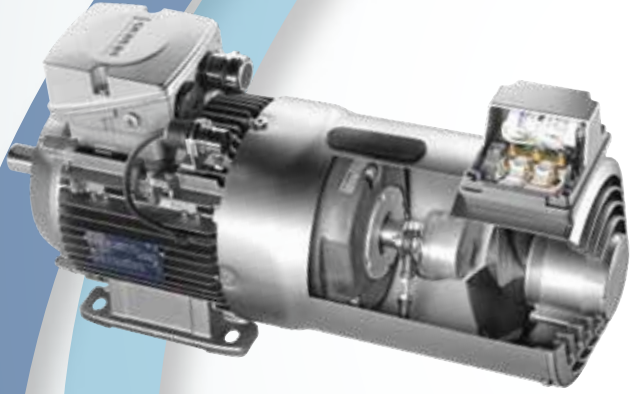


SIEMENS



- SIEMENS AC/DC ELEKTRİK MOTORLARI
- 0.18 KW-1250 KW IE2-IE3 VERİMLİLİK SINIFI MOTORLAR
- 2-4-6-8 KUTUPLU
- 56-450 ARALIĞI GÖVDE BÜYÜKLÜĞÜ
- B3-B14-B5-B35 BAĞLANTI ÇEŞİTLİLİĞİ
- MEKANİK FRENLİ,ENCODERLİ,CEBRİ FAN ,PTC VE PT100
- UYGULAMALI MOTORLAR
- EXPROOF MOTORLAR
- ALÇAK VE ORTA GERİLİM 400 V -11000 V ÇEŞİTLİLİĞİ

Overview

DIN EN 60034-1 lays down that the approximate total weight for all motors is indicated on the rating plate.

An extra rating plate can be supplied loose for all motors, order code **M10**.

A scratch, heat, cold and acid resistant rating plate made of stainless steel is available, order code **M11**.

Supplementary data (maximum of 20 characters) can be indicated on the rating plate or extra rating plate and on the packaging label, order code **Y84**.

An adhesive label can also be supplied loose, order code **Y85**.

An extra rating plate for identification codes is also possible, additional text: 9 lines of 40 characters each, order code **Y82**.

An extra rating plate or a rating plate with different rating plate data can also be ordered, order code **Y80**.

An extra lubrication plate can be supplied loose with all motors of frame sizes 100 to 315, order code **B06**.

An "extra rating plate for voltage tolerance" can also be ordered for 230 V Δ /400 VY or 400 V Δ /690 VY (voltage code "22" or "34"). Not possible for pole-changing motors, naturally cooled 1PC1 motors, 8-pole motors and in combination with order code D34. Order code **B07**.

In the standard version, the rating plate is available in international format or in the German/English language. The language for the rating plate can be ordered by specifying in plain text. An overview of the languages that can be ordered is provided by the table below.

Overview of the languages on the rating plate

Motor type	Frame size	Rating plate	
		International/ German (de)	English (en)
1LE1	80 ... 160	☐	○
1LE15/6	180 ... 315	☐	○
1MB1	100 ... 160	☐	○
1PC1	100 ... 160	☐	○

Standard version
Without additional charge

Other languages on request

Examples of rating plates

SIEMENS		Made in Germany		TH.CL 155(F)		CE	
3-Mot. 1LE10010EA422AA4		F no UD 1203/1420830 001 1		IEC/EN 60034 FS 90L		IM B3 IP 55 WT 16 kg	
V	Hz	kW	A	PF	RPM	EFF-CL	ETA %
230 Δ	50	2.2	7.8	0.85	2890	IE2	83.2
400 Y	50	2.2	4.50	0.85	2890	IE2	83.2
460 Y	60	2.55	4.35	0.86	3485	IE2	85.5

SIEMENS		Made in Czech Republic		UD 1203/1420830 001		IE3 H CE	
3-Mot. 1LE10030EA422AA4-Z		F no UD 1203/1420830 001		IEC/EN 60034 90L		IM B3 IP 55	
20 kg		Th.Cl. 155(F)		-20°C<=TAMB<=40°C			
Bearing		DE 6205-2ZC3		NE 6004-2ZC3			
V	Hz	A	kW	cos ϕ	NOM.EFF	1/min	IE-CL
230 Δ	50	7.3	2.2	0.88	85.9	2910	IE3
400 Y	50	4.20	2.2	0.88	85.9	2910	IE3
460 Y	60	4.20	2.55	0.88	86.5	3510	IE3
460 Y	60	3.65	2.2	0.87	86.5	3530	IE3

SIEMENS		Made in Czech Republic		UD 1203/1420830 001		IE3 H CE	
3-Mot. 1LE10231DA222AA4		F no UD 1203/1420830 001		IEC/EN 60034 160M		IM B3 IP 55	
75 kg		Th.Cl. 155(F)		-20°C<=TAMB<=40°C			
Bearing		DE 6209-2ZC3		NE 6209-2ZC3			
60Hz: SF 1.15		CONT NEMA MG1 12-12		TEFC Design A		15.0 HP	
V	Hz	A	kW	PF	NOM.EFF	rpm	IE-CL
230 Δ	50	35.0	11.0	0.87	91.2	2955	IE3
400 Y	50	20.0	11.0	0.87	91.2	2955	IE3
460 Y	60	19.5	12.6	0.89	91.0	3555	IE3
460 Y	60	17.2	11.0	0.88	91.0	3560	MG1

SIEMENS		Made in Germany		UD 1202/5331139_01001		IE2 CE	
3-Mot. 1LE1001-1DA234AA4		F no UD 1202/5331139_01001		IEC/EN 60034 160M		IM B3 IP 55	
67kg		Th.Cl. 155(F)		-20°C<=TAMB<=40°C			
Bearing		DE 6209-2ZC3		NE 6209-2ZC3			
V	Hz	A	kW	COS	NOM.EFF	1/min	IE-CL
400 D	50	20.5	11.0	0.87	89.4%	2955	IE2
690 Y	50	11.8	11.0	0.87	89.4%	2955	IE2
450 D	60	19.9	12.6	0.88	90.2%	3555	IE2
460 D	60	17.8	11.0	0.86	90.2%	3560	IE2

- Type of machine: AC low-voltage motor
- Article No.
- Factory number (Ident.-No., serial number)
- Type of construction
- Degree of protection
- Rated voltage [V] and winding connections
- Frequency [Hz]
- Rated current [A]
- Rated output [kW]
- Power factor (cos ϕ)
- Efficiency
- Rated torque [rpm]
- IE Efficiency Class
- Standards and specifications
- Weight of machine [kg]
- Temperature class
- Frame size
- Supplementary data (optional)
- Operating temperature range (only when deviating from the standard)
- Site altitude (only if higher than 1000 m)
- Customer information (optional)
- Date of manufacturing YYMM
- Half-key balancing
- Code letter "CL"













Introduction

General technical specifications


Types of construction

Overview

Standard types of construction and special types of construction











Type of construction acc. to DIN EN 60034-7		Frame size	Letter 14th position of the Article No.	Additional identification code -Z with order code
Without flange				
IM B3		80 to 315	A	-
IM B6/IM 1051		80 to 315	T	-
IM B7/IM 1061		80 to 315	U	-
IM B8/IM 1071		80 to 315	V	-
IM V5/IM1011 without protective cover		80 to 315	C ¹⁾	-
IM V6/IM 1031		80 to 315	D	-
IM V5/IM 1011 with protective cover		80 to 315	C	+ H00 ²⁾
With flange				
IM B5/IM 3001		80 to 315	F	-
IM V1/IM 3011 without protective cover		80 to 315	G ²⁾	-
IM V1/IM 3011 with protective cover		80 to 315	G	+ H00 ²⁾
IM V3/IM 3031		80 to 315	H	-
IM B35/IM 2001		80 to 315	J	-

In the DIN EN 50347 standard, flanges FF with through holes and flanges FT with tapped holes are specified.

¹⁾  The following applies for explosion-proof motors:
In the case of the types of construction with shaft extension down, the version "with protective cover" is required. For types of construction with shaft extension pointing upwards, a suitable cover must be implemented to prevent small parts from falling into the fan cover (see the standard IEC/EN 60079-0). The cover must not block the cooling air flow.

²⁾ Second **L05** shaft extension is not possible.

Overview (continued)


Type of construction acc. to DIN EN 60034-7		Frame size	Letter 14th position of the Article No.	Additional identification code -Z with order code
With standard flange				
IM B14/IM 3601		80 to 315	K	–
IM V19/IM 3631		80 to 315	L	–
IM V18/IM 3611 without protective cover		80 to 315	M ¹⁾	–
IM V 18/IM 3611 with protective cover		80 to 315	M	+ H00 ²⁾
IM B34/IM 2101		80 to 315	N	–
With special flange				
IM B14/IM 3601		80 to 315	K	+ P01
IM V19/IM 3631		80 to 315	L	+ P01
IM V18/IM 3611 without protective cover		80 to 315	M ¹⁾	+ P01
IM V 18/IM 3611 with protective cover		80 to 315	M	+ P01 + H00 ²⁾
IM B34/IM 2101		80 to 315	N	+ P01

In DIN EN 50347, standard flanges are assigned to the frame sizes as FT with tapped holes. For flange dimensions, please refer to the relevant section of the catalog.

The dimensions of the following types of construction are identical:
IM B3, IM B6, IM B7, IM B8, IM V5 and IM V6
IM B5, IM V1 and IM V3
IM B14, IM V18 and IM V19

Motors in the standard output range can be ordered in basic types of construction IM B3, IM B5 or IM B14 and operated in mounting positions IM B6, IM B7, IM B8, IM V5, IM V6, IM V1, IM V3 (up to frame size 160 L) or IM V18 and IM V19. Eyebolts are available for transport and installation in a horizontal position. In conjunction with the eyebolts, for the purpose of stabilizing the position when the motor is arranged vertically, additional lifting straps (DIN EN 1492-1) and/or clamping bands (DIN EN 12195-2) must be used.

If mounting position IM V1 is ordered, eyebolts are supplied for vertical mounting.

¹⁾  The following applies for explosion-proof motors:
In the case of the types of construction with shaft extension down, the version "with protective cover" is required. For types of construction with shaft extension pointing upwards, a suitable cover must be implemented to prevent small parts from falling into the fan cover (see the standard IEC/EN 60079-0). The cover must not block the cooling air flow.

The motors are designated in accordance with the types of construction on the rating plate.

With motors that have a vertical shaft extension, the end user must prevent an ingress of fluid along the shaft. In the case of all types of construction with shaft end down, the version "with protective cover" is urgently recommended, see the section "Degrees of protection" on Page 1/35.

Frame design

Motors in the types of construction with feet have, in some case, two fixing holes at the non-drive end (NDE), see dimension tables on Pages 2/68 to 2/92.

A sheet metal fan cover is included as standard for horizontal types of construction and types of construction with shaft pointing upwards (14th position of article number letter **A, T, U, V, D, F, H, J, K, L, N**) on motors up to FS160 in combination with condensation drainage holes, order code **H03**.

²⁾ Second **L05** shaft extension is not possible.

Introduction

General technical specifications

Bearings and lubrication

Overview (continued)

Bearing selection table for 1LE10, 1MB10 and 1PC10 motors – basic version

The bearing selection tables are only intended for planning purposes. Authoritative information on the actual type of bearings fitted in motors already supplied can be obtained by the factory by quoting the serial number or can be read from the rating plate.

When deep-groove bearings with side plates are used, the side plate is on the inside. Located bearing at drive end (DE) for 1LE1, 1MB1 and 1PC1 motors, see special version Figure 2 in the "Diagrams of bearings" on Page 1/44.

Frame size	No. of poles	Drive end (DE) bearing		Non-drive end (NDE) bearing		Figure No. on Page 1/44
		Horizontal type of construction	Vertical type of construction	Horizontal type of construction	Vertical type of construction	
1LE10						
80	2 to 8	6004 2ZC3	6004 2ZC3	6004 2ZC3	6004 2ZC3	Fig. 1
90	2 to 8	6205 2ZC3	6205 2ZC3	6004 2ZC3	6004 2ZC3	Fig. 1
1LE10/1MB10/1PC10						
100 L	2 to 8	6206 2ZC3	6206 2ZC3	6206 2ZC3	6206 2ZC3	Fig. 1
112 M	2 to 8	6206 2ZC3	6206 2ZC3	6206 2ZC3	6206 2ZC3	Fig. 1
132 S/M	2 to 8	6208 2ZC3 ¹⁾	6208 2ZC3 ¹⁾	6208 2ZC3 ¹⁾	6208 2ZC3 ¹⁾	Fig. 1
160 M/L	2 to 8	6209 2ZC3 ¹⁾	6209 2ZC3 ¹⁾	6209 2ZC3 ¹⁾	6209 2ZC3 ¹⁾	Fig. 2

Bearing selection table for 1LE10, 1MB10 and 1PC10 motors – Bearings for increased cantilever forces – Order code L22

Please inquire about noise and vibration data. The bearing selection tables are only intended for planning purposes. Authoritative information on the actual type of bearings fitted in motors already supplied can be obtained by the factory by

quoting the serial number or can be read from the rating plate. When deep-groove bearings with side plates are used, the side plate is on the inside.

Frame size	No. of poles	Drive end (DE) bearing		Non-drive end NDE bearing		Figure No. on Page 1/44
		Horizontal type of construction	Vertical type of construction	Horizontal type of construction	Vertical type of construction	
1LE10						
80/90	2 to 8	Available soon	Available soon	Available soon	Available soon	Available soon
1LE10/1MB10/1PC10						
100 L	2 to 8	6306 2ZC3 ¹⁾	6306 2ZC3 ¹⁾	6206 2ZC3 ¹⁾	6206 2ZC3 ¹⁾	Fig. 1
112 M	2 to 8	6306 2ZC3 ¹⁾	6306 2ZC3 ¹⁾	6206 2ZC3 ¹⁾	6206 2ZC3 ¹⁾	
132 S/M	2 to 8	6308 2ZC3 ¹⁾	6308 2ZC3 ¹⁾	6208 2ZC3 ¹⁾	6208 2ZC3 ¹⁾	
160 M/L	2 to 8	6309 2ZC3 ¹⁾	6309 2ZC3 ¹⁾	6209 2ZC3 ¹⁾	6209 2ZC3 ¹⁾	Fig. 2

Bearing selection table for 1LE10, 1MB10 and 1PC10 motors – Deep-groove bearings reinforced at both ends – Order code L25

Please inquire about noise and vibration data. The bearing selection tables are only intended for planning purposes. Authoritative information on the actual type of bearings fitted in motors already supplied can be obtained by the factory by

quoting the serial number or can be read from the rating plate. When deep-groove bearings with side plates are used, the side plate is on the inside.

Frame size	No. of poles	Drive end (DE) bearing		Non-drive end (NDE) bearing		Figure No. on Page 1/44
		Horizontal type of construction	Vertical type of construction	Horizontal type of construction	Vertical type of construction	
1LE10						
80/90	2 to 8	Available soon	Available soon	Available soon	Available soon	Available soon
1LE10/1MB10/1PC10						
100 L	2 to 8	6306 2ZC3 ¹⁾	6306 2ZC3 ¹⁾	6306 2ZC3 ¹⁾	6306 2ZC3 ¹⁾	Fig. 1
112 M	2 to 8	6306 2ZC3 ¹⁾	6306 2ZC3 ¹⁾	6306 2ZC3 ¹⁾	6306 2ZC3 ¹⁾	
132 S/M	2 to 8	6308 2ZC3 ¹⁾	6308 2ZC3 ¹⁾	6308 2ZC3 ¹⁾	6308 2ZC3 ¹⁾	
160 M/L	2 to 8	6309 2ZC3 ¹⁾	6309 2ZC3 ¹⁾	6309 2ZC3 ¹⁾	6309 2ZC3 ¹⁾	Fig. 2

¹⁾ Bearings with a side plate are used for regreasable versions (order code **L23**).

Overview (continued)

Bearing selection table for 1LE15 and 1LE16 motors (basic version)

Frame size	No. of poles	Drive end (DE) bearing Horizontal and vertical type of construction	Non-drive end (NDE) bearing Horizontal and vertical type of construction	Figure No. on Page 1/44
1LE15 – Basic Line				
100 L	2 to 8	6206 2ZC3 ¹⁾	6206 2ZC3 ¹⁾	
112 M	2 to 8	6206 2ZC3 ¹⁾	6206 2ZC3 ¹⁾	
132 S/M	2 to 8	6208 2ZC3 ¹⁾	6208 2ZC3 ¹⁾	
160 M/L	2 to 8	6209 2ZC3 ¹⁾	6209 2ZC3 ¹⁾	
180 M/L	2 to 8	6210 ZC3 ²⁾	6210 ZC3 ²⁾	
200 L	2 to 8	6212 ZC3 ²⁾	6212 ZC3 ²⁾	
225 S/M	2 to 8	6213 ZC3 ²⁾	6213 ZC3 ²⁾	Fig. 1
250 M	2 to 8	6215 ZC3 ²⁾	6215 ZC3 ²⁾	
280 S/M	2	6315 C3	6315 C3	Fig. 2
	4 to 8	6317 C3	6317 C3	
315 S/M/L	2	6316 C3	6316 C3	
	4 to 8	6319 C3	6319 C3	
1LE16 – Performance Line				
100 L	2 to 8	6306 2ZC3	6306 2ZC3	
112 M	2 to 8	6306 2ZC3	6306 2ZC3	
132 S/M	2 to 8	6308 2ZC3	6308 2ZC3	
160 M/L	2 to 8	6309 ZC3	6309 ZC3	
180 M/L	2 to 8	6310 C3	6310 C3	
200 L	2 to 8	6312 C3	6312 C3	
225 S/M	2 to 8	6313 C3	6313 C3	Fig. 3
250 M	2 to 8	6315 C3	6315 C3	
280 S/M	2	6315 C3	6315 C3	
	4 to 8	6317 C3	6317 C3	
315 S/M/L	2	6316 C3	6316 C3	
	4 to 8	6319 C3	6319 C3	

Bearing selection table for 1LE15 and 1LE16 motors (bearings for increased cantilever forces – Order code L22)

Frame size	No. of poles	Drive end (DE) bearing Horizontal and vertical type of construction	Non-drive end (NDE) bearing Horizontal and vertical type of construction	Figure No. on Page 1/44
1LE15 – Basic Line				
100 L	2 to 8	6306 2ZC3	6206 2ZC3	
112 M	2 to 8	6306 2ZC3	6206 2ZC3	
132 S/M	2 to 8	6308 2ZC3	6208 2ZC3	
160 M/L	2 to 8	6309 2ZC3	6209 2ZC3	
180 M/L	2 to 8	NU 210	6210 C3	
200 L	2 to 8	NU 212	6212 C3	
225 S/M	2 to 8	NU 213	6213 C3	Fig. 4
250 M	2 to 8	NU 215	6215 C3	
280 S/M	2	NU315	6315 C3	Fig. 5
	4 to 8	NU317	6317 C3	
315 S/M/L	2	NU316	6316 C3	
	4 to 8	NU319	6319 C3	
1LE16 – Performance Line				
100 L	2 to 8	³⁾		
112 M	2 to 8	³⁾		
132 S/M	2 to 8	³⁾		
160 M/L	2 to 8	³⁾		
180 M/L	2 to 8	NU 310	6310	
200 L	2 to 8	NU 312	6312	
225 S/M	2 to 8	NU 313	6313	Fig. 6
250 M	2 to 8	NU 315	6315	
280 S/M	2	NU315	6315 ⁴⁾	
	4 to 8	NU317	6317 ⁴⁾	
315 S/M/L	2	NU316	6316 ⁴⁾	
	4 to 8	NU319	6319 ⁴⁾	

¹⁾ Deep-groove bearings with a side plate are used for regreasable versions (L23).

²⁾ Deep-groove bearings without a side plate are used for regreasable versions (L23).

³⁾ Not permitted.

⁴⁾ As for basic version.

Introduction

General technical specifications

Bearings and lubrication

Overview (continued)

Bearing selection table for 1LE15 and 1LE16 motors (deep-groove bearings reinforced at both ends – Order code L25, for 1LE16 motors – standard)

Frame size	No. of poles	Drive end (DE) bearing		Non-drive end (NDE) bearing		Figure No. on Page 1/44
		Horizontal type of construction	Vertical type of construction	Horizontal type of construction	Vertical type of construction	
1LE15 – Basic Line						
100 L	2 to 8	6306 2ZC3 ³⁾	6306 2ZC3 ³⁾	6306 2ZC3 ³⁾	6306 2ZC3 ³⁾	
112 M	2 to 8	6306 2ZC3 ³⁾	6306 2ZC3 ³⁾	6306 2ZC3 ³⁾	6306 2ZC3 ³⁾	
132 S/M	2 to 8	6308 2ZC3 ³⁾	6308 2ZC3 ³⁾	6308 2ZC3 ³⁾	6308 2ZC3 ³⁾	
160 M/L	2 to 8	6309 2ZC3 ³⁾	6309 2ZC3 ³⁾	6309 2ZC3 ³⁾	6309 2ZC3 ³⁾	
180 M/L	2 to 8	6310 ZC3 ¹⁾	6310 ZC3 ¹⁾	6310 ZC3 ¹⁾	6310 ZC3 ¹⁾	
200 L	2 to 8	6312 ZC3 ¹⁾	6312 ZC3 ¹⁾	6312 ZC3 ¹⁾	6312 ZC3 ¹⁾	
225 S/M	2 to 8	6313 ZC3 ¹⁾	6313 ZC3 ¹⁾	6313 ZC3 ¹⁾	6313 ZC3 ¹⁾	Fig. 4
250 M	2 to 8	6315 ZC3 ¹⁾	6315 ZC3 ¹⁾	6315 ZC3 ¹⁾	6315 ZC3 ¹⁾	
280 S/M	2	6315 C3 ²⁾	6315 C3 ²⁾	6315 C3 ²⁾	6315 C3 ²⁾	
	4 to 8	6317 C3 ²⁾	6317 C3 ²⁾	6317 C3 ²⁾	6317 C3 ²⁾	
315 S/M/L	2	6316 C3 ²⁾	6316 C3 ²⁾	6316 C3 ²⁾	6316 C3 ²⁾	
	4 to 8	6319 C3 ²⁾	6319 C3 ²⁾	6319 C3 ²⁾	6319 C3 ²⁾	
1LE16 – Performance Line – bearings of size 63 are standard bearings						

¹⁾ Deep-groove bearings without a side plate are used for regreasable versions (**L23**).

²⁾ As for basic version.

³⁾ Deep-groove bearings with a side plate are used for regreasable versions (**L23**).

SIMOTICS GP 1LE1 Standard Motors

Motors with High Efficiency IE2

IE2

Self-ventilated or forced-air cooled motors

Selection and ordering data

P _{rated} , 50 Hz		P _{rated} , 60 Hz		Frame size	Operating values at rated output										Aluminum series 1LE1001 – IE2 version in accordance with IEC 60034-30 Article No.	m _{IM B3}	J	Torque class	
kW	kW	FS	rpm		Nm	%	%	%	cos φ	I _{rated} , 50 Hz	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
• Cooling: self-ventilated (IC 411) or with order code F90 forced-air cooled without external fan and fan cover (IC 416) • Efficiency: High Efficiency IE2, 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	77.4	79.5	78.8	0.84	1.67	1.9	4.9	2.3	60	71	1LE1001-0DA2	9.0	0.00080	16
1.1	1.27	80 M	2835	3.7	IE2	79.6	81.3	80.8	0.83	2.40	2.7	6.0	3.1	60	71	1LE1001-0DA3	11	0.0011	16
1.5	1.75	90 S	2885	5.0	IE2	81.3	82.3	80.8	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	83.2	83.9	82.3	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	84.6	85.2	84.7	0.84	6.1	2.3	7.0	3.3	67	79	1LE1001-1AA4	21	0.0044	16
4	4.55	112 M	2950	13	IE2	85.8	86.7	86.1	0.86	7.8	2.4	7.4	3.3	69	81	1LE1001-1BA2	27	0.0092	16
5.5	6.3	132 S	2950	18	IE2	87.0	88.0	87.4	0.87	10.5	1.8	6.6	2.9	68	80	1LE1001-1CA0	39	0.020	16
7.5	8.6	132 S	2950	24	IE2	88.1	88.7	88.6	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	89.4	90.0	89.1	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	90.3	90.9	90.3	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	90.9	91.2	90.4	0.88	33.5	2.9	7.9	3.6	70	82	1LE1001-1DA4	84	0.061	16
4-pole: 1500 rpm at 50 Hz, 1800 rpm at 60 Hz ¹⁾																			
0.55	0.63	80 M	1440	3.7	–	78.1	78.9	76.1	0.74	1.37	2.2	5.3	3.1	53	64	1LE1001-0DB2	10	0.0017	16
0.75	0.86	80 M	1440	5.0	IE2	79.6	80.2	78.0	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	81.4	81.7	79.9	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	82.8	83.5	82.0	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	84.3	85.1	84.3	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	85.5	86.7	86.0	0.82	6.2	2.0	6.9	3.1	60	72	1LE1001-1AB5	25	0.011	16
4	4.55	112 M	1460	26	IE2	86.6	87.3	86.5	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	87.7	89.0	87.7	0.80	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	88.7	90.3	88.8	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	89.8	90.9	90.8	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	90.6	91.3	91.0	0.85	28	2.3	7.3	3.0	65	77	1LE1001-1DB4	83	0.083	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 V Δ/400 VY	60 Hz ¹⁾	460 VY	PTC thermistor with 1 temp. sensor	2, 4	80 M ... 90 L	1LE1001-0D ... -0E	Standard	2	2	B	–							
50 Hz	400 V Δ/690 VY	60 Hz ¹⁾	460 V Δ	Without	2, 4	80 M ... 90 L	1LE1001-0D ... -0E	Standard	3	4	B	–							
50 Hz	400 VY	60 Hz ¹⁾	460 VY	Without	2, 4	80 M ... 90 L	1LE1001-0D ... -0E	Standard	0	2	A	–							
Frame sizes 100 L to 160 L: use of the 4 × 90° rotatable connection box																			
50 Hz	230 V Δ/400 VY	60 Hz ¹⁾	460 VY	Any	2, 4	100 L ... 160 L	1LE1001-1A ... -1D	Standard	2	2	–	–							
50 Hz	400 V Δ/690 VY	60 Hz ¹⁾	460 V Δ	Any	2, 4	100 L ... 160 L	1LE1001-1A ... -1D	Standard	3	4	–	–							
50 Hz	500 VY		Any	Any	2, 4	100 L ... 160 L	1LE1001-1A ... -1D	Without add. charge	2	7	–	–							
50 Hz	500 V Δ		Any	Any	2, 4	100 L ... 160 L	1LE1001-1A ... -1D	Without add. charge	4	0	–	–							
Further voltages ¹⁾		For additional charges, code numbers, order codes and descriptions, see from Page 2/38																	
Types of construction																			
Without flange		IM B3 ³⁾			2, 4	80 M ... 160 L	1LE1001-0D ... -1D	Standard	A			–							
With flange		IM B5 ³⁾			2, 4	80 M ... 160 L	1LE1001-0D ... -1D	With additional charge	F			–							
With standard flange		IM B14 ³⁾			2, 4	80 M ... 160 L	1LE1001-0D ... -1D	With additional charge	K			–							
Further types of construction		For additional charges, code letters and descriptions, see from Page 2/41																	
Motor protection																			
Without				No. of poles	Frame size	Motor type	Version				Order code(s)								
Without				2, 4	100 L ... 160 L	1LE1001-1A ... -1D	Standard	A			–								
PTC thermistor with 3 temperature sensors				2, 4	100 L ... 160 L	1LE1001-1A ... -1D	With additional charge	B			–								
Further motor protection		For additional charges, code letters and descriptions, see from Page 2/47																	
Connection box position																			
Connection box at top				No. of poles	Frame size	Motor type	Version				Order code(s)								
Connection box at top				2, 4	80 M ... 160 L	1LE1001-0D ... -1D	Standard	4			–								
Further connection box positions		For additional charges, code numbers and descriptions, see from Page 2/49																	
Special versions																			
Forced-air cooled motors without ext. fan/fan cover (IC 416)				No. of poles	Frame size	Motor type	Version				Order code(s)								
Options				2, 4	80 M ... 160 L	1LE1001-0D ... -1D	1LE1001-... -Z F90 +...+...+...				–								
Options				2, 4	80 M ... 160 L	1LE1001-0D ... -1D	1LE1001-... -Z ...+...+...+...				–								

¹⁾ Operating values at rated output for 60 Hz are available on request.

²⁾ For converter-fed 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) 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.

SIMOTICS GP 1LE1 Standard Motors

Motors with High Efficiency IE2

Self-ventilated or forced-air cooled motors
Aluminum series 1LE1001

IE2

Selection and ordering data (continued)

P _{rated} 50 Hz kW	P _{rated} 60 Hz kW	Frame size	Operating values at rated output													Aluminum series 1LE1001 – IE2 version in accordance with IEC 60034-30 Article No.	m _{IM B3}	J	Torque class	
			n _{rated} 50 Hz rpm	T _{rated} 50 Hz Nm	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 A	T _{LR} / T _{ra} 50 Hz	I _{LR} / I _{ra} 50 Hz	T _B / T _{ra} 50 Hz	L _{pfA} 50 Hz dB(A)	L _{WA} 50 Hz dB(A)					
<ul style="list-style-type: none"> Cooling: self-ventilated (IC 411) or with order code F90 forced-air cooled without external fan and fan cover (IC 416) Efficiency: High Efficiency IE2, 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	3.85	-	71.4	71.5	66.5	0.69	1.08	2.1	4.0	2.4	42	53	1LE1001-0DC2	9	0.0017	16	
0.55	0.63	80 M	935	5.6	-	74.0	74.0	70.5	0.66	1.63	2.5	4.4	2.9	42	53	1LE1001-0DC3	12	0.0025	16	
0.75	0.86	90 S	925	7.7	IE2	75.9	76.0	73.0	0.70	2.05	2.0	4.1	2.5	43	55	1LE1001-0EC0	13	0.0030	16	
1.1	1.27	90 L	935	11.2	IE2	78.1	78.5	75.0	0.70	2.90	2.2	4.4	2.6	43	55	1LE1001-0EC4	16	0.0040	16	
1.5	1.75	100 L	970	15	IE2	79.8	80.2	79.0	0.73	3.7	2.0	6.2	2.9	59	71	1LE1001-1AC4	25	0.011	16	
2.2	2.55	112 M	965	22	IE2	81.8	82.5	81.3	0.75	5.2	2.1	6.0	3.1	57	69	1LE1001-1BC2	29	0.014	16	
3	3.45	132 S	970	30	IE2	83.3	84.0	82.8	0.74	7.0	1.6	5.6	2.6	63	75	1LE1001-1CC0	38	0.024	13	
4	4.55	132 M	970	39	IE2	84.6	85.8	85.0	0.78	8.7	1.6	5.6	2.5	63	75	1LE1001-1CC2	43	0.029	13	
5.5	6.3	132 M	970	54	IE2	86.0	87.4	87.0	0.77	12	1.9	6.1	2.8	63	75	1LE1001-1CC3	52	0.037	16	
7.5	8.6	160 M	975	73	IE2	87.2	87.7	86.9	0.77	16.1	1.8	6.3	2.8	67	79	1LE1001-1DC2	77	0.075	16	
11	12.6	160 L	975	108	IE2	88.7	89.5	89.4	0.80	22.5	1.7	6.2	2.7	67	79	1LE1001-1DC4	93	0.098	16	
8-pole: 750 rpm at 50 Hz, 900 rpm at 60 Hz ¹⁾																				
0.75	0.86	100 L	725	9.9	-	68.3	65.8	59.3	0.58	2.75	1.6	4.0	2.8	60	72	1LE1001-1AD4	21	0.0086	13	
1.1	1.27	100 L	725	14	-	68.3	65.4	58.9	0.58	4.0	1.8	4.1	2.8	60	72	1LE1001-1AD5	25	0.011	13	
1.5	1.75	112 M	720	20	-	75.8	76.0	73.0	0.67	4.25	1.4	4.2	2.4	63	75	1LE1001-1BD2	29	0.014	13	
2.2	2.55	132 S	725	29	-	78.8	79.3	77.2	0.65	6.2	1.4	4.3	2.1	63	75	1LE1001-1CD0	41	0.027	10	
3	3.45	132 M	730	39	-	82.7	83.0	80.9	0.65	8.1	1.4	5.0	2.4	63	75	1LE1001-1CD2	49	0.035	10	
4	4.55	160 M	730	52	-	86.2	86.9	86.0	0.69	9.7	1.8	4.3	2.0	63	75	1LE1001-1DD2	69	0.065	13	
5.5	6.3	160 M	730	72	-	86.7	87.5	86.5	0.69	13.3	2.1	4.4	2.1	63	75	1LE1001-1DD3	82	0.083	13	
7.5	8.6	160 L	730	98	-	86.9	88.2	88.1	0.72	17.3	1.9	4.5	2.1	63	75	1LE1001-1DD4	94	0.098	13	
Voltages			No. of poles	Frame size	Motor type	Version				Order code(s)										
Frame sizes 80 M to 90 L ²⁾																				
50 Hz	230 V Δ/400 VY	60 Hz ¹⁾	460 VY	PTC thermistor with 1 temp. sensor	6	80 M ... 90 L	1LE1001-0D ... -0E	Standard	2	2	B	-								
50 Hz	400 V Δ/690 VY	60 Hz ¹⁾	460 V Δ		6	80 M ... 90 L	1LE1001-0D ... -0E	Standard	3	4	B	-								
50 Hz	400 VY	60 Hz ¹⁾	460 VY	Without	6	80 M ... 90 L	1LE1001-0D ... -0E	Standard	0	2	A	-								
Frame sizes 100 L to 160 L: use of the 4 × 90° rotatable connection box																				
50 Hz	230 V Δ/400 VY	60 Hz ¹⁾	460 VY		6, 8	100 L ... 160 L	1LE1001-1A ... -1D	Standard	2	2	-	-								
50 Hz	400 V Δ/690 VY	60 Hz ¹⁾	460 V Δ		6, 8	100 L ... 160 L	1LE1001-1A ... -1D	Standard	3	4	-	-								
50 Hz	500 VY				6, 8	100 L ... 160 L	1LE1001-1A ... -1D	Without add. charge	2	7	-	-								
50 Hz	500 V Δ				6, 8	100 L ... 160 L	1LE1001-1A ... -1D	Without add. charge	4	0	-	-								
Further voltages ¹⁾											9	0	...							
Types of construction														Order code(s)						
Without flange			IM B3 ³⁾		6, 8	80 M ... 160 L	1LE1001-0D ... -1D	Standard	A	-	-									
With flange			IM B5 ³⁾		6, 8	80 M ... 160 L	1LE1001-0D ... -1D	With additional charge	F	-	-									
With standard flange			IM B14 ³⁾		6, 8	80 M ... 160 L	1LE1001-0D ... -1D	With additional charge	K	-	-									
Further types of construction														...						
Motor protection														Order code(s)						
Frame sizes 100 L to 160 L: use of the 4 × 90° rotatable connection box																				
Without					6, 8	100 L ... 160 L	1LE1001-1A ... -1D	Standard	A	-	-									
PTC thermistor with 3 temperature sensors					6, 8	100 L ... 160 L	1LE1001-1A ... -1D	With additional charge	B	-	-									
Further motor protection														...						
Connection box position														Order code(s)						
Connection box at top					6, 8	80 M ... 160 L	1LE1001-0D ... -1D	Standard	4	-	-									
Further connection box positions														For additional charges, code numbers and descriptions, see from Page 2/49						
Special versions														Order code(s)						
Forced-air cooled motors without ext. fan/fan cover (IC 416)											1LE1001-	...	-Z	F90	+	+	+	+	+	+
Options											1LE1001-	...	-Z	...	+	+	+	+	+	

¹⁾ Operating values at rated output for 60 Hz are available on request.

²⁾ For converter-fed 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) 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.

SIMOTICS SD 1LE1 Standard Motors

Motors with High Efficiency IE2

IE2

Self-ventilated motors Cast-iron series 1LE1501/1LE1601 Basic/Performance Line

Selection and ordering data

Operating values at rated output														Cast-iron series		m _{IM B3} J		Torque class			
P _{rated} , 50 Hz	P _{rated} , 60 Hz	Frame size	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	1LE1501 – Basic Line	1LE1601 – Performance Line	kg	kgm ²	CL	
kW	kW	FS	rpm	Nm		%	%	%		A				dB(A)	dB(A)						
<ul style="list-style-type: none"> Cooling: self-ventilated (IC 411) Efficiency: High Efficiency IE2, 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	2905	9.9	IE2	84.6	85.2	84.7	0.84	6.1	2.3	7.0	3.3	67	79	1LE1 01-1AA4	32	0.0044	16		
4	4.55	112 M	2950	13	IE2	85.8	86.7	86.1	0.86	7.8	2.4	7.4	3.3	69	81	1LE1 01-1BA2	39	0.0092	16		
5.5	6.3	132 S	2950	18	IE2	87.0	88.0	87.4	0.87	10.5	1.8	6.6	2.9	68	80	1LE1 01-1CA0	57	0.020	16		
7.5	8.6	132 S	2950	24	IE2	88.1	88.7	88.6	0.87	14.1	2.2	7.5	3.1	68	80	1LE1 01-1CA1	61	0.024	16		
11	12.6	160 M	2955	36	IE2	89.4	90.0	89.1	0.87	20.5	2.1	7.4	3.2	70	82	1LE1 01-1DA2	96	0.045	16		
15	17.3	160 M	2955	48	IE2	90.3	90.9	90.3	0.88	27	2.4	7.6	3.4	70	82	1LE1 01-1DA3	104	0.053	16		
18.5	21.3	160 L	2955	60	IE2	90.9	91.2	90.4	0.88	33.5	2.9	7.9	3.6	70	82	1LE1 01-1DA4	113	0.061	16		
22	24.5	180 M	2940	71	IE2	91.3	91.8	91.4	0.87	40.5	2.7	7.4	3.6	68	81	1LE1 01-1EA2	145	0.069	16		
30	33.5	200 L	2955	97	IE2	92.0	92.3	91.7	0.87	54	2.5	6.9	3.3	71	84	1LE1 01-2AA4	200	0.13	16		
37	41.5	200 L	2960	119	IE2	92.5	92.8	92.3	0.88	66	2.7	7.4	3.5	71	84	1LE1 01-2AA5	225	0.15	16		
45	51	225 M	2965	145	IE2	92.9	93.1	92.5	0.88	79	2.7	7.8	3.7	71	84	1LE1 01-2BA2	295	0.23	16		
55	62	250 M	2970	177	IE2	93.2	93.3	92.4	0.89	96	2.3	6.8	3.1	74	88	1LE1 01-2CA2	360	0.40	13		
75	84	280 S	2978	240	IE2	93.8	93.6	92.4	0.87	133	2.5	7.2	3.2	74	88	1LE1 01-2DA0	490	0.71	13		
90	101	280 M	2975	289	IE2	94.1	94.2	93.5	0.88	157	2.5	7.1	3.1	74	88	1LE1 01-2DA2	530	0.83	13		
110	123	315 S	2982	352	IE2	94.3	94.2	93.3	0.90	187	2.4	7.3	3.0	76	90	1LE1 01-3AA0	720	1.3	13		
132	148	315 M	2982	423	IE2	94.6	94.7	94.1	0.91	220	2.4	7.2	3.1	76	90	1LE1 01-3AA2	880	1.6	13		
160	180	315 L	2982	512	IE2	94.8	94.9	94.3	0.92	265	2.3	7.0	3.1	78	93	1LE1 01-3AA4	930	1.8	13		
200	224	315 L	2982	640	IE2	95.0	95.2	94.8	0.92	330	2.4	7.1	3.0	78	93	1LE1 01-3AA5	1130	2.2	13		
Relubrication		Motor protection		Fan cover		Bearing size		Converter-fed operation, motor mode		Liability for defects											
Basic Line		Optional (standard from FS 280 upwards)		Optional		Plastic		62 (63 from FS 280 upwards)		up to 500 V		12 months		5							
Performance Line		Standard from FS 160 (optional for FS 100 to 132)		Standard PTC		Steel		63		up to 500 V		36 months		6							
Voltages			No. of poles		Frame size		Motor type		Version										Order code(s)		
50 Hz			230 V Δ/400 VY		60 Hz ¹⁾		460 VY		2		100 L ... 315 L		1LE1 01-1A ... -3A		Standard		2 2		–		
50 Hz			400 V Δ/690 VY		60 Hz ¹⁾		460 V Δ		2		100 L ... 315 L		1LE1 01-1A ... -3A		Standard		3 4		–		
50 Hz			500 VY						2		100 L ... 315 L		1LE1 01-1A ... -3A		Without add. charge		2 7		–		
50 Hz			500 V Δ						2		100 L ... 315 L		1LE1 01-1A ... -3A		Without add. charge		4 0		–		
Further voltages ¹⁾			For additional charges, code numbers, order codes and descriptions, see from Page 2/40						9 0										...		
Types of construction			No. of poles		Frame size		Motor type		Version										Order code(s)		
Without flange			IM B3 ²⁾		2		100 L ... 315 L		1LE1 01-1A ... -3A		Standard		A						–		
With flange			IM B5 ²⁾		2		100 L ... 315 M		1LE1 01-1A ... -3A		With additional charge		F						–		
With standard flange			IM B14 ²⁾		2		100 L ... 160 L		1LE1 01-1A ... -1D		With additional charge		K						–		
Further types of construction			For additional charges, code letters and descriptions, see from Page 2/44																...		
Motor protection			Line		No. of poles		Frame size		Motor type		Version								Order code(s)		
Without			Only possible for Basic Line		2		100 L ... 315 L		1LE1501-1A ... -3A		Standard		A						–		
PTC thermistor with 3 temperature sensors			Basic Line		2		100 L ... 315 L		1LE1501-1A ... -3A		With additional charge		B						–		
			Performance Line		2		100 L ... 315 L		1LE1601-1A ... -3A		Standard		B						–		
Further motor protection			For additional charges, code letters and descriptions, see from Page 2/48																...		
Connection box position			No. of poles		Frame size		Motor type		Version										Order code(s)		
Connection box at top			2		100 L ... 315 L		1LE1 01-1A ... -3A		Standard				4						–		
Further connection box positions			For additional charges, code numbers and descriptions, see from Page 2/50																		
Special Versions			No. of poles		Frame size		Motor type												Order code(s)		
Options			For additional charges, order codes and descriptions, see from Page 2/56																1LE1 01-1A ... -Z ... + ... + ... + ...		

1) Operating values at rated output 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 requirement exists for 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. If mounted in a different position, the position must be specified to ensure that the condensation drainage holes are positioned correctly.

SIMOTICS SD 1LE1 Standard Motors

Motors with High Efficiency IE2

Self-ventilated motors
Cast-iron series 1LE1501/1LE1601 Basic/Performance Line

IE2

Selection and ordering data (continued)

P _{rated} , 50 Hz		P _{rated} , 60 Hz		Frame size	Operating values at rated output				IE class	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	Cast-iron series 1LE1501 – Basic Line 1LE1601 – Performance Line IE2 version in accordance with IEC 60034-30 Article No.	m _{IM B3}	J	Torque class
kW	kW	FS	rpm		Nm	%	%	%												
• Cooling: self-ventilated (IC 411) • Efficiency: High Efficiency IE2, 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⁾																				
2.2	2.55	100 L	1455	14	IE2	84.3	85.1	84.3	0.81	4.65	2.1	6.9	3.3	60	72	1LE1 01-1AB4	32	0.0086	16	
3	3.45	100 L	1455	20	IE2	85.5	86.7	86.0	0.82	6.2	2.0	6.9	3.1	60	72	1LE1 01-1AB5	37	0.011	16	
4	4.55	112 M	1460	26	IE2	86.6	87.3	86.5	0.81	8.2	2.5	7.1	3.2	58	70	1LE1 01-1BB2	46	0.014	16	
5.5	6.3	132 S	1465	36	IE2	87.7	89.0	87.7	0.80	11.3	2.3	6.9	2.9	64	76	1LE1 01-1CB0	61	0.027	16	
7.5	8.6	132 M	1465	49	IE2	88.7	90.3	88.8	0.83	14.7	2.3	6.9	2.9	64	76	1LE1 01-1CB2	75	0.034	16	
11	12.6	160 M	1470	71	IE2	89.8	90.9	90.8	0.85	21	2.1	6.7	2.8	65	77	1LE1 01-1DB2	96	0.065	16	
15	17.3	160 L	1475	97	IE2	90.6	91.3	91.0	0.85	28	2.3	7.3	3.0	65	77	1LE1 01-1DB4	104	0.083	16	
18.5	21.3	180 M	1465	121	IE2	91.2	92.0	91.9	0.84	35	2.5	7.2	3.4	58	71	1LE1 01-1EB2	160	0.12	16	
22	25.3	180 L	1465	143	IE2	91.6	92.2	91.9	0.84	41.5	2.6	7.3	3.5	58	71	1LE1 01-1EB4	170	0.13	16	
30	34.5	200 L	1470	195	IE2	92.3	92.8	92.6	0.84	56	2.5	6.7	3.3	62	75	1LE1 01-2AB5	230	0.20	16	
37	42.5	225 S	1470	240	IE2	92.7	93.5	93.5	0.88	65	2.3	6.6	2.9	62	75	1LE1 01-2BB0	280	0.42	16	
45	52	225 M	1475	291	IE2	93.1	93.8	93.7	0.87	80	2.5	6.9	3.1	63	76	1LE1 01-2BB2	305	0.46	16	
55	63	250 M	1480	355	IE2	93.5	93.9	93.5	0.85	100	2.7	6.8	3.0	62	75	1LE1 01-2CB2	385	0.75	16	
75	86	280 S	1485	482	IE2	94.0	94.2	93.8	0.87	132	2.5	6.8	3.0	69	83	1LE1 01-2DB0	550	1.3	16	
90	104	280 M	1486	578	IE2	94.2	94.3	93.6	0.87	159	2.6	7.3	3.1	68	82	1LE1 01-2DB2	570	1.4	16	
110	127	315 S	1490	705	IE2	94.5	94.6	94.0	0.86	195	2.7	7.4	3.0	69	83	1LE1 01-3AB0	740	2.0	16	
132	152	315 M	1490	847	IE2	94.7	94.9	94.6	0.87	230	2.7	7.1	2.9	68	83	1LE1 01-3AB2	870	2.3	16	
160	184	315 L	1490	1025	IE2	94.9	95.0	94.5	0.87	280	2.8	7.2	3.1	72	86	1LE1 01-3AB4	940	2.8	16	
200	230	315 L	1490	1282	IE2	95.1	95.3	94.7	0.87	350	3.1	7.5	3.2	72	87	1LE1 01-3AB5	1140	3.5	16	

Relubrication		Motor protection	Fan cover	Bearing size	Converter-fed operation, motor mode	Liability for defects						
Basic Line	Optional (standard from FS 280 upwards)	Optional	Plastic	62 (63 from FS 280 upwards)	up to 500 V	12 months	5					
Performance Line	Standard from FS 160 (optional for FS 100 to 132)	Standard PTC	Steel	63	up to 500 V	36 months	6					
Voltages		No. of poles	Frame size	Motor type	Version					Order code(s)		
50 Hz	230 V Δ/400 VY	60 Hz ¹⁾	4	100 L ... 315 L	1LE1 01-1A ... -3A	Standard	2	2			-	
50 Hz	400 V Δ/690 VY	60 Hz ¹⁾	4	100 L ... 315 L	1LE1 01-1A ... -3A	Standard	3	4			-	
50 Hz	500 VY		4	100 L ... 315 L	1LE1 01-1A ... -3A	Without add. charge	2	7			-	
50 Hz	500 V Δ		4	100 L ... 315 L	1LE1 01-1A ... -3A	Without add. charge	4	0			-	
Further voltages ¹⁾		For additional charges, code numbers, order codes and descriptions, see from Page 2/40										
Further voltages ¹⁾		9 0										
Further voltages ¹⁾		...										
Types of construction		No. of poles	Frame size	Motor type	Version					Order code(s)		
Without flange	IM B3 ²⁾	4	100 L ... 315 L	1LE1 01-1A ... -3A	Standard		A				-	
With flange	IM B5 ²⁾	4	100 L ... 315 M	1LE1 01-1A ... -3A	With additional charge		F				-	
With standard flange	IM B14 ²⁾	4	100 L ... 160 L	1LE1 01-1A ... -1D	With additional charge		K				-	
Further types of construction		For additional charges, code letters and descriptions, see from Page 2/44										
Further types of construction		...										
Motor protection		Line	No. of poles	Frame size	Motor type	Version					Order code(s)	
Without	Only possible for	Basic Line	4	100 L ... 315 L	1LE1501-1A ... -3A	Standard		A			-	
PTC thermistor with 3 temperature sensors		Basic Line	4	100 L ... 315 L	1LE1501-1A ... -3A	With additional charge		B			-	
		Performance Line	4	100 L ... 315 L	1LE1601-1A ... -3A	Standard		B			-	
Further motor protection		For additional charges, code letters and descriptions, see from Page 2/48										
Further motor protection		...										
Connection box position		No. of poles	Frame size	Motor type	Version					Order code(s)		
Connection box at top		4	100 L ... 315 L	1LE1 01-1A ... -3A	Standard		4				-	
Further connection box positions		For additional charges, code numbers and descriptions, see from Page 2/50										
Special versions		No. of poles	Frame size	Motor type							Order code(s)	
Options						1LE101-....-Z				...+...+...+...		

¹⁾ Operating values at rated output 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 requirement exists for 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. If mounted in a different position, the position must be specified to ensure that the condensation drainage holes are positioned correctly.

SIMOTICS SD 1LE1 Standard Motors

Motors with High Efficiency IE2

IE2

Self-ventilated motors
Cast-iron series 1LE1501/1LE1601 Basic/Performance Line

Selection and ordering data (continued)

P _{rated} , 50 Hz	P _{rated} , 60 Hz)	Frame size	Operating values at rated output										Cast-iron series 1LE1501 – Basic Line 1LE1601 – Performance Line IE2 version in accordance with IEC 60034-30 Article No.	m _{IM B3}	J	Torque class			
			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 _{ra} - ted, 50 Hz	I _{LR} / I _{ra} - ted, 50 Hz					T _B / T _{ra} - ted, 50 Hz	L _{pfA} , 50 Hz	L _{WA} , 50 Hz
kW	kW	FS	rpm	Nm	%	%	%	A							kg	kgm ²	CL		
• Cooling: self-ventilated (IC 411)																			
• 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⁾																			
1.5	1.75	100 L	970	15	IE2	79.8	80.2	79.0	0.73	3.7	2.0	6.2	2.9	59	71	1LE1 01-1AC4	36	0.011	16
2.2	2.55	112 M	965	22	IE2	81.8	82.5	81.3	0.75	5.2	2.1	6.0	3.1	57	69	1LE1 01-1BC2	41	0.014	16
3	3.45	132 S	970	30	IE2	83.3	84.0	82.8	0.74	7.0	1.6	5.6	2.6	63	75	1LE1 01-1CC0	56	0.024	13
4	4.55	132 M	970	39	IE2	84.6	85.8	85.0	0.78	8.7	1.6	5.6	2.5	63	75	1LE1 01-1CC2	61	0.029	13
5.5	6.3	132 M	970	54	IE2	86.0	87.4	87.0	0.77	12	1.9	6.1	2.8	63	75	1LE1 01-1CC3	70	0.037	16
7.5	8.6	160 M	975	73	IE2	87.2	87.7	86.9	0.77	16.1	1.8	6.3	2.8	67	79	1LE1 01-1DC2	106	0.075	16
11	12.6	160 L	975	108	IE2	88.7	89.5	89.4	0.80	22.5	1.7	6.2	2.7	67	79	1LE1 01-1DC4	122	0.098	16
15	18	180 L	975	147	IE2	89.7	90.1	90.2	0.78	31	2.5	6.0	3.1	56	70	1LE1 01-1EC4	155	0.17	16
18.5	22	200 L	978	181	IE2	90.4	91.3	91.2	0.82	36	2.4	5.8	2.6	58	72	1LE1 01-2AC4	200	0.25	16
22	26.5	200 L	978	215	IE2	90.9	91.6	91.2	0.82	42.5	2.5	6.2	2.6	58	72	1LE1 01-2AC5	220	0.30	16
30	36	225 M	980	292	IE2	91.7	92.5	92.3	0.83	57	2.5	6.1	2.8	56	70	1LE1 01-2BC2	285	0.58	16
37	44.5	250 M	982	360	IE2	92.2	93.1	93.1	0.83	70	2.8	6.0	2.5	57	71	1LE1 01-2CC2	370	0.86	16
45	54	280 S	985	436	IE2	92.7	93.4	93.2	0.84	83	2.7	6.3	2.6	61	75	1LE1 01-2DC0	460	1.1	16
55	66	280 M	985	533	IE2	93.1	93.9	94.0	0.86	99	2.5	6.4	2.6	61	75	1LE1 01-2DC2	510	1.4	16
75	90	315 S	988	725	IE2	93.7	94.0	93.6	0.84	138	2.5	6.7	2.8	62	76	1LE1 01-3AC0	660	2.1	16
90	108	315 M	988	870	IE2	94.0	94.3	93.6	0.84	165	2.6	6.9	2.8	64	78	1LE1 01-3AC2	730	2.5	16
110	132	315 L	988	1063	IE2	94.3	94.6	94.5	0.86	196	2.7	7.0	2.8	62	76	1LE1 01-3AC4	920	3.6	16
132	158	315 L	988	1276	IE2	94.6	94.9	94.7	0.86	235	3.0	7.5	2.9	64	78	1LE1 01-3AC5	990	4.0	16
160	192	315 L	988	1546	IE2	94.8	94.7	94.4	0.86	285	3.1	7.7	3.3	65	80	1LE1 01-3AC6	1160	4.7	16
Relubrication		Motor protection		Fan cover		Bearing size		Converter-fed operation, motor mode		Liability for defects									
Basic Line		Optional (standard from FS 280 upwards)		Optional		Plastic		62 (63 from FS 280 upwards)		up to 500 V		12 months		5					
Performance Line		Standard from FS 160 (optional for FS 100 to 132)		Standard PTC		Steel		63		up to 500 V		36 months		6					
Voltages			No. of poles		Frame size		Motor type		Version		Order code(s)								
50 Hz		230 V Δ/400 VY		60 Hz ¹⁾		460 VY		6		100 L ... 315 L		1LE1 01-1A ... -3A		Standard		2 2		-	
50 Hz		400 V Δ/690 VY		60 Hz ¹⁾		460 V Δ		6		100 L ... 315 L		1LE1 01-1A ... -3A		Standard		3 4		-	
50 Hz		500 VY				6		100 L ... 315 L		1LE1 01-1A ... -3A		Without add. charge		2 7		-		-	
50 Hz		500 V Δ				6		100 L ... 315 L		1LE1 01-1A ... -3A		Without add. charge		4 0		-		-	
Further voltages ¹⁾			For additional charges, code numbers, order codes and descriptions, see from Page 2/40																
Types of construction			No. of poles		Frame size		Motor type		Version		Order code(s)								
Without flange		IM B3 ²⁾		6		100 L ... 315 L		1LE1 01-1A ... -3A		Standard		A							
With flange		IM B5 ²⁾		6		100 L ... 315 M		1LE1 01-1A ... -3A		With additional charge		F							
With standard flange		IM B14 ²⁾		6		100 L ... 160 L		1LE1 01-1A ... -1D		With additional charge		K							
Further types of construction			For additional charges, code letters and descriptions, see from Page 2/44																
Motor protection			Line		No. of poles		Frame size		Motor type		Version		Order code(s)						
Without		Only possible for Basic Line		6		100 L ... 315 L		1LE1501-1A ... -3A		Standard		A							
PTC thermistor with 3 temperature sensors		Basic Line		6		100 L ... 315 L		1LE1501-1A ... -3A		With additional charge		B							
		Performance Line		6		100 L ... 315 L		1LE1601-1A ... -3A		Standard		B							
Further motor protection			For additional charges, code letters and descriptions, see from Page 2/48																
Connection box position			No. of poles		Frame size		Motor type		Version		Order code(s)								
Connection box at top		6		100 L ... 315 L		1LE1 01-1A ... -3A		Standard		4									
Further connection box positions			For additional charges, code numbers and descriptions, see from Page 2/50																
Special versions			No. of poles		Frame size		Motor type		Order code(s)										
Options			For additional charges, order codes and descriptions, see from Page 2/56																
1LE1 01- ... -Z ... + ... + ... + ...																			

¹⁾ Operating values at rated output 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 requirement exists for 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. If mounted in a different position, the position must be specified to ensure that the condensation drainage holes are positioned correctly.

SIMOTICS SD 1LE1 Standard Motors

Motors with High Efficiency IE2

Self-ventilated motors
Cast-iron series 1LE1501/1LE1601 Basic/Performance Line

IE2

Selection and ordering data (continued)

Operating values at rated output														Cast-iron series		m _{IM B3} J		Torque class		
P _{rated} , 50 Hz	P _{rated} , 60 Hz	Frame size	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	1LE1501 – Basic Line	1LE1601 – Performance Line	kg	kgm ²	CL
kW	kW	FS	rpm	Nm		%	%	%	A					dB(A)	dB(A)	▲ New				
0.75	0.86	100 L	725	9.9	–	68.3	65.8	59.3	0.58	2.8	1.6	4.0	2.8	60	72		1LE1 01-1AD4	32	0.0086	13
1.1	1.3	100 L	725	14	–	68.3	65.4	58.9	0.58	4.0	1.8	4.1	2.8	60	72		1LE1 01-1AD5	36	0.011	13
1.5	1.75	112 M	720	20	–	75.8	76.0	73.0	0.67	4.25	1.4	4.2	2.4	63	75		1LE1 01-1BD2	51	0.014	13
2.2	2.55	132 S	725	29	–	78.8	79.3	77.2	0.65	6.2	1.4	4.3	2.1	63	75		1LE1 01-1CD0	59	0.027	10
3	3.45	132 M	730	39	–	82.7	83.0	80.9	0.65	8.1	1.4	5.0	2.4	63	75		1LE1 01-1CD2	67	0.035	10
4	4.55	160 M	730	52	–	86.2	86.9	86.0	0.69	9.7	1.8	4.3	2.0	63	75		1LE1 01-1DD2	98	0.065	13
5.5	6.3	160 M	730	72	–	86.7	87.5	86.5	0.69	13.3	2.1	4.4	2.1	63	75		1LE1 01-1DD3	111	0.083	13
7.5	8.6	160 L	730	98	–	86.9	88.2	88.1	0.72	17.3	1.9	4.5	2.1	63	75		1LE1 01-1DD4	123	0.098	13
11	13.2	180 L	720	146	–	86.6	87.6	87.1	0.70	26	2.3	4.9	2.6	67	74	▲	1LE1 01-1ED4	155	0.20	13
15	18	200 L	718	200	–	88.9	90.8	91.2	0.76	32	2.4	5.4	2.8	57	64	▲	1LE1 01-2AD5	220	0.34	13
18.5	22	225 S	730	242	–	89.0	89.9	89.5	0.78	38.5	2.2	5.4	2.7	53	66	▲	1LE1 01-2BD0	250	0.43	13
22	26.5	225 M	730	288	–	90.3	91.3	91.1	0.80	44	2.3	5.5	2.7	53	66	▲	1LE1 01-2BD2	270	0.50	13
30	36	250 M	732	391	–	91.3	92.2	92.0	0.80	59	2.4	5.6	2.7	58	72	▲	1LE1 01-2CD2	370	0.86	13
37	44.5	280 S	736	480	–	91.9	92.5	92.1	0.78	75	2.3	5.4	2.4	58	72	▲	1LE1 01-2DD0	460	1.10	13
45	54	280 M	738	582	–	92.4	92.8	92.4	0.79	89	2.5	5.7	2.5	58	72	▲	1LE1 01-2DD2	510	1.40	13
55	66	315 S	740	710	–	92.9	93.3	92.9	0.80	107	2.2	5.8	2.6	61	75	▲	1LE1 01-3AD0	640	2.00	13
75	90	315 M	738	970	–	93.5	94.4	94.5	0.81	143	2.2	5.8	2.6	61	75	▲	1LE1 01-3AD2	710	2.50	13
90	108	315 L	740	1161	–	93.5	94.3	94.4	0.83	167	2.2	5.8	2.5	64	79	▲	1LE1 01-3AD4	860	3.10	13
110	132	315 L	740	1420	–	94.2	95.0	95.1	0.82	205	2.4	6.4	2.8	62	76	▲	1LE1 01-3AD5	980	3.90	13
132	158	315 L	740	1703	–	94.4	94.8	94.4	0.81	250	2.7	7.1	3.1	65	80	▲	1LE1 01-3AD6	1060	4.50	16

Relubrication		Motor protection	Fan cover	Bearing size	Converter-fered operation, motor mode	Liability for defects									
Basic Line	Optional (standard from FS 280 upwards)	Optional	Plastic	62 (63 from FS 280 upwards)	up to 500 V	12 months	5								
Performance Line	Standard from FS 160 (optional for FS 100 to 132)	Standard PTC	Steel	63	up to 500 V	36 months	6								
Voltages			No. of poles	Frame size	Motor type	Version					Order code(s)				
50 Hz	230 V Δ/400 VY	60 Hz ¹⁾	460 VY	8	100 L ... 315 L	1LE1 01-1A ... -3A	Standard	2	2			–			
50 Hz	400 V Δ/690 VY	60 Hz ¹⁾	460 V Δ	8	100 L ... 315 L	1LE1 01-1A ... -3A	Standard	3	4			–			
50 Hz	500 VY			8	100 L ... 315 L	1LE1 01-1A ... -3A	Without add. charge	2	7			–			
50 Hz	500 V Δ			8	100 L ... 315 L	1LE1 01-1A ... -3A	Without add. charge	4	0			–			
Further voltages ¹⁾		For additional charges, code numbers, order codes and descriptions, see from Page 2/40										9	0	...	
Types of construction			No. of poles	Frame size	Motor type	Version					Order code(s)				
Without flange		IM B3 ²⁾	8	100 L ... 315 L	1LE1 01-1A ... -3A	Standard						A	–		
With flange		IM B5 ²⁾	8	100 L ... 315 M	1LE1 01-1A ... -3A	With additional charge						F	–		
With standard flange		IM B14 ²⁾	8	100 L ... 160 L	1LE1 01-1A ... -1D	With additional charge						K	–		
Further types of construction		For additional charges, code letters and descriptions, see from Page 2/44												...	
Motor protection		Line	No. of poles	Frame size	Motor type	Version					Order code(s)				
Without		Only possible for Basic Line	8	100 L ... 315 L	1LE1501-1A ... -3A	Standard						A	–		
PTC thermistor with 3 temperature sensors		Basic Line	8	100 L ... 315 L	1LE1501-1A ... -3A	With additional charge						B	–		
		Performance Line	8	100 L ... 315 L	1LE1601-1A ... -3A	Standard						B	–		
Further motor protection		For additional charges, code letters and descriptions, see from Page 2/48												...	
Connection box position			No. of poles	Frame size	Motor type	Version					Order code(s)				
Connection box at top			8	100 L ... 315 L	1LE1 01-1A ... -3A	Standard						4	–		
Further connection box positions			For additional charges, code numbers and descriptions, see from Page 2/50												
Special versions			No. of poles	Frame size	Motor type					Order code(s)					
Options			For additional charges, order codes and descriptions, see from Page 2/56										1LE1 01- ... -Z	...+...+...+...	

¹⁾ Operating values at rated output 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 requirement exists for 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. If mounted in a different position, the position must be specified to ensure that the condensation drainage holes are positioned correctly.

SIMOTICS SD 1LE1 Standard Motors

Motors with Premium Efficiency IE3



Self-ventilated motors
Cast-iron series 1LE1503/1LE1603 Basic/Performance Line

Selection and ordering data

Operating values at rated output														Cast-iron series		m _{IM B3} J		Torque class				
P _{rated} , 50 Hz	P _{rated} , 60 Hz ¹⁾	Frame size	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 _{ra} , 50 Hz	I _{LR} /I _{ra} , 50 Hz	T _B /T _{ra} , 50 Hz	L _{pfA} , 50 Hz	L _{WA} , 50 Hz	1LE1503 – Basic Line	1LE1603 – Performance Line	IE3 version in accordance with IEC 60034-30	Article No.	kg	kgm ²	CL
kW	kW	FS	rpm	Nm	%	%	%	A								▲ New						
<ul style="list-style-type: none"> • Cooling: self-ventilated (IC 411) • Efficiency: Premium Efficiency IE3, 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	IE3	87.1	87.1	86.1	0.88	5.6	2.8	8.0	4.3	67	79	▲ 1LE1 03-1AA4	36	0.0054	16			
4	4.55	112 M	2950	12.9	IE3	88.1	88.1	87.1	0.89	7.4	1.9	7.5	3.9	69	81	▲ 1LE1 03-1BA2	45	0.012	16			
5.5	6.3	132 S	2950	17.8	IE3	89.2	89.2	88.2	0.90	9.9	1.8	7.4	3.6	68	80	▲ 1LE1 03-1CA0	58	0.024	16			
7.5	8.6	132 S	2950	24.3	IE3	90.1	90.1	89.1	0.92	13.1	1.9	8.3	3.9	68	80	▲ 1LE1 03-1CA1	73	0.031	16			
11	12.6	160 M	2955	35.5	IE3	91.2	91.2	90.2	0.89	19.6	2.4	7.9	3.8	70	82	▲ 1LE1 03-1DA2	100	0.053	16			
15	17.3	160 M	2960	48.4	IE3	91.9	91.9	90.9	0.87	27.0	2.7	8.7	4.3	70	82	▲ 1LE1 03-1DA3	110	0.061	16			
18.5	21.3	160 L	2955	60.0	IE3	92.4	92.4	91.4	0.90	32.0	2.8	9.0	4.2	70	82	▲ 1LE1 03-1DA4	127	0.068	16			
22	24.5	180 M	2950	71	IE3	92.7	93.0	92.4	0.89	38.5	2.5	7.5	3.5	67	80	1LE1 03-1EA2	160	0.080	16			
30	33.5	200 L	2955	97	IE3	93.3	93.7	93.3	0.87	53	2.5	6.6	3.3	67	80	1LE1 03-2AA4	225	0.13	16			
37	41.5	200 L	2955	120	IE3	93.7	94.1	93.8	0.88	65	2.5	6.6	3.2	67	80	1LE1 03-2AA5	250	0.16	16			
45	51	225 M	2960	145	IE3	94.0	94.5	94.4	0.89	78	2.4	6.9	3.3	67	80	1LE1 03-2BA2	315	0.26	16			
55	62	250 M	2975	177	IE3	94.3	94.5	93.9	0.89	95	2.3	6.7	3.1	71	84	1LE1 03-2CA2	385	0.46	13			
75	84	280 S	2975	241	IE3	94.7	94.8	94.1	0.89	128	2.4	6.8	3.0	73	87	1LE1 03-2DA0	510	0.77	13			
90	101	280 M	2975	289	IE3	95.0	95.1	94.6	0.90	152	2.4	7.2	3.1	73	86	1LE1 03-2DA2	590	0.94	13			
110	123	315 S	2982	352	IE3	95.2	95.4	94.9	0.91	183	2.4	7.1	3.1	73	87	1LE1 03-3AA0	750	1.4	13			
132	148	315 M	2982	423	IE3	95.4	95.5	95.2	0.91	220	2.5	7.2	3.1	73	87	1LE1 03-3AA2	880	1.6	13			
160	180	315 L	2982	512	IE3	95.6	95.7	95.2	0.92	265	2.8	7.8	3.3	76	90	1LE1 03-3AA4	980	1.9	13			
200	224	315 L	2982	640	IE3	95.8	95.9	95.5	0.92	330	2.5	7.2	3.0	76	90	1LE1 03-3AA5	1150	2.3	13			

Relubrication		Motor protection	Fan cover	Bearing size	Converter-fed operation, motor mode	Liability for defects					Order code(s)	
Basic Line	Optional (standard from FS 280 upwards)	Optional	Plastic	62 (63 from FS 280 upwards)	up to 500 V	12 months	5					
Performance Line	Standard from FS 160 (optional for FS 100 to 132)	Standard PTC	Steel	63	up to 500 V	36 months	6					
Voltages		No. of poles	Frame size	Motor type	Version					Order code(s)		
50 Hz	230 V Δ/400 VY	60 Hz ¹⁾	460 VY	2	100 L ... 315 L	1LE1 03-1E ... -3A	Standard	2	2			-
50 Hz	400 V Δ/690 VY	60 Hz ¹⁾	460 V Δ	2	100 L ... 315 L	1LE1 03-1E ... -3A	Standard	3	4			-
50 Hz	500 VY			2	100 L ... 315 L	1LE1 03-1E ... -3A	Without add. charge	2	7			-
50 Hz	500 V Δ			2	100 L ... 315 L	1LE1 03-1E ... -3A	Without add. charge	4	0			-
Further voltages ¹⁾		For additional charges, code numbers, order codes and descriptions, see from Page 2/40						9	0			...
Types of construction		No. of poles	Frame size	Motor type	Version					Order code(s)		
Without flange	IM B3 ²⁾	2	100 L ... 315 L	1LE1 03-1E ... -3A	Standard					A	-	
With flange	IM B5 ²⁾	2	100 L ... 315 M	1LE1 03-1E ... -3A	With additional charge					F	-	
Further types of construction		For additional charges, code letters and descriptions, see from Page 2/44										...
Motor protection		Line	No. of poles	Frame size	Motor type	Version					Order code(s)	
Without	Only possible for	Basic Line	2	100 L ... 315 L	1LE1503-1E ... -3A	Standard					A	-
PTC thermistor with 3 temperature sensors		Basic Line	2	100 L ... 315 L	1LE1503-1E ... -3A	With additional charge					B	-
		Performance Line	2	100 L ... 315 L	1LE1603-1E ... -3A	Standard					B	-
Further motor protection		For additional charges, code letters and descriptions, see from Page 2/48										...
Connection box position		No. of poles	Frame size	Motor type	Version					Order code(s)		
Connection box at top		2	100 L ... 315 L	1LE1 03-1E ... -3A	Standard					4	-	
Further connection box positions		For additional charges, code numbers and descriptions, see from Page 2/50										
Special versions		No. of poles	Frame size	Motor type					Order code(s)			
Options		For additional charges, order codes and descriptions, see from Page 2/56				1LE1 03- ...						-Z ...+...+...+...

¹⁾ Operating values at rated output 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 requirement exists for 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. If mounted in a different position, the position must be specified to ensure that the condensation drainage holes are positioned correctly.

SIMOTICS SD 1LE1 Standard Motors

Motors with Premium Efficiency IE3

Self-ventilated motors
Cast-iron series 1LE1503/1LE1603 Basic/Performance Line



Selection and ordering data (continued)

P _{rated} , 50 Hz	P _{rated} , 60 Hz	Frame size	Operating values at rated output						cos- φ _{rated}	I _{rated} , 400 V	T _{LR} / T _{ra}	I _{LR} / I _{ra}	T _B / T _{ra}	L _{pfA} , 50 Hz	L _{WA} , 50 Hz	Cast-iron series 1LE1503 – Basic Line 1LE1603 – Performance Line IE3 version in accordance with IEC 60034-30 Article No.	m _{IM B3} J	Torque class	
			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											φ _{rated} , 50 Hz, 4/4
2.2	2.55	100 L	1465	14.3	IE3	86.7	86.7	85.7	0.83	4.4	2.1	7.6	3.6	60	72	▲ 1LE1 03-1AB4	40	0.014	16
3	3.45	100 L	1460	19.6	IE3	87.7	87.7	86.7	0.83	5.9	2.3	7.3	3.7	60	72	▲ 1LE1 03-1AB5	40	0.014	16
4	4.55	112 M	1460	26	IE3	88.6	88.6	87.6	0.82	7.9	2.4	7.1	3.7	58	70	▲ 1LE1 03-1BB2	46	0.017	16
5.5	6.3	132 S	1470	35.7	IE3	89.6	89.6	88.6	0.84	10.5	2.1	7.2	3.4	64	76	▲ 1LE1 03-1CB0	74	0.046	16
7.5	8.6	132 M	1470	48.7	IE3	90.4	90.4	89.4	0.84	14.3	2.4	7.4	3.5	64	76	▲ 1LE1 03-1CB2	80	0.046	16
11	12.6	160 M	1475	71.0	IE3	91.4	91.4	90.4	0.82	21.0	2.2	6.9	3.2	65	77	▲ 1LE1 03-1DB2	109	0.083	16
15	17.3	160 L	1475	97	IE3	92.1	92.1	91.1	0.82	28.5	2.5	8.5	3.8	65	77	▲ 1LE1 03-1DB4	127	0.099	16
18.5	21.3	180 M	1470	120	IE3	92.6	93.2	93.2	0.82	35	2.5	6.9	3.3	57	70	1LE1 03-1EB2	165	0.13	16
22	25.3	180 L	1470	143	IE3	93.0	93.7	93.7	0.83	41	2.5	6.8	3.3	57	70	1LE1 03-1EB4	170	0.14	16
30	34.5	200 L	1470	195	IE3	93.6	94.3	94.4	0.84	55	2.6	6.9	3.1	57	70	1LE1 03-2AB5	240	0.22	16
37	42.5	225 S	1478	239	IE3	93.9	94.5	94.4	0.86	66	2.5	6.4	2.7	57	70	1LE1 03-2BB0	285	0.42	16
45	52	225 M	1478	291	IE3	94.2	94.9	95.1	0.86	80	2.6	6.4	2.7	57	70	1LE1 03-2BB2	320	0.47	16
55	63	250 M	1482	354	IE3	94.6	95.1	95.0	0.87	96	2.5	6.8	2.9	57	70	1LE1 03-2CB2	420	0.85	16
75	86	280 S	1485	482	IE3	95.0	95.3	95.0	0.86	133	2.5	6.9	3.0	65	79	1LE1 03-2DB0	570	1.4	16
90	104	280 M	1485	579	IE3	95.2	95.5	95.3	0.87	157	2.6	7.2	3.0	65	79	1LE1 03-2DB2	670	1.7	16
110	127	315 S	1488	706	IE3	95.4	95.8	95.5	0.87	191	2.6	6.8	2.9	65	79	1LE1 03-3AB0	760	2.2	16
132	152	315 M	1490	846	IE3	95.6	95.9	95.9	0.87	230	2.8	7.3	3.0	65	79	1LE1 03-3AB2	960	2.9	16
160	184	315 L	1490	1025	IE3	95.8	96.1	96.1	0.87	275	2.9	7.3	3.1	65	79	1LE1 03-3AB4	990	3.1	16
200	230	315 L	1490	1284	IE3	96.0	96.3	96.1	0.88	340	3.2	7.4	3.0	65	79	1LE1 03-3AB5	1190	3.7	16

Relubrication	Motor protection	Fan cover	Bearing size	Converter-fed operation, motor mode	Liability for defects															
Basic Line	Optional (standard from FS 280 upwards)	Optional	Plastic (63 from FS 280 upwards)	up to 500 V	12 months	5														
Performance Line	Standard from FS 160 (optional for FS 100 to 132)	Standard PTC	Steel	up to 500 V	36 months	6														
Voltages		No. of poles	Frame size	Motor type	Version														Order code(s)	
50 Hz	230 V Δ/400 VY	60 Hz ¹⁾	460 VY	4	100 L ... 315 L	1LE1 03-1E ... -3A	Standard	2	2										-	
50 Hz	400 V Δ/690 VY	60 Hz ¹⁾	460 V Δ	4	100 L ... 315 L	1LE1 03-1E ... -3A	Standard	3	4										-	
50 Hz	500 VY			4	100 L ... 315 L	1LE1 03-1E ... -3A	Without add. charge	2	7										-	
50 Hz	500 V Δ			4	100 L ... 315 L	1LE1 03-1E ... -3A	Without add. charge	4	0										-	
Further voltages ¹⁾		For additional charges, code numbers, order codes and descriptions, see from Page 2/40				9	0													...
Types of construction		No. of poles	Frame size	Motor type	Version														Order code(s)	
Without flange	IM B3 ²⁾	4	100 L ... 315 L	1LE1 03-1E ... -3A	Standard														-	
With flange	IM B5 ²⁾	4	100 L ... 315 M	1LE1 03-1E ... -3A	With additional charge														-	
Further types of construction		For additional charges, code letters and descriptions, see from Page 2/44																		...
Motor protection		Line	No. of poles	Frame size	Motor type	Version													Order code(s)	
Without	Only possible for	Basic Line	4	100 L ... 315 L	1LE1503-1E ... -3A	Standard													-	
PTC thermistor with 3 temperature sensors	Basic Line	Performance Line	4	100 L ... 315 L	1LE1503-1E ... -3A	With additional charge													-	
Further motor protection	For additional charges, code letters and descriptions, see from Page 2/48																		-	
Connection box position		No. of poles	Frame size	Motor type	Version														Order code(s)	
Connection box at top		4	100 L ... 315 L	1LE1 03-1E ... -3A	Standard														-	
Further connection box positions		For additional charges, code numbers and descriptions, see from Page 2/50																		-
Special versions		No. of poles	Frame size	Motor type	Version														Order code(s)	
Options		For additional charges, order codes and descriptions, see from Page 2/56				1LE1 03-+...+...+...

¹⁾ Operating values at rated output 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 requirement exists for 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. If mounted in a different position, the position must be specified to ensure that the condensation drainage holes are positioned correctly.

SIMOTICS SD 1LE1 Standard Motors

Motors with Premium Efficiency IE3

IE3

Self-ventilated motors
Cast-iron series 1LE1503/1LE1603 Basic/Performance Line

Selection and ordering data (continued)

Operating values at rated output														Cast-iron series		m _{IM B3} J		Torque class				
P _{rated} , 50 Hz	P _{rated} , 60 Hz	Frame size	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	1LE1503 – Basic Line	1LE1603 – Performance Line	IE3 version in accordance with IEC 60034-30	Article No.	kg	kgm ²	CL
kW	kW	FS	rpm	Nm		%	%	%		A				dB(A)	dB(A)	▲ New						
<ul style="list-style-type: none"> • Cooling: self-ventilated (IC 411) • Efficiency: Premium Efficiency IE3, 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⁾																						
1.5	1.75	100 L	970	15	IE3	82.5	82.5	81.5	0.76	3.45	1.9	6.9	3.0	59	71	▲ 1LE1 03-1AC4	34	0.014	13			
2.2	2.55	112 M	970	22	IE3	84.3	84.3	83.3	0.80	4.7	2.3	6.8	3.4	59	71	▲ 1LE1 03-1BC2	47	0.014	13			
3	3.45	132 S	970	29.4	IE3	85.6	85.6	84.6	0.77	6.6	1.7	5.2	2.6	63	75	▲ 1LE1 03-1CC0	68	0.029	13			
4	4.55	132 M	970	39.3	IE3	86.8	86.8	85.8	0.77	8.6	1.9	5.7	2.9	63	75	▲ 1LE1 03-1CC2	68	0.037	13			
5.5	6.3	132 M	970	54.0	IE3	88.0	88.0	87.0	0.78	11.6	1.9	5.9	2.9	63	75	▲ 1LE1 03-1CC3	81	0.037	13			
7.5	8.6	160 M	980	73.0	IE3	89.1	89.1	88.1	0.78	15.6	1.7	6.3	3.1	67	79	▲ 1LE1 03-1DC2	120	0.098	13			
11	12.6	160 L	975	108	IE3	90.3	90.3	89.3	0.80	22	1.8	6.1	3.0	67	79	▲ 1LE1 03-1DC4	149	0.122	13			
15	18	180 L	975	147	IE3	91.2	92.4	92.6	0.80	29.5	2.3	5.9	2.8	56	69	1LE1 03-1EC4	180	0.19	16			
18.5	22	200 L	978	181	IE3	91.7	92.5	92.5	0.79	37	2.5	5.6	2.6	57	70	1LE1 03-2AC4	215	0.28	16			
22	26.5	200 L	978	215	IE3	92.2	93.1	93.3	0.79	43.5	2.5	5.6	2.6	57	70	1LE1 03-2AC5	230	0.32	16			
30	36	225 M	982	292	IE3	92.9	93.6	93.5	0.83	56	2.6	6.6	3.0	57	70	1LE1 03-2BC2	325	0.67	16			
37	44.5	250 M	985	359	IE3	93.3	94.0	94.0	0.85	67	2.7	7.0	2.9	57	70	1LE1 03-2CC2	405	1.0	16			
45	54	280 S	988	435	IE3	93.7	94.3	94.2	0.85	82	3.0	6.8	2.8	58	71	1LE1 03-2DC0	510	1.4	16			
55	66	280 M	988	532	IE3	94.1	94.5	94.2	0.85	99	3.2	7.2	3.0	58	71	1LE1 03-2DC2	560	1.6	16			
75	90	315 S	990	723	IE3	94.6	94.7	94.1	0.84	136	2.6	7.3	3.1	59	73	1LE1 03-3AC0	750	2.6	16			
90	108	315 M	991	867	IE3	94.9	95.1	94.7	0.85	161	2.5	6.7	2.8	59	73	1LE1 03-3AC2	890	3.1	16			
110	132	315 L	991	1060	IE3	95.1	95.3	95.1	0.84	199	2.8	7.2	3.0	60	74	1LE1 03-3AC4	990	3.9	16			
132	158	315 L	991	1272	IE3	95.4	95.3	94.5	0.84	240	2.7	7.2	3.0	60	74	1LE1 03-3AC5	1110	4.4	16			
160	192	315 L	991	1542	IE3	95.6	95.8	95.4	0.83	290	3.3	7.7	3.5	63	77	1LE1 03-3AC6	1160	4.6	16			

Relubrication	Motor protection	Fan cover	Bearing size	Converter-fed operation, motor mode	Liability for defects	5	6	Order code(s)			
Basic Line: Optional (standard from FS 280 upwards)	Optional	Plastic	62 (63 from FS 280 upwards)	up to 500 V	12 months	5					
Performance Line: Standard from FS 160 (optional for FS 100 to 132)	Standard PTC	Steel	63	up to 500 V	36 months	6					
Voltages		No. of poles	Frame size	Motor type	Version	2	3	4	7	0	Order code(s)
50 Hz	230 V Δ/400 V Y	60 Hz ¹⁾	460 V Y	6	100 L ... 315 L	1LE1 03-1E ... -3A	Standard	2	2		–
50 Hz	400 V Δ/690 V Y	60 Hz ¹⁾	460 V Δ	6	100 L ... 315 L	1LE1 03-1E ... -3A	Standard	3	4		–
50 Hz	500 V Y			6	100 L ... 315 L	1LE1 03-1E ... -3A	Without add. charge	2	7		–
50 Hz	500 V Δ			6	100 L ... 315 L	1LE1 03-1E ... -3A	Without add. charge	4	0		–
Further voltages ¹⁾ For additional charges, code numbers, order codes and descriptions, see from Page 2/40											
Types of construction		No. of poles	Frame size	Motor type	Version	A	F	Order code(s)			
Without flange	IM B3 ²⁾	6	100 L ... 315 L	1LE1 03-1E ... -3A	Standard	A		–			
With flange	IM B5 ²⁾	6	100 L ... 315 M	1LE1 03-1E ... -3A	With additional charge	F		–			
Further types of construction For additional charges, code letters and descriptions, see from Page 2/44											
Motor protection		Line	No. of poles	Frame size	Motor type	Version	A	B	B	Order code(s)	
Without	Only possible for	Basic Line	6	100 L ... 315 L	1LE1503-1E ... -3A	Standard	A			–	
PTC thermistor with 3 temperature sensors	Basic Line		6	100 L ... 315 L	1LE1503-1E ... -3A	With additional charge	B			–	
	Performance Line		6	100 L ... 315 L	1LE1603-1E ... -3A	Standard	B			–	
Further motor protection For additional charges, code letters and descriptions, see from Page 2/48											
Connection box position		No. of poles	Frame size	Motor type	Version	4	Order code(s)				
Connection box at top		6	100 L ... 315 L	1LE1 03-1E ... -3A	Standard	4	–				
Further connection box positions For additional charges, code numbers and descriptions, see from Page 2/50											
Special versions		No. of poles	Frame size	Motor type	Order code(s)						
Options					1LE1 03- ... -Z ... + ... + ... + ...						

¹⁾ Operating values at rated output 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 requirement exists for 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. If mounted in a different position, the position must be specified to ensure that the condensation drainage holes are positioned correctly.

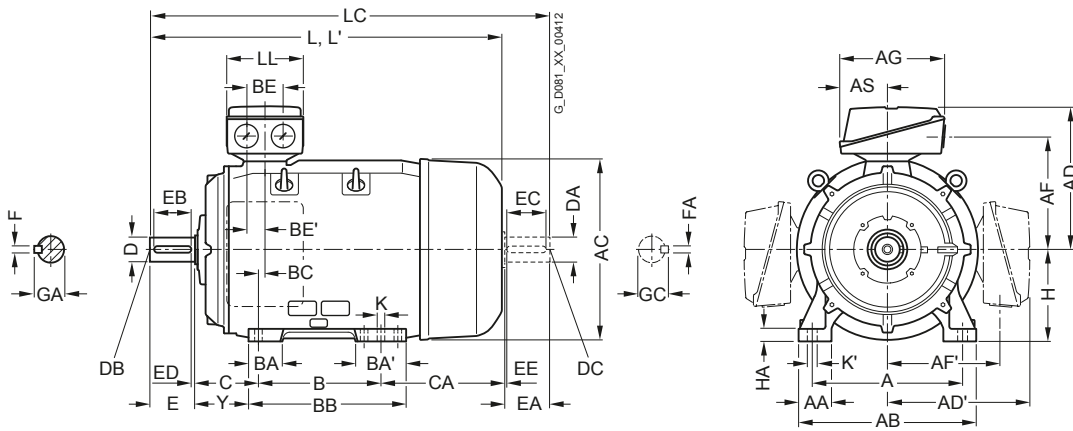
SIMOTICS SD 1LE1 Standard Motors

Dimensions

Cast-iron series 1LE1501, 1LE1521, 1LE1601, 1LE1621
Self-ventilated, frame sizes 180 M to 250 M

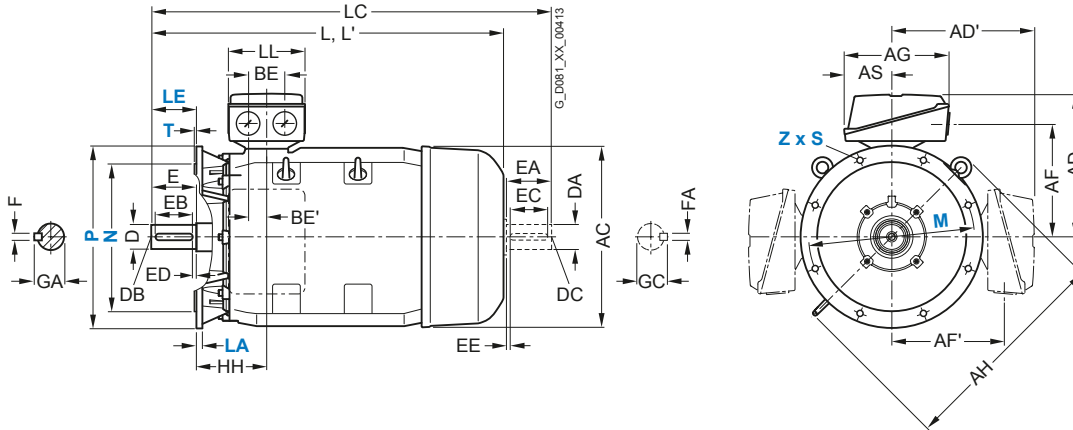
Dimensional drawings

Type of construction IM B3



Types of construction IM B5, IM V1

For flange dimensions, see Page 2/92 (Z = the number of retaining holes)



For motor	Type	Dimension designation acc. to IEC	
Frame size	1LE1501, 1LE1521 1LE1601, 1LE1621	No. of poles	A AA AB AC AD AD' AF AF' AG AH AS B* BA BA' BB BC BE BE' C ¹⁾ CA*
180 M/ 180 L	1EA2, 1EB2, 1EC6 1EB4, 1EC4, 1EA6, 1EB6	2, 4, 6 2, 4, 6	279 65 339 356 286 286 234 234 190 468 92 241 85 120 328 34 60 30 121 202
200 L	2AA4, 2AA5, 2AB5, 2AC4, 2AC5 2AA6, 2AB6, 2AC6	2, 4, 6 2, 4, 6	318 60 378 396 315 315 259 259 266 533 112 305 104 104 355 31 85 42.5 133 177
225 S/ 225 M	2BB0, 2BD0, 2BB2, 2BC2, 2BD2, 2BB6, 2BC6, 2BD6 2BA2, 2BA6	4, 8 4, 6, 8 2	356 80 436 449 338 338 282 282 266 556 112 311 92 117 361 15 85 42.5 149 253
250 M	2CA2, 2CA6 2CB2, 2CC2, 2CD2, 2CC6, 2CD6, 2CB6	2 4, 6, 8 4	406 100 490 497 410 410 322 322 319 620 145 349 102 102 409 24 110 55 168 230

300

* This dimension is assigned in DIN EN 50347 to the frame size listed.

¹⁾ Additional information – not a standard dimension according to DIN EN 50347.

SIMOTICS SD 1LE1 Standard Motors

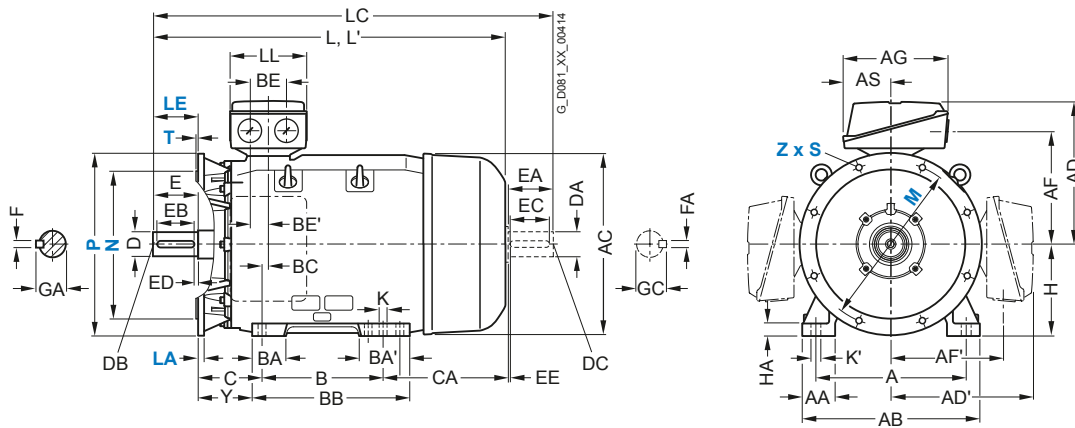
Dimensions

Cast-iron series 1LE1501, 1LE1521, 1LE1601, 1LE1621
Self-ventilated, frame sizes 180 M to 250 M

Dimensional drawings (continued)

Type of construction IM B35

For flange dimensions, see Page 2/92 (Z = the number of retaining holes)



Type	DE shaft extension													NDE shaft extension											
1LE1501, 1LE1521 1LE1601, 1LE1621	H	HA	Y ¹⁾	HH	K	K'	L	L' ²⁾	LC ³⁾	LL	D	DB	E	EB	ED	F	GA	DA	DC	EA	EC	EE	FA	GC	
1EA2, 1EB2, 1EC6	180	20	95	155	15	19	668	668	784	165	48	M16	110	100	5	14	52	48	M16	110	100	5	14	51.5	
1EB4, 1EC4, 1EA6, 1EB6							698	698	814																
2AA4.2AA5. 2AB5. 2AC4.2AC5	200	25	108	164	19	25	721	755	835	197	55	M20	110	100	5	16	59	55	M20	110	100	5	16	59	
2AA6, 2AB6, 2AC6							746	780	860																
2BB0, 2BD0	225	34	124	164	19	25	788	-	903	197	60	M20	140	125	10	18	64	55	M20	110	100	5	16	59	
2BB2, 2BC2, 2BD2, 2BB6, 2BC6, 2BD6							848		963																
2BA2, 2BA6							818	852	933		55		110	100	5	16	59	48	M16					14	51.5
2CA2, 2CA6	250	40	138	192	24	30	887	924	1002	233	60	M20	140	125	10	18	64	55	M20	110	100	5	16	59	
2CB2, 2CC2, 2CD2, 2CC6, 2CD6							-		1032		65						69	60		140	125	10	18	64	
2CB6							957		1072																

¹⁾ Additional information – not a standard dimension according to DIN EN 50347.
²⁾ For version with low-noise fan for 2-pole motors.

³⁾ In the low-noise version, a second shaft extension and/or mounted encoder is not possible.

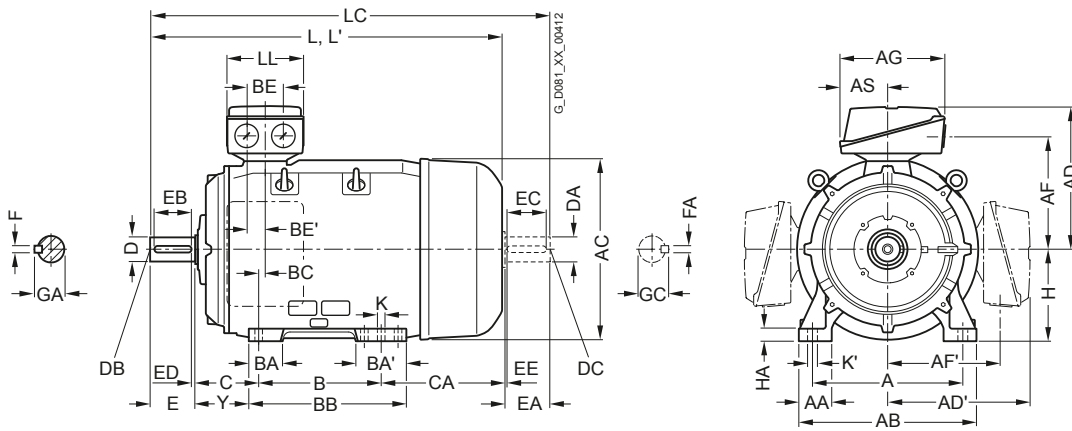
SIMOTICS SD 1LE1 Standard Motors

Dimensions

Cast-iron series 1LE1501, 1LE1521, 1LE1601, 1LE1621
Self-ventilated, frame sizes 280 S to 315 L

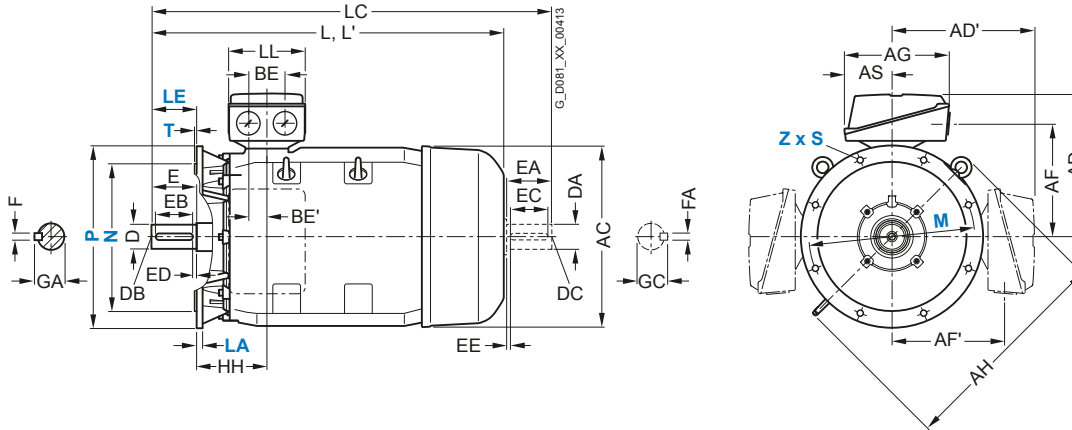
Dimensional drawings

Type of construction IM B3



Types of construction IM B5, IM V1

For flange dimensions, see Page 2/92 (Z = the number of retaining holes)



For motor Frame size	Type	No. of poles	Dimension designation acc. to IEC																			
			A	AA	AB	AC	AD	AD'	AF	AF'	AG	AH	AS	B*	BA	BA'	BB	BC	BE	BE'	C ¹⁾	CA*
280 S	2DA0	2	457	100	540	551	433	433	345	345	319	672	145	368	101	152	479	20	110	55	190	267
	2DB0, 2DC0, 2DD0	4, 6, 8												368								267
280 M	2DA6	2												419								326
	2DA2																					216
	2DB2, 2DC2, 2DD2, 2DC6, 2DD6	4, 6, 8																				
	2DB6	4																				326
315 S	3AA0	2	508	120	610	616	515	515	404	404	374	780	164	406	113	170	527	22	110	55	216	295
	3AB0, 3AC0, 3AD0	4, 6, 8																				
315 M	3AA2 ²⁾	2												457			578					409
	3AB2 ²⁾	4																				
	3AC2, 3AD2 ²⁾	6															327					244
315 L ²⁾	3AA4	2												508			578					358
	3AB4, 3AC4, 3AD4, 3AC5, 3AD5, 3AD6	4, 6, 8																				
	3AA5, 3AA6	2														176	227	648				513
	3AB5, 3AB6, 3AC6	4, 6																				

* This dimension is assigned in DIN EN 50347 to the frame size listed.

¹⁾ Additional information – not a standard dimension according to DIN EN 50347.

²⁾ With order codes for connection box positions (K05, K06, H01) only screwed-on feet with 3 drilled holes with dimension "B" (406, 457 and 506 mm). The dimension "BB" will then be 666 mm.

SIMOTICS SD 1LE1 Standard Motors

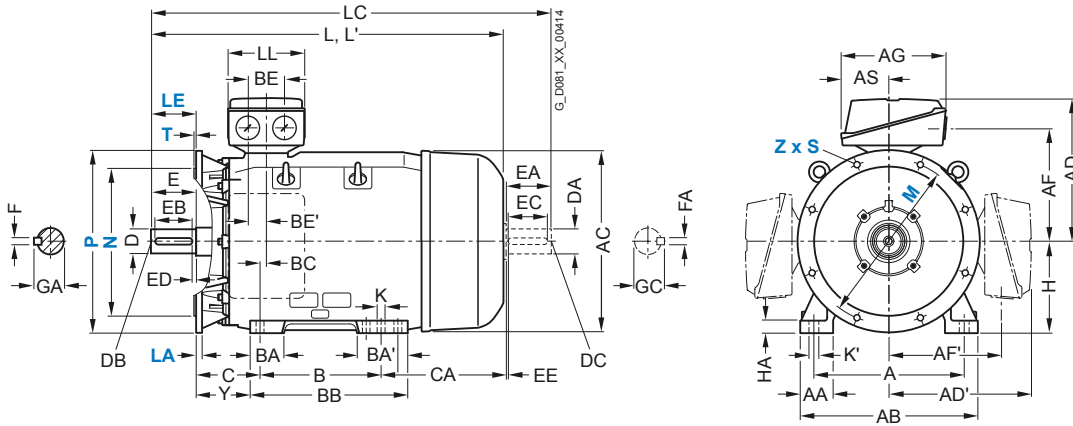
Dimensions

Cast-iron series 1LE1501, 1LE1521, 1LE1601, 1LE1621
Self-ventilated, frame sizes 280 S to 315 L

Dimensional drawings (continued)

Type of construction IM B35

For flange dimensions, see Page 2/92 (Z = the number of retaining holes)



Type											DE shaft extension					NDE shaft extension									
1LE1501, 1LE1521 1LE1601, 1LE1621	H	HA	Y ¹⁾	HH	K	K'	L	L' ²⁾	LC ³⁾	LL	D	DB	E	EB	ED	F	GA	DA	DC	EA	EC	EE	FA	GC	
2DA0	280	40	160	210	24	30	960	998	1105	233	65	M20	140	125	10	18	69	60	M20	140	125	10	18	64	
2DB0, 2DC0, 2DD0											75						20	79.5	65					69	
2DA6							1070	1108	1215		65					18	69	60						64	
2DA2							960	998	1105																
2DB2, 2DC2, 2DD2, 2DC6, 2DD6											75						20	79.5	65					69	
2DB6							1070		1215																
3AA0	315	50	181	238	28	35	1052	1122	1197	299	65	M20	140	125	10	18	69	60	M20	140	125	10	18	64	
3AB0, 3AC0, 3AD0							1082	-	1227		80		170	140	25	22	85	70						20	74.5
3AA2							1217	1287	1362		65		140	125	10	18	69	60						18	64
3AB2							1247	-	1392		80		170	140	25	22	85	70						20	74.5
3AC2, 3AD2							1082		1227																
3AA4							1217	1287	1362		65		140	125	10	18	69	60						18	64
3AB4, 3AC4, 3AD4, 3AC5, 3AD5, 3AD6							1247	-	1392		80		170	140	25	22	85	70						20	74.5
3AA5, 3AA6			146				1372	1442	1517		65		140	125	10	18	69	60						18	64
3AB5, 3AB6, 3AC6							1402	-	1547		80		170	140	25	22	85	70						20	74.5

¹⁾ Additional information – not a standard dimension according to DIN EN 50347.

²⁾ For version with low-noise fan for 2-pole motors.

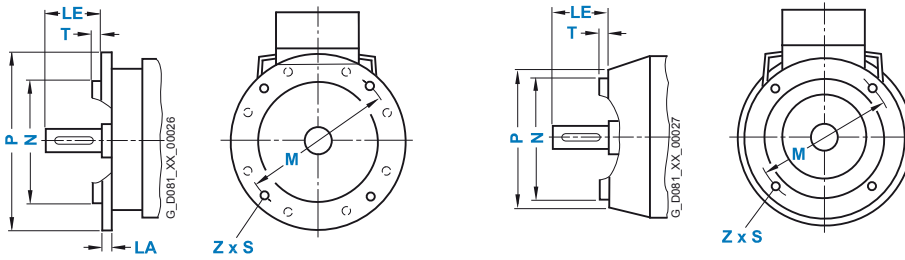
³⁾ In the low-noise version, a second shaft extension and/or mounted encoder is not possible.

SIMOTICS GP/SD 1LE1/1PC1 Standard Motors

Dimensions

Flange dimensions

Dimensional drawings



In DIN EN 50347, the frame sizes are allocated flange FF with through holes and flange FT with tapped holes. The designation of flange A and C according to DIN 42948 (invalid since September 2003) are also listed for information purposes. See the table below. (Z = the number of retaining holes)

Frame size	Type of construction	Flange type	Flange with		Dimension designation acc. to IEC							
			through holes (FF/A)	tapped holes (FT/C)	LA	LE	M	N	P	S	T	Z
80 M	IM B5, IM B35, IM V1, IM V3	Standard flange	FF 165	A 200	10	40	165	130	200	12	3.5	4
	IM B14, IM B34, IM V18, IM V19	Standard flange	FT 100	C 120	-	40	100	80	120	M6	3	4
90 S, 90 L	IM B5, IM B35, IM V1, IM V3	Standard flange	FF 165	A 200	10	50	165	130	200	12	3.5	4
	IM B14, IM B34, IM V18, IM V19	Standard flange	FT 115	C 140	-	50	115	95	140	M8	3	4
100 L	IM B5, IM B35, IM V1, IM V3	Standard flange	FF 215	A 250	11	60	215	180	250	14.5	4	4
	IM B5, IM B35, IM V1, IM V3	Next larger standard flange – Order code P01	FF 265	A 300	12	60	60	230	300	14.5	4	4
	IM B5, IM B35, IM V1, IM V3	Next smaller standard flange – Order code P02	FF 165	A 200	11	60	165	130	200	12	3.5	4
	IM B14, IM B34, IM V18, IM V19	Standard flange	FT 130	C 160	-	60	130	110	160	M8	3.5	4
	IM B14, IM B34, IM V18, IM V19	Next larger standard flange – Order code P01	FT 165	C 200	-	60	165	130	200	M10	3.5	4
	IM B5, IM B35, IM V1, IM V3	Standard flange	FF 215	A 250	11	60	215	180	250	14.5	4	4
112 M	IM B5, IM B35, IM V1, IM V3	Standard flange	FF 215	A 250	11	60	215	180	250	14.5	4	4
	IM B5, IM B35, IM V1, IM V3	Next larger standard flange – Order code P01	FF 265	A 300	12	60	265	230	300	14.5	4	4
	IM B5, IM B35, IM V1, IM V3	Next smaller standard flange – Order code P02	FF 165	A 200	11	60	165	130	200	12	3.5	4
	IM B14, IM B34, IM V18, IM V19	Standard flange	FT 130	C 160	-	60	130	110	160	M8	3.5	4
	IM B14, IM B34, IM V18, IM V19	Next larger standard flange – Order code P01	FT 165	C 200	-	60	165	130	200	M10	3.5	4
	IM B5, IM B35, IM V1, IM V3	Standard flange	FF 265	A 300	12	80	265	230	300	14.5	4	4
132 S, 132 M	IM B5, IM B35, IM V1, IM V3	Standard flange	FF 265	A 300	12	80	265	230	300	14.5	4	4
	IM B5, IM B35, IM V1, IM V3	Next larger standard flange – Order code P01	FF 300	A 350	13	80	300	250	350	18.5	5	4
	IM B5, IM B35, IM V1, IM V3	Next smaller standard flange – Order code P02	FF 215	A 250	11	80	215	180	250	14.5	4	4
	IM B14, IM B34, IM V18, IM V19	Standard flange	FT 165	C 200	-	80	165	130	200	M10	3.5	4
	IM B14, IM B34, IM V18, IM V19	Next larger standard flange – Order code P01	FT 215	C 250	-	80	215	180	250	M12	4	4
	IM B5, IM B35, IM V1, IM V3	Standard flange	FF 300	A 350	13	110	300	250	350	18.5	5	4
160 M, 160 L	IM B5, IM B35, IM V1, IM V3	Standard flange	FF 300	A 350	13	110	300	250	350	18.5	5	4
	IM B5, IM B35, IM V1, IM V3	Next smaller standard flange – Order code P02	FF 265	A 300	12	110	265	230	300	14.5	4	4
	IM B14, IM B34, IM V18, IM V19	Standard flange	FT 215	C 250	-	110	215	180	250	M12	4	4
180 M, 180 L	IM B5, IM B35, IM V1, IM V3	Standard flange	FF300	A350	13	110	300	250	350	18.5	5	4
	IM B5, IM B35, IM V1, IM V3	Next smaller standard flange – Order code P02	FF 265	A 300	12	110	265	230	300	14.5	4	4
200 L	IM B5, IM B35, IM V1, IM V3	Standard flange	FF350	A400	15	110	350	300	400	18.5	5	4
	IM B5, IM B35, IM V1, IM V3	Next smaller standard flange – Order code P02	FF300	A350	13	110	300	250	350	18.5	5	4
225 S, 225 M	IM B5, IM B35, IM V1, IM V3	Standard flange	FF400	A450	16	110	400	350	450	18.5	5	8
250 M	IM B5, IM B35, IM V1, IM V3	Standard flange	FF500	A550	18	140	500	450	550	18.5	5	8
280 S, 280 M	IM B5, IM B35, IM V1, IM V3	Standard flange	FF500	A550	18	140	500	450	550	18.5	5	8
315 S, 315 M, 315 L	IM B5, IM B35, IM V1, IM V3	Standard flange	FF600	A660	22	140	600	550	660	24	6	8
315 L	IM B5, IM B35, IM V1, IM V3	Standard flange	FF600	A660	22	140	600	550	660	24	6	8