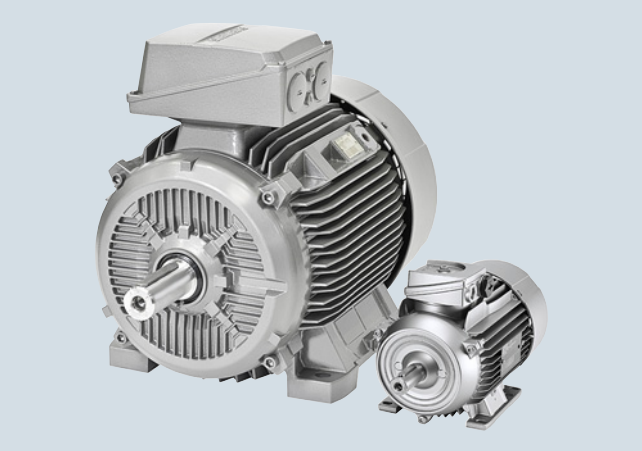
گروه کالا صنعتی

بروشور الکتروموتور

برند: زیمنس SIEMENS

Overview



Increasing energy costs have resulted in greater emphasis on the power consumption of drive systems. It is extremely important to utilize the full potential for minimizing energy consumption here to secure competitiveness today and in the future. The environment will also profit from reduced energy consumption.

This is the reason that already today we are developing a new generation of low-voltage motors. Innovative rotors create the best requisites for motors with a high degree of efficiency. IE1 and IE2 motors with the same power have the same dimensions. The new motors for IE2, IE3 and IE4 offer considerable energy savings and protect our environment. We also consider environmental compatibility and sustainable use of resources during production. Potting compounds and coatings are, for example, solvent-free.

The modular mounting concept provides total flexibility. Each motor is based on a uniform concept for all markets worldwide. Our motors are manufactured according to the most advanced ecological standards.

The new 1LE1 motor family is therefore one of the most compact in the world, because it is manufactured using innovative technology. For an optimized design, a compound of highly conductive materials is used in the rotor (up to frame size 200). This results in minimum rotor losses and an excellent starting and switching response.

The design of the 1LE1 motors ensures maximum flexibility and minimum installation costs. Users benefit from integral lifting eyes, screw-on feet, reinforced bearing plates with optimum mechanical properties and easily accessible terminal boxes. Encoders, brakes and separately driven fans can also be added without any problems. Smaller inventories make stockkeeping easier, so motor suppliers can respond to customer requirements more quickly.

The 1LE1/1PC1 motor family comprises two main series:

- SIMOTICS GP for general purpose applications:
  Motors with an aluminum housing

  SIMOTICS GP 1LE1/1PC1 motors with an aluminum housing are suitable for a wide range of standard drive tasks in the industrial environment. Thanks to their particular low weight, they are predestined for applications in pumps, fans and compressors. But they also reliably fulfill their tasks in conveyor systems and lifting gear.

Brief overview	
Power and voltage range:	0.3 … 45 kW All commonly used voltages
Frame sizes and types of construction:	80 ... 200 in all common types of construction
Rated speed:	750 … 3600 rpm
Number of poles:	2, 4, 6, 8
Efficiency classes:	• IE1 (Standard Efficiency) • IE2 (High Efficiency) • IE3 (Premium Efficiency) • IE4 (Super Premium Efficiency) • NEE (NEMA Energy Efficient acc. to NEMA MG Table 12-11) • NPE (NEMA Premium Efficient acc. to NEMA MG Table 12-12)

- SIMOTICS SD for severe duty applications:
  Motors with cast-iron housing

  SIMOTICS SD 1LE1 motors with a cast-iron housing are extremely rugged and are therefore the first choice for applications under harsh environmental conditions. They master dust or vibration in mills and mixers as well as the corrosive atmosphere in the petrochemical industry.

Brief overview	
Power and voltage range:	0.09 … 200 kW All commonly used voltages
Frame sizes and types of construction:	71 ... 315 in all common types of construction
Rated speed:	750 … 3600 rpm
Number of poles:	2, 4, 6, 8
Efficiency classes:	• IE1 (Standard Efficiency) • IE2 (High Efficiency) • IE3 (Premium Efficiency) • IE4 (Super Premium Efficiency) • NEE (NEMA Energy Efficient acc. to NEMA MG Table 12-11) • NPE (NEMA Premium Efficient acc. to NEMA MG Table 12-12)

Overview (continued)

High efficiency energy-saving motors for a positive energy balance

Depending on requirements, energy-saving motors for a positive energy balance are available that are compliant with the legal requirements applicable in the European economic area in accordance with EU Directive 640/2009 as well as for the North American market in accordance with US federal law EISA (Energy Independence Security Act).

Motors with increased power and compact construction (1LE1)

Motors with increased power and compact construction can be used to advantage in confined spaces. For a slightly longer overall length, the power is at least as high as that of the next largest frame size. These compact motors are also optimized for efficiency. They are offered in IE2 and IE3 and therefore reduce operating costs.

Motors without fan cover and without external fan. (1LE1 with order code F90)

Forced-air cooled motors with surface cooling without fan cover and without external fan are mainly used for driving fans.

Motors with reduced power without fan cover and without external fan (1PC1 motors on request)

Naturally cooled motors with surface cooling without fan cover and without external fan are suitable for the following operating conditions:

- Types of duty with adequate cooling times (e.g. temporary duty for positioning drives)
- Environmental conditions that demand compact installation space (e.g. in motors with a stopping function)

Requirements which make an external fan disadvantageous, e.g. simple cleaning in the food industry, textile industry.

Preferred motors

The most popular basic versions of motor series 1LE1 are available under special terms as so-called "Preferred motors".

The complete range is covered by Price List D 81.1 P Part 1 "Preferred motors". The price list also contains further information regarding the new delivery concept.

Benefits

There is considerable potential in the new 1LE1/1PC1 series of low-voltage motors. As a consistent further development of existing motors, the 1LE1/1PC1 motors offer numerous advantages.

Greater efficiency

Innovative rotor technology and manufacturing technology has been implemented for the IE3 and IE4 high efficiency motor variants. The energy-efficient motors are therefore considerably more compact.

The SinaSave Webtool can be used to calculate the energy saving potential and life cycle costs of all motors. SinaSave can be downloaded free of charge from the following website: www.siemens.com/sinasave

The 1LE1 motors also impress customers with their extremely long life and their weight-optimized design has a positive effect on the stability of the equipment unit.

A wider range of applications

The motors are certified for worldwide use and satisfy high standards of quality (confirmed, for example, by CSA [1], UL [2], CQC [3]).

Improved design

The rugged housing in modern EMC design has an attractive appearance and enhances functionality. The rotatable, accessible terminal boxes, integral lifting eyes, screw-on feet and reinforced bearing plates ensure this.

Greater power

For the same frame size, the high-performance motors offer one complete rated power level more. We are also consistently implementing energy efficiency improvements here, too. The motors are offered (based on the categories of IEC 60034-30-1) in various efficiency classes.

More flexibility

The optimized design of the motors makes installation easier in general. Encoders, brakes and separately driven fans can be retrofitted easily. Terminal boxes and feet for flexible mounting can be selected. Smaller inventories make stockkeeping easier and motor suppliers can respond to customer requirements more quickly. Optimized manufacturing processes support fast availability. All motors up to 500 V can be operated either directly on the line or converter.

For general purpose applications: SIMOTICS GP motors with an aluminum housing

Particularly user friendly

The previously introduced, well-proven, obliquely partitioned terminal box is being implemented consistently throughout the entire motor series.

Special export line

For exporting to NAFTA, the Eagle Line is available. The motors are supplied with the electrical values stamped on the rating plate in accordance with EISA requirements.

1) Canadian Standard Association
2) Underwriters Laboratories Inc.
3) China Quality Certification

Benefits (continued)

For severe duty applications:
SIMOTICS SD motors with a cast-iron housing

The right motor for various challenges

The following lines are available for severe duty applications:

- Basic Line (1LE15): rugged, reliable motors for machine construction
- Performance Line (1LE16): Motors for the process industry with reinforced bearings and a more rugged coating – for requirements that extend beyond the Basic Line
- "Eagle Line": Motors for export to the NAFTA zone; they fulfill the requirements of UL and CSA and are supplied with the electrical values stamped on the rating plate in accordance with EISA requirements

Comparison: Basic Line versus Performance Line

Function	Basic Line	Performance Line
Bearing size	62 (63 from frame size 280 upwards)	63
Relubrication	Optional (Standard from frame size 280 upwards)	Standard from frame size 160 upwards (optional for frame size 100 to 132)
Paint system	Standard paint finish, corrosivity category C2 [1)]	Special paint finish, corrosivity category C3 [1)]
Drainage	Drain plugs	T drains
Rating plate	Plastic	Steel
Motor protection	Optional	PTC
Fan cover	Plastic	Steel
Warranty	12 months	36 months

Compact design

The size of a motor is often an important aspect in the case of machines. For this reason, the 1LE1 motors in IE2 and IE3 are no longer than their predecessors in the 1LG series in IE2.

Another highlight: some of the IE3 motors fit in the same housing as the IE2 motors. The efficiency classes naturally do not differ with regard to shaft height, so that the mechanical interface to the equipment unit remains the same. This also supports a largely problem-free efficiency upgrade to IE3 – without the need to adapt the mechanical design of a machine.

Greater power

In severe duty applications, motors with increased power can also be the right solution if sufficient space is not available for a standard motor. Because these motors offer the same power rating in the next smallest frame size.

Application

As soon as the range of motors and options is complete, it will be possible to use the 1LE1/1PC1 motors from Siemens in all areas and sectors of industry due to their numerous options. They are suitable both for special environmental conditions such as those that predominate in the chemical or petrochemical industry as well as for most climatic requirements such as those of offshore applications.

Their large range of line voltages enables them to be used all over the world.

The wide field of implementation includes the following applications:

- Pumps
- Fans
- Compressors
- Conveyor systems such as cranes, belts and lifting gear
- High-bay warehouses
- Packaging machines
- Automation and drives
- Manufacturing industry
- General machine construction

Motors with a cast-iron housing are particularly suitable for the following severe duty applications:

- Petrochemical industry
- Pharmaceuticals
- Chemical industry
- Printing industry
- Process industry

1) See also Chapter 1, pages 1/18 and 1/19.

Technical specifications

Overview of technical specifications

This table lists the most important technical specifications. For more information and details, see Catalog Section 1 "Introduction".

Type of motor	SIMOTICS GP/SD 1LE1/1PC1 IEC low-voltage motors
Connection types	Star/delta connection The connection type to be used can be established from the Article No. supplements for the required motor.
Number of poles	2, 4, 6, 8
Frame sizes	71 M ... 315 L
Rated power	0.09 ... 200 kW (1LE1 motor series)/0.3 ... 9 kW (1PC1 motor series)
Frequencies	50 Hz and 60 Hz
Versions	Self-ventilated 1LE1 energy-saving motors with: • IE1 (Standard Efficiency) • IE2 (High Efficiency) • IE3 (Premium Efficiency) • IE4 (Super Premium Efficiency) • NEE (NEMA Energy Efficient, according to NEMA MG, Table 12-11) • NPE (NEMA Premium Efficient, according to NEMA MG, Table 12-12) Self-ventilated 1LE1 motors with increased power and: • IE1 (Standard Efficiency) • IE2 (High Efficiency) • IE3 (Premium Efficiency) Forced-air cooled 1LE1 motors without external fan and fan cover with: • IE1 (Standard Efficiency) • IE2 (High Efficiency) • IE3 (Premium Efficiency) • IE4 (Super Premium Efficiency) Naturally cooled 1PC1 motors without external fan and fan cover with: • IE1 (Standard Efficiency) • IE2 (High Efficiency) • IE3 (Premium Efficiency) • IE4 (Super Premium Efficiency)
Marking	IEC 60034-30-1 IE1, IE2, IE3, IE4: 2, 4, 6 and 8-pole US EISA legislation: 2, 4, 6 and 8-pole
Rated speed (synchronous speed)	750 … 3000 rpm
Rated torque	1.0 ... 1703 Nm (1LE1 motor series)
Stator winding insulation in accordance with EN 60034-1 (IEC 60034-1)	Temperature class 155 (F), utilized acc. to temperature class 130 (B) (also for motors with increased power) DURIGNIT IR 2000 insulating system
Degree of protection according to EN 60034-5 (IEC 60034-5)	IP55 as standard
Cooling in accordance with EN 60034-6 (IEC 60034-6)	• Self-ventilated (IC 411) (1LE1 motor series) frame size 80 M to 315 L • Forced-air cooled (IC 418) (1LE1 motor series with order code **F90**), frame size 80 M to 200 L • Naturally cooled (IC 410) (1PC1 motor series) frame size 100 L to 160 L
Permissible coolant temperature and installation altitude	–20 ... +40 °C as standard, installation altitude up to 1000 m above sea level. See "Coolant temperature and installation altitude" in Catalog Section 1 "Introduction".
Standard voltages according to EN 60038 (IEC 60038)	50 Hz: 230 V, 400 V, 500 V, 690 V The voltage to be used can be found in the "Selection and ordering data" for the required motor.
Type of construction according to EN 60034-7 (IEC 60034-7)	• Without flange: IM B3, IM B6, IM B7, IM B8, IM V5 without protective cover, IM V6, IM V5 with protective cover • With flange: IM B5, IM V1, IM V3, IM B35 • With standard flange and special flange (next larger flange): IM B14, IM V19, IM V18, IM B34
Paint finish Suitability of paint finish for climate group according to IEC 60721, Part 2-1	Standard: Color RAL 7030 stone gray See "Paint finish" in Catalog Section 1 "Introduction".
Vibration quantity level according to EN 60034-14 (IEC 60034-14)	Level A (normal – without special vibration requirements) Optional: level B (with special vibration requirements) See "Balance and vibration quantity" in Catalog Section 1 "Introduction".
Shaft extension according to DIN 748 (IEC 60072)	Balance type: half-key balancing as standard See "Balance and vibration quantity" in Catalog Section 1 "Introduction".
Sound pressure level according to EN ISO 1680 (tolerance +3 dB)	The sound pressure level is listed in the selection and ordering data for the required motor.
Weights	The weight is listed in the selection and ordering data for the required motor.
Modular mounting concept	Rotary pulse encoder, brake, separately driven fan or prepared for mountings
Consistent series concept	• Cast housing feet, screwed-on feet available as an option and retrofittable • Terminal box obliquely partitioned and rotatable through 4 x 90° • Bearings at DE and NDE are of identical design, reinforced bearings available as an option
Options	See "Article No. supplements and special versions"

More information

For further information, please get in touch with your local Siemens contact. At:

www.siemens.com/automation/partner

you can find out about certain technologies through Siemens contact partners worldwide.

Wherever possible, you will find a local contact partner for:
- Technical support
- Spare parts/repairs
- Service
- Training
- Marketing & Sales
- Technical consultation/engineering

You start by selecting a:
- country
- product or
- sector.

By further specifying the remaining criteria you will find exactly the right contact partner with his/her respective expertise.

Converter operation

Overview

Converter operation up to 500 V +10 % line voltage

See Chapter 1, page 1/32.

During installation, the EMC guidelines must be complied with

Note:

When motors are operated on SINAMICS converters additional losses occur which, depending on the admissible winding temperature, can make it necessary to reduce the torque. The admissible torque values can be obtained from the SIZER configuring tool. The lowest frequency specified there is 5 Hz. For stationary converter operation at lower frequencies, particularly in the case of frame sizes < 100, it is necessary to inquire at the Quotation Center.

Benefits

Motors operating with frequency converters offer the user numerous advantages.

The motors feature the future-oriented insulation system DURIGNIT IR 2000 (IR = Inverter Resistant).
The DURIGNIT IR 2000 insulating system consists of high-quality enamel wires and insulating sheet materials in conjunction with temperature-resistant resin impregnation.

Application

The wide field of implementation includes the following applications:

- Conveyor systems such as cranes, belts and lifting gear
- High-bay warehouses
- Packaging machines
- Automation and drives

Their large range of line voltages enables them to be used all over the world.

Technical specifications

General note

All the data listed in the catalog is applicable for a 50 Hz line supply. With converter operation, the torque reduction factors for constant torque and drives for fans, pumps and compressors must be configured using the "SIZER for Siemens Drives" engineering tool. Higher noise levels must be expected at frequencies other than 50 Hz for motors operating with converters due to the harmonic content of the supply.

Mechanical limit speeds

When the motor is operated above its rated frequency, it is important to note that the maximum speeds are limited by the limits for the roller bearings, critical rotor speed and rigidity of the rotating parts (see page 1/58).

Motor protection

A motor protection function can be implemented using the I^2t sensing circuit implemented in the converter software.

If required, more precise motor protection can be afforded by direct temperature measurement using KTY-84 sensors or PTC thermistors in the motor winding. Some converters from Siemens determine the motor temperature using the resistance of the temperature sensor. They can be set to a required temperature for alarm and tripping.

Insulation

The insulation of 1LE motors is designed such that converter operation is possible at voltages up to 500 V[1]. $\hat{U}_{\text{phase-to-phase}} \leq 1500$ V, $\hat{U}_{\text{phase-to-ground}} \leq 1100$ V, voltage rise times of $t_s > 0.1$ µs.

All motors with voltage codes 22 and 34 must be operated on a converter under these conditions. For converter operation with the power ratings specified in the catalog, the motors are used according to temperature class 155 (F), i.e. in this case neither a service factor > 1 nor an increased coolant temperature is possible (order codes N01, N02 and N03 cannot be ordered).

[1] See also EN 60034-1: 2011.

Selection and ordering data

The article number consists of a combination of digits and letters and is divided into three hyphenated blocks to provide a better overview, e.g.:
1LE1001-1DB22-2CB5-Z
H00

The first block (positions 1 to 7) identifies the motor type; the second block (positions 8 to 12) defines the motor frame size and length, the number of poles and in some cases the frequency/power; and in the third block (positions 13 to 16), the frequency/power, type of construction and other design features are encoded.

For deviations in the second and third block from the catalog codes, either **Z** or **90** should be used as alphanumeric values.

Ordering data:

- Complete Article No. and order code(s) or plain text
- If a quotation has been requested, please specify the quotation number in addition to the Article No.
- When ordering a complete motor as a spare part, please specify the works serial No. for the previously supplied motor as well as the Article No.

Structure of the Article No.:	Position:	1	2	3	4	5	6	7	-	8	9	10	11	12	-	13	14	15	16	
Positions 1 to 4 Digit, letter, letter, digit	• Self-ventilated by fan mounted on and driven by rotor • Forced-air cooled by air flow from the fan to be driven with option extension **F90**	**1**	**L**	**E**	**1**															
	• Naturally cooled without external fan and fan cover	**1**	**P**	**C**	**1**															
Position 5: Digit	Aluminum housing					**0**														
	Cast-iron housing Basic Line					**5**														
	Cast-iron housing Performance Line					**6**														
Positions 6 to 7: 2 digits	Motors with IE2 High Efficiency						**0**	**1**												
	APAC Line motors with IE2 High Efficiency						**4**	**1**												
	Motors with IE1 Standard Efficiency						**0**	**2**												
	Motors with IE3 Premium Efficiency						**0**	**3**												
	APAC Line motors with IE3 Premium Efficiency						**4**	**3**												
	Motors with IE4 Super Premium Efficiency						**0**	**4**												
	Pole-changing motors with one winding connected in Dahlander circuit						**1**	**1**												
	Pole-changing motors with two windings						**1**	**2**												
	NEMA Energy Efficient MG1 motors, Table 12-11 – Eagle Line						**2**	**1**												
	NEMA Premium Efficient MG1 motors, Table 12-12 – Eagle Line						**2**	**3**												
Positions 8, 9 and 11: Digit, letter, digit	**Motor frame size** (frame size as a combination of shaft height and overall length, encoded)									**0** ... **3**	**A** ... **E**		**0** ... **6**							
Position 10: Letter	**No. of poles** A: 2-pole, B: 4-pole, C: 6-pole, D: 8-pole, J: 4/2-pole const. load torque L: 8/4-pole const. load torque, P: 4/2-pole square-law load torque Q: 6/4-pole square-law load torque, R: 8/4-pole square-law load torque											**A** ... **R**								
Positions 12 and 13: 2 digits	**Voltage, circuit and frequency** (encoded with two digits, 9-0 requires order code M.. (e.g. M1Y))													**0** ... **9**		**0** ... **8**				
Position 14: Letter	**Type of construction** (encoded with A ... Z; Z requires order code Q.. (e.g. H00))																**A** ... **V**			
Position 15: Letter	**Motor protection** (encoded with A ... Z; Z requires order code Q.. (e.g. Q2A))																	**A** ... **Z**		
Position 16: Digit	**Terminal box position** 4: Terminal box top, 5: Terminal box right, 6: Terminal box left, 7: Terminal box below																		**4** ... **7**	
	Special order versions encoded – additional order code required not encoded – additional plain text required																			**- Z**

Ordering example

Selection criteria	Requirement	Structure of the Article No.
Motor type 1LE1	Standard motor with High Efficiency IE3, IP55 degree of protection, aluminum version	**1LE1003-■■■■■-■■■■**
Motor frame size/No. of poles/Speed	160 M/4-pole/1500 rpm	**1LE1003-1DB2■-■■■■**
Rated power	11 kW	
Voltage and frequency	230 VΔ/400 VY, 50 Hz	**1LE1003-1DB22-2■■■**
Type of construction with special version	IM V5 with protective cover [1]	**1LE1003-1DB22-2C■■-Z** **H00**
Motor protection	1 or 3 PTC thermistors – for tripping (2 terminals)	**1LE1003-1DB22-2CB■-Z** **H00**
Terminal box position	Terminal box right (viewed from DE)	**1LE1003-1DB22-2CB5-Z** **H00**

[1] Without protective cover as standard – the protective cover is defined with order code **H00** and must be ordered in addition to the Article No. with **-Z** and this order code.

2

Selection and ordering data

P_{rated}, 50 Hz/ P50	P_{rated}, 60 Hz/ P60	Frame size	Operating values at rated power: n_{rated}, 50 Hz	T_{rated}, 50 Hz	IE class 50 Hz	IE class 60 Hz	η_{rated}, 50 Hz, 4/4	η_{rated}, 50 Hz, 3/4	η_{rated}, 50 Hz, 2/4	cos φ_{rated}, 50 Hz, 4/4	I_{rated}, 50 Hz, 400 V	T_{LR}/T_{rated}, 50 Hz	I_{LR}/I_{rated}, 50 Hz	T_B/T_{rated}, 50 Hz	L_{pfA}, 50 Hz	L_{WA}, 50 Hz	Aluminum series **1LE1004** – *IE4 version acc. to IEC 60034-30* Article No.	$m_{IM\ B3}$	J	Torque class
kW	kW	FS	rpm	Nm			%	%	%		A				dB(A)	dB(A)		kg	kgm^2	CL
• Cooling: Self-ventilated (IC 411) or with order code F90 forced-air cooled without external fan and fan cover (IC 418) • Efficiency: IE4 Super Premium Efficiency, service factor (SF) 1.15 • Insulation: Thermal class 155 (temperature class F), IP55 degree of protection, utilization in accordance with thermal class 130 (temperature class B)																				
2-pole: 3000 rpm at 50 Hz, 3600 rpm at 60 Hz [1]																				
3	**3.45**	**100 L**	2920	9.8	IE4	IE4	89.1	89.8	89.4	0.86	5.7	3.7	9	4.9	62	74	**1LE1004-1AA4■-■■■■**	27	0.0054	16
4	**4.55**	**112 M**	2950	13	IE4	IE4	90	90.4	89.7	0.89	7.2	2.6	8.8	4.1	68	80	**1LE1004-1BA2■-■■■■**	34	0.012	16
5.5	**6.3**	**132 S**	2960	18	IE4	IE4	90.9	90.9	89.8	0.84	10.4	2.1	8.6	4.6	67	84	**1LE1004-1CA0■-■■■■**	44	0.024	16
7.5	**8.6**	**132 S**	2955	24	IE4	IE4	91.7	92.4	92.3	0.91	13	2.2	8.6	4.3	67	80	**1LE1004-1CA1■-■■■■**	56	0.031	16
11	**12.6**	**160 M**	2955	36	IE4	IE4	92.6	92.8	92	0.9	19.1	2.8	8.6	4.2	74	87	**1LE1004-1DA2■-■■■■**	84	0.061	16
15	**17.3**	**160 M**	2955	48	IE4	IE4	93.3	93.5	92.9	0.9	26	3.1	9	4.5	74	87	**1LE1004-1DA3■-■■■■**	98	0.068	16
18.5	**21.3**	**160 L**	2955	60	IE4	IE4	93.7	94.1	93.8	0.91	31.5	3.1	8.9	4.3	74	87	**1LE1004-1DA4■-■■■■**	112	0.074	16
22	**24.5**	**180 M**	2950	71	IE4	IE4	94	94.4	94.1	0.89	38	2.8	8.9	4.3	71	84	**1LE1004-1EA2■-■■■■**	139	0.091	16
30	**33.5**	**200 L**	2955	97	IE4	IE4	94.5	94.8	94.4	0.85	54	2.8	7.9	4	69	83	**1LE1004-2AA4■-■■■■**	173	0.13	16
37	**41.5**	**200 L**	2955	120	IE4	IE4	94.8	95.1	94.9	0.88	64	2.9	7.8	4	69	83	**1LE1004-2AA5■-■■■■**	214	0.20	16
4-pole: 1500 rpm at 50 Hz, 1800 rpm at 60 Hz [1]																				
2.2	**2.55**	**100 L**	1465	14	IE4	IE4	89.5	89.6	88.3	0.79	4.5	3.3	8.5	4.7	59	71	**1LE1004-1AB4■-■■■■**	30	0.014	16
3	**3.45**	**100 L**	1460	20	IE4	IE4	90.4	91	90.5	0.81	5.9	3.5	8.8	4.2	59	71	**1LE1004-1AB5■-■■■■**	38	0.016	16
4	**4.55**	**112 M**	1465	26	IE4	IE4	91.1	91.6	91	0.81	7.8	3.1	8.3	4.3	63	75	**1LE1004-1BB2■-■■■■**	46	0.020	16
5.5	**6.3**	**132 S**	1470	36	IE4	IE4	91.9	92.5	92.3	0.83	10.4	2.6	8.3	3.5	56	68	**1LE1004-1CB0■-■■■■**	59	0.039	16
7.5	**8.6**	**132 M**	1470	49	IE4	IE4	92.6	93.1	92.7	0.81	14.4	3	7.7	4	56	68	**1LE1004-1CB2■-■■■■**	62	0.046	16
11	**12.6**	**160 M**	1475	71	IE4	IE4	93.3	93.5	92.9	0.82	21	2.9	8.1	4.1	63	76	**1LE1004-1DB2■-■■■■**	98	0.099	16
15	**17.3**	**160 L**	1480	97	IE4	IE4	93.9	94	93.3	0.8	29	3.7	7.8	4.3	63	76	**1LE1004-1DB4■-■■■■**	109	0.11	16
18.5	**21.3**	**180 M**	1470	120	IE4	IE4	94.2	94.7	94.5	0.81	35	2.7	7.9	3.6	59	72	**1LE1004-1EB2■-■■■■**	153	0.17	16
22	**25.3**	**180 L**	1475	142	IE4	IE4	94.5	95	94.8	0.81	41.5	2.9	7.7	3.8	59	72	**1LE1004-1EB4■-■■■■**	158	0.18	16
30	**34.5**	**200 L**	1475	194	IE4	IE4	94.9	95.2	94.9	0.81	56	3.2	7.3	3.6	60	73	**1LE1004-2AB5■-■■■■**	205	0.27	16

Voltages				**Motor protection**	No. of poles	Frame size	Motor type	Version				Order code(s)
Frame sizes 100 L to 200 L: Use of the 4 x 90° rotatable terminal box												
50 Hz	230 VΔ/400 VY	60 Hz [1]	460 VY	Any	2, 4	100 L ... 200 L	1LE1004-1A ... -2A	**Standard**	**2**	**2**		–
50 Hz	400 VΔ/690 VY	60 Hz [1]	460 VΔ	Any	2, 4	100 L ... 200 L	1LE1004-1A ... -2A	**Standard**	**3**	**4**		–
Further voltages [1]				For price information, code numbers, order codes, and descriptions, see from page 2/63					**9**	**0**		. . .

Types of construction		No. of poles	Frame size	Motor type	Version		Order code(s)
Without flange	IM B3 [2]	2, 4	100 L ... 200 L	1LE1004-1A ... -2A	**Standard**	**A**	–
With flange	IM B5 [2]	2, 4	100 L ... 200 L	1LE1004-1A ... -2A	With add. charge	**F**	–
With standard flange	IM B14 [2]	2, 4	100 L ... 160 L	1LE1004-1A ... -1D	With add. charge	**K**	–
Further types of construction	For price information, code letters, and descriptions, see from page 2/68					■	. . .

Motor protection	No. of poles	Frame size	Motor type	Version		Order code(s)
Frame sizes 100 L to 200 L: Use of the 4 x 90° rotatable terminal box						
Without	2, 4	100 L ... 200 L	1LE1004-1A ... -2A	**Standard**	**A**	–
PTC thermistor with 3 temperature sensors	2, 4	100 L ... 200 L	1LE1004-1A ... -2A	With add. charge	**B**	–
Further motor protection	For price information, code letters, and descriptions, see from page 2/76				■	. . .

Terminal box position	No. of poles	Frame size	Motor type	Version		Order code(s)
Terminal box at top	2, 4	100 L ... 200 L	1LE1004-1A ... -2A	**Standard**	**4**	–
Further terminal box positions	For price information, code numbers, and descriptions, see from page 2/78					

Special versions	No. of poles	Frame size	Motor type		Order code(s)
Forced-air cooled motors w/o ext. fan/fan cover (IC 418)	2, 4	100 L ... 200 L	1LE1004-1A ... -2A	**1LE1004-. . . . ■-■■■■**	**-Z F90** +. . .+. . .+. . .
Options	For price information, order codes, and descriptions, see from page 2/80			**1LE1004-. . . . ■-■■■■**	**-Z** . . .+. . .+. . .+. . .

[1] Operating values at rated power for 60 Hz are stored in the Drive Technology Configurator (DT Configurator; see Appendix, "Tools and Configuring").

[2] Types derived from IM B3 (IM B6/7/8, IM V6, and IM V5), from IM B5 (IM V3 and IM V1) and from IM B14 (IM V19 and IM V18) are possible, provided that no requirements exist for condensation drainage holes (**H03**) and stamping of the type on the rating plate. The basic type IM B3, IM B5 or IM B14 is stamped as standard on the rating plate. When ordering with condensation drainage holes (**H03**), the type must be specified.

Selection and ordering data

P_{rated}, 50 Hz/ P50	P_{rated}, 60 Hz/ P60 [1]	Frame size	n_{rated}, 50 Hz	T_{rated}, 50 Hz	IE class 50 Hz	IE class 60 Hz	η_{rated}, 50 Hz, 4/4	η_{rated}, 50 Hz, 3/4	η_{rated}, 50 Hz, 2/4	cos φ_{rated}, 50 Hz, 4/4	I_{rated}, 50 Hz, 400 V	T_{LR}/T_{rated}, 50 Hz	I_{LR}/I_{rated}, 50 Hz	T_B/T_{rated}, 50 Hz	L_{pfA}, 50 Hz	L_{WA}, 50 Hz	Aluminum series 1LE1003 – IE3 version in accordance with IEC 60034-30 Article No.	$m_{IM\ B3}$	J	Torque class
kW	kW	FS	rpm	Nm			%	%	%		A				dB(A)	dB(A)		kg	kgm^2	CL
• Cooling: Self-ventilated (IC 411) or with order code F90 forced-air cooled without external fan and fan cover (IC 418)																				
• Efficiency: IE3 Premium Efficiency, service factor (SF) 1.15																				
• Insulation: Thermal class 155 (temperature class F), IP55 degree of protection, utilization in accordance with thermal class 130 (temperature class B)																				
2-pole: 3000 rpm at 50 Hz, 3600 rpm at 60 Hz [1]																				
0.75	**0.86**	**80 M**	2850	2.5	IE3	IE3	80.7	82.2	81.9	0.86	1.56	2.6	6.2	3	60	71	**1LE1003-0DA2** ■-■■■■	11	0.0011	16
1.1	**1.27**	**80 M**	2885	3.6	IE3	IE3	82.7	83.9	83.1	0.85	2.25	3	7.1	3.3	60	71	**1LE1003-0DA3** ■-■■■■	12	0.0013	16
1.5	**1.75**	**90 S**	2910	4.9	IE3	IE3	84.2	84.6	83.2	0.86	3	2.7	8.1	4.2	65	77	**1LE1003-0EA0** ■-■■■■	15	0.0021	16
2.2	**2.55**	**90 L**	2910	7.2	IE3	IE3	85.9	86.8	86.1	0.88	4.2	2.6	8.3	4	65	77	**1LE1003-0EA4** ■-■■■■	19	0.0031	16
3	**3.45**	**100 L**	2920	9.8	IE3	IE2	87.1	88	87.5	0.88	5.6	2.8	8	4.3	67	79	**1LE1003-1AA4** ■-■■■■	26	0.0054	16
4	**4.55**	**112 M**	2945	13	IE3	IE2	88.1	89.1	88.7	0.9	7.3	1.8	8.2	3.5	69	81	**1LE1003-1BA2** ■-■■■■	34	0.012	16
5.5	**6.3**	**132 S**	2950	17.8	IE3	IE3	89.2	90	89.7	0.9	9.9	1.8	7.4	3.6	68	80	**1LE1003-1CA0** ■-■■■■	43	0.024	16
7.5	**8.6**	**132 S**	2950	24.5	IE3	IE3	90.1	91	91	0.92	13.1	1.9	8.3	3.9	68	80	**1LE1003-1CA1** ■-■■■■	57	0.031	16
11	**12.6**	**160 M**	2955	35.5	IE3	IE3	91.2	91	89.5	0.89	19.6	2.4	7.9	3.8	70	82	**1LE1003-1DA2** ■-■■■■	75	0.053	16
15	**17.3**	**160 M**	2960	48.5	IE3	IE3	91.9	92.1	91.2	0.87	27	2.7	8.7	4.3	70	82	**1LE1003-1DA3** ■-■■■■	84	0.061	16
18.5	**21.3**	**160 L**	2955	60	IE3	IE3	92.4	92.8	92.4	0.9	32	2.8	9	4.2	70	82	**1LE1003-1DA4** ■-■■■■	94	0.068	16
22	**24.5**	**180 M**	2950	71	IE3	IE3	92.7	93.2	92.9	0.89	38.5	2.3	7.5	3.5	67	80	**1LE1003-1EA2** ■-■■■■	122	0.08	16
30	**33.5**	**200 L**	2955	97	IE3	IE3	93.3	93.5	92.9	0.87	53	2.5	7	3.3	67	80	**1LE1003-2AA4** ■-■■■■	173	0.134	16
37	**41.5**	**200 L**	2955	120	IE3	IE3	93.7	94.2	94	0.88	65	2.5	7.1	3.2	67	80	**1LE1003-2AA5** ■-■■■■	194	0.158	16

Voltages				Motor protection	No. of poles	Frame size	Motor type	Version				Order code(s)
Frame sizes 80 M to 90 L: Use of the 360° freely rotatable terminal box for 2 and 4-pole motors [2]												
50 Hz	230 VΔ/400 VY	60 Hz [1]	460 VY	PTC thermistor with 1 temperature sensor	2	80 M ... 90 L	1LE1003-0D ... -0E	**Standard**	**2**	**2**		–
50 Hz	400 VΔ/690 VY	60 Hz [1]	460 VΔ		2	80 M ... 90 L	1LE1003-0D ... -0E	**Standard**	**3**	**4**		–
50 Hz	400 VY	60 Hz [1]	460 VY	Without	2	80 M ... 90 L	1LE1003-0D ... -0E	**Standard**	**0**	**2**		–
Frame sizes 100 L to 200 L: Use of the 4 x 90° rotatable terminal box												
50 Hz	230 VΔ/400 VY	60 Hz [1]	460 VY	Any	2	100 L ... 200 L	1LE1003-1A ... -2A	**Standard**	**2**	**2**		–
50 Hz	400 VΔ/690 VY	60 Hz [1]	460 VΔ	Any	2	100 L ... 200 L	1LE1003-1A ... -2A	**Standard**	**3**	**4**		–
50 Hz	500 VY			Any	2	100 L ... 200 L	1LE1003-1A ... -2A	Without add. charge	**2**	**7**		–
50 Hz	500 VΔ			Any	2	100 L ... 200 L	1LE1003-1A ... -2A	Without add. charge	**4**	**0**		–
Further voltages [1]				For price information, code numbers, order codes, and descriptions, see from page 2/63					**9**	**0**		. . .
Types of construction					No. of poles	Frame size	Motor type	Version				Order code(s)
Without flange		IM B3 [3]			2	80 M ... 200 L	1LE1003-0D ... -2A	**Standard**			**A**	–
With flange		IM B5 [3]			2	80 M ... 200 L	1LE1003-0D ... -2A	With add. charge			**F**	–
With standard flange		IM B14 [3]			2	80 M ... 160 L	1LE1003-0D ... -2A	With add. charge			**K**	–
Further types of construction				For price information, code letters, and descriptions, see from page 2/68							■	. . .
Motor protection					No. of poles	Frame size	Motor type	Version				Order code(s)
Frame sizes 100 L to 200 L: Use of the 4 x 90° rotatable terminal box												
Without					2	100 L ... 200 L	1LE1003-0D ... -2A	**Standard**			**A**	–
PTC thermistor with 3 temperature sensors					2	100 L ... 200 L	1LE1003-0D ... -2A	With add. charge			**B**	–
Further motor protection				For price information, code letters, and descriptions, see from page 2/76							■	. . .
Terminal box position					No. of poles	Frame size	Motor type	Version				Order code(s)
Terminal box at top					2	80 M ... 200 L	1LE1003-0D ... -2A	**Standard**				**4** –
Further terminal box positions				For price information, code numbers, and descriptions, see from page 2/78								
Special versions												Order code(s)
Options				For price information, order codes, and descriptions, see from page 2/80				**1LE1003-** . . . . ■-■■■■				**-Z** . . .+. . .+. . .+. . .

[1] Operating values at rated power for 60 Hz are stored in the Drive Technology Configurator (DT Configurator; see Appendix, "Tools and Configuring").

[2] For converter operation of shaft heights 80 and 90, ordering with PTC thermistors and their connection to the converter is recommended.

[3] Types derived from IM B3 (IM B6/7/8, IM V6, and IM V5), from IM B5 (IM V3 and IM V1) and from IM B14 (IM V19 and IM V18) are possible, provided that no requirements exist for condensation drainage holes (**H03**) or stamping of the type on the rating plate. The basic type IM B3, IM B5 or IM B14 is stamped as standard on the rating plate. When ordering with condensation drainage holes (**H03**), the type must be specified.

Selection and ordering data (continued)

Operating values at rated power																	Aluminum series 1LE1003 – IE3 version in accordance with IEC 60034-30 Article No.			
P_{rated}, 50 Hz/ P50	P_{rated}, 60 Hz/ P60 [1]	Frame size	n_{rated}, 50 Hz	T_{rated}, 50 Hz	IE class 50 Hz	IE class 60 Hz	η_{rated}, 50 Hz, 4/4	η_{rated}, 50 Hz, 3/4	η_{rated}, 50 Hz, 2/4	cos φ_{rated}, 50 Hz, 4/4	I_{rated}, 50 Hz, 400 V	T_{LR}/T_{rated}, 50 Hz	I_{LR}/I_{rated}, 50 Hz	T_B/T_{rated}, 50 Hz	L_{pfA}, 50 Hz	L_{WA}, 50 Hz		$m_{IM\ B3}$	J	Torque class
kW	kW	FS	rpm	Nm			%	%	%		A				dB(A)	dB(A)		kg	kgm^2	CL
• Cooling: Self-ventilated (IC 411) or with order code F90 forced-air cooled without external fan and fan cover (IC 418)																				
• Efficiency: IE3 Premium Efficiency, service factor (SF) 1.15																				
• Insulation: Thermal class 155 (temperature class F), IP55 degree of protection, utilization in accordance with thermal class 130 (temperature class B)																				
4-pole: 1500 rpm at 50 Hz, 1800 rpm at 60 Hz [1]																				
0.55	**0.63**	**80 M**	1440	3.6	IE3	IE3	80.8	81.1	79.3	0.78	1.26	2.1	5.9	3.1	53	64	**1LE1003-0DB2**■-■■■■	11	0.0021	16
0.75	**0.86**	**80 M**	1450	4.9	IE3	IE3	82.5	82.3	79.9	0.75	1.75	2.7	7.1	3.9	53	64	**1LE1003-0DB3**■-■■■■	14	0.0029	16
1.1	**1.27**	**90 S**	1440	7.3	IE3	IE3	84.1	84.7	83.4	0.78	2.4	2.9	6.9	3.6	56	68	**1LE1003-0EB0**■-■■■■	16	0.0036	16
1.5	**1.75**	**90 L**	1445	10	IE3	IE3	85.3	85.9	84.9	0.8	3.15	2.7	7.2	3.6	56	68	**1LE1003-0EB4**■-■■■■	19	0.0049	16
2.2	**2.55**	**100 L**	1465	14.3	IE3	IE2	86.7	87.3	86.4	0.83	4.4	2.1	7.6	3.6	60	72	**1LE1003-1AB4**■-■■■■	30	0.014	16
3	**3.45**	**100 L**	1460	20	IE3	IE3	87.7	88.4	88.2	0.83	5.9	2.3	7.3	3.7	60	72	**1LE1003-1AB5**■-■■■■	30	0.014	16
4	**4.55**	**112 M**	1460	26	IE3	IE3	88.6	89.2	88.6	0.82	7.9	2.4	7.1	3.7	58	70	**1LE1003-1BB2**■-■■■■	34	0.017	16
5.5	**6.3**	**132 S**	1470	36	IE3	IE2	89.6	90.1	89.5	0.84	10.5	2.1	7.2	3.4	64	76	**1LE1003-1CB0**■-■■■■	64	0.046	16
7.5	**8.6**	**132 M**	1470	49	IE3	IE2	90.4	91.1	90.8	0.84	14.3	2.4	7.4	3.5	64	76	**1LE1003-1CB2**■-■■■■	64	0.046	16
11	**12.6**	**160 M**	1475	71	IE3	IE3	91.4	91.9	91.4	0.84	20.5	2.2	6.8	3.2	65	77	**1LE1003-1DB2**■-■■■■	83	0.083	16
15	**17.3**	**160 L**	1475	97	IE3	IE3	92.1	92.3	91.5	0.82	28.5	2.5	8.5	3.8	65	77	**1LE1003-1DB4**■-■■■■	100	0.099	16
18.5	**21.3**	**180 M**	1470	120	IE3	IE3	92.6	93.1	92.9	0.82	35	2.5	7.2	3.3	66	73	**1LE1003-1EB2**■-■■■■	134	0.13	16
22	**25.3**	**180 L**	1470	143	IE3	IE3	93	93.7	93.6	0.83	41	2.3	6.8	3.3	68	75	**1LE1003-1EB4**■-■■■■	142	0.14	16
30	**34.5**	**200 L**	1470	195	IE3	IE2	93.6	94	93.7	0.84	55	2.6	7.3	3.1	65	72	**1LE1003-2AB5**■-■■■■	189	0.22	16

Voltages				**Motor protection**	No. of poles	Frame size	Motor type	Version			Order code(s)
Frame sizes 80 M to 90 L: Use of the 360° freely rotatable terminal box for 2 and 4-pole motors [2]											
50 Hz	230 VΔ/400 VY	60 Hz [1]	460 VY	PTC thermistor with 1 temperature sensor	4	80 M ... 90 L	1LE1003-0D ... -0E	**Standard**	2	2	–
50 Hz	400 VΔ/690 VY	60 Hz [1]	460 VΔ		4	80 M ... 90 L	1LE1003-0D ... -0E	**Standard**	3	4	–
50 Hz	400 VY	60 Hz [1]	460 VY	Without	4	80 M ... 90 L	1LE1003-0D ... -0E	**Standard**	0	2	–
Frame sizes 100 L to 200 L: Use of the 4 x 90° rotatable terminal box											
50 Hz	230 VΔ/400 VY	60 Hz [1]	460 VY	Any	4	100 L ... 200 L	1LE1003-1A ... -2A	**Standard**	2	2	–
50 Hz	400 VΔ/690 VY	60 Hz [1]	460 VΔ	Any	4	100 L ... 200 L	1LE1003-1A ... -2A	**Standard**	3	4	–
50 Hz	500 VY			Any	4	100 L ... 200 L	1LE1003-1A ... -2A	Without add. charge	2	7	–
50 Hz	500 VΔ			Any	4	100 L ... 200 L	1LE1003-1A ... -2A	Without add. charge	4	0	–
Further voltages [1]				For price information, code numbers, order codes, and descriptions, see from page 2/63					9	0	. . .
Types of construction					No. of poles	Frame size	Motor type	Version			Order code(s)
Without flange		IM B3 [3]			4	80 M ... 200 L	1LE1003-0D ... -2A	**Standard**		A	–
With flange		IM B5 [3]			4	80 M ... 200 L	1LE1003-0D ... -2A	With add. charge		F	–
With standard flange		IM B14 [3]			4	80 M ... 160 L	1LE1003-0D ... -2A	With add. charge		K	–
Further types of construction				For price information, code letters, and descriptions, see from page 2/68						■	. . .
Motor protection					No. of poles	Frame size	Motor type	Version			Order code(s)
Frame sizes 100 L to 200 L: Use of the 4 x 90° rotatable terminal box											
Without					4	100 L ... 200 L	1LE1003-0D ... -2A	**Standard**		A	–
PTC thermistor with 3 temperature sensors					4	100 L ... 200 L	1LE1003-0D ... -2A	With add. charge		B	–
Further motor protection				For price information, code letters, and descriptions, see from page 2/76						■	. . .
Terminal box position					No. of poles	Frame size	Motor type	Version			Order code(s)
Terminal box at top					4	80 M ... 200 L	1LE1003-0D ... -2A	**Standard**			4 –
Further terminal box positions				For price information, code numbers, and descriptions, see from page 2/78							
Special versions											Order code(s)
Options				For price information, order codes, and descriptions, see from page 2/80				**1LE1003-** . . . . ■-■■■■			-Z . . .+. . .+. . .+. . .

1) Operating values at rated power for 60 Hz are stored in the Drive Technology Configurator (DT Configurator; see Appendix, "Tools and Configuring").

2) For converter operation of shaft heights 80 and 90, ordering with PTC thermistors and their connection to the converter is recommended.

3) Types derived from IM B3 (IM B6/7/8, IM V6, and IM V5), from IM B5 (IM V3 and IM V1) and from IM B14 (IM V19 and IM V18) are possible, provided that no requirements exist for condensation drainage holes (**H03**) or stamping of the type on the rating plate. The basic type IM B3, IM B5 or IM B14 is stamped as standard on the rating plate. When ordering with condensation drainage holes (**H03**), the type must be specified.

Selection and ordering data (continued)

P_{rated}, 50 Hz/ P50	P_{rated}, 60 Hz/ P60 [1]	Frame size	Operating values at rated power: n_{rated}, 50 Hz	T_{rated}, 50 Hz	IE class 50 Hz	IE class 60 Hz	η_{rated}, 50 Hz, 4/4	η_{rated}, 50 Hz, 3/4	η_{rated}, 50 Hz, 2/4	cos φ_{rated}, 50 Hz, 4/4	I_{rated}, 50 Hz, 400 V	T_{LR}/T_{rated}, 50 Hz	I_{LR}/I_{rated}, 50 Hz	T_B/T_{rated}, 50 Hz	L_{pfA}, 50 Hz	L_{WA}, 50 Hz	Aluminum series 1LE1003 – IE3 version in accordance with IEC 60034-30 Article No.	$m_{IM\ B3}$	J	Torque class
kW	kW	FS	rpm	Nm			%	%	%		A				dB(A)	dB(A)	▲ New	kg	kgm^2	CL
• Cooling: Self-ventilated (IC 411) or with order code F90 forced-air cooled without external fan and fan cover (IC 418)																				
• Efficiency: IE3 Premium Efficiency, service factor (SF) 1.15																				
• Insulation: Thermal class 155 (temperature class F), IP55 degree of protection, utilization in accordance with thermal class 130 (temperature class B)																				
6-pole: 1000 rpm at 50 Hz, 1200 rpm at 60 Hz [1]																				
0.37	**0.43**	**80 M**	940	3.8	IE3	IE3	73.5	73.1	69.4	0.66	1.1	2.3	4.2	2.7	42	53	**1LE1003-0DC2** ■-■■■■	12	0.0025	16
0.55	**0.63**	**80 M**	935	5.6	IE3	IE3	77.2	77	73.9	0.67	1.53	2.5	4.5	2.8	42	53	**1LE1003-0DC3** ■-■■■■	14	0.0031	16
0.75	**0.86**	**90 S**	945	7.6	IE3	IE3	78.9	80	78.8	0.7	1.96	2.2	4.6	2.6	43	55	**1LE1003-0EC0** ■-■■■■	16	0.004	16
1.1	**1.27**	**90 L**	940	11	IE3	IE1	81	82	80.5	0.69	2.85	2.3	4.6	2.7	43	55	**1LE1003-0EC4** ■-■■■■	19	0.0048	16
1.5	**1.75**	**100 M**	970	14.8	IE3	IE2	82.5	83.1	81.5	0.73	3.6	1.9	5.2	2.8	59	71	**1LE1003-1AC4** ■-■■■■	25	0.011	13
2.2	**2.55**	**112 M**	970	22	IE3	IE2	84.3	85	83.9	0.75	5	2.2	5.6	2.8	65	74	**1LE1003-1BC2** ■-■■■■	34	0.017	13
3	**3.45**	**132 S**	975	30	IE3	IE2	85.6	86.9	86.6	0.77	6.6	1.6	5.3	2.4	63	75	**1LE1003-1CC0** ■-■■■■	43	0.029	13
4	**4.55**	**132 M**	975	39	IE3	IE2	86.8	88	87.8	0.77	8.6	1.7	5.6	2.5	63	75	**1LE1003-1CC2** ■-■■■■	52	0.037	13
5.5	**6.3**	**132 M**	975	54	IE3	IE2	88	89.1	88.8	0.77	11.7	1.8	5.7	2.6	63	75	**1LE1003-1CC3** ■-■■■■	64	0.046	13
7.5	**8.6**	**160 M**	980	73	IE3	IE2	89.1	90.1	89.7	0.76	16	1.9	4.9	2.3	67	79	**1LE1003-1DC2** ■-■■■■	93	0.098	16
11	**12.6**	**160 L**	975	108	IE3	IE2	90.3	91.2	90.8	0.77	23	1.9	5	2.3	67	79	**1LE1003-1DC4** ■-■■■■	115	0.12	16
15	**18**	**180 L**	975	147	IE3	IE2	91.2	92	91.9	0.8	29.5	2.3	5.9	2.8	61	68	**1LE1003-1EC4** ■-■■■■	130	0.19	16
18.5	**22**	**200 L**	978	181	IE3	IE2	91.7	92.5	92.4	0.79	37	2.5	5.6	2.6	64	71	**1LE1003-2AC4** ■-■■■■	166	0.28	16
22	**26.5**	**200 L**	978	215	IE3	IE2	92.2	93.1	93.2	0.79	43.5	2.5	5.6	2.6	61	68	**1LE1003-2AC5** ■-■■■■	179	0.32	16
8-pole: 750 rpm at 50 Hz, 900 rpm at 60 Hz [1]																				
2.2	**2.55**	**132 S**	725	29	IE3	IE3	81.9	82.9	81.8	0.63	6.2	1.4	3.6	1.8	64	77	▲ **1LE1003-1CD0** ■-■■■■	56	0.038	10
3	**3.45**	**132 M**	725	40	IE3	IE3	83.5	84.2	82.7	0.61	8.5	1.5	3.8	2	64	77	▲ **1LE1003-1CD2** ■-■■■■	65	0.048	13
4	**4.55**	**160 M**	730	52	IE3	IE3	84.8	85.6	84.5	0.66	10.3	1.6	3.6	1.8	65	78	▲ **1LE1003-1DD2** ■-■■■■	72	0.065	13
5.5	**6.3**	**160 M**	730	72	IE3	IE3	86.2	86.9	85.7	0.66	14	1.6	3.8	1.9	65	78	▲ **1LE1003-1DD3** ■-■■■■	86	0.083	13
7.5	**8.6**	**160 L**	728	98	IE3	IE3	87.3	88.2	87.7	0.65	19.1	1.6	3.8	1.9	65	78	▲ **1LE1003-1DD4** ■-■■■■	110	0.116	13
11	**13.2**	**180 L**	725	145	IE3	IE3	88.6	89.7	89.6	0.74	24	2.1	5.1	2.4	61	74	▲ **1LE1003-1ED4** ■-■■■■	161	0.267	16
15	**18**	**200 L**	730	196	IE3	IE3	89.6	90.1	89.4	0.73	33.5	3	6.3	3.7	57	70	▲ **1LE1003-2AD5** ■-■■■■	212	0.420	16

Voltages				Motor protection	No. of poles	Frame size	Motor type	Version				Order code(s)
Frame sizes 80 M to 90 L: Use of the 360° freely rotatable terminal box for 2 and 4-pole motors [2]												
50 Hz	230 VΔ/400 VY	60 Hz [1]	460 VY	PTC thermistor with 1 temperature sensor	6, 8	80 M ... 90 L	1LE1003-0D ... -0E	**Standard**	2	2		–
50 Hz	400 VΔ/690 VY	60 Hz [1]	460 VΔ		6, 8	80 M ... 90 L	1LE1003-0D ... -0E	**Standard**	3	4		–
50 Hz	400 VY	60 Hz [1]	460 VY	Without	6, 8	80 M ... 90 L	1LE1003-0D ... -0E	**Standard**	0	2		–
Frame sizes 100 L to 200 L: Use of the 4 x 90° rotatable terminal box												
50 Hz	230 VΔ/400 VY	60 Hz [1]	460 VY	Any	6, 8	100 L ... 200 L	1LE1003-1A ... -2A	**Standard**	2	2		–
50 Hz	400 VΔ/690 VY	60 Hz [1]	460 VΔ	Any	6, 8	100 L ... 200 L	1LE1003-1A ... -2A	**Standard**	3	4		–
50 Hz	500 VY			Any	6, 8	100 L ... 200 L	1LE1003-1A ... -2A	Without add. charge	2	7		–
50 Hz	500 VΔ			Any	6, 8	100 L ... 200 L	1LE1003-1A ... -2A	Without add. charge	4	0		–
Further voltages [1]				For price information, code numbers, order codes, and descriptions, see from page 2/63					9	0		. . .

Types of construction			No. of poles	Frame size	Motor type	Version		Order code(s)
Without flange		IM B3 [3]	6, 8	80 M ... 200 L	1LE1003-0D ... -2A	**Standard**	A	–
With flange		IM B5 [3]	6, 8	80 M ... 200 L	1LE1003-0D ... -2A	With add. charge	F	–
With standard flange		IM B14 [3]	6, 8	80 M ... 160 L	1LE1003-0D ... -2A	With add. charge	K	–
Further types of construction		For price information, code letters, and descriptions, see from page 2/68					■	. . .

Motor protection	No. of poles	Frame size	Motor type	Version		Order code(s)
Frame sizes 100 L to 200 L: Use of the 4 x 90° rotatable terminal box						
Without	6, 8	100 L ... 200 L	1LE1003-0D ... -2A	**Standard**	A	–
PTC thermistor with 3 temperature sensors	6, 8	100 L ... 200 L	1LE1003-0D ... -2A	With add. charge	B	–
Further motor protection	For price information, code letters, and descriptions, see from page 2/76				■	. . .

Terminal box position	No. of poles	Frame size	Motor type	Version		Order code(s)
Terminal box at top	6, 8	80 M ... 200 L	1LE1003-0D ... -2A	**Standard**	4	–
Further terminal box positions	For price information, code numbers, and descriptions, see from page 2/78					

Special versions			Order code(s)
Options	For price information, order codes, and descriptions, see from page 2/80	**1LE1003-. . . .** ■-■■■■ -Z	. . .+. . .+. . .+. . .

[1] Operating values at rated power for 60 Hz are stored in the Drive Technology Configurator (DT Configurator; see Appendix, "Tools and Configuring").

[2] For converter operation of shaft heights 80 and 90, ordering with PTC thermistors and their connection to the converter is recommended.

[3] Types derived from IM B3 (IM B6/7/8, IM V6, and IM V5), from IM B5 (IM V3 and IM V1) and from IM B14 (IM V19 and IM V18) are possible, provided that no requirements exist for condensation drainage holes (**H03**) or stamping of the type on the rating plate. The basic type IM B3, IM B5 or IM B14 is stamped as standard on the rating plate. When ordering with condensation drainage holes (**H03**), the type must be specified.

2

Selection and ordering data

Operating values at rated power																	Aluminum series 1LE1003 – IE3 version in accordance with IEC 60034-30			
P_{rated}, 50 Hz/ P50	P_{rated}, 60 Hz/ P60	Frame size	n_{rated}, 50 Hz	T_{rated}, 50 Hz	IE class 50 Hz	IE class 60 Hz	η_{rated}, 50 Hz, 4/4	η_{rated}, 50 Hz, 3/4	η_{rated}, 50 Hz, 2/4	cos φ_{rated}, 50 Hz, 4/4	I_{rated}, 50 Hz, 400 V	T_{LR}/T_{rated}, 50 Hz	I_{LR}/I_{rated}, 50 Hz	T_B/T_{rated}, 50 Hz	L_{pfA}, 50 Hz	L_{WA}, 50 Hz	Article No.	$m_{IM\ B3}$	J	Torque class
kW	kW	FS	rpm	Nm			%	%	%		A				dB(A)	dB(A)	▲ New	kg	kgm²	CL
• Cooling: Self-ventilated (IC 411) or with order code F90 forced-air cooled without external fan and fan cover (IC 418) • Efficiency: IE3 Premium Efficiency, service factor (SF) 1.15 • Insulation: Thermal class 155 (temperature class F), IP55 degree of protection, utilization in accordance with thermal class 130 (temperature class B)																				
2-pole: 3000 rpm at 50 Hz, 3600 rpm at 60 Hz [1]																				
11	**12.6**	**132 M**	2955	36	IE3	IE3	91.2	91.9	91.8	0.86	20	2.4	8.8	4.5	68	80	**1LE1003-1CA6■-■■■■**	57	0.031	16
22	**25.3**	**160 L**	2950	71	IE3	IE3	92.7	93.4	93.3	0.91	37.5	2.8	8.7	4	70	82	**1LE1003-1DA6■-■■■■**	105	0.077	16
30	**33.5**	**180 L**	2950	97	IE3	IE3	93.3	93.9	93.9	0.88	53	2.6	8.6	3.9	67	80	**1LE1003-1EA6■-■■■■**	140	0.094	16
45	**51**	**200 L**	2950	146	IE3	IE3	94	94.3	94	0.87	79	2.5	7.1	3.2	77	84	**1LE1003-2AA6■-■■■■**	194	0.16	16
4-pole: 1500 rpm at 50 Hz, 1800 rpm at 60 Hz [1]																				
11	**12.6**	**132**	1470	71	IE3	IE3	91.4	91.9	91.5	0.8	21.5	2.6	7.7	3.6	64	76	▲ **1LE1003-1CB6■-■■■■**	81	0.049	16
18.5	**21.3**	**160 L**	1470	195	IE3	IE2	93.6	94.2	94.1	0.79	59	2.8	7.8	3.7	68	75	**1LE1003-1DB6■-■■■■**	110	0.101	16
30	**34.5**	**180 L**	1475	240	IE3	IE3	93.9	94.3	94.2	0.81	70	3.1	8.1	3.5	65	72	**1LE1003-1EB6■-■■■■**	154	0.173	16
37	**42.5**	**200 L**	1475	120	IE3	IE3	92.6	92.4	91.1	0.76	38	2.8	8.3	4	65	74	**1LE1003-2AB6■-■■■■**	205	0.275	16
6-pole: 1000 rpm at 50 Hz, 1200 rpm at 60 Hz [1]																				
18.5	**22**	**180 L**	975	181	IE3	IE3	91.7	92.3	91.9	0.77	38	2.6	6.9	3.3	68	80	**1LE1003-1EC6■-■■■■**	150	0.247	16
30	**36**	**200 L**	978	293	IE3	IE2	92.9	93.7	93.7	0.79	59	2.8	6.5	2.8	61	68	**1LE1003-2AC6■-■■■■**	220	0.434	16

Voltages				**Motor protection**	No. of poles	Frame size	Motor type	Version				Order code(s)
Frame sizes 132 M to 200 L: Use of the 4 x 90° rotatable terminal box												
50 Hz	230 VΔ/400 VY	60 Hz [1]	460 VY	Any	2, 4, 6	132 M ... 200 L	1LE1003-1C ... -2A	**Standard**	**2**	**2**		–
50 Hz	400 VΔ/690 VY	60 Hz [1]	460 VΔ	Any	2, 4, 6	132 M ... 200 L	1LE1003-1C ... -2A	**Standard**	**3**	**4**		–
50 Hz	500 VY			Any	2, 4, 6	132 M ... 200 L	1LE1003-1C ... -2A	Without add. charge	**2**	**7**		–
50 Hz	500 VΔ			Any	2, 4, 6	132 M ... 200 L	1LE1003-1C ... -2A	Without add. charge	**4**	**0**		–
Further voltages [1]				For price information, code numbers, order codes, and descriptions, see from page 2/63					**9**	**0**		. . .
Types of construction					No. of poles	Frame size	Motor type	Version				Order code(s)
Without flange		IM B3 [2]			2, 4, 6	132 M ... 200 L	1LE1003-1C ... -2A	**Standard**			**A**	–
With flange		IM B5 [2]			2, 4, 6	132 M ... 200 L	1LE1003-1C ... -2A	With add. charge			**F**	–
Further types of construction				For price information, code letters, and descriptions, see from page 2/68							■	. . .
Motor protection					No. of poles	Frame size	Motor type	Version				Order code(s)
Frame sizes 132 M to 200 L: Use of the 4 x 90° rotatable terminal box												
Without					2, 4, 6	132 M ... 200 L	1LE1003-1C ... -2A	**Standard**			**A**	–
PTC thermistor with 3 temperature sensors					2, 4, 6	132 M ... 200 L	1LE1003-1C ... -2A	With add. charge			**B**	–
Further motor protection				For price information, code letters, and descriptions, see from page 2/76							■	. . .
Terminal box position					No. of poles	Frame size	Motor type	Version				Order code(s)
Terminal box at top					2, 4, 6	132 M ... 200 L	1LE1003-1C ... -2A	**Standard**				**4** –
Further terminal box positions				For price information, code numbers, and descriptions, see from page 2/78								
Special versions												Order code(s)
Options				For price information, order codes, and descriptions, see from page 2/80				**1LE1003- . . . . ■-■■■■**			**-Z**	. . .+. . .+. . .+. . .

[1] Operating values at rated power for 60 Hz are stored in the Drive Technology Configurator (DT Configurator; see Appendix, "Tools and Configuring").

[2] Types derived from IM B3 (IM B6/7/8, IM V6, and IM V5), from IM B5 (IM V3 and IM V1) and from IM B14 (IM V19 and IM V18) are possible, provided that no requirements exist for condensation drainage holes (**H03**) or stamping of the type on the rating plate. The basic type IM B3, IM B5 or IM B14 is stamped as standard on the rating plate. When ordering with condensation drainage holes (**H03**), the type must be specified.

Selection and ordering data

P_{rated}, 50 Hz/ P50	P_{rated}, 60 Hz/ P60 [1]	Frame size	Operating values at rated power: n_{rated}, 50 Hz	T_{rated}, 50 Hz	IE class 50 Hz	IE class 60 Hz	η_{rated}, 50 Hz, 4/4	η_{rated}, 50 Hz, 3/4	η_{rated}, 50 Hz, 2/4	cos φ_{rated}, 50 Hz, 4/4	I_{rated}, 50 Hz, 400 V	T_{LR}/T_{rated}, 50 Hz	I_{LR}/I_{rated}, 50 Hz	T_B/T_{rated}, 50 Hz	L_{pfA}, 50 Hz	L_{WA}, 50 Hz	Aluminum series 1LE1001 – IE2 version in accordance with IEC 60034-30 Article No.	$m_{IM\ B3}$	J	Torque class
kW	kW	FS	rpm	Nm			%	%	%		A				dB(A)	dB(A)		kg	kgm^2	CL
• Cooling: Self-ventilated (IC 411) or with order code F90 forced-air cooled without external fan and fan cover (IC 418) • Efficiency: IE2 High Efficiency, service factor (SF) 1.15 • Insulation: Thermal class 155 (temperature class F), IP55 degree of protection, utilization in accordance with thermal class 130 (temperature class B)																				
2-pole: 3000 rpm at 50 Hz, 3600 rpm at 60 Hz [1]																				
0.75	0.86	80 M	2805	2.6	IE2	IE2	77.4	80	80.1	0.84	1.67	1.9	4.9	2.3	60	71	1LE1001-0DA2■-■■■■	9	0.0008	16
1.1	1.27	80 M	2835	3.7	IE2	IE2	79.6	81.3	80.9	0.83	2.4	2.7	6	3.1	60	71	1LE1001-0DA3■-■■■■	11	0.0011	16
1.5	1.75	90 S	2885	4.9	IE2	IE2	81.3	81.7	79.8	0.84	3.15	2.7	6.9	3.6	65	77	1LE1001-0EA0■-■■■■	13	0.0017	16
2.2	2.55	90 L	2890	7.3	IE2	IE2	83.2	83.7	82	0.85	4.5	2.5	7.1	3.7	65	77	1LE1001-0EA4■-■■■■	15	0.0021	16
3	3.45	100 L	2905	9.9	IE2	IE2	84.6	85.5	84.6	0.84	6.1	2.3	7	3.3	67	79	1LE1001-1AA4■-■■■■	21	0.0044	16
4	4.55	112 M	2945	13	IE2	IE2	85.8	86.2	85.1	0.85	7.9	2.1	8	3.6	69	81	1LE1001-1BA2■-■■■■	27	0.0092	16
5.5	6.3	132 S	2950	18	IE2	IE2	87	88	87.6	0.87	10.5	1.8	6.6	2.9	68	80	1LE1001-1CA0■-■■■■	39	0.02	16
7.5	8.6	132 S	2950	24	IE2	IE2	88.1	88.5	87.6	0.87	14.1	2.2	7.5	3.1	68	80	1LE1001-1CA1■-■■■■	43	0.024	16
11	12.6	160 M	2955	36	IE2	IE2	89.4	89.3	88	0.87	20.5	2.1	7.4	3.2	70	82	1LE1001-1DA2■-■■■■	67	0.045	16
15	17.3	160 M	2955	48	IE2	IE2	90.3	90.7	90	0.88	27	2.4	7.6	3.4	70	82	1LE1001-1DA3■-■■■■	75	0.053	16
18.5	21.3	160 L	2955	60	IE2	IE2	90.9	91.3	90.6	0.88	33.5	2.9	7.9	3.6	70	82	1LE1001-1DA4■-■■■■	84	0.061	16
22	24.5	180 M	2940	71	IE2	IE2	91.3	91.8	91.3	0.87	40	2.7	7.4	3.6	77	84	1LE1001-1EA2■-■■■■	123	0.069	16
30	33.5	200 L	2960	97	IE2	IE2	92	92.3	91.8	0.87	54	2.5	6.9	3.3	78	85	1LE1001-2AA4■-■■■■	158	0.13	16
37	41.5	200 L	2960	119	IE2	IE2	92.5	93	92.7	0.88	66	2.7	7.4	3.5	78	85	1LE1001-2AA5■-■■■■	178	0.15	16

Voltages				Motor protection	No. of poles	Frame size	Motor type	Version					Order code(s)
Frame sizes 80 M to 90 L [2]													
50 Hz	230 VΔ/400 VY	60 Hz [1]	460 VY	PTC thermistor with 1 temperature sensor	2	80 M ... 90 L	1LE1001-0D... -0E	**Standard**	2	2			–
50 Hz	400 VΔ/690 VY	60 Hz [1]	460 VΔ		2	80 M ... 90 L	1LE1001-0D... -0E	**Standard**	3	4			–
50 Hz	400 VY	60 Hz [1]	460 VY	Without	2	80 M ... 90 L	1LE1001-0D... -0E	**Standard**	0	2			–
Frame sizes 100 L to 200 L: Use of the 4 x 90° rotatable terminal box													
50 Hz	230 VΔ/400 VY	60 Hz [1]	460 VY	Any	2	100 L ... 200 L	1LE1001-1A ... -2A	**Standard**	2	2			–
50 Hz	400 VΔ/690 VY	60 Hz [1]	460 VΔ	Any	2	100 L ... 200 L	1LE1001-1A ... -2A	**Standard**	3	4			–
50 Hz	500 VY			Any	2	100 L ... 200 L	1LE1001-1A ... -2A	Without add. charge	2	7			–
50 Hz	500 VΔ			Any	2	100 L ... 200 L	1LE1001-1A ... -2A	Without add. charge	4	0			–
Further voltages [1]				For price information, code numbers, order codes, and descriptions, see from page 2/63					9	0			. . .
Types of construction					No. of poles	Frame size	Motor type	Version					Order code(s)
Without flange		IM B3 [3]			2	80 M ... 200 L	1LE1001-0D ... -2A	**Standard**			A		–
With flange		IM B5 [3]			2	80 M ... 200 L	1LE1001-0D ... -2A	With add. charge			F		–
With standard flange		IM B14 [3]			2	80 M ... 160 L	1LE1001-0D ... -2A	With add. charge			K		–
Further types of construction				For price information, code letters, and descriptions, see from page 2/68							■		. . .
Motor protection					No. of poles	Frame size	Motor type	Version					Order code(s)
Frame sizes 100 L to 200 L: Use of the 4 x 90° rotatable terminal box													
Without					2	100 L ... 200 L	1LE1001-1A ... -2A	**Standard**				A	–
PTC thermistor with 3 temperature sensors					2	100 L ... 200 L	1LE1001-1A ... -2A	With add. charge				B	–
Further motor protection				For price information, code letters, and descriptions, see from page 2/76								■	. . .
Terminal box position					No. of poles	Frame size	Motor type	Version					Order code(s)
Terminal box at top					2	80 M ... 200 L	1LE1001-0D ... -2A	**Standard**					4 –
Further terminal box positions				For price information, code numbers, and descriptions, see from page 2/78									
Special versions					No. of poles	Frame size	Motor type						Order code(s)
Forced-air cooled motors w/o ext. fan/fan cover (IC 418)					2	80 M ... 200 L	1LE1001-0D ... -2A	**1LE1001-. . . .** ■-■■■■ -Z					**F90** +. . .+. . .+. . .
Options				For price information, order codes, and descriptions, see from page 2/80				**1LE1001-. . . .** ■-■■■■ -Z					. . .+. . .+. . .+. . .

[1] Operating values at rated power for 60 Hz are stored in the Drive Technology Configurator (DT Configurator; see Appendix, "Tools and Configuring").

[2] For converter operation of shaft heights 80 and 90, ordering with PTC thermistors and their connection to the converter is recommended.

[3] Types derived from IM B3 (IM B6/7/8, IM V6, and IM V5), from IM B5 (IM V3 and IM V1) and from IM B14 (IM V19 and IM V18) are possible, provided that no requirements exist for condensation drainage holes (**H03**) or stamping of the type on the rating plate. The basic type IM B3, IM B5, or IM B14 is stamped as standard on the rating plate. When ordering with condensation drainage holes (**H03**), the type must be specified.

Please note minimum legal efficiencies in the European Economic Area!

IE2

Selection and ordering data (continued)

P_{rated}, 50 Hz/ P50	P_{rated}, 60 Hz/ P60 [1]	Frame size	Operating values at rated power: n_{rated}, 50 Hz	T_{rated}, 50 Hz	IE class 50 Hz	IE class 60 Hz	η_{rated}, 50 Hz, 4/4	η_{rated}, 50 Hz, 3/4	η_{rated}, 50 Hz, 2/4	cos φ_{rated}, 50 Hz, 4/4	I_{rated}, 50 Hz, 400 V	T_{LR}/T_{rated}, 50 Hz	I_{LR}/I_{rated}, 50 Hz	T_B/T_{rated}, 50 Hz	L_{pfA}, 50 Hz	L_{WA}, 50 Hz	Aluminum series 1LE1001 – IE2 version in accordance with IEC 60034-30 Article No.	$m_{IM\ B3}$	J	Torque class
kW	kW	FS	rpm	Nm			%	%	%		A				dB(A)	dB(A)		kg	kgm^2	CL
• Cooling: Self-ventilated (IC 411) or with order code F90 forced-air cooled without external fan and fan cover (IC 418) • Efficiency: IE2 High Efficiency, service factor (SF) 1.15 • Insulation: Thermal class 155 (temperature class F), IP55 degree of protection, utilization in accordance with thermal class 130 (temperature class B)																				
4-pole: 1500 rpm at 50 Hz, 1800 rpm at 60 Hz [1]																				
0.55	0.63	80 M	1440	3.6	IE2	IE2	77.1	76.8	73.7	0.74	1.39	2.2	5.3	3.1	53	64	1LE1001-0DB2■-■■■■	10	0.0017	16
0.75	0.86	80 M	1440	5	IE2	IE2	79.6	79.9	77.5	0.76	1.79	2.2	5.6	3.1	53	64	1LE1001-0DB3■-■■■■	11	0.0021	16
1.1	1.27	90 S	1425	7.4	IE2	IE2	81.4	81.8	80	0.78	2.5	2.3	5.6	2.9	56	68	1LE1001-0EB0■-■■■■	13	0.0028	16
1.5	1.75	90 L	1435	10	IE2	IE2	82.8	83.5	82.2	0.79	3.3	2.6	6.4	3.4	56	68	1LE1001-0EB4■-■■■■	16	0.0036	16
2.2	2.55	100 L	1455	14	IE2	IE2	84.3	85.1	84.2	0.81	4.65	2.1	6.9	3.3	60	72	1LE1001-1AB4■-■■■■	21	0.0086	16
3	3.45	100 L	1455	20	IE2	IE2	85.5	86.4	85.6	0.82	6.2	2	6.9	3.1	60	72	1LE1001-1AB5■-■■■■	25	0.011	16
4	4.55	112 M	1460	26	IE2	IE2	86.6	87.3	86.4	0.81	8.2	2.5	7.1	3.2	58	70	1LE1001-1BB2■-■■■■	29	0.014	16
5.5	6.3	132 S	1465	36	IE2	IE2	87.7	88.4	87.6	0.8	11.3	2.3	6.9	2.9	64	76	1LE1001-1CB0■-■■■■	42	0.027	16
7.5	8.6	132 M	1465	49	IE2	IE2	88.7	89.8	89.8	0.83	14.7	2.3	6.9	2.9	64	76	1LE1001-1CB2■-■■■■	49	0.034	16
11	12.6	160 M	1470	71	IE2	IE2	89.8	91	90.9	0.85	21	2.1	6.7	2.8	65	77	1LE1001-1DB2■-■■■■	71	0.065	16
15	17.3	160 L	1475	97	IE2	IE2	90.6	91.2	90.8	0.85	28	2.3	7.3	3	65	77	1LE1001-1DB4■-■■■■	83	0.083	16
18.5	21.3	180 M	1465	121	IE2	IE2	91.2	92	91.9	0.84	35	2.5	7.2	3.4	61	74	1LE1001-1EB2■-■■■■	128	0.12	16
22	25.3	180 L	1465	143	IE2	IE2	91.6	92.2	91.9	0.84	41.5	2.6	7.3	3.5	69	76	1LE1001-1EB4■-■■■■	132	0.13	16
30	34.5	200 L	1470	195	IE2	IE2	92.3	92.9	92.6	0.84	56	2.5	6.7	3.3	70	77	1LE1001-2AB5■-■■■■	173	0.2	16

Voltages				Motor protection	No. of poles	Frame size	Motor type	Version				Order code(s)
Frame sizes 80 M to 90 L [2]												
50 Hz	230 VΔ/400 VY	60 Hz [1]	460 VY	PTC thermistor with 1 temperature sensor	4	80 M ... 90 L	1LE1001-0D... -0E	**Standard**	2	2		–
50 Hz	400 VΔ/690 VY	60 Hz [1]	460 VΔ		4	80 M ... 90 L	1LE1001-0D... -0E	**Standard**	3	4		–
50 Hz	400 VY	60 Hz [1]	460 VY	Without	4	80 M ... 90 L	1LE1001-0D... -0E	**Standard**	0	2		–
Frame sizes 100 L to 200 L: Use of the 4 x 90° rotatable terminal box												
50 Hz	230 VΔ/400 VY	60 Hz [1]	460 VY	Any	4	100 L ... 200 L	1LE1001-1A ... -2A	**Standard**	2	2		–
50 Hz	400 VΔ/690 VY	60 Hz [1]	460 VΔ	Any	4	100 L ... 200 L	1LE1001-1A ... -2A	**Standard**	3	4		–
50 Hz	500 VY			Any	4	100 L ... 200 L	1LE1001-1A ... -2A	Without add. charge	2	7		–
50 Hz	500 VΔ			Any	4	100 L ... 200 L	1LE1001-1A ... -2A	Without add. charge	4	0		–
Further voltages [1]				For price information, code numbers, order codes, and descriptions, see from page 2/63					9	0		. . .

Types of construction			No. of poles	Frame size	Motor type	Version				Order code(s)
Without flange		IM B3 [3]	4	80 M ... 200 L	1LE1001-0D ... -2A	**Standard**			A	–
With flange		IM B5 [3]	4	80 M ... 200 L	1LE1001-0D ... -2A	With add. charge			F	–
With standard flange		IM B14 [3]	4	80 M ... 160 L	1LE1001-0D ... -2A	With add. charge			K	–
Further types of construction			For price information, code letters, and descriptions, see from page 2/68						■	. . .

Motor protection	No. of poles	Frame size	Motor type	Version				Order code(s)
Frame sizes 100 L to 200 L: Use of the 4 x 90° rotatable terminal box								
Without	4	100 L ... 200 L	1LE1001-1A ... -2A	**Standard**			A	–
PTC thermistor with 3 temperature sensors	4	100 L ... 200 L	1LE1001-1A ... -2A	With add. charge			B	–
Further motor protection	For price information, code letters, and descriptions, see from page 2/76						■	. . .

Terminal box position	No. of poles	Frame size	Motor type	Version				Order code(s)
Terminal box at top	4	80 M ... 200 L	1LE1001-0D ... -2A	**Standard**			4	–
Further terminal box positions	For price information, code numbers, and descriptions, see from page 2/78							

Special versions	No. of poles	Frame size	Motor type					Order code(s)
Forced-air cooled motors w/o ext. fan/fan cover (IC 418)	4	80 M ... 200 L	1LE1001-0D ... -2A	1LE1001-. . . . ■-■■■■			-Z	F90 +. . .+. . .+. . .
Options	For price information, order codes, and descriptions, see from page 2/80			1LE1001-. . . . ■-■■■■			-Z	. . .+. . .+. . .+. . .

1) Operating values at rated power for 60 Hz are stored in the Drive Technology Configurator (DT Configurator; see Appendix, "Tools and Configuring").

2) For converter operation of shaft heights 80 and 90, ordering with PTC thermistors and their connection to the converter is recommended.

3) Types derived from IM B3 (IM B6/7/8, IM V6, and IM V5), from IM B5 (IM V3 and IM V1) and from IM B14 (IM V19 and IM V18) are possible, provided that no requirements exist for condensation drainage holes (**H03**) or stamping of the type on the rating plate. The basic type IM B3, IM B5 or IM B14 is stamped as standard on the rating plate. When ordering with condensation drainage holes (**H03**), the type must be specified.

Selection and ordering data (continued)

P_{rated}, 50 Hz/ P50	P_{rated}, 60 Hz/ P60 [1]	Frame size	Operating values at rated power: n_{rated}, 50 Hz	T_{rated}, 50 Hz	IE class 50 Hz	IE class 60 Hz	η_{rated}, 50 Hz, 4/4	η_{rated}, 50 Hz, 3/4	η_{rated}, 50 Hz, 2/4	cos φ_{rated}, 50 Hz, 4/4	I_{rated}, 50 Hz, 400 V	T_{LR}/T_{rated}, 50 Hz	I_{LR}/I_{rated}, 50 Hz	T_B/T_{rated}, 50 Hz	L_{pfA}, 50 Hz	L_{WA}, 50 Hz	Aluminum series 1LE1001 – IE2 version in accordance with IEC 60034-30 Article No.	$m_{IM\ B3}$	J	Torque class
kW	kW	FS	rpm	Nm			%	%	%		A				dB(A)	dB(A)		kg	kgm^2	CL
• Cooling: Self-ventilated (IC 411) or with order code F90 forced-air cooled without external fan and fan cover (IC 418)																				
• Efficiency: IE2 High Efficiency, service factor (SF) 1.15																				
• Insulation: Thermal class 155 (temperature class F), IP55 degree of protection, utilization in accordance with thermal class 130 (temperature class B)																				
6-pole: 1000 rpm at 50 Hz, 1200 rpm at 60 Hz [1]																				
0.37	**0.43**	**80 M**	925	3.8	IE2	IE2	67.6	67.9	64.4	0.69	1.14	2.1	4	2.4	42	53	**1LE1001-0DC2**■-■■■■	9	0.0017	16
0.55	**0.63**	**80 M**	935	5.6	IE2	IE2	73.1	73.8	70.8	0.66	1.65	2.5	4.4	2.9	42	53	**1LE1001-0DC3**■-■■■■	12	0.0025	16
0.75	**0.86**	**90 S**	935	7.7	IE2	IE2	75.9	76.8	74.5	0.7	2.05	2	4.1	2.5	43	55	**1LE1001-0EC0**■-■■■■	13	0.003	16
1.1	**1.27**	**90 L**	935	11	IE2	IE1	78.1	79.3	77.7	0.7	2.9	2.2	4.4	2.6	43	55	**1LE1001-0EC4**■-■■■■	16	0.004	16
1.5	**1.75**	**100 L**	970	15	IE2	IE2	79.8	80.5	79	0.73	3.7	2	5.4	2.8	59	71	**1LE1001-1AC4**■-■■■■	25	0.011	16
2.2	**2.55**	**112 M**	965	22	IE2	IE2	81.8	82.7	81.7	0.75	5.2	2	5	2.8	62	74	**1LE1001-1BC2**■-■■■■	29	0.014	16
3	**3.45**	**132 S**	970	30	IE2	IE2	83.3	83.4	81	0.72	7.2	1.6	5	2.5	63	75	**1LE1001-1CC0**■-■■■■	38	0.024	13
4	**4.55**	**132 M**	970	39	IE2	IE2	84.6	85.5	84.3	0.75	9.1	1.6	5	2.3	63	75	**1LE1001-1CC2**■-■■■■	43	0.029	13
5.5	**6.3**	**132 M**	970	54	IE2	IE2	86	87.1	86.4	0.76	12.1	1.9	5.6	2.6	63	75	**1LE1001-1CC3**■-■■■■	52	0.037	16
7.5	**8.6**	**160 M**	975	73	IE2	IE2	87.2	87.9	87.2	0.74	16.8	1.9	4.7	2.2	67	79	**1LE1001-1DC2**■-■■■■	77	0.075	16
11	**12.6**	**160 L**	975	108	IE2	IE2	88.7	89.7	89.3	0.76	23.5	1.9	4.8	2.2	67	79	**1LE1001-1DC4**■-■■■■	93	0.098	16
15	**18**	**180 L**	975	147	IE2	IE2	89.7	90.1	89.5	0.78	31	2.5	6	3.1	57	70	**1LE1001-1EC4**■-■■■■	121	0.17	16
18.5	**22**	**200 L**	978	181	IE2	IE1	90.4	91.4	91.3	0.82	36	2.4	5.8	2.6	63	76	**1LE1001-2AC4**■-■■■■	151	0.25	16
22	**26.5**	**200 L**	978	215	IE2	IE1	90.9	91.7	91.4	0.82	42.5	2.5	6.2	2.6	63	76	**1LE1001-2AC5**■-■■■■	173	0.3	16
8-pole: 750 rpm at 50 Hz, 900 rpm at 60 Hz [1]																				
0.75	**0.86**	**100 L**	705	10	IE2	IE2	66.2	65.7	61.6	0.61	2.7	1.5	3.2	2.1	60	72	**1LE1001-1AD4**■-■■■■	21	0.0086	13
1.1	**1.27**	**100 L**	695	15	IE2	IE2	70.8	72.3	69.6	0.65	3.45	1.4	3.2	1.9	60	72	**1LE1001-1AD5**■-■■■■	25	0.011	13
1.5	**1.75**	**112 M**	725	20	IE2	IE2	74.1	73.9	71.2	0.63	4.65	1.6	4	2.4	63	75	**1LE1001-1BD2**■-■■■■	34	0.017	13
2.2	**2.55**	**132 S**	725	29	IE2	IE2	77.6	78.2	76.6	0.62	6.6	1.4	3.5	2	63	75	**1LE1001-1CD0**■-■■■■	46	0.034	10
3	**3.45**	**132 M**	720	40	IE2	IE1	80	80.7	79.2	0.62	8.7	1.4	3.7	2	63	75	**1LE1001-1CD2**■-■■■■	52	0.037	10
4	**4.55**	**160 M**	730	52	IE2	IE2	81.9	82.6	81.4	0.67	10.5	1.6	3.7	1.9	63	75	**1LE1001-1DD2**■-■■■■	69	0.065	13
5.5	**6.3**	**160 M**	730	72	IE2	IE2	83.8	84.2	83	0.67	14.1	1.7	3.9	2	63	75	**1LE1001-1DD3**■-■■■■	82	0.083	13
7.5	**8.6**	**160 L**	725	99	IE2	IE2	85.3	86.4	86	0.7	18.1	1.6	3.8	1.9	63	75	**1LE1001-1DD4**■-■■■■	94	0.098	13
11	**13.2**	**180 L**	720	146	IE2	IE1	86.9	88	87.6	0.7	26	2.3	4.9	2.6	72	80	**1LE1001-1ED4**■-■■■■	122	0.195	16
15	**18**	**200 L**	718	199	IE2	IE2	88	89.5	89.9	0.76	32.5	2.4	5.4	2.8	58	65	**1LE1001-2AD5**■-■■■■	172	0.344	16

Voltages					No. poles	Frame size	Motor type	Version			Order code(s)
Frame sizes 80 M to 90 L [2]											
50 Hz	230 VΔ/400 VY	60 Hz [1]	460 VY	PTC thermistor	6	80 M ... 90 L	1LE1001-0D ... -0E	**Standard**	**2**	**2**	–
50 Hz	400 VΔ/690 VY	60 Hz [1]	460 VΔ	with 1 temperature sensor	6	80 M ... 90 L	1LE1001-0D ... -0E	**Standard**	**3**	**4**	–
50 Hz	400 VY	60 Hz [1]	460 VY	Without	6	80 M ... 90 L	1LE1001-0D ... -0E	**Standard**	**0**	**2**	–
Frame sizes 100 L to 200 L: Use of the 4 x 90° rotatable terminal box											
50 Hz	230 VΔ/400 VY	60 Hz [1]	460 VY		6, 8	100 L ... 200 L	1LE1001-1A ... -2A	**Standard**	**2**	**2**	–
50 Hz	400 VΔ/690 VY	60 Hz [1]	460 VΔ		6, 8	100 L ... 200 L	1LE1001-1A ... -2A	**Standard**	**3**	**4**	–
50 Hz	500 VY				6, 8	100 L ... 200 L	1LE1001-1A ... -2A	Without add. charge	**2**	**7**	–
50 Hz	500 VΔ				6, 8	100 L ... 200 L	1LE1001-1A ... -2A	Without add. charge	**4**	**0**	–
Further voltages [1]				For price information, code numbers, order codes, and descriptions, see from page 2/63					**9**	**0**	...

Types of construction		No. poles	Frame size	Motor type	Version		Order code(s)
Without flange	IM B3 [3]	6, 8	80 M ... 200 L	1LE1001-0D ... -2A	**Standard**	**A**	–
With flange	IM B5 [3]	6, 8	80 M ... 200 L	1LE1001-0D ... -2A	With add. charge	**F**	–
With standard flange	IM B14 [3]	6, 8	80 M ... 160 L	1LE1001-0D ... -2A	With add. charge	**K**	–
Further types of construction	For price information, code letters, and descriptions, see from page 2/68					■	...

Motor protection	No. poles	Frame size	Motor type	Version		Order code(s)
Frame sizes 100 L to 200 L: Use of the 4 x 90° rotatable terminal box						
Without	6, 8	100 L ... 200 L	1LE1001-1A ... -2A	**Standard**	**A**	–
PTC thermistor with 3 temperature sensors	6, 8	100 L ... 200 L	1LE1001-1A ... -2A	With add. charge	**B**	–
Further motor protection	For price information, code letters, and descriptions, see from page 2/76				■	...

Terminal box position	No. poles	Frame size	Motor type	Version		Order code(s)
Terminal box at top	6, 8	80 M ... 200 L	1LE1001-0D ... -2A	**Standard**	**4**	–
Further terminal box positions	For price information, code numbers, and descriptions, see from page 2/78					

Special versions	No. poles	Frame size	Motor type		Order code(s)
Forced-air cooled motors w/o ext. fan/fan cover (IC 418)	6, 8	80 M ... 200 L	1LE1001-0D ... -2A	**1LE1001-**....■-■■■■**-Z**	**F90** +...+...+...
Options	For price information, order codes, and descriptions, see from page 2/80			**1LE1001-**....■-■■■■**-Z**	...+...+...+...

[1] Operating values at rated power for 60 Hz are stored in the Drive Technology Configurator (DT Configurator; see Appendix, "Tools and Configuring").

[2] For converter operation of shaft heights 80 and 90, ordering with PTC thermistors and their connection to the converter is recommended.

[3] Types derived from IM B3 (IM B6/7/8, IM V6, and IM V5), from IM B5 (IM V3 and IM V1) and from IM B14 (IM V19 and IM V18) are possible, provided that no requirements exist for condensation drainage holes (**H03**) or stamping of the type on the rating plate. The basic type IM B3, IM B5, or IM B14 is stamped as standard on the rating plate. When ordering with condensation drainage holes (**H03**), the type must be specified.

Please note minimum legal efficiencies in the European Economic Area!

IE2

Selection and ordering data

P_{rated}, 50 Hz/ P50	P_{rated}, 60 Hz/ P60 [1]	Frame size	Operating values at rated power: n_{rated}, 50 Hz	T_{rated}, 50 Hz	IE class 50 Hz	IE class 60 Hz	η_{rated}, 50 Hz, 4/4	η_{rated}, 50 Hz, 3/4	η_{rated}, 50 Hz, 2/4	cos φ_{rated}, 50 Hz, 4/4	I_{rated}, 50 Hz, 400 V	T_{LR}/T_{rated}, 50 Hz	I_{LR}/I_{rated}, 50 Hz	T_B/T_{rated}, 50 Hz	L_{pfA}, 50 Hz	L_{WA}, 50 Hz	**Aluminum series 1LE1001** – *IE2 version in accordance with IEC 60034-30 with increased power* Article No.	$m_{IM\ B3}$	J	Torque class
kW	kW	FS	rpm	Nm			%	%	%		A				dB(A)	dB(A)		kg	kgm²	CL
• Cooling: Self-ventilated (IC 411) or with order code F90 forced-air cooled without external fan and fan cover (IC 418) • Efficiency: IE2 High Efficiency, service factor (SF) 1.15 • Insulation: Thermal class 155 (temperature class F), IP55 degree of protection, utilization in accordance with thermal class 130 (temperature class B)																				
2-pole: 3000 rpm at 50 Hz, 3600 rpm at 60 Hz [1]																				
1.5	**1.75**	**80 M**	2830	5.1	IE2	IE2	81.3	83.4	83.6	0.85	3.15	2.6	6.1	2.8	60	71	**1LE1001-0DA6■-■■■■**	11	0.0013	16
3	**3.45**	**90 L**	2895	9.9	IE2	IE2	84.6	85.5	84.5	0.86	6	3.4	7.9	3.6	65	77	**1LE1001-0EA6■-■■■■**	15	0.0031	16
4	**4.55**	**100 L**	2905	13	IE2	IE2	85.8	86.9	86.5	0.86	7.8	2.5	7.6	3.5	67	79	**1LE1001-1AA6■-■■■■**	26	0.0054	16
5.5	**6.3**	**112 M**	2945	18	IE2	IE2	87	87.8	87.4	0.88	10.4	2.3	8.5	3.8	69	81	**1LE1001-1BA6■-■■■■**	34	0.012	16
11	**12.6**	**132 M**	2950	36	IE2	IE2	89.4	90.1	89.9	0.89	20	2.3	7.9	3.2	68	80	**1LE1001-1CA6■-■■■■**	57	0.031	16
22	**25.3**	**160 L**	2955	71	IE2	IE2	91.3	91.8	91.4	0.89	39	3.1	8.4	3.7	70	82	**1LE1001-1DA6■-■■■■**	94	0.068	16
30	**33.5**	**180 L**	2940	97	IE2	IE2	92	92.6	92.3	0.89	53	2.3	7.8	3.4	76	83	**1LE1001-1EA6■-■■■■**	139	0.094	16
45	**51**	**200 L**	2950	146	IE2	IE2	92.9	93.2	92.9	0.87	81	2.5	7.1	3.2	77	84	**1LE1001-2AA6■-■■■■**	194	0.176	16
4-pole: 1500 rpm at 50 Hz, 1800 rpm at 60 Hz [1]																				
1.1	**1.27**	**80 M**	1440	7.3	IE2	IE2	81.4	82.1	80.7	0.78	2.5	2.4	6.1	3	53	64	**1LE1001-0DB6■-■■■■**	11	0.0029	16
2.2	**2.55**	**90 L**	1425	15	IE2	IE1	84.3	85.6	85	0.81	4.65	2.8	6.1	3.1	56	68	**1LE1001-0EB6■-■■■■**	16	0.0049	16
4	**4.55**	**100 L**	1460	26	IE2	IE2	86.6	88	87.5	0.8	8.3	2.2	7.5	3.5	60	72	**1LE1001-1AB6■-■■■■**	30	0.014	16
5.5	**6.3**	**112 M**	1460	36	IE2	IE2	87.7	88.2	87.2	0.81	11.2	2.5	7.1	3.2	58	70	**1LE1001-1BB6■-■■■■**	34	0.017	16
11	**12.6**	**132 M**	1465	72	IE2	IE2	89.8	90.9	90.9	0.84	21	2.6	7.7	3.1	64	76	**1LE1001-1CB6■-■■■■**	64	0.046	16
18.5	**21.3**	**160 L**	1475	120	IE2	IE2	91.2	91.8	91.3	0.85	34.5	2.5	7.7	3.3	65	77	**1LE1001-1DB6■-■■■■**	100	0.099	16
30	**34.5**	**180 L**	1465	196	IE2	IE2	92.3	93	92.9	0.81	58	2.5	7.3	3.3	70	77	**1LE1001-1EB6■-■■■■**	148	0.159	16
37	**42.5**	**200 L**	1470	240	IE2	IE2	92.7	93.5	93.6	0.84	69	2.4	7	3	68	75	**1LE1001-2AB6■-■■■■**	189	0.246	16

Voltages				No. of poles	Frame size	Motor type	Version					Order code(s)
Frame sizes 80 M to 90 L [2]												
50 Hz	230 VΔ/400 VY	60 Hz [1]	460 VY	PTC thermistor with 1 temperature sensor	2, 4	80 M ... 90 L	1LE1001-0D ... -0E	**Standard**	**2**	**2**		–
50 Hz	400 VΔ/690 VY	60 Hz [1]	460 VΔ		2, 4	80 M ... 90 L	1LE1001-0D ... -0E	**Standard**	**3**	**4**		–
50 Hz	400 VY	60 Hz [1]	460 VY	Without	2, 4	80 M ... 90 L	1LE1001-0D ... -0E	**Standard**	**0**	**2**		–
Frame sizes 100 L to 200 L: Use of the 4 x 90° rotatable terminal box												
50 Hz	230 VΔ/400 VY	60 Hz [1]	460 VY		2, 4	100 L ... 200 L	1LE1001-1A ... -2A	**Standard**	**2**	**2**		–
50 Hz	400 VΔ/690 VY	60 Hz [1]	460 VΔ		2, 4	100 L ... 200 L	1LE1001-1A ... -2A	**Standard**	**3**	**4**		–
50 Hz	500 VY				2, 4	100 L ... 200 L	1LE1001-1A ... -2A	Without add. charge	**2**	**7**		–
50 Hz	500 VΔ				2, 4	100 L ... 200 L	1LE1001-1A ... -2A	Without add. charge	**4**	**0**		–
Further voltages [1]				For price information, code numbers, order codes, and descriptions, see from page 2/63					**9**	**0**		...

Types of construction		No. of poles	Frame size	Motor type	Version		Order code(s)
Without flange	IM B3 [2]	2, 4	100 L ... 200 L	1LE1001-1A ... -2A	**Standard**	**A**	–
With flange	IM B5 [2]	2, 4	100 L ... 200 L	1LE1001-1A ... -2A	With add. charge	**F**	–
With standard flange	IM B14 [2]	2, 4	80 M ... 160 L	1LE1001-1A ... -2A	With add. charge	**K**	–
Further types of construction		For price information, code letters, and descriptions, see from page 2/68				**■**	...

Motor protection	No. of poles	Frame size	Motor type	Version		Order code(s)
Without	2, 4	100 L ... 200 L	1LE1001-1A ... -2A	**Standard**	**A**	–
PTC thermistor with 3 temperature sensors	2, 4	100 L ... 200 L	1LE1001-1A ... -2A	With add. charge	**B**	–
Further motor protection	For price information, code letters, and descriptions, see from page 2/76				**■**	...

Terminal box position	No. of poles	Frame size	Motor type	Version		Order code(s)
Terminal box at top	2, 4	100 L ... 200 L	1LE1001-1A ... -2A	**Standard**	**4**	–
Further terminal box positions	For price information, code numbers, and descriptions, see from page 2/78					

Special versions			Order code(s)
Options	For price information, order codes, and descriptions, see from page 2/80	**1LE1001-. . . . ■-■■■■-Z**	. . .+. . .+. . .+. . .

[1] Operating values at rated power for 60 Hz are stored in the Drive Technology Configurator (DT Configurator; see Appendix, "Tools and Configuring").

[2] Types derived from IM B3 (IM B6/7/8, IM V6, and IM V5), from IM B5 (IM V3 and IM V1) and from IM B14 (IM V19 and IM V18) are possible, provided that no requirements exist for condensation drainage holes (**H03**) or stamping of the type on the rating plate. The basic type IM B3, IM B5, or IM B14 is stamped as standard on the rating plate. When ordering with condensation drainage holes (**H03**), the type must be specified.

Selection and ordering data (continued)

P_{rated}, 50 Hz/ P50	P_{rated}, 60 Hz/ P60 [1]	Frame size	n_{rated}, 50 Hz	T_{rated}, 50 Hz	IE class 50 Hz	IE class 60 Hz	η_{rated}, 50 Hz, 4/4	η_{rated}, 50 Hz, 3/4	η_{rated}, 50 Hz, 2/4	cos φ_{rated}, 50 Hz, 4/4	I_{rated}, 50 Hz, 400 V	T_{LR}/T_{rated}, 50 Hz	I_{LR}/I_{rated}, 50 Hz	T_B/T_{rated}, 50 Hz	L_{pfA}, 50 Hz	L_{WA}, 50 Hz	Aluminum series 1LE1001 – IE2 version in accordance with IEC 60034-30 with increased power Article No.	$m_{IM\ B3}$	J	Torque class
kW	kW	FS	rpm	Nm			%	%	%		A				dB(A)	dB(A)		kg	kgm²	CL
• Cooling: Self-ventilated (IC 411) or with order code F90 forced-air cooled without external fan and fan cover (IC 418)																				
• Efficiency: IE2 High Efficiency, service factor (SF) 1.15																				
• Insulation: Thermal class 155 (temperature class F), IP55 degree of protection, utilization in accordance with thermal class 130 (temperature class B)																				
6-pole: 1000 rpm at 50 Hz, 1200 rpm at 60 Hz [1]																				
2.2	**2.55**	**100 L**	965	22	IE2	IE1	81.8	83.3	82.7	0.76	5.1	1.7	4.9	2.5	59	71	**1LE1001-1AC6** ■-■■■■	30	0.014	13
3	**3.45**	**112 M**	965	30	IE2	IE2	83.3	84	82.7	0.74	7	2.1	5.4	2.7	62	74	**1LE1001-1BC6** ■-■■■■	34	0.017	16
7.5	**8.6**	**132 M**	970	74	IE2	IE2	87.2	88.1	87.1	0.75	16.6	2	5.6	2.6	63	75	**1LE1001-1CC6** ■-■■■■	64	0.046	16
15	**17.3**	**160 L**	975	147	IE2	IE1	89.7	90.4	89.7	0.75	32	2	5.2	2.4	67	79	**1LE1001-1DC6** ■-■■■■	115	0.12	16
18.5	**22**	**180 L**	975	181	IE2	IE2	90.4	90.9	90.5	0.77	38.5	2.3	6	2.9	67	80	**1LE1001-1EC6** ■-■■■■	130	0.206	16
30	**34.5**	**200 L**	975	294	IE2	IE2	91.7	92.5	92.4	0.77	61	2.6	6.3	2.7	68	75	**1LE1001-2AC6** ■-■■■■	192	0.381	16
8-pole: 750 rpm at 50 Hz, 900 rpm at 60 Hz [1]																				
15	**18**	**180 L**	720	199	IE2	IE1	88	89.2	89	0.73	33.5	2.2	4.9	2.5	67	75	**1LE1001-1ED6** ■-■■■■	151	0.263	16
18.5	**22**	**200 L**	720	245	IE2	IE1	88.6	89.9	90.2	0.78	38.5	2.6	5.8	3	65	72	**1LE1001-2AD6** ■-■■■■	198	0.416	16

Voltages				No. of poles	Frame size	Motor type	Version			Order code(s)
Frame sizes 100 L to 200 L: Use of the 4 x 90° rotatable terminal box										
50 Hz	230 VΔ/400 VY	60 Hz [1]	460 VY	6, 8	100 L ... 200 L	1LE1001-1A ... -2A	**Standard**	2	2	–
50 Hz	400 VΔ/690 VY	60 Hz [1]	460 VΔ	6, 8	100 L ... 200 L	1LE1001-1A ... -2A	**Standard**	3	4	–
50 Hz	500 VY			6, 8	100 L ... 200 L	1LE1001-1A ... -2A	Without add. charge	2	7	–
50 Hz	500 VΔ			6, 8	100 L ... 200 L	1LE1001-1A ... -2A	Without add. charge	4	0	–
Further voltages [1]			For price information, code numbers, order codes, and descriptions, see from page 2/63					9	0	. . .

Types of construction			No. of poles	Frame size	Motor type	Version		Order code(s)
Without flange		IM B3 [2]	6, 8	100 L ... 200 L	1LE1001-1A ... -2A	**Standard**	A	–
With flange		IM B5 [2]	6, 8	100 L ... 200 L	1LE1001-1A ... -2A	With add. charge	F	–
With standard flange		IM B14 [2]	6, 8	100 L ... 160 L	1LE1001-1A ... -2A	With add. charge	K	–
Further types of construction			For price information, code letters, and descriptions, see from page 2/68				■	. . .

Motor protection	No. of poles	Frame size	Motor type	Version		Order code(s)
Without	6, 8	100 L ... 200 L	1LE1001-1A ... -2A	**Standard**	A	–
PTC thermistor with 3 temperature sensors	6, 8	100 L ... 200 L	1LE1001-1A ... -2A	With add. charge	B	–
Further motor protection	For price information, code letters, and descriptions, see from page 2/76				■	. . .

Terminal box position	No. of poles	Frame size	Motor type	Version		Order code(s)
Terminal box at top	6, 8	100 L ... 200 L	1LE1001-1A ... -2A	**Standard**	4	–
Further terminal box positions	For price information, code numbers, and descriptions, see from page 2/78					

Special versions			Order code(s)
Options	For price information, order codes, and descriptions, see from page 2/80	**1LE1001-. . . .** ■-■■■■	-Z . . .+. . .+. . .+. . .

[1] Operating values at rated power for 60 Hz are stored in the Drive Technology Configurator (DT Configurator; see Appendix, "Tools and Configuring").

[2] Types derived from IM B3 (IM B6/7/8, IM V6, and IM V5), from IM B5 (IM V3 and IM V1) and from IM B14 (IM V19 and IM V18) are possible, provided that no requirements exist for condensation drainage holes (**H03**) or stamping of the type on the rating plate. The basic type IM B3, IM B5 or IM B14 is stamped as standard on the rating plate. When ordering with condensation drainage holes (**H03**), the type must be specified.

Please note minimum legal efficiencies in the European Economic Area!

IE1

Selection and ordering data

P_{rated}, 50 Hz/ P50	P_{rated}, 60 Hz/ P60 [1]	Frame size	Operating values at rated power: n_{rated}, 50 Hz	T_{rated}, 50 Hz	IE class	η_{rated}, 50 Hz, 4/4	η_{rated}, 50 Hz, 3/4	η_{rated}, 50 Hz, 2/4	cos φ_{rated}, 50 Hz, 4/4	I_{rated}, 50 Hz, 400 V	T_{LR}/T_{rated}, 50 Hz	I_{LR}/I_{rated}, 50 Hz	T_B/T_{rated}, 50 Hz	L_{pfA}, 50 Hz	L_{WA}, 50 Hz	Aluminum series 1LE1002 – IE1 version in accordance with IEC 60034-30 Article No.	$m_{IM\ B3}$	J	Torque class
kW	kW	FS	rpm	Nm		%	%	%		A				dB(A)	dB(A)	▲ New	kg	kgm²	CL
• Cooling: Self-ventilated (IC 411) or with order code F90 forced-air cooled without external fan and fan cover (IC 418)																			
• Efficiency: IE1 Standard Efficiency, service factor (SF) 1.1																			
• Insulation: Thermal class 155 (temperature class F), IP55 degree of protection, utilization in accordance with thermal class 130 (temperature class B)																			
2-pole: 3000 rpm at 50 Hz, 3600 rpm at 60 Hz [1]																			
0.75	0.86	80 M	2835	2.5	IE1	72.1	72.6	69.9	0.86	1.75	2.1	5.2	2.3	64	71	▲ 1LE1002-0DA2■-■■■■	9	0.00079	16
1.1	1.27	80 M	2840	3.7	IE1	75.0	75.7	73.4	0.86	2.45	2.5	5.7	2.5	64	71	▲ 1LE1002-0DA3■-■■■■	12	0.0010	16
1.5	1.75	90 S	2835	5.1	IE1	77.2	78.2	76.8	0.85	3.3	2.6	5.5	2.9	71	78	▲ 1LE1002-0EA0■-■■■■	13	0.0014	16
2.2	2.55	90 L	2855	7.4	IE1	79.7	80.9	81.3	0.85	4.7	2.8	6.5	3.2	71	78	▲ 1LE1002-0EA4■-■■■■	14	0.0018	16
3	3.45	100 L	2835	10	IE1	81.5	83.2	82.8	0.87	6.1	3.2	6.4	3.5	67	79	1LE1002-1AA4■-■■■■	20	0.0034	16
4	4.55	112 M	2935	13	IE1	83.1	83.0	80.8	0.85	8.2	3.3	8.3	4.2	69	81	1LE1002-1BA2■-■■■■	25	0.0067	16
5.5	6.3	132 S	2910	18	IE1	84.7	85.9	85.7	0.88	10.7	1.8	5.7	2.6	68	80	1LE1002-1CA0■-■■■■	35	0.013	16
7.5	8.6	132 S	2925	24	IE1	86.0	86.7	86.1	0.88	14.3	2.2	6.8	3.1	68	80	1LE1002-1CA1■-■■■■	40	0.016	16
11	12.6	160 M	2925	36	IE1	87.6	88.0	87.1	0.86	21.0	2.0	5.7	2.7	70	82	1LE1002-1DA2■-■■■■	60	0.030	16
15	17.3	160 M	2935	49	IE1	88.7	88.9	87.7	0.85	28.5	2.4	6.8	3.2	70	82	1LE1002-1DA3■-■■■■	68	0.036	16
18.5	21.3	160 L	2935	60	IE1	89.3	89.7	89.3	0.87	34.5	2.7	7.6	3.4	70	82	1LE1002-1DA4■-■■■■	78	0.044	16
22	24.5	180 M	2945	71	IE1	89.9	90.6	90.4	0.87	40.5	2.5	7.7	3.5	72	85	▲ 1LE1002-1EA2■-■■■■	112	0.069	16
30	33.5	200 L	2960	97	IE1	90.7	90.9	90.2	0.79	60	2.5	7.3	3.6	72	85	▲ 1LE1002-2AA4■-■■■■	149	0.124	16
37	41.5	200 L	2955	120	IE1	91.2	91.6	91.2	0.88	67	2.7	8.2	3.5	72	85	▲ 1LE1002-2AA5■-■■■■	169	0.15	16
4-pole: 1500 rpm at 50 Hz, 1800 rpm at 60 Hz [1]																			
0.55	0.63	80 M	1385	3.8	IE1	70.0	70.7	67.7	0.79	1.44	2.1	3.7	2.2	59	66	▲ 1LE1002-0DB2■-■■■■	9	0.0014	16
0.75	0.86	80 M	1385	5.2	IE1	72.1	72.0	67.0	0.76	1.85	2.1	3.6	2.3	59	66	▲ 1LE1002-0DB3■-■■■■	11	0.0017	16
1.1	1.27	90 S	1405	7.5	IE1	75.0	75.9	73.6	0.81	2.5	2.1	4.5	2.3	61	68	▲ 1LE1002-0EB0■-■■■■	12	0.0024	16
1.5	1.75	90 L	1410	10	IE1	77.2	77.8	75.1	0.80	3.35	2.4	4.7	2.6	61	68	▲ 1LE1002-0EB4■-■■■■	15	0.0033	16
2.2	2.55	100 L	1425	15	IE1	79.7	80.5	78.5	0.81	4.9	2.2	5.1	2.3	60	72	1LE1002-1AB4■-■■■■	18	0.0059	16
3	3.45	100 L	1425	20	IE1	81.5	83.0	82.3	0.85	6.3	2.4	5.4	2.6	60	72	1LE1002-1AB5■-■■■■	22	0.0078	16
4	4.55	112 M	1435	27	IE1	83.1	84.3	83.7	0.83	8.4	2.5	6.1	2.9	58	70	1LE1002-1BB2■-■■■■	27	0.010	16
5.5	6.3	132 S	1450	36	IE1	84.7	85.7	84.9	0.82	11.2	2.3	5.7	2.7	64	76	1LE1002-1CB0■-■■■■	38	0.019	16
7.5	8.6	132 M	1450	49	IE1	86.0	86.9	86.3	0.82	15.2	2.6	6.6	3.1	64	76	1LE1002-1CB2■-■■■■	44	0.024	16
11	12.6	160 M	1460	72	IE1	87.6	87.9	86.7	0.81	22.5	2.7	6.9	3.3	65	77	1LE1002-1DB2■-■■■■	62	0.044	16
15	17.3	160 L	1460	98	IE1	88.7	89.1	88.0	0.82	30.0	3.0	7.5	3.6	65	77	1LE1002-1DB4■-■■■■	73	0.056	16
18.5	21.3	180 M	1468	120	IE1	89.3	90.2	90.2	0.85	35	2.2	7.3	3.1	63	76	▲ 1LE1002-1EB2■-■■■■	131	0.13	16
22	25.3	180 L	1465	143	IE1	89.9	90.8	90.7	0.83	42.5	2.7	8	3.6	63	76	▲ 1LE1002-1EB4■-■■■■	132	0.13	16
30	34.5	200 L	1472	195	IE1	90.7	91.5	91.4	0.83	58	2.3	6.9	3.1	64	78	▲ 1LE1002-2AB5■-■■■■	169	0.2	16

Voltages				No. of poles	Frame size	Motor type	Version			Order code(s)
50 Hz	230 VΔ/400 VY	60 Hz [1]	460 VY	2, 4	80 L ... 200 L	1LE1002-0D ... -2A	**Standard**	2	2	–
50 Hz	400 VΔ/690 VY	60 Hz [1]	460 VΔ	2, 4	80 L ... 200 L	1LE1002-0D ... -2A	**Standard**	3	4	–
50 Hz	500 VY			2, 4	80 L ... 200 L	1LE1002-0D ... -2A	Without add. charge	2	7	–
50 Hz	500 VΔ			2, 4	80 L ... 200 L	1LE1002-0D ... -2A	W/o add. charge	4	0	–
Further voltages [1]		For price information, code numbers, order codes, and descriptions, see from page 2/63						9	0	. . .
Types of construction				No. of poles	Frame size	Motor type	Version			Order code(s)
Without flange		IM B3 [2]		2, 4	80 L ... 200 L	1LE1002-0D ... -2A	**Standard**		A	–
With flange		IM B5 [2]		2, 4	80 L ... 200 L	1LE1002-0D ... -2A	With add. charge		F	–
With standard flange		IM B14 [2]		2, 4	80 L ... 200 L	1LE1002-0D ... -2A	With add. charge		K	–
Further types of construction		For price information, code letters, and descriptions, see from page 2/68							■	. . .
Motor protection				No. of poles	Frame size	Motor type	Version			Order code(s)
Without				2, 4	80 L ... 200 L	1LE1002-0D ... -2A	**Standard**			A –
PTC thermistor with 3 temperature sensors				2, 4	80 L ... 200 L	1LE1002-0D ... -2A	With add. charge			B –
Further motor protection		For price information, code letters, and descriptions, see from page 2/76								■ . . .
Terminal box position				No. of poles	Frame size	Motor type	Version			Order code(s)
Terminal box at top				2, 4	80 L ... 200 L	1LE1002-0D ... -2A	**Standard**			4 –
Further terminal box positions		For price information, code numbers, and descriptions, see from page 2/78								
Special versions				No. of poles	Frame size	Motor type				Order code(s)
Forced-air cooled motors without ext. fan/fan cover (IC 418)					80 L ... 200 L	1LE1002-0D ... -2A	1LE1002-. . . . ■-■■■■			-Z F90 +. . .+. . .+. . .
Options		For price information, order codes, and descriptions, see from page 2/80					1LE1002-. . . . ■-■■■■			-Z . . .+. . .+. . .+. . .

[1] Operating values at rated power for 60 Hz are stored in the Drive Technology Configurator (DT Configurator; see Appendix, "Tools and Configuring").

[2] Types derived from IM B3 (IM B6/7/8, IM V6, and IM V5), from IM B5 (IM V3 and IM V1) and from IM B14 (IM V19 and IM V18) are possible, provided that no requirements exist for condensation drainage holes (**H03**) or stamping of the type on the rating plate. The basic type IM B3, IM B5 or IM B14 is stamped as standard on the rating plate. When ordering with condensation drainage holes (**H03**), the type must be specified.

Selection and ordering data

P_{rated}, 50 Hz/ P50	P_{rated}, 60 Hz/ P60 [1]	Frame size	Operating values at rated power: n_{rated}, 50 Hz	T_{rated}, 50 Hz	IE class	η_{rated}, 50 Hz, 4/4	η_{rated}, 50 Hz, 3/4	η_{rated}, 50 Hz, 2/4	cos φ_{rated}, 50 Hz, 4/4	I_{rated}, 50 Hz, 400 V	T_{LR}/T_{rated}, 50 Hz	I_{LR}/I_{rated}, 50 Hz	T_B/T_{rated}, 50 Hz	L_{pfA}, 50 Hz	L_{WA}, 50 Hz	Aluminum series 1LE1002 – IE1 version in accordance with IEC 60034-30 Article No.	$m_{IM\ B3}$	J	Torque class
kW	kW	FS	rpm	Nm		%	%	%		A				dB(A)	dB(A)	▲ New	kg	kgm²	CL
• Cooling: Self-ventilated (IC 411) or with order code F90 forced-air cooled without external fan and fan cover (IC 418)																			
• Efficiency: IE1 Standard Efficiency, service factor (SF) 1.1																			
• Insulation: Thermal class 155 (temperature class F), IP55 degree of protection, utilization in accordance with thermal class 130 (temperature class B)																			
6-pole: 1000 rpm at 50 Hz, 1200 rpm at 60 Hz [1]																			
0.37	**0.43**	**80 M**	915	3.9	IE1	57.9	56.9	51.1	0.70	1.23	1.6	2.7	1.8	56	64	▲ **1LE1002-0DC2**■-■■■■	9	0.0014	13
0.55	**0.63**	**80 M**	900	5.8	IE1	65.8	66.6	62.6	0.72	1.68	1.7	2.7	1.9	56	64	▲ **1LE1002-0DC3**■-■■■■	12	0.0017	13
0.75	**0.86**	**90 S**	940	7.6	IE1	70.0	70.0	66.0	0.67	2.30	2.0	3.8	2.2	59	70	▲ **1LE1002-0EC0**■-■■■■	13	0.0033	16
1.1	**1.27**	**90 L**	925	11	IE1	72.9	73.8	71.2	0.69	3.15	2.2	3.8	2.4	59	70	▲ **1LE1002-0EC4**■-■■■■	15	0.004	16
1.5	**1.75**	**100 L**	940	15	IE1	75.2	76.0	72.4	0.74	3.9	2.0	4.0	2.2	59	71	**1LE1002-1AC4**■-■■■■	19	0.0065	16
2.2	**2.55**	**112 M**	940	22	IE1	77.7	78.5	76.3	0.72	5.7	2.6	4.6	2.7	57	69	**1LE1002-1BC2**■-■■■■	25	0.0092	16
3	**3.45**	**132 S**	955	30	IE1	79.7	80.2	77.7	0.74	7.3	2.0	4.6	2.6	63	75	**1LE1002-1CC0**■-■■■■	34	0.017	16
4	**4.55**	**132 M**	955	40	IE1	81.4	82.6	81.9	0.76	9.3	2.3	5.2	2.6	63	75	**1LE1002-1CC2**■-■■■■	39	0.021	16
5.5	**6.3**	**132 M**	955	55	IE1	83.1	84.0	83.0	0.75	12.7	2.7	5.7	3.0	63	75	**1LE1002-1CC3**■-■■■■	48	0.027	16
7.5	**8.6**	**160 M**	970	74	IE1	84.7	85.4	85.0	0.73	17.5	2.1	5.5	2.9	67	79	**1LE1002-1DC2**■-■■■■	72	0.056	16
11	**12.6**	**160 L**	965	109	IE1	86.4	86.4	85.4	0.77	24	1.9	5.9	2.7	67	79	**1LE1002-1DC4**■-■■■■	92	0.078	16
15	**18**	**180 L**	975	147	IE1	87.7	88.5	87.9	0.77	32	2.3	6.1	3	56	69	▲ **1LE1002-1EC4**■-■■■■	119	0.17	16
18.5	**22**	**200 L**	980	214	IE1	89.2	90	89.6	0.79	45	2.8	6.8	2.9	59	72	▲ **1LE1002-2AC4**■-■■■■	149	0.25	16
22	**26.5**	**200 L**	980	214	IE1	89.2	90	89.6	0.79	45	2.8	6.8	2.9	59	72	▲ **1LE1002-2AC5**■-■■■■	166	0.3	16
8-pole: 750 rpm at 50 Hz, 900 rpm at 60 Hz [1]																			
0.75	**0.86**	**100 L**	705	10	IE1	61.2	58.1	50.5	0.62	2.85	1.9	3	2.2	60	72	**1LE1002-1AD4**■-■■■■	17	0.0056	16
1.1	**1.27**	**100 L**	690	15	IE1	66.5	66.0	61.8	0.61	3.90	2.0	3.2	2.3	60	72	**1LE1002-1AD5**■-■■■■	22	0.0078	16
1.5	**1.75**	**112 M**	700	20	IE1	70.2	71.1	68.7	0.66	4.65	1.9	3.5	2.1	63	75	**1LE1002-1BD2**■-■■■■	29	0.0094	13
2.2	**2.55**	**132 S**	715	29	IE1	74.2	74.1	71.4	0.66	6.5	1.7	3.9	2.4	63	75	**1LE1002-1CD0**■-■■■■	37	0.019	13
3	**3.45**	**132 M**	715	40	IE1	77.0	77.4	75.2	0.68	8.3	1.8	3.9	2.2	63	75	**1LE1002-1CD2**■-■■■■	44	0.024	13
4	**4.55**	**160 M**	720	53	IE1	79.2	79.3	76.3	0.67	10.9	1.6	4.1	2.3	63	75	**1LE1002-1DD2**■-■■■■	60	0.044	13
5.5	**6.3**	**160 M**	720	73	IE1	81.4	81.9	80.3	0.68	14.3	1.6	4	2.2	63	75	**1LE1002-1DD3**■-■■■■	72	0.056	13
7.5	**8.6**	**160 L**	715	100	IE1	83.1	83.7	82.4	0.69	18.9	1.7	3.8	2.2	63	75	**1LE1002-1DD4**■-■■■■	91	0.077	13
11	**13.2**	**180 L**	720	146	IE1	85	86.2	86	0.7	26.5	1.9	5	2.5	65	78	▲ **1LE1002-1ED4**■-■■■■	122	0.2	13
15	**18**	**200 L**	718	199	IE1	86.2	87.9	88.4	0.75	33.5	2.5	5.5	2.9	55	69	▲ **1LE1002-2AD5**■-■■■■	170	0.3	13

Voltages				No. of poles	Frame size	Motor type	Version			Order code(s)
50 Hz	230 VΔ/400 VY	60 Hz [1]	460 VY	6, 8	80 L ... 200 L	1LE1002-0D ... -2A	**Standard**	**2**	**2**	–
50 Hz	400 VΔ/690 VY	60 Hz [1]	460 VΔ	6, 8	80 L ... 200 L	1LE1002-0D ... -2A	**Standard**	**3**	**4**	–
50 Hz	500 VY			6, 8	80 L ... 200 L	1LE1002-0D ... -2A	Without add. charge	**2**	**7**	–
50 Hz	500 VΔ			6, 8	80 L ... 200 L	1LE1002-0D ... -2A	Without add. charge	**4**	**0**	–
Further voltages [1]			For price information, code numbers, order codes, and descriptions, see from page 2/63					**9**	**0**	. . .

Types of construction		No. of poles	Frame size	Motor type	Version		Order code(s)
Without flange	IM B3 [2]	6, 8	80 L ... 200 L	1LE1002-0D ... -2A	**Standard**	**A**	–
With flange	IM B5 [2]	6, 8	80 L ... 200 L	1LE1002-0D ... -2A	With add. charge	**F**	–
With standard flange	IM B14 [2]	6, 8	80 L ... 200 L	1LE1002-0D ... -2A	With add. charge	**K**	–
Further types of construction	For price information, code letters, and descriptions, see from page 2/68					■	. . .

Motor protection	No. of poles	Frame size	Motor type	Version		Order code(s)
Without	6, 8	80 L ... 200 L	1LE1002-0D ... -2A	**Standard**	**A**	–
PTC thermistor with 3 temperature sensors	6, 8	80 L ... 200 L	1LE1002-0D ... -2A	With add. charge	**B**	–
Further motor protection	For price information, code letters, and descriptions, see from page 2/76				■	. . .

Terminal box position	No. of poles	Frame size	Motor type	Version		Order code(s)
Terminal box at top	6, 8	80 L ... 200 L	1LE1002-0D ... -2A	**Standard**	**4**	–
Further terminal box positions	For price information, code numbers, and descriptions, see from page 2/78					

Special versions	No. of poles	Frame size	Motor type		Order code(s)
Forced-air cooled motors without ext. fan/fan cover (IC 418)	80 L ... 200 L		1LE1002-0D ... -2A	**1LE1002-**. . . . ■-■■■■**-Z**	**F90** +. . .+. . .+. . .
Options	For price information, order codes, and descriptions, see from page 2/80			**1LE1002-**. . . . ■-■■■■**-Z**	. . .+. . .+. . .+. . .

[1] Operating values at rated power for 60 Hz are stored in the Drive Technology Configurator (DT Configurator; see Appendix, "Tools and Configuring").

[2] Types derived from IM B3 (IM B6/7/8, IM V6, and IM V5), from IM B5 (IM V3 and IM V1) and from IM B14 (IM V19 and IM V18) are possible, provided that no requirements exist for condensation drainage holes (**H03**) or stamping of the type on the rating plate. The basic type IM B3, IM B5 or IM B14 is stamped as standard on the rating plate. When ordering with condensation drainage holes (**H03**), the type must be specified.

Please note minimum legal efficiencies in the European Economic Area!

IE1

Selection and ordering data

P_{rated}, 50 Hz/ P50	P_{rated}, 60 Hz/ P60 [1]	Frame size	Operating values at rated power: n_{rated}, 50 Hz	T_{rated}, 50 Hz	IE class	η_{rated}, 50 Hz, 4/4	η_{rated}, 50 Hz, 3/4	η_{rated}, 50 Hz, 2/4	cos φ_{rated}, 50 Hz, 4/4	I_{rated}, 50 Hz, 400 V	T_{LR}/T_{rated}, 50 Hz	I_{LR}/I_{rated}, 50 Hz	T_B/T_{rated}, 50 Hz	L_{pfA}, 50 Hz	L_{WA}, 50 Hz	Aluminum series 1LE1002 – IE1 version in accordance with IEC 60034-30 with increased power: Article No.	$m_{IM\ B3}$	J	Torque class
kW	kW	FS	rpm	Nm		%	%	%		A				dB(A)	dB(A)		kg	kgm²	CL
• Cooling: Self-ventilated (IC 411) or with order code F90 forced-air cooled without external fan and fan cover (IC 418) • Efficiency: IE1 Standard Efficiency, (SF) 1.1 • Insulation: Thermal class 155 (temperature class F), IP55 degree of protection, utilization in accordance with thermal class 130 (temperature class B)																			
2-pole: 3000 rpm at 50 Hz, 3600 rpm at 60 Hz [1]																			
4	**4.55**	**100 L**	2850	13	IE1	83.1	83.9	83	0.85	8.2	4.5	7	4.1	67	79	**1LE1002-1AA6■-■■■■**	25	0.0044	16
5.5	**6.3**	**112 M**	2935	18	IE1	84.7	84.7	82.7	0.86	10.9	2.9	7.5	3.8	69	81	**1LE1002-1BA6■-■■■■**	31	0.0085	16
11	**12.6**	**132 M**	2920	36	IE1	87.6	88.3	87.8	0.9	20	2.8	7.5	3.7	68	80	**1LE1002-1CA6■-■■■■**	53	0.022	16
22	**24.5**	**160 L**	2935	72	IE1	89.9	90.2	89.5	0.9	39	2.6	7.5	3.4	70	82	**1LE1002-1DA6■-■■■■**	85	0.049	16
4-pole: 1500 rpm at 50 Hz, 1800 rpm at 60 Hz [1]																			
4	**4.55**	**100 L**	1435	27	IE1	83.1	83.8	82.3	0.81	8.6	2.9	5.8	3.1	60	72	**1LE1002-1AB6■-■■■■**	27	0.010	16
5.5	**6.3**	**112 M**	1420	37	IE1	84.7	85.9	85.3	0.81	11.6	3	5.8	3.1	58	70	**1LE1002-1BB6■-■■■■**	33	0.012	16
11	**12.6**	**132 M**	1450	72	IE1	87.6	88.2	87.6	0.84	21.5	2.5	7.2	3	64	76	**1LE1002-1CB6■-■■■■**	58	0.033	16
18.5	**21.3**	**160 L**	1460	121	IE1	89.3	89.8	89.2	0.85	35	2.7	7.2	3.2	65	77	**1LE1002-1DB6■-■■■■**	85	0.068	16
6-pole: 1000 rpm at 50 Hz, 1200 rpm at 60 Hz [1]																			
2.2	**2.55**	**100 L**	930	23	IE1	77.7	79.5	78.1	0.78	5.2	2	4	2.2	59	71	**1LE1002-1AC6■-■■■■**	24	0.0084	16
3	**3.45**	**112 M**	945	30	IE1	79.7	79.5	76.3	0.72	7.5	2.9	4.6	3	57	69	**1LE1002-1BC6■-■■■■**	32	0.013	16
7.5	**8.6**	**132 M**	950	75	IE1	84.7	85.3	84.1	0.74	17.3	2.4	5.3	3	63	75	**1LE1002-1CC6■-■■■■**	54	0.032	16
15	**17.3**	**160 L**	965	148	IE1	87.7	87.9	86.5	0.75	33	2.9	6	3.4	67	79	**1LE1002-1DC6■-■■■■**	109	0.094	16

Voltages				No. of poles	Frame size	Motor type	Version			Order code(s)
50 Hz	230 VΔ/400 VY	60 Hz [1]	460 VY	2, 4, 6, 8	100 L ... 200	1LE1002-1A ... -1D	**Standard**	**2**	**2**	–
50 Hz	400 VΔ/690 VY	60 Hz [1]	460 VΔ	2, 4, 6, 8	100 L ... 200	1LE1002-1A ... -1D	**Standard**	**3**	**4**	–
50 Hz	500 VY			2, 4, 6, 8	100 L ... 200	1LE1002-1A ... -1D	Without add. charge	**2**	**7**	–
50 Hz	500 VΔ			2, 4, 6, 8	100 L ... 200	1LE1002-1A ... -1D	Without add. charge	**4**	**0**	–
Further voltages [1]			For price information, code numbers, order codes, and descriptions, see from page 2/63					**9**	**0**	. . .
Types of construction				No. of poles	Frame size	Motor type	Version			Order code(s)
Without flange		IM B3 [2]		2, 4, 6, 8	100 L ... 200	1LE1002-1A ... -1D	**Standard**		**A**	–
With flange		IM B5 [2]		2, 4, 6, 8	100 L ... 200	1LE1002-1A ... -1D	With add. charge		**F**	–
With standard flange		IM B14 [2]		2, 4, 6, 8	100 L ... 200	1LE1002-1A ... -1D	With add. charge		**K**	–
Further types of construction			For price information, code letters, and descriptions, see from page 2/68						■	. . .
Motor protection				No. of poles	Frame size	Motor type	Version			Order code(s)
Without				2, 4, 6, 8	100 L ... 200	1LE1002-1A ... -1D	**Standard**		**A**	–
PTC thermistor with 3 temperature sensors				2, 4, 6, 8	100 L ... 200	1LE1002-1A ... -1D	With add. charge		**B**	–
Further motor protection			For price information, code letters, and descriptions, see from page 2/76						■	. . .
Terminal box position				No. of poles	Frame size	Motor type	Version			Order code(s)
Terminal box at top				2, 4, 6, 8	100 L ... 200	1LE1002-1A ... -1D	**Standard**		**4**	–
Further terminal box positions			For price information, code numbers, and descriptions, see from page 2/78							
Special versions										Order code(s)
Options			For price information, order codes, and descriptions, see from page 2/80				**1LE1002-. . . . ■-■■■■-Z**			. . .+. . .+. . .+. . .

[1] Operating values at rated power for 60 Hz are stored in the Drive Technology Configurator (DT Configurator; see Appendix, "Tools and Configuring").

[2] Types derived from IM B3 (IM B6/7/8, IM V6, and IM V5), from IM B5 (IM V3 and IM V1) and from IM B14 (IM V19 and IM V18) are possible, provided that no requirements exist for condensation drainage holes (**H03**) or stamping of the type on the rating plate. The basic type IM B3, IM B5 or IM B14 is stamped as standard on the rating plate. When ordering with condensation drainage holes (**H03**), the type must be specified.

Selection and ordering data

Technical specifications at 60 Hz/P50 power rating

P_{rated}, 60 Hz/P50	P_{rated}, 60 Hz/P60	Frame size	Operating values at rated power: n_{rated}, 60 Hz	T_{rated}, 60 Hz	IE class 50 Hz	IE class 60 Hz	η_{rated}, 60 Hz, 4/4	η_{rated}, 60 Hz, 3/4	η_{rated}, 60 Hz, 2/4	cos φ_{rated}, 60 Hz, 4/4	I_{rated}, 60 Hz, 460 V	T_{LR}/T_{rated}, 60 Hz	I_{LR}/I_{rated}, 60 Hz	T_B/T_{rated}, 60 Hz	L_{pfA}, 60 Hz	L_{WA}, 60 Hz	Aluminum series 1LE1043 – *IE3 version in accordance with IEC 60034-30* Article No.	$m_{IM\ B3}$	J	Torque class
kW	kW	FS	rpm	Nm			%	%	%		A				dB(A)	dB(A)	▲ New	kg	kgm²	CL
• Cooling: Self-ventilated (IC 411) or with order code F90 forced-air cooled without external fan and fan cover (IC 418) • Insulation: Thermal class 155 (temperature class F), IP55 degree of protection, utilization in accordance with thermal class 130 (temperature class B)																				
2-pole: 3000 rpm at 50 Hz, 3600 rpm at 60 Hz																				
0.75	0.86	80 M	3480	2.1	IE3	IE3	77	77.2	75.7	0.84	1.45	3	7.1	3.6	64	75	1LE1043-0DA2■-■■■■	11	0.0011	16
1.1	1.27	80 M	3500	3	IE3	IE3	84	84	82	0.83	1.98	3.3	8.4	4	64	75	▲ 1LE1043-0DA3■-■■■■	12	0.0013	16
1.5	1.75	90 S	3525	4.1	IE3	IE3	85.5	84.8	82.3	0.84	2.6	3.1	9.8	4.9	69	81	1LE1043-0EA0■-■■■■	15	0.0021	16
2.2	2.55	90 L	3530	6	IE3	IE3	86.5	86.4	84.5	0.87	3.65	3	9.6	4.9	69	81	1LE1043-0EA4■-■■■■	19	0.0031	16
3	3.45	100 L	3525	8.1	IE3	IE3	88.5	88.7	87.2	0.87	4.9	3.8	9.7	5.5	71	83	▲ 1LE1043-1AA4■-■■■■	26	0.0054	16
4	4.55	112 M	3560	10	IE3	IE3	88.5	88	86.2	0.88	6	3.2	10.8	5.1	73	85	1LE1043-1BA2■-■■■■	34	0.012	16
5.5	6.3	132 S	3555	15	IE3	IE3	89.5	89.4	88.2	0.9	8.6	2.1	8.6	4.4	72	84	1LE1043-1CA0■-■■■■	43	0.024	16
7.5	8.6	132 S	3555	20	IE3	IE3	90.2	90.5	90	0.91	11.5	2.4	9.5	4.7	72	84	1LE1043-1CA1■-■■■■	57	0.031	16
11	12.6	160 M	3560	30	IE3	IE3	91	90.4	88.4	0.88	17.2	2.8	8.5	4.3	77	89	1LE1043-1DA2■-■■■■	75	0.053	16
15	17.3	160 M	3565	40	IE3	IE3	91	90.5	88.9	0.86	24	3.1	9.7	4.8	77	89	1LE1043-1DA3■-■■■■	84	0.061	16
18.5	21.3	160 L	3560	50	IE3	IE3	91.7	91.5	90.3	0.9	28	3.1	9.4	4.4	77	89	1LE1043-1DA4■-■■■■	94	0.068	16
22	24.5	180 M	3560	59	IE3	IE3	91.7	91.4	90	0.89	34	2.8	8.2	3.9	77	89	1LE1043-1EA2■-■■■■	129	0.08	16
30	33.5	200 L	3560	80	IE3	IE3	92.4	92.2	91.4	0.87	47	2.9	7.6	3.6	77	84	1LE1043-2AA4■-■■■■	173	0.134	16
37	41.5	200 L	3560	99	IE3	IE3	93	92.8	91.6	0.88	57	2.8	7.5	3.6	77	84	1LE1043-2AA5■-■■■■	194	0.158	16
4-pole: 1500 rpm at 50 Hz, 1800 rpm at 60 Hz																				
0.75	0.86	80 M	1760	4.1	IE3	IE3	83.5	82.6	79.3	0.71	1.59	3.1	8.3	4.7	55	66	▲ 1LE1043-0DB3■-■■■■	14	0.0021	16
1.1	1.27	90 S	1750	6	IE3	IE3	86.5	86.4	84.2	0.75	2.15	3.4	8.2	4.4	58	70	▲ 1LE1043-0EB0■-■■■■	16	0.0029	16
1.5	1.75	90 L	1755	8.2	IE3	IE3	86.5	86.4	84.6	0.77	2.85	3	8.4	4.3	58	70	1LE1043-0EB4■-■■■■	19	0.0049	16
2.2	2.55	100 L	1770	11.9	IE3	IE3	89.5	89.2	87.2	0.81	3.8	3.5	9.6	5.1	62	74	1LE1043-1AB4■-■■■■	30	0.014	16
3	3.45	100 L	1760	16.3	IE3	IE3	89.5	89.5	88.3	0.82	5.1	3.1	9.5	4.6	62	74	▲ 1LE1043-1AB5■-■■■■	30	0.014	16
4	4.55	112 M	1770	19	IE3	IE3	89.5	89.4	87.7	0.8	6.5	2.9	8.2	4.3	62	74	1LE1043-1BB2■-■■■■	34	0.017	16
5.5	6.3	132 S	1775	30	IE3	IE3	91.7	91.6	90.5	0.81	9.3	3.9	9.7	4.5	68	80	1LE1043-1CB0■-■■■■	64	0.046	16
7.5	8.6	132 M	1770	40	IE3	IE3	91.7	91.8	91	0.83	12.4	2.7	9.6	4.2	68	80	1LE1043-1CB2■-■■■■	64	0.046	16
11	12.6	160 M	1775	59	IE3	IE3	92.4	92.3	91.1	0.83	18	3	8.9	3.8	69	81	1LE1043-1DB2■-■■■■	83	0.083	16
15	17.3	160 L	1780	80	IE3	IE3	93	92.8	91.4	0.81	25	2.9	9.5	4.3	69	81	1LE1043-1DB4■-■■■■	100	0.099	16
18.5	21.3	180 M	1775	100	IE3	IE3	93.6	93.7	93.1	0.81	30.5	2.7	7.8	3.6	68	75	1LE1043-1EB2■-■■■■	134	0.13	16
22	25.3	180 L	1775	118	IE3	IE3	93.6	93.8	93.3	0.81	36.5	2.8	7.7	3.7	70	77	1LE1043-1EB4■-■■■■	142	0.14	16
30	34.5	200 L	1778	161	IE3	IE2	94.1	94.3	93.8	0.83	48	3	8.1	3.5	70	77	1LE1043-2AB5■-■■■■	189	0.22	16

Voltages				No. of poles	Frame size	Motor type	Version				Order code(s)
50 Hz	230 VΔ/400 VY	60 Hz	460 VY	2, 4	80 M ... 200 L	1LE1043-0D ... -2A	**Standard**	2	2		–
50 Hz	400 VΔ/690 VY	60 Hz	460 VΔ	2, 4	80 M ... 200 L	1LE1043-0D ... -2A	**Standard**	3	4		–
50 Hz	500 VY			2, 4	80 M ... 200 L	1LE1043-0D ... -2A	W/o add. charge	2	7		–
50 Hz	500 VΔ			2, 4	80 M ... 200 L	1LE1043-0D ... -2A	W/o add. charge	4	0		–
Further voltages			For price information, code numbers, order codes, and descriptions, see from page 2/63					9	0		. . .
Types of construction				No. of poles	Frame size	Motor type	Version				Order code(s)
Without flange	IM B3 [1]			2, 4	80 M ... 200 L	1LE1043-0D ... -2A	**Standard**			A	–
With flange	IM B5 [1]			2, 4	80 M ... 200 L	1LE1043-0D ... -2A	With add. charge			F	–
With standard flange	IM B14 [1]			2, 4	80 M ... 160 L	1LE1043-0D ... -2A	With add. charge			K	–
Further types of construction			For price information, code letters, and descriptions, see from page 2/68							■	. . .
Motor protection				No. of poles	Frame size	Motor type	Version				Order code(s)
Without				2, 4	80 M ... 200 L	1LE1043-0D ... -2A	**Standard**			A	–
PTC thermistor with 3 temperature sensors				2, 4	80 M ... 200 L	1LE1043-0D ... -2A	With add. charge			B	–
Further motor protection			For price information, code letters, and descriptions, see from page 2/76							■	. . .
Terminal box position				No. of poles	Frame size	Motor type	Version				Order code(s)
Terminal box at top				2, 4	80 M ... 200 L	1LE1043-0D ... -2A	**Standard**			4	–
Further terminal box positions			For price information, code numbers, and descriptions, see from page 2/78								
Special versions				No. of poles	Frame size	Motor type					Order code(s)
Forced-air cooled motors w/o ext. fan/fan cover (IC416)				2, 4	80 M ... 200 L	1LE1043-0D ... -2A	**1LE1043-. . . . ■–■■■■**			-Z	**F90** +. . .+. . .+. . .
Options			For price information, order codes, and descriptions, see from page 2/80				**1LE1043-. . . . ■–■■■■**			-Z	. . .+. . .+. . .+. . .

[1] Types derived from IM B3 (IM B6/7/8, IM V6, and IM V5), from IM B5 (IM V3 and IM V1) and from IM B14 (IM V19 and IM V18) are possible, provided that no requirements exist for condensation drainage holes (**H03**) or stamping of the type on the rating plate. The basic type IM B3, IM B5, or IM B14 is stamped as standard on the rating plate. When ordering with condensation drainage holes (**H03**), the type must be specified.

Selection and ordering data

Technical specifications at 60 Hz/P50 power rating

P_{rated}, 60 Hz/P50	P_{rated}, 60 Hz/P60	Frame size	Operating values at rated power: n_{rated}, 60 Hz	T_{rated}, 60 Hz	IE class 50 Hz	IE class 60 Hz	η_{rated}, 60 Hz, 4/4	η_{rated}, 60 Hz, 3/4	η_{rated}, 60 Hz, 2/4	cos φ_{rated}, 60 Hz, 4/4	I_{rated}, 60 Hz, 460 V	T_{LR}/T_{rated}, 60 Hz	I_{LR}/I_{rated}, 60 Hz	T_B/T_{rated}, 60 Hz	L_{pfA}, 60 Hz	L_{WA}, 60 Hz	Aluminum series 1LE1043 – *IE3 version in accordance with IEC 60034-30* Article No.	$m_{IM\ B3}$	J	Torque class
kW	kW	FS	rpm	Nm			%	%	%		A				dB(A)	dB(A)	▲ New	kg	kgm^2	CL
• Cooling: Self-ventilated (IC 411) or with order code F90 forced-air cooled without external fan and fan cover (IC 418) • Insulation: Thermal class 155 (temperature class F), IP55 degree of protection, utilization in accordance with thermal class 130 (temperature class B)																				
6-pole: 1000 rpm at 50 Hz, 1200 rpm at 60 Hz																				
0.75	0.86	90 S	1155	6.2	IE3	IE3	82.5	82.4	79.9	0.65	1.76	2.4	5.3	3.1	46	58	▲ 1LE1043-0EC0■-■■■■	16	0.004	16
1.1	1.27	100 L	1180	8.9	IE3	IE3	87.5	87.2	84.8	0.69	2.3	2.4	6.7	3.3	62	74	▲ 1LE1043-1AC3■-■■■■	30	0.014	16
3	3.45	132 S	1185	24	IE3	IE3	89.5	89.6	88.4	0.75	5.6	2.3	7.5	3.3	67	79	▲ 1LE1043-1CC0■-■■■■	52	0.037	16
4	4.55	132 M	1175	30	IE3	IE3	89.5	89.6	88.4	0.73	7.1	2.4	7.6	3.4	67	79	1LE1043-1CC2■-■■■■	52	0.037	13
5.5	6.3	132 M	1180	45	IE3	IE3	91	91.4	90.5	0.74	10.3	2.3	7.2	3.3	67	79	1LE1043-1CC3■-■■■■	64	0.046	13
7.5	8.6	160 M	1185	60	IE3	IE3	91	91.1	90	0.75	13.8	2.4	5.9	2.6	70	82	1LE1043-1DC2■-■■■■	93	0.098	13
11	12.6	160 L	1180	89	IE3	IE3	91.7	91.9	91	0.75	20	2.3	5.8	2.6	70	82	1LE1043-1DC4■-■■■■	115	0.12	13
15	18	180 L	1178	122	IE3	IE2	91.7	92	91.4	0.79	26	2.5	6.8	3	61	68	1LE1043-1EC4■-■■■■	130	0.19	16
18.5	22	200 L	1180	150	IE3	IE2	93	93.8	93.8	0.78	32	2.8	6.5	3	64	71	1LE1043-2AC4■-■■■■	166	0.28	16
22	26.5	200 L	1180	178	IE3	IE2	93	93.5	93.4	0.79	37.5	2.6	6.3	2.8	63	70	1LE1043-2AC5■-■■■■	179	0.32	16

Voltages				No. of poles	Frame size	Motor type	Version				Order code(s)
50 Hz	230 VΔ/400 VY	60 Hz	460 VY	6	80 M ... 200 L	1LE1043-0E ... -2A	**Standard**	2	2		–
50 Hz	400 VΔ/690 VY	60 Hz	460 VΔ	6	80 M ... 200 L	1LE1043-0E ... -2A	**Standard**	3	4		–
50 Hz	500 VY			6	80 M ... 200 L	1LE1043-0E ... -2A	Without add. charge	2	7		–
50 Hz	500 VΔ			6	80 M ... 200 L	1LE1043-0E ... -2A	Without add. charge	4	0		–
Further voltages			For price information, code numbers, order codes, and descriptions, see from page 2/63					9	0		. . .
Types of construction				No. of poles	Frame size	Motor type	Version				Order code(s)
Without flange		IM B3 [1]		6	80 M ... 200 L	1LE1043-0E ... -2A	**Standard**			A	–
With flange		IM B5 [1]		6	80 M ... 200 L	1LE1043-0E ... -2A	With add. charge			F	–
With standard flange		IM B14 [1]		6	80 M ... 160 L	1LE1043-0E ... -2A	With add. charge			K	–
Further types of construction			For price information, code letters, and descriptions, see from page 2/68							■	. . .
Motor protection				No. of poles	Frame size	Motor type	Version				Order code(s)
Without				6	80 M ... 200 L	1LE1043-0E ... -2A	**Standard**			A	–
PTC thermistor with 3 temperature sensors				6	80 M ... 200 L	1LE1043-0E ... -2A	With add. charge			B	–
Further motor protection			For price information, code letters, and descriptions, see from page 2/76							■	. . .
Terminal box position				No. of poles	Frame size	Motor type	Version				Order code(s)
Terminal box at top				6	80 M ... 200 L	1LE1043-0E ... -2A	**Standard**			4	–
Further terminal box positions			For price information, code numbers, and descriptions, see from page 2/78								
Special versions				No. of poles	Frame size	Motor type					Order code(s)
Forced-air cooled motors w/o ext. fan/fan cover (IC416)				6	80 M ... 200 L	1LE1043-0E ... -2A	**1LE1043-. . . .** ■–■■■■			**-Z**	**F90** +. . .+. . .+. . .
Options			For price information, order codes, and descriptions, see from page 2/80				**1LE1043-. . . .** ■–■■■■			**-Z**	. . .+. . .+. . .+. . .

[1] Types derived from IM B3 (IM B6/7/8, IM V6, and IM V5), from IM B5 (IM V3 and IM V1) and from IM B14 (IM V19 and IM V18) are possible, provided that no requirements exist for condensation drainage holes (**H03**) or stamping of the type on the rating plate. The basic type IM B3, IM B5, or IM B14 is stamped as standard on the rating plate. When ordering with condensation drainage holes (**H03**), the type must be specified.

Selection and ordering data

Technical specifications at 60 Hz/P50 power rating

P_{rated}, 60 Hz/ P50	P_{rated}, 60 Hz/ P60	Frame size	Operating values at rated power: n_{rated}, 60 Hz	T_{rated}, 60 Hz	IE class 50 Hz	IE class 60 Hz	η_{rated}, 60 Hz, 4/4	η_{rated}, 60 Hz, 3/4	η_{rated}, 60 Hz, 2/4	cos φ_{rated}, 60 Hz, 4/4	I_{rated}, 60 Hz, 460 V	T_{LR}/T_{rated}, 60 Hz	I_{LR}/I_{rated}, 60 Hz	T_B/T_{rated}, 60 Hz	L_{pfA}, 60 Hz	L_{WA}, 60 Hz	Aluminum series 1LE1043 – *IE3 version in accordance with IEC 60034-30* Article No.	$m_{IM\ B3}$	J	Torque class
kW	kW	FS	rpm	Nm			%	%	%		A				dB(A)	dB(A)	▲ New	kg	kgm^2	CL
• Cooling: Self-ventilated (IC 411) or with order code F90 forced-air cooled without external fan and fan cover (IC 418)																				
• Insulation: Thermal class 155 (temperature class F), IP55 degree of protection, utilization in accordance with thermal class 130 (temperature class B)																				
2-pole: 3000 rpm at 50 Hz, 3600 rpm at 60 Hz																				
11	**12.6**	**132 M**	3565	29	IE3	IE3	91	91.1	90.3	0.86	17.6	2.5	9.6	5.2	72	84	**1LE1043-1CA6■-■■■■**	57	0.031	16
22	**25.3**	**160 L**	3560	59	IE3	IE3	91.7	91.8	90.9	0.9	33.5	3.1	9.7	4.5	77	89	**1LE1043-1DA6■-■■■■**	105	0.073	16
30	**33.5**	**180 L**	3560	80	IE3	IE3	92.4	92.6	92.1	0.87	47	2.9	8.8	4.5	77	89	▲ **1LE1043-1EA6■-■■■■**	140	0.094	16
45	**51**	**200 L**	3560	121	IE3	IE3	93.6	93.7	93	0.86	70	3	8.4	3.7	77	84	▲ **1LE1043-2AA6■-■■■■**	194	0.170	16
4-pole: 1500 rpm at 50 Hz, 1800 rpm at 60 Hz																				
11	**12.6**	**132 M**	1775	59	IE3	IE3	92.4	92.6	91.8	0.79	19	3.1	8.7	4.1	68	80	▲ **1LE1043-1CB6■-■■■■**	62	0.046	16
18.5	**21.3**	**160 L**	1780	99	IE3	IE3	93.6	93.3	91.9	0.75	33	3.9	9.6	4.5	69	81	▲ **1LE1043-1DB6■-■■■■**	110	0.099	16
30	**34.5**	**180 L**	1775	161	IE3	IE2	94.1	94.4	94	0.78	51	3.1	8.8	4.1	70	77	▲ **1LE1043-1EB6■-■■■■**	154	0.173	16
37	**42.5**	**200 L**	1780	198	IE3	IE3	94.5	94.7	94.2	0.8	61	3.3	9	4	70	77	▲ **1LE1043-2AB6■-■■■■**	205	0.275	16

Voltages				No. of poles	Frame size	Motor type	Version				Order code(s)
50 Hz	230 VΔ/400 VY	60 Hz	460 VY	2, 4	132 M ... 160 L	1LE1043-1C ... -2A	**Standard**	**2**	**2**		–
50 Hz	400 VΔ/690 VY	60 Hz	460 VΔ	2, 4	132 M ... 160 L	1LE1043-1C ... -2A	**Standard**	**3**	**4**		–
50 Hz	500 VY			2, 4	132 M ... 160 L	1LE1043-1C ... -2A	Without add. charge	**2**	**7**		–
50 Hz	500 VΔ			2, 4	132 M ... 160 L	1LE1043-1C ... -2A	Without add. charge	**4**	**0**		–
Further voltages				For price information, code numbers, order codes, and descriptions, see from page 2/63				**9**	**0**		. . .
Types of construction				No. of poles	Frame size	Motor type	Version				Order code(s)
Without flange		IM B3 [1]		2, 4	132 M ... 160 L	1LE1043-1C ... -2A	**Standard**			**A**	–
With flange		IM B5 [1]		2, 4	132 M ... 160 L	1LE1043-1C ... -2A	With add. charge			**F**	–
With standard flange		IM B14 [1]		2, 4	132 M ... 160 L	1LE1043-1C ... -2A	With add. charge			**K**	–
Further types of construction				For price information, code letters, and descriptions, see from page 2/68						■	. . .
Motor protection				No. of poles	Frame size	Motor type	Version				Order code(s)
Without				2, 4	132 M ... 160 L	1LE1043-1C ... -2A	**Standard**			**A**	–
PTC thermistor with 3 temperature sensors				2, 4	132 M ... 160 L	1LE1043-1C ... -2A	With add. charge			**B**	–
Further motor protection				For price information, code letters, and descriptions, see from page 2/76						■	. . .
Terminal box position				No. of poles	Frame size	Motor type	Version				Order code(s)
Terminal box at top				2, 4	132 M ... 160 L	1LE1043-1C ... -2A	**Standard**			**4**	–
Further terminal box positions				For price information, code numbers, and descriptions, see from page 2/78							
Special versions				No. of poles	Frame size	Motor type					Order code(s)
Forced-air cooled motors w/o ext. fan/fan cover (IC416)				2, 4	132 M ... 160 L	1LE1043-1C ... -2A	**1LE1043-. . . . ■–■■■■**			**-Z**	**F90** +. . .+. . .+. . .
Options				For price information, order codes, and descriptions, see from page 2/80			**1LE1043-. . . . ■–■■■■**			**-Z**	. . .+. . .+. . .+. . .

[1] Types derived from IM B3 (IM B6/7/8, IM V6, and IM V5), from IM B5 (IM V3 and IM V1) and from IM B14 (IM V19 and IM V18) are possible, provided that no requirements exist for condensation drainage holes (**H03**) or stamping of the type on the rating plate. The basic type IM B3, IM B5, or IM B14 is stamped as standard on the rating plate. When ordering with condensation drainage holes (**H03**), the type must be specified.

Selection and ordering data

P_{rated}, 60 Hz/ P50	P_{rated}, 60 Hz/ P60	Frame size	Operating values at rated power: n_{rated}, 60 Hz	T_{rated}, 60 Hz	IE class	η_{rated}, 60 Hz, 4/4	η_{rated}, 60 Hz, 3/4	η_{rated}, 60 Hz, 2/4	cos φ_{rated}, 60 Hz, 4/4	I_{rated}, 60 Hz, 460 V	T_{LR}/T_{rated}, 60 Hz	I_{LR}/I_{rated}, 60 Hz	T_B/T_{rated}, 60 Hz	L_{pfA}, 60 Hz	L_{WA}, 60 Hz	Aluminum series 1LE1041 – *IE2 version in accordance with IEC 60034-30* Article No.	$m_{IM\ B3}$	J	Torque class
kW	kW	FS	rpm	Nm		%	%	%		A				dB(A)	dB(A)		kg	kgm^2	CL
• Cooling: Self-ventilated (IC 411) or with order code F90 forced-air cooled without external fan and fan cover (IC 418) • Insulation: Thermal class 155 (temperature class F), IP55 degree of protection, utilization in accordance with thermal class 130 (temperature class B)																			
2-pole: 3000 rpm at 50 Hz, 3600 rpm at 60 Hz																			
0.75	0.86	80 M	3445	2.1	IE2	75.5	76.2	74.8	0.83	1.5	2.1	6	3	64	75	1LE1041-0DA2 ■-■■■■	9	0.0008	16
1.5	1.75	90 S	3505	4.1	IE2	84	83.5	80.7	0.82	2.75	3.1	8.5	4.5	69	81	1LE1041-0EA0 ■-■■■■	13	0.0017	16
2.2	2.55	90 L	3510	6	IE2	85.5	85.2	82.6	0.83	3.9	3	8.7	4.6	69	81	1LE1041-0EA4 ■-■■■■	15	0.0021	16
4	4.55	112 M	3555	10	IE2	87.5	86.9	84.6	0.83	6.4	2.7	9.9	4.5	73	85	1LE1041-1BA2 ■-■■■■	27	0.0092	16
5.5	6.3	132 S	3555	15	IE2	88.5	88.4	87	0.86	9.1	2	7.6	3.3	72	84	1LE1041-1CA0 ■-■■■■	39	0.02	16
7.5	8.6	132 S	3560	20	IE2	89.5	89.7	88.7	0.87	12.1	2.3	8.2	3.6	72	84	1LE1041-1CA1 ■-■■■■	43	0.024	16
11	12.6	160 M	3560	30	IE2	90.2	89.6	87.4	0.86	17.8	2.4	8.2	3.6	77	89	1LE1041-1DA2 ■-■■■■	67	0.045	16
15	17.3	160 M	3565	40	IE2	90.2	90	88.6	0.87	24	2.8	8.4	3.9	77	89	1LE1041-1DA3 ■-■■■■	75	0.053	16
18.5	21.3	160 L	3565	50	IE2	91	90.8	89.5	0.87	29.5	3.3	8.9	4.1	77	89	1LE1041-1DA4 ■-■■■■	84	0.061	16
4-pole: 1500 rpm at 50 Hz, 1800 rpm at 60 Hz																			
0.75	0.86	80 M	1750	4.1	IE2	78	77.4	74.6	0.72	1.68	2.5	6.8	3.8	55	66	1LE1041-0DB3 ■-■■■■	11	0.0021	11
1.5	1.75	90 L	1745	8.2	IE2	84	84	81.9	0.75	3	2.9	7.5	4	58	70	1LE1041-0EB4 ■-■■■■	16	0.0036	16
2.2	2.55	100 L	1760	12	IE2	87.5	88.3	87.4	0.78	4.05	2.5	8.1	3.9	62	74	1LE1041-1AB4 ■-■■■■	21	0.0086	21
4	4.55	112 M	1770	20	IE2	87.5	87.2	85.1	0.77	6.9	3	8.7	4	62	74	1LE1041-1BB2 ■-■■■■	29	0.014	29
5.5	6.3	132 S	1770	30	IE2	89.5	89.6	88.1	0.78	9.9	2.6	8	3.3	68	80	1LE1041-1CB0 ■-■■■■	42	0.027	42
7.5	8.6	132 M	1770	40	IE2	89.5	90	89.3	0.82	12.8	2.7	8	3.4	68	80	1LE1041-1CB2 ■-■■■■	49	0.034	49
11	12.6	160 M	1775	59	IE2	91	91.2	90.1	0.84	18.1	2.5	7.7	3.2	69	81	1LE1041-1DB2 ■-■■■■	71	0.065	71
15	17.3	160 L	1780	80	IE2	91	91.1	90.1	0.84	24.5	2.6	8.5	3.4	69	81	1LE1041-1DB4 ■-■■■■	83	0.083	83
6-pole: 1000 rpm at 50 Hz, 1200 rpm at 60 Hz																			
0.75	0.86	90 S	1145	6.3	IE2	73	72.7	69.7	0.65	1.98	2.2	4.5	3	46	58	1LE1041-0EC0 ■-■■■■	13	0.003	16
1.5	1.75	100 L	1175	12	IE2	86.5	86.3	84.2	0.69	3.15	2.2	6.4	3.2	62	74	1LE1041-1AC4 ■-■■■■	25	0.011	16
2.2	2.55	112 M	1170	18	IE2	87.5	87.6	86	0.73	4.3	2.1	6.3	3.2	65	77	1LE1041-1BC2 ■-■■■■	29	0.014	16
4	4.55	132 M	1180	30	IE2	87.5	87.5	85.7	0.71	7.5	1.9	6.2	3	67	79	1LE1041-1CC2 ■-■■■■	43	0.029	13
5.5	6.3	132 M	1175	45	IE2	89.5	89.9	88.9	0.73	10.6	2.1	6.5	2.9	67	79	1LE1041-1CC3 ■-■■■■	52	0.037	16
7.5	8.6	160 M	1180	61	IE2	89.5	89.6	88.4	0.73	14.4	2.1	5.4	2.5	70	82	1LE1041-1DC2 ■-■■■■	77	0.075	16
11	12.6	160 L	1180	89	IE2	90.2	90.5	89.5	0.74	20.5	2.2	5.5	2.5	70	82	1LE1041-1DC4 ■-■■■■	93	0.098	16

Voltages (≤ 600 V)				No. of poles	Frame size	Motor type	Version				Order code(s)
50 Hz	230 VΔ/400 VY	60 Hz	460 VY	2, 4, 6	80 M ... 160 L	1LE1041-0D ... -1D	**Standard**	2	2		–
50 Hz	400 VΔ	60 Hz	460 VΔ	2, 4, 6	80 M ... 160 L	1LE1041-0D ... -1D	**Standard**	3	4		–
50 Hz	500 VY			2, 4, 6	80 M ... 160 L	1LE1041-0D ... -1D	Without add. charge	2	7		–
50 Hz	500 VΔ			2, 4, 6	80 M ... 160 L	1LE1041-0D ... -1D	Without add. charge	4	0		–
Further voltages			For price information, code numbers, order codes, and descriptions, see from page 2/63					9	0		. . .
Types of construction				No. of poles	Frame size	Motor type	Version				Order code(s)
With flange		IM B5 [1]		2, 4, 6	80 M ... 160 L	1LE1041-0D ... -1D	With add. charge			F	–
With standard flange		IM B14 [1]		2, 4, 6	80 M ... 160 L	1LE1041-0D ... -1D	With add. charge			K	–
Further types of construction			For price information, code letters, and descriptions, see from page 2/68							■	. . .
Motor protection				No. of poles	Frame size	Motor type	Version				Order code(s)
Without				2, 4, 6	80 M ... 160 L	1LE1041-0D ... -1D	**Standard**			A	–
PTC thermistor with 3 temperature sensors				2, 4, 6	80 M ... 160 L	1LE1041-0D ... -1D	With add. charge			B	–
Further motor protection			For price information, code letters, and descriptions, see from page 2/76							■	. . .
Terminal box position				No. of poles	Frame size	Motor type	Version				Order code(s)
Terminal box at top				2, 4, 6	80 M ... 160 L	1LE1041-0D ... -1D	**Standard**			4	–
Further terminal box positions			For price information, code numbers, and descriptions, see from page 2/78								
Special versions				No. of poles	Frame size	Motor type					Order code(s)
Forced-air cooled motors w/o ext. fan/fan cover (IC 418)				2, 4, 6	100 L ... 160 L	1LE1041-0D ... -1D	1LE1041-. . . . ■-■■■■ -Z				F90+. . .+. . .+. . .
Options			For price information, order codes, and descriptions, see from page 2/80				1LE1041-. . . . ■-■■■■ -Z				. . .+. . .+. . .+. . .

[1] Types derived from IM B5 (IM V3 and IM V1) and from IM B14 (IM V19 and IM V18) are possible, provided that no requirements exist for condensation drainage holes (**H03**) and stamping of the type on the rating plate. The basic type IM B5 or IM B14 is stamped as standard on the rating plate. When ordering with condensation drainage holes (**H03**), the type must be specified.

Selection and ordering data

P_{rated}, 60 Hz/ P50	P_{rated}, 60 Hz/ P60	Frame size	Operating values at rated power: n_{rated}, 60 Hz	T_{rated}, 60 Hz	IE class	η_{rated}, 60 Hz, 4/4	η_{rated}, 60 Hz, 3/4	η_{rated}, 60 Hz, 2/4	cos φ_{rated}, 60 Hz, 4/4	I_{rated}, 60 Hz, 460 V	T_{LR}/T_{rated}, 60 Hz	I_{LR}/I_{rated}, 60 Hz	T_B/T_{rated}, 60 Hz	L_{pfA}, 60 Hz	L_{WA}, 60 Hz	Aluminum series 1LE1041 – IE2 version in accordance with IEC 60034-30 with increased power Article No.	$m_{IM\ B3}$	J	Torque class
kW	kW	FS	rpm	Nm		%	%	%		A				dB(A)	dB(A)		kg	kgm²	CL
• Cooling: Self-ventilated (IC 411) or with order code F90 forced-air cooled without external fan and fan cover (IC 418) • Insulation: Thermal class 155 (temperature class F), IP55 degree of protection, utilization in accordance with thermal class 130 (temperature class B)																			
2-pole: 3000 rpm at 50 Hz, 3600 rpm at 60 Hz																			
4	**4.55**	**100 L**	3530	10	IE2	87.5	87.5	85.9	0.84	6.3	3.3	9.6	4.6	71	83	**1LE1041-1AA6** ■-■■■■	26	0.0054	16
5.5	**6.3**	**112 M**	3550	15	IE2	88.5	88.6	87.4	0.87	9	2.8	9.9	4.5	73	85	**1LE1041-1BA6** ■-■■■■	34	0.012	16
11	**12.6**	**132 M**	3555	30	IE2	90.2	90.5	89.8	0.9	17	2.7	9.3	3.6	72	84	**1LE1041-1CA6** ■-■■■■	57	0.031	16
15	**17.3**	**132 L**	3555	40	IE2	90.2	90.6	90.3	0.91	23	2.5	10	4.7	72	84	**1LE1041-1CA7** ■-■■■■	65	0.035	13
22	**25.3**	**160 L**	3565	59	IE2	91	91	89.9	0.89	34	3.6	9.6	4.3	77	89	**1LE1041-1DA6** ■-■■■■	94	0.068	16
4-pole: 1500 rpm at 50 Hz, 1800 rpm at 60 Hz																			
4	**4.55**	**100 L**	1770	20	IE2	87.5	87.7	86.3	0.76	7	2.8	9.2	4.3	62	74	**1LE1041-1AB6** ■-■■■■	30	0.014	16
5.5	**6.3**	**112 M**	1765	30	IE2	89.5	89.3	87.4	0.8	9.6	2.8	8.3	3.6	62	74	**1LE1041-1BB6** ■-■■■■	34	0.017	16
11	**12.6**	**132 M**	1770	59	IE2	91	91.5	90.8	0.82	18.5	2.9	8.5	3.6	68	80	**1LE1041-1CB6** ■-■■■■	64	0.046	16
18.5	**21.3**	**160 L**	1780	99	IE2	92.4	92.4	91.3	0.84	30	2.9	8.8	3.6	69	81	**1LE1041-1DB6** ■-■■■■	100	0.099	16
6-pole: 1000 rpm at 50 Hz, 1200 rpm at 60 Hz																			
7.5	**8.6**	**132 M**	1175	61	IE2	89.5	89.8	88.7	0.72	14.6	2.2	6.4	3	67	79	**1LE1041-1CC6** ■-■■■■	64	0.046	16
15	**17.3**	**160 L**	1180	121	IE1	90.2	90.4	89.3	0.73	28.5	2.3	5.8	2.6	70	82	**1LE1041-1DC6** ■-■■■■	115	0.12	16

Voltages (≤ 600 V) [1]				No. of poles	Frame size	Motor type	Version				Order code(s)
50 Hz	230 VΔ/400 VY	60 Hz	460 VY	2, 4, 6	100 L ... 160 L	1LE1041-1A ... -1D	**Standard**	2	2		–
50 Hz	400 VΔ	60 Hz	460 VΔ	2, 4, 6	100 L ... 160 L	1LE1041-1A ... -1D	**Standard**	3	4		–
50 Hz	500 VY			2, 4, 6	100 L ... 160 L	1LE1041-1A ... -1D	Without add. charge	2	7		–
50 Hz	500 VΔ			2, 4, 6	100 L ... 160 L	1LE1041-1A ... -1D	Without add. charge	4	0		–
Further voltages			For price information, code numbers, order codes, and descriptions, see from page 2/63					9	0		. . .
Types of construction [2]				No. of poles	Frame size	Motor type	Version				Order code(s)
With flange		IM B5 [3]		2, 4, 6	100 L ... 160 L	1LE1041-1A ... -1D	With add. charge			F	–
With standard flange		IM B14 [3]		2, 4, 6	100 L ... 160 L	1LE1041-1A ... -1D	With add. charge			K	–
Further types of construction			For price information, code letters, and descriptions, see from page 2/68							■	. . .
Motor protection				No. of poles	Frame size	Motor type	Version				Order code(s)
Without				2, 4, 6	100 L ... 160 L	1LE1041-1A ... -1D	**Standard**			A	–
PTC thermistor with 3 temperature sensors				2, 4, 6	100 L ... 160 L	1LE1041-1A ... -1D	With add. charge			B	–
Further motor protection			For price information, code letters, and descriptions, see from page 2/76							■	. . .
Terminal box position				No. of poles	Frame size	Motor type	Version				Order code(s)
Terminal box at top				2, 4, 6	100 L ... 160 L	1LE1041-1A ... -1D	**Standard**			4	–
Further terminal box positions			For price information, code numbers, and descriptions, see from page 2/78								
Special versions				No. of poles	Frame size	Motor type					Order code(s)
Forced-air cooled motors w/o ext. fan/fan cover (IC 418)				2, 4, 6	100 L ... 160 L	1LE1041-1A ... -1D	**1LE1041-. . . .** ■-■■■■ -Z				**F90+. . .+. . .+. . .**
Options			For price information, order codes, and descriptions, see from page 2/80				**1LE1041-. . . .** ■-■■■■ -Z				. . .+. . .+. . .+. . .

[1] Operating voltages only ≤ 600 V admissible in accordance with MG1 Table 12-11.

[2] Types of construction with feet are not possible for 2-pole, 4-pole and 6-pole motors ≤ 200 hp in accordance with MG1 Table 12-11.

[3] Types derived from IM B5 (IM V3 and IM V1) and from IM B14 (IM V19 and IM V18) are possible, provided that no requirements exist for condensation drainage holes (**H03**) and stamping of the type on the rating plate. The basic type IM B5 or IM B14 is stamped as standard on the rating plate. When ordering with condensation drainage holes (**H03**), the type must be specified.

Selection and ordering data

P_{rated}, 60 Hz/ P50	P_{rated}, 60 Hz/ P60	Frame size	n_{rated}, 60 Hz	T_{rated}, 60 Hz	EISA CC no. CC032A	η_{rated}, 60 Hz, 4/4	η_{rated}, 60 Hz, 3/4	η_{rated}, 60 Hz, 2/4	cos φ_{rated}, 60 Hz, 4/4	I_{rated}, 60 Hz, 460 V	T_{LR}/T_{rated}, 60 Hz	I_{LR}/I_{rated}, 60 Hz	T_B/T_{rated}, 60 Hz	L_{pfA}, 60 Hz	L_{WA}, 60 Hz	**Aluminum series 1LE1023** – *NEMA Premium Efficient Version* Article No.	$m_{IM\ B3}$	J	Torque class
			Operating values at rated power																
kW	hp	FS	rpm	Nm		%	%	%		A				dB(A)	dB(A)				CL
• Cooling: Self-ventilated (IC 411) or with order code F90 forced-air cooled without external fan and fan cover (IC 418)																			
• Efficiency: NEMA Premium Efficient, UL, CSA, and service factor (SF) 1.15 – for operation in the USA, Canada, and Mexico																			
• Insulation: Thermal class 155 (temperature class F), IP55 degree of protection, utilization in accordance with thermal class 130 (temperature class B)																			
2-pole: 3000 rpm at 50 Hz, 3600 rpm at 60 Hz																			
0.75	1	80 M	3480	2.1	✓	77	77.2	75.7	0.84	1.45	3	7.1	3.6	64	75	1LE1023-0DA2■-■■■■	11	0.0011	16
1.1	1.5	80 M	3500	3	✓	84	84	82	0.83	1.98	3.3	8.4	4	64	75	1LE1023-0DA3■-■■■■	12	0.0013	16
1.5	2	90 S	3525	4.1	✓	85.5	84.8	82.3	0.84	2.6	3.1	9.8	4.9	69	81	1LE1023-0EA0■-■■■■	15	0.0021	16
2.2	3	90 L	3530	6	✓	86.5	86.4	84.5	0.87	3.65	3	9.6	4.9	69	81	1LE1023-0EA4■-■■■■	19	0.0031	16
3	4	100 L	3525	8.1	✓	88.5	88.7	87.2	0.87	4.9	3.8	9.7	5.5	71	83	1LE1023-1AA4■-■■■■	26	0.0054	16
3.7	5	112 M	3560	10	✓	88.5	88	86.2	0.88	6	3.2	10.8	5.1	73	85	1LE1023-1BA2■-■■■■	34	0.012	16
5.5	7.5	132 S	3555	15	✓	89.5	89.4	88.2	0.9	8.6	2.1	8.6	4.4	72	84	1LE1023-1CA0■-■■■■	43	0.024	16
7.5	10	132 S	3555	20	✓	90.2	90.5	90	0.91	11.5	2.4	9.5	4.7	72	84	1LE1023-1CA1■-■■■■	57	0.031	16
11	15	160 M	3560	30	✓	91	90.4	88.4	0.88	17.2	2.8	8.5	4.3	77	89	1LE1023-1DA2■-■■■■	75	0.053	16
15	20	160 M	3565	40	✓	91	90.5	88.9	0.86	24	3.1	9.7	4.8	77	89	1LE1023-1DA3■-■■■■	84	0.061	16
18.5	25	160 L	3560	50	✓	91.7	91.5	90.3	0.9	28	3.1	9.4	4.4	77	89	1LE1023-1DA4■-■■■■	94	0.068	16
22	30	180 M	3560	59	✓	91.7	91.4	90	0.89	34	2.8	8.2	3.9	77	89	1LE1023-1EA2■-■■■■	129	0.08	16
30	40	200 L	3560	80	✓	92.4	92.2	91.4	0.87	47	2.9	7.6	3.6	77	84	1LE1023-2AA4■-■■■■	173	0.134	16
37	50	200 L	3560	99	✓	93	92.8	91.6	0.88	57	2.8	7.5	3.6	77	84	1LE1023-2AA5■-■■■■	194	0.158	16
4-pole: 1500 rpm at 50 Hz, 1800 rpm at 60 Hz																			
0.55	0.75	80 M	1750	3	–	81.1	80.8	78.2	0.74	1.15	2.7	6.9	3.8	55	66	1LE1023-0DB2■-■■■■	11	0.0021	16
0.75	1	80 M	1760	4.1	✓	83.5	82.6	79.3	0.71	1.59	3.1	8.3	4.7	55	66	1LE1023-0DB3■-■■■■	14	0.0029	16
1.1	1.5	90 S	1750	6	✓	86.5	86.4	84.2	0.75	2.15	3.4	8.2	4.4	58	70	1LE1023-0EB0■-■■■■	16	0.0036	16
1.5	2	90 L	1755	8.2	✓	86.5	86.4	84.6	0.77	2.85	3	8.4	4.3	58	70	1LE1023-0EB4■-■■■■	19	0.0049	16
2.2	3	100 L	1770	11.9	✓	89.5	89.2	87.2	0.81	3.8	3.5	9.6	5.1	62	74	1LE1023-1AB4■-■■■■	30	0.014	16
3	4	100 L	1760	16.3	✓	89.5	89.5	88.3	0.82	5.1	3.1	9.5	4.6	62	74	1LE1023-1AB5■-■■■■	30	0.014	16
3.7	5	112 M	1770	19	✓	89.5	89.4	87.7	0.8	6.5	2.9	8.2	4.3	62	74	1LE1023-1BB2■-■■■■	34	0.017	16
5.5	7.5	132 S	1775	30	✓	91.7	91.6	90.5	0.81	9.3	3.9	9.7	4.5	68	80	1LE1023-1CB0■-■■■■	64	0.046	16
7.5	10	132 M	1770	40	✓	91.7	91.8	91	0.83	12.4	2.7	9.6	4.2	68	80	1LE1023-1CB2■-■■■■	64	0.046	16
11	15	160 M	1775	59	✓	92.4	92.3	91.1	0.83	18	3	8.9	3.8	69	81	1LE1023-1DB2■-■■■■	83	0.083	16
15	20	160 L	1780	80	✓	93	92.8	91.4	0.81	25	2.9	9.5	4.3	69	81	1LE1023-1DB4■-■■■■	100	0.099	16
18.5	25	180 M	1775	100	✓	93.6	93.7	93.1	0.81	30.5	2.7	7.8	3.6	68	75	1LE1023-1EB2■-■■■■	134	0.13	16
22	30	180 L	1775	118	✓	93.6	93.8	93.3	0.81	36.5	2.8	7.7	3.7	70	77	1LE1023-1EB4■-■■■■	142	0.14	16
30	40	200 L	1778	161	✓	94.1	94.3	93.8	0.83	48	3	8.1	3.5	70	77	1LE1023-2AB5■-■■■■	189	0.22	16

Voltages (≤ 600 V) [1]				No. of poles	Frame size	Motor type	Version				Order code(s)
50 Hz	230 VΔ/400 VY	60 Hz	460 VY	2, 4	80 M ... 200 L	1LE1023-0D ... -2A	**Standard**	2	2		–
50 Hz	400 VΔ	60 Hz	460 VΔ	2, 4	80 M ... 200 L	1LE1023-0D ... -2A	**Standard**	3	4		–
50 Hz	500 VY			2, 4	80 M ... 200 L	1LE1023-0D ... -2A	W/o add. charge	2	7		–
50 Hz	500 VΔ			2, 4	80 M ... 200 L	1LE1023-0D ... -2A	W/o add. charge	4	0		–
Further voltages			For price information, code numbers, order codes, and descriptions, see from page 2/63					9	0		. . .
Types of construction				No. of poles	Frame size	Motor type	Version				Order code(s)
Without flange		IM B3 [2]		2, 4	80 M ... 200 L	1LE1023-0D ... -2A	**Standard**			A	–
With flange		IM B5 [2]		2, 4	80 M ... 200 L	1LE1023-0D ... -2A	With add. charge			F	–
With standard flange		IM B14 [2]		2, 4	80 M ... 160 L	1LE1023-0D ... -2A	With add. charge			K	–
Further types of construction			For price information, code letters, and descriptions, see from page 2/68							■	. . .
Motor protection				No. of poles	Frame size	Motor type	Version				Order code(s)
Without				2, 4	80 M ... 200 L	1LE1023-0D ... -2A	**Standard**				A –
PTC thermistor with 3 temperature sensors				2, 4	80 M ... 200 L	1LE1023-0D ... -2A	With add. charge				B –
Further motor protection			For price information, code letters, and descriptions, see from page 2/76								■ . . .
Terminal box position				No. of poles	Frame size	Motor type	Version				Order code(s)
Terminal box at top				2, 4	80 M ... 200 L	1LE1023-0D ... -2A	**Standard**				4 –
Further terminal box positions			For price information, code numbers, and descriptions, see from page 2/78								
Special versions				No. of poles	Frame size	Motor type					Order code(s)
Forced-air cooled motors w/o ext. fan/fan cover (IC 418)				2, 4	80 M ... 200 L	1LE1023-0D ... -2A	1LE1023-. . . . ■–■■■■				-Z F90 +. . .+. . .+. . .
Options			For price information, order codes, and descriptions, see from page 2/80				1LE1023-. . . . ■–■■■■				-Z . . .+. . .+. . .+. . .

– Not required
✓ Available

[1] Operating voltages only ≤ 600 V admissible in accordance with MG1 Table 12-12.

[2] Types derived from IM B3 (IM B6/7/8, IM V6, and IM V5), from IM B5 (IM V3 and IM V1) and from IM B14 (IM V19 and IM V18) are possible, provided that no requirements exist for condensation drainage holes (**H03**) and stamping of the type on the rating plate. The basic type IM B3, IM B5, or IM B14 is stamped as standard on the rating plate. When ordering with condensation drainage holes (**H03**), the type must be specified.

Selection and ordering data (continued)

P_{rated}, 60 Hz/ P50	P_{rated}, 60 Hz/ P60	Frame size	n_{rated}, 60 Hz	T_{rated}, 60 Hz	EISA CC no. CC032A	η_{rated}, 60 Hz, 4/4	η_{rated}, 60 Hz, 3/4	η_{rated}, 60 Hz, 2/4	cos φ_{rated}, 60 Hz, 4/4	I_{rated}, 60 Hz, 460 V	T_{LR}/T_{rated}, 60 Hz	I_{LR}/I_{rated}, 60 Hz	T_B/T_{rated}, 60 Hz	L_{pfA}, 60 Hz	L_{WA}, 60 Hz	Aluminum series 1LE1023 – *NEMA Premium Efficient Version* Article No.	$m_{IM\ B3}$	J	Torque class
Operating values at rated power																			
kW	hp	FS	rpm	Nm		%	%	%		A				dB(A)	dB(A)	▲ New			CL
• Cooling: Self-ventilated (IC 411) or with order code F90 forced-air cooled without external fan and fan cover (IC 418)																			
• Efficiency: NEMA Premium Efficient, UL, CSA, and service factor (SF) 1.15 – for operation in the USA, Canada, and Mexico																			
• Insulation: Thermal class 155 (temperature class F), IP55 degree of protection, utilization in accordance with thermal class 130 (temperature class B)																			
6-pole: 1000 rpm at 50 Hz, 1200 rpm at 60 Hz																			
0.37	**0.5**	**80 M**	1150	3.1	–	75.3	74.3	70	0.61	1.01	2.7	5	3.3	45	56	**1LE1023-0DC2■-■■■■**	12	0.0025	16
0.55	**0.75**	**80 M**	1145	4.6	–	81.7	80.5	76.4	0.63	1.34	2.8	5.3	3.4	45	56	**1LE1023-0DC3■-■■■■**	14	0.0031	16
0.75	**1**	**90 S**	1155	6.2	✓	82.5	82.4	79.9	0.65	1.76	2.4	5.3	3.1	46	58	**1LE1023-0EC0■-■■■■**	16	0.004	16
1.1	**1.5**	**100 L**	1180	8.9	✓	87.5	87.2	84.8	0.69	2.3	2.4	6.7	3.3	62	74	**1LE1023-1AC3■-■■■■**	30	0.014	16
3	**4**	**132 S**	1185	24	✓	89.5	89.6	88.4	0.75	5.6	2.3	7.5	3.3	67	79	**1LE1023-1CC0■-■■■■**	52	0.037	16
3.7	**5**	**132 M**	1175	30	✓	89.5	89.6	88.4	0.73	7.1	2.4	7.6	3.4	67	79	**1LE1023-1CC2■-■■■■**	52	0.037	16
5.5	**7.5**	**132 M**	1180	45	✓	91	91.4	90.5	0.74	10.3	2.3	7.2	3.3	67	79	**1LE1023-1CC3■-■■■■**	64	0.046	16
7.5	**10**	**160 M**	1185	60	✓	91	91.1	90	0.75	13.8	2.4	5.9	2.6	70	82	**1LE1023-1DC2■-■■■■**	93	0.098	16
11	**15**	**160 L**	1180	89	✓	91.7	91.9	91	0.75	20	2.3	5.8	2.6	70	82	**1LE1023-1DC4■-■■■■**	115	0.12	16
15	**20**	**180 L**	1178	122	✓	91.7	92	91.4	0.79	26	2.5	6.8	3	61	68	**1LE1023-1EC4■-■■■■**	130	0.19	16
18.5	**25**	**200 L**	1180	150	✓	93	93.8	93.8	0.78	32	2.8	6.5	3	64	71	**1LE1023-2AC4■-■■■■**	166	0.28	16
22	**30**	**200 L**	1180	178	✓	93	93.5	93.4	0.79	37.5	2.6	6.3	2.8	63	70	**1LE1023-2AC5■-■■■■**	179	0.32	16
8-pole: 750 rpm at 50 Hz, 900 rpm at 60 Hz																			
2.2	**3**	**132 S**	880	24	✓	85.5	85.6	83.6	0.6	5.4	1.5	4	2.1	67	80	▲ **1LE1023-1CD0■-■■■■**	56	0.038	10
3	**4**	**132 M**	880	33	✓	86.5	86.7	84.9	0.6	7.3	1.7	4.3	2.3	67	80	▲ **1LE1023-1CD2■-■■■■**	65	0.048	13
3.7	**5**	**160 M**	885	40	✓	86.5	86.2	84	0.62	8.7	2	4.4	2.2	66	79	▲ **1LE1023-1DD2■-■■■■**	72	0.065	13
5.5	**7.5**	**160 M**	884	59	✓	86.5	86.5	85	0.64	12.5	1.9	4.4	2.2	66	79	▲ **1LE1023-1DD3■-■■■■**	86	0.083	13
7.5	**10**	**160 L**	882	81	✓	89.5	89.8	88.9	0.64	16.4	2	4.3	2.2	66	79	▲ **1LE1023-1DD4■-■■■■**	110	0.116	13
11	**15**	**180 L**	880	119	✓	89.5	89.9	89.3	0.72	21.5	2.3	5.8	2.7	65	78	▲ **1LE1023-1ED4■-■■■■**	161	0.267	16
15	**20**	**200 L**	882	162	✓	90.2	90.2	89.2	0.7	30	3.4	7.7	4.2	60	73	▲ **1LE1023-2AD5■-■■■■**	212	0.420	16

Voltages (≤ 600 V) [1]				No. of poles	Frame size	Motor type	Version				Order code(s)
50 Hz	230 VΔ/400 VY	60 Hz	460 VY	6, 8	80 M ... 200 L	1LE1023-0D ... -2A	**Standard**	**2**	**2**		–
50 Hz	400 VΔ	60 Hz	460 VΔ	6, 8	80 M ... 200 L	1LE1023-0D ... -2A	**Standard**	**3**	**4**		–
50 Hz	500 VY			6, 8	80 M ... 200 L	1LE1023-0D ... -2A	Without add. charge	**2**	**7**		–
50 Hz	500 VΔ			6, 8	80 M ... 200 L	1LE1023-0D ... -2A	Without add. charge	**4**	**0**		–
Further voltages			For price information, code numbers, order codes, and descriptions, see from page 2/63					**9**	**0**		**...**
Types of construction				No. of poles	Frame size	Motor type	Version				Order code(s)
Without flange		IM B3 [2]		6, 8	80 M ... 200 L	1LE1023-0D ... -2A	**Standard**			**A**	–
With flange		IM B5 [2]		6, 8	80 M ... 200 L	1LE1023-0D ... -2A	With add. charge			**F**	–
With standard flange		IM B14 [2]		6, 8	80 M ... 160 L	1LE1023-0D ... -2A	With add. charge			**K**	–
Further types of construction			For price information, code letters, and descriptions, see from page 2/68							■	**...**
Motor protection				No. of poles	Frame size	Motor type	Version				Order code(s)
Without				6, 8	80 M ... 200 L	1LE1023-0D ... -2A	**Standard**			**A**	–
PTC thermistor with 3 temperature sensors				6, 8	80 M ... 200 L	1LE1023-0D ... -2A	With add. charge			**B**	–
Further motor protection			For price information, code letters, and descriptions, see from page 2/76							■	**...**
Terminal box position				No. of poles	Frame size	Motor type	Version				Order code(s)
Terminal box at top				6, 8	80 M ... 200 L	1LE1023-0D ... -2A	**Standard**			**4**	–
Further terminal box positions			For price information, code numbers, and descriptions, see from page 2/78								
Special versions				No. of poles	Frame size	Motor type					Order code(s)
Forced-air cooled motors w/o ext. fan/fan cover (IC 418)				6, 8	80 M ... 200 L	1LE1023-0D ... -2A	**1LE1023-....■–■■■■**			**-Z**	**F90 +...+...+...**
Options			For price information, order codes, and descriptions, see from page 2/80				**1LE1023-....■–■■■■**			**-Z**	**...+...+...+...**

– Not required
✓ Available

[1] Operating voltages only ≤ 600 V admissible in accordance with MG1 Table 12-12.

[2] Types derived from IM B3 (IM B6/7/8, IM V6, and IM V5), from IM B5 (IM V3 and IM V1) and from IM B14 (IM V19 and IM V18) are possible, provided that no requirements exist for condensation drainage holes (**H03**) and stamping of the type on the rating plate. The basic type IM B3, IM B5, or IM B14 is stamped as standard on the rating plate. When ordering with condensation drainage holes (**H03**), the type must be specified.

Selection and ordering data (continued)

P_{rated}, 60 Hz/ P50	P_{rated}, 60 Hz/ P60	Frame size	Operating values at rated power: n_{rated}, 60 Hz	T_{rated}, 60 Hz	EISA CC no. CC032A	η_{rated}, 60 Hz, 4/4	η_{rated}, 60 Hz, 3/4	η_{rated}, 60 Hz, 2/4	cos φ_{rated}, 60 Hz, 4/4	I_{rated}, 60 Hz, 460 V	T_{LR}/T_{rated}, 60 Hz	I_{LR}/I_{rated}, 60 Hz	T_B/T_{rated}, 60 Hz	L_{pfA}, 60 Hz	L_{WA}, 60 Hz	**Aluminum series** **1LE1021** – *NEMA Energy Efficient version* Article No.	$m_{IM\ B3}$	J	Torque class
kW	hp	FS	rpm	Nm		%	%	%		A				dB(A)	dB(A)		kg	kgm²	CL
• Cooling: Self-ventilated (IC 411) or with order code F90 forced-air cooled without external fan and fan cover (IC 418)																			
• Efficiency: NEMA Energy Efficient, UL, CSA, and service factor (SF) 1.15 – for operation in the USA and Canada, not admissible for exporting to Mexico																			
• Insulation: Thermal class 155 (temperature class F), IP55 degree of protection, utilization in accordance with thermal class 130 (temperature class B)																			
4-pole: 1500 rpm at 50 Hz, 1800 rpm at 60 Hz																			
0.55	**0.75**	**80 M**	1750	3	–	75.5	74.6	71.1	0.71	1.29	2.7	6.4	3.8	55	66	**1LE1021-0DB2■-■■■■**	10	0.0017	16
6-pole: 1000 rpm at 50 Hz, 1200 rpm at 60 Hz																			
0.37	**0.5**	**80 M**	1140	3.1	–	64	63	59.1	0.63	1.15	2.3	4.6	2.9	45	56	**1LE1021-0DC2■-■■■■**	9	0.0017	16
0.55	**0.75**	**80 M**	1135	4.6	–	68	67.4	63.7	0.61	1.66	2.9	5.2	3.6	45	56	**1LE1021-0DC3■-■■■■**	12	0.0025	16

Voltages (≤ 600 V) [1]				No. of poles	Frame size	Motor type	Version			Order code(s)
50 Hz	230 VΔ/400 VY	60 Hz	460 VY	4, 6	80 M	1LE1021-0D	**Standard**	2	2	–
50 Hz	400 VΔ	60 Hz	460 VΔ	4 6	80 M	1LE1021-0D	**Standard**	3	4	–
50 Hz	500 VY			4 6	80 M	1LE1021-0D	W/o add. charge	2	7	–
50 Hz	500 VΔ			4 6	80 M	1LE1021-0D	W/o add. charge	4	0	–
Further voltages			For price information, code numbers, order codes, and descriptions, see from page 2/63					9	0	. . .

Types of construction [2]		No. of poles	Frame size	Motor type	Version		Order code(s)
With flange	IM B5 [3]	4 6	80 M	1LE1021-0D	With add. charge	F	–
With standard flange	IM B14 [3]	4 6	80 M	1LE1021-0D	With add. charge	K	–
Further types of construction	For price information, code letters, and descriptions, see from page 2/68					■	. . .

Motor protection	No. of poles	Frame size	Motor type	Version		Order code(s)
Without	4 6	80 M	1LE1021-0D	**Standard**	A	–
PTC thermistor with 3 temperature sensors	4 6	80 M	1LE1021-0D	With add. charge	B	–
Further motor protection	For price information, code letters, and descriptions, see from page 2/76				■	. . .

Terminal box position	No. of poles	Frame size	Motor type	Version		Order code(s)
Terminal box at top	4 6	80 M	1LE1021-0D	**Standard**	4	–
Further terminal box positions	For price information, code numbers, and descriptions, see from page 2/78					

Special versions	No. of poles	Frame size	Motor type		Order code(s)
Forced-air cooled motors w/o ext. fan/fan cover (IC 418)	4 6	80 M	1LE1021-0D	**1LE1021-. . . . ■-■■■■-Z**	**F90** +. . .+. . .+. . .
Options	For price information, order codes, and descriptions, see from page 2/80			**1LE1021-. . . . ■-■■■■-Z**	. . .+. . .+. . .+. . .

– Not required

1) Operating voltages only ≤ 600 V admissible in accordance with MG1 Table 12-11.

2) Types of construction with feet are not possible for 2-pole, 4-pole, and 6-pole motors ≤ 200 hp in accordance with MG1 Table 12-11.

3) Types derived from IM B5 (IM V3 and IM V1) and from IM B14 (IM V19 and IM V18) are possible, provided that no requirements exist for condensation drainage holes (**H03**) and stamping of the type on the rating plate. The basic type IM B5 or IM B14 is stamped as standard on the rating plate. When ordering with condensation drainage holes (**H03**), the type must be specified.

Selection and ordering data

P_{rated}, 50 Hz	P_{rated}, 50 Hz	Frame size	Operating values at rated power for N1: n_{rated}, 50 Hz	T_{rated}, 50 Hz	η_{rated}, 50 Hz, 4/4	cos φ_{rated}, 50 Hz, 4/4	I_{rated}, 400 V	T_{LR}/T_{rated}	I_{LR}/I_{rated}	T_B/T_{rated}	Operating values at rated power for N2: n_{rated}, 50 Hz	T_{rated}, 50 Hz	η_{rated}, 50 Hz, 4/4	cos φ_{rated}, 50 Hz, 4/4	I_{rated}, 400 V	T_{LR}/T_{rated}	I_{LR}/I_{rated}	T_B/T_{rated}	Aluminum series 1LE1011 – one winding pole-changing for constant load torque Article No.	m IM B3	J	Torque class
kW	kW	FS	rpm	Nm	%		A				rpm	Nm	%		A					kg	kgm²	CL
• Cooling: Self-ventilated (IC 411) • Line operation: double pole-changing for constant load torque • Insulation: Thermal class 155 (temperature class F), IP55 degree of protection, utilization in accordance with thermal class 130 (temperature class B)																						
4/2-pole: 1500/3000 rpm at 50 Hz with one winding connected in Dahlander circuit																						
1500 rpm	*3000 rpm*		*1500 rpm*								*3000 rpm*											
1.9	**2.4**	**100 L**	1390	13.1	72	0.87	4.40	1.7	4.1	1.8	2800	8.2	70	0.88	5.6	1.8	4.2	1.8	**1LE1011-1AJ4** ■-■■■■	18	0.0059	13
2.5	**3.1**	**100 L**	1440	16.6	76.3	0.87	5.4	1.9	5.2	2.8	2840	10.4	77.3	0.9	6.4	2.1	5.2	2.9	**1LE1011-1AJ5** ■-■■■■	22	0.0078	13
3.7	**4.4**	**112 M**	1420	24.9	79.9	0.86	7.8	1.8	4.9	2.3	2885	14.6	80.8	0.92	8.5	2.1	6.4	2.6	**1LE1011-1BJ2** ■-■■■■	27	0.01	13
4.7	**5.9**	**132 S**	1440	31.2	82	0.84	9.8	1.6	5.6	2.7	2875	19.6	80	0.89	12.0	1.8	5.6	2.8	**1LE1011-1CJ0** ■-■■■■	38	0.019	13
6.5	**8.0**	**132 M**	1435	43.3	82	0.86	13.3	1.7	5.4	2.6	2880	26.5	82	0.92	15.3	1.8	6.3	2.8	**1LE1011-1CJ2** ■-■■■■	44	0.024	13
9.3	**11.5**	**160 M**	1440	61.7	84.5	0.87	18.3	1.7	5.7	2.8	2870	38.3	82	0.92	22.0	1.8	6	2.9	**1LE1011-1DJ2** ■-■■■■	62	0.044	13
13.0	**16**	**160 L**	1450	85.6	87	0.85	25.5	1.6	6	2.3	2920	52.3	86	0.94	35.5	1.9	7.1	2.8	**1LE1011-1DJ6** ■-■■■■	85	0.068	13
8/4-pole: 750/1500 rpm at 50 Hz with one winding connected in Dahlander circuit																						
750 rpm	*1500 rpm*		*750 rpm*								*1500 rpm*											
0.55	**1.1**	**100 L**	715	7.3	57	0.53	2.65	2	3	2.7	1425	7.4	77.7	0.87	2.35	1.7	4.6	2.1	**1LE1011-1AL4** ■-■■■■	18	0.0059	10
0.9	**1.5**	**100 L**	700	12.3	64.2	0.64	3.15	1.5	2.9	2	1415	10.1	77.7	0.89	3.15	1.5	4.5	1.9	**1LE1011-1AL5** ■-■■■■	22	0.0078	10
1.1	**1.9**	**112 M**	715	14.7	66.5	0.6	4.00	1.6	3.2	2.3	1440	12.6	80.9	0.87	3.90	1.6	5.4	2.3	**1LE1011-1BL2** ■-■■■■	27	0.01	10
1.6	**3.2**	**132 S**	730	20.9	61.5	0.53	7.1	1.6	3.3	2.6	1450	21.1	82.3	0.87	6.5	1.4	5	2.1	**1LE1011-1CL0** ■-■■■■	38	0.019	10
2.2	**4.4**	**132 M**	730	28.8	68	0.52	9.0	2	3.8	3	1450	29	84.5	0.88	8.5	1.5	5.5	2.3	**1LE1011-1CL2** ■-■■■■	44	0.024	10
3.5	**7**	**160 M**	730	45.8	77.5	0.57	11.4	2	4.2	2.8	1450	46.1	84	0.9	13.4	1.6	5.2	2.2	**1LE1011-1DL2** ■-■■■■	62	0.044	10
5.6	**11**	**160 L**	725	73.8	80.2	0.6	16.8	1.9	4	2.7	1445	72.7	84.4	0.9	21.0	1.5	5.1	2.2	**1LE1011-1DL4** ■-■■■■	73	0.056	10

Voltages			No. of poles	Frame size	Motor type	Version				Order code(s)
50 Hz	230 V		4/2, 8/4	100 L ... 160 L	1LE1011-1A ... -1D	**Standard**	**2**	**2**		–
50 Hz	400 V		4/2, 8/4	100 L ... 160 L	1LE1011-1A ... -1D	**Standard**	**3**	**4**		–
50 Hz	500 V		4/2, 8/4	100 L ... 160 L	1LE1011-1A ... -1D	Without add. charge	**4**	**0**		–
50 Hz	690 V		4/2, 8/4	100 L ... 160 L	1LE1011-1A ... -1D	Without add. charge	**4**	**7**		–
Further voltages [1]		For price information, code numbers, order codes, and descriptions, see from page 2/65					**9**	**0**		. . .
Types of construction			No. of poles	Frame size	Motor type	Version				Order code(s)
Without flange		IM B3 [2]	4/2, 8/4	100 L ... 160 L	1LE1011-1A ... -1D	**Standard**			**A**	–
With flange		IM B5 [2]	4/2, 8/4	100 L ... 160 L	1LE1011-1A ... -1D	With add. charge			**F**	–
With standard flange		IM B14 [2]	4/2, 8/4	100 L ... 160 L	1LE1011-1A ... -1D	With add. charge			**K**	–
Further types of construction		For price information, code letters, and descriptions, see from page 2/68							■	. . .
Motor protection			No. of poles	Frame size	Motor type	Version				Order code(s)
Without			4/2, 8/4	100 L ... 160 L	1LE1011-1A ... -1D	**Standard**			**A**	–
PTC thermistor with 3 temperature sensors			4/2, 8/4	100 L ... 160 L	1LE1011-1A ... -1D	With add. charge			**B**	–
Further motor protection		For price information, code letters, and descriptions, see from page 2/76							■	. . .
Terminal box position			No. of poles	Frame size	Motor type	Version				Order code(s)
Terminal box at top			4/2, 8/4	100 L ... 160 L	1LE1011-1A ... -1D	**Standard**			**4**	–
Further terminal box positions		For price information, code numbers, and descriptions, see from page 2/78								
Special versions										Order code(s)
Options		For price information, order codes, and descriptions, see from page 2/80				**1LE1011-. . . .** ■-■■■■			**-Z**	. . .+. . .+. . .+. . .

Note: Pole-changing motors (4/2-pole) do not comply with the vibration values stipulated in IEC 60034-14 when rigidly installed (see also page 1/53).

[1] Operating values for 60 Hz are available on request.

[2] Types derived from IM B3 (IM B6/7/8, IM V6, and IM V5), from IM B5 (IM V3 and IM V1) and from IM B14 (IM V19 and IM V18) are possible, provided that no requirements exist for condensation drainage holes (**H03**) and stamping of the type on the rating plate. The basic type IM B3, IM B5, or IM B14 is stamped as standard on the rating plate. When ordering with condensation drainage holes (**H03**), the type must be specified.

Selection and ordering data

P_{rated1}, 50 Hz	P_{rated2}, 50 Hz	Frame size	Operating values at rated power for N1: n_{rated1}, 50 Hz	T_{rated1}, 50 Hz	η_{rated1}, 50 Hz, 4/4	cos φ_{rated1}, 50 Hz, 4/4	I_{rated1}, 50 Hz, 400 V	T_{LR}/T_{rated1}, 50 Hz	I_{LR}/I_{rated1}, 50 Hz	T_B/T_{rated1}, 50 Hz	Operating values at rated power for N2: n_{rated2}, 50 Hz	T_{rated2}, 50 Hz	η_{rated2}, 50 Hz, 4/4	cos φ_{rated2}, 50 Hz, 4/4	I_{rated2}, 50 Hz, 400 V	T_{LR}/T_{rated2} 50 Hz	I_{LR}/I_{rated2}, 50 Hz	T_B/T_{rated2}, 50 Hz	Aluminum series 1LE1011 – one winding 1LE1012 – two windings pole-changing for quadratic load torque Article No.	m IM B3	J	Torque class
kW	kW	FS	rpm	Nm	%		A				rpm	Nm	%		A				▲ New			CL
• Cooling: Self-ventilated (IC 411) • Line operation: double pole-changing for square-law load torque, e.g. for driving fans • Insulation: Thermal class 155 (temperature class F), IP55 degree of protection, utilization in accordance with thermal class 130 (temperature class B)																						
4/2-pole: 1500/3000 rpm at 50 Hz with one winding connected in Dahlander circuit																						
1500 rpm	*3000 rpm*		*1500 rpm*								*3000 rpm*											
0.65	**2.4**	**100 L**	1415	4.4	75	0.86	1.45	1.6	4.1	1.8	2800	8.2	70	0.88	5.6	1.8	4.2	1.8	**1LE1011-1AP4■-■■■■**	18	0.0059	13
0.8	**3.1**	**100 L**	1435	5.3	79	0.85	1.72	1.9	5.2	2.8	2840	10.4	77.3	0.9	6.4	2.1	5.2	2.8	**1LE1011-1AP5■-■■■■**	22	0.0078	13
1.1	**4.4**	**112 M**	1455	7.2	83.4	0.85	2.25	2.2	6.1	2.5	2885	14.6	80.8	0.92	8.5	2.1	6.4	2.5	**1LE1011-1BP2■-■■■■**	27	0.01	13
1.45	**5.9**	**132 S**	1460	9.5	84	0.84	2.95	1.6	5.8	2.8	2875	19.6	80	0.89	12.0	1.8	5.6	2.8	**1LE1011-1CP0■-■■■■**	38	0.019	13
2.0	**8.0**	**132 M**	1455	13.1	85	0.85	4.00	1.8	5.6	2.8	2880	26.5	82	0.92	15.3	1.8	6.3	2.8	**1LE1011-1CP2■-■■■■**	44	0.024	13
2.9	**11.5**	**160 M**	1465	18.9	86.5	0.86	5.6	1.8	5.9	2.9	2870	38.3	82	0.92	22.0	1.8	6	2.9	**1LE1011-1DP2■-■■■■**	62	0.044	13
4.3	**16**	**160 L**	1455	28.2	87	0.85	8.4	1.6	6	2.3	2920	52.3	86	0.94	28.5	1.9	7.1	2.3	**1LE1011-1DP6■-■■■■**	85	0.068	13
6/4-pole: 1000/1500 rpm at 50 Hz with two windings																						
1000 rpm	*1500 rpm*		*1000 rpm*								*1500 rpm*											
0.6	**1.7**	**100 L**	970	5.9	55.5	0.62	2.50	1.7	3.4	2.7	1435	11.3	76.2	0.83	3.90	1.8	4.6	2.7	**1LE1012-1AQ4■-■■■■**	18	0.0059	10
0.8	**2.1**	**100 L**	955	8	64.2	0.77	2.35	1.2	3.4	2	1435	14	78.4	0.84	4.60	2	5.4	2	**1LE1012-1AQ5■-■■■■**	22	0.0078	10
0.9	**3.0**	**112 M**	975	8.8	64.7	0.66	3.05	1.6	3.9	2.5	1455	19.7	81.4	0.78	6.8	2.1	6.4	2.5	**1LE1012-1BQ2■-■■■■**	27	0.01	13
1.2	**3.9**	**132 S**	980	11.7	72.3	0.7	3.40	1.4	4.6	2.5	1455	25.6	83.1	0.83	8.2	1.5	5.7	2.5	**1LE1012-1CQ0■-■■■■**	38	0.019	10
1.7	**5.4**	**132 M**	980	16.6	74.1	0.71	4.65	1.7	5	2.5	1465	35.2	85.9	0.82	11.1	2	6.9	2.5	**1LE1012-1CQ2■-■■■■**	44	0.024	10
2.5	**7.2**	**160 M**	985	24.2	77.7	0.71	6.5	1.5	4.7	2.6	1470	46.8	86.9	0.85	14.1	1.8	6.3	2.6	**1LE1012-1DQ2■-■■■■**	62	0.044	10
3.7	**12.0**	**160 L**	985	35.9	82.4	0.69	9.4	2.3	6.2	3.5	1475	77.7	87.9	0.8	24.5	2.1	7.5	3.5	**1LE1012-1DQ4■-■■■■**	73	0.059	10
6.5	**19**	**180 L**	985	63	81.0	0.7	16.5	1.8	5.5	2.7	1475	123	0.9	0.8	38.0	2.5	8.1	3.7	▲ **1LE1012-1EQ4■-■■■■**	132	0.13	10
9.5	**26**	**200 L**	985	92	84.5	0.7	23.0	2.3	6.5	2.8	1475	168	0.91	0.8	52	2.3	7.5	3.4	▲ **1LE1012-2AQ5■-■■■■**	173	0.20	10

Voltages		No. of poles	Frame size	Motor type	Version			Order code(s)
50 Hz	230 V	4/2, 6/4	100 L ... 200 L	1LE101■-1A ... -2A	**Standard**	2	2	–
50 Hz	400 V	4/2, 6/4	100 L ... 200 L	1LE101■-1A ... -2A	**Standard**	3	4	–
50 Hz	500 V	4/2, 6/4	100 L ... 200 L	1LE101■-1A ... -2A	Without add. charge	4	0	–
50 Hz	690 V	4/2, 6/4	100 L ... 200 L	1LE101■-1A ... -2A	Without add. charge	4	7	–
Further voltages [1]		For price information, code numbers, order codes, and descriptions, see from page 2/65				9	0	. . .
Types of construction		**No. of poles**	**Frame size**	**Motor type**	**Version**			**Order code(s)**
Without flange	IM B3 [2]	4/2, 6/4	100 L ... 200 L	1LE101■-1A ... -2A	**Standard**		A	–
With flange	IM B5 [2]	4/2, 6/4	100 L ... 200 L	1LE101■-1A ... -2A	With add. charge		F	–
With standard flange	IM B14 [2]	4/2, 6/4	100 L ... 160 L	1LE101■-1A ... -2A	With add. charge		K	–
Further types of construction		For price information, code letters, and descriptions, see from page 2/68					■	. . .
Motor protection		**No. of poles**	**Frame size**	**Motor type**	**Version**			**Order code(s)**
Without		4/2, 6/4	100 L ... 200 L	1LE101■-1A ... -2A	**Standard**		A	–
PTC thermistor with 3 temperature sensors		4/2, 6/4	100 L ... 200 L	1LE101■-1A ... -2A	With add. charge		B	–
Further motor protection		For price information, code letters, and descriptions, see from page 2/76					■	. . .
Terminal box position		**No. of poles**	**Frame size**	**Motor type**	**Version**			**Order code(s)**
Terminal box at top		4/2, 6/4	100 L ... 200 L	1LE101■-1A ... -2A	**Standard**		4	–
Further terminal box positions		For price information, code numbers, and descriptions, see from page 2/78						
Special versions								**Order code(s)**
Options		For price information, order codes, and descriptions, see from page 2/80				**1LE101■-. . . ■-■■■■-Z**		. . .+. . .+. . .

Note: Pole-changing motors (4/2-pole) do not comply with the vibration values stipulated in IEC 60034-14 when rigidly installed (see also page 1/53).

[1] Operating values for 60 Hz are available on request.

[2] Types derived from IM B3 (IM B6/7/8, IM V6, and IM V5), from IM B5 (IM V3 and IM V1) and from IM B14 (IM V19 and IM V18) are possible, provided that no requirements exist for condensation drainage holes (**H03**) and stamping of the type on the rating plate. The basic type IM B3, IM B5, or IM B14 is stamped as standard on the rating plate. When ordering with condensation drainage holes (**H03**), the type must be specified.

Selection and ordering data (continued)

P_{rated}, 50 Hz	P_{rated}, 50 Hz	Frame size	Operating values at rated power for N1: n_{rated}, 50 Hz	T_{rated}, 50 Hz	η_{rated}, 50 Hz, 4/4	$\cos\varphi_{rated}$, 50 Hz, 4/4	I_{rated}, 400 V	T_{LR}/T_{rated}, 50 Hz	I_{LR}/I_{rated}, 50 Hz	T_B/T_{rated}, 50 Hz	Operating values at rated power for N2: n_{rated}, 50 Hz	T_{rated}, 50 Hz	η_{rated}, 50 Hz, 4/4	$\cos\varphi_{rated}$, 50 Hz, 4/4	I_{rated}, 400 V	T_{LR}/T_{rated}, 50 Hz	I_{LR}/I_{rated}, 50 Hz	T_B/T_{rated}, 50 Hz	Aluminum series 1LE1011 – one winding pole-changing for quadratic load torque: Article No.	m IM B3	J	Torque class
kW	kW	FS	rpm	Nm	%		A				rpm	Nm	%		A				▲ New			CL
• Cooling: Self-ventilated (IC 411) • Line operation: double pole-changing for square-law load torque, e.g. for driving fans • Insulation: Thermal class 155 (temperature class F), IP55 degree of protection, utilization in accordance with thermal class 130 (temperature class B)																					
8/4-pole: 750/1500 rpm at 50 Hz with one winding connected in Dahlander circuit																					
750 rpm	1500 rpm		750 rpm								1500 rpm										
0.5	**2.0**	**100 L**	720	6.6	52	0.5	2.80	1.3	3.3	3.4	1440	13.3	82	0.79	4.45	3	7.5	3.4	1LE1011-1AR4■-■■■■	22	0.0078	7
0.65	**2.5**	**100 L**	715	8.7	56	0.58	2.90	1	3.2	2.6	1425	16.8	81	0.84	5.3	2.3	6.3	2.6	1LE1011-1AR5■-■■■■	22	0.0078	7
0.9	**3.6**	**112 M**	715	12	56	0.57	4.05	1	2.8	2.1	1430	24	82	0.84	7.5	1.9	5.6	2.1	1LE1011-1BR2■-■■■■	27	0.01	7
1.1	**4.7**	**132 S**	730	14.4	62	0.54	4.75	1	3.2	2.2	1430	31.4	82	0.86	9.6	1.7	5.2	2.2	1LE1011-1CR0■-■■■■	38	0.019	7
1.4	**6.4**	**132 M**	730	18.3	67.5	0.52	5.8	1.1	3.5	2.3	1440	42.4	84.5	0.87	12.6	1.9	5.7	2.3	1LE1011-1CR2■-■■■■	44	0.024	7
2.2	**9.5**	**160 M**	730	28.8	80.6	0.63	6.3	1.5	4	2.5	1465	61.9	86.1	0.84	19.0	2	6.3	2.5	1LE1011-1DR2■-■■■■	62	0.044	10
3.3	**14**	**160 L**	735	42.9	81.4	0.56	10.4	2.5	4.8	3.3	1475	90.6	85.8	0.73	32.5	2.5	7.2	3.3	1LE1011-1DR4■-■■■■	73	0.056	16
4.5	**16**	**180 M**	730	59	79.3	0.59	13.9	1.4	3.8	2.3	1470	104	84.6	0.83	33.0	1.4	7	2.9	▲ 1LE1011-1ER2■-■■■■	128	0.12	10
5	**18.5**	**180 L**	730	65	78.3	0.6	15.4	1.5	3.8	2.1	1470	120	86.6	0.83	37.0	2.3	7	2.7	▲ 1LE1011-1ER4■-■■■■	132	0.13	10
7.5	**28**	**200 L**	735	97	85.0	0.6	21.0	1.7	4	2.1	1475	181	90.5	0.85	53	2.7	7.4	3.1	▲ 1LE1011-2AR5■-■■■■	173	0.20	10

Voltages			No. of poles	Frame size	Motor type	Version				Order code(s)
50 Hz	230 V		8/4	100 L ... 200 L	1LE101■-1A ... -2A	**Standard**	2	2		–
50 Hz	400 V		8/4	100 L ... 200 L	1LE101■-1A ... -2A	**Standard**	3	4		–
50 Hz	500 V		8/4	100 L ... 200 L	1LE101■-1A ... -2A	Without add. charge	4	0		–
50 Hz	690 V		8/4	100 L ... 200 L	1LE101■-1A ... -2A	Without add. charge	4	7		–
Further voltages [1]		For price information, code numbers, order codes, and descriptions, see from page 2/65					9	0		. . .
Types of construction			No. of poles	Frame size	Motor type	Version				Order code(s)
Without flange		IM B3 [2]	8/4	100 L ... 200 L	1LE101■-1A ... -2A	**Standard**			A	–
With flange		IM B5 [2]	8/4	100 L ... 200 L	1LE101■-1A ... -2A	With add. charge			F	–
With standard flange		IM B14 [2]	8/4	100 L ... 160 L	1LE101■-1A ... -2A	With add. charge			K	–
Further types of construction		For price information, code letters, and descriptions, see from page 2/68							■	. . .
Motor protection			No. of poles	Frame size	Motor type	Version				Order code(s)
Without			8/4	100 L ... 200 L	1LE101■-1A ... -2A	**Standard**			A	–
PTC thermistor with 3 temperature sensors			8/4	100 L ... 200 L	1LE101■-1A ... -2A	With add. charge			B	–
Further motor protection		For price information, code letters, and descriptions, see from page 2/76							■	. . .
Terminal box position			No. of poles	Frame size	Motor type	Version				Order code(s)
Terminal box at top			8/4	100 L ... 200 L	1LE101■-1A ... -2A	**Standard**			4	–
Further terminal box positions		For price information, code numbers, and descriptions, see from page 2/78								
Special versions										Order code(s)
Options		For price information, order codes, and descriptions, see from page 2/80				**1LE101■-. . . . ■-■■■■-Z**				. . .+. . .+. . .

[1] Operating values for 60 Hz are available on request.

[2] Types derived from IM B3 (IM B6/7/8, IM V6, and IM V5), from IM B5 (IM V3 and IM V1) and from IM B14 (IM V19 and IM V18) are possible, provided that no requirements exist for condensation drainage holes (**H03**) and stamping of the type on the rating plate. The basic type IM B3, IM B5, or IM B14 is stamped as standard on the rating plate. When ordering with condensation drainage holes (**H03**), the type must be specified.

Selection and ordering data

Voltages	Voltage code 12th and 13th position of the Article No.		Additional identification code with order code and plain text if required	Motor category								
				Motor version	**Motor type (aluminum)**	**Motor type – frame size**						
						80	**90**	**100**	**112**	**132**	**160**	**180**	**200**
				IE2 High Efficiency	1LE1001	**1LE1001** ①							
					1PC1001			**1PC1001** ②					
					1LE1041	**1LE1041 APAC Line** ③							
				IE3 Premium Efficiency	1LE1003	**1LE1003** ④							
					1LE1043	**1LE1043 APAC Line** ⑤							
				IE4 Super Premium Efficiency	1LE1004			**1LE1004** ⑥					
				IE1 Standard Efficiency	1LE1002	**1LE1002** ⑦							
					1PC1002			**1PC1002** ⑧					
				NEMA Energy Efficient	1LE1021		**1LE1021 Eagle Line** ⑨						
				NEMA Premium Efficient	1LE1023	**1LE1023 Eagle Line** ⑩							
1LE10 . . - . . . . ■ - ■ . . .				Motor version	Motor type	Frame size							
1PC10 . . - . . . . ■ - ■ . . .			Order code			80	90	100	112	132	160	180	200
Voltage at 50 Hz or 60 Hz – Operating values at rated power for 60 Hz are stored in the Drive Technology Configurator (DTC)													
50 Hz 230 VΔ/400 VY, 60 Hz 460 VY	**2**	**2**	–	All	All	□	□	□	□	□	□	□	□
50 Hz 400 VΔ/690 VY, 60 Hz 460 VΔ [1]	**3**	**4**	–	All except ③, ⑤, ⑨ and ⑩		□	□	□	□	□	□	□	□
50 Hz 400 VΔ, 60 Hz 460 VΔ [1]				Only applicable for ③, ⑤, ⑨, and ⑩		□	□	□	□	□	□	□	□
50 Hz 400 VY, 60 Hz 460 VY [2] [3]	**0**	**2**	–	All	All	□	□	□	□	□	□	□	□
50 Hz 400 VY, 60 Hz 460 VY [4]	**0**	**4**	–	All	All	□	□	□	□	□	□	□	□
50 Hz 500 VY 60 Hz 575 VY [7]	**2**	**7**	–	All except ⑥		○	○	○	○	○	○	○	○
50 Hz 500 VΔ 60 Hz 575 VΔ	**4**	**0**	–	All except ⑥		–	–	○	○	○	○	○	○
50 Hz 220 VΔ/380 VY 60 Hz 440 VY	**2**	**1**	–	All	All	✓	✓	✓	✓	✓	✓	✓	✓
50 Hz 380 VΔ/660 VY [1], 60 Hz 440 VΔ	**3**	**3**	–	All except ③, ⑤, ⑨ and ⑩		✓	✓	✓	✓	✓	✓	✓	✓
50 Hz 380 VΔ [1]				Only applicable for ③, ⑤, ⑨, and ⑩		–	–	✓	✓	✓	✓	✓	✓
50 Hz 240 VΔ/415 VY, 60 Hz 480 VY	**2**	**3**	–	All	All	✓	✓	✓	✓	✓	✓	✓	✓
50 Hz 415 VΔ, 60 Hz 480 VΔ	**3**	**5**	–	All	All	✓	✓	✓	✓	✓	✓	✓	✓
60 Hz 220 VΔ/380 VY	**1**	**7**	–	All except ⑦ and ⑧		✓	✓	✓	✓	✓	✓	✓	✓
60 Hz 230 VΔ/400 VY	**1**	**8**	–	All except ⑦ and ⑧		✓	✓	✓	✓	✓	✓	✓	✓
60 Hz 380 VΔ/660 VY [1]	**3**	**0**	–	All except ⑦, ⑧, ⑨ and ⑩		✓	✓	✓	✓	✓	✓	✓	✓
60 Hz 380 VΔ [1]			–	Only applicable for ⑨ and ⑩		✓	✓	✓	✓	✓	✓	✓	✓
60 Hz 400 VΔ/690 VY [1]	**3**	**1**	–	All except ⑦, ⑧, ⑨ and ⑩		✓	✓	✓	✓	✓	✓	✓	✓
60 Hz 400 VΔ [1]			–	Only applicable for ⑨ and ⑩		✓	✓	✓	✓	✓	✓	✓	✓
Multi-voltage at 60 Hz and required power at 60 Hz													
60 Hz 230 VYY/460 VY; 50 Hz power, 9 main terminals, and electrical version according to NEMA	**6**	**0**	–	All except ②, ③, ⑦ and ⑧		–	–	–	–	–	–	✓	✓
60 Hz 230 VYY/460 VY; 60 Hz power, 9 main terminals, and electrical version according to NEMA	**6**	**1**	–	All except ②, ③, ⑦ and ⑧		–	–	–	–	–	–	✓	✓
60 Hz 230 VΔΔ/460 VΔ; 50 Hz power, 12 main terminals, and electrical version according to NEMA	**6**	**2**	–	All except ②, ③, ⑦ and ⑧		–	–	–	–	–	–	✓	✓
60 Hz 230 VΔΔ/460 VΔ; 60 Hz power, 12 main terminals, and electrical version according to NEMA	**6**	**3**	–	All except ②, ③, ⑦ and ⑧		–	–	–	–	–	–	✓	✓

For legends and footnotes, see page 2/64.

Article No. supplements and special versions
SIMOTICS GP 1LE1/1PC1 standard motors

Voltages · Aluminum series 1LE10, 1PC10

Voltages	Voltage code 12th and 13th position of the Article No.		Additional identification code with order code and plain text if required	Motor category: Motor version	Motor type (aluminum)	Motor type – frame size 80	90	100	112	132	160	180	200
				IE2 High Efficiency	1LE1001	1LE1001 ①							
					1PC1001			1PC1001 ②					
					1LE1041	1LE1041 APAC Line ③							
				IE3 Premium Efficiency	1LE1003	1LE1003 ④							
					1LE1043	1LE1043 APAC Line ⑤							
				IE4 Super Premium Efficiency	1LE1004			1LE1004 ⑥					
				IE1 Standard Efficiency	1LE1002	1LE1002 ⑦							
					1PC1002			1PC1002 ⑧					
				NEMA Energy Efficient	1LE1021		1LE1021 Eagle Line ⑨						
				NEMA Premium Efficient	1LE1023	1LE1023 Eagle Line ⑩							
1LE10 . . - . . . . ■ - ■ . . .				Motor version	Motor type	Frame size 80	90	100	112	132	160	180	200
1PC10 . . - . . . . ■ - ■ . . .			Order code										
Voltage at 60 Hz and required power at 60 Hz													
220 VΔ/380 VY; 50 Hz power	9	0	**M2A**	All	All	✓	✓	✓	✓	✓	✓	✓	✓
220 VΔ/380 VY; 60 Hz power	9	0	**M1A**	All except ③, ⑤, ⑨ and ⑩		✓	✓	✓	✓	✓	✓	✓	✓
380 VΔ/660 VY; 50 Hz power [1]	9	0	**M2B**	All except ③, ⑤, ⑨ and ⑩		✓	✓	✓	✓	✓	✓	✓	✓
380 VΔ; 50 Hz power [1]				Only applicable for ③, ⑤, ⑨, and ⑩		–	–	✓	✓	✓	✓	✓	✓
380 VΔ/660 VY; 60 Hz power [1] [5]	9	0	**M1B**	All except ③, ⑤, ⑨ and ⑩		✓	✓	✓	✓	✓	✓	✓	✓
440 VY; 50 Hz power	9	0	**M2C**	All	All	✓	✓	✓	✓	✓	✓	✓	✓
440 VY; 60 Hz power	9	0	**M1C**	All except ③, ⑤, ⑨ and ⑩		✓	✓	✓	✓	✓	✓	✓	✓
440 VΔ; 50 Hz power	9	0	**M2D**	All	All	✓	✓	✓	✓	✓	✓	✓	✓
440 VΔ; 60 Hz power	9	0	**M1D**	All except ③, ⑤, ⑨ and ⑩		✓	✓	✓	✓	✓	✓	✓	✓
460 VY; 50 Hz power	9	0	**M2E**	All	All	✓	✓	✓	✓	✓	✓	✓	✓
460 VY; 60 Hz power	9	0	**M1E**	All except ③, ⑤, ⑨ and ⑩		○	○	○	○	○	○	○	○
460 VΔ; 50 Hz power	9	0	**M2F**	All	All	✓	✓	✓	✓	✓	✓	✓	✓
460 VΔ; 60 Hz power	9	0	**M1F**	All except ③, ⑤, ⑨ and ⑩		○	○	○	○	○	○	○	○
575 VY; 50 Hz power [7]	9	0	**M2G**	All except ⑥		✓	✓	✓	✓	✓	✓	✓	✓
575 VY; 60 Hz power [7]	9	0	**M1G**	All except ③, ⑤, ⑨ and ⑩		✓	✓	✓	✓	✓	✓	✓	✓
575 VΔ; 50 Hz power [7]	9	0	**M2H**	All except ⑥		✓	✓	✓	✓	✓	✓	✓	✓
575 VΔ; 60 Hz power [7]	9	0	**M1H**	All except ③, ⑤, ⑨ and ⑩		✓	✓	✓	✓	✓	✓	✓	✓
400 VΔ/690 VY; 50 Hz power [1]	9	0	**M2J**	All except ⑨ and ⑩		✓	✓	✓	✓	✓	✓	✓	✓
400 VΔ; 50 Hz power				Only applicable for ⑨ and ⑩		✓	✓	✓	✓	✓	✓	✓	✓
400 VΔ/690 VY; 60 Hz power	9	0	**M1J**	All except ⑨ and ⑩		✓	✓	✓	✓	✓	✓	✓	✓
480 VY; 50 Hz power	9	0	**M2K**	All	All	✓	✓	✓	✓	✓	✓	✓	✓
480 VY; 60 Hz power	9	0	**M1K**	All except ⑨ and ⑩		✓	✓	✓	✓	✓	✓	✓	✓
480 VΔ; 50 Hz power	9	0	**M2L**	All	All	✓	✓	✓	✓	✓	✓	✓	✓
480 VΔ; 60 Hz power	9	0	**M1L**	All except ⑨ and ⑩		✓	✓	✓	✓	✓	✓	✓	✓
230 VΔ/400 VY; 50 Hz power	9	0	**M2M**	All	All	✓	✓	✓	✓	✓	✓	✓	✓
230 VΔ/400 VY; 60 Hz power	9	0	**M1M**	All except ⑨ and ⑩		✓	✓	✓	✓	✓	✓	✓	✓
Voltage at 87 Hz and 87 Hz power													
400 VΔ [5]	9	0	**M3A**	All	All	✓	✓	✓	✓	✓	✓	✓	✓
Non-standard voltage and/or frequencies													
Non-standard winding [6]	9	0	**M1Y** • and customer specifications	All	All	✓	✓	✓	✓	✓	✓	✓	✓

- ◘ Standard version
- ○ Without additional charge
- • This order code only determines the price of the version – Additional plain text is required.
- ✓ With additional charge
- – Not possible

1) For North America export versions Eagle Line 1LE1021 NEMA Energy Efficient and 1LE1023 NEMA Premium Efficient, voltages above 600 V will not be stamped.

2) Frame sizes 80 and 90 with voltage code 02 can only be supplied without motor protection (motor protection code A).

3) Delta connection is not possible.

4) Star connection is not possible.

5) Only possible for 4-pole, 6-pole and 8-pole motors. The operating data for converter operation is also provided in a table on the rating plate.

6) Plain text must be specified in the order: Voltage between 200 and 690 V (voltages outside this range are available on request), frequency, circuit, for 60 Hz additionally required rated power in kW.

7) Not possible for 2-pole and 4-pole motors with increased power (11th position of the Article No.: 6) in frame sizes 80 and 90.

Selection and ordering data

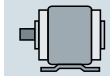
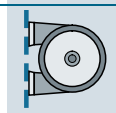
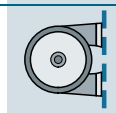
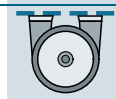
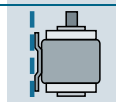
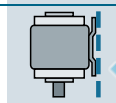
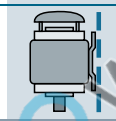
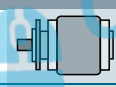
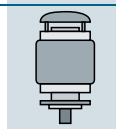
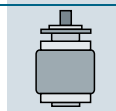
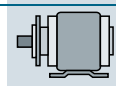
Voltages	Voltage code 12th and 13th position of the Article No.		Additional identification code with order code and plain text if required	Motor category							
				Motor version	**Motor type (aluminum)**	**Motor type – frame size**					
						100	**112**	**132**	**160**	**180**	**200**
				Pole-changing	1LE1011	**1LE1011**					
					1LE1012	**1LE1012**					
				Motor version	Motor type	Frame size					
1LE1. . . - . . . . ■ - ■ . . .			Order code			100	112	132	160	180	200
Voltage at 50 Hz and 50 Hz power											
230 V	**2**	**2**	**–**	All	All	□	□	□	□	□	□
400 V	**3**	**4**	**–**	All	All	□	□	□	□	□	□
500 V	**4**	**0**	**–**	All	All	○	○	○	○	○	○
690 V	**4**	**7**	**–**	All	All	○	○	○	○	○	○
Voltage at 60 Hz and required power											
220 V; 50 Hz power	**9**	**0**	**M5K**	All	All	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.
220 V; 60 Hz power	**9**	**0**	**M5C**	All	All	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.
380 V; 50 Hz power	**9**	**0**	**M5L**	All	All	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.
380 V; 60 Hz power	**9**	**0**	**M5D**	All	All	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.
440 V; 50 Hz power	**9**	**0**	**M5M**	All	All	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.
440 V; 60 Hz power	**9**	**0**	**M5E**	All	All	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.
460 V; 50 Hz power	**9**	**0**	**M5N**	All	All	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.
460 V; 60 Hz power	**9**	**0**	**M5F**	All	All	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.
575 V; 50 Hz power	**9**	**0**	**M5P**	All	All	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.
575 V; 60 Hz power	**9**	**0**	**M5G**	All	All	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.
Non-standard voltage and/or frequencies											
Non-standard winding [1]	**9**	**0**	**M1Y** • and customer specifications	All	All	✓	✓	✓	✓	✓	✓

□ Standard version
○ Without additional charge
• This order code only determines the price of the version – Additional plain text is required.
✓ With additional charge
O. R. Possible on request

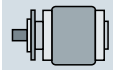
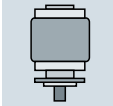
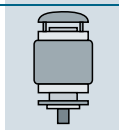
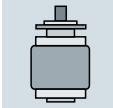
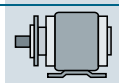
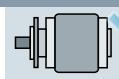
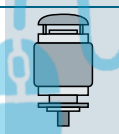
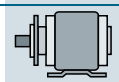
[1] Plain text must be specified in the order: Voltage between 200 and 690 V (voltages outside this range are available on request), frequency, circuit, for 60 Hz additionally required rated power in kW.

2

Selection and ordering data

Types of construction		Type of construction letter 14th position of the Article No.	For types of construction with order code(s) Article No. with additional identification code -Z	Motor category									
				Motor version	Motor type (aluminum)	Motor type – frame size 80	90	100	112	132	160	180	200
				IE2 High Efficiency	1LE1001	1LE1001 ①							
					1PC1001			1PC1001 ②					
					1LE1041	1LE1041 APAC Line ③							
				IE3 Premium Efficiency	1LE1003	1LE1003 ④							
					1LE1043	1LE1043 APAC Line ⑤							
				IE4 Super Premium Efficiency	1LE1004			1LE1004 ⑥					
				IE1 Standard Efficiency	1LE1002	1LE1002 ⑦							
					1PC1002			1PC1002 ⑧					
				NEMA Energy Efficient	1LE1021		1LE1021 Eagle Line ⑨						
				NEMA Premium Efficient	1LE1023	1LE1023 Eagle Line ⑩							
				Pole-changing	1LE1011			1LE1011 ⑪					
					1LE1012			1LE1012 ⑫					
1LE10 . . - . . . . . - ■ . . (-Z) 1PC10 . . - . . . . . - ■ . . (-Z)			Order code	Motor version	Motor type	Frame size 80	90	100	112	132	160	180	200
Without flange													
IM B3 [1) 2) 3)]		A	–	All except ③ and ⑨		□	□	□	□	□	□	□	□
IM B6 [2) 3)]		T	–	All except ③ and ⑨		□	□	□	□	□	□	□	□
IM B7 [2) 3) 9)]		U	–	All except ③ and ⑨		□	□	□	□	□	□	□	□
IM B8 [2) 3)]		V	–	All except ③ and ⑨		□	□	□	□	□	□	□	□
IM V6 [2) 3)]		D	–	All except ③ and ⑨		□	□	□	□	□	□	□	□
IM V5 without protective cover [2) 3)]		C	–	All except ③ and ⑨		□	□	□	□	□	□	□	□
IM V5 with protective cover [2) 3) 4) 5) 6)]		C	H00	All except ②, ③, ⑧, ⑨ and in combination with order code F90		✓	✓	✓	✓	✓	✓	✓	✓
With flange		Acc. to EN 50347 Acc. to DIN 42948				FF165 A 200	FF165 A 200	FF215 A 250	FF215 A 250	FF265 A 300	FF300 A 350	FF300 A 350	FF350 A 400
IM B5 [2) 7)]		F	–	All	All	✓	✓	✓	✓	✓	✓	✓	✓
IM V1 without protective cover [2)]		G	–	All	All	✓	✓	✓	✓	✓	✓	✓	✓
IM V1 with protective cover [2) 4) 5) 6)]		G	H00	All except ②, ⑧ and in combination with order code F90		✓	✓	✓	✓	✓	✓	✓	✓
IM V3 [4)]		H	–	All	All	✓	✓	✓	✓	✓	✓	✓	✓
IM B35 [3)]		J	–	All except ③ and ⑨		✓	✓	✓	✓	✓	✓	✓	✓

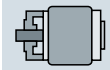
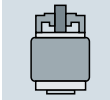
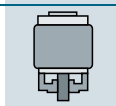
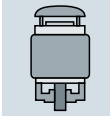
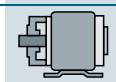
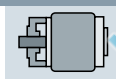
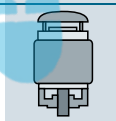
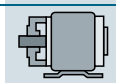
For legends and footnotes, see page 2/71.

Types of construction		Type of construction letter 14th position of the Article No.	For types of construction with order code(s) Article No. with additional identification code **-Z**	Motor category / Motor version	Motor type (aluminum)	Motor type – frame size 80	90	100	112	132	160	180	200
				IE2 High Efficiency	1LE1001	1LE1001 ①							
					1PC1001			1PC1001 ②					
					1LE1041	1LE1041 APAC Line ③							
				IE3 Premium Efficiency	1LE1003	1LE1003 ④							
					1LE1043	1LE1043 APAC Line ⑤							
				IE4 Super Premium Efficiency	1LE1004			1LE1004 ⑥					
				IE1 Standard Efficiency	1LE1002	1LE1002 ⑦							
					1PC1002			1PC1002 ⑧					
				NEMA Energy Efficient	1LE1021		1LE1021 Eagle Line ⑨						
				NEMA Premium Efficient	1LE1023	1LE1023 Eagle Line ⑩							
				Pole-changing	1LE1011			1LE1011 ⑪					
					1LE1012			1LE1012 ⑫					
1LE10 . . - . . . . . - . ■ . . (-Z)				Motor version	Motor type	Frame size 80	90	100	112	132	160	180	200
1PC10 . . - . . . . . - . ■ . . (-Z)			Order code										
With special flange next larger		**Acc. to EN 50347**				–	–	FF265	FF265	FF300	–	–	–
		Acc. to DIN 42948				–	–	A 300	A 300	A 350	–	–	–
IM B5 [2) 7)]		**F**	**P01**	All	All	–	–	✓	✓	✓	–	–	–
IM V1 without protective cover [2)]		**G**	**P01**	All	All	–	–	✓	✓	✓	–	–	–
IM V1 with protective cover [2) 4) 5) 6)]		**G**	**P01+H00**	All except ②, ⑧ and in combination with order code F90		–	–	✓	✓	✓	–	–	–
IM V3 [4)]		**H**	**P01**	All	All	–	–	✓	✓	✓	–	–	–
IM B35 [3)]		**J**	**P01**	All except ③ and ⑨		–	–	✓	✓	✓	–	–	–
With special flange next smaller		**Acc. to EN 50347**				FF130	FF165	FF165	FF165	FF215	FF265	FF265	FF300
		Acc. to DIN 42948				A 160	A 200	A 200	A 200	A 250	A 300	A 300	A 350
IM B5 [2) 7)]		**F**	**P02**	All	All	✓	✓	✓	✓	✓	✓	✓	✓
IM V1 without protective cover [2)]		**G**	**P02**	All	All	–	–	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.
IM V1 with protective cover [2) 4) 5) 6)]		**G**	**P02+H00**	All except ②, ⑧ and in combination with order code F90		–	–	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.
IM V3 [4)]		**H**	**P02**	All	All	–	–	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.
IM B35 [3)]		**J**	**P02**	All except ③ and ⑨		–	–	O.R.	O.R.	O.R.	O.R.	O.R.	O.R.

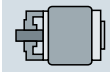
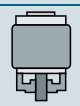
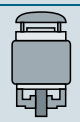
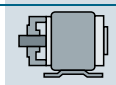
For legends and footnotes, see page 2/71.

Article No. supplements and special versions
SIMOTICS GP 1LE1/1PC1 standard motors

Types of construction · Aluminum series 1LE10, 1PC10

Types of construction		Type of construction letter 14th position of the Article No.	For types of construction with order code(s) Article No. with additional identification code -Z	Motor category									
				Motor version	Motor type (aluminum)	Motor type – frame size 80	90	100	112	132	160	180	200
				IE2 High Efficiency	1LE1001	1LE1001 ①							
					1PC1001			1PC1001 ②					
					1LE1041	1LE1041 APAC Line ③							
				IE3 Premium Efficiency	1LE1003	1LE1003 ④							
					1LE1043	1LE1043 APAC Line ⑤							
				IE4 Super Premium Efficiency	1LE1004			1LE1004 ⑥					
				IE1 Standard Efficiency	1LE1002	1LE1002 ⑦							
					1PC1002			1PC1002 ⑧					
				NEMA Energy Efficient	1LE1021	1LE1021 Eagle Line ⑨							
				NEMA Premium Efficient	1LE1023	1LE1023 Eagle Line ⑩							
				Pole-changing	1LE1011			1LE1011 ⑪					
					1LE1012			1LE1012 ⑫					
1LE10 . . - . . . . . - . ■ . . (-Z) 1PC10 . . - . . . . . - . ■ . . (-Z)			Order code	Motor version	Motor type	Frame size 80	90	100	112	132	160	180	200
With standard flange			**Acc. to EN 50347** **Acc. to DIN 42948**			FT100 C 120	FT115 C 140	FT130 C 160	FT130 C 160	FT165 C 200	FT215 C 250	– –	– –
IM B14 [2) 8)]		K	–	All	All	✓	✓	✓	✓	✓	✓	–	–
IM V19 [2)]		L	–	All	All	✓	✓	✓	✓	✓	✓	–	–
IM V18 without protective cover [2)]		M	–	All	All	✓	✓	✓	✓	✓	✓	–	–
IM V18 with protective cover [2) 4) 5) 6)]		M	H00	All except ②, ⑧ and in combination with order code F90		✓	✓	✓	✓	✓	✓	–	–
IM B34 [3)]		N	–	All except ⑨		✓	✓	✓	✓	✓	✓	–	–
With special flange next larger [10)]			**Acc. to EN 50347** **Acc. to DIN 42948**			FT130 C 160	FT130 C 160	FT165 C 200	FT165 C 200	FT215 C 250	– –	– –	– –
IM B14 [2) 8)]		K	P01	All	All	✓	✓	✓	✓	✓	–	–	–
IM V19 [2)]		L	P01	All	All	✓	✓	✓	✓	✓	–	–	–
IM V18 without protective cover [2)]		M	P01	All	All	✓	✓	✓	✓	✓	–	–	–
IM V18 with protective cover [2) 4) 5) 6)]		M	P01+H00	All except ②, ⑧ and in combination with order code F90		✓	✓	✓	✓	✓	–	–	–
IM B34 [3)]		N	P01	All except ③ and ⑨		✓	✓	✓	✓	✓	–	–	–

For legends and footnotes, see page 2/71.

Types of construction		Type of construction letter 14th position of the Article No.	For types of construction with order code(s) Article No. with additional identification code **-Z**	Motor category	Motor version	Motor type (aluminum)	Motor type – frame size 80	90	100	112	132	160	180	200
					IE2 High Efficiency	1LE1001	**1LE1001** ①							
						1PC1001			**1PC1001** ②					
						1LE1041	**1LE1041 APAC Line** ③							
					IE3 Premium Efficiency	1LE1003	**1LE1003** ④							
						1LE1043	**1LE1043 APAC Line** ⑤							
					IE4 Super Premium Efficiency	1LE1004			**1LE1004** ⑥					
					IE1 Standard Efficiency	1LE1002	**1LE1002** ⑦							
						1PC1002			**1PC1002** ⑧					
					NEMA Energy Efficient	1LE1021		**1LE1021 Eagle Line** ⑨						
					NEMA Premium Efficient	1LE1023	**1LE1023 Eagle Line** ⑩							
					Pole-changing	1LE1011			**1LE1011** ⑪					
						1LE1012			**1LE1012** ⑫					
1LE10 . . - . . . . . - . ■ . . (-Z)				Motor version	Motor type	Frame size 80	90	100	112	132	160	180	200	
1PC10 . . - . . . . . - . ■ . . (-Z)			Order code											
With special flange next smaller		**Acc. to EN 50347**				–	–	**FT115**	**FT115**	**FT130**	**FT165**	–	–	
		Acc. to DIN 42948				–	–	**C 140**	**C 140**	**C 160**	**C 200**	–	–	
IM B14 [2) 8)]		**K**	**P02**	All except ⑥		–	–	O. R.	O. R.	O. R.	O. R.	–	–	
IM V19 [2)]		**L**	**P02**	All except ⑥			–	O. R.	O. R.	O. R.	O. R.	–	–	
IM V18 without protective cover [2)]		**M**	**P02**	All except ⑥		–	–	O. R.	O. R.	O. R.	O. R.	–	–	
IM V18 with protective cover [2) 4) 5) 6)]		**M**	**P02+H00**	All except ②, ⑥ and ⑧ and in combination with order code F90		–	–	O. R.	O. R.	O. R.	O. R.	–	–	
IM B34 [3)]		**N**	**P02**	All except ③, ⑥ and ⑨		–	–	O. R.	O. R.	O. R.	O. R.	–	–	

□ Standard version
✓ With additional charge
– Not possible
O. R. Possible on request

1) The types of construction IM B6/7/8, IM V6, and IM V5 with/without protective cover are also possible as long as there are no condensation drainage holes (order code **H03**) and these types of construction do not have to be stamped on the rating plate. As standard the type of construction IM B3 is then stamped on the rating plate. With type of construction IM V5 with protective cover, the protective cover has to be additionally ordered with order code **H00**. The protective cover is not stamped on the rating plate.

2) The type of construction is stamped on the rating plate. When ordering with condensation drainage holes (order code **H03**), if mounted in a different position, the position must be specified to ensure that the condensation drainage holes are positioned correctly.

3) For North America export version Eagle Line 1LE1021 NEMA Energy Efficient, types of construction with feet are not possible for 2-pole, 4-pole and 6-pole motors ≤ 200 hp in accordance with NEMA MG1 Table 12-11.

4) The "Standard cylindrical shaft extension (second shaft extension)" option (order code **L05**) is not possible.

5) In combination with an encoder it is not necessary to order the protective cover (order code **H00**), as this is delivered as a protection for the encoder as standard. In this case the protective cover is standard version (without additional charge).

6) Not possible for 1PC1 naturally cooled motors and 1LE1 forced-air cooled motors with order code **F90** without external fan and fan cover.

7) The types of construction IM V3 and IM V1 with/without protective cover are also possible as long as there are no condensation drainage holes (order code **H03**) and these types of construction do not have to be stamped on the rating plate. As standard the type of construction IM B5 is then stamped on the rating plate. With type of construction IM V1 with protective cover, the protective cover has to be additionally ordered with order code **H00**. The protective cover is not stamped on the rating plate.

8) The types of construction IM V19 and IM V18 with/without protective cover are also possible as long as there are no condensation drainage holes (order code **H03**) and these types of construction do not have to be stamped on the rating plate. As standard the type of construction IM B14 is then stamped on the rating plate. With type of construction IM V18 with protective cover, the protective cover has to be additionally ordered with order code **H00**. The protective cover is not stamped on the rating plate.

9) When ordering frame size B7 and the required cable outlet below, option **R12** must also be ordered.

10) For the standard EN 50347, flanges which are 2 levels larger are used in frame size 80 with option **P01**.

2

Selection and ordering data

Motor protection	Motor protection letter 15th position of the Article No.	Additional identification code with order code and plain text if required	Motor category									
			Motor version	**Motor type (aluminum)**	**Motor type – frame size**							
					80	**90**	**100**	**112**	**132**	**160**	**180**	**200**
			IE2 High Efficiency	1LE1001	**1LE1001**							
				1PC1001			**1PC1001**					
				1LE1041	**1LE1041 APAC Line**							
			IE3 Premium Efficiency	1LE1003	**1LE1003**							
				1LE1043	**1LE1043 APAC Line**							
			IE4 Super Premium Efficiency	1LE1004			**1LE1004**					
			IE1 Standard Efficiency	1LE1002	**1LE1002**							
				1PC1002			**1PC1002**					
			NEMA Energy Efficient	1LE1021	**1LE1021 Eagle Line**							
			NEMA Premium Efficient	1LE1023	**1LE1023 Eagle Line**							
			Pole-changing	1LE1011			**1LE1011**					
				1LE1012			**1LE1012**					
1LE10 . . - . . . . . - . . ■ .			Motor version	Motor type	Frame size							
1PC10 . . - . . . . . - . . ■ .		Order code			80	90	100	112	132	160	180	200
Motor protection												
Without (standard) [1]	**A**	**–**	All	All	□	□	□	□	□	□	□	□
1 or 3 PTC thermistors – for tripping (2 terminals) [2]	**B**	**–**	All	All	✓	✓	✓	✓	✓	✓	✓	✓
2 or 6 PTC thermistors – for warning and tripping (4 terminals) [2]	**C**	**–**	All	All	✓	✓	✓	✓	✓	✓	✓	✓
1 temperature sensor KTY84-130 (2 terminals) [2]	**F**	**–**	All	All	✓	✓	✓	✓	✓	✓	✓	✓
2 temperature sensors KTY84-130 (4 terminals) [2]	**G**	**–**	All	All	✓	✓	✓	✓	✓	✓	✓	✓
3 Pt100 resistance thermometers – 2-wire input (6 terminals) [2]	**H**	**–**	All	All	–	–	✓	✓	✓	✓	✓	✓
1 Pt1000 resistance thermometer (2 terminals) [3]	**K** *New!*	**–**	All	All	✓	✓	✓	✓	✓	✓	✓	✓
2 Pt1000 resistance thermometers (4 terminals) [3]	**L** *New!*	**–**	All	All	✓	✓	✓	✓	✓	✓	✓	✓
3 NTC thermistors – for tripping (6 terminals) [2]	**Z**	**Q2A**	All	All	–	–	✓	✓	✓	✓	–	–
3 bimetal sensors (NC contact) – for tripping (2 terminals) [2]	**Z**	**Q3A**	All	All	✓	✓	✓	✓	✓	✓	✓	✓

□ Standard version
✓ With additional charge
– Not possible

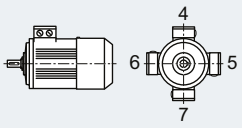
[1] Frame sizes 80 and 90 with voltage code 02 can only be supplied without motor protection (motor protection code A).

[2] Evaluation with appropriate tripping unit (see Catalog IC 10) is recommended. For pole-changing motors with two separate windings, double the number of temperature sensors or temperature detectors is required. This also results in a double additional charge.

[3] Not UL certified. Not in combination with option **D31**.

Terminal box position · Aluminum series 1LE10, 1PC10

Selection and ordering data

Terminal box position	Terminal box position code 16th position of the Article No.	Additional identification code with order code and plain text if required	Motor category: Motor version	Motor type (aluminum)	Motor type – frame size 80	90	100	112	132	160	180	200
			IE2 High Efficiency	1LE1001	1LE1001							
				1PC1001			1PC1001					
				1LE1041	1LE1041 APAC Line							
			IE3 Premium Efficiency	1LE1003	1LE1003							
				1LE1043	1LE1043 APAC Line							
			IE4 Super Premium Efficiency	1LE1004			1LE1004					
			IE1 Standard Efficiency	1LE1002	1LE1002							
				1PC1002			1PC1002					
			NEMA Energy Efficient	1LE1021		1LE1021 Eagle Line						
			NEMA Premium Efficient	1LE1023	1LE1023 Eagle Line							
			Pole-changing	1LE1011			1LE1011					
				1LE1012			1LE1012					
1LE10 . . - . . . . . - . . . ■			Motor version	Motor type	Frame size 80	90	100	112	132	160	180	200
1PC10 . . - . . . . . - . . . ■		Order code										
Terminal box position												
Terminal box top [1]	**4**	–	All	All	□	□	□	□	□	□	□	□
Terminal box right-hand side [2]	**5**	–	All	All	✓	✓	✓	✓	✓	✓	✓	✓
Terminal box left-hand side [2]	**6**	–	All	All	✓	✓	✓	✓	✓	✓	✓	✓
Terminal box at bottom [2] [3]	**7**	–	All	All	–	–	✓	✓	✓	✓	–	–

□ Standard version
✓ With additional charge
– Not possible

[1] For types of construction with feet up to and including frame size 160, cast feet are standard. Screwed-on feet are available with order code **H01**. Frame sizes 180 and 200 are fitted as standard with screwed-on feet.

[2] For types of construction with feet, screwed-on feet are standard.

[3] Not generally possible for motors with feet.

2

Selection and ordering data

Special versions	Additional identification code **-Z** with order code and plain text if required		Motor category									
			Motor version	**Motor type (aluminum)**	**Motor type – frame size**							
					80	**90**	**100**	**112**	**132**	**160**	**180**	**200**
			IE2 High Efficiency	1LE1001	**1LE1001** ①							
				1PC1001			**1PC1001** ②					
				1LE1041	**1LE1041 APAC Line** ③							
			IE3 Premium Efficiency	1LE1003	**1LE1003** ④							
				1LE1043	**1LE1043 APAC Line** ⑤							
			IE4 Super Premium Efficiency	1LE1004			**1LE1004** ⑥					
			IE1 Standard Efficiency	1LE1002	**1LE1002** ⑦							
				1PC1002			**1PC1002** ⑧					
			NEMA Energy Efficient	1LE1021		**1LE1021 Eagle Line** ⑨						
			NEMA Premium Efficient	1LE1023	**1LE1023 Eagle Line** ⑩							
			Pole-changing	1LE1011			**1LE1011** ⑪					
				1LE1012			**1LE1012** ⑫					
1LE10 . . - . . . . . - . . . . -Z **1PC10 . . - . . . . . - . . . . -Z**	Order code		Motor version	Motor type	Frame size							
					80	90	100	112	132	160	180	200
Motor protection												
1 Pt1000 resistance thermometer (2 terminals) [40]	**Q35**	*New!*	All	All	✓	✓	✓	✓	✓	✓	✓	✓
2 Pt1000 resistance thermometers (4 terminals) [40]	**Q36**	*New!*	All	All	✓	✓	✓	✓	✓	✓	✓	✓
Motor connection and terminal box												
External grounding	**H04**		All	All	✓	✓	✓	✓	✓	✓	✓	✓
Terminal box on NDE [3]	**H08**		All	All	✓	✓	✓	✓	✓	✓	✓	✓
Rotation of the terminal box through 90°, entry from DE [1]	**R10**		All	All	○	○	○	○	○	○	✓	✓
Rotation of the terminal box through 90°, entry from NDE	**R11**		All	All	○	○	○	○	○	○	✓	✓
Rotation of the terminal box by 180°	**R12**		All	All	○	○	○	○	○	○	✓	✓
One metal cable gland	**R15**		All	All	✓	✓	✓	✓	✓	✓	✓	✓
Metal cable gland, maximum configuration	**R18**		All	All	–	–	–	–	–	–	✓	✓
3 cables protruding, 0.5 m long [4][5]	**R20**		All except ⑪ and ⑫		✓	✓	✓	✓	✓	✓	–	–
3 cables protruding, 1.5 m long [4][5]	**R21**		All except ⑪ and ⑫		✓	✓	✓	✓	✓	✓	O. R.	O. R.
6 cables protruding, 0.5 m long [4]	**R22**		All	All	✓	✓	✓	✓	✓	✓	–	–
6 cables protruding, 1.5 m long [4]	**R23**		All	All	✓	✓	✓	✓	✓	✓	O. R.	O. R.
6 cables protruding, 3 m long [4]	**R24**		All	All	✓	✓	✓	✓	✓	✓	O. R.	O. R.
Reduction piece for M cable gland in accordance with British Standard, both cable entries mounted [2]	**R30**		All	All	–	–	✓	✓	✓	✓	–	–
Larger terminal box	**R50**		All, standard version for Eagle Line ⑨ and ⑩ < frame size 100		✓	✓	✓	✓	✓	✓	✓	✓
Auxiliary terminal box, aluminum	**R60**		All	All	–	–	–	–	–	–	✓	✓
Motor connector Han-Drive 10e for 230 VΔ/400 VY [30]	**R70**		All	All	✓	✓	✓	✓	✓	–	–	–
Motor connector Han-Drive 10e EMC for 230 VΔ/400 VY [30]	**R71**		All	All	✓	✓	✓	✓	✓	–	–	–
Small motor connector CQ12 with EMC	**R72**		All	All	✓	✓	–	–	–	–	–	–
Small motor connector CQ12 without EMC	**R73**		All	All	✓	✓	–	–	–	–	–	–
6-piece terminal board	**R76**		All, only possible for 2 and 4-pole motors		○	○	–	–	–	–	–	–
Windings and insulation												
Temperature class 155 (F), utilized acc. to 155 (F), with service factor (SF)	**N01**		All	All	–	–	✓	✓	✓	✓	✓	✓
Temperature class 155 (F), utilized acc. to 155 (F), with increased power	**N02**		All	All	–	–	✓	✓	✓	✓	✓	✓
Temperature class 155 (F), utilized acc. to 155 (F), with increased coolant temperature	**N03**		All	All	✓	✓	✓	✓	✓	✓	✓	✓
Temperature class 155 (F), utilized acc. to 130 (B), coolant temperature 45 °C, derating approx. 4 %	**N05**		All	All	✓	✓	✓	✓	✓	✓	✓	✓
Temperature class 155 (F), utilized acc. to 130 (B), coolant temperature 50 °C, derating approx. 8 %	**N06**		All	All	✓	✓	✓	✓	✓	✓	✓	✓

For legends and footnotes, see page 2/85.

Special versions	Additional identification code **-Z** with order code and plain text if required	Motor category								
		Motor version	**Motor type (aluminum)**	**Motor type – frame size**						
				80	**90**	**100**	**112**	**132**	**160**	**180**	**200**
		IE2 High Efficiency	1LE1001	**1LE1001** ①							
			1PC1001			**1PC1001** ②					
			1LE1041	**1LE1041 APAC Line** ③							
		IE3 Premium Efficiency	1LE1003	**1LE1003** ④							
			1LE1043	**1LE1043 APAC Line** ⑤							
		IE4 Super Premium Efficiency	1LE1004			**1LE1004** ⑥					
		IE1 Standard Efficiency	1LE1002	**1LE1002** ⑦							
			1PC1002			**1PC1002** ⑧					
		NEMA Energy Efficient	1LE1021		**1LE1021 Eagle Line** ⑨						
		NEMA Premium Efficient	1LE1023	**1LE1023 Eagle Line** ⑩							
		Pole-changing	1LE1011			**1LE1011** ⑪					
			1LE1012			**1LE1012** ⑫					
1LE10 . . - . . . . . - . . . . -Z **1PC10 . . - . . . . . - . . . . -Z**	Order code	Motor version	Motor type	Frame size							
				80	90	100	112	132	160	180	200
Windings and insulation (continued)											
Temperature class 155 (F), utilized acc. to 130 (B), coolant temperature 55 °C, derating approx. 13 %	**N07**	All	All	✓	✓	✓	✓	✓	✓	✓	✓
Temperature class 155 (F), utilized acc. to 130 (B), coolant temperature 60 °C, derating approx. 18 %	**N08**	All	All	✓	✓	✓	✓	✓	✓	✓	✓
Temperature class 180 (H) [31]	**N10**	All except ③, ⑤, ⑥, ⑨ and ⑩		✓	✓	–	–	–	–	–	–
Temperature class 180 (H) at rated power and max. CT 60 °C [6] [31]	**N11**	All except ⑥		✓	✓	✓	✓	✓	✓	✓	✓
Increased air humidity/temperature with 30 to 60 g water per m^3 of air	**N30** *New!*	All	All	✓	✓	✓	✓	✓	✓	✓	✓
Increased air humidity/temperature with 60 to 100 g water per m^3 of air	**N31** *New!*	All	All	✓	✓	✓	✓	✓	✓	✓	✓
Temperature class 155 (F), utilized acc. to 130 (B), with higher coolant temperature and/or installation altitude	**Y50** • and spec. power, CT .. °C or IA .... m above sea level	All	All	✓	✓	✓	✓	✓	✓	✓	✓
Temperature class 155 (F), utilized acc. to 155 (F), other requirements	**Y52** • and customer specifications	All	All	✓	✓	✓	✓	✓	✓	✓	✓
Temperature class 180 (H), utilized according to 155 (F), other requirements	**Y75** • and spec. power, CT .. °C or IA .... m above sea level	All except ⑥		–	–	O. R.	O. R.	O. R.	O. R.	–	–
Colors and paint finish											
Standard paint finish C2 in RAL 7030 stone gray		All	All	◘	◘	◘	◘	◘	◘	◘	◘
Unpainted (only cast-iron parts primed)	**S00**	All	All	○	○	○	○	○	○	○	○
Unpainted, only primed	**S01**	All	All	✓	✓	✓	✓	✓	✓	✓	✓
Special paint finish C3	**S02**	All	All	✓	✓	✓	✓	✓	✓	✓	✓
Special paint finish sea air resistant	**S03**	All	All	✓	✓	✓	✓	✓	✓	✓	✓
Top coat polyurethane [34]	**S06**	All	All	✓	✓	✓	✓	✓	✓	✓	✓
Paint finish in other standard RAL colors: RAL 1002, 1013, 1015, 1019, 2003, 2004, 3000, 3007, 5007, 5009, 5010, 5012, 5015, 5017, 5018, 5019, 6011, 6019, 6021, 7000, 7001, 7004, 7011, 7016, 7022, 7031, 7032, 7033, 7035, 9001, 9002, 9005 (see Catalog Section 1 "Introduction")	**Y53** • and paint finish RAL....	All	All	✓	✓	✓	✓	✓	✓	✓	✓
Paint finish in special RAL colors: For RAL colors, see "Special paint finish in special RAL colors" (see Catalog Section 1 "Introduction")	**Y56** • and paint finish RAL....	All	All	✓	✓	✓	✓	✓	✓	✓	✓
Modular technology – Basic versions [7]											
Mounting of holding brake (standard assignment) [8] [28]	**F01**	All except ②, ⑧ and in combination with order code F90		✓	✓	✓	✓	✓	✓	✓	✓
Mounting of brake for higher switching frequency (operating brake)	**F02**	All	All	O. R.	O. R.	O. R.	O. R.	O. R.	O. R.	–	–
Mounting of separately driven fan [29]	**F70**	All except ②, ⑧ and in combination with order code F90		✓	✓	✓	✓	✓	✓	✓	✓

For legends and footnotes, see page 2/85.

Article No. supplements and special versions
SIMOTICS GP 1LE1/1PC1 standard motors

Options · Aluminum series 1LE10, 1PC10

Special versions	Additional identification code -Z with order code and plain text if required	Motor category								
		Motor version	Motor type (aluminum)	Motor type – frame size 80	90	100	112	132	160	180	200
		IE2 High Efficiency	1LE1001	1LE1001 ①							
			1PC1001			1PC1001 ②					
			1LE1041	1LE1041 APAC Line ③							
		IE3 Premium Efficiency	1LE1003	1LE1003 ④							
			1LE1043	1LE1043 APAC Line ⑤							
		IE4 Super Premium Efficiency	1LE1004			1LE1004 ⑥					
		IE1 Standard Efficiency	1LE1002	1LE1002 ⑦							
			1PC1002			1PC1002 ⑧					
		NEMA Energy Efficient	1LE1021		1LE1021 Eagle Line ⑨						
		NEMA Premium Efficient	1LE1023	1LE1023 Eagle Line ⑩							
		Pole-changing	1LE1011			1LE1011 ⑪					
			1LE1012			1LE1012 ⑫					
1LE10 . . - . . . . . - . . . . -Z **1PC10 . . - . . . . . - . . . . -Z**	Order code	Motor version	Motor type	Frame size 80	90	100	112	132	160	180	200
Modular technology – Basic versions [7] (continued)											
Mounting of 1XP8012-10 (HTL) rotary pulse encoder [9] [10]	**G01**	All except ②, ⑧ and in combination with order code F90		✓	✓	✓	✓	✓	✓	✓	✓
Mounting of 1XP8012-20 (TTL) rotary pulse encoder [9] [10]	**G02**	All except ②, ⑧ and in combination with order code F90		✓	✓	✓	✓	✓	✓	✓	✓
Mounting of Kübler Sendix 5020 HTL rotary pulse encoder, 1024 I	**G11** *New!*	All	All	✓	✓	✓	✓	✓	✓	✓	✓
Mounting of Kübler Sendix 5020 TTL rotary pulse encoder, 1024 I	**G12** *New!*	All	All	✓	✓	✓	✓	✓	✓	✓	✓
Modular technology – Additional versions											
Brake supply voltage 24 V DC	**F10**	All except ②, ⑧ and in combination with order code F90		✓	✓	✓	✓	✓	✓	✓	✓
Brake supply voltage 230 V AC, 50/60 Hz	**F11**	All except ②, ⑧ and in combination with order code F90		✓	✓	○	○	○	○	○	○
Brake supply voltage 400 V AC, 50/60 Hz	**F12**	All except ②, ⑧ and in combination with order code F90		✓	✓	✓	✓	✓	✓	✓	✓
Mechanical manual brake release with lever (no locking)	**F50**	All except ②, ⑧ and in combination with order code F90		✓	✓	✓	✓	✓	✓	✓	✓
Special technology [7]											
Mounting of LL 861 900 220 rotary pulse encoder [9]	**G04**	All except ②, ⑧ and in combination with order code F90		–	–	✓	✓	✓	✓	✓	✓
Mounting of HOG 9 D 1024 I rotary pulse encoder [9]	**G05**	All except ②, ⑧ and in combination with order code F90		–	–	✓	✓	✓	✓	✓	✓
Mounting of HOG 10 D 1024 I rotary pulse encoder [9]	**G06**	All except ②, ⑧ and in combination with order code F90		–	–	✓	✓	✓	✓	✓	✓
Mechanical version and degrees of protection											
Low-noise version for 2-pole motors with clockwise direction of rotation	**F77**	All except ②, ⑧ and in combination with order code F90		–	–	–	–	✓	✓	✓	✓
Low-noise version for 2-pole motors with counter-clockwise direction of rotation	**F78**	All except ②, ⑧ and in combination with order code F90		–	–	–	–	✓	✓	✓	✓
Prepared for mounted components, centering hole only [10]	**G40**	All except ②, ⑧ and in combination with order code F90		✓	✓	✓	✓	✓	✓	□	□
Prepared for mountings with D12 shaft [15]	**G41**	All except ②, ⑧ and in combination with order code F90		✓	✓	✓	✓	✓	✓	✓	✓
Prepared for mountings with D16 shaft [16]	**G42**	All except ②, ⑧ and in combination with order code F90		O. R.	O. R.	✓	✓	✓	✓	✓	✓
Protective cover for encoder (pre-assembled or supplied loose depending on frame size)	**G43**	All except ②, ⑧ and in combination with order code F90		✓	✓	✓	✓	✓	✓	✓	✓
Protective cover [9] [11]	**H00**	All except ②, ⑧ and in combination with order code F90		✓	✓	✓	✓	✓	✓	✓	✓
Screwed-on (instead of cast) feet	**H01**	All	All	✓	✓	✓	✓	✓	✓	□	□
Vibration-proof version; vibration resistance to Class 3M4 according to IEC 60721-3-3:1994 [39]	**H02**	All	All	✓	✓	✓	✓	✓	✓	✓	✓
Condensation drainage holes [14]	**H03**	All	All	✓	✓	✓	✓	✓	✓	✓	✓
Rust-resistant screws (externally)	**H07**	All	All	✓	✓	✓	✓	✓	✓	✓	✓
Housing with screw mounting [32]	**H10**	Only possible for ① and ③ (frame sizes 80 and 90), ④, ⑤, ⑨ and ⑩		✓	✓	–	–	–	–	✓	✓
IP65 degree of protection [13]	**H20**	All	All	✓	✓	✓	✓	✓	✓	✓	✓
IP56 degree of protection [12]	**H22**	All	All	✓	✓	✓	✓	✓	✓	✓	✓
Drive-end seal for flange-mounting motors, oil-tight to 0.1 bar [16]	**H23**	All	All	✓	✓	✓	✓	✓	✓	✓	✓
Coolant temperature and installation altitude											
Coolant temperature –40 to +40 °C [16] [28]	**D03**	All	All	✓	✓	✓	✓	✓	✓	✓	✓

For legends and footnotes, see page 2/85.

Special versions	Additional identification code **-Z** with order code and plain text if required	Motor category								
		Motor version	**Motor type (aluminum)**	**Motor type – frame size**						
				80	**90**	**100**	**112**	**132**	**160**	**180**	**200**
		IE2 High Efficiency	1LE1001	**1LE1001** ①							
			1PC1001			**1PC1001** ②					
			1LE1041	**1LE1041 APAC Line** ③							
		IE3 Premium Efficiency	1LE1003	**1LE1003** ④							
			1LE1043	**1LE1043 APAC Line** ⑤							
		IE4 Super Premium Efficiency	1LE1004			**1LE1004** ⑥					
		IE1 Standard Efficiency	1LE1002	**1LE1002** ⑦							
			1PC1002			**1PC1002** ⑧					
		NEMA Energy Efficient	1LE1021		**1LE1021 Eagle Line** ⑨						
		NEMA Premium Efficient	1LE1023	**1LE1023 Eagle Line** ⑩							
		Pole-changing	1LE1011			**1LE1011** ⑪					
			1LE1012			**1LE1012** ⑫					
1LE10 . . - . . . . . - . . . . -Z **1PC10 . . - . . . . . - . . . . -Z**	Order code	Motor version	Motor type	Frame size							
				80	90	100	112	132	160	180	200
Coolant temperature and installation altitude (continued)											
Coolant temperature –30 to +40 °C [16) 28)]	**D04**	All	All	✓	✓	✓	✓	✓	✓	✓	✓
Versions in accordance with standards and specifications											
VIK version	**C02**	Only possible for ① and ④		✓	✓	✓	✓	✓	✓	–	–
CCC China Compulsory Certification [17)]	**D01** *New!*	All	All	✓	✓	–	–	–	–	–	–
Motor without CE marking for export outside EEA (see EU Directive 640/2009)	**D22**	Only possible for ①, ②, ⑦ and ⑧		–	–	○	○	○	○	○	○
Electrical according to NEMA MG1-12 [18)]	**D30**	All, standard version for ⑨ and ⑩		✓	✓	✓	✓	✓	✓	✓	✓
Version according to UL with "Recognition Mark" [19)]	**D31**	All, standard version for ⑨ and ⑩		✓	✓	✓	✓	✓	✓	✓	✓
KEMCO Korea Energy Efficiency Label	**D33**	Only possible for ③ and ⑤		○	○	○	○	○	○	○	○
China Energy Efficiency Label [38)]	**D34**	Only possible for ①, ③, ④, ⑤, ⑥, ⑨ and ⑩		○	○	○	○	○	○	○	○
Canadian regulations (CSA) [33) 37)]	**D40**	All, standard version for ⑨ and ⑩, not possible for ⑦, ⑧, ⑪ and ⑫		✓	✓	✓	✓	✓	✓	✓	✓
TR CU product safety certificate EAC for Eurasian customs union [35)]	**D47**	All	All	✓	✓	✓	✓	✓	✓	✓	✓
Version suitable for railways IC 411, EN IEC 60349, without EN 45545, with external fan and fan cover in plastic	**L90** *New!*	All	All	✓	✓	✓	✓	✓	✓	✓	✓
Version suitable for railways IC 411, EN IEC 60349, with EN 45545, with external fan and fan cover in metal	**L91** *New!*	All	All	✓	✓	✓	✓	✓	✓	✓	✓
Version suitable for railways IC 418, EN IEC 60349, without EN 45545, without external fan and fan cover	**L92** *New!*	All	All	✓	✓	✓	✓	✓	✓	✓	✓
Bearings and lubrication											
Regreasing device with M10 × 1 grease nipple according to DIN 71412-A	**L19**	All	All	–	–	–	–	–	–	✓	✓
Fixed bearing DE	**L20**	All	All	✓	✓	✓	✓	✓	✓	✓	✓
Fixed bearing NDE	**L21**	All	All	✓	✓	✓	✓	✓	□	□	□
Bearing design for increased cantilever forces [36)]	**L22**	All	All	✓	✓	✓	✓	✓	✓	✓	✓
Regreasing device [20)]	**L23**	All	All	–	–	✓	✓	✓	✓	✓	✓
Bearings reinforced at both ends for DE and NDE, bearing size 63	**L25**	All	All	✓	✓	✓	✓	✓	✓	✓	✓
Measuring nipple for SPM shock pulse measurement for bearing inspection [20)]	**Q01**	All	All	–	–	✓	✓	✓	✓	✓	✓
Balance and vibration quantity											
Vibration quantity level A		All	All	□	□	□	□	□	□	□	□
Vibration quantity level B	**L00**	All	All	✓	✓	✓	✓	✓	✓	✓	✓
Half-key balancing (standard)		All	All	□	□	□	□	□	□	□	□
Balancing without key	**L01**	All	All	✓	✓	✓	✓	✓	✓	✓	✓
Full-key balancing	**L02**	All	All	✓	✓	✓	✓	✓	✓	✓	✓
Shaft and rotor											
Shaft extension with standard dimensions without feather keyway	**L04**	All	All	–	–	✓	✓	✓	✓	✓	✓
Standard cylindrical shaft extension (second shaft end) NDE acc. to EN 50347	**L05**	All except ②, ⑧ and in combination with order code F90		✓	✓	✓	✓	✓	✓	✓	✓
Standard shaft made of stainless steel (e.g. 1.4021)	**L06**	All	All	✓	✓	✓	✓	✓	✓	✓	✓
Concentricity of shaft extension in acc. with DIN 42955 Tolerance R	**L07**	All	All	✓	✓	✓	✓	✓	✓	✓	✓

For legends and footnotes, see page 2/85.

Article No. supplements and special versions
SIMOTICS GP 1LE1/1PC1 standard motors

Options · Aluminum series 1LE10, 1PC10

Special versions	Additional identification code **-Z** with order code and plain text if required	Motor category								
		Motor version	**Motor type (aluminum)**	**Motor type – frame size**						
				80	**90**	**100**	**112**	**132**	**160**	**180**	**200**
		IE2 High Efficiency	1LE1001	**1LE1001** ①							
			1PC1001			**1PC1001** ②					
			1LE1041	**1LE1041 APAC Line** ③							
		IE3 Premium Efficiency	1LE1003	**1LE1003** ④							
			1LE1043	**1LE1043 APAC Line** ⑤							
		IE4 Super Premium Efficiency	1LE1004			**1LE1004** ⑥					
		IE1 Standard Efficiency	1LE1002	**1LE1002** ⑦							
			1PC1002			**1PC1002** ⑧					
		NEMA Energy Efficient	1LE1021		**1LE1021 Eagle Line** ⑨						
		NEMA Premium Efficient	1LE1023	**1LE1023 Eagle Line** ⑩							
		Pole-changing	1LE1011			**1LE1011** ⑪					
			1LE1012			**1LE1012** ⑫					
1LE10 . . - . . . . . - . . . . -Z **1PC10 . . - . . . . . - . . . . -Z**	Order code	Motor version	Motor type	Frame size							
				80	90	100	112	132	160	180	200
Shaft and rotor (continued)											
Concentricity of shaft extension, coaxiality, and linear movement in accordance with DIN 42955 Tolerance R for flange-mounting motors	**L08**	All	All	✓	✓	✓	✓	✓	✓	✓	✓
Non-standard shaft extension, DE [21]	**Y58** • and customer specifications	All	All	✓	✓	✓	✓	✓	✓	✓	✓
Non-standard shaft extension, NDE [21]	**Y59** • and customer specifications	All	All	✓	✓	✓	✓	✓	✓	✓	✓
Heating and ventilation											
Sheet metal fan cover	**F74**	All except ②, ⑧ and in combination with order code F90		✓	✓	✓	✓	✓	✓	✓	✓
Fan cover for textile industry [22]	**F75**	All except ②, ⑧ and in combination with order code F90		✓	✓	✓	✓	✓	✓	✓	✓
Metal external fan [23] [29]	**F76**	All except ②, ⑧ and in combination with order code F90		✓	✓	✓	✓	✓	✓	✓	✓
Without external fan and without fan cover	**F90**	All except ②, ⑧, ⑪ and ⑫		✓	✓	✓	✓	✓	✓	✓	✓
Anti-condensation heating for 230 V (2 terminals)	**Q02**	All	All	✓	✓	✓	✓	✓	✓	✓	✓
Anti-condensation heating for 115 V (2 terminals)	**Q03**	All	All	✓	✓	✓	✓	✓	✓	✓	✓
Rating plate and additional rating plates											
Additional rating plate for voltage tolerance [24]	**B07**	All except ②, ⑧, ⑪, ⑫ and 8-pole motors		✓	✓	✓	✓	✓	✓	✓	✓
Second rating plate, loose [25]	**M10**	All	All	✓	✓	✓	✓	✓	✓	✓	✓
Rating plate, stainless steel	**M11**	All	All	✓	✓	✓	✓	✓	✓	✓	✓
Additional rating plate with deviating rating plate data	**Y80** • and customer specifications	All	All	✓	✓	✓	✓	✓	✓	✓	✓
Additional rating plate with customer specifications	**Y82** • and customer specifications	All	All	✓	✓	✓	✓	✓	✓	✓	✓
Additional information on rating plate and on package label (max. 20 characters)	**Y84** • and customer specifications	All	All	✓	✓	✓	✓	✓	✓	✓	✓
Adhesive label, supplied loose (printed with: Article No., Serial No.; 2 lines of text)	**Y85** • and customer specifications	All	All	–	–	✓	✓	✓	✓	✓	✓
Packaging, safety notes, documentation and test certificates											
Printed German/English Operating Instructions (compact) enclosed [27]		All	All	◘	◘	◘	◘	◘	◘	◘	◘
Printed German/English Operating Instructions (compact) enclosed in each wire-lattice pallet [27]	**B01**	All	All	○	○	○	○	○	○	○	○
Acceptance test certificate 3.1 according to EN 10204 [26]	**B02**	All	All	✓	✓	✓	✓	✓	✓	✓	✓
Printed German/English Operating Instructions enclosed	**B04**	All	All	✓	✓	✓	✓	✓	✓	✓	✓
Document - Electrical data sheet	**B60**	All	All	✓	✓	✓	✓	✓	✓	✓	✓
Document - Order dimensional drawing	**B61**	All	All	✓	✓	✓	✓	✓	✓	✓	✓
Type test with heat run for horizontal motors, with acceptance	**B83**	All	All	✓	✓	✓	✓	✓	✓	✓	✓
Wire-lattice pallet packaging	**B99**	All	All	○	○	○	○	○	○	○	○
Connected in star for dispatch	**M01**	All	All	–	–	✓	✓	✓	✓	✓	✓
Connected in delta for dispatch	**M02**	All	All	–	–	✓	✓	✓	✓	✓	✓

For legends and footnotes, see page 2/85.

◘ Standard version
○ Without additional charge
• This order code only determines the price of the version – Additional plain text is required.
✓ With additional charge
O. R. Possible on request
Av. soon Available soon
– Not possible

1) With IM B5 flange, only possible in combination with **H08**.

2) Not possible in combination with order code **R15** "One metal cable gland".

3) With **H08**, feet dimensions C and CA differ from EN 50347! Further information is available in DT Configurator (see Appendix, "Tools and Configuring").

4) In conjunction with motor protection (15th position of the Article No.) or anti-condensation heating option, please inquire before ordering.

5) Not possible in combination with voltage code **22** or **34**.

6) Cannot be used for motors in UL version (order code **D31**). The grease lifetime specified in Catalog Section 1 "Introduction" refers to CT 40 °C. If the coolant temperature is increased by 10 K, the grease lifetime and regreasing interval are halved.

7) A second shaft extension is not possible. Please inquire for mounted brakes.

8) For order codes **F10**, **F11**, and **F12**, the brake supply voltage must be specified or ordered.

9) All encoders are supplied with a protective cover as standard. The protective cover is omitted at the factory when a rotary pulse encoder is combined with a separately driven fan, because in this case the rotary pulse encoder is installed under the fan cover. In combination with a separately driven fan (order code **F70**) the 1XP8032-10 rotary pulse encoder is used instead of 1XP8012-10 or 1XP8032-20 is used instead of 1XP8012-20.

10) As standard, motors that are prepared for additional mounted components (order codes **G40**, **G41**, **G42**) are shipped without protective cover. If a protective cover is requested as a cover or mechanical protection for mountings provided by the customer, this can be ordered with order code **G43**. Not possible in combination with order code **L00** vibration quantity level B. In combination with a separately driven fan (order code **F70**) the 1XP8032-10 rotary pulse encoder is used instead of 1XP8012-10 or 1XP8032-20 is used instead of 1XP8012-20.

11) Order code **H00** provides mechanical protection for encoders.

12) Not possible in combination with brake 2LM8 - order code **F01**.

13) Not possible in combination with HOG 9 D 1024I rotary pulse encoder (order code **G05**) and/or brake 2LM8 (order code **F01**).

14) Supplied with the condensation drainage holes sealed at the drive end DE and non-drive end NDE (IP55, IP56, IP65). If the condensation drainage holes are required for motors of the IM B6, IM B7, or IM B8 type of construction (feet on side or top), the motors must be ordered in the respective type of construction and with order code **H03**, so that the condensation drainage holes will be placed in the correct position.

15) As standard, motors that are prepared for additional mounted components (order codes **G40**, **G41**, **G42**) are shipped without protective cover. If a protective cover is requested as a cover or mechanical protection for mountings provided by the customer, this can be ordered with order code **G43**. Not possible in combination with order code **L00** vibration quantity level B.

16) In connection with mountings, the respective technical specifications must be observed, please inquire before ordering.

17) CCC mandatory certification, see Chapter 1 page 1/24.

18) Possible up to 600 V max. The rated voltage is indicated on the rating plate without voltage range. Order codes **D30** and **D31** do not authorize importing into USA and Mexico. The North America export versions Eagle Line 1LE1021 NEMA Energy Efficient and 1LE1023 NEMA Premium Efficient are available for this purpose.

19) In connection with mountings, the respective technical specifications must be observed, please inquire before ordering.

20) Not possible when brake is mounted.

21) When motors are ordered that have a longer or shorter shaft extension than normal, the required position and length of the feather keyway must be specified in a sketch. It must be ensured that only feather keys in accordance with EN 50347, Form A are used. The feather keyway is positioned centrally on the shaft extension. The length is defined by the manufacturer in accordance with the appropriate standard. Not valid for: Conical shafts, non-standard threaded journals, non-standard shaft tolerances, friction welded journals, extremely "thin" shafts, special geometry dimensions (e.g. square journals), hollow shafts. Valid for non-standard shaft extensions DE or NDE. The feather key is always supplied. For order codes **Y58**, **Y59**, and **L05** the following applies:
– Dimensions D and DA ≤ inner diameter of roller bearing (see dimension tables under "Dimensions")
– Dimensions E and EA ≤ 2 × length E (normal) of the shaft extension.

22) The special requirements of the textile industry regarding the sheet metal cover open up the possibility that a finger may be inserted between the cover and housing. The customer must implement appropriate measures to ensure that the installed system is "finger-safe".

23) Converter operation is permitted for 1LE1 motors with metal external fans. The metal external fan is not possible in combination with the low-noise version – order code **F77** or **F78**.

24) Can be ordered for 230 VΔ/400 VY or 400 VΔ/690 VY (voltage code "**22**" or "**34**"). Not possible in combination with order code **D34**.

25) As adhesive label for frame sizes 80 and 90.

26) The delivery time for the factory test certificate may differ from the delivery time for the motor and it will be dispatched by email.

27) The Operating Instructions (compact) are available in PDF format for all official EU languages at http://support.automation.siemens.com/WW/view/en/40761976.

28) Not possible in combination with order codes **N05**, **N06**, **N07**, **N08**, and **N11**.

29) Order codes **F70** and **F76** cannot be combined.

30) When ordering with order code **R70** and **R71**, order code **R50** is included.

31) Not possible for 2-pole and 4-pole motors with increased power (11th position of the Article No.: 6) in frame sizes 80 and 90.

32) Possible with frame sizes 180 and 200 with screw-mounted fan cover.

33) For frame sizes 180 and 200, constructed with metric entry thread.

34) Order code **S06** cannot be combined with order codes **S00** and **S01**. It can be combined with **Y53** and **Y56** on request.

35) Please note the additional use of order code **D22** "Motor without CE marking for export outside EEA (see EU Regulation 640/2009)".

36) A minimum cantilever force F_{min} of 0.5 · F_{max} is required for NU bearings (cylindrical roller bearings) in contrast to ball bearings. Cylindrical roller bearings are not suitable for coupling output or for brief periods of no-load operation without cantilever force.

37) The rated voltage is indicated on the rating plate without voltage range. Order code **D40** does not authorize importing into Canada. The North America export versions Eagle Line 1LE1021 NEMA Energy Efficient and 1LE1023 NEMA Premium Efficient are available for this purpose.

38) Not possible in combination with voltage code (12th or 13th position of the Article No.) 17, 18, 30, 31, 60, 61, 62, 63, and 90 with the additional order codes **M1A; M2A; M2B; M1B; M1C; M2C; M1D; M2D; M1E; M2E; M1F; M2F; M1G; M2G; M1H; M2H; 1K; M2K; M1J; M2J; M1L; M2L; M1M; M2M;** and **M3A**.

39) Not possible in combination with order code **R50**.

40) Not UL certified. Not in combination with option **D31**.

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Overview

Couplings

The motor from Siemens is connected to the machine or gear unit through a coupling. Siemens is an important coupling manufacturer with a wide range of products.

For standard applications, Siemens recommends that flexible couplings, types N-EUPEX and RUPEX or torsionally rigid couplings, types ARPEX and ZAPEX are used.
For special applications, FLUDEX and ELPEX-S couplings are recommended.

Available from:

Siemens contact partner - ordering from catalog
Siemens MD 10.1 “FLENDER Standard Couplings”

or

SIEMENS AG
Kupplungswerk Mussum
Industriepark Bocholt
Schlavenhorst 100
46395 Bocholt, Germany
Tel. +49 (2871) 922185
Fax: +49 (2871) 922579

www.siemens.com
Email: flendercouplings@siemens.com

Taper pins to DIN 258 with threaded ends and constant taper lengths

Taper pins are used for components that are repeatedly removed. The drilled hole is conically ground using a conical reamer until the pin can be pushed in by hand until the cone shoulder lies approx. 3 to 4 mm above the rim of the hole.

It can then be driven in using a hammer until it is correctly seated. The pin is removed from the drilled hole by screwing on the nut and tightening it.

Standardized taper pins are available from general engineering suppliers.

Available from e.g.:

Otto Roth GmbH & Co. KG
Rutesheimer Strasse 22
70499 Stuttgart, Germany
Tel. +49 (711) 1388-0
Fax: +49 (711) 1388-233

www.ottoroth.de
Email: info@ottoroth.de

Foundation block according to DIN 799

The foundation blocks are inserted into the stone foundation and embedded in concrete. They are used for fixing machines of medium size, slide rails, pedestal bearings, base frames, etc. After the fixing bolts have been unscrewed, the machine can be dragged without it having to be lifted.

When the machine is initially installed, the foundation block that is bolted to the machine (without shims) and fitted with taper pins is not embedded with concrete until the machine has been completely aligned. In this case, the machine is positioned 2 to 3 mm lower. The difference in shaft height is compensated by inserting shims on final installation. The taper pins safeguard the exact position of the machine when it is repeatedly removed and replaced without the need for realignment.

Available from:

Lütgert & Co. GmbH
Postfach 42 51
33276 Gütersloh, Germany
Tel. +49 (5241) 7407-0
Fax +49 (5241) 7407-90

www.luetgert-antriebe.de
Email: info@luetgert-antriebe.de

Slide rails with fixing bolts and tensioning screws according to DIN 42923

Slide rails are used to tension the belt of a machine easily and conveniently when a belt tightener is not available. They are fixed to the base using stone bolts or foundation blocks.

The assignment of slide rails to motor size can be found in DIN 42923. For motors of frame sizes 355 to 450, there are no standardized slide rails (please inquire).

Available from:

Lütgert & Co. GmbH
Postfach 42 51
33276 Gütersloh, Germany
Tel. +49 (5241) 7407-0
Fax +49 (5241) 7407-90

www.luetgert-antriebe.de
Email: info@luetgert-antriebe.de

More information

Spare motors and repair parts

- Supply commitment for spare motors and repair parts following delivery of the motor:
  - For up to 3 years after the delivery of the original motor, in the event of total motor failure – with regard to the mounting dimensions and functions – Siemens will supply a comparable replacement motor (the type series may vary).
  - If a spare motor is supplied within the 3-year period, this does not mean that the warranty restarts.
  - Replacement motors delivered after the active production of the machine series are also identified as spare motors on the rating plate.
  - Spare parts are offered only for these spare motors on request; repair and replacement are not possible.
  - After a period of 3 years (after the delivery of the original motor), it is only possible to repair these motors (depending on the availability of the spare parts required).
  - For up to 5 years after the delivery of the original motor, spare parts will be available and for a further 5 years, Siemens will provide information about spare parts and will supply documents when required.
- When repair parts are ordered, the following details must be provided:
  - Designation and part number
  - Article No. and factory number of the motor.

  Example for ordering a fan cover 1LE1003, frame size 112 M, 4-pole:

  Fan cover No. 7.40,
  1LE1003-1BB23-4AA4-Z, fac. no. E1001/5236197_01_001
- For bearing types, see Catalog Section 1 "Introduction".
- Repair parts for 1MJ6, 1MJ7, 1MJ8, 1MJ1, 1ME8, 1ML8 motors are available on request.
- For standard components, a commitment to supply repaired parts does not apply.
- Support – hotline
  In Germany:
  Tel. +49 (180) 5050448

You will find telephone numbers for other countries on our Internet site:
www.siemens.com/automation/service&support

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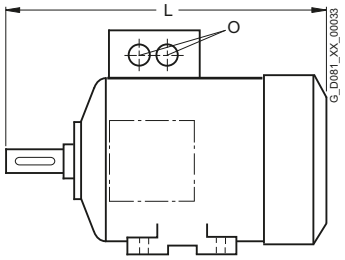
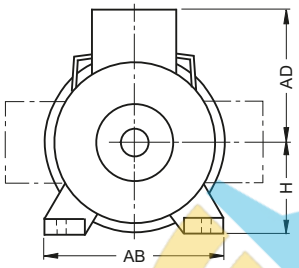
Overview





Frame size	Type	Dimension L	AD	H	AB	O
71 M	Cast-iron series, self-ventilated					
	1LE1501, 1LE1521, 1LE1503-, 1LE1523-0CA2, 0CB2, 0CC2	240	149	71	132	1 × M16 × 1.5 + 1 × M25 × 1.5
	1LE1503-, 1LE1523-0CA3, 0CB3, 0CC3	280	149	71	132	1 × M16 × 1.5 + 1 × M25 × 1.5
80 M	Aluminum series, self-ventilated					
	1LE1001, 1LE1003, 1LE1023	292	121.5	80	150	1 × M25 × 1.5
	Aluminum series, self-ventilated with increased power					
	1LE1001, 1LE1002	378	121.5	80	150	1 × M25 × 1.5
	Aluminum series, forced-air cooled or naturally cooled					
	1LE1001, 1LE1023, 1LE1043	253	122	80	150	1 × M25 × 1.5
	Cast-iron series, self-ventilated					
	1LE1501, 1LE1521, 1LE1503-, 1LE1523-0DA2, 0DB2, 0DC2	292	159	80	150	1 × M16 × 1.5 + 1 × M25 × 1.5
	1LE1503-, 1LE1523-0DA3, 0DB3, 0DC3	327	159	80	150	1 × M16 × 1.5 + 1 × M25 × 1.5
90 S/ 90 L	Aluminum series, self-ventilated					
	1LE1001	347	126	90	165	1 × M25 × 1.5
	Aluminum series, self-ventilated with increased power					
	1LE1001, 1LE1002	387	126	90	165	1 × M25 × 1.5
	Aluminum series, forced-air cooled or naturally cooled					
	1LE1001, 1LE1003, 1LE1023	295	126	90	165	1 × M25 × 1.5
	Cast-iron series, self-ventilated					
	1LE1501, 1LE1521, 1LE1503-, 1LE1523-0EA0, 0EB0, 0EC0	347/387	164	90	165	1 × M16 × 1.5 + 1 × M25 × 1.5
	1LE1503-, 1LE1523-0EA4, 0EB4, 0EC4	347/387	164	90	165	1 × M16 × 1.5 + 1 × M25 × 1.5
100 L	Aluminum series, self-ventilated					
	1LE1001, 1LE1002, 1LE1003, 1LE1011, 1LE1012, 1LE1021, 1LE1023	396 [1]	166	100	196	2 × M32 × 1.5
	1LE1004	431	166	100	196	
	Aluminum series, self-ventilated with increased power					
	1LE1001, 1LE1002	431 [1]	166	100	196	2 × M32 × 1.5
	Aluminum series, forced-air cooled or naturally cooled					
	1LE1001, 1PC1001, 1LE1002, 1PC1002, 1LE1021	324	166	100	196	2 × M32 × 1.5
	Aluminum series, self-ventilated					
	1LE1003, 1LE1023	431	166	100	196	2 × M32 × 1.5
	Aluminum series, forced-air cooled					
	1LE1023	357	166	100	196	2 × M32 × 1.5
	Cast-iron series, self-ventilated					
	1LE1501, 1LE1503, 1LE1504, 1LE1521, 1LE1601, 1LE1603, 1LE1604,	397.5	193	100	196	2 × M32 × 1.5
	1LE1523, 1LE1623	425	193	100	196	2 × M32 × 1.5

Frame size	Type	Dimension L	AD	H	AB	O
112 M	Aluminum series, self-ventilated					
	1LE1001, 1LE1002, 1LE1003, 1LE1011, 1LE1012, 1LE1021, 1LE1023	389 [1]	177	112	226	2 × M32 × 1.5
	1LE1004	414	177	112	226	
	Aluminum series, self-ventilated with increased power					
	1LE1001, 1LE1002	414 [1]	177	112	226	2 × M32 × 1.5
	Aluminum series, forced-air cooled or naturally cooled					
	1LE1001, 1PC1001, 1LE1002, 1PC1002, 1LE1021	311	177	112	226	2 × M32 × 1.5
	Aluminum series, self-ventilated					
	1LE1003, 1LE1023	414	177	112	226	2 × M32 × 1.5
	Aluminum series, forced-air cooled					
	1LE1023	336	177	112	226	2 × M32 × 1.5
	Cast-iron series, self-ventilated					
	1LE1501, 1LE1503, 1LE1504, 1LE1521, 1LE1601, 1LE1603, 1LE1604	390.5	195	112	226	2 × M32 × 1.5
	1LE1523, 1LE1623	415.5	195	112	226	2 × M32 × 1.5
132 S/M	Aluminum series, self-ventilated					
	1LE1001, 1LE1002, 1LE1003, 1LE1011, 1LE1012, 1LE1021, 1LE1023	465 [1]	202	132	256	2 × M32 × 1.5
	1LE1004	465/515	202	132	256	
	Aluminum series, self-ventilated with increased power					
	1LE1001, 1LE1002, 1LE1003	515 [1]	202	132	256	2 × M32 × 1.5
	Aluminum series, forced-air cooled or naturally cooled					
	1LE1001, 1PC1001, 1LE1002, 1PC1002, 1LE1021	381	202	132	256	2 × M32 × 1.5
	Aluminum series, self-ventilated					
	1LE1003-, 1LE1023-					
	1CA0, 1CC0, 1CC2	465	202	132	256	2 × M32 × 1.5
	1CA1, 1CB0, 1CB2, 1CC3	515	202	132	256	2 × M32 × 1.5
	Aluminum series, forced-air cooled					
	1LE1023-					
	1CA0, 1CC0, 1CC2	381	202	132	256	2 × M32 × 1.5
	1CA1, 1CB0, 1CB2, 1CC3	431	202	132	256	2 × M32 × 1.5
	Cast-iron series, self-ventilated					
	1LE1501, 1LE1503, 1LE1504, 1LE1521, 1LE1601, 1LE1603	466.5	214.5	132	256	2 × M32 × 1.5
	1LE1523-, LE1623-					
	1CA0, 1CC0, 1CC2	466.5	214.5	132	256	2 × M32 × 1.5
	1CA1, 1CB0, 1CB2, 1CC3	516.5	214.5	132	256	2 × M32 × 1.5

[1] The length is specified as far as the tip of the fan cover.

Overview (continued)

Frame size	Type	Dimension L	AD	H	AB	O
160 M/L	Aluminum series, self-ventilated					
	1LE1001, 1LE1002, 1LE1003, 1LE1011, 1LE1012, 1LE1021, 1LE1023	604 [1) 2)]	237	160	300	2 × M40 × 1.5
	Aluminum series, self-ventilated with increased power					
	1LE1001, 1LE1002, 1LE1003	664 [1)]	237	160	300	2 × M40 × 1.5
	Aluminum series, forced-air cooled or naturally cooled					
	1LE1001, 1PC1001, 1LE1002, 1PC1002, 1LE1021	510	237	160	300	2 × M40 × 1.5
	Cast-iron series, self-ventilated					
	1LE1501, 1LE1503, 1LE1504, 1LE1521, 1LE1601, 1LE1603, 1LE1604	606	265	160	300	2 × M40 × 1.5
160 M	Aluminum series, self-ventilated					
	1LE1003, 1LE1023	604	237	160	300	2 × M40 × 1.5
	1LE1004	604	237		300	
	Aluminum series, forced-air cooled					
	1LE1023, 1LE1043	510	237	160	300	2 × M40 × 1.5
	Cast-iron series, self-ventilated					
	1LE1523, 1LE1623	596	261	160	300	2 × M40 × 1.5
160 L	Aluminum series, self-ventilated					
	1LE1003, 1LE1023	664	237	160	300	2 × M40 × 1.5
	1LE1004	664	237	160	300	
	Aluminum series, forced-air cooled					
	1LE1023, 1LE1043	570	237	160	300	2 × M40 × 1.5
	Cast-iron series, self-ventilated					
	1LE1523, 1LE1623	666	237	160	300	2 × M40 × 1.5
180 M	Aluminum series, self-ventilated					
	1LE1001, 1LE1003, 1LE1023					
	1EA2, 1EB2	699	259	180	339	2 × M40 × 1.5
	Aluminum series, forced-air cooled or naturally cooled					
	1LE1001, 1LE1021	592	259	180	339	2 × M40 × 1.5
	Cast-iron series, self-ventilated					
	1LE15.1-, 1LE16.1-, 1LE1504					
	1EA2, 1EB2	668	286	180	339	2 × M40 × 1.5
	1EA6	698				
	1LE15.3-, 1LE16.3-, 1LE1604					
	1EB2	668	286	180	339	2 × M40 × 1.5
	1EA2	698				
180 L	Aluminum series, self-ventilated					
	1LE1001					
	1EB4, 1EC4, 1ED4	699	259	180	339	2 × M40 × 1.5
	1EA6, 1EB6, 1EC6, 1ED6	698				
	Aluminum series, forced-air cooled or naturally cooled					
		642	296	180	378	2 × M40 × 1.5
	Aluminum series, self-ventilated with increased power					
	1LE1001, 1LE1002, 1LE1003	699	259	180	339	
	Cast-iron series, self-ventilated					
	1LE15.1-, 1LE16.1-, 1LE1504					
	1EC4, 1EC6	668	286	180	339	2 × M40 × 1.5
	1EB6	698				
	1LE15.3-, 1LE16.3-, 1LE1604					
	1EC4	668	286	180	339	2 × M40 × 1.5
	1EB4	698				

Frame size	Type	Dimension L	AD	H	AB	O
200 L	Aluminum series, self-ventilated					
	1LE1001, 1LE1003, 1LE1023					
	2AA4, 2AA5, 2AB5, 2AC4, 2AC5, 2AD5	746	296	200	378	2 × M50 × 1.5
	2AA6, 2AB6, 2AC6, 2AD6	746				
	Aluminum series, self-ventilated with increased power					
	1LE1001, 1LE1002, 1LE1003	746	296	180	378	
	Cast-iron series, self-ventilated					
	1LE15.1-, 1LE16.1-, 1LE1504					
	2AA4, 2AA5, 2AB5, 2AC4, 2AC5	721	315	200	378	2 × M50 × 1.5
	2AA6	746				
	1LE15.3-, 1LE16.3-, 1LE1604					
	2AA4, 2AC4	721	315	200	378	2 × M50 × 1.5
	2AA5, 2AB5, 2AC5	746				
225 S	Cast-iron series, self-ventilated					
	1LE15.1-, 1LE16.1-, 1LE1504					
	2BB0, 2BD0	788	338	225	436	2 × M50 × 1.5
	1LE15.3-, 1LE16.3-, 1LE1604					
	2BB0	788	338	225	436	2 × M50 × 1.5
225 M	Cast-iron series, self-ventilated					
	1LE15.1-, 1LE16.1-, 1LE1504					
	2BA2, 2BA6	818	338	225	436	2 × M50 × 1.5
	2BB2, 2BB6, 2BC2, 2BC6, 2BD6	848				
	1LE15.3-, 1LE16.3-, 1LE1604					
	2BA2	818	338	225	436	2 × M50 × 1.5
	2BB2, 2BC2	848				
250 M	Cast-iron series, self-ventilated					
	1LE15.1-, 1LE16.1-, 1LE1504					
	2CA2, 2CA6, 2CB2, 2CC2, 2CC6, 2CD2, 2CD6	887	410	250	490	2 × M63 × 1.5
	2CB6	957				
	1LE15.3-, 1LE16.3-, 1LE1604					
	2CA2, 2CB2, 2CC2	887	410	250	490	2 × M63 × 1.5
280 S	Cast-iron series, self-ventilated					
	1LE15.1-, 1LE16.1-, 1LE1504					
	2DA0, 2DB0, 2DC0, 2DD0	960	433	280	540	2 × M63 × 1.5
	1LE15.3, 1LE16.3, 1LE1604					
	2DA0, 2DB0, 2DC0	960	433	280	540	2 × M63 × 1.5
280 M	Cast-iron series, self-ventilated					
	1LE15.1-, 1LE16.1-, 1LE1504					
	2DA2, 2DB2, 2DC2, 2DC6, 2DD2, 2DD6	960	433	280	540	2 × M63 × 1.5
	2DA6, 2DB6	1070				
	1LE15.3-, 1LE16.3-, 1LE1604					
	2DC2	960	433	280	540	2 × M63 × 1.5
	2DA2, 2DB2	1070				

[1)] The length is specified as far as the tip of the fan cover.

[2)] Only for pole-changing types 1LE1011-1DP6 and 1LE1012-1DQ6 the dimension L is 664 mm.

2

Overview (continued)

Frame size	Type	Dimension L	AD	H	AB	O
315 S	Cast-iron series, self-ventilated					
	1LE15.1-, 1LE16.1-, 1LE1504					
	3AA0	1052	515	315	610	2 × M63 × 1.5
	3AB0, 3AC0, 3AD0	1082				
	1LE15.3-, 1LE16.3-, 1LE1604					
	3AA0	1052	515	315	610	2 × M63 × 1.5
	3AB0, 3AC0	1082				
315 M	Cast-iron series, self-ventilated					
	1LE15.1-, 1LE16.1-, 1LE1504					
	3AC2, 3AD2	1082	515	315	610	2 × M63 × 1.5
	3AA2	1217				
	3AB2	1247				
	1LE15.3-, 1LE16.3-, 1LE1604					
	3AA2	1217	515	315	610	2 × M63 × 1.5
	3AB2, 3AC2	1247				
315 L	Cast-iron series, self-ventilated					
	1LE15.1-, 1LE16.1-, 1LE1504					
	3AA4	1217	515	315	610	2 × M63 × 1.5
	3AB4, 3AC4, 3AC5, 3AD4, 3AD5, 3AD6	1247				
	3AA5, 3AA6	1372				
	3AB5, 3AB6, 3AC6	1402				
	1LE15.3-, 1LE16.3-, 1LE1604					
	3AA4	1217	515	315	610	2 × M63 × 1.5
	3AB4, 3AC4	1247	515	315	610	2 × M63 × 1.5
	3AA5	1372				
	3AB5, 3AC5, 3AC6	1402				

Notes on the dimensions

Overview

- Dimensional drawings according to EN 50347 and IEC 60072.
- Fits
  The shaft extensions specified in the dimension tables (DIN 748) and centering spigot diameters (EN 50347) are machined with the following fits:

Dimension designation	ISO fit DIN ISO 286-2	
D, DA	to 30	j6
	over 30 to 50	k6
	over 50	m6
N	to 250	j6
	over 250	h6
F, FA		h9
K		H17
S	Flange (FF)	H17

  The drilled holes of couplings and belt pulleys should have an ISO fit of at least H7.

- Dimension tolerances
  For the following dimensions, the admissible deviations are given below:

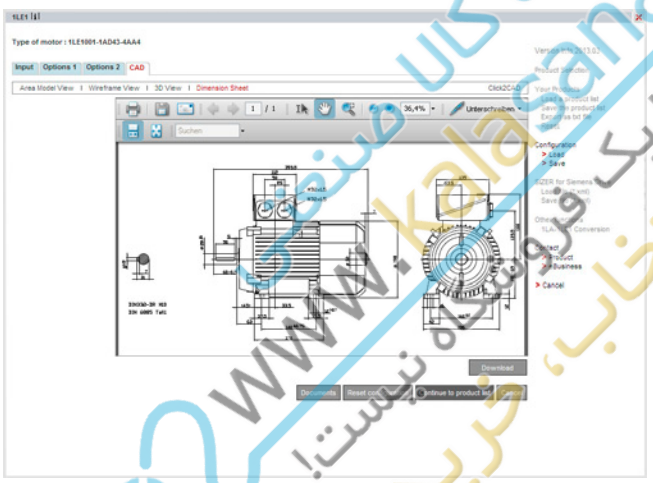
Dimension designation	Dimension	Permissible deviation
H	to 250	– 0.5
	over 250	– 1.0
E, EA		– 0.5

  Keyways and feather keyways (dimensions GA, GC, F, and FA) are made in compliance with DIN 6885 Part 1.
- All dimensions are specified in mm.

Dimension sheet generator (within the Drive Technology Configurator)

Overview

A dimensional drawing can be created in the Drive Technology (DT) Configurator for every configurable motor. A dimensional drawing can be requested for every other motor.



When a complete Article No. is entered or configured with or without order codes, a dimensional drawing can be called up under the "Documentation" tab.
These dimensional drawings can be presented in different views and sections and printed.
The corresponding dimension sheets can be exported, saved and processed further in DXF format (interchange/import format for CAD systems) or as a bitmap graphic.

Online access in the Siemens Industry Mall

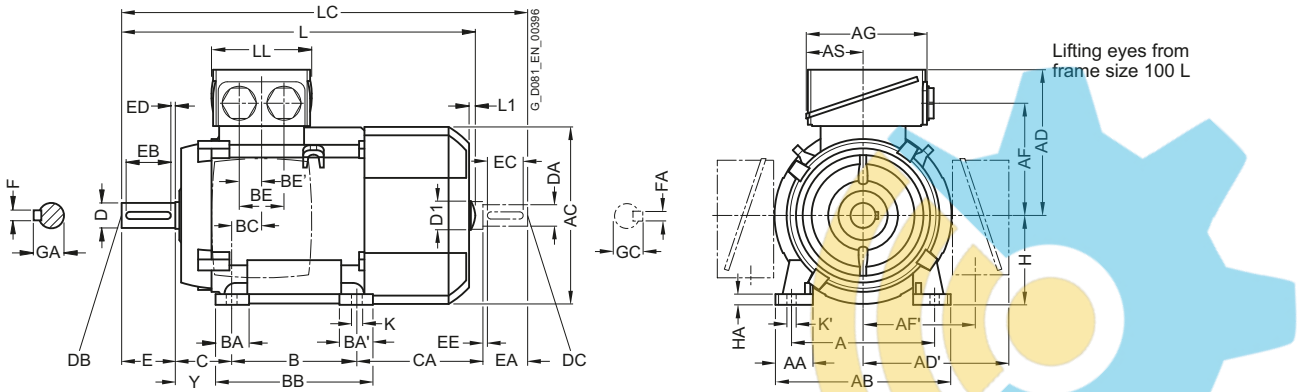
The DT Configurator is integrated in the Siemens Industry Mall and can be used on the Internet without installation.
German: www.siemens.de/dt-konfigurator
English: www.siemens.com/dt-configurator

Offline access in the Interactive Catalog CA 01

The DT Configurator is also part of the Interactive Catalog CA 01 on DVD – the offline version of Siemens Industry Mall. CA 01 can be ordered from the relevant Siemens sales office or via the Internet: www.siemens.com/automation/CA01

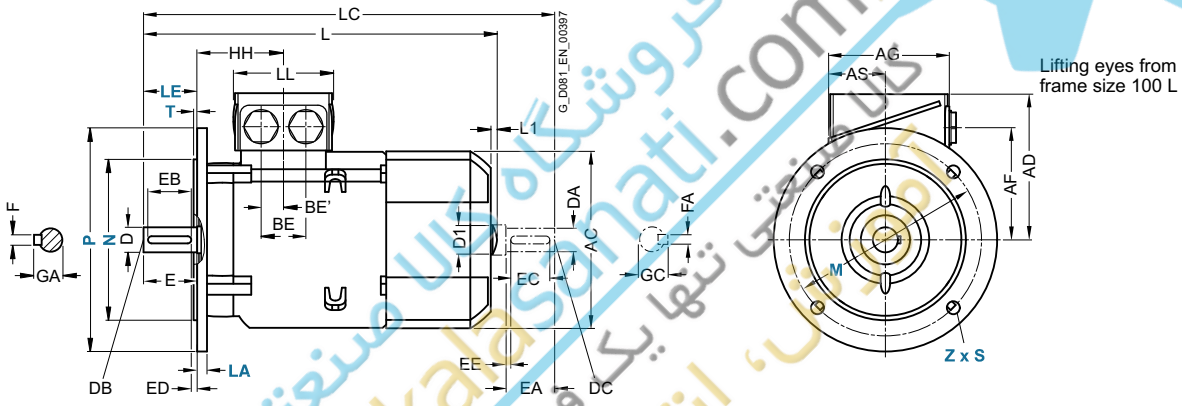
Dimensional drawings

Type of construction IM B3



Types of construction IM B5 and IM V1

For flange dimensions, see page 1/39 (**Z** = the number of retaining holes)



For motor			Dimension designation acc. to **IEC**																					
Frame size	Motor type 1LE100. 1LE101. 1LE1021	No. of poles	A	AA	AB	AC	AD	AD'	AF	AF'	AG	AS	B	BA	BA'	BB	BC	BE	BE'	C	CA	H	HA	Y
80 M	1LE1001	2, 4, 6	125	30.5	150	159	121.5	121.5	96.5	96.5	93	43	100	32	32	118	23	–	18[1]	50	113	80	8	41
90 S	1LE1041	2, 4, 6	140	30.5	165	178	126	126	101.5	101.5	93	43	100	33	54	143	22.5	–	18[1]	56	174	90	10	47
90 L		2, 4, 6	140	30.5	165	178	126	126	101.5	101.5	93	43	125	33	54	143	22.5	–	18[1]	56	174	90	10	47
100 L	All	2, 4, 6, 8	160	42	196	198	166	166	125.5	125.5	135	63.5	140	37.5	37.5	176	33.5	50	25	63	141	100	12	45
112 M	All	2, 4, 6, 8	190	46	226	222	177	177	136.5	136.5	135	63.5	140	37.5	37.5	176	26	50	25	70	130	112	12	52
132 S	All	2, 4, 6, 8	216	53	256	262	202	202	159.5	159.5	155	70.5	140	38	76[3]	218[4]	26.5	48	24	89	167	132	15	69
132 M	All	2, 4, 6, 8	216	53	256	262	202	202	159.5	159.5	155	70.5	178	38	76	218	26.5	48	24	89	179	132	15	69
160 M	All	2, 4, 6, 8	254	60	300	314	236.5	236.5	190	190	175	77.5	210	44	89[5]	300[6]	47	57	28.5	108	192	160	18	85
160 L	All	2, 4, 6, 8	254	60	300	314	236.5	236.5	190	190	175	77.5	254	44	89	300	47	57	28.5	108	148[2]	160	18	85
180 M	All	2, 4, 6, 8	279	65	339	356	259	259	212.5	212.5	175	77.5	241	80	100	328	30	57	28.5	121	232	180	20	95
180 L	All	2, 4, 6, 8	279	65	339	356	259	259	212.5	212.5	175	77.5	279	80	100	328	30	57	28.5	121	194	180	20	95
200 L	All	2, 4, 6, 8	318	70	378	396	296	296	238	238	225	102.5	305	90	100	355	45	75	37.5	133	202	200	25	108

1) Only one termination hole available.

2) Only for pole-changing types 1LE1011-1DP6 and 1LE1012-1DQ6, the dimension CA* is 208 mm.

3) With screwed-on feet, dimension BA' is 38 mm.

4) With screwed-on feet, dimension BB is 180 mm.

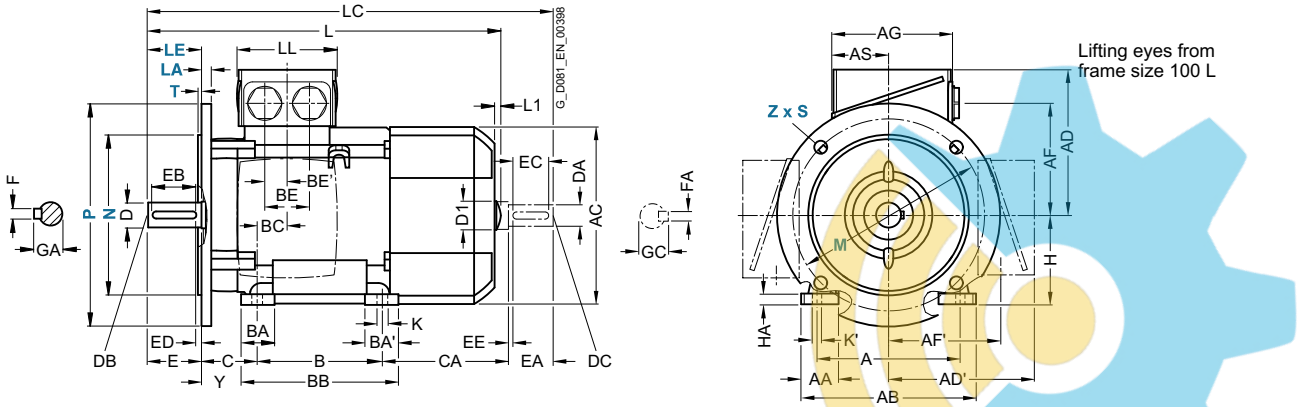
5) With screwed-on feet, dimension BA' is 44 mm.

6) With screwed-on feet, dimension BB is 256 mm.

Dimensional drawings (continued)

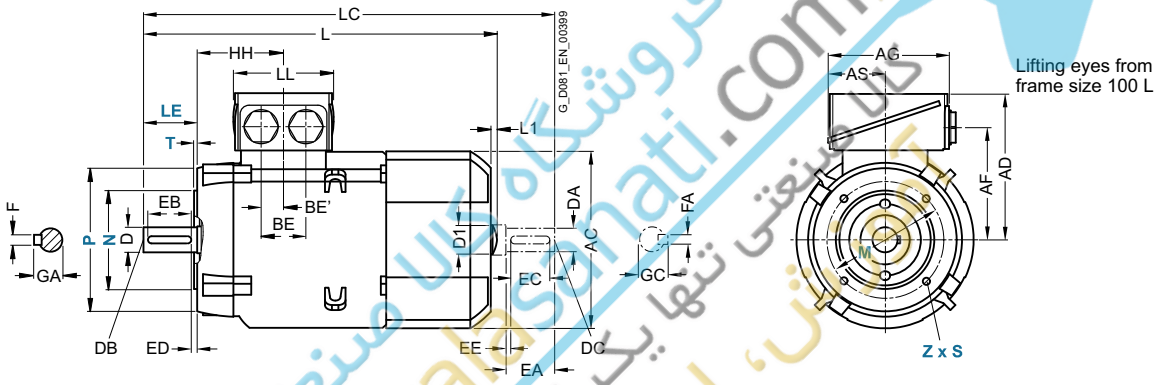
Type of construction IM B35

For flange dimensions, see page 1/39 (**Z** = the number of retaining holes)



Type of construction IM B14

For flange dimensions, see page 1/39 (**Z** = the number of retaining holes)



For motor			Dimension designation acc. to **IEC**								DE shaft extension							NDE shaft extension						
Frame size	Motor type 1LE100. 1LE101. 1LE1021	No. of poles	HH	K	K'	L[1]	L1	D1	LC	LL	D	DB	E	EB	ED	F	GA	DA	DC	EA	EC	EE	FA	GC
80 M	1LE1001 1LE1041	2, 4, 6	73	9.5	13.5	292	–	–	342.5	79	19	M6	40	32	4	6	21.5	19	M6	40	32	4	6	21.5
90 S		2, 4, 6	78.5	10	14	347	–	–	405	79	24	M8	50	40	5	8	27	19	M6	40	32	4	6	21.5
90 L		2, 4, 6	78.5	10	14	347		–	405	79	24	M8	50	40	5	8	27	19	M6	40	32	4	6	21.5
100 L	All	2, 4, 6, 8	96.5	12	16	395.5	7	32	454	112	28	M10	60	50	5	8	31	24	M8	50	40	5	8	27
112 M	All	2, 4, 6, 8	96	12	16	389 414	7	32	450 475	112	28	M10	60	50	5	8	31	24	M8	50	40	5	8	27
132 S	All	2, 4, 6, 8	115.5	12	16	465	8.5	39	535.5	130	38	M12	80	70	5	10	41	28	M10	60	50	5	8	31
132 M	All	2, 4, 6, 8	115.5	12	16	465	8.5	39	535.5	130	38	M12	80	70	5	10	41	28	M10	60	50	5	8	31
160 M	All	2, 4, 6, 8	155	15	19	604	10	45	730	145	42	M16	110	90	10	12	45	42	M16	110	90	10	12	45
160 L	All	2, 4, 6, 8	155	15	19	604[2]	10	45	730[3]	145	42	M16	110	90	10	12	45	42	M16	110	90	10	12	45
180 M	All	2, 4, 6, 8	151	14.5	19	698	–	–	814	145	48	M16	110	100	5	14	52	48	M16	110	100	5	14	52
180 L	All	2, 4, 6, 8	151	14.5	19	698	–	–	814	145	48	M16	110	100	5	14	52	48	M16	110	100	5	14	52
200 L	All	2, 4, 6, 8	178	18.5	25	746	–	–	860	185	55	M20	110	100	5	16	59	55	M20	110	100	5	16	59

[1] The length is specified as far as the tip of the fan cover.

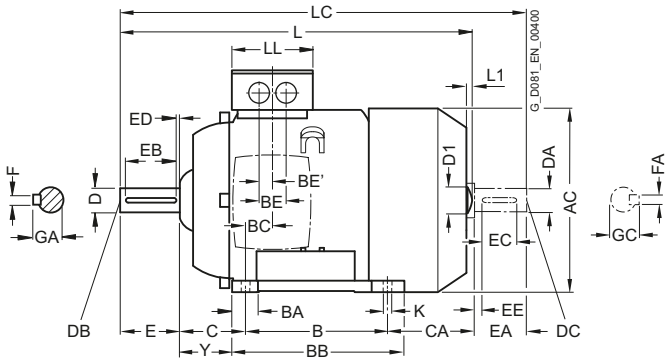
[2] Only for pole-changing types 1LE1011-1DP6 and 1LE1012-1DQ6 the dimension L is 664 mm.

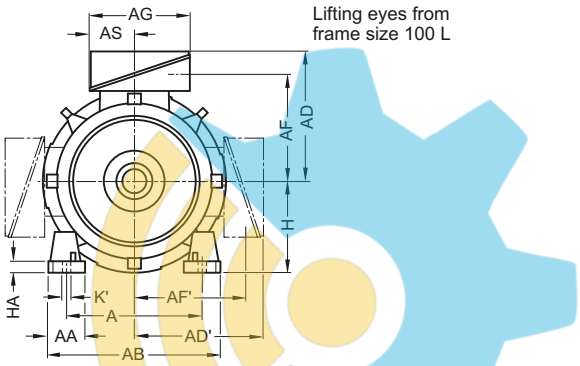
[3] Only for pole-changing types 1LE1011-1DP6 and 1LE1012-1DQ6 the dimension LC is 790 mm.

2

Dimensional drawings

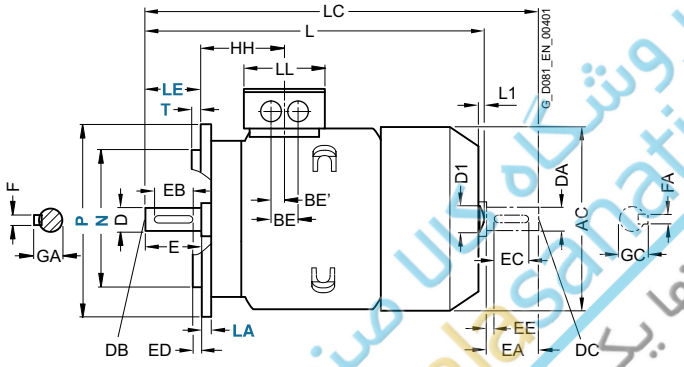
Type of construction IM B3

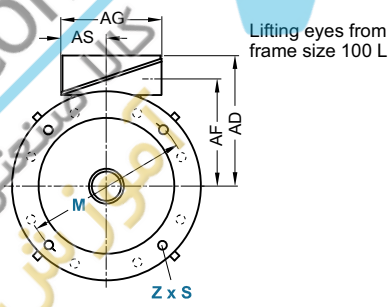




Types of construction IM B5 and IM V1

For flange dimensions, see page 1/39 (**Z** = the number of retaining holes)





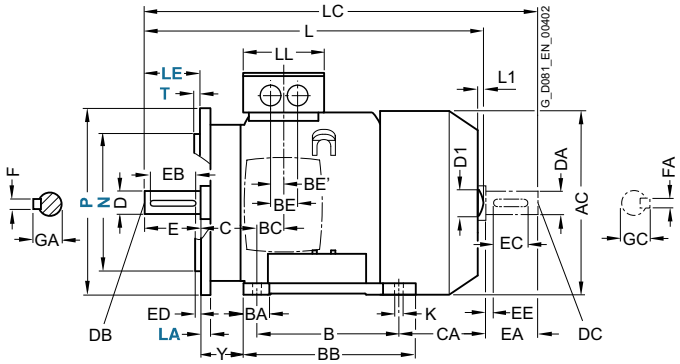
For motor			Dimension designation acc. to **IEC**																				
Frame size	Motor type 1LE1001 1LE1002 1LE1041	No. of poles	A	AA	AB	AC	AD	AD'	AF	AF'	AG	AS	B	BA	BA'	BB	BC	BE	BE'	C	CA	H	HA	Y
80 M	All	2, 4	125	30.5	150	159	121.5	121.5	96.5	96.5	93	43	100	32	32	118	23	–	18[1]	50	148	80	8	41
90 L	All	2, 4	140	30.5	165	178	126	126	101.5	101.5	93	43	125	33	54	143	22.5	–	18[1]	56	174	90	10	47
100 L	All	2, 4, 6, 8	160	42	196	198	166	166	125.5	125.5	135	63.5	140	37.5	37.5	176	33.5	50	25	63	176	100	12	45
112 M	All	2, 4, 6, 8	190	46	226	222	177	177	136.5	136.5	135	63.5	140	37.5	37.5	176	26	50	25	70	155	112	12	52
132 M	All	2, 4, 6, 8	216	53	256	262	202	202	159.5	159.5	155	70.5	178	38	76	218	26.5	48	24	89	179	132	15	69
160 L	All	2, 4, 6, 8	254	60	300	314	236.5	236.5	190	190	175	77.5	254	44	89	300	47	57	28.5	108	208	160	18	85
180 L	1LE1001 1LE1002	2, 4, 6, 8	279	65	339	356	259	259	212.5	212.5	175	77.5	279	80	100	328	30	57	28.5	121	194	180	20	95
200 L	1LE1001 1LE1002	2, 4, 6, 8	318	70	378	396	296	296	238	238	225	102.5	305	90	100	355	45	75	37.5	133	202	200	25	108

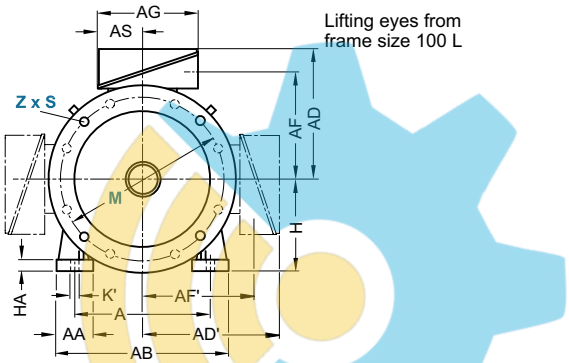
[1] Only one termination hole available.

Dimensional drawings (continued)

Type of construction IM B35

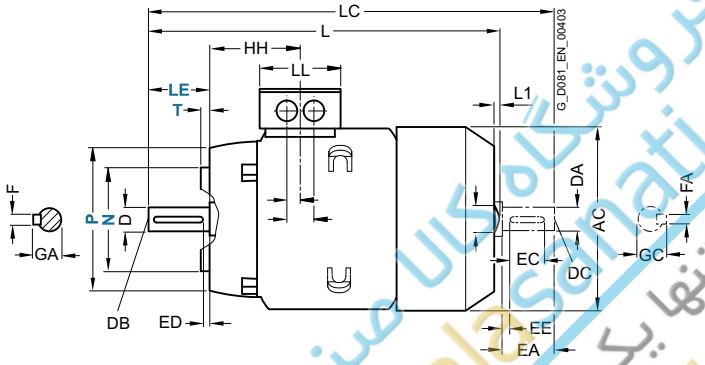
For flange dimensions, see page 1/39 (**Z** = the number of retaining holes)

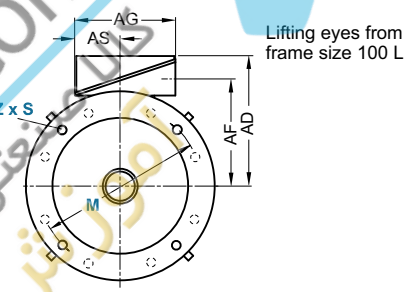




Type of construction IM B14

For flange dimensions, see page 1/39 (**Z** = the number of retaining holes)



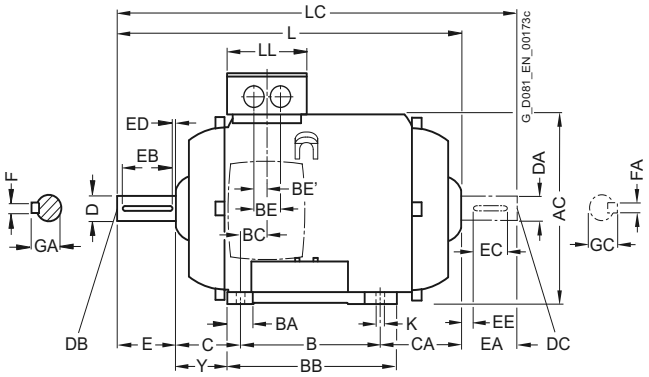


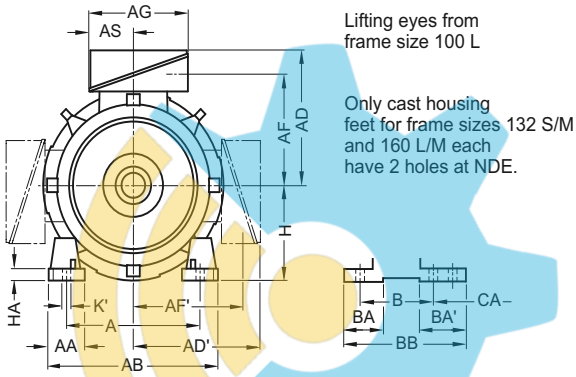
For motor			Dimension designation acc. to **IEC**								DE shaft extension						NDE shaft extension						
Frame size	Motor type 1LE1001 1LE1002 1LE1041	No. of poles	HH	K	K'	L [1]	L1	D1	LC	LL	D	DB	E	EB	ED	F	GA	DA	DC	EA	EC	EE	FA	GC
80 M	All	2, 4	73	9.5	13.5	327	327	–	378	79	19	M6	40	32	4	6	21.5	19	M6	40	32	4	6	21.5
90 L	All	2, 4	78.5	10	14	387	–	–	445	79	24	M8	50	40	5	8	27	19	M6	40	32	4	6	21.5
100 L	All	2, 4, 6, 8	96.5	12	16	430.5	7	32	489	112	28	M10	60	50	5	8	31	24	M8	50	40	5	8	27
112 M	All	2, 4, 6, 8	96	12	16	414	7	32	475	112	28	M10	60	50	5	8	31	24	M8	50	40	5	8	27
132 M	All	2, 4, 6, 8	115.5	12	16	515	8.5	39	585.5	130	38	M12	80	70	5	10	41	28	M10	60	50	5	8	31
160 L	All	2, 4, 6, 8	155	15	19	664	10	45	790	145	42	M16	110	90	10	12	45	42	M16	110	90	10	12	45
180 L	1LE1001 1LE1002	2, 4, 6	151	14.5	19	698	–	–	814	145	48	M16	110	100	5	14	52	48	M16	110	100	5	14	52
200 L	1LE1001 1LE1002	2, 4, 6	178	18.5	25	746	–	–	860	185	55	M20	110	100	5	16	59	55	M20	110	100	5	16	59

[1] The length is specified as far as the tip of the fan cover.

Dimensional drawings

Type of construction IM B3



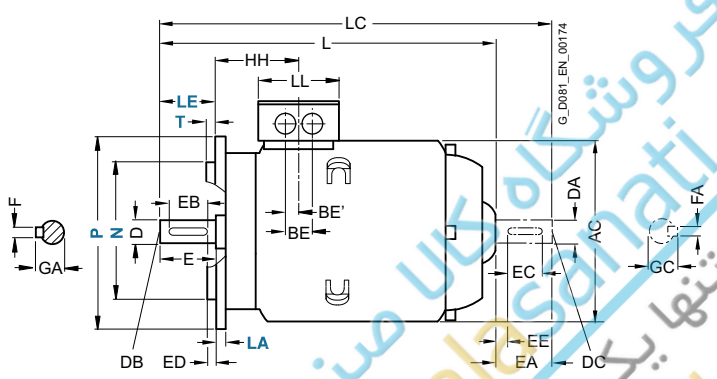


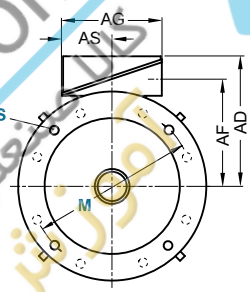
Lifting eyes from frame size 100 L

Only cast housing feet for frame sizes 132 S/M and 160 L/M each have 2 holes at NDE.

Types of construction IM B5 and IM V1

For flange dimensions, see page 1/39 (**Z** = the number of retaining holes)





Lifting eyes from frame size 100 L

For motor			Dimension designation acc. to **IEC**																				
Frame size	Motor type 1LE100. 1PC100. 1LE1021	No. of poles	A	AA	AB	AC	AD	AD'	AF	AF'	AG	AS	B	BA	BA'	BB	BC	BE	BE'	C	CA	H	HA	Y
80 M	1LE1001	2, 4, 6	125	30.5	150	159	121.5	121.5	96.5	96.5	93	43	100	32	32	118	23	–	18[5]	50	70.5	80	8	41
	1LE1021	2, 4, 6					149.5	149.5	112.5	112.5	119.5	61.5												
90 S	1LE1001	2, 4, 6	140	30.5	165	178	126	126	101.5	101.5	93	43	100	33	54	143	22.5	–[5]	18[5]	56	103	90	10	47
	1LE1021	2, 4, 6					154.5	154.5	117.5	117.5	119.5	61.5												
90 L	1LE1001	2, 4, 6	140	30.5	165	178	126	126	101.5	101.5	93	43	125	33	54	143	22.5	–[5]	18[5]	56	78	90	10	47
	1LE1021	2, 4, 6					154.5	154.5	117.5	117.5	119.5	61.5												
100 L	All	2, 4, 6, 8	160	42	196	198	166	166	125.5	125.5	135	63.5	140	37.5	37.5	176	33.5	50	25	63	63	100	12	45
112 M	All	2, 4, 6 8	190	46	226	222	177	177	136.5	136.5	135	63.5	140	37.5	37.5	176	26	50	25	70	45 70	112	12	52
132 S	All	2, 4, 6, 8	216	53	256	261	202	202	159.5	159.5	155	70.5	140	38	76[1]	218[2]	26.5	48	24	89	77	132	15	69
132 M	All	2, 4, 6, 8	216	53	256	261	202	202	159.5	159.5	155	70.5	178	38	76	218	26.5	48	24	89	39	132	15	69
160 M	All	2, 4, 6, 8	254	60	300	314	236.5	236.5	190	190	175	77.5	210	44	89[3]	300[4]	47	57	28.5	108	92	160	18	85
160 L	All	2, 4, 6, 8	254	60	300	314	236.5	236.5	190	190	175	77.5	254	44	89	300	47	57	28.5	108	48	160	18	85
180 M	1LE1001 1LE1021	2, 4, 6, 8	279	65	339	356	259	259	212.5	212.5	175	77.5	241	80	100	328	30	57	28.5	121	124	180	20	95
200 L	1LE1001 1LE1021	2, 4, 6, 8	318	70	378	396	296	296	238	238	225	102.5	305	90	100	355	45	75	37.5	133	101	200	25	108

[1] With screwed-on feet, dimension BA' is 38 mm.

[2] With screwed-on feet, dimension BB is 180 mm.

[3] With screwed-on feet, dimension BA' is 44 mm.

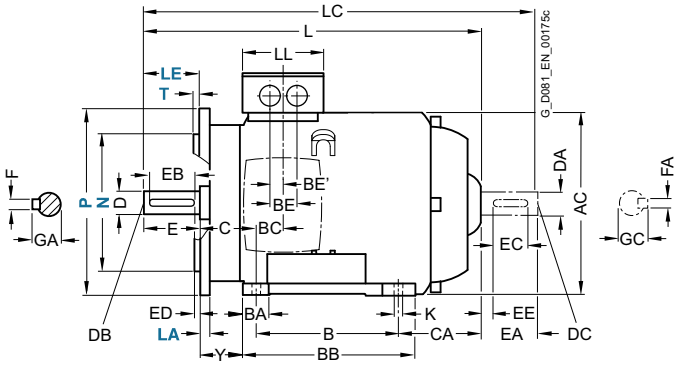
[4] With screwed-on feet, dimension BB is 256 mm.

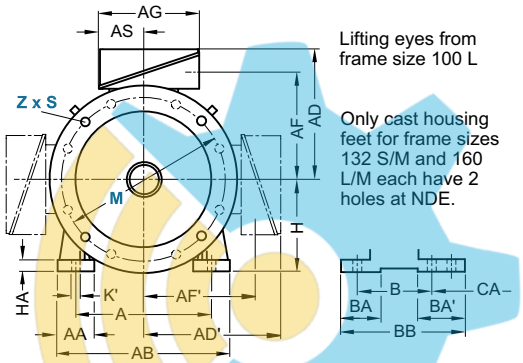
[5] Only one termination hole available, except for 1LE1021. In this case, the dimension BE is 32 mm.

Dimensional drawings (continued)

Type of construction IM B35

For flange dimensions, see page 1/39 (**Z** = the number of retaining holes)



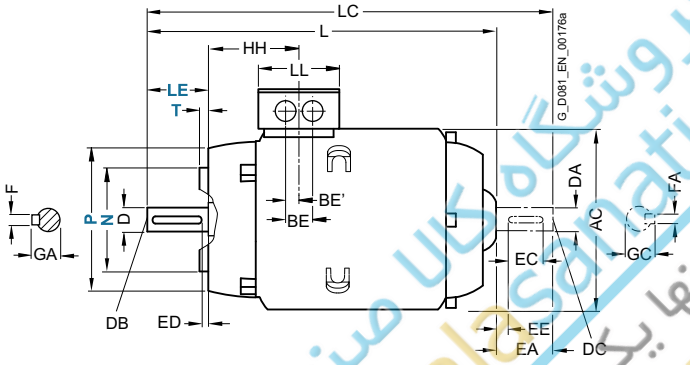


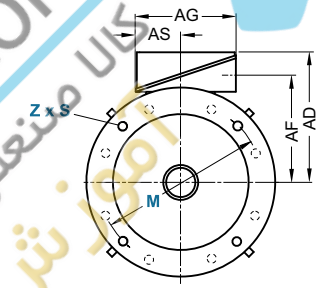
Lifting eyes from frame size 100 L

Only cast housing feet for frame sizes 132 S/M and 160 L/M each have 2 holes at NDE.

Type of construction IM B14

For flange dimensions, see page 1/39 (**Z** = the number of retaining holes)





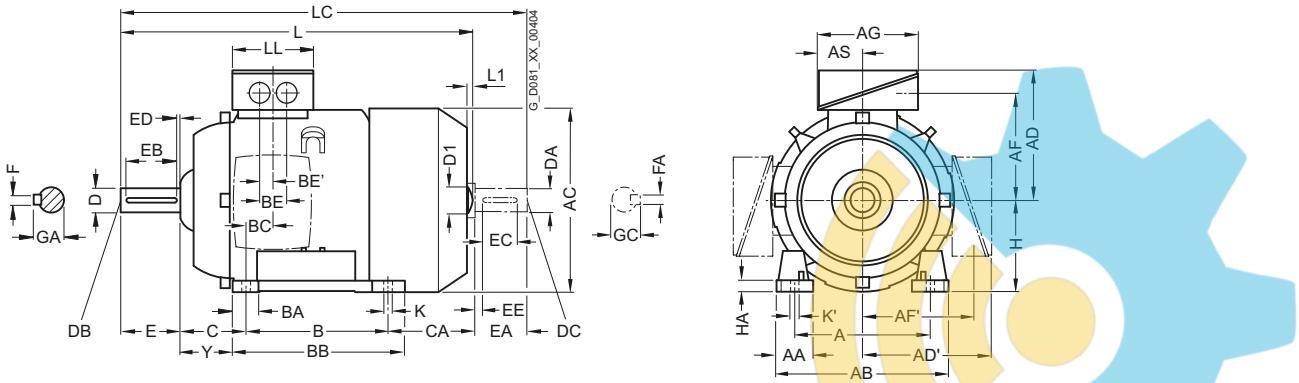
Lifting eyes from frame size 100 L

For motor			Dimension designation acc. to **IEC**						DE shaft extension							NDE shaft extension						
Frame size	Motor type 1LE100. 1PC100. 1LE1021	No. of poles	HH	K	K'	L	LC	LL	D	DB	E	EB	ED	F	GA	DA	DC	EA	EC	EE	FA	GC
80 M	1LE1001	2, 4, 6	73	9.5	13.5	253	300.5	79	19	M6	40	32	4	6	21.5	19	M6	40	32	4	6	21.5
	1LE1021	2, 4, 6						123														
90 S	1LE1021	2, 4, 6	78.5	10	14	294.5	349	79	24	M8	50	40	5	8	27	19	M6	40	32	4	6	21.5
	1LE1021	2, 4, 6						123														
90 L	1LE1021	2, 4, 6	78.5	10	14	294.5	349	123	24	M8	50	40	5	8	27	19	M6	40	32	4	6	21.5
	1LE1021	2, 4, 6						123														
100 L	All	2, 4, 6, 8	96.5	12	16	324	376	112	28	M10	60	50	5	8	31	24	M8	50	40	5	8	27
112 M	All	2, 4, 6	96	12	16	311	365	112	28	M10	60	50	5	8	31	24	M8	50	40	5	8	27
		8				336	390															
132 S	All	2, 4, 6, 8	115.5	12	16	380.5	446	130	38	M12	80	70	5	10	41	28	M10	60	50	5	8	31
132 M	All	2, 4, 6, 8	115.5	12	16	380.5	446	130	38	M12	80	70	5	10	41	28	M10	60	50	5	8	31
160 M	All	2, 4, 6, 8	155	15	19	510	630	145	42	M16	110	90	10	12	45	42	M16	110	90	10	12	45
160 L	All	2, 4, 6, 8	155	15	19	510	630	145	42	M16	110	90	10	12	45	42	M16	110	90	10	12	45
180 M	1LE1001 1LE1021	2, 4, 6, 8	151	14.5	19	698	706	145	48	M16	110	100	5	14	52	48	M16	110	100	5	14	51.5
200 L	1LE1001 1LE1021	2, 4, 6, 8	178	18.5	25	746	759	185	55	M20	110	100	5	16	59	55	M20	110	100	100	16	59

2

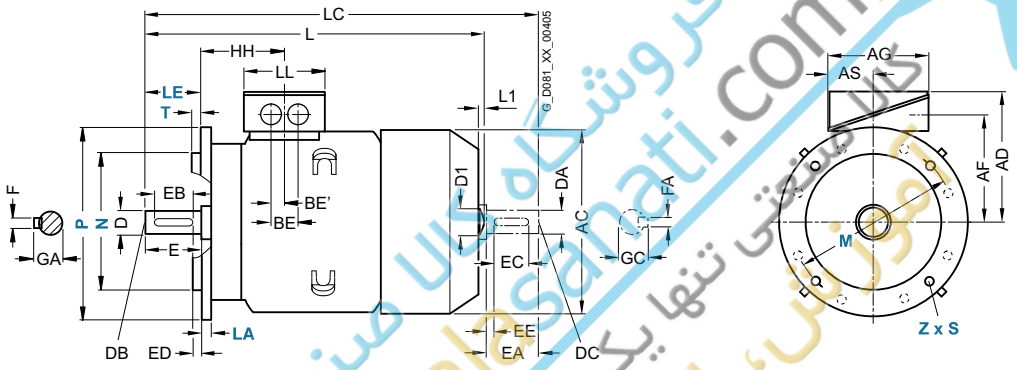
Dimensional drawings

Type of construction IM B3



Types of construction IM B5 and IM V1

For flange dimensions, see page 1/39 (**Z** = the number of retaining holes)



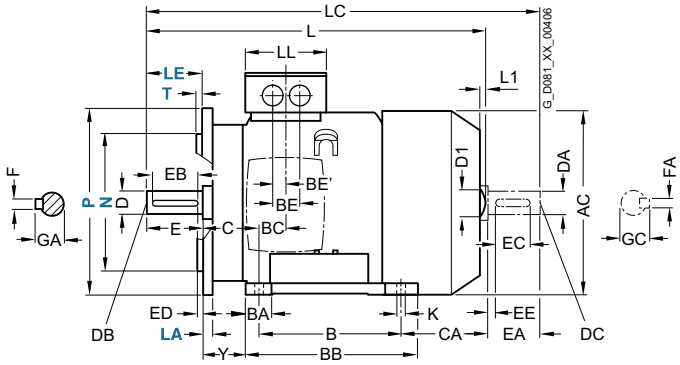
For motor			Dimension designation acc. to **IEC**																			
Frame size	Motor type	No. of poles	A	AA	AB	AC	AD	AD'	AF	AF'	AG	AS	B	BA	BB	BC	BE	BE'	C	CA	H	HA	Y
80 M	1LE1003-0DA2, -0DB2, -0DC2 -0DA3, -0DB3, -0DC3	2, 4, 6	125	30.5	150	159	121.5	121.5	96.5	96.5	93	43	100	32	118	23	–[1]	18[1]	50	113 148	80	8	41
	1LE1043-0DA2,	2																					
	1LE1023-0DA2, -0DB2, -0DC2 -0DA3, -0DB3, -0DC3	2, 4, 6					149.5	149.5	112	112	119.5	61.5								113 148			
90 S	1LE1003-0EA0, -0EB0, -0EC0	2, 4, 6	140	30.5	165	178	126	126	101.5	101.5	93	43	100	33	143	22.5	–[1]	18[1]	56	159	90	10	47
	1LE1043-0EA0,	2																					
	1LE1023-0EA0, -0EB0, -0EC0	2, 4, 6					154.5		117.5	117	119.5	61.5											
90 L	1LE1003-0EA4, -0EB4, -0EC4	2, 4, 6	140	30.5	165	178	126	126	101.5	101.5	93	43	125	33	143	22.5	–[1]	18[1]	56	154	90	10	47
	1LE1043-0EA4, -0EB4	2, 4																					
	1LE1023-0EA4, -0EB4, -0EC4	2, 4, 6					154.5		117.5	117.5	119.5	61.5											

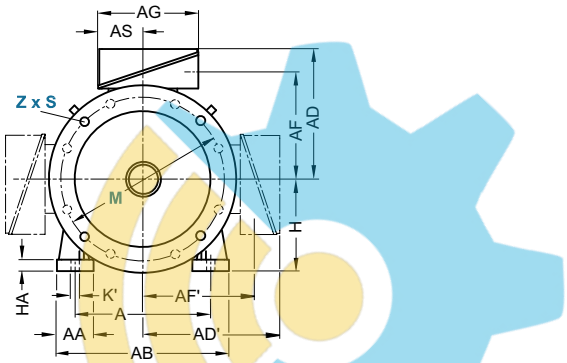
[1] Only one termination hole available, except for 1LE1023.
In this case, the dimension BE is 32 mm.

Dimensional drawings (continued)

Type of construction IM B35

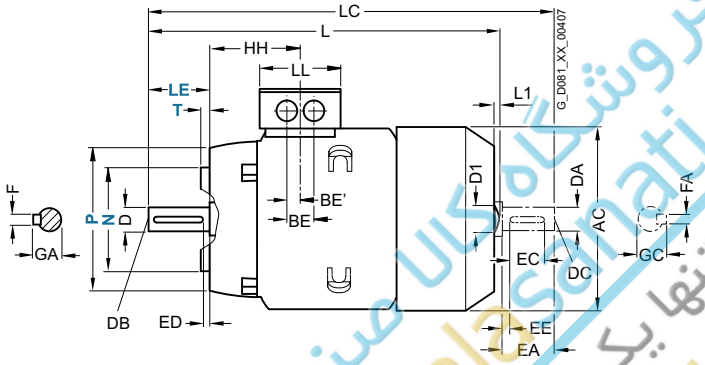
For flange dimensions, see page 1/39 (**Z** = the number of retaining holes)

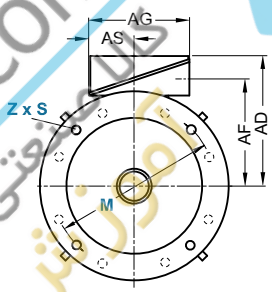




Type of construction IM B14

For flange dimensions, see page 1/39 (**Z** = the number of retaining holes)





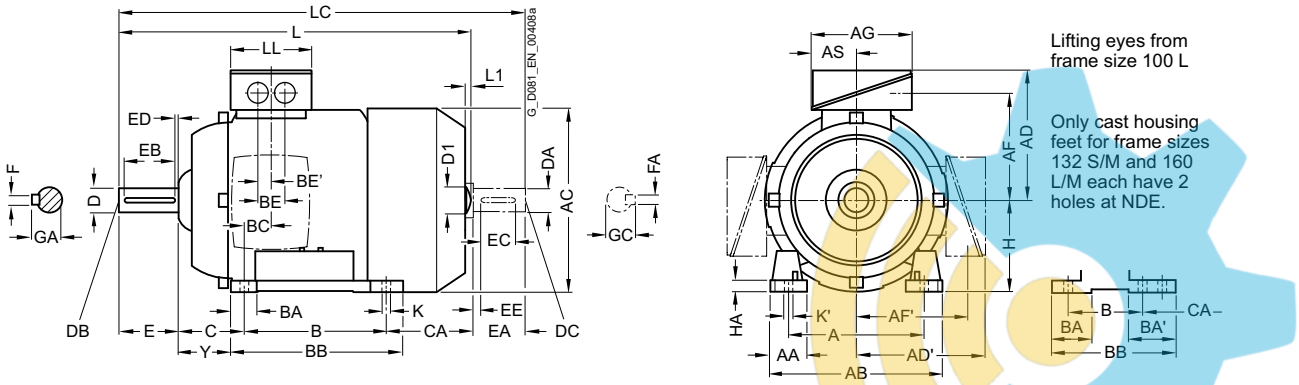
For motor			Dimension designation acc. to **IEC**								DE shaft extension							NDE shaft extension						
Frame size	Motor type	No. of poles	HH	K	K'	L [1]	L1	D1	LC	LL	D	DB	E	EB	ED	F	GA	DA	DC	EA	EC	EE	FA	GC
80 M	1LE1003-0DA2, -0DB2, -0DC2, -0DA3, -0DB3, -0DC3	2, 4, 6	73	9.5	13.5	292	–	–	343	79	19	M6	40	32	4	6	21.5	19	M6	40	32	4	6	21.5
						327			378															
	1LE1043-0DA2,	2				292																		
	1LE1023-0DA2, -0DB2, -0DC2, -0DA3, -0DB3, -0DC3	2, 4, 6				292			343	123														
						327			378															
90 S	1LE1003-0EA0, -0EB0, -0EC0	2, 4, 6	78.5	10	14	347	–	–	405	79	24	M8	50	40	5	8	27	19	M6	40	32	4	6	21.5
	1LE1043-0EA0,	2																						
	1LE1023-0EA0, -0EB0, -0EC0	2, 4, 6								123														
90 L	1LE1003-0EA4, -0EB4, -0EC4	2, 4, 6	78.5	10	14	387	–	–	445	79	24	M8	50	40	5	8	27	19	M6	40	32	4	6	21.5
	1LE1043-0EA4, -0EB4	2, 4																						
	1LE1023-0EA4, -0EB4, -0EC4	2, 4, 6								123														

[1] The length is specified as far as the tip of the fan cover.

2

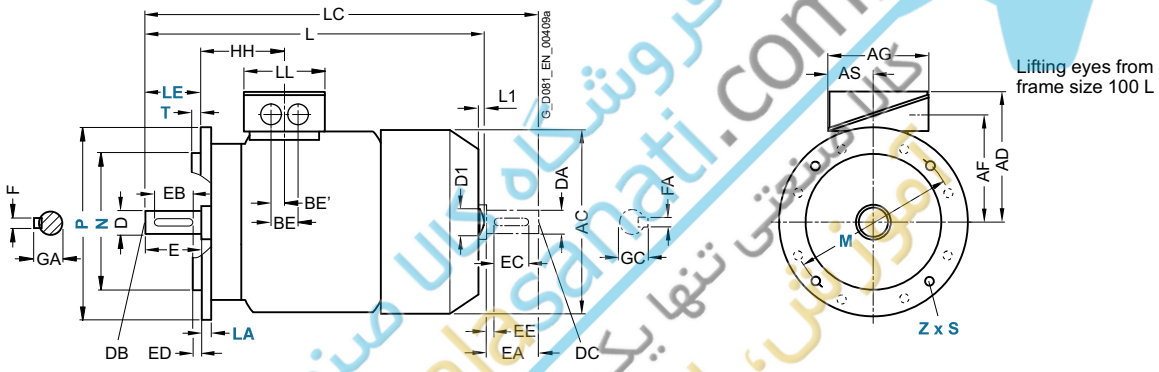
Dimensional drawings

Type of construction IM B3



Types of construction IM B5 and IM V1

For flange dimensions, see page 1/39 (**Z** = the number of retaining holes)



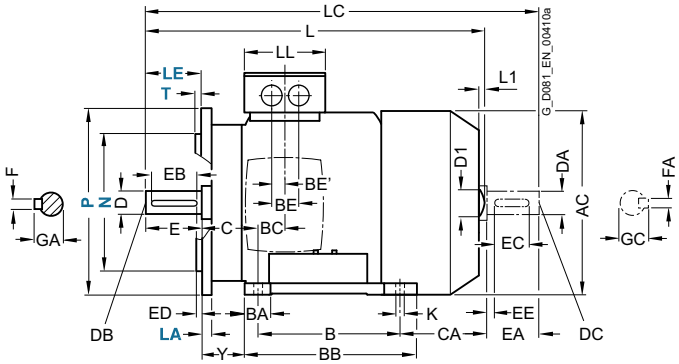
For motor			Dimension designation acc. to **IEC**																					
Frame size	Motor type 1LE1003-1LE1023-1LE1043	No. of poles	A	AA	AB	AC	AD	AD'	AF	AF'	AG	AS	B	BA	BA'	BB	BC	BE	BE'	C	CA	H	HA	Y
100 L	1AA4, 1AB4, 1AB5, 1AC3	2, 4, 6	160	42	196	198	166	166	125.5	125.5	135	63.5	140	37.5	37.5	176	33.5	50	25	63	176	100	12	45
112 M	1BA2, 1BB2	2, 4, 6	190	46	226	222	177	177	136.5	136.5	135	63.5	140	37.5	37.5	176	26	50	25	70	155	112	12	52
132 S	1CA0, 1CC0, 1CD0	2, 6, 8	216	53	256	262	202	202	159.5	159.5	155	70.5	140	38	76[1]	218[2]	26.5	48	24	89	167	132	15	69
	1CA1, 1CB0	2, 4																			217			
132 M	1CC2	6	216	53	256	262	202	202	159.5	159.5	155	70.5	178	38	76	218	26.5	48	24	89	129	132	15	69
	1CB2, 1CC3, 1CD2	4, 6, 8																			179			
160 M	1DA2, 1DA3, 1DB2, 1DC2, 1DD2, 1DD3	2, 4, 6, 8	254	60	300	314	236.5	236.5	190	190	175	77.5	210	44	89[3]	300[4]	47	57	28.5	108	192	160	18	85
160 L	1DA4, 1DB4, 1DC4, 1DD4	2, 4, 6, 8	254	60	300	314	236.5	236.5	190	190	175	77.5	254	44	89	300	47	57	28.5	108	208	160	18	85
180 M	1EA2 1EB2	2, 4	279	65	339	356	259	259	212.5	212.5	175	77.5	241	80	100	328	30	57	28.5	121	232	180	20	95
180 L	1EB4, 1EC4, 1ED4	4, 6, 8	279	65	339	356	259	259	212.5	212.5	175	77.5	279	80	100	328	30	57	28.5	121	194	180	20	95
200 L	2AA4, 2AA5, 2AB5, 2AC4, 2AC5, 2AD5	2, 4, 6, 8	318	70	378	396	296	296	238	238	225	102.5	305	90	100	355	45	75	37.5	133	202	200	25	108

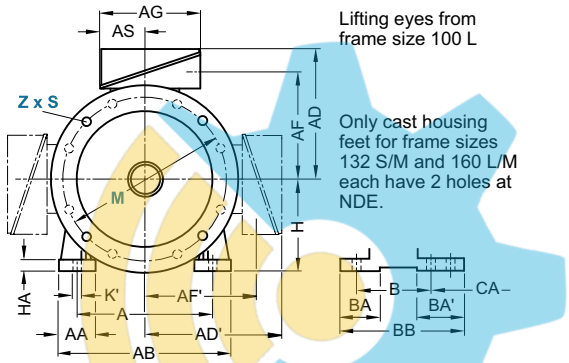
[1] With screwed-on feet, dimension BA' is 38 mm.
[2] With screwed-on feet, dimension BB is 180 mm.
[3] With screwed-on feet, dimension BA' is 44 mm.
[4] With screwed-on feet, dimension BB is 256 mm.

Dimensional drawings (continued)

Type of construction IM B35

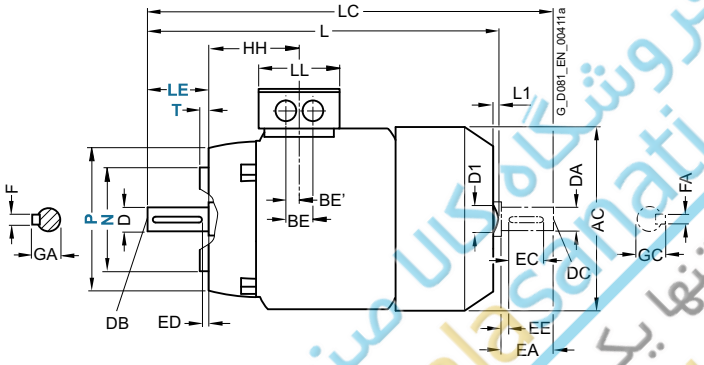
For flange dimensions, see page 1/39 (**Z** = the number of retaining holes)

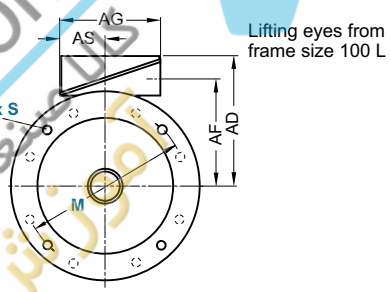




Type of construction IM B14

For flange dimensions, see page 1/39 (**Z** = the number of retaining holes)



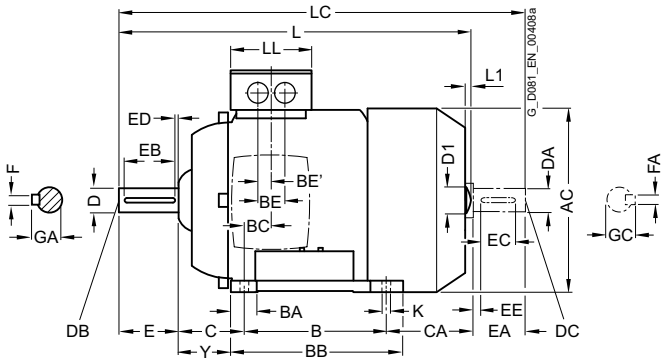


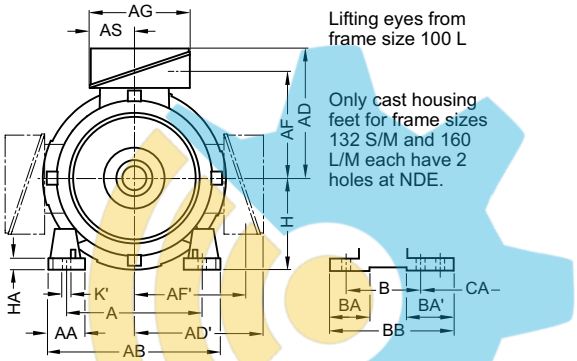
For motor			Dimension designation acc. to **IEC**								DE shaft extension							NDE shaft extension					
Frame size	Motor type 1LE1003- 1LE1023- 1LE1043	No. of poles	HH	K	K'	L[1]	L1	D1	LC	LL	D	DB	E	EB	ED	F	GA	DA	DC	EA	EC	EE	FA	GC
100 L	1AA4, 1AB4, 1AB5, 1AC3	2, 4, 6	96.5	12	16	430.5	7	32	489	112	28	M10	60	50	5	8	31	24	M8	50	40	5	8	27
112 M	1BA2, 1BB2	2, 4, 6	96	12	16	414	7	32	475	112	28	M10	60	50	5	8	31	24	M8	50	40	5	8	27
132 S	1CA0, 1CC0, 1CD0	2, 6, 8	115.5	12	16	465	8.5	39	535.5	130	38	M12	80	70	5	10	41	28	M10	60	50	5	8	31
	1CA1, 1CB0	2, 4				515			585.5															
132 M	1CC2	6	115.5	12	16	465	8.5	39	535.5	130	38	M12	80	70	5	10	41	28	M10	60	50	5	8	31
	1CB2, 1CC3, 1CD2	4, 6, 8				515			585.5															
160 M	1DA2, 1DA3, 1DB2, 1DC2, 1DD2, 1DD3	2, 4, 6, 8	155	15	19	604	10	45	730	145	42	M16	110	90	10	12	45	42	M16	110	90	10	12	45
160 L	1DA4, 1DB4, 1DC4, 1DD4	2, 4, 6, 8	155	15	19	664	10	45	790	145	42	M16	110	90	10	12	45	42	M16	110	90	10	12	45
180 M	1EA2 1EB2	2, 4	151	14.5	19	698	–	–	814	145	48	M16	110	100	5	14	52	48	M16	110	100	5	14	52
180 L	1EB4, 1EC4, 1ED4	4, 6, 8	151	14.5	19	698	–	–	814	145	48	M16	110	100	5	14	52	48	M16	110	100	5	14	52
200 L	2AA4, 2AA5, 2AB5, 2AC4, 2AC5, 2AD5	2, 4, 6, 8	178	18.5	25	746	–	–	860	185	55	M20	110	100	5	16	59	55	M20	110	100	5	16	59

[1] The length is specified as far as the tip of the fan cover.

Dimensional drawings

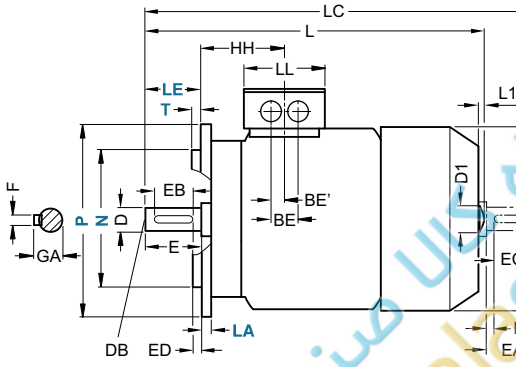
Type of construction IM B3

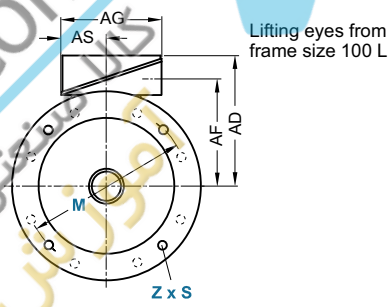




Types of construction IM B5 and IM V1

For flange dimensions, see page 1/39 (**Z** = the number of retaining holes)



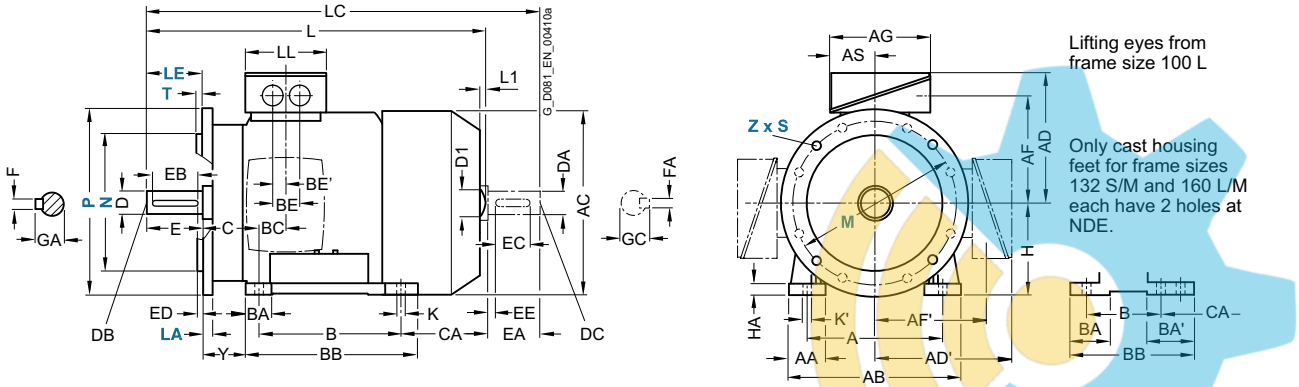


For motor			Dimension designation acc. to **IEC**																					
Frame size	Motor type	No. of poles	A	AA	AB	AC	AD	AD'	AF	AF'	AG	AS	B	BA	BA'	BB	BC	BE	BE'	C	CA	H	HA	Y
132 M	1LE1003-1CA6 1LE1043-1CA6	2	216	53	256	262	202	202	159.5	159.5	155	70.5	178	38	76	218	26.5	48	24	89	179	132	15	69
160 L	1LE1003-1DA6 -1DB6 1LE1043-1DA6	2, 4	254	60	300	314	236.5	236.5	190	190	175	77.5	254	44	89	300	47	57	28.5	108	268	160	18	85
180 L	1LE1003-1EA6 -1EB6 -1EC6	2, 4, 6	279	65	339	356	259	259	212.5	212.5	175	77.5	279	80	100	328	30	57	28.5	121	194	180	20	95
200 L	1LE1003-2AA6 -2AB6 -2AC6	2, 4, 6	318	70	378	396	296	296	238	238	225	102.5	305	90	100	355	45	75	37.5	133	202	200	25	108

Dimensional drawings (continued)

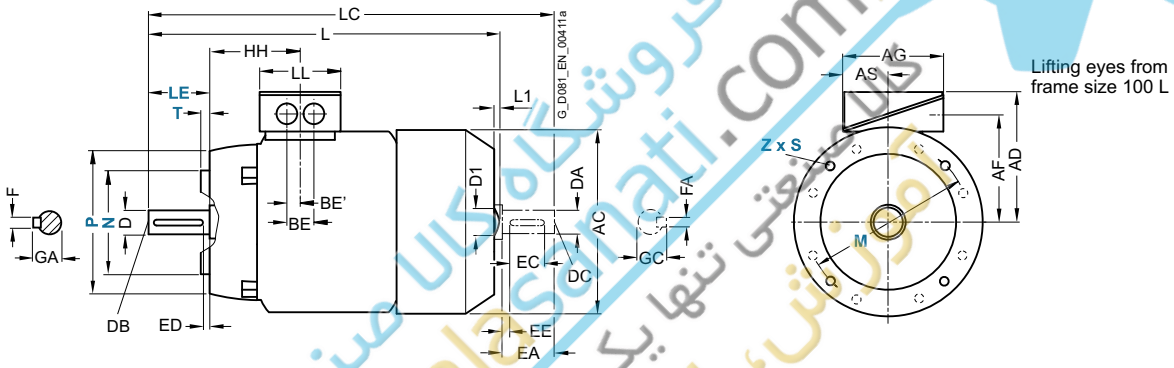
Type of construction IM B35

For flange dimensions, see page 1/39 (**Z** = the number of retaining holes)



Type of construction IM B14

For flange dimensions, see page 1/39 (**Z** = the number of retaining holes)



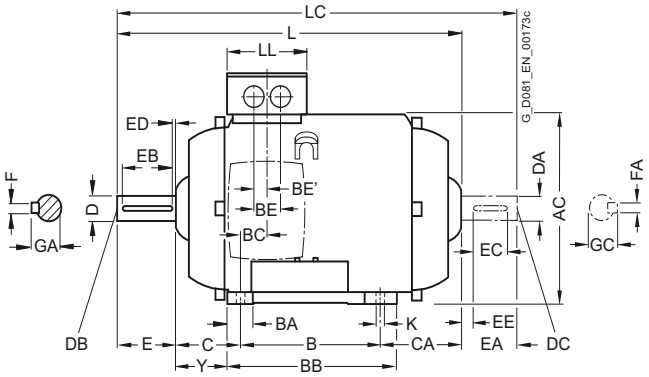
For motor			Dimension designation acc. to IEC								DE shaft extension							NDE shaft extension						
Frame size	Motor type	No. of poles	HH	K	K'	L[1]	L1	D1	LC	LL	D	DB	E	EB	ED	F	GA	DA	DC	EA	EC	EE	FA	GC
132 M	1LE1003-1CA6 1LE1043-1CA6	2	115.5	12	16	515	8.5	39	585.5	130	38	M12	80	70	5	10	41	28	M10	60	50	5	8	31
160 L	1LE1003-1DA6 -1DB6 1LE1043-1DA6	2, 4	155	15	19	664	10	45	790	145	42	M16	110	90	10	12	45	42	M16	110	90	10	12	45
180 L	1LE1003-1EA6 -1EB6 -1EC6	2, 4, 6	151	14.5	19	698	–	–	814	145	48	M16	110	100	5	14	52	48	M16	110	100	5	14	52
200 L	1LE1003-2AA6 -2AB6 -2AC6	2, 4, 6	178	18.5	25	746	–	–	860	185	55	M20	110	100	5	16	59	55	M20	110	100	5	16	59

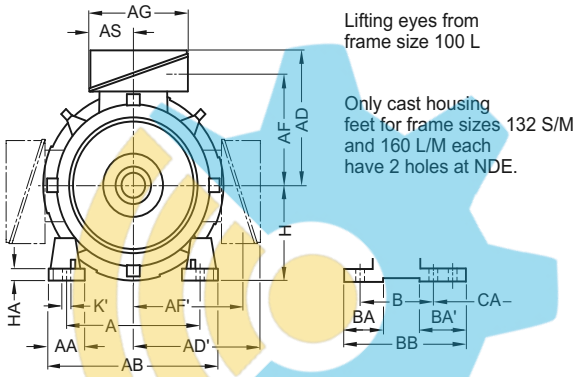
[1] The length is specified as far as the tip of the fan cover.

2

Dimensional drawings

Type of construction IM B3



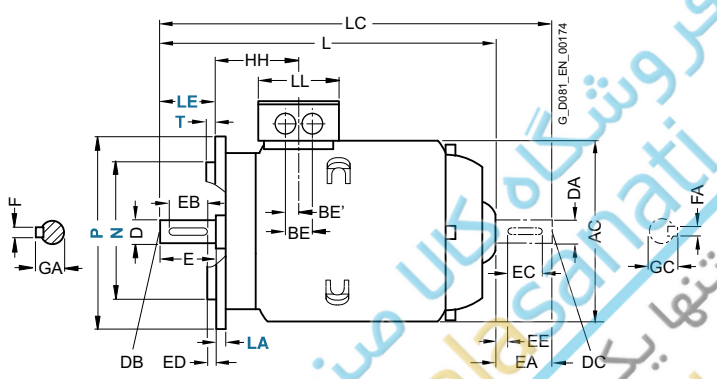


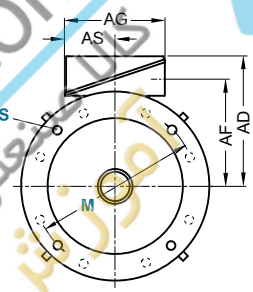
Lifting eyes from frame size 100 L

Only cast housing feet for frame sizes 132 S/M and 160 L/M each have 2 holes at NDE.

Types of construction IM B5 and IM V1

For flange dimensions, see page 1/39 (**Z** = the number of retaining holes)





Lifting eyes from frame size 100 L

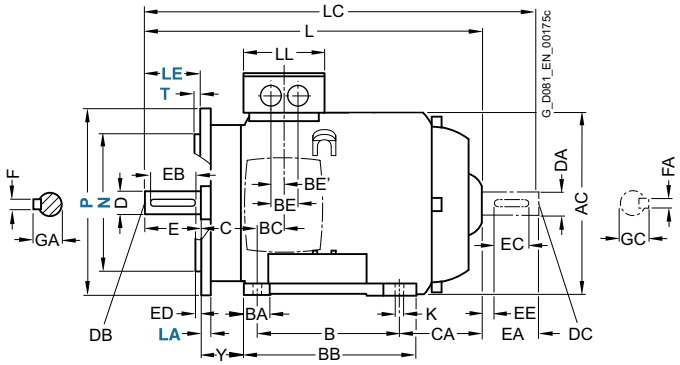
For motor			Dimension designation acc. to **IEC**																					
Frame size	Motor type 1LE1023-1LE1043-	No. of poles	A	AA	AB	AC	AD	AD'	AF	AF'	AG	AS	B	BA	BA'	BB	BC	BE	BE'	C	CA	H	HA	Y
80 M	0DA2, 0DB2, 0DC2	2, 4, 6	125	30.5	150	159	121.5	121.5	96.5	96.5	93	43	100	32	32	118	23	–	18[1]	50	70	80	8	41
	0DA3, 0DB3, 0DC3	2, 4, 6																			105.5			
90 S	0EA0, 0EB0, 0EC0	2, 4, 6	140	30.5	165	178	126	126	101.5	101.5	93	43	100	33	54	143	22.5	–	18[1]	56	113	90	10	47
90 L	0EA4, 0EB4, 0EC4	2, 4, 6	140	30.5	165	178	126	126	101.5	101.5	93	43	100	33	54	143	22.5	–	18[1]	56	153	90	10	47

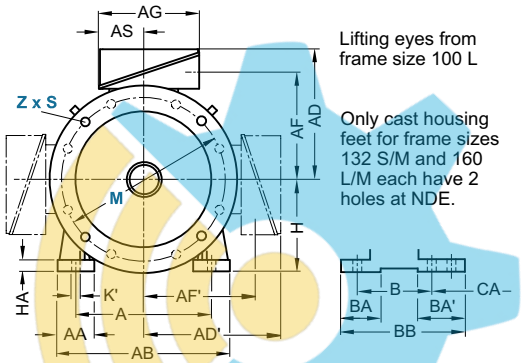
[1] Only one termination hole available.

Dimensional drawings (continued)

Type of construction IM B35

For flange dimensions, see page 1/39 (**Z** = the number of retaining holes)



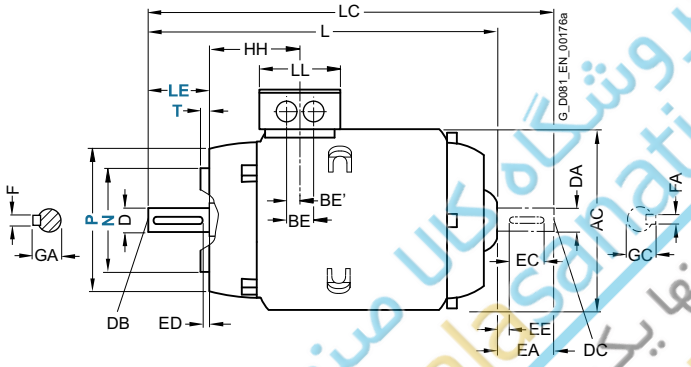


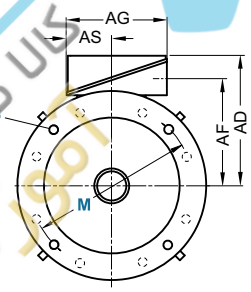
Lifting eyes from frame size 100 L

Only cast housing feet for frame sizes 132 S/M and 160 L/M each have 2 holes at NDE.

Type of construction IM B14

For flange dimensions, see page 1/39 (**Z** = the number of retaining holes)





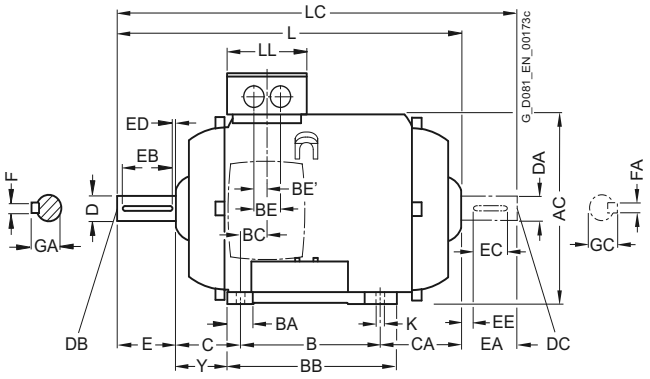
Lifting eyes from frame size 100 L

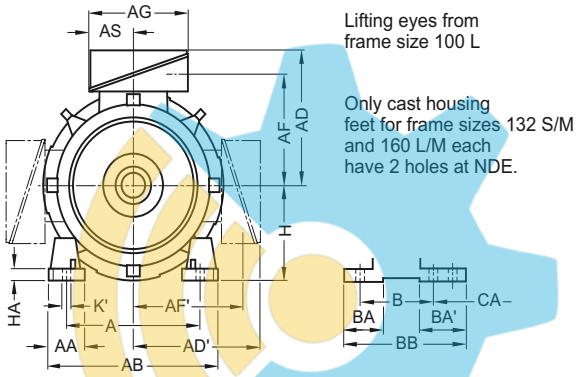
For motor			Dimension designation acc. to **IEC**						DE shaft extension						NDE shaft extension							
Frame size	Motor type 1LE1023-1LE1043-	No. of poles	HH	K	K'	L	LC	LL	D	DB	E	EB	ED	F	GA	DA	DC	EA	EC	EE	FA	GC
80 M	0DA2, 0DB2, 0DC2	2, 4, 6	73	9.5	13.5	253.5	300.5	79	19	M6	40	32	4	6	21.5	19	M6	40	32	4	6	21.5
	0DA3, 0DB3, 0DC3	2, 4, 6				288	335.5															
90 S	0EA0, 0EB0, 0EC0	2, 4, 6	78.5	10	14	294.5	349	79	19	M6	40	32	5	8	27	19	M6	40	32	4	6	21.5
90 L	0EA4, 0EB4, 0EC4	2, 4, 6	78.5	10	14	334.5	389	79	19	M6	40	32	5	8	27	19	M6	40	32	4	6	21.5

2

Dimensional drawings

Type of construction IM B3



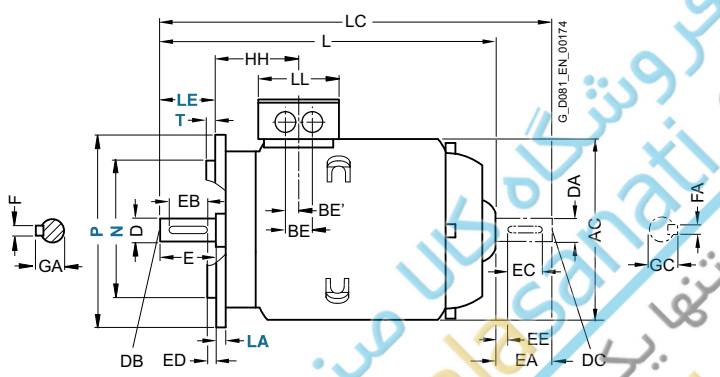


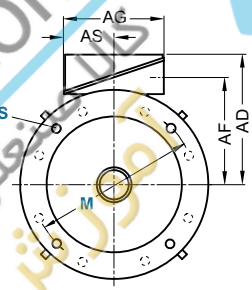
Lifting eyes from frame size 100 L

Only cast housing feet for frame sizes 132 S/M and 160 L/M each have 2 holes at NDE.

Types of construction IM B5 and IM V1

For flange dimensions, see page 1/39 (**Z** = the number of retaining holes)





Lifting eyes from frame size 100 L

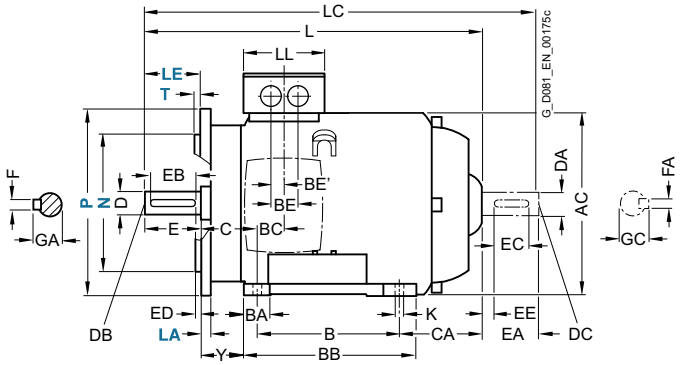
For motor			Dimension designation acc. to **IEC**																					
Frame size	Motor type 1LE1023-1LE1043-	No. of poles	A	AA	AB	AC	AD	AD'	AF	AF'	AG	AS	B	BA	BA'	BB	BC	BE	BE'	C	CA	H	HA	Y
100 L	1AA4, 1AB4, 1AB5 1AC3	2, 4 6	160	42	196	198	166	166	125.5	125.5	135	63.5	140	37.5	37.5	176	33.5	50	25	63	–	100	12	45
112 M	1BA2, 1BB2	2, 4	190	46	226	222	177	177	136.5	136.5	135	63.5	140	37.5	37.5	176	26	50	25	70	–	112	12	52
132 S	1CA0, 1CC0	2, 6	216	53	256	262	202	202	159.5	159.5	155	70.5	140	38	76[1]	218[2]	26.5	48	24	89	–	132	15	69
	1CA1, 1CB0	2, 4																						
132 M	1CC2	6	216	53	256	262	202	202	159.5	159.5	155	70.5	178	38	76	218	26.5	48	24	89	–	132	15	69
	1CB2, 1CC3	4, 6																						
160 M	1DA2, 1DA3, 1DB2, 1DC2	2, 4, 6	254	60	300	314	236.5	236.5	190	190	175	77.5	210	44	89[3]	300[4]	47	57	28.5	108	–	160	18	85
160 L	1DA4, 1DB4, 1DC4	2, 4, 6	254	60	300	314	236.5	236.5	190	190	175	77.5	254	44	89	300	47	57	28.5	108	–	160	18	85
180 M	1EA2, 1EB2,	2, 4	279	65	339	356	259	259	212.5	212.5	175	77.5	241	80	100	328	30	57	28.5	121	–	180	20	95
180 L	1EB4, 1EC4	4, 6	279	65	339	356	259	259	212.5	212.5	175	77.5	279	80	100	328	30	57	28.5	121	–	180	20	95
200 L	2AA4, 2AA5, 2AB5, 2AC4, 2AC5	2, 4, 6	318	70	378	396	296	296	238	238	225	102.5	305	90	100	355	45	75	37.5	133	–	200	25	108

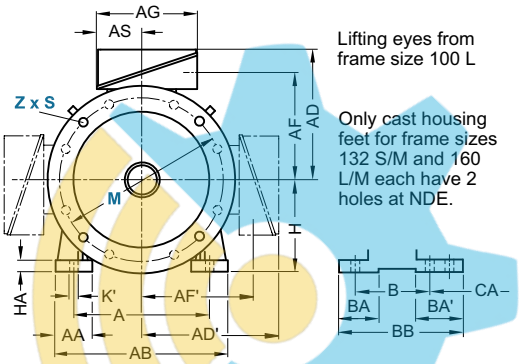
[1] With screwed-on feet, dimension BA' is 38 mm.
[2] With screwed-on feet, dimension BB is 180 mm.
[3] With screwed-on feet, dimension BA' is 44 mm.
[4] With screwed-on feet, dimension BB is 256 mm.

Dimensional drawings (continued)

Type of construction IM B35

For flange dimensions, see page 1/39 (**Z** = the number of retaining holes)



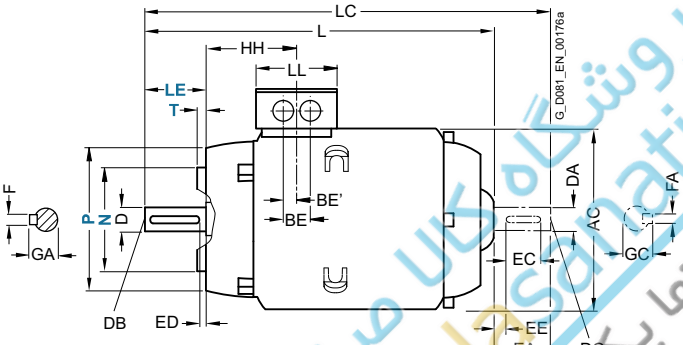


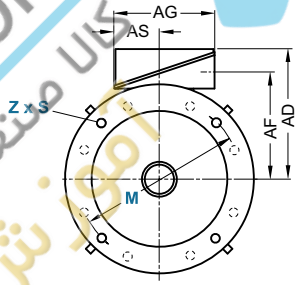
Lifting eyes from frame size 100 L

Only cast housing feet for frame sizes 132 S/M and 160 L/M each have 2 holes at NDE.

Type of construction IM B14

For flange dimensions, see page 1/39 (**Z** = the number of retaining holes)





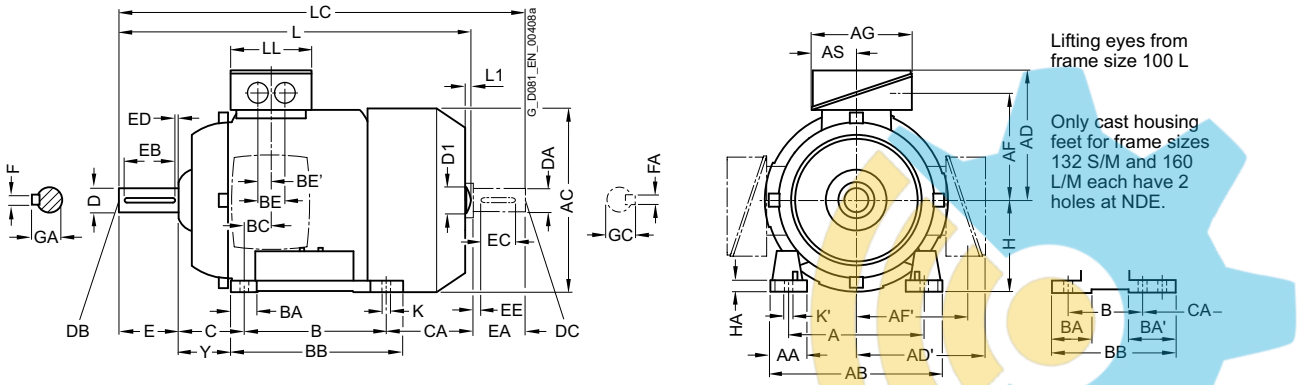
Lifting eyes from frame size 100 L

For motor			Dimension designation acc. to **IEC**						DE shaft extension							NDE shaft extension						
Frame size	Motor type 1LE1023-1LE1043-	No. of poles	HH	K	K'	L	LC	LL	D	DB	E	EB	ED	F	GA	DA	DC	EA	EC	EE	FA	GC
100 L	1AA4, 1AB4, 1AB5 1AC3	2, 4 6	96.5	12	16	356.5	411	112	28	M10	60	50	5	8	31	24	M8	50	40	5	8	27
112 M	1BA2, 1BB2	2, 4	96	12	16	336	390	112	28	M10	60	50	5	8	31	24	M8	50	40	5	8	27
132 S	1CA0, 1CC0	2, 6	115.5	12	16	380.5	446	130	38	M12	80	70	5	10	41	28	M10	60	50	5	8	31
	1CA1, 1CB0	2, 4				430.5	496									–	–	–	–	–	–	–
132 M	1CC2	6	115.5	12	16	380.5	446	130	38	M12	80	70	5	10	41	28	M10	60	50	5	8	31
	1CB2, 1CC3	4, 6				430.5	496									–	–	–	–	–	–	–
160 M	1DA2, 1DA3, 1DB2, 1DC2	2, 4, 6	155	15	19	510	630	145	42	M16	110	90	10	12	45	42	M16	110	90	10	12	45
160 L	1DA4, 1DB4, 1DC4	2, 4, 6	155	15	19	570	690	145	42	M16	110	90	10	12	45	42	M16	110	90	10	12	45
180 M	1EA2, 1EB2	2, 4	151	14.5	19	698	706	145	48	M16	110	100	5	14	52	48	M16	110	100	5	14	52
180 L	1EB4, 1EC4	4, 6	151	14.5	19	698	706	145	48	M16	110	100	5	14	52	48	M16	110	100	5	14	52
200 L	2AA4, 2AA5, 2AB5, 2AC4, 2AC5	2, 4, 6	178	18.5	25	746	759	185	55	M20	110	100	5	16	59	55	M20	110	100	5	16	59

2

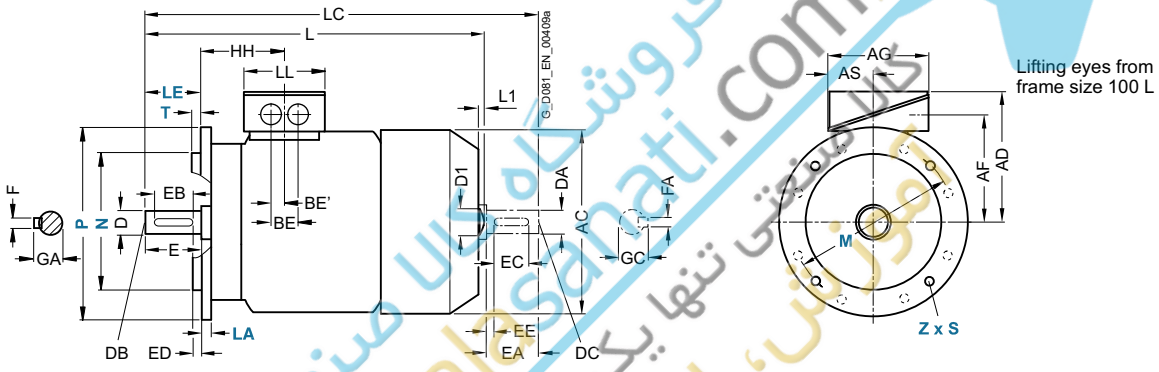
Dimensional drawings

Type of construction IM B3



Types of construction IM B5 and IM V1

For flange dimensions, see page 1/39 (**Z** = the number of retaining holes)



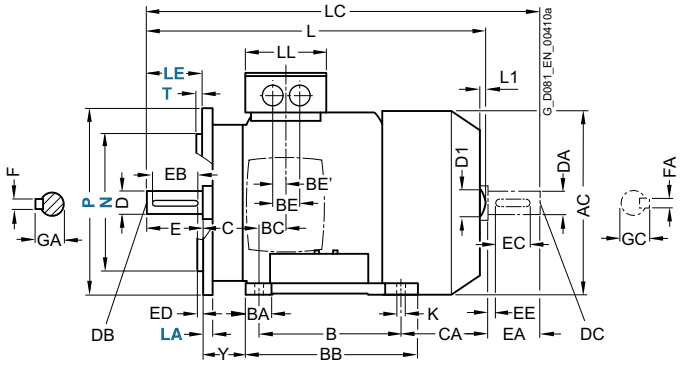
For motor			Dimension designation acc. to **IEC**																				
Frame size	Motor type 1LE1004-	No. of poles	A	AA	AB	AC	AD	AD'	AF	AF'	AG	AS	B	BA	BA'	BB	BC	BE	BE'	C	CA	H	HA	Y
100 L	1AA4 1AB4 1AB5	2 4 4	160	42	196	198	166	166	125.5	125.5	135	63.5	140	37.5	37.5	176	33.5	50	25	63	176	100	12	45
112 M	1BA2 1BB2	2 4	190	46	226	222	177	177	136.5	136.5	135	63.5	140	37.5	37.5	176	26	50	25	70	155	112	12	52
132 S	1CA0 1CA1 1CB0	2 2 4	216	53	256	262	202	202	159.5	159.5	155	70.5	140	38	76[1] –	218[2]	26.5	48	24	89	128.5 178.5	132	15	69
132 M	1CB2	4	216	53	256	262	202	202	159.5	159.5	155	70.5	178	38	76	218	26.5	48	24	89	178.5	132	15	69
160 M	1DA2 1DA3 1DB2	2 2 4	254	60	300	314	236.5	236.5	190	190	175	77.5	210	44	89[3]	300[4]	47	57	28.5	108	148[5]	160	18	85
160 L	1DA4 1DB4	2 4	254	60	300	314	236.5	236.5	190	190	175	77.5	254	44	89	300	47	57	28.5	108	208	160	18	85

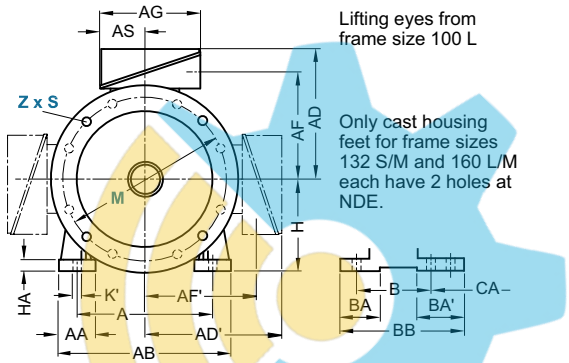
[1] With screwed-on feet, dimension BA' is 38 mm.
[2] With screwed-on feet, dimension BB is 180 mm.
[3] With screwed-on feet, dimension BA' is 44 mm.
[4] With screwed-on feet, dimension BB is 256 mm.
[5] With screwed-on feet, dimension CA is 192 mm.

Dimensional drawings (continued)

Type of construction IM B35

For flange dimensions, see page 1/39 (**Z** = the number of retaining holes)



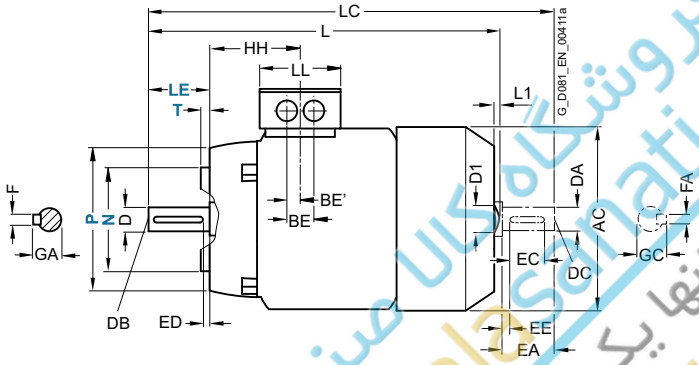


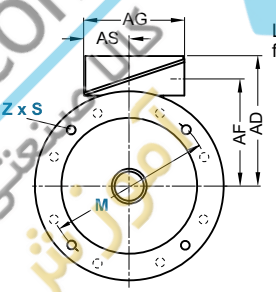
Lifting eyes from frame size 100 L

Only cast housing feet for frame sizes 132 S/M and 160 L/M each have 2 holes at NDE.

Type of construction IM B14

For flange dimensions, see page 1/39 (**Z** = the number of retaining holes)





Lifting eyes from frame size 100 L

For motor			Dimension designation acc. to **IEC**								DE shaft extension							NDE shaft extension						
Frame size	Motor type 1LE1004-	No. of poles	HH	K	K'	L[1]	L1	D1	LC	LL	D	DB	E	EB	ED	F	GA	DA	DC	EA	EC	EE	FA	GC
100 L	1AA4 1AB4 1AB5	2 4 4	96.5	12	16	430.5 480.5	7	32	489 529	112	28	M10	60	50	5	8	31	24	M8	50	40	5	8	27
112 M	1BA2 1BB2	2 4	96	12	16	414 464	7	32	475 520	112	28	M10	60	50	5	8	31	24	M8	50	40	5	8	27
132 S	1CA0 1CA1 1CB0	2 2 4	115.5	12	16	465 515	8.5	39	535.5 585.5	130	38	M12	80	70	5	10	41	28	M10	60	50	5	8	31
132 M	1CB2	4	115.5	12	16	515	8.5	39	585.5	130	38	M12	80	70	5	10	41	28	M10	60	50	5	8	31
160 M	1DA2 1DA3 1DB2	2 2 4	155	15	19	604 664	10	45	730	145	42	M16	110	90	10	12	45	42	M16	110	90	10	12	45
160 L	1DA4 1DB4	2 4	155	15	19	664	10	45	790	145	42	M16	110	90	10	12	45	42	M16	110	90	10	12	45

[1] The length is specified as far as the tip of the fan cover.