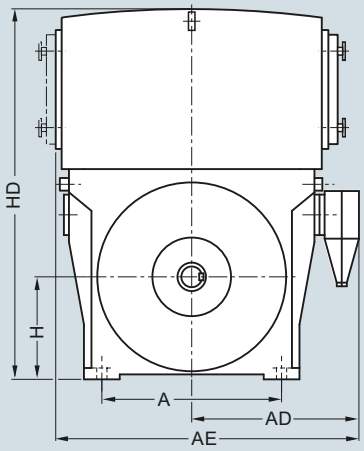
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Motor type (repeated)	Partial load values for square-law torque drive											
	P/P_{rated} 130 (B) = 75 %				P/P_{rated} 130 (B) = 50 %				P/P_{rated} 130 (B) = 25 %			
	P	n	η	cos φ	P	n	η	cos φ	P	n	η	cos φ
	kW	rpm	%	[-]	kW	rpm	%	[-]	kW	rpm	%	[-]
												Square-law torque drive
2-pole												
1RN7 710-2...	7947	3258	97.2	0.92	5298	2847	97.1	0.92	2649	2263	96.8	0.90
1RN7 712-2...	8850	3258	97.4	0.92	5900	2847	97.3	0.92	2949	2263	96.9	0.90
1RN7 714-2...	9755	3259	97.5	0.93	6503	2848	97.3	0.93	3251	2263	97.0	0.91
1RN7 716-2...	10275	3259	97.5	0.94	6850	2848	97.4	0.94	3425	2263	97.1	0.92
4-pole												
1RN7 710-4...	7353	1628	97.6	0.91	4904	1423	97.5	0.91	2455	1131	97.2	0.88
1RN7 712-4...	8179	1628	97.6	0.91	5454	1423	97.5	0.91	2731	1131	97.2	0.89
1RN7 714-4...	9083	1629	97.7	0.91	6058	1423	97.6	0.91	3033	1131	97.2	0.88
1RN7 716-4...	10135	1629	97.8	0.92	6758	1423	97.7	0.92	3384	1131	97.3	0.89
6-pole												
1RN7 710-6...	5631	1085	97.3	0.85	3756	948	97.1	0.84	1880	754	96.6	0.77
1RN7 712-6...	6229	1086	97.3	0.85	4154	949	97.1	0.83	2080	754	96.5	0.75
1RN7 714-6...	6904	1086	97.4	0.85	4604	949	97.1	0.82	2305	754	96.5	0.74
1RN7 716-6...	7693	1086	97.5	0.85	5130	949	97.2	0.83	2568	754	96.7	0.75
8-pole												
1RN7 710-8...	3980	814	96.9	0.84	2654	711	96.7	0.82	1329	565	96.0	0.74
1RN7 712-8...	4505	814	97.0	0.85	3005	711	96.8	0.83	1504	565	96.2	0.75
1RN7 714-8...	5031	814	97.1	0.85	3356	711	97.0	0.84	1680	565	96.4	0.76
1RN7 716-8...	5631	814	97.2	0.85	3756	711	97.0	0.83	1880	565	96.4	0.76
10-pole												
1RN7 710-3...	3040	650	96.6	0.83	2028	568	96.4	0.80	1016	452	95.7	0.69
1RN7 712-3...	3341	650	96.8	0.84	2228	568	96.5	0.80	1116	452	95.9	0.70
1RN7 714-3...	3678	650	96.8	0.84	2454	568	96.6	0.81	1229	452	95.9	0.71
1RN7 716-3...	4054	650	96.9	0.85	2704	568	96.7	0.82	1355	452	96.1	0.73

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Dimension drawings





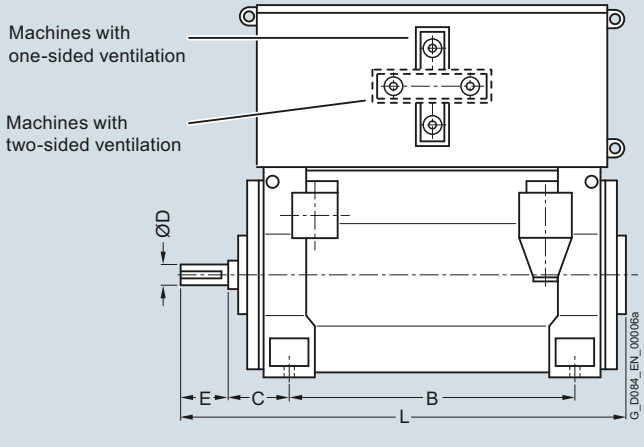
Motor type	Weight	Dimensions									
		A	AD[1]	AE[1]	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, anti-friction bearings, IM B3 type of construction											
2-pole											
1RN6450-2H..0[2]	4050	850	930	1620	1180	280	95	130	450	1653	1843
1RN6452-2H..0[2]	4250	850	930	1620	1180	280	95	130	450	1653	1843
1RN6454-2H..0[2]	4550	850	930	1620	1400	280	95	130	450	1653	2053
1RN6456-2H..0[2]	4850	850	930	1620	1400	280	95	130	450	1653	2053
1RN6500-2H..0[2]	5850	950	1135	1835	1320	315	110	165	500	1980	2150
1RN6502-2H..0[2]	6000	950	1135	1835	1320	315	110	165	500	1980	2150
4-pole											
1RN6450-4H..0	4350	850	930	1620	1180	250	130	200	450	1684	1896
1RN6452-4H..0	4600	850	930	1620	1180	250	130	200	450	1684	1896
1RN6454-4H..0	4950	850	930	1620	1400	250	130	200	450	1684	2106
1RN6456-4H..0	5250	850	930	1620	1400	250	130	200	450	1684	2106
1RN6500-4H..0	6350	950	1135	1835	1320	280	150	200	500	1980	2150
1RN6502-4H..0	6550	950	1135	1835	1320	280	150	200	500	1980	2150
1RN6504-4H..0	7200	950	1135	1835	1500	280	150	200	500	1980	2300
1RN6506-4H..0	7500	950	1135	1835	1500	280	150	200	500	1980	2300
1RN6560-4H..0	7600	1060	1205	1975	1400	315	170	240	560	2150	2300
1RN6562-4H..0	8000	1060	1205	1975	1400	315	170	240	560	2150	2300
1RN6564-4H..0	8900	1060	1205	1975	1600	315	170	240	560	2150	2550
1RN6566-4H..0	9400	1060	1205	1975	1600	315	170	240	560	2150	2550
1RN4630-4H..0[2]	10400	1320	1330	2290	1600	335	200	280	630	2400	2500
1RN4632-4H..0[2]	11100	1320	1330	2290	1600	335	200	280	630	2400	2500
1RN4634-4H..0[2]	12150	1320	1330	2290	1800	335	220	280	630	2400	2740
1RN4636-4H..0[2]	12700	1320	1330	2290	1800	335	220	280	630	2400	2740
6-pole											
1RN6450-6H..0	4450	850	930	1620	1180	250	140	200	450	1684	1896
1RN6452-6H..0	4750	850	930	1620	1180	250	140	200	450	1684	1896
1RN6454-6H..0	5100	850	930	1620	1400	280	140	200	450	1684	2136
1RN6456-6H..0	5450	850	930	1620	1400	280	140	200	450	1684	2136

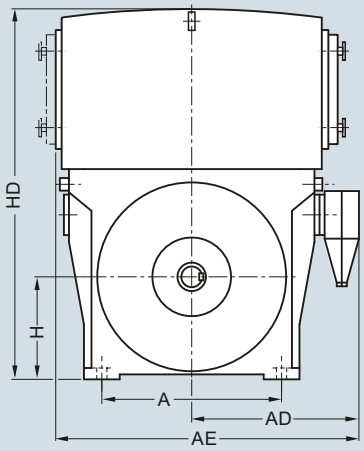
[1] For $V_{rated} \geq 2.0$ kV and current $I_{rated} > 315$ A, the dimension changes by + 140 mm.

[2] Anti-friction bearings only for 50 Hz version.

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Dimension drawings (continued)





Motor type	Weight	Dimensions									
		A	AD[1]	AE[1]	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, anti-friction bearings, IM B3 type of construction											
6-pole											
1RN6500-6H..0	6400	950	1135	1835	1320	315	160	240	500	1960	2150
1RN6502-6H..0	6650	950	1135	1835	1320	315	160	240	500	1960	2150
1RN6504-6H..0	7250	950	1135	1835	1500	315	160	240	500	1960	2360
1RN6506-6H..0	7650	950	1135	1835	1500	315	160	240	500	1960	2360
1RN6560-6H..0	8600	1060	1205	1975	1400	315	180	240	560	2180	2300
1RN6562-6H..0	9000	1060	1205	1975	1400	315	180	240	560	2180	2300
1RN6564-6H..0	9850	1060	1205	1975	1600	315	180	240	560	2180	2550
1RN6566-6H..0	10400	1060	1205	1975	1600	315	180	240	560	2180	2550
1RN4630-6H..0	10650	1320	1330	2290	1600	335	220	280	630	2400	2500
1RN4632-6H..0	11200	1320	1330	2290	1600	335	220	280	630	2400	2500
1RN4634-6H..0	12300	1320	1330	2290	1800	335	220	280	630	2400	2740
1RN4636-6H..0	13000	1320	1330	2290	1800	335	220	280	630	2400	2740
8-pole											
1RN6450-8H..0	4450	850	930	1620	1180	250	140	200	450	1684	1896
1RN6452-8H..0	4750	850	930	1620	1180	250	140	200	450	1684	1896
1RN6454-8H..0	5150	850	930	1620	1400	280	140	200	450	1684	2136
1RN6456-8H..0	5450	850	930	1620	1400	280	140	200	450	1684	2136
1RN6500-8H..0	6350	950	1135	1835	1320	315	160	240	500	1960	2150
1RN6502-8H..0	6600	950	1135	1835	1320	315	160	240	500	1960	2150
1RN6504-8H..0	7250	950	1135	1835	1500	315	160	240	500	1960	2360
1RN6506-8H..0	7600	950	1135	1835	1500	315	160	240	500	1960	2360
1RN6560-8H..0	8550	1060	1205	1975	1400	315	180	240	560	2180	2300
1RN6562-8H..0	9000	1060	1205	1975	1400	315	180	240	560	2180	2300
1RN6564-8H..0	9800	1060	1205	1975	1600	315	180	240	560	2180	2550
1RN6566-8H..0	10350	1060	1205	1975	1600	315	180	240	560	2180	2550
1RN4630-8H..0	10600	1320	1330	2290	1600	335	220	280	630	2400	2500
1RN4632-8H..0	11200	1320	1330	2290	1600	335	220	280	630	2400	2500
1RN4634-8H..0	12150	1320	1330	2290	1800	335	220	280	630	2400	2740
1RN4636-8H..0	12900	1320	1330	2290	1800	335	220	280	630	2400	2740

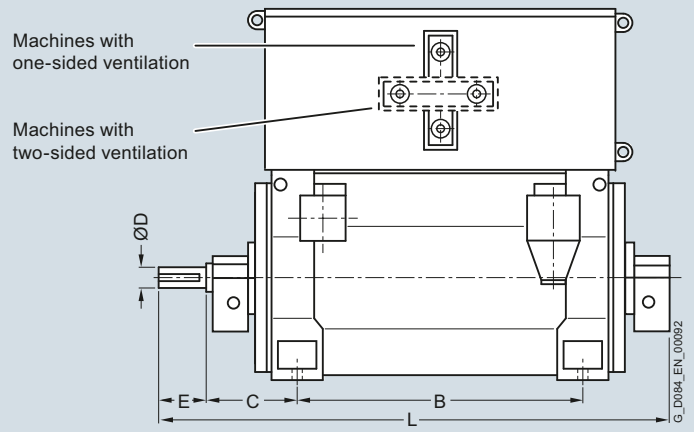
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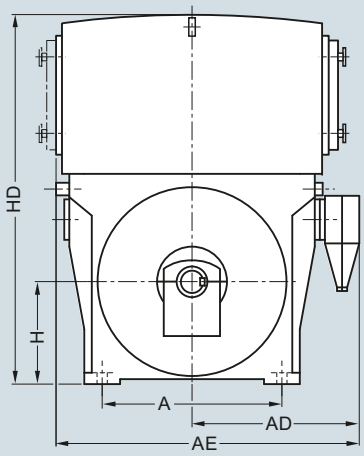
Higher pole numbers are available on request.

[1] For $V_{rated} \geq 2.0$ kV and current $I_{rated} > 315$ A, the dimension changes by + 140 mm.

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Dimension drawings





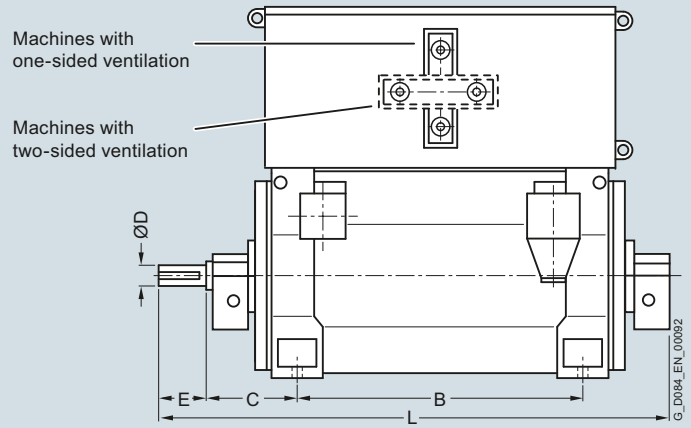
Motor type	Weight	Dimensions									
		A	AD[1]	AE[1]	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, sleeve bearings, IM B3 type of construction											
2-pole											
1RN6450-2H..0-Z K96	4050	850	930	1620	1180	425	95	130	450	1653	2218
1RN6452-2H..0-Z K96	4300	850	930	1620	1180	425	95	130	450	1653	2218
1RN6454-2H..0-Z K96	4600	850	930	1620	1400	425	95	130	450	1653	2428
1RN6456-2H..0-Z K96	4900	850	930	1620	1400	425	95	130	450	1653	2428
1RN6500-2H..0-Z K96[2]	5900	950	1135	1835	1320	450	110	165	500	1980	2500
1RN6502-2H..0-Z K96[2]	6050	950	1135	1835	1320	450	110	165	500	1980	2500
1RN6504-2H..0	6850	950	1135	1835	1500	450	110	165	500	1980	2650
1RN6506-2H..0	7100	950	1135	1835	15 00	450	110	165	500	1980	2650
1RN6560-2H..0	7600	1060	1205	1975	1400	600	130	200	560	2150	2850
1RN6562-2H..0	8000	1060	1205	1975	1400	600	130	200	560	2150	2850
1RN6564-2H..0	8900	1060	1205	1975	1600	600	130	200	560	2150	3100
1RN6566-2H..0	9350	1060	1205	1975	1600	600	130	200	560	2150	3100

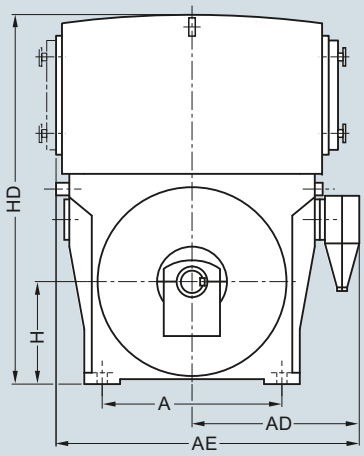
[1] For $V_{rated} \geq 2.0$ kV and current $I_{rated} > 315$ A, the dimension changes by + 140 mm.

[2] For the 60 Hz version, sleeve bearings are standard, "-Z **K96**" not necessary.

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Dimension drawings (continued)





Motor type	Weight	Dimensions									
		A	AD[1]	AE[1]	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, sleeve bearings, IM B3 type of construction											
4-pole											
1RN6450-4H..0-Z K96	4400	850	930	1620	1180	500	130	200	450	1684	2438
1RN6452-4H..0-Z K96	4650	850	930	1620	1180	500	130	200	450	1684	2438
1RN6454-4H..0-Z K96	5050	850	930	1620	1400	500	130	200	450	1684	2648
1RN6456-4H..0-Z K96	5350	850	930	1620	1400	500	130	200	450	1684	2648
1RN6500-4H..0-Z K96	6650	950	1135	1835	1320	560	150	200	500	1980	2700
1RN6502-4H..0-Z K96	6850	950	1135	1835	1320	560	150	200	500	1980	2700
1RN6504-4H..0-Z K96	7550	950	1135	1835	1500	560	150	200	500	1980	2880
1RN6506-4H..0-Z K96	7850	950	1135	1835	1500	560	150	200	500	1980	2880
1RN6560-4H..0-Z K96	7800	1060	1205	1975	1400	600	170	240	560	2150	2900
1RN6562-4H..0-Z K96	8200	1060	1205	1975	1400	600	170	240	560	2150	2900
1RN6564-4H..0-Z K96	9050	1060	1205	1975	1600	600	170	240	560	2150	3100
1RN6566-4H..0-Z K96	9600	1060	1205	1975	1600	600	170	240	560	2150	3100
1RN4630-4H..0-Z K96[2]	10650	1320	1330	2290	1600	600	200	280	630	2400	2970
1RN4632-4H..0-Z K96[2]	11350	1320	1330	2290	1600	600	200	280	630	2400	2970
1RN4634-4H..0-Z K96[2]	12400	1320	1330	2290	1800	600	220	280	630	2400	3210
1RN4636-4H..0-Z K96[2]	13000	1320	1330	2290	1800	600	220	280	630	2400	3210

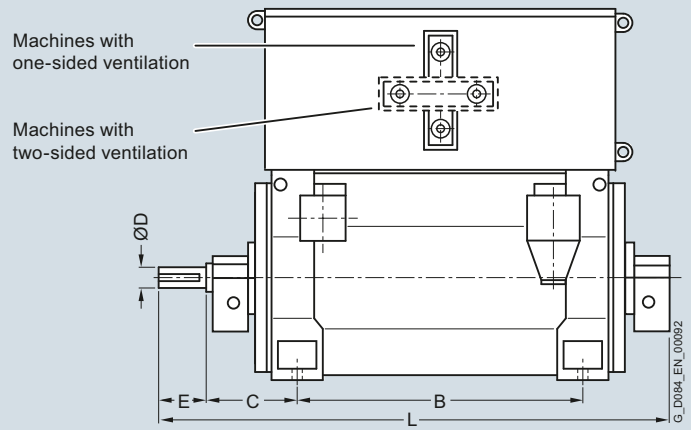
[1] For $V_{rated} \geq 2.0$ kV and current $I_{rated} > 315$ A, the dimension changes by + 140 mm.

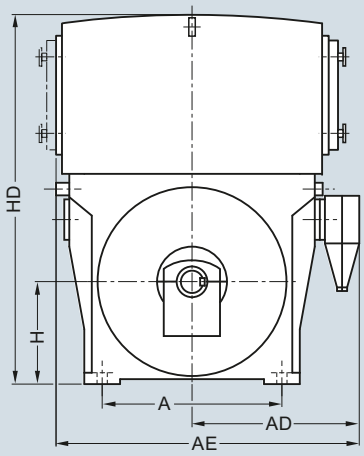
[2] For the 60 Hz version, sleeve bearings are standard, "-Z **K96**" not necessary.

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Dimension drawings (continued)





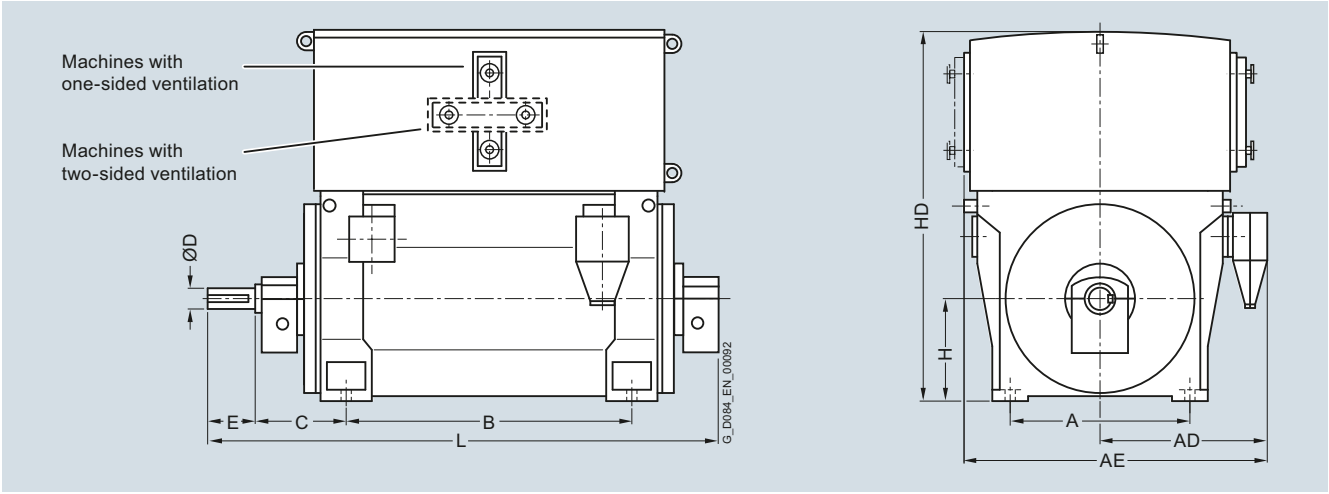
Motor type	Weight	Dimensions									
		A	AD[1)]	AE[1)]	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, sleeve bearings, IM B3 type of construction											
6-pole											
1RN6450-6H..0-Z K96	4550	850	930	1620	1180	500	140	200	450	1684	2438
1RN6452-6H..0-Z K96	4800	850	930	1620	1180	500	140	200	450	1684	2438
1RN6454-6H..0-Z K96	5150	850	930	1620	1400	500	140	200	450	1684	2648
1RN6456-6H..0-Z K96	5500	850	930	1620	1400	500	140	200	450	1684	2648
1RN6500-6H..0-Z K96	6550	950	1135	1835	1320	560	170	240	500	1960	2700
1RN6502-6H..0-Z K96	6850	950	1135	1835	1320	560	170	240	500	1960	2700
1RN6504-6H..0-Z K96	7450	950	1135	1835	1500	560	170	240	500	1960	2900
1RN6506-6H..0-Z K96	7850	950	1135	1835	1500	560	170	240	500	1960	2900
1RN6560-6H..0-Z K96	8850	1060	1205	1975	1400	600	170	240	560	2200	2950
1RN6562-6H..0-Z K96	9250	1060	1205	1975	1400	600	170	240	560	2200	2950
1RN6564-6H..0-Z K96	10100	1060	1205	1975	1600	600	170	240	560	2200	3150
1RN6566-6H..0-Z K96	10650	1060	1205	1975	1600	600	170	240	560	2200	3150
1RN4630-6H..0-Z K96	10950	1320	1330	2290	1600	600	220	280	630	2400	2970
1RN4632-6H..0-Z K96	11500	1320	1330	2290	1600	600	220	280	630	2400	2970
1RN4634-6H..0-Z K96	12550	1320	1330	2290	1800	600	220	280	630	2400	3210
1RN4636-6H..0-Z K96	13300	1320	1330	2290	1800	600	220	280	630	2400	3210

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[1)] For $V_{rated} \geq 2.0$ kV and current $I_{rated} > 315$ A, the dimension changes by + 140 mm.

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Dimension drawings (continued)



Motor type	Weight	Dimensions									
		A	AD[1]	AE[1]	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, sleeve bearings, IM B3 type of construction											
8-pole											
1RN6450-8H..0-Z K96	4550	850	930	1620	1180	500	140	200	450	1684	2438
1RN6452-8H..0-Z K96	4850	850	930	1620	1180	500	140	200	450	1684	2438
1RN6454-8H..0-Z K96	5200	850	930	1620	1400	500	140	200	450	1684	2648
1RN6456-8H..0-Z K96	5550	850	930	1620	1400	500	140	200	450	1684	2648
1RN6500-8H..0-Z K96	6500	950	1135	1835	1320	560	170	240	500	1960	2700
1RN6502-8H..0-Z K96	6800	950	1135	1835	1320	560	170	240	500	1960	2700
1RN6504-8H..0-Z K96	7400	950	1135	1835	1500	560	170	240	500	1960	2900
1RN6506-8H..0-Z K96	7800	950	1135	1835	1500	560	170	240	500	1960	2900
1RN6560-8H..0-Z K96	8800	1060	1205	1975	1400	600	170	240	560	2200	2950
1RN6562-8H..0-Z K96	9250	1060	1205	1975	1400	600	170	240	560	2200	2950
1RN6564-8H..0-Z K96	10050	1060	1205	1975	1600	600	170	240	560	2200	3150
1RN6566-8H..0-Z K96	10600	1060	1205	1975	1600	600	170	240	560	2200	3150
1RN4630-8H..0-Z K96	10850	1320	1330	2290	1600	600	220	280	630	2400	2970
1RN4632-8H..0-Z K96	11500	1320	1330	2290	1600	600	220	280	630	2400	2970
1RN4634-8H..0-Z K96	12450	1320	1330	2290	1800	600	220	280	630	2400	3210
1RN4636-8H..0-Z K96	13150	1320	1330	2290	1800	600	220	280	630	2400	3210

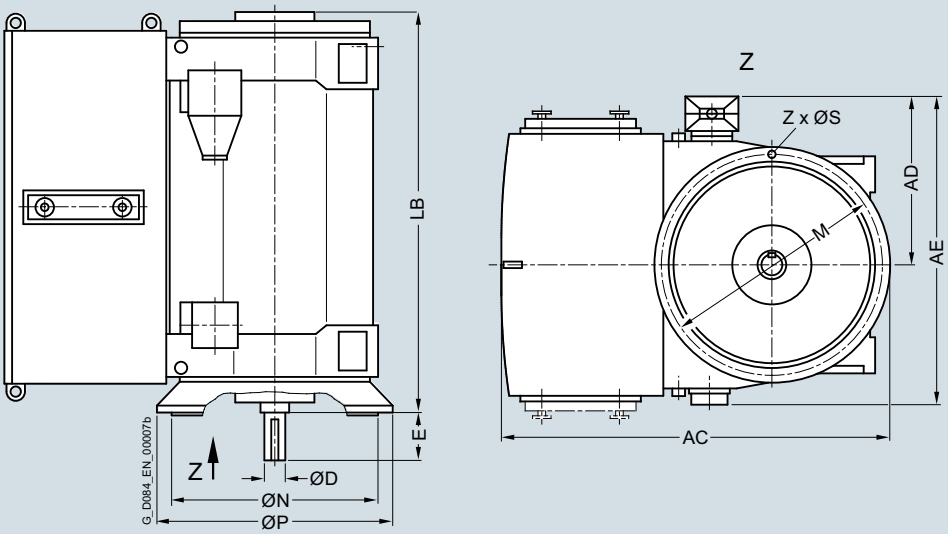
Note:

Higher pole numbers are available on request.

[1] For $V_{rated} \geq 2.0$ kV and current $I_{rated} > 315$ A, the dimension changes by + 140 mm.

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Dimension drawings



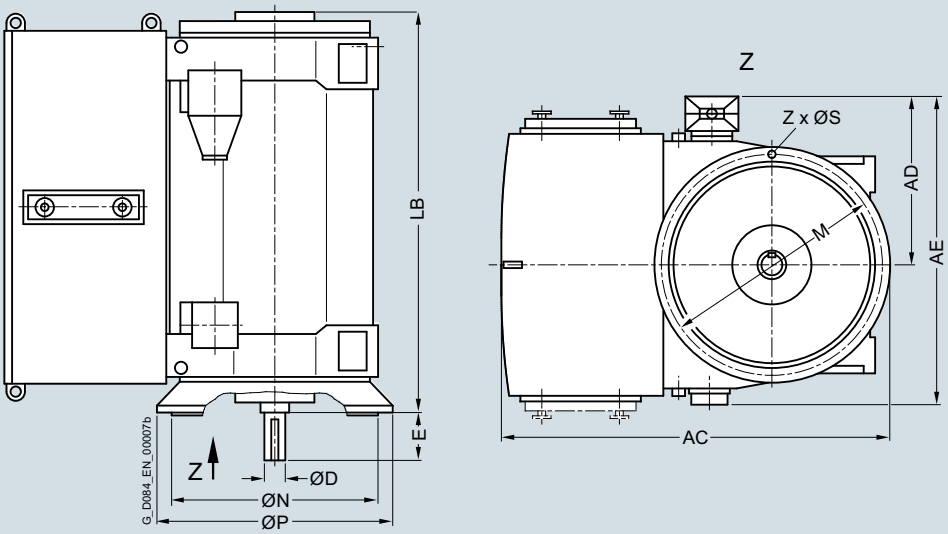
Motor type	Weight	Dimensions										
		AC	AD[1]	AE[1]	D	E	LB	P	N	M	S	Z
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Quantity
Up to 6.6 kV, anti-friction bearings, IM V1 type of construction												
4-pole												
1RN6450-4H..8	4550	1809	930	1620	130	200	1720	1150	1000	1080	26	8
1RN6452-4H..8	4750	1809	930	1620	130	200	1720	1150	1000	1080	26	8
1RN6454-4H..8	5150	1809	930	1620	130	200	1930	1150	1000	1080	26	8
1RN6456-4H..8	5450	1809	930	1620	130	200	1930	1150	1000	1080	26	8
1RN6500-4H..8	5500	1960	1000	1810	150	200	1910	1250	1120	1180	26	8
1RN6502-4H..8	5700	1960	1000	1810	150	200	1910	1250	1120	1180	26	8
1RN6504-4H..8	6400	1960	1000	1810	160	240	2120	1250	1120	1180	26	8
1RN6506-4H..8	6800	1960	1000	1810	160	240	2120	1250	1120	1180	26	8
1RN6560-4H..8	7550	2180	1210	2100	180	240	2090	1400	1250	1320	26	16
1RN6562-4H..8[2]	8000	2180	1210	2100	180	240	2090	1400	1250	1320	26	16
1RN6564-4H..8[2]	8900	2180	1210	2100	190	280	2320	1400	1250	1320	26	16
1RN6566-4H..8[2]	9350	2180	1210	2100	190	280	2320	1400	1250	1320	26	16
1RN4630-4H..8[2]	12050	2875	1330	2300	200	280	2400	2000	1800	1900	33	16
1RN4632-4H..8[2]	12750	2875	1330	2300	200	280	2400	2000	1800	1900	33	16
1RN4634-4H..8[2]	13800	2875	1330	2300	220	280	2640	2000	1800	1900	33	16
1RN4636-4H..8[2]	14350	2875	1330	2300	220	280	2640	2000	1800	1900	33	16
6-pole												
1RN6450-6H..8	4650	1809	930	1620	140	200	1720	1150	1000	1080	26	8
1RN6452-6H..8	4950	1809	930	1620	140	200	1720	1150	1000	1080	26	8
1RN6454-6H..8	5300	1809	930	1620	140	200	1930	1150	1000	1080	26	8
1RN6456-6H..8	5650	1809	930	1620	140	200	1930	1150	1000	1080	26	8
1RN6500-6H..8	5650	1960	1000	1810	160	240	1910	1250	1120	1180	26	8
1RN6502-6H..8	6050	1960	1000	1810	160	240	1910	1250	1120	1180	26	8
1RN6504-6H..8	6550	1960	1000	1810	170	240	2120	1250	1120	1180	26	8
1RN6506-6H..8	6950	1960	1000	1810	170	240	2120	1250	1120	1180	26	8

[1] For $V_{rated} \geq 2.0$ kV and current $I_{rated} > 315$ A, the dimension changes by + 140 mm.

[2] Only in the 50 Hz version.

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Dimension drawings (continued)



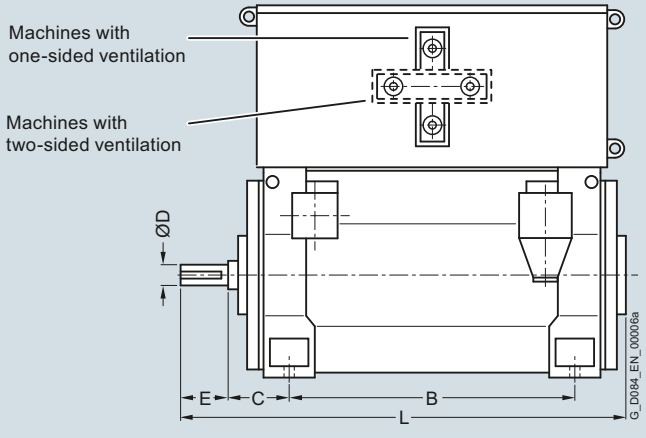
Motor type	Weight	Dimensions										
		AC	AD[1)]	AE[1)]	D	E	LB	P	N	M	S	Z
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Quantity
Up to 6.6 kV, anti-friction bearings, IM V1 type of construction												
6-pole												
1RN6560-6H..8	7650	2180	1210	2100	180	240	2090	1400	1250	1320	26	16
1RN6562-6H..8	8250	2180	1210	2100	180	240	2090	1400	1250	1320	26	16
1RN6564-6H..8	9100	2180	1210	2100	190	280	2320	1400	1250	1320	26	16
1RN6566-6H..8	9550	2180	1210	2100	190	280	2320	1400	1250	1320	26	16
1RN4630-6H..8	12300	2875	1330	2300	220	280	2400	2000	1800	1900	33	16
1RN4632-6H..8	12850	2875	1330	2300	220	280	2400	2000	1800	1900	33	16
1RN4634-6H..8	13950	2875	1330	2300	220	280	2640	2000	1800	1900	33	16
1RN4636-6H..8	14650	2875	1330	2300	220	280	2640	2000	1800	1900	33	16
8-pole												
1RN6450-8H..8	4650	1809	930	1620	140	200	1720	1150	1000	1080	26	8
1RN6452-8H..8	4950	1809	930	1620	140	200	1720	1150	1000	1080	26	8
1RN6454-8H..8	5350	1809	930	1620	140	200	1930	1150	1000	1080	26	8
1RN6456-8H..8	5650	1809	930	1620	140	200	1930	1150	1000	1080	26	8
1RN6500-8H..8	5700	1960	1000	1810	160	240	1910	1250	1120	1180	26	8
1RN6502-8H..8	6050	1960	1000	1810	160	240	1910	1250	1120	1180	26	8
1RN6504-8H..8	6550	1960	1000	1810	170	240	2120	1250	1120	1180	26	8
1RN6506-8H..8	6950	1960	1000	1810	170	240	2120	1250	1120	1180	26	8
1RN6560-8H..8	7650	2180	1070	1960	180	240	2090	1400	1250	1320	26	16
1RN6562-8H..8	8150	2180	1070	1960	180	240	2090	1400	1250	1320	26	16
1RN6564-8H..8	9000	2180	1070	1960	190	280	2320	1400	1250	1320	26	16
1RN6566-8H..8	9450	2180	1070	1960	190	280	2320	1400	1250	1320	26	16
1RN4630-8H..8	12250	2875	1330	2300	220	280	2400	2000	1800	1900	33	16
1RN4632-8H..8	12850	2875	1330	2300	220	280	2400	2000	1800	1900	33	16
1RN4634-8H..8	13800	2875	1330	2300	220	280	2640	2000	1800	1900	33	16
1RN4636-8H..8	14550	2875	1330	2300	220	280	2640	2000	1800	1900	33	16

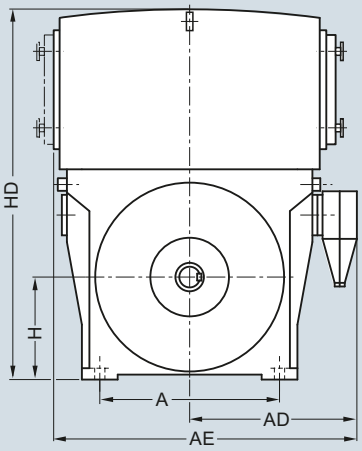
Note:

Higher pole numbers are available on request.

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Dimension drawings





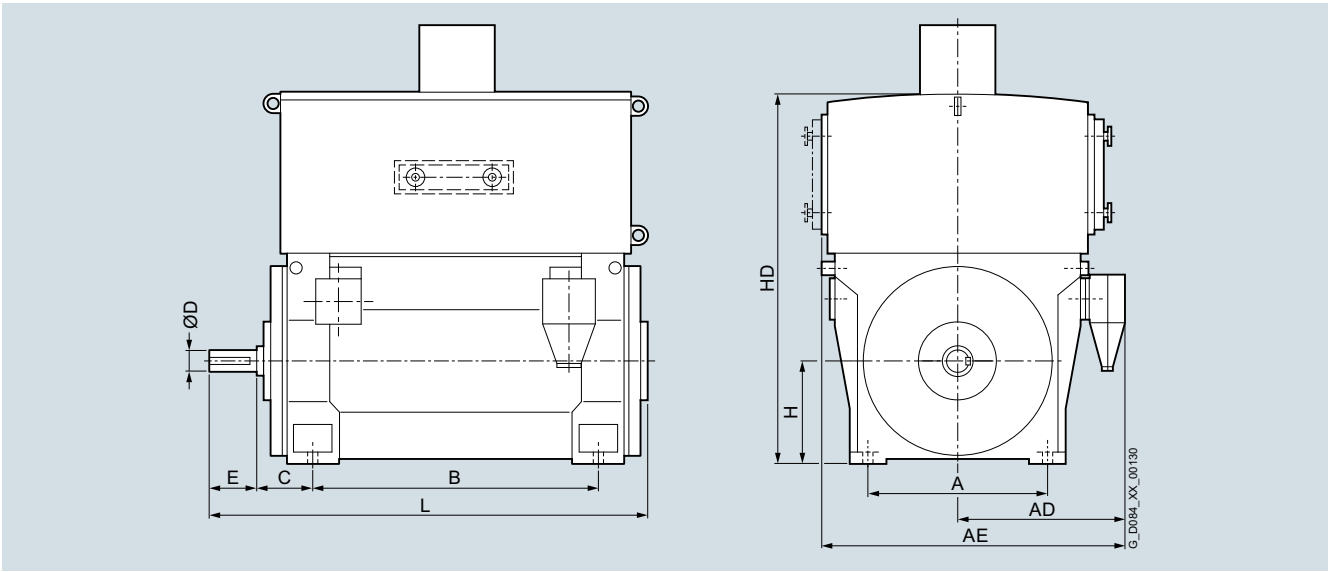
Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, IM B3 type of construction, anti-friction bearings – 1RN7 series – IC81W											
4-pole											
1RN7 710-4	15700	1500	1800	2900	2000	375	220	350	710	2570	3070
1RN7 712-4	16300	1500	1800	2900	2000	375	220	350	710	2570	3070
1RN7 714-4	17700	1500	1800	2900	2240	375	220	350	710	2570	3310
1RN7 716-4	18900	1500	1800	2900	2240	375	220	350	710	2570	3310
6-pole											
1RN7 710-6	16000	1500	1800	2900	2000	375	220	350	710	2570	3070
1RN7 712-6	17000	1500	1800	2900	2000	375	220	350	710	2570	3070
1RN7 714-6	18500	1500	1800	2900	2240	375	220	350	710	2570	3310
1RN7 716-6	19600	1500	1800	2900	2240	375	220	350	710	2570	3310
8-pole											
1RN7 710-8	15600	1500	1800	2900	2000	375	220	350	710	2570	3070
1RN7 712-8	16500	1500	1800	2900	2000	375	220	350	710	2570	3070
1RN7 714-8	18000	1500	1800	2900	2240	375	220	350	710	2570	3310
1RN7 716-8	19000	1500	1800	2900	2240	375	220	350	710	2570	3310
10-pole											
1RN7 710-3	15600	1500	1800	2900	2000	375	220	350	710	2570	3070
1RN7 712-3	16500	1500	1800	2900	2000	375	220	350	710	2570	3070
1RN7 714-3	18000	1500	1800	2900	2240	375	220	350	710	2570	3310
1RN7 716-3	19000	1500	1800	2900	2240	375	220	350	710	2570	3310

Note:

Higher pole numbers are available on request.

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Dimension drawings



Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD[1)]	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, IM B3 type of construction, anti-friction bearings – 1RN7 series – IC86W											
4-pole											
1RN7 710-4	15400	1500	1800	2900	2000	375	220	350	710	2900	3070
1RN7 712-4	16000	1500	1800	2900	2000	375	220	350	710	2900	3070
1RN7 714-4	17400	1500	1800	2900	2240	375	220	350	710	2900	3310
1RN7 716-4	18600	1500	1800	2900	2240	375	220	350	710	2900	3310
6-pole											
1RN7 710-6	15700	1500	1800	2900	2000	375	220	350	710	2900	3070
1RN7 712-6	16800	1500	1800	2900	2000	375	220	350	710	2900	3070
1RN7 714-6	18300	1500	1800	2900	2240	375	220	350	710	2900	3310
1RN7 716-6	19400	1500	1800	2900	2240	375	220	350	710	2900	3310
8-pole											
1RN7 710-8	15200	1500	1800	2900	2000	375	220	350	710	2900	3070
1RN7 712-8	16100	1500	1800	2900	2000	375	220	350	710	2900	3070
1RN7 714-8	17600	1500	1800	2900	2240	375	220	350	710	2900	3310
1RN7 716-8	18600	1500	1800	2900	2240	375	220	350	710	2900	3310
10-pole											
1RN7 710-3	15200	1500	1800	2900	2000	375	220	350	710	2900	3070
1RN7 712-3	16100	1500	1800	2900	2000	375	220	350	710	2900	3070
1RN7 714-3	17600	1500	1800	2900	2240	375	220	350	710	2900	3310
1RN7 716-3	18600	1500	1800	2900	2240	375	220	350	710	2900	3310

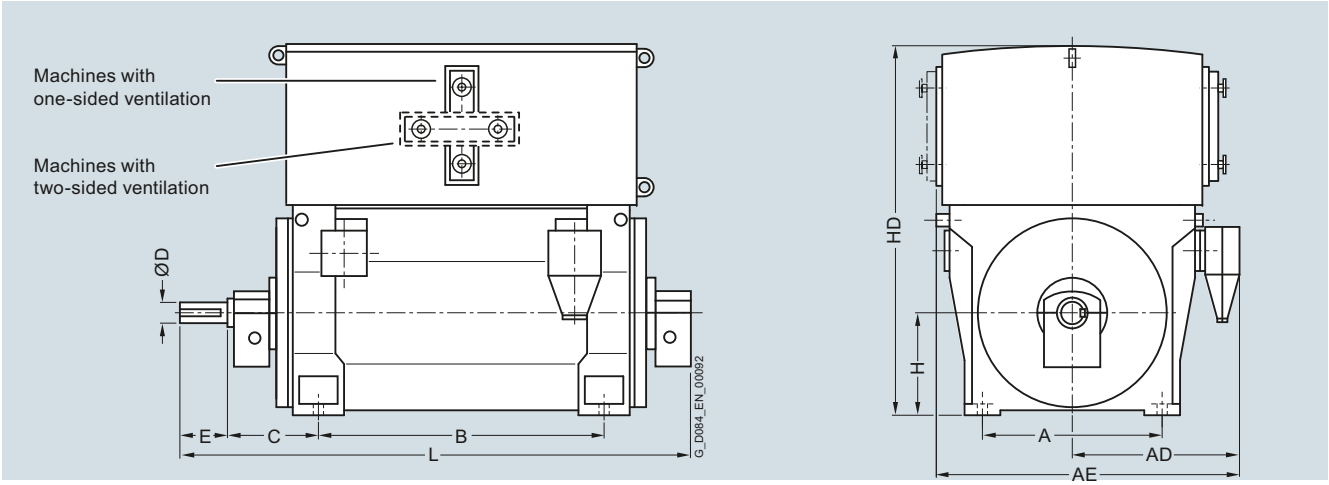
Note:

Higher pole numbers are available on request.

[1)] Dimension "HD" without external blower
(2 ... 6-pole = 600mm / 8-pole + = 500 mm)

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Dimension drawings



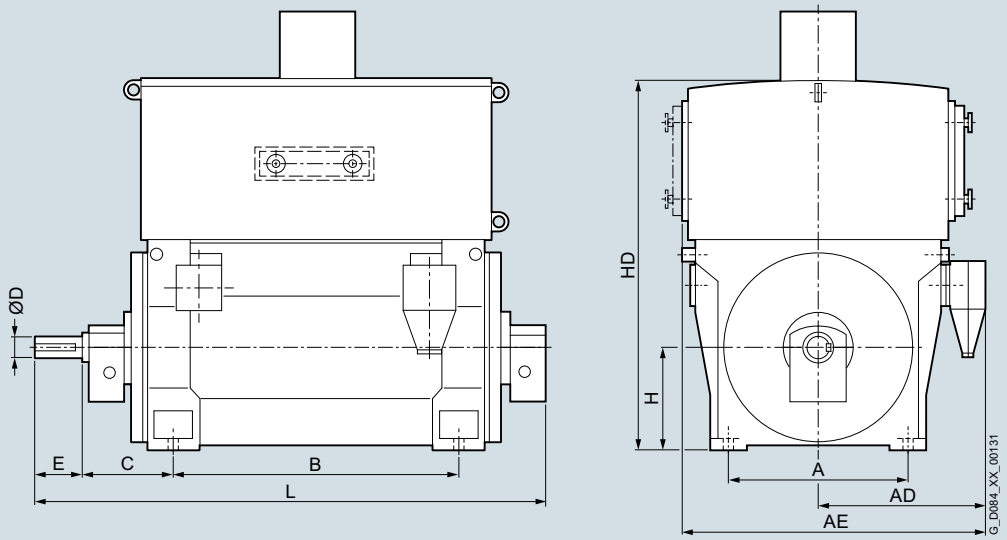
Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, IM B3 type of construction, sleeve bearings – 1RN7 series – IC81W											
2-pole											
1RN7 710-2	14900	1500	1800	2900	2000	560	200	280	710	2570	3320
1RN7 712-2	15500	1500	1800	2900	2000	560	200	280	710	2570	3320
1RN7 714-2	16700	1500	1800	2900	2240	560	200	280	710	2570	3560
1RN7 716-2	17500	1500	1800	2900	2240	560	200	280	710	2570	3560
4-pole											
1RN7 710-4	16100	1500	1800	2900	2000	710	220	350	710	2570	3650
1RN7 712-4	16700	1500	1800	2900	2000	710	220	350	710	2570	3650
1RN7 714-4	18000	1500	1800	2900	2240	710	220	350	710	2570	3890
1RN7 716-4	19300	1500	1800	2900	2240	710	220	350	710	2570	3890
6-pole											
1RN7 710-6	16100	1500	1800	2900	2000	670	220	350	710	2570	3570
1RN7 712-6	17100	1500	1800	2900	2000	670	220	350	710	2570	3570
1RN7 714-6	18600	1500	1800	2900	2240	670	220	350	710	2570	3810
1RN7 716-6	19700	1500	1800	2900	2240	670	220	350	710	2570	3810
8-pole											
1RN7 710-8	15700	1500	1800	2900	2000	670	220	350	710	2570	3570
1RN7 712-8	16600	1500	1800	2900	2000	670	220	350	710	2570	3570
1RN7 714-8	18000	1500	1800	2900	2240	670	220	350	710	2570	3810
1RN7 716-8	19000	1500	1800	2900	2240	670	220	350	710	2570	3810
10-pole											
1RN7 710-3	15600	1500	1800	2900	2000	670	220	350	710	2570	3570
1RN7 712-3	16600	1500	1800	2900	2000	670	220	350	710	2570	3570
1RN7 714-3	18100	1500	1800	2900	2240	670	220	350	710	2570	3810
1RN7 716-3	19000	1500	1800	2900	2240	670	220	350	710	2570	3810

Note:

Higher pole numbers are available on request.

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Dimension drawings



Motor type	Weight	Dimensions									
		A	AD	AE	B	C	D	E	H	HD	L
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
Up to 6.6 kV, IM B3 type of construction, sleeve bearings – 1RN7 series – IC86W											
2-pole											
1RN7 710-2	14600	1500	1800	2900	2000	560	200	280	710	2900	3320
1RN7 712-2	15200	1500	1800	2900	2000	560	200	280	710	2900	3320
1RN7 714-2	16400	1500	1800	2900	2240	560	200	280	710	2900	3560
1RN7 716-2	17200	1500	1800	2900	2240	560	200	280	710	2900	3560
4-pole											
1RN7 710-4	15800	1500	1800	2900	2000	710	220	350	710	2900	3650
1RN7 712-4	16400	1500	1800	2900	2000	710	220	350	710	2900	3650
1RN7 714-4	17700	1500	1800	2900	2240	710	220	350	710	2900	3890
1RN7 716-4	19000	1500	1800	2900	2240	710	220	350	710	2900	3890
6-pole											
1RN7 710-6	15800	1500	1800	2900	2000	670	220	350	710	2900	3570
1RN7 712-6	16800	1500	1800	2900	2000	670	220	350	710	2900	3570
1RN7 714-6	18300	1500	1800	2900	2240	670	220	350	710	2900	3810
1RN7 716-6	19400	1500	1800	2900	2240	670	220	350	710	2900	3810
8-pole											
1RN7 710-8	15200	1500	1800	2900	2000	670	220	350	710	2900	3570
1RN7 712-8	16200	1500	1800	2900	2000	670	220	350	710	2900	3570
1RN7 714-8	17600	1500	1800	2900	2240	670	220	350	710	2900	3810
1RN7 716-8	18600	1500	1800	2900	2240	670	220	350	710	2900	3810
10-pole											
1RN7 710-3	15200	1500	1800	2900	2000	670	220	350	710	2900	3570
1RN7 712-3	16200	1500	1800	2900	2000	670	220	350	710	2900	3570
1RN7 714-3	17700	1500	1800	2900	2240	670	220	350	710	2900	3810
1RN7 716-3	18600	1500	1800	2900	2240	670	220	350	710	2900	3810

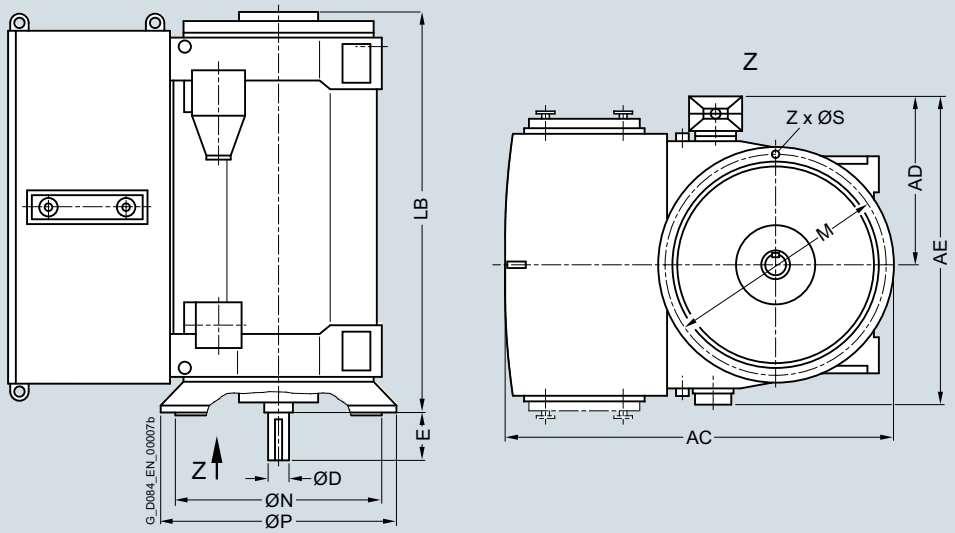
Note:

Higher pole numbers are available on request.

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3

Dimension drawings



Motor type	Weight	Dimensions										
		AC	AD	AE	D	E	LB	P	N	M	S	Z
	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Quantity
Up to 6.6 kV, IM V1 type of construction, anti-friction bearings, Z ventilation – 1RN7 series – IC81W												
6-pole												
1RN7 710-6	16700	2900	1800	2900	220	350	3140	2000	1800	1900	35	24
1RN7 712-6	17700	2900	1800	2900	220	350	3140	2000	1800	1900	35	24
1RN7 714-6	19200	2900	1800	2900	220	350	3380	2000	1800	1900	35	24
1RN7 716-6	20300	2900	1800	2900	220	350	3380	2000	1800	1900	35	24
8-pole												
1RN7 710-8	16600	2900	1800	2900	220	350	3140	2000	1800	1900	35	24
1RN7 712-8	17600	2900	1800	2900	220	350	3140	2000	1800	1900	35	24
1RN7 714-8	19100	2900	1800	2900	220	350	3380	2000	1800	1900	35	24
1RN7 716-8	20100	2900	1800	2900	220	350	3380	2000	1800	1900	35	24
10-pole												
1RN7 710-3	16400	2900	1800	2900	220	350	3140	2000	1800	1900	35	24
1RN7 712-3	17300	2900	1800	2900	220	350	3140	2000	1800	1900	35	24
1RN7 714-3	18900	2900	1800	2900	220	350	3380	2000	1800	1900	35	24
1RN7 716-3	19800	2900	1800	2900	220	350	3380	2000	1800	1900	35	24

Note:

Higher pole numbers are available on request.

[1] For $V_{rated} \geq 2.0$ kV and current $I_{rated} > 315$ A, the dimension changes by + 140 mm.

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Overview

Using the following options, SIMOTICS HV/TN can be adapted to order-specific requirements. The Article No. is supplemented with a "-Z" and with either one or several order codes.

Other options can be addressed on request with the LOHER VARIO (rib-cooled) or LOHER VARIO PLUS (modular design) motor series.

Order code	Option description	Remark
	Paint finish	
K26	Special paint finish in RAL 7030	
Y53	Standard paint finish in a color different from RAL 7030	Plain text required
Y54	Special paint finish in a color different from RAL 7030	Plain text required
	Documentation	
B00	No motor manual	
B21	Documentation on CD-ROM instead of paper printout	
B22	Documentation as e-mail instead of paper	
B23	Motor manual printed on paper, 3x	
B27	Run out protocol	
B28	Protocol air gap calculation	
B34	Document standard inspection and test plan	
B35	Document balancing report	
B36	Document test and inspection description	
B37	Document load characteristics	
B38	Document recommended spare parts	
B41	Document instrumentation list	
B43	Document production schedule: Generated once	
B44	Document production schedule: Updated biweekly	
B45	Document production schedule: Updated monthly	
B48	Document order-specific inspection and test plan	
	Document language	
D00	Documentation in German	
D54	Documentation in Czech	
D55	Documentation in Polish	
D56	Documentation in Russian	
D72	Documentation in Italian	
D73	Documentation in Finnish	
D74	Documentation in Dutch	
D75	Documentation in Turkish	
D76	Documentation in English	Standard
D77	Documentation in French	
D78	Documentation in Spanish	
D79	Documentation in Portuguese	
D80	Documentation in Bulgarian	
D81	Documentation in Norwegian	
D82	Documentation in Hungarian	
D83	Documentation in Swedish	
D84	Documentation in Chinese	

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Overview (continued)

Order code	Option description	Remark
	Speed monitoring	
A03	Speed monitoring using an inductive proximity switch, Pepperl + Fuchs, incl. terminal box, without evaluation unit	
H70	Rotary pulse encoder LL 861 900 220 (Leine+Linde)	
H73	Rotary pulse encoder HOG 10 D1024 I (16 mm)	
H76	Rotary pulse encoder HOG 10 D1024 I with integrated shaft grounding	
H88	Rotary pulse encoder HOG 11 DN 1024 I (16 mm) with special anti-corrosion protection	For marine applications
H89	Rotary pulse encoder HOG 11 DN 1024 I (16 mm) with integrated shaft grounding and special anti-corrosion protection	For marine applications
	Direction of rotation	
K97	Rotation clockwise (CW)	Standard
K98	Rotation counter-clockwise (CCW)	
	Noise reduction	
L20	Silencer for air inlet	
L21	Noise reduction: Silencer for air outlet	Only for H-compact PLUS and SIMOTICS HV M
L22	Noise reduction: Lining of interior space	Only for H-compact PLUS and SIMOTICS HV M
L23	External metal fan, unidirectional	Only for H-compact
L25	Rustless grid at inlet silencer	Only for H-compact
	Terminal box mounting position	
K09	Terminal box on right-hand side, view from DE	Standard
K10	Terminal box on left-hand side, view from DE	
K83	Terminal box rotated through 90°, cable entry from DE	
K84	Terminal box rotated through 90°, cable entry from NDE	
K85	Terminal box rotated through 180°	
N81	Bracket rotated through 180°, terminal box rotated through 90°, cable entry from NDE	Only for H-compact
N82	Bracket rotated through 180°, terminal box rotated through 90°, cable entry from DE	Only for H-compact
N83	Bracket rotated through 180°, terminal box rotated through 180°, cable entry from above	
N84	Bracket rotated through 180°, rotated through 90°, cable entry from below	
N85	Terminal box on NDE	Only for H-compact
	Terminal box, main and auxiliary terminal box	
L54	Terminal box, 6 terminals with 2 cable entries for connection to power supply, rated current > 315 A	
L59	Terminal box with sealing chamber for 1 cable entry	
L55	Star-point terminal box, up to 6.6 kV, 3 terminals	
L56	Star-point terminal box, up to 11 kV, 3 terminals	
L57	Star-point terminal box, up to 6.6 kV, 6 terminals	
L58	Star-point terminal box, for installing current transformer (without current transformer)	
M50	Auxiliary terminal box in cast iron	
M51	Auxiliary terminal box material: Stainless steel	
M52	Separate auxiliary terminal box for anti-condensation heater	Standard for H-compact PLUS and SIMOTICS HV M
	Terminal box – accessories/equipping	
K59	Cable plug connection, rated voltage 2 to 6.6 kV	
L79	Gland plate for 3 winding ends to connect to the line supply via separately mounted terminal box, 3 m free cable length from the frame	
L80	Gland plate for 6 winding ends to connect to the line supply via separately mounted terminal box, 3 m free cable length from the frame	
L83	Cable plug connection, rated voltage 9 to 11 kV	

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Overview (continued)

Order code	Option description	Remark
	Cooling air monitoring	
A44	1 resistance thermometer Pt100 for 2-, 3- or 4-wire connection from terminal box for cold air temperature	
A45	1 resistance thermometer Pt100 for 2-, 3- or 4-wire connection from terminal box for hot air temperature	
A46	1 double resistance thermometer Pt100 for 2-, 3- or 4-wire connection from terminal box, for cold air temperature	
A47	1 double resistance thermometer Pt100 for 2-, 3- or 4-wire connection from terminal box, for hot air temperature	
A86	1 dial-type thermometer with 2 NO-Contacts for cold air temperature incl. terminal box	
A87	1 dial-type thermometer with 2 NO-Contacts for hot air temperature incl. terminal box	
	Bearing version/instrumentation	
H09 + H11	DIN flange type for forced oil lubrication for oil inlet with flowmeter, manometer and throttle valve (incl. counter flange) + DIN flange type forced oil lubrication for oil outlet with sight glass (incl. counter flange)	
H10 + H12	ANSI flange type for forced oil lubrication for oil inlet with flowmeter, manometer and throttle valve (incl. counter flange) + ANSI flange type for forced oil lubrication for oil outlet with sight glass (incl. counter flange)	
H43	DIN flange type for forced oil lubrication for in- and outlet without instruments (with counter flanges)	
H44	ANSI flange type for forced oil lubrication for in- and outlet without instruments (with counter flanges)	
K20	Bearing design on DE for increased forces (reinforced)	H-compact SH 315 and SH 355 only
K96	Sleeve bearing instead of anti-friction bearing	
L18	DE insulation	
L27	Insulated bearing on NDE	Standard for H-compact PLUS and SIMOTICS HV M
L60	Forced-circulation oil lubrication (with oil cooling) instead of oil-ring lubrication	
L66	Air cooling, but prepared for future conversion to forced-circulation oil lubrication	
P44	Oil manifold; connections with counter flange; flange flush with the axial shaft face	
	Bearing monitoring – sleeve bearings	
A02	Shaft vibration monitoring for sleeve bearings, Bently Nevada system	
A39	Prepared for shaft vibration monitoring for sleeve bearings (without monitoring system)	
A41	2 resistance thermometers Pt100 for 2-, 3- or 4-wire connection from terminals for sleeve bearing	
A43	2 double resistance thermometers Pt100 for 2-, 3- or 4-wire connection from terminals for sleeve bearing	
A70	2 dial-type thermometers without contacts	
A71	2 dial-type thermometers with contacts	
	Bearing monitoring – anti-friction bearings	
A40	2 resistance thermometers Pt100 for 2-, 3- or 4-wire connection from terminal box for anti-friction bearings	
A42	2 double resistance thermometers Pt100 for 2-, 3- or 4-wire connection from terminals for anti-friction bearings	
G50	Shock pulse measuring nipple (SPM) at DE and NDE	Standard
H05	Shock pulse measurement (SPM), fixed sensors and distributor box	
H07	Shock pulse measurement (SPM), complete alarm box	
	Mechanical versions	
K16	Second shaft extension up to 50 % rated torque	
L81	Vibration severity grade B according to IEC/ EN 60034-14	Not available for 2-pole motors with roller bearings.
Y55	Non-standard cylindrical shaft extension (an inquiry must be sent to the factory)	
Y85	Oil shrink fit for cylindrical, single-stage shaft extension instead of a key connection	

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Overview (continued)

Order code	Option description	Remark
	Certified for pump drives	
E88	Construction supervision for motors for seawater desalination plants where Siemens AG commissions the acceptance authority	
E89	Construction supervision for motors for seawater desalination plants where a third party commissions the acceptance authority	
E90	Pump drive for seawater desalination plants certified according to Lloyds Register	
	Marine applications	Options and tests for marine and offshore applications: see Chapter 5.
	Others/additional options	
H08	Leakage water detection	
K52	Degree of protection IP56 non-heavy-sea	
L15	Supporting ring for coupling guard	
L17	Mounting a coupling provided (finish machined and balanced)	
L31	Motor mounting materials for mounting on a steel foundation: Bolts, shims and taper dowels	
L32	Motor mounting materials for mounting on a concrete foundation or concrete base: Threaded bolts, armature plates, sole plates, shims and taper dowels	
L33	Motor mounting materials to mount on a concrete foundation or concrete base: T-head bolts, foundation bolt sleeves, sole plates, shims and taper dowels	
L91	Higher number of starts, > 1000 ... 10000 starts per year, for Cu rotors	
L92	Higher number of starts, > 5000 ... 10000 starts per year, for Al rotors	
P45	External screws made of stainless steel	
	Anti-condensation heating	
L08	Anti-condensation heater, rated voltage 400 V	
L09	Anti-condensation heater, rated voltage 500 V	
M12	Anti-condensation heater for 110 to 120 V	
M13	Anti-condensation heater for 220 to 240 V	Standard for H-compact PLUS and SIMOTICS HV M
Y83	Anti-condensation heater with other rated voltages, V = additional text required)	
	Ambient conditions	
D02	Operation at ambient temperatures up to –50 °C, transport up to –50 °C	
D03	Operation at ambient temperatures up to –40 °C, transport up to –40 °C	
D04	Operation at ambient temperatures up to –30 °C, transport up to –40 °C	
E81	Outdoor use with high salinity or offshore applications (corrosivity grade C5-M/ C5-I)	
E82	Outdoor use with moderate salinity (corrosivity grade C4)	
E83	Outdoor use with low salinity (corrosivity grade C3)	
M06	For use in sulfurous or hydrogenous atmosphere	
	Winding and motor protection	
A12	6 PTC thermistors without lightning arresters	
A23	1 temperature sensor KTY 84-130	
A65	6 embedded resistance thermometers Pt100 for 2-, 3- or 4-wire connection from terminal box without lightning arresters	Standard
A66	6 embedded resistance thermometers Pt100 for 2-, 3- or 4-wire connection from terminal box with lightning arresters	

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Overview (continued)

Order code	Option description	Remark
	Tests with acceptance	
F01	All standard tests (routine test), with acceptance	
F15	Recording of no-load characteristic and determination of core and friction losses, with acceptance	
F17	Recording of short-circuit characteristic and determination of short-circuit losses, with acceptance	
F19	Recording of load characteristic, with acceptance	
F23	Dissipation factor test (tan delta) on 2 (test) coils, with acceptance	In addition, specify order code F90
F29	No-load noise measurement, without noise analysis, with acceptance	
F31	Cooling air flow and pressure drop measurement, with acceptance	
F35	Recording of current and torque characteristics during acceleration, with acceptance	
F37	Determination of moment of inertia by retardation method, with acceptance	
F39	Overspeed test, with acceptance	
F41	Recording of residual voltage curve, with acceptance	
F53	Locked-rotor torque and current measurement, with acceptance	
F55	Polarization index measurement, with acceptance	
F61	Impulse or AC voltage test on 2 (test) coils, with acceptance	In addition, specify order code F90
F63	Noise analysis, with acceptance	
F83	Type test for horizontal motors with temperature rise test, with acceptance	
F90	2 test coils	
F93	Type test for vertical motors with temperature rise test, with acceptance	
	Tests without acceptance	
F14	Recording of no-load characteristic and determination of core and friction losses, without acceptance	
F16	Recording of short-circuit characteristic and determination of short-circuit losses, without acceptance	
F18	Recording of load characteristic, without acceptance	
F22	Dissipation factor test (tan delta) on 2 (test) coils, without acceptance	In addition, specify order code F90
F28	No-load noise measurement, without noise analysis, without acceptance	
F30	Cooling air flow and pressure drop measurement, without acceptance	
F34	Recording of current and torque characteristics during acceleration, without acceptance	
F36	Determination of moment of inertia by retardation method, without acceptance	
F38	Overspeed test, without acceptance	
F42	"Conformance Test (Wet Test)" to NEMA Standard, without acceptance	
F52	Locked-rotor torque and current measurement, without acceptance	
F54	Polarization index measurement, without acceptance	
F60	Impulse or AC voltage test on 2 (test) coils, without acceptance	In addition, specify order code F90
F62	Noise analysis, without acceptance	
F82	Type test for horizontal motors with temperature rise test, without acceptance	
F90	2 test coils	
F92	Type test for vertical motors with temperature rise test, without acceptance	

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Description of options

Overview (continued)

Order code	Option description	Remark
	Extension of liability for defects	**Article number for reorder**
Q80	Extension of liability for defects, by 12 months to a total of 24 months (2 years) from delivery	**9LD1720-0AA24**
Q81	Extension of liability for defects, by 18 months to atotal of 30 months (2.5 years) from delivery	**9LD1720-0AA30**
Q82	Extension of liability for defects, by 24 months to a total of 36 months (3 years) from delivery	**9LD1720-0AA36**
Q83	Extension of liability for defects, by 30 months to a total of 42 months (3.5 years) from delivery	**9LD1720-0AA42**
Q84	Extension of liability for defects, by 36 months to a total of 48 months (4 years) from delivery	**9LD1720-0AA48**
Q85	Extension of liability for defects, by 48 months to a total of 60 months (5 years) from delivery	**9LD1720-0AA60**

Conditions for an extension of liability for defects

You will find the currently valid conditions for an extension of liability for defects under:

http://support.automation.siemens.com/WW/view/en/56715113

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4/2 Overview
4/2 Classification of zones
4/3 Types of protection
4/4 Certification

4/5 Type of protection Ex ec/Ex tc
4/5 Air-cooled motors H-compact 1MS4
4/6 Air-cooled motors H-compact PLUS 1SG4/1SG6, SIMOTICS HV M 1SG7
4/7 Water-cooled motors H-compact PLUS 1SL4/1SL6, SIMOTICS HV M 1SL7

4/8 Type of protection Ex pxb
4/8 Overview
4/9 Air-cooled motors H-compact 1MG4
4/10 Air-cooled motors H-compact PLUS 1SB4/1SB6, SIMOTICS HV M 1SB7
4/11 Water-cooled motors H-compact PLUS 1SQ4/1SQ6, SIMOTICS HV M 1SQ7

4/12 Type of protection Ex eb
4/12 Air-cooled motors H-compact 1MA4
4/13 Air-cooled motors/Water-cooled motors H-compact PLUS 1SJ4, 1SJ6 and SIMOTICS HV M 1SJ7 H-compact PLUS 1SN4, 1SN6 and SIMOTICS HV M 1SN7

4/14 Options and tests
4/14 Description of options

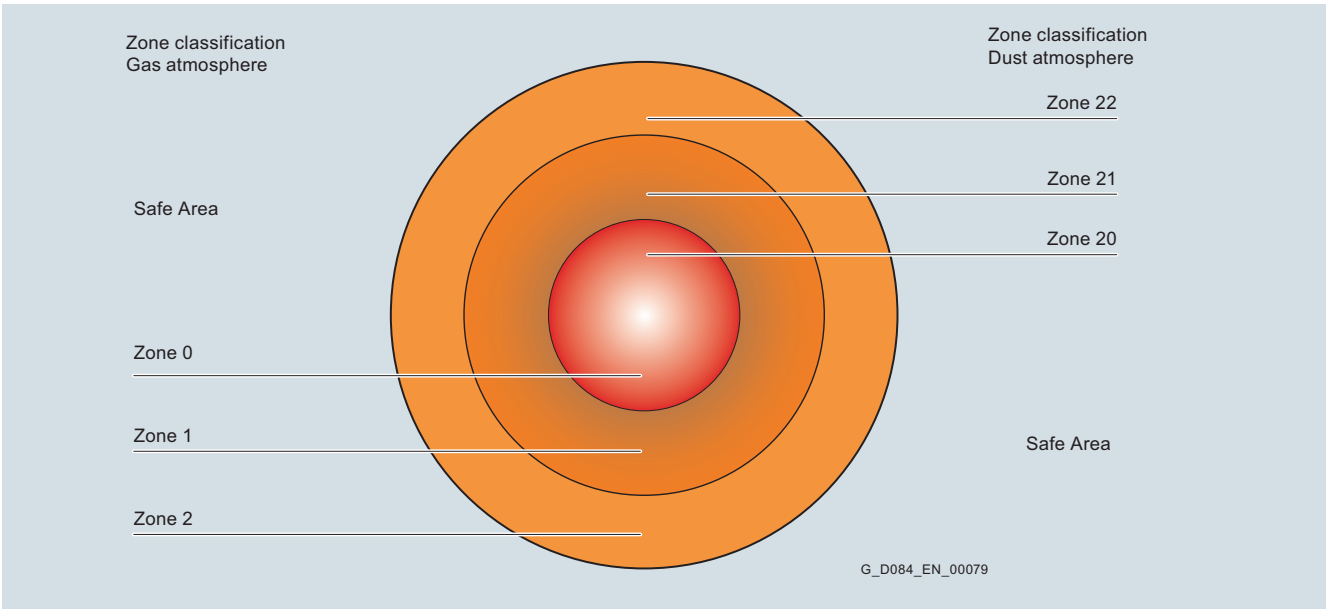
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Classification of zones

Overview

In many industries, the manufacture, processing, transport or storage of combustible materials results in the creation or release of gases, vapors or mist into the environment. Combustible dusts are created in other processes.
Explosive atmospheres are formed when gases, vapors, mist or dust come into contact with oxygen in the air. If ignited, this can result in an explosion. In the chemical and petrochemical industries in particular, when crude oil and natural gas are transported, or in mining, milling (e.g. grain and granular solids), this can result in serious injury to personnel and damage to equipment.
To ensure maximum safety in these areas, legislators in most countries have implemented appropriate stipulations in the form of laws and regulations based on national and international standards.

Hazardous areas are classified in zones. Classification in zones depends on the probability of the presence of an explosive atmosphere, the duration and the location. Information and specifications regarding classification in zones are provided in IEC/EN 60079-10-1 for gas atmospheres and in IEC/EN 60079-10-2 for potentially explosive atmospheres as a result of dust. Further, a distinction is made between various explosion groups as well as temperature classes and these are included in the hazard assessment.



Depending on the particular zone and therefore the associated hazard, operating equipment must comply with defined minimum requirements regarding the type of protection. The different types of protection require corresponding measures to prevent ignition that should be implemented at the motor in order to prevent that a surrounding explosive atmosphere is ignited.

Zone		Zone definition acc. to		
Dust[2)]	Gas[1)2)]	IEC/EN 60079-10-1 for Gas atmospheres IEC/EN 60079-10-2 for dust atmospheres	Assigned types of protection	Category according to 94/9/EC
22	–	An area in which in normal operation it is not expected that an explosive atmosphere in the form of a cloud of combustible dust in the air occurs, and if it does occur then only briefly.	Ex tc	3D
–	2	An area in which in normal operation it is not expected that an explosive gas atmosphere occurs and if so, only infrequently and only briefly.	Ex ec	3G
–	1	An area in which it is expected that an explosive gas atmosphere occurs during normal operation.	Ex eb Ex pxb Ex db	2G
–	0	An area in which it is expected that a gas atmosphere is constantly present or for long periods of time	Motors are not permitted	

Note:

Referring to the 60079 IEC/EN standards, the following should be observed:

- The previous Ex e and Ex nA markings have been changed to Ex eb and Ex ec respectively. For both, the associated standard is IEC/EN 60079-7:2015. Expiration date of old marking: 2018-07-31
- The previous Ex px marking has been changed to Ex pxb. The associated standard is IEC/EN 60079-2:2014. Expiration date of old marking: 2017-08-25

[1)] Motors for Zone 1 may also be used in Zone 2.

[2)] Motors, which are marked for gas or dust protection, must not be used in hybrid mixtures! Hybrid mixtures: When explosive gas and dust atmospheres occur simultaneously.

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Overview (continued)

Type of protection, pressurized enclosure Ex pxb acc. to IEC/EN 60079-2

In the motor, protective gas is kept under pressure in relation to the surrounding atmosphere to prevent the penetration of explosive atmospheres. The inside of the motor must be flushed with an protective gas before it is switched on.

H-compact (type series 1MG4) as well as H-compact PLUS and SIMOTICS HV M motors (air-cooled, type series 1SB4/1SB6/1SB7 and water-cooled, type series 1SQ4/1SQ6/1SQ7) fulfill this type of protection.

Type of protection, increased safety Ex eb acc. to IEC/EN 60079-7

Additional measures are taken to prevent the possibility of high temperatures and to prevent sparks or arcs from occurring inside the motor and at external motor components.

Increased safety can be guaranteed by H-compact (type series 1MA4) as well as H-compact PLUS and SIMOTICS HV M motors (air-cooled, type series 1SJ4/1SJ6/1SJ7 and water-cooled, type series 1SN4/1SN6/1SN7). An inquiry must be sent to the factory.

Type of protection, flameproof enclosure Ex db acc. to IEC/EN 60079-1

The components that can ignite an explosive atmosphere are located in an enclosure that is not damaged by an internal explosion and flameproof joints prevent flames from escaping to the explosive atmosphere on the outside.

The LOHER VARIO series is available in ***Ex db***.

Type of protection, Ex ec acc. to IEC/EN 60079-7

The type of protection ***Ex ec*** ensures that a motor in normal operation as well as when operated under deviating conditions as specified in the standard is not in a position to ignite a surrounding explosive gas atmosphere.

The series of H-compact (type series 1MS4) as well as H-compact PLUS and SIMOTICS HV M motors (air-cooled, type series 1SG4/1SG6/1SG7 and water-cooled, type series 1SL4/1SL6/1SL7) are available in ***Ex ec.***

Type of protection Ex t acc. to IEC/EN 60079-31

This type of protection applies for electrical equipment protected using an enclosure and with limited surface temperature for use in areas in which combustible dust can occur in concentration levels that could cause a fire or an explosion.

The series of H-compact (type series 1MS4) as well as H-compact PLUS and SIMOTICS HV M motors (air-cooled, type series 1SG4/1SG6/1SG7 and water-cooled, type series 1SL4/1SL6/1SL7) are available in ***Ex tc***.

Explosion-protected motors for converter operation

Principally, explosion-protected motors can be fed from drive converters. As a result of the different design, system analyses, system tests etc. for the various types of protection, an inquiry is required to check whether these motors can be actually implemented.

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Certification

Overview (continued)

Certification

Motors for use in hazardous areas are certified according to the EC Directive 94/9/EC (ATEX) or other regional certification schemes and are marked according to the following schematic.

	Acc. to Directive 94/9/EC (ATEX)						Acc. to Standards (IEC/EN)				
Example, pressurized enclosure:	**CE**	**XXXX**		**II**	**2**	**G**	**Ex**	**pxb**	**II**	**T3**	**X**

CE marking

Number of the certifying "notified body"

Ex symbol for explosion protected equipment

Groups:
- I = mining
- II = other than mining

Category:
- 2 (Zone 1/21)
- 3 (Zone 2/22)

Explosive atmosphere
- G = gas
- D = dust

Explosion protected equipment

Type of protection db, eb, ec, pxb, tc

Note: Additional types of protection for accessories are alphabetically listed

Explosion group, where relevant, restricted (Gas: IIA, IIB, IIC; Dust: IIIA, IIIB, IIIC)

Temperature class with max. surface temperature
- T1 ≤ 450 °C
- T2 ≤ 300 °C
- T3 ≤ 200 °C (standard for motors from Siemens I DT LD P)
- T4 ≤ 135 °C

Alternatively the maximum surface temperature may be marked: e.g. T125 °C
(possible for gas, necessary for dust explosion protected machines)

Special conditions according to the operating instructions or type examination certificate

Additional information on the subject of explosion protection, types of protection and zones is provided in the Siemens brochure *Explosion Protection*.

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Overview



Technical data

Overview of technical data

H-compact 1MS4	
Rated voltage	2.0 … 11 kV
Rated frequency	50/60 Hz
Motor type	Induction motor with squirrel-cage rotor
Type of construction	IM B3, IM V1
Degree of protection	IP55
Type of protection	Ex ec/Ex tc
Operation in hazardous areas	Zone 2/Zone 22
Cooling method	IC411/IC416
Stator winding insulation	Thermal class 155 (F), utilized to 130 (B)
Shaft height	315 … 630 mm
Bearings	Anti-friction bearings, sleeve bearings
Cage material	Die-cast aluminum or copper (dependent on the shaft height and number of poles)
Standards	IEC, EN
Frame design	Cast iron with cooling ribs

The series of H-compact motors (IC411/IC416 cooling type), developed for Zone 2 in type of protection ***Ex ec*** or for Zone 22 in type of protection ***Ex tc*** are available as 1MS4 motors. The Article No. schematic is shown in Chapter 1.

These ***Ex ec*** or ***Ex tc*** measures do not affect the performance data or main dimensions with respect to H-compact motors (1LA4 type series). This is the reason that the values of the 1LA4 type series from Chapter 2 and Chapter 3 can also be used for 1MS4 motors.

An extensive range of options and tests are available for H-compact motors, type of protection ***Ex ec*** or ***Ex tc*** (--> Options and tests).

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Overview



Technical data

Overview of technical data

H-compact PLUS 1SG4/1SG6, SIMOTICS HV M 1SG7	
Rated voltage	3.3 … 11 kV
Rated frequency	50/60 Hz
Motor type	Induction motor with squirrel-cage rotor
Type of construction	IM B3, IM V1
Degree of protection	IP55
Type of protection	Ex ec/Ex tc
Operation in hazardous areas	Zone 2/Zone 22
Cooling method	IC611/IC616/IC666
Stator winding insulation	Thermal class 155 (F), utilized to 130 (B)
Shaft height	450 … 710 mm
Bearings	Anti-friction bearings, sleeve bearings
Cage material	Copper
Standards	IEC, EN
Frame design for shaft heights 450 … 560 mm	Housing: Cast iron Cooling enclosure: Steel
Frame design for shaft heights 630 … 710 mm	Housing: Steel Cooling enclosure: Steel

H-compact PLUS and SIMOTICS HV M motors (type series 1SG4, 1SG6 and 1SG7) developed for Zone 2 in type of protection ***Ex ec*** or for Zone 22 in type of protection ***Ex tc*** are available as modular motors with air/air heat exchanger. The Article No. schematic is shown in Chapter 1.

These ***Ex ec*** or ***Ex tc*** measures do not affect the performance data or main dimensions with respect to H-compact PLUS motors. This is the reason that the values of the 1RQ4, 1RQ6 or 1RQ7 type series from Chapter 2 can be used for 1SG4, 1SG6 and 1SG7 motors.

An extensive range of options and tests are available for H-compact PLUS motors, type of protection ***Ex ec*** or ***Ex tc*** (--> Options and tests).

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Overview



Technical data

Overview of technical data

H-compact PLUS 1SL4/1SL6, SIMOTICS HM M 1SL7	
Rated voltage	3.3 … 11 kV
Rated frequency	50/60 Hz
Motor type	Induction motor with squirrel-cage rotor
Type of construction	IM B3, IM V1
Degree of protection	IP55
Type of protection	Ex ec/Ex tc
Operation in hazardous areas	Zone 2/Zone 22
Cooling method	IC81W/IC86W
Stator winding insulation	Thermal class 155 (F), utilized to 130 (B)
Shaft height	450 … 710 mm
Bearings	Anti-friction bearings, sleeve bearings
Cage material	Copper
Standards	IEC, EN
Frame design for shaft heights 450 … 560 mm	Housing: Cast iron Cooling enclosure: Steel
Frame design for shaft heights 630 … 710 mm	Housing: Steel Cooling enclosure: Steel

H-compact PLUS and SIMOTICS HV M motors (type series 1SL4, 1SL6 and 1SL7) developed for Zone 2 in type of protection ***Ex ec*** or for Zone 22 in type of protection ***Ex tc*** are available as modular motors with air/water heat exchanger (cooling type IC81W/IC86W).
The Article No. schematic is shown in Chapter 1.

These ***Ex ec*** or ***Ex tc*** measures do not affect the performance data or main dimensions with respect to H-compact PLUS motors. This is the reason that the values of the 1RN4, 1RN6 or 1RN7 type series from Chapter 2 can be used for 1SL4,1SL6 and 1SL7 motors.

An extensive range of options and tests are available for H-compact PLUS motors, type of protection ***Ex ec*** or ***Ex tc*** (--> Options and tests).

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Overview

For motors with pressurized enclosure (type of protection ***Ex pxb***)
the terminal box is included in the pressurized enclosure or has increased safety (type of protection ***Ex eb***).

For motors > 11 kV, the terminal box is always included in the pressurized enclosure.

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Overview



Technical data

Overview of technical data

H-compact 1MG4	
Rated voltage	2.0 … 11 kV
Rated frequency	50/60 Hz
Motor type	Induction motor with squirrel-cage rotor
Type of construction	IM B3, IM V1
Degree of protection	IP55
Type of protection	Ex pxb
Operation in hazardous areas	Zone 1 (may also be used in Zone 2)
Cooling method	IC411/IC416
Stator winding insulation	Thermal class 155 (F), utilized to 155 (F)
Shaft height	315 … 560 mm
Bearings	Anti-friction bearings, sleeve bearings
Cage material	Die-cast aluminum or copper (dependent on the shaft height and number of poles)
Standards	IEC, EN
Frame design	Cast iron with cooling ribs

The H-compact motors (IC411/IC416 cooling type), developed for Zone 1 in type of protection ***Ex pxb*** are available as 1MG4 motors. The Article No. schematic is shown in Chapter 1.

The motors are shipped with a control unit to maintain the internal pressure and to carry out the purging process required each time before the motor is started.

These ***Ex pxb*** measures have no effect on the performance data with respect to H-compact motors of the 1LA4 type series. This is the reason that the values of the 1LA4 motors from Chapter 1 can be used for 1MG4 motors. Main dimensions on request.

A wide range of options and tests is available for H-compact motors, type of protection ***Ex pxb***.

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Overview



Technical data

Overview of technical data

H-compact PLUS 1SB4/1SB6, SIMOTICS HV M 1SB7	
Rated voltage	3.3 … 13.8 kV
Rated frequency	50/60 Hz
Motor type	Induction motor with squirrel-cage rotor
Type of construction	IM B3, IM V1
Degree of protection	IP55
Type of protection	Ex pxb
Operation in hazardous areas	Zone 1 (may also be used in Zone 2)
Cooling method	IC611/IC616/IC666
Stator winding insulation	Thermal class 155 (F), utilized to 130 (B)
Shaft height	450 … 710 mm
Bearings	Anti-friction bearings, sleeve bearings
Cage material	Copper
Standards	IEC, EN
Frame design for shaft heights 450 … 560 mm	Housing: Cast iron Cooling enclosure: Steel
Frame design for shaft heights 630 … 710 mm	Housing: Steel Cooling enclosure: Steel

This series of H-compact PLUS motors, developed for Zone 1 (type series 1SB4, 1SB6 and 1SB7) in type of protection ***Ex pxb*** are available as modular motors with air/air heat exchanger (IC611/IC616/IC666 cooling type). The Article No. schematic is shown in Chapter 1.

The motors are shipped with a control unit to maintain the internal pressure and to carry out the purging process required each time before the motor is started.

These ***Ex pxb*** measures have no effect on the performance data when compared to H-compact PLUS motors. This is the reason that the values of 1RQ4, 1RQ6 or 1RQ7 motors from Chapter 2 can be used for 1SB4, 1SB6 and 1SB7 motors. Main dimensions on request.

A wide range of options and tests is available for H-compact PLUS motors, type of protection ***Ex pxb***.

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Overview



Technical data

Overview of technical data

H-compact PLUS 1SQ4/1SQ6, SIMOTICS HV M 1SQ7	
Rated voltage	3.3 … 13.8 kV
Rated frequency	50/60 Hz
Motor type	Induction motor with squirrel-cage rotor
Type of construction	IM B3, IM V1
Degree of protection	IP55
Type of protection	Ex pxb
Operation in hazardous areas	Zone 1 (may also be used in Zone 2)
Cooling method	IC81W/IC86W
Stator winding insulation	Thermal class 155 (F), utilized to 130 (B)
Shaft height	450 … 710 mm
Bearings	Anti-friction bearings, sleeve bearings
Cage material	Copper
Standards	IEC, EN
Frame design for shaft heights 450 … 560 mm	Housing: Cast iron Cooling enclosure: Steel
Frame design for shaft heights 630 … 710 mm	Housing: Steel Cooling enclosure: Steel

This series of H-compact PLUS motors, developed for Zone 1 (type series 1SQ4, 1SQ6 and 1SQ7) in type of protection ***Ex pxb*** is available as modular motors with air/water heat exchanger (IC81W/IC86W cooling type). The Article No. schematic is shown in Chapter 1.

The motors are shipped with a control unit to maintain the internal pressure and to carry out the purging process required each time before the motor is started.

These ***Ex pxb*** measures have no effect on the performance data when compared to H-compact PLUS motors. This is the reason that the values of 1RN4, 1RN6 or 1RN7 type series from Chapter 2 can be used for 1SQ4, 1SQ6 and 1SQ7 motors. Main dimensions on request.

A wide range of options and tests is available for H-compact PLUS motors, type of protection ***Ex pxb***.

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Overview



Technical data

Overview of technical data

H-compact 1MA4	
Rated voltage	3.0 … 11 kV
Rated frequency	50/60 Hz
Motor type	Induction motor with squirrel-cage rotor
Type of construction	IM B3, IM V1
Degree of protection	IP55
Type of protection	Ex eb
Operation in hazardous areas	Zone 1 (may also be used in Zone 2)
Cooling method	IC411/IC416
Stator winding insulation	Thermal class 155 (F), utilized to 130 (B)
Shaft height	315 … 560 mm
Bearings	Anti-friction bearings, sleeve bearings
Cage material	Die-cast aluminum or copper (dependent on the shaft height and number of poles)
Standards	IEC, EN
Frame design	Cast iron with cooling ribs

The series of H-compact motors developed for Zone 1 in type of protection ***Ex eb*** is available as 1MA4 motors (cooling type IC411/IC416). The Article No. code is shown in Chapter 1.

An inquiry must always be sent to the factory for these motors.

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Overview

Air-cooled motors
H-compact PLUS 1SJ4 and 1SJ6

Based on the series of H-compact PLUS motors, air/air-cooled motors, type ***1SJ4*** and ***1SJ6*** are available for Zone 1 in ***Ex eb***.

An inquiry must always be sent to the factory for these motors.

Water-cooled motors
H-compact PLUS 1SN4 and1SN6

Based on the series of H-compact PLUS motors, air/water-cooled motors, type ***1SN4*** and ***1SN6*** are available for Zone 1 in ***Ex eb***.

An inquiry must always be sent to the factory for these motors.

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Description of options

Options

Using the following options, H-compact and H-compact PLUS can be adapted to order-specific requirements. The Article No. is supplemented with a "-Z" and with either one or several order codes.

Other options can be addressed on request with the VARIO (rib-cooled) or VARIO PLUS (modular design) motor series.

Order code	Option description	Remark
	Paint finish	
K26	Special paint finish in RAL 7030	
Y53	Standard paint finish in a color different from RAL 7030	Plain text required
Y54	Special paint finish in a color different from RAL 7030	Plain text required
	Documentation	
B00	No motor manual	
B21	Documentation on CD-ROM instead of paper printout	
B22	Documentation as e-mail instead of paper	
B23	Motor manual printed on paper, 3x	
B27	Run out protocol	
B28	Protocol air gap calculation	
B34	Document standard inspection and test plan	
B35	Document balancing report	
B36	Document test and inspection description	
B37	Document load characteristics	
B38	Document recommended spare parts	
B41	Document instrumentation list	
B43	Document production schedule: Generated once	
B44	Document production schedule: Updated biweekly	
B45	Document production schedule: Updated monthly	
B48	Document order-specific inspection and test plan	
	Document language	
D00	Documentation in German	
D54	Documentation in Czech	
D55	Documentation in Polish	
D56	Documentation in Russian	
D72	Documentation in Italian	
D73	Documentation in Finnish	
D74	Documentation in Dutch	
D75	Documentation in Turkish	
D76	Documentation in English	Standard
D77	Documentation in French	
D78	Documentation in Spanish	
D79	Documentation in Portuguese	
D80	Documentation in Bulgarian	
D81	Documentation in Norwegian	
D82	Documentation in Hungarian	
D83	Documentation in Swedish	
D84	Documentation in Chinese	
	Direction of rotation	
K97	Rotation clockwise (CW)	Standard
K98	Rotation counter-clockwise (CCW)	

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Options (continued)

Order code	Option description	Remark
	Noise reduction	
L20	Silencer for air inlet	
L21	Noise reduction: Silencer for air outlet	Only for H-compact PLUS and SIMOTICS HV M
L22	Noise reduction: Lining of interior space	Only for H-compact PLUS and SIMOTICS HV M
L23	External metal fan, unidirectional	Only for H-compact
L25	Rustless grid at inlet silencer	Only for H-compact
	Terminal box mounting position	
K09	Terminal box on right-hand side, view from DE	Standard
K10	Terminal box on left-hand side, view from DE	
K83	Terminal box rotated through 90°, cable entry from DE	
K84	Terminal box rotated through 90°, cable entry from NDE	
K85	Terminal box rotated through 180°	
N81	Bracket rotated through 180°, terminal box rotated through 90°, cable entry from NDE	Only for H-compact
N82	Bracket rotated through 180°, terminal box rotated through 90°, cable entry from DE	Only for H-compact
N83	Bracket rotated through 180°, terminal box rotated through 180°, cable entry from above	
N84	Bracket rotated through 180°, rotated through 90°, cable entry from below	
N85	Terminal box on NDE	Only for H-compact
	Terminal box, main and auxiliary terminal box	
L54	Terminal box, 6 terminals with 2 cable entries for connection to power supply, rated current > 315 A	
L59	Terminal box with sealing chamber for 1 cable entry	
L55	Star-point terminal box, up to 6.6 kV, 3 terminals	
L56	Star-point terminal box, up to 11 kV, 3 terminals	
L57	Star-point terminal box, up to 6.6 kV, 6 terminals	
M50	Auxiliary terminal box in cast iron	
M51	Auxiliary terminal box material: Stainless steel	
M52	Separate auxiliary terminal box for anti-condensation heater	
	Cooling air monitoring	
A44	1 resistance thermometer Pt100 for 2-, 3- or 4-wire connection from terminal box for cold air temperature	
A45	1 resistance thermometer Pt100 for 2-, 3- or 4-wire connection from terminal box for hot air temperature	
A46	1 double resistance thermometer Pt100 for 2-, 3- or 4-wire connection from terminal box, for cold air temperature	
A47	1 double resistance thermometer Pt100 for 2-, 3- or 4-wire connection from terminal box, for hot air temperature	
A86	1 dial-type thermometer with 2 NO-Contacts for cold air temperature incl. terminal box	
A87	1 dial-type thermometer with 2 NO-Contacts for hot air temperature incl. terminal box	
	Speed monitoring	
A03	Speed monitoring using an inductive proximity switch, Pepperl + Fuchs, incl. terminal box, without evaluation unit	

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Options (continued)

Order code	Option description	Remark
	Bearing version/instrumentation	
H09 + H11	DIN flange type for forced oil lubrication for oil inlet with flowmeter, manometer and throttle valve (incl. counter flange) + DIN flange type forced oil lubrication for oil outlet with sight glass (incl. counter flange)	
H10 + H12	ANSI flange type for forced oil lubrication for oil inlet with flowmeter, manometer and throttle valve (incl. counter flange) + ANSI flange type for forced oil lubrication for oil outlet with sight glass (incl. counter flange)	
H43	DIN flange type for forced oil lubrication for in- and outlet without instruments (with counter flanges)	
H44	ANSI flange type for forced oil lubrication for in- and outlet without instruments (with counter flanges)	
K20	Bearing design on DE for increased forces (reinforced)	H-compact SH 315 and SH 355 only
K96	Sleeve bearing instead of anti-friction bearing	
L18	DE insulation	
L27	Insulated bearing on NDE	Standard for H-compact PLUS and SIMOTICS HV M
L60	Forced-circulation oil lubrication (with oil cooling) instead of oil-ring lubrication	
L66	Air cooling, but prepared for future conversion to forced-circulation oil lubrication	
P44	Oil manifold; connections with counter flange; flange flush with the axial shaft face	
	Bearing monitoring – sleeve bearings	
A02	Shaft vibration monitoring for sleeve bearings, Bently Nevada system	
A39	Prepared for shaft vibration monitoring for sleeve bearings (without monitoring system)	
A41	2 resistance thermometers Pt100 for 2-, 3- or 4-wire connection from terminals for sleeve bearing	
A43	2 double resistance thermometers Pt100 for 2-, 3- or 4-wire connection from terminals for sleeve bearing	
A70	2 dial-type thermometers without contacts	
A71	2 dial-type thermometers with contacts	
	Bearing monitoring – anti-friction bearings	
A40	2 resistance thermometers Pt100 for 2-, 3- or 4-wire connection from terminal box for anti-friction bearings	
A42	2 double resistance thermometers Pt100 for 2-, 3- or 4-wire connection from terminals for anti-friction bearings	
G50	Shock pulse measuring nipple (SPM) at DE and NDE	Standard
	Mechanical versions	
K16	Second shaft extension up to 50 % rated torque	
L81	Vibration severity grade B according to IEC/ EN 60034-14	Not available for 2-pole motors with roller bearings.
Y55	Non-standard cylindrical shaft extension (an inquiry must be sent to the factory)	
Y85	Oil shrink fit for cylindrical, single-stage shaft extension instead of a key connection	

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Options (continued)

Order code	Option description	Remark
	Others/additional options	
H08	Leakage water detection	
K52	Degree of protection IP56 non-heavy-sea	
K35	External metal fan, bidirectional	Only for H-compact
L15	Supporting ring for coupling guard	
L17	Mounting a coupling provided (finish machined and balanced)	
L31	Motor mounting materials for mounting on a steel foundation: Bolts, shims and taper dowels	
L32	Motor mounting materials for mounting on a concrete foundation or concrete base: Threaded bolts, armature plates, sole plates, shims and taper dowels	
L33	Motor mounting materials to mount on a concrete foundation or concrete base: T-head bolts, foundation bolt sleeves, sole plates, shims and taper dowels	
L91	Higher number of starts, > 1000 ... 10000 starts per year, for Cu rotors	
L92	Higher number of starts, > 5000 ... 10000 starts per year, for Al rotors	
P45	External screws made of stainless steel	
	Anti-condensation heating	
M14	Anti-condensation heater Ex eb II T3, rated voltage range 110 to 120 V	
M15	Anti-condensation heater Ex eb II T3, rated voltage range 220 to 240 V	Standard for H-compact in type of protection Ex eb (1MA4) and H-compact PLUS
	Ambient conditions	
D02	Operation at ambient temperatures up to –50 °C, transport up to –50 °C	
D03	Operation at ambient temperatures up to –40 °C, transport up to –40 °C	
D04	Operation at ambient temperatures up to –30 °C, transport up to –40 °C	
E81	Outdoor use with high salinity or offshore applications (corrosivity grade C5-M/ C5-I)	
E82	Outdoor use with moderate salinity (corrosivity grade C4)	
E83	Outdoor use with low salinity (corrosivity grade C3)	
	Winding and motor protection	
A12	6 PTC thermistors without lightning arresters	
A23	1 temperature sensor KTY 84-130	
A65	6 embedded resistance thermometers Pt100 for 2-, 3- or 4-wire connection from terminal box without lightning arresters	Standard
A67	6 embedded screened resistance thermometers Pt100 for 3- or 4-wire connection from terminal box without lightning arresters	
	Marine applications	Options and tests for marine and offshore applications: see Chapter 5.

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Description of options

Options (continued)

Order code	Option description	Remark
	Tests with acceptance	
F01	All standard tests (routine test), with acceptance	
F15	Recording of no-load characteristic and determination of core and friction losses, with acceptance	
F17	Recording of short-circuit characteristic and determination of short-circuit losses, with acceptance	
F19	Recording of load characteristic, with acceptance	
F23	Dissipation factor test (tan delta) on 2 (test) coils, with acceptance	In addition, specify order code F90
F29	No-load noise measurement, without noise analysis, with acceptance	
F31	Cooling air flow and pressure drop measurement, with acceptance	
F35	Recording of current and torque characteristics during acceleration, with acceptance	
F37	Determination of moment of inertia by retardation method, with acceptance	
F39	Overspeed test, with acceptance	
F41	Recording of residual voltage curve, with acceptance	
F53	Locked-rotor torque and current measurement, with acceptance	
F55	Polarization index measurement, with acceptance	
F61	Impulse or AC voltage test on 2 (test) coils, with acceptance	In addition, specify order code F90
F63	Noise analysis, with acceptance	
F83	Type test for horizontal motors with temperature rise test, with acceptance	
F90	2 test coils	
F93	Type test for vertical motors with temperature rise test, with acceptance	
	Tests without acceptance	
F14	Recording of no-load characteristic and determination of core and friction losses, without acceptance	
F16	Recording of short-circuit characteristic and determination of short-circuit losses, without acceptance	
F18	Recording of load characteristic, without acceptance	
F22	Dissipation factor test (tan delta) on 2 (test) coils, without acceptance	In addition, specify order code F90
F28	No-load noise measurement, without noise analysis, without acceptance	
F30	Cooling air flow and pressure drop measurement, without acceptance	
F34	Recording of current and torque characteristics during acceleration, without acceptance	
F36	Determination of moment of inertia by retardation method, without acceptance	
F38	Overspeed test, without acceptance	
F42	"Conformance Test (Wet Test)" to NEMA Standard, without acceptance	
F52	Locked-rotor torque and current measurement, without acceptance	
F54	Polarization index measurement, without acceptance	
F60	Impulse or AC voltage test on 2 (test) coils, without acceptance	In addition, specify order code F90
F62	Noise analysis, without acceptance	
F82	Type test for horizontal motors with temperature rise test, without acceptance	
F90	2 test coils	
F92	Type test for vertical motors with temperature rise test, without acceptance	
	Certificates for explosion protection	
D32	Ex certification for China (CQST)	
D35	Ex certification for Russia (RosTechNadzor)	
D36	Conformity declaration acc. to 94/9/EG (ATEX) of an independent test body for Zone 2 motors (Ex ec)	
D37	IECEx certification	

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Overview (continued)

Order code	Option description	Remark
	Extension of liability for defects	**Article number for reorder**
Q80	Extension of liability for defects, by 12 months to a total of 24 months (2 years) from delivery	**9LD1720-0AA24**
Q81	Extension of liability for defects, by 18 months to atotal of 30 months (2.5 years) from delivery	**9LD1720-0AA30**
Q82	Extension of liability for defects, by 24 months to a total of 36 months (3 years) from delivery	**9LD1720-0AA36**
Q83	Extension of liability for defects, by 30 months to a total of 42 months (3.5 years) from delivery	**9LD1720-0AA42**
Q84	Extension of liability for defects, by 36 months to a total of 48 months (4 years) from delivery	**9LD1720-0AA48**
Q85	Extension of liability for defects, by 48 months to a total of 60 months (5 years) from delivery	**9LD1720-0AA60**

Conditions for an extension of liability for defects

You will find the currently valid conditions for an extension of liability for defects under:

http://support.automation.siemens.com/WW/view/en/56715113

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Notes

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Options for marine and offshore applications

5



5/2 Orientation

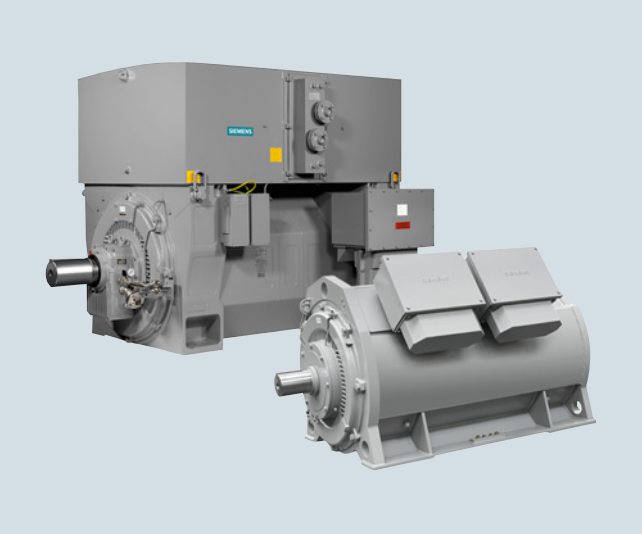
5/7 Ordering examples

5/9 Options

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Orientation

Overview



The SIMOTICS HV/TN series in a marine design have been designed for below-deck operation on ships. If the motors are intended for on deck operation or for offshore applications, then these must be explicitly ordered using an additional order code. The reason
for this is that in these cases special measures are required. The thermal utilization of the motors is adapted to the generally higher ambient temperatures onboard ships. If the application demands compliance with additional regulations, such as explosion protection, the appropriate motor series must be chosen.

The motors onboard ships are subdivided into three importance categories by the marine classification societies in collaboration with customers, depending on the field of application:

- **Essential Service for Propulsion** or also Primary Essential Service
- **Essential Service** or also Secondary Essential Service or Important Service
- **Non-Essential Service** or also Non-Important Service

As the assignment of a drive to one of the importance categories has a direct impact on the scope of the marine options, this must be known when ordering the motor.

The following services of the motor manufacturer are associated with the categories:

	Importance category		
	Essential Service for Propulsion	**Essential Service**	**Non-Essential Service**
Typical applications	Propeller drive, thruster (if used as main drive/declared as propulsion)	Thrusters, lateral thrust units, anchor winches, bilge and ballast pumps, fire-fighting pumps	Pumps for service water
Version	In accordance with the regulations of the classification society		In accordance with ambient conditions of the classification society
Acceptance test certificate	Acceptance test certificate 3.2 according to EN10204		Acceptance test certificate 3.1 according to EN 10204[1)]
Individual acceptance by classification society	Will be performed. Motor is assigned an individual certificate of the classification society.		Not necessary
Ordering several identical motors	Differentiation between the first motor and additional ones must be realized when ordering using an order code.		No distinction
Rating plate data	Information about ambient conditions of the classification society		
Stamp of the classification society	Stamp on the shaft[2)] and enclosure		No stamp

Classification authorities

Society	Abbreviation	Location
American Bureau Of Shipping	ABS	USA
Bureau Veritas	BV	France
China Classification Society	CCS	China
Det Norske Veritas Germanischer Lloyd	DNV GL	Germany
Korean Register	KR	Korea
Lloyds Register	LR	UK

1) Certificate is not stipulated by the classification society but it is issued according to the internal quality standards within the scope of a routine test.

2) Provided that it is specified that the classification society supervises construction.

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Benefits

The marine motors offer the user a number of advantages and benefits:

- Cast iron and steel versions can be supplied for corrosive atmospheres especially for high humidity levels and salt laden air
- Increased corrosion protection using specially designed paint finishes is available
- Certified marine motors can be supplied for use in areas to be protected against explosion
- In depth know-how regarding customer requirements
- Worldwide service network with 24-hour service hotline for motors and converters

Application

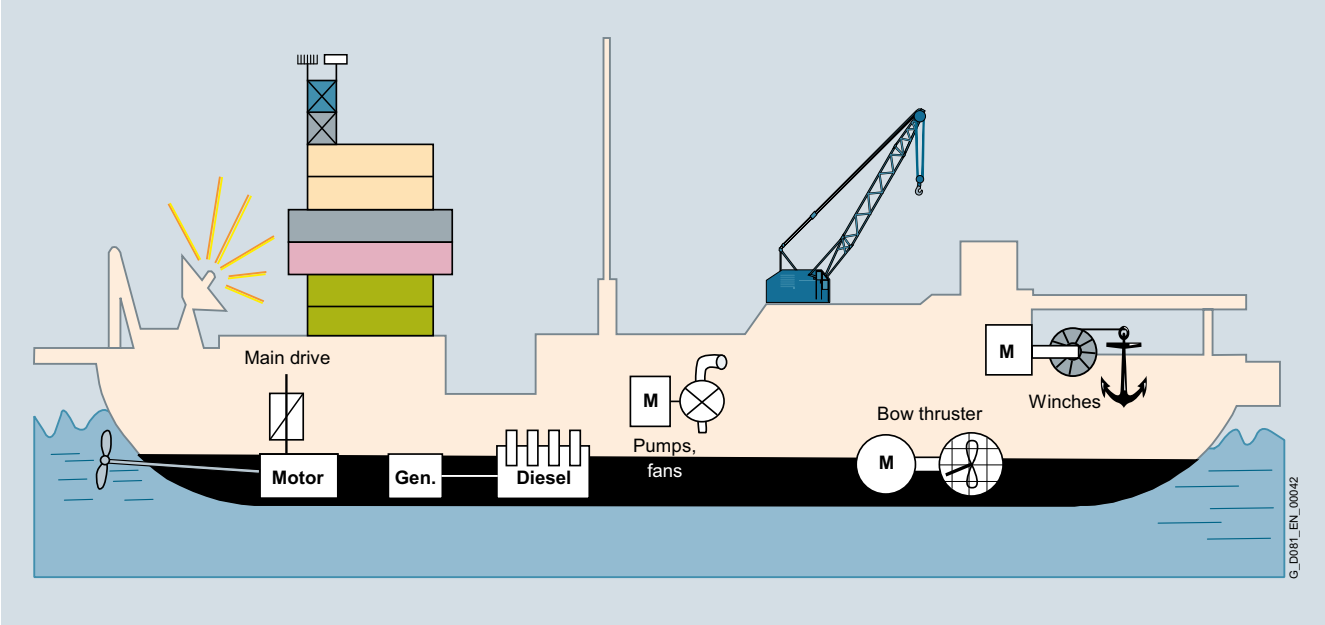
Our marine motors are designed for use onboard ships (installed below deck or on deck under a protective canopy):

- Applications onboard ships as main and auxiliary drives below deck, e.g.:
  - Fans (air conditioning, refrigeration plants)
  - Pumps (for fire-extinguishing water, fuels, oils)
  - Winches (anchor winches, warping winches, lifting gear)
  - Compressors
  - Bow thruster drives
  - Main propulsion drives
  - Ex motors for hazardous zones

If marine motors are to be used on deck in especially corrosive atmospheres or in offshore applications, then they must be additionally upgraded to meet these more stringent conditions. For this purpose, one of the options E81, E82 or E83 should be selected.

- Typical applications are:
  - Coastal areas, e.g. oil rigs, drilling ships
  - Dynamic positioning drives for platforms
  - Pumps

Offshore versions must be specifically ordered, as they require special measures.



Typical areas of application

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Orientation

Technical data

Enclosure version

Depending on the motor series, motors are available in a corrosion-resistant steel enclosure or in a rugged low-vibration cast-iron version.

Motor connection

Cable glands are not included in the scope of delivery.

All marine motors generally have an external grounding terminal.

Regulations of the individual classifications societies for motors:

Classification society	Coolant temperature CT		Admissible temperature rise limit according to the classification society			Rated power limit for individual acceptance test	Construction supervision mandatory
	Water cooling	Air cooling	Temperature class				
			130 (B)	155 (F), P_{rated} < 5000 kW	155 (F), P_{rated} ≥ 5000 kW		
	°C	°C	K	K	K	kW	
LR	32	45	70	95	90	≥ 100	≥ 100 kW
BV	32	45	75	100	95	≥ 100	≥ 500 kW
DNV GL	32	45	75	100	100	≥ 300	–
ABS	32	50	70	95	90	≥ 100	–
KR	32	45	75	100	95	≥ 7.5	–
CCS	32	45	75	100	95	All power ratings	All power ratings

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Technical data (continued)

Regulations of the individual classification societies with order codes when ordering SIMOTICS HV/TN motors (low and high voltage versions) in a marine design

SIMOTICS HV/TN in a marine design

	Motor type H-compact	Motor type H-compact PLUS, SIMOTICS HV/TN
Water-cooled motors for line and converter operation	1LH4	1RN4, 1RN6, 1RN7
Air-cooled motors for line and converter operation (self-ventilated)	1LA4	1RQ4, 1RQ6, 1RQ7
Air-cooled motors with externally mounted fan for converter operation	1PQ4	1RQ4, 1RQ6, 1RQ7
Self-ventilated motors with open-circuit air cooling for line and converter operation	–	1RA4, 1RP6, 1RA7
Motors with the cooling types listed above with type of protection "nA" or "tD" (Zone 2 or Zone 22)	1MS4	1SL4, 1SL6, 1SL7 1SG4, 1SG6, 1SG7
Motors with the cooling types listed above with type of protection "e" (Zone 1)	1MA4	1SN4, 1SN6 1SJ4, 1SJ6
Motors with the cooling types listed above with type of protection "px" (Zone 1)	1MG4	1SQ4, 1SQ6, 1SQ7 1SB4, 1SB6, 1SB7

SIMOTICS HV/TN motors for marine applications must be ordered with the classification-specific options. This ensures that both the mechanical design of the motor, and the tests are performed exactly in accordance with the instructions provided by the respective classification society.

There are four categories of classification-specific options:

1) *Design options* define the marine-compatible technical design in accordance with the definitions of the classification society
2) *Certification options* define the scope of the test certificates
3) *Test options* define the scope of the individual tests
4) *Additional options* for deviations and special conditions: specify the customer's request for participation in the tests at the factory, or define coolant temperatures that differ from the requirements of the classification society (additional plain text required)

The options of the importance categories listed above are combined with each other depending on the class of importance, classification society and other conditions.

If motors are to be designed according to the specifications of several classification societies, a special inquiry is necessary.

Motors for Non-Essential Services

The technical design is in accordance with the ambient operating conditions specified by the classification society. One of the marine design options X00, X01, X12[1)], X03, X05 or X06 must be specified depending on the classification society. Acceptance inspections are not required. There is no distinction between ordering an individual motor or several ones.

Non-Essential Service	Options according to the classification society					
	ABS	**BV**	**CCS**	**DNV GL**	**KR**	**LR**
Technical version	X00	X01	[1)]	X03	X05	X06

Motors for Essential Services

The technical design is in accordance with regulations of the classification society: Options X10 to X16. An acceptance test certificate 3.2 according to EN 10204 and a product certificate of the classification society is provided with each motor. Depending on the classification society, the test steps are defined by options X30 to X42 for the first motor (even numbers) and X31 to X43 for the additional motors (uneven numbers). Options J70 to J82 or J71 to J83 define the expenditure for certifying the motor.

Essential Service	Options according to the classification society					
	ABS	**BV**	**CCS**	**DNV GL**	**KR**	**LR**
Technical version	X10	X11	X12	X13	X15	X16
Certification						
• First motor	J70	J72	J74	J76	J80	J82
• Additional motors	J71	J73	J75	J77	J81	J83
Scope of the tests and presence of representatives of the classification society						
• First motor	X30	X32	X34	X36	X40	X42
• Additional motors	X31	X33	X35	X37	X41	X43
Tests in presence of representatives of the customer (in addition to the inspector of the classification society)	X99					
Conditions deviating from classification requirements must be fulfilled	E80					

Motors for Essential Services for Propulsion

The technical design is in accordance with regulations of the classification society: Options X20 to X26. An acceptance test certificate 3.2 according to EN 10204 and a product certificate of the classification society is provided with each motor. Depending on the classification society, the test steps are defined by options X60 to X72 for the first motor (even numbers) and X61 to X73 for the additional motors (uneven numbers). Options N40 to N52, or N41 to N53 define the expenditure for certifying the motor.

Essential Service for Propulsion	Options according to the classification society					
	ABS	**BV**	**CCS**	**DNV GL**	**KR**	**LR**
Technical version	X20	X21	X22	X23	X25	X26
Certification						
• First motor	N40	N42	N44	N46	N50	N52
• Additional motors	N41	N43	N45	N47	N51	N53
Scope of the tests and presence of representatives of the classification society						
• First motor	X60	X62	X64	X66	X70	X72
• Additional motors	X61	X63	X65	X67	X71	X73
Tests in presence of representatives of the customer (in addition to the inspector of the classification society)	X99					
Conditions deviating from classification requirements must be fulfilled	E80					

Option E80 is used if a different coolant temperature CT is required. The CT must also be specified in plain text, e.g. CT55.

[1)] Non-Essential Service must be handled by CCS just like an Essential Service.

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Technical data (continued)

Scope of design options X00 to X26

All classification-specific technical measures are contained in the design options.

Temperature class and coolant temperature

Standard motors and explosion-protected motors up to shaft height 710 mm

In general, marine motors are designed for a coolant temperature CT 45 °C in temperature class 155 (F), used according to 155 (F). Motors according to the ABS classification that specify CT 50 °C are an exception. When motors are used according to temperature class 130 (B) derating is required.

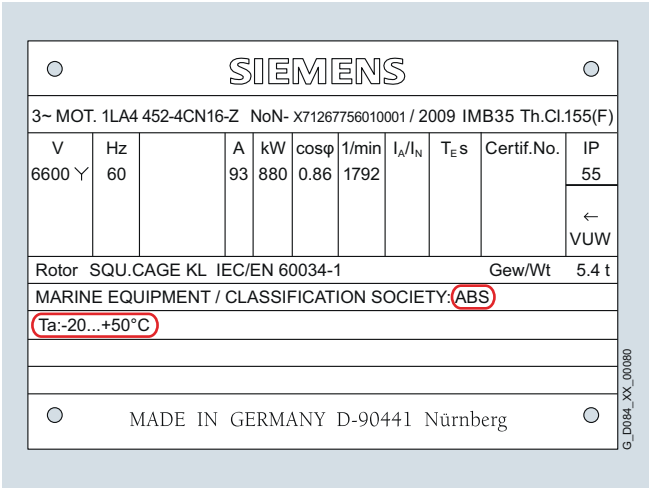
Coolant temperatures that exceed CT 45 °C require derating in accordance with the following table:

	Coolant temperature CT			
	45 °C	50 °C	55 °C	60 °C
Temperature class 155 (F) according to 155 (F)				
Derating factor for line operation	1.00	0.95	0.90	0.85

More detailed information is available on request.

Rating plate and acceptance test certificate

The metal rating plate includes the data of the relevant classification society (exception: Non-Essential Services) and the associated coolant temperature.



Degree of protection

The degrees of protection as specified in Catalog D 84.1 apply. For IP56 (non-heavy sea, order code K52) the formation of ice must be avoided.

Winding and motor protection

To monitor the winding – and if specified by the classification society – to monitor the bearings, the motors are equipped with PTC thermistors, temperature sensors and resistance thermometers. Marine motors are equipped with anti-condensation heating in order to prevent possible condensation forming on the windings.

Paint finish

The paint finish has an increased coating thickness (order code K26). This is suitable for indoor installations and outdoors under a roof or canopy.

A paint finish according to DIN EN ISO 12944-5 C5-M is used for unprotected installation on deck, especially aggressive atmospheres or offshore applications. This is part of order code E81, which upgrades a standard marine motor for these special ambient conditions.

Special paint colors and increased layer thicknesses are available on request.

Recommended special versions:

- Installation of 2 screw-in PT100 resistance thermometers in basic circuit for anti-friction bearings – Order code A40
- IP56 degree of protection (non-heavy-sea) for protection against harmful dust deposits, protection against water jets from any direction – Order code K52
- Degree of protection IP65 on request.
- External screws and bolts manufactured out of stainless steel – Order code P45
- Upgrading a marine motor for unprotected installation on deck, use in especially aggressive atmospheres or offshore applications – Order code E81

Additional information

Order information

The fees of the classification societies for individual acceptance inspections are included in the order code.

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Selection and ordering data

Ordering examples:

Selection criteria	Requirement	Structure of the Article No.
1st ordering example: 5 motors for Non-Essential Service according to LR (Lloyds Register), UK		
Motor type	Rib-cooled H-compact high voltage motor, low voltage version, self-ventilated, cooling type IC411, degree of protection IP55	**1LA4■■■-■■■■■**
Shaft height	560 mm	**1LA4560-6■■■■**
No. of poles/synchronous speed	6-pole/1000 rpm	
Type rating	1750 kW	
Rotor cage material	Copper	**1LA4560-6C■■■**
Voltage and frequency	690 V, 50 Hz	**1LA4560-6CM0■**
Operating mode	Converter operation	
Type of construction	IM B3	**1LA4560-6CM00**
Special versions	Technical design in accordance with LR (Lloyds Register), UK	**1LA4560-6CM00-Z X06**
	Article No. for all 5 motors	**1LA4560-6CM00-Z X06**
2nd ordering example: 7 motors for Essential Service according to BV (Bureau Veritas), France		
Motor type	Water-cooled high voltage H-compact PLUS motor, cooling type IC81W, degree of protection IP55, type of protection Ex pxb	**1SQ4■■■-■■■■■**
Shaft height	630 mm	**1SQ4632-4■■■■**
No. of poles/synchronous speed	4-pole/1500 rpm	
Type rating	6000 kW	
Ventilation	Shaft-mounted fan (basic version)	**1SQ4632-4H■■■**
Rotor version and operating mode	Copper (standard), line operation	**1SQ4632-4HE■■**
Voltage and frequency	6 kV, 50 Hz	**1SQ4632-4HE6■**
Type of construction	IM V10 with canopy	**1SQ4632-4HE64**
Special versions		
1st motor	Technical design in accordance with BV (Bureau Veritas), France	**1SQ4632-4HE64-Z X11**
	Necessary certification for first motor ordered in accordance with BV (Bureau Veritas), France	**1SQ4632-4HE64-Z X11+J72**
	Necessary tests for first motor ordered in accordance with BV (Bureau Veritas), France	**1SQ4632-4HE64-Z X11+J72+X32**
	Article No. for 1st motor	**1SQ4632-4HE64-Z X11+J72+X32**
Additional 6 motors	Technical design in accordance with BV (Bureau Veritas), France	**1SQ4632-4HE64-Z X11**
(additional motors)	Necessary certification for additional motors ordered in accordance with BV (Bureau Veritas), France	**1SQ4632-4HE64-Z X11+J73**
	Necessary tests for additional motors ordered in accordance with BV (Bureau Veritas), France	**1SQ4632-2HE64-Z X11+J73+X33**
	Article No. for the additional 6 motors	**1SQ4632-2HE64-Z X11+J73+X33**

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Ordering examples

Selection criteria	Requirement	Structure of the Article No.
3rd ordering example: 2 motors for Essential Service according to DNV GL (Det Norske Veritas Germanischer Lloyd), Germany		
Motor type	The same as for the 1st ordering example	**1LA4560-6CM00**
Special versions		
1st motor	Technical design in accordance with DNV GL (Det Norske Veritas Germanischer Lloyd), Germany	**1LA4560-6CM0**0-Z X13
	Necessary certification for first motor ordered according to DNV GL (Det Norske Veritas Germanischer Lloyd), Germany	**1LA4560-6CM00-Z X13**+J76
	Necessary tests for first motor ordered according to DNV GL (Det Norske Veritas Germanischer Lloyd), Germany	**1LA4560-6CM00-Z X13+J76**+X36
	Tests in presence of representatives of the customer (in addition to the inspector of the classification society)	**1LA4560-6CM00-Z X13+J76+X36**+X99
	Article No. for 1st motor	**1LA4560-6CM00-Z X13+J76+X36+X99**
Additional motor (additional motors)	Technical design in accordance with DNV GL (Det Norske Veritas Germanischer Lloyd), Germany	**1LA4560-6CM00**-Z X13
	Necessary certification for additional motors ordered according to DNV GL (Det Norske Veritas Germanischer Lloyd), Germany	**1LA4560-6CM00-Z X13**+J77
	Necessary tests for additional motors ordered according to DNV GL (Det Norske Veritas Germanischer Lloyd), Germany	**1LA4560-6CM00-Z X13+J77**+X37
	Article No. for additional motor	**1LA4560-6CM00-Z X13+J77+X37**
4th ordering example: 3 motors for Essential Service Propulsion according to ABS (American Bureau of Shipping), USA		
Motor type	The same as for the 2nd ordering example	**1SQ4632-4HE64**
Special versions		
1st motor	Technical design in accordance with ABS (American Bureau of Shipping), USA	**1SQ4632-4HE64**-Z X20
	Necessary certification for first motor ordered according to ABS (American Bureau of Shipping), USA	**1SQ4632-4HE64-Z X20**+N40
	Necessary tests for first motor ordered according to ABS (American Bureau of Shipping), USA	**1SQ4632-4HE64-Z X20+N40**+X60
	Article No. for 1st motor	**1SQ4632-4HE64-Z X20+N40+X60**
Additional 2 motors (additional motors)	Technical design in accordance with ABS (American Bureau of Shipping), USA	**1SQ4632-4HE64**-Z X20
	Necessary certification for additional motors ordered according to ABS (American Bureau of Shipping), USA	**1SQ4632-4HE64-Z X20+N41**
	Necessary tests for additional motors ordered according to ABS (American Bureau of Shipping), USA	**1SQ4632-4HE64-Z X20+N41**+X61
	Article No. for the additional 2 motors	**1SQ4632-4HE64-Z X20+N41+X61**
5th ordering example: 1 motor for Essential Service according to ABS (American Bureau of Shipping), USA, coolant temperature 60 °C:		
Motor type	The same as for the 1st ordering example	**1LA4560-6CM00**
Special versions	Technical design in accordance with ABS (American Bureau of Shipping), USA	**1LA4560-6CM00**-Z X10
	Necessary certification for first motor ordered according to ABS (American Bureau of Shipping), USA	**1LA4560-6CM00-Z X10**+J70
	Necessary tests for first motor ordered according to ABS (American Bureau of Shipping), USA	**1LA4560-6CM00-Z X10+J70**+X30
	Motor for marine application, higher ambient temperature and/or utilization to temperature class 155 (F) according to 130 (B) – Coolant temperature 60 °C	**1LA4560-6CM00-Z X10+J70+X30**+E80 **Plain text: COOLANT TEMP CT60**
	Article No. for the motor	**1LA4560-6CM00-Z X10+J70+X30+E80** **Plain text: COOLANT TEMP CT60**

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Options

Options for marine motors

Order code	Option description
	Non-Essential Service
	Technical version
X00	Version according to ABS for Non-Essential Service
X01	Version according to BV for Non-Essential Service
X12[1)]	Version according to CCS for Essential Service
X03	Version according to DNV GL for Non-Essential Service
X05	Version according to KR for Non-Essential Service
X06	Version according to LR for Non-Essential Service
	Essential Service
	Technical version
X10	Version according to ABS for Essential Service
X11	Version according to BV for Essential Service
X12	Version according to CCS for Essential Service
X13	Version according to DNV GL for Essential Service
X15	Version according to KR for Essential Service
X16	Version according to LR for Essential Service
	Certification
	for the first motor ordered
J70	Certification for the first motor ordered according to ABS for Essential Service
J72	Certification for the first motor ordered according to BV for Essential Service
J74	Certification for the first motor ordered according to CCS for Essential Service
J76	Certification for the first motor ordered according to DNV GL for Essential Service
J80	Certification for the first motor ordered according to KR for Essential Service
J82	Certification for the first motor ordered according to LR for Essential Service
	for the second and additional motors ordered
J71	Certification for the second and additional motors ordered according to ABS for Essential Service
J73	Certification for the second and additional motors ordered according to BV for Essential Service
J75	Certification for the second and additional motors ordered according to CCS for Essential Service
J77	Certification for the second and additional motors ordered according to DNV GL for Essential Service
J81	Certification for the second and additional motors ordered according to KR for Essential Service
J83	Certification for the second and additional motors ordered according to LR for Essential Service
	Tests
	for the first motor ordered
X30	Tests for the first motor ordered according to ABS for Essential Service
X32	Tests for the first motor ordered according to BV for Essential Service
X34	Tests for the first motor ordered according to CCS for Essential Service
X36	Tests for the first motor ordered according to DNV GL for Essential Service
X40	Tests for the first motor ordered according to KR for Essential Service
X42	Tests for the first motor ordered according to LR for Essential Service
	for the second and additional motors ordered
X31	Tests for the second and additional motors ordered according to ABS for Essential Service
X33	Tests for the second and additional motors ordered according to BV for Essential Service
X35	Tests for the second and additional motors ordered according to CCS for Essential Service
X37	Tests for the second and additional motors ordered according to DNV GL for Essential Service
X41	Tests for the second and additional motors ordered according to KR for Essential Service
X43	Tests for the second and additional motors ordered according to LR for Essential Service

[1)] CCS handles Non-Essential Service just the same as Essential Service

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Options (continued)

Order code	Option description
	Essential Service Propulsion
	Technical version
X20	Version according to ABS for Essential Service Propulsion
X21	Version according to BV for Essential Service Propulsion
X22	Version according to CCS for Essential Service Propulsion
X23	Version according to DNV GL for Essential Service Propulsion
X25	Version according to KR for Essential Service Propulsion
X26	Version according to LR for Essential Service Propulsion
	Certification
	for the first motor ordered for essential service propulsion
N40	Certification for the first motor ordered according to ABS for Essential Service Propulsion
N42	Certification for the first motor ordered according to BV for Essential Service Propulsion
N44	Certification for the first motor ordered according to CCS for Essential Service Propulsion
N46	Certification for the first motor ordered according to DNV GL for Essential Service Propulsion
N50	Certification for the first motor ordered according to KR for Essential Service Propulsion
N52	Certification for the first motor ordered according to LR for Essential Service Propulsion
	Certification
	for the second and additional motors ordered
N41	Certification for the second and additional motors ordered according to ABS for Essential Service Propulsion
N43	Certification for the second and additional motors ordered according to BV for Essential Service Propulsion
N45	Certification for the second and additional motors ordered according to CCS for Essential Service Propulsion
N47	Certification for the second and additional motors ordered according to DNV GL for Essential Service Propulsion
N51	Certification for the second and additional motors ordered according to KR for Essential Service Propulsion
N53	Certification for the second and additional motors ordered according to LR for Essential Service Propulsion
	Tests
	for the first motor ordered
X60	Tests for the first motor ordered according to ABS for Essential Service Propulsion
X62	Tests for the first motor ordered according to BV for Essential Service Propulsion
X64	Tests for the first motor ordered according to CCS for Essential Service Propulsion
X66	Tests for the first motor ordered according to DNV GL for Essential Service Propulsion
X70	Tests for the first motor ordered according to KR for Essential Service Propulsion
X72	Tests for the first motor ordered according to LR for Essential Service Propulsion
	for the second and additional motors ordered
X61	Tests for the second and additional motors ordered according to ABS for Essential Service Propulsion
X63	Tests for the second and additional motors ordered according to BV for Essential Service Propulsion
X65	Tests for the second and additional motors ordered according to CCS for Essential Service Propulsion
X67	Tests for the second and additional motors ordered according to DNV GL for Essential Service Propulsion
X71	Tests for the second and additional motors ordered according to KR for Essential Service Propulsion
X73	Tests for the second and additional motors ordered according to LR for Essential Service Propulsion

Supplementary options

Order code	Option description
X99[1)]	Tests in the presence of representatives of the customer (together with the inspector of the classification society)
E80[2)]	Conditions deviating from the classification requirements
E81	Upgrading a marine motor for unprotected installation on deck, use in especially aggressive atmospheres or offshore applications

[1)] Only for Essential Service and Essential Service Propulsion.

[2)] Additional plain text data explaining the deviation required.

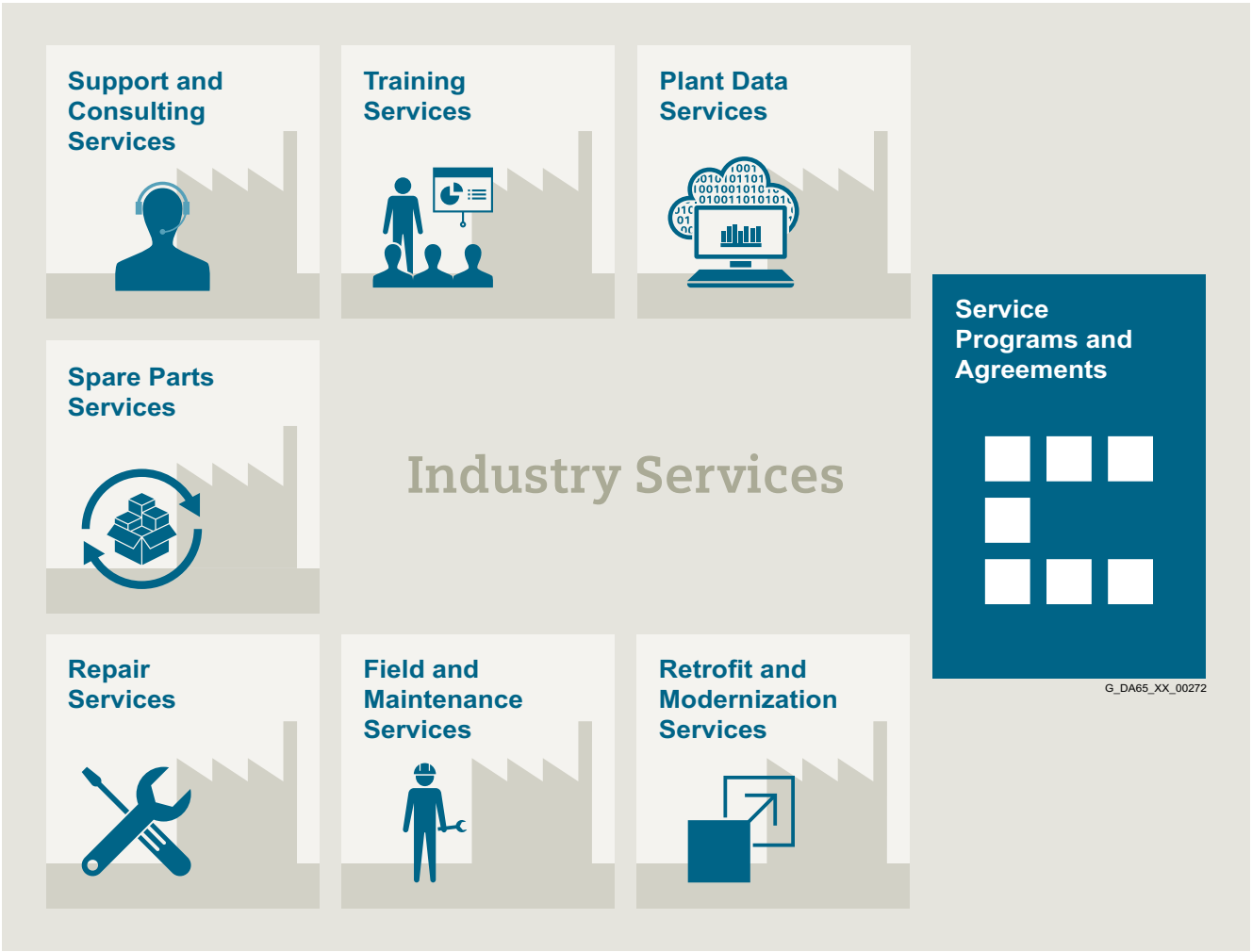
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Overview

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You can rely on our highly dedicated team of engineers, technicians and specialists to deliver the services you need – safely, professionally and in compliance with all regulations. We are there for you, where you need us, when you need us.

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Overview

Plant Data Services



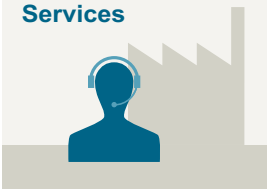
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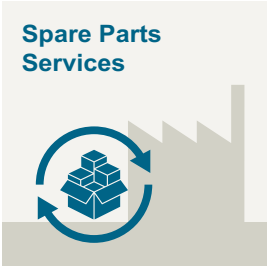


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Are available worldwide for smooth and fast supply of spare parts – and thus optimal plant availability. Genuine spare parts are available for up to ten years. Logistic experts take care of procurement, transport, custom clearance, storage and order management. Reliable logistics processes ensure that components reach their destination as needed.

Asset optimization services help you design a strategy for parts supply where your investment and carrying costs are reduced and the risk of obsolescence is avoided.

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Overview (continued)



Are offered on-site and in regional repair centers for fast restoration of faulty devices' functionality.

Also available are extended repair services, which include additional diagnostic and repair measures, as well as emergency services.

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Provide a cost-effective solution for the expansion of entire plants, optimization of systems or upgrading existing products to the latest technology and software, e.g. migration services for automation systems.

Service experts support projects from planning through commissioning and, if desired over the entire extended lifespan, e.g. Retrofit for Integrated Drive Systems for an extended lifetime of your machines and plants

www.industry.siemens.com/services/global/en/portfolio/retrofit-modernization/Pages/index.aspx



Siemens specialists are available globally to provide expert field and maintenance services, including commissioning, functional testing, preventive maintenance and fault clearance.
All services can be included in customized service agreements with defined reaction times or fixed maintenance intervals.

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A technical Service Program or Agreement enables you to easily bundle a wide range of services into a single annual or multi-year agreement.

You pick the services you need to match your unique requirements or fill gaps in your organization's maintenance capabilities.
Programs and agreements can be customized as KPI-based and/or performance-based contracts.

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Overview



Online Support is a comprehensive information system for all questions relating to products, systems, and solutions that Siemens has developed for industry over time. With more than 300,000 documents, examples and tools, it offers users of automation and drive technology a way to quickly find up-to-date information. The 24-hour service enables direct, central access to detailed product information as well as numerous solution examples for programming, configuration and application.

The content, in six languages, is increasingly multimedia-based – and now also available as a mobile app. Online support's "Technical Forum" offers users the opportunity to share information with each other. The "Support Request" option can be used to contact Siemens' technical support experts.
The latest content, software updates, and news via newsletters and Twitter ensure that industry users are always up to date.

www.siemens.com/industry/onlinesupport

Online Support App

Using the Online Support app, you can access over 300,000 documents covering all Siemens industrial products – anywhere, any time. Regardless of whether you need help implementing your project, fault-finding, expanding your system or are planning a new machine.

You have access to FAQs, manuals, certificates, characteristic curves, application examples, product notices (e.g. announcements of new products) and information on successor products in the event that a product is discontinued.

Just scan the product code printed on the product directly using the camera of your mobile device to immediately see all technical information available on this product at a glance.
The graphical CAx information (3D model, circuit diagrams or EPLAN macros) is also displayed. You can forward this information to your workplace using the e-mail function.

The search function retrieves product information and articles and supports you with a personalized suggestion list. You can find your favorite pages – articles you need frequently – under "mySupport". You also receive selected news on new functions, important articles or events in the News section.

Scan the QR code for information on our Online Support app.

The app is available free of charge from the Apple App Store (iOS) or from Google Play (Android).

https://support.industry.siemens.com/cs/ww/en/sc/2067

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Appendix



7/2 **Partner at Siemens**

7/3 **Online Services**

7/3 Information and Ordering Options on the Internet and on DVD

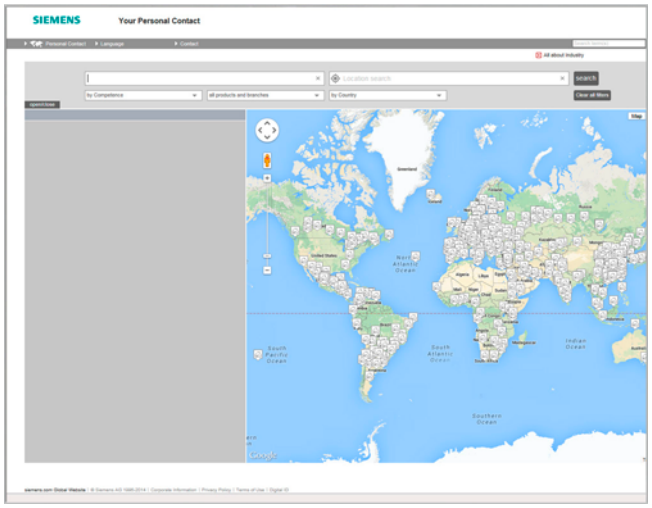
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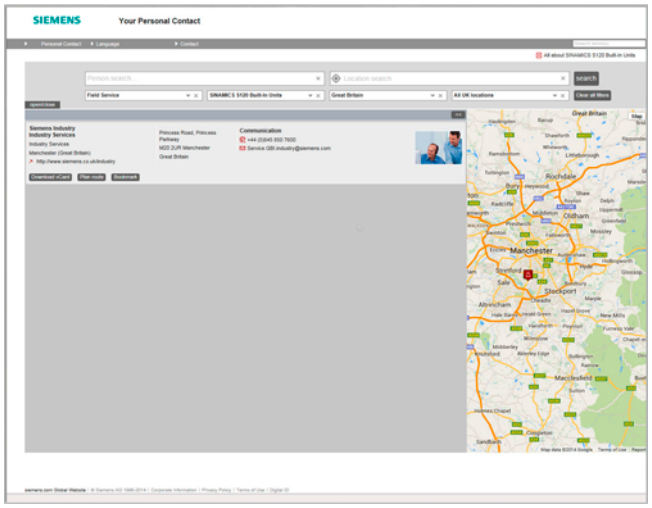
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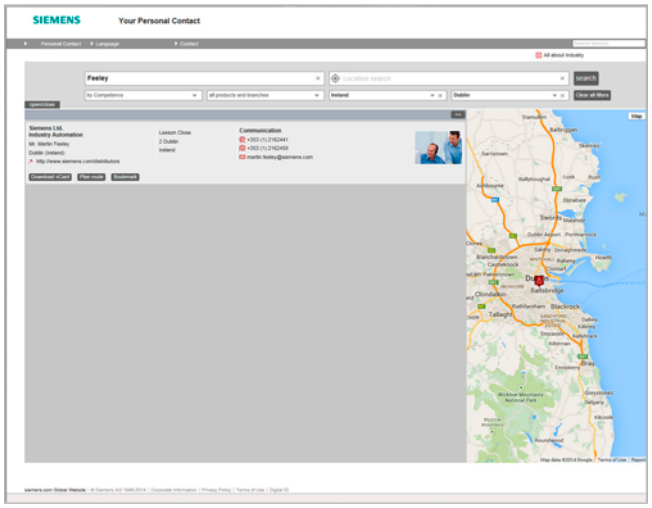
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7/6 **Conditions of sale and delivery**

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At Siemens we are resolutely pursuing the same goal: long-term improvement of your competitive ability.
We are committed to this goal. Thanks to our commitment, we continue to set new standards in automation and drive technology. In all industries – worldwide.

At your service locally, around the globe for consulting, sales, training, service, support, spare parts ... on the entire Digital Factory and Process Industries and Drives.

Your personal contact can be found in our Contacts Database at:
www.siemens.com/automation/partner

You start by selecting

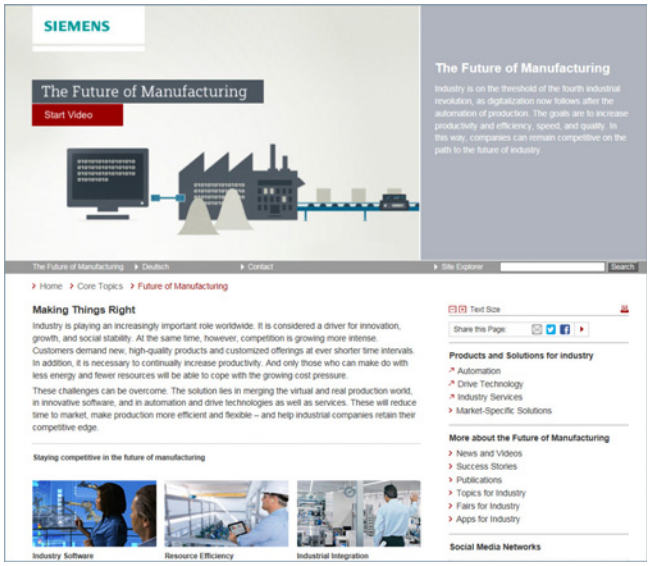
- the required competence,
- products and branches,
- a country,
- a city

or by a

- location search or
- person search.

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The Future of Manufacturing on the Internet



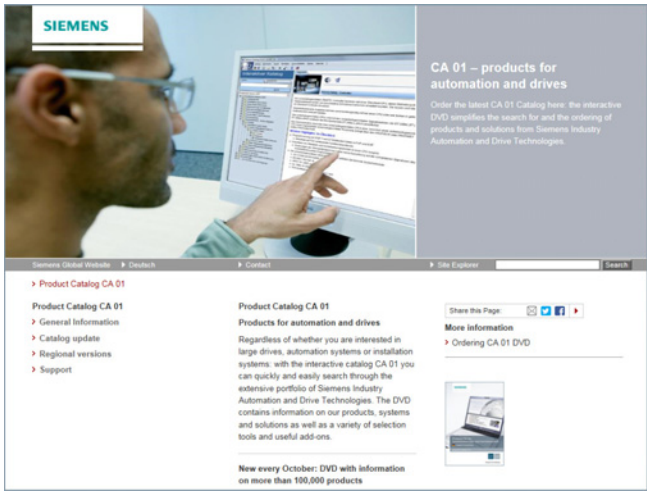
Detailed knowledge of the range of products and services available is essential when planning and engineering automation systems. It goes without saying that this information must always be as up-to-date as possible.

Industry is on the threshold of the fourth industrial revolution as digitization now follows after the automation of production. The goals are to increase productivity and efficiency, speed, and quality. In this way, companies can remain competitive on the path to the future of industry.

You will find everything you need to know about products, systems and services on the internet at:

www.siemens.com/industry

Product Selection Using the Interactive CA 01 Automation and Drives Catalog



Detailed information together with user-friendly interactive functions:
The CA 01 interactive catalog covers more than 100,000 products, thus providing a comprehensive overview of the product range provided by Siemens.

You will find everything you need here for solving tasks in the fields of automation, switching, installation and drives.
All information is provided over a user interface that is both user-friendly and intuitive.

You can order the CA 01 product catalog from your Siemens sales contact or in the Information and Download Center:

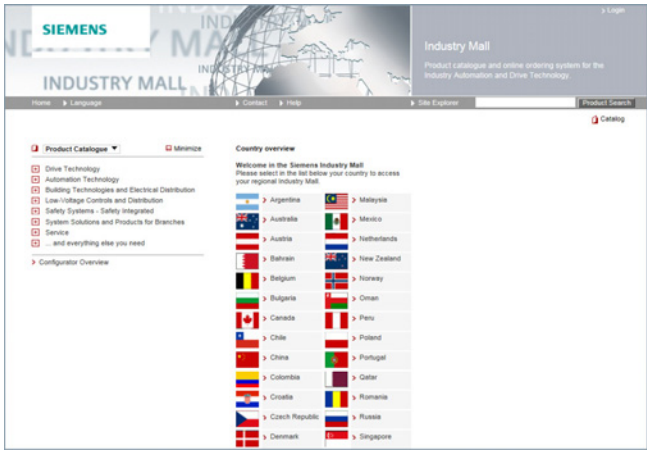
www.siemens.com/industry/infocenter

Information about the CA 01 interactive catalog can be found on the Internet at:

www.siemens.com/automation/ca01

or on DVD.

Easy Shopping with the Industry Mall



The Industry Mall is the electronic ordering platform of Siemens AG on the Internet. Here you have online access to a huge range of products presented in an informative and attractive way.

Data transfer via EDIFACT allows the whole procedure, from selection through ordering to tracking and tracing, to be carried out online. Availability checks, customer-specific discounts and bid creation are also possible.

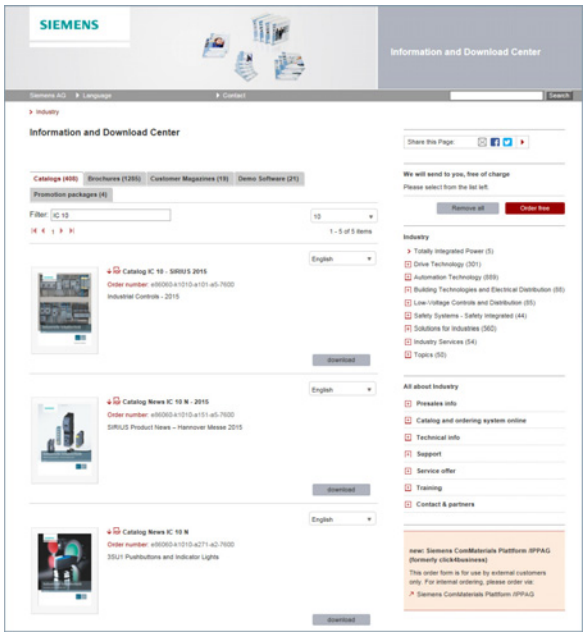
Numerous additional functions are provided for your support. For example, powerful search functions make it easy to select the required products. Configurators enable you to configure complex product and system components quickly and easily. CAx data types are also provided here.

You can find the Industry Mall on the Internet at:

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Downloading Catalogs



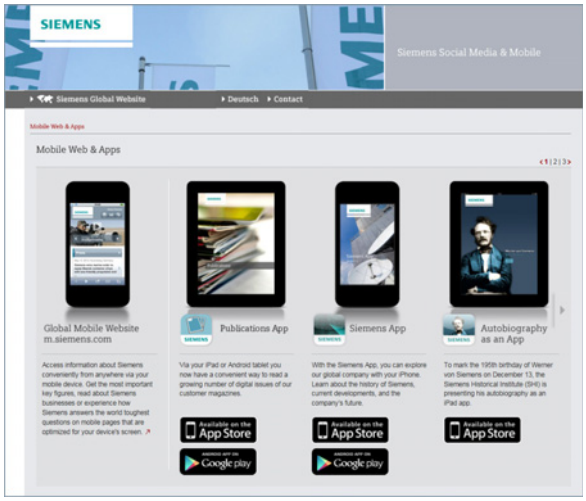
In addition to numerous other useful documents, you can also find the catalogs listed on the back inside cover of this catalog in the Information and Download Center. You can download these catalogs in PDF format without having to register.

The filter dialog above the first catalog displayed makes it possible to carry out targeted searches. If you enter "MD 3" for example, you will find both the MD 30.1 and MD 31.1 catalogs. If you enter "IC 10", both the IC 10 catalog and the associated news or add-ons are displayed.

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Social and Mobile Media



Connect with Siemens through social media: visit our social networking sites for a wealth of useful information, demos on products and services, the opportunity to provide feedback, to exchange information and ideas with customers and other Siemens employees, and much, much more. Stay in the know and follow us on the ever-expanding global network of social media.

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www.siemens.com/socialmedia

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www.siemens.com/automation or www.siemens.com/drives

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www.siemens.com/future-of-manufacturing



Discover the world of Siemens.

We are also constantly expanding our offering of cross-platform apps for smartphones and tablets. You will find the current Siemens apps at the App Store (iOS) or at Google Play (Android):

https://itunes.apple.com/en/app/siemens/id452698392?mt=8

https://play.google.com/store/search?q=siemens

The Siemens app, for example, tells you all about the history, latest developments and future plans of the company – with informative pictures, fascinating reports and the most recent press releases.

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Conditions of sale and delivery

1. General Provisions

By using this catalog you can acquire hardware and software products described therein from Siemens AG subject to the following Terms and Conditions of Sale and Delivery (hereinafter referred to as "T&C"). Please note that the scope, the quality and the conditions for supplies and services, including software products, by any Siemens entity having a registered office outside Germany, shall be subject exclusively to the General Terms and Conditions of the respective Siemens entity. The following T&C apply exclusively for orders placed with Siemens Aktiengesellschaft, Germany.

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- for other supplies and/or services, the "General Conditions for Supplies of Siemens Industry for Customers with a Seat or Registered Office outside of Germany"[1].

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Digital Factory, Process Industries and Drives and Energy Management

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Interactive Catalog on DVD	*Catalog*
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GAMMA Building Control	ET G1

Drive Systems	
SINAMICS G130 Drive Converter Chassis Units SINAMICS G150 Drive Converter Cabinet Units	D 11
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SINAMICS G180 Converters – Compact Units, Cabinet Systems, Cabinet Units Air-Cooled and Liquid-Cooled	D 18.1
SINAMICS S120 Chassis Format Units and Cabinet Modules SINAMICS S150 Converter Cabinet Units	D 21.3
SINAMICS S120 and SIMOTICS	D 21.4
SINAMICS DCM DC Converter, Control Module	D 23.1
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Safety Integrated	
Safety Technology for Factory Automation	SI 10

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Human Machine Interface Systems/ PC-based Automation	ST 80/ ST PC

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SIMATIC Industrial Automation Systems	
Products for Totally Integrated Automation	ST 70
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Add-ons for the SIMATIC PCS 7 Process Control System	ST PCS 7 AO

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