

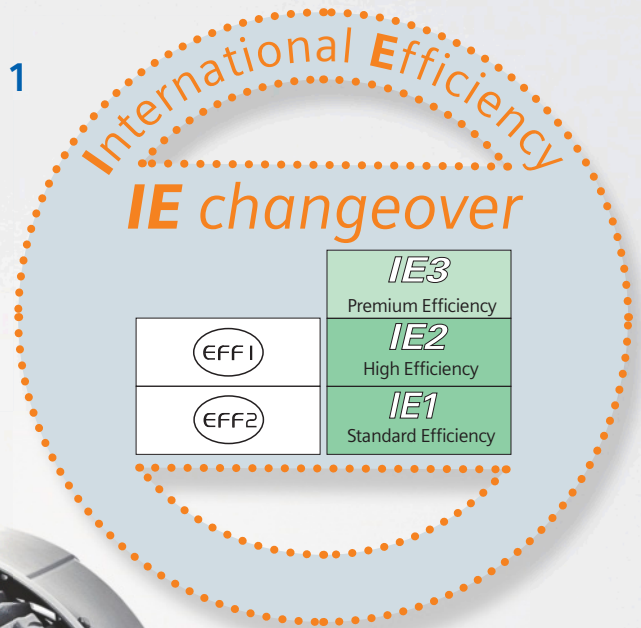
# IEC Squirrel-Cage Motors

Type series 1LE, 1PC, 1LA, 1LG, 1LL, 1LP, 1MA, 1MJ, 1PP, 1PQ

Frame sizes 63 to 450

Power range 0.09 to 1250 kW

Order overview to  
Catalog D 81.1 · July 2011



## Motors

Answers for industry.

**SIEMENS**

## Statutory minimum efficiencies in the European economic area

Please note that the minimum efficiency IE2 will be required by law from June 16, 2011 for many low-voltage motors that are sold/installed in the European economic area. In order to avoid additional costs for changing from IE1 to IE2 in 2011, we as a manufacturer recommend using the newly ordered products only for IE2. The statutory EU regulation (EC) No. 640/2009 (of July 22, 2009) governs the minimum efficiencies for electrical drives in the European economic area. It is based on the directive 2005/32/EC of the European Parliament and of the Council of July 6, 2005.

## Selection tool DT configurator



The DT configurator comprises the product range of low-voltage motors and MICROMASTER 4/SINAMICS converters as well as the SIMATIC ET 200 frequency converters. The product range is constantly expanded.

Information for the following products are available:

- 2D/3D-model generator for motors and converters
- Data sheet generator
- Starting calculation for motors
- Extensive product-specific documentation

## Energy saving/Energy-saving program SinaSave

Further information regarding energy savings and the Energy-saving program SinaSave can be found at the following internet address:

<http://www.siemens.com/energysaving>

### Online access in the Siemens Industry Mall

The DT configurator is integrated in the Siemens Industry Mall and be used without installation directly in the Internet.

German: [www.siemens.de/dt-konfigurator](http://www.siemens.de/dt-konfigurator)

English: [www.siemens.com/dt-configurator](http://www.siemens.com/dt-configurator)

### Offline access in the Interactive Catalog CA 01

The DT configurator is also integrated on the DVD of the Interactive Catalog CA 01, the offline version of the Siemens Industry Mall. You can order the CA 01 with your respective Siemens sales person or in the Internet:

[www.siemens.com/automation/ca01](http://www.siemens.com/automation/ca01)

## Price Groups

Motors	Standard program acc. to catalog with standard delivery time								Accessories/ Spare parts
	Preferred and Express Motors								
Type	1LA9 1LE1001 1LG6 1LE1501	1LA7 1LE1011 1LE1012	1LE1 1PC1	1LA7 1LA5 1LA9 1PP7 1PP5 1LP7 1LP5	1LG4 1LG6 1LA6 1PP4 1PP6 1LP4	1MA7 1MA6	1MJ6 1MJ7	1LA8 1PQ8 1LL8 1LH8	1XP8 2CW2
Price group	<b>3Z0</b>	<b>3Z0</b>	<b>3Z1</b>	<b>3Z1</b>	<b>3Z1</b>	<b>3Z4</b>	<b>3Z5</b>	<b>6ZZ</b>	<b>3Z6</b>

## Surcharges for Freight and Packaging

Additional surcharges for freight and packaging will be calculated in addition to orders.

Order Value in EUR	Quote in %
Up to 500.-	7.5
Up to 2.500.-	5
Above 2.500.-	3

## Definition of Delivery Time

The total delivery time (motor + supplements) is determined by the longer delivery time of the associated components.

Delivery times apply to clarified orders from the supplying factory.

Currently in stock and available for delivery:

Standard delivery times:

<b>Express</b>	<b>10 working days</b>	<b>20 working days</b>	<b>On request</b>
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## Changes or Cancellation

Costs will be calculated according to expenses occurred through changes or cancellation.

## Additional documentation

You will find all information material, such as brochures, catalogs, manuals and operating instructions for standard drive systems up-to-date on the Internet at the address

<http://www.siemens.com/motors/printmaterial>

You can order the listed documentation or download it in common file formats (PDF, ZIP).

## CU surcharge

The prices provided in this price list are valid for copper quotations (German electrolytic copper quotations) up to 225.- per 100 kg.

The surcharges stated below are added to the respective net price for quotations above 225.-. The copper surcharge is based on the quotation (lower German electrolytic quotation +1 %) of the previous day of the order placed. The copper surcharges for quotations of EUR 925.- and higher per 100 kg are additionally increased in steps of EUR 50.- by 1 %. For further information about "Metal surcharges", see the Appendix.

Copper quotation	Cu surcharge acc. to metal factor	
	N - W - - -	N - V - - -
	(for motors 1LA, 1LG, 1LE1, 1PC1, 1PP, 1LP, 1MA, 1PQ, 1LL)	
EUR per 100 kg	%	%
225.- up to just below 275.-	1.2	1
275.- up to just below 325.-	2.5	1.5
325.- up to just below 375.-	3.5	2
375.- up to just below 425.-	4.5	3
425.- up to just below 475.-	5.5	4
475.- up to just below 525.-	6.5	5
525.- up to just below 575.-	7.5	6
575.- up to just below 625.-	8.5	7
625.- up to just below 675.-	9.5	8
675.- up to just below 725.-	10.5	9
725.- up to just below 775.-	11.5	10
775.- up to just below 825.-	12.5	11
825.- up to just below 875.-	13.5	12
875.- up to just below 925.-	14.5	13

# Motors

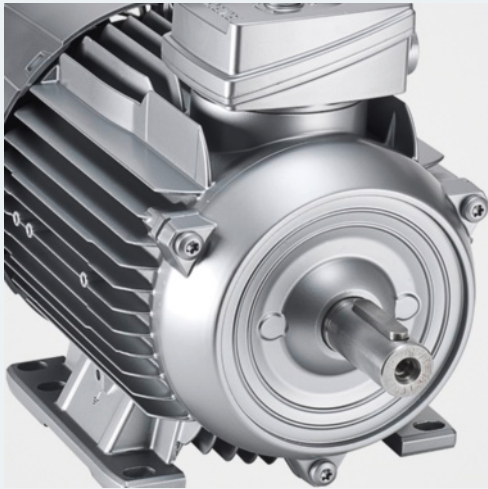
## IEC Squirrel-Cage Motors

Frame sizes 63 to 450

Power range 0.09 to 1250 kW

Order overview to

Catalog D 81.1 · July 2011 (with prices)



The products and systems described in this catalog are manufactured/distributed under application of a certified quality management system in accordance with DIN EN ISO 9001 (Certified Registration No. DE-000357 QM). The certificate is recognized by all IQNet countries.

The prices are valid from July 01, 2011.

Refer to the Industry Mall for current updates of this catalog:

[www.siemens.com/industrymall](http://www.siemens.com/industrymall)

The products contained in this catalog can also be found in the Interactive Catalog CA 01.

Order No.:

E86060-D4001-A510-C9-7600

Please contact your local Siemens branch

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Preferred and Express Motoren	0.2			4.1			
Standard motors	1.0		2.0		4.2		
	1LE1/1PC1		1.1	2.1	Selection and ordering data	4.3	
			1.2	2.2		4.4	
			1.3	2.3		4.5	
			1.4	2.4		Dimensions	4.6
			1.5	2.5			5.0
			1.6	2.6	5.1		
			1LA/1LG/1LP/1PP	1.7*	2.7	5.2	
1.8		2.8		5.3			
1.9	2.9	5.4					
Non-standard motors N-compact	Orientation	3.0	Application-specific motors	5.5			
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\* Available soon for 1LE1 motors.



## Much more than a catalog. The Industry Mall.

You have a catalog in your hands that will serve you well for selecting and ordering your products. But have you heard of the electronic online catalog (the Industry Mall) and all its benefits? Take a look around it sometime:

[www.siemens.com/industrymall](http://www.siemens.com/industrymall)



### Selecting

Find your products in the structure tree, in the new "Bread-crum" navigation or with the integral search machine with expert functions. Electronic configurators are also integrated into the Mall. Enter the various characteristic values and the appropriate product will be displayed with the relevant order numbers. You can save configurations, load them and reset them to their initial status.

### Ordering

You can load the products that you have selected in this way into the shopping basket at a click of the mouse. You can create your own templates and you will be informed about the availability of the products in your shopping cart. You can load the completed parts lists directly into Excel or Word.

### Delivery status

When you have sent the order, you will receive a short e-mail confirmation which you can print out or save. With a click on "Carrier", you will be directly connected to the website of the carrier where you can easily track the delivery status.

### Added value due to additional information

So you have found your product and want more information about it? In just a few clicks of the mouse, you will arrive at the image data base, manuals and operating instructions. Create your own user documentation with My Documentation Manager. Also available are FAQs, software downloads, certificates and technical data sheets as well as our training programs. In the image database you will find, depending on the product, 2D/3D graphics, dimension drawings and exploded drawings, characteristic curves or circuit diagrams which you can download.

Convinced? We look forward to your visit!

# Preferred and Express motors

0.2



## Definition for "Preferred motors"

The most popular basic versions of motor series 1LA9, 1LG6, 1LE1001 and 1LE1501 are available under special terms as so-called "Preferred motors"..

- This concerns a defined selection from the complete spectrum of motors
- The delivery times are in accordance with the details in the Catalog.
- The motors are in price group 3Z0.

## Definition for "Express motors"

Most of the Preferred motors are also available with a shorter delivery time as so-called "Express motors".

- This comprises a subset of the Preferred motors and they are ordered using the order code B19 <sup>1)</sup>.
- The standard delivery time for Express Motors is 1 to 2 days from the time of clarification of the order at the factory until dispatch from the factory. To determine the time of arrival at the customer site, the appropriate shipping time must be added.
- An express surcharge will be applied for this faster delivery <sup>1)</sup>.

0/2	<b>Motors with High Efficiency IE2</b>
0/2	Aluminum series 1LA9 and 1LE1001 Cast-iron series 1LG6 and 1LE1501
0/8	<b>Motors with Standard Efficiency</b>
0/8	Aluminum series 1LA7
0/9	Aluminum series 1LA7 and 1LE1 Pole-changing motors

<sup>1)</sup> 1LA7 motors < 0.75 kW and the pole-changing versions of series 1LA7 and 1LE1 will be available until September 30, 2011 ex-stock without an express surcharge – see pages 0/20 and 0/21. Order code B19 is omitted. It is expected that these motors will be available as Preferred motors from October 1, 2011 onwards.

# Preferred and Express motors

## Motors with High Efficiency IE2

Aluminum series 1LA9 and 1LE1001  
Cast-iron series 1LG6 and 1LE1501

# IE2

Standard delivery times:

Express

10  
working  
days

20  
working  
days

### Selection and ordering data

#### Basic type 1LE1

- Cooling: Self-ventilated (IC 411)
- Efficiency: High Efficiency IE2
- Insulation: Thermal class 155 (temp. class F), IP55 degree of protection, utilization in acc. with thermal class 130 (temperature class B)
- Metal factor for metal surcharges (MS): N - W - - -
- Price group: 3Z0

P <sub>rated</sub> , 50 Hz kW	Frame size FS	Order No.	Price plus MS EUR				
			0-2AA4	0-2AA4-Z B19	0-2FA4	0-2FA4-Z B19	0-2KA4
Voltage →		50 Hz, 400 VY 60 Hz, 460 VY					
Type →		Without flange IM B3	With flange IM B5, IM V1 without protective cover, IM V3		With standard flange IM B14		
Motor protection →		Without motor protection	Without motor protection		Without motor protection		
Preferred/Express →		Preferred	Express	Preferred	Express	Preferred	
2-pole: 3000 rpm at 50 Hz, 3600 rpm at 60 Hz							
0.75	80 M	1LE1001-0DA2-.....	464.-	514.-	516.10	566.10	516.10
1.1	80 M	1LE1001-0DA3-.....	531.-	581.-	583.10	633.10	583.10
1.5	90 S	1LE1001-0EA0-.....	613.-	663.-	675.50	725.50	675.50
2.2	90 L	1LE1001-0EA4-.....	791.-	841.-	853.50	903.50	85.50

#### Basic type 1LE1, 1LG6

- Cooling: Self-ventilated (IC 411)
- Efficiency: High Efficiency IE2
- Insulation: Thermal class 155 (temp. class F), IP55 degree of protection, utilization in acc. with thermal class 130 (temperature class B)
- Metal factor for metal surcharges (MS): N - W - - -
- Price group: 3Z0

P <sub>rated</sub> , 50 Hz kW	Frame size FS	Order No.	Price plus MS EUR						
			2-2AA4	2-2AB4	2-2AB4-Z B19	2-2FA4	2-2FB4	2-2FB4-Z B19	2-2KA4
Voltage →		50 Hz, 230 VΔ/400 VY 60 Hz, 460 VY							
Type →		Without flange IM B3	With flange IM B5, IM V1 without protective cover, IM V3		With standard flange IM B14				
Motor protection →		Without motor protection	PTC thermistor with 1 or 3 integrated temperature sensors for tripping		Without motor protection				
Preferred/Express →		Preferred	Express	Preferred	Express	Preferred			
2-pole: 3000 rpm at 50 Hz, 3600 rpm at 60 Hz									
0.75	80 M	1LE1001-0DA2-.....	-	499.30	549.30	-	551.40	601.40	-
1.1	80 M	1LE1001-0DA3-.....	-	566.30	616.30	-	618.40	668.40	-
1.5	90 S	1LE1001-0EA0-.....	-	654.40	704.40	-	716.90	766.90	-
2.2	90 L	1LE1001-0EA4-.....	-	832.40	882.40	-	894.90	944.90	-
3	100 L	1LE1001-1AA4-.....	949.-	1063.-	1133.-	1026.40	1140.40	1210.40	-
4	112 M	1LE1001-1BA2-.....	1120.-	1234.-	1324.-	1216.10	1330.10	1420.10	-
5.5	132 S	1LE1001-1CA0-.....	1410.-	1581.-	1711.-	1535.-	1706.-	1836.-	-
7.5	132 S	1LE1001-1CA1-.....	1790.-	1961.-	2091.-	1915.-	2086.-	2216.-	-
11	160 M	1LE1001-1DA2-.....	-	-	-	-	-	-	-
15	160 M	1LE1001-1DA3-.....	-	-	-	-	-	-	-
18.5	160 L	1LE1001-1DA4-.....	-	-	-	-	-	-	-
22	180 M	1LG6183-2MA..	-	-	-	-	-	-	-
22	180 M	1LE1501-1EA2-.....	-	-	-	-	-	-	-
30	200 L	1LG6206-2MA..	-	-	-	-	-	-	-
30	200 L	1LE1501-2AA4-.....	-	-	-	-	-	-	-
37	200 L	1LG6207-2MA..	-	-	-	-	-	-	-
37	200 L	1LE1501-2AA5-.....	-	-	-	-	-	-	-
45	225 M	1LG6223-2MA..	-	-	-	-	-	-	-
45	225 M	1LE1501-2BA2-.....	-	-	-	-	-	-	-
55	250 M	1LG6253-2MB..	-	-	-	-	-	-	-
55	250 M	1LE1501-2CA2-.....	-	-	-	-	-	-	-
75	280 S	1LG6280-2MB..	-	-	-	-	-	-	-
75	280 S	1LE1501-2DA0-.....	-	-	-	-	-	-	-
90	280 M	1LG6283-2MB..	-	-	-	-	-	-	-
90	280 M	1LE1501-2DA2-.....	-	-	-	-	-	-	-

# Preferred and Express motors

## Motors with High Efficiency IE2



Aluminum series 1LA9 and 1LE1001  
Cast-iron series 1LG6 and 1LE1501

Standard delivery times:

Express	10 working days	20 working days
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0.2

### Selection and ordering data (continued)

Basic type 1LE1

- Cooling: Self-ventilated (IC 411)
- Efficiency: High Efficiency IE2
- Insulation: Thermal class 155 (temp. class F), IP55 degree of protection, utilization in acc. with thermal class 130 (temperature class B)
- Metal factor for metal surcharges (MS): N - W - - -
- Price group: 3Z0

P <sub>rated</sub> , 50 Hz kW	Frame size FS	Order No.	Price plus MS EUR				
			0-2AA4	0-2AA4-Z B19	0-2FA4	0-2FA4-Z B19	0-2KA4
Voltage →		50 Hz, 400 VY 60 Hz, 460 VY					
Type →		Without flange IM B3	With flange IM B5, IM V1 without protective cover, IM V3		With standard flange IM B14		
Motor protection →		Without motor protection	Without motor protection		Without motor protection		
Preferred/Express →		Preferred	Express	Preferred	Express	Preferred	
4-pole: 1500 rpm at 50 Hz, 1800 rpm at 60 Hz							
0.55	80 M	1LE1001-0DB2-.....	461.-	511.-	513.10	563.10	513.10
0.75	80 M	1LE1001-0DB3-.....	503.-	553.-	555.10	605.10	555.10
1.1	90 S	1LE1001-0EB0-.....	595.-	645.-	657.50	707.50	657.50
1.5	90 L	1LE1001-0EB4-.....	706.-	756.-	768.50	818.50	768.50

Basic type 1LE1, 1LG6

- Cooling: Self-ventilated (IC 411)
- Efficiency: High Efficiency IE2
- Insulation: Thermal class 155 (temp. class F), IP55 degree of protection, utilization in acc. with thermal class 130 (temperature class B)
- Metal factor for metal surcharges (MS): N - W - - -
- Price group: 3Z0

P <sub>rated</sub> , 50 Hz kW	Frame size FS	Order No.	Price plus MS EUR					
			3-4AA4	3-4AB4	3-4AB4-Z B19	3-4FA4	3-4FB4	3-4FB4-Z B19
Voltage →		50 Hz, 400 VΔ/690 VY 60 Hz, 460 VΔ						
Type →		Without flange IM B3	With flange IM B5, IM V1 without protective cover, IM V3			With flange IM B35		
Motor protection →		Without motor protection	PTC thermistor with 1 or 3 integrated temperature sensors for tripping		Without motor protection	PTC thermistor with 1 or 3 integrated temperature sensors for tripping		
Preferred/Express →		Preferred	Express	Preferred	Express	Preferred	Preferred	
2-pole: 3000 rpm at 50 Hz, 3600 rpm at 60 Hz								
0.75	80 M	1LE1001-0DA2-.....	-	-	-	-	-	
1.1	80 M	1LE1001-0DA3-.....	-	-	-	-	-	
1.5	90 S	1LE1001-0EA0-.....	-	-	-	-	-	
2.2	90 L	1LE1001-0EA4-.....	-	-	-	-	-	
3	100 L	1LE1001-1AA4-.....	949.-	1063.-	1133.-	1026.40	1140.40	1210.40
4	112 M	1LE1001-1BA2-.....	1120.-	1234.-	1324.-	1216.10	1330.10	1420.10
5.5	132 S	1LE1001-1CA0-.....	1410.-	1581.-	1711.-	1535.-	1706.-	1836.-
7.5	132 S	1LE1001-1CA1-.....	1790.-	1961.-	2091.-	1915.-	2086.-	2216.-
11	160 M	1LE1001-1DA2-.....	2480.-	2651.-	2821.-	2642.-	2813.-	2983.-
15	160 M	1LE1001-1DA3-.....	3240.-	3411.-	3581.-	3402.-	3573.-	3743.-
18.5	160 L	1LE1001-1DA4-.....	3870.-	4041.-	4211.-	4032.-	4203.-	4373.-
22	180 M	1LG6183-2MA..	4690.-	4917.-	-	-	5173.-	-
22	180 M	1LE1501-1EA2-.....	4690.-	4917.-	5197.-	-	5173.-	-
30	200 L	1LG6206-2MA..	6080.-	6307.-	-	-	6618.-	-
30	200 L	1LE1501-2AA4-.....	6080.-	6307.-	6587.-	-	6618.-	-
37	200 L	1LG6207-2MA..	7630.-	7857.-	-	-	8168.-	-
37	200 L	1LE1501-2AA5-.....	7630.-	7857.-	8137.-	-	8168.-	-
45	225 M	1LG6223-2MA..	9110.-	9420.-	-	-	-	-
45	225 M	1LE1501-2BA2-.....	9110.-	9420.-	-	-	-	-
55	250 M	1LG6253-2MB..	10800.-	11110.-	-	-	-	-
55	250 M	1LE1501-2CA2-.....	10800.-	11110.-	-	-	-	-
75	280 S	1LG6280-2MB..	14800.-	15186.-	-	-	-	-
75	280 S	1LE1501-2DA0-.....	14800.-	15186.-	-	-	-	-
90	280 M	1LG6283-2MB..	17500.-	17886.-	-	-	-	-
90	280 M	1LE1501-2DA2-.....	17500.-	17886.-	-	-	-	-

# Preferred and Express motors

## Motors with High Efficiency IE2

Standard delivery times:

Express	10 working days	20 working days
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Aluminum series 1LA9 and 1LE1001  
Cast-iron series 1LG6 and 1LE1501



### Selection and ordering data (continued)

Basic type 1LE1, 1LG6

- Cooling: Self-ventilated (IC 411)
- Efficiency: High Efficiency IE2
- Insulation: Thermal class 155 (temp. class F), IP55 degree of protection, utilization in acc. with thermal class 130 (temperature class B)
- Metal factor for metal surcharges (MS): N - W - - -
- Price group: 3Z0

P <sub>rated</sub> 50 Hz	Frame size	Order No.	50 Hz, 230 VΔ/400 VY		60 Hz, 460 VY		With standard flange IM B14		
			Without flange IM B3	With flange IM B5, IM V1 without protective cover, IM V3	Without motor protection	PTC thermistor with 1 or 3 integrated temperature sensors for tripping	Without motor protection	PTC thermistor with 1 or 3 integrated temperature sensors for tripping	
kW	FS	Preferred/Express →	Preferred	Express	Preferred	Express	Preferred	Express	
		Price plus MS EUR	Price plus MS EUR	Price plus MS EUR	Price plus MS EUR	Price plus MS EUR	Price plus MS EUR	Price plus MS EUR	
		1LE1001-0DB2-.....	2-2AA4	2-2AB4	2-2AB4-Z B19	2-2FA4	2-2FB4	2-2FB4-Z B19	2-2KA4
		1LG6.....	10	10-Z A11	10-Z A11+B19	11	11-Z A11	11-Z A11+B19	12
4-pole: 1500 rpm at 50 Hz, 1800 rpm at 60 Hz									
0.55	80 M	1LE1001-0DB2-.....	-	496.30	546.30	-	548.40	598.40	-
0.75	80 M	1LE1001-0DB3-.....	-	538.30	588.30	-	590.40	640.40	-
1.1	90 S	1LE1001-0EB0-.....	-	636.40	686.40	-	698.90	748.90	-
1.5	90 L	1LE1001-0EB4-.....	-	747.40	797.40	-	809.90	859.90	-
2.2	100 L	1LE1001-1AB4-.....	865.-	979.-	1049.-	942.40	1056.40	1126.40	942.40
3	100 L	1LE1001-1AB5-.....	996.-	1110.-	1180.-	1073.40	1187.40	1257.40	1073.40
4	112 M	1LE1001-1BB2-.....	1220.-	1334.-	1424.-	1316.10	1430.10	1520.10	1316.10
5.5	132 S	1LE1001-1CB0-.....	1520.-	1691.-	1821.-	1645.-	1816.-	1946.-	-
7.5	132 M	1LE1001-1CB2-.....	1930.-	2101.-	2231.-	2055.-	2226.-	2356.-	-
11	160 M	1LE1001-1DB2-.....	2540.-	2711.-	2881.-	2702.-	2873.-	3043.-	-
15	160 L	1LE1001-1DB4-.....	3290.-	3461.-	3631.-	3452.-	3623.-	3793.-	-
18.5	180 M	1LG6183-4MA..	-	-	-	-	-	-	-
18.5	180 M	1LE1501-1EB2-.....	-	-	-	-	-	-	-
22	180 L	1LG6186-4MA..	-	-	-	-	-	-	-
22	180 L	1LE1501-1EB4-.....	-	-	-	-	-	-	-
30	200 L	1LG6207-4MA..	-	-	-	-	-	-	-
30	200 L	1LE1501-2AB5-.....	-	-	-	-	-	-	-
37	225 S	1LG6220-4MA..	-	-	-	-	-	-	-
37	225 S	1LE1501-2BB0-.....	-	-	-	-	-	-	-
45	225 M	1LG6223-4MA..	-	-	-	-	-	-	-
45	225 M	1LE1501-2BB2-.....	-	-	-	-	-	-	-
55	250 M	1LG6253-4MA..	-	-	-	-	-	-	-
55	250 M	1LE1501-2CB2-.....	-	-	-	-	-	-	-
75	280 S	1LG6280-4MA..	-	-	-	-	-	-	-
75	280 S	1LE1501-2DB0-.....	-	-	-	-	-	-	-
90	280 M	1LG6283-4MA..	-	-	-	-	-	-	-
90	280 M	1LE1501-2DB2-.....	-	-	-	-	-	-	-
110	315 S	1LG6310-4MA..	-	-	-	-	-	-	-
110	315 S	1LE1501-3AB0-.....	-	-	-	-	-	-	-
132	315 M	1LG6313-4MA..	-	-	-	-	-	-	-
132	315 M	1LE1501-3AB2-.....	-	-	-	-	-	-	-
160	315 L	1LG6316-4MA..	-	-	-	-	-	-	-
160	315 L	1LE1501-3AB4-.....	-	-	-	-	-	-	-
200	315 L	1LG6317-4MA..	-	-	-	-	-	-	-
200	315 L	1LE1501-3AB5-.....	-	-	-	-	-	-	-

# Preferred and Express motors

## Motors with High Efficiency IE2



Aluminum series 1LA9 and 1LE1001  
Cast-iron series 1LG6 and 1LE1501

Standard delivery times:

Express	10 working days	20 working days
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0.2

### Selection and ordering data (continued)

Basic type 1LE1, 1LG6

- Cooling: Self-ventilated (IC 411)
- Efficiency: High Efficiency IE2
- Insulation: Thermal class 155 (temp. class F), IP55 degree of protection, utilization in acc. with thermal class 130 (temperature class B)
- Metal factor for metal surcharges (MS): N - W - - -
- Price group: 3Z0

P <sub>rated</sub> 50 Hz	Frame size	Order No.	Voltage →		60 Hz, 400 VΔ/690 VY			60 Hz, 460 VΔ		
			Preferred	Express	Without motor protection	PTC thermistor with 1 or 3 integrated temperature sensors for tripping	Express	With flange IM B5, IM V1 without protective cover, IM V3	Without motor protection	PTC thermistor with 1 or 3 integrated temperature sensors for tripping
FS	FS	1LE1■001-■■■■-.....	3-4AA4	3-4AB4	3-4AB4-Z B19	3-4FA4	3-4FB4	3-4FB4-Z B19	3-4JA4	
kw	FS	1LG6■■■-■■■..	60	60-Z A11	60-Z A11+B19	61	61-Z A11	61-Z A11+B19	66	
4-pole: 1500 rpm at 50 Hz, 1800 rpm at 60 Hz										
0.55	80 M	1LE1001-0DB2-.....	-	-	-	-	-	-	-	
0.75	80 M	1LE1001-0DB3-.....	-	-	-	-	-	-	-	
1.1	90 S	1LE1001-0EB0-.....	-	-	-	-	-	-	-	
1.5	90 L	1LE1001-0EB4-.....	-	-	-	-	-	-	-	
2.2	100 L	1LE1001-1AB4-.....	865.-	979.-	1049.-	942.40	1056.40	1126.40	-	
3	100 L	1LE1001-1AB5-.....	996.-	1110.-	1180.-	1073.40	1187.40	1257.40	-	
4	112 M	1LE1001-1BB2-.....	1220.-	1334.-	1424.-	1316.10	1430.10	1520.10	-	
5.5	132 S	1LE1001-1CB0-.....	1520.-	1691.-	1821.-	1645.-	1816.-	1946.-	1678.-	
7.5	132 M	1LE1001-1CB2-.....	1930.-	2101.-	2231.-	2055.-	2226.-	2356.-	2088.-	
11	160 M	1LE1001-1DB2-.....	2540.-	2711.-	2881.-	2702.-	2873.-	3043.-	2768.-	
15	160 L	1LE1001-1DB4-.....	3290.-	3461.-	3631.-	3452.-	3623.-	3793.-	3518.-	
18.5	180 M	1LG6183-4MA..	3970.-	4197.-	-	4226.-	4453.-	-	4316.-	
18.5	180 M	1LE1501-1EB2-.....	3970.-	4197.-	4477.-	4226.-	4453.-	4733.-	4316.-	
22	180 L	1LG6186-4MA..	4620.-	4847.-	-	4876.-	5103.-	-	4966.-	
22	180 L	1LE1501-1EB4-.....	4620.-	4847.-	5127.-	4876.-	5103.-	5383.-	4966.-	
30	200 L	1LG6207-4MA..	5990.-	6217.-	-	6301.-	6528.-	-	6445.-	
30	200 L	1LE1501-2AB5-.....	5990.-	6217.-	6497.-	6301.-	6528.-	6808.-	6445.-	
37	225 S	1LG6220-4MA..	7280.-	7590.-	-	-	-	-	-	
37	225 S	1LE1501-2BB0-.....	7280.-	7590.-	7990.-	-	-	-	-	
45	225 M	1LG6223-4MA..	8570.-	8880.-	-	-	-	-	-	
45	225 M	1LE1501-2BB2-.....	8570.-	8880.-	9280.-	-	-	-	-	
55	250 M	1LG6253-4MA..	10400.-	10710.-	-	-	-	-	-	
55	250 M	1LE1501-2CB2-.....	10400.-	10710.-	11110.-	-	-	-	-	
75	280 S	1LG6280-4MA..	14000.-	14386.-	-	-	-	-	-	
75	280 S	1LE1501-2DB0-.....	14000.-	14386.-	14926.-	-	-	-	-	
90	280 M	1LG6283-4MA..	16400.-	16786.-	-	-	-	-	-	
90	280 M	1LE1501-2DB2-.....	16400.-	16786.-	-	-	-	-	-	
110	315 S	1LG6310-4MA..	20500.-	20886.-	-	-	-	-	-	
110	315 S	1LE1501-3AB0-.....	20500.-	20886.-	-	-	-	-	-	
132	315 M	1LG6313-4MA..	24300.-	24686.-	-	-	-	-	-	
132	315 M	1LE1501-3AB2-.....	24300.-	24686.-	-	-	-	-	-	
160	315 L	1LG6316-4MA..	29300.-	29686.-	-	-	-	-	-	
160	315 L	1LE1501-3AB4-.....	29300.-	29686.-	-	-	-	-	-	
200	315 L	1LG6317-4MA..	36600.-	36986.-	-	-	-	-	-	
200	315 L	1LE1501-3AB5-.....	36600.-	36986.-	-	-	-	-	-	

# Preferred and Express motors

## Motors with High Efficiency IE2

Aluminum series 1LA9 and 1LE1001  
Cast-iron series 1LG6 and 1LE1501

# IE2

Standard delivery times:

Express

10  
working  
days

20  
working  
days

### Selection and ordering data (continued)

Basic type 1LA9, 1LE1, 1LG6

• Cooling: Self-ventilated (IC 411)

• Efficiency: High Efficiency IE2

• Insulation: Thermal class 155 (temp. class F), IP55 degree of protection, utilization in acc. with thermal class 130 (temperature class B)

• Metal factor for metal surcharges (MS): N - W - - -

• Price group: 3Z0

P <sub>rated</sub> , 50 Hz	Frame size	Order No.	Price plus MS EUR		Without motor protection		PTC thermistor with 3 integrated temperature sensors for tripping		With flange IM B5, IM V1 without protective cover, IM V3		PTC thermistor with 3 integrated temperature sensors for tripping		With standard flange IM B14	
			Preferred	Express	Preferred	Express	Preferred	Express	Preferred	Express	Preferred			
		1LE1001-1AC4-.....	2-2AA4	2-2AB4	2-2AB4-Z B19	2-2FA4	2-2FB4	2-2FB4-Z B19	2-2KA4					
		1LG6.....	10	10-Z A11	10-Z A11+B19	11	11-Z A11	11-Z A11+B19	12					
		1LA9.....	10	10-Z A11	10-Z A11+B19	11	11-Z A11	11-Z A11+B19	12					

6-pole: 1000 rpm at 50 Hz, 1200 rpm at 60 Hz

0.75	90 S	1LA9090-6KA..	584.-	-	-	646.50	746.50	-	-
1.1	90 L	1LA9096-6KA..	723.-	-	-	785.50	885.50	-	-
1.5	100 L	1LE1001-1AC4-.....	855.-	-	-	932.40	1046.40	-	932.40
2.2	112 M	1LE1001-1BC2-.....	1080.-	-	-	1176.10	1290.10	-	1176.10
3	132 S	1LE1001-1CC0-.....	1360.-	-	-	1485.-	1656.-	-	-
4	132 M	1LE1001-1CC2-.....	1670.-	-	-	1795.-	-	-	-
5.5	132 M	1LE1001-1CC3-.....	2110.-	-	-	-	-	-	-
7.5	160 M	1LE1001-1DC2-.....	-	-	-	-	-	-	-
11	160 L	1LE1001-1DC4-.....	-	-	-	-	-	-	-
15	180 L	1LG6186-6AA..	-	-	-	-	-	-	-
15	180 L	1LE1501-1EC4-.....	-	-	-	-	-	-	-
18.5	200 L	1LG6206-6AA..	-	-	-	-	-	-	-
18.5	200 L	1LE1501-2AC4-.....	-	-	-	-	-	-	-
22	200 L	1LG6207-6AA..	-	-	-	-	-	-	-
22	200 L	1LE1501-2AC5-.....	-	-	-	-	-	-	-

# Preferred and Express motors

## Motors with High Efficiency IE2

Standard delivery times:

Express

10  
working  
days20  
working  
days

IE2

Aluminum series 1LA9 and 1LE1001  
Cast-iron series 1LG6 and 1LE1501

## Selection and ordering data (continued)

Basic type 1LA9, 1LE1, 1LG6

• Cooling: Self-ventilated (IC 411)

• Efficiency: High Efficiency IE2

• Insulation: Thermal class 155 (temp. class F), IP55 degree of protection, utilization in acc. with thermal class 130 (temperature class B)

• Metal factor for metal surcharges (MS): N - W - - -

• Price group: 3Z0

P <sub>rated</sub> , 50 Hz	Frame size	Order No.	Price plus MS EUR							
			3-4AA4	3-4AB4	3-4AB4-Z B19	3-4FA4	3-4FB4	3-4FB4-Z B19	3-4JA4	
		1LE1001-1-.....	60	60	60	61	61	61	66	
		1LG6.....	60	60	60	61	61	61	66	
		1LA9.....	60	60	60	61	61	61	66	
		1LE1001-1-.....	60	60	60	61	61	61	66	
		1LE1001-1BC2-.....	60	60	60	61	61	61	66	
		1LE1001-1CC0-.....	1360.-	1531.-	-	1485.-	-	-	-	
		1LE1001-1CC2-.....	1670.-	1841.-	-	1795.-	1966.-	-	-	
		1LE1001-1CC3-.....	2110.-	2281.-	-	2235.-	2406.-	-	-	
		1LE1001-1DC2-.....	2670.-	2841.-	-	2832.-	3003.-	-	-	
		1LE1001-1DC4-.....	3680.-	3851.-	-	3842.-	4013.-	-	-	
		1LG6186-6AA..	4930.-	5157.-	-	-	-	-	-	
		1LE1501-1EC4-.....	4930.-	5157.-	-	-	-	-	-	
		1LG6206-6AA..	6030.-	6257.-	-	-	-	-	-	
		1LE1501-2AC4-.....	6030.-	6257.-	-	-	-	-	-	
		1LG6207-6AA..	6990.-	7217.-	-	-	-	-	-	
		1LE1501-2AC5-.....	6990.-	7217.-	-	-	-	-	-	

6-pole: 1000 rpm at 50 Hz, 1200 rpm at 60 Hz

0.75	90 S	1LA9090-6KA..	-	-	-	-	-	-	-
1.1	90 L	1LA9096-6KA..	-	-	-	-	-	-	-
1.5	100 L	1LE1001-1AC4-.....	-	-	-	-	-	-	-
2.2	112 M	1LE1001-1BC2-.....	-	-	-	-	-	-	-

0.2

# Preferred and Express motors

## Motors with Standard Efficiency

Standard delivery times:

Express

10  
working  
days20  
working  
days

Aluminum series 1LA7

## Selection and ordering data

Basic type 1LA7

- Cooling: Self-ventilated (IC 411)
- Efficiency: Standard Efficiency
- Insulation: Thermal class 155 (temp. class F), IP55 degree of protection, utilization in acc. with thermal class 130 (temperature class B)
- Metal factor for metal surcharges (MS): N - W - - -
- Price group: 3Z0

P <sub>rated</sub> , 50 Hz kW	Frame size	CCC	Preferred/Express → Order No.	Voltage →					
				50 Hz, 230 VΔ/400 VY 60 Hz, 460 VY		Without motor protection		With flange IM B5, IM V1 without protective cover, IM V3	
FS				Without motor protection	PTC thermistor with 3 integrated temperature sensors for tripping	Without motor protection	PTC thermistor with 3 integrated temperature sensors for tripping	Pump version	Without motor protection
				Express	Express	Express	Express	Express	Express
				Price plus MS EUR					
			1LA7■■■■-■■■■..	10	10-Z A11	11	11-Z A11	11-Z X66	12
<b>2-pole: 3000 rpm at 50 Hz, 3600 rpm at 60 Hz</b>									
0.18	63 M	■	1LA7060-2AA..	251.-	-	296.-	-	-	296.-
0.25	63 M	■	1LA7063-2AA..	266.-	-	312.-	-	-	312.-
0.37	71 M	■	1LA7070-2AA..	269.-	-	319.-	408.-	-	319.-
0.55	71 M	■	1LA7073-2AA..	305.-	394.-	354.-	443.-	-	354.-
<b>4-pole: 1500 rpm at 50 Hz, 1800 rpm at 60 Hz</b>									
0.12	63 M	■	1LA7060-4AB..	248.-	-	294.-	388.-	-	294.-
0.18	63 M	■	1LA7063-4AB..	266.-	-	312.-	407.-	-	312.-
0.25	71 M	■	1LA7070-4AB..	268.-	359.-	316.-	408.-	478.-	316.-
0.37	71 M	■	1LA7073-4AB..	297.-	388.-	345.-	437.-	508.-	345.-
0.55	80 M	■	1LA7080-4AA..	321.-	422.-	374.-	475.-	529.-	374.-
<b>6-pole: 1000 rpm at 50 Hz, 1200 rpm at 60 Hz</b>									
0.18	71 M	■	1LA7070-6AA..	282.-	-	330.-	423.-	-	330.-
0.25	71 M	■	1LA7073-6AA..	315.-	-	364.-	456.-	-	364.-
0.37	80 M	■	1LA7080-6AA..	333.-	-	386.-	488.-	-	386.-
0.55	80 M	■	1LA7083-6AA..	386.-	-	440.-	541.-	-	440.-

■ With "CCC" (China Compulsory Certification) for the export to China.

Note:

The 1LA7 motors < 0.75 kW and the pole-changing versions of the 1LA7 and 1LE1 series are available ex works without Express surcharge up to September 30, 2011. The order code B19 is dropped. These motors will be presumably available as Preferred Motors from October 01, 2011.

# Preferred and Express motors

## Motors with Standard Efficiency

Aluminum series 1LA7 and 1LE1  
Pole-changing versions

Standard delivery times:

Express

10  
working  
days

20  
working  
days

0.2

### Selection and ordering data

Basic types 1LA7 and 1LE1

- Cooling: Self-ventilated (IC 411)
- Pole-changing version: double-pole changing with square-law load torque, e.g. for driving fans
- Insulation: Thermal class 155 (temp. class F), IP55 degree of protection, utilization in acc. with thermal class 130 (temperature class B)
- Metal factor for metal surcharges (MS): N - W - - -
- Price group: 3Z0

P <sub>rated1</sub> , 50 Hz	P <sub>rated2</sub> , 50 Hz	Frame size	CCC	Voltage →	50 Hz, 400 V
				Type →	Without flange IM B3
kW	kW	FS	Order No.	Motor protection →	PTC thermistor with 3 or 6 integrated temperature sensors for tripping
				Preferred/Express →	Express
				Price plus MS EUR	3-4A0 60-Z A11
<b>4/2-pole: 1500/3000 rpm at 50 Hz with a winding in Dahlander circuit</b>					
<b>1500 rpm</b>	<b>3000 rpm</b>				
0.25	0.95	80 M	■	1LA7083-0BA..	672.-
0.33	1.4	90 S	■	1LA7090-0BA..	780.-
0.5	2	90 L	■	1LA7096-0BA..	917.-
0.65	2.5	100 L	■	1LA7106-0BA..	999.-
0.8	3.1	100 L	■	1LA7107-0BA..	1170.-
0.8	3.1	100 L	■	1LE1011-1AP5-.....	1170.-
1.1	4.4	112 M	■	1LA7113-0BA..	1430.-
1.1	4.4	112 M	■	1LE1011-1BP2-.....	1430.-
<b>6/4-pole: 1000/1500 rpm at 50 Hz with two windings</b>					
<b>1000 rpm</b>	<b>1500 rpm</b>				
0.12	0.4	80 M	■	1LA7080-1BD..	688.-
0.18	0.55	80 M	■	1LA7083-1BD..	745.-
0.29	0.8	90 S	■	1LA7090-1BD..	846.-
0.38	1.1	90 L	■	1LA7096-1BD..	964.-
0.6	1.7	100 L	■	1LA7106-1BD..	1130.-
0.6	1.7	100 L	■	1LE1012-1AQ4-.....	1130.-
0.75	2.1	100 L	■	1LA7107-1BD..	1250.-
0.9	3	112 M	■	1LA7113-1BD..	1410.-
1.2	3.9	132 S	■	1LA7130-1BD..	1780.-
1.2	3.9	132 S	■	1LE1012-1CQ0-.....	1780.-
1.7	5.4	132 M	■	1LA7133-1BD..	2120.-
1.7	5.4	132 M	■	1LE1012-1CQ2-.....	2120.-
2.5	7.2	160 M	■	1LA7163-1BD..	3000.-
2.5	7.2	160 M	■	1LE1012-1DQ2-.....	3000.-
3.7	12	160 L	■	1LA7166-1BD..	4240.-
3.7	12	160 L	■	1LE1012-1DQ4-.....	4240.-
<b>8/4-pole: 750/1500 rpm at 50 Hz with a winding in Dahlander circuit</b>					
<b>750 rpm</b>	<b>1500 rpm</b>				
0.1	0.5	80 M	■	1LA7080-0BB..	536.-
0.15	0.7	80 M	■	1LA7083-0BB..	599.-
0.22	1	90 S	■	1LA7090-0BB..	615.-
0.33	1.5	90 L	■	1LA7096-0BB..	702.-
0.5	2	100 L	■	1LA7106-0BB..	859.-
0.5	2	100 L	■	1LE1011-1AR4-.....	859.-
0.65	2.5	100 L	■	1LA7107-0BB..	974.-
0.65	2.5	100 L	■	1LE1011-1AR5-.....	974.-
0.9	3.6	112 M	■	1LA7113-0BB..	1110.-
0.9	3.6	112 M	■	1LE1011-1BR2-.....	1110.-
1.1	4.7	132 S	■	1LA7130-0BB..	1580.-
1.1	4.7	132 S	■	1LE1011-1CR0-.....	1580.-
1.4	6.4	132 M	■	1LA7133-0BB..	1990.-
1.4	6.4	132 M	■	1LE1011-1CR2-.....	1990.-
2.2	9.5	160 M	■	1LA7163-0BB..	2660.-
2.2	9.5	160 M	■	1LE1011-1DR2-.....	2660.-
3.3	14	160 L	■	1LA7166-0BB..	3860.-
3.3	14	160 L	■	1LE1011-1DR4-.....	3860.-

■ With "CCC" (China Compulsory Certification) for the export to China.

Note:

The 1LA7 motors < 0.75 kW and the pole-changing versions of the 1LA7 and 1LE1 series are available ex works without Express surcharge up to September 30, 2011. The order code B19 is dropped. These motors will be presumably available as Preferred Motors from October 01, 2011.

# Preferred and Express motors

## Motors with Standard Efficiency

Standard delivery times:

Express

10  
working  
days

20  
working  
days

Notes

0.2

# Standard motors 1LE1/1PC1



1/2

## Orientation

1/2

Overview of selection and ordering data with base prices and standard delivery times

1/2

Overview

# Standard motors 1LE1/1PC1 General Purpose

Standard delivery times:

## Orientation

Overview of selection and ordering data with base prices and standard delivery times

10 working days	20 working days	On request
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### Overview

Category	1.1 – Motors with High Efficiency IE2		
Series version	Aluminum series 1LE1001	Aluminum series 1LE1001 with increased output	Aluminum series 1PC1001 <sup>1)</sup>
Cooling	Self-ventilated (IC 411) or with order code F90 forced-air cooled without external fan and fan cover (IC 416)	Self-ventilated (IC 411)	Self-cooled without external fan (IC 410)
Degree of protection	IP55, optionally IP56 or IP65	IP55, optionally IP56 or IP65	IP55, optionally IP56 or IP65
Insulation	Thermal class 155 (F)	Thermal class 155 (F)	Thermal class 155 (F)
Utilization	Thermal class 130 (B)	Thermal class 130 (B)	Thermal class 130 (B)
Number of poles	2, 4, 6, 8	2, 4, 6	2, 4, 6, 8
Frame size (FS)	80 M ... 160 L	100 L ... 160 L	100 L ... 160 L
Rated output at 50 Hz	0.55 ... 18.5 kW	2.2 ... 22 kW	0.37 ... 9 kW
Synchronous speed	750 ... 3600 rpm	1000 ... 3600 rpm	750 ... 3600 rpm
Rated torque at 50 Hz	2.6 ... 108 Nm	13 ... 147 Nm	On request <sup>1)</sup>
Efficiency	High Efficiency IE2	High Efficiency IE2	On request <sup>1)</sup>
Metal factor for metal surcharges (MS)	N - W - - -	N - W - - -	N - W - - -
Price group (PG)	3Z1	3Z1	3Z1

Range of motors with Order No., delivery time and base price plus MS for type of construction IM B3 and connection box on top (for delivery times refer to colored background of the relevant price)

Frame size	$P_{rated, 50 Hz}$ kW	IE class	Order No.	Base price EUR	$P_{rated, 50 Hz}$ kW	IE class	Order No.	Base price EUR	$P_{rated, 50 Hz}$ kW	IE class	Order No.	Base price EUR
<b>2-pole: 3000 rpm at 50 Hz</b>												
80 M	0.75	IE2	▲ 1LE1001-0DA2-....	464.-								
80 M	1.1	IE2	▲ 1LE1001-0DA3-....	531.-								
90 S	1.5	IE2	▲ 1LE1001-0EA0-....	613.-								
90 L	2.2	IE2	▲ 1LE1001-0EA4-....	791.-								
100 L	3	IE2	1LE1001-1AA4-....	949.-	4	IE2	1LE1001-1AA6-....	1120.-	1.4	On req.	1PC1001-1AA4-....	1180.-
112 M	4	IE2	1LE1001-1BA2-....	1120.-	5.5	IE2	1LE1001-1BA6-....	1410.-	1.6	On req.	1PC1001-1BA2-....	1350.-
132 S	5.5	IE2	1LE1001-1CA0-....	1410.-					3.1	On req.	1PC1001-1CA0-....	1640.-
132 S	7.5	IE2	1LE1001-1CA1-....	1790.-					4.3	On req.	1PC1001-1CA1-....	2020.-
132 M					11	IE2	1LE1001-1CA6-....	2480.-				
160 M	11	IE2	1LE1001-1DA2-....	2480.-					6.3	On req.	1PC1001-1DA2-....	2710.-
160 M	15	IE2	1LE1001-1DA3-....	3240.-					6.5	On req.	1PC1001-1DA3-....	3470.-
160 L	18.5	IE2	1LE1001-1DA4-....	3870.-	22	IE2	1LE1001-1DA6-....	4560.-	9	On req.	1PC1001-1DA4-....	4090.-
<b>4-pole: 1500 rpm at 50 Hz</b>												
80 M	0.55	-	▲ 1LE1001-0DB2-....	461.-								
80 M	0.75	IE2	▲ 1LE1001-0DB3-....	503.-								
90 S	1.1	IE2	▲ 1LE1001-0EB0-....	595.-								
90 L	1.5	IE2	▲ 1LE1001-0EB4-....	706.-								
100 L	2.2	IE2	1LE1001-1AB4-....	865.-	4	IE2	1LE1001-1AB6-....	1220.-	1.1	On req.	1PC1001-1AB4-....	1090.-
100 L	3	IE2	1LE1001-1AB5-....	996.-					1.5	On req.	1PC1001-1AB5-....	1220.-
112 M	4	IE2	1LE1001-1BB2-....	1220.-	5.5	IE2	1LE1001-1BB6-....	1520.-	2	On req.	1PC1001-1BB2-....	1450.-
132 S	5.5	IE2	1LE1001-1CB0-....	1520.-					2.6	On req.	1PC1001-1CB0-....	1750.-
132 M	7.5	IE2	1LE1001-1CB2-....	1930.-	11	IE2	1LE1001-1CB6-....	2540.-	4	On req.	1PC1001-1CB2-....	2160.-
160 M	11	IE2	1LE1001-1DB2-....	2540.-					6	On req.	1PC1001-1DB2-....	2760.-
160 L	15	IE2	1LE1001-1DB4-....	3290.-	18.5	IE2	1LE1001-1DB6-....	3880.-	6.2	On req.	1PC1001-1DB4-....	3520.-
<b>6-pole: 1000 rpm at 50 Hz</b>												
100 L	1.5	IE2	1LE1001-1AC4-....	855.-	2.2	IE2	1LE1001-1AC6-....	1080.-	0.85	On req.	1PC1001-1AC4-....	1080.-
112 M	2.2	IE2	1LE1001-1BC2-....	1080.-	3	IE2	1LE1001-1BC6-....	1360.-	1.2	On req.	1PC1001-1BC2-....	1310.-
132 S	3	IE2	1LE1001-1CC0-....	1360.-					1.5	On req.	1PC1001-1CC0-....	1590.-
132 M	4	IE2	1LE1001-1CC2-....	1670.-	7.5	IE2	1LE1001-1CC6-....	2670.-	2.5	On req.	1PC1001-1CC2-....	1900.-
132 M	5.5	IE2	1LE1001-1CC3-....	2110.-					2.7	On req.	1PC1001-1CC3-....	2330.-
160 M	7.5	IE2	1LE1001-1DC2-....	2670.-					5	On req.	1PC1001-1DC2-....	2890.-
160 L	11	IE2	1LE1001-1DC4-....	3680.-	15	IE2	1LE1001-1DC6-....	4780.-	6.5	On req.	1PC1001-1DC4-....	3910.-
<b>8-pole: 750 rpm at 50 Hz</b>												
100 L	0.75	-	1LE1001-1AD4-....	957.-					0.37	-	1PC1001-1AD4-....	1180.-
100 L	1.1	-	1LE1001-1AD5-....	1210.-					0.55	-	1PC1001-1AD5-....	1440.-
112 M	1.5	-	1LE1001-1BD2-....	1440.-					0.75	-	1PC1001-1BD2-....	1660.-
132 S	2.2	-	1LE1001-1CD0-....	1860.-					1.1	-	1PC1001-1CD0-....	2080.-
132 M	3	-	1LE1001-1CD2-....	2270.-					1.5	-	1PC1001-1CD2-....	2490.-
160 M	4	-	1LE1001-1DD2-....	2780.-					2.4	-	1PC1001-1DD2-....	3000.-
160 M	5.5	-	1LE1001-1DD3-....	3410.-					3.3	-	1PC1001-1DD3-....	3640.-
160 L	7.5	-	1LE1001-1DD4-....	4110.-					4.6	-	1PC1001-1DD4-....	4340.-

<sup>1)</sup> The rated outputs and weights may change slightly after they have been checked. Further electrical data can be calculated and supplied on receipt of order.

# Standard motors 1LE1 Severe Duty Orientation

Standard delivery times:

10 working days	20 working days	On request
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Overview of selection and ordering data  
with base prices and standard delivery times

## Overview (continued)

Category	<b>1.1 – Motors with High Efficiency IE2 (continued)</b>
Series version	<b>Cast-iron series 1LE1501/1LE1601</b> <b>Basic/Performance Line</b> (continued on next page)
Cooling	Self-ventilated (IC 411)
Degree of protection	IP55, optionally IP56 or IP65
Insulation	Thermal class 155 (F)
Utilization	Thermal class 130 (B)
Number of poles	2, 4, 6, 8
Frame size (FS)	100 L ... 315 L
Rated output at 50 Hz	0.75 ... 200 kW
Synchronous speed	750 ... 3600 rpm
Rated torque at 50 Hz	9.9 ... 1282 Nm
Efficiency	High Efficiency IE2
Metal factor for metal surcharges (MS)	N - W - - -
Price group (PG)	3Z1

Range of motors with Order No., delivery time and base price plus MS for type of construction IM B3 and connection box on top  
(for delivery times refer to colored background of the relevant price)

Frame size	$P_{rated, 50 Hz}$ kW	IE class	Order No. <b>Basic Line</b>	Base price	Order No. <b>Performance Line</b>	Base price
FS			▲ New	EUR	▲ New	EUR
<b>2-pole: 3000 rpm at 50 Hz</b>						
100 L	3	IE2	▲ 1LE1501-1AA4-.....	1030.-	▲ 1LE1601-1AA4-.....	1130.-
112 M	4	IE2	▲ 1LE1501-1BA2-.....	1220.-	▲ 1LE1601-1BA2-.....	1340.-
132 S	5.5	IE2	▲ 1LE1501-1CA0-.....	1530.-	▲ 1LE1601-1CA0-.....	1690.-
132 S	7.5	IE2	▲ 1LE1501-1CA1-.....	1950.-	▲ 1LE1601-1CA1-.....	2140.-
160 M	11	IE2	▲ 1LE1501-1DA2-.....	2690.-	▲ 1LE1601-1DA2-.....	3100.-
160 M	15	IE2	▲ 1LE1501-1DA3-.....	3510.-	▲ 1LE1601-1DA3-.....	4040.-
160 L	18.5	IE2	▲ 1LE1501-1DA4-.....	4190.-	▲ 1LE1601-1DA4-.....	4820.-
180 M	22	IE2	▲ 1LE1501-1EA2-.....	4690.-	▲ 1LE1601-1EA2-.....	5160.-
200 L	30	IE2	▲ 1LE1501-2AA4-.....	6080.-	▲ 1LE1601-2AA4-.....	6680.-
200 L	37	IE2	▲ 1LE1501-2AA5-.....	7630.-	▲ 1LE1601-2AA5-.....	8400.-
225 M	45	IE2	▲ 1LE1501-2BA2-.....	9110.-	▲ 1LE1601-2BA2-.....	10000.-
250 M	55	IE2	▲ 1LE1501-2CA2-.....	10800.-	▲ 1LE1601-2CA2-.....	11900.-
280 S	75	IE2	▲ 1LE1501-2DA0-.....	14800.-	▲ 1LE1601-2DA0-.....	15200.-
280 M	90	IE2	▲ 1LE1501-2DA2-.....	17500.-	▲ 1LE1601-2DA2-.....	18400.-
315 S	110	IE2	▲ 1LE1501-3AA0-.....	21000.-	▲ 1LE1601-3AA0-.....	22100.-
315 M	132	IE2	▲ 1LE1501-3AA2-.....	25200.-	▲ 1LE1601-3AA2-.....	26400.-
315 L	160	IE2	▲ 1LE1501-3AA4-.....	31300.-	▲ 1LE1601-3AA4-.....	32900.-
315 L	200	IE2	▲ 1LE1501-3AA5-.....	39100.-	▲ 1LE1601-3AA5-.....	41000.-
<b>4-pole: 1500 rpm at 50 Hz</b>						
100 L	2.2	IE2	▲ 1LE1501-1AB4-.....	938.-	▲ 1LE1601-1AB4-.....	1030.-
100 L	3	IE2	▲ 1LE1501-1AB5-.....	1080.-	▲ 1LE1601-1AB5-.....	1190.-
112 M	4	IE2	▲ 1LE1501-1BB2-.....	1320.-	▲ 1LE1601-1BB2-.....	1460.-
132 S	5.5	IE2	▲ 1LE1501-1CB0-.....	1650.-	▲ 1LE1601-1CB0-.....	1820.-
132 M	7.5	IE2	▲ 1LE1501-1CB2-.....	2100.-	▲ 1LE1601-1CB2-.....	2310.-
160 M	11	IE2	▲ 1LE1501-1DB2-.....	2760.-	▲ 1LE1601-1DB2-.....	3160.-
160 L	15	IE2	▲ 1LE1501-1DB4-.....	3570.-	▲ 1LE1601-1DB4-.....	4110.-
180 M	18.5	IE2	▲ 1LE1501-1EB2-.....	3970.-	▲ 1LE1601-1EB2-.....	4370.-
180 L	22	IE2	▲ 1LE1501-1EB4-.....	4620.-	▲ 1LE1601-1EB4-.....	5080.-
200 L	30	IE2	▲ 1LE1501-2AB5-.....	5990.-	▲ 1LE1601-2AB5-.....	6590.-
225 S	37	IE2	▲ 1LE1501-2BB0-.....	7280.-	▲ 1LE1601-2BB0-.....	8010.-
225 M	45	IE2	▲ 1LE1501-2BB2-.....	8570.-	▲ 1LE1601-2BB2-.....	9430.-
250 M	55	IE2	▲ 1LE1501-2CB2-.....	10400.-	▲ 1LE1601-2CB2-.....	11400.-
280 S	75	IE2	▲ 1LE1501-2DB0-.....	14000.-	▲ 1LE1601-2DB0-.....	14400.-
280 M	90	IE2	▲ 1LE1501-2DB2-.....	16400.-	▲ 1LE1601-2DB2-.....	16900.-
315 S	110	IE2	▲ 1LE1501-3AB0-.....	20500.-	▲ 1LE1601-3AB0-.....	21100.-
315 M	132	IE2	▲ 1LE1501-3AB2-.....	24300.-	▲ 1LE1601-3AB2-.....	25000.-
315 L	160	IE2	▲ 1LE1501-3AB4-.....	29300.-	▲ 1LE1601-3AB4-.....	30200.-
315 L	200	IE2	▲ 1LE1501-3AB5-.....	36600.-	▲ 1LE1601-3AB5-.....	37700.-

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# Standard motors 1LE1 Severe Duty

Standard delivery times:

## Orientation

10  
working  
days20  
working  
daysOn  
request

Overview of selection and ordering data  
with base prices and standard delivery times

### Overview (continued)

Category	<b>1.1 – Motors with High Efficiency IE2 (continued)</b>
Series version	<b>Cast-iron series 1LE1501/1LE1601 Basic/Performance Line (continued)</b>
Cooling	Self-ventilated (IC 411)
Degree of protection	IP55, optionally IP56 or IP65
Insulation	Thermal class 155 (F)
Utilization	Thermal class 130 (B)
Number of poles	2, 4, 6, 8
Frame size (FS)	100 L ... 315 L
Rated output at 50 Hz	0.75 ... 200 kW
Synchronous speed	750 ... 3600 rpm
Rated torque at 50 Hz	9.9 ... 1282 Nm
Efficiency	High Efficiency IE2
Metal factor for metal surcharges (MS)	N - W - - -
Price group (PG)	3Z1

Range of motors with Order No., delivery time and base price plus MS for type of construction IM B3 and connection box on top  
(for delivery times refer to colored background of the relevant price)

Frame size	$P_{\text{rated, 50 Hz}}$ kW	IE class	Order No. <b>Basic Line</b>	Base price	Order No. <b>Performance Line</b>	Base price
FS			▲ New	EUR	▲ New	EUR
<b>6-pole: 1000 rpm at 50 Hz</b>						
100 L	1.5	IE2	▲ 1LE1501-1AC4-.....	927.-	▲ 1LE1601-1AC4-.....	1020.-
112 M	2.2	IE2	▲ 1LE1501-1BC2-.....	1170.-	▲ 1LE1601-1BC2-.....	1290.-
132 S	3	IE2	▲ 1LE1501-1CC0-.....	1480.-	▲ 1LE1601-1CC0-.....	1620.-
132 M	4	IE2	▲ 1LE1501-1CC2-.....	1820.-	▲ 1LE1601-1CC2-.....	2000.-
132 M	5.5	IE2	▲ 1LE1501-1CC3-.....	2290.-	▲ 1LE1601-1CC3-.....	2510.-
160 M	7.5	IE2	▲ 1LE1501-1DC2-.....	2890.-	▲ 1LE1601-1DC2-.....	3330.-
160 L	11	IE2	▲ 1LE1501-1DC4-.....	4000.-	▲ 1LE1601-1DC4-.....	4600.-
180 L	15	IE2	▲ 1LE1501-1EC4-.....	4930.-	▲ 1LE1601-1EC4-.....	5420.-
200 L	18.5	IE2	▲ 1LE1501-2AC4-.....	6030.-	▲ 1LE1601-2AC4-.....	6640.-
200 L	22	IE2	▲ 1LE1501-2AC5-.....	6990.-	▲ 1LE1601-2AC5-.....	7680.-
225 M	30	IE2	▲ 1LE1501-2BC2-.....	9370.-	▲ 1LE1601-2BC2-.....	10300.-
250 M	37	IE2	▲ 1LE1501-2CC2-.....	11400.-	▲ 1LE1601-2CC2-.....	12500.-
280 S	45	IE2	▲ 1LE1501-2DC0-.....	13900.-	▲ 1LE1601-2DC0-.....	14300.-
280 M	55	IE2	▲ 1LE1501-2DC2-.....	16400.-	▲ 1LE1601-2DC2-.....	16900.-
315 S	75	IE2	▲ 1LE1501-3AC0-.....	22300.-	▲ 1LE1601-3AC0-.....	23000.-
315 M	90	IE2	▲ 1LE1501-3AC2-.....	25200.-	▲ 1LE1601-3AC2-.....	25900.-
315 L	110	IE2	▲ 1LE1501-3AC4-.....	30300.-	▲ 1LE1601-3AC4-.....	31200.-
315 L	132	IE2	▲ 1LE1501-3AC5-.....	36100.-	▲ 1LE1601-3AC5-.....	37200.-
315 L	160	IE2	▲ 1LE1501-3AC6-.....	43800.-	▲ 1LE1601-3AC6-.....	45100.-
<b>8-pole: 750 rpm at 50 Hz</b>						
100 L	0.75	-	▲ 1LE1501-1AD4-.....	1040.-	▲ 1LE1601-1AD4-.....	1140.-
100 L	1.1	-	▲ 1LE1501-1AD5-.....	1310.-	▲ 1LE1601-1AD5-.....	1440.-
112 M	1.5	-	▲ 1LE1501-1BD2-.....	1550.-	▲ 1LE1601-1BD2-.....	1710.-
132 M	2.2	-	▲ 1LE1501-1CD0-.....	2010.-	▲ 1LE1601-1CD0-.....	2220.-
132 M	3	-	▲ 1LE1501-1CD2-.....	2460.-	▲ 1LE1601-1CD2-.....	2710.-
160 M	4	-	▲ 1LE1501-1DD2-.....	3010.-	▲ 1LE1601-1DD2-.....	3460.-
160 M	5.5	-	▲ 1LE1501-1DD3-.....	3700.-	▲ 1LE1601-1DD3-.....	4260.-
160 L	7.5	-	▲ 1LE1501-1DD4-.....	4470.-	▲ 1LE1601-1DD4-.....	5140.-

# Standard motors 1LE1 Severe Duty

## Orientation

Standard delivery times:

10 working days	20 working days	On request
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Overview of selection and ordering data  
with base prices and standard delivery times

### Overview (continued)

Category	1.1 – Motors with High Efficiency IE2 (continued)					
Series version	Cast-iron series 1LE1501/1LE1601 Basic/Performance Line with increased output					
Cooling	Self-ventilated (IC 411)					
Degree of protection	IP55, optionally IP56 or IP65					
Insulation	Thermal class 155 (F)					
Utilization	Thermal class 130 (B)					
Number of poles	2, 4, 6					
Frame size (FS)	100 L ... 160 L					
Rated output at 50 Hz	2.2 ... 22 kW					
Synchronous speed	1000 ... 3600 rpm					
Rated torque at 50 Hz	13 ... 147 Nm					
Efficiency	High Efficiency IE2					
Metal factor for metal surcharges (MS)	N - W - - -					
Price group (PG)	3Z1					
Range of motors with Order No., delivery time and base price plus MS for type of construction IM B3 and connection box on top (for delivery times refer to colored background of the relevant price)						
Frame size	$P_{\text{rated}}$ , 50 Hz kW	IE class	Order No. <b>Basic Line</b>	<b>Base price</b>	Order No. <b>Performance Line</b>	<b>Base price</b>
FS			▲ New	EUR	▲ New	EUR
<b>2-pole: 3000 rpm at 50 Hz</b>						
100 L	4	IE2	▲ 1LE1501-1AA6-.....	1220.–	▲ 1LE1601-1AA6-.....	1340.–
112 M	5.5	IE2	▲ 1LE1501-1BA6-.....	1530.–	▲ 1LE1601-1BA6-.....	1690.–
132 M	11	IE2	▲ 1LE1501-1CA6-.....	2690.–	▲ 1LE1601-1CA6-.....	2960.–
160 L	22	IE2	▲ 1LE1501-1DA6-.....	4950.–	▲ 1LE1601-1DA6-.....	5680.–
<b>4-pole: 1500 rpm at 50 Hz</b>						
100 L	4	IE2	▲ 1LE1501-1AB6-.....	1320.–	▲ 1LE1601-1AB6-.....	1460.–
112 M	5.5	IE2	▲ 1LE1501-1BB6-.....	1650.–	▲ 1LE1601-1BB6-.....	1820.–
132 M	11	IE2	▲ 1LE1501-1CB6-.....	2760.–	▲ 1LE1601-1CB6-.....	3030.–
160 L	18.5	IE2	▲ 1LE1501-1DB6-.....	4200.–	▲ 1LE1601-1DB6-.....	4840.–
<b>6-pole: 1000 rpm at 50 Hz</b>						
100 L	2.2	IE2	▲ 1LE1501-1AC6-.....	1170.–	▲ 1LE1601-1AC6-.....	1290.–
112 M	3	IE2	▲ 1LE1501-1BC6-.....	1480.–	▲ 1LE1601-1BC6-.....	1620.–
132 M	7.5	IE2	▲ 1LE1501-1CC6-.....	2890.–	▲ 1LE1601-1CC6-.....	3180.–
160 L	15	IE2	▲ 1LE1501-1DC6-.....	5190.–	▲ 1LE1601-1DC6-.....	5970.–

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# Standard motors 1LE1 Severe Duty

Standard delivery times:

10  
working  
days20  
working  
daysOn  
request

## Orientation

Overview of selection and ordering data  
with base prices and standard delivery times

### Overview (continued)

Category	<b>1.2 – Motors with Premium Efficiency IE3</b>
Series version	<b>Cast-iron series 1LE1503/1LE1603</b> <b>Basic/Performance Line</b> (continued on next page)
Cooling	Self-ventilated (IC 411)
Degree of protection	IP55, optionally IP56 or IP65
Insulation	Thermal class 155 (F)
Utilization	Thermal class 130 (B)
Number of poles	2, 4, 6
Frame size (FS)	180 M ... 315 L
Rated output at 50 Hz	15 ... 200 kW
Synchronous speed	1000 ... 3600 rpm
Rated torque at 50 Hz	71 ... 1282 Nm
Efficiency	Premium Efficiency IE3
Metal factor for metal surcharges (MS)	N - W - - -
Price group (PG)	3Z1

Range of motors with Order No., delivery time and base price plus MS for type of construction IM B3 and connection box on top  
(for delivery times refer to colored background of the relevant price)

Frame size	$P_{\text{rated, 50 Hz}}$ kW	IE class	Order No. <b>Basic Line</b>	Base price	Order No. <b>Performance Line</b>	Base price
FS			▲ New	EUR	▲ New	EUR
<b>2-pole: 3000 rpm at 50 Hz</b>						
180 M	22	IE3	▲ 1LE1503-1EA2-.....	5390.-	▲ 1LE1603-1EA2-.....	5860.-
200 L	30	IE3	▲ 1LE1503-2AA4-.....	6990.-	▲ 1LE1603-2AA4-.....	7600.-
200 L	37	IE3	▲ 1LE1503-2AA5-.....	8780.-	▲ 1LE1603-2AA5-.....	9540.-
225 M	45	IE3	▲ 1LE1503-2BA2-.....	10000.-	▲ 1LE1603-2BA2-.....	10900.-
250 M	55	IE3	▲ 1LE1503-2CA2-.....	11900.-	▲ 1LE1603-2CA2-.....	13000.-
280 S	75	IE3	▲ 1LE1503-2DA0-.....	16300.-	▲ 1LE1603-2DA0-.....	16700.-
280 M	90	IE3	▲ 1LE1503-2DA2-.....	19300.-	▲ 1LE1603-2DA2-.....	20100.-
315 S	110	IE3	▲ 1LE1503-3AA0-.....	23100.-	▲ 1LE1603-3AA0-.....	24200.-
315 M	132	IE3	▲ 1LE1503-3AA2-.....	27700.-	▲ 1LE1603-3AA2-.....	29000.-
315 L	160	IE3	▲ 1LE1503-3AA4-.....	34400.-	▲ 1LE1603-3AA4-.....	36000.-
315 L	200	IE3	▲ 1LE1503-3AA5-.....	43000.-	▲ 1LE1603-3AA5-.....	45000.-
<b>4-pole: 1500 rpm at 50 Hz</b>						
180 M	18.5	IE3	▲ 1LE1503-1EB2-.....	4570.-	▲ 1LE1603-1EB2-.....	4970.-
180 L	22	IE3	▲ 1LE1503-1EB4-.....	5310.-	▲ 1LE1603-1EB4-.....	5780.-
200 L	30	IE3	▲ 1LE1503-2AB5-.....	6890.-	▲ 1LE1603-2AB5-.....	7490.-
225 S	37	IE3	▲ 1LE1503-2BB0-.....	8010.-	▲ 1LE1603-2BB0-.....	8740.-
225 M	45	IE3	▲ 1LE1503-2BB2-.....	9430.-	▲ 1LE1603-2BB2-.....	10300.-
250 M	55	IE3	▲ 1LE1503-2CB2-.....	11400.-	▲ 1LE1603-2CB2-.....	12500.-
280 S	75	IE3	▲ 1LE1503-2DB0-.....	15400.-	▲ 1LE1603-2DB0-.....	15800.-
280 M	90	IE3	▲ 1LE1503-2DB2-.....	18100.-	▲ 1LE1603-2DB2-.....	18600.-
315 S	110	IE3	▲ 1LE1503-3AB0-.....	22500.-	▲ 1LE1603-3AB0-.....	23100.-
315 M	132	IE3	▲ 1LE1503-3AB2-.....	26700.-	▲ 1LE1603-3AB2-.....	27500.-
315 L	160	IE3	▲ 1LE1503-3AB4-.....	32300.-	▲ 1LE1603-3AB4-.....	33200.-
315 L	200	IE3	▲ 1LE1503-3AB5-.....	40200.-	▲ 1LE1603-3AB5-.....	41300.-

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# Standard motors 1LE1 Severe Duty

## Orientation

Standard delivery times:

10 working days	20 working days	On request
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Overview of selection and ordering data  
with base prices and standard delivery times

### Overview (continued)

Category	<b>1.2 – Motors with Premium Efficiency IE3 (continued)</b>
Series version	<b>Cast-iron series 1LE1503/1LE1603</b>
	<b>Basic/Performance Line</b>
	(continued)
Cooling	Self-ventilated (IC 411)
Degree of protection	IP55, optionally IP56 or IP65
Insulation	Thermal class 155 (F)
Utilization	Thermal class 130 (B)
Number of poles	2, 4, 6
Frame size (FS)	180 M ... 315 L
Rated output at 50 Hz	15 ... 200 kW
Synchronous speed	1000 ... 3600 rpm
Rated torque at 50 Hz	71 ... 1282 Nm
Efficiency	Premium Efficiency IE3
Metal factor for metal surcharges (MS)	N - W - - -
Price group (PG)	3Z1

Range of motors with Order No., delivery time and base price plus MS for type of construction IM B3 and connection box on top  
(for delivery times refer to colored background of the relevant price)

Frame size	$P_{\text{rated}}$ 50 Hz kW	IE class	Order No. <b>Basic Line</b>	Base price	Order No. <b>Performance Line</b>	Base price
FS			▲ New	EUR	▲ New	EUR
<b>6-pole: 1000 rpm at 50 Hz</b>						
180 L	15	IE3	▲ 1LE1503-1EC4-.....	5670.-	▲ 1LE1603-1EC4-.....	6160.-
200 L	18.5	IE3	▲ 1LE1503-2AC4-.....	6940.-	▲ 1LE1603-2AC4-.....	7540.-
200 L	22	IE3	▲ 1LE1503-2AC5-.....	8030.-	▲ 1LE1603-2AC5-.....	8730.-
225 M	30	IE3	▲ 1LE1503-2BC2-.....	10300.-	▲ 1LE1603-2BC2-.....	11200.-
250 M	37	IE3	▲ 1LE1503-2CC2-.....	12500.-	▲ 1LE1603-2CC2-.....	13700.-
280 S	45	IE3	▲ 1LE1503-2DC0-.....	15300.-	▲ 1LE1603-2DC0-.....	15700.-
280 M	55	IE3	▲ 1LE1503-2DC2-.....	18100.-	▲ 1LE1603-2DC2-.....	18600.-
315 S	75	IE3	▲ 1LE1503-3AC0-.....	24600.-	▲ 1LE1603-3AC0-.....	25200.-
315 M	90	IE3	▲ 1LE1503-3AC2-.....	27700.-	▲ 1LE1603-3AC2-.....	28500.-
315 L	110	IE3	▲ 1LE1503-3AC4-.....	33400.-	▲ 1LE1603-3AC4-.....	34300.-
315 L	132	IE3	▲ 1LE1503-3AC5-.....	39700.-	▲ 1LE1603-3AC5-.....	40800.-
315 L	160	IE3	▲ 1LE1503-3AC6-.....	48200.-	▲ 1LE1603-3AC6-.....	49500.-

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# Standard motors 1LE1/1PC1 General Purpose

Standard delivery times:

## Orientation

10  
working  
days20  
working  
daysOn  
request

Overview of selection and ordering data  
with base prices and standard delivery times

### Overview (continued)

Category	1.3 – Motors with Standard Efficiency IE1		
Series version	Aluminum series 1LE1002	Aluminum series 1LE1002 with increased output	Aluminum series 1PC1002 <sup>1)</sup>
Cooling	Self-ventilated (IC 411) or with order code F90 forced-air cooled without external fan and fan cover (IC 416)	Self-ventilated (IC 411)	Self-cooled without external fan (IC 410)
Degree of protection	IP55, optionally IP56 or IP65	IP55, optionally IP56 or IP65	IP55, optionally IP56 or IP65
Insulation	Thermal class 155 (F)	Thermal class 155 (F)	Thermal class 155 (F)
Utilization	Thermal class 130 (B)	Thermal class 130 (B)	Thermal class 130 (B)
Number of poles	2, 4, 6, 8	2, 4, 6	2, 4, 6, 8
Frame size (FS)	100 L ... 160 L	100 L ... 160 L	2, 4, 6, 8
Rated output at 50 Hz	0.75 ... 18.5 kW	2.2 ... 22 kW	0.3 ... 7.4 kW
Synchronous speed	750 ... 3600 rpm	1000 ... 3600 rpm	750 ... 3600 rpm
Rated torque at 50 Hz	10 ... 109 Nm	13 ... 148 Nm	On request <sup>1)</sup>
Efficiency	Standard Efficiency IE1	Standard Efficiency IE1	On request <sup>1)</sup>
Metal factor for metal surcharges (MS)	N - W - - -	N - W - - -	N - W - - -
Price group (PG)	3Z1	3Z1	3Z1

Please observe  
legal minimum  
efficiencies  
in the EEA!Please observe  
legal minimum  
efficiencies  
in the EEA!Please observe  
legal minimum  
efficiencies  
in the EEA!

Range of motors with Order No., delivery time and base price plus MS for type of construction IM B3 and connection box on top  
(for delivery times refer to colored background of the relevant page)

Frame size	P <sub>rated</sub> d, 50 Hz kW	IE class	Order No.	Base price	P <sub>rated</sub> d, 50 Hz kW	IE class	Order No.	Base price	P <sub>rated</sub> d, 50 Hz kW	IE class	Order No.	Base price
FS				EUR				EUR				EUR
<b>2-pole: 3000 rpm at 50 Hz</b>												
100 L	3	IE1	1LE1002-1AA4-....	703.-	4	IE1	1LE1002-1AA6-....	866.-	1.2	On req.	1PC1002-1AA4-....	879.-
112 M	4	IE1	1LE1002-1BA2-....	866.-	5.5	IE1	1LE1002-1BA6-....	1110.-	1.6	On req.	1PC1002-1BA2-....	1040.-
132 S	5.5	IE1	1LE1002-1CA0-....	1110.-					2.2	On req.	1PC1002-1CA0-....	1330.-
132 S	7.5	IE1	1LE1002-1CA1-....	1430.-					3	On req.	1PC1002-1CA1-....	1630.-
132 M					11	IE1	1LE1002-1CA6-....	1990.-				
160 M	11	IE1	1LE1002-1DA2-....	1990.-					4.4	On req.	1PC1002-1DA2-....	2130.-
160 M	15	IE1	1LE1002-1DA3-....	2590.-					6	On req.	1PC1002-1DA3-....	2660.-
160 L	18.5	IE1	1LE1002-1DA4-....	3100.-	22	IE1	1LE1002-1DA6-....	3650.-	7.4	On req.	1PC1002-1DA4-....	3120.-
<b>4-pole: 1500 rpm at 50 Hz</b>												
100 L	2.2	IE1	1LE1002-1AB4-....	618.-	4	IE1	1LE1002-1AB6-....	905.-	0.88	On req.	1PC1002-1AB4-....	787.-
100 L	3	IE1	1LE1002-1AB5-....	711.-					1.2	On req.	1PC1002-1AB5-....	897.-
112 M	4	IE1	1LE1002-1BB2-....	905.-	5.5	IE1	1LE1002-1BB6-....	1160.-	1.6	On req.	1PC1002-1BB2-....	1090.-
132 S	5.5	IE1	1LE1002-1CB0-....	1160.-					2.2	On req.	1PC1002-1CB0-....	1370.-
132 M	7.5	IE1	1LE1002-1CB2-....	1490.-	11	IE1	1LE1002-1CB6-....	2030.-	3	On req.	1PC1002-1CB2-....	1660.-
160 M	11	IE1	1LE1002-1DB2-....	2030.-					4.4	On req.	1PC1002-1DB2-....	2160.-
160 L	15	IE1	1LE1002-1DB4-....	2640.-	18.5	IE1	1LE1002-1DB6-....	3180.-	6	On req.	1PC1002-1DB4-....	2760.-
<b>6-pole: 1000 rpm at 50 Hz</b>												
100 L	1.5	IE1	1LE1002-1AC4-....	658.-	2.2	IE1	1LE1002-1AC6-....	824.-	0.6	On req.	1PC1002-1AC4-....	824.-
112 M	2.2	IE1	1LE1002-1BC2-....	824.-	3	IE1	1LE1002-1BC6-....	1040.-	0.88	On req.	1PC1002-1BC2-....	995.-
132 S	3	IE1	1LE1002-1CC0-....	1040.-					1.2	On req.	1PC1002-1CC0-....	1260.-
132 M	4	IE1	1LE1002-1CC2-....	1300.-	7.5	IE1	1LE1002-1CC6-....	2130.-	1.6	On req.	1PC1002-1CC2-....	1520.-
132 M	5.5	IE1	1LE1002-1CC3-....	1640.-					2.2	On req.	1PC1002-1CC3-....	1870.-
160 M	7.5	IE1	1LE1002-1DC2-....	2130.-					3	On req.	1PC1002-1DC2-....	2300.-
160 L	11	IE1	1LE1002-1DC4-....	2950.-	15	IE1	1LE1002-1DC6-....	3830.-	4.4	On req.	1PC1002-1DC4-....	2960.-
<b>8-pole: 750 rpm at 50 Hz</b>												
100 L	0.75	-	1LE1002-1AD4-....	684.-					0.3	-	1PC1002-1AD4-....	866.-
100 L	1.1	-	1LE1002-1AD5-....	866.-					0.44	-	1PC1002-1AD5-....	1040.-
112 M	1.5	-	1LE1002-1BD2-....	1030.-					0.6	-	1PC1002-1BD2-....	1220.-
132 S	2.2	-	1LE1002-1CD0-....	1330.-					0.88	-	1PC1002-1CD0-....	1560.-
132 M	3	-	1LE1002-1CD2-....	1620.-					1.2	-	1PC1002-1CD2-....	1810.-
160 M	4	-	1LE1002-1DD2-....	1990.-					1.6	-	1PC1002-1DD2-....	2110.-
160 M	5.5	-	1LE1002-1DD3-....	2470.-					2.2	-	1PC1002-1DD3-....	2520.-
160 L	7.5	-	1LE1002-1DD4-....	3050.-					3	-	1PC1002-1DD4-....	3010.-

<sup>1)</sup> The rated outputs and weights may change slightly after they have been checked. Further electrical data can be calculated and supplied on receipt of order.

## Standard motors 1LE1 General Purpose - Eagle Line

Orientation

Standard delivery times:

10  
working  
days20  
working  
daysOn  
requestOverview of selection and ordering data  
with base prices and standard delivery times

## Overview (continued)

Category	<b>1.4 – NEMA Energy Efficient MG1 motors, Table 12-11</b>
Series version	<b>Aluminum series 1LE1021<sup>1)</sup></b>
Cooling	Self-ventilated (IC 411) or with order code F90 forced-air cooled without external fan and fan cover (IC 416)
Degree of protection	IP55, optionally IP56 or IP65
Insulation	Thermal class 155 (F)
Utilization	Thermal class 130 (B)
Number of poles	2, 4, 6
Frame size (FS)	80 M ... 160 L
Rated output	0.75 ... 18.5 kW at 50 Hz 1 ... 25 hp at 60 Hz
Synchronous speed	1000 ... 3600 rpm
Rated torque	2.1 ... 89 Nm at 60 Hz
Efficiency	NEMA Energy Efficient MG1, Table 12-11 <sup>1)</sup>
Metal factor for metal surcharges (MS)	N - W - - -
Price group (PG)	3Z1

Range of motors with Order No., delivery time and base price plus MS for type of construction IM B3 and connection box on top  
(for delivery times refer to colored background of the relevant price)

Frame size	$P_{rated, 50 Hz}$ kW	$P_{rated, 60 Hz}$ hp	Order No.	Base price EUR
FS			▲ New	
<b>2-pole: 3000 rpm at 50 Hz, 3600 rpm at 60 Hz</b>				
80 M	0.75	1	▲ 1LE1021-0DA2-....	542.–
80 M	1.1	1.5	▲ 1LE1021-0DA3-....	609.–
90 S	1.5	2	▲ 1LE1021-0EA0-....	700.–
90 L	2.2	3	▲ 1LE1021-0EA4-....	877.–
100 L	3	4	▲ 1LE1021-1AA4-....	1050.–
112 M	4	5	▲ 1LE1021-1BA2-....	1240.–
132 S	5.5	7.5	▲ 1LE1021-1CA0-....	1560.–
132 S	7.5	10	▲ 1LE1021-1CA1-....	1940.–
160 M	11	15	▲ 1LE1021-1DA2-....	2660.–
160 M	15	20	▲ 1LE1021-1DA3-....	3420.–
160 L	18.5	25	▲ 1LE1021-1DA4-....	4040.–
<b>4-pole: 1500 rpm at 50 Hz, 1800 rpm at 60 Hz</b>				
80 M	0.75	1	▲ 1LE1021-0DB3-....	581.–
90 S	1.1	1.5	▲ 1LE1021-0EB0-....	681.–
90 L	1.5	2	▲ 1LE1021-0EB4-....	793.–
100 L	2.2	3	▲ 1LE1021-1AB4-....	961.–
100 L	3	4	▲ 1LE1021-1AB5-....	1090.–
112 M	4	5	▲ 1LE1021-1BB2-....	1330.–
132 S	5.5	7.5	▲ 1LE1021-1CB0-....	1670.–
132 M	7.5	10	▲ 1LE1021-1CB2-....	2080.–
160 M	11	15	▲ 1LE1021-1DB2-....	2720.–
160 L	15	20	▲ 1LE1021-1DB4-....	3470.–
<b>6-pole: 1000 rpm at 50 Hz, 1200 rpm at 60 Hz</b>				
100 L	1.5	2	▲ 1LE1021-1AC4-....	951.–
112 M	2.2	3	▲ 1LE1021-1BC2-....	1190.–
132 S	3	4	▲ 1LE1021-1CC0-....	1510.–
132 M	4	5	▲ 1LE1021-1CC2-....	1820.–
132 M	5.5	7.5	▲ 1LE1021-1CC3-....	2250.–
160 M	7.5	10	▲ 1LE1021-1DC2-....	2850.–
160 L	11	15	▲ 1LE1021-1DC4-....	3860.–

<sup>1)</sup> Notes for 1LE1021 NEMA Energy Efficient motors:  
- Comprises CSA, UL and CC-No.  
- Only valid for voltages ≤ 600 V  
- For ≤ 200 hp, only flange-mounting types permissible

# Standard motors 1LE1 Severe Duty - Eagle Line

Standard delivery times:

10  
working  
days20  
working  
daysOn  
request

## Orientation

Overview of selection and ordering data  
with base prices and standard delivery times

### Overview (continued)

Category	1.4 – NEMA Energy Efficient MG1 motors, Table 12-11 (continued)					
Series version	Cast-iron series 1LE1521/1LE1621 <sup>1)</sup> Basic/Performance Line (continued on next page)					
Cooling	Self-ventilated (IC 411)					
Degree of protection	IP55, optionally IP56 or IP65					
Insulation	Thermal class 155 (F)					
Utilization	Thermal class 130 (B)					
Number of poles	2, 4, 6					
Frame size (FS)	100 L ... 315 L					
Rated output	1.5 ... 200 kW at 50 Hz 2 ... 250 hp at 60 Hz					
Synchronous speed	1000 ... 3600 rpm					
Rated torque	8.1 ... 1048 Nm at 60 Hz					
Efficiency	NEMA Energy Efficient MG1, Table 12-11 <sup>1)</sup>					
Metal factor for metal surcharges (MS)	N - W - - -					
Price group (PG)	3Z1					
Range of motors with Order No., delivery time and base price plus MS for type of construction IM B3 and connection box on top (for delivery times refer to colored background of the relevant price)						
Frame size	$P_{rated}$ , 50 Hz	$P_{rated}$ , 60 Hz	Order No. Basic Line	Base price	Order No. Performance Line	Base price
FS	kW	hp	▲ New	EUR	▲ New	EUR
<b>2-pole: 3000 rpm at 50 Hz, 3600 rpm at 60 Hz</b>						
100 L	3	4	▲ 1LE1521-1AA4-....	1130.-	▲ 1LE1621-1AA4-....	1230.-
112 M	4	5	▲ 1LE1521-1BA2-....	1340.-	▲ 1LE1621-1BA2-....	1460.-
132 S	5.5	7.5	▲ 1LE1521-1CA0-....	1690.-	▲ 1LE1621-1CA0-....	1840.-
132 S	7.5	10	▲ 1LE1521-1CA1-....	2090.-	▲ 1LE1621-1CA1-....	2290.-
160 M	11	15	▲ 1LE1521-1DA2-....	2880.-	▲ 1LE1621-1DA2-....	3290.-
160 M	15	20	▲ 1LE1521-1DA3-....	3700.-	▲ 1LE1621-1DA3-....	4230.-
160 L	18.5	25	▲ 1LE1521-1DA4-....	4380.-	▲ 1LE1621-1DA4-....	5000.-
180 M	22	30	▲ 1LE1521-1EA2-....	4980.-	▲ 1LE1621-1EA2-....	5440.-
200 L	30	40	▲ 1LE1521-2AA4-....	6470.-	▲ 1LE1621-2AA4-....	7080.-
200 L	37	50	▲ 1LE1521-2AA5-....	8030.-	▲ 1LE1621-2AA5-....	8790.-
225 M	45	60	▲ 1LE1521-2BA2-....	9610.-	▲ 1LE1621-2BA2-....	10500.-
250 M	55	75	▲ 1LE1521-2CA2-....	11400.-	▲ 1LE1621-2CA2-....	12500.-
280 S	75	100	▲ 1LE1521-2DA0-....	15500.-	▲ 1LE1621-2DA0-....	16000.-
280 M	90	125	▲ 1LE1521-2DA2-....	18200.-	▲ 1LE1621-2DA2-....	19100.-
315 S	110	150	▲ 1LE1521-3AA0-....	22000.-	▲ 1LE1621-3AA0-....	23000.-
315 M	132	175	▲ 1LE1521-3AA2-....	26100.-	▲ 1LE1621-3AA2-....	27400.-
315 L	160	200	▲ 1LE1521-3AA4-....	32200.-	▲ 1LE1621-3AA4-....	33800.-
315 L	200	250	▲ 1LE1521-3AA5-....	40000.-	▲ 1LE1621-3AA5-....	42000.-
<b>4-pole: 1500 rpm at 50 Hz, 1800 rpm at 60 Hz</b>						
100 L	2.2	3	▲ 1LE1521-1AB4-....	1040.-	▲ 1LE1621-1AB4-....	1130.-
100 L	3	4	▲ 1LE1521-1AB5-....	1180.-	▲ 1LE1621-1AB5-....	1290.-
112 M	4	5	▲ 1LE1521-1BB2-....	1450.-	▲ 1LE1621-1BB2-....	1570.-
132 S	5.5	7.5	▲ 1LE1521-1CB0-....	1800.-	▲ 1LE1621-1CB0-....	1970.-
132 M	7.5	10	▲ 1LE1521-1CB2-....	2240.-	▲ 1LE1621-1CB2-....	2450.-
160 M	11	15	▲ 1LE1521-1DB2-....	2930.-	▲ 1LE1621-1DB2-....	3350.-
160 L	15	20	▲ 1LE1521-1DB4-....	3760.-	▲ 1LE1621-1DB4-....	4290.-
180 M	18.5	25	▲ 1LE1521-1EB2-....	4260.-	▲ 1LE1621-1EB2-....	4660.-
180 L	22	30	▲ 1LE1521-1EB4-....	4910.-	▲ 1LE1621-1EB4-....	5370.-
200 L	30	40	▲ 1LE1521-2AB5-....	6390.-	▲ 1LE1621-2AB5-....	6990.-
225 S	37	50	▲ 1LE1521-2BB0-....	7780.-	▲ 1LE1621-2BB0-....	8510.-
225 M	45	60	▲ 1LE1521-2BB2-....	9070.-	▲ 1LE1621-2BB2-....	9930.-
250 M	55	75	▲ 1LE1521-2CB2-....	11000.-	▲ 1LE1621-2CB2-....	12000.-
280 S	75	100	▲ 1LE1521-2DB0-....	14700.-	▲ 1LE1621-2DB0-....	15200.-
280 M	90	125	▲ 1LE1521-2DB2-....	17200.-	▲ 1LE1621-2DB2-....	17600.-
315 S	110	150	▲ 1LE1521-3AB0-....	21400.-	▲ 1LE1621-3AB0-....	22000.-
315 M	132	175	▲ 1LE1521-3AB2-....	25200.-	▲ 1LE1621-3AB2-....	26000.-
315 L	160	200	▲ 1LE1521-3AB4-....	30300.-	▲ 1LE1621-3AB4-....	31200.-
315 L	200	250	▲ 1LE1521-3AB5-....	37500.-	▲ 1LE1621-3AB5-....	38600.-

<sup>1)</sup> Notes for 1LE1521/1LE1621 NEMA Energy Efficient motors:  
 - Comprises CSA, UL and CC-No.  
 - Only valid for voltages ≤ 600 V  
 - For ≤ 200 hp, only flange-mounting types permissible

Standard delivery times:

10 working days	20 working days	On request
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Overview of selection and ordering data  
with base prices and standard delivery times

## Overview (continued)

Category	<b>1.4 – NEMA Energy Efficient MG1 motors, Table 12-11 (continued)</b>
Series version	<b>Cast-iron series 1LE1521/1LE1621 <sup>1)</sup></b> <b>Basic/Performance Line</b> (continued)
Cooling	Self-ventilated (IC 411)
Degree of protection	IP55, optionally IP56 or IP65
Insulation	Thermal class 155 (F)
Utilization	Thermal class 130 (B)
Number of poles	2, 4, 6
Frame size (FS)	100 L ... 315 L
Rated output	1.5 ... 200 kW at 50 Hz 2 ... 250 hp at 60 Hz
Synchronous speed	1000 ... 3600 rpm
Rated torque	8.1 ... 1048 Nm at 60 Hz
Efficiency	NEMA Energy Efficient MG1, Table 12-11 <sup>1)</sup>
Metal factor for metal surcharges (MS)	N - W - - -
Price group (PG)	3Z1

Range of motors with Order No., delivery time and base price plus MS for type of construction IM B3 and connection box on top  
(for delivery times refer to colored background of the relevant price)

Frame size	$P_{rated}$ , 50 Hz	$P_{rated}$ , 60 Hz	Order No. <b>Basic Line</b>	Base price	Order No. <b>Performance Line</b>	Base price
FS	kW	hp	▲ New	EUR	▲ New	EUR
<b>6-pole: 1000 rpm at 50 Hz, 1200 rpm at 60 Hz</b>						
100 L	1.5	2	▲ 1LE1521-1AC4-.....	1020.-	▲ 1LE1621-1AC4-.....	1120.-
112 M	2.2	3	▲ 1LE1521-1BC2-.....	1290.-	▲ 1LE1621-1BC2-.....	1400.-
132 S	3	4	▲ 1LE1521-1CC0-.....	1620.-	▲ 1LE1621-1CC0-.....	1770.-
132 M	4	5	▲ 1LE1521-1CC2-.....	1820.-	▲ 1LE1621-1CC2-.....	2000.-
132 M	5.5	7.5	▲ 1LE1521-1CC3-.....	2430.-	▲ 1LE1621-1CC3-.....	2660.-
160 M	7.5	10	▲ 1LE1521-1DC2-.....	3080.-	▲ 1LE1621-1DC2-.....	3500.-
160 L	11	15	▲ 1LE1521-1DC4-.....	4170.-	▲ 1LE1621-1DC4-.....	4770.-
180 L	15	20	▲ 1LE1521-1EC4-.....	5220.-	▲ 1LE1621-1EC4-.....	5710.-
200 L	18.5	25	▲ 1LE1521-2AC4-.....	6430.-	▲ 1LE1621-2AC4-.....	7030.-
200 L	22	30	▲ 1LE1521-2AC5-.....	7380.-	▲ 1LE1621-2AC5-.....	8080.-
225 M	30	40	▲ 1LE1521-2BC2-.....	9870.-	▲ 1LE1621-2BC2-.....	10800.-
250 M	37	50	▲ 1LE1521-2CC2-.....	12000.-	▲ 1LE1621-2CC2-.....	13100.-
280 S	45	60	▲ 1LE1521-2DC0-.....	14600.-	▲ 1LE1621-2DC0-.....	15100.-
280 M	55	75	▲ 1LE1521-2DC2-.....	17200.-	▲ 1LE1621-2DC2-.....	17600.-
315 S	75	100	▲ 1LE1521-3AC0-.....	23300.-	▲ 1LE1621-3AC0-.....	23900.-
315 M	90	125	▲ 1LE1521-3AC2-.....	26100.-	▲ 1LE1621-3AC2-.....	26900.-
315 L	110	150	▲ 1LE1521-3AC4-.....	31300.-	▲ 1LE1621-3AC4-.....	32200.-
315 L	132	175	▲ 1LE1521-3AC5-.....	37100.-	▲ 1LE1621-3AC5-.....	38100.-
315 L	160	200	▲ 1LE1521-3AC6-.....	44700.-	▲ 1LE1621-3AC6-.....	46000.-

<sup>1)</sup> Notes for 1LE1521/1LE1621 NEMA Energy Efficient motors:  
- Comprises CSA, UL and CC-No.  
- Only valid for voltages ≤ 600 V  
- For ≤ 200 hp, only flange-mounting types permissible

# Standard motors 1LE1 General Purpose - Eagle Line

Standard delivery times:

## Orientation

10  
working  
days20  
working  
daysOn  
request

Overview of selection and ordering data  
with base prices and standard delivery times

### Overview (continued)

Category	<b>1.5 – NEMA Premium Efficient MG1 motors, Table 12-12</b>
Series version	<b>Aluminum series 1LE1023 <sup>1)</sup></b>
Cooling	Self-ventilated (IC 411) or with order code F90 forced-air cooled without external fan and fan cover (IC 416)
Degree of protection	IP55, optionally IP56 or IP65
Insulation	Thermal class 155 (F)
Utilization	Thermal class 130 (B)
Number of poles	2, 4, 6
Frame size (FS)	100 L ... 160 L
Rated output	2.2 ... 18.5 kW at 50 Hz 3 ... 25 hp at 60 Hz
Synchronous speed	1000 ... 3600 rpm
Rated torque	8.1 ... 89 Nm at 60 Hz
Efficiency	NEMA Premium Efficient MG1, Table 12-12 <sup>1)</sup>
Metal factor for metal surcharges (MS)	N - W - - -
Price group (PG)	3Z1

Range of motors with Order No., delivery time and base price plus MS for type of construction IM B3 and connection box on top  
(for delivery times refer to colored background of the relevant price)

Frame size	$P_{rated, 50 Hz}$ kW	$P_{rated, 60 Hz}$ hp	Order No.	Base price
FS			▲ New	EUR
<b>2-pole: 3000 rpm at 50 Hz, 3600 rpm at 60 Hz</b>				
100 L	3	4	▲ 1LE1023-1AA4-.....	1200.-
112 M	4	5	▲ 1LE1023-1BA2-.....	1420.-
132 S	5.5	7.5	▲ 1LE1023-1CA0-.....	1790.-
132 S	7.5	10	▲ 1LE1023-1CA1-.....	2270.-
160 M	11	15	▲ 1LE1023-1DA2-.....	3140.-
160 M	15	20	▲ 1LE1023-1DA3-.....	4100.-
160 L	18.5	25	▲ 1LE1023-1DA4-.....	4890.-
<b>4-pole: 1500 rpm at 50 Hz, 1800 rpm at 60 Hz</b>				
100 L	2.2	3	▲ 1LE1023-1AB4-.....	1090.-
100 L	3	4	▲ 1LE1023-1AB5-.....	1260.-
112 M	4	5	▲ 1LE1023-1BB2-.....	1540.-
132 S	5.5	7.5	▲ 1LE1023-1CB0-.....	1930.-
132 M	7.5	10	▲ 1LE1023-1CB2-.....	2450.-
160 M	11	15	▲ 1LE1023-1DB2-.....	3210.-
160 L	15	20	▲ 1LE1023-1DB4-.....	4170.-
<b>6-pole: 1000 rpm at 50 Hz, 1200 rpm at 60 Hz</b>				
132 S	3	4	▲ 1LE1023-1CC0-.....	1720.-
132 M	4	5	▲ 1LE1023-1CC2-.....	2120.-
132 M	5.5	7.5	▲ 1LE1023-1CC3-.....	2660.-
160 M	7.5	10	▲ 1LE1023-1DC2-.....	3370.-
160 L	11	15	▲ 1LE1023-1DC4-.....	4660.-

<sup>1)</sup> Notes for 1LE1023 NEMA Premium Efficient motors:  
- Comprises CSA, UL and CC-No.  
- Only valid for voltages ≤ 600 V  
- All types of construction permissible

Standard delivery times:

10  
working  
days20  
working  
daysOn  
requestOverview of selection and ordering data  
with base prices and standard delivery times

## Overview (continued)

Category	<b>1.5 – NEMA Premium Efficient MG1 motors, Table 12-12 (continued)</b>
Series version	<b>Cast-iron series 1LE1523/1LE1623 <sup>1)</sup></b> <b>Basic/Performance Line</b> (continued on next page)
Cooling	Self-ventilated (IC 411)
Degree of protection	IP55, optionally IP56 or IP65
Insulation	Thermal class 155 (F)
Utilization	Thermal class 130 (B)
Number of poles	2, 4, 6
Frame size (FS)	100 L ... 315 L
Rated output	2.2 ... 200 kW at 50 Hz 3 ... 250 hp at 60 Hz
Synchronous speed	1000 ... 3600 rpm
Rated torque	8.1 ... 1046 Nm at 60 Hz
Efficiency	NEMA Premium Efficient MG1, Table 12-12 <sup>1)</sup>
Metal factor for metal surcharges (MS)	N - W - -
Price group (PG)	3Z1

Range of motors with Order No., delivery time and base price plus MS for type of construction IM B3 and connection box on top  
(for delivery times refer to colored background of the relevant price)

Frame size	$P_{rated}$ , 50 Hz	$P_{rated}$ , 60 Hz	Order No. <b>Basic Line</b>	Base price	Order No. <b>Performance Line</b>	Base price
FS	kW	hp	▲ New	EUR	▲ New	EUR
<b>2-pole: 3000 rpm at 50 Hz, 3600 rpm at 60 Hz</b>						
100 L	3	4	▲ 1LE1523-1AA4-.....	1300.-	▲ 1LE1623-1AA4-.....	1410.-
112 M	4	5	▲ 1LE1523-1BA2-.....	1540.-	▲ 1LE1623-1BA2-.....	1660.-
132 S	5.5	7.5	▲ 1LE1523-1CA0-.....	1940.-	▲ 1LE1623-1CA0-.....	2100.-
132 S	7.5	10	▲ 1LE1523-1CA1-.....	2460.-	▲ 1LE1623-1CA1-.....	2650.-
160 M	11	15	▲ 1LE1523-1DA2-.....	3410.-	▲ 1LE1623-1DA2-.....	3810.-
160 M	15	20	▲ 1LE1523-1DA3-.....	4450.-	▲ 1LE1623-1DA3-.....	4970.-
160 L	18.5	25	▲ 1LE1523-1DA4-.....	5310.-	▲ 1LE1623-1DA4-.....	5930.-
180 M	22	30	▲ 1LE1523-1EA2-.....	5930.-	▲ 1LE1623-1EA2-.....	6400.-
200 L	30	40	▲ 1LE1523-2AA4-.....	7690.-	▲ 1LE1623-2AA4-.....	8300.-
200 L	37	50	▲ 1LE1523-2AA5-.....	9650.-	▲ 1LE1623-2AA5-.....	10400.-
225 M	45	60	▲ 1LE1523-2BA2-.....	11000.-	▲ 1LE1623-2BA2-.....	11900.-
250 M	55	75	▲ 1LE1523-2CA2-.....	13100.-	▲ 1LE1623-2CA2-.....	14200.-
280 S	75	100	▲ 1LE1523-2DA0-.....	17900.-	▲ 1LE1623-2DA0-.....	18300.-
280 M	90	125	▲ 1LE1523-2DA2-.....	21200.-	▲ 1LE1623-2DA2-.....	22100.-
315 S	110	150	▲ 1LE1523-3AA0-.....	25400.-	▲ 1LE1623-3AA0-.....	26500.-
315 M	132	175	▲ 1LE1523-3AA2-.....	30500.-	▲ 1LE1623-3AA2-.....	31700.-
315 L	160	200	▲ 1LE1523-3AA4-.....	37900.-	▲ 1LE1623-3AA4-.....	39500.-
315 L	200	250	▲ 1LE1523-3AA5-.....	44300.-	▲ 1LE1623-3AA5-.....	46200.-
<b>4-pole: 1500 rpm at 50 Hz, 1800 rpm at 60 Hz</b>						
100 L	2.2	3	▲ 1LE1523-1AB4-.....	1180.-	▲ 1LE1623-1AB4-.....	1280.-
100 L	3	4	▲ 1LE1523-1AB5-.....	1370.-	▲ 1LE1623-1AB5-.....	1470.-
112 M	4	5	▲ 1LE1523-1BB2-.....	1680.-	▲ 1LE1623-1BB2-.....	1810.-
132 S	5.5	7.5	▲ 1LE1523-1CB0-.....	2090.-	▲ 1LE1623-1CB0-.....	2260.-
132 M	7.5	10	▲ 1LE1523-1CB2-.....	2650.-	▲ 1LE1623-1CB2-.....	2860.-
160 M	11	15	▲ 1LE1523-1DB2-.....	3480.-	▲ 1LE1623-1DB2-.....	3900.-
160 L	15	20	▲ 1LE1523-1DB4-.....	4520.-	▲ 1LE1623-1DB4-.....	5060.-
180 M	18.5	25	▲ 1LE1523-1EB2-.....	5030.-	▲ 1LE1623-1EB2-.....	5430.-
180 L	22	30	▲ 1LE1523-1EB4-.....	5850.-	▲ 1LE1623-1EB4-.....	6310.-
200 L	30	40	▲ 1LE1523-2AB5-.....	7580.-	▲ 1LE1623-2AB5-.....	8180.-
225 S	37	50	▲ 1LE1523-2BB0-.....	8810.-	▲ 1LE1623-2BB0-.....	9540.-
225 M	45	60	▲ 1LE1523-2BB2-.....	10400.-	▲ 1LE1623-2BB2-.....	11200.-
250 M	55	75	▲ 1LE1523-2CB2-.....	12600.-	▲ 1LE1623-2CB2-.....	13600.-
280 S	75	100	▲ 1LE1523-2DB0-.....	17000.-	▲ 1LE1623-2DB0-.....	17400.-
280 M	90	125	▲ 1LE1523-2DB2-.....	19900.-	▲ 1LE1623-2DB2-.....	20400.-
315 S	110	150	▲ 1LE1523-3AB0-.....	24800.-	▲ 1LE1623-3AB0-.....	25400.-
315 M	132	175	▲ 1LE1523-3AB2-.....	29400.-	▲ 1LE1623-3AB2-.....	30100.-
315 L	160	200	▲ 1LE1523-3AB4-.....	35500.-	▲ 1LE1623-3AB4-.....	36400.-
315 L	200	250	▲ 1LE1523-3AB5-.....	41400.-	▲ 1LE1623-3AB5-.....	42500.-

<sup>1)</sup> Notes for 1LE1523/1LE1623 NEMA Premium Efficient motors:  
- Comprises CSA, UL and CC-No.  
- Only valid for voltages ≤ 600 V  
- All types of construction permissible

# Standard motors 1LE1 Severe Duty - Eagle Line

Standard delivery times:

10  
working  
days20  
working  
daysOn  
request

## Orientation

Overview of selection and ordering data  
with base prices and standard delivery times

### Overview (continued)

Category	<b>1.5 – NEMA Premium Efficient MG1 motors, Table 12-12 (continued)</b>
Series version	<b>Cast-iron series 1LE1523/1LE1623 <sup>1)</sup></b> <b>Basic/Performance Line</b> (continued)
Cooling	Self-ventilated (IC 411)
Degree of protection	IP55, optionally IP56 or IP65
Insulation	Thermal class 155 (F)
Utilization	Thermal class 130 (B)
Number of poles	2, 4, 6
Frame size (FS)	100 L ... 315 L
Rated output	2.2 ... 200 kW at 50 Hz 3 ... 250 hp at 60 Hz
Synchronous speed	1000 ... 3600 rpm
Rated torque	8.1 ... 1046 Nm at 60 Hz
Efficiency	NEMA Premium Efficient MG1, Table 12-12 <sup>1)</sup>
Metal factor for metal surcharges (MS)	N - W - - -
Price group (PG)	3Z1

Range of motors with Order No., delivery time and base price plus MS for type of construction IM B3 and connection box on top  
(for delivery times refer to colored background of the relevant price)

Frame size	$P_{rated}$ , 50 Hz	$P_{rated}$ , 60 Hz	Order No. <b>Basic Line</b>	Base price	Order No. <b>Performance Line</b>	Base price
FS	kW	hp	▲ New	EUR	▲ New	EUR
<b>6-pole: 1000 rpm at 50 Hz, 1200 rpm at 60 Hz</b>						
132 S	3	4	▲ 1LE1523-1CC0-.....	1860.-	▲ 1LE1623-1CC0-.....	2020.-
132 M	4	5	▲ 1LE1523-1CC2-.....	2300.-	▲ 1LE1623-1CC2-.....	2480.-
132 M	5.5	7.5	▲ 1LE1523-1CC3-.....	2890.-	▲ 1LE1623-1CC3-.....	3120.-
160 M	7.5	10	▲ 1LE1523-1DC2-.....	3660.-	▲ 1LE1623-1DC2-.....	4100.-
160 L	11	15	▲ 1LE1523-1DC4-.....	5060.-	▲ 1LE1623-1DC4-.....	5650.-
180 L	15	20	▲ 1LE1523-1EC4-.....	6230.-	▲ 1LE1623-1EC4-.....	6730.-
200 L	18.5	25	▲ 1LE1523-2AC4-.....	7630.-	▲ 1LE1623-2AC4-.....	8240.-
200 L	22	30	▲ 1LE1523-2AC5-.....	8840.-	▲ 1LE1623-2AC5-.....	9540.-
225 M	30	40	▲ 1LE1523-2BC2-.....	11300.-	▲ 1LE1623-2BC2-.....	12300.-
250 M	37	50	▲ 1LE1523-2CC2-.....	13800.-	▲ 1LE1623-2CC2-.....	14900.-
280 S	45	60	▲ 1LE1523-2DC0-.....	16800.-	▲ 1LE1623-2DC0-.....	17200.-
280 M	55	75	▲ 1LE1523-2DC2-.....	19900.-	▲ 1LE1623-2DC2-.....	20400.-
315 S	75	100	▲ 1LE1523-3AC0-.....	27000.-	▲ 1LE1623-3AC0-.....	27700.-
315 M	90	125	▲ 1LE1523-3AC2-.....	30500.-	▲ 1LE1623-3AC2-.....	31200.-
315 L	110	150	▲ 1LE1523-3AC4-.....	36700.-	▲ 1LE1623-3AC4-.....	37600.-
315 L	132	175	▲ 1LE1523-3AC5-.....	43700.-	▲ 1LE1623-3AC5-.....	44800.-
315 L	160	200	▲ 1LE1523-3AC6-.....	49600.-	▲ 1LE1623-3AC6-.....	50900.-

<sup>1)</sup> Notes for 1LE1523/1LE1623 NEMA Premium Efficient motors:  
- Comprises CSA, UL and CC-No.  
- Only valid for voltages ≤ 600 V  
- All types of construction permissible

Standard delivery times:

10 working days	20 working days	On request
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Overview of selection and ordering data  
with base prices and standard delivery times

## Overview (continued)

Category	1.6 – Pole-changing motors							
Series version	Aluminum series 1LE1011 for constant load torque				Aluminum series 1LE1011/1LE1012 for quadratic load torque (e.g. for driving fans)			
Cooling	Self-ventilated (IC 411)				Self-ventilated (IC 411)			
Degree of protection	IP55, optionally IP56 or IP65				IP55, optionally IP56 or IP65			
Insulation	Thermal class 155 (F)				Thermal class 155 (F)			
Utilization	Thermal class 130 (B)				Thermal class 130 (B)			
Number of poles	4/2, 8/4				4/2, 6/4, 8/4			
Frame size (FS)	100 L ... 160 L				100 L ... 160 L			
Rated output at 50 Hz	0.55 ... 16 kW				0.5 ... 16 kW			
Synchronous speed	750 ... 3600 rpm				750 ... 3600 rpm			
Rated torque at 50 Hz	7 ... 85 Nm				4 ... 91 Nm			
Efficiency	-				-			
Metal factor for metal surcharges (MS)	N - W - - -				N - W - - -			
Price group (PG)	3Z1				3Z1			
Range of motors with Order No., delivery time and base price plus MS for type of construction IM B3 and connection box on top (for delivery times refer to colored background of the relevant price)								
Frame size	$P_{rated1, 50 Hz}$ kW	$P_{rated2, 50 Hz}$ kW	Order No.	Base price EUR	$P_{rated1, 50 Hz}$ kW	$P_{rated2, 50 Hz}$ kW	Order No.	Base price EUR
4/2-pole: 1500/3000 rpm at 50 Hz								
	1500 rpm	3000 rpm			1500 rpm	3000 rpm		
100 L	2	2.4	1LE1011-1AJ4.-....	915.-	0.65	2.5	1LE1011-1AP4.-....	915.-
100 L	2.6	3.1	1LE1011-1AJ5.-....	1090.-	0.8	3.1	1LE1011-1AP5.-....	1090.-
112 M	3.7	4.4	1LE1011-1BJ2.-....	1360.-	1.1	4.4	1LE1011-1BP2.-....	1360.-
132 S	4.7	5.9	1LE1011-1CJ0.-....	1740.-	1.45	5.9	1LE1011-1CP0.-....	1740.-
132 M	6.5	8	1LE1011-1CJ2.-....	2280.-	2	8	1LE1011-1CP2.-....	2280.-
160 M	9.3	11.5	1LE1011-1DJ2.-....	3020.-	2.9	11.5	1LE1011-1DP2.-....	3020.-
160 L	13	16	1LE1011-1DJ4.-....	4370.-	4.3	16	1LE1011-1DP4.-....	4370.-
6/4-pole: 1000/1500 rpm at 50 Hz								
					1000 rpm	1500 rpm		
100 L					0.6	1.7	1LE1012-1AQ4.-....	978.-
100 L					0.75	2.1	1LE1012-1AQ5.-....	1090.-
112 M					0.9	3	1LE1012-1BQ2.-....	1270.-
132 S					1.2	3.9	1LE1012-1CQ0.-....	1570.-
132 M					1.7	5.4	1LE1012-1CQ2.-....	1930.-
160 M					2.5	7.2	1LE1012-1DQ2.-....	2820.-
160 L					3.7	12	1LE1012-1DQ4.-....	4100.-
8/4-pole: 750/1500 rpm at 50 Hz								
	750 rpm	1500 rpm			750 rpm	1500 rpm		
100 L	0.55	1.1	1LE1011-1AL4.-....	769.-	0.5	2	1LE1011-1AR4.-....	769.-
100 L	0.9	1.5	1LE1011-1AL5.-....	888.-	0.65	2.5	1LE1011-1AR5.-....	888.-
112 M	1.1	1.9	1LE1011-1BL2.-....	1030.-	0.9	3.6	1LE1011-1BR2.-....	1030.-
132 S	1.6	3.2	1LE1011-1CL0.-....	1440.-	1.1	4.7	1LE1011-1CR0.-....	1440.-
132 M	2.2	4.4	1LE1011-1CL2.-....	1860.-	1.4	6.4	1LE1011-1CR2.-....	1860.-
160 M	3.5	7	1LE1011-1DL2.-....	2560.-	2.2	9.5	1LE1011-1DR2.-....	2560.-
160 L	5.6	11	1LE1011-1DL4.-....	3800.-	3.3	14	1LE1011-1DR4.-....	3800.-

1.0

# Standard motors 1LE1/1PC1

## Orientation

### Notes

1.0

## Standard motors 1LA/1LG/1LP/1PP



2/2

### Orientation

2/2

Overview of selection and ordering data with base prices and standard delivery times

2/2

Overview

# Standard motors 1LA/1LG/1LP/1PP

## Orientation

Overview of selection and ordering data  
with base prices and standard delivery times

Standard delivery times:

10  
working  
days

20  
working  
days

On  
request

### Overview

Category	<b>2.1 – Motors with High Efficiency IE2</b>
Series version	<b>Aluminum series 1LA9</b>
Cooling	Self-ventilated (IC 411)
Degree of protection	IP55, optionally IP56 or IP65
Insulation	Thermal class 155 (F)
Utilization	Thermal class 130 (B)
Number of poles	2, 4, 6
Frame size (FS)	63 M ... 200 L
Rated output at 50 Hz	0.12 ... 37 kW
Synchronous speed	1000 ... 3600 rpm
Rated torque at 50 Hz	0.6 ... 215 Nm
Efficiency	High Efficiency IE2
Metal factor for metal surcharges (MS)	N - W - - -
Price group (PG)	3Z1

Range of motors with Order No., delivery time and base price plus MS for type of construction IM B3  
(for delivery times refer to colored background of the relevant price)

$P_{\text{rated}}$ , 50 Hz kW	IE class	Frame size FS	Order No. ▶ Successor 1LE1001	Base price EUR
<b>2-pole: 3000 rpm at 50 Hz</b>				
0.18	-	63 M	1LA9060-2KA..	349.-
0.25	-	63 M	1LA9063-2KA..	369.-
0.37	-	71 M	1LA9070-2KA..	374.-
0.55	-	71 M	1LA9073-2KA..	422.-
0.75	IE2	80 M	▶ 1LA9080-2KA..	464.-
1.1	IE2	80 M	▶ 1LA9083-2KA..	531.-
1.5	IE2	90 S	▶ 1LA9090-2KA..	613.-
2.2	IE2	90 L	▶ 1LA9096-2KA..	791.-
3	IE2	100 L	▶ 1LA9106-2KA..	949.-
4	IE2	112 M	▶ 1LA9113-2KA..	1120.-
5.5	IE2	132 S	▶ 1LA9130-2KA..	1410.-
7.5	IE2	132 S	▶ 1LA9131-2KA..	1790.-
11	IE2	160 M	▶ 1LA9163-2KA..	2480.-
15	IE2	160 M	▶ 1LA9164-2KA..	3240.-
18.5	IE2	160 L	▶ 1LA9166-2KA..	3870.-
22	IE2	180 M	1LA9183-2WA..	4560.-
30	IE2	200 L	1LA9206-2WA..	5910.-
37	IE2	200 L	1LA9207-2WA..	7420.-
<b>4-pole: 1500 rpm at 50 Hz</b>				
0.12	-	63 M	1LA9060-4KA..	356.-
0.18	-	63 M	1LA9063-4KA..	384.-
0.25	-	71 M	1LA9070-4KA..	382.-
0.37	-	71 M	1LA9073-4KA..	428.-
0.55	-	80 M	▶ 1LA9080-4KA..	461.-
0.75	IE2	80 M	▶ 1LA9083-4KA..	503.-
1.1	IE2	90 S	▶ 1LA9090-4KA..	595.-
1.5	IE2	90 L	▶ 1LA9096-4KA..	706.-
2.2	IE2	100 L	▶ 1LA9106-4KA..	865.-
3	IE2	100 L	▶ 1LA9107-4KA..	996.-
4	IE2	112 M	▶ 1LA9113-4KA..	1220.-
5.5	IE2	132 S	▶ 1LA9130-4KA..	1520.-
7.5	IE2	132 M	▶ 1LA9133-4KA..	1930.-
11	IE2	160 M	▶ 1LA9163-4KA..	2540.-
15	IE2	160 L	▶ 1LA9166-4KA..	3290.-
18.5	IE2	180 M	1LA9183-4WA..	3880.-
22	IE2	180 L	1LA9186-4WA..	4490.-
30	IE2	200 L	1LA9207-4WA..	5810.-
<b>6-pole: 1000 rpm at 50 Hz</b>				
0.75	IE2	90 S	1LA9090-6KA..	584.-
1.1	IE2	90 L	1LA9096-6KA..	723.-
1.5	IE2	100 L	▶ 1LA9106-6KA..	855.-
2.2	IE2	112 M	▶ 1LA9113-6KA..	1070.-
4	IE2	132 M	▶ 1LA9133-6KA..	1670.-
5.5	IE2	132 M	▶ 1LA9134-6KA..	2110.-
7.5	IE2	160 M	▶ 1LA9163-6KA..	2670.-
11	IE2	160 L	▶ 1LA9166-6KA..	3680.-
15	IE2	180 L	1LA9186-6WA..	4780.-
18.5	IE2	200 L	1LA9206-6WA..	5890.-
22	IE2	200 L	1LA9207-6WA..	6790.-

2.0

Standard delivery times:

10  
working  
days20  
working  
daysOn  
requestOverview of selection and ordering data  
with base prices and standard delivery times

## Overview

Category	<b>2.1 – Motors with High Efficiency IE2 (continued)</b>
Series version	<b>Cast-iron series 1LG6</b>
Cooling	Self-ventilated (IC 411)
Degree of protection	IP55, optionally IP56 or IP65
Insulation	Thermal class 155 (F)
Utilization	Thermal class 130 (B)
Number of poles	2, 4, 6, 8
Frame size (FS)	180 M ... 315 L
Rated output at 50 Hz	11 ... 315 kW
Synchronous speed	750 ... 3600 rpm
Rated torque at 50 Hz	71 ... 2070 Nm
Efficiency	High Efficiency IE2
Metal factor for metal surcharges (MS)	N - W - - -
Price group (PG)	3Z1

Range of motors with Order No., delivery time and base price plus MS for type of construction IM B3  
(for delivery times refer to colored background of the relevant price)

$P_{rated, 50 Hz}$ kW	IE class	Frame size FS	Order No. ▲ New	Base price EUR	$P_{rated, 50 Hz}$ kW	IE class	Frame size FS	Order No. ▲ New	Base price EUR
<b>2-pole: 3000 rpm at 50 Hz</b>					<b>8-pole: 750 rpm at 50 Hz</b>				
22	IE2	180 M	▲ 1LG6183-2MA..	4690.-	11	-	180 L	1LG6186-8AB..	5160.-
30	IE2	200 L	▲ 1LG6206-2MA..	6080.-	15	-	200 L	1LG6207-8AB..	6810.-
37	IE2	200 L	▲ 1LG6207-2MA..	7630.-	18.5	-	225 S	1LG6220-8AB..	8270.-
45	IE2	225 M	▲ 1LG6223-2MA..	9110.-	22	-	225 M	1LG6223-8AB..	9430.-
55	IE2	250 M	▲ 1LG6253-2MB..	10800.-	30	-	250 M	1LG6253-8AB..	12200.-
75	IE2	280 S	▲ 1LG6280-2MB..	14800.-	37	-	280 S	1LG6280-8AB..	14600.-
90	IE2	280 M	▲ 1LG6283-2MB..	17500.-	45	-	280 M	1LG6283-8AB..	17800.-
110	IE2	315 S	▲ 1LG6310-2MB..	21000.-	55	-	315 S	1LG6310-8AB..	21100.-
132	IE2	315 M	▲ 1LG6313-2MB..	25200.-	75	-	315 M	1LG6313-8AB..	28300.-
160	IE2	315 L	▲ 1LG6316-2MB..	31300.-	90	-	315 L	1LG6316-8AB..	31500.-
200	IE2	315 L	▲ 1LG6317-2MB..	39100.-	110	-	315 L	1LG6317-8AB..	38000.-
250	IE2	315 L	▲ 1LG6318-2MB..	44000.-	132	-	315 L	1LG6318-8AB..	45400.-
315	IE2	315 L	▲ 1LG6312-2MA..	55400.-	160	-	315 L	▲ 1LG6312-8MB..	48700.-
<b>4-pole: 1500 rpm at 50 Hz</b>									
18.5	IE2	180 M	▲ 1LG6183-4MA..	3970.-					
22	IE2	180 L	▲ 1LG6186-4MA..	4620.-					
30	IE2	200 L	▲ 1LG6207-4MA..	5990.-					
37	IE2	225 S	▲ 1LG6220-4MA..	7280.-					
45	IE2	225 M	▲ 1LG6223-4MA..	8570.-					
55	IE2	250 M	▲ 1LG6253-4MA..	10400.-					
75	IE2	280 S	▲ 1LG6280-4MA..	14000.-					
90	IE2	280 M	▲ 1LG6283-4MA..	16400.-					
110	IE2	315 S	▲ 1LG6310-4MA..	20500.-					
132	IE2	315 M	▲ 1LG6313-4MA..	24300.-					
160	IE2	315 L	▲ 1LG6316-4MA..	29300.-					
200	IE2	315 L	▲ 1LG6317-4MA..	36600.-					
250	IE2	315 L	▲ 1LG6318-4MA..	41200.-					
315	IE2	315 L	▲ 1LG6312-4MA..	52000.-					
<b>6-pole: 1000 rpm at 50 Hz</b>									
15	IE2	180 L	1LG6186-6AA..	4930.-					
18.5	IE2	200 L	1LG6206-6AA..	6030.-					
22	IE2	200 L	1LG6207-6AA..	6990.-					
30	IE2	225 M	1LG6223-6AA..	9370.-					
37	IE2	250 M	1LG6253-6AA..	11400.-					
45	IE2	280 S	1LG6280-6AA..	13900.-					
55	IE2	280 M	1LG6283-6AA..	16400.-					
75	IE2	315 S	1LG6310-6AA..	22300.-					
90	IE2	315 M	1LG6313-6AA..	25200.-					
110	IE2	315 L	1LG6316-6AA..	30300.-					
132	IE2	315 L	1LG6317-6AA..	36100.-					
160	IE2	315 L	1LG6318-6AA..	43800.-					
200	IE2	315 L	▲ 1LG6312-6MA..	48700.-					

2.0

# Standard motors 1LA/1LG/1LP/1PP

## Orientation

Overview of selection and ordering data  
with base prices and standard delivery times

Standard delivery times:

10  
working  
days

20  
working  
days

On  
request

### Overview

Category	2.1 – Motors with High Efficiency IE2 (continued)	2.2 – Motors with Premium Efficiency IE3
Series version	Cast-iron series 1LG6 with increased output	Cast-iron series 1LG6 with order code D25
Cooling	Self-ventilated (IC 411)	Self-ventilated (IC 411)
Degree of protection	IP55, optionally IP56 or IP65	IP55, optionally IP56 or IP65
Insulation	Thermal class 155 (F)	Thermal class 155 (F)
Utilization	Thermal class 130 (B)	Thermal class 130 (B)
Number of poles	2, 4, 6	2, 4, 6
Frame size (FS)	225 M ... 280 M	315 S ... 315 L
Rated output at 50 Hz	37 ... 110 kW	75 ... 315 kW
Synchronous speed	1000 ... 3600 rpm	1000 ... 3600 rpm
Rated torque at 50 Hz	177 ... 725 Nm	352 ... 2022 Nm
Efficiency	High Efficiency IE2	Premium Efficiency IE3
Metal factor for metal surcharges (MS)	N - W - - -	N - W - - -
Price group (PG)	3Z1	3Z1

Range of motors with Order No., delivery time and base price plus MS for type of construction IM B3  
(for delivery times refer to colored background of the relevant price)

$P_{rated, 50 Hz}$ kW	IE class	Frame size FS	Order No.	Base price EUR	$P_{rated, 50 Hz}$ kW	IE class	Frame size FS	Order No.	Base price EUR
<b>2-pole: 3000 rpm at 50 Hz</b>					<b>2-pole: 3000 rpm at 50 Hz</b>				
55	IE2	225 M	1LG6228-2AA..	10800.-	110	IE3	315 S	1LG6310-2AB...Z D25	23040.-
75	IE2	250 M	1LG6258-2AA..	14800.-	132	IE3	315 M	1LG6313-2AB...Z D25	27690.-
110	IE2	280 M	1LG6288-2AA..	21000.-	160	IE3	315 L	1LG6316-2AB...Z D25	34370.-
<b>4-pole: 1500 rpm at 50 Hz</b>					<b>4-pole: 1500 rpm at 50 Hz</b>				
55	IE2	225 M	1LG6228-4AA..	10400.-	200	IE3	315 L	1LG6317-2AB...Z D25	42960.-
75	IE2	250 M	1LG6258-4AA..	14000.-	250	IE3	315 L	▲ 1LG6318-2MB...Z D25	48340.-
110	IE2	280 M	1LG6288-4AA..	20500.-	315	IE3	315 L	▲ 1LG6312-2MA...Z D25	60860.-
<b>6-pole: 1000 rpm at 50 Hz</b>					<b>4-pole: 1500 rpm at 50 Hz</b>				
110	IE3	315 S	1LG6310-4AA...Z D25	22540.-	110	IE3	315 S	1LG6310-4AA...Z D25	22540.-
37	IE2	225 M	1LG6228-6AA..	11400.-	132	IE3	315 M	1LG6313-4AA...Z D25	26690.-
45	IE2	250 M	1LG6258-6AA..	13900.-	160	IE3	315 L	1LG6316-4AA...Z D25	32250.-
75	IE2	280 M	1LG6288-6AA..	22300.-	200	IE3	315 L	1LG6317-4AA...Z D25	40230.-
					250	IE3	315 L	▲ 1LG6318-4MA...Z D25	45260.-
					315	IE3	315 L	▲ 1LG6312-4MA...Z D25	57130.-
					<b>6-pole: 1000 rpm at 50 Hz</b>				
					75	IE3	315 S	1LG6310-6AA...Z D25	24460.-
					90	IE3	315 M	1LG6313-6AA...Z D25	27690.-
					110	IE3	315 L	1LG6316-6AA...Z D25	33250.-
					132	IE3	315 L	1LG6317-6AA...Z D25	39620.-
					160	IE3	315 L	1LG6318-6AA...Z D25	48110.-
					200	IE3	315 L	▲ 1LG6312-6MA...Z D25	53510.-

Standard delivery times:

10 working days	20 working days	On request
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Overview of selection and ordering data  
with base prices and standard delivery times

## Overview (continued)

Category	<b>2.3 – Motors with Standard Efficiency IE1</b>
Series version	Aluminum series 1LA7 and 1LA5
Cooling	Self-ventilated (IC 411)
Degree of protection	IP55, optionally IP56 or IP65
Insulation	Thermal class 155 (F)
Utilization	Thermal class 130 (B)
Number of poles	2, 4, 6, 8
Frame size (FS)	63 M ... 225 M
Rated output at 50 Hz	0.09 ... 45 kW
Synchronous speed	750 ... 3600 rpm
Rated torque at 50 Hz	0.6 ... 293 Nm
Efficiency	Standard Efficiency IE1
Metal factor for metal surcharges (MS)	N - W - - -
Price group (PG)	3Z1

Please observe  
legal minimum  
efficiencies  
in the EEA!

2.0

Range of motors with Order No., delivery time and base price plus MS for type of construction IM B3  
(for delivery times refer to colored background of the relevant price)

$P_{rated, 50 Hz}$ kW	IE class	Frame size FS	Order No. ▶ Successor 1LE1002	Base price EUR	$P_{rated, 50 Hz}$ kW	IE class	Frame size FS	Order No. ▶ Successor 1LE1002	Base price EUR
<b>2-pole: 3000 rpm at 50 Hz</b>					<b>6-pole: 1000 rpm at 50 Hz</b>				
0.18	-	63 M	1LA7060-2AA..	259.-	0.09	-	63 M	1LA7063-6AB..	275.-
0.25	-	63 M	1LA7063-2AA..	274.-	0.18	-	71 M	1LA7070-6AA..	291.-
0.37	-	71 M	1LA7070-2AA..	278.-	0.25	-	71 M	1LA7073-6AA..	325.-
0.55	-	71 M	1LA7073-2AA..	312.-	0.37	-	80 M	1LA7080-6AA..	343.-
0.75	IE1	80 M	1LA7080-2AA..	343.-	0.55	-	80 M	1LA7083-6AA..	397.-
1.1	IE1	80 M	1LA7083-2AA..	394.-	0.75	IE1	90 S	1LA7090-6AA..	449.-
1.5	IE1	90 S	1LA7090-2AA..	455.-	1.1	IE1	90 L	1LA7096-6AA..	556.-
2.2	IE1	90 L	1LA7096-2AA..	585.-	1.5	IE1	100 L	▶ 1LA7106-6AA..	658.-
3	IE1	100 L	▶ 1LA7106-2AA..	703.-	2.2	IE1	112 M	▶ 1LA7113-6AA..	824.-
4	IE1	112 M	▶ 1LA7113-2AA..	866.-	3	IE1	132 S	▶ 1LA7130-6AA..	1040.-
5.5	IE1	132 S	▶ 1LA7130-2AA..	1110.-	4	IE1	132 M	▶ 1LA7133-6AA..	1300.-
7.5	IE1	132 S	▶ 1LA7131-2AA..	1430.-	5.5	IE1	132 M	▶ 1LA7134-6AA..	1640.-
11	IE1	160 M	▶ 1LA7163-2AA..	1990.-	7.5	IE1	160 M	▶ 1LA7163-6AA..	2130.-
15	IE1	160 M	▶ 1LA7164-2AA..	2590.-	11	IE1	160 L	▶ 1LA7166-6AA..	2950.-
18.5	IE1	160 L	▶ 1LA7166-2AA..	3100.-	15	IE1	180 L	1LA5186-6AA..	3830.-
22	IE1	180 M	1LA5183-2AA..	3650.-	18.5	IE1	200 L	1LA5206-6AA..	4710.-
30	IE1	200 L	1LA5206-2AA..	4730.-	22	IE1	200 L	1LA5207-6AA..	5520.-
37	IE1	200 L	1LA5207-2AA..	6180.-	30	IE1	225 M	1LA5223-6AA..	7600.-
45	IE1	225 M	1LA5223-2AA..	7510.-	<b>8-pole: 750 rpm at 50 Hz</b>				
<b>4-pole: 1500 rpm at 50 Hz</b>					0.09	-	71 M	1LA7070-8AB..	307.-
0.12	-	63 M	1LA7060-4AB..	254.-	0.12	-	71 M	1LA7073-8AB..	345.-
0.18	-	63 M	1LA7063-4AB..	274.-	0.18	-	80 M	1LA7080-8AB..	351.-
0.25	-	71 M	1LA7070-4AB..	275.-	0.25	-	80 M	1LA7083-8AB..	435.-
0.37	-	71 M	1LA7073-4AB..	306.-	0.37	-	90 S	1LA7090-8AB..	512.-
0.55	-	80 M	1LA7080-4AA..	329.-	0.55	-	90 L	1LA7096-8AB..	622.-
0.75	IE1	80 M	1LA7083-4AA..	359.-	0.75	-	100 L	▶ 1LA7106-8AB..	684.-
1.1	IE1	90 S	1LA7090-4AA..	426.-	1.1	-	100 L	▶ 1LA7107-8AB..	866.-
1.5	IE1	90 L	1LA7096-4AA..	504.-	1.5	-	112 M	▶ 1LA7113-8AB..	1030.-
2.2	IE1	100 L	▶ 1LA7106-4AA..	618.-	2.2	-	132 S	▶ 1LA7130-8AB..	1330.-
3	IE1	100 L	▶ 1LA7107-4AA..	711.-	3	-	132 M	▶ 1LA7133-8AB..	1620.-
4	IE1	112 M	▶ 1LA7113-4AA..	905.-	4	-	160 M	▶ 1LA7163-8AB..	1990.-
5.5	IE1	132 S	▶ 1LA7130-4AA..	1160.-	5.5	-	160 M	▶ 1LA7164-8AB..	2470.-
7.5	IE1	132 M	▶ 1LA7133-4AA..	1490.-	7.5	-	160 L	▶ 1LA7166-8AB..	3050.-
11	IE1	160 M	▶ 1LA7163-4AA..	2030.-	11	-	180 L	1LA5186-8AB..	4020.-
15	IE1	160 L	▶ 1LA7166-4AA..	2640.-	15	-	200 L	1LA5207-8AB..	5300.-
18.5	IE1	180 M	1LA5183-4AA..	3180.-	18.5	-	225 S	1LA5220-8AB..	6430.-
22	IE1	180 L	1LA5186-4AA..	3750.-	22	-	225 M	1LA5223-8AB..	7460.-
30	IE1	200 L	1LA5207-4AA..	4970.-					
37	IE1	225 S	1LA5220-4AA..	6060.-					
45	IE1	225 M	1LA5223-4AA..	7310.-					

# Standard motors 1LA/1LG/1LP/1PP

## Orientation

Overview of selection and ordering data  
with base prices and standard delivery times

Standard delivery times:

10  
working  
days

20  
working  
days

On  
request

### Overview (continued)

Category	<b>2.3 – Motors with Standard Efficiency IE1 (continued)</b>
Series version	<b>Aluminum series 1LA9 with increased output</b>
Cooling	Self-ventilated (IC 411)
Degree of protection	IP55, optionally IP56 or IP65
Insulation	Thermal class 155 (F)
Utilization	Thermal class 130 (B)
Number of poles	2, 4
Frame size (FS)	63 M ... 200 L
Rated output at 50 Hz	0.21 ... 53 kW
Synchronous speed	1500 ... 3600 rpm
Rated torque at 50 Hz	1.1 ... 280 Nm
Efficiency	–
Metal factor for metal surcharges (MS)	N - W - - -
Price group (PG)	3Z1

Please observe  
legal minimum  
efficiencies  
in the EEA!

Range of motors with Order No., delivery time and base price plus MS for type of construction IM B3  
(for delivery times refer to colored background of the relevant price)

$P_{rated}$ , 50 Hz kW	IE class	Frame size FS	Order No. ▶ Successor 1LE1001	Base price EUR
<b>2-pole: 3000 rpm at 50 Hz</b>				
0.33	–	63 M	1LA9060-2LA..	282.–
0.45	–	63 M	1LA9063-2LA..	298.–
0.65	–	71 M	1LA9070-2LA..	330.–
0.94	–	71 M	1LA9073-2LA..	377.–
1.5	–	80 M	1LA9080-2LA..	450.–
1.75	–	80 M	1LA9083-2LA..	512.–
3	–	90 S	1LA9090-2LA..	679.–
3.8	–	90 L	1LA9096-2LA..	800.–
4.4	–	100 L	▶ 1LA9106-2LA..	905.–
6.5	–	112 M	▶ 1LA9113-2LA..	1250.–
9	–	132 S	▶ 1LA9130-2LA..	1560.–
12	–	132 S	▶ 1LA9131-2LA..	1870.–
18	–	160 M	▶ 1LA9163-2LA..	2750.–
21	–	160 M	▶ 1LA9164-2LA..	3080.–
26	–	160 L	▶ 1LA9166-2LA..	3550.–
33	–	180 M	1LA9183-2AA..	5040.–
44	–	200 L	1LA9206-2AA..	6860.–
53	–	200 L	1LA9207-2AA..	8340.–
<b>4-pole: 1500 rpm at 50 Hz</b>				
0.21	–	63 M	1LA9060-4LA..	282.–
0.29	–	63 M	1LA9063-4LA..	298.–
0.45	–	71 M	1LA9070-4LA..	330.–
0.6	–	71 M	1LA9073-4LA..	352.–
0.9	–	80 M	1LA9080-4LA..	388.–
1.25	–	80 M	1LA9083-4LA..	469.–
1.8	–	90 S	1LA9090-4LA..	551.–
2.5	–	90 L	1LA9096-4LA..	638.–
4	–	100 L	▶ 1LA9107-4LA..	882.–
5.5	–	112 M	▶ 1LA9113-4LA..	1130.–
8.6	–	132 S	▶ 1LA9130-4LA..	1600.–
11	–	132 M	▶ 1LA9133-4LA..	2020.–
17	–	160 M	▶ 1LA9163-4LA..	2820.–
22	–	160 L	▶ 1LA9166-4LA..	3610.–
26	–	180 M	1LA9183-4AA..	4170.–
32	–	180 L	1LA9186-4AA..	4920.–
43	–	200 L	1LA9207-4AA..	6400.–

2.0

Standard delivery times:

10  
working  
days20  
working  
daysOn  
requestOverview of selection and ordering data  
with base prices and standard delivery times

## Overview (continued)

Category	<b>2.3 – Motors with Standard Efficiency IE1 (continued)</b>
Series version	Aluminum series 1PP7 and 1PP5
Cooling	Forced-air cooled without external fan and fan cover (IC 416)
Degree of protection	IP55, optionally IP56 or IP65
Insulation	Thermal class 155 (F)
Utilization	Thermal class 130 (B)
Number of poles	2, 4, 6, 8
Frame size (FS)	63 M ... 200 L
Rated output at 50 Hz	0.09 ... 37 kW
Synchronous speed	750 ... 3600 rpm
Rated torque at 50 Hz	0.6 ... 215 Nm
Efficiency	Standard Efficiency IE1
Metal factor for metal surcharges (MS)	N - W - - -
Price group (PG)	3Z1

Please observe  
legal minimum  
efficiencies  
in the EEA!

2.0

Range of motors with Order No., delivery time and base price plus MS for type of construction IM B3  
(for delivery times refer to colored background of the relevant price)

$P_{rated, 50 Hz}$ kW	IE class	Frame size FS	Order No. ▶ Successor 1LE1002 with order code F90	Base price EUR	$P_{rated, 50 Hz}$ kW	IE class	Frame size FS	Order No. ▶ Successor 1LE1002 with order code F90	Base price EUR
<b>2-pole: 3000 rpm at 50 Hz</b>					<b>6-pole: 1000 rpm at 50 Hz</b>				
0.18	-	63 M	1PP7060-2AA..	420.-	0.09	-	63 M	1PP7063-6AA..	435.-
0.25	-	63 M	1PP7063-2AA..	433.-	0.18	-	71 M	1PP7070-6AA..	440.-
0.37	-	71 M	1PP7070-2AA..	424.-	0.25	-	71 M	1PP7073-6AA..	467.-
0.55	-	71 M	1PP7073-2AA..	454.-	0.37	-	80 M	1PP7080-6AA..	474.-
0.75	IE1	80 M	1PP7080-2AA..	474.-	0.55	-	80 M	1PP7083-6AA..	530.-
1.1	IE1	80 M	1PP7083-2AA..	527.-	0.75	IE1	90 S	1PP7090-6AA..	550.-
1.5	IE1	90 S	1PP7090-2AA..	552.-	1.1	IE1	90 L	1PP7096-6AA..	649.-
2.2	IE1	90 L	1PP7096-2AA..	680.-	1.5	IE1	100 L	▶ 1PP7106-6AA..	751.-
3	IE1	100 L	▶ 1PP7106-2AA..	794.-	2.2	IE1	112 M	▶ 1PP7113-6AA..	888.-
4	IE1	112 M	▶ 1PP7113-2AA..	921.-	3	IE1	132 S	▶ 1PP7130-6AA..	1110.-
5.5	IE1	132 S	▶ 1PP7130-2AA..	1180.-	4	IE1	132 M	▶ 1PP7133-6AA..	1370.-
7.5	IE1	132 S	▶ 1PP7131-2AA..	1520.-	5.5	IE1	132 M	▶ 1PP7134-6AA..	1710.-
11	IE1	160 M	▶ 1PP7163-2AA..	2000.-	7.5	IE1	160 M	▶ 1PP7163-6AA..	2130.-
15	IE1	160 M	▶ 1PP7164-2AA..	2490.-	11	IE1	160 L	▶ 1PP7166-6AA..	2790.-
18.5	IE1	160 L	▶ 1PP7166-2AA..	2930.-	15	IE1	180 L	▶ 1PP5186-6AA..	3830.-
22	IE1	180 M	▶ 1PP5183-2AA..	3660.-	18.5	IE1	200 L	▶ 1PP5206-6AA..	4710.-
30	IE1	200 L	▶ 1PP5206-2AA..	4730.-	22	IE1	200 L	▶ 1PP5207-6AA..	5520.-
37	IE1	200 L	▶ 1PP5207-2AA..	6180.-	<b>8-pole: 750 rpm at 50 Hz</b>				
<b>4-pole: 1500 rpm at 50 Hz</b>					0.09	-	71 M	1PP7070-8AB..	454.-
0.12	-	63 M	1PP7060-4AB..	417.-	0.12	-	71 M	1PP7073-8AB..	489.-
0.18	-	63 M	1PP7063-4AB..	433.-	0.18	-	80 M	1PP7080-8AB..	489.-
0.25	-	71 M	1PP7070-4AB..	422.-	0.25	-	80 M	1PP7083-8AB..	573.-
0.37	-	71 M	1PP7073-4AB..	450.-	0.37	-	90 S	1PP7090-8AB..	609.-
0.55	-	80 M	1PP7080-4AA..	464.-	0.55	-	90 L	1PP7096-8AB..	713.-
0.75	IE1	80 M	1PP7083-4AA..	494.-	0.75	-	100 L	▶ 1PP7106-8AB..	781.-
1.1	IE1	90 S	1PP7090-4AA..	516.-	1.1	-	100 L	▶ 1PP7107-8AB..	978.-
1.5	IE1	90 L	1PP7096-4AA..	596.-	1.5	-	112 M	▶ 1PP7113-8AB..	1100.-
2.2	IE1	100 L	▶ 1PP7106-4AA..	708.-	2.2	-	132 S	▶ 1PP7130-8AB..	1390.-
3	IE1	100 L	▶ 1PP7107-4AA..	816.-	3	-	132 M	▶ 1PP7133-8AB..	1660.-
4	IE1	112 M	▶ 1PP7113-4AA..	985.-	4	-	160 M	▶ 1PP7163-8AB..	1940.-
5.5	IE1	132 S	▶ 1PP7130-4AA..	1230.-	5.5	-	160 M	▶ 1PP7164-8AB..	2340.-
7.5	IE1	132 M	▶ 1PP7133-4AA..	1560.-	7.5	-	160 L	▶ 1PP7166-8AB..	2820.-
11	IE1	160 M	▶ 1PP7163-4AA..	2030.-	11	-	180 L	▶ 1PP5186-8AB..	4030.-
15	IE1	160 L	▶ 1PP7166-4AA..	2560.-	15	-	200 L	▶ 1PP5207-8AB..	5300.-
18.5	IE1	180 M	▶ 1PP5183-4AA..	3180.-					
22	IE1	180 L	▶ 1PP5186-4AA..	3750.-					
30	IE1	200 L	▶ 1PP5207-4AA..	4960.-					

# Standard motors 1LA/1LG/1LP/1PP

## Orientation

Overview of selection and ordering data with base prices and standard delivery times

Standard delivery times:

10  
working  
days

20  
working  
days

On  
request

### Overview (continued)

Category	<b>2.3 – Motors with Standard Efficiency IE1 (continued)</b>
Series version	Aluminum series 1LP7 and 1LP5 <sup>1)</sup>
Cooling	Self-cooled without external fan (IC 410)
Degree of protection	IP55, optionally IP56 or IP65
Insulation	Thermal class 155 (F)
Utilization	Thermal class 130 (B)
Number of poles	2, 4, 6, 8
Frame size (FS)	63 M ... 200 L
Rated output at 50 Hz	0.045 ... 16.5 kW
Synchronous speed	750 ... 3600 rpm
Rated torque at 50 Hz	On request <sup>1)</sup>
Efficiency	On request <sup>1)</sup>
Metal factor for metal surcharges (MS)	N - W - - -
Price group (PG)	3Z1

Please observe  
legal minimum  
efficiencies  
in the EEA!

Range of motors with Order No., delivery time and base price plus MS for type of construction IM B3 (for delivery times refer to colored background of the relevant price)

$P_{rated, 50 Hz}$ kW	IE class	Frame size FS	Order No. Successor 1PC1002	Base price EUR	$P_{rated, 50 Hz}$ kW	IE class	Frame size FS	Order No. Successor 1PC1002	Base price EUR
<b>2-pole: 3000 rpm at 50 Hz</b>					<b>6-pole: 1000 rpm at 50 Hz</b>				
0.12	On req.	63 M	1LP7060-2AA..	457.-	0.045	On req.	63 M	1LP7063-6AA..	473.-
0.16	On req.	63 M	1LP7063-2AA..	468.-	0.09	On req.	71 M	1LP7070-6AA..	476.-
0.19	On req.	71 M	1LP7070-2AA..	463.-	0.13	On req.	71 M	1LP7073-6AA..	512.-
0.27	On req.	71 M	1LP7073-2AA..	491.-	0.18	On req.	80 M	1LP7080-6AA..	527.-
0.35	On req.	80 M	1LP7080-2AA..	527.-	0.27	On req.	80 M	1LP7083-6AA..	578.-
0.55	On req.	80 M	1LP7083-2AA..	578.-	0.37	On req.	90 S	1LP7090-6AA..	625.-
0.82	On req.	90 S	1LP7090-2AA..	637.-	0.5	On req.	90 L	1LP7096-6AA..	735.-
1.1	On req.	90 L	1LP7096-2AA..	765.-	0.7	On req.	100 L	1LP7106-6AA..	824.-
1.3	On req.	100 L	1LP7106-2AA..	879.-	1	On req.	112 M	1LP7113-6AA..	995.-
1.8	On req.	112 M	1LP7113-2AA..	1040.-	1.7	On req.	132 S	1LP7130-6AA..	1260.-
2.5	On req.	132 S	1LP7130-2AA..	1330.-	2	On req.	132 M	1LP7133-6AA..	1520.-
3.4	On req.	132 S	1LP7131-2AA..	1630.-	2.3	On req.	132 M	1LP7134-6AA..	1870.-
5	On req.	160 M	1LP7163-2AA..	2130.-	3.3	On req.	160 M	1LP7163-6AA..	2300.-
6	On req.	160 M	1LP7164-2AA..	2660.-	4	On req.	160 L	1LP7166-6AA..	2960.-
7	On req.	160 L	1LP7166-2AA..	3120.-	6.5	On req.	180 L	1LP5186-6AA..	3220.-
10	On req.	180 M	1LP5183-2AA..	3500.-	8.5	On req.	200 L	1LP5207-6AA..	4750.-
13.5	On req.	200 L	1LP5206-2AA..	4720.-	<b>8-pole: 750 rpm at 50 Hz</b>				
16.5	On req.	200 L	1LP5207-2AA..	5570.-	0.045	On req.	71 M	1LP7070-8AB..	491.-
<b>4-pole: 1500 rpm at 50 Hz</b>					0.06	On req.	71 M	1LP7073-8AB..	530.-
0.07	On req.	63 M	1LP7060-4AB..	454.-	0.09	On req.	80 M	1LP7080-8AB..	534.-
0.12	On req.	63 M	1LP7063-4AB..	468.-	0.13	On req.	80 M	1LP7083-8AB..	620.-
0.13	On req.	71 M	1LP7070-4AB..	454.-	0.25	On req.	90 S	1LP7090-8AB..	688.-
0.19	On req.	71 M	1LP7073-4AB..	484.-	0.35	On req.	90 L	1LP7096-8AB..	792.-
0.22	On req.	80 M	1LP7080-4AA..	518.-	0.45	On req.	100 L	1LP7106-8AB..	866.-
0.38	On req.	80 M	1LP7083-4AA..	537.-	0.65	On req.	100 L	1LP7107-8AB..	1040.-
0.55	On req.	90 S	1LP7090-4AA..	596.-	0.8	On req.	112 M	1LP7113-8AB..	1220.-
0.65	On req.	90 L	1LP7096-4AA..	680.-	1.2	On req.	132 S	1LP7130-8AB..	1560.-
0.88	On req.	100 L	1LP7106-4AA..	787.-	1.45	On req.	132 M	1LP7133-8AB..	1810.-
1.2	On req.	100 L	1LP7107-4AA..	897.-	1.8	On req.	160 M	1LP7163-8AB..	2110.-
1.6	On req.	112 M	1LP7113-4AA..	1090.-	2.4	On req.	160 M	1LP7164-8AB..	2520.-
2.5	On req.	132 S	1LP7130-4AA..	1370.-	3	On req.	160 L	1LP7166-8AB..	3010.-
3.1	On req.	132 M	1LP7133-4AA..	1660.-	5.5	On req.	180 L	1LP5186-8AB..	3420.-
4.8	On req.	160 M	1LP7163-4AA..	2160.-	7.5	On req.	200 L	1LP5207-8AB..	4780.-
5.4	On req.	160 L	1LP7166-4AA..	2760.-					
7.5	On req.	180 M	1LP5183-4AA..	2880.-					
9	On req.	180 L	1LP5186-4AA..	3190.-					
12	On req.	200 L	1LP5207-4AA..	4370.-					

<sup>1)</sup> The rated outputs and weights may change slightly after they have been checked. Further electrical data can be calculated and supplied on receipt of order.

Standard delivery times:

10 working days	20 working days	On request
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Overview of selection and ordering data  
with base prices and standard delivery times

## Overview (continued)

Category	<b>2.3 – Motors with Standard Efficiency IE1 (continued)</b>
Series version	<b>Cast-iron series 1LA6 and 1LG4</b>
Cooling	Self-ventilated (IC 411)
Degree of protection	IP55, optionally IP56 or IP65
Insulation	Thermal class 155 (F)
Utilization	Thermal class 130 (B)
Number of poles	2, 4, 6, 8
Frame size (FS)	100 L ... 315 L
Rated output at 50 Hz	0.75 ... 200 kW
Synchronous speed	750 ... 3600 rpm
Rated torque at 50 Hz	9.9 ... 1708 Nm
Efficiency	Standard Efficiency IE1
Metal factor for metal surcharges (MS)	N - W - - -
Price group (PG)	3Z1

Please observe  
legal minimum  
efficiencies  
in the EEA!

2.0

Range of motors with Order No., delivery time and base price plus MS for type of construction IM B3  
(for delivery times refer to colored background of the relevant price)

$P_{rated}$ , 50 Hz kW	IE class	Frame size FS	Order No.	Base price EUR	$P_{rated}$ , 50 Hz kW	IE class	Frame size FS	Order No.	Base price EUR
<b>2-pole: 3000 rpm at 50 Hz</b>					<b>6-pole: 1000 rpm at 50 Hz</b>				
3	IE1	100 L	1LA6106-2AA..	819.-	1.5	IE1	100 L	1LA6106-6AA..	764.-
4	IE1	112 M	1LA6113-2AA..	1010.-	2.2	IE1	112 M	1LA6113-6AA..	955.-
5.5	IE1	132 S	1LA6130-2AA..	1250.-	3	IE1	132 S	1LA6130-6AA..	1190.-
7.5	IE1	132 S	1LA6131-2AA..	1620.-	4	IE1	132 M	1LA6133-6AA..	1470.-
11	IE1	160 M	1LA6163-2AA..	2160.-	5.5	IE1	132 M	1LA6134-6AA..	1860.-
15	IE1	160 M	1LA6164-2AA..	2860.-	7.5	IE1	160 M	1LA6163-6AA..	2370.-
18.5	IE1	160 L	1LA6166-2AA..	3430.-	11	IE1	160 L	1LA6166-6AA..	3260.-
22	IE1	180 M	1LG4183-2AA..	3740.-	15	IE1	180 L	1LG4186-6AA..	3940.-
30	IE1	200 L	1LG4206-2AA..	4860.-	18.5	IE1	200 L	1LG4206-6AA..	4830.-
37	IE1	200 L	1LG4207-2AA..	6360.-	22	IE1	200 L	1LG4207-6AA..	5680.-
45	IE1	225 M	1LG4223-2AA..	7720.-	30	IE1	225 M	1LG4223-6AA..	7810.-
55	IE1	250 M	1LG4253-2AB..	9410.-	37	IE1	250 M	1LG4253-6AA..	9460.-
75	IE1	280 S	1LG4280-2AB..	12900.-	45	IE1	280 S	1LG4280-6AA..	11600.-
90	IE1	280 M	1LG4283-2AB..	15700.-	55	IE1	280 M	1LG4283-6AA..	14000.-
110	IE1	315 S	1LG4310-2AB..	19100.-	75	IE1	315 S	1LG4310-6AA..	19100.-
132	IE1	315 M	1LG4313-2AB..	22900.-	90	IE1	315 M	1LG4313-6AA..	22900.-
160	IE1	315 L	1LG4316-2AB..	28400.-	110	IE1	315 L	1LG4316-6AA..	27600.-
200	IE1	315 L	1LG4317-2AB..	35500.-	132	IE1	315 L	1LG4317-6AA..	32700.-
<b>4-pole: 1500 rpm at 50 Hz</b>					<b>8-pole: 750 rpm at 50 Hz</b>				
2.2	IE1	100 L	1LA6106-4AA..	717.-	0.75	-	100 L	1LA6106-8AB..	792.-
3	IE1	100 L	1LA6107-4AA..	827.-	1.1	-	100 L	1LA6107-8AB..	1010.-
4	IE1	112 M	1LA6113-4AA..	1060.-	1.5	-	112 M	1LA6113-8AB..	1200.-
5.5	IE1	132 S	1LA6130-4AA..	1310.-	2.2	-	132 S	1LA6130-8AB..	1520.-
7.5	IE1	132 M	1LA6133-4AA..	1660.-	3	-	132 M	1LA6133-8AB..	1830.-
11	IE1	160 M	1LA6163-4AA..	2260.-	4	-	160 M	1LA6163-8AB..	2160.-
15	IE1	160 L	1LA6166-4AA..	2920.-	5.5	-	160 M	1LA6164-8AB..	2730.-
18.5	IE1	180 M	1LG4183-4AA..	3260.-	7.5	-	160 L	1LA6166-8AB..	3410.-
22	IE1	180 L	1LG4186-4AA..	3850.-	11	-	180 L	1LG4186-8AB..	4130.-
30	IE1	200 L	1LG4207-4AA..	5110.-	15	-	200 L	1LG4207-8AB..	5450.-
37	IE1	225 S	1LG4220-4AA..	6220.-	18.5	-	225 S	1LG4220-8AB..	6610.-
45	IE1	225 M	1LG4223-4AA..	7520.-	22	-	225 M	1LG4223-8AB..	7670.-
55	IE1	250 M	1LG4253-4AA..	9130.-	30	-	250 M	1LG4253-8AB..	10100.-
75	IE1	280 S	1LG4280-4AA..	12500.-	37	-	280 S	1LG4280-8AB..	12200.-
90	IE1	280 M	1LG4283-4AA..	14700.-	45	-	280 M	1LG4283-8AB..	14800.-
110	IE1	315 S	1LG4310-4AA..	18300.-	55	-	315 S	1LG4310-8AB..	18100.-
132	IE1	315 M	1LG4313-4AA..	21600.-	75	-	315 M	1LG4313-8AB..	24200.-
160	IE1	315 L	1LG4316-4AA..	26700.-	90	-	315 L	1LG4316-8AB..	28600.-
200	IE1	315 L	1LG4317-4AA..	33200.-	110	-	315 L	1LG4317-8AB..	34500.-
					132	-	315 L	1LG4318-8AB..	41300.-

# Standard motors 1LA/1LG/1LP/1PP

## Orientation

Overview of selection and ordering data  
with base prices and standard delivery times

Standard delivery times:

10  
working  
days

20  
working  
days

On  
request

### Overview (continued)

Category	<b>2.3 – Motors with Standard Efficiency IE1 (continued)</b>
Series version	<b>Cast-iron series 1LG4 with increased output</b>
Cooling	Self-ventilated (IC 411)
Degree of protection	IP55, optionally IP56 or IP65
Insulation	Thermal class 155 (F)
Utilization	Thermal class 130 (B)
Number of poles	2, 4, 6, 8
Frame size (FS)	180 L ... 280 M
Rated output at 50 Hz	15 ... 110 kW
Synchronous speed	750 ... 3600 rpm
Rated torque at 50 Hz	97 ... 727 Nm
Efficiency	Standard Efficiency IE1
Metal factor for metal surcharges (MS)	N - W - - -
Price group (PG)	3Z1

Please observe  
legal minimum  
efficiencies  
in the EEA!

Range of motors with Order No., delivery time and base price plus MS for type of construction IM B3  
(for delivery times refer to colored background of the relevant price)

$P_{\text{rated}}$ , 50 Hz kW	IE class	Frame size FS	Order No.	Base price EUR
<b>2-pole: 3000 rpm at 50 Hz</b>				
30	IE1	180 L	1LG4188-2AA..	4690.-
45	IE1	200 L	1LG4208-2AA..	7050.-
55	IE1	225 M	1LG4228-2AA..	8570.-
75	IE1	250 M	1LG4258-2AA..	11200.-
110	IE1	280 M	1LG4288-2AB..	17300.-
<b>4-pole: 1500 rpm at 50 Hz</b>				
30	IE1	180 L	1LG4188-4AA..	4750.-
37	IE1	200 L	1LG4208-4AA..	5670.-
55	IE1	225 M	1LG4228-4AA..	8320.-
75	IE1	250 M	1LG4258-4AA..	10800.-
110	IE1	280 M	1LG4288-4AA..	16400.-
<b>6-pole: 1000 rpm at 50 Hz</b>				
18.5	IE1	180 L	1LG4188-6AA..	4790.-
30	IE1	200 L	1LG4208-6AA..	6760.-
37	IE1	225 M	1LG4228-6AA..	8640.-
45	IE1	250 M	1LG4258-6AA..	10600.-
75	IE1	280 M	1LG4288-6AA..	16600.-
<b>8-pole: 750 rpm at 50 Hz</b>				
15	-	180 L	1LG4188-8AB..	5090.-
18.5	-	200 L	1LG4208-8AB..	6010.-
30	-	225 M	1LG4228-8AB..	8920.-
37	-	250 M	1LG4258-8AB..	11200.-
55	-	280 M	1LG4288-8AB..	16400.-

Standard delivery times:

10 working days	20 working days	On request
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**Overview of selection and ordering data with base prices and standard delivery times**

**Overview** (continued)

Category	2.3 – Motors with Standard Efficiency IE1 (continued)	
Series version	Cast-iron series 1PP4	Cast-iron series 1PP4 with increased output
Cooling	Forced-air cooled without external fan and fan cover (IC 416)	Forced-air cooled without external fan and fan cover (IC 416)
Degree of protection	IP55, optionally IP56 or IP65	IP55, optionally IP56 or IP65
Insulation	Thermal class 155 (F)	Thermal class 155 (F)
Utilization	Thermal class 130 (B)	Thermal class 130 (B)
Number of poles	2, 4, 6, 8	2, 4, 6, 8
Frame size (FS)	180 M ... 315 L	180 L ... 315 L
Rated output at 50 Hz	11 ... 200 kW	15 ... 160 kW
Synchronous speed	750 ... 3600 rpm	750 ... 3600 rpm
Rated torque at 50 Hz	71 ... 1423 Nm	97 ... 1708 Nm
Efficiency	Standard Efficiency IE1	Standard Efficiency IE1
Metal factor for metal surcharges (MS)	N - W - -	N - W - -
Price group (PG)	3Z1	3Z1

**Please observe legal minimum efficiencies in the EEA!**

**Please observe legal minimum efficiencies in the EEA!**

2.0

**Range of motors with Order No., delivery time and base price plus MS for type of construction IM B3 (for delivery times refer to colored background of the relevant price)**

$P_{rated, 50 Hz}$ kW	IE class	Frame size FS	Order No.	Base price EUR	$P_{rated, 50 Hz}$ kW	IE class	Frame size FS	Order No.	Base price EUR
<b>2-pole: 3000 rpm at 50 Hz</b>					<b>2-pole: 3000 rpm at 50 Hz</b>				
22	IE1	180 M	1PP4183-2FA..	3760.-	30	IE1	180 L	1PP4188-2FA..	4690.-
30	IE1	200 L	1PP4206-2FA..	4860.-	45	IE1	200 L	1PP4208-2FA..	7050.-
37	IE1	200 L	1PP4207-2FA..	6360.-	55	IE1	225 M	1PP4228-2FA..	8570.-
45	IE1	225 M	1PP4223-2FA..	7720.-	75	IE1	250 M	1PP4258-2FA..	11200.-
55	IE1	250 M	1PP4253-2FB..	9410.-	110	IE1	280 M	1PP4288-2FB..	17400.-
75	IE1	280 S	1PP4280-2FB..	12900.-	<b>4-pole: 1500 rpm at 50 Hz</b>				
90	IE1	280 M	1PP4283-2FB..	15700.-	30	IE1	180 L	1PP4188-4FA..	4750.-
110	IE1	315 S	1PP4310-2FB..	19100.-	37	IE1	200 L	1PP4208-4FA..	5670.-
132	IE1	315 M	1PP4313-2FB..	22900.-	55	IE1	225 M	1PP4228-4FA..	8320.-
160	IE1	315 L	1PP4316-2FB..	28400.-	75	IE1	250 M	1PP4258-4FA..	10800.-
200	IE1	315 L	1PP4317-2FB..	35500.-	110	IE1	280 M	1PP4288-4FA..	16400.-
<b>4-pole: 1500 rpm at 50 Hz</b>					<b>6-pole: 1000 rpm at 50 Hz</b>				
18.5	IE1	180 M	1PP4183-4FA..	3260.-	18.5	IE1	180 L	1PP4188-6FA..	4790.-
22	IE1	180 L	1PP4186-4FA..	3850.-	30	IE1	200 L	1PP4208-6FA..	6760.-
30	IE1	200 L	1PP4207-4FA..	5110.-	37	IE1	225 M	1PP4228-6FA..	8640.-
37	IE1	225 S	1PP4220-4FA..	6220.-	45	IE1	250 M	1PP4258-6FA..	10600.-
45	IE1	225 M	1PP4223-4FA..	7520.-	75	IE1	280 M	1PP4288-6FA..	16600.-
55	IE1	250 M	1PP4253-4FA..	9130.-	160	IE1	315 L	1PP4318-6FA..	39700.-
75	IE1	280 S	1PP4280-4FA..	12500.-	<b>8-pole: 750 rpm at 50 Hz</b>				
90	IE1	280 M	1PP4283-4FA..	14700.-	15	-	180 L	1PP4188-8FB..	5090.-
110	IE1	315 S	1PP4310-4FA..	18300.-	18.5	-	200 L	1PP4208-8FB..	6010.-
132	IE1	315 M	1PP4313-4FA..	21600.-	30	-	225 M	1PP4228-8FB..	8910.-
160	IE1	315 L	1PP4316-4FA..	26700.-	37	-	250 M	1PP4258-8FB..	11200.-
200	IE1	315 L	1PP4317-4FA..	33200.-	55	-	280 M	1PP4288-8FB..	16400.-
<b>6-pole: 1000 rpm at 50 Hz</b>					132	-	315 L	1PP4318-8FB..	41400.-
15	IE1	180 L	1PP4186-6FA..	3940.-	<b>8-pole: 750 rpm at 50 Hz</b>				
18.5	IE1	200 L	1PP4206-6FA..	4830.-	11	-	180 L	1PP4186-8FB..	4130.-
22	IE1	200 L	1PP4207-6FA..	5680.-	15	-	200 L	1PP4207-8FB..	5450.-
30	IE1	225 M	1PP4223-6FA..	7810.-	18.5	-	225 S	1PP4220-8FB..	6610.-
37	IE1	250 M	1PP4253-6FA..	9460.-	22	-	225 M	1PP4223-8FB..	7670.-
45	IE1	280 S	1PP4280-6FA..	11600.-	30	-	250 M	1PP4253-8FB..	10100.-
55	IE1	280 M	1PP4283-6FA..	14000.-	37	-	280 S	1PP4280-8FB..	12200.-
75	IE1	315 S	1PP4310-6FA..	19100.-	45	-	280 M	1PP4283-8FB..	14800.-
90	IE1	315 M	1PP4313-6FA..	22900.-	55	-	315 S	1PP4310-8FB..	18100.-
110	IE1	315 L	1PP4316-6FA..	27600.-	75	-	315 M	1PP4313-8FB..	24200.-
132	IE1	315 L	1PP4317-6FA..	32700.-	90	-	315 L	1PP4316-8FB..	28600.-
<b>8-pole: 750 rpm at 50 Hz</b>					110	-	315 L	1PP4317-8FB..	34500.-
11	-	180 L	1PP4186-8FB..	4130.-					
15	-	200 L	1PP4207-8FB..	5450.-					
18.5	-	225 S	1PP4220-8FB..	6610.-					
22	-	225 M	1PP4223-8FB..	7670.-					
30	-	250 M	1PP4253-8FB..	10100.-					
37	-	280 S	1PP4280-8FB..	12200.-					
45	-	280 M	1PP4283-8FB..	14800.-					
55	-	315 S	1PP4310-8FB..	18100.-					
75	-	315 M	1PP4313-8FB..	24200.-					
90	-	315 L	1PP4316-8FB..	28600.-					
110	-	315 L	1PP4317-8FB..	34500.-					

# Standard motors 1LA/1LG/1LP/1PP

## Orientation

Overview of selection and ordering data  
with base prices and standard delivery times

Standard delivery times:

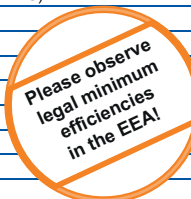
10  
working  
days

20  
working  
days

On  
request

### Overview (continued)

Category	<b>2.3 – Motors with Standard Efficiency IE1 (continued)</b>
Series version	<b>Cast-iron series 1LP4</b>
Cooling	Self-cooled without external fan (IC 410)
Degree of protection	IP55, optionally IP56 or IP65
Insulation	Thermal class 155 (F)
Utilization	Thermal class 130 (B)
Number of poles	2, 4, 6, 8
Frame size (FS)	180 M ... 315 L
Rated output at 50 Hz	3.7 ... 67 kW
Synchronous speed	750 ... 3600 rpm
Rated torque at 50 Hz	24 ... 478 Nm
Efficiency	Standard Efficiency IE1
Metal factor for metal surcharges (MS)	N - W - - -
Price group (PG)	3Z1



Range of motors with Order No., delivery time and base price plus MS for type of construction IM B3  
(for delivery times refer to colored background of the relevant price)

$P_{rated}$ , 50 Hz kW	IE class	Frame size FS	Order No.	Base price EUR
<b>2-pole: 3000 rpm at 50 Hz</b>				
7.3	IE2	180 M	1LP4183-2FA..	3960.-
10	IE2	200 L	1LP4206-2FA..	5110.-
12.5	IE2	200 L	1LP4207-2FA..	6660.-
15	IE3	225 M	1LP4223-2FA..	8100.-
18.5	IE2	250 M	1LP4253-2FB..	9860.-
25	IE2	280 S	1LP4280-2FB..	13500.-
30	IE3	280 M	1LP4283-2FB..	16300.-
37	IE2	315 S	1LP4310-2FB..	20300.-
44	IE2	315 M	1LP4313-2FB..	24000.-
53	IE2	315 L	1LP4316-2FB..	30000.-
67	IE2	315 L	1LP4317-2FB..	37100.-
<b>4-pole: 1500 rpm at 50 Hz</b>				
6.2	IE2	180 M	1LP4183-4FA..	3440.-
7.3	IE2	180 L	1LP4186-4FA..	4030.-
10	IE1	200 L	1LP4207-4FA..	5350.-
12.5	IE2	225 S	1LP4220-4FA..	6540.-
15	IE2	225 M	1LP4223-4FA..	7910.-
18.5	IE2	250 M	1LP4253-4FA..	9590.-
25	IE2	280 S	1LP4280-4FA..	13200.-
30	IE2	280 M	1LP4283-4FA..	15500.-
37	IE2	315 S	1LP4310-4FA..	19100.-
44	IE2	315 M	1LP4313-4FA..	22900.-
53	IE2	315 L	1LP4316-4FA..	27900.-
67	IE2	315 L	1LP4317-4FA..	34900.-
<b>6-pole: 1000 rpm at 50 Hz</b>				
5	IE3	180 L	1LP4186-6FA..	4120.-
6.2	IE3	200 L	1LP4206-6FA..	5060.-
7.3	IE3	200 L	1LP4207-6FA..	5970.-
10	IE3	225 M	1LP4223-6FA..	8210.-
12.5	IE3	250 M	1LP4253-6FA..	9930.-
15	IE3	280 S	1LP4280-6FA..	12200.-
18.5	IE3	280 M	1LP4283-6FA..	14700.-
25	IE3	315 S	1LP4310-6FA..	20300.-
30	IE3	315 M	1LP4313-6FA..	24000.-
37	IE3	315 L	1LP4316-6FA..	29100.-
44	IE3	315 L	1LP4317-6FA..	34500.-
<b>8-pole: 750 rpm at 50 Hz</b>				
3.7	-	180 L	1LP4186-8FB..	4360.-
5	-	200 L	1LP4207-8FB..	5720.-
6.2	-	225 S	1LP4220-8FB..	6940.-
7.3	-	225 M	1LP4223-8FB..	8060.-
10	-	250 M	1LP4253-8FB..	10600.-
12.5	-	280 S	1LP4280-8FB..	12900.-
15	-	280 M	1LP4283-8FB..	15700.-
18.5	-	315 S	1LP4310-8FB..	18800.-
25	-	315 M	1LP4313-8FB..	25300.-
30	-	315 L	1LP4316-8FB..	30100.-
37	-	315 L	1LP4317-8FB..	36100.-

Standard delivery times:

10 working days	20 working days	On request
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Overview of selection and ordering data  
with base prices and standard delivery times

## Overview (continued)

Category	2.4 – NEMA Energy Efficient MG1 motors, Table 12-11	
Series version	Aluminum series 1LA9 with order code D42 <sup>1)</sup>	Cast-iron series 1LG6 with order code D42 <sup>1)</sup>
Cooling	Self-ventilated (IC 411)	Self-ventilated (IC 411)
Degree of protection	IP55, optionally IP56 or IP65	IP55, optionally IP56 or IP65
Insulation	Thermal class 155 (F)	Thermal class 155 (F)
Utilization	Thermal class 130 (B)	Thermal class 130 (B)
Number of poles	2, 4, 6	2, 4, 6
Frame size (FS)	63 M ... 200 L	180 M ... 315 L
Rated output	0.12 ... 37 kW at 50 Hz 0.16 ... 50 hp at 60 Hz	15 ... 315 kW at 50 Hz 20 ... 400 hp at 60 Hz
Synchronous speed	1000 ... 3600 rpm	1000 ... 3600 rpm
Rated torque	0.5 ... 179 Nm at 60 Hz	60 ... 1590 Nm at 60 Hz
Efficiency	NEMA Energy Efficient MG1, Table 12-11 <sup>1)</sup>	NEMA Energy Efficient MG1, Table 12-11 <sup>1)</sup>
Metal factor for metal surcharges (MS)	N - W - - -	N - W - - -
Price group (PG)	3Z1	3Z1

Range of motors with Order No., delivery time and base price plus MS for type of construction IM B3  
(for delivery times refer to colored background of the relevant price)

P <sub>rated</sub> , 50 Hz kW	P <sub>rated</sub> , 60 Hz kW	Frame size FS	Order No.	Base price EUR	P <sub>rated</sub> , 50 Hz kW	P <sub>rated</sub> , 60 Hz kW	Frame size FS	Order No.	Base price EUR
<b>2-pole: 3600 rpm at 60 Hz</b>					<b>2-pole: 3600 rpm at 60 Hz</b>				
0.18	0.25	63 M	1LA9060-2KA..-Z D42	On req.	22	30	180 M	1LG6183-2MA..-Z D42	On req.
0.25	0.33	63 M	1LA9063-2KA..-Z D42	On req.	30	40	180 L	1LG6206-2MA..-Z D42	On req.
0.37	0.5	71 M	1LA9070-2KA..-Z D42	On req.	37	50	200 L	1LG6207-2MA..-Z D42	On req.
0.55	0.75	71 M	1LA9073-2KA..-Z D42	On req.	45	60	225 M	1LG6223-2MA..-Z D42	On req.
0.75	1	80 M	▶ 1LA9080-2KA..-Z D42	On req.	55	75	250 M	▶ 1LG6253-2MB..-Z D42	On req.
1.1	1.5	80 M	▶ 1LA9083-2KA..-Z D42	On req.	75	100	280 S	▶ 1LG6280-2MB..-Z D42	On req.
1.5	2	90 S	▶ 1LA9090-2KA..-Z D42	On req.	90	125	280 M	▶ 1LG6283-2MB..-Z D42	On req.
2.2	3	90 L	▶ 1LA9096-2KA..-Z D42	On req.	110	150	315 S	▶ 1LG6310-2MB..-Z D42	On req.
3	4	100 L	▶ 1LA9106-2KA..-Z D42	On req.	132	175	315 M	▶ 1LG6313-2MB..-Z D42	On req.
4	5	112 M	▶ 1LA9113-2KA..-Z D42	On req.	160	200	315 L	▶ 1LG6316-2MB..-Z D42	On req.
5.5	7.5	132 S	▶ 1LA9130-2KA..-Z D42	On req.	200	250	315 L	▶ 1LG6317-2MB..-Z D42	On req.
7.5	10	132 S	▶ 1LA9131-2KA..-Z D42	On req.	250	300	315 L	▶ 1LG6318-2MB..-Z D42	44920.-
11	15	160 M	▶ 1LA9163-2KA..-Z D42	On req.	315	400	315 L	▶ 1LG6312-2MA..-Z D42	56320.-
15	20	160 M	▶ 1LA9164-2KA..-Z D42	On req.	<b>4-pole: 1800 rpm at 60 Hz</b>				
18.5	25	160 L	▶ 1LA9166-2KA..-Z D42	On req.	18.5	25	180 M	▶ 1LG6183-4MA..-Z D42	On req.
22	30	180 M	▶ 1LA9183-2WA..-Z D42	On req.	22	30	180 L	▶ 1LG6186-4MA..-Z D42	On req.
30	40	200 L	▶ 1LA9206-2WA..-Z D42	On req.	30	40	200 L	▶ 1LG6207-4MA..-Z D42	On req.
37	50	200 L	▶ 1LA9207-2WA..-Z D42	On req.	37	50	225 S	▶ 1LG6220-4MA..-Z D42	On req.
<b>4-pole: 1800 rpm at 60 Hz</b>					45	60	225 M	▶ 1LG6223-4MA..-Z D42	On req.
0.12	0.16	63 M	▶ 1LA9060-4KA..-Z D42	On req.	55	75	250 M	▶ 1LG6253-4MA..-Z D42	On req.
0.19	0.25	63 M	▶ 1LA9063-4KA..-Z D42	On req.	75	100	280 S	▶ 1LG6280-4MA..-Z D42	On req.
0.25	0.33	71 M	▶ 1LA9070-4KA..-Z D42	On req.	90	125	280 M	▶ 1LG6283-4MA..-Z D42	On req.
0.37	0.5	71 M	▶ 1LA9073-4KA..-Z D42	On req.	110	150	315 S	▶ 1LG6310-4MA..-Z D42	On req.
0.55	0.75	80 M	▶ 1LA9080-4KA..-Z D42	On req.	132	175	315 M	▶ 1LG6313-4MA..-Z D42	On req.
0.75	1	80 M	▶ 1LA9083-4KA..-Z D42	On req.	160	200	315 L	▶ 1LG6316-4MA..-Z D42	On req.
1.1	1.5	90 S	▶ 1LA9090-4KA..-Z D42	On req.	200	250	315 L	▶ 1LG6317-4MA..-Z D42	On req.
1.5	2	90 L	▶ 1LA9096-4KA..-Z D42	On req.	250	300	315 L	▶ 1LG6318-4MA..-Z D42	42120.-
2.2	3	100 L	▶ 1LA9106-4KA..-Z D42	On req.	315	400	315 L	▶ 1LG6312-4MA..-Z D42	52920.-
3	4	100 L	▶ 1LA9107-4KA..-Z D42	On req.	<b>6-pole: 1200 rpm at 60 Hz</b>				
4	5	112 M	▶ 1LA9113-4KA..-Z D42	On req.	15	20	180 L	▶ 1LG6186-6AA..-Z D42	On req.
5.5	7.5	132 S	▶ 1LA9130-4KA..-Z D42	On req.	18.5	25	200 L	▶ 1LG6206-6AA..-Z D42	On req.
7.5	10	132 M	▶ 1LA9133-4KA..-Z D42	On req.	22	30	200 L	▶ 1LG6207-6AA..-Z D42	On req.
11	15	160 M	▶ 1LA9163-4KA..-Z D42	On req.	30	40	225 M	▶ 1LG6223-6AA..-Z D42	On req.
15	20	160 L	▶ 1LA9166-4KA..-Z D42	On req.	37	50	250 M	▶ 1LG6253-6AA..-Z D42	On req.
18.5	25	180 M	▶ 1LA9183-4WA..-Z D42	On req.	45	60	280 S	▶ 1LG6280-6AA..-Z D42	On req.
22	30	180 L	▶ 1LA9186-4WA..-Z D42	On req.	55	75	280 M	▶ 1LG6283-6AA..-Z D42	On req.
30	40	200 L	▶ 1LA9207-4WA..-Z D42	On req.	75	100	315 S	▶ 1LG6310-6AA..-Z D42	On req.
<b>6-pole: 1200 rpm at 60 Hz</b>					90	125	315 M	▶ 1LG6313-6AA..-Z D42	On req.
0.75	1	90 S	▶ 1LA9090-6KA..-Z D42	On req.	110	150	315 L	▶ 1LG6316-6AA..-Z D42	On req.
1.1	1.5	90 L	▶ 1LA9096-6KA..-Z D42	On req.	132	175	315 L	▶ 1LG6317-6AA..-Z D42	On req.
1.5	2	100 L	▶ 1LA9106-6KA..-Z D42	On req.	160	200	315 L	▶ 1LG6318-6AA..-Z D42	On req.
2.2	3	112 M	▶ 1LA9113-6KA..-Z D42	On req.	200	250	315 L	▶ 1LG6312-6MA..-Z D42	49620.-
4	5	132 M	▶ 1LA9133-6KA..-Z D42	On req.					
5.5	7.5	132 M	▶ 1LA9134-6KA..-Z D42	On req.					
7.5	10	160 M	▶ 1LA9163-6KA..-Z D42	On req.					
11	15	160 L	▶ 1LA9166-6KA..-Z D42	On req.					
15	20	180 L	▶ 1LA9186-6WA..-Z D42	On req.					
18.5	25	200 L	▶ 1LA9206-6WA..-Z D42	On req.					
22	30	200 L	▶ 1LA9207-6WA..-Z D42	On req.					

<sup>1)</sup> Notes for order code D42 NEMA Energy Efficient:  
- Comprises CSA, UL and CC-No.  
- Only valid for voltages ≤ 600 V  
- For ≤ 200 hp, only flange-mounting types permissible

# Standard motors 1LA/1LG/1LP/1PP

Standard delivery times:

## Orientation

10  
working  
days20  
working  
daysOn  
request

Overview of selection and ordering data  
with base prices and standard delivery times

### Overview (continued)

Category	2.4 – NEMA Energy Efficient MG1 motors, Table 12-11 (continued)	2.5 – NEMA Premium Efficient MG1 motors, Table 12-12
Series version	Cast-iron series 1LG6 with increased output and order code D42 <sup>1)</sup>	Cast-iron series 1LG6 with order code D41 <sup>2)</sup>
Cooling	Self-ventilated (IC 411)	Self-ventilated (IC 411)
Degree of protection	IP55, optionally IP56 or IP65	IP55, optionally IP56 or IP65
Insulation	Thermal class 155 (F)	Thermal class 155 (F)
Utilization	Thermal class 130 (B)	Thermal class 130 (B)
Number of poles	2, 4, 6	2, 4, 6
Frame size (FS)	225 M ... 280 M	315 S ... 315 L
Rated output	37 ... 110 kW at 50 Hz 50 ... 150 hp at 60 Hz	75 ... 315 kW at 50 Hz 100 ... 400 hp at 60 Hz
Synchronous speed	1000 ... 3600 rpm	1000 ... 3600 rpm
Rated torque	150 ... 599 Nm at 60 Hz	293 ... 1590 Nm at 60 Hz
Efficiency	NEMA Energy Efficient MG1, Table 12-11 <sup>1)</sup>	NEMA Premium Efficient MG1, Table 12-12 <sup>2)</sup>
Metal factor for metal surcharges (MS)	N - W - - -	N - W - - -
Price group (PG)	3Z1	3Z1

Range of motors with Order No., delivery time and base price plus MS for type of construction IM B3  
(for delivery times refer to colored background of the relevant price)

$P_{\text{rated}}$ 50 Hz kW	$P_{\text{rated}}$ 60 Hz hp	Frame size FS	Order No.	Base price EUR	$P_{\text{rated}}$ 50 Hz kW	$P_{\text{rated}}$ 60 Hz hp	Frame size FS	Order No.	Base price EUR
<b>2-pole: 3600 rpm at 60 Hz</b>					<b>2-pole: 3600 rpm at 60 Hz</b>				
55	75	225 M	1LG6228-2AA..-Z D42	On req.	250	300	315 L	▲ 1LG6318-2MB..-Z D41	49770.-
75	100	250 M	1LG6258-2AA..-Z D42	On req.	315	400	315 L	▲ 1LG6312-2MA..-Z D41	62670.-
110	150	280 M	1LG6288-2AA..-Z D42	On req.	<b>4-pole: 1800 rpm at 60 Hz</b>				
<b>4-pole: 1800 rpm at 60 Hz</b>					250	300	315 L	▲ 1LG6318-4MA..-Z D41	46600.-
55	75	225 M	1LG6228-4AA..-Z D42	On req.	315	400	315 L	▲ 1LG6312-4MA..-Z D41	58820.-
75	100	250 M	1LG6258-4AA..-Z D42	On req.	<b>6-pole: 1200 rpm at 60 Hz</b>				
110	150	280 M	1LG6288-4AA..-Z D42	On req.	200	250	315 L	▲ 1LG6312-6MA..-Z D41	55090.-
<b>6-pole: 1200 rpm at 60 Hz</b>									
37	50	225 M	1LG6228-6AA..-Z D42	On req.					
45	60	250 M	1LG6258-6AA..-Z D42	On req.					
75	100	280 M	1LG6288-6AA..-Z D42	On req.					

<sup>1)</sup> Notes for order code D42 NEMA Energy Efficient:  
- Comprises CSA, UL and CC-No.  
- Only valid for voltages ≤ 600 V  
- For ≤ 200 hp, only flange-mounting types permissible

<sup>2)</sup> Notes for order code D41 NEMA Premium Efficient:  
- Comprises CSA, UL and CC-No.  
- Only valid for voltages ≤ 600 V  
- All types of construction permissible

## Standard delivery times:

10  
working  
days20  
working  
daysOn  
requestOverview of selection and ordering data  
with base prices and standard delivery times

## Overview (continued)

Category	<b>2.6 – Pole-changing motors</b>
Series version	<b>Aluminum series 1LA7 and 1LA5 for constant load torque</b>
Cooling	Self-ventilated (IC 411)
Degree of protection	IP55, optionally IP56 or IP65
Insulation	Thermal class 155 (F)
Utilization	Thermal class 130 (B)
Number of poles	4/2, 8/4
Frame size (FS)	63 M ... 200 L
Rated output at 50 Hz	0.1 ... 31 kW
Synchronous speed	750 ... 3600 rpm
Rated torque at 50 Hz	0.54 ... 222 Nm
Efficiency	–
Metal factor for metal surcharges (MS)	N - W - - -
Price group (PG)	3Z1

Range of motors with Order No., delivery time and base price plus MS for type of construction IM B3  
(for delivery times refer to colored background of the relevant price)

$P_{rated1}$ 50 Hz kW	$P_{rated2}$ 50 Hz kW	Frame size FS	Order No. ▶ Successor 1LE101	Base price EUR
<b>4-/2-pole: 1500/3000 rpm at 50 Hz</b>				
1500 rpm	3000 rpm			
0.1	0.15	63 M	1LA7060-0AA..	422.–
0.15	0.2	63 M	1LA7063-0AA..	432.–
0.21	0.28	71 M	1LA7070-0AA..	437.–
0.3	0.43	71 M	1LA7073-0AA..	489.–
0.48	0.6	80 M	1LA7080-0AA..	509.–
0.7	0.85	80 M	1LA7083-0AA..	585.–
1.1	1.4	90 S	1LA7090-0AA..	703.–
1.5	1.9	90 L	1LA7096-0AA..	843.–
2	2.4	100 L	▶ 1LA7106-0AA..	915.–
2.6	3.1	100 L	▶ 1LA7107-0AA..	1090.–
3.7	4.4	112 M	▶ 1LA7113-0AA..	1360.–
4.7	5.9	132 S	▶ 1LA7130-0AA..	1740.–
6.5	8	132 M	▶ 1LA7133-0AA..	2280.–
9.3	11.5	160 M	▶ 1LA7163-0AA..	3020.–
13	17	160 L	▶ 1LA7166-0AA..	4370.–
15	18	180 M	1LA5183-0AA..	4550.–
18	21.5	180 L	1LA5186-0AA..	5460.–
26	31	200 L	1LA5207-0AA..	7750.–
<b>8-/4-pole: 750/1500 rpm at 50 Hz</b>				
750 rpm	1500 rpm			
0.35	0.5	90 S	1LA7090-0AB..	534.–
0.5	0.7	90 L	1LA7096-0AB..	622.–
0.75	1.1	100 L	▶ 1LA7106-0AB..	769.–
0.9	1.5	100 L	▶ 1LA7107-0AB..	888.–
1.4	1.9	112 M	▶ 1LA7113-0AB..	1030.–
1.8	3.6	132 S	▶ 1LA7130-0AB..	1440.–
2.2	5.5	132 M	▶ 1LA7133-0AB..	1860.–
3	7	160 M	▶ 1LA7163-0AB..	2560.–
5.6	11	160 L	▶ 1LA7166-0AB..	3800.–
11	18	180 L	1LA5186-0AB..	5750.–
17	27	200 L	1LA5207-0AB..	8560.–

2.0

# Standard motors 1LA/1LG/1LP/1PP

## Orientation

Overview of selection and ordering data with base prices and standard delivery times

Standard delivery times:

10 working days	20 working days	On request
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### Overview (continued)

Category	<b>2.6 – Pole-changing motors (continued)</b>
Series version	<b>Aluminum series 1LA7 and 1LA5 for quadratic load torque (e.g. for driving fans)</b>
Cooling	Self-ventilated (IC 411)
Degree of protection	IP55, optionally IP56 or IP65
Insulation	Thermal class 155 (F)
Utilization	Thermal class 130 (B)
Number of poles	4/2, 6/4, 8/4, 8/6/4
Frame size (FS)	80 M ... 200 L
Rated output at 50 Hz	0.1 ... 28 kW
Synchronous speed	750 ... 3600 rpm
Rated torque at 50 Hz	1 ... 182 Nm
Efficiency	–
Metal factor for metal surcharges (MS)	N - W - -
Price group (PG)	3Z1

Range of motors with Order No., delivery time and base price plus MS for type of construction IM B3 (for delivery times refer to colored background of the relevant price)

$P_{rated1}$	$P_{rated2}$	Frame size	Order No.	Base price	$P_{rated1}$	$P_{rated2}$	$P_{rated3}$	Frame size	Order No.	Base price
50 Hz kW	50 Hz kW	FS	Successor 1LE101	EUR	50 Hz kW	50 Hz kW	50 Hz kW	FS		EUR
<b>4-/2-pole: 1500/3000 rpm at 50 Hz</b>					<b>8-/6-/4-pole: 750/1000/1500 rpm at 50 Hz</b>					
1500 rpm	3000 rpm				750 rpm	1000 rpm	1500 rpm			
0.15	0.7	80 M	1LA7080-0BA..	508.–	0.15	0.22	0.7	90 S	1LA7090-1BJ..	760.–
0.25	0.95	80 M	1LA7083-0BA..	585.–	0.22	0.3	0.95	90 L	1LA7096-1BJ..	878.–
0.33	1.4	90 S	1LA7090-0BA..	703.–	0.37	0.55	1.5	100 L	1LA7106-1BJ..	985.–
0.5	2	90 L	1LA7096-0BA..	843.–	0.45	0.7	1.8	100 L	1LA7107-1BJ..	1320.–
0.65	2.5	100 L	▶ 1LA7106-0BA..	915.–	0.6	0.85	2.4	112 M	1LA7113-1BJ..	1460.–
0.8	3.1	100 L	▶ 1LA7107-0BA..	1090.–	0.75	1.1	3.1	132 S	1LA7130-1BJ..	2140.–
1.1	4.4	112 M	▶ 1LA7113-0BA..	1360.–	1	1.5	4.4	132 M	1LA7133-1BJ..	2590.–
1.45	5.9	132 S	▶ 1LA7130-0BA..	1740.–	1.6	2.2	6.6	160 M	1LA7163-1BJ..	2820.–
2	8	132 M	▶ 1LA7133-0BA..	2280.–	2.4	3.5	10	160 L	1LA7166-1BJ..	4550.–
2.9	11.5	160 M	▶ 1LA7163-0BA..	3020.–	3	4.5	13	180 M	1LA5183-1BJ..	6850.–
4.3	17	160 L	▶ 1LA7166-0BA..	4370.–	3.7	5.5	16	180 L	1LA5186-1BJ..	7750.–
<b>6-/4-pole: 1000/1500 rpm at 50 Hz</b>					5	8	22	200 L	1LA5207-1BJ..	10200.–
1000 rpm	1500 rpm									
0.12	0.4	80 M	1LA7080-1BD..	530.–						
0.18	0.55	80 M	1LA7083-1BD..	589.–						
0.29	0.8	90 S	1LA7090-1BD..	702.–						
0.38	1.1	90 L	1LA7096-1BD..	822.–						
0.6	1.7	100 L	▶ 1LA7106-1BD..	978.–						
0.75	2.1	100 L	▶ 1LA7107-1BD..	1090.–						
0.9	3	112 M	▶ 1LA7113-1BD..	1270.–						
1.2	3.9	132 S	▶ 1LA7130-1BD..	1570.–						
1.7	5.4	132 M	▶ 1LA7133-1BD..	1930.–						
2.5	7.2	160 M	▶ 1LA7163-1BD..	2820.–						
3.7	12	160 L	▶ 1LA7166-1BD..	4100.–						
5.5	16	180 M	1LA5183-1BD..	5380.–						
6.5	19	180 L	1LA5186-1BD..	6380.–						
9.5	26	200 L	1LA5207-1BD..	9150.–						
<b>8-/4-pole: 750/1500 rpm at 50 Hz</b>										
750 rpm	1500 rpm									
0.1	0.5	80 M	1LA7080-0BB..	446.–						
0.15	0.7	80 M	1LA7083-0BB..	511.–						
0.22	1	90 S	1LA7090-0BB..	534.–						
0.33	1.5	90 L	1LA7096-0BB..	622.–						
0.5	2	100 L	▶ 1LA7106-0BB..	769.–						
0.65	2.5	100 L	▶ 1LA7107-0BB..	888.–						
0.9	3.6	112 M	▶ 1LA7113-0BB..	1030.–						
1.1	4.7	132 S	▶ 1LA7130-0BB..	1440.–						
1.4	6.4	132 M	▶ 1LA7133-0BB..	1860.–						
2.2	9.5	160 M	▶ 1LA7163-0BB..	2560.–						
3.3	14	160 L	▶ 1LA7166-0BB..	3800.–						
4.5	16	180 M	1LA5183-0BB..	4410.–						
5	18.5	180 L	1LA5186-0BB..	5750.–						
7.5	28	200 L	1LA5207-0BB..	8560.–						

## Standard delivery times:

10  
working  
days20  
working  
daysOn  
requestOverview of selection and ordering data  
with base prices and standard delivery times

## Overview (continued)

Category	<b>2.6 – Pole-changing motors (continued)</b>
Series version	<b>Cast-iron series 1LG4 for quadratic load torque (e.g. for driving fans)</b>
Cooling	Self-ventilated (IC 411)
Degree of protection	IP55, optionally IP56 or IP65
Insulation	Thermal class 155 (F)
Utilization	Thermal class 130 (B)
Number of poles	4/2, 6/4, 8/4
Frame size (FS)	180 M ... 315 L
Rated output at 50 Hz	4.5 ... 175 kW
Synchronous speed	750 ... 3600 rpm
Rated torque at 50 Hz	31 ... 1125 Nm
Efficiency	–
Metal factor for metal surcharges (MS)	N - W - -
Price group (PG)	3Z1

Range of motors with Order No., delivery time and base price plus MS for type of construction IM B3  
(for delivery times refer to colored background of the relevant price)

$P_{\text{rated1}}$ 50 Hz kW	$P_{\text{rated2}}$ 50 Hz kW	Frame size FS	Order No.	Base price EUR
<b>4-/2-pole: 1500/3000 rpm at 50 Hz</b>				
1500 rpm	3000 rpm			
4.8	18	180 M	1LG4183-0BA..	4920.–
5.8	21.5	180 L	1LG4186-0BA..	6220.–
8.4	31	200 L	1LG4207-0BA..	8300.–
10.5	38	225 S	1LG4220-0BA..	9560.–
13	45	225 M	1LG4223-0BA..	11600.–
15	55	250 M	1LG4253-0BA..	14200.–
18	67	280 S	1LG4280-0BA..	18200.–
22	80	280 M	1LG4283-0BA..	22100.–
26	90	315 S	1LG4310-0BA..	26700.–
32	110	315 M	1LG4313-0BA..	33000.–
35	140	315 L	1LG4316-0BA..	39700.–
45	170	315 L	1LG4317-0BA..	46200.–
<b>6-/4-pole: 1000/1500 rpm at 50 Hz</b>				
1000 rpm	1500 rpm			
5.5	16	180 M	1LG4183-1BD..	5530.–
6.5	19	180 L	1LG4186-1BD..	6560.–
9.5	26	200 L	1LG4207-1BD..	9410.–
12	34	225 S	1LG4220-1BD..	11700.–
14.5	40	225 M	1LG4223-1BD..	14000.–
18	52	250 M	1LG4253-1BD..	17800.–
25	70	280 S	1LG4280-1BD..	25300.–
30	82	280 M	1LG4283-1BD..	30000.–
33	92	315 S	1LG4310-1BD..	33100.–
45	120	315 M	1LG4313-1BD..	39500.–
50	150	315 L	1LG4316-1BD..	45400.–
55	170	315 L	1LG4317-1BD..	52200.–
<b>8-/4-pole: 750/1500 rpm at 50 Hz</b>				
750 rpm	1500 rpm			
4.5	16	180 M	1LG4183-0BB..	4530.–
5	18.5	180 L	1LG4186-0BB..	5910.–
7.5	28	200 L	1LG4207-0BB..	8790.–
9.5	35	225 S	1LG4220-0BB..	10100.–
11.5	42	225 M	1LG4223-0BB..	11700.–
14.5	52	250 M	1LG4253-0BB..	15000.–
19	70	280 S	1LG4280-0BB..	17500.–
23	83	280 M	1LG4283-0BB..	21600.–
26	95	315 S	1LG4310-0BB..	26500.–
30	115	315 M	1LG4313-0BB..	34400.–
35	140	315 L	1LG4316-0BB..	40400.–
45	175	315 L	1LG4317-0BB..	48900.–

2.0

# Standard motors 1LA/1LG/1LP/1PP

## Orientation

Overview of selection and ordering data  
with base prices and standard delivery times

Standard delivery times:

10  
working  
days

20  
working  
days

On  
request

### Overview (continued)

Category	<b>2.7 – Motors for converter-fed operation only</b>
Series version	<b>Aluminum series 1LA7 and 1LA5 with special insulation up to 690 V</b>
Cooling	Self-ventilated (IC 411)
Degree of protection	IP55, optionally IP56 or IP65
Insulation	Thermal class 155 (F)
Utilization	Thermal class 130 (B)
Number of poles	2, 4, 6
Frame size (FS)	100 L ... 225 M
Rated output at 50 Hz	1.5 ... 45 kW
Synchronous speed	1000 ... 3600 rpm
Rated torque at 50 Hz	9.9 ... 293 Nm
Efficiency	–
Metal factor for metal surcharges (MS)	N - W - - -
Price group (PG)	3Z1

Range of motors with Order No., delivery time and base price plus MS for type of construction IM B3  
(for delivery times refer to colored background of the relevant price)

$P_{\text{rated, 50 Hz}}$ kW	IE class	Frame size FS	Order No.	Base price EUR
<b>2-pole: 3000 rpm at 50 Hz</b>				
3	–	100 L	1LA7106-2PM..	1060.–
4	–	112 M	1LA7113-2PM..	1290.–
5.5	–	132 S	1LA7130-2PM..	1650.–
7.5	–	132 S	1LA7131-2PM..	2100.–
11	–	160 M	1LA7163-2PM..	2880.–
15	–	160 M	1LA7164-2PM..	3730.–
18.5	–	160 L	1LA7166-2PM..	4380.–
22	–	180 M	1LA5183-2PM..	5110.–
30	–	200 L	1LA5206-2PM..	6400.–
37	–	200 L	1LA5207-2PM..	8110.–
45	–	225 M	1LA5223-2PM..	9690.–
<b>4-pole: 1500 rpm at 50 Hz</b>				
2.2	–	100 L	1LA7106-4PM..	924.–
3	–	100 L	1LA7107-4PM..	1070.–
4	–	112 M	1LA7113-4PM..	1340.–
5.5	–	132 S	1LA7130-4PM..	1680.–
7.5	–	132 M	1LA7133-4PM..	2160.–
11	–	160 M	1LA7163-4PM..	2940.–
15	–	160 L	1LA7166-4PM..	3750.–
18.5	–	180 M	1LA5183-4PM..	4410.–
22	–	180 L	1LA5186-4PM..	5110.–
30	–	200 L	1LA5207-4PM..	6540.–
37	–	225 S	1LA5220-4PM..	7790.–
45	–	225 M	1LA5223-4PM..	9230.–
<b>6-pole: 1000 rpm at 50 Hz</b>				
1.5	–	100 L	1LA7106-6PM..	987.–
2.2	–	112 M	1LA7113-6PM..	1220.–
3	–	132 S	1LA7130-6PM..	1560.–
4	–	132 M	1LA7133-6PM..	1900.–
5.5	–	132 M	1LA7134-6PM..	2420.–
7.5	–	160 M	1LA7163-6PM..	3070.–
11	–	160 L	1LA7166-6PM..	4110.–
15	–	180 L	1LA5186-6PM..	5180.–
18.5	–	200 L	1LA5206-6PM..	6190.–
22	–	200 L	1LA5207-6PM..	7050.–
30	–	225 M	1LA5223-6PM..	9160.–

## Standard delivery times:

10 working days	20 working days	On request
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Overview of selection and ordering data  
with base prices and standard delivery times

## Overview (continued)

Category	<b>2.7 – Motors for converter-fed operation only (continued)</b>
Series version	<b>Cast-iron series 1LG6 with special insulation up to 690 V</b>
Cooling	Self-ventilated (IC 411)
Degree of protection	IP55, optionally IP56 or IP65
Insulation	Thermal class 155 (F)
Utilization	Thermal class 130 (B)
Number of poles	2, 4, 6, 8
Frame size (FS)	180 M ... 315 L
Rated output at 50 Hz	11 ... 200 kW
Synchronous speed	750 ... 3600 rpm
Rated torque at 50 Hz	71 ... 1704 Nm
Efficiency	–
Metal factor for metal surcharges (MS)	N - W - - -
Price group (PG)	3Z1

Range of motors with Order No., delivery time and base price plus MS for type of construction IM B3  
(for delivery times refer to colored background of the relevant price)

$P_{\text{rated}}$ , 50 Hz kW	IE class	Frame size FS	Order No.	Base price EUR	$P_{\text{rated}}$ , 50 Hz kW	IE class	Frame size FS	Order No.	Base price EUR
<b>2-pole: 3000 rpm at 50 Hz</b>					<b>8-pole: 750 rpm at 50 Hz</b>				
22	–	180 M	1LG6183-2PM..	5530.–	11	–	180 L	1LG6186-8PM..	5810.–
30	–	200 L	1LG6206-2PM..	6900.–	15	–	200 L	1LG6207-8PM..	7310.–
37	–	200 L	1LG6207-2PM..	8750.–	18.5	–	225 S	1LG6220-8PM..	8560.–
45	–	225 M	1LG6223-2PM..	10500.–	22	–	225 M	1LG6223-8PM..	9870.–
55	–	250 M	1LG6253-2PM..	11800.–	30	–	250 M	1LG6253-8PM..	12700.–
75	–	280 S	1LG6280-2PM..	16300.–	37	–	280 S	1LG6280-8PM..	15200.–
90	–	280 M	1LG6283-2PM..	19300.–	45	–	280 M	1LG6283-8PM..	18200.–
110	–	315 S	1LG6310-2PM..	24300.–	55	–	315 S	1LG6310-8PM..	21600.–
132	–	315 M	1LG6313-2PM..	28600.–	75	–	315 M	1LG6313-8PM..	28900.–
160	–	315 L	1LG6316-2PM..	36700.–	90	–	315 L	1LG6316-8PM..	33900.–
200	–	315 L	1LG6317-2PM..	47600.–	110	–	315 L	1LG6317-8PM..	44900.–
<b>4-pole: 1500 rpm at 50 Hz</b>					<b>132 – 315 L 1LG6318-8PM.. 52600.–</b>				
18.5	–	180 M	1LG6183-4PM..	4770.–					
22	–	180 L	1LG6186-4PM..	5530.–					
30	–	200 L	1LG6207-4PM..	7060.–					
37	–	225 S	1LG6220-4PM..	8400.–					
45	–	225 M	1LG6223-4PM..	9960.–					
55	–	250 M	1LG6253-4PM..	11700.–					
75	–	280 S	1LG6280-4PM..	16100.–					
90	–	280 M	1LG6283-4PM..	19900.–					
110	–	315 S	1LG6310-4PM..	24200.–					
132	–	315 M	1LG6313-4PM..	27300.–					
160	–	315 L	1LG6316-4PM..	34900.–					
200	–	315 L	1LG6317-4PM..	42000.–					
<b>6-pole: 1000 rpm at 50 Hz</b>									
15	–	180 L	1LG6186-6PM..	5600.–					
18.5	–	200 L	1LG6206-6PM..	6670.–					
22	–	200 L	1LG6207-6PM..	7630.–					
30	–	225 M	1LG6223-6PM..	9870.–					
37	–	250 M	1LG6253-6PM..	11500.–					
45	–	280 S	1LG6280-6PM..	13600.–					
55	–	280 M	1LG6283-6PM..	17000.–					
75	–	315 S	1LG6310-6PM..	24200.–					
90	–	315 M	1LG6313-6PM..	27600.–					
110	–	315 L	1LG6316-6PM..	32700.–					
132	–	315 L	1LG6317-6PM..	40800.–					
160	–	315 L	1LG6318-6PM..	49300.–					

# Standard motors 1LA/1LG/1LP/1PP

## Orientation

### Notes

2.0

# Non-standard motors N-compact



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## Orientation

3/2

Overview of selection and ordering data with base prices and standard delivery times

3/2

Overview

# Non-standard motors N-compact

Standard delivery times:

## Orientation

Overview of selection and ordering data with base prices and standard delivery times

10  
working  
days

20  
working  
days

On  
request

### Overview

Category	3.1 – Motors specially designed for mains-fed operation		
Series version	Cast-iron series 1LA8 with Premium Efficiency IE3	Cast-iron series 1LA8 with High Efficiency IE2	Cast-iron series 1LL8 with High Efficiency IE2
Cooling	Self-ventilated (IC 411)	Self-ventilated (IC 411)	Self-ventilated with through-ventilation (IC 01)
Degree of protection	IP55, optionally IP56 (non-heavy-sea) or IP65	IP55, optionally IP56 (non-heavy-sea) or IP65	IP23
Insulation	Thermal class 155 (F), optionally 180 (H)	Thermal class 155 (F), optionally 180 (H)	Thermal class 155 (F), optionally 180 (H)
Utilization	Thermal class 130 (B)	Thermal class 130 (B)	Thermal class 130 (B)
Number of poles	2, 4, 6	2, 4, 6, 8	2, 4, 6, 8
Frame size (FS)	315 ... 355	315 ... 450	315 ... 450
Rated output at 50 Hz	250 ... 400 kW	160 ... 1000 kW	200 ... 1250 kW
Synchronous speed	1000 ... 3600 rpm	750 ... 3600 rpm	750 ... 3600 rpm
Rated torque at 50 Hz	801 ... 3418 Nm	801 ... 8090 Nm	1010 ... 10300 Nm
Efficiency	Premium Efficiency IE3	High Efficiency IE2	High Efficiency IE2
Metal factor for metal surcharges (MS)	N - W - - -	N - W - - -	N - W - - -
Price group	6ZZ	6ZZ	6ZZ

Range of motors with Order No., delivery time and base price plus MS for type of construction IM B3 (for delivery times refer to colored background of the relevant price)

Frame size	$P_{rated}$ , 50 Hz kW	IE class	Order No. ▲ New	Base price EUR	$P_{rated}$ , 50 Hz kW	IE class	Order No. ▲ New	Base price EUR	$P_{rated}$ , 50 Hz kW	IE class	Order No.	Base price EUR
FS							▼ Standardline					
<b>2-pole: 3000 rpm at 50 Hz</b>												
315	250	IE3	▲ 1LA8315-2EC..	48400.-	250	IE2	▼ 1LA8315-2AC..	44000.-	250	IE2	1LL8315-2AC..	45800.-
315	315	IE3	▲ 1LA8317-2EC..	60900.-	315	IE2	▼ 1LA8317-2AC..	55400.-	315	-	1LL8317-2AC..	57800.-
355	355	IE3	▲ 1LA8353-2EC..	69000.-	355	IE2	▼ 1LA8353-2AC..	62700.-	355	-	1LL8353-2AD..	65000.-
355					400	-	▼ 1LA8355-2AC..	71600.-	400	-	1LL8355-2AD..	74500.-
355					500	-	▼ 1LA8357-2AC..	93200.-	500	-	1LL8357-2AD..	93800.-
400					560	-	▼ 1LA8403-2AC..	101000.-	560	-	1LL8403-2AD..	103000.-
400					630	-	▼ 1LA8405-2AC..	113000.-	630	-	1LL8405-2AD..	117000.-
400					710	-	▼ 1LA8407-2AC..	128000.-	710	-	1LL8407-2AD..	131000.-
450					800	-	▼ 1LA8453-2AE..	148000.-	800	-	1LL8453-2AE..	153000.-
450					900	-	▼ 1LA8455-2AE..	163000.-	900	-	1LL8455-2AE..	171000.-
450					1000	-	▼ 1LA8457-2AE..	186000.-	1000	-	1LL8457-2AE..	192000.-
<b>4-pole: 1500 rpm at 50 Hz</b>												
315	250	IE3	▲ 1LA8316-4EB..	45300.-	250	IE2	▼ 1LA8315-4AB..	41200.-	250	IE2	1LL8315-4AC..	42700.-
315	315	IE3	▲ 1LA8318-4EB..	57200.-	315	IE2	▼ 1LA8317-4AB..	52000.-	315	-	1LL8317-4AC..	53800.-
355	355	IE3	▲ 1LA8353-4EB..	64800.-	355	IE2	▼ 1LA8353-4AB..	58900.-	355	-	1LL8353-4AC..	61600.-
355					400	-	▼ 1LA8355-4AB..	66600.-	400	-	1LL8355-4AC..	69000.-
355					500	-	▼ 1LA8357-4AB..	86500.-	500	-	1LL8357-4AC..	85200.-
400					560	-	▼ 1LA8403-4AB..	93800.-	560	-	1LL8403-4AC..	96800.-
400					630	-	▼ 1LA8405-4AB..	106000.-	630	-	1LL8405-4AC..	104000.-
400					710	-	▼ 1LA8407-4AB..	119000.-	710	-	1LL8407-4AC..	124000.-
450					800	-	▼ 1LA8453-4AC..	135000.-	800	-	1LL8453-4AD..	139000.-
450					900	-	▼ 1LA8455-4AC..	153000.-	900	-	1LL8455-4AD..	159000.-
450					1000	-	▼ 1LA8457-4AC..	171000.-	1000	-	1LL8457-4AD..	175000.-
<b>6-pole: 1000 rpm at 50 Hz</b>												
315	200	IE3	▲ 1LA8317-6EB..	53600.-	200	IE2	1LA8315-6AB..	48700.-	200	IE2	1LL8315-6AC..	50600.-
315	250	IE3	▲ 1LA8318-6EB..	67300.-	250	IE2	1LA8317-6AB..	61200.-	250	IE2	1LL8317-6AC..	63400.-
355	315	IE3	▲ 1LA8355-6EB..	86800.-	315	IE2	1LA8355-6AB..	78900.-	315	-	1LL8355-6AC..	82100.-
355	400	IE3	▲ 1LA8356-6EB..	93700.-	355	IE2	▲ 1LA8356-6AB..	84300.-				
355					400	-	1LA8357-6AB..	91400.-	400	-	1LL8357-6AC..	96000.-
400					450	-	1LA8403-6AB..	104000.-	450	-	1LL8403-6AC..	107000.-
400					500	-	1LA8405-6AB..	113000.-	500	-	1LL8405-6AC..	117000.-
400					560	-	1LA8407-6AB..	129000.-	560	-	1LL8407-6AC..	134000.-
450					630	-	1LA8453-6AB..	145000.-	630	-	1LL8453-6AD..	152000.-
450					710	-	1LA8455-6AB..	161000.-	710	-	1LL8455-6AD..	166000.-
450					800	-	1LA8457-6AB..	180000.-	800	-	1LL8457-6AD..	189000.-
<b>8-pole: 750 rpm at 50 Hz</b>												
315					160	-	1LA8315-8AB..	48700.-	160	-	1LL8315-8AC..	50600.-
315					200	-	1LA8317-8AB..	59900.-	200	-	1LL8317-8AC..	63400.-
355					250	-	1LA8355-8AB..	77600.-	250	-	1LL8355-8AC..	80400.-
355					315	-	1LA8357-8AB..	95200.-	315	-	1LL8357-8AC..	98600.-
400					355	-	1LA8403-8AB..	104000.-	355	-	1LL8403-8AD..	107000.-
400					400	-	1LA8405-8AB..	113000.-	400	-	1LL8405-8AD..	118000.-
400					450	-	1LA8407-8AB..	135000.-	450	-	1LL8407-8AD..	139000.-
450					500	-	1LA8453-8AB..	152000.-	500	-	1LL8453-8AD..	158000.-
450					560	-	1LA8455-8AB..	168000.-	560	-	1LL8455-8AD..	175000.-
450					630	-	1LA8457-8AB..	192000.-	630	-	1LL8457-8AD..	199000.-

Standard delivery times:

10 working days	20 working days	On request
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Overview of selection and ordering data  
with base prices and standard delivery times

## Overview (continued)

Category	<b>3.2 – Motors specially designed for converter-fed operation – optimally matched to SINAMICS and SIMOVERT MASTERDRIVES drive systems</b>	
Series version	Cast-iron series 1LA8 with standard insulation for ≤ 500 V	Cast-iron series 1LA8 with special insulation for > 500 to 690 V
Cooling	Self-ventilated (IC 411)	Self-ventilated (IC 411)
Degree of protection	IP55, optionally IP56 (non-heavy-sea) or IP65	IP55, optionally IP56 (non-heavy-sea) or IP65
Insulation	Thermal class 155 (F), optionally 180 (H)	Thermal class 155 (F), optionally 180 (H)
Utilization	Thermal class 155 (F)	Thermal class 155 (F)
Number of poles	2, 4, 6, 8	2, 4, 6, 8
Frame size (FS)	315 ... 450	315 ... 450
Rated output at 50 Hz	160 ... 1000 kW	145 ... 980 kW
Synchronous speed	750 ... 3600 rpm	750 ... 3600 rpm
Rated torque at 50 Hz	801 ... 8090 Nm	770 ... 7691 Nm
Efficiency	High Efficiency	High Efficiency
Metal factor for metal surcharges (MS)	N - W - -	N - W - -
Price group	6ZZ	6ZZ

Range of motors with Order No., delivery time and base price plus MS for type of construction IM B3  
(for delivery times refer to colored background of the relevant price)

Frame size	$P_{rated, 50 Hz}$ kW	Order No. ▲ New ▼ Standardline	Base price EUR	$P_{rated, 50 Hz}$ kW	Order No. ▲ New	Base price EUR
<b>2-pole: 3000 rpm at 50 Hz</b>						
315	250	1LA8315-2PC..	48300.–	250	1LA8315-2PM..	59900.–
315	315	1LA8317-2PC..	59600.–	315	1LA8317-2PM..	71400.–
355	355	1LA8353-2PC..	67000.–	355	1LA8353-2PM..	83000.–
355	400	1LA8355-2PC..	75700.–	400	1LA8355-2PM..	91400.–
355	500	1LA8357-2PC..	96500.–	500	1LA8357-2PM..	112000.–
400	560	1LA8403-2PC..	104000.–	560	1LA8403-2PM..	124000.–
400	630	1LA8405-2PC..	116000.–	630	1LA8405-2PM..	136000.–
400	710	1LA8407-2PC..	131000.–	710	1LA8407-2PM..	152000.–
450	800	1LA8453-2PE..	152000.–	800	1LA8453-2PM..	164000.–
450	900	1LA8455-2PE..	164000.–	900	1LA8455-2PM..	187000.–
450	1000	1LA8457-2PE..	191000.–	1000	1LA8457-2PM..	207000.–
<b>4-pole: 1500 rpm at 50 Hz</b>						
315	250	1LA8315-4PB..	45400.–	250	1LA8315-4PM..	59500.–
315	315	1LA8317-4PB..	56000.–	315	1LA8317-4PM..	70000.–
355	355	1LA8353-4PB..	63400.–	355	1LA8353-4PM..	82100.–
355	400	1LA8355-4PB..	70700.–	400	1LA8355-4PM..	88300.–
355	500	1LA8357-4PB..	88600.–	500	1LA8357-4PM..	108000.–
400	560	1LA8403-4PB..	98600.–	560	1LA8403-4PM..	114000.–
400	630	1LA8405-4PB..	110000.–	630	1LA8405-4PM..	131000.–
400	710	1LA8407-4PB..	124000.–	710	1LA8407-4PM..	139000.–
450	800	1LA8453-4PC..	139000.–	800	1LA8453-4PM..	159000.–
450	900	1LA8455-4PC..	159000.–	900	1LA8455-4PM..	174000.–
450	1000	1LA8457-4PC..	175000.–	1000	1LA8457-4PM..	194000.–
<b>6-pole: 1000 rpm at 50 Hz</b>						
315	200	1LA8315-6PB..	52900.–	200	1LA8315-6PM..	67900.–
315	250	1LA8317-6PB..	65000.–	250	1LA8317-6PM..	79800.–
355	315	1LA8355-6PB..	83000.–	315	1LA8355-6PM..	102000.–
355	355	▲ 1LA8356-6PB..	89100.–	340	▲ 1LA8356-6PM..	109000.–
355	400	1LA8357-6PB..	96000.–	400	1LA8357-6PM..	115000.–
400	450	1LA8403-6PB..	109000.–	450	1LA8403-6PM..	124000.–
400	500	1LA8405-6PB..	116000.–	500	1LA8405-6PM..	134000.–
400	560	1LA8407-6PB..	134000.–	560	1LA8407-6PM..	152000.–
450	630	1LA8453-6PB..	151000.–	630	1LA8453-6PM..	164000.–
450	710	1LA8455-6PB..	164000.–	710	1LA8455-6PM..	175000.–
450	800	1LA8457-6PB..	186000.–	800	1LA8457-6PM..	200000.–
<b>8-pole: 750 rpm at 50 Hz</b>						
315	160	1LA8315-8PB..	52900.–	160	1LA8315-8PM..	64800.–
315	200	1LA8317-8PB..	64100.–	200	1LA8317-8PM..	75700.–
355	250	1LA8355-8PB..	81500.–	250	1LA8355-8PM..	97600.–
355	315	1LA8357-8PB..	99200.–	315	1LA8357-8PM..	115000.–
400	355	1LA8403-8PB..	109000.–	355	1LA8403-8PM..	122000.–
400	400	1LA8405-8PB..	117000.–	400	1LA8405-8PM..	131000.–
400	450	1LA8407-8PB..	139000.–	450	1LA8407-8PM..	154000.–
450	500	1LA8453-8PB..	158000.–	500	1LA8453-8PM..	174000.–
450	560	1LA8455-8PB..	174000.–	560	1LA8455-8PM..	194000.–
450	630	1LA8457-8PB..	196000.–	630	1LA8457-8PM..	208000.–

3.0

# Non-standard motors N-compact

## Orientation

Overview of selection and ordering data with base prices and standard delivery times

Standard delivery times:

10  
working  
days

20  
working  
days

On  
request

### Overview (continued)

Category	<b>3.2 – Motors specially designed for converter-fed operation – optimally matched to SINAMICS and SIMOVERT MASTERDRIVES drive systems</b>	
Series version	Cast-iron series 1LL8 with standard insulation for ≤ 500 V	Cast-iron series 1LL8 with special insulation for > 500 to 690 V
Cooling	Self-ventilated with through-ventilation (IC 01)	Self-ventilated with through-ventilation (IC 01)
Degree of protection	IP23	IP23
Insulation	Thermal class 155 (F), optionally 180 (H)	Thermal class 155 (F), optionally 180 (H)
Utilization	Thermal class 155 (F)	Thermal class 155 (F)
Number of poles	2, 4, 6, 8	2, 4, 6, 8
Frame size (FS)	315 ... 450	315 ... 450
Rated output at 50 Hz	200 ... 1250 kW	180 ... 1225 kW
Synchronous speed	750 ... 3600 rpm	750 ... 3600 rpm
Rated torque at 50 Hz	1010 ... 10300 Nm	962 ... 9782 Nm
Efficiency	High Efficiency	High Efficiency
Metal factor for metal surcharges (MS)	N - W - - -	N - W - - -
Price group	6ZZ	6ZZ

Range of motors with Order No., delivery time and base price plus MS for type of construction IM B3 (for delivery times refer to colored background of the relevant price)

Frame size	$P_{rated}$ , 50 Hz kW	Order No.	Base price EUR	$P_{rated}$ , 50 Hz kW	Order No.	Base price EUR
<b>2-pole: 3000 rpm at 50 Hz</b>						
315	250	1LL8315-2PC..	49900.-	250	1LL8315-2PM..	62100.-
315	315	1LL8317-2PC..	62000.-	315	1LL8317-2PM..	74200.-
355	355	1LL8353-2PD..	69200.-	355	1LL8353-2PM..	85800.-
355	400	1LL8355-2PD..	78600.-	400	1LL8355-2PM..	94800.-
355	500	1LL8357-2PD..	98000.-	500	1LL8357-2PM..	114000.-
400	560	1LL8403-2PD..	108000.-	560	1LL8403-2PM..	128000.-
400	630	1LL8405-2PD..	122000.-	630	1LL8405-2PM..	141000.-
400	710	1LL8407-2PD..	137000.-	710	1LL8407-2PM..	159000.-
450	800	1LL8453-2PE..	159000.-	800	1LL8453-2PM..	171000.-
450	900	1LL8455-2PE..	176000.-	900	1LL8455-2PM..	196000.-
450	1000	1LL8457-2PE..	197000.-	1000	1LL8457-2PM..	214000.-
<b>4-pole: 1500 rpm at 50 Hz</b>						
315	250	1LL8315-4PC..	46600.-	250	1LL8315-4PM..	61300.-
315	315	1LL8317-4PC..	57900.-	315	1LL8317-4PM..	72700.-
355	355	1LL8353-4PC..	65700.-	355	1LL8353-4PM..	85100.-
355	400	1LL8355-4PC..	72900.-	400	1LL8355-4PM..	91100.-
355	500	1LL8357-4PC..	88700.-	500	1LL8357-4PM..	112000.-
400	560	1LL8403-4PC..	101000.-	560	1LL8403-4PM..	120000.-
400	630	1LL8405-4PC..	110000.-	630	1LL8405-4PM..	136000.-
400	710	1LL8407-4PC..	129000.-	710	1LL8407-4PM..	146000.-
450	800	1LL8453-4PD..	145000.-	800	1LL8453-4PM..	164000.-
450	900	1LL8455-4PD..	163000.-	900	1LL8455-4PM..	178000.-
450	1000	1LL8457-4PD..	182000.-	1000	1LL8457-4PM..	201000.-
<b>6-pole: 1000 rpm at 50 Hz</b>						
315	200	1LL8315-6PC..	54800.-	200	1LL8315-6PM..	70400.-
315	250	1LL8317-6PC..	67500.-	250	1LL8317-6PM..	82900.-
355	315	1LL8355-6PC..	86400.-	315	1LL8355-6PM..	107000.-
355	400	1LL8357-6PC..	100000.-	400	1LL8357-6PM..	120000.-
400	450	1LL8403-6PC..	112000.-	450	1LL8403-6PM..	128000.-
400	500	1LL8405-6PC..	122000.-	500	1LL8405-6PM..	139000.-
400	560	1LL8407-6PC..	137000.-	560	1LL8407-6PM..	158000.-
450	630	1LL8453-6PD..	158000.-	630	1LL8453-6PM..	171000.-
450	710	1LL8455-6PD..	170000.-	710	1LL8455-6PM..	182000.-
450	800	1LL8457-6PD..	194000.-	800	1LL8457-6PM..	210000.-
<b>8-pole: 750 rpm at 50 Hz</b>						
315	160	1LL8315-8PC..	54800.-	160	1LL8315-8PM..	67100.-
315	200	1LL8317-8PC..	67500.-	200	1LL8317-8PM..	79800.-
355	250	1LL8355-8PC..	84500.-	250	1LL8355-8PM..	101000.-
355	315	1LL8357-8PC..	103000.-	315	1LL8357-8PM..	118000.-
400	355	1LL8403-8PD..	112000.-	355	1LL8403-8PM..	125000.-
400	400	1LL8405-8PD..	123000.-	400	1LL8405-8PM..	139000.-
400	450	1LL8407-8PD..	143000.-	450	1LL8407-8PM..	159000.-
450	500	1LL8453-8PD..	162000.-	500	1LL8453-8PM..	180000.-
450	560	1LL8455-8PD..	182000.-	560	1LL8455-8PM..	203000.-
450	630	1LL8457-8PD..	204000.-	630	1LL8457-8PM..	217000.-

Standard delivery times:

10 working days	20 working days	On request
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Overview of selection and ordering data  
with base prices and standard delivery times

### Overview (continued)

Category	<b>3.2 – Motors specially designed for converter-fed operation – optimally matched to SINAMICS and SIMOVERT MASTERDRIVES drive systems</b>	
Series version	Cast-iron series 1PQ8 with standard insulation for ≤ 500 V	Cast-iron series 1PQ8 with special insulation for > 500 to 690 V
Cooling	Forced-air cooled with mounted separately driven fan (IC 416)	Forced-air cooled with mounted separately driven fan (IC 416)
Degree of protection	IP55, optionally IP56 (non-heavy-sea) or IP65	IP55, optionally IP56 (non-heavy-sea) or IP65
Insulation	Thermal class 155 (F), optionally 180 (H)	Thermal class 155 (F), optionally 180 (H)
Utilization	Thermal class 155 (F)	Thermal class 155 (F)
Number of poles	2, 4, 6, 8	2, 4, 6, 8
Frame size (FS)	315 ... 450	315 ... 450
Rated output at 50 Hz	160 ... 1000 kW	145 ... 980 kW
Synchronous speed	750 ... 3600 rpm	750 ... 3600 rpm
Rated torque at 50 Hz	801 ... 8090 Nm	770 ... 7691 Nm
Efficiency	High Efficiency	High Efficiency
Metal factor for metal surcharges (MS)	N - W - - -	N - W - - -
Price group	6ZZ	6ZZ

Range of motors with Order No., delivery time and base price plus MS for type of construction IM B3  
(for delivery times refer to colored background of the relevant price)

Frame size	$P_{rated, 50 Hz}$ kW	Order No. ▲ New	Base price EUR	$P_{rated, 50 Hz}$ kW	Order No. ▲ New	Base price EUR
<b>2-pole: 3000 rpm at 50 Hz</b>						
315	250	1PQ8315-2PC..	58400.–	250	1PQ8315-2PM..	70000.–
315	315	1PQ8317-2PC..	69900.–	315	1PQ8317-2PM..	81500.–
355	355	1PQ8353-2PC..	78300.–	355	1PQ8353-2PM..	94500.–
355	400	1PQ8355-2PC..	86100.–	400	1PQ8355-2PM..	101000.–
355	500	1PQ8357-2PC..	106000.–	500	1PQ8357-2PM..	122000.–
400	560	1PQ8403-2PC..	116000.–	560	1PQ8403-2PM..	129000.–
400	630	1PQ8405-2PC..	128000.–	630	1PQ8405-2PM..	140000.–
400	710	1PQ8407-2PC..	143000.–	710	1PQ8407-2PM..	160000.–
450	800	1PQ8453-2PE..	162000.–	800	1PQ8453-2PM..	174000.–
450	900	1PQ8455-2PE..	180000.–	900	1PQ8455-2PM..	194000.–
450	1000	1PQ8457-2PE..	199000.–	1000	1PQ8457-2PM..	212000.–
<b>4-pole: 1500 rpm at 50 Hz</b>						
315	250	1PQ8315-4PB..	55600.–	250	1PQ8315-4PM..	67100.–
315	315	1PQ8317-4PB..	66100.–	315	1PQ8317-4PM..	77600.–
355	355	1PQ8353-4PB..	74800.–	355	1PQ8353-4PM..	90700.–
355	400	1PQ8355-4PB..	82100.–	400	1PQ8355-4PM..	97600.–
355	500	1PQ8357-4PB..	99300.–	500	1PQ8357-4PM..	115000.–
400	560	1PQ8403-4PB..	110000.–	560	1PQ8403-4PM..	122000.–
400	630	1PQ8405-4PB..	122000.–	630	1PQ8405-4PM..	135000.–
400	710	1PQ8407-4PB..	135000.–	710	1PQ8407-4PM..	151000.–
450	800	1PQ8453-4PC..	153000.–	800	1PQ8453-4PM..	164000.–
450	900	1PQ8455-4PC..	168000.–	900	1PQ8455-4PM..	184000.–
450	1000	1PQ8457-4PC..	189000.–	1000	1PQ8457-4PM..	200000.–
<b>6-pole: 1000 rpm at 50 Hz</b>						
315	200	1PQ8315-6PB..	63100.–	200	1PQ8315-6PM..	74600.–
315	250	1PQ8317-6PB..	75000.–	250	1PQ8317-6PM..	86100.–
355	315	1PQ8355-6PB..	93800.–	315	1PQ8355-6PM..	109000.–
355	355	▲ 1PQ8356-6PB..	99600.–	340	▲ 1PQ8356-6PM..	115000.–
355	400	1PQ8357-6PB..	106000.–	400	1PQ8357-6PM..	120000.–
400	450	1PQ8403-6PB..	119000.–	450	1PQ8403-6PM..	131000.–
400	500	1PQ8405-6PB..	128000.–	500	1PQ8405-6PM..	140000.–
400	560	1PQ8407-6PB..	145000.–	560	1PQ8407-6PM..	159000.–
450	630	1PQ8453-6PB..	161000.–	630	1PQ8453-6PM..	174000.–
450	710	1PQ8455-6PB..	175000.–	710	1PQ8455-6PM..	187000.–
450	800	1PQ8457-6PB..	196000.–	800	1PQ8457-6PM..	209000.–
<b>8-pole: 750 rpm at 50 Hz</b>						
315	160	1PQ8315-8PB..	63300.–	160	1PQ8315-8PM..	74600.–
315	200	1PQ8317-8PB..	74000.–	200	1PQ8317-8PM..	84300.–
355	250	1PQ8355-8PB..	93200.–	250	1PQ8355-8PM..	107000.–
355	315	1PQ8357-8PB..	109000.–	315	1PQ8357-8PM..	124000.–
400	355	1PQ8403-8PB..	119000.–	355	1PQ8403-8PM..	131000.–
400	400	1PQ8405-8PB..	128000.–	400	1PQ8405-8PM..	141000.–
400	450	1PQ8407-8PB..	152000.–	450	1PQ8407-8PM..	163000.–
450	500	1PQ8453-8PB..	166000.–	500	1PQ8453-8PM..	182000.–
450	560	1PQ8455-8PB..	187000.–	560	1PQ8455-8PM..	199000.–
450	630	1PQ8457-8PB..	206000.–	630	1PQ8457-8PM..	219000.–

3.0

# Non-standard motors N-compact

## Orientation

Notes

3.0

# Explosion-proof motors



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## Orientation

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Overview of selection and ordering data  
with base prices and standard delivery  
times

4/2

Overview

# Explosion-proof motors

## Orientation

Overview of selection and ordering data with base prices and standard delivery times

Standard delivery times:

10 working days	20 working days	On request
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# 4.0

### Overview

Category	<b>4.1 – Loher motors</b>	<b>4.2 – Motors for Zone 1 in type of protection Ex e</b>
Series version	<b>Loher CHEMSTAR motors Types 1PS1, 1PS2 and 1PS5</b>	<b>Aluminum series 1MA7 with Standard Efficiency IE1</b>
Cooling	Self-ventilated (IC 411) or forced-air cooled (IC 416)	Self-ventilated (IC 411)
Degree of protection	IP56 ... IP66	IP55, optionally IP56 or IP65
Insulation	Standard: Thermal class 155 (F)	Thermal class 155 (F)
Utilization	Standard: Thermal class 130 (B)	Thermal class 130 (B)
Number of poles	2, 4, 6	2, 4, 6
Frame size (FS)	71 ... 355 (range of standard motors)	63 M ... 160 L
Rated output at 50 Hz	up to 315 kW	0.12 ... 16 kW
Synchronous speed	1000 ... 3600 rpm	1000 ... 3000 rpm
Rated torque at 50 Hz	More information: <a href="http://www.siemens.com/low-voltage-motors">www.siemens.com/low-voltage-motors</a>	0.61 ... 96 Nm
Efficiency	Standard: High Efficiency IE2	Standard Efficiency IE1
Metal factor for metal surcharges (MS)	More information: <a href="http://www.siemens.com/low-voltage-motors">www.siemens.com/low-voltage-motors</a>	N - W - - -
Price group (PG)	More information: <a href="http://www.siemens.com/low-voltage-motors">www.siemens.com/low-voltage-motors</a>	3Z4

Range of motors with Order No., delivery time and base price plus MS for type of construction IM B3 (for delivery times refer to colored background of the relevant price)

#### Loher – the leading expert for explosion-protected motors.

Even back in the sixties, Loher – based in Ruhstorf close to Passau, Germany – played a leading role in explosion-protected drives. In the meantime it is a recognized specialist in this domain worldwide and has always continued to expand its top position.

Both motor series – Loher CHEMSTAR and Loher VARIO – set standards in drive technology in the chemical and petrochemical industries as well as oil and gas sector. This is because they comply with all of the industries' requirements and reflect the many years of experience that Loher has been engaged in this sector.

The decades of experience that Loher has in the development, design, engineering and production of explosion-protected motors guarantees an optimum of operational safety, availability and adaptation to the particular application conditions.

Not only are they extremely rugged and reliable, but they can also be supplied in all of the applicable types of protection Ex n, Ex e, Ex d. And for exceptional requirements, they are also available in double protection types, gas /dust or Ex e and Ex d.

Furthermore, you can also order application-specific special versions.

More information:  
[www.siemens.com/low-voltage-motors](http://www.siemens.com/low-voltage-motors)

$P_{rated}$ , 50 Hz	Tempera- tur clas- ses	Frame size	Order No.	Base price
kW		FS		EUR
<b>2-pole: 3000 rpm at 50 Hz</b>				
0.18	T1-T3	63 M	1MA7060-2BA..	363.–
0.25	T1-T3	63 M	1MA7063-2BA..	376.–
0.37	T1-T3	71 M	1MA7070-2BA..	387.–
0.55	T1-T3	71 M	1MA7073-2BA..	434.–
0.75	T1-T3	80 M	1MA7080-2BA..	450.–
1.1	T1-T3	80 M	1MA7083-2BA..	516.–
1.3	T1-T3	90 S	1MA7090-2BA..	553.–
1.85	T1-T3	90 L	1MA7096-2BA..	697.–
2.5	T1-T3	100 L	1MA7106-2BA..	845.–
3.3	T1-T3	112 M	1MA7113-2BB..	1030.–
4.6	T1-T3	132 S	1MA7130-2BB..	1320.–
5.5	T3	132 S	1MA7131-2BB..	1670.–
6.5	T1-T2	132 S	1MA7131-2BB..	1670.–
7.5	T3	160 M	1MA7163-2BB..	2310.–
9.5	T1-T2	160 M	1MA7163-2BB..	2310.–
10	T3	160 M	1MA7164-2BB..	3010.–
13	T1-T2	160 M	1MA7164-2BB..	3010.–
12.5	T3	160 L	1MA7166-2BB..	3600.–
16	T1-T2	160 L	1MA7166-2BB..	3600.–
<b>4-pole: 1500 rpm at 50 Hz</b>				
0.12	T1-T3	63 M	1MA7060-4BB..	352.–
0.18	T1-T3	63 M	1MA7063-4BB..	373.–
0.25	T1-T3	71 M	1MA7070-4BB..	370.–
0.37	T1-T3	71 M	1MA7073-4BB..	413.–
0.55	T1-T3	80 M	1MA7080-4BA..	434.–
0.75	T1-T3	80 M	1MA7083-4BA..	484.–
1	T1-T3	90 S	1MA7090-4BA..	524.–
1.35	T1-T3	90 L	1MA7096-4BA..	607.–
2	T1-T3	100 L	1MA7106-4BA..	738.–
2.5	T1-T3	100 L	1MA7107-4BA..	866.–
3.6	T1-T3	112 M	1MA7113-4BA..	1090.–
5	T1-T3	132 S	1MA7130-4BA..	1370.–
6.8	T1-T3	132 M	1MA7133-4BA..	1760.–
10	T1-T3	160 M	1MA7163-4BB..	2370.–
13.5	T1-T3	160 L	1MA7166-4BB..	3050.–
<b>6-pole: 1000 rpm at 50 Hz</b>				
0.25	T1-T3	71 M	1MA7073-6BA..	447.–
0.37	T1-T3	80 M	1MA7080-6BA..	464.–
0.55	T1-T3	80 M	1MA7083-6BA..	528.–
0.65	T1-T3	90 S	1MA7090-6BA..	544.–
0.95	T1-T3	90 L	1MA7096-6BA..	658.–
1.3	T1-T3	100 L	1MA7106-6BA..	788.–
1.9	T1-T3	112 M	1MA7113-6BB..	989.–
2.6	T1-T3	132 S	1MA7130-6BB..	1290.–
3.5	T1-T3	132 M	1MA7133-6BB..	1530.–
4.8	T1-T3	132 M	1MA7134-6BB..	1950.–
6.6	T1-T3	160 M	1MA7163-6BB..	2530.–
9.7	T1-T3	160 L	1MA7166-6BB..	3460.–

Standard delivery times:

10 working days	20 working days	On request
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Overview of selection and ordering data  
with base prices and standard delivery times

4.0

## Overview (continued)

Category	<b>4.2 – Motors for Zone 1 in type of protection Ex e (continued)</b>
Series version	<b>Cast-iron series 1MA6 with Standard Efficiency IE1</b>
Cooling	Self-ventilated (IC 411)
Degree of protection	IP55, optionally IP56 or IP65
Insulation	Thermal class 155 (F)
Utilization	Thermal class 130 (B)
Number of poles	2, 4, 6
Frame size (FS)	100 L ... 315 L
Rated output at 50 Hz	1.3 ... 165 kW
Synchronous speed	1000 ... 3000 rpm
Rated torque at 50 Hz	8.3 ... 1300 Nm
Efficiency	Standard Efficiency IE1
Metal factor for metal surcharges (MS)	N - W - - -
Price group (PG)	3Z4

Range of motors with Order No., delivery time and base price plus MS for type of construction IM B3  
(for delivery times refer to colored background of the relevant price)

$P_{rated}$ 50 Hz kW	Tempera- tur clas- ses	Frame size FS	Order No.	Base price EUR	$P_{rated}$ 50 Hz kW	Tempera- tur clas- ses	Frame size FS	Order No.	Base price EUR
<b>2-pole: 3000 rpm at 50 Hz</b>					<b>4-pole: 1500 rpm at 50 Hz</b>				
2.5	T1-T3	100 L	1MA6106-2BA..	980.-	30	T3	225 S	1MA6220-4BC..	7110.-
3.3	T1-T3	112 M	1MA6113-2BB..	1180.-	33	T1, T2	225 S	1MA6220-4BC..	7110.-
4.6	T1-T3	132 S	1MA6130-2BB..	1470.-	36	T3	225 M	1MA6223-4BC..	8670.-
5.5	T3	132 S	1MA6131-2BB..	1860.-	40	T1, T2	225 M	1MA6223-4BC..	8670.-
6.5	T1-T2	132 S	1MA6131-2BB..	1860.-	44	T3	250 M	1MA6253-4BC..	10300.-
7.5	T3	160 M	1MA6163-2BB..	2570.-	50	T1, T2	250 M	1MA6253-4BC..	10300.-
9.5	T1-T2	160 M	1MA6163-2BB..	2570.-	58	T3	280 S	1MA6280-4BC..	14300.-
10	T3	160 M	1MA6164-2BB..	3340.-	68	T1, T2	280 S	1MA6280-4BC..	14300.-
13	T1-T2	160 M	1MA6164-2BB..	3340.-	70	T3	280 M	1MA6283-4BC..	17000.-
12.5	T3	160 L	1MA6166-2BB..	3960.-	80	T1, T2	280 M	1MA6283-4BC..	17000.-
16	T1-T2	160 L	1MA6166-2BB..	3960.-	84	T3	315 S	1MA6310-4BD..	20700.-
15	T3	180 M	1MA6183-2BC..	4350.-	100	T1, T2	315 S	1MA6310-4BD..	20700.-
19	T1, T2	180 M	1MA6183-2BC..	4350.-	100	T3	315 M	1MA6313-4BD..	25700.-
20	T3	200 L	1MA6206-2BC..	5620.-	120	T1, T2	315 M	1MA6313-4BD..	25700.-
25	T1, T2	200 L	1MA6206-2BC..	5620.-	115	T3	315 L	1MA6316-4BD..	28600.-
24	T3	200 L	1MA6207-2BC..	7210.-	135	T1, T2	315 L	1MA6316-4BD..	28600.-
31	T1, T2	200 L	1MA6207-2BC..	7210.-	135	T3	315 L	1MA6317-4BD..	35400.-
28	T3	225 M	1MA6223-2BC..	8900.-	165	T1, T2	315 L	1MA6317-4BD..	35400.-
38	T1, T2	225 M	1MA6223-2AC..	8900.-	<b>6-pole: 1000 rpm at 50 Hz</b>				
36	T3	250 M	1MA6253-2BC..	10900.-	1.3	T1-T3	100 L	1MA6106-6BA..	919.-
47	T1, T2	250 M	1MA6253-2AC..	10900.-	1.9	T1-T3	112 M	1MA6113-6BB..	1160.-
47	T3	280 S	1MA6280-2BD..	14500.-	2.6	T1-T3	132 S	1MA6130-6BB..	1430.-
64	T1, T2	280 S	1MA6280-2AD..	14500.-	3.5	T1-T3	132 M	1MA6133-6BB..	1730.-
58	T3	280 M	1MA6283-2BD..	18000.-	4.8	T1-T3	132 M	1MA6134-6BB..	2220.-
76	T1, T2	280 M	1MA6283-2AD..	18000.-	6.6	T1-T3	160 M	1MA6163-6BB..	2780.-
68	T3	315 S	1MA6310-2BD..	21900.-	9.7	T1-T3	160 L	1MA6166-6BB..	3810.-
95	T1, T2	315 S	1MA6310-2AD..	21900.-	13.2	T1-T3	180 L	1MA6186-6BC..	4610.-
80	T3	315 M	1MA6313-2BD..	27500.-	16.5	T1-T3	200 L	1MA6206-6BC..	5560.-
112	T1, T2	315 M	1MA6313-2AD..	27500.-	20	T1-T3	200 L	1MA6207-6BC..	6640.-
100	T3	315 L	1MA6316-2BD..	32300.-	27	T1-T3	225 M	1MA6223-6BC..	8920.-
135	T1, T2	315 L	1MA6316-2AD..	32300.-	33	T1-T3	250 M	1MA6253-6BC..	11200.-
125	T3	315 L	1MA6317-2BD..	39600.-	40	T1-T3	280 S	1MA6280-6BC..	13200.-
165	T1, T2	315 L	1MA6317-2AD..	39600.-	46	T3	280 M	1MA6283-6BC..	16000.-
<b>4-pole: 1500 rpm at 50 Hz</b>					50	T1, T2	280 M	1MA6283-6BC..	16000.-
2	T1-T3	100 L	1MA6106-4BA..	854.-	64	T3	315 S	1MA6310-6BC..	21900.-
2.5	T1-T3	100 L	1MA6107-4BA..	998.-	68	T1, T2	315 S	1MA6310-6BC..	21900.-
3.6	T1-T3	112 M	1MA6113-4BA..	1270.-	76	T3	315 M	1MA6313-6BC..	27300.-
5	T1-T3	132 S	1MA6130-4BA..	1550.-	82	T1, T2	315 M	1MA6313-6BC..	27300.-
6.8	T1-T3	132 M	1MA6133-4BA..	1990.-	92	T3	315 L	1MA6316-6BC..	32600.-
10	T1-T3	160 M	1MA6163-4BB..	2620.-	98	T1, T2	315 L	1MA6316-6BC..	32600.-
13.5	T1-T3	160 L	1MA6166-4BB..	3380.-	110	T3	315 L	1MA6317-6BC..	40700.-
15	T3	180 M	1MA6183-4BC..	3800.-	120	T1, T2	315 L	1MA6317-6BC..	40700.-
17	T1, T2	180 M	1MA6183-4BC..	3800.-	125	T3	315 L	1MA6318-6BC..	45400.-
17.5	T3	180 L	1MA6186-4BC..	4410.-	135	T1, T2	315 L	1MA6318-6BC..	45400.-
20	T1, T2	180 L	1MA6186-4BC..	4410.-					
24	T3	200 L	1MA6207-4BC..	5880.-					
27	T1, T2	200 L	1MA6207-4BC..	5880.-					

# Explosion-proof motors

## Orientation

Overview of selection and ordering data with base prices and standard delivery times

Standard delivery times:

10  
working  
days

20  
working  
days

On  
request

4.0

### Overview (continued)

Category	<b>4.3 – Motors for Zone 1 in type of protection Ex de</b>
Series version	<b>Cast-iron series 1MJ6, 1MJ7 with Standard Efficiency IE1</b>
Cooling	Self-ventilated (IC 411)
Degree of protection	IP55, optionally IP56 or IP65
Insulation	Thermal class 155 (F)
Utilization	Thermal class 130 (B)
Number of poles	2, 4, 6, 8
Frame size (FS)	71 M ... 315 M
Rated output at 50 Hz	0.25 ... 132 kW
Synchronous speed	750 ... 3600 rpm
Rated torque at 50 Hz	1.3 ... 970 Nm
Efficiency	Standard Efficiency IE1
Metal factor for metal surcharges (MS)	N - V - - -
Price group (PG)	3Z5

Range of motors with Order No., delivery time and base price plus MS for type of construction IM B3 (for delivery times refer to colored background of the relevant price)

$P_{\text{rated}}$ , 50 Hz kW	Tempera- tur clas- ses	Frame size FS	Order No.	Base price EUR	$P_{\text{rated}}$ , 50 Hz kW	Tempera- tur clas- ses	Frame size FS	Order No.	Base price EUR
<b>2-pole: 3000 rpm at 50 Hz</b>					<b>6-pole: 1000 rpm at 50 Hz</b>				
0.37	T1-T4	71 M	1MJ6070-2CA..	1090.-	0.25	T1-T4	71 M	1MJ6073-6CA..	1140.-
0.55	T1-T4	71 M	1MJ6073-2CA..	1130.-	0.37	T1-T4	80 M	1MJ6080-6CA..	1120.-
0.75	T1-T4	80 M	1MJ6080-2CA..	1120.-	0.55	T1-T4	80 M	1MJ6083-6CA..	1200.-
1.1	T1-T4	80 M	1MJ6083-2CA..	1200.-	0.75	T1-T4	90 L	1MJ6096-6CA..	1280.-
1.5	T1-T4	90 L	1MJ6096-2CA..	1280.-	1.1	T1-T4	90 L	1MJ6097-6CA..	1410.-
2.2	T1-T4	90 L	1MJ6097-2CA..	1470.-	1.5	T1-T4	100 L	1MJ6106-6CA..	1630.-
3	T1-T4	100 L	1MJ6106-2CA..	1830.-	2.2	T1-T4	112 M	1MJ6113-6CA..	2110.-
4	T1-T4	112 M	1MJ6113-2CA..	2140.-	3	T1-T4	132 S	1MJ6130-6CA..	2600.-
5.5	T1-T4	132 S	1MJ6130-2CA..	2620.-	4	T1-T4	132 M	1MJ6133-6CA..	2990.-
7.5	T1-T4	132 S	1MJ6131-2CA..	2990.-	5.5	T1-T4	132 M	1MJ6134-6CA..	3310.-
11	T1-T4	160 M	1MJ6163-2CA..	4070.-	7.5	T1-T4	160 M	1MJ6163-6CA..	4130.-
15	T1-T4	160 M	1MJ6164-2CA..	4960.-	11	T1-T4	160 L	1MJ6166-6CA..	5390.-
18.5	T1-T4	160 L	1MJ6166-2CA..	5650.-	15	T1-T4	180 L	1MJ6186-6CA..	7170.-
22	T1-T4	180 M	1MJ6183-2CA..	6710.-	18.5	T1-T4	200 L	1MJ6206-6CA..	8630.-
30	T1-T4	200 L	1MJ6206-2CA..	8630.-	22	T1-T4	200 L	1MJ6207-6CA..	9460.-
37	T1-T4	200 L	1MJ6207-2CA..	10100.-	30	T1-T4	225 M	1MJ7223-6CA..	12800.-
45	T1-T4	225 M	1MJ7223-2CB..	12900.-	37	T1-T4	250 M	1MJ7253-6CA..	16300.-
55	T1-T4	250 M	1MJ7253-2CB..	15700.-	45	T1-T4	280 S	1MJ7280-6CA..	20400.-
75	T1-T4	280 S	1MJ7280-2CC..	21500.-	55	T1-T4	280 M	1MJ7283-6CA..	24400.-
90	T1-T4	280 M	1MJ7283-2CC..	25000.-	75	T1-T4	315 S	1MJ7310-6CA..	32000.-
110	T1-T4	315 S	1MJ7310-2CC..	32700.-	90	T1-T4	315 M	1MJ7313-6CA..	37400.-
132	T1-T4	315 M	1MJ7313-2CC..	38300.-	<b>8-pole: 750 rpm at 50 Hz</b>				
<b>4-pole: 1500 rpm at 50 Hz</b>					0.37	T1-T4	90 L	1MJ6096-8CB..	1350.-
0.25	T1-T4	71 M	1MJ6070-4CB..	1080.-	0.55	T1-T4	90 L	1MJ6097-8CB..	1480.-
0.37	T1-T4	71 M	1MJ6073-4CB..	1120.-	0.75	T1-T4	100 L	1MJ6106-8CB..	1660.-
0.55	T1-T4	80 M	1MJ6080-4CA..	1110.-	1.1	T1-T4	100 L	1MJ6107-8CB..	1990.-
0.75	T1-T4	80 M	1MJ6083-4CA..	1140.-	1.5	T1-T4	112 M	1MJ6113-8CB..	2350.-
1.1	T1-T4	90 L	1MJ6096-4CA..	1270.-	2.2	T1-T4	132 S	1MJ6130-8CB..	2860.-
1.5	T1-T4	90 L	1MJ6097-4CA..	1370.-	3	T1-T4	132 M	1MJ6133-8CB..	3270.-
2.2	T1-T4	100 L	1MJ6106-4CA..	1620.-	4	T1-T4	160 M	1MJ6163-8CB..	3890.-
3	T1-T4	100 L	1MJ6107-4CA..	1850.-	5.5	T1-T4	160 M	1MJ6164-8CB..	4620.-
4	T1-T4	112 M	1MJ6113-4CA..	2160.-	7.5	T1-T4	160 L	1MJ6166-8CB..	5560.-
5.5	T1-T4	132 S	1MJ6130-4CA..	2680.-	11	T1-T4	180 L	1MJ6186-8CB..	7230.-
7.5	T1-T4	132 M	1MJ6133-4CA..	3140.-	15	T1-T4	200 L	1MJ6207-8CB..	9300.-
11	T1-T4	160 M	1MJ6163-4CA..	4080.-	18.5	T1-T4	225 S	1MJ7220-8CB..	11200.-
15	T1-T4	160 L	1MJ6166-4CA..	5110.-	22	T1-T4	225 M	1MJ7223-8CB..	13000.-
18.5	T1-T4	180 M	1MJ6183-4CA..	6310.-	30	T1-T4	250 M	1MJ7253-8CB..	16400.-
22	T1-T4	180 L	1MJ6186-4CA..	7050.-	37	T1-T4	280 S	1MJ7280-8CB..	21100.-
30	T1-T4	200 L	1MJ6207-4CA..	8790.-	45	T1-T4	280 M	1MJ7283-8CB..	24900.-
37	T1-T4	225 S	1MJ7220-4CA..	10700.-	55	T1-T4	315 S	1MJ7310-8CB..	31900.-
45	T1-T4	225 M	1MJ7223-4CA..	12300.-	75	T1-T4	315 M	1MJ7313-8CB..	40000.-
55	T1-T4	250 M	1MJ7253-4CA..	15400.-					
75	T1-T4	280 S	1MJ7280-4CA..	20900.-					
90	T1-T4	280 M	1MJ7283-4CA..	23900.-					
110	T1-T4	315 S	1MJ7310-4CA..	29500.-					
132	T1-T4	315 M	1MJ7313-4CA..	34800.-					

Standard delivery times:

10  
working  
days20  
working  
daysOn  
requestOverview of selection and ordering data  
with base prices and standard delivery times

4.0

## Overview (continued)

Category	<b>4.4 – Motors for Zone 2 or 21/22 in type of protection Ex n or Ex tD</b>
Series version	<b>Aluminum series 1LA7, 1LA5 with order code for Ex protection with Standard Efficiency IE1</b>
Cooling	Self-ventilated (IC 411)
Degree of protection	IP55, optionally IP56 or IP65
Insulation	Thermal class 155 (F)
Utilization	Thermal class 130 (B)
Number of poles	2, 4, 6, 8
Frame size (FS)	63 M ... 225 M
Rated output at 50 Hz	0.09 ... 45 kW
Synchronous speed	750 ... 3600 rpm
Rated torque at 50 Hz	0.61 ... 293 Nm
Efficiency	Standard Efficiency IE1
Metal factor for metal surcharges (MS)	N - W - - -
Price group (PG)	3Z1

Range of motors with Order No., delivery time and base price plus MS for type of construction IM B3  
(for delivery times refer to colored background of the relevant price)

$P_{rated, 50 Hz}$	IE class	Frame size	Order No.	Base price	$P_{rated, 50 Hz}$	IE class	Frame size	Order No.	Base price
kW		FS		EUR	kW		FS		EUR
<b>2-pole: 3000 rpm at 50 Hz</b>					<b>6-pole: 1000 rpm at 50 Hz</b>				
0.18	-	63 M	1LA7060-2AA..	259.-	0.09	-	63 M	1LA7063-6AB..	275.-
0.25	-	63 M	1LA7063-2AA..	274.-	0.18	-	71 M	1LA7070-6AA..	291.-
0.37	-	71 M	1LA7070-2AA..	278.-	0.25	-	71 M	1LA7073-6AA..	325.-
0.55	-	71 M	1LA7073-2AA..	312.-	0.37	-	80 M	1LA7080-6AA..	343.-
0.75	IE1	80 M	1LA7080-2AA..	343.-	0.55	-	80 M	1LA7083-6AA..	397.-
1.1	IE1	80 M	1LA7083-2AA..	394.-	0.75	IE1	90 S	1LA7090-6AA..	449.-
1.5	IE1	90 S	1LA7090-2AA..	455.-	1.1	IE1	90 L	1LA7096-6AA..	556.-
2.2	IE1	90 L	1LA7096-2AA..	585.-	1.5	IE1	100 L	1LA7106-6AA..	658.-
3	IE1	100 L	1LA7106-2AA..	703.-	2.2	IE1	112 M	1LA7113-6AA..	824.-
4	IE1	112 M	1LA7113-2AA..	866.-	3	IE1	132 S	1LA7130-6AA..	1040.-
5.5	IE1	132 S	1LA7130-2AA..	1110.-	4	IE1	132 M	1LA7133-6AA..	1300.-
7.5	IE1	132 S	1LA7131-2AA..	1430.-	5.5	IE1	132 M	1LA7134-6AA..	1640.-
11	IE1	160 M	1LA7163-2AA..	1990.-	7.5	IE1	160 M	1LA7163-6AA..	2130.-
15	IE1	160 M	1LA7164-2AA..	2590.-	11	IE1	160 L	1LA7166-6AA..	2950.-
18.5	IE1	160 L	1LA7166-2AA..	3100.-	15	IE1	180 L	1LA5186-6AA..	3830.-
22	IE1	180 M	1LA5183-2AA..	3650.-	18.5	IE1	200 L	1LA5206-6AA..	4710.-
30	IE1	200 L	1LA5206-2AA..	4730.-	22	IE1	200 L	1LA5207-6AA..	5520.-
37	IE1	200 L	1LA5207-2AA..	6180.-	30	IE1	225 M	1LA5223-6AA..	7600.-
45	IE1	225 M	1LA5223-2AA..	7510.-	<b>8-pole: 750 rpm at 50 Hz</b>				
<b>4-pole: 1500 rpm at 50 Hz</b>					0.09	-	71 M	1LA7070-8AB..	307.-
0.12	-	63 M	1LA7060-4AB..	254.-	0.12	-	71 M	1LA7073-8AB..	345.-
0.18	-	63 M	1LA7063-4AB..	274.-	0.18	-	80 M	1LA7080-8AB..	351.-
0.25	-	71 M	1LA7070-4AB..	275.-	0.25	-	80 M	1LA7083-8AB..	435.-
0.37	-	71 M	1LA7073-4AB..	306.-	0.37	-	90 S	1LA7090-8AB..	512.-
0.55	-	80 M	1LA7080-4AA..	329.-	0.55	-	90 L	1LA7096-8AB..	622.-
0.75	IE1	80 M	1LA7083-4AA..	359.-	0.75	-	100 L	1LA7106-8AB..	684.-
1.1	IE1	90 S	1LA7090-4AA..	426.-	1.1	-	100 L	1LA7107-8AB..	866.-
1.5	IE1	90 L	1LA7096-4AA..	504.-	1.5	-	112 M	1LA7113-8AB..	1030.-
2.2	IE1	100 L	1LA7106-4AA..	618.-	2.2	-	132 S	1LA7130-8AB..	1330.-
3	IE1	100 L	1LA7107-4AA..	711.-	3	-	132 M	1LA7133-8AB..	1620.-
4	IE1	112 M	1LA7113-4AA..	905.-	4	-	160 M	1LA7163-8AB..	1990.-
5.5	IE1	132 S	1LA7130-4AA..	1160.-	5.5	-	160 M	1LA7164-8AB..	2470.-
7.5	IE1	132 M	1LA7133-4AA..	1490.-	7.5	-	160 L	1LA7166-8AB..	3050.-
11	IE1	160 M	1LA7163-4AA..	2030.-	11	-	180 L	1LA5186-8AB..	4020.-
15	IE1	160 L	1LA7166-4AA..	2640.-	15	-	200 L	1LA5207-8AB..	5300.-
18.5	IE1	180 M	1LA5183-4AA..	3180.-	18.5	-	225 S	1LA5220-8AB..	6430.-
22	IE1	180 L	1LA5186-4AA..	3750.-	22	-	225 M	1LA5223-8AB..	7460.-
30	IE1	200 L	1LA5207-4AA..	4970.-					
37	IE1	225 S	1LA5220-4AA..	6060.-					
45	IE1	225 M	1LA5223-4AA..	7310.-					

## Explosion-proof motors

Standard delivery times:

## Orientation

10  
working  
days20  
working  
daysOn  
requestOverview of selection and ordering data  
with base prices and standard delivery times

4.0

## Overview (continued)

Category	<b>4.4 – Motors for Zone 2 or 21/22 in type of protection Ex n or Ex tD (continued)</b>
Series version	<b>Cast-iron series 1LA6, 1LG4 with order code for Ex protection with Standard Efficiency IE1</b>
Cooling	Self-ventilated (IC 411)
Degree of protection	IP55, optionally IP56 or IP65
Insulation	Thermal class 155 (F)
Utilization	Thermal class 130 (B)
Number of poles	2, 4, 6, 8
Frame size (FS)	100 L ... 315 L
Rated output at 50 Hz	0.75 ... 200 kW
Synchronous speed	750 ... 3600 rpm
Rated torque at 50 Hz	9.9 ... 1708 Nm
Efficiency	Standard Efficiency IE1
Metal factor for metal surcharges (MS)	N - W - - -
Price group (PG)	3Z1

**Range of motors with Order No., delivery time and base price plus MS for type of construction IM B3**  
(for delivery times refer to colored background of the relevant price)

$P_{rated, 50 Hz}$ kW	IE class	Frame size FS	Order No.	Base price EUR	$P_{rated, 50 Hz}$ kW	IE class	Frame size FS	Order No.	Base price EUR
<b>2-pole: 3000 rpm at 50 Hz</b>					<b>6-pole: 1000 rpm at 50 Hz</b>				
3	IE1	100 L	1LA6106-2AA..	819.-	1.5	-	100 L	1LA6106-6AA..	764.-
4	IE1	112 M	1LA6113-2AA..	1010.-	2.2	-	112 M	1LA6113-6AA..	955.-
5.5	IE1	132 S	1LA6130-2AA..	1250.-	3	-	132 S	1LA6130-6AA..	1190.-
7.5	IE1	132 S	1LA6131-2AA..	1620.-	4	-	132 M	1LA6133-6AA..	1470.-
11	IE1	160 M	1LA6163-2AA..	2160.-	5.5	-	132 M	1LA6134-6AA..	1860.-
15	IE1	160 M	1LA6164-2AA..	2860.-	7.5	-	160 M	1LA6163-6AA..	2370.-
18.5	IE1	160 L	1LA6166-2AA..	3430.-	11	-	160 L	1LA6166-6AA..	3260.-
22	IE1	180 M	1LG4183-2AA..	3740.-	15	IE1	180 L	1LG4186-6AA..	3940.-
30	IE1	200 L	1LG4206-2AA..	4860.-	18.5	IE1	200 L	1LG4206-6AA..	4830.-
37	IE1	200 L	1LG4207-2AA..	6360.-	22	IE1	200 L	1LG4207-6AA..	5680.-
45	IE1	225 M	1LG4223-2AA..	7720.-	30	IE1	225 M	1LG4223-6AA..	7810.-
55	IE1	250 M	1LG4253-2AB..	9410.-	37	IE1	250 M	1LG4253-6AA..	9460.-
75	IE1	280 S	1LG4280-2AB..	12900.-	45	IE1	280 S	1LG4280-6AA..	11600.-
90	IE1	280 M	1LG4283-2AB..	15700.-	55	IE1	280 M	1LG4283-6AA..	14000.-
110	IE1	315 S	1LG4310-2AB..	19100.-	75	IE1	315 S	1LG4310-6AA..	19100.-
132	IE1	315 M	1LG4313-2AB..	22900.-	90	IE1	315 M	1LG4313-6AA..	22900.-
160	IE1	315 L	1LG4316-2AB..	28400.-	110	IE1	315 L	1LG4316-6AA..	27600.-
200	IE1	315 L	1LG4317-2AB..	35500.-	132	IE1	315 L	1LG4317-6AA..	32700.-
<b>4-pole: 1500 rpm at 50 Hz</b>					<b>160 IE1 315 L 1LG4318-6AA.. 39700.-</b>				
2.2	IE1	100 L	1LA6106-4AA..	717.-	<b>8-pole: 750 rpm at 50 Hz</b>				
3	IE1	100 L	1LA6107-4AA..	827.-	0.75	-	100 L	1LA6106-8AB..	792.-
4	IE1	112 M	1LA6113-4AA..	1060.-	1.1	-	100 L	1LA6107-8AB..	1010.-
5.5	IE1	132 S	1LA6130-4AA..	1310.-	1.5	-	112 M	1LA6113-8AB..	1200.-
7.5	IE1	132 M	1LA6133-4AA..	1660.-	2.2	-	132 S	1LA6130-8AB..	1520.-
11	IE1	160 M	1LA6163-4AA..	2260.-	3	-	132 M	1LA6133-8AB..	1830.-
15	IE1	160 L	1LA6166-4AA..	2920.-	4	-	160 M	1LA6163-8AB..	2160.-
18.5	IE1	180 M	1LG4183-4AA..	3260.-	5.5	-	160 M	1LA6164-8AB..	2730.-
22	IE1	180 L	1LG4186-4AA..	3850.-	7.5	-	160 L	1LA6166-8AB..	3410.-
30	IE1	200 L	1LG4207-4AA..	5110.-	11	-	180 L	1LG4186-8AB..	4130.-
37	IE1	225 S	1LG4220-4AA..	6220.-	15	-	200 L	1LG4207-8AB..	5450.-
45	IE1	225 M	1LG4223-4AA..	7520.-	18.5	-	225 S	1LG4220-8AB..	6610.-
55	IE1	250 M	1LG4253-4AA..	9130.-	22	-	225 M	1LG4223-8AB..	7670.-
75	IE1	280 S	1LG4280-4AA..	12500.-	30	-	250 M	1LG4253-8AB..	10100.-
90	IE1	280 M	1LG4283-4AA..	14700.-	37	-	280 S	1LG4280-8AB..	12200.-
110	IE1	315 S	1LG4310-4AA..	18300.-	45	-	280 M	1LG4283-8AB..	14800.-
132	IE1	315 M	1LG4313-4AA..	21600.-	55	-	315 S	1LG4310-8AB..	18100.-
160	IE1	315 L	1LG4316-4AA..	26700.-	75	-	315 M	1LG4313-8AB..	24200.-
200	IE1	315 L	1LG4317-4AA..	33200.-	90	-	315 L	1LG4316-8AB..	28600.-
					110	-	315 L	1LG4317-8AB..	34500.-
					132	-	315 L	1LG4318-8AB..	41300.-

Standard delivery times:

10 working days	20 working days	On request
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Overview of selection and ordering data with base prices and standard delivery times

4.0

Overview (continued)

Category	4.4 – Motors for Zone 2 or 21/22 in type of protection Ex n or Ex tD (continued)	
Series version	Aluminum series 1LA9 with order code for Ex protection with High Efficiency IE2	Aluminum series 1LA9 with order code for Ex protection NEMA Energy Efficient with order code D42 <sup>1)</sup>
Cooling	Self-ventilated (IC 411)	Self-ventilated (IC 411)
Degree of protection	IP55, optionally IP56 or IP65	IP55, optionally IP56 or IP65
Insulation	Thermal class 155 (F)	Thermal class 155 (F)
Utilization	Thermal class 130 (B)	Thermal class 130 (B)
Number of poles	2, 4, 6	2, 4, 6
Frame size (FS)	63 M ... 200 L	63 M ... 200 L
Rated output	0.12 ... 37 kW at 50 Hz	0.16 ... 50 hp at 60 Hz
Synchronous speed	1000 ... 3000 rpm at 50 Hz	1200 ... 3600 rpm at 60 Hz
Rated torque	0.61 ... 215 Nm at 50 Hz	0.61 ... 215 Nm at 60 Hz
Efficiency	High Efficiency IE2	NEMA Energy Efficient MG1, Table 12-11 with order code D42 <sup>1)</sup>
Metal factor for metal surcharges (MS)	N - W - - -	N - W - - -
Price group (PG)	3Z1	3Z1

Range of motors with Order No., delivery time and base price plus MS for type of construction IM B3 (for delivery times refer to colored background of the relevant price)

$P_{rated, 50 Hz}$	IE class	Frame size	Order No.	Base price	$P_{rated, 60 Hz}$	EISA CC-No. CC032A	Frame size	Order No.	Base price
kW		FS		EUR	hp		FS		EUR
<b>2-pole: 3000 rpm at 50 Hz</b>					<b>2-pole: 3600 rpm at 60 Hz</b>				
0.18	-	63 M	1LA9060-2KA..	349.-	0.25	-	63 M	1LA9060-2KA..-Z D42	On req.
0.25	-	63 M	1LA9063-2KA..	369.-	0.33	-	63 M	1LA9063-2KA..-Z D42	On req.
0.37	-	71 M	1LA9070-2KA..	374.-	0.5	-	71 M	1LA9070-2KA..-Z D42	On req.
0.55	-	71 M	1LA9073-2KA..	422.-	0.75	-	71 M	1LA9073-2KA..-Z D42	On req.
0.75	IE2	80 M	1LA9080-2KA..	464.-	1	-	80 M	1LA9080-2KA..-Z D42	On req.
1.1	IE2	80 M	1LA9083-2KA..	531.-	1.5	-	80 M	1LA9083-2KA..-Z D42	On req.
1.5	IE2	90 S	1LA9090-2KA..	613.-	2	✓	90 S	1LA9090-2KA..-Z D42	On req.
2.2	IE2	90 L	1LA9096-2KA..	791.-	3	✓	90 L	1LA9096-2KA..-Z D42	On req.
3	IE2	100 L	1LA9106-2KA..	949.-	4	-	100 L	1LA9106-2KA..-Z D42	On req.
4	IE2	112 M	1LA9113-2KA..	1120.-	5	✓	112 M	1LA9113-2KA..-Z D42	On req.
5.5	IE2	132 S	1LA9130-2KA..	1410.-	7.5	✓	132 S	1LA9130-2KA..-Z D42	On req.
7.5	IE2	132 S	1LA9131-2KA..	1790.-	10	✓	132 S	1LA9131-2KA..-Z D42	On req.
11	IE2	160 M	1LA9163-2KA..	2480.-	15	✓	160 M	1LA9163-2KA..-Z D42	On req.
15	IE2	160 M	1LA9164-2KA..	3240.-	20	✓	160 M	1LA9164-2KA..-Z D42	On req.
18.5	IE2	160 L	1LA9166-2KA..	3870.-	25	✓	160 L	1LA9166-2KA..-Z D42	On req.
22	IE2	180 M	1LA9183-2WA..	4560.-	30	✓	180 M	1LA9183-2WA..-Z D42	On req.
30	IE2	200 L	1LA9206-2WA..	5910.-	40	✓	200 L	1LA9206-2WA..-Z D42	On req.
37	IE2	200 L	1LA9207-2WA..	7420.-	50	✓	200 L	1LA9207-2WA..-Z D42	On req.
<b>4-pole: 1500 rpm at 50 Hz</b>					<b>4-pole: 1800 rpm at 60 Hz</b>				
0.12	-	63 M	1LA9060-4KA..	356.-	0.16	-	63 M	1LA9060-4KA..-Z D42	On req.
0.18	-	63 M	1LA9063-4KA..	384.-	0.25	-	63 M	1LA9063-4KA..-Z D42	On req.
0.25	-	71 M	1LA9070-4KA..	382.-	0.33	-	71 M	1LA9070-4KA..-Z D42	On req.
0.37	-	71 M	1LA9073-4KA..	428.-	0.5	-	71 M	1LA9073-4KA..-Z D42	On req.
0.55	-	80 M	1LA9080-4KA..	461.-	0.75	-	80 M	1LA9080-4KA..-Z D42	On req.
0.75	IE2	80 M	1LA9083-4KA..	503.-	1	-	80 M	1LA9083-4KA..-Z D42	On req.
1.1	IE2	90 S	1LA9090-4KA..	595.-	1.5	✓	90 S	1LA9090-4KA..-Z D42	On req.
1.5	IE2	90 L	1LA9096-4KA..	706.-	2	✓	90 L	1LA9096-4KA..-Z D42	On req.
2.2	IE2	100 L	1LA9106-4KA..	865.-	3	-	100 L	1LA9106-4KA..-Z D42	On req.
3	IE2	100 L	1LA9107-4KA..	996.-	4	-	100 L	1LA9107-4KA..-Z D42	On req.
4	IE2	112 M	1LA9113-4KA..	1220.-	5	✓	112 M	1LA9113-4KA..-Z D42	On req.
5.5	IE2	132 S	1LA9130-4KA..	1520.-	7.5	✓	132 S	1LA9130-4KA..-Z D42	On req.
7.5	IE2	132 M	1LA9133-4KA..	1930.-	10	✓	132 M	1LA9133-4KA..-Z D42	On req.
11	IE2	160 M	1LA9163-4KA..	2540.-	15	✓	160 M	1LA9163-4KA..-Z D42	On req.
15	IE2	160 L	1LA9166-4KA..	3290.-	20	✓	160 L	1LA9166-4KA..-Z D42	On req.
18.5	IE2	180 M	1LA9183-4WA..	3880.-	25	✓	180 M	1LA9183-4WA..-Z D42	On req.
22	IE2	180 L	1LA9186-4WA..	4490.-	30	✓	180 L	1LA9186-4WA..-Z D42	On req.
30	IE2	200 L	1LA9207-4WA..	5810.-	40	✓	200 L	1LA9207-4WA..-Z D42	On req.
<b>6-pole: 1000 rpm at 50 Hz</b>					<b>6-pole: 1200 rpm at 60 Hz</b>				
0.75	IE2	90 S	1LA9090-6KA..	584.-	1	✓	90 S	1LA9090-6KA..-Z D42	On req.
1.1	IE2	90 L	1LA9096-6KA..	723.-	1.5	✓	90 L	1LA9096-6KA..-Z D42	On req.
1.5	IE2	100 L	1LA9106-6KA..	855.-	2	-	100 L	1LA9106-6KA..-Z D42	On req.
2.2	IE2	112 M	1LA9113-6KA..	1070.-	3	✓	112 M	1LA9113-6KA..-Z D42	On req.
4	IE2	132 M	1LA9133-6KA..	1670.-	5	✓	132 M	1LA9133-6KA..-Z D42	On req.
5.5	IE2	132 M	1LA9134-6KA..	2110.-	7.5	✓	132 M	1LA9134-6KA..-Z D42	On req.
7.5	IE2	160 M	1LA9163-6KA..	2670.-	10	✓	160 M	1LA9163-6KA..-Z D42	On req.
11	IE2	160 L	1LA9166-6KA..	3680.-	15	✓	160 L	1LA9166-6KA..-Z D42	On req.
15	IE2	180 L	1LA9186-6WA..	4780.-	20	✓	180 L	1LA9186-6WA..-Z D42	On req.
18.5	IE2	200 L	1LA9206-6WA..	5890.-	25	✓	200 L	1LA9206-6WA..-Z D42	On req.
22	IE2	200 L	1LA9207-6WA..	6790.-	30	✓	200 L	1LA9207-6WA..-Z D42	On req.

<sup>1)</sup> Notes for order code D42 NEMA Energy Efficient for Ex motors:  
 - Comprises CC-No.  
 - For ≤ 200 hp, only flange-mounted types permissible

# Explosion-proof motors

## Orientation

Overview of selection and ordering data  
with base prices and standard delivery times

Standard delivery times:

10  
working  
days

20  
working  
days

On  
request

4.0

### Overview (continued)

Category	<b>4.4 – Motors for Zone 2 or 21/22 in type of protection Ex n or Ex tD (continued)</b>
Series version	<b>Cast-iron series 1LG6 with order code for Ex protection with High Efficiency IE2</b>
Cooling	Self-ventilated (IC 411)
Degree of protection	IP55, optionally IP56 or IP65
Insulation	Thermal class 155 (F)
Utilization	Thermal class 130 (B)
Number of poles	2, 4, 6, 8
Frame size (FS)	180 M ... 315 L
Rated output at 50 Hz	11 ... 250 kW
Synchronous speed at 50 Hz	750 ... 3000 rpm
Rated torque at 50 Hz	71 ... 1704 Nm
Efficiency	High Efficiency IE2
Metal factor for metal surcharges (MS)	N - W - - -
Price group (PG)	3Z1

Range of motors with Order No., delivery time and base price plus MS for type of construction IM B3  
(for delivery times refer to colored background of the relevant price)

$P_{\text{rated}}$ , 50 Hz kW	IE class	Frame size FS	Order No. ▲ New	Base price EUR	$P_{\text{rated}}$ , 50 Hz kW	IE class	Frame size FS	Order No.	Base price EUR
<b>2-pole: 3000 rpm at 50 Hz</b>					<b>8-pole: 750 rpm at 50 Hz</b>				
22	IE2	180 M	1LG6183-2AA..	4690.-	11	-	180 L	1LG6186-8AB..	5160.-
30	IE2	200 L	1LG6206-2AA..	6080.-	15	-	200 L	1LG6207-8AB..	6810.-
37	IE2	200 L	1LG6207-2AA..	7630.-	18.5	-	225 S	1LG6220-8AB..	8270.-
45	IE2	200 L	▲ 1LG6208-2AA..	9110.-	22	-	225 M	1LG6223-8AB..	9430.-
45	IE2	225 M	1LG6223-2AA..	9110.-	30	-	250 M	1LG6253-8AB..	12200.-
55	IE2	225 M	1LG6228-2AA..	10800.-	37	-	280 S	1LG6280-8AB..	14600.-
55	IE2	250 M	1LG6253-2AA..	10800.-	45	-	280 M	1LG6283-8AB..	17800.-
75	IE2	250 M	1LG6258-2AA..	14800.-	55	-	315 S	1LG6310-8AB..	21100.-
75	IE2	280 S	1LG6280-2AB..	14800.-	75	-	315 M	1LG6313-8AB..	28300.-
90	IE2	280 M	1LG6283-2AB..	17500.-	90	-	315 L	1LG6316-8AB..	31500.-
110	IE2	280 M	1LG6288-2AA..	21000.-	110	-	315 L	1LG6317-8AB..	38000.-
110	IE2	315 S	1LG6310-2AB..	21000.-	132	-	315 L	1LG6318-8AB..	45400.-
132	IE2	315 M	1LG6313-2AB..	25200.-					
160	IE2	315 L	1LG6316-2AB..	31300.-					
200	IE2	315 L	1LG6317-2AB..	39100.-					
250	IE2	315 L	1LG6318-2AA..	48100.-					
<b>4-pole: 1500 rpm at 50 Hz</b>									
18.5	IE2	180 M	1LG6183-4AA..	3970.-					
22	IE2	180 M	1LG6186-4AA..	4620.-					
30	IE2	200 L	1LG6207-4AA..	5990.-					
37	IE2	225 S	1LG6220-4AA..	7280.-					
45	IE2	225 M	1LG6223-4AA..	8570.-					
55	IE2	225 M	1LG6228-4AA..	10400.-					
55	IE2	250 M	1LG6253-4AA..	10400.-					
75	IE2	250 M	1LG6258-4AA..	14000.-					
75	IE2	280 S	1LG6280-4AA..	14000.-					
90	IE2	280 M	1LG6283-4AA..	16400.-					
110	IE2	280 M	1LG6288-4AA..	20500.-					
110	IE2	315 S	1LG6310-4AA..	20500.-					
132	IE2	315 M	1LG6313-4AA..	24300.-					
160	IE2	315 L	1LG6316-4AA..	29300.-					
200	IE2	315 L	1LG6317-4AA..	36600.-					
250	IE2	315 L	1LG6318-4AA..	43300.-					
<b>6-pole: 1000 rpm at 50 Hz</b>									
15	IE2	180 L	1LG6186-6AA..	4930.-					
18.5	IE2	200 L	1LG6206-6AA..	6030.-					
22	IE2	200 L	1LG6207-6AA..	6990.-					
30	IE2	225 M	1LG6223-6AA..	9370.-					
37	IE2	225 M	1LG6228-6AA..	11400.-					
37	IE2	250 M	1LG6253-6AA..	11400.-					
45	IE2	250 M	1LG6258-6AA..	13900.-					
45	IE2	280 S	1LG6280-6AA..	13900.-					
55	IE2	280 M	1LG6283-6AA..	16400.-					
75	IE2	280 M	1LG6288-6AA..	22300.-					
75	IE2	315 S	1LG6310-6AA..	22300.-					
90	IE2	315 M	1LG6313-6AA..	25200.-					
110	IE2	315 L	1LG6316-6AA..	30300.-					
132	IE2	315 L	1LG6317-6AA..	36100.-					
160	IE2	315 L	1LG6318-6AA..	43800.-					

**Standard delivery times:**

<b>10 working days</b>	<b>20 working days</b>	<b>On request</b>
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Overview of selection and ordering data with base prices and standard delivery times

4.0

**Overview** (continued)

Category	<b>4.4 – Motors for Zone 2 or 21/22 in type of protection Ex n or Ex tD (continued)</b>
Series version	<b>Cast-iron series 1LG6 with order code for Ex protection NEMA Energy Efficient with order code D42 <sup>1)</sup></b>
Cooling	Self-ventilated (IC 411)
Degree of protection	IP55, optionally IP56 or IP65
Insulation	Thermal class 155 (F)
Utilization	Thermal class 130 (B)
Number of poles	2, 4, 6
Frame size (FS)	180 M ... 315 L
Rated output at 60 Hz	20 ... 300 hp
Synchronous speed at 60 Hz	1200 ... 3600 rpm
Rated torque at 60 Hz	59 ... 1330 Nm
Efficiency	NEMA Energy Efficient MG1, Table 12-11 with order code D42 <sup>1)</sup>
Metal factor for metal surcharges (MS)	N - W - -
Price group (PG)	3Z1

Range of motors with Order No., delivery time and base price plus MS for type of construction IM B3 (for delivery times refer to colored background of the relevant price)

$P_{Rated, 60 Hz}$	EISA CC-No. CC032A	Frame size	Order No.	Base price
hp		FS		EUR
<b>2-pole: 3600 rpm at 60 Hz</b>				
30	✓	180 M	1LG6183-2AA..-Z D42	On req.
40	✓	200 L	1LG6206-2AA..-Z D42	On req.
50	✓	200 L	1LG6207-2AA..-Z D42	On req.
60	✓	200 L	1LG6208-2AA..-Z D42	On req.
60	✓	225 M	1LG6223-2AA..-Z D42	On req.
75	✓	225 M	1LG6228-2AA..-Z D42	On req.
75	-	250 M	1LG6253-2AA..-Z D42	On req.
100	✓	250 M	1LG6258-2AA..-Z D42	On req.
100	-	280 S	1LG6280-2AB..-Z D42	On req.
125	✓	280 M	1LG6283-2AB..-Z D42	On req.
150	✓	280 M	1LG6288-2AA..-Z D42	On req.
150	✓	315 S	1LG6310-2AB..-Z D42	On req.
175	-	315 M	1LG6313-2AB..-Z D42	On req.
200	✓	315 L	1LG6316-2AB..-Z D42	On req.
250	✓	315 L	1LG6317-2AB..-Z D42	On req.
300	✓	315 L	1LG6318-2AA..-Z D42	On req.
<b>4-pole: 1800 rpm at 60 Hz</b>				
25	✓	180 M	1LG6183-4AA..-Z D42	On req.
30	✓	180 M	1LG6186-4AA..-Z D42	On req.
40	✓	200 L	1LG6207-4AA..-Z D42	On req.
50	-	225 S	1LG6220-4AA..-Z D42	On req.
60	✓	225 M	1LG6223-4AA..-Z D42	On req.
75	✓	225 M	1LG6228-4AA..-Z D42	On req.
75	-	250 M	1LG6253-4AA..-Z D42	On req.
100	✓	250 M	1LG6258-4AA..-Z D42	On req.
100	-	280 S	1LG6280-4AA..-Z D42	On req.
125	✓	280 M	1LG6283-4AA..-Z D42	On req.
150	✓	280 M	1LG6288-4AA..-Z D42	On req.
150	✓	315 S	1LG6310-4AA..-Z D42	On req.
175	-	315 M	1LG6313-4AA..-Z D42	On req.
200	✓	315 L	1LG6316-4AA..-Z D42	On req.
250	✓	315 L	1LG6317-4AA..-Z D42	On req.
300	✓	315 L	1LG6318-4AA..-Z D42	On req.
<b>6-pole: 1200 rpm at 60 Hz</b>				
20	✓	180 L	1LG6186-6AA..-Z D42	On req.
25	✓	200 L	1LG6206-6AA..-Z D42	On req.
30	✓	200 L	1LG6207-6AA..-Z D42	On req.
40	✓	225 M	1LG6223-6AA..-Z D42	On req.
50	✓	225 M	1LG6228-6AA..-Z D42	On req.
50	-	250 M	1LG6253-6AA..-Z D42	On req.
60	✓	250 M	1LG6258-6AA..-Z D42	On req.
60	-	280 S	1LG6280-6AA..-Z D42	On req.
75	-	280 M	1LG6283-6AA..-Z D42	On req.
100	✓	280 M	1LG6288-6AA..-Z D42	On req.
100	✓	315 S	1LG6310-6AA..-Z D42	On req.
125	✓	315 M	1LG6313-6AA..-Z D42	On req.
150	✓	315 L	1LG6316-6AA..-Z D42	On req.
175	-	315 L	1LG6317-6AA..-Z D42	On req.
200	✓	315 L	1LG6318-6AA..-Z D42	On req.

<sup>1)</sup> Notes for order code D42 NEMA Energy Efficient for Ex motors:  
 - Comprises CC-No.  
 - For ≤ 200 hp, only flange-mounted types permissible

# Explosion-proof motors

## Orientation

Notes

4.0

# Application-specific motors



	<b>Orientation</b> – In preparation
	<b>Loher motors</b> – In preparation
	<b>Pump motors</b> – In preparation
	<b>Fan motors</b> – In preparation
	<b>Compressor motors</b> – In preparation
	<b>Smoke extraction motors</b> – In preparation

<b>5/2</b>	<b>Marine motors</b>
5/2	<u>Orientation</u>
5/2	Overview
5/3	Benefits
5/3	Application
5/3	Technical specifications
5/7	Additional notes
5/8	<u>Special versions</u>
5/8	Standard motors, aluminum series 1LA7/5/9, 1LP7/5, 1PP7/5
5/9	Standard motors, cast-iron series 1LA6, 1LG4/6, 1LP4, 1PP4
5/10	Explosion-proof motors, aluminum series 1MA7
5/11	Explosion-proof motors, aluminum series 1LA7/5/9
5/12	Explosion-proof motors, cast-iron series 1MA6, 1MJ6/7
5/13	Explosion-proof motors, cast-iron series 1LA6, 1LG4/6
5/14	Non-standard motors N-compact, cast-iron series 1LA8, 1LL8, 1PQ8
5/20	Ordering example

**Crane motors** – In preparation

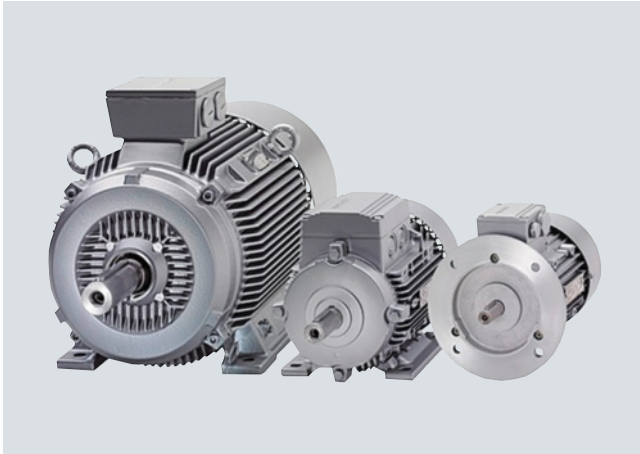
**Roller table motors** – In preparation

# Application-specific motors

## Marine motors

### Orientation

#### Overview



Low-voltage motors in the marine version can be used below deck on ships and in the offshore industry. The thermal utilization of the motors is matched to the generally higher ambient temperatures on board ship. If the application demands compliance with additional regulations, e.g. protection against explosion hazards, the appropriate motor series must be chosen.

The motors on board ships are generally subdivided into three classes of importance by the marine classification societies in cooperation with customers, depending on the field of application:

- **Essential Service for Propulsion** or also referred to as Primary Essential Service
- **Essential Service** or also referred to as Secondary Essential Service or Important Service
- **Non-essential Service** or also referred to as Non-Important Service

The class of importance must be specified by the customer (ordering party).

The categories include the following requirements of the classification societies:

	Class of importance		
	<b>Essential Service for Propulsion</b>	<b>Essential Service</b>	<b>Non-Essential Service</b>
Typical applications	Propeller drive, thruster	Thrusters, lateral thrust units, anchor winches, bilge and ballast pumps, firefighting pumps	Pumps for industrial water
Version	In accordance with regulations of the classification society		In accordance with ambient conditions of the classification society
Acceptance test certificate	Acceptance test certificate 3.2 according to EN 10204	Acceptance test certificate 3.1 according to EN 10204	None
Individual acceptance by classification society	Necessary if no type test certificate exists or the rated power lies above the limit defined by the classification society		Not necessary
Type test	Not a requirement of the classification societies For standard motors up to frame size 315 L, a type test certificate is supplied. These motors can only be ordered with options E11 to E51 in accordance with the classification society.		
Ordering several identical motors	In the order, the first motor must be distinguished from the additional motors using an option code	No distinction	
Rating plate data	Information about ambient conditions of the classification society		
Stamp of the classification society	Stamp on shaft and housing		No stamp

#### Type test (type approval)

All motors (with the exception of 1LA8, 1PQ8, 1LL8 and 1LH8 motors) are manufactured and type tested in accordance with the regulations of the following international classification societies:

- GL (Germanischer Lloyd, Germany)



Germanischer Lloyd

- DNV (Det Norske Veritas, Norway)



- LR (Lloyds Register, Great Britain)



- BV (Bureau Veritas, France)



As an option, we can manufacture motors in accordance with the following classification societies:

- ABS (American Bureau of Shipping, USA)
- RINA (Registro Italiano Navale, Italy)
- CCS (Chinese Classification Society, China)

A type test certificate will however only be issued following individual acceptance testing.

Special versions that differ from the range defined in the Catalog are possible on request.

### Benefits

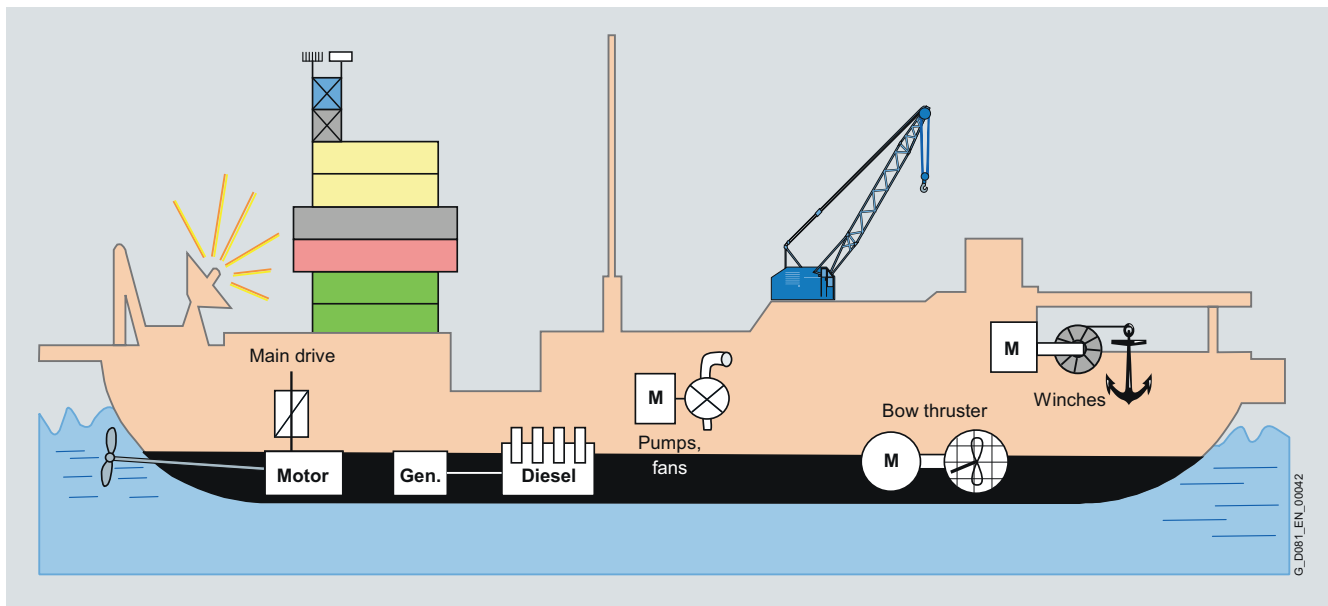
The marine motors offer the user a number of advantages:

- Cast-iron versions can be supplied for corrosive atmospheres especially for high humidity levels and salty 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
- Due to the existing type test, individual acceptance test in output ranges below the power limits defined by the classification societies is not required which means short delivery times
- Distinctive expertise for customer requirements
- Worldwide service network with 24 h service hotline for motors and converters

### Application

Our type tested marine motors are specially designed for use on board ship below deck and for the offshore industry:

- Applications on board ship 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
- Ex motors for areas subject to explosion hazards
- Application in the offshore industry
  - Coastal areas, e.g. production platforms, production ships



Typical areas of application

### Technical specifications

#### Frame design

Motors can be supplied depending on the motor series in a corrosion-resistant aluminum housing and in a rugged low-vibration cast-iron version.

#### Motor connection

Cable glands are not included in the standard scope of supply with the exception of explosion-proof motors (see "Special versions").

All marine motors generally have an external grounding terminal.

# Application-specific motors

## Marine motors

### Orientation

#### Technical specifications (continued)

Regulations of the individual classification societies with order codes (options) for motors up to frame size 315 L

Classification society	Coolant temperature CT	Admissible temperature rise limit of the classification society		Rated power limit for individual acceptance test	Rated power limit for building inspection	Order codes for surface-cooled motors up to frame size 315 L	
		Temperature class 130 (B)	155 (F)			With type test certificate	Without type test certificate
GL	45	75	100	≥ 50	–	E11	–
LR	45	70	95	≥ 100	≥ 100	E21	–
BV	45	75	100	≥ 100	–	E31	–
DNV	45	75	100	≥ 300	–	E51	–
ABS	50	70	95	≥ 100	≥ 100	–	E00
RINA	45	75	95	≥ 100	–	–	E00
CCS	45	75	100	All power ratings	All power ratings	–	E00

#### Type test certificates



5.6

### Technical specifications (continued)

#### Regulations of the individual classification societies with order codes for ordering non-standard motors N-compact frame size 315 and above in marine version

Non-standard motors N-compact frame size 315 and above in marine version

	Frame size – Motor type			
	315	355	400	450
Self-ventilated motors for mains-fed and converter-fed operation	1LA8 (cast-iron)			
Forced-air cooled motors with externally mounted fan for converter-fed operation	1PQ8 (cast-iron)			
Self-ventilated motors with through-ventilation for mains-fed and converter-fed operation	1LL8 (cast-iron)			
Self-ventilated motors in Zone 22 with type of protection "n" or protection against dust explosions	1LA8 (cast-iron)			

#### Classification societies

Society	Abbreviation	Domicile
American Bureau Of Shipping	<b>ABS</b>	USA
Bureau Veritas	<b>BV</b>	France
China Classification Society	<b>CCS</b>	China
Det Norske Veritas	<b>DNV</b>	Norway
Germanischer Lloyd	<b>GL</b>	Germany
Korean Register	<b>KR</b>	Korea
Lloyds Register	<b>LR</b>	Great Britain

Non-standard motors N-compact for marine applications must be ordered with 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 4 categories of classification-specific options:

- **Design options** define the marine-compatible technical design in accordance with the definitions of the classification society
- **Certification options** define the scope of the test certificates
- **Test options** define the scope of the individual tests
- **Additional options** for variations 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 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.

#### Non-standard motors for Non-Essential Services

The technical design is in accordance with the ambient operating conditions specified by the classification society. The order options Marine version X00 to 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 motors.

Non-Essential Service	Options according to classification society						
	ABS	BV	CCS	DNV	GL	KR	LR
Technical design	X00	X01	- <sup>1)</sup>	X03	X04	X05	X06

#### Non-standard motors for Essential Services

The technical design is in accordance with regulations of the classification society: Order option X10 to X16. A "simple" acceptance test certificate 3.1 according to EN 10204 is included. Depending on the classification society, the test steps are controlled by options X30 to X42 for the first motor (even numbers) and X31 to X43 for the additional motors (uneven numbers). The options J70 to J82 or J71 to J83 define the scope of the test certificates.

Essential Service	Options according to classification society						
	ABS	BV	CCS	DNV	GL	KR	LR
Technical design	X10	X11	X12	X13	X14	X15	X16
Certification							
• First motor	J70	J72	J74	J76	J78	J80	J82
• Additional motors	J71	J73	J75	J77	J79	J81	J83
Scope of the tests and presence of representatives of the classification society							
• First motor	X30	X32	X34	X36	X38	X40	X42
• Additional motors	X31	X33	X35	X37	X39	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						

#### Non-standard motors for Essential Services for Propulsion

The technical design is in accordance with regulations of the classification society: Order options X20 to X26. An acceptance test certificate 3.2 according to EN 10204 is included. Depending on the classification society, the test steps are controlled by options X60 to X72 for the first motor (even numbers) and X61 to X73 for the additional motors (uneven numbers). The options N40 to N52 or N41 to N53 define the scope of the test certificates.

Essential Service for Propulsion	Options according to classification society						
	ABS	BV	CCS	DNV	GL	KR	LR
Technical design	X20	X21	X22	X23	X24	X25	X26
Certification							
• First motor	N40	N42	N44	N46	N48	N50	N52
• Additional motors	N41	N43	N45	N47	N49	N51	N53
Scope of the tests and presence of representatives of the classification society							
• First motor	X60	X62	X64	X66	X68	X70	X72
• Additional motors	X61	X63	X65	X67	X69	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						

**The option E80 is used if a different coolant temperature CT is required. The CT must also be specified in plain text, e.g. CT55.**

<sup>1)</sup> Non-Essential Service must be handled by CCS as an Essential Service.

# Application-specific motors

## Marine motors

### Orientation

#### Technical specifications (continued)

##### Temperature class and coolant temperature

Standard motors and explosion-proof motors up to frame size 315 L

In general, marine motors are designed for a coolant temperature CT 45 °C in temperature class 155 (F) – used according to 155 (F) – with thermal reserve. When motors are used according to temperature class 130 (B) order code C22, derating is required. For standard motors up to frame size 315 L, the derating is approx. 4 % (for E00 and E21 approx. 8 %).

1MA and 1MJ motors as well as motors in Zone 2, 21 and 22 are designed for temperature class 155 (F) – used according to temperature class 130 (B) – with derating of approx. 4 % (with order code E00 approx. 8 %). 1MA motors are designed for the maximum possible and certified output.

1LA9 motors with increased output in temperature class 155 (F) – used according to temperature class 155 (F) – are also derated by approx. 4 % (with order code E00/E21 approx. 8 %). If temperature class 155 (F) is to be used according to 130 (B), further derating of approximately 10 % 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
<b>Temperature class 155 (F) used according to 155 (F)</b>				
Derating factor for mains-fed operation	1.00	0.96	0.92	0.87

##### Non-standard motors N-compact

For the non-standard motors 1LA8, 1PQ8 the following derating factors apply for increased coolant temperatures and with mains-fed operation:

	Coolant temperature CT			
	45 °C	50 °C	55 °C	60 °C
<b>Temperature class 155 (F) used according to 155 (F)</b>				
Derating factor for mains-fed operation	1.00	0.96	0.92	0.87
<b>Temperature class 155 (F) used according to 130 (B)</b>				
Derating factor for mains-fed operation	0.90	0.86	0.83	0.78

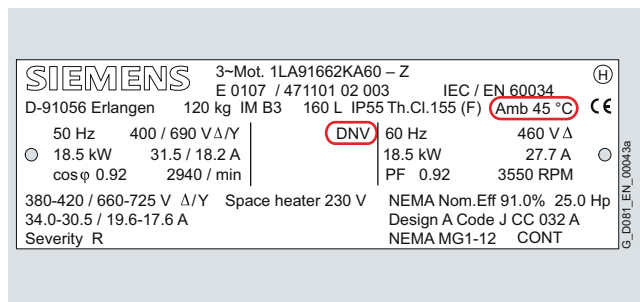
For the non-standard motors 1LA8, 1PQ8 the following derating factors apply for increased coolant temperatures and with converter-fed operation:

	Coolant temperature CT			
	45 °C	50 °C	55 °C	60 °C
<b>Temperature class 155 (F) used according to 155 (F)</b>				
Derating factor for converter-fed operation	0.96	0.92	0.87	0.82
<b>Temperature class 155 (F) used according to 130 (B)</b>				
Derating factor for converter-fed operation	0.82	0.78	0.74	0.70

More detailed information is available on request.

##### Rating plate and acceptance test certificate

The metal rating plate indicates the relevant classification society and the associated coolant temperature (exception: Non-Essential Services).



Rating plate for a marine motor according to DNV

##### Degree of protection

The protection classes are applicable here as specified in catalog sections 1 to 4. With IP56, icing must be avoided.

##### Winding and motor protection

For monitoring the winding and bearings, the motors can be equipped with thermistors, temperature sensors and resistance thermometers. Anti-condensation heaters can also be fitted to the marine motors to prevent condensation building up on the winding.

##### Paint finish

The standard paint finish is suitable for indoor installations or outdoor installations which are roof-protected against weathering.

When installing the standard motors in sea air or in rooms with permanent moisture, the special paint type climate group "world-wide according to DIN IEC 60721-2-1 is appropriate, because this ensures a higher degree of corrosion protection. Most marine motors are finished in this special paint type as standard (see "Special versions").

With particularly corrosive atmospheres, the sea-air-resistant special finish (order code M94) or the offshore special paint type (order code M91) is recommended.

Special paint colors and increased layer thicknesses are available on request.

### Technical specifications (continued)

#### Recommended special versions

- Motor protection with PTC thermistors with 3 embedded temperature sensors for tripping – Order code A11
- Mounting of PT100 resistance thermometers for winding temperature monitoring – Order codes A60, A61
- Specially for motor series 1LA8, 1PQ8 and 1LL8: Mounting of 2 screw-in PT100 resistance thermometers in basic circuit for roller bearings – Order code A72
- Anti-condensation heating for 230 V – Order code K45
- Anti-condensation heating for 115 V – Order code K46
- IP56 degree of protection (non-heavy-sea) for protection against harmful dust deposits, protection against water jets from any direction – Order code K52
- IP65 degree of protection for complete protection against dust deposits, protection against water jets from any direction – Order code K50  
not possible for 1LA8, 1PQ8 and 1LL8 non-standard motors
- Special bearing for drive-end (DE) and non-drive-end (NDE), bearing size 63 – Order code K36,  
for non-standard motors on request
- External metal fan for self-ventilated motors – Order code K35

### Additional notes

#### Ordering notes

The fees levied by the classification societies for individual acceptance testing are included in order code. E09/E10 for motor types 1LG4, 1LG6 and 1PP4.

For the other motor types, 1LA5, 1LA6, 1LA7, 1LA9, 1MA, 1MJ, 1PP5, 1PP7, individual acceptance testing must be ordered in plain text and will be invoiced separately (please inquire).

When ordering, add the supplement "-Z" to the Order No. as well as plain text details. For 1LA8 motors, supplement the Order No. with order code E80 and plain text.

For other special versions, see the relevant sections under "Standard motors 1LA/1LG/1LP/1PP", "Non-standard motors N-compact" and "Explosion-proof motors". In addition to this, for marine motors, the following special versions are the Standard version and therefore included in the order codes for the basic marine version.

#### Standard version:

Designation	Order code
Acceptance test certificate 3.1 according to EN 10204 (not included for order code E00) <sup>1)</sup>	<b>B02</b>
External grounding terminal	<b>L13</b>

<sup>1)</sup> The delivery time of the factory test certificate can deviate from the motor delivery.

# Application-specific motors

## Marine motors

Special versions – Standard motors  
Aluminum series 1LA7/5/9, 1LP7/5, 1PP7/5

Standard delivery time:

10  
working  
days

20  
working  
days

On  
request

### Selection and ordering data

#### Options

Special versions	Additional identification code <b>-Z</b> with order code and plain text if required	Motor category		Additional charges plus MS <b>EUR</b> , standard delivery time (colored area)										
		Motor version	Motor type (AI)	Motor type – Frame size										
				63	71	80	90	100	112	132	160	180	200	225
		IE2/NEMA Energy Efficient	1LA9	1LA9										
		IE3/NEMA Premium Efficient	–											
		IE1	1LA7/1LA5	1LA7										1LA5
			1LA9	1LA9 with increased output										
			1PP7/1PP5	1PP7										1PP5
			1LP7/1LP5	1LP7										1LP5
		Pole-changing	1LA7/1LA5	1LA7										1LA5
		For converter-fed operation only	1LA7/1LA5					1LA7	1LA5					
		<b>1PP</b> .....	<b>-Z</b>											
		<b>1L</b> .....	<b>-Z</b>											
<b>Basic marine version <sup>1)</sup></b>														
Without type test certificate according to ABS 50 °C/CCS 45 °C/RINA 45 °C, temperature class 155 (F) used according to 155 (F) (if acceptance test certificate 3.1 according to EN 10204 is required, this must be ordered with order code B02) <sup>2)</sup>	<b>E00</b>	All	All	62.20	62.20	62.20	62.20	67.30	67.30	67.30	67.30	96.10	96.10	96.10
With type test certificate according to GL (Germanischer Lloyd), Germany, CT 45 °C, temperature class 155 (F), used according to 155 (F) <sup>3)</sup>	<b>E11</b>	All	All	104.–	104.–	104.–	104.–	140.–	140.–	140.–	150.–	150.–	214.–	214.–
With type test certificate according to LR (Lloyds Register), Great Britain, CT 45 °C, temperature class 155 (F), used according to 155 (F) <sup>3)</sup>	<b>E21</b>	All	All	104.–	104.–	104.–	104.–	140.–	140.–	140.–	150.–	150.–	214.–	214.–
With type test certificate according to BV (Bureau Veritas), France, CT 45 °C, temperature class 155 (F), used according to 155 (F) <sup>3)</sup>	<b>E31</b>	All	All	104.–	104.–	104.–	104.–	140.–	140.–	140.–	150.–	150.–	214.–	214.–
With type test certificate according to DNV (Det Norske Veritas), Norway, CT 45 °C, temperature class 155 (F), used according to 155 (F) <sup>3)</sup>	<b>E51</b>	All	All	104.–	104.–	104.–	104.–	140.–	140.–	140.–	150.–	150.–	214.–	214.–
<b>Acceptance/certification</b>														
Individual acceptance by marine classification society	<b>E10</b>	All	All	6660.–	6660.–	6660.–	6660.–	6660.–	6660.–	6660.–	6660.–	7510.–	7510.–	7510.–
Type test with warm run for horizontal motors, with acceptance <sup>4)</sup>	<b>F83</b>	All	All	4050.–	4050.–	4720.–	5400.–	6070.–	6470.–	7020.–	7420.–	8480.–	9470.–	10000.–
Type test with warm run for vertical motors, with acceptance <sup>4)</sup>	Plain text data	All	All	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.

O. R. Possible on request

<sup>1)</sup> Motor for use in shipping for higher ambient temperature and/or used as 155 (F) according to 130 (B), order with details in plain text. The order codes for the basic marine version (E00, E11, E21, E31, E51) cannot be combined with each other. For the 1LA9 motor series with increased output, for order codes E11, E31 and E51 derating of 4 % is required and for order codes E00 and E21 derating of 8 % is required.

<sup>2)</sup> The delivery time of the factory test certificate can deviate from the motor delivery.

<sup>3)</sup> For 1LP7 and 1LP5 motors, certification is possible on request in accordance with the classification societies GL, LR, BV and DNV.

<sup>4)</sup> Option or plain text data only necessary for one motor when ordering several motors of the same type.

# Application-specific motors

## Marine motors

Standard delivery time:

10 working days	20 working days	On request
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**Special versions – Standard motors**  
**Cast-iron series 1LA6, 1LG4/6, 1LP4, 1PP4**

Special versions	Additional identification code -Z with order code and plain text if required	Motor category		Additional charges plus MS EUR, standard delivery time (colored area)										
		Motor version	Motor type	Motor type – Frame size										
				100	112	132	160	180	200	225	250	280	315	
		IE2/NEMA Energy Efficient	1LG6							1LG6 <sup>1)</sup>				
		IE3/NEMA Premium Efficient	1LG6											1LG6 <sup>1)</sup>
		IE1	1LA6/1LG4	1LA6				1LG4						
			1LG4					1LG4 with increased output						
			1PP4					1PP4						
			1LP4					1LP4						
		Pole-changing	1LG4					1LG4						
		For converter-fed operation only	1LG6					1LG6						
	<b>1L.....-Z</b>	Motor version	Motor type	Frame size										
				100	112	132	160	180	200	225	250	280	315	
<b>Basic marine version<sup>2)</sup></b>														
Without type test certificate according to ABS 50 °C/ CCS 45 °C/RINA 45 °C, temperature class 155 (F) used according to 155 (F) (if acceptance test certificate 3.1 according to EN 10204 is required, this must be ordered with order code B02) <sup>3)</sup>	<b>E00</b>	All	All	67.30	67.30	67.30	67.30	96.10	96.10	96.10	99.40	99.40	99.40	
With type test certificate according to GL (Germanischer Lloyd), Germany, CT 45 °C, temperature class 155 (F), used according to 155 (F) <sup>4)</sup>	<b>E11</b>	All	All	140.–	140.–	140.–	150.–	150.–	214.–	214.–	282.–	415.–	742.–	
With type test certificate according to LR (Lloyds Register), Great Britain, CT 45 °C, temperature class 155 (F), used according to 155 (F) <sup>4)</sup>	<b>E21</b>	All	All	140.–	140.–	140.–	150.–	150.–	214.–	214.–	282.–	415.–	742.–	
With type test certificate according to BV (Bureau Veritas), France, CT 45 °C, temperature class 155 (F), used according to 155 (F) <sup>4)</sup>	<b>E31</b>	All	All	140.–	140.–	140.–	150.–	150.–	214.–	214.–	282.–	415.–	742.–	
With type test certificate according to DNV (Det Norske Veritas), Norway, CT 45 °C, temperature class 155 (F), used according to 155 (F) <sup>4)</sup>	<b>E51</b>	All	All	140.–	140.–	140.–	150.–	150.–	214.–	214.–	282.–	415.–	742.–	
<b>Acceptance/certification</b>														
Individual acceptance by marine classification society	<b>E10</b>	All	All	–	–	–	–	7510.–	7510.–	7510.–	8480.–	8480.–	8480.–	
	Plain text data	All	All	O. R.	O. R.	O. R.	O. R.	–	–	–	–	–	–	
Type test with warm run for horizontal motors, with acceptance <sup>5)</sup>	<b>F83</b>	All	All	6070.–	6470.–	7020.–	7420.–	8480.–	9470.–	10000.–	10000.–	11200.–	12700.–	
Type test with warm run for vertical motors, with acceptance <sup>5)</sup>	Plain text data	All	All	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	

O. R. Possible on request  
 – Not possible

1) Identically priced predecessor type for 2-pole motors 1LG6...2AA../1LG6...2AB.. or 4-pole motors 1LG6...4AA.. to be ordered using options for marine certificates. For increased output of motors 1LG6 ■■■-■M■ .. from 160 kW to 315 kW, a marine version is not possible.  
 2) Motor for use in shipping for higher ambient temperature and/or used as 155 (F) according to 130 (B), order with details in plain text. The order codes for the basic marine version (E00, E11, E21, E31, E51) cannot be combined with each other.

3) The delivery time of the factory test certificate can deviate from the motor delivery.  
 4) For 1LP4 motors, certification is possible on request in accordance with the classification societies GL, LR, BV and DNV.  
 5) Option or plain text data only necessary for one motor when ordering several motors of the same type.

5.6

# Application-specific motors

## Marine motors

Standard delivery time:

10  
working  
days20  
working  
daysOn  
request

### Special versions – Explosion-proof motors Aluminum series 1MA7

Special versions	Additional identification code <b>-Z</b> with order code and plain text if required	Motor category		Additional charges plus MS <b>EUR</b> , standard delivery time (colored area)										
		Motor version	Motor type (Al)	Motor type – Frame size										
				63	71	80	90	100	112	132	160	180	200	225
		Zone 1 Ex e II	1MA7	1MA7										
		Motor version	Motor type	Frame size										
				63	71	80	90	100	112	132	160	180	200	225
<b>Basic marine version <sup>1)</sup></b>														
Without type test certificate according to ABS 50 °C/CCS 45 °C/RINA 45 °C, temperature class 155 (F) used according to 155 (F) (if acceptance test certificate 3.1 according to EN 10204 is required, this must be ordered with order code B02) <sup>2)</sup>	<b>E00</b>	All	All	62.20	62.20	62.20	62.20	67.30	67.30	67.30	67.30			
With type test certificate according to GL (Germanischer Lloyd), Germany, CT 45 °C, temperature class 155 (F), used according to 155 (F)	<b>E11</b>	All	All	104.-	104.-	104.-	104.-	140.-	140.-	140.-	150.-			
With type test certificate according to LR (Lloyds Register), Great Britain, CT 45 °C, temperature class 155 (F), used according to 155 (F)	<b>E21</b>	All	All	104.-	104.-	104.-	104.-	140.-	140.-	140.-	150.-			
With type test certificate according to BV (Bureau Veritas), France, CT 45 °C, temperature class 155 (F), used according to 155 (F)	<b>E31</b>	All	All	104.-	104.-	104.-	104.-	140.-	140.-	140.-	150.-			
With type test certificate according to DNV (Det Norske Veritas), Norway, CT 45 °C, temperature class 155 (F), used according to 155 (F)	<b>E51</b>	All	All	104.-	104.-	104.-	104.-	140.-	140.-	140.-	150.-			
<b>Acceptance/certification</b>														
Individual acceptance by marine classification society	Plain text data	All	All	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.			
Type test with warm run for horizontal motors, with acceptance <sup>3)</sup>	Plain text data	All	All	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.			
Type test with warm run for vertical motors, with acceptance <sup>3)</sup>	Plain text data	All	All	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.			

O. R. Possible on request

5.6

<sup>1)</sup> Motor for use in shipping for higher ambient temperature and/or used as 155 (F) according to 130 (B), order with details in plain text. The order codes for the basic marine version (E00, E11, E21, E31, E51) cannot be combined with each other. For the 1LA9 motor series with increased output, for order codes E11, E31 and E51 derating of 4 % is required and for order codes E00 and E21 derating of 8 % is required.

<sup>2)</sup> The delivery time of the factory test certificate can deviate from the motor delivery.

<sup>3)</sup> Option or plain text data only necessary for one motor when ordering several motors of the same type.

Standard delivery time:

10  
working  
days20  
working  
daysOn  
request

Special versions	Additional identification code -Z with order code and plain text if required	Motor category		Additional charges plus MS EUR, standard delivery time (colored area)										
		Motor version	Motor type (Al)	Motor type – Frame size										
				63	71	80	90	100	112	132	160	180	200	225
		Zone 2 Ex nA II, Zone 21/22 Ex tD IE2/ NEMA Energy Efficient	1LA9	1LA9 <sup>1)</sup>										
		Zone 2 Ex nA II, Zone 21/22 Ex tD IE1	1LA7	1LA7								1LA5 <sup>2)</sup>		
<b>1LA ..... -Z</b>		Motor version	Motor type	Frame size										
<b>Basic marine version <sup>3)</sup></b>				63	71	80	90	100	112	132	160	180	200	225
Without type test certificate according to ABS 50 °C/ CCS 45 °C/RINA 45 °C, temperature class 155 (F) used according to 155 (F) (if acceptance test certificate 3.1 according to EN 10204 is required, this must be ordered with order code B02) <sup>4)</sup>	<b>E00</b>	All	All	62.20	62.20	62.20	62.20	67.30	67.30	67.30	67.30	96.10	96.10	96.10
With type test certificate according to GL (Germanischer Lloyd), Germany, CT 45 °C, temperature class 155 (F), used according to 155 (F)	<b>E11</b>	All	All	104.–	104.–	104.–	104.–	140.–	140.–	140.–	150.–	150.–	214.–	214.–
With type test certificate according to LR (Lloyds Register), Great Britain, CT 45 °C, temperature class 155 (F), used according to 155 (F)	<b>E21</b>	All	All	104.–	104.–	104.–	104.–	140.–	140.–	140.–	150.–	150.–	214.–	214.–
With type test certificate according to BV (Bureau Veritas), France, CT 45 °C, temperature class 155 (F), used according to 155 (F)	<b>E31</b>	All	All	104.–	104.–	104.–	104.–	140.–	140.–	140.–	150.–	150.–	214.–	214.–
With type test certificate according to DNV (Det Norske Veritas), Norway, CT 45 °C, temperature class 155 (F), used according to 155 (F)	<b>E51</b>	All	All	104.–	104.–	104.–	104.–	140.–	140.–	140.–	150.–	150.–	214.–	214.–
<b>Acceptance/certification</b>														
Individual acceptance by marine classification society	<b>E10</b>	All	All	6660.–	6660.–	6660.–	6660.–	6660.–	6660.–	6660.–	6660.–	7510.–	7510.–	7510.–
Type test with warm run for horizontal motors, with acceptance <sup>5)</sup>	<b>F83</b>	All	All	4050.–	4050.–	4720.–	5400.–	6070.–	6470.–	7020.–	7420.–	8480.–	9470.–	10000.–
Type test with warm run for vertical motors, with acceptance <sup>5)</sup>	Plain text data	All	All	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.

O. R. Possible on request

- Zone 2 Ex nA II is not possible for 1LA9 motors in frame sizes 180 and 200.
- Zone 2 Ex nA II is not possible for 1LA5 motors; for Zone 2 Ex nA II, 1LG4 motors are available.
- Motor for use in shipping for higher ambient temperature and/or used as 155 (F) according to 130 (B), order with details in plain text. The order codes for the basic marine version (E00, E11, E21, E31, E51) cannot be combined with each other. For the 1LA9 motor series with increased output, for order codes E11, E31 and E51 derating of 4 % is required and for order codes E00 and E21 derating of 8 % is required.

- The delivery time of the factory test certificate can deviate from the motor delivery.
- Option or plain text data only necessary for one motor when ordering several motors of the same type.

# Application-specific motors

## Marine motors

### Special versions – Explosion-proof motors Cast-iron series 1MA6, 1MJ6/7

Standard delivery time:

10  
working  
days20  
working  
daysOn  
request

Special versions	Additional identification code -Z with order code and plain text if required	Motor category		Additional charges plus MS EUR, standard delivery time (colored area)													
		Motor version	Motor type	Motor type – Frame size													
				71	80	90	100	112	132	160	180	200	225	250	280	315	
		Zone 1 Ex e II	1MA6				1MA6										
		Zone 1 Ex de IIC	1MJ6/ 1MJ7	1MJ6								1MJ7					
		Motor version	Motor type	Frame size													
				71	80	90	100	112	132	160	180	200	225	250	280	315	
<b>Basic marine version <sup>1)</sup></b>																	
Without type test certificate according to ABS 50 °C/ CCS 45 °C/RINA 45 °C, temperature class 155 (F) used according to 155 (F) (if acceptance test certificate 3.1 according to EN 10204 is required, this must be ordered with order code B02) <sup>2)</sup>	E00	All	All	62.20	62.20	62.20	67.30	67.30	67.30	67.30	96.10	96.10	96.10	99.40	99.40	99.40	
With type test certificate according to GL (Germanischer Lloyd), Germany, CT 45 °C, temperature class 155 (F), used according to 155 (F)	E11	All	All	104.–	104.–	104.–	140.–	140.–	140.–	150.–	150.–	214.–	214.–	282.–	415.–	742.–	
With type test certificate according to LR (Lloyds Register), Great Britain, CT 45 °C, temperature class 155 (F), used according to 155 (F)	E21	All	All	104.–	104.–	104.–	140.–	140.–	140.–	150.–	150.–	214.–	214.–	282.–	415.–	742.–	
With type test certificate according to BV (Bureau Veritas), France, CT 45 °C, temperature class 155 (F), used according to 155 (F)	E31	All	All	104.–	104.–	104.–	140.–	140.–	140.–	150.–	150.–	214.–	214.–	282.–	415.–	742.–	
With type test certificate according to DNV (Det Norske Veritas), Norway, CT 45 °C, temperature class 155 (F), used according to 155 (F)	E51	All	All	104.–	104.–	104.–	140.–	140.–	140.–	150.–	150.–	214.–	214.–	282.–	415.–	742.–	
<b>Acceptance/certification</b>																	
Individual acceptance by marine classification society	Plain text data	All	All	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	
Type test with warm run for horizontal motors, with acceptance <sup>3)</sup>	Plain text data	All	All	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	
Type test with warm run for vertical motors, with acceptance <sup>3)</sup>	Plain text data	All	All	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	

O. R. Possible on request

<sup>1)</sup> Motor for use in shipping for higher ambient temperature and/or used as 155 (F) according to 130 (B), order with details in plain text. The order codes for the basic marine version (E00, E11, E21, E31, E51) cannot be combined with each other.

<sup>2)</sup> The delivery time of the factory test certificate can deviate from the motor delivery.

<sup>3)</sup> Option or plain text data only necessary for one motor when ordering several motors of the same type.



# Application-specific motors

## Marine motors

Special versions – Non-standard motors N-compact  
Cast-iron series 1LA8, 1LL8, 1PQ8

Standard delivery time:

10  
working  
days

20  
working  
days

On  
request

Special versions	Additional identification code -Z with order code and plain text if required	Motor category		Additional charges plus MS EUR, standard delivery time (colored area)				
		Motor version	Motor type (CI)	Motor type – Frame size				
				315	355	400	450	
		Mains-fed operation	1LA8 1LL8	1LA8 1LL8				
		Converter-fed operation	1LA8 1LL8 1PQ8	1LA8 1LL8 1PQ8				
		Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	1LA8				
	1PQ8...-...-Z 1L...-...-Z	Motor version	Motor type	Frame size				
				315	355	400	450	
<b>Marine version – Non-Essential Service</b>								
<b>Technical design</b>								
Designed in accordance with ABS (American Bureau of Shipping), USA, Non-Essential Service	X00	<i>New!</i>	Mains-fed operation	1LA8 1LL8	9800.– 9800.–	10300.– 10300.–	10800.– 10800.–	11300.– 11300.–
			Converter-fed operation	1LA8 1LL8 1PQ8	9800.– 9800.– 12000.–	10300.– 10300.– 12800.–	10800.– 10800.– 13700.–	11300.– 11300.– 15000.–
			Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	9800.–	10300.–	10800.–	11300.–
Designed in accordance with BV (Bureau Veritas), France, Non-Essential Service	X01	<i>New!</i>	Mains-fed operation	1LA8 1LL8	9800.– 9800.–	10300.– 10300.–	10800.– 10800.–	11300.– 11300.–
			Converter-fed operation	1LA8 1LL8 1PQ8	9800.– 9800.– 12000.–	10300.– 10300.– 12800.–	10800.– 10800.– 13700.–	11300.– 11300.– 15000.–
			Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	9800.–	10300.–	10800.–	11300.–
Designed in accordance with CCS (Chinese Classification Society), China, Non-Essential Service <i>Note: Non-Essential Service must be handled by CCS as an Essential Service.</i>	X02	<i>New!</i>	Mains-fed operation	1LA8 1LL8	– –	– –	– –	– –
			Converter-fed operation	1LA8 1LL8 1PQ8	– – –	– – –	– – –	– – –
			Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	–	–	–	–
Designed in accordance with DNV (Det Norske Veritas), Norway, Non-Essential Service	X03	<i>New!</i>	Mains-fed operation	1LA8 1LL8	9800.– 9800.–	10300.– 10300.–	10800.– 10800.–	11300.– 11300.–
			Converter-fed operation	1LA8 1LL8 1PQ8	9800.– 9800.– 12000.–	10300.– 10300.– 12800.–	10800.– 10800.– 13700.–	11300.– 11300.– 15000.–
			Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	9800.–	10300.–	10800.–	11300.–
Designed in accordance with GL (Germanischer Lloyd), Germany, Non-Essential Service	X04	<i>New!</i>	Mains-fed operation	1LA8 1LL8	9800.– 9800.–	10300.– 10300.–	10800.– 10800.–	11300.– 11300.–
			Converter-fed operation	1LA8 1LL8 1PQ8	9800.– 9800.– 12000.–	10300.– 10300.– 12800.–	10800.– 10800.– 13700.–	11300.– 11300.– 15000.–
			Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	9800.–	10300.–	10800.–	11300.–
Designed in accordance with KR (Korean Register of Shipping), Korea, Non-Essential Service	X05	<i>New!</i>	Mains-fed operation	1LA8 1LL8	9800.– 9800.–	10300.– 10300.–	10800.– 10800.–	11300.– 11300.–
			Converter-fed operation	1LA8 1LL8 1PQ8	9800.– 9800.– 12000.–	10300.– 10300.– 12800.–	10800.– 10800.– 13700.–	11300.– 11300.– 15000.–
			Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	9800.–	10300.–	10800.–	11300.–
Designed in accordance with LR (Lloyds Register), Great Britain, Non-Essential Service	X06	<i>New!</i>	Mains-fed operation	1LA8 1LL8	9800.– 9800.–	10300.– 10300.–	10800.– 10800.–	11300.– 11300.–
			Converter-fed operation	1LA8 1LL8 1PQ8	9800.– 9800.– 12000.–	10300.– 10300.– 12800.–	10800.– 10800.– 13700.–	11300.– 11300.– 15000.–
			Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	9800.–	10300.–	10800.–	11300.–

For legend, see Page 5/19.

# Application-specific motors

## Marine motors

Standard delivery time:

10 working days

20 working days

On request

### Special versions – Non-standard motors N-compact Cast-iron series 1LA8, 1LL8, 1PQ8

Special versions	Additional identification code -Z with order code and plain text if required	Motor category		Additional charges plus MS EUR, standard delivery time (colored area)				
		Motor version	Motor type (CI)	Motor type – Frame size				
				315	355	400	450	
		Mains-fed operation	1LA8 1LL8	1LA8 1LL8				
		Converter-fed operation	1LA8 1LL8	1LA8 1LL8				
			1PQ8	1PQ8				
		Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	1LA8				
	<b>1PQ8...-...-Z</b> <b>1L...-...-Z</b>	Motor version	Motor type	Frame size	315	355	400 450	
<b>Marine version – Essential Service</b>								
<b>Technical design</b>								
Designed in accordance with ABS (American Bureau of Shipping), USA, Essential Service	<b>X10</b>	<i>New!</i>	Mains-fed operation	1LA8 1LL8	2740.– 2740.–	2900.– 2900.–	3120.– 3120.–	3450.– 3450.–
			Converter-fed operation	1LA8 1LL8	2740.– 2740.–	2900.– 2900.–	3120.– 3120.–	3450.– 3450.–
				1PQ8	3390.–	3610.–	3830.–	4220.–
			Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	2740.–	2900.–	3120.–	3450.–
Designed in accordance with BV (Bureau Veritas), France, Essential Service	<b>X11</b>	<i>New!</i>	Mains-fed operation	1LA8 1LL8	2740.– 2740.–	2900.– 2900.–	3120.– 3120.–	3450.– 3450.–
			Converter-fed operation	1LA8 1LL8	2740.– 2740.–	2900.– 2900.–	3120.– 3120.–	3450.– 3450.–
				1PQ8	3390.–	3610.–	3830.–	4220.–
			Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	2740.–	2900.–	3120.–	3450.–
Designed in accordance with CCS (Chinese Classification Society), China, Essential Service	<b>X12</b>	<i>New!</i>	Mains-fed operation	1LA8 1LL8	2740.– 2740.–	2900.– 2900.–	3120.– 3120.–	3450.– 3450.–
			Converter-fed operation	1LA8 1LL8	2740.– 2740.–	2900.– 2900.–	3120.– 3120.–	3450.– 3450.–
				1PQ8	3390.–	3610.–	3830.–	4220.–
			Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	2740.–	2900.–	3120.–	3450.–
Designed in accordance with DNV (Det Norske Veritas), Norway, Essential Service	<b>X13</b>	<i>New!</i>	Mains-fed operation	1LA8 1LL8	2740.– 2740.–	2900.– 2900.–	3120.– 3120.–	3450.– 3450.–
			Converter-fed operation	1LA8 1LL8	2740.– 2740.–	2900.– 2900.–	3120.– 3120.–	3450.– 3450.–
				1PQ8	3390.–	3610.–	3830.–	4220.–
			Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	2740.–	2900.–	3120.–	3450.–
Designed in accordance with GL (Germanischer Lloyd), Germany, Essential Service	<b>X14</b>	<i>New!</i>	Mains-fed operation	1LA8 1LL8	2740.– 2740.–	2900.– 2900.–	3120.– 3120.–	3450.– 3450.–
			Converter-fed operation	1LA8 1LL8	2740.– 2740.–	2900.– 2900.–	3120.– 3120.–	3450.– 3450.–
				1PQ8	3390.–	3610.–	3830.–	4220.–
			Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	2740.–	2900.–	3120.–	3450.–
Designed in accordance with KR (Korean Register of Shipping), Korea, Essential Service	<b>X15</b>	<i>New!</i>	Mains-fed operation	1LA8 1LL8	2740.– 2740.–	2900.– 2900.–	3120.– 3120.–	3450.– 3450.–
			Converter-fed operation	1LA8 1LL8	2740.– 2740.–	2900.– 2900.–	3120.– 3120.–	3450.– 3450.–
				1PQ8	3390.–	3610.–	3830.–	4220.–
			Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	2740.–	2900.–	3120.–	3450.–
Designed in accordance with LR (Lloyds Register), Great Britain, Essential Service	<b>X16</b>	<i>New!</i>	Mains-fed operation	1LA8 1LL8	2740.– 2740.–	2900.– 2900.–	3120.– 3120.–	3450.– 3450.–
			Converter-fed operation	1LA8 1LL8	2740.– 2740.–	2900.– 2900.–	3120.– 3120.–	3450.– 3450.–
				1PQ8	3390.–	3610.–	3830.–	4220.–
			Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	2740.–	2900.–	3120.–	3450.–
<b>Certification</b>								
Certification for first motor according to ABS (American Bureau of Shipping), USA, Essential Service	<b>J70</b>	<i>New!</i>	All	All	14500.–	14500.–	14500.–	14500.–
Certification for additional motors according to ABS (American Bureau of Shipping), USA, Essential Service	<b>J71</b>	<i>New!</i>	All	All	548.–	548.–	548.–	548.–
Certification for first motor according to BV (Bureau Veritas), France, Essential Service	<b>J72</b>	<i>New!</i>	All	All	19000.–	19000.–	19000.–	19000.–
Certification for additional motors according to BV (Bureau Veritas), France, Essential Service	<b>J73</b>	<i>New!</i>	All	All	548.–	548.–	548.–	548.–
Certification for first motor according to CCS (Chinese Classification Society), China, Essential Service	<b>J74</b>	<i>New!</i>	All	All	10200.–	10200.–	10200.–	10200.–

5.6

For legend, see Page 5/19.

# Application-specific motors

## Marine motors

Special versions – Non-standard motors N-compact  
Cast-iron series 1LA8, 1LL8, 1PQ8

Standard delivery time:

10  
working  
days

20  
working  
days

On  
request

Special versions	Additional identification code -Z with order code and plain text if required	Motor category		Additional charges plus MS EUR, standard delivery time (colored area)				
		Motor version	Motor type (CI)	Motor type – Frame size				
				315	355	400	450	
		Mains-fed operation	1LA8 1LL8	1LA8 1LL8				
		Converter-fed operation	1LA8 1LL8 1PQ8	1LA8 1LL8 1PQ8				
		Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	1LA8				
		Motor version	Motor type	Frame size	315	355	400	450
		<b>1PQ8...-...-Z</b>						
		<b>1L...-...-Z</b>						
<b>Marine version – Essential Service (continued)</b>								
<b>Certification (continued)</b>								
Certification for additional motors according to CCS (Chinese Classification Society), China, Essential Service	<b>J75</b>	<i>Neu!</i>	All	All	548.–	548.–	548.–	548.–
Certification for first motor according to DNV (Det Norske Veritas), Norway, Essential Service	<b>J76</b>	<i>Neu!</i>	All	All	18600.–	18600.–	18600.–	18600.–
Certification for additional motors according to DNV (Det Norske Veritas), Norway, Essential Service	<b>J77</b>	<i>Neu!</i>	All	All	548.–	548.–	548.–	548.–
Certification for first motor according to GL (Germanischer Lloyd), Germany, Essential Service	<b>J78</b>	<i>Neu!</i>	All	All	14600.–	14600.–	14600.–	14600.–
Certification for additional motors according to GL (Germanischer Lloyd), Germany, Essential Service	<b>J79</b>	<i>Neu!</i>	All	All	548.–	548.–	548.–	548.–
Certification for first motor according to KR (Korean Register of Shipping), Korea, Essential Service	<b>J80</b>	<i>Neu!</i>	All	All	7940.–	7940.–	7940.–	7940.–
Certification for additional motors according to KR (Korean Register of Shipping), Korea, Essential Service	<b>J81</b>	<i>Neu!</i>	All	All	548.–	548.–	548.–	548.–
Certification for first motor according to LR (Lloyds Register), Great Britain, Essential Service	<b>J82</b>	<i>Neu!</i>	All	All	19300.–	19300.–	19300.–	19300.–
Certification for additional motors according to LR (Lloyds Register), Great Britain, Essential Service	<b>J83</b>	<i>Neu!</i>	All	All	548.–	548.–	548.–	548.–
<b>Tests</b>								
Tests for first motor according to ABS (American Bureau of Shipping), USA, Essential Service	<b>X30</b>	<i>Neu!</i>	All	All	56000.–	58800.–	63000.–	70000.–
Tests for additional motors according to ABS (American Bureau of Shipping), USA, Essential Service	<b>X31</b>	<i>Neu!</i>	All	All	16900.–	17700.–	19000.–	21100.–
Tests for first motor according to BV (Bureau Veritas), France, Essential Service	<b>X32</b>	<i>Neu!</i>	All	All	56000.–	58800.–	63000.–	70000.–
Tests for additional motors according to BV (Bureau Veritas), France, Essential Service	<b>X33</b>	<i>Neu!</i>	All	All	16900.–	17700.–	19000.–	21100.–
Tests for first motor according to CCS (Chinese Classification Society), China, Essential Service	<b>X34</b>	<i>Neu!</i>	All	All	58100.–	61000.–	65300.–	72600.–
Tests for additional motors according to CCS (Chinese Classification Society), China, Essential Service	<b>X35</b>	<i>Neu!</i>	All	All	16900.–	17700.–	19000.–	21100.–
Tests for first motor according to DNV (Det Norske Veritas), Norway, Essential Service	<b>X36</b>	<i>Neu!</i>	All	All	58100.–	61000.–	65300.–	72600.–
Tests for additional motors according to DNV (Det Norske Veritas), Norway, Essential Service	<b>X37</b>	<i>Neu!</i>	All	All	15800.–	16600.–	17800.–	19800.–
Tests for first motor according to GL (Germanischer Lloyd), Germany, Essential Service	<b>X38</b>	<i>Neu!</i>	All	All	39800.–	41800.–	44800.–	49700.–
Tests for additional motors according to GL (Germanischer Lloyd), Germany, Essential Service	<b>X39</b>	<i>Neu!</i>	All	All	31200.–	32800.–	35100.–	39000.–
Tests for first motor according to KR (Korean Register of Shipping), Korea, Essential Service	<b>X40</b>	<i>Neu!</i>	All	All	56000.–	58700.–	63000.–	69900.–
Tests for additional motors according to KR (Korean Register of Shipping), Korea, Essential Service	<b>X41</b>	<i>Neu!</i>	All	All	15800.–	16600.–	17700.–	19700.–
Tests for first motor according to LR (Lloyds Register), Great Britain, Essential Service	<b>X42</b>	<i>Neu!</i>	All	All	53900.–	56600.–	60600.–	67300.–
Tests for additional motors according to LR (Lloyds Register), Great Britain, Essential Service	<b>X43</b>	<i>Neu!</i>	All	All	14700.–	15500.–	16600.–	18500.–
<b>Marine version – Essential Service for Propulsion</b>								
<b>Technical design</b>								
Designed in accordance with ABS (American Bureau of Shipping), USA, Essential Service for Propulsion	<b>X20</b>	<i>Neu!</i>	Mains-fed operation	1LA8 1LL8	2740.– 2740.–	2900.– 2900.–	3120.– 3120.–	3450.– 3450.–
			Converter-fed operation	1LA8 1LL8 1PQ8	2740.– 2740.– 3390.–	2900.– 2900.– 3610.–	3120.– 3120.– 3830.–	3450.– 3450.– 4220.–
			Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	2740.–	2900.–	3120.–	3450.–
Designed in accordance with BV (Bureau Veritas), France, Essential Service for Propulsion	<b>X21</b>	<i>Neu!</i>	Mains-fed operation	1LA8 1LL8	2740.– 2740.–	2900.– 2900.–	3120.– 3120.–	3450.– 3450.–
			Converter-fed operation	1LA8 1LL8 1PQ8	2740.– 2740.– 3390.–	2900.– 2900.– 3610.–	3120.– 3120.– 3830.–	3450.– 3450.– 4220.–
			Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	2740.–	2900.–	3120.–	3450.–

For legend, see Page 5/19.

# Application-specific motors

## Marine motors

Standard delivery time:

**10**  
working  
days

**20**  
working  
days

**On**  
request

### Special versions – Non-standard motors N-compact Cast-iron series 1LA8, 1LL8, 1PQ8

Special versions	Additional identification code <b>-Z</b> with order code and plain text if required	Motor category		Additional charges plus MS <b>EUR</b> , standard delivery time (colored area)				
		Motor version	Motor type (CI)	Motor type – Frame size				
				315	355	400	450	
		Mains-fed operation	1LA8 1LL8	1LA8 1LL8				
		Converter-fed operation	1LA8 1LL8 1PQ8	1LA8 1LL8 1PQ8				
		Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	1LA8				
	<b>1PQ8...-...-Z</b> <b>1L...-...-Z</b>	Motor version	Motor type	Frame size				
				315	355	400	450	
<b>Marine version – Essential Service for Propulsion (continued)</b>								
<b>Technical design (continued)</b>								
Designed in accordance with CCS (Chinese Classification Society), China, Essential Service for Propulsion	<b>X22</b>	<i>New!</i>	Mains-fed operation	1LA8 1LL8	2740.– 2740.–	2900.– 2900.–	3120.– 3120.–	3450.– 3450.–
			Converter-fed operation	1LA8 1LL8 1PQ8	2740.– 2740.– 3390.–	2900.– 2900.– 3610.–	3120.– 3120.– 3830.–	3450.– 3450.– 4220.–
			Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	2740.–	2900.–	3120.–	3450.–
Designed in accordance with DNV (Det Norske Veritas), Norway, Essential Service for Propulsion	<b>X23</b>	<i>New!</i>	Mains-fed operation	1LA8 1LL8	2740.– 2740.–	2900.– 2900.–	3120.– 3120.–	3450.– 3450.–
			Converter-fed operation	1LA8 1LL8 1PQ8	2740.– 2740.– 3390.–	2900.– 2900.– 3610.–	3120.– 3120.– 3830.–	3450.– 3450.– 4220.–
			Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	2740.–	2900.–	3120.–	3450.–
Designed in accordance with GL (Germanischer Lloyd), Germany, Essential Service for Propulsion	<b>X24</b>	<i>New!</i>	Mains-fed operation	1LA8 1LL8	2740.– 2740.–	2900.– 2900.–	3120.– 3120.–	3450.– 3450.–
			Converter-fed operation	1LA8 1LL8 1PQ8	2740.– 2740.– 3390.–	2900.– 2900.– 3610.–	3120.– 3120.– 3830.–	3450.– 3450.– 4220.–
			Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	2740.–	2900.–	3120.–	3450.–
Designed in accordance with KR (Korean Register of Shipping), Korea, Essential Service for Propulsion	<b>X25</b>	<i>New!</i>	Mains-fed operation	1LA8 1LL8	2740.– 2740.–	2900.– 2900.–	3120.– 3120.–	3450.– 3450.–
			Converter-fed operation	1LA8 1LL8 1PQ8	2740.– 2740.– 3390.–	2900.– 2900.– 3610.–	3120.– 3120.– 3830.–	3450.– 3450.– 4220.–
			Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	2740.–	2900.–	3120.–	3450.–
Designed in accordance with LR (Lloyds Register), Great Britain, Essential Service for Propulsion	<b>X26</b>	<i>New!</i>	Mains-fed operation	1LA8 1LL8	2740.– 2740.–	2900.– 2900.–	3120.– 3120.–	3450.– 3450.–
			Converter-fed operation	1LA8 1LL8 1PQ8	2740.– 2740.– 3390.–	2900.– 2900.– 3610.–	3120.– 3120.– 3830.–	3450.– 3450.– 4220.–
			Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	2740.–	2900.–	3120.–	3450.–
<b>Certification</b>								
Certification for first motor according to ABS (American Bureau of Shipping), USA, Essential Service for Propulsion	<b>N40</b>	<i>New!</i>	All	All	22200.–	22200.–	22200.–	22200.–
Certification for additional motors according to ABS (American Bureau of Shipping), USA, Essential Service for Propulsion	<b>N41</b>	<i>New!</i>	All	All	10800.–	10800.–	10800.–	10800.–
Certification for first motor according to BV (Bureau Veritas), France, Essential Service for Propulsion	<b>N42</b>	<i>New!</i>	Mains-fed operation	1LA8 1LL8	27000.– 27000.–	27000.– 27000.–	32100.– 32100.–	32100.– 32100.–
			Converter-fed operation	1LA8 1LL8 1PQ8	27000.– 27000.– 28000.–	27000.– 27000.– 28000.–	32100.– 32100.– 33200.–	32100.– 32100.– 33200.–
			Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	27000.–	27000.–	32100.–	32100.–
Certification for additional motors according to BV (Bureau Veritas), France, Essential Service for Propulsion	<b>N43</b>	<i>New!</i>	Mains-fed operation	1LA8 1LL8	12000.– 12000.–	12000.– 12000.–	12000.– 12000.–	12000.– 12000.–
			Converter-fed operation	1LA8 1LL8 1PQ8	12000.– 12000.– 13000.–	12000.– 12000.– 13000.–	12000.– 12000.– 13000.–	12000.– 12000.– 13000.–
			Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	12000.–	12000.–	12000.–	12000.–

**5.6**

For legend, see Page 5/19.

# Application-specific motors

## Marine motors

### Special versions – Non-standard motors N-compact Cast-iron series 1LA8, 1LL8, 1PQ8

Standard delivery time:

10  
working  
days20  
working  
daysOn  
request

Special versions	Additional identification code <b>-Z</b> with order code and plain text if required	Motor category		Additional charges plus MS <b>EUR</b> , standard delivery time (colored area)				
		Motor version	Motor type (CI)	Motor type – Frame size				
				315	355	400	450	
		Mains-fed operation	1LA8 1LL8	1LA8 1LL8				
		Converter-fed operation	1LA8 1LL8 1PQ8	1LA8 1LL8 1PQ8				
		Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	1LA8				
	<b>1PQ8...-...-Z</b> <b>1L...-...-Z</b>	Motor version	Motor type	Frame size	315	355	400	450
<b>Marine version – Essential Service for Propulsion (continued)</b>								
<b>Certification (continued)</b>								
Certification for first motor according to CCS (Chinese Classification Society), China, Essential Service for Propulsion	<b>N44</b>	<i>Neu!</i>	All	All	25000.–	25000.–	25000.–	25000.–
Certification for additional motors according to CCS (Chinese Classification Society), China, Essential Service for Propulsion	<b>N45</b>	<i>Neu!</i>	All	All	12000.–	12000.–	12000.–	12000.–
Certification for first motor according to DNV (Det Norske Veritas), Norway, Essential Service for Propulsion	<b>N46</b>	<i>Neu!</i>	Mains-fed operation	1LA8 1LL8	26700.–	26700.–	26700.–	26700.–
			Converter-fed operation	1LA8 1LL8 1PQ8	26700.–	26700.–	26700.–	26700.–
			Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	26700.–	26700.–	26700.–	26700.–
Certification for additional motors according to DNV (Det Norske Veritas), Norway, Essential Service for Propulsion	<b>N47</b>	<i>Neu!</i>	Mains-fed operation	1LA8 1LL8	12000.–	12000.–	12000.–	12000.–
			Converter-fed operation	1LA8 1LL8 1PQ8	12000.–	12000.–	12000.–	12000.–
			Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	12000.–	12000.–	12000.–	12000.–
Certification for first motor according to GL (Germanischer Lloyd), Germany, Essential Service for Propulsion	<b>N48</b>	<i>Neu!</i>	Mains-fed operation	1LA8 1LL8	28500.–	28500.–	28500.–	28500.–
			Converter-fed operation	1LA8 1LL8 1PQ8	28500.–	28500.–	28500.–	28500.–
			Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	28500.–	28500.–	28500.–	28500.–
Certification for additional motors according to GL (Germanischer Lloyd), Germany, Essential Service for Propulsion	<b>N49</b>	<i>Neu!</i>	Mains-fed operation	1LA8 1LL8	12000.–	12000.–	12000.–	12000.–
			Converter-fed operation	1LA8 1LL8 1PQ8	12000.–	12000.–	12000.–	12000.–
			Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	12000.–	12000.–	12000.–	12000.–
Certification for first motor according to KR (Korean Register of Shipping), Korea, Essential Service for Propulsion	<b>N50</b>	<i>Neu!</i>	All	All	18100.–	18100.–	18100.–	18100.–
Certification for additional motors according to KR (Korean Register of Shipping), Korea, Essential Service for Propulsion	<b>N51</b>	<i>Neu!</i>	All	All	12000.–	12000.–	12000.–	12000.–
Certification for first motor according to LR (Lloyds Register), Great Britain, Essential Service for Propulsion	<b>N52</b>	<i>Neu!</i>	Mains-fed operation	1LA8 1LL8	31100.–	31100.–	31100.–	31100.–
			Converter-fed operation	1LA8 1LL8 1PQ8	31100.–	31100.–	31100.–	31100.–
			Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	31100.–	31100.–	31100.–	31100.–
Certification for additional motors according to LR (Lloyds Register), Great Britain, Essential Service for Propulsion	<b>N53</b>	<i>Neu!</i>	Mains-fed operation	1LA8 1LL8	12000.–	12000.–	12000.–	12000.–
			Converter-fed operation	1LA8 1LL8 1PQ8	12000.–	12000.–	12000.–	12000.–
			Zone 2 Ex nA II, Zone 22 Ex tD	1LA8	12000.–	12000.–	12000.–	12000.–

For legend, see Page 5/19.

# Application-specific motors

## Marine motors

Standard delivery time:

**10**  
working  
days

**20**  
working  
days

**On**  
request

### Special versions – Non-standard motors N-compact Cast-iron series 1LA8, 1LL8, 1PQ8

Special versions	Additional identification code <b>-Z</b> with order code and plain text if required	Motor category		Additional charges plus MS <b>EUR</b> , standard delivery time (colored area)			
		Motor version	Motor type (CI)	Motor type – Frame size			
				315	355	400	450
		Mains-fed operation	1LA8 1LL8	1LA8 1LL8			
		Converter-fed operation	1LA8 1LL8 1PQ8	1LA8 1LL8 1PQ8			
		Zone 2 Ex nA II, Zone 22 Ex ID	1LA8	1LA8			
	<b>1PQ8...-.....-Z</b> <b>1L...-.....-Z</b>	Motor version	Motor type	Frame size			
				315	355	400	450
<b>Marine version – Essential Service for Propulsion (continued)</b>							
<b>Tests</b>							
Tests for first motor according to ABS (American Bureau of Shipping), USA, Essential Service for Propulsion	<b>X60</b>	<i>Not possible</i>	All	All	56000.–	58800.–	63000.– 70000.–
Tests for additional motors according to ABS (American Bureau of Shipping), USA, Essential Service for Propulsion	<b>X61</b>	<i>Not possible</i>	All	All	16900.–	17700.–	19000.– 21100.–
Tests for first motor according to BV (Bureau Veritas), France, Essential Service for Propulsion	<b>X62</b>	<i>Not possible</i>	All	All	56000.–	58800.–	63000.– 70000.–
Tests for additional motors according to BV (Bureau Veritas), France, Essential Service for Propulsion	<b>X63</b>	<i>Not possible</i>	All	All	16900.–	17700.–	19000.– 21100.–
Tests for first motor according to CCS (Chinese Classification Society), China, Essential Service for Propulsion	<b>X64</b>	<i>Not possible</i>	All	All	58100.–	61000.–	65300.– 72600.–
Tests for additional motors according to CCS (Chinese Classification Society), China, Essential Service for Propulsion	<b>X65</b>	<i>Not possible</i>	All	All	16900.–	17700.–	19000.– 21100.–
Tests for first motor according to DNV (Det Norske Veritas), Norway, Essential Service for Propulsion	<b>X66</b>	<i>Not possible</i>	All	All	58100.–	61000.–	65300.– 72600.–
Tests for additional motors according to DNV (Det Norske Veritas), Norway, Essential Service for Propulsion	<b>X67</b>	<i>Not possible</i>	All	All	15800.–	16600.–	17800.– 19800.–
Tests for first motor according to GL (Germanischer Lloyd), Germany, Essential Service for Propulsion	<b>X68</b>	<i>Not possible</i>	All	All	39800.–	41800.–	44800.– 49700.–
Tests for additional motors according to GL (Germanischer Lloyd), Germany, Essential Service for Propulsion	<b>X69</b>	<i>Not possible</i>	All	All	31200.–	32800.–	35100.– 39000.–
Tests for first motor according to KR (Korean Register of Shipping), Korea, Essential Service for Propulsion	<b>X70</b>	<i>Not possible</i>	All	All	56000.–	58700.–	63000.– 69900.–
Tests for additional motors according to KR (Korean Register of Shipping), Korea, Essential Service for Propulsion	<b>X71</b>	<i>Not possible</i>	All	All	15800.–	16600.–	17700.– 19700.–
Tests for first motor according to LR (Lloyds Register), Great Britain, Essential Service for Propulsion	<b>X72</b>	<i>Not possible</i>	All	All	53900.–	56600.–	60600.– 67300.–
Tests for additional motors according to LR (Lloyds Register), Great Britain, Essential Service for Propulsion	<b>X73</b>	<i>Not possible</i>	All	All	14700.–	15500.–	16600.– 18500.–
<b>Additional options for Essential Service and Essential Service for Propulsion</b>							
Tests in presence of representatives of the customer (in addition to the inspector of the classification society)	<b>X99</b>	<i>Not possible</i>	All	All	1370.–	1370.–	1370.– 1370.–
Motor for use in shipping, higher ambient temperature and/or use of temperature class 155 (F) according to 130 (B)	<b>E80 •</b> and identification code		Mains-fed operation	1LA8 1LL8	17400.–	19700.–	36600.– 44500.–
			Converter-fed operation	1LA8 1LL8 1PQ8	17400.–	19700.–	36600.– 44500.–
			Zone 2 Ex nA II, Zone 22 Ex ID	1LA8	20300.–	22600.–	39400.– 47500.–
					17400.–	19700.–	36600.– 44500.–

- This order code only determines the price of the version – Additional plain text is required.
- Not possible

**5.6**

# Application-specific motors

## Marine motors

### Special versions – Non-standard motors N-compact Cast-iron series 1LA8, 1LL8, 1PQ8

Ordering example:

Selection criteria	Requirement	Structure of the Order No.
<b>1st ordering example: 5 motors for Non-Essential Service according to GL (Germanischer Lloyd), Germany</b>		
Motor type	Non-standard motor specially designed for mains-fed operation, self-ventilated, cast-iron version, IP55 degree of protection	1LA8■■■■-■■■■■
Motor frame size/No. of poles/ Speed	400/8-pole/750 rpm	1LA8405-8AB■■■
Rated output	400 kW	
Voltage and frequency	500 VΔ, 50 Hz	1LA8405-8AB5■
Type	IM B3	1LA8405-8AB50
Special versions	Technical design in accordance with GL (Germanischer Lloyd), Germany, Non-Essential Service	1LA8405-8AB50-Z X04
	Order No. for each of the 5 motors	1LA8405-8AB50-Z X04
<b>2nd ordering example: 7 motors for Essential Service according to BV (Bureau Veritas), France</b>		
Motor type	Non-standard motor especially for converters, self-ventilated with through-ventilation, cast-iron version, IP23 degree of protection	1LL8■■■■-■■■■■
Motor frame size/No. of poles/ Speed	400/2-pole/3000 rpm	1LL8405-2PD■■■
Rated output	1000 kW	
Voltage and frequency	400 VΔ/690 VY, 50 Hz	1LL8405-2PD8■
Type	IM V1 with canopy	1LL8405-2PD84
Special versions		
<b>1st motor</b>	Technical design in accordance with BV (Bureau Veritas), France, Essential Service	1LL8405-2PD84-Z X11
	Necessary certification for first motor ordered in accordance with BV (Bureau Veritas), France, Essential Service	1LL8405-2PD84-Z X11+J72
	Necessary tests for first motor ordered in accordance with BV (Bureau Veritas), France, Essential Service	1LL8405-2PD84-Z X11+J72+X32
	Order No. for 1st motor	1LL8405-2PD84-Z X11+J72+X32
<b>Additional 6 motors (additional motors)</b>	Technical design in accordance with BV (Bureau Veritas), France, Essential Service	1LL8405-2PD84-Z X11
	Necessary certification for additional motors ordered in accordance with BV (Bureau Veritas), France, Essential Service	1LL8405-2PD84-Z X11+J73
	Necessary tests for additional motors ordered in accordance with BV (Bureau Veritas), France, Essential Service	1LL8405-2PD84-Z X11+J73+X33
	Order No. for the additional 6 motors	1LL8405-2PD84-Z X11+J73+X33
<b>3rd ordering example: 3 motors for Essential Service for Propulsion according to ABS (American Bureau of Shipping), USA</b>		
Motor type	Non-standard motor specially designed for mains-fed operation, self-ventilated, cast-iron version, IP55 degree of protection	1LA8■■■■-■■■■■
Motor frame size/No. of poles/ Speed	400/8-pole/750 rpm	1LA8405-8AB■■■
Rated output	400 kW	
Voltage and frequency	500 VΔ, 50 Hz	1LA8405-8AB5■
Type	IM B3	1LA8405-8AB50
Special versions		
<b>1st motor</b>	Technical design in accordance with ABS (American Bureau of Shipping), USA, Essential Service for Propulsion	1LA8405-8AB50-Z X20
	Necessary certification for first motor ordered in accordance with ABS (American Bureau of Shipping), USA, Essential Service for Propulsion	1LA8405-8AB50-Z X20+N40
	Necessary tests for first motor ordered in accordance with ABS (American Bureau of Shipping), USA, Essential Service for Propulsion	1LA8405-8AB50-Z X20+N40+X60
	Order No. for 1st motor	1LA8405-8AB50-Z X20+N40+X60
<b>Additional 2 motors (additional motors)</b>	Technical design in accordance with ABS (American Bureau of Shipping), USA, Essential Service for Propulsion	1LA8405-8AB50-Z X20
	Necessary certification for additional motors ordered in accordance with ABS (American Bureau of Shipping), USA, Essential Service for Propulsion	1LA8405-8AB50-Z X20+N41
	Necessary tests for additional motors ordered in accordance with ABS (American Bureau of Shipping), USA, Essential Service for Propulsion	1LA8405-8AB50-Z X20+N41+X61
	Order No. for the additional 2 motors	1LA8405-8AB50-Z X20+N41+X61
<b>4th ordering example: 1 motor for Essential Service according to ABS (American Bureau of Shipping), USA, coolant temperature 60 °C::</b>		
Motor type	Non-standard motor specially designed for mains-fed operation, self-ventilated, cast-iron version, IP55 degree of protection	1LA8■■■■-■■■■■
Motor frame size/No. of poles/ Speed	400/8-pole/750 rpm	1LA8405-8AB■■■
Rated output	400 kW	
Voltage and frequency	500 VΔ, 50 Hz	1LA8405-8AB5■
Type	IM B3	1LA8405-8AB50
Special versions		
	Technical design in accordance with ABS (American Bureau of Shipping), USA, Essential Service	1LA8405-8AB50-Z X10
	Necessary certification for first motor ordered in accordance with ABS (American Bureau of Shipping), USA, Essential Service	1LA8405-8AB50-Z X10+J70
	Necessary tests for first motor ordered in accordance with ABS (American Bureau of Shipping), USA, Essential Service	1LA8405-8AB50-Z X10+J70+X30
	Motor for use in shipping, higher ambient temperature and/or use of temperature class 155 (F) according to 130 (B) - coolant temperature 60 °C	1LA8405-8AB50-Z X10+J70+X30+E80 Plain text: COOLANT TEMP CT60
	Order No. for the motor	1LA8405-8AB50-Z X10+J70+X30+E80 Plain text: COOLANT TEMP CT60

5.6

## Appendix



A/2	<b>Metal surcharges</b>
A/4	<b>Conditions of sale and delivery, Export regulations</b>
A/4	Terms and conditions of sale and delivery
A/4	Export regulations

# Appendix

## Metal surcharges

### Explanation of the metal factor

Surcharges will be added to the prices of products that contain silver, copper, aluminum, lead and/or gold if the respective basic official prices for these metals are exceeded.

The surcharges will be determined based on the following criteria:

- Official price of the metal
- Official price on the day prior to receipt of the order or prior to the release order (=daily price) for
  - silver (sale price of the processed material),
  - gold (sale price of the processed material)

Source: Umicore, Hanau  
(<http://www.metalsmanagement.umicore.com>)

and for

- copper (low DEL notation + 1%),
- aluminum (aluminum in cables) and
- lead (lead in cables)

Source: German Trade Association for Cables and Conductors (<http://www.kabelverband.org>)

- Metal factor of the products
- Certain products are assigned a metal factor. The metal factor determines the official price as of which the metal surcharges are charged and the calculation method used (weight or percentage method). An exact explanation is given below.

### Structure of the metal factor

The metal factor consists of several digits; the first digit indicates whether the method of calculation refers to the list price or a discounted price (customer net price) (L = list price / N = customer net price).

The remaining digits indicate the method of calculation used for the respective metal. If no surcharge is added, a "-" is used.

1st digit	List or customer net price using the percentage method
2nd digit	for silver (AG)
3rd digit	for copper (CU)
4th digit	for aluminum (AL)
5th digit	for lead (PB)
6th digit	for gold (AU)

### Weight method

The weight method uses the basic official price, the daily price and the raw material weight. In order to calculate the surcharge, the basic official price must be subtracted from the daily price. The result is then multiplied by the raw material weight.

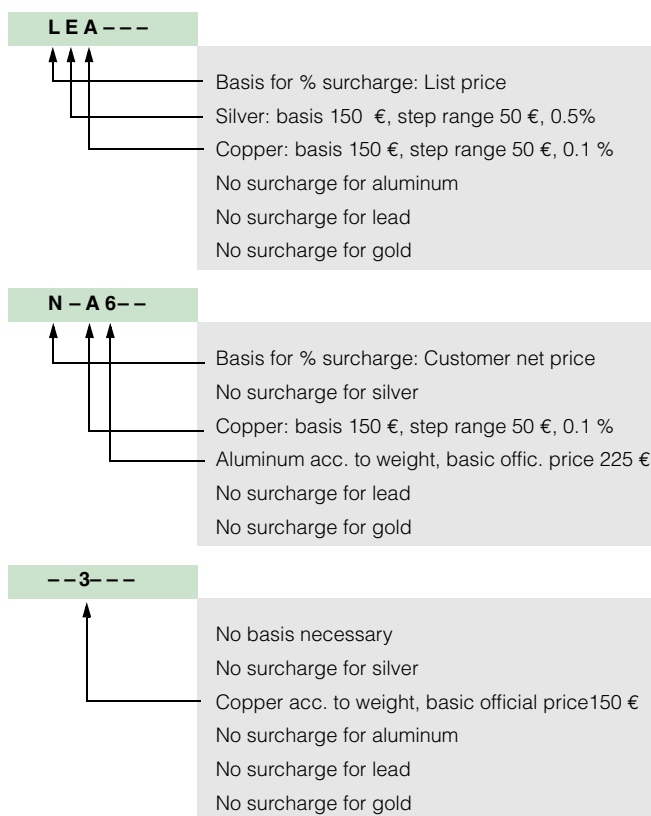
The basic official price can be found in the table below using the number (2 to 9) of the respective digit of the metal factor. The raw material weight can be found in the respective product descriptions.

### Percentage method

Use of the percentage method is indicated by the letters A-Z at the respective digit of the metal factor.

The surcharge is increased - dependent on the deviation of the daily price compared with the basic official price - using the percentage method in "steps" and consequently offers surcharges that remain constant within the framework of this "step range". A higher percentage rate is charged for each new step. The respective percentage level can be found in the table below.

### Metal factor examples



### Values of the metal factor

Percentage method	Basic official price	Step range	% surcharge 1st step	% surcharge 2nd step	% surcharge 3rd step	% surcharge 4th step	% surcharge per additional step
			Official price 151 € – 200 €	Official price 201 € – 250 €	Official price 251 € – 300 €	Official price 301 € – 350 €	
A	150	50	0.1	0.2	0.3	0.4	0.1
B	150	50	0.2	0.4	0.6	0.8	0.2
C	150	50	0.3	0.6	0.9	1.2	0.3
D	150	50	0.4	0.8	1.2	1.6	0.4
E	150	50	0.5	1.0	1.5	2.0	0.5
F	150	50	0.6	1.2	1.8	2.4	0.6
H	150	50	1.2	2.4	3.6	4.8	1.2
J	150	50	1.8	3.6	5.4	7.2	1.8
			176 € – 225 €	226 € – 275 €	276 € – 325 €	326 € – 375 €	
O	175	50	0.1	0.2	0.3	0.4	0.1
P	175	50	0.2	0.4	0.6	0.8	0.2
R	175	50	0.5	1.0	1.5	2.0	0.5
			226 € – 275 €	276 € – 325 €	326 € – 375 €	376 € – 425 €	
S	225	50	0.2	0.4	0.6	0.8	0.2
U	225	50	1.0	2.0	3.0	4.0	1.0
V	225	50	1.0	1.5	2.0	3.0	1.0
W	225	50	1.2	2.5	3.5	4.5	1.0
			151 € – 175 €	176 € – 200 €	201 € – 225 €	226 € – 250 €	
Y	150	25	0.3	0.6	0.9	1.2	0.3
			401 € – 425 €	426 € – 450 €	451 € – 475 €	476 € – 500 €	
Z	400	25	0.1	0.2	0.3	0.4	0.1
<b>Price basis (1st digit)</b>							
L	Charged on the list price						
N	Charged on the customer net price or discounted list price						
<b>Weight method</b>	<b>Basic official price</b>						
2	100						
3	150						
4	175						
5	200	Calculation based on raw material weight					
6	225						
7	300						
8	400						
9	555						
<b>Misc.</b>							
-	No metal surcharge						

# Appendix

## Conditions of sale and delivery, Export regulations

### Terms and conditions of sale and delivery

By using this catalog you can acquire hardware and software products described therein from Siemens AG subject to the following terms. Please note! The scope, the quality and the conditions for supplies and services, including software products, by any Siemens entity having a registered office outside of Germany, shall be subject exclusively to the General Terms and Conditions of the respective Siemens entity. The following terms apply exclusively for orders placed with Siemens AG.

#### *For customers with a seat or registered office in Germany*

The "General Terms of Payment" as well as the "General Conditions for the Supply of Products and Services of the Electrical and Electronics Industry" shall apply.

For software products, the "General License Conditions for Software Products for Automation and Drives for Customers with a Seat or registered Office in Germany" shall apply.

#### *For customers with a seat or registered office outside of Germany*

The "General Terms of Payment" as well as the "General Conditions for Supplies of Siemens. Automation and Drives for Customers with a Seat or registered Office outside of Germany" shall apply.

For software products, the "General License Conditions for Software Products for Automation and Drives for Customers with a Seat or registered Office outside of Germany" shall apply.

#### *General*

The dimensions are in mm. In Germany, according to the German law on units in measuring technology, data in inches only apply to devices for export.

Illustrations are not binding.

Insofar as there are no remarks on the corresponding pages, - especially with regard to data, dimensions and weights given - these are subject to change without prior notice.

The prices are in € (Euro) ex works, exclusive packaging.

The sales tax (value added tax) is not included in the prices. It shall be debited separately at the respective rate according to the applicable legal regulations.

Prices are subject to change without prior notice. We will debit the prices valid at the time of delivery.

Surcharges will be added to the prices of products that contain silver, copper, aluminum, lead and/or gold, if the respective basic official prices for these metals are exceeded. These surcharges will be determined based on the official price and the metal factor of the respective product.

The surcharge will be calculated on the basis of the official price on the day prior to receipt of the order or prior to the release order.

The metal factor determines the official price as of which the metal surcharges are charged and the calculation method used. The metal factor, provided it is relevant, is included with the price information of the respective products. An exact explanation of the metal factor can be found on the page entitled "Metal surcharges".

The texts of the Comprehensive Terms and Conditions of Sale and Delivery are available free of charge from your local Siemens business office under the following Order Nos.:

- 6ZB5310-0KR30-0BA1  
(for customers based in Germany)
- 6ZB5310-0KS53-0BA1  
(for customers based outside of Germany)

or download them from the Internet

[www.siemens.com/industrymall](http://www.siemens.com/industrymall)

(Germany: Industry Mall Online-Help System)

### Export regulations

Siemens shall not be obligated to fulfill this agreement if such fulfillment is prevented by any impediments arising out of national or international foreign trade or customs requirements or any embargoes or other sanctions.

If you transfer goods (hardware and/ or software and/ or technology as well as corresponding documentation, regardless of the mode of provision) delivered by us or works and services (including all kinds of technical support) performed by us to a third party worldwide, you shall comply with all applicable national and international (re-) export control regulations.

If required to conduct export control checks, you, upon request by us, shall promptly provide us with all information pertaining to particular end customer, destination and intended use of goods, works and services provided by us, as well as any export control restrictions existing.

The products listed in this catalog may be subject to European / German and/ or US export regulations.

Therefore, any export requiring a license is subject to approval by the competent authorities.

According to current provisions, the following export regulations must be observed with respect to the products featured in this catalog:

AL	Number of the <u>German Export List</u> Products marked other than "N" require an export license. In the case of software products, the export designations of the relevant data medium must also be generally adhered to. Goods labeled with an " <u>AL" not equal to "N"</u> are subject to a European or German export authorization when being exported out of the EU.
ECCN	<u>Export Control Classification Number</u> . Products marked other than "N" are subject to a reexport license to specific countries. In the case of software products, the export designations of the relevant data medium must also be generally adhered to. Goods labeled with an " <u>ECCN" not equal to "N"</u> are subject to a US re-export authorization.

Even without a label or with an "AL: N" or "ECCN: N", authorization may be required due to the final destination and purpose for which the goods are to be used.

The deciding factors are the AL or ECCN export authorization indicated on order confirmations, delivery notes and invoices.

Errors excepted and subject to change without prior notice.

## Industry Automation, Drive Technologies and Low Voltage Distribution

Further information can be obtained from our branch offices listed in the appendix or at [www.siemens.com/automation/partner](http://www.siemens.com/automation/partner)

<b>Interactive Catalog on DVD</b>	<i>Catalog</i>		
for Industry Automation, Drive Technologies and Low Voltage Distribution	<b>CA 01</b>		
<hr/>			
<b>Drive Systems</b>			
<u>Variable-Speed Drives</u>			
SINAMICS G110, SINAMICS G120	D 11.1		
Standard Inverters			
SINAMICS G110D, SINAMICS G120D			
Distributed Inverters			
SINAMICS G130 Drive Converter Chassis Units	D 11		
SINAMICS G150 Drive Converter Cabinet Units			
SINAMICS GM150, SINAMICS SM150	D 12		
Medium-Voltage Converters			
SINAMICS S120 Chassis Format Units and Cabinet Modules	D 21.3		
SINAMICS S150 Converter Cabinet Units			
SINAMICS DCM Converter Units	D 23.1		
<u>Three-phase Induction Motors</u>	D 84.1		
• H-compact			
• H-compact PLUS			
Asynchronous Motors Standardline	D 86.1		
Synchronous Motors with Permanent-Magnet Technology, HT-direct	D 86.2		
DC Motors	DA 12		
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